





Western Sydney University- Indigenous Centre of Excellence

Historical Archaeological Assessment

August 2025

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View of the Female Orphan School, Near Parramatta by Joseph Lycett, 1825. Source. State Library of Victoria 30328102131561/13.

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Contents

Executive Summary	6
Conclusions	7
Recommendations	7
1. Introduction	9
1.1. The Purpose of this Report	10
1.2. Site Identification	11
1.3. Secretary's Environmental Assessment Requirement (SEARs)	12
1.4. Limitations and Constraints	13
1.5. Authorship	13
2. Statutory Context	14
2.1. Environmental Planning and Assessment Act (NSW) 1979	15
2.1.1. State Environmental Planning Policies (SEPPs)	15
2.1.2. Parramatta Local Environmental Plan (LEP) 2023	15
2.1.3. GML, 2000, Parramatta Historical Archaeological Landscape Manag	ement Study (PHALMS) 15
2.2. NSW Heritage Act 1977	16
2.2.1. Section 170 Heritage and Conservation Register	16
2.3. Non-Statutory Heritage Registers	17
2.3.1. Register of the National Estate	17
2.4. Heritage Items and HCAs in the Vicinity of the Study Area	17
3. Historical Summary	22
3.1. Aboriginal Ethnohistory	23
3.1.1. Pre-European Environment	23
3.1.2. Early Contact	24
3.2. Arthurs Hill: 1791 to 1810	26
3.3. The Female Orphan School: 1810 to 1887	27
3.4. The Protestant Orphan School: 1850 to1887	28

3.5. Rydalmere Psychiatric Hospital: 1888-1989	30
3.6. Vacant: 1989-1993	38
3.7. University of Western Sydney: 1993-Present	38
3.8. Summary of Historical Context	43
4. Physical Analysis	44
4.1. Proposed ICoE Redevelopment Location	45
4.2. Proposed Western and Eastern Car Park Locations	48
5. Historical Archaeological Assessment	53
5.1. Introduction	54
5.1.1. Methodology	54
5.2. Relevant Assessments	55
5.2.1. WSU Parramatta Campus (2007)	56
5.2.2. WSU Parramatta Campus Rydalmere Conservation Management Plan (2008)	57
5.2.3. WSU Parramatta Campus Rydalmere Heritage Asset Management Strategy (2008)	57
5.2.4. WSU Eastern Temporary Car Park (2024)	58
5.2.5. WSU Western Temporary Car Park (2024)	59
5.2.6. Summary of findings in relation to the study area	59
5.3. Historical Overlays	59
5.4. Known Impacts	60
5.5. Summary of Historical Land Use	61
5.6. Archaeological Potential	65
5.6.1. Assessment of Archaeological Potential	65
5.7. Assessment of Archaeological Significance	66
5.7.1. Summary of Archaeological Potential and Significance in the Study Area	68
5.8. Statement of Archaeological Research Significance	69
6. Proposed Works	70
6.1. Proposed Development	71
6.1.4. Landscaping	73
6.2 Summary of Gound Disturbing Works	73

7. Archaeological Impact Assessment	84
7.1. Historical Archaeological Impact Assessment	<u>85</u>
7.1.1. Conservation Management Plan Policies	<u>85</u>
7.1.2. Statement of Heritage Impact Questions	87
8. Conclusions and Recommendations	88
8.1. Conclusions	89
8.2. Recommendations	89
References	91
Appendix A: Archaeological Research Design & Excavation Methodology	94
Appendix B: AMBS Eastern Temporary Car Park Report	106
Appendix C: AMBS Western Temporary Car Park Report	<u> 156</u>

Executive Summary

The Applicant seeks development consent for the construction of a new state-of-the-art Indigenous Centre of Excellence as a new tertiary education facility on campus. The Indigenous Centre of Excellence project is funded by the NSW Government's Western Sydney Infrastructure Grants Program in association with Western Sydney University.

The new Indigenous Centre of Excellence will be an important asset for both the University and local community alike, providing a space for the commitment to advancing Indigenous education, leadership, and reconciliation. The Indigenous Centre of Excellence will stand as a symbol of recognition of Indigenous land and the University's relationship with Indigenous communities. The Indigenous Centre of Excellence will represent a celebration of tens of thousands of years of Indigenous knowledges and histories, a legacy that the University is honoured to nurture and promote through further education opportunities for students and communities.

Through the Indigenous Centre of Excellence, the University will aim to drive positive change, increase Indigenous participation in higher education, and contribute to the preservation and sharing of Indigenous cultures.

This State Significant Development Application (SSDA) specifically seeks detailed approval for the following works:

- Site preparation including demolition of the existing car park, tree removal and installation of inground utility infrastructure services.
- Construction of a four-storey Indigenous Centre of Excellence encompassing:
 - Ground level facilities, including but not limited to; a dedicated arrival area, outdoor amphitheatre, cinema and lecture theatre, performance space, artist studios and exhibition space. Associated workspaces, meeting areas, lounge areas and other amenities are to be provided throughout the ground floor.
 - o First floor level upwards comprising dedicated educational facilities including library facilities, learning areas and teaching spaces.
 - o Second floor level comprising staff / student foyer, offices, meeting rooms and collaboration spaces.
 - Third floor level comprising a multi-functional recreational sports court, with associated ancillary amenities, alongside an astronomy garden.
 - o Roof level plant and services.
- Construction of internal driveway with hardstand area to provide 13 car parking spaces.
- Landscaping works to provide outdoor educational and recreational spaces.

This report responds to the SSD-64916225 Secretary's Environmental Assessment Requirement (SEARs) number 20 which was issued by the Department of Planning, Housing and Infrastructure on 21st November 2023. The purpose of this HAA is to identify the potential heritage impact that the proposed development may have on the potential archaeological resources identified within the study area.

The site is listed as the 'Rydalmere Hospital Precinct (former)' (SHR No.00749) within the NSW State Heritage Register, and listed as 'WSU Parramatta Campus, formerly Rydalmere Hospital and Female Orphan School' (1661) within Schedule 5, Part 1 of the Parramatta Local Environmental Plan (LEP)

2023. The site comprises numerous items listed within the S170 Heritage Conservation Register. The study area is also located within the vicinity of a several local heritage items listed within the Parramatta LEP 2023.

Conclusions

This HAA has determined the following conclusions:

- The study area is situated within the curtilage of State Heritage Register (SHR No. 00749) 'Rydalmere Hospital Precinct (former)'.
- The study area has been subject to the following key post-1788 historical phases of use:
 - o Phase 1: Arndell's Farm 1791 to 1810
 - o Phase 2: Female Orphan School 1810 to 1850
 - o Phase 3: Protestant Orphan School 1850 to 1887
 - o Phase 4: Rydalmere Psychiatric Hospital 1888 to 1989
 - o Phase 5: Site unoccupied 1989 to 1993
 - o Phase 6: University of Western Sydney 1993 to current
- The study area has been assessed to have a low to moderate potential to contain significant archaeological resources associated with the earliest phases of its use, including as part of Andell's Farm and the Female Orphan School (Phases 1-2).
- The study area has been found to have a very low to moderate potential to contain archaeological deposits associated with later phases of use, namely, the Protestant Orphan School, and the Rydalmere Psychiatric Hospital (Phases 3, and 4).
 - o The potential archaeological resources associated with these phases of the site's history if discovered, have been assessed to meet the threshold for Local heritage significance, and depending on level of intactness, integrity and extent, resources associated with the Female Orphan School may be of State Significance.
- Archaeological resources associated with these phases have the potential to be preserved below localised historical disturbances; In particular, the formalised drainage line, the ha-ha, culvert and pond in the centre of the study area are likely to have disturbed earlier deposits.
- Overall, the subsurface disturbance within the study area is, however, considered to be low, with potential for localised surviving archaeological remains.

Recommendations

In accordance with the above conclusions, the following recommendations are made:

Recommendation 1: Test Excavation

A program of archaeological test excavation in accordance with the prepared methodology outlined in Appendix A should be conducted in the area of identified archaeological sensitivity across the study area, in particular within the ICoE development footprint.

Should excavation be proposed to be completed prior to SSDA approval, a Section 60 Excavation Permit would be required.

Recommendation 2: Archaeological Monitoring

All ground disturbing works should be subject to archaeological monitoring to identify any ephemeral archaeological features that may be impacted during works.

Any ground disturbing works specifically pertaining to the proposed temporary eastern car park should be subject to archaeological monitoring to identify the extent of any surviving structural remains of the ha-ha relating to the Rydalmere Psychiatric Hospital.

Recommendation 3: Unexpected Finds Procedure

An Unexpected Finds Procedure should be developed and implemented for all other works within the study area. This procedure is outlined in Appendix A: Archaeological Research Design & Excavation Methodology

Recommendation 4: Additional Works

Any additional subsurface impacts not presented in Section 6 of this document may need to be assessed in an addendum to this report.

1. Introduction



1. Introduction

1.1. The Purpose of this Report

The Applicant seeks development consent for the construction of a new state-of-the-art Indigenous Centre of Excellence (ICoE) as a new tertiary education facility on campus. The ICoE project is funded by the NSW Government's Western Sydney Infrastructure Grants Program in association with Western Sydney University.

The new ICoE will be an important asset for both the University and local community alike, providing a space for the commitment to advancing Indigenous education, leadership, and reconciliation. The ICoE will stand as a symbol of recognition of Indigenous land and the University's relationship with Indigenous communities. The ICoE will represent a celebration of tens of thousands of years of Indigenous knowledges and histories, a legacy that the University is honoured to nurture and promote through further education opportunities for students and communities.

Through the ICoE, the University will aim to drive positive change, increase Indigenous participation in higher education, and contribute to the preservation and sharing of Indigenous cultures.

This State Significant Development Application (SSDA) specifically seeks detailed approval for the following works:

- Site preparation including demolition of the existing car park, tree removal and installation of inground utility infrastructure services.
- Establishment of two temporary/relocated car park facilities accommodating 320 cars, an eastern and a western car park on either side of Fifth Street.
- Construction of a four-storey ICoE encompassing:
 - o Ground level facilities, including but not limited to; a dedicated arrival area, outdoor amphitheatre, cinema and lecture theatre, performance space, artist studios and exhibition space. Associated workspaces, meeting areas, lounge areas and other amenities are to be provided throughout the ground floor.
 - o First floor level upwards comprising dedicated educational facilities including library facilities, learning areas and teaching spaces.
 - Second floor level comprising staff / student foyer, offices, meeting rooms and collaboration spaces.
 - o Third floor level comprising a multi-functional recreational sports court, with associated ancillary amenities, alongside an astronomy garden.
 - o Roof level plant and services.
- Construction of internal driveway with hardstand area to provide 13 car parking spaces.
- Landscaping works to provide outdoor educational and recreational spaces.

This report responds to the SSD-64916225 Secretary's Environmental Assessment Requirement (SEARs) number 20 which was issued by the Department of Planning, Housing and Infrastructure on 21st November 2023. The purpose of this HAA is to identify the potential heritage impact that the proposed development may have on the potential archaeological resources identified within the study area.

The site is listed as the 'Rydalmere Hospital Precinct (former)' (SHR No.00749) within the NSW State Heritage Register, and listed as 'WSU Parramatta Campus, formerly Rydalmere Hospital and Female Orphan School' (1661) within Schedule 5, Part 1 of the Parramatta Local Environmental Plan (LEP) 2023. The site comprises numerous items listed within the S170 Heritage Conservation Register. The study area is also located within the vicinity of a several local heritage items listed within the Parramatta LEP 2023.

This report has been prepared in accordance with the relevant Heritage NSW guidelines, the Parramatta Local Environmental Plan (LEP) 2023, and the specific requirements outlined within the Part 7 (Heritage and Archaeology) Parramatta Development Control Plan (DCP) 2023. This report has also been prepared in accordance with the following guidelines:

- Australia ICOMOS, 2013, Australia ICOMOS Charter for Places of Cultural Significance and The Burra Charter
- Heritage Branch, 1996, Archaeological Assessment Guidelines
- Heritage Branch, 2009, Assessing Significance for Historical Archaeological Sites and 'Relics'

1.2. Site Identification

The Western Sydney University South Parramatta Campus is located within the City of Parramatta Local Government Area (LGA), at 171 Victoria Road Parramatta.

The site comprises one (1) singular allotment, which is legally described as Lot 100 in DP 816829. The project site is known as the P1 Car Park in the northern portion of the wider site campus. The project site is approximately 12,150m2 in size and is broadly rectangular in shape. It currently comprises of a hardstand area that accommodates approximately 284 car parking spaces. There is an existing single storey Central Energy Plant to the west of the development area which serves the wider campus; it remains outside of the scope of this SSDA. The study site also encompassing two additional areas on either side of Fifth Street pertaining to the establishment of two temporary car parks for the project, an eastern and a western car park (Figure 1-1 and Figure 1-2)

The site is strategically positioned to the northern boundary of the Western Sydney University (University) South Parramatta Campus, fronting Victoria Road (the A40). The wider campus comprises a significant landholding size of approximately 20ha containing a series of buildings of differing heights and massing forms which are used for educational purposes. The buildings contained within the wider campus site are dissected by a series of open, at grade car parks, internal roads, pathways, and landscaped areas. The Campus sits to the north of the Parramatta River.

The site is located approximately 3km east of the Parramatta CBD, which is an area undergoing a process of significant transformation. It is also located approximately 500m to the Parramatta Light Rail Corridor, with the construction of new Yallamundi Light Rail now completed and awaiting operation by TfNSW.

1.3. Secretary's Environmental Assessment Requirement (SEARs)

The SEARs relevant to this assessment are presented in Table 1-1.

Table 1-1: SEARs

SEAR Where addressed

20. Environmental Heritage

Where there is potential for direct or indirect impacts on the preparation of an Archaeological Assessment. heritage significance of environmental heritage, provide a Statement of Heritage Impact and Archaeological Assessment (if potential impacts to archaeological resources are identified), prepared in accordance with the relevant guidelines, which assessed any impacts and outlines measures to ensure they are minimised and mitigated.

This document meets this SEAR in regard to

A separate Statement of Heritage Impact has been prepared by Curio to meet the further requirements of this SEAR.1



Figure 1-1: Western Sydney University Parramatta South Campus locational context. Source: Nearmap and Ethos Urban 2025

¹ Curio Projects, 2024, Indigenous Centre of Excellence Statement of Heritage Impact, report for Western Sydney University

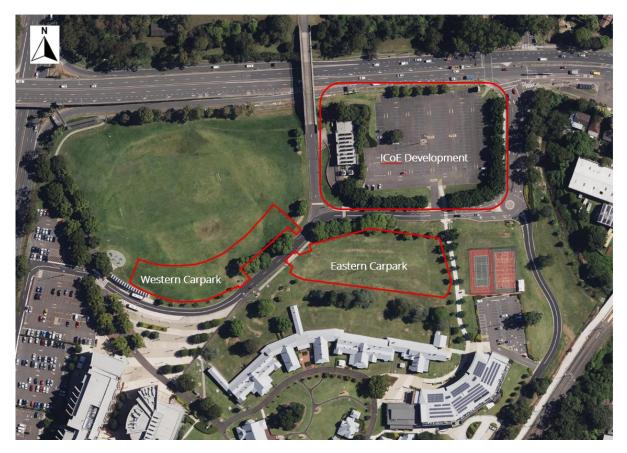


Figure 1-2: Three development areas – P1 car park (ICOE), new eastern car park and new western car park. Source: Curio 2025

1.4. Limitations and Constraints

This report has been prepared using the available historical data and documentation available for the study area and surrounds including relevant archaeological reports and assessments. This report does not include assessment of Aboriginal heritage values or archaeology, nor any non-heritage related planning controls or requirements.

1.5. Authorship

The Historical Archaeological Assessment has been prepared by Elanor Pitt, Archaeologist and Cultural Heritage Specialist and Sarah McGuinness, Principal Archaeologist and Cultural Heritage Specialist, with additional updates prepared by Senior Archaeologist Paul Guzman, senior review and input undertaken by Natalie Vinton, CEO, Curio Projects. Mapping has been prepared by Elanor Pitt and Paul Guzman of Curio Projects.

2. Statutory Context



2. Statutory Context

In NSW, heritage items and known or potential archaeological resources (non-Aboriginal) are afforded statutory protection under two principal pieces of legislation:

- Environmental Planning and Assessment Act 1979 (NSW) (EPA Act); and
- Heritage Act 1977 (NSW) (Heritage Act).

2.1. Environmental Planning and Assessment Act (NSW) 1979

The NSW Department of Planning and Environment (DPE) administers the EP&A Act, which provides the legislative context for environmental planning instruments made to legislate and guide the processes of development and land use. Local heritage items, including known archaeological items, identified Aboriginal Places and heritage conservation areas are protected through listings on Local Environmental Plans (LEPs), Regional Environmental Plans (REPs), and State Environmental Planning Policies (SEPPs). The EP&A Act also requires that potential historical archaeological resources are adequately assessed and considered as part of the development process, in accordance with the requirements of the Heritage Act (see relevant sections below for further on the Heritage Act).

2.1.1. State Environmental Planning Policies (SEPPs)

The study area falls within the Foreshores & Waterways Area boundary of SEPP (Biodiversity and Conservation) 2021 and is subject to its associated planning controls and requirements.

No heritage items within or close to the study area are listed on the SEPP (Biodiversity and Conservation) 2021 heritage register.

2.1.2. Parramatta Local Environmental Plan (LEP) 2023

The study area is located within the City of Parramatta LGA and is subject to the statutory controls of the City of Parramatta LEP 2023. Clause 5.10 of the Parramatta LEP 2023 sets out objective and planning controls for the conservation of heritage in the Council area, including the conservation of built heritage and archaeological sites.

The study area is located within one item listed on the Parramatta LEP 2023. A number of items are also situated adjacent to the study area. These are presented in Table 2-2 and Figure 2-1.

2.1.3. GML, 2000, Parramatta Historical Archaeological Landscape Management Study (PHALMS)

The Parramatta Historical Archaeological Landscape Management Study (PHALMS) was prepared for the Parramatta area. The area was divided into Archaeological Management Units (AMUs) based on known historical use, archaeological sensitivity, and disturbances. The WSU Rydalmere campus was designated as AMU #2999 and considered to be of State significance and High research potential.

The PHALMS recommended archaeological assessment for any works within AMU #2999.2

Parramatta Development Control Plan 2023

The Parramatta Development Control Plan (DCP) 2023 is a non-statutory development control plan that provides detailed design guidelines to support the Parramatta LEP 2023. The DCP provides guidance on how development may occur and includes primary objectives to ensure that items of environmental heritage are conserved, respected and protected.

² GML, 2000, Parramatta Historical Archaeological Landscape Management Study (PHALMS), Vol1, p3

Part 7 of the DCP relates to Heritage and Archaeology. Parts 7.7 and 7.8 of the DCP relate to Archaeology and Aboriginal Cultural Heritage respectively and comprises a comprehensive list of objectives and controls. These objectives are outlined within Table 2-1 below:

Table 2-1: Objectives for Archaeology and Aboriginal Cultural Heritage within Parramatta DCP, with provisions relevant to historical archaeology indicated in bold.³

DCP Section	Objectives		
Archaeology (Part 7.7)	O.01 To provide appropriate conservation and management of the archaeological resources to the City.O.02 Ensure that development is undertaken in a manner that protects sites of archaeological significance and minimises the likelihood of disturbance to archaeological relics.		
Aboriginal Cultural Heritage	O.01 To ensure that appropriate consideration is given to the impact of development on known or potential Aboriginal archaeological sites or sites of cultural or historical significance to Aboriginal people in the City.		
(Part 7.8)	O.02 Minimise the likelihood of disturbance to protect Aboriginal sites and archaeological relics.		

2.2. NSW Heritage Act 1977

In NSW, heritage items are afforded statutory protection under the Heritage Act. Heritage places and items of particular importance to the people of NSW are listed on the NSW SHR. The Heritage Act defines a heritage item as a 'place, building, work, relic, moveable object or precinct'. It is responsible for the conservation and regulation of impacts to items of State heritage significance, with 'State Heritage Significance' defined as being of 'significance to the state in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item'.

Excavation permits are issued by the Heritage Council of NSW, or its Delegate, under Section (s) 140 of the Heritage Act for relics not listed on the SHR or under Section 60 for relics listed on the SHR. An application for an excavation permit must be supported by an Archaeological Research Design and Archaeological Assessment prepared in accordance with the Heritage NSW, Department of Premier and Cabinet (NSW Heritage, DPC) archaeological guidelines. Minor works that will have a minimal impact on archaeological relics may be granted an exception under s139 (4) for items/landscapes not listed on the SHR or an exemption under s57 (2) of the Heritage Act for items/landscapes on the SHR.

The site is identified as an item listed on the State Heritage Register (SHR No. 00749) 'Rydalmere Hospital Precinct (former)'.

2.2.1. Section 170 Heritage and Conservation Register

Under Section 170 (s170) of the Heritage Act, government instrumentalities must keep a s170 Register which contains items under the control or ownership of the agency and which are or could be listed as heritage items (of State or Local significance).

The study area is located within and close to a number of heritage items listed on the Sydney University s170 Heritage Conservation Area. These are presented in Table 2-2 below. While no mapping data is available on the NSW State Heritage Inventory (SHI) for these items, the 2008 CMP includes a map of built assets occupying the site and their significance. This is shown in Figure 2-1.

³ City of Parramatta Council, 2022. Draft Development Control Plan. Part 7.

2.3. Non-Statutory Heritage Registers

2.3.1. Register of the National Estate

The Register of the National Estate (RNE) is a list of natural, Aboriginal and historic heritage places throughout Australia. It was originally established under the Australian Heritage Commission Act 1975. Under that Act, the Australian Heritage Commission entered more than 13,000 places in the register. Following amendments to the Australian Heritage Council Act 2003, the RNE was frozen on 19 February 2007 and ceased to be a statutory register in February 2012. The RNE is now maintained on a non-statutory basis as a publicly available archive and educational resource.

There are a number of items in and close to the study area included in the RNE. These are outlined in Table 2-2.

2.4. Heritage Items and HCAs in the Vicinity of the Study Area

Table 2-2 provides a summary of all statutory heritage listings both included within, as well as in the vicinity of, the study area, illustrated in Figure 2-1.

Table 2-2: Summary of heritage listings within and in the vicinity of the subject site.

Register	Item name	Item No.	Address	Significance	Relationship to the study area
Within the study	/ area				the study area
State Heritage Register	Rydalmere Hospital Precinct (former)	00749	171 Victoria Road, Rydalmere	State	Within
Parramatta LEP 2023	WSU Parramatta Campus, formerly Rydalmere Hospital and Female Orphan School	l661	171 Victoria Road, Parramatta	State	Within
WSU s170 Heritage Conservation Register	UWS Parramatta South Campus	4730036	171-179 Victoria Road, Rydalmere	State	Within
WSU s170 Heritage Conservation Register	Archaeological Potential - Rydalmere Hospital Precinct	4730035	171-179 Victoria Road, Rydalmere	State	Within
NHL	Sydney Cultural Crescent Rock Art	106369	Sydney, NSW	Nominated for National Significance	Within
In the Vicinity					
WSU s170 Heritage Conservation Register	Building Ed - Rydalmere Hospital Precinct	4730012	171-179 Victoria Road, Rydalmere	State	80m S
WSU s170 Heritage Conservation Register	The Avenue Stone Bridge - Rydalmere Hospital Precinct	4730033	171-179 Victoria Road, Rydalmere	State	118m W

Register	Item name	Item No.	Address	Significance	Relationship to the study area
WSU s170 Heritage Conservation Register	Building Ef - Rydalmere Hospital Precinct	4730014	171-179 Victoria Road, Rydalmere	State	155m S
WSU s170 Heritage Conservation Register	Building Eg - Rydalmere Hospital Precinct	4730015	171-179 Victoria Road, Rydalmere	State	170m SSW
WSU s170 Heritage Conservation Register	Building Eh - Rydalmere Hospital Precinct	4730016	171-179 Victoria Road, Rydalmere	State	175m S
WSU s170 Heritage Conservation Register	Landscape - Orphan School Precinct; Avenue Planting; 1900 Ward Range - Rydalmere	4730034	171-179 Victoria Road, Rydalmere	State	177m W
WSU s170 Heritage Conservation Register	Building Ei - Rydalmere Hospital Precinct	4730017	171-179 Victoria Road, Rydalmere	State	218m S
WSU s170 Heritage Conservation Register	Building Eja - Rydalmere Hospital Precinct	4730018	171-179 Victoria Road, Rydalmere	State	237m SSW
WSU s170 Heritage Conservation Register	Building Ejc - Rydalmere Hospital Precinct	4730019	171-179 Victoria Road, Rydalmere	State	267m SSW
WSU s170 Heritage Conservation Register	Building Ejd - Rydalmere Hospital Precinct	4730020	171-179 Victoria Road, Rydalmere	State	268m SSW
WSU s170 Heritage Conservation Register	Building Ek - Rydalmere Hospital Precinct	4730021	171-179 Victoria Road, Rydalmere	State	297m SSW
WSU s170 Heritage Conservation Register	Building Eka - Rydalmere Hospital Precinct	4730022	171-179 Victoria Road, Rydalmere	State	280m SSW
WSU s170 Heritage Conservation Register	Boiler House and Stack - Rydalmere Hospital Precinct (Ekb)	4730032	171-179 Victoria Road, Rydalmere	State	257m SSW

Register	Item name	Item No.	Address	Significance	Relationship to the study area
WSU s170 Heritage Conservation Register	Building Em - Rydalmere Hospital Precinct	4730023	171-179 Victoria Road, Rydalmere	State	290m SSW
WSU s170 Heritage Conservation Register	Building Eo - Rydalmere Hospital Precinct	4730024	171-179 Victoria Road, Rydalmere	State	302m SSW
WSU s170 Heritage Conservation Register	Building Eq - Rydalmere Hospital Precinct	4730025	171-179 Victoria Road, Rydalmere	State	326m SW
WSU s170 Heritage Conservation Register	Building Es - Rydalmere Hospital Precinct	4730026	171-179 Victoria Road, Rydalmere	State	359m SW
WSU s170 Heritage Conservation Register	Building Ez Main - Rydalmere Hospital Precinct	4730029	171-179 Victoria Road, Rydalmere	State	365m SSW
WSU s170 Heritage Conservation Register	Building Eza - Rydalmere Hospital Precinct	4730030	171-179 Victoria Road, Rydalmere	State	381m SSW
WSU s170 Heritage Conservation Register	Building Et - Rydalmere Hospital Precinct	4730027	171-179 Victoria Road, Rydalmere	State	434m SW
WSU s170 Heritage Conservation Register	Building Ev - Rydalmere Hospital Precinct	4730028	171-179 Victoria Road, Rydalmere	State	431m SSW
WSU s170 Heritage Conservation Register	Boat House and Adjacent Stonework - Rydalmere Hospital Precinct	4730031	171-179 Victoria Road, Rydalmere	State	495m SW
Parramatta LEP 2023	Wetlands	1011	Parramatta River	Local	477m S
Parramatta LEP 2023	Clyde Carlingford Rail Bridge abutments	1695	Adjacent to 171 Victoria Road, Parramatta	Local	480m S
PHALMS	AMU 2999	2999	Victoria Road, Rydalmere	State	Within
Landscape Management Plan 2003	Remaining Lands Conservation Area 4	4	Victoria Road, Rydalmere	N/A	Within

Register	Item name	Item No.	Address	Significance	Relationship to the study area
RNE	Female Orphan School Precinct	3058	Victoria Road, Rydalmere	N/A	250m S
RNE	Boat House	3061	Victoria Road, Rydalmere	N/A	495m SW
RNE	Chief Attendants Cottage (former)	3062	Victoria Road, Rydalmere	N/A	431m SSW
RNE	Dispensary (former)	3063	Victoria Road, Rydalmere	N/A	381m SSW
RNE	Hostel (former) now Administration Building	3064	Victoria Road, Rydalmere	N/A	434m SW
Landscape Management Plan 2003	Institutional Complex Conservation Area 1	1	Victoria Road, Rydalmere	N/A	50m S
Landscape Management Plan 2003	Cricket Ground & Venues Conservation Area 2	2	Victoria Road, Rydalmere	N/A	0m S
Landscape Management Plan 2003	Vinyard Creek Conservation Area 3	3	Victoria Road, Rydalmere	N/A	20m E



Figure 2-1: SHR (green hatch) and LEP (purple) Heritage Listed items in the vicinity of the study area. Source: Curio 2023

3. Historical Summary



3. Historical Development of the Study Area

This chapter provides a brief timeline summary of the historical phases of use and development activity at the subject site to provide historical context.

3.1. Aboriginal Ethnohistory

3.1.1. Pre-European Environment

Prior to European occupation of the region, Aboriginal people had inhabited the wider region of the Sydney basin for thousands of years. The Darug, the traditional owners of the Parramatta area, are part of a language group that originally extended from the eastern suburbs of Sydney as far south as La Perouse, west as far as Bathurst and north as far as the Hawkesbury River. The Darug clan, that occupied modern day Parramatta, were the Barramattagal after whom that place is named. Much of the evidence of traditional Aboriginal lifestyle and economy was disturbed in the early years of European settlement and much of our information on the local people is based on ethnohistorical sources.

The Barramattagal people enjoyed an abundant and uniquely varied food resource created by the convergence of fresh water and salt water within the river. Fresh water species included mullet, crayfish, shellfish and turtles while the saltwater species included eels, fish, shellfish and molluscs, and large shell middens were created by Aboriginal people along the majority of the main waterways in the region. Post-1788, Aboriginal shell middens were excavated for a myriad of uses by the Europeans. Much of the disturbance of shell middens occurred early in the post-contact period, particularly in areas of the river close to settlement building activity such as Parramatta and Sydney.⁴

Prior to European colonisation, the study area comprised uncleared open forest in the north-western section and a creek running roughly E-W through open eucalyptus woodland in the rest of the study area. The study area may have been intentionally burnt to create the open forest within the riparian zones and alluvial deposits and open woodland on the shale dominated soils. The open forest/woodland may have comprised Sydney Blue Gum, Blackbutt and Stringybark, with Paperbarks within the flood zone. The former creek is a tributary of what is now known as Vineyard Creek, which is, in turn, a tributary of the Parramatta River. During this period, the creek within the study area may have been utilised for seasonal resource gathering.

⁴ Curio Projects, 2020. *Aboriginal Cultural Heritage Assessment Report Charles Street Square Upgrade, 38 Charles St, Parramatta*. Prepared for Spackman Mossop Michaels & City of Parramatta Council.

⁵ CAB Consulting & The Tree School, 2003

⁶ Ibid



Figure 3-1: Parramatta River 1867. Source: National Library of Australia (nla.pic-an6452950)

3.1.2. Early Contact

Aboriginal inhabitants of Parramatta, including the Burramattagal people of the Darug Nation would have experienced the detrimental impacts, dislocation and hostility which resulted from European arrival and colonisation. Parramatta was the second area to be colonised in New South Wales, intended to supply the Sydney colonial settlement with agricultural resources. Soon after the First Fleet reached Sydney Cove in January 1788, it became apparent that the surrounding land was not suitable for agriculture.

Following the arrival of the Second Fleet in 1790, Parramatta was officially founded by Governor Phillip as the second city on the Australian mainland. Following the success of the farming at Rose Hill, the decision was made to expand the settlement, with a town plan being laid out by Phillip in 1790 with High Street (George Street) running from the planned site of Government House to the wharf at the eastern end of Parramatta (near Harris Street). The initial planning of Parramatta saw wide streets and large land allotments, with the early population of the city predominantly consisting of convicts. The first permanent dwellings and structures in the city were generally focused along the main streets of George, Macquarie and Church Streets. Parramatta was renamed in 1791, after the Aboriginal name for the area: Burramatta, which means 'the place where the eels lie down' in Darug Language⁷

The study area itself was located within the Field of Mars Parish, which sat to the north of the Parramatta River and was developed later than the township to the south. The study area appears to have remained as uncleared open woodland and forest and not subjected to post-colonial colonization prior to the receipt of land grants in the area.

⁷ Mary Dallas Consulting Archaeologists, 2003, *Parramatta City Council Aboriginal Heritage Study*. Prepared for Parramatta City Council.

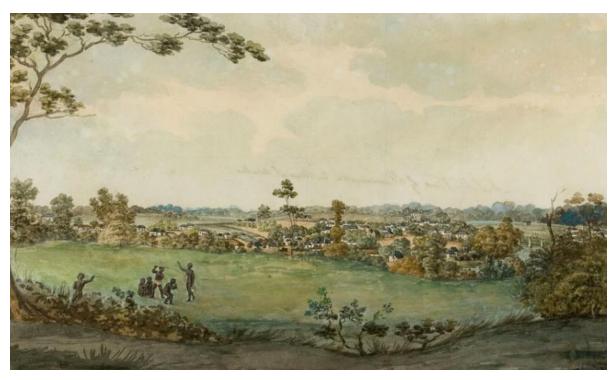


Figure 3-2: South-west view of Parramatta 1811. Source: Sydney Living Museums (Rec No. 31759)



Figure 3-3: George Street 1825 0 displacement of local Aboriginal communities. Source: Parramatta City Council – *Parramatta's Indigenous Heritage*

3.2. Arthurs Hill: 1791 to 1810

The study area formed part of a 60-acre land grant awarded in 1791 to Assistant Surgeon Thomas Arndell in recognition of his service as the resident medical officer at Parramatta's temporary hospital, established in 1789. Arndell named the property Arthur's Hill and undertook agricultural development, clearing approximately 18 acres for cultivation and a further 3 acres at the northern and southern ends of the grant for unspecified purposes. The land retained remnant open Eucalyptus woodland and forest, particularly along the Parramatta River, Vineyard Creek, and a former east-west running creek (Figure 4.4).

By 1792, Arndell had established a small hut and outbuildings—likely near Vineyard Creek, although outside the present study area—to support his family and farming efforts.⁸ However, in late 1792 a bushfire destroyed these structures along with a wheat stack. ⁹ The exact location of these buildings remains uncertain but they were probably within the southwestern portion of the grant. Following this disaster, Arndell exchanged his Parramatta land for other holdings at Baulkham Hills and later received a larger grant at the Hawkesbury as compensation.¹⁰ Arthur's Hill was resumed by the Crown, and although there were plans as early as 1800 to establish an orphan school on the site, no formal use of the land is recorded until 1810.¹¹ During this period, the area remained largely cleared apart from the remnant vegetation along the waterways.

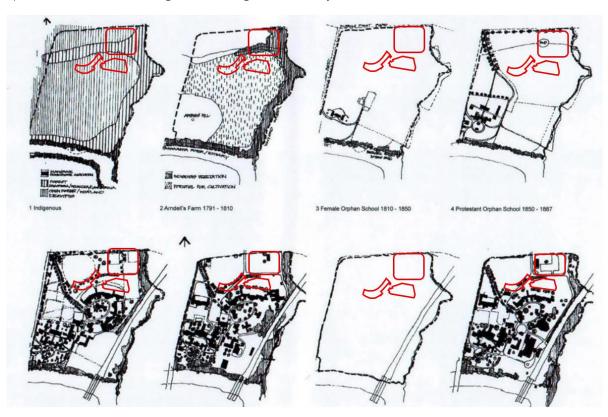


Figure 3-4: Indicative phases of occupation of the WSU Parramatta South campus, approximate location of study area in red.

Source: CAB Consulting & The Tree School 2003

⁸ Casey and Lowe, 2007, Non-Indigenous Archaeological Assessment University of Western Sydney Parramatta Campus

⁹ Collins, D., 1798. An Account o/the English Colony in New South Wales, Vol. I

¹⁰ Conybeare Morrison International, 2008

¹¹ Ibid

3.3. The Female Orphan School: 1810 to 1887

In 1810, Governor Lachlan Macquarie acquired Arthur's Hill for the establishment of the Female Orphan School, setting aside the land as the site for a new institution for destitute girls. The foundation stone was laid by Macquarie on 25 September 1813, and by 1818 the three-storey Palladian-style brick building, inspired by Elizabeth Macquarie's childhood home in Appin, Scotland, was completed (Figure 3-5).¹² The school featured a central building with corridors linking two-storey east and west wings, and it was accessed via a stone jetty and gravel drive from the river, or by Orphan School Lane, which terminated at a loop on the upper slopes of the hill (now James Ruse Drive). The main school complex sat on the crest of Arthur's Hill, nearly 200 metres south-west of the current study area. A history prepared for the Rydalmere Psychiatric Hospital in 1988 identified that the broader landscape may have been occupied by unrecorded structures such as a gardener's and superintendent's hut and accommodation for male and female convicts between c1818 and 1821. And 1821.

The Female Orphan School initially accommodated 70 girls, though numbers rose to around 170 by 1833. The institution was intended for girls between the ages of five and thirteen, though younger children were sometimes admitted. Many pupils were not strictly orphans but were from families unable to care for them, including children of convicts, single parents, and the severely impoverished. Aboriginal children were also admitted, particularly following the closure of the Native Institution in 1822.¹⁵ The surrounding land was cultivated from the early 1820s, with orchards, a kitchen garden, and paddocks enclosed by split-rail and paling fences.¹⁶ By 1826, the gardens extended to about six acres, with a gardener in residence. In the 1830s and 1840s, further improvements included ornamental plantings, shrubs, and trees, with orphans contributing to the maintenance of these gardens as part of their vocational training.

Within and around the study area, the land remained largely undeveloped during this period. Remnant open Eucalyptus woodland persisted along watercourses such as Vineyard Creek and a former east—west running creek.¹⁷ Two dams were constructed along Vineyard Creek in the late 1830s and early 1840s to supply water for plantings, supported by a pump and pipe system designed by Brown and Busby.¹⁸ Although no specific uses of the study area are recorded, it likely functioned as grazing paddocks or open space supporting the school's broader agricultural and horticultural operations. A reserve for stock grazing was also established in the 1830s, expanding the school's holdings to 110 acres north of Victoria Road. While the orphanage buildings suffered from early inadequacies in drainage, water supply, and brickwork, these issues were gradually addressed through additions and repairs during the 1820s and 1830s.¹⁹

https://www.westernsydney.edu.au/femaleorphanschool/home/the female orphan school 1813 to 1850

¹² Tanner & Associates, 2000

¹³ Conybeare Morrison International, 2008

¹⁴ Public Works Department, 1988, *Rydalmere Psychiatric Hospital evolution with a statement of its significance*, Section 3.2.3.

¹⁵ Western Sydney University, 2017. 'The Female Orphan School: 1813 to 1850'. *Western Sydney University*. Accessed on 9 August 2023 at:

¹⁶ CAB Consulting & The Tree School, 2003

¹⁷ CAB Consulting & The Tree School, 2003

¹⁸ CAB Consulting & The Tree School, 2003

¹⁹ Tanner & Associates, 2000



Figure 3-5: View of the Female Orphan School, Near Parramatta by Joseph Lycett, 1825. Source. State Library of Victoria 30328102131561/13.

3.4. The Protestant Orphan School: 1850 to 1887

By 1850, the Female Orphan School and Cabramatta Male Orphan School had been amalgamated, and the site became the Protestant Orphan School. In 1854, the first purpose-built structure for the combined orphanage, a hospital, was established at the site to the north of the central building. An 1865 report from the Inspector of Public Charities found the schools at Rydalmere to be in need of repair; around this time, there were 236 children residing at the school. ²⁰ In 1868, a new kitchen was constructed and during 1870, an extensive program of additions and renovations were undertaken. ²¹ A new school building was constructed, described as being a 'model building', and the Master's Residence was likely built at this time. The additional school building was erected to the rear of the Female Orphan School central building and was linked with a covered walkway (Figure 3-6). The west wing of the new school building housed the boys' facilities, while the girls' department was housed largely in the east wing. In 1882, a forty-bed dormitory was constructed on the southwestern corner of the western wing. The playgrounds to the north of the school were created as enclosures, with areas for the boys and girls separated with central sandstone walls and delineated elsewhere by timber fences. ²²

Additional ornamental plants were planted during this phase and the areas of cultivated ground and pasturage for grazing animals were expanded. In 1870, Moreton Bay Figs and Stones Pine trees were provided by the Sydney Botanic Gardens and planted along Victoria Road and the new access road from the north-western entrance to the site, which traversed the floodplain and the E-W running

²⁰ Tanner & Associates, 2000

²¹ Western Sydney University, 2017. 'The Protestant Orphan School: 1850 to 1886'. *Western Sydney University*. Accessed on 9 August 2023 at:

https://www.westernsydney.edu.au/femaleorphanschool/home/the protestant orphan school 1850 to 1886

²² CAB Consulting & The Tree School, 2003

creek. During this phase, a pond was created along the E-W running creek within the study area, and the creek may have been formalised as a drainage channel (Figure 3-6 and Figure 3-7).²³ Some of the 1870 Moreton Bay Figs and Stones Pine trees donated by the Sydney Botanic Gardens may have been planted along the northern boundary of the study area. It is likely that the area was used for agricultural purposes in connection with the Protestant Orphan School at this time.²⁴

Significant shifts in government policy regarding the education and care of destitute children occurred throughout the operational life of the combined orphanage. By the 1870s, there was growing support for integrating orphans into the broader community, primarily through boarding arrangements with foster families. This shift was formalised in 1882 when Henry Parkes introduced the State Children Relief Act, which established the State Children's Relief Board to oversee the fostering of children within the community. As these new philosophies and administrative structures took hold, funding for orphanages dwindled. By 1886, the remaining 32 children at the Protestant Orphan School in Rydalmere were apprenticed out, leading to the effective closure of the institution in September that year. The final closure followed in 1887, marking the transition to the preferred model of residential care known as 'boarding out'.²⁵



Figure 3-6: Protestant Orphan School building and covered way from the central Female Orphan School building c.1870–80.

Source: State Library NSW, Government Printing Office 1 - 06149

²³ Ibid

²⁴ Ibid

²⁵ Conybeare Morrison International, 2008

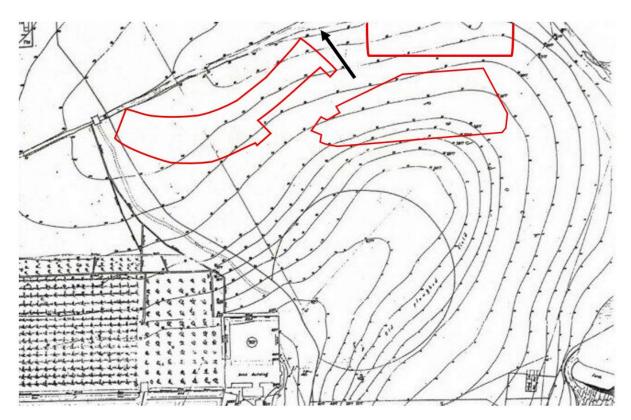


Figure 3-7: 1893 Surveyor's plan showing contour features and buildings within the area dedicated for the hospital for the Insane, Rydalmere. The former alignment of a creek ran through both the ICoE and western car park areas (arrow). Source:

Land Titles Office 682-3000

3.5. Rydalmere Psychiatric Hospital: 1888-1989

In 1888 the former Female Orphan School property was transferred to the Department of Lunacy and the site taken over by the Rydalmere Psychiatric Hospital (Figure 3-9). The hospital moved into the original orphanage buildings and soon developed land to the north and west of the study area in the late 1890s and throughout the 20th century. The hospital was renamed the Rydalmere Hospital for the Insane in 1891 after being granted independent status by the NSW government.²⁶ During this period, the study area was occupied by a vegetable and fruit garden.²⁷

Development of the site throughout the late 19th and early 20th century reflected changing attitudes towards landscape design and patient care. This included the formation of new gardens, bridges, a plantation, cricket ground and construction of Ha-Ha walls within the hospital grounds. Ha-Ha walls are characterised by an open ditch with concrete retaining walls on either side. A metal fence would have run around the ground level of the wall to prevent patients and employees from falling into the ditch.²⁸ Plantings for new gardens across the landscape were established using trees and shrubs from the Royal Botanic Gardens.²⁹ Additional landscaping occurred in the 1960s and 70s, although this was more informal.³⁰

The study area does not appear on the 1893 survey plan of the Psychiatric Hospital grounds, as it is cut off in the available copy of the plan (Figure 3-7). The plan does, however, show the line of the

²⁶ Conybeare Morrison International, 2008

²⁷ Tanner & Associates, 2000

²⁸ Public Works Department, 1988. Rydalmere Psychiatric Hospital evolution with a statement of its significance

²⁹ Conybeare Morrison International, 2008

³⁰ Ibid

creek known to have run through the study area. Two undated, but likely c.1897-1934, plans of the Psychiatric Hospital grounds show an excavated ditch running along the line of the former creek, formalising the line of the creek for drainage purposes (Figure 3-7 and Figure 3-8). A c.1897-1934 detailed plan shows the pond in the south-western corner of the study area and the excavated ditch following the line of the former creek running E-W through the southern section of the study area. Conservation Studies prepared in 1982/1984 and 2008 for the Rydalmere Psychiatric Hospital suggest that the creek was infilled as a drainage line in c1899 and the pond excavated in 1900; however, the pond and ditch are dated to the earlier Protestant Orphan School phase in the 2003 Landscape Management Plan.³¹

A culvert is shown at the junction of the pond and ditch, while a fence runs SW-NE from the culvert to the line of Victoria Road, as well as along the southern side of the ditch (Figure 3-8). Plantings and a paling fence are shown along the northern boundary along Victoria Road. These plantings may have been the 1870s Moreton Bay Figs and Stone Pines donated to the Protestant Orphan School.

The southern section of the study appears to have been used as a grazing paddock. In the centre of the southern boundary of the study area is a pit, which may have been used for dumping waste products. The study area, in association with the cricket ground to the west, appears to have been used for recreational and agricultural pursuits in line with the changing attitudes towards patient care and landscape design. Parish maps dating from 1899 to 1922 show no details of the study area other than its inclusion in the grounds of the 'Hospital for the insane' (Figure 3-10 and Figure 3-11).

By 1943 (Figure 3-12), the pond had been infilled and the drainage ditch extended across the full extent of the study area. A path ran roughly N-S through the study area with a small bridge crossing the ditch near the centre of the study area. A tennis court had been constructed near the northwestern corner of the study area. A fence also appears to have been installed to the south of the ditch in the south-eastern corner. At this time, it appears that the 1870s Moreton Bay Figs and Stone Pines were still intact along the fenced northern boundary.

Mature trees were also present along the western boundary and the southern side of the ditch in the eastern section of the study area. The north-western section of the study area appears to have been used for agricultural purposes, as remnant lines of crops/plantings are visible. The former paling fence along the northern boundary appears to have been replaced with a more substantial, likely brick, fence by this time. The aerials indicate the continued use of the study area for recreational and agricultural purposes for the patients of the Psychiatric Hospital.

By the time of the 1950 aerial (Figure 3-13), the drainage ditch had been partially infilled, the tennis courts extended, a lawn bowling green installed in the north-western corner and a new rectilinear building constructed in the centre of the northern side of the study area. A 1958 photograph shows that the tennis court had been further extended to three courts, with timber posts and a likely asphalt, acrylic or concrete surface (Figure 3-14).

By 1960 (Figure 3-15), the remaining trees in the southern section and western side of the study area had been removed. The drainage ditch had been replaced with underground stormwater piping and the land in the southern section levelled. A playing field had been established in the south-eastern corner of the study area, while driveways had been established along the eastern and northern boundaries from Railway Street and Victoria Road respectively, leading to a parking area in the centre.

³¹ Conybeare Morrison International, 2008; CAB Consulting & The Tree School, 2003

A 1970 aerial (Figure 3-16) shows little change within the study area over the 1960s, other than an informal extension of the driveway from the northern boundary along Victoria Road to the south along Fifth Street. However, by this time, the overhead road of Bridge Street directly to the west of the study area was constructed over Victoria Road.

By 1985 (Figure 3-17), the northern driveway along Victoria Road had been removed and replaced with an informal driveway from the southern boundary along Fifth Street. Shade structures had additionally been constructed along the northern and southern ends of the eastern two tennis courts, while an additional rectilinear structure was installed to the south of the main central building, likely toilets.

The aerials indicate that the use of the study area moved away from agricultural uses and towards only recreational purposes for the patients of the Psychiatric Hospital. It is likely that this area was used by patients until the closure of the hospital in 1989.³²

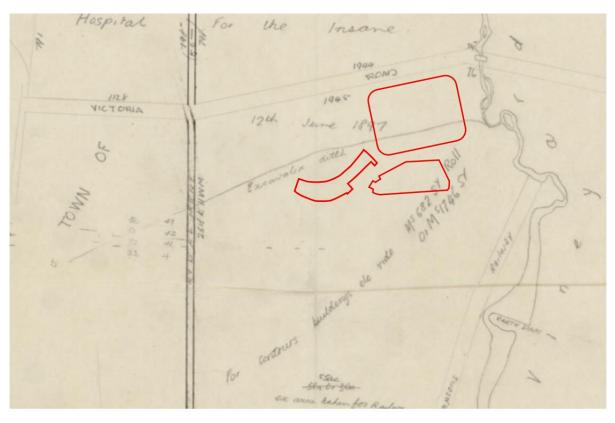


Figure 3-8: undated sketch plan of Rydalmere Psychiatric Hospital, likely dating to c.1897-1924, showing an excavation ditch running through the study area. Source: State Library NSW FL9082344, 008 – Z-SP-R19-8

³² Conybeare Morrison International, 2008

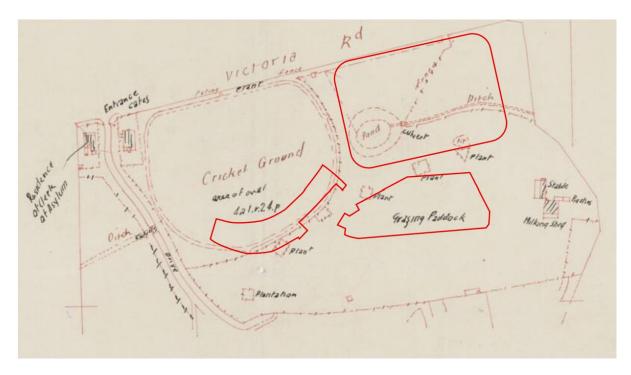


Figure 3-9: c.1897-1924 plan of the northern end of the Hospital grounds, showing a pond, ditch, culvert, and fencing in the ICoE boundary, grazing paddock in the eastern car park and plantations in the western car park. Source: State Library NSW FL9085182,013 – Z-SP-R19-13



Figure 3-10: Rydalmere Psychiatric Hospital, around 1890. Source: State Records NSW, NRS 5598

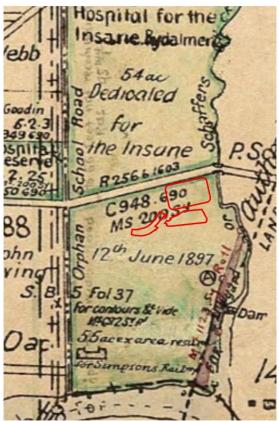


Figure 3-11: 1899 Parish Map of the Field of Mars, showing the study area within the land dedicated for the Rydalmere Psychiatric Hospital. Source: HLRV, 14014001



Figure 3-12: 1922 Parish Map of the Fied of Mars, showing the study area within the land dedicated for the Rydalmere Psychiatric Hospital. Source: HLRV, 14013501

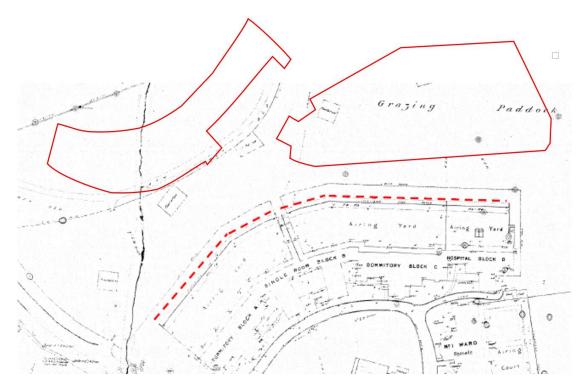


Figure 3-13: Detail from Hospital for the Insane, Rydalmere (1903). Wards 13-16 have been built and the airing yards on the north side of the buildings are defined by ha-has (dashed red). Note this plan is assumed to be made prior to the works, as the ha-has are much more angular than the curved as-built lines visible on the 1943 and 1951 aerial photography of the site.

Source: WSU, formerly Rydalmere Psychiatric Hospital – General Plan – Frame 1

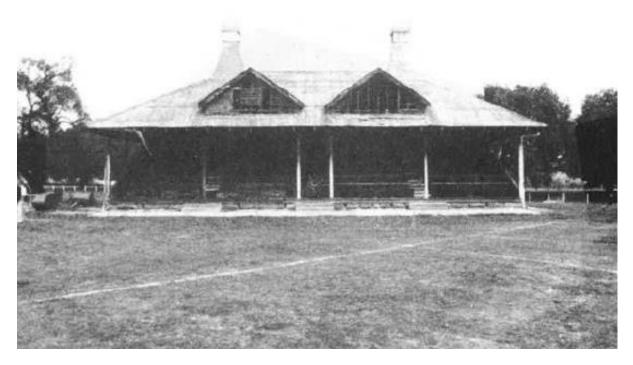


Figure 3-14: Cricket Pavilion c.1915. Source: Kerr; Proudfoot; Thorp; Burton & Burkett, 1982: 247, Figure 6.29



Figure 3-15: 1943 aerial photograph of study area mostly cleared, a road running roughly NE, a tennis court, a fence along the north boundary, the drainage line and trees visible. Note the retained melaleuca tree (yellow). The bright white lines within the study area are likely paved paths at the top of the ha-ha ditch, while the fainter white line is likely the ha-ha wall or an external path. The three sheds appear to be insubstantial shelter sheds. The cricket pavilion sits close to the bounds of the western car park. Source: SIX Maps



Figure 3-16: 1950 aerial photograph of the study area with new buildings, fenced areas, tennis court and paths, and the drainage line partially infilled. The eastern and western car parks remain relatively unchanged other than the removal of two of the shelter sheds. Source: Historical Imagery NSW

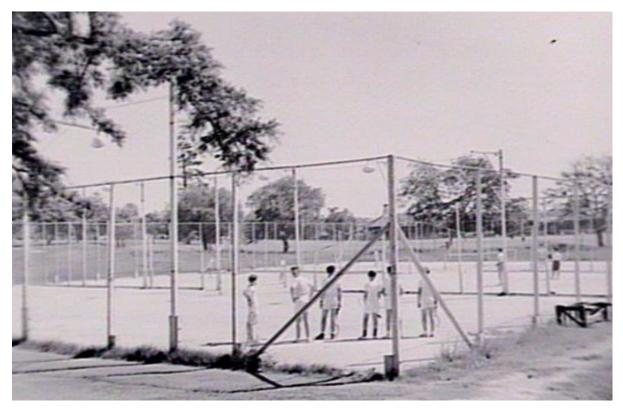


Figure 3-17: 1958 photograph of the former tennis court within the study area, comprising a paved surface with tall timber posts. View from north-eastern corner of the tennis court, looking south-west, with the cricket field in the background. Source. https://collection.sl.nsw.gov.au/record/nX60pN8Y



Figure 3-18: 1960 aerial photograph showing the study area to have been further cleared, the drainage line fully infilled, the tennis court extended, a paddock delineated in the south-eastern corner and the path realignment to have been completed.

Little to no change to the western and eastern car parks. Source: Historical Imagery NSW



Figure 3-19: 1970 aerial photograph showing the extension of the path to the southern boundary of the study area, as well as the construction of the roads bounding the study area, including the overbridge access at the western end of the study area along Fifth Street. Source: Historical Imagery NSW



Figure 3-20: 1986 aerial photograph showing the addition of shade structures along the northern and southern sides of the tennis courts, the use of the area to the south of the courts for parking and an informal driveway between the southern boundary and the tennis courts. Source: Historical Imagery NSW

3.6. Vacant: 1989-1993

The site of the former Rydalmere Psychiatric Hospital was vacant for four years following the closure of the hospital in 1989.³³ No formal or informal activities are recorded for the study area during this period.

3.7. University of Western Sydney: 1993-Present

In 1993, the University of Western Sydney proposed to reuse the vacant site and acquired the site in 1995.³⁴ As part of the redevelopment works, new buildings were erected, existing buildings were updated and landscaping works were undertaken for the site's new use as a university.³⁵ The following summary has been taken directly from the 2008 CMP prepared by Conybeare Morrison International:

In March 1998, The Parramatta Campus of the University of Western Sydney opened its classrooms to students. The former psychiatric hospital buildings were adapted to the new use and an award winning restoration of the Female Orphan School was carried out by Tanner and Associates. New services were installed and new buildings erected including the Ian and Nancy Turbott Auditorium, Whitlam Library, and more recently, the Teaching Building.³⁶

³³ Conybeare Morrison International, 2008, p. 6.

³⁴ Western Sydney University, 2016. 'The Female Orphan School: Dereliction and Restoration: 1980s to Present'. *Western Sydney University*. Accessed online on 09 August 2023 at:

https://www.westernsydney.edu.au/femaleorphanschool/home/dereliction_and_restoration_1989_to_present

³⁵ Conybeare Morrison International, 2008, p. 10.

³⁶ Conybeare Morrison International, 2008, p. 6.

Although the CMP states that the Co-generation Plant Building was constructed around 2000, ³⁷ aerial photography indicates that the Co-generation Plant Building, along with the associated car park and brick retaining wall within the study area, were actually built around 1997 (Figure 3-21). During this period, the brick fence along the northern boundary was demolished, leaving only the foundation bricks marking its former alignment.

The mid to late 1990s also saw extensive earthworks and the installation of modern services across the area. Although a 1998 pamphlet produced by UWS does not specifically depict the area north of Building ED (proposed eastern carpark), it provides a sense of how ground levels were altered and re-formed during this time (Figure 3-22).

Further modifications occurred in the early 2000s. In 2005, the car park was extended to the northwest and east, reaching its current footprint (Figure 3-24). The boundary trees appear to have been planted in two stages, prior to 2008 and again around 2009. Small-scale additions have followed, such as the installation of a north-western entrance sign in 2014 and the placement of ticketing machines and wayfinding signage. Aerial imagery from 2009 shows the conversion of the cricket oval (the location of the proposed western car park) into a temporary car park (Figure 3-25), the outline of which remained visible until at least 2012 (Figure 3-26) during the realignment of Fifth Avenue. By 2013, grass had largely regrown over this location (Figure 3-27). A dry spell in 2017 enabled the previous alignment of the ha-ha walls/paths to be visible within the proposed eastern car park (Figure 3-28). Most recently, in 2022, the cricket oval underwent re-turfing and the installation of a perimeter fence (Figure 3-29)



Figure 3-21: 1997 aerial photograph of the study area showing the recent construction of the carpark, the Co-Generation Plant Building (Eda) and landscaping. Source: Historical Imagery NSW

³⁷ Ibid



Figure 3-22: 1998 works including trenches dug for water, gas and electricity. Source: WSU 1998 pg 10 via AMBS 2024



Figure 3-23: 2004 oblique aerial photograph showing the completed carpark, the Co-Generation Plant Building (Eda), grassed areas and small number of trees. The general location of the study area is shown highlighted in yellow. Source. Conybeare Morrison, 2008



Figure 3-24: 2005 aerial showing the extension to the P1 carpark. Cars are starting to park along the cricket oval. Source: Historical Imagery Viewer



Figure 3-25: 2009 aerial with instatement of temporary carpark within the cricket oval. Source: Nearmap



Figure 3-26: Western carpark area when Fifth Street realignment work were occurring in 2012. Source: Nearmap



Figure 3-27: 2013 aerial after Fifth Street realignment – temporary carpark outlines still visible on the cricket oval (black arrow). Source: Nearmaps



Figure 3-28: 2017 aerial (December) with dried out grass – remnant outlines of the ha-ha walls and/or paths (black arrow). Source: Nearmaps





Figure 3-29: July-Nov 2022 aerials showing the re-turfing and fence installation of the cricket oval. Source: Nearmaps

3.8. Summary of Historical Context

As a result of the above historical summary, the following key post- 1788 historical phases for the study area have been identified:

- **Arndell's Farm** 1791 to 1810
- Female Orphan School 1810 to 1850
- Protestant Orphan School 1850 to 1887
- Rydalmere Psychiatric Hospital 1888 to 1989
- Vacant: 1989 to 1993
- University of Western Sydney 1993 to current

4. Physical Analysis



4. Physical Analysis

This chapter provides a detailed summary and physical analysis of the existing structures and features within the study area, as well as context and overview of the immediate surroundings, including places of importance essential to the understanding of the physical context of the site.

4.1. Proposed ICoE Redevelopment Location

A site inspection was carried out by Rebecca Agius and Sarah McGuinness on 10 April 2024. The inspection was undertaken to examine the existing site context, its landform, and assess any potential direct and/or indirect impacts to listed and unlisted heritage items in or close to the study area that may result from the proposed development.

The study area is bounded by Victoria Road to the north, Railway Street to the east, Fifth Street to the south and the overbridge of Bridge Street to the west (Figure 4-1 to Figure 4-6). Further to the north of the study area is low-density disability housing run by the Department of Family and Community Services, to the east is a tributary of Parramatta River named Vineyard Creek, and to the south and west is the rest of the WSU Parramatta South Campus.

Concrete pedestrian paths run along the outside of the boundaries of the study area, with three concrete-lined pedestrian entrances at the north-eastern corner, south-western corner and southern side of the study area (Figure 4-1 to Figure 4-6). Two asphalted driveways along the southern boundary provide vehicular access to the study area from Fifth Street to the south. The foundation courses of a brick fence appear to run along the northern boundary (Figure 4-2).

The study area is approximately 1.33 ha in area and contains a carpark for the university, a Co-Generation Plant Building, concrete paths, curved brick wall, grassed areas and mature trees (Figure 4-1 to Figure 4-12). The northern, eastern and southern boundaries are lined with semi-mature c.2009 *Waterhousia floribunda* (weeping lilly pilly) and *Ficus microcarpa var hillii* (hills fig) trees; gaps in the boundary treeline are located in the north-eastern and north-western corners of the carpark and the centre of the southern boundary in the location of the access driveways. A remnant native woodland tree, a mature *Melaleuca decora* (white feather honey myrtle), is located within the centre of the study area, within the carpark, within a concrete-lined garden bed (Figure 4-11).

The western boundary of the study area is lined by an undulating curved stretcher-bonded brick retaining wall, raised grassed area and the c.2000 Co-Generation Plant Building (Figure 4-3). The Co-Generation Plant Building comprises an industrial single-storey, flat-roofed, metal-clad structure with two turbines partially screened by a metal fence to the south (Figure 4-3). The building is screened by semi-mature *Pittosporum undulatum* (sweet daphne) and *Acmena smithii* (lilly pilly) trees in raised garden beds along its northern, eastern and southern elevations, but is visible along its western elevation (Figure 4-2 and Figure 4-3). Access to the building is via the western driveway.

The grassed areas lining the boundaries of the study area are slightly raised above the surface of the asphalt carpark surface, forming a levelled shallow depression in the location of the carpark (Figure 4-7 to Figure 4-12). Although the roots of the semi-mature weeping lilly pilly and hills fig trees lining the boundaries have partly contributed to the raising of the grassed areas, it is unclear as to whether the carpark area has been excavated or if the boundaries have been raised, or a combination of the two. Aside from the raised borders, the landform is generally flat and characterised by a former alluvial plain adjacent to Vineyard Creek (Figure 4-1). The western boundary appears to have been artificially raised and excavated in the vicinity of the Co-Generation Plant Building, likely in association with the cricket ground and the abutments of the Bridge Street overbridge to the west (Figure 4-2 and Figure 4-3). Where ground surfaces are exposed in the grassed areas, soils are characterised by red-brown silt (Figure 4-10).

A sandstone and metal-clad Western Sydney University sign lined with river pebbles and brick paving is located in the north-eastern corner of the study area, while telegraph poles and lights line the northern boundary (Figure 4-1). Services cupboards and bins are located just to the south of the north-eastern corner of the study area (Figure 4-1).



Figure 4-1: View of the north-eastern corner of the study area from the northern side of Victoria Road, looking southwest. Source: Curio Projects, 2023.



Figure 4-2: View of the north-western corner of the study area from the southern side of Victoria Road, looking ESE. Source: Google, 2023.



Figure 4-3: View of the Co-Generation Plant Building from the south-western corner of the study area at the intersection of Bridge Street and Fifth Street, looking NNE. Source: Google, 2023.



Figure 4-4: View of the southern side of the study area from the southern side of Fifth Street, view north-east. Source: Curio Projects, 2023.



Figure 4-5: View of the south-eastern corner of the study area from the intersection of Railway Street and Fifth Street, view north-west. Source: Google, 2023.



Figure 4-6: View of the eastern boundary of the study area from the eastern side of Railway Street, view west. Source: Google, 2023.



Figure 4-7: View of the carpark within the study area from the north-eastern corner of the study area, view southwest. Source: Curio Projects, 2023.



Figure 4-8: View of the carpark from the south-western corner of the study area, view north-east. Source: Curio Projects, 2023.



Figure 4-9: View south-west towards the south-western corner of the carpark, showing the trees lining the study area boundary. Source: Curio Projects, 2023.



Figure 4-10: View along the southern boundary of the carpark within the study area, showing the trees lining the boundary. Source: Curio Projects, 2023.



Figure 4-11: The significant remnant woodland paperbark *Melaleuca decora* (white feather honey myrtle) tree near the centre of the study area towards the north-eastern entrance to the carpark. Source: Curio Projects, 2023.



Figure 4-12: The c.2009 *Ficus microcarpa var hillii* (hills fig) trees lining the southern study area boundary, view east. Source: Curio Projects, 2023.

4.2. Proposed Western and Eastern Car Park Locations

This site description has been extracted and abbreviated from AMBS' Historical Archaeological Assessment, Impact Assessment and Research Design (2024) for the Proposed Temporary Car Park – Eastern Study Area, and AMBS' Historical Archaeological Assessment, Impact Assessment and Research Design (2024) for the Proposed Temporary Car Park – Western Study Area.³⁸ For a full site analysis undertaken by AMBS, please refer to Appendix A and B. Curio have assessed the ABMS research, alongside our own independent research to ensure that this updated assessment includes the most accurate historical archaeological profiling possible.

The two areas of proposed car parks are located on either side of Fifth Street: the western car park is situated in the grassed area around the oval, from the intersection of Bridge and Fifth Street curving around the southeast quadrant of the oval; the eastern car park is situated on the north side of Building ED/Vernon Building between two rows of mature trees.³⁹

The proposed eastern car park location is located in a predominantly flat and grassed ground that is between Fifth Street and Building EB/Vernon Building.⁴⁰ In the southernmost third of the study area

³⁸ AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Eastern Study Area Historical Archaeological Assessment, Impact Assessment and Research Design. Prepared for Western Sydney University; AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Western Study Area Historical Archaeological Assessment, Impact Assessment and Research Design. Prepared for Western Sydney University
³⁹ Ibid

⁴⁰ Ibid

steeply rises up to near-flat plateau approximately 10m, with a second, less abrupt rise occurring southwards toward a row of mature trees which forms a second plateau.⁴¹ These terraces form a raised semicircular mound along the north side of the Building EB/Vernon Building (Figure 4-13), which radiates outwards from the central sleep-out building and then dissipating to be roughly in line with the toilet block at northeast corner of the building.⁴² Running parallel to the curve of the first rise on the first plateau is a slight linear depression and grass that shows patchy linear areas of browning and less grass growth along the crest of the first plateau (Figure 4-14 and Figure 4-15).⁴³ The mound size and volume indicate that these were the result of machine excavations during the c.1998 works across the campus.⁴⁴



Figure 4-13: Location of eastern car park showing the crest of the steeper slope (dashed red) and crest of the gentler slope (dashed blue). There is a slight depression in the flattish area between the two slopes. Source: Adapted by Curio, from Figure 4.1 in AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Eastern Study Area Historical Archaeological Assessment, Impact Assessment and Research Design.

⁴¹ AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Eastern Study Area Historical Archaeological Assessment, Impact Assessment and Research Design. Prepared for Western Sydney University; AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Western Study Area Historical Archaeological Assessment, Impact Assessment and Research Design. Prepared for Western Sydney University

⁴² Ibid

⁴³ Ibid

⁴⁴ Ibid



Figure 4-14: Looking east along the top of the first terrace. Geotechnical test pit TP15 is visible on the left. Source: Adapted by Curio from Figure 4.2 in AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Eastern Study Area Historical Archaeological Assessment, Impact Assessment and Research Design.



Figure 4-15: Modern satellite image showing semi-circular lines of brown grass (arrowed) that appear to match the alignment of the ha-ha from SIX Maps. Source: Adapted by Curio from Figure 4.3 in AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Eastern Study Area Historical Archaeological Assessment, Impact Assessment and Research Design

The proposed western car park location is located in the southeast quadrant of the oval, with the northern end of the location having a salient mound (Figure 4-16) that was most likely a result of the previous earthworks debris from the establishment of the existing P1 Car Park, Victoria Road widening and the creation of the Bridge St overpass. There are sandstone block walls that function to retain the ground and provide informal seating in parts of the northern side of the mound, with the ground flattening out to the south and west of the mound moving towards the bus shelter. In mound has a salient slope down towards the oval; the oval is raised up approximately 0.5m (Figure 4-17). Mature trees are present along Fifth Street from Bridge Street to the southwest, with younger trees planted between the mature trees and the bus shelter.



Figure 4-16: The southern section of the prominent mound where the western car park will be located. Geotechnical test pits TP9 and TP7 are visible in the background and middle right respectively. Source: Adapted from Figure 4.1 in AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Western Study Area Historical Archaeological Assessment, Impact Assessment and Research Design.

⁴⁵ AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Western Study Area Historical Archaeological Assessment, Impact Assessment and Research Design. Prepared for Western Sydney University

⁴⁶ Ibid

⁴⁷ Ibid

⁴⁸ Ibid



Figure 4-17: View east across the oval and grassed area where the western car park will be located (dashed red). The mature Jacaranda trees along Fifth Street are visible in the background, the prominent mound is arrowed red, the gentle slope down to the north and raised edge of the oval are arrowed blue. Source: Adapted from Figure 4.2 in AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Western Study Area Historical Archaeological Assessment, Impact Assessment and Research Design.

5. Historical Archaeological Assessment



5. Historical Archaeological Assessment

5.1. Introduction

The extent to which physical remains of past occupation may survive across any site is dependent on two main factors: firstly, the nature of the archaeological resource; and secondly, the nature and extent of subsequent development and modifications at a site that may have impacted the deposition or conservation of the archaeological resource. While each subsequent phase of development and occupation may contribute new deposits and features to the archaeological record, it may also remove or disturb deposits and features associated with previous phases of occupation.

5.1.1. Methodology

Archaeological potential

The potential for archaeological resources to survive in a landscape is significantly affected by the historical use of a site past ground disturbing activities. The following assessment of archaeological potential is based on the definitions presented in Table 5-1 and Table 5-2.

Table 5-1: Definitions of Archaeological Potential

Archaeological potential	Definition
High	A site where there is known occupation associated with the historical phase and proceeding ground disturbance has been minimal
Moderate	A site where there is some potential for archaeological relics associated with the historical phase to survive, though they may have been subject to some disturbance
Low	A site that has either been subject to little or no known historical development, or where levels of disturbance are so high that they may have removed all evidence of former structures. Unexpected or highly truncated/disturbed archaeological resources may survive, though this is unlikely
Nil	A site where there has been no known historical development or where impacts are significant, such as the construction of deep basements

Table 5-2: Definitions of Levels of Historical Disturbance

Level of Disturbance	Definition	
Low	The site or feature has not been subject to activities that would have a major impact or the survival of archaeological remains. Archaeological evidence may be largely intact.	
Moderate	The site or feature has been subject to some activities that may have impacted on the survival of archaeological remains. Archaeological evidence may survive, however it may be disturbed.	
High	The site or feature has been subject to activities that are likely to have impacted on the survival of archaeological remains. Little archaeological evidence may survive, or it may be substantially destroyed.	

Archaeological Significance

Determining the significance of a potential archaeological resource is carried out by utilising a system of assessment under seven criteria outlined in the 2013 *Burra Charter of Australia*.⁴⁹ In 2009, the Heritage Council of NSW endorsed criteria developed specifically to assist archaeologists determine the significance of archaeological sites and relics in consideration of the thresholds of significance at a local of State level.⁵⁰ Definitions of archaeological significance are presented in Table 5-3.

Table 5-3: Definitions of Archaeological Significance

Criterion	Definition
Archaeological Research Potential NSW Heritage Criterion E	Archaeological research potential is the ability of archaeological evidence, through analysis and interpretation, to provide information about a site that could not be derived from any other source, and which contributes to the archaeological significance of that site and its 'relics'.
Associations with individuals, events, or groups of historical importance NSW Heritage Criteria A, B, D	Archaeological remains may have associations with individuals, groups and events which may transform mundane places or objects into significant items through their relationship with important historical occurrences.
Aesthetic or technical significance NSW Heritage Criterion C	Whilst the technical value of archaeology is usually considered as 'research potential' aesthetic values are not usually considered to be relevant to archaeological sites. This is often because until a site has been excavated, its actual features and attributes may remain unknown. It is also because aesthetic is often interpreted to mean attractive, as opposed to the broader sense of sensory perception or 'feeling' as expressed in the Burra Charter.
Ability to demonstrate the past through archaeological remains NSW Heritage Criteria A, C, F & G	Archaeological remains have an ability to demonstrate how a site was used, what processes occurred, how work was undertaken and the scale of an industrial practice or other historic occupation. They can demonstrate the principal characteristics of a place or process that may be rare or common.

5.2. Relevant Assessments

The following archaeological, management and heritage assessments have been carried out that are inclusive of the study area and will be used to inform this assessment of archaeological potential:

- Casey and Lowe, 2007. Non-Indigenous Archaeological Assessment University of Western Sydney Parramatta Campus.
- Conybeare Morrison International, 2008. University of Western Sydney Parramatta South Campus, c. Prepared for Campus Development Unit, University of Western Sydney.

⁴⁹ Australia ICOMOS, 2013, Burra Charter

⁵⁰ Heritage Branch Department of Planning, 2009, p11

- Conybeare Morrison International, 2008. University of Western Sydney Parramatta South Campus, Heritage Asset Management Strategy. Prepared for Campus Development Unit, University of Western Sydney.
- Godden Mackay Logan, 2000, Parramatta Historical Archaeological Landscape Management Study, Report for NSW Heritage Office.
- AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park Eastern Study Area Historical Archaeological Assessment, Impact Assessment and Research Design. Prepared for Western Sydney University.
- AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park Western Study Area Historical Archaeological Assessment, Impact Assessment and Research Design. Prepared for Western Sydney University.

5.2.1. WSU Parramatta Campus (2007)

Casey & Lowe prepared a historical archaeological assessment of the WSU campus in 2007. The assessment identified two areas of differing archaeological potential and significance on the campus, namely, the Orphan School Precinct and the Surrounding Farmland (Figure 5-1). The ICoE study area is situated within the Surrounding Farmland precinct.

Relevant to this precinct, the assessment found that:

- The surrounding farmlands associated with the Schools and Hospital are likely to contain remains such as cultivated/ploughed soils, field drains/ditches/gullies, field boundaries and pathways.
 These remains are not likely to be substantive and therefore are considered to have low archaeological potential.
- The potential remains within the Orphan School Precinct of the study area are considered to have State heritage significance. The remains in the surrounding farmlands are considered to be of lesser significance- high Local- because they are likely to be disturbed and/or ephemeral.⁵¹

⁵¹ Casey & Lowe Pty Ltd, 2007, Non-Indigenous Archaeological Assessment University of Western Sydney Parramatta Campus, p i.



Figure 5-1: Detail of archaeological precinct map from Casey & Lowe 2007, p12, with Curio markup. Green indicated Orphan School Precinct, Yellow indicates Surrounding Farmland Precinct and ICoE study area shown in red.

5.2.2. WSU Parramatta Campus Rydalmere Conservation Management Plan (2008)

Conybeare Morrison prepared a Conservation Management Plan (CMP) for the Rydalmere campus in 2008. Section 2.8 of the CMP included a consideration of the identified archaeological resources on the campus. The CMP drew on previous archaeological assessments for the Orphan School Precinct in particular, situated to the west of the current LoTF study area. The CMP noted that:

...each of the buildings, especially those within the Orphan School precinct, are potentially an archaeological site and are likely to contain relics that should be recorded prior to disturbance.⁵²

The archaeology specific policies of the CMP are outlined in detail in Section 7.1.1.

5.2.3. WSU Parramatta Campus Rydalmere Heritage Asset Management Strategy (2008)

In 2008, Conybeare Morrison prepared a Heritage Asset Management Strategy for the Rydalmere campus. The high archaeological significance of the campus was summarised as follows:

The Orphan School site is one of the most important surviving sites of early British Settlement in Australia. It has been almost continuously occupied since 1792 and it has potential to retain remains from all phases of its use. Its design and function as

⁵² Conybeare Morrison International, 2008, University of Western Sydney Parramatta Campus Rydalmere Conservation Management Plan, p17

a female orphanage is closely connected to Governor Macquarie and Mrs Macquarie, and also to early ecclesiastical and ruling elites.

Archaeological analysis and interpretation can provide evidence about the use and development of the place, the more information about the daily lives of the children, and conditions in which they lived and were educated. The original buildings and their immediate surroundings have the potential to provide more information about their original design and subsequent development and usage, and the changing attitudes to institutional care. The gardens within the precinct retain evidence of their original and changing design.

The old farmland surrounding the Orphan School precinct has limited ability to retain substantive archaeological remains, although any remains would contribute to knowledge about the development of the place.⁵³

The management strategy detailed that WSU are responsible for preparation of heritage assessments including consideration of archaeological resources for any future works.

5.2.4. WSU Eastern Temporary Car Park (2024)

AMBS Ecology & Heritage prepared a Historical Archaeological Assessment, Impact Assessment and Research Design for the proposed temporary eastern car park that is part of the amended study area. AMBS's assessment of the proposed eastern temporary car park concludes that:

There is considered to be nil-low potential for archaeological evidence for the agricultural activities within the eastern car park study area; any surviving remains would have low research potential, low integrity and nil-low heritage significance. There is considered to be low-moderate potential for archaeological evidence of the ha-ha to survive in the uppermost metre of material within the eastern car park study area. Any surviving remains of the ha-ha structure would have moderate research potential associated with the locally significant hospital-period, depending on intactness.⁵⁴

This report also provided a comparative analysis on the different types of ha-ha structures at psychiatric institutions throughout Parramatta, Gladesville and Balmain from 1885-1900, which includes Callan Park Hospital, Parramatta Lunatic Asylum, along with Kenmore Hospital, Goulburn and Gladesville Hospital.⁵⁵

Ha-has were structural landscapes elements that used a sloping embankment or ditch, along with a high wall commonly built out of stone at the bottom of the slope in order to delineate a space whilst simultaneously allowing for uninterrupted views when standing at the top of the slope. ⁵⁶ The increased use of Ha-has in closed institutions represented a conceptual shift in the late 19th century from confinement to therapeutic treatment of mental illness which involved the use of the

⁵³ Conybeare Morrison International, 2008, *University of Western Sydney Parramatta Campus Rydalmere Heritage Asset Management Strategy*, p31

⁵⁴ AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Eastern Study Area Historical Archaeological Assessment, Impact Assessment and Research Design. Prepared for Western Sydney University

⁵⁵ Ibid

⁵⁶ Ibid

environment such as gardens, fresh air and scenery as a form of therapy.⁵⁷ For the full analysis, see Appendix A

5.2.5. WSU Western Temporary Car Park (2024)

AMBS Ecology & Heritage prepared a Historical Archaeological Assessment, Impact Assessment and Research Design for the proposed temporary western car park that is part of the amended study area. AMBS's assessment of the proposed western temporary car park concludes that:

If archaeological remains are present within the western car park boundary, they would most likely be either agricultural in nature and insubstantial, structural remains of the cricket pavilion which may not meet the threshold for significance, or be fills containing artefactual material out of its original archaeological context. There is considered to be nil-low potential for the archaeological resource to have survived in this part of the study area; any surviving remains would have nil-low research potential and are unlikely to meet the threshold for significance.⁵⁸

5.2.6. Summary of findings in relation to the study area

Previous assessments inclusive of the study area have identified the following findings of relevance to archaeological potential:

- The location of the study area is likely to have low to moderate potential for locally significant archaeological relics, with potentially disturbed and/or ephemeral remains.
- There is some potential, albeit low, for undocumented State significant relics associated with the nearby Orphan School precinct.

5.3. Historical Overlays

An assessment of the historical context and identified occupation and building phases of the study area, as well as a detailed examination of historical maps, plans and aerials can aid in the preparation of an archaeological predictive model for an area. Table 5-4 below outlines any relevant features shown on historic plans and aerials, as shown in Section 3.

Table 5-4: Historical Overlays

Source	Year	Notes
Surveyor's Plan Figure 3-7	1893	The 1893 surveyors plan shows significant detail including contours, watercourses and site features associated with the Rydalmere school. The study area is situated just outside the boundary of the map.
Plan of northern end of Hospital Grounds Figure 3-8 Figure 3-9	1897-1924	These plans show the northern end of the hospital grounds. They indicate an excavation ditch running E-W through the ICoE footprint that was possibly then infilled for the development of a drainage ditch, pond, culvert and fence line. The eastern car park appears to be in use for animal grazing/paddocks, and the western car park is within the bounds of the cricket oval.

⁵⁷ AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Eastern Study Area Historical Archaeological Assessment, Impact Assessment and Research Design. Prepared for Western Sydney University

⁵⁸ AMBS Ecology & Heritage, 2024, Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Western Study Area Historical Archaeological Assessment, Impact Assessment and Research Design. Prepared for Western Sydney University

Source	Year	Notes
Aerial photograph Figure 3-15Error! R eference source not found.	1943	The 1943 aerial shows increased development across the school campus surrounding the study area, with several buildings constructed along the western boundary. The ICoE footprint has been largely cleared by this time, with a tennis court situated in the north-western corner, a road running north-to south through the centre. The drainage line running east-west across the bottom of the site is visible at this time. Some mature trees dot the area. The eastern car park contains the ha-ha wall and ditch, and three shelter sheds, as well as a row of semi-mature trees. The western car park sits close to the boundary of the cricket pavilion.
Aerial photograph Figure 3-16	1950	There have been further minor changes to the study area by 1950. These include the enlargement of the tennis court and the creation of a large, fenced area in the north-eastern corner. A small rectangular structure is situated to the west of the road. The drainage line appears to have been partially filled in by this time. Two of the sheds in the eastern car park have been demolished. No changes are present in the western car park.
Aerial photograph Figure 3-18	1960	By 1960, the study area had been further cleared and the drainage line fully infilled. The tennis court had been extended by this time and the surrounding area appears more landscaped. No further changes are noticeable within the eastern and western car park locations.
Aerial photograph Figure 3-19	1970	Little had changed in the study area by 1970, but the surrounding roads had been constructed or formalised, including the Fifth Street overbridge outside the western boundary of the study area.
Aerial photograph Figure 3-20	1986	By the mid-1980s, new additions included shade structures along the northern and southern sides of the tennis courts, the use of the area to the south of the courts for parking and an informal driveway between the southern boundary and the tennis courts. The cricket pavilion has been demolished near the western car park. The line of trees within the eastern car park have been removed.
Aerial photograph Figure 3-21	1997	By 1997, the form of the study area resembled that of its current makeup. The majority of the site was comprised of an asphalted carpark, with a small structure to the west (Co-Generation Plant Building) and the extant melaleuca tree in the centre.
Aerial photograph Figure 3-24	2005	By 2005, the ICoE footprint is in much the same formation as it exists today. As is the car park locations.
Aerial photograph Figure 3-25	2009	Instalment of a temporary car park within the bounds of the ricket oval and proposed new western car park.
Aerial photograph Figure 3-27	2013	Reinstatement of the grass on the cricket oval and fifth street alignment has changed.
Aerial photograph Figure 3-29	2022	Study area resembles what is it today. Cricket oval has been re-turfed, and fencing installed.

5.4. Known Impacts

As noted in the history and mapping of the study area, the ground surface of the area has been subject to general minimal deep ground disturbances throughout its historical use, with areas of localised higher impact. The site is located in an area that has been subject to landscape impacts associated with farming activities, which serve both as archaeological evidence associated with the

early farming use of land, and also may have lightly impacted undocumented historical archaeological activities.

Key site uses that may have impacted, removed or truncated archaeological deposits include:

- Ploughing and cultivation of fields
- Formalisation and infill of drainage line
- Ground levelling for construction of tennis courts and carpark
- Construction of plant building
- Excavation for services

Overall, the past disturbances within the study area may have had an impact on the extent, intactness and survivability of archaeological resources, although the site still retains potential for deeper resources and/or truncated archaeological remains below the known historical disturbances.

5.5. Summary of Historical Land Use

As illustrated in the historical context and mapped historical overlays, the study area has been subject to seven primary post-1788 land use phases, as presented in Table 5-5. Potential archaeological evidence of these post-1788 land use development and activities are also summarised in the table.

Table 5-5: Summary of development in the study area and associated potential archaeological resources.

Occupation Phase	Land Use & Development	Potential Archaeological Resources
Phase 1 Arndell's Farm	Unknown exact uses. Presumed farming and land clearing activities, including possible vegetation clearance for grazing	Ephemeral evidence of informal land use such as clearing of vegetation (tree boles), landscape modification, fence lines, postholes, pathways, informal drainage systems, development and animal grazing.
1791 to 1810	and informal development on the outskirts of the primary Sydney settlement.	Potential for ancillary informal structures associated with Arndell's Farn not captured on historic plans. May include brick or stone footings, brick or stone cesspits, yard surfaces comprising of compacted earth, stone or brick flagging or paving, discreet refuse pits, or postholes associated with fencing, sheds or informal structures.
Phase 2	Used for orchards and	Ephemeral evidence of informal land use such as
Female Orphan School	vegetable garden.	clearing of vegetation (tree boles), landscape modification, informal development, field cultivation/ploughing, drainage (drains, ditches etc), fences and boundaries and pathways.
1810 to 1850		Archaeological artefact deposits and/or refuse pits associated with the use of the study area and surrounds.
		Some potential for unrecorded structures such as a gardener's and superintendent's hut and accommodation for male and female convicts.

Occupation Phase	Land Use & Development	Potential Archaeological Resources
Phase 3	Used for orchards and	Ephemeral evidence of informal land use such as
Protestant Orphan School	vegetable garden.	clearing of vegetation (tree boles), landscape modification, informal development, field
1850 to 1887		cultivation/ploughing, drainage (drains, ditches etc), fences and boundaries and pathways.
		Archaeological evidence of construction/formalisation of the drainage line that runs E-W across the study area.
		Archaeological artefact deposits and/or refuse pits associated with the use of the study area and surrounds.
		Some potential for unrecorded structures such as a gardener's and superintendent's hut and ancillary structures.
Phase 4	Formalisation of drainage	Archaeological resources may include earthworks
Rydalmere Hospital for the Insane	line/creek. Possible infill of drainage line and construction	including formalisation of the drainage line/creek that ran E-W through the centre of the study area.
Tor the mount	of pond.	Archaeological evidence may also include the infilling of
1888 to 1945	Significant landscaping at this time.	the drainage line and construction of a pond in the south-western corner of the study area, as well as a culvert leading into the pond.
		Archaeological artefact deposits and/or refuse pits associated with the use of the study area and surrounds.
		Ephemeral evidence of informal land use such as clearing of vegetation (tree boles), landscape modification, planting of crops, informal development, drainage (drains, ditches etc), fences and boundaries and pathways.

Occupation Phase	Land Use & Development	Potential Archaeological Resources
Phase 4 Rydalmere Psychiatric Hospital	Formalisation of drainage line/creek. Possible infill of drainage line and construction	Archaeological resources may include earthworks including formalisation of the drainage line/creek that ran E-W through the centre of the study area.
1888 to 1989	of pond. Significant landscaping at this time. Recreational use, construction	Archaeological evidence may also include the infilling the drainage line and construction of a pond in the south-western corner of the study area, as well as a culvert leading into the pond.
	of tennis courts, playing fields and bowling green.	Archaeological artefact deposits and/or refuse pits associated with the use of the study area and surrounds.
	Partial infill of the drainage line and later construction of underground stormwater services.	Ephemeral evidence of informal land use such as clearing of vegetation (tree boles), landscape modification, planting of crops, informal development
	Construction of small building (possible shed) in northern half of study area.	drainage (drains, ditches etc), fences and boundaries and pathways. Archaeological evidence of recreational use of the studarea through construction and use of tennis courts, bowling green and playing field.
	Construction of Ha-Ha wall, shelter sheds and pathways	
		Archaeological artefact deposits and/or refuse pits associated with the use of the study area and surrounds.
		Archaeological evidence may also include the infilling the drainage line and construction of stormwater services.
		Archaeological evidence of structural remains associated with the hospital (ha-ha wall/ditch, sheds, pathways etc.)
Phase 5	Site unoccupied.	Archaeological evidence of site dereliction including rubbish accumulations, building demolition and/or disrepair.
Site unoccupied		
1989 to 1993		
Phase 6	Carpark and plant building	Archaeological evidence of construction of carpark an plant building, including ground levelling and preparation, excavation for services, retaining and landscaping.
Western Sydney University	Road realignment and minor modifications.	
1993 to current		

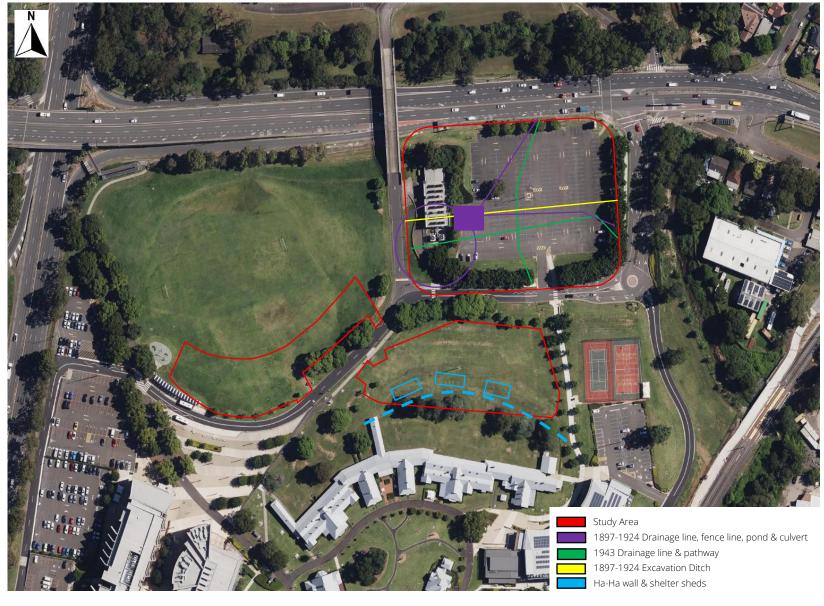


Figure 5-1: Compilation overlay showing phased developments within the study area based on archived maps. purple represents drainage line, fence line, pond and culvert as shown on a late 19th/early 20th Century plan. Source: Curio 2025

5.6. Archaeological Potential

5.6.1. Assessment of Archaeological Potential

Table 5-6 presents an assessment of archaeological potential, guided by previous investigations, known occupation and impacts in the study area.

Table 5-6: Archaeological Potential

Occupation Phase	Period	Assessment of Archaeological Potential
Phase 1 Arndell's Farm	1791 to 1810	Based on known land use and development, there is low potential for archaeological evidence of Phase 1 occupation to survive in the study area. Archaeological resources associated with this period would be highly ephemeral and fragile, for example tree boles associated with land clearing and are unlikely to have survived later development activities.
Phase 2 Female Orphan School	1810 to 1850	Based on known land use and development, there is low potential for archaeological evidence of Phase 2 occupation to survive in the study area. Archaeological resources associated with this period would likely be highly ephemeral and fragile, for example tree boles associated with land clearing, evidence of land cultivation, postholes, fence lines and informal drainage networks. There is a low potential for evidence of unrecorded structures and associated material culture from this phase.
		Overall, given it's likely fragile nature, archaeological evidence associated with Phase 2 is likely to have been disturbed and/or removed by modern land use and construction within the study area.
Phase 3 Protestant Orphan School	1850 to 1887	Based on known land use and development, there is low to moderate potential for archaeological evidence of Phase 3 occupation to survive in the study area, primarily, evidence of the formalisation of the drainage line that runs E-W across the study area, pathways, fence lines and other associated farming activities.
		Generally, archaeological resources associated with this period would be highly ephemeral and fragile, similar to the features noted in Phase 1 and Phase 2. There is a low potential for evidence of unrecorded structures and associated material culture from this phase.
		Overall, given it's likely fragile nature archaeological evidence associated with Phase 3 is likely to have been disturbed by modern land use and construction within the study area but has the potential to remain truncated below historical disturbance levels.

Occupation Phase	Period	Assessment of Archaeological Potential
Phase 4	1888 to 1989	Based on known land use and development, there is a low to
Rydalmere Psychiatric Hospital		moderate potential for archaeological evidence of Phase 4 use (in particular infill of the pond and drainage line and construction of recreational features) to survive within the study area below levels of modern disturbance.
		There is very low to low potential for the survival of the ha-ha wall to be present within the eastern car park.
Phase 5	1989 to 1993	Based on known land use and development, there is a low
Site unoccupied		potential for archaeological evidence of Phase 5 use to survive within the study area.
Phase 6	1993 to current	Phase 6 buildings and features are still present and in use within
Western Sydney University		the study area.

5.7. Assessment of Archaeological Significance

The following assessment of archaeological significance is based on known occupation and development in the study area.

Table 5-7: Consideration of Questions of Research Potential after Bickford and Sillivan 1984

Research Potential	Assessment	
Can the site contribute knowledge that no other resource can?	The study area has the potential to contribute unique historic archaeological information, which can complement previous archaeological work in the Parramatta area. The study area will contribute archaeological information that may be compared and contrasted to these sites already investigated. This information has the potential to contribute towards answering questions about the initial establishment and development of agriculture in the colony.	
Can the site contribute knowledge which no other site can?		
	If archaeological remains associated with the school and hospital phases of the study area survive in intact archaeological contexts within the study area, they would be considered to provide information that may illustrate or contribute knowledge associated with the historic themes of religion, social institution, sport, education and health.	
Is this knowledge relevant to general questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?	The potential archaeological information gathered from the study area may be able to demonstrate address general research questions relating to occupation patterns, agricultural pursuits, medical treatment and schooling, expressed through the material culture, typical of the early nineteenth to early twentieth century colony, but also unique to the study area, with potential to supplement the existing knowledge of the Parramatta area and provide new insight into the past.	

Research Potential	Assessment
	Comprehensive research questions would be developed in preparation of a research design, however such research questions may include:
	*Is there any evidence of early farming practices or occupation within the study area?
	*Is there evidence of land modification of the study area beyond that of the formalisation of the drainage line?
	*What is the manner of formalisation or construction of the drainage line and pond?
	*Is the formalisation of drainage within the study area representative of other known land modification in the Parramatta area?
	*Is there evidence that the formalisation of the drainage line and construction of the pond was for aesthetic, as well as practical drainage purposes?
	*Does the material culture at the site specifically reflect any relevant historical themes?
	*Does evidence of material culture, artefacts or archaeological contexts show association with a particular group or behaviour within the study area?

Table 5-8: Assessment of Archaeological Significance

Occupation Phase	Period	Assessment of Archaeological Significance	
Phase 1 Arndell's Farm	1791 to 1810	In the unlikely event that potential archaeological resources associated with the Phase 1 were encountered in the study area, they may meet the threshold for local or State significance under NSW Heritage Criteria A, B and D. Potential archaeological resources would be highly ephemeral in nature and represent ubiquitous land use activities such as vegetation clearing and the erection of fences.	
		Potential Phase 1 archaeological resources may reach the threshold for local or State significance.	
Phase 2	1810 to 1850	In the unlikely event that potential archaeological resources associated with the Phase 2 were encountered in the study area,	
Female Orphan School		they may meet the threshold for local or State significance under NSW Heritage Criteria A, B and D.	
		Potential archaeological resources would be highly ephemeral in nature and represent ubiquitous land use activities such as vegetation clearing and the erection of fences.	
		Potential Phase 2 archaeological resources may reach the threshold for local or State significance.	

Occupation Phase	Period	Assessment of Archaeological Significance	
Phase 3 Protestant Orphan	1850 to 1887	Archaeological resources associated with Phase 3 may meet the threshold for local significance under NSW Heritage Criteria A, B	
School		and D.	
		Potential archaeological resources may be highly ephemeral in nature and represent ubiquitous land use activities such as vegetation clearing and the erection of fences or may be distinct features of high integrity such as culverts and formalised drainage.	
		Potential Phase 3 archaeological resources may reach the threshold for local significance.	
Phase 4	1888 to 1985	Potential archaeological resources associated with Phase 5 may meet the threshold for local significance under NSW Heritage Criteria A, B and D.	
Rydalmere Psychiatric Hospital			
		Potential archaeological resources may be in the form of infill of the drainage line and pond, use of the site for recreational purposes and associated material culture.	
		Potential Phase 4 archaeological resources may reach the threshold for local significance.	
Phase 5	1989 to 1993	Potential Phase 5 evidence of site use/activity would not meet	
Site unoccupied		e threshold for local or State significance.	
Phase 6	1993 to current	Phase 6 buildings and features are still present and in use within	
Western Sydney University		the study area and are not considered in this assessment of significance.	
,		Potential Phase 6 evidence of site use/activity would not meet the threshold for local or State significance.	

5.7.1. Summary of Archaeological Potential and Significance in the Study Area

Table 5-9 summarises the non-Aboriginal potential and significance of the study area as assessed in this document.

Table 5-9: Summary of Archaeological Potential and Significance

Occupation Phase	Period	Archaeological Potential	Archaeological Significance
Phase 1 Arndell's Farm	1791 to 1810	Low	Potential Phase 1 archaeological resources may reach the threshold for local or State significance.
Phase 2	1810 to	Low	Potential Phase 2 archaeological resources may reach the threshold for local or State significance.
Female Orphan School	1850		

Occupation Phase	Period	Archaeological Potential	Archaeological Significance
Phase 3	1850 to	Low to Moderate	Potential Phase 3 archaeological resources may reach the threshold for local significance.
Protestant Orphan School	1887		
Phase 4	1888 to 1989	Very Low to Moderate	Potential Phase 4 archaeological resources may reach the threshold for local significance.
Rydalmere Psychiatric Hospital			
Phase 5	1989 to 1993	N/A	N/A
Site unoccupied			
Phase 6	1993 to current	N/A	N/A
Western Sydney University			

5.8. Statement of Archaeological Research Significance

The study area retains the potential to contribute unique historic archaeological information should it be present, which can complement previous archaeological work in Parramatta. The study area may contribute archaeological information that may be compared and contrasted to these sites already investigated.

The potential archaeological information gathered from the study area may be able to demonstrate practices relating to occupation patterns, agricultural pursuits, medical treatment and schooling, expressed through the material culture, typical of the early nineteenth to early twentieth century colony, but also unique to the study area, with potential to supplement the existing knowledge of the Parramatta area and provide new insight into the past.

6. Proposed Works



6. Proposed Works

6.1. Proposed Development

The Applicant seeks development consent for the construction of a new state-of-the-art Indigenous Centre of Excellence as a new tertiary education facility on campus. The Indigenous Centre of Excellence project is funded by the NSW Government's Western Sydney Infrastructure Grants Program in association with Western Sydney University. The new Indigenous Centre of Excellence will be an important asset for both the University and local community alike, providing a space for the commitment to advancing Indigenous education, leadership, and reconciliation. Through the ICoE, the University will aim to drive positive change, increase Indigenous participation in higher education, and contribute to the preservation and sharing of Indigenous cultures.

This SSDA specifically seeks detailed approval for the following works:

- Site preparation including demolition of the existing car park, tree removal and installation of inground utility infrastructure services.
- Construction of a four-storey Indigenous Centre of Excellence encompassing the following facilities:
 - o Outdoor amphitheatre,
 - o Cinema and lecture theatre,
 - o Artist studios and gallery exhibition space.
 - o Teaching workspaces and general study areas,
 - o Library and other educational research spaces,
 - o Multi-functional recreational sports court, with ancillary amenities, and
 - o Astronomy garden.
- Construction of hardstand paving and line marking to accommodate new parking areas, including:
 - o 13 spaces on the existing P1 car park site, adjacent to the new dedicated arrival zone to the proposed ICoE,
 - o 107 spaces proposed in new western car park to the west of Bridge Street, adjacent to the existing oval, and
 - o 181 spaces proposed in new eastern car park on the southern side of Fifth Street, adjacent to the new ICoE.
- Landscaping works to provide outdoor educational and recreational spaces.

6.1.1. Site Decommissioning, Demolition and Site Remediation

Site preparation works are proposed in order to facilitate preparation of the site for the proposed built form. This includes demolition, tree removal and remediation.

The demolition, decommission and remediation processes will occur in, or in the vicinity of areas of archaeological potential, and may therefore have physical impacts upon subsurface areas of the site with the potential to disturb or remove archaeological features and deposits.

6.1.2. Bulk Earthworks

Associated bulk earthworks for the ICoE project will include excavation of up to 2m for foundations, as well as general ground leveling and re-grading works across the whole site (Figure 6-3).

Earthworks associated with the temporary car parks will result in cutting and filling between 0.5m and 1.5m, particularly in the central and southern parts of the new car park and in zones requiring levelling for paving and drainage infrastructure (Figure 6-4).

6.1.3. Services

ICoE Redevelopment

The Central Energy Plant to the west of the site is a critical piece of infrastructure that must remain fully operational during the construction and operation of the new development. As such, the plant building will be retained and untouched as part of the project.

Two on-site detention (OSD) tanks will be provided below ground with a volume of 415m³. The OSD tanks will be located to the north-western corner of the ICoE site, outside of the main building footprint, and under the theatre space. The footprint of the tanks will be determined at detailed design stage.

Western and Eastern Car Parks

Stormwater Drainage:

- Extensive new stormwater lines (\$\phi\$225 mm, \$\phi\$300 mm, \$\phi\$375 mm) are proposed, running primarily in a north-south and east-west orientation, linking new pits.
- These are concentrated in the eastern and southern sectors of the car park area, feeding into existing council stormwater systems.

Pits and Structures:

• Stormwater pits will be installed at several key drainage nodes, with depths based on pit base levels shown at or around 2m depth.

Other Services:

 Plans include mentions of sewer inspection points, electrical light poles, CCTV poles, water taps, and telco pits distributed throughout the site. These are generally placed along the perimeter and access paths of the proposed car parks.

Trenching for lighting, ticketing machines, and wayfinding signage.

Wetland areas

6.1.4. Landscaping

Landscaping works across the site will include:

- Earthworks for landscaping.
- Removal of some existing trees.
- New landscaping and paving works.
- Retention of the melaleuca tree
- Installation of a wetlands environment to tie in with Vineyard Creek

6.2. Summary of Gound Disturbing Works

Table 6-1: Summary of Works

Activity	Estimated Depth	Location
Bulk earthworks (cut/fill)	0.3 – 1.5 m	Across all development zones
Stormwater trenching	1.0 – 2.0 m	ICoE and car parks
Services (electrical, sewer, etc.)	0.5 – 1.5 m	Throughout site
Car park pavement prep	0.3 – 0.6 m	Western and Eastern car parks
Foundation excavation	1.0 – 1.5+ m	ICoE building footprint
Landscaping and tree planting	Up to 0.5 m	All landscaped areas



Figure 6-1: General Survey and Services Plan. Source: TTW 2025

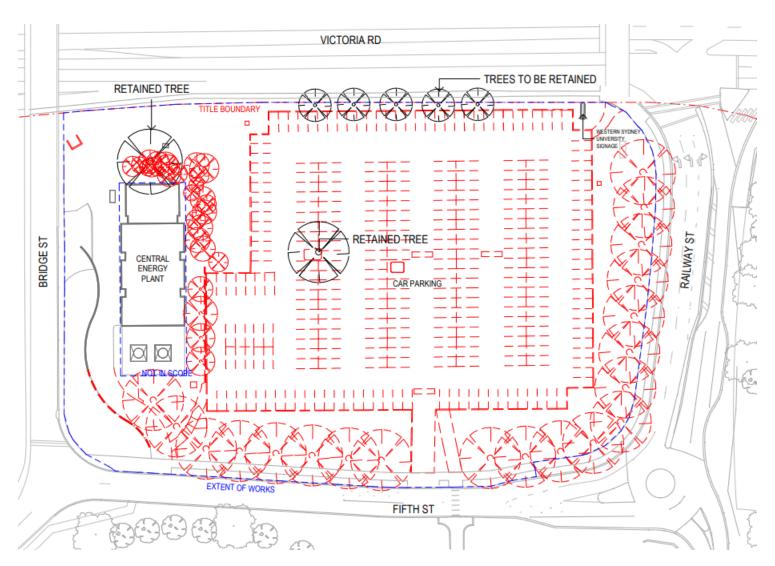


Figure 6-2: Demolition Plan. Source: Jackson Clements Burrows Architecture 2024

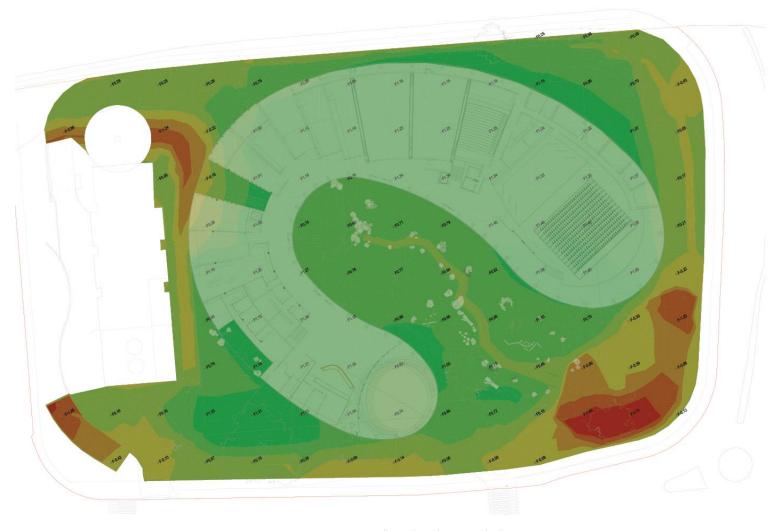


Figure 6-3: Bulk Earthworks Cut and Fill Estimates. Source: TTW 2024

	LEVELS TABLE			
No.	FROM LEVEL (m)	TO LEVEL (m)	COLOUR	
1	-2,00	-1,50		
2	-1.50	-1.00		
3	-1.00	-0.50		
4	-0,50	0.00		
5	00,0	0,50		
6	0.50	1.00		
7	1,00	1.50		
8	1,50	2.00		

× FX.XX DENOTES CUT AND FILL DEPTH FROM THE NATURAL SURFACE TO THE DESIGN FINISHED SURFACE.

CUT AND FILL ESTIMATES
CUT 960 m³
FILL 8020 m³

- FILL 600 m²

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Figure 6-4: Bulk Earthworks Cut and Fill Estimates. Source: TTW 2025.

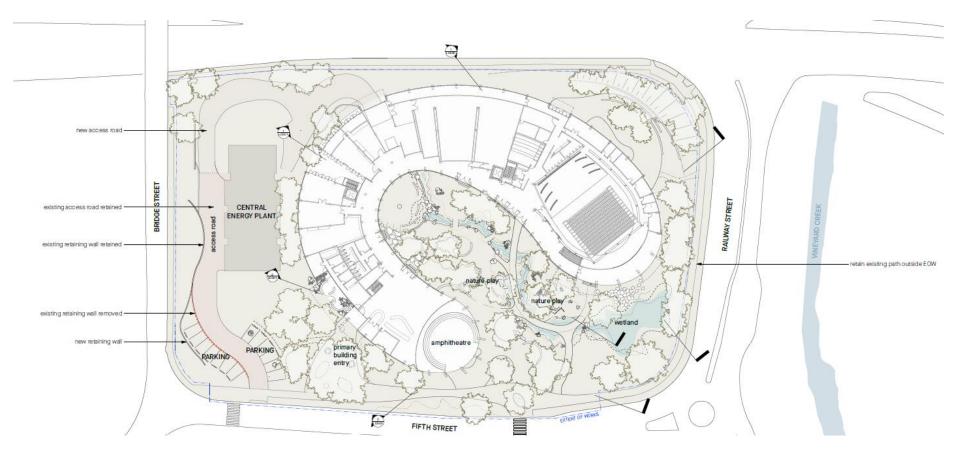


Figure 6-5: Overall Landscape Plan. Source: Jane Irwin Landscape Architecture 2024

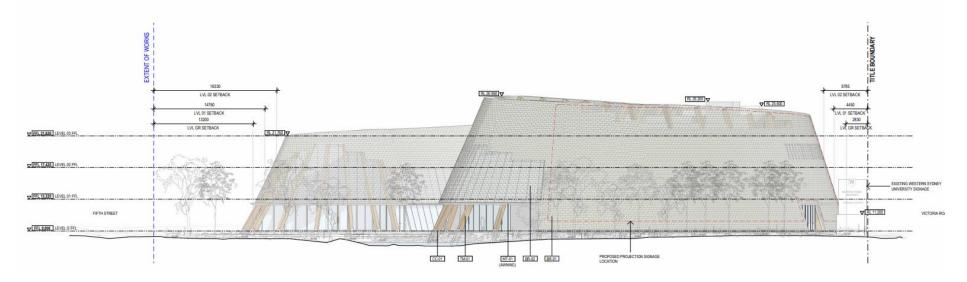


Figure 6-6: East Elevations. Source: Jackson Clements Burrows Architects 2024

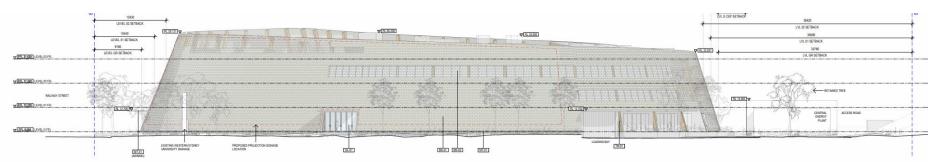


Figure 6-7: North Elevations. Source: Jakson Clements Burrows Architects 2024

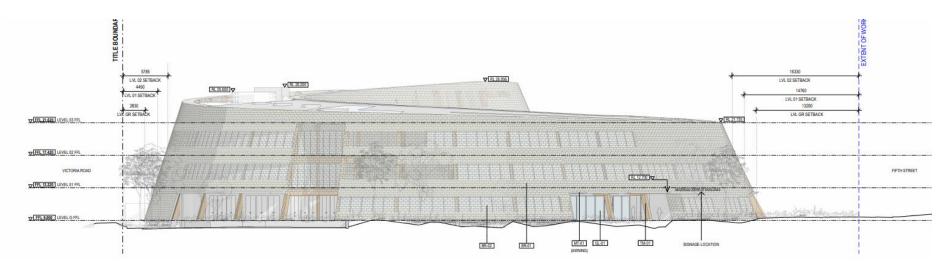


Figure 6-8: West Elevations. Source: Jakson Clements Burrows Architects 2024

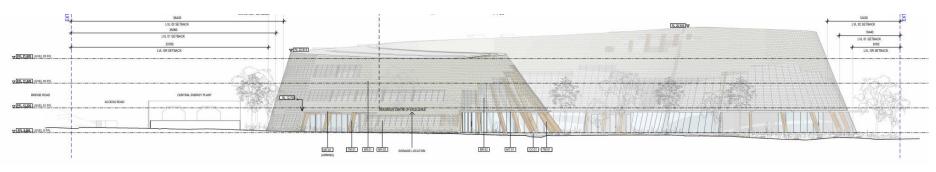


Figure 6-9: South Elevations. Source: Jakson Clements Burrows Architects 2024

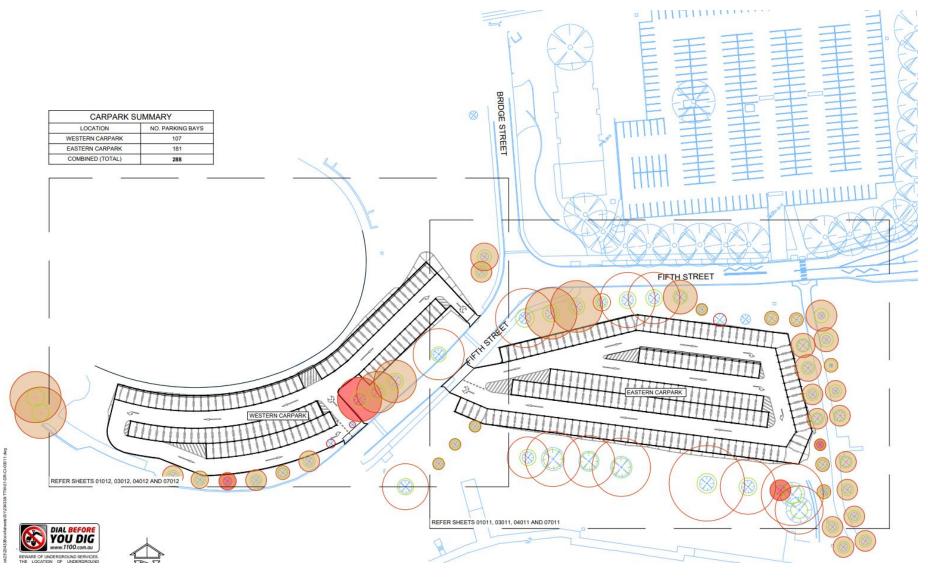


Figure 6-10: General Car Park Arrangement Plan. Source: TTW 2025

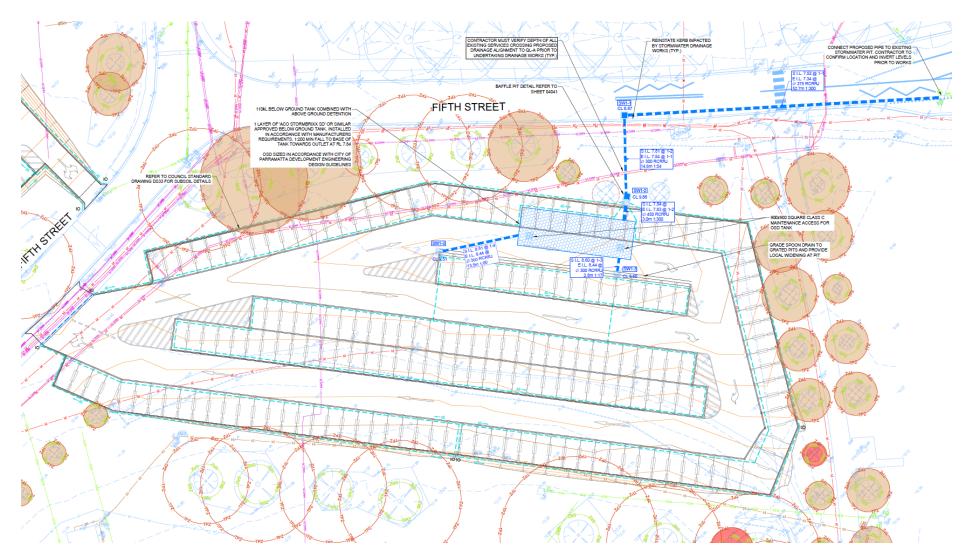


Figure 6.11: Stormwater and Drainage Plan for Eastern Car Park Source: TTW 2025

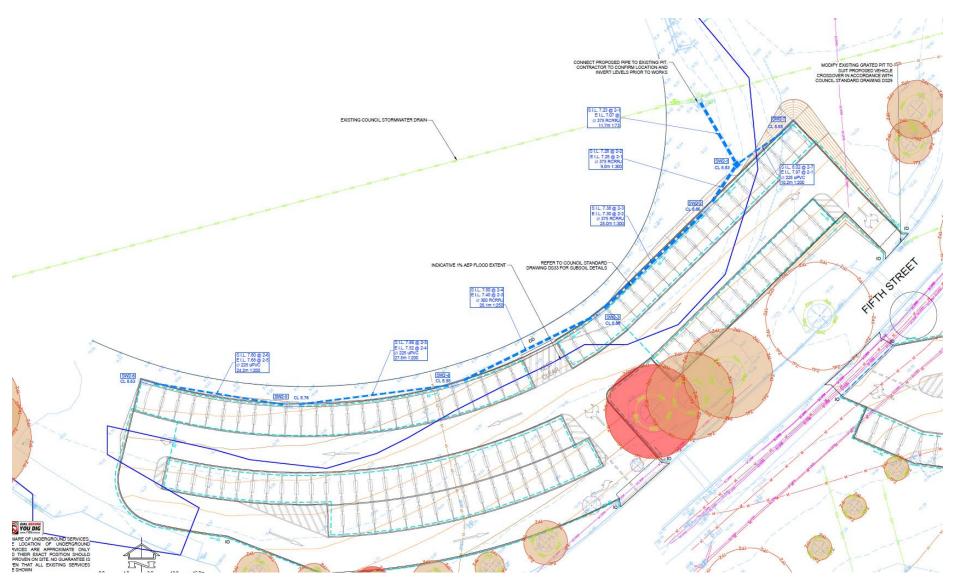


Figure 6.12: Stormwater and Drainage Plan for Western Car Park Source: TTW 2025

7. Archaeological Impact Assessment



7. Archaeological Impact Assessment

7.1. Historical Archaeological Impact Assessment

The following sections assess the potential impact of the proposed works against relevant considerations and policies.

7.1.1. Conservation Management Plan Policies

The potential of the proposed works to impact an archaeological resource is assessed below in consideration of the relevant policies of the CMP for the campus (Table 7-1).

Table 7-1: Relevant CMP Policies from Conybeare Morrison 2008

CMP Polices ⁵⁹	Detail	Discussion
2.17	Heritage Council policy required sites of State significance to be retained in situ. Therefore, impacts should be designed as much as possible to avoid disturbing significant archaeological remains.	As identified in this assessment, the potential for State significant archaeological remains is considered to be generally low due to limited historical development within the study area. Where archaeological remains are considered
		likely to be present, these have been assessed to be likely to meet threshold of local heritage significance. Accordingly, the proposed works are considered unlikely to impact State significant archaeological remains.
2.19	A s60 approval from the NSW Heritage Council should be obtained before the commencement of site works that might disturb areas of parts of building fabric within the Orphan School precinct or buildings associated with the orphanage period. The application will need to include an archaeological research design and identify appropriate methodology to record any archaeological remains.	The study area which includes the proposed location of the ICoE and the temporary eastern and western carparks are situated outside of the identified Orphan School Precinct, and within areas that has assessed low potential to contain ephemeral remains associated with this phase of historic use.
2.20	The works should be monitored by the archaeologist, especially where the works include disturbance of the ground levels under or around the original Orphan School buildings, particularly those buildings not yet refurbished. Localised stop work provisions may be necessary.	As above, the study area which includes the proposed location of the ICoE and the temporary eastern and western carparks is situated outside of the identified Orphan School Precinct, and within an area that has assessed low to moderate potential to contain ephemeral remains associated with this phase of historic use.
		Archaeological monitoring and localised testing is recommended for the study area.

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⁵⁹ Conybeare Morrison, 2008a, p52

CMP Polices ⁵⁹	Detail	Discussion	
2.21	Any excavation proposed within the State Heritage Register curtilage will require prior approval under section 57 (1) of the Heritage Act 1977, depending on the archaeological	This assessment has found a low potential for State significant archaeological relics, and a generally low to moderate potential for locally significant resources.	
	potential of the subject site and heritage significance. The site works associated with the new buildings situated within the 'Surrounding Farmland" areas should be subject to the following: *Works associated with new building SB12 and SB13 will impact on agricultural areas associated with the Orphan School. These areas should be subject to a sampling methodology which allows for the layout for the vineyards and orchards to be recorded. This would involve test trenching, particularly for SB12 and 13, to reveal evidence of	The study area, including the proposed site of the ICoE and the two temporary east and west carparks is situated around previously proposed buildings 1 and 2 which as per the CMP, does not require archaeological monitoring unless unexpected finds are identified. However, Curio recommend that a monitoring and sampling methodology be implemented to attempt to identify early farming practices and early use of the site. Additionally, specifically pertaining to the proposed temporary eastern car park location in the study area, is the determining whether there are any surviving remains of the upper courses of the former ha-ha relating to the Rydalmere Psychiatric Hospital. It is recommended that any ground disturbing works, including the installation of four light posts in the vicinity of the ha-ha structure in this area be monitored. Further, Curio recommend that archaeological test	
	plantings, fencing, drainage etc. Soil samples should be taken for pollen analysis and other soil properties. *works associated with other new buildings SB1 to 9 do not appears to impact on known archaeological remains and therefore do not require monitoring unless possible		
		excavation to any ground disturbing works in the area of the culvert, where the drainage line and pond meet.	
		As the works are being assessed under an SSDA, a s60 is not required (following SSDA approval), however an Archaeological Research Design and Excavation Methodology should be prepared and submitted to Heritage NSW for approval to guide the works.	
2.22	Results of archaeological recording must be submitted in a written report to the Heritage Office. Standard conditions require the cataloguing of all artefacts recovered during the archaeological program and their long-term storage, a response to the identified research questions and an archival photographic record. As archaeological discovery and monitoring will involve time and money, it is essential for	Results of any archaeological work undertaken within the study area would be documented and submitted to Heritage NSW. Any material culture would be collected, analysed and archived appropriately.	
	will involve time and money, it is essential for the University to allow for contingency in terms of budgets and construction programming.		
2.24	If the archaeological remains associated with Aboriginal occupation of the area are discovered then the National Parks and Wildlife Service will need to be informed.	The potential Aboriginal archaeological resources and cultural value of the study area is assessed in Curio Projects, 2024, <i>Indigenous Centre of Excellence, Aboriginal Cultural Heritage Assessment Report</i> (ACHAR).	

7.1.2. Statement of Heritage Impact Questions

The potential of the proposed works to impact an archaeological resource is assessed below in consideration of the relevant questions from the Heritage Division's (now Heritage NSW, DPC) *Guidelines for Statements of Heritage Impact* (2023) (Table 7-2).

Table 7-2: Statement of Heritage Impact Questions

Heritage consideration	Discussion
Is the addition sited on any known, or	Yes.
potentially significant archaeological deposits?	The study area has been assessed to have a low potential to contain significant archaeological resources associated with the earliest phases of its use, including as part of Andell's Farm and the Female Orphan School (Phases 1-2).
	The study area has been found to have a low to moderate potential to contain archaeological deposits associated with later phases of use, namely, the Protestant Orphan School and Rydalmere Psychiatric Hospital (Phases 3 and 4). There is also low-to moderate potential for surviving structural remains of the ha-ha relating to the Rydalmere Psychiatric Hospital to be intact.
	Archaeological resources associated with these phases have the potential to be preserved below historical disturbance, in particular, the formalised drainage line, culvert and pond in the centre of the study area.
	Overall, the subsurface disturbance within the study area is considered to be low, with potential for surviving archaeological remains below localised levels of impact.

8. Conclusions and Recommendations



8. Conclusions and Recommendations

8.1. Conclusions

Overall, the subsurface disturbance within the study area is considered to be low, with potential for surviving archaeological remains below localised levels of impact.

In summary, the study area has been assessed to have a low potential to contain significant archaeological resources associated with the earliest phases of its use, including as part of Andell's Farm and the Female Orphan School (Phases 1-2).

The study area has been found to have a very low to moderate potential to contain archaeological deposits associated with later phases of use, namely, the Protestant Orphan School and Rydalmere Psychiatric Hospital (Phases 3 and 4). Archaeological resources associated with these phases have the potential to be preserved below historical disturbance, in particular, the formalised drainage line, the ha-ha wall, culvert and pond in the centre of the study area.

The significance of archaeological resources likely to be found, if found, ranges from local to State level as detailed in the report. As a result, there is a recommendation for further archaeological consideration and investigation as outlined in Section 8.2 Recommendations.

8.2. Recommendations

In accordance with the above conclusions, the following recommendations are made:

Recommendation 1: Test Excavation

A program of archaeological test excavation in accordance with the prepared methodology outlined in Appendix A: Archaeological Research Design & Excavation Methodology should be conducted in the area of identified archaeological sensitivity across the study area, in particular within the ICoE development footprint.

Should excavation be proposed to be completed prior to SSDA approval, a Section 60 Excavation Permit would be required.

Recommendation 2: Archaeological Monitoring

All ground disturbing works should be subject to archaeological monitoring to identify any ephemeral archaeological features that may be impacted during works.

Any ground disturbing works specifically pertaining to the proposed temporary eastern car park should be subject to archaeological monitoring to identify the extent of any surviving structural remains of the ha-ha relating to the Rydalmere Psychiatric Hospital.

Recommendation 3: Unexpected Finds Procedure

An Unexpected Finds Procedure should be developed and implemented for all other works within the study area. This procedure is outlined in Appendix A: Archaeological Research Design & Excavation Methodology.

Recommendation 4: Additional Works

Any additional subsurface impacts not presented in Section 6 of this document may need to be assessed in an addendum to this report.

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Appendix A: Archaeological Research Design & Excavation Methodology



Appendix A: Archaeological Research Design & Excavation Methodology

General

An Archaeological Research Design identifies and establishes the rationale, context, questions and methodology for the archaeological investigation of a site. The rationale is established through the assessment process (i.e., the 2025 HAA) which identifies the past occupation of the study area and the heritage values and research potential of the likely archaeological resource. The questions focus on recovering the values or 'unknown' information or gaps in information about the past that may be recoverable, and which may be lost if the archaeological resource is disturbed or destroyed. In turn, research questions focus the development of excavation and recording methods to recover the information or values of the study area.

To mitigate impacts to the potential historical archaeological resources within study area the following archaeological works are proposed:

- Targeted historical archaeological test trenching.
- Possible salvage excavation based on the results of testing.
- General project archaeological monitoring.
- An Unexpected Finds Procedure.

In addition, an archaeological work should be guided by research questions which place the work within an established research framework. The research questions which will guide any archaeological work are also included here.

Heritage Induction

Prior to any work commencing on site the Excavation Director (ED), with assistance from Curio Projects personnel, and the Site Contractor, will prepare a heritage induction document/presentation that will be presented to all relevant on-site personnel. A heritage induction will be approved and presented by the nominated ED. The induction would include information to clarify the heritage significance of the site's potential archaeological resource including:

- The nature of archaeological resources.
- An outline of the archaeological process on site and introduction of the relevant personnel.
- Explanation of the Unexpected Finds Procedure.
- Plan showing the location of potential archaeological features.
- Images to assist understanding for on-site personnel of the types of archaeological features that may be present.
- Repercussions of any breaches to the approved archaeological strategy.

Excavation Methodology

Nominated Team

Archaeological investigation works would be directed by Ian Stuart, who would be nominated as the Primary Excavation Director and Rebecca Agius, who would be the Secondary Excavation Director. Ian has worked extensively within the Sydney metropolitan area and is approved by the NSW Heritage Division to direct excavations of local and State Heritage listed sites and places.

The remaining team would comprise assistant archaeologists and a site planner, who would be drawn from Curio's pool of permanent staff and sub-consultants. On-site planning would be carried out by an experienced archaeologist, who would also be responsible for the collation of site

drawings. Guy Hazel, who has experience of previous excavation recording at numerous sites around NSW, would provide specialist surveying and orthophoto services, should any significant features be identified. Curio also has access to drone photography if required.

The details of additional team members will be confirmed in writing to the archaeologists at Heritage NSW once the timing of the excavation has been finalised.

Site Preparation and Timing

WSU wishes that the archaeological testing program to take place prior to the complete demolition of the extant P1 car park. Selected areas of archaeological investigation will be demolished and overseen by an archaeologist. Dependent on the results of both Aboriginal and historical excavations, the remainder of the proposed works may or may not require monitoring.

Should test excavation occur after SSDA approval, the removal of hardstand surfaces should be monitored by an archaeologist.

Monitoring proposed for the eastern and western temporary car park locations will occur as these works take place.

Test Trench Excavation

It is proposed that an initial excavation program of test trenches across the proposed ICoE footprint to be undertaken. These will investigate the potential for archaeological remains of features, deposits and any unexpected structures of the occupation identified in the overlay (Figure 1). The test trenches are indicated in blue.

Should the test trenches indicate that no significant archaeological deposits or features remain, then the archaeologist will record the deposits exposed in the trenches to indicate the nature of the remains beneath the existing surface and complete a short report. No further archaeological involvement is proposed based on the conclusion of this short report that no 'relics' are present.

However, should the test trenches indicate a general level of integrity and survival of significant archaeological deposits and features then a program of open area salvage excavation may be conducted to expose and record those deposits and features within the study area where they are present and likely to suffer physical impact from the development. The final locations and extent of any open area salvage excavation will depend on the results of the test trenches, but they will generally be restricted to areas of impact.

The initial test trenches have been sited to investigate the presence of specific land-use elements that may contain significant deposits. They will also provide a snapshot of the general level of survival of archaeological relics across the entire study area. All test trenches are proposed to be 4m x 2m and are set to capture and investigate the potential for remnant features from the late nineteenth and twentieth centuries.

- Trench 1 (4mx2m) has been placed to investigate the potential for evidence of archaeological features/deposits associated with the Phase 4 late 19thC/early 20thC (purple) fence line and Phase 5 20thC (green) pathway.
- Trench 2 (4mx2m) has been placed to investigate the potential for evidence of archaeological features/deposits associated with Phase 4 late 19thC/early 20thC (purple) culvert and pond and Phase 4 late 19thC/early 20thC (yellow) drainage line.

- Trench 3 (4mx2m) has been placed to investigate the potential for evidence of archaeological features/deposits associated with Phase 4 late 19thC/early 20thC (purple) culvert and pond.
- Trench 4 (4mx2m) has been placed to investigate the potential for evidence of archaeological features/deposits associated with the Phase 4 late 19thC/early 20thC (purple) and Phase 5 20thC (green) drainage lines.
- Trench 5 (4mx2m) has been placed to investigate the potential for evidence of archaeological features/deposits associated with Phase 4 late 19thC/early 20thC (yellow) drainage line.

The test trenches will be excavated to a depth where historical archaeological deposits and/or features are identified. Should they not be present the excavation would also cease when any natural profile was identified, or Aboriginal cultural material was exposed. Should Aboriginal cultural material be identified in historical archaeological deposits excavation would also cease and the area identified for further investigation by Aboriginal archaeologists.

Targeted Machine Scrapes

It is proposed that an additional 3 sample test trenches using machine excavation, should test the integrity, intactness and extent of any potential early phases of site use prior to bulk excavation works in areas identified as having potential to contain relics of local or State significance, in order to confirm the predicted intactness of the archaeological resource.

The study area is located within the mapped area of potential for surrounding farmlands associated with the Schools and Hospital are likely to contain remains such as cultivated/ploughed soils, field drains/ditches/gullies, field boundaries and pathways. It is proposed that these trenches would be 6mx2m to aim to get as much of a profile as possible. The machine scrapes will be used to identify any potential cuts or ground disturbing features that may have been associated with this land use. If relics are present, these may be of State significance. Machine scrapes are indicated in orange below.

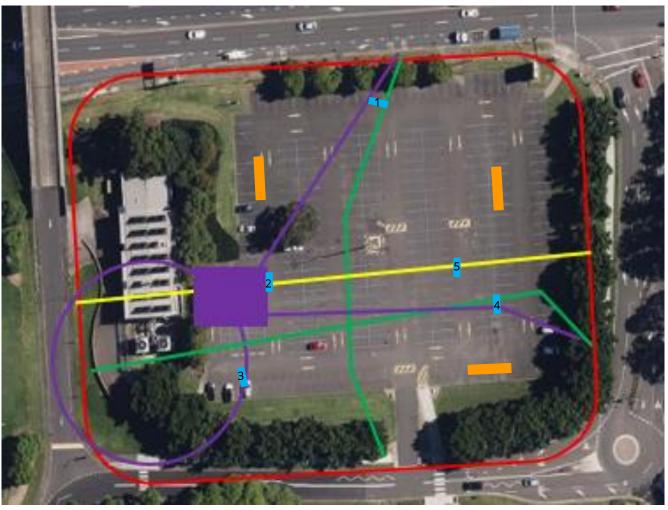


Figure 1: Compilation overlay showing phased developments within the study area based on archived maps. Red boundary represents study area, yellow indicates drainage line as shown on late 19th/early 20th Century plan of the Hospital grounds, purple represents drainage line, fence line, pond and culvert as shown on a late 19th/early 20th Century plan and green represents drainage and pathway as shown on 1943 aerial.

Source: Curio 2025

Interaction with Aboriginal Heritage

Should the historical test pits identify the presence of any Aboriginal archaeological deposits within a disturbed context, the project RAPs will be notified and brought on site to continue with a strategic expansion of the test pits to further confirm the nature and extent of the deposit.

The Aboriginal cultural heritage investigation would work either in tandem or as a coordinated effort of alternating excavation with the historical archaeological investigation. As such, the methodology would have to be amended to permit the changed circumstances in accordance with the points as follows:

- All changes to the excavation methodology on site would reach agreed consensus between the Aboriginal and historic excavation directors and the on-site project RAPs.
- The historical excavation would not disturb the natural soil contexts beyond the depths of identified historical deposits.
- Excavation of the interface of historic and natural soil deposits would be monitored by the Aboriginal Excavation Director and /or a project RAP.
- All sieved historic contexts would be monitored for and examined for Aboriginal objects.
- Should historical archaeological excavation encounter any displaced Aboriginal objects within historical archaeological deposits, the Aboriginal archaeology Excavation Director, and project RAPs would be informed. Any displaced Aboriginal objects within historical contexts would be recorded in their location, and removed, to be catalogued and analysed in accordance with the Aboriginal archaeological methodology outlined within the ACHAR.

Archaeological Monitoring

The monitoring program will ensure that all ground-disturbing works outside of the designated test excavation zones, particularly in areas assessed as having low archaeological potential due to prior disturbance, are subject to appropriate archaeological oversight. Monitoring will be undertaken by a qualified archaeologist.

The monitoring will involve:

- Continuous or periodic observation of excavation activities within the monitored footprint.
- Visual inspection of exposed profiles, soil matrices, and excavation spoil during the course of works.
- The capacity to temporarily halt works should any potential archaeological material be identified, further investigated, enabling appropriate recording, assessment, and (if required) salvage.

ICoE Footprint

Dependent on the nature of the test excavation findings, remedial and/or bulk excavation works may be subject to archaeological monitoring periodically throughout the project to identify any potential undocumented or ephemeral archaeological features not located during the test excavation. Curio will monitor all machine excavation and stop works to investigate any potential archaeological resources, should any be detected.

Temporary Car Parks

Additionally, all ground disturbing works in the location of the proposed eastern car park will be subject to archaeological monitoring. This will be implemented specifically to identify any potential structural remains of the ha-ha of the Rydalmere Psychiatric Hospital.

Monitoring of the proposed western car park will be subject to initial ground clearance and works associated with the excavation of electrical and stormwater services. All other works in this location will be subject to the unexpected finds protocol.

Triggers to Halt Work

Archaeological monitoring personnel will have the authority to temporarily stop works if any of the following are encountered:

- Structural remains (e.g. sandstone footings, brick walls, paved surfaces)
- Artefact-rich deposits or layers (e.g. cesspits, wells, refuse deposits)
- Other features (e.g. drains, culverts)

Response to Triggers

- Immediate cessation of work in the vicinity of the find.
- Preliminary recording and assessment by the archaeologist.
- Notification to the proponent, Heritage NSW (where relevant), and RAPs (for suspected Aboriginal objects).
- Formulation of a site-specific mitigation or management plan, such as detailed recording, sampling, salvage excavation, or avoidance measures.
- Works to recommence only following archaeological clearance and approval of the management response.

This monitoring program provides a framework that ensures compliance with statutory obligations, reduces the risk of inadvertent harm, and enables the proper identification, recording, and management of archaeological resources across the redevelopment site. While primary investigative efforts are focused on areas of higher archaeological potential, this approach ensures that the project remains responsive to the possibility of uncovering significant evidence, including isolated deposits or structural features, in zones previously assessed as disturbed or of lower potential.

Open Area Salvage Excavation

Should the test trenches and/or monitoring indicate that no significant archaeological deposits or features remain in the study area, then the archaeologist will record the deposits exposed in the trenches to indicate the nature of the remains beneath the existing surface, and complete a short report. No further archaeological involvement will be proposed based on the conclusion of this short report, owing to the fact that that no 'relics' are present. Results that would not require further investigation includes (but not limited to):

- Isolated artefacts or highly disturbed deposits
- Features that extend outside of the study area or impact zones
- Fill layers or truncated contexts with limited interpretive value
- Structures or materials assessed as below the significance threshold

However, should it be identified that open area salvage excavation be needed, this process will focus on expanding test trenches where clear, stratified, or mappable features are identified including:

- Structural remains of buildings, outbuildings etc.
- Deeper sub-surface features (cesspits, wells, cisterns etc.)
- Underfloor and exterior deposits, or yard features

This section pre-emptively outlines the potential need for salvage to occur, should the test excavations demonstrate extensive archaeological resources. A more detailed ARD can be produced after the results of test excavation to tailor an open area salvage methodology.

The archaeological salvage and recording program, should it proceed, will focus on the areas identified as containing archaeological relics of local and/or State significance that will be disturbed or removed by works during development.

These areas/deposits, with potential 'relics' will be excavated in their entirety, recording any significant deposits, collecting artefacts from these deposits, and recording the remains of former structures, yard spaces and surfaces in these areas. The deposits will be removed by hand until sterile natural or deposits of no significance are exposed. Given the period of erection and use of the anticipated structures, occupation deposits may not be present, and structural elements may be the only remnants extant. In that case the building elements will be completely exposed, their footprints and individual elements recorded, and they will be removed.

Where the test trenches indicate substantial disturbance or removal of archaeological deposits then these areas will not be subject to comprehensive salvage excavation but may be sampled at the discretion of the ED.

If State significant relics are found during works, the Heritage Council of NSW will be notified in accordance with Section 146 of the Heritage Act 1977. This notification takes place in the form of a completion of the relevant form on the Heritage NSW "Heritage Management System" web interface. The position, extent and condition of the finds will be recorded, and they will remain in-situ during any discussions with Heritage NSW.

Depending on the assessed significance of the find, it may be necessary to undertake additional assessment and management recommendations related to the new information, and the design and planning of the proposed redevelopment may have to be reassessed/redesigned in order to avoid impacts to the State significant archaeological resources.

In the event that excavation works identify archaeological features or deposits of potential State significance, or features requiring in-situ conservation, the Excavation Director will initiate formal liaison with the design and construction teams, in tandem with guidance from Heritage NSW. This will include:

- Immediate notification to the project manager and relevant design leads.
- Provision of a preliminary archaeological assessment of the feature's significance and spatial extent.
- Participation of the Excavation Director in relevant design or construction coordination meetings to advise on heritage constraints, options for avoidance or design modifications, and potential program implications.

- Engage a qualified materials conservator or heritage engineer to assess stabilisation needs and inform the development of a site-specific conservation or management plan.
- All such consultations and decisions will be documented in the site's heritage record and project communications log.

Works may only recommence with the written approval of Heritage NSW.

Unexpected Finds Protocol

The archaeological methodology outlined in this report anticipates recording and sampling of all significant archaeology at the site where possible, focusing on the western boundary of the study area. However, there is potential that unexpected significant physical evidence associated with the phases of occupation may be present in other areas of the site. Such unexpected remains may include, but not be limited to:

- Deep cut wells, reservoirs and pits associated occupation at the site.
- Structural remains and artefacts.
- Rubbish pits containing waste and discarded artefacts disposed of away from surrounding housing.
- Other unexpected remains.

Unexpected finds do not include isolated artefacts, and building remains that may form part of fill deposits. If unexpected finds are exposed or disturbed work should cease in that area and the project Excavation Director notified of the find as soon as practicable. Do not move the item or attempt to further disturb it. Take a photo and forward to the Excavation Director and they will discuss and advise the next step which may include, but not be limited to:

- A site visit by the archaeologist.
- An instruction to move the item.
- No further action required.

The Excavation Director will assess the archaeological research significance of all Unexpected Finds, and this assessment will determine the action to be followed. These may include:

- No further action (i.e., the find is not significant).
- Retention of isolated artefacts, that otherwise are assessed as of low archaeological research potential, as items for possible use in interpreting the site, display, etc.
- Recording of the location of the find.
 - o Retaining artefact(s) of research potential for the archaeological collection and further analysis.
 - o Further recording and excavation to expose larger features/structural remains.
- Notification of the find(s) to Heritage NSW and further liaison with them.
- Additional research to identify larger features if not previously identified in the historical record.
- Reassessment of the significance of the unexpected find considering this research.

Some of the attributes of any unexpected finds that may determine if further advice is sought from NSW Heritage regarding the find are:

- Larger previously unrecorded features especially structural remains.
- Suspected human remains.⁶⁰
- Evidence for Aboriginal occupation of the site.
- Rare or unusual find.

Recording and Reporting

If relics are exposed in any excavation, they will be archaeologically recorded. The recording process will include the following:

- Establish site grid by survey or use an existing one developed by the client. Detailed digital survey and mapping of the area based on that grid would be undertaken which will record all features.
- Locate extent of test trench excavation areas in relation to existing structures and archaeological remains.
- Use of a small excavator (1-3 ton) to open areas and remove overburden/fill if required. The extent and depth of this machine work will be at the direction of the archaeological team.
- Manual (hand) excavation of exposed relics using hand tools (shovels and trowels).
- Where deposits are found undertake detailed stratigraphic excavation and recording.
- Use of context recording forms and context numbers to record all archaeological information.
- Use of Harris matrix as part of the recording program.
- Wells and cesspits excavated in 200 mm spits or tip lines (where identifiable and the deposits sieved).
- All structural remains, post holes, and features will be planned at a scale of 1:20 or 1:50.
- Detailed photographic recording.
- All artefacts will be collected except from unstratified fills.
- Samples of bricks and mortar will be collected from features or unexpected structures.
- Collection, labelling, safe storage, washing, sorting and boxing of artefacts by artefact specialists along with palynological analysis and materials conservators as appropriate.
- A final report detailing the excavations, its results and addressing the Research Design questions would be completed within 12 months of the work being completed on the site, The report would include:
 - o An introduction and executive summary.

⁶⁰ Should potential human remains be uncovered the processes and procedures contained within the *Skeletal Remains*; *Guidelines for Management of Human Skeletal Remains* published in 1998 by Heritage NSW would be followed.

- o Planning framework.
- o Site history supplemented by additional research.
- o Archaeological background.
- o Archaeological investigation methodology, results and site recordings
- o Analysis and catalogue detailing all historical cultural material recovered.
- o Maps and site plans.
- o Photo catalogue.
- o Artefact catalogue.
- o Reassessments of significance.
- o Interpretation of results and addressing of Research Design questions.
- o Conclusions and recommendations.
- o Identification of repository for artefacts and site records.
- The artefacts, site records and final report would be presented to the client/site owner for curation.

Artefact Management and Analysis

Recovered artefacts will be sorted, cleaned, separated and bagged on site, ready for cataloguing and analysis off site. The artefact collection will have a Type Series established and the collection will be divided into material types and standard Activity/Function/Sub-function groupings. Artefacts will be bagged and labelled with unique database ID numbers linked through the catalogue to context, Type Series, Images, and historical information. Specialists will be contracted to provide advice, conservation and analysis as required based on the findings.

The client will need to provide a repository for storage, in perpetuity, of any artefacts recovered from the site. This is to be discussed with the client following the conclusion of the archaeological program at the site and would be confirmed in the post excavation report. The final location of this repository, whether on-site or not, would be determined after negotiations with the client.

Research Questions

The following questions provide a contemporary research framework for the proposed archaeological test excavation:

Broad Scope Questions

- What is the nature, extent, intactness and significance of the historical archaeological resource (features, deposits or other items), if any, exposed within the test excavation trenches?
- Does the archaeological resource verify the assessed potential and significance of the site?
- Do the deposits and features contribute new information about the occupation and development of the site?

Site Specific Questions

- Is there any evidence of early farming practices or occupation within the study area?
- Is there evidence of land modification of the study area beyond that of the formalisation of the drainage lines?
- Is there any evidence for the remains of the unidentified structures associated with early occupation of the site (i.e. associated with Arndell's Farm or Female Orphan School)?

- Are there any other unrecorded structures present?
- Are there unrecorded pit and/or well deposits associated with early occupation, should additional structures and features be identified?
- What is the manner of formalisation or construction of the drainage line and pond?
- Is the formalisation of drainage within the study area representative of other known land modification in the Parramatta area?
- Is there evidence that the formalisation of the drainage line and construction of the pond was for aesthetic, as well as practical drainage purposes?
- Have remains of the HA-HA wall survived previous disturbance?
- If so, how do these remains compare to other examples of Ha-Ha wall structures?
- Does the material culture at the site specifically reflect any relevant historical themes?
- Does evidence of material culture, artefacts or archaeological contexts show association with a particular group or behaviour within the study area?

Significance and Conservation:

- Are there any features potentially of State significance?
- Do any features warrant in-situ conservation?
- What elements may lend themselves to interpretation

Appendix B: AMBS Eastern Temporary Car Park Report





Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Eastern Study Area Historical Archaeological Assessment, Impact Assessment and Research Design

Prepared by AMBS Ecology & Heritage for Western Sydney University

Draft V2

December 2024

AMBS Reference: 25547

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Address and location	171 Victoria Road Rydalmere		
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AMBS Ecology & Heritage

Contents

1	Introduction	6
	1.1 Study area	6
	1.2 Methodology	7
	1.3 Authorship	7
	1.4 Limitations	7
	1.5 Terms & abbreviations	7
2	Statutory context	9
	2.1 Environment Protection and Biodiversity Conservation Act 1999	9
	2.2 Heritage Act 1977	
	2.2.1 Archaeology	11
	2.2.2 Section 170 Heritage and Conservation Registers	11
	2.3 Environmental Planning and Assessment Act 1979	
	2.3.1 Parramatta Local Environmental Plan 2023	
	2.4 Heritage Management Documents	
	2.4.1 Conservation Management Plan, UWS Parramatta South campus, Pr	
	University of Western Sydney, April 2014, City Plan Heritage	13
3	Historic context	16
	3.1 Arthur's Hill Farm (1791-1792)	16
	3.2 Female Orphan School (1810-1850)	16
	3.3 Protestant Orphan School (1850-1887)	17
	3.4 Rydalmere Hospital for the Insane/Rydalmere Psychiatric Hospital (1888-1989)	19
	3.5 University of Western Sydney (1993-present)	22
4	Physical analysis	24
	4.1 Eastern car park	24
5	Comparative analysis	26
,	5.1 Callan Park Hospital	
	5.2 Parramatta Lunatic Asylum	
	5.3 Kenmore Hospital, Goulburn & Gladesville Hospital, Sydne	
6	Archaeological assessment	
O	6.1 Previous archaeological investigations	
	6.1.1 UWS, Parramatta Campus, Multi-Purpose Building, Non -Indigenous Arc	
	Testing, Casey & Lowe (2008)	_
	6.2 Potential archaeological resource (Eastern Car Park)	
	6.2.1 Integrity of the resource	
	6.2.2 Research potential	
	6.3 Summary	
7		
′	7.1 Statement of significance	
_	-	
8	Proposed works	
	8.1 Eastern car park	
	8.2 Assessment of impacts from proposed works	38
9	Managing the archaeological resource	44
	9.1 Archaeological research design and monitoring methodology	
	9.1.1 Monitoring methodology	
	9.1.2 Unexpected Heritage Finds Procedure	
	9.1.3 Archaeological research questions	46
10	O Conclusion and recommendations	48
	10.1 Recommendations	48
В	ibliography	49

Tables

Table 1.1 Terms and abbreviations
Table 7.1 Criteria for assessing heritage significance in NSW (Department of Planning an Environment, 2023a, p. 21)
Figures
Figure 1.1 Location of the study area
Figure 2.1 SHR curtilage for the study area
Figure 2.2 LEP curtilage for the study area1
Figure 2.3 Potential Archaeological sites identified within the western car park study area (circle
blue) and eastern car park study area (circled red), based on map contained in Thorp, 1983
Figure 6.3.2 (Source: Conybeare Morrison International, 2008: 16, Figure 2.8)
Figure 2.4 Conservation Areas of the UWS Parramatta Campus, showing the two areas of car par
The western car park (circled blue) is within the 'Cricket Grounds and Venues Conservation Are
2' (shaded blue), while the eastern car park (circled red) is adjacent to Ha Ha 1 on the norther
boundary of the 'Institutional Complex Conservation Area 1' (shaded green). (Source: Conybear
Morrison International, 2008: 18, Figure 3.1). Historic context
Figure 3.1 'View of the Female Orphan School Near Parramatta' (Joseph Lycett, 1825) (Source: Stat
Library of Victoria, 30328102131561/13)1
Figure 3.2 Initial building phase (1813-1819) of the Female Orphan School (Source: Tanner Associates, 2000b: Appendix 1)
Figure 3.3 Protestant Orphan School building and covered way from central Female Orphan School
building c.1870-80 (Source: State Library NSW, Government Printing Office 1 - 06149)1
Figure 3.4 'Plan showing contours, features and buildings within area dedicated for Hospital for the
Insane, Rydalmere' (1893). At this time, the area surrounding the Protestant Orphan School
consisted of cultivated land including orchards, vineyards, vegetable gardens an
ploughed/grassed fields. The former alignment of a creek ran through the western car park stud
area (arrowed). Source: Land Titles Office, 1893_LTO_CP 682-30002
Figure 3.5 Detail from Hospital for the Insane, Rydalmere (1903). Wards 13-16 have been built an
the airing yards on the north side of the buildings are defined by ha-has (dashed red). Note th
plan is assumed to be made prior to the works, as the ha-has are much more angular than the
curved as-built lines visible on the 1943 and 1951 aerial photography of the site. (Source: WSU
formerly Rydalmere Psychiatric Hospital – General Plan – (Frame 1))2
Figure 3.6 1943 aerial of the Rydalmere Psychiatric Hospital, with the eastern car park outlined rec
The bright white lines within the study area are likely paved paths at the top of the ha-ha ditc
while the fainter white line is likely the ha-ha wall or an external path. The three sheds appear
to be insubstantial shelter sheds2
Figure 3.7: 1951 aerial Rydalmere Psychiatric Hospital, with the eastern car park outlined red. The
study area remains unchanged, apart from the removal of two of the shelter sheds2
Figure 3.8 Works around the Vernon Group, including trenches dug for water, gas and electricity
(right). Source: WSU 1998, pages 8 (left) and 10 (right).
Figure 3.9 The front cover of the UWS pamphlet shows a large quantity of dressed sandstone block
stockpiled around Building ED/Vernon Group; these are thought to have been salvaged during
the works at the site, possibly from the ha-ha. Source: WSU 1998, cover photo
Figure 4.1 Location of eastern car park showing the crest of the steeper slope (dashed red) and cre
of the more gentle slope (dashed blue). There is a slight depression in the flatish area betwee the two slopes2
Figure 4.2 Looking east along the top of the first terrace. Geotechnical test pit TP15 is visible on the
left
Figure 4.3 Modern satellite image showing semi-circular lines of brown grass (arrowed) that appear
to match the alignment of the ha-ha (Source: SIX Maps)2
Figure 5.1 Historic photographs of Callan Park clearly show the ha-has in c.1883 (left, image from S
NSW) and 1908 (right, image from MH NSW: AF00193154)2

Figure 5.2 Many of the ha-has are still extant around Kirkbride, Callan Park. Photos by Longhurs 20112
Figure 5.3 c.1885 photo showing the external wall of the southern ha-ha (arrowed white) separating Ward 1 from the Parramatta River. MH NSW: CSL&RC PIC 2012/1
Figure 5.4 Sandstone wall of northern ha-ha surviving in TA24/1; the ha-ha was backfilled with iron bedframes. Note the top of the ha-ha wall was uncovered just below the existing ground leve (top right). Casey & Lowe 2018: 312.
Figure 5.5 Only the slope of the earthen bank of the southern ha-ha was visible during the investigations, with evidence of being terraced for plantings. Casey & Lowe 2018: 315
Figure 5.6 Archival photograph from 1965 showing the 'ha-ha' wall and moat/ditch around Femal Ward 6 at the Kenmore Hospital, built c.1897-1900. Source: Musescape 2012:47
Figure 5.7 Ha-has around the 'Hill Group' buildings at Gladesville Hospital, built c.1885. Detail from Government Printing Office photo dated 1879-c.1891. Source: SL NSW DL PXX 63
Figure 5.8 Remnants of the ha-ha walls are still visible at Gladesville Hospital. Source: Google Stree View
Figure 6.1 Location of Test Trench 1, marked on 1893 map of site (Casey & Lowe, 2008: 4)3
Figure 6.2 View south of test trench showing cut feature in foreground, earthenware pipe in middle ground and linear feature in cultivated soil in the background (Casey & Lowe, 2008: 8)
Figure 8.1 Map indicating the required level of soils to be removed for the propsed carparks (Source TTW).
Figure 8.2 Proposed electrical trenching (Source TTW)4
Figure 8.3 Proposed positioning of light poles in eastern carpark; the poles closest to the ha-ha are circled red (Source TTW)
Figure 8.4 The technical details of the light poles to be installed in the proposed car parks, requiring a foundation cage cast concrete footing 450mm diameter and 1.8m depth. (Source: Steensel Varming Electrical).
Figure 8.5 Proposed stormwater works at eastern carpark. (Source TTW)43
Figure 9.1 Overview of archaeological management to be undertaken in the eastern car park studiarea4

1 Introduction

AMBS Ecology & Heritage (AMBS) has been engaged by Western Sydney University (WSU) to complete a Historical Archaeological Assessment (HAA) and Archaeological Research Design (ARD) for the proposed temporary car park within the Parramatta South Campus, near the future location of the Indigenous Centre of Excellence (ICoE). Western Sydney University proposes to construct temporary car parking facilities in the northern portion of the campus on Fifth Street. This report has been prepared to assess any impacts from the proposed works to the potential historical archaeological resource within the eastern car park study area and provide recommendations for its management.

1.1 Study area

The full car park study area is located on the east and west sides of Fifth Street in the northern portion of the Western Sydney University, Parramatta South Campus (Lots 100 & 101 DP816829) at 171 Victoria Road, Rydalmere, within the Parramatta Local Government Area (LGA) (Figure 1.1). It is located within the historic Field of Mars Parish and the County of Cumberland. The site is bounded by Victoria Road to the north, the Parramatta River to the south, Vineyard Creek to the east and James Ruse Drive to the west.

This report covers the study area for the eastern portion of the car park only. See AMBS (2024b) Western Sydney University, Parramatta South Campus Proposed Temporary Car Park — Western Study Area, Historical Archaeological Assessment and Research Design for details of the western portion of the proposed temporary car park.

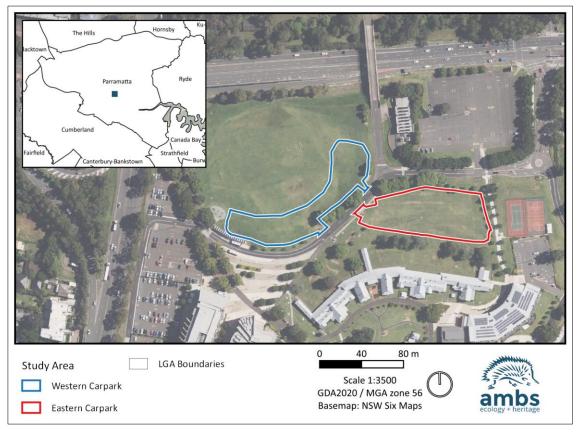


Figure 1.1 Location of the study area.

1.2 Methodology

This report is consistent with the principles and guidelines of the *Burra Charter: The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance 2013* (Burra Charter) (Australia ICOMOS, 2013). The report has been prepared in accordance with current best practice guidelines as identified in the *NSW Heritage Manual* (Heritage Office and DUAP, 1996b) and associated publications including:

- Archaeological Assessments Guidelines (Heritage Office and DUAP, 1996a).
- Assessing heritage significance (Department of Planning and Environment, 2023a).
- Guidelines for preparing a statement of heritage impact (Department of Planning and Environment, 2023b).
- Investigating heritage significance (Heritage NSW, 2021).

This assessment aims to assess any impacts from the proposed works to the potential historical archaeological resource within the study area and provide recommendations for its management.

1.3 Authorship

This report has been prepared by Rhian Jones, Senior Historical Heritage Consultant. Lian Ramage, Heritage Team Leader, has provided technical input and reviewed this assessment.

A physical inspection of the study area was undertaken by Rhian Jones, Senior Historic Heritage Consultant on 07 November 2024, along with Matthew Byron, Aboriginal Heritage Consultant. All photographs in this report were taken by Rhian Jones or Matthew Byron at this time unless otherwise noted.

1.4 Limitations

There were no particular limitations on the production of this report. Adequate time, resources, proposed works plans and drawings and site access were made available.

1.5 Terms & abbreviations

The definitions of any abbreviations or specific terms used in the body of this report are provided in Table 1.1.

Table 1.1 Terms and abbreviations.

Term / abbreviation	Term	
AMBS	AMBS Ecology & Heritage	
ARD	Archaeological Research Design	
Burra Charter The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance		
CHL Commonwealth Heritage List		
EP&A Act Environmental Planning and Assessment Act 1979		
EPBC Act Environment Protection and Biodiversity Conservation Act 1999		
EPI	Environmental Planning Instrument	
Heritage Act 1977		
Heritage Council	Heritage Council of New South Wales	
Haritago NCM	Heritage NSW, Environment and Heritage, Department of Climate Change, Energy, the	
Heritage NSW	Environment and Water	
HIA	Heritage Impact Assessment	
ICOE Indigenous Centre of Excellence		
ICOMOS	OMOS International Council on Monuments and Sites	
LEP	Local Environmental Plan	
LGA	Local Government Area	
MH NSW	Museums of History NSW (formerly State Archives)	
NHL National Heritage List		

Western Sydney University, Parramatta South Campus Proposed Temporary Car Park Historical Archaeological Assessment and Research Design

Term / abbreviation	Term
NSW New South Wales	
S170 Register Section 170 Heritage and Conservation Register	
SEPP State Environmental Planning Policy	
SHR State Heritage Register	
SL NSW	State Library NSW
WHL	World Heritage List
WSU	Western Sydney University

2 Statutory context

The conservation and management of heritage items, places, and archaeological sites takes place within the framework of relevant Commonwealth, State, and local government legislation. Non-statutory heritage lists and registers, ethical charters, conservation policies, and community attitudes and expectations can also have an impact on the management, use, and development of heritage items. To inform this assessment, the following statutory heritage registers have been reviewed:

- World Heritage List (WHL)
- National Heritage List (NHL)
- Commonwealth Heritage List (CHL)
- State Heritage Register (SHR)
- NSW Department of Health's Section 170 Heritage and Conservation Register (S170 Register)
- Parramatta Local Environmental Plan 2023 (LEP).

2.1 Environment Protection and Biodiversity Conservation Act 1999

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) provides a legal framework for the protection and management of places of national environmental significance. Several heritage lists are addressed by the EPBC Act, including the WHL, NHL, and CHL:

- The WHL protects places with outstanding universal values.
- The NHL protects places with outstanding value to the nation.
- The CHL protects items and places owned or managed by Commonwealth agencies.

The Australian Government Department of the Environment is responsible for the implementation of national policies and programs to protect and conserve the environment, water and heritage, and promote climate action. The Minister's approval is required for controlled actions which would have a significant impact on items and places included on the WHL, NHL, or CHL.

No items within the study area are listed on the WHL, NHL or CHL.

2.2 Heritage Act 1977

The *Heritage Act 1977* (Heritage Act) provides protection for heritage places, buildings, works, relics, moveable objects, precincts and archaeological sites that are important to the people of NSW. These include items of Aboriginal and non-Aboriginal (historic) heritage significance. Where these items have particular importance to the people of NSW, they are listed on the State Heritage Register (SHR).

Part 4 Sections 57 to 69 of the Heritage Act address the statutory requirements for items and places listed on the SHR. Works which include demolition, damage or alteration of a heritage item or place require the approval of the Heritage Council of NSW or its delegates.

The study area is within the *Rydalmere Hospital Precinct (former)* listed on the SHR as Item 00749. The Statement of Significance is as follows:

The Female Orphan School Precinct as a component of the former Rydalmere Hospital is of outstanding cultural significance, primarily for its continued use and development, between 1813 and 1989 as a public welfare institution for the care and management of the disadvantaged.

As the first purpose built orphan school in the colony, it illustrates a milestone in the establishment of national social welfare and education policies.

The surviving original buildings, constructed between 1813 and 1818, provide evidence of the development policies of Governor Macquarie and illustrates the transfer of 18th century British architectural pretensions into the design and siting of functional buildings in New South Wales. The extant central block is the oldest three storey building in Australia.

The site as a whole, and particularly the Orphan School precinct, has outstanding historical and social significance because of its continuous occupation as an institution since 1814. The original complex and its garden setting have outstanding rarity value. Its landscape is of exceptional significance for its development as a Colonial institution sited within the cultural landscape of the Parramatta River valley and influenced by Mrs Macquarie together with the continuing recognition of the heritage values of the place up to the present (Schwager Brooks, 1994)

The structure of the built and natural fabric of the place has been conserved despite the constant adaptation by institutional uses and alienation of its peripheral lands. As a complex of parkland landscape character with gardens, built form and remnant indigenous vegetation it demonstrates the evolution of different attitudes towards institutional care in NSW. The groundworks design and siting of the buildings is associated with Mrs Macquarie, Reverend Samuel Marsden, Francis Greenway and subsequent Colonial and Government Architects (particularly Walter Liberty Vernon) and individuals associated with health care such as Frederick Norton Manning and Dr Greenup.



Figure 2.1 SHR curtilage for the study area.

2.2.1 Archaeology

The Heritage Act also provides protection for significant archaeological remains or 'relics', which are defined in the Act as:

any deposit, artefact, object or material evidence that—

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

Excavations within the curtilage of a place listed on the SHR must be undertaken in accordance with a permit under Section 60. A Research Design describing the works and archaeological methodology needs to be submitted with the Application to the Heritage Council.

2.2.2 Section 170 Heritage and Conservation Registers

Under Section 170 of the Act, government instrumentalities are obliged to establish and keep a 'Heritage and Conservation Register' which contains the details of each item of environmental heritage:

- (a) which is of a class prescribed by the regulations, and(b) which—
 - (i) in the case of a statutory body, is owned or occupied by the statutory body, or (ii) in the case of a Department Head, is vested in or owned or occupied by, or subject to the control of, the appropriate Minister or the relevant Department.

The Heritage Regulation 2012 identifies items prescribed for the purposes of Section 170 (4) (a) of the Act as:

- (a) items that are listed as heritage items under an environmental planning instrument made under the Environmental Planning and Assessment Act 1979,
- (b) items that are subject to an interim heritage order,
- (c) items that are listed on the State Heritage Register,
- (d) items identified by the government instrumentality concerned as having State heritage significance.

Under Section 170A of the Act, government instrumentalities must:

...give the Heritage Council not less than 14 days written notice before the government instrumentality—

- (a) removes any item from its register under section 170, or
- (b) transfers ownership of any item entered in its register, or
- (c) ceases to occupy or demolishes any place, building or work entered in its register.

Each government instrumentality is responsible for ensuring that each item listed on its Section 170 register or listed on the SHR on land it operates is managed in accordance with the *State Agency Heritage Guide* (Heritage Office, 2005).

The study area is within the curtilage of two listings on the NSW Department of Health Heritage and Conservation Register (now NSW Department of Communities & Justice);

- Rydalmere Hospital Precinct, Landscape is Item 03/5/5/2000 and is described as being of high significance.
- Rydalmere Hospital Precinct, Archaeological Sites is Item 03/5/5/4000 has historical archaeological significance as the site of the first Female Orphan School.

2.3 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) is the main act regulating land use planning and development in NSW. The EP&A Act also controls the making of environmental planning instruments (EPIs). Two types of EPIs can be made: LEPs covering local government areas; and State Environment Planning Policies (SEPPs), covering areas of State or regional environmental planning significance. LEPs commonly identify, and have provisions for, the protection of local heritage items and heritage conservation areas.

The EP&A Act also requires consideration to be given to environmental impacts as part of the land use planning process. In NSW, environmental impacts include cultural heritage impacts and as such any required Review of Environmental Factors, Environmental Impact Statement, or Environmental Impact Assessment should incorporate an assessment of European heritage. The consent authority is required to consider the impact on all heritage values.

2.3.1 Parramatta Local Environmental Plan 2023

The study area is within the Parramatta LGA and is subject to the Parramatta LEP 2023. Section 5.10 of the LEP sets out provisions for heritage conservation within the LGA. Schedule 5 'Environmental Heritage' identifies the historic objects or places of heritage significance within the study area.

The study area is within the *UWS Parramatta Campus (former Rydalmere Hospital and Female Orphan School)* listed as Item 00749, on the Parramatta LEP 2023.

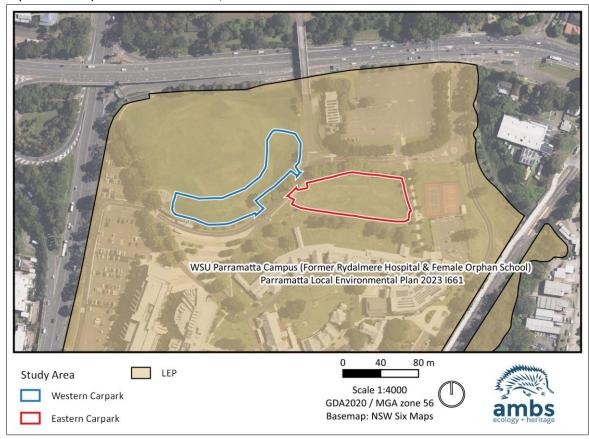


Figure 2.2 LEP curtilage for the study area.

2.4 Heritage Management Documents

2.4.1 Conservation Management Plan, UWS Parramatta South campus, Prepared for University of Western Sydney, April 2014, City Plan Heritage

The baseline non-Aboriginal archaeological potential of the University of Western Sydney, Parramatta Campus was discussed in Section 2.6 of the 2014 CMP, and referenced back to Section 2.4 and Figure 2.8 of the earlier 2008 CMP. The 2008 CMP was based on two previous reports; Schwager Brooks (1994) *Rydalmere Hospital Orphan School Precinct, Conservation Plan,* and Thorp (1982) 'Analysis of Physical and Documentary Evidence', Chapter 3.0 in Kerr, JS; Proudfoot, H; Thorp, W; Burton, C & Burkett, N. (1982) *Rydalmere Psychiatric Hospital, A Report on the Precinct and its Evolution with a Statement of its Significance.* The sites of archaeological potential within the Orphan School Precinct (c. 1810-1888) were numbered 1-31, consistent with Schwager Brooks (1994); the Orphan School Precinct is in the south-western area of the campus and is outside of the study area.

The twelve sites of archaeological potential associated with the Rydalmere Psychiatric Hospital (1888-1987) identified in the 2008 CMP were consistent with those identified by Thorp (1982). The study area encompasses two of these archaeological sites; '34. AllIa28 Infilled Creek c.1899' and '43. AllIc1 Cricket Pavilion c.1911-1920' (Figure 2.3). The notes associated with site '34. AllIa28' state that a drainage line appears to follow the line of the creek. The material used to fill the creek may have some interest. Additionally, the notes associated with site '43. AllIc1' state that a small concrete path runs from the road to the location of the former pavilion and there is a small scatter of building materials on the site (Conybeare Morrison International, 2008: 17). As such, the CMP identified the study area as being within the Cricket Ground & Venues Conservation Area 2 (Figure 2.4).

Section 6.3.7 of the 2014 CMP reproduces the same conservation policies and guidelines developed for the 2008 CMP. The earlier 2008 CMP based these policies on recommendations provided by Casey & Lowe (2007) in *Non-Indigenous Archaeological Assessment University of Western Sydney Parramatta Campus*. Casey & Lowe assessed the archaeological potential by dividing the campus into two areas; The Orphan School Precinct and the Surrounding Farmland (encompassing the study area). It was stated that the surrounding farmlands associated with the Schools and Hospital are likely to contain remains such as cultivated/ploughed soils, field drains/ditches/gullies, field boundaries and pathways. These remains are not likely to be substantive and therefore are considered to have low archaeological potential (Casey & Lowe, 2007: 23). The 2014 CMP provided Policies 2.17 to 2.23 to guide the management of the archaeological resource within the entire campus (City Plan Heritage, 2014: 69-70), as well as other policies that specifically mention the ha-has. The relevant policies are:

Policy 2.17: Heritage Council policy requires sites of State significance to be retained in situ. Therefore, impacts should be designed as much as possible to avoid disturbing significant archaeological remains.

Policy 2.19: The works should be monitored by the archaeologist, especially where the works include disturbance of the ground levels under or around the original Orphan School buildings, particularly those buildings not yet refurbished. Localised stop-work provisions may be necessary.

Policy 2.20: Any excavation proposed within the State Heritage Register curtilage will require prior approval under section 57(1) of the Heritage Act 1977, depending on the archaeological potential of the subject site and the impact of the proposed work on its heritage significance. The site works associated with the new development sites (nominated

under the Masterplan 2014 – Figure 53) situated within the "Surrounding Farmland" areas should be subject to the following:

 Works associated with other new development sites, S1, S3 to S9, do not appear to impact on known archaeological remains and therefore do not require monitoring unless possible archaeological remains are exposed during site works.

Policy 2.21: Results of any future archaeological recording must be submitted in a written report to the Heritage Division, Office of Environment & Heritage. Standard conditions require the cataloguing of all artefacts recovered during the archaeological program and their long term storage, a response to the identified research questions and an archival photographic record. As archaeological discovery and monitoring will involve time and money, it is essential for the university to allow for this contingency in terms of budgets and construction programming.

Policy 2.22: In any future works, adequate time, as well as financial and staff resources shall be set aside;

- For assessment of the archaeological constraints and issues prior to finalising design and any S60 application.
- b) For the purpose of recording and retrieving archaeological evidence before it is disturbed and destroyed;
- c) In the event that a significant site is uncovered, the implementation of an appropriate archaeological program.

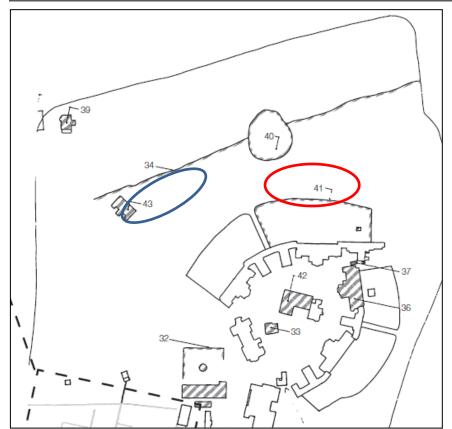
Policy 3.16: The interpretation of the Parramatta South campus as a whole, as well as the Orphan School Precinct, the Intermediate Precinct and the 1900 Ward Precinct in particular, including the former Ha Ha walls and significant landscape elements should be seen as an important element in the conservation of the place.

Policy 5.1: Ensure future development of the place is based on an understanding of its cultural significance including archaeology.

Policy 5.2: Ensure future development does not obscure original fabric of the configuration of the place, including the location of the former Ha Ha walls.

Policy 5.17: New Works, where applicable, should address the following major design criteria in relation to the heritage Precincts and items:

• Development sites should reflect the lines of demarcation of the former Ha Ha walls and not intrude into the spaces between these lines and the adjacent extant building, particularly Ha Ha numbers 1, 3 & 4 on Figure 2.6.



Potential Figure 2.3 Archaeological sites identified within the western car park study area (circled blue) and eastern car park study area (circled red), based on map contained in Thorp, 1982: Figure 6.3.2 (Source: Conybeare Morrison International, 2008: 16, Figure 2.8).



Figure 2.4 Conservation uws Areas of the **Parramatta** Campus, showing the two areas of car park. The western car park (circled blue) is within **'Cricket** the Grounds and Venues Conservation Area 2' (shaded blue), while the eastern car park (circled red) is adjacent to Ha Ha 1 on the northern boundary of the 'Institutional Complex Conservation Area 1' (shaded green). (Source: Conybeare Morrison International, 2008: 18, 3.1). Historic Figure context

3 Historic context

The following information has been adapted from AMBS 2021 assessment and the 2008 CMP, concentrating on the history and structures specific to the current study area.

3.1 Arthur's Hill Farm (1791-1792)

Governor Phillip had explored the upper reaches of the Parramatta River by April 1788. A temporary hospital was erected at Parramatta in 1789, and Surgeon Thomas Arndell became the resident medical officer. For his service, on 16 July 1792 he was granted 60 acres on the northern bank of the Parramatta River, later becoming known as Arthur's Hill.

Arndell established a small hut and cultivated the land; the hut was likely located in close proximity to Vineyard Creek (outside of the study area). By October 1972 he had cleared 3 acres and cultivated 18 acres. Bushfires later that year destroyed his hut, outbuildings and wheat stack; as compensation, he was given 600 acres at the Hawkesbury in 1804 and it is likely that the Arthur's Hill property was resumed by the Crown rather than sold (Tanner & Associates, 2000a: 1).

3.2 Female Orphan School (1810-1850)

In 1810, Arthur's Hill was set aside by Governor Macquarie as the future location of a new orphan institute, and tenders were called for the building of the school. The foundation stone was laid by Macquarie on 25 September 1813, and construction was completed in 1818. The brick building was three storeys with corridors linking two wings to the east and west of two storeys (Figure 3.1 and Figure 3.2) (Tanner & Associates, 2000a: 3). Seventy girls were moved to the school in 1818. Governor Macquarie set rules on the number and ages of the girls; at any one time, no more than 100 girls were permitted and they were to be between the ages of five and thirteen. However, it has been noted that girls aged two were accepted, and in the years following up to 170 girls were occupying the building by 1833 (Tanner & Associates, 2000a: 6). Access to the school was provided from the river by means of a stone jetty and ramped gravel drive, cut into the steep slope; vehicular entry was provided by Orphan School Lane, that terminated on a loop on the upper slopes of the hill (now James Ruse Drive).

The original school buildings were inadequate and lacked appropriate outbuildings; work on new facilities commenced in 1820. The structures experienced issues relating to the brickwork and drainage, as well as the water supply and sewerage. In 1829, a new kitchen and store room were constructed, and more additions and renovations were undertaken in 1830-31 including rectification of the poor water, sewerage and drainage of the school.

During this early period of occupation, the land encompassing the study area was not developed. The boundary of the Female Orphan School was fenced and the surrounding land was cultivated in the early 1820s; orchards and a kitchen garden were established in the south-eastern area; by the end of 1822, a gardener was in residence on the site and by 1826 the garden was approximately six acres (Tanner & Associates, 2000a: 44; Thorp, 1992: 11). In the early 1830s, the area occupied by the Female Orphan School was increased with the provision of a reserve for the grazing of stock; the holding was increased to 110 acres. This additional acreage was located to the north of Victoria Road (Tanner & Associates, 2000a: 45).

In 1833 the Church and School Lands Corporation was abolished and in the following year, the Orphan School became an establishment managed by the government. Improvements to the amenity of the school were undertaken in the 1830s and 1840s, including the establishment of ornamental flower gardens, shrubs and trees. During this time, orphans were encouraged to work in the gardens as part of their vocational training; horticulture was applied to vegetable

production, orchards and ornamental flower gardens. This also was effective in supplementing the food supply of the school (Tanner & Associates, 2000a: 45).



Figure 3.1 'View of the Female Orphan School Near Parramatta' (Joseph Lycett, 1825) (Source: State Library of Victoria, 30328102131561/13).

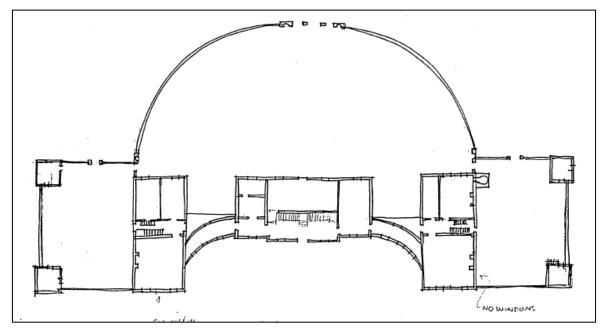


Figure 3.2 Initial building phase (1813-1819) of the Female Orphan School (Source: Tanner & Associates, 2000b: Appendix 1).

3.3 Protestant Orphan School (1850-1887)

A Male Orphan School operated first in Liverpool in the early nineteenth century and later at Cabramatta; the opening of a Roman Catholic Orphan School in Waverly resulted in fewer children attending the Male Orphan School, and by the 1840s the buildings became dilapidated. The

remoteness of the Male Orphan School from Sydney, and the inefficiency of supporting two similar institutions (Male and Female Orphan Schools) led to the amalgamation of the Male Orphanage and the Female Orphan School at Rydalmere in 1850, becoming known as the Protestant Orphan School. Despite sharing the same site, the two schools and associated facilities including bathrooms, dining rooms and classrooms remained separate.

In 1854, the first purpose-built structure for the combined orphanage, a hospital, was established at the site to the north of the central building. An 1865 report from the Inspector of Public Charities found the schools at Rydalmere to be in need of repair; around this time, there were 236 children residing at the school (Tanner & Associates, 2000a: 13). In 1868, a new kitchen was constructed and during 1870, an extensive program of additions and renovations were undertaken. A new school building was constructed, described as being a 'model building', and the Master's Residence was likely built at this time. The additional school building was erected to the rear of the Female Orphan School central building, and was linked with a covered walkway (Figure 3.3). The west wing of the new school building housed the boys' facilities, while the girls' department was housed largely in the east wing. In 1882, a forty-bed dormitory was constructed on the south-western corner of the western wing. The playgrounds to the north of the school were created as enclosures, with areas for the boys and girls separated with central sandstone walls, and delineated elsewhere by timber fences (CAB Consulting, 2003: 9).

The buildings during this period of occupation were largely located in the south-western area of the allotment. The remainder of the area consisted of pasturage for grazing animals, vineyards, orchards and ploughed fields. During this period a new access road was created that entered the grounds at the north-western area, traversing the low-lying area of the site before bridging a creek that ran east-west through the study area, and rising to the ridge that the main buildings occupied (Figure 3.4) (CAB Consulting, 2003: 9).

Great changes were made to government policy relating to the education and social welfare of destitute children throughout the operational period of the combined orphanage. During the 1870s, it became favourable to integrate orphans into the community, particularly through means of boarding with foster parents. In 1882 Henry Parkes moved the passage of the State Children Relief Act, creating the State Children's Relief Board; this Board was commissioned to foster children within the community. As a result of these philosophical and administrative changes, by 1886 funds for orphanages were exhausted and arrangements were made to apprentice out the remaining 32 children at the Protestant Orphan School at Rydalmere. The institution was effectively closed in September 1886.

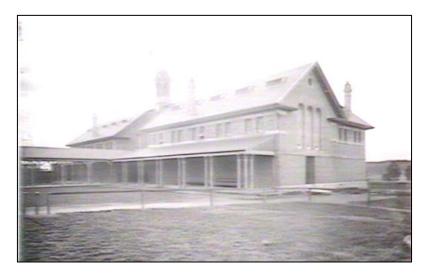


Figure 3.3 Protestant Orphan School building and covered way from central Female Orphan School building c.1870-80 (Source: State Library NSW, Government Printing Office 1 - 06149).

3.4 Rydalmere Hospital for the Insane/Rydalmere Psychiatric Hospital (1888-1989)

In 1888, the Protestant Orphan School site was transferred to the Department of Lunacy and the former school became the Parramatta Branch Hospital for the Insane. At this time, the former orphanage buildings were in poor condition; 30 male patients were sent to the site to prevent further dilapidation and commence tidying the site. Renovation works to the original Female Orphan School building were carried out including the construction of extensions for accommodation and the enclosing of the verandas, as well as the erection of new buildings (now facing James Ruse Drive). In 1891, the site was granted independent status and was renamed Rydalmere Hospital for the Insane.

In 1892 new purpose-built wards were erected for the accommodation of 68 patients, extending to the north-east from the former orphanage (Figure 3.4) (Tanner & Associates, 2000a: 29). As the hospital complex advanced northwards, the new alignment of the block, away from the traditional visual linkages to the river, was emphasised. In 1895, the first female patients were admitted to the hospital and were housed in the new wards. As the facility grew, additional renovation and construction activities continued at the site into the early twentieth century. Inspector of the Insane, Dr Frederick Norton Manning, championed new theories for the treatment of the mentally ill that were reflected in the design of open plan buildings, landscapes and extensive ornamental gardens. These designs were refined by Government Architect Walter Liberty Vernon and the partnership between the two men is reflected in the inclusion of ha-has at psychiatric hospitals across New South Wales including at the Kirkbride Block at Callan Park Hospital for the Insane (1880-1885), Gladesville Hospital (c.1885), Parramatta Lunatic Asylum (c.1885), Kenmore Hospital for the Insane at Goulburn (c.1897-1900) and on the north side of Wards 13-16 at Rydalmere Hospital for the Insane (c.1900).

A new group of large wards designed by Government Architect Walter Liberty Vernon (now known as Building ED/Vernon Group) had been built along the northern edge of the hospital core and were defined on the northern side by a ha-ha, within the eastern car park study area (Figure 3.5), separating it from the orchards, vineyards and open space to the north. To the east, further orchards, an extensive vegetable garden as well as a fowl house and piggery enclosure were located in close proximity to Vineyard Creek (CAB Consulting, 2003: 10).

After the First World War, resources were primarily spent on upgrading existing facilities and services, particularly safety and sanitation; electricity was established at the site during this time. By 1924, the site was considered to be antiquated in terms of the contemporary management of mental hospitals; as a result, some buildings were remodelled or extended, and changes were undertaken to the landscaping of the site. The previous drainage line (ditch) running through the study area was piped beneath the oval to the vicinity of Vineyard Creek during the c.1920s (Figure 3.6) (Tanner & Associates, 2000a: 52).

During the post-World War II period, the site became known as the Rydalmere Psychiatric Hospital, and the facilities were significantly expanded; existing facilities were further upgraded and new structures were built to replace the outdated Female Orphan School buildings. Service facilities such as kitchens, factories and workshops were located in the northern area of the site, and new administrative and recreational facilities were located in the central area of the site. This phase of construction involved the development of the remaining orchard and garden areas (Figure 3.6, Figure 3.7). A new entrance road linking the hospital to Victoria Road was constructed in the northwestern area of the site (following the same alignment as the original access road in this location); the orientation of the complex turned northward and the former Female Orphan School precinct became the 'rear' of the site. The Female Orphan School buildings were abandoned as accommodation for patients in 1969, and were fenced off to prevent illegal entry in c.1975; it was

occasionally used as an indoor basketball court for patients (Tanner & Associates, 2000a: 30). Alterations and the construction of new buildings continued at the site until the 1970s.

By the 1970s, the development of medicines offered the means to control many symptoms of mental ill health without the need of institutional care. Community integration of psychiatric patients began to be favoured over their isolation. Institutions such as Rydalmere adjusted initially by adopting some facilities for outpatient care and sheltered workshop programs, but the Richmond Report in the early 1980s confirmed that large institutions were no longer required. As a result, the Rydalmere Psychiatric Hospital was progressively closed down between 1985 and 1989.

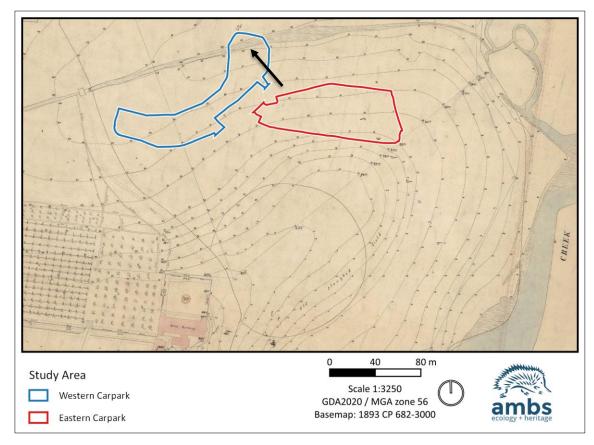


Figure 3.4 'Plan showing contours, features and buildings within area dedicated for Hospital for the Insane, Rydalmere' (1893). At this time, the area surrounding the Protestant Orphan School consisted of cultivated land including orchards, vineyards, vegetable gardens and ploughed/grassed fields. The former alignment of a creek ran through the western car park study area (arrowed). Source: Land Titles Office, 1893_LTO_CP 682-3000.

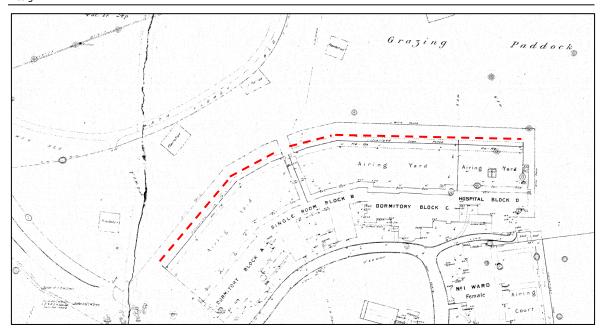


Figure 3.5 Detail from Hospital for the Insane, Rydalmere (1903). Wards 13-16 have been built and the airing yards on the north side of the buildings are defined by ha-has (dashed red). Note this plan is assumed to be made prior to the works, as the ha-has are much more angular than the curved as-built lines visible on the 1943 and 1951 aerial photography of the site. (Source: WSU, formerly Rydalmere Psychiatric Hospital – General Plan – (Frame 1)).

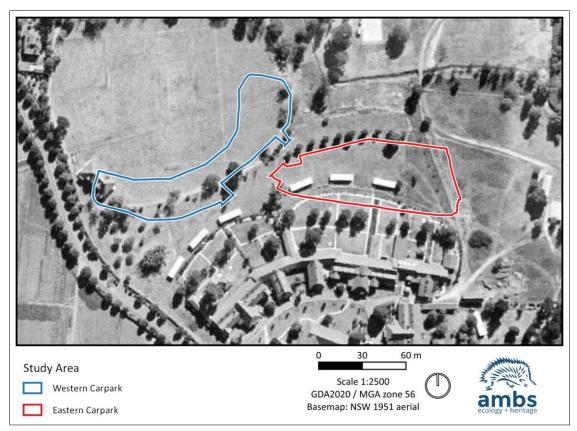


Figure 3.6 1943 aerial of the Rydalmere Psychiatric Hospital, with the eastern car park outlined red. The bright white lines within the study area are likely paved paths at the top of the ha-ha ditch, while the fainter white line is likely the ha-ha wall or an external path. The three sheds appear to be insubstantial shelter sheds.

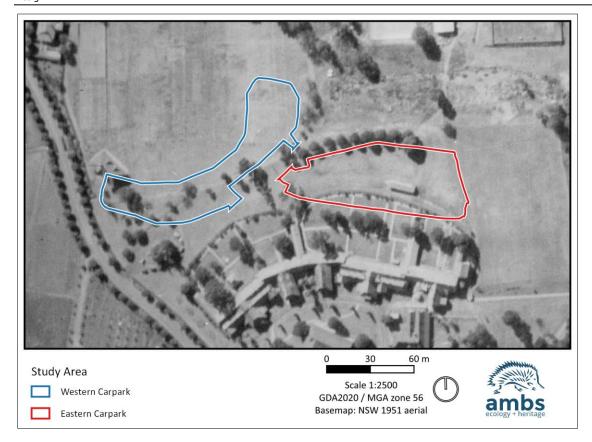


Figure 3.7: 1951 aerial Rydalmere Psychiatric Hospital, with the eastern car park outlined red. The study area remains unchanged, apart from the removal of two of the shelter sheds.

3.5 University of Western Sydney (1993-present)

With the closure of the Rydalmere Psychiatric Hospital in 1989, the campus of buildings on the site were vacant for several years. The original Female Orphan School buildings were unused for the last twenty years of the operation of the hospital and had significantly deteriorated. In 1993, a pump house was erected in the north-eastern area of the site and extensive maintenance was undertaken to bring the building stock up to standard. The works undertaken throughout the midlate 1990s included extensive earth works and installation of more modern services. A pamphlet produced by UWS in 1998 shows pictures of the works; none specifically show the area to the north of Building ED/Vernon Group, however they provide a sense of how the ground levels around these buildings were disturbed and remade at this time (Figure 3.8, Figure 3.9).





Figure 3.8 Works around the Vernon Group, including trenches dug for water, gas and electricity (right). Source: WSU 1998, pages 8 (left) and 10 (right).

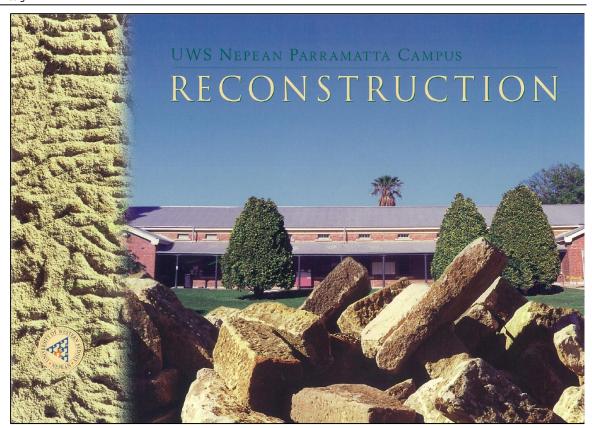


Figure 3.9 The front cover of the UWS pamphlet shows a large quantity of dressed sandstone blocks stockpiled around Building ED/Vernon Group; these are thought to have been salvaged during the works at the site, possibly from the ha-ha. Source: WSU 1998, cover photo.

In March 1998, the Parramatta Campus of the University of Western Sydney opened its classrooms to students. The former psychiatric hospital buildings were adapted to the new use and restoration of the Female Orphan School was carried out by Tanner and Associates from 2000-03. The restoration project received a UNESCO Asia Pacific Heritage Award Honourable mention in 2004. Further restorations of the western wing of the original Female Orphan School building were completed in 2009-11, and of the eastern wing in 2012-13 (UWS, 2017: 32-33).

4 Physical analysis

The two areas of proposed car parks are located on either side of Fifth Street: the western car park is situated in the grassed area around the oval, from the intersection of Bridge and Fifth Street curving around the southeast quadrant of the oval; the eastern car park is situated on the north side of Building ED/Vernon Group between two rows of mature trees.

4.1 Eastern car park

The proposed temporary eastern car park will be located in the mostly flat, grassed ground of the area between Fifth Street and Building EB/Vernon Building. The southernmost third of the area rises up steeply to a flatish plateau approximately 10m wide; a second gentle rise continues south up to a row of mature trees, with a second slightly higher plateau or terrace behind the trees (outside the study area). These terraces form a raised semicircular mound along the north side of Building EB/Vernon Building (Figure 4.1), starting at the central 'sleep-out' and ending roughly in line with the toilet block at the northeast corner of the building. A slight linear depression runs parallel to the curve of the first steeper bank on the first plateau. The grass shows patchy linear areas of browning and less vigorous growth along the crest of the first plateau (Figure 4.2) which are also clearly visible in satellite imagery of the site (Figure 4.3).

The size and volume of earth forming these mounds is indicative that they were created by machine excavations during the c.1998 works across the campus.



Figure 4.1 Location of eastern car park showing the crest of the steeper slope (dashed red) and crest of the more gentle slope (dashed blue). There is a slight depression in the flatish area between the two slopes.



Figure 4.2 Looking east along the top of the first terrace. Geotechnical test pit TP15 is visible on the left.



Figure 4.3 Modern satellite image showing semi-circular lines of brown grass (arrowed) that appear to match the alignment of the ha-ha (Source: SIX Maps).

5 Comparative analysis

The following discussion focuses on the types and survival of ha-ha structures at psychiatric institutions at Parramatta, Gladesville and Balmain from 1885-1900. A 'ha-ha' is a structural landscape element that uses a sloping embankment or ditch, coupled with a high wall (commonly stone) built at the bottom of the slope in order to delineate and enclose a space but allow for uninterrupted views when standing at the top of the slope. Stairs, paths and fences were often added to provide controlled access up and down the embankment, or along the top of the ditch; gates could be included in the high wall but not always. The ha-ha structure could be easily adapted to suit the existing ground levels. The stone wall component could sit flush with the external ground level, be topped with a timber or metal fence, or be built up above the external ground level. The embankment or ditch component could be graded steep, gentle or stepped/terraced, sometimes with paths or stairs to allow safe access to the bottom of the ha-ha. The exact form and dimensions of a ha-ha vary greatly between institutions.

Ha-has were a common feature employed in closed institutions in the late nineteenth century as the conceptual shift from confinement to therapeutic treatment of mental illness emphasised the role of environment, particularly gardens, fresh air and scenery as a type of therapy. Ha-has were constructed at the Kirkbride Block at Callan Park Hospital for the Insane (1880-1885), Gladesville Hospital (c.1885), Parramatta Lunatic Asylum (c.1885), Kenmore Hospital for the Insane at Goulburn (c.1897-1900) and on the north side of Wards 13-16 at Rydalmere Hospital for the Insane (c.1900).

5.1 Callan Park Hospital

Several large, steep ha-has are still extant around the north and northwest side of the Kirkbride Block at Callan Park (Figure 5.1, Figure 5.2). Several of the ha-has have steps running down the centre of the embankment and tall walls divide the internal areas to align with the individual wards. There is great variation in the length and gradient of the slopes and the height of the walls comparable to the ground level on the outside, i.e. the walls are all very high on the interior or base of the ha-ha, but the outside levels vary quite a lot.





Figure 5.1 Historic photographs of Callan Park clearly show the ha-has in c.1883 (left, image from SL NSW) and 1908 (right, image from MH NSW: AF00193154)

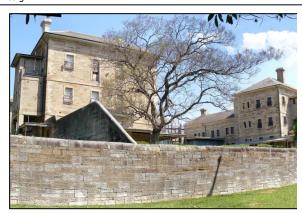




Figure 5.2 Many of the ha-has are still extant around Kirkbride, Callan Park. Photos by Longhurst 2011.

5.2 Parramatta Lunatic Asylum

In 2016-2017 Casey & Lowe undertook testing to confirm the potential and significance of the archaeological resource at the Parramatta North Precinct (Cumberland Hospital), including testing for the two now-demolished ha-ha structures added to the Parramatta Lunatic Asylum/Hospital gardens in the mid-1880s (Figure 5.3). The northern ha-ha was found to survive intact (Casey & Lowe 2018:308-311), with the exception of the uppermost one or two courses that may have protruded above the extant ground level, and had been backfilled with a large volume of cast iron bed frames disposed of by the hospital in the 1960s (Figure 5.4). Only the slope of the earthen bank of the southern ha-ha and a bitumen footpath at the base of the ditch had survived (Casey & Lowe 2018: 314-315) and the wall structure had been completely removed (Figure 5.5).

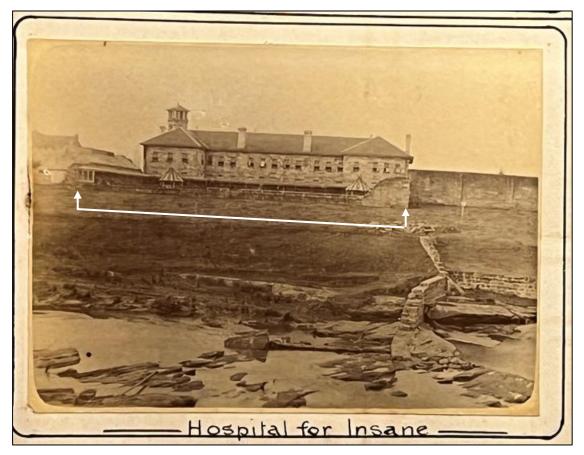


Figure 5.3 c.1885 photo showing the external wall of the southern ha-ha (arrowed white) separating Ward 1 from the Parramatta River. MH NSW: CSL&RC PIC 2012/1.



Figure 5.4 Sandstone wall of northern ha-ha surviving in TA24/1; the ha-ha was backfilled with iron bedframes. Note the top of the ha-ha wall was uncovered just below the existing ground level (top right). Casey & Lowe 2018: 312.



Figure 5.5 Only the slope of the earthen bank of the southern ha-ha was visible during the investigations, with evidence of being terraced for plantings. Casey & Lowe 2018: 315.

5.3 Kenmore Hospital, Goulburn & Gladesville Hospital, Sydney

As mentioned, ha-has were also used as important elements of confinement and enclosure in the institutional landscaping at Kenmore Hospital, Goulburn and Gladesville Hospital. The ha-ha structures from all the institutions discussed in this section were designed and implemented by the same partnership between Government Architect Walter Liberty Vernon and Inspector of the Insane, Dr Frederick Norton Manning. The partnership between these two men resulted in the use of ha-has in at least five separate institutions, including Gladesville Hospital (c.1885, Figure 5.6) and Kenmore Hospital for the Insane, Goulburn (c.1897-1900, Figure 5.7, although the). It stands to reason that the ha-has built by the duo at Rydalmere Hospital for the Insane, between 1885-1900, were of a mostly similar scale and design, although the survival of such structures depends greatly on the later uses or abandonment of the sites (Figure 5.8).

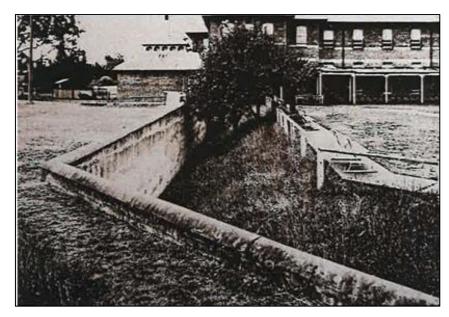


Figure 5.6 Archival photograph from 1965 showing the 'ha-ha' wall and moat/ditch around Female Ward 6 at the Kenmore Hospital, built c.1897-1900. Source: Musescape 2012 :47.



Figure 5.7 Ha-has around the 'Hill Group' buildings at Gladesville Hospital, built c.1885. Detail from Government Printing Office photo dated 1879-c.1891. Source: SL NSW DL PXX 63.



Figure 5.8 Remnants of the ha-ha walls are still visible at Gladesville Hospital. Source: Google Street View.

6 Archaeological assessment

The archaeological resources of any site are finite but have the potential to provide insights into everyday life that are not available from any other resource. Archaeological resources may provide evidence that will enhance the historical record and, as such, make a contribution to an understanding of the history and settlement of a local region. In view of the substantial costs involved in archaeological excavation of a site, a clear justification for any assessment of archaeological potential needs to include the following considerations:

- What is the likely integrity of the archaeological resource? Is it likely that largely intact
 physical evidence would be exposed during excavations such as structural features,
 artefacts from underfloor deposits, rubbish- or cesspits, wells, or other features with an
 ability to contribute meaningfully to an understanding of the development of the site as
 part of the wider development of the study area?
- What is the research potential of the archaeological resource? Is it likely that the results of
 the excavation make a significant or important contribution to an understanding of wider
 research issues regarding the early settlement and development of the study area?

6.1 Previous archaeological investigations

6.1.1 UWS, Parramatta Campus, Multi-Purpose Building, Non -Indigenous Archaeological Testing, Casey & Lowe (2008)

In 2008 Casey & Lowe undertook archaeological test excavations at the site of the proposed Multi-Purpose Teaching building (to the north of the Orphan School precinct), to determine the nature of the remains associated with the former vineyards and orchards of the Orphan School (1813-1887) (Casey & Lowe, 2008: 1). One test trench was excavated mechanically measuring 19.5m long, 1.5m wide and approximately 850mm deep; it was excavated mostly to the level of cultivated soil, and in two small areas it was excavated to the level of the natural clay. The trench was located in the lawn area between the car park and modern EA building in the western part of the UWS campus; this area was historically part of the nineteenth century orchards and vineyards of the Orphan School (Figure 6.1) (Casey & Lowe, 2008: 2).

A number of archaeological features were found within the trench within the cultivated soil and the natural clay (Figure 6.2). The cultivated soil was exposed below the modern fills at approximately 500mm deep; the natural clay was uncovered at a depth of 840mm (Casey & Lowe, 2008: 5). A narrow earthenware pipe was located within the cultivated soul in the northern part of the trench; it was suggested that the pipe was probably related to the irrigation system of the historic vineyard or orchard. A linear feature was also uncovered within the cultivated soil that measured 220-250mm in width and 200mm in depth. The fill was different to the surrounding soil, and it was suggested that it may have been intended to be an open field drain, and related to historic agricultural activities. Two insubstantial cut features into the natural soil were also revealed; one was roughly circular, and the other roughly rectangular. Both features were filled with a soil similar to the deposit between the cultivated soil and natural clay; it was stated that the features related to the historic agricultural phase of the site, however, their specific nature was unclear (Casey & Lowe, 2008: 7).

Soil samples were taken from the cultivated soil and relevant features for environmental and pollen analysis. The results of the pollen analysis indicated preserved pollen evidence of plants including hibiscus, pumpkin and prunus, and two pre-1850s samples which lacked clearly defined evidence. None of the samples reserved evidence of viticulture, although one sample indicated that the soil horizon had been manured with stable waste or straw (Casey & Lowe, 2008: 10).

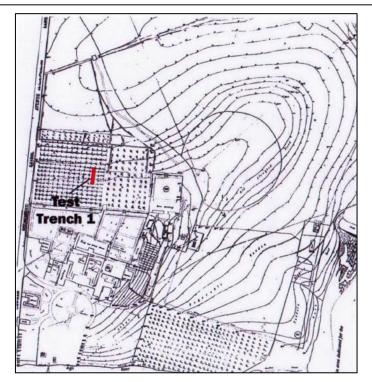


Figure 6.1 Location of Test Trench 1, marked on 1893 map of site (Casey & Lowe, 2008: 4).



Figure 6.2 View south of test trench showing cut feature in foreground, earthenware pipe in middle ground and linear feature in cultivated soil in the background (Casey & Lowe, 2008: 8).

6.2 Potential archaeological resource (Eastern Car Park)

The Heritage Council of NSW's *Historical Archaeology Code of Practice* and *Assessing Significance* for *Historical Archaeological Sites and 'Relics'* provides guidance on defining levels of archaeological integrity and significance as tabulated:

Grading	Justification	Status	
Exceptional	Rare or outstanding item of local or State significance. High degree of intactness. Item can be interpreted relatively easily.	Fulfills criteria for local or State listing.	
High	High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.	Fulfils criteria for local or State listing.	
Moderate	Altered or modified elements. Elements with little heritage value but which contribute to the overall significance of the item.	Fulfils criteria for local or State listing.	
Little	Alterations detract from significance. Difficult to interpret.	Does not fulfil criteria for local or State listing.	
Intrusive	Damaging to the item's heritage significance.	Does not fulfil the criteria for local or State listing.	

6.2.1 Integrity of the resource

The study area was originally encompassed within Surgeon Thomas Arndell's 60-acre farm, Arthur's Hill, between 1791 and 1792. Arndell cultivated the land and erected a small hut; the hut was likely located in close proximity to Vineyard Creek. Arthur's Hill then became the site of the Female Orphan School in c.1810, and the associated buildings were constructed in the southwestern portion of the allotment on the northern bank of the Parramatta River. The Protestant Orphan School was formed in 1850, after the amalgamation of the Female and Male Orphan Schools; the new construction associated with this development occurred in close proximity to the Female Orphan School buildings. The land surrounding the Protestant Orphan School buildings consisted of orchards, vineyards, gardens, and pasturage for grazing animals. During these early phases of occupation, the study area remained undeveloped; a creek ran east-west through the study area.

Casey & Lowe's Non-Indigenous Archaeological Assessment University of Western Sydney Parramatta Campus (2007) assessed the archaeological potential of the site by dividing the campus into two areas; The Orphan School Precinct and the Surrounding Farmland; part of the eastern car park study area is within the Surrounding Farmland. The report stated that the surrounding farmland is unlikely to contain substantive archaeological remains; however, there is potential for insubstantial remains to be present relating to the early agricultural pursuits of the area. The archaeological remains associated with Arndell's occupation of the study area in the eighteenth century were likely removed by later cultivation activities. The features associated with the nineteenth and early twentieth century occupation of the study area may include post holes, cultivated soils, drains, ditches, and gullies (Casey & Lowe, 2007: 12-13).

The archaeological test excavation undertaken by Casey & Lowe in 2008 demonstrated that the archaeological resource within the nineteenth century orchards and vineyards of the Orphan School (south of the study area) was insubstantial. An earthenware pipe and linear feature, (suggested to be an open field drain) were revealed within the cultivated soil (at a depth of approximately 500-760mm) and two features were cut into the natural clay (at a depth of approximately 840mm) (Casey & Lowe, 2008: 7). Any remains associated with the agricultural use of the land within either the western or eastern car parks are likely to be similar to those uncovered in 2008 i.e. insubstantial. There is considered to be nil-low potential for archaeological evidence for the agricultural activities at the site or structural remains of the cricket pavilion; any surviving remains would have low research potential, low integrity and nil-low heritage significance.

The Parramatta Branch Hospital for the Insane opened in 1888 and started by converting and renovating the old Orphan School Buildings and developing along the riverbank. At the turn of the century, new large-scale wards were added, encircling the flatter ground to the northeast, reorienting the complex towards the north. Victoria Road was constructed in 1887 and the rail connection to Clyde and Carlingford was built in the 1890s, meaning access to the site shifted away from the river. Wards 13-16 (now Building ED/Vernon Building) were built in c.1900; the building's curved frontage is to the south creating an open space or 'village green', but extensive airing courts and terraced gardens were also built at the rear (north side) of the buildings, defined by a fenced ha-ha along the northern edge of the complex.

The Rydalmere Psychiatric Hospital operated until 1989 and in 1993, extensive maintenance was undertaken to bring the building stock up to standard for the University of Western Sydney, Parramatta Campus, including filling-in the ha-ha on the northern side of the Vernon Building at some point in the early-mid 1990s. Anecdotal evidence from one of the architects mentioned in the 1998 publication suggests that ha-has were non-existent with no walls, and the ditches had been backfilled prior to these works (Jones, M. 2024). The classrooms of the University were opened to students in March 1998. Personal communications received from The University of Sydney indicates that a former staff member remembers that the ha-has walls were not observed and that ditches had been backfilled, however, AMBS has not been able to find any further documentary evidence to substantiate these claims.

The current ground levels and topography of the eastern car park show one steep and one gentle slope that are roughly aligned with the ha-ha structure as shown on aerial photography: the gentle southernmost slope may represent the top of the slope/ditch of the ha-ha; the steeper northernmost slope may represent the wall section of the ha-ha. Two general principles that underpin the assessment of potential are particularly relevant for the eastern car park:

- Works are carried out with as little effort and materials as possible to control costs, leading to higher areas being cut down and lower areas being raised up.
- The later a structure is demolished, the less likely it is that archaeological remains survive due to use of heavy machinery.

Given the extensive below-ground works and earthworks around the Vernon Group in the mid-late 1990s (see Section 3.5, Figure 3.8 and Figure 3.9 above), there is predicted to be low-moderate potential for survival of the structural elements of the ha-ha, as heavy earth-moving equipment was likely used. This is particularly true of the uppermost metre of the current ground level, which is where the temporary car park works would potentially impact any remains of the ha-ha wall. If structural remains do survive they are likely to be present at depth, below 1-1.5m from the current ground level. The 2018 results from the investigation of the ha-has at the Cumberland Hospital, North Parramatta showed one structure had excellent intactness, while the wall of the other ha-ha had been completely removed and only the slope of the bank had survived.

6.2.2 Research potential

There is considered to be low-moderate potential for structural remains of the ha-ha wall or evidence of the ditch to survive in the uppermost metre of the eastern car park; any surviving remains are more likely to survive at a depth greater than 1-1.5m and would have moderate research potential and heritage significance at a local level.

6.3 Summary

There is considered to be nil-low potential for archaeological evidence for the agricultural activities within the eastern car park study area; any surviving remains would have low research potential, low integrity and nil-low heritage significance. There is considered to be low-moderate potential

Western Sydney University, Parramatta South Campus Proposed Temporary Car Park Historical Archaeological Assessment and Research Design

for archaeological evidence of the ha-ha to survive in the uppermost metre of material within the eastern car park study area. Any surviving remains of the ha-ha structure would have moderate research potential associated with the locally significant hospital-period, depending on intactness.

7 Assessment of significance

The physical evidence of past activities is a valuable resource that is embodied in the fabric, setting, history and broader environment of an item, place or archaeological site. The value of this resource to a community can be evaluated by assessing its cultural and natural heritage values. *Cultural significance* and *heritage value* are terms used to express the intangible and tangible values of an item, place or archaeological site, and the response that it evokes in the community. Assessment of significance provides the framework for the development of management strategies to protect an item or place for future generations.

An item, place or archaeological site is considered to be of State or local heritage significance if it meets one or more of the seven criteria for assessing heritage significance in NSW provided in the guideline *Assessing heritage significance* (Table 7.1).

Table 7.1 Criteria for assessing heritage significance in NSW (Department of Planning and Environment, 2023a, p. 21).

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

7.1 Statement of significance

The Rydalmere Hospital Precinct (former) is listed on the SHR primarily for the heritage values associated with the Orphan School-period. The statement of significance reads:

The Female Orphan School Precinct as a component of the former Rydalmere Hospital is of outstanding cultural significance, primarily for its continued use and development, between 1813 and 1989 as a public welfare institution for the care and management of the disadvantaged.

As the first purpose built orphan school in the colony, it illustrates a milestone in the establishment of national social welfare and education policies.

The surviving original buildings, constructed between 1813 and 1818, provide evidence of the development policies of Governor Macquarie and illustrates the transfer of 18th century British architectural pretensions into the design and siting of functional buildings in New South Wales. The extant central block is the oldest three storey building in Australia.

The site as a whole, and particularly the Orphan School precinct, has outstanding historical and social significance because of its continuous occupation as an institution since 1814. The original complex and its garden setting have outstanding rarity value. Its landscape is of exceptional significance for its development as a Colonial institution sited within the cultural landscape of the Parramatta River valley and influenced by Mrs Macquarie together with the continuing recognition of the heritage values of the place up to the present (Schwager Brooks, 1994).

The structure of the built and natural fabric of the place has been conserved despite the constant adaptation by institutional uses and alienation of its peripheral lands. As a complex of parkland landscape character with gardens, built form and remnant indigenous vegetation it demonstrates the evolution of different attitudes towards institutional care in NSW. The groundworks design and siting of the buildings is associated with Mrs Macquarie, Reverend Samuel Marsden, Francis Greenway and subsequent Colonial and Government Architects (particularly Walter Liberty Vernon) and individuals associated with health care such as Frederick Norton Manning and Dr Greenup (excerpt from Tanner Architects, 2005). (SHI Inventory entry, 2008).

The 2008 CMP from Conybeare Morrison also provides an additional statement of significance specifically for the 1900 ward Range Precinct (Vernon Group). As such an updated statement of significance is not warranted.:

The precinct displays a combination of design concepts which have high historical value and reflects the development of philosophies of institutional care at the turn of the century. Its design concepts, still clearly visible, contrast in noteworthy ways with other psychiatric hospitals of this period, a combination of features unique among the psychiatric hospitals of NSW.

The major buildings of the precinct - the 1900 Ward Range - are largely intact both externally and internally (apart from paint schemes and wet areas). They retain various minor elements such as summer houses and sleep-outs, which are further evidence of the philosophy and functioning of the institution. The layout of their airing yards is largely intact (apart from filled in ha-ha walls), are clearly visible, and retain many early plantings.

The major buildings of the precinct - the 1900 Ward Range - are good examples of the work of the Government Architect's Office under W.L. Vernon. They effectively combined the needs of the institution with typical features of Federation period domestic architecture, such as single storey construction, asymmetrical massing, complex roof forms and good quality decorative stone and timber details. These features are in harmony with the 'village green' character of the inside of the circle, and show the influence of the 'Garden Suburb' movement of the early 20'" century.

The wards themselves curve gently round a central 'green' containing supervisory accommodation and adjacent service structures. However they are not introspective and the airing yards are outward looking gardens from which a sense of enclosure had been banished by the use of Ha-Ha's. Environmental quality was enhanced by the relationship with the surrounding landscape and by a combination of modest scale, homogeneous materials, fine masonry detailing and a picturesque roofline. These qualities remain important to the place.

The development of the major asylum buildings at the turn of the century was the climax of thirty years of experimentation by Frederick Norton Manning, and the Colonial and Government Architects, with the design of psychiatric and charitable accommodation at Gladesville, Callen Park, Parramatta, Rockwood and Kenmore. It joined a capacity for isolation and the convenience and safety of single development with reasonable

compactness. It also achieved a balance of dormitory, single room accommodation which was satisfactory for complimentary requirements (Conybeare Morrison 2008: 41).

For these reasons the precinct is considered to have high Significance and high rarity value among the psychiatric hospitals of NSW.

8 Proposed works

Western Sydney University is proposing to build a new state-of-the-art Indigenous Centre of Excellence (ICoE) as a new tertiary education facility on campus. The centre will be located in the northeast of the campus, within the area currently used as a car park (approximately 284 car parking spaces, P1). Prior to the construction of the ICoE, WSU is proposing to create a temporary relocated car parking facilities for 320 cars in two areas on either side of Fifth Street.

The proposed works include:

- Site establishment works including laybacks and temporary fencing.
- Tree removal and minor landscaping works.
- Civil works:
 - Earthworks including battering and retention of ground around car park perimeter.
 - Stormwater trenching.
 - Electrical trenching and installation of lighting.
- Pavement works, hard-stand paving, line marking and signage.

8.1 Eastern car park

Analysis of the proposed earthworks mapping showing the areas of cut and fill have shown that the extant ground level in the southern third of the eastern car park will be reduced by 0-1m in depth (Figure 8.1). A small area of lower ground in the southwest corner of the car park will be built-up by 0.5-1m. The proposed earthworks to cut and lower the ground level in the southern third of the area may impact the ha-ha structure, particularly the wall, if it survives in the uppermost metre of the current ground level.

Other substantial below-ground works in the eastern car park include:

- Installation of a 20 x 6 x 0.9m stormwater retention tank in the north section of the car park (Figure 8.5)
- 88m of new stormwater pipes to be laid from the new tank north across the grass into Fifth Street then east along Fifth Street before joining the existing stormwater network (Figure 8.5).
- Relocation of existing light pole and removal of redundant power supply.
- Installation of 14 light poles (Figure 8.3) and associated electrical conduits (four light poles along the southern edge of car park in close proximity to the ha-ha. Figure 8.4).

8.2 Assessment of impacts from proposed works

In the southernmost third of the eastern car park area where any surviving remains of the ha-ha would be located, the proposed impacts from the earthworks would be confined to the uppermost metre of the existing ground level. Given the uncertainty around the survival of structural remains of the ha-ha it is difficult to determine if there will be impacts to the upper courses of the ha-ha wall. If the wall does survive it is likely to survive at depths of greater than one metre and impacts from the proposed works would only occur in the uppermost metre leaving the rest of the structure intact.

There are four light posts, 450mm diameter and 1.8m deep to be installed in the vicinity of the haha structure; given any structural remains of the haha wall are likely to be narrow in width (albeit long and deep), it is unlikely that there will be specific impacts from the light posts.



Figure 8.1 Map indicating the required level of soils to be removed for the propsed carparks (Source TTW).

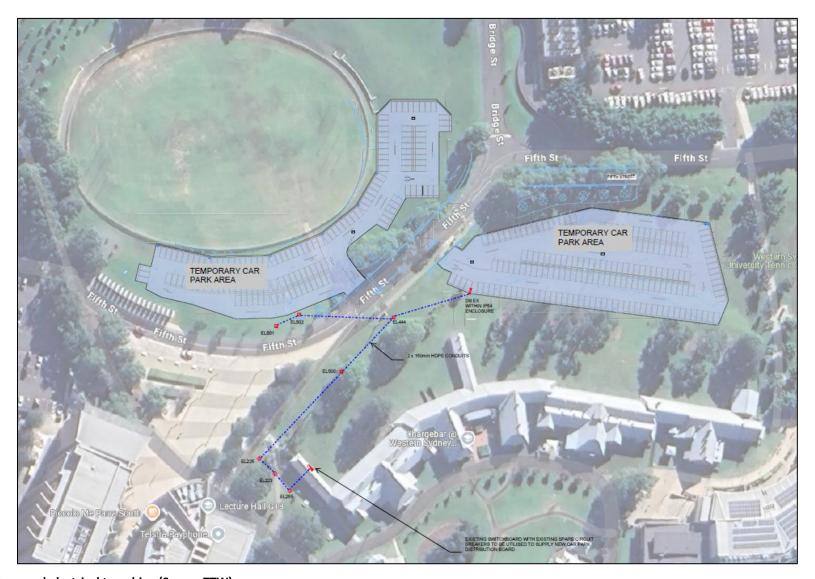


Figure 8.2 Proposed electrical trenching (Source TTW)

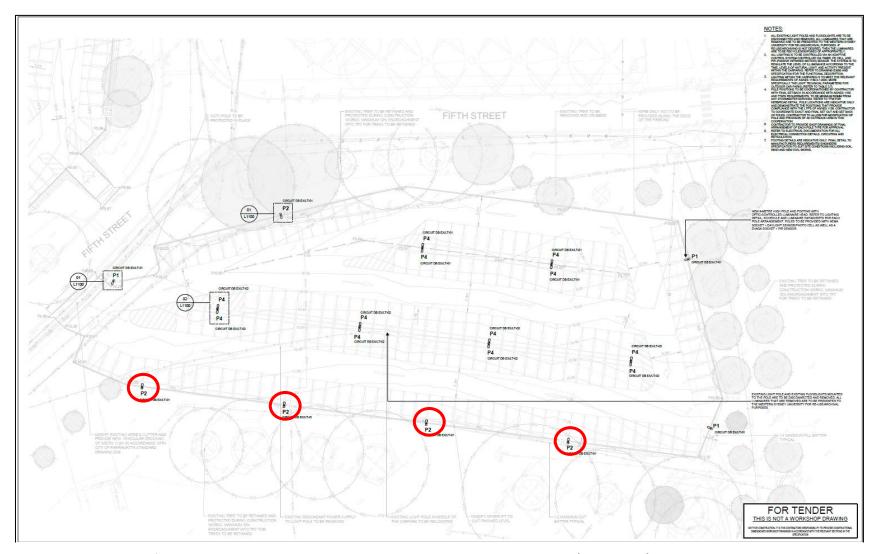


Figure 8.3 Proposed positioning of light poles in eastern carpark; the poles closest to the ha-ha are circled red (Source TTW).

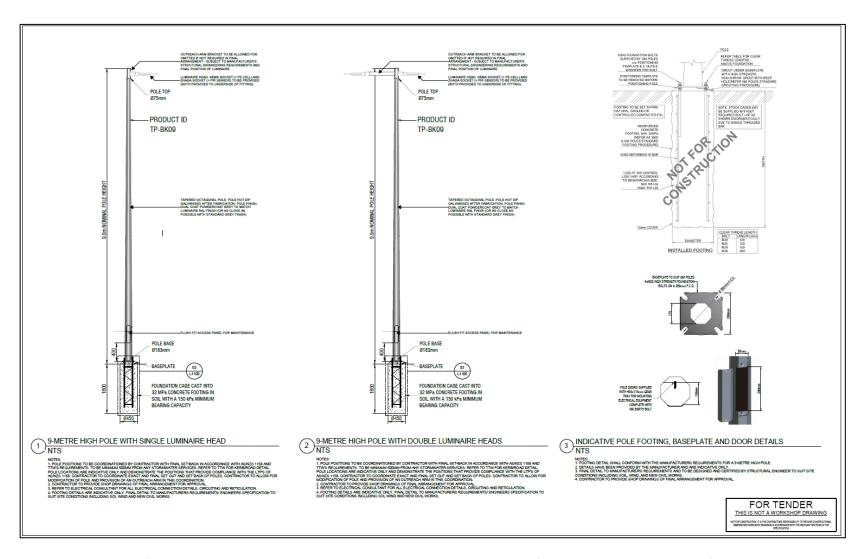


Figure 8.4 The technical details of the light poles to be installed in the proposed car parks, requiring a foundation cage cast concrete footing 450mm diameter and 1.8m depth. (Source: Steensen Varming Electrical).

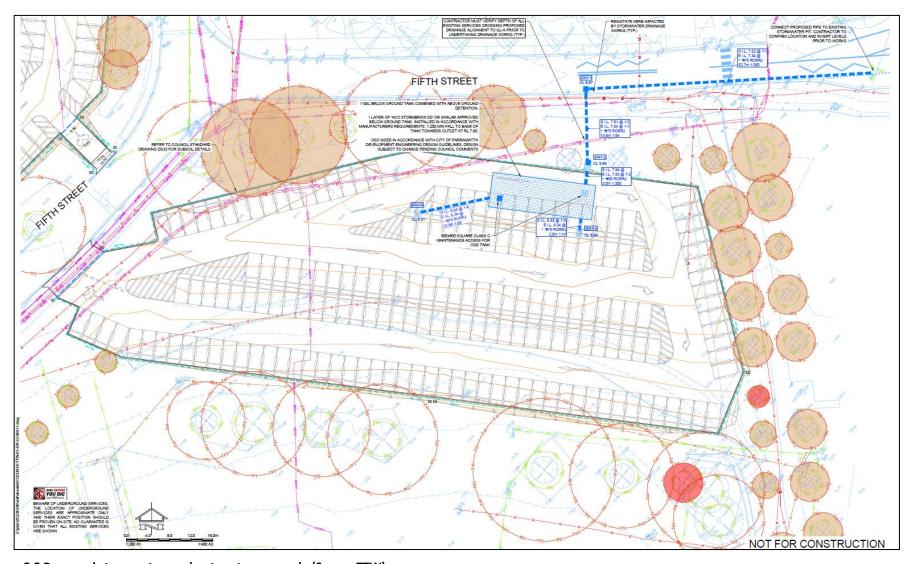


Figure 8.5 Proposed stormwater works at eastern carpark. (Source TTW)

9 Managing the archaeological resource

Heritage places contribute to an understanding and character of a community by providing tangible evidence of its history and identity. At times of change, they help to preserve a connection to the past, and can provide a point of reference for interpreting the past to future generations. Article 15 of the Burra Charter refers to managing *change*, which should be guided by the *cultural significance* of the *place* and its appropriate interpretation. The Burra Charter process also recognises that the development of preferred conservation options requires consideration of a range of other factors which could affect the future of a place. These include:

- requirements of the owner, in this case The University of Western Sydney;
- the physical condition and safety requirements of the place; and
- heritage statutory obligations and other issues related to heritage.

The proposed temporary car park works are considered time-sensitive by WSU in order to commence work on the ICoE. AMBS originally advised WSU that a short program of archaeological testing would provide clarity around the survival of any structural remains of the ha-ha, correctly assess if there will be impacts from the proposed works, and provide better mitigation strategies and recommendations to manage the proposed works. Upon review of their own archival documents that label the ha-ha walls as 'former', combined with anecdotal evidence from former staff, WSU considers that the c.1998 works have removed the ha-has. AMBS has also recommended that, as the applicant, WSU seek advice from Heritage NSW about the correct approval pathway for this project. As WSU has chosen to apply for an S60 permit for the full scope of works required for the construction of the eastern car park without archaeological testing, AMBS has advised of the risk that additional permits will likely be required if relics are uncovered during the course of the works which will require additional time and may cause delays to the project.

The primary concern for The University of Western Sydney is the protection of the heritage and archaeological values of the study area, and maintaining public enjoyment. The eastern car park has been assessed as having low-moderate archaeological potential (Section 6.3 above), therefore the following Archaeological Research Design (ARD) has been prepared to accompany an S60 Application for the proposed works.

9.1 Archaeological research design and monitoring methodology

Archaeological remains can enhance the historical record and as such make a contribution to an understanding of the history and settlement of a local area. If intact remains of the ha-ha are present within the eastern car park, it has moderate research potential associated with the locally significant hospital-period. In view of the substantial costs involved in the archaeological excavation of a site, the research design should be problem-oriented; however, allowance should always be made for new questions to respond to unexpected archaeological evidence. Archaeological research questions provide a framework for an archaeological investigation and for the analysis of the results of the excavation and artefacts recovered during excavations.

9.1.1 Monitoring methodology

Given the uncertainty about the level of disturbance from the c.1998 works in the uppermost metre of the existing ground level and how this may have already impacted or removed any remains of the ha-ha, it is proposed to archaeologically monitor the proposed earthworks in the southernmost third of the eastern car park study area (Figure 9.1). The monitoring will be undertaken by Excavation Directors (ED) Rhian Jones and Ronan Mc Eleney, AMBS Senior Heritage Consultants. If substantial *in situ* structural remains of the ha-ha are uncovered, works will cease,

Heritage NSW will be notified, and the remains cleaned and recorded in accordance with the following methodology:

- Establish a site datum and lay out a grid to record the levels of extant deposits, features, and relics.
- All significant archaeological deposits, features and relics that are exposed during the excavations will be recorded in accordance with heritage best practice standards. Recording will include:
 - Cleaning features to facilitate photographic recording.
 - Scale plans.
 - Elevations of features, if relevant.
 - Digital photographs (in JPG and RAW format).
 - Photogrammetry.
 - Site survey.
 - Detailed description of the feature, deposit, or relic to ensure that a clear and comprehensive record of the archaeological resource of the site is preserved for the future.
- Digital recording techniques may be used alongside the traditional recording methods, such as topographic survey with DGPS or total station and photogrammetry, as decided by the Excavation Director. A specialist archaeological surveyor may be required to facilitate the survey and photogrammetry (if required).
- Sequential numbering of features and deposits to facilitate preparation of a Harris Matrix and artefact labelling.
- Preparation and development of a Harris matrix, to show stratigraphic relationships between all recorded archaeological features and deposits.
- All information regarding the location, dimensions and characteristics of all recorded archaeological features and deposits will be recorded on pro-forma context sheets.

Prior to the recommencement of works and/or removal of any archaeological items determined to be relics, Heritage NSW will be contacted to determine whether additional approvals are required.

9.1.2 Unexpected Heritage Finds Procedure

The rest of the eastern car park area will be managed under an Unexpected Heritage Finds Procedure (Figure 9.1). An unexpected heritage find is an object or place that is discovered during the carrying out of the project and which may be a heritage item but not identified in the archaeological assessment or suspected to be present.

If unexpected historic relics are exposed, work would stop in the affected area and an AMBS Historic Archaeologist would be contacted to assess the integrity and significance of the exposed relic(s). Unexpected relic(s) that are exposed during works would be managed in accordance with the following procedure:

- If the suspected heritage find is assessed by the AMBS Historic Archaeologist to have no significance and/or integrity, AMBS will provide written approval for work to proceed.
- Relics assessed by the AMBS Historic Archaeologist as having local significance may require additional management strategies and/or approvals. Following AMBS' written approval that the find has been appropriately managed, work may resume.
- If the relic(s) is assessed as having State heritage significance, the AMBS Historic Archaeologist would inform the project team and Heritage NSW, in writing, with details of the nature, integrity and significance of the relic. An appropriate management strategy would be determined and implemented in consultation with Heritage NSW. AMBS would

- provide written approval for works to resume once all relic and/or areas of archaeological sensitivity with state heritage significance have been appropriately investigated and recorded.
- If the relic, on investigation, proves to be part of a feature or an archaeologically sensitive
 area, the AMBS Historic Archaeologist would inform the project team and Heritage NSW,
 in writing, with details of the nature, integrity and significance of the relic to determine
 the appropriate management strategy, which may include open area salvage excavation.
 Works would not proceed until AMBS provides a clearance certificate affirming that
 archaeological investigations have been completed, artefacts retained for analysis, and
 that no relics remain in situ.



Figure 9.1 Overview of archaeological management to be undertaken in the eastern car park study area.

9.1.3 Archaeological research questions

The archaeological resources of any site are finite but have the potential to provide insights into everyday life that is not available from other resources. To ensure that the research potential and significance is realised, archaeological investigations undertaken anywhere in the study area should aim to address substantive research themes. The following research questions would inform the procedure of archaeological investigations.

- Have remains (structural or otherwise) of the ha-ha structure survived in the archaeological record?
- How does the presence or absence of archaeological remains change the assessment of archaeological potential and/or significance at the site?
- How do any remains compare to similar ha-ha structures at other institutional sites? What
 can they tell us about the design and intent of Manning and Vernon as a partnership?

Western Sydney University, Parramatta South Campus Proposed Temporary Car Park Historical Archaeological Assessment and Research Design

In addition, new questions are likely to arise during the course of the investigations and/or post-excavation analysis which may provide new insights and information into different aspects of the site.

10 Conclusion and recommendations

Remains of the ha-ha structure within the boundary of the eastern car park, if present with good integrity, would meet the threshold for local significance for its contribution to our understanding of the expansion of the hospital complex and development of the therapeutic landscape at Rydalmere Hospital for the Insane. Given the wide-scale disturbance across the campus during the c.1998 works may have already impacted or removed any remains of the ha-ha within the eastern car park study area, and any impacts from the proposed works will be confined to the uppermost metre of the existing ground level, WSU has chosen to apply for an S60 permit for the full scope of the proposed works. As such AMBS has determined that monitoring is the best management strategy to determine if substantial *in situ* structural remains of the ha-ha have survived. If such remains are uncovered, works will cease, Heritage NSW will be notified, and the remains cleaned and recorded in accordance with the ARD methodology. Prior to the recommencement of works and/or removal of any archaeological items determined to be relics, Heritage NSW will be contacted to determine whether additional approvals are required. WSU is aware that works may need to be delayed while additional approvals are prepared.

10.1 Recommendations

Based on the results of our assessment, the following recommendations are made in relation to the proposed works. These recommendations are guided by the provisions of the Burra Charter (Australia ICOMOS, 2013) and heritage best practice.

Recommendation 1

A testing program under an S60 should be undertaken to clarify the integrity of the potential archaeological remains of the ha-ha prior to the commencement of project works. The results of which will inform the future archaeological management and enable specific mitigation measures to be developed for the project.

Recommendation 2

Should WSU choose to apply for an S60 permit for the full scope of works required for the construction of the eastern car park rather than undertaking a testing program prior to the project works AMBS advises that WSU as the applicant seek advice from Heritage NSW about the correct approval pathway for this project.

Recommendation 3

Should WSU apply for an S60 for the full scope of works, to determine if structural remains of the ha-ha have survived and ensure impacts to this resource are avoided, archaeological monitoring within the southern third of the eastern car park study area will be undertaken in accordance with the methodology outlined in this report.

Recommendation 4

If archaeological remains are uncovered and determined to be relics, additional approvals are likely to be required. No relics are to be removed until Heritage NSW has been notified and advised on whether additional approvals are required.

Recommendation 5

If no relics are present, a report will be completed at the end of the archaeological monitoring program in accordance with Heritage NSW quidelines.

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Appendix C: AMBS Western Temporary Car Park Report





Western Sydney University, Parramatta South Campus Proposed Temporary Car Park – Western Study Area Historical Archaeological Assessment, Impact Assessment and Research Design

Prepared by AMBS Ecology & Heritage for Western Sydney University

Final

December 2024

AMBS Reference: 25547

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Heritage listing/s	Rydalmere Hospital Precinct (form WSU Parramatta Campus, formerly Orphan School Parramatta LEP 202	Rydalmere Hospital and Female
Address and location	171 Victoria Road Rydalmere	
Prepared for	Stuart Pullens, Senior Project Coor	dinator, Western Sydney University
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Contents

1	Intr	roduction	5
	1.1	Study area	5
	1.2	Methodology	6
	1.3	Authorship	
	1.4	Limitations	
	1.5	Terms & abbreviations	6
2	Sta	tutory contexttutory context	8
	2.1	Environment Protection and Biodiversity Conservation Act 1999	
	2.2	Heritage Act 1977	
	2.2.		
	2.2		
	2.3	Environmental Planning and Assessment Act 1979	
	<i>2.3.</i> . 2.4	Heritage Management Documents	
	2.4		
		versity of Western Sydney, April 2014, City Plan Heritage	-
3		toric context	
3		Arthur's Hill Farm (1791-1792)	
	3.1 3.2	Female Orphan School (1810-1850)	
	3.3	Protestant Orphan School (1850-1887)	
	3.4	Rydalmere Hospital for the Insane/Rydalmere Psychiatric Hospital (1888-1989)	
	3.5	University of Western Sydney (1993-present)	
4	Phy	/sical analysis	
•	4.1	Western car park	
5	Λrc	haeological assessment	
3	5.1	Previous archaeological investigations	
	5.1.		
		ting, Casey & Lowe (2008)	
	5.2	Potential archaeological resource (Western Car Park)	
	5.2.		
	5.2	2 Research potential	.28
	5.3	Summary	.28
6	Ass	essment of significance	.29
	6.1	Statement of significance	.29
7	Pro	posed works	.31
	7.1	Western car park	
	7.2	Assessment of impacts from proposed works	.31
8	Ma	naging the archaeological resource	.37
	8.1	Archaeological research design and methodology	
	8.1.	1 Unexpected Heritage Finds Procedure	.37
	8.1	2 Archaeological research questions	.38
9	Cor	nclusion and recommendations	.39
	9.1	Recommendations	
В	ibliogr	raphy	.40
	- 3-	. ,	_
T	able	es	
		1 Terms and abbreviations	6
		.1 Criteria for assessing heritage significance in NSW (Department of Planning a	
		ironment, 2023a, p. 21)	

Figures

Figure 1.1 Location of the study area.	5
Figure 2.1 SHR curtilage for the study area.	9
Figure 2.2 LEP curtilage for the study area.	11
Figure 2.3 Potential Archaeological sites identified within the western car park study area	
blue) and eastern car park study area (circled red), based on map contained in Thor Figure 6.3.2 (Source: Conybeare Morrison International, 2008: 16, Figure 2.8)	•
Figure 2.4 Conservation Areas of the UWS Parramatta Campus, showing the two areas of of The western car park (circled blue) is within the 'Cricket Grounds and Venues Conservat 2' (shaded blue), while the eastern car park (circled red) is adjacent to Ha Ha 1 on the r boundary of the 'Institutional Complex Conservation Area 1' (shaded green). (Source: Co Morrison International, 2008: 18, Figure 3.1)	ion Area northern nybeare
Figure 3.1 'View of the Female Orphan School Near Parramatta' (Joseph Lycett, 1825) (Source Library of Victoria, 30328102131561/13).	
Figure 3.2 Initial building phase (1813-1819) of the Female Orphan School (Source: Ta Associates, 2000b: Appendix 1)	
Figure 3.3 Protestant Orphan School building and covered way from central Female Orphan building c.1870-80 (Source: State Library NSW, Government Printing Office 1 - 06149)	
Figure 3.4 'Plan showing contours, features and buildings within area dedicated for Hospita Insane, Rydalmere' (1893). At this time, the area surrounding the Protestant Orphar consisted of cultivated land including orchards, vineyards, vegetable garde ploughed/grassed fields. The former alignment of a creek ran through the western car pa area (arrowed). Source: Land Titles Office, 1893_LTO_CP 682-3000.	n School ens and ark study 20
Figure 3.5 Detail from Hospital for the Insane, Rydalmere (1903). Wards 13-16 have been to the airing yards on the north side of the buildings are defined by ha-has (dashed red). It plan is assumed to be made prior to the works, as the ha-has are much more angular curved as-built lines visible on the 1943 and 1951 aerial photography of the site. (Source formerly Rydalmere Psychiatric Hospital – General Plan – (Frame 1))	Note this than the ce: WSU,
Figure 3.6 View of Cricket Pavilion c1915 (Kerr; Proudfoot; Thorp; Burton & Burkett, 1982: 24 6.29)	
Figure 3.7 1943 aerial of the Rydalmere Psychiatric Hospital, western car park outlined in blu	ue21
Figure 3.8: 1951 aerial Rydalmere Psychiatric Hospital, western car park outlined in blue	22
Figure 4.1 The southern section of the prominent mound where the western car park will be Geotechnical test pits TP9 and TP7 are visible in the background and middle right resp	ectively.
Figure 4.2 View east across the oval and grassed area where the western car park will be (dashed red). The mature Jacaranda trees along Fifth Street are visible in the backgroup prominent mound is arrowed red, the gentle slope down to the north and raised edg oval are arrowed blue.	located und, the ge of the
Figure 5.1 Location of Test Trench 1, marked on 1893 map of site (Casey & Lowe, 2008: 4)	
Figure 5.2 View south of test trench showing cut feature in foreground, earthenware pipe in ground and linear feature in cultivated soil in the background (Casey & Lowe, 2008: 8).	n middle
Figure 7.1 Map indicating the required level of soils to be removed for the proposed car parks TTW).	(Source
Figure 7.2: Proposed electrical trenching (Source TTW).	33
Figure 7.3 Proposed positioning of light poles in western car park (Source Steensen Electrical)	Varming
Figure 7.4: The technical details of the light poles to be installed in the proposed car parks Steensen Varming Electrical).	(Source
Figure 7.5 Proposed stormwater works in the western car park (Source TTW)	

1 Introduction

AMBS Ecology & Heritage (AMBS) has been engaged by Western Sydney University (WSU) to complete a Historical Archaeological Assessment (HAA) and Archaeological Research Design (ARD) for the proposed temporary car park within the Parramatta South Campus, near the future location of the Indigenous Centre of Excellence (ICoE). Western Sydney University proposes to construct temporary car parking facilities in the northern portion of the campus on Fifth Street. This report has been prepared to assess any impacts from the proposed works to the potential historical archaeological resource within the study area and provide recommendations for its management.

1.1 Study area

The full car park study area is located on the east and west sides of Fifth Street in the northern portion of the Western Sydney University, Parramatta South Campus (Lots 100 & 101 DP816829) at 171 Victoria Road, Rydalmere, within the Parramatta Local Government Area (LGA) (Figure 1.1). It is located within the historic Field of Mars Parish and the County of Cumberland. The site is bounded by Victoria Road to the north, the Parramatta River to the south, Vineyard Creek to the east and James Ruse Drive to the west.

This report covers the study area for the western portion of the car park only. See AMBS (2024a) Western Sydney University, Parramatta South Campus Proposed Temporary Car Park — Western Study Area, Historical Archaeological Assessment and Research Design for details of the eastern portion of the proposed temporary car park.

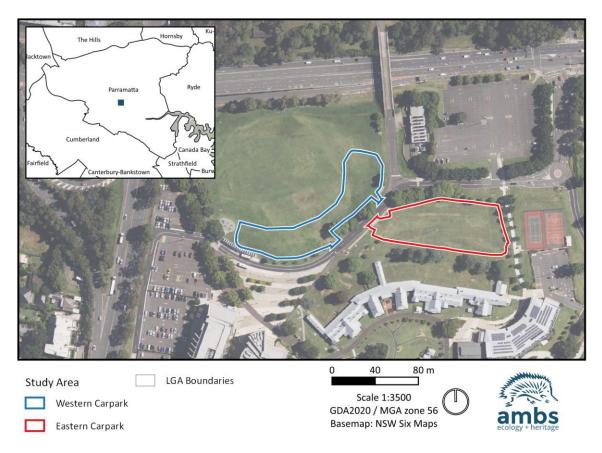


Figure 1.1 Location of the study area.

1.2 Methodology

This report is consistent with the principles and guidelines of the *Burra Charter: The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance 2013* (Burra Charter) (Australia ICOMOS, 2013). The report has been prepared in accordance with current best practice guidelines as identified in the *NSW Heritage Manual* (Heritage Office and DUAP, 1996b) and associated publications including:

- Archaeological Assessments Guidelines (Heritage Office and DUAP, 1996a).
- Assessing heritage significance (Department of Planning and Environment, 2023a).
- Guidelines for preparing a statement of heritage impact (Department of Planning and Environment, 2023b).
- Investigating heritage significance (Heritage NSW, 2021).

This assessment aims to assess any impacts from the proposed works to the potential historical archaeological resource within the study area and provide recommendations for its management.

1.3 Authorship

This report has been prepared by Rhian Jones, Senior Historical Heritage Consultant. Lian Ramage, Heritage Team Leader, has provided technical input and reviewed this assessment.

A physical inspection of the study area was undertaken by Rhian Jones, Senior Historic Heritage Consultant on 07 November 2024, along with Matthew Byron, Aboriginal Heritage Consultant. All photographs in this report were taken by Rhian Jones or Matthew Byron at this time unless otherwise noted.

1.4 Limitations

There were no particular limitations on the production of this report. Adequate time, resources, proposed works plans and drawings and site access were made available.

1.5 Terms & abbreviations

The definitions of any abbreviations or specific terms used in the body of this report are provided in Table 1.1.

Table 1.1 Terms and abbreviations.

Term / abbreviation	Term
AMBS	AMBS Ecology & Heritage
ARD	Archaeological Research Design
Burra Charter	The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 2013
CHL	Commonwealth Heritage List
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EPI	Environmental Planning Instrument
Heritage Act	Heritage Act 1977
Heritage Council	Heritage Council of New South Wales
Haritago NCM	Heritage NSW, Environment and Heritage, Department of Climate Change, Energy, the
Heritage NSW	Environment and Water
HIA	Heritage Impact Assessment
ICoE	Indigenous Centre of Excellence
ICOMOS	International Council on Monuments and Sites
LEP	Local Environmental Plan
LGA	Local Government Area
MH NSW	Museums of History NSW (formerly State Archives)
NHL	National Heritage List

Western Sydney University, Parramatta South Campus Proposed Temporary Car Park Historical Archaeological Assessment and Research Design

Term / abbreviation	Term
NSW	New South Wales
S170 Register	Section 170 Heritage and Conservation Register
SEPP	State Environmental Planning Policy
SHR	State Heritage Register
SL NSW	State Library NSW
WHL	World Heritage List
WSU	Western Sydney University

2 Statutory context

The conservation and management of heritage items, places, and archaeological sites takes place within the framework of relevant Commonwealth, State, and local government legislation. Non-statutory heritage lists and registers, ethical charters, conservation policies, and community attitudes and expectations can also have an impact on the management, use, and development of heritage items. To inform this assessment, the following statutory heritage registers have been reviewed:

- World Heritage List (WHL)
- National Heritage List (NHL)
- Commonwealth Heritage List (CHL)
- State Heritage Register (SHR)
- NSW Department of Health's Section 170 Heritage and Conservation Register (S170 Register)
- Parramatta Local Environmental Plan 2023 (LEP).

2.1 Environment Protection and Biodiversity Conservation Act 1999

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) provides a legal framework for the protection and management of places of national environmental significance. Several heritage lists are addressed by the EPBC Act, including the WHL, NHL, and CHL:

- The WHL protects places with outstanding universal values.
- The NHL protects places with outstanding value to the nation.
- The CHL protects items and places owned or managed by Commonwealth agencies.

The Australian Government Department of the Environment is responsible for the implementation of national policies and programs to protect and conserve the environment, water and heritage, and promote climate action. The Minister's approval is required for controlled actions which would have a significant impact on items and places included on the WHL, NHL, or CHL.

No items within the study area are listed on the WHL, NHL or CHL.

2.2 Heritage Act 1977

The *Heritage Act 1977* (Heritage Act) provides protection for heritage places, buildings, works, relics, moveable objects, precincts and archaeological sites that are important to the people of NSW. These include items of Aboriginal and non-Aboriginal (historic) heritage significance. Where these items have particular importance to the people of NSW, they are listed on the State Heritage Register (SHR).

Part 4 Sections 57 to 69 of the Heritage Act address the statutory requirements for items and places listed on the SHR. Works which include demolition, damage or alteration of a heritage item or place require the approval of the Heritage Council of NSW or its delegates.

The study area is within the *Rydalmere Hospital Precinct (former)* listed on the SHR as Item 00749 (Figure 2.1). The Statement of Significance is as follows:

The Female Orphan School Precinct as a component of the former Rydalmere Hospital is of outstanding cultural significance, primarily for its continued use and development, between

1813 and 1989 as a public welfare institution for the care and management of the disadvantaged.

As the first purpose built orphan school in the colony, it illustrates a milestone in the establishment of national social welfare and education policies.

The surviving original buildings, constructed between 1813 and 1818, provide evidence of the development policies of Governor Macquarie and illustrates the transfer of 18th century British architectural pretensions into the design and siting of functional buildings in New South Wales. The extant central block is the oldest three storey building in Australia.

The site as a whole, and particularly the Orphan School precinct, has outstanding historical and social significance because of its continuous occupation as an institution since 1814. The original complex and its garden setting have outstanding rarity value. Its landscape is of exceptional significance for its development as a Colonial institution sited within the cultural landscape of the Parramatta River valley and influenced by Mrs Macquarie together with the continuing recognition of the heritage values of the place up to the present (Schwager Brooks, 1994)

The structure of the built and natural fabric of the place has been conserved despite the constant adaptation by institutional uses and alienation of its peripheral lands. As a complex of parkland landscape character with gardens, built form and remnant indigenous vegetation it demonstrates the evolution of different attitudes towards institutional care in NSW. The groundworks design and siting of the buildings is associated with Mrs Macquarie, Reverend Samuel Marsden, Francis Greenway and subsequent Colonial and Government Architects (particularly Walter Liberty Vernon) and individuals associated with health care such as Frederick Norton Manning and Dr Greenup.



Figure 2.1 SHR curtilage for the study area.

2.2.1 Archaeology

The Heritage Act also provides protection for significant archaeological remains or 'relics', which are defined in the Act as:

any deposit, artefact, object or material evidence that—

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

Excavations within the curtilage of a place listed on the SHR must be undertaken in accordance with a permit under Section 60. A Research Design describing the works and archaeological methodology needs to be submitted with the Application to the Heritage Council.

2.2.2 Section 170 Heritage and Conservation Registers

Under Section 170 of the Act, government instrumentalities are obliged to establish and keep a 'Heritage and Conservation Register' which contains the details of each item of environmental heritage:

- (a) which is of a class prescribed by the regulations, and(b) which—
 - (i) in the case of a statutory body, is owned or occupied by the statutory body, or (ii) in the case of a Department Head, is vested in or owned or occupied by, or subject to the control of, the appropriate Minister or the relevant Department.

The Heritage Regulation 2012 identifies items prescribed for the purposes of Section 170 (4) (a) of the Act as:

- (a) items that are listed as heritage items under an environmental planning instrument made under the Environmental Planning and Assessment Act 1979,
- (b) items that are subject to an interim heritage order,
- (c) items that are listed on the State Heritage Register,
- (d) items identified by the government instrumentality concerned as having State heritage significance.

Under Section 170A of the Act, government instrumentalities must:

...give the Heritage Council not less than 14 days written notice before the government instrumentality—

- (a) removes any item from its register under section 170, or
- (b) transfers ownership of any item entered in its register, or
- (c) ceases to occupy or demolishes any place, building or work entered in its register.

Each government instrumentality is responsible for ensuring that each item listed on its Section 170 register or listed on the SHR on land it operates is managed in accordance with the *State Agency Heritage Guide* (Heritage Office, 2005).

The study area is within the curtilage of two listings on the NSW Department of Health Heritage and Conservation Register (now NSW Department of Communities & Justice);

- Rydalmere Hospital Precinct, Landscape is Item 03/5/5/2000 and is described as being of high significance.
- Rydalmere Hospital Precinct, Archaeological Sites is Item 03/5/5/4000 has historical archaeological significance as the site of the first Female Orphan School.

2.3 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) is the main act regulating land use planning and development in NSW. The EP&A Act also controls the making of environmental planning instruments (EPIs). Two types of EPIs can be made: LEPs covering local government areas; and State Environment Planning Policies (SEPPs), covering areas of State or regional environmental planning significance. LEPs commonly identify, and have provisions for, the protection of local heritage items and heritage conservation areas.

The EP&A Act also requires consideration to be given to environmental impacts as part of the land use planning process. In NSW, environmental impacts include cultural heritage impacts and as such any required Review of Environmental Factors, Environmental Impact Statement, or Environmental Impact Assessment should incorporate an assessment of European heritage. The consent authority is required to consider the impact on all heritage values.

2.3.1 Parramatta Local Environmental Plan 2023

The study area is within the Parramatta LGA and is subject to the Parramatta LEP 2023. Section 5.10 of the LEP sets out provisions for heritage conservation within the LGA. Schedule 5 'Environmental Heritage' identifies the historic objects or places of heritage significance within the study area.

The study area is within the *UWS Parramatta Campus (former Rydalmere Hospital and Female Orphan School)* listed as Item 00749, on the Parramatta LEP 2023 (Figure 2.2).

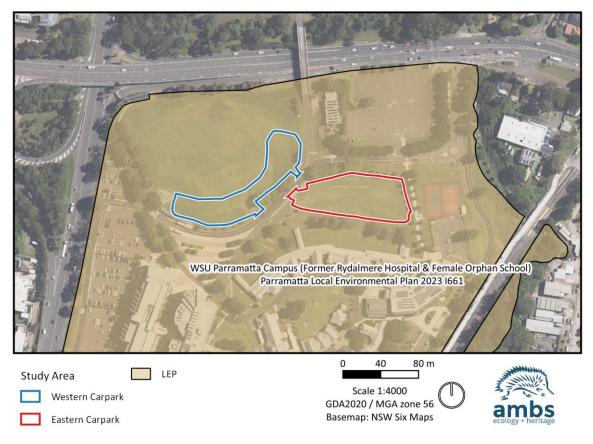


Figure 2.2 LEP curtilage for the study area.

2.4 Heritage Management Documents

2.4.1 Conservation Management Plan, UWS Parramatta South campus, Prepared for University of Western Sydney, April 2014, City Plan Heritage

The baseline non-Aboriginal archaeological potential of the University of Western Sydney, Parramatta Campus was discussed in Section 2.6 of the 2014 CMP, and referenced back to Section 2.4 and Figure 2.8 of the earlier 2008 CMP. The 2008 CMP was based on two previous reports; Schwager Brooks (1994) *Rydalmere Hospital Orphan School Precinct, Conservation Plan,* and Thorp (1982) 'Analysis of Physical and Documentary Evidence', Chapter 3.0 in Kerr, JS; Proudfoot, H; Thorp, W; Burton, C & Burkett, N. (1982) *Rydalmere Psychiatric Hospital, A Report on the Precinct and its Evolution with a Statement of its Significance.* The sites of archaeological potential within the Orphan School Precinct (c. 1810-1888) were numbered 1-31, consistent with Schwager Brooks (1994); the Orphan School Precinct is in the south-western area of the campus and is outside of the study area.

The twelve sites of archaeological potential associated with the Rydalmere Psychiatric Hospital (1888-1987) identified in the 2008 CMP were consistent with those identified by Thorp (1982). The study area encompasses two of these archaeological sites; '34. AllIa28 Infilled Creek c.1899' and '43. AllIc1 Cricket Pavilion c.1911-1920' (Figure 2.3). The notes associated with site '34. AllIa28' state that a drainage line appears to follow the line of the creek. The material used to fill the creek may have some interest. Additionally, the notes associated with site '43. AllIc1' state that a small concrete path runs from the road to the location of the former pavilion and there is a small scatter of building materials on the site (Conybeare Morrison International, 2008: 17). As such, the CMP identified the study area as being within the Cricket Ground & Venues Conservation Area 2 (Figure 2.4).

Section 6.3.7 of the 2014 CMP reproduces the same conservation policies and guidelines developed for the 2008 CMP. The earlier 2008 CMP based these policies on recommendations provided by Casey & Lowe (2007) in *Non-Indigenous Archaeological Assessment University of Western Sydney Parramatta Campus*. Casey & Lowe assessed the archaeological potential by dividing the campus into two areas; The Orphan School Precinct and the Surrounding Farmland (encompassing the study area). It was stated that the surrounding farmlands associated with the Schools and Hospital are likely to contain remains such as cultivated/ploughed soils, field drains/ditches/gullies, field boundaries and pathways. These remains are not likely to be substantive and therefore are considered to have low archaeological potential (Casey & Lowe, 2007: 23). The 2014 CMP provided Policies 2.17 to 2.23 to guide the management of the archaeological resource within the entire campus (City Plan Heritage, 2014: 69-70). The relevant policies are:

Policy 2.17: Heritage Council policy requires sites of State significance to be retained in situ. Therefore, impacts should be designed as much as possible to avoid disturbing significant archaeological remains.

Policy 2.19: The works should be monitored by the archaeologist, especially where the works include disturbance of the ground levels under or around the original Orphan School buildings, particularly those buildings not yet refurbished. Localised stop-work provisions may be necessary.

Policy 2.20: Any excavation proposed within the State Heritage Register curtilage will require prior approval under section 57(1) of the Heritage Act 1977, depending on the archaeological potential of the subject site and the impact of the proposed work on its heritage significance. The site works associated with the new development sites (nominated

under the Masterplan 2014 – Figure 53) situated within the "Surrounding Farmland" areas should be subject to the following:

 Works associated with other new development sites, S1, S3 to S9, do not appear to impact on known archaeological remains and therefore do not require monitoring unless possible archaeological remains are exposed during site works.

Policy 2.21: Results of any future archaeological recording must be submitted in a written report to the Heritage Division, Office of Environment & Heritage. Standard conditions require the cataloguing of all artefacts recovered during the archaeological program and their long term storage, a response to the identified research questions and an archival photographic record. As archaeological discovery and monitoring will involve time and money, it is essential for the university to allow for this contingency in terms of budgets and construction programming.

Policy 2.22: In any future works, adequate time, as well as financial and staff resources shall be set aside;

- a) For assessment of the archaeological constraints and issues prior to finalising design and any S60 application.
- b) For the purpose of recording and retrieving archaeological evidence before it is disturbed and destroyed;
- c) In the event that a significant site is uncovered, the implementation of an appropriate archaeological program.

Policy 5.1: Ensure future development of the place is based on an understanding of its cultural significance including archaeology.

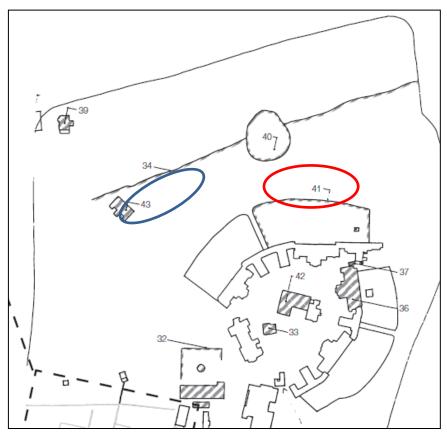


Figure 2.3 **Potential** Archaeological sites identified within the western car park study area (circled blue) and eastern car park study area (circled red), based on map contained in Thorp, 1982: Figure 6.3.2 Conybeare (Source: Morrison International, 2008: 16, Figure 2.8).

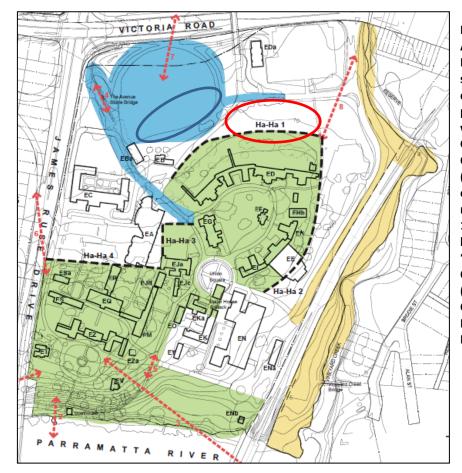


Figure 2.4 Conservation the UWS Areas of Parramatta Campus, showing the two areas of car park. The western car park (circled blue) is within the **'Cricket Grounds and Venues** Conservation Area 2' (shaded blue), while the eastern car park (circled red) is adjacent to Ha Ha 1 on the northern boundary of the **'Institutional** Complex Conservation Area 1' (shaded green). (Source: Conybeare Morrison International, 2008: 18, Figure 3.1).

3 Historic context

The following information has been adapted from AMBS 2021 assessment and the 2008 CMP, concentrating on the history and structures specific to the current study area.

3.1 Arthur's Hill Farm (1791-1792)

Governor Phillip had explored the upper reaches of the Parramatta River by April 1788. A temporary hospital was erected at Parramatta in 1789, and Surgeon Thomas Arndell became the resident medical officer. For his service, on 16 July 1792 he was granted 60 acres on the northern bank of the Parramatta River, later becoming known as Arthur's Hill.

Arndell established a small hut and cultivated the land; the hut was likely located in close proximity to Vineyard Creek (outside of the study area). By October 1972 he had cleared 3 acres and cultivated 18 acres. Bushfires later that year destroyed his hut, outbuildings and wheat stack; as compensation, he was given 600 acres at the Hawkesbury in 1804 and it is likely that the Arthur's Hill property was resumed by the Crown rather than sold (Tanner & Associates, 2000a: 1).

3.2 Female Orphan School (1810-1850)

In 1810, Arthur's Hill was set aside by Governor Macquarie as the future location of a new orphan institute, and tenders were called for the building of the school. The foundation stone was laid by Macquarie on 25 September 1813, and construction was completed in 1818. The brick building was three storeys with corridors linking two wings to the east and west of two storeys (Figure 3.1 and Figure 3.2) (Tanner & Associates, 2000a: 3). Seventy girls were moved to the school in 1818. Governor Macquarie set rules on the number and ages of the girls; at any one time, no more than 100 girls were permitted and they were to be between the ages of five and thirteen. However, it has been noted that girls aged two were accepted, and in the years following up to 170 girls were occupying the building by 1833 (Tanner & Associates, 2000a: 6). Access to the school was provided from the river by means of a stone jetty and ramped gravel drive, cut into the steep slope; vehicular entry was provided by Orphan School Lane, that terminated on a loop on the upper slopes of the hill (now James Ruse Drive).

The original school buildings were inadequate and lacked appropriate outbuildings; work on new facilities commenced in 1820. The structures experienced issues relating to the brickwork and drainage, as well as the water supply and sewerage. In 1829, a new kitchen and store room were constructed, and more additions and renovations were undertaken in 1830-31 including rectification of the poor water, sewerage and drainage of the school.

During this early period of occupation, the land encompassing the study area was not developed. The boundary of the Female Orphan School was fenced and the surrounding land was cultivated in the early 1820s; orchards and a kitchen garden were established in the south-eastern area; by the end of 1822, a gardener was in residence on the site and by 1826 the garden was approximately six acres (Tanner & Associates, 2000a: 44; Thorp, 1992: 11). In the early 1830s, the area occupied by the Female Orphan School was increased with the provision of a reserve for the grazing of stock; the holding was increased to 110 acres. This additional acreage was located to the north of Victoria Road (Tanner & Associates, 2000a: 45).

In 1833 the Church and School Lands Corporation was abolished and in the following year, the Orphan School became an establishment managed by the government. Improvements to the amenity of the school were undertaken in the 1830s and 1840s, including the establishment of ornamental flower gardens, shrubs and trees. During this time, orphans were encouraged to work

in the gardens as part of their vocational training; horticulture was applied to vegetable production, orchards and ornamental flower gardens. This also was effective in supplementing the food supply of the school (Tanner & Associates, 2000a: 45).

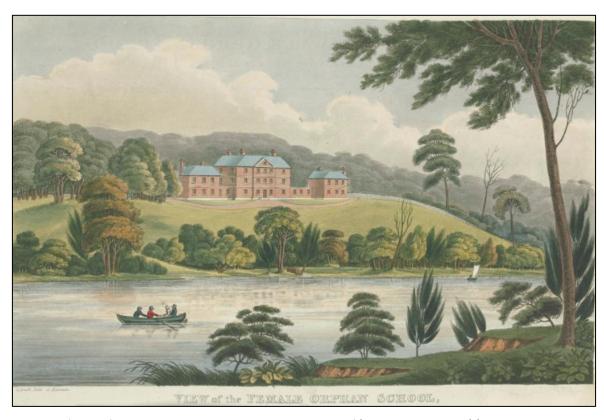


Figure 3.1 'View of the Female Orphan School Near Parramatta' (Joseph Lycett, 1825) (Source: State Library of Victoria, 30328102131561/13).

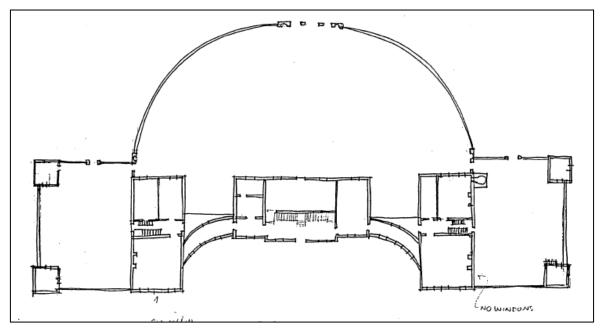


Figure 3.2 Initial building phase (1813-1819) of the Female Orphan School (Source: Tanner & Associates, 2000b: Appendix 1).

3.3 Protestant Orphan School (1850-1887)

A Male Orphan School operated first in Liverpool in the early nineteenth century and later at Cabramatta; the opening of a Roman Catholic Orphan School in Waverly resulted in fewer children

attending the Male Orphan School, and by the 1840s the buildings became dilapidated. The remoteness of the Male Orphan School from Sydney, and the inefficiency of supporting two similar institutions (Male and Female Orphan Schools) led to the amalgamation of the Male Orphanage and the Female Orphan School at Rydalmere in 1850, becoming known as the Protestant Orphan School. Despite sharing the same site, the two schools and associated facilities including bathrooms, dining rooms and classrooms remained separate.

In 1854, the first purpose-built structure for the combined orphanage, a hospital, was established at the site to the north of the central building. An 1865 report from the Inspector of Public Charities found the schools at Rydalmere to be in need of repair; around this time, there were 236 children residing at the school (Tanner & Associates, 2000a: 13). In 1868, a new kitchen was constructed and during 1870, an extensive program of additions and renovations were undertaken. A new school building was constructed, described as being a 'model building', and the Master's Residence was likely built at this time. The additional school building was erected to the rear of the Female Orphan School central building, and was linked with a covered walkway (Figure 3.3). The west wing of the new school building housed the boys' facilities, while the girls' department was housed largely in the east wing. In 1882, a forty-bed dormitory was constructed on the south-western corner of the western wing. The playgrounds to the north of the school were created as enclosures, with areas for the boys and girls separated with central sandstone walls, and delineated elsewhere by timber fences (CAB Consulting, 2003: 9).

The buildings during this period of occupation were largely located in the south-western area of the allotment. The remainder of the area consisted of pasturage for grazing animals, vineyards, orchards and ploughed fields. During this period a new access road was created that entered the grounds at the north-western area, traversing the low-lying area of the site before bridging a creek that ran east-west through the study area, and rising to the ridge that the main buildings occupied (Figure 3.4) (CAB Consulting, 2003: 9).

Great changes were made to government policy relating to the education and social welfare of destitute children throughout the operational period of the combined orphanage. During the 1870s, it became favourable to integrate orphans into the community, particularly through means of boarding with foster parents. In 1882 Henry Parkes moved the passage of the State Children Relief Act, creating the State Children's Relief Board; this Board was commissioned to foster children within the community. As a result of these philosophical and administrative changes, by 1886 funds for orphanages were exhausted and arrangements were made to apprentice out the remaining 32 children at the Protestant Orphan School at Rydalmere. The institution was effectively closed in September 1886.



Figure 3.3 Protestant Orphan School building and covered way from central Female Orphan School building c.1870-80 (Source: State Library NSW, Government Printing Office 1 - 06149).

3.4 Rydalmere Hospital for the Insane/Rydalmere Psychiatric Hospital (1888-1989)

In 1888, the Protestant Orphan School site was transferred to the Department of Lunacy and the former school became the Parramatta Branch Hospital for the Insane. At this time, the former orphanage buildings were in poor condition; 30 male patients were sent to the site to prevent further dilapidation and commence tidying the site. Renovation works to the original Female Orphan School building were carried out including the construction of extensions for accommodation and the enclosing of the verandahs, as well as the erection of new buildings (now facing James Ruse Drive). In 1891, the site was granted independent status and was renamed Rydalmere Hospital for the Insane.

In 1892 new purpose-built wards were erected for the accommodation of 68 patients, extending to the north-east from the former orphanage (Figure 3.4) (Tanner & Associates, 2000a: 29). As the hospital complex advanced northwards, the new alignment of the block, away from the traditional visual linkages to the river, was emphasised. In 1895, the first female patients were admitted to the hospital and were housed in the new wards. As the facility grew, additional renovation and construction activities continued at the site into the early twentieth century. Inspector of the Insane, Dr Frederick Norton Manning, championed new theories for the treatment of the mentally ill that were reflected in the design of open plan buildings, landscapes and extensive ornamental gardens. These designs were refined by Government Architect Walter Liberty Vernon and the partnership between the two men is reflected in the inclusion of ha-has at psychiatric hospitals across New South Wales including at the Kirkbride Block at Callan Park Hospital for the Insane (1880-1885), Gladesville Hospital (c.1885), Parramatta Lunatic Asylum (c.1885), Kenmore Hospital for the Insane at Goulburn (c.1897-1900) and on the north side of Wards 13-16 at Rydalmere Hospital for the Insane (c.1900).

The former alignment of the creek running east-west across the northern area was infilled by c.1901; at this time, a pond was excavated to the east of the study area (Figure 3.4). Drainage works were also carried out in this area; a ditch was excavated (roughly following the line of the former creek alignment) running east-west across the northern area (and through the western car park study area), to the pond and eventually to Vineyard Creek (Tanner & Associates, 2000a: 48). The former pasturage areas became recreational areas, including a formal oval, later known as the

cricket ground. The oval was at first fenced and surrounded by boundary plantations (Tanner & Associates, 2000a: 51). A cricket pavilion was established to the south-west of the oval, which was later demolished in c.1980 (Figure 3.6, Figure 3.7). A group of large new wards had been built in the northern edge of the hospital and were defined by a ha-ha, within the eastern car park study area (Figure 3.5), separating it from the orchards, vineyards and open space to the north. To the east, further orchards, an extensive vegetable garden as well as a fowl house and piggery enclosure were located in close proximity to Vineyard Creek (CAB Consulting, 2003: 10).

After the First World War, resources were primarily spent on upgrading existing facilities and services, particularly safety and sanitation; electricity was established at the site during this time. By 1924, the site was considered to be antiquated in terms of the contemporary management of mental hospitals; as a result, some buildings were remodelled or extended, and changes were undertaken to the landscaping of the site. The previous drainage line (ditch) running through the study area was piped beneath the oval to the vicinity of Vineyard Creek during the c.1920s (Figure 3.7) (Tanner & Associates, 2000a: 52).

During the post-World War II period, the site became known as the Rydalmere Psychiatric Hospital, and the facilities were significantly expanded; existing facilities were further upgraded and new structures were built to replace the outdated Female Orphan School buildings. Service facilities such as kitchens, factories and workshops were located in the northern area of the site, and new administrative and recreational facilities were located in the central area of the site. This phase of construction involved the development of the remaining orchard and garden areas (Figure 3.7, Figure 3.8). A new entrance road linking the hospital to Victoria Road was constructed in the northwestern area of the site (following the same alignment as the original access road in this location); the orientation of the complex turned northward and the former Female Orphan School precinct became the 'rear' of the site. The Female Orphan School buildings were abandoned as accommodation for patients in 1969, and were fenced off to prevent illegal entry in c.1975; it was occasionally used as an indoor basketball court for patients (Tanner & Associates, 2000a: 30). Alterations and the construction of new buildings continued at the site until the 1970s.

By the 1970s, the development of medicines offered the means to control many symptoms of mental ill health without the need of institutional care. Community integration of psychiatric patients began to be favoured over their isolation. Institutions such as Rydalmere adjusted initially by adopting some facilities for outpatient care and sheltered workshop programs, but the Richmond Report in the early 1980s confirmed that large institutions were no longer required. As a result, the Rydalmere Psychiatric Hospital was progressively closed down between 1985 and 1989.

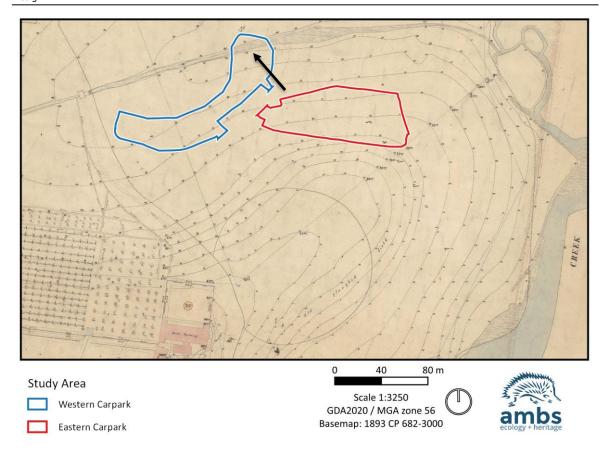


Figure 3.4 'Plan showing contours, features and buildings within area dedicated for Hospital for the Insane, Rydalmere' (1893). At this time, the area surrounding the Protestant Orphan School consisted of cultivated land including orchards, vineyards, vegetable gardens and ploughed/grassed fields. The former alignment of a creek ran through the western car park study area (arrowed). Source: Land Titles Office, 1893_LTO_CP 682-3000.

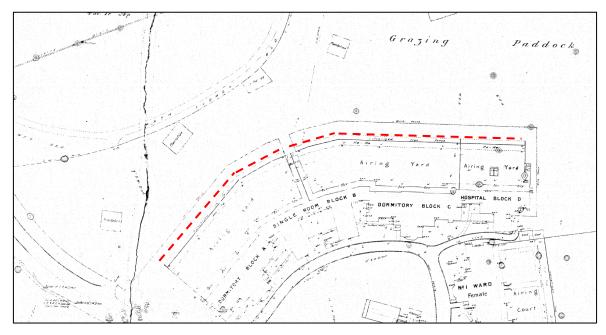


Figure 3.5 Detail from Hospital for the Insane, Rydalmere (1903). Wards 13-16 have been built and the airing yards on the north side of the buildings are defined by ha-has (dashed red). Note this plan is assumed to be made prior to the works, as the ha-has are much more angular than the curved as-built lines visible on the 1943 and 1951 aerial photography of the site. (Source: WSU, formerly Rydalmere Psychiatric Hospital – General Plan – (Frame 1)).

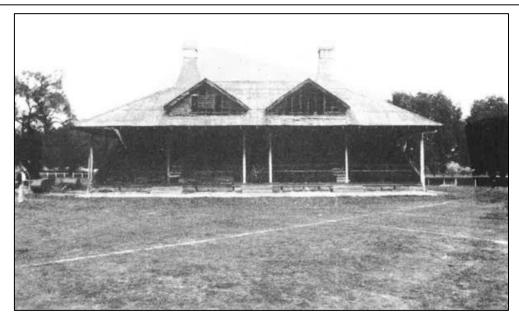


Figure 3.6 View of Cricket Pavilion c1915 (Kerr; Proudfoot; Thorp; Burton & Burkett, 1982: 247, Figure 6.29).

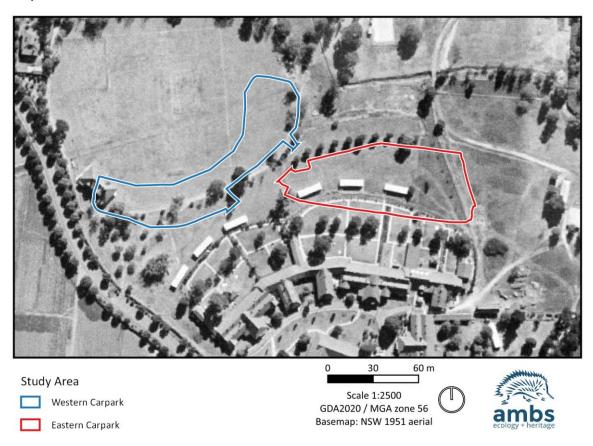


Figure 3.7 1943 aerial of the Rydalmere Psychiatric Hospital, western car park outlined in blue.

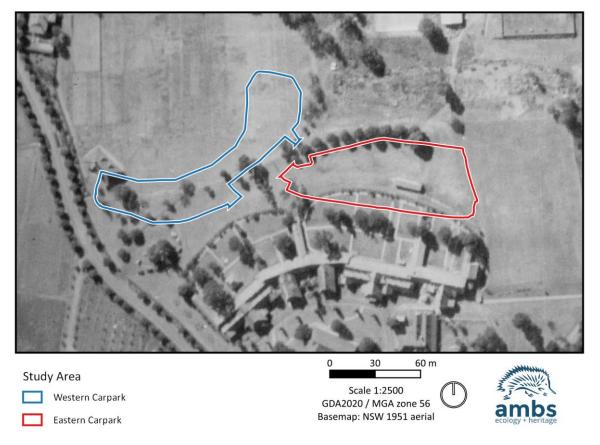


Figure 3.8: 1951 aerial Rydalmere Psychiatric Hospital, western car park outlined in blue.

3.5 University of Western Sydney (1993-present)

With the closure of the Rydalmere Psychiatric Hospital in 1989, the campus of buildings on the site were vacant for several years. The original Female Orphan School buildings were unused for the last twenty years of the operation of the hospital and had significantly deteriorated. In 1993, a pump house was erected in the north-eastern area of the site and extensive maintenance was undertaken to bring the building stock up to standard.

In March 1998, the Parramatta Campus of the University of Western Sydney opened its classrooms to students. The former psychiatric hospital buildings were adapted to the new use and restoration of the Female Orphan School was carried out by Tanner and Associates from 2000-03. The restoration project received a UNESCO Asia Pacific Heritage Award Honourable mention in 2004. Further restorations of the western wing of the original Female Orphan School building were completed in 2009-11, and of the eastern wing in 2012-13 (UWS, 2017: 32-33).

4 Physical analysis

The two areas of proposed car parks are located on either side of Fifth Street: the western car park is situated in the grassed area around the oval, from the intersection of Bridge and Fifth Street curving around the southeast quadrant of the oval; the eastern car park is situated on the north side of Building ED/Vernon Building between two rows of mature trees.

4.1 Western car park

The western car park will be located in the southeast quadrant of the oval. The northern end of the location has a prominent mound (Figure 4.1), assumed to be deliberately created using debris from previous earthworks in the area, particularly the creation of the existing P1 Car Park, widening of Victoria Road and creation of the Bridge St overpass. Parts of the northern side of the mound have sandstone block walls to retain the ground and provide informal seating. The ground flattens out to the south and west of the mound towards the bus shelter, but has a pronounced slope down towards the oval, although the oval itself is raised up approximately 0.5m (Figure 4.2). A row of mature trees (approximate length of 75m) are growing along Fifth Street from Bridge Street to the southwest; younger trees have been planted between the mature trees and the bus shelter.



Figure 4.1 The southern section of the prominent mound where the western car park will be located. Geotechnical test pits TP9 and TP7 are visible in the background and middle right respectively.

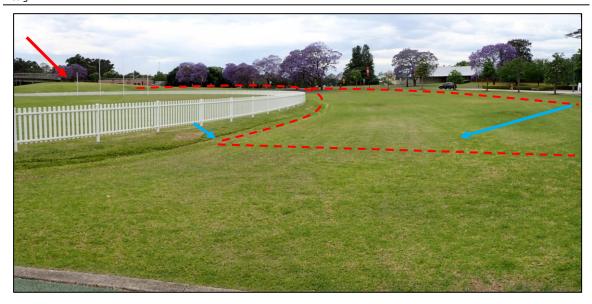


Figure 4.2 View east across the oval and grassed area where the western car park will be located (dashed red). The mature Jacaranda trees along Fifth Street are visible in the background, the prominent mound is arrowed red, the gentle slope down to the north and raised edge of the oval are arrowed blue.

5 Archaeological assessment

The archaeological resources of any site are finite but have the potential to provide insights into everyday life that are not available from any other resource. Archaeological resources may provide evidence that will enhance the historical record and, as such, make a contribution to an understanding of the history and settlement of a local region. In view of the substantial costs involved in archaeological excavation of a site, a clear justification for any assessment of archaeological potential needs to include the following considerations:

- What is the likely integrity of the archaeological resource? Is it likely that largely intact
 physical evidence would be exposed during excavations such as structural features,
 artefacts from underfloor deposits, rubbish- or cesspits, wells, or other features with an
 ability to contribute meaningfully to an understanding of the development of the site as
 part of the wider development of the study area?
- What is the research potential of the archaeological resource? Is it likely that the results of
 the excavation make a significant or important contribution to an understanding of wider
 research issues regarding the early settlement and development of the study area?

5.1 Previous archaeological investigations

5.1.1 UWS, Parramatta Campus, Multi-Purpose Building, Non -Indigenous Archaeological Testing, Casey & Lowe (2008)

In 2008 Casey & Lowe undertook archaeological test excavations at the site of the proposed Multi-Purpose Teaching building (to the north of the Orphan School precinct), to determine the nature of the remains associated with the former vineyards and orchards of the Orphan School (1813-1887) (Casey & Lowe, 2008: 1). One test trench was excavated mechanically measuring 19.5m long, 1.5m wide and approximately 850mm deep; it was excavated mostly to the level of cultivated soil, and in two small areas it was excavated to the level of the natural clay. The trench was located in the lawn area between the car park and modern EA building in the western part of the UWS campus; this area was historically part of the nineteenth century orchards and vineyards of the Orphan School (Figure 5.1) (Casey & Lowe, 2008: 2).

A number of archaeological features were found within the trench within the cultivated soil and the natural clay (Figure 5.2). The cultivated soil was exposed below the modern fills at approximately 500mm deep; the natural clay was uncovered at a depth of 840mm (Casey & Lowe, 2008: 5). A narrow earthenware pipe was located within the cultivated soul in the northern part of the trench; it was suggested that the pipe was probably related to the irrigation system of the historic vineyard or orchard. A linear feature was also uncovered within the cultivated soil that measured 220-250mm in width and 200mm in depth. The fill was different to the surrounding soil, and it was suggested that it may have been intended to be an open field drain, and related to historic agricultural activities. Two insubstantial cut features into the natural soil were also revealed; one was roughly circular, and the other roughly rectangular. Both features were filled with a soil similar to the deposit between the cultivated soil and natural clay; it was stated that the features related to the historic agricultural phase of the site, however, their specific nature was unclear (Casey & Lowe, 2008: 7).

Soil samples were taken from the cultivated soil and relevant features for environmental and pollen analysis. The results of the pollen analysis indicated preserved pollen evidence of plants including hibiscus, pumpkin and prunus, and two pre-1850s samples which lacked clearly defined evidence. None of the samples reserved evidence of viticulture, although one sample indicated that the soil horizon had been manured with stable waste or straw (Casey & Lowe, 2008: 10).

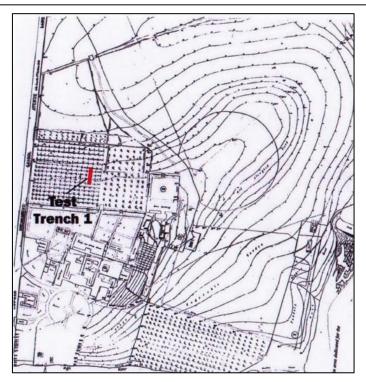


Figure 5.1 Location of Test Trench 1, marked on 1893 map of site (Casey & Lowe, 2008: 4).



Figure 5.2 View south of test trench showing cut feature in foreground, earthenware pipe in middle ground and linear feature in cultivated soil in the background (Casey & Lowe, 2008: 8).

5.2 Potential archaeological resource (Western Car Park)

The Heritage Council of NSW's *Historical Archaeology Code of Practice* and *Assessing Significance* for *Historical Archaeological Sites and 'Relics'* provides guidance on defining levels of archaeological integrity and significance as tabulated:

Grading	Justification	Status	
Exceptional	Rare or outstanding item of local or State significance. High degree of intactness. Item can be interpreted relatively easily.	Fulfills criteria for local or State listing.	
High	High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.	Fulfils criteria for local or State listing.	
Moderate	Altered or modified elements. Elements with little heritage value but which contribute to the overall significance of the item. Fulfils criteria for local or Stat listing.		
Little	Alterations detract from significance. Difficult to interpret.	Does not fulfil criteria for local or State listing.	
Intrusive	Damaging to the item's heritage significance.	Does not fulfil the criteria for local or State listing.	

5.2.1 Integrity of the resource

The study area was originally encompassed within Surgeon Thomas Arndell's 60-acre farm, Arthur's Hill, between 1791 and 1792. Arndell cultivated the land and erected a small hut; the hut was likely located in close proximity to Vineyard Creek. Arthur's Hill then became the site of the Female Orphan School in c.1810, and the associated buildings were constructed in the southwestern portion of the allotment on the northern bank of the Parramatta River. The Protestant Orphan School was formed in 1850, after the amalgamation of the Female and Male Orphan Schools; the new construction associated with this development occurred in close proximity to the Female Orphan School buildings. The land surrounding the Protestant Orphan School buildings consisted of orchards, vineyards, gardens, and pasturage for grazing animals. During these early phases of occupation, the study area remained undeveloped; a creek ran east-west through the study area.

In 1888, the Protestant Orphan School site became the Parramatta Branch Hospital for the Insane (later the Rydalmere Hospital for the Insane, and finally the Rydalmere Psychiatric Hospital). It was during this period that new construction occurred in the north-eastern area of the allotment. In c.1901, the former creek alignment was infilled, and a pond was excavated to the east of the study area; a drainage ditch was excavated to roughly follow the former creek alignment. The former pasturage encompassing the study area became a formal oval and a cricket pavilion was constructed to the south-west of the oval (c.1911-20). In the c.1920s the previous drainage ditch running through the study area was piped beneath the oval to the vicinity of Vineyard Creek. The study area continues to function as an oval. The excavation required to pipe drainage lines beneath the oval in the c.1920s would have substantially impacted or removed the archaeological resource in this area, including any remains of the cricket pavilion. There is considered to be nil-low archaeological potential for remains of the pavilion to have survived; any such remains are likely to have little research potential and would not meet the threshold for local or State significance.

Casey & Lowe's Non-Indigenous Archaeological Assessment University of Western Sydney Parramatta Campus (2007) assessed the archaeological potential of the site by dividing the campus into two areas; The Orphan School Precinct and the Surrounding Farmland; the study area is within the Surrounding Farmland. The report stated that the surrounding farmland is unlikely to contain substantive archaeological remains; however, there is potential for insubstantial remains to be present relating to the early agricultural pursuits of the area. The archaeological remains associated with Arndell's occupation of the study area in the eighteenth century were likely

removed by later cultivation activities. The features associated with the nineteenth and early twentieth century occupation of the study area may include post holes, cultivated soils, drains, ditches, and gullies (Casey & Lowe, 2007: 12-13).

The archaeological test excavation undertaken by Casey & Lowe in 2008 demonstrated that the archaeological resource within the nineteenth century orchards and vineyards of the Orphan School (south of the study area) was insubstantial. An earthenware pipe and linear feature, (suggested to be an open field drain) were revealed within the cultivated soil (at a depth of approximately 500-760mm) and two features were cut into the natural clay (at a depth of approximately 840mm) (Casey & Lowe, 2008: 7). Any remains associated with the agricultural use of the land within either the western or eastern car parks are likely to be similar to those uncovered in 2008 i.e. insubstantial. There is considered to be nil-low potential for archaeological evidence for the agricultural activities at the site or structural remains of the cricket pavilion; any surviving remains would have low research potential, low integrity and nil-low heritage significance.

5.2.2 Research potential

If archaeological remains are present within the western car park study area, they would most likely be either agricultural in nature and insubstantial, or fills containing artefactual material removed from its original archaeological context. Any structural remains of the cricket pavilion may not meet the threshold for significance. These resources have limited potential to provide a new understanding of the history of the local area that is not available from other sources. Therefore, any extant archaeological resources in this part of the study area would have nil-low archaeological research potential and as such have little archaeological heritage significance.

5.3 Summary

If archaeological remains are present within the western car park boundary, they would most likely be either agricultural in nature and insubstantial, structural remains of the cricket pavilion which may not meet the threshold for significance, or be fills containing artefactual material out of its original archaeological context. There is considered to be nil-low potential for the archaeological resource to have survived in this part of the study area; any surviving remains would have nil-low research potential and are unlikely to meet the threshold for significance.

6 Assessment of significance

The physical evidence of past activities is a valuable resource that is embodied in the fabric, setting, history and broader environment of an item, place or archaeological site. The value of this resource to a community can be evaluated by assessing its cultural and natural heritage values. *Cultural significance* and *heritage value* are terms used to express the intangible and tangible values of an item, place or archaeological site, and the response that it evokes in the community. Assessment of significance provides the framework for the development of management strategies to protect an item or place for future generations.

An item, place or archaeological site is considered to be of State or local heritage significance if it meets one or more of the seven criteria for assessing heritage significance in NSW provided in the guideline *Assessing heritage significance* (Table 6.1).

Table 6.1 Criteria for assessing heritage significance in NSW (Department of Planning and Environment, 2023a, p. 21).

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

6.1 Statement of significance

The Rydalmere Hospital Precinct (former) is listed on the SHR primarily for the heritage values associated with the Orphan School-period. The statement of significance reads:

The Female Orphan School Precinct as a component of the former Rydalmere Hospital is of outstanding cultural significance, primarily for its continued use and development, between 1813 and 1989 as a public welfare institution for the care and management of the disadvantaged.

As the first purpose built orphan school in the colony, it illustrates a milestone in the establishment of national social welfare and education policies.

The surviving original buildings, constructed between 1813 and 1818, provide evidence of the development policies of Governor Macquarie and illustrates the transfer of 18th century British architectural pretensions into the design and siting of functional buildings in New South Wales. The extant central block is the oldest three storey building in Australia.

The site as a whole, and particularly the Orphan School precinct, has outstanding historical and social significance because of its continuous occupation as an institution since 1814. The original complex and its garden setting have outstanding rarity value. Its landscape is of exceptional significance for its development as a Colonial institution sited within the cultural landscape of the Parramatta River valley and influenced by Mrs Macquarie together with the continuing recognition of the heritage values of the place up to the present (Schwager Brooks, 1994).

The structure of the built and natural fabric of the place has been conserved despite the constant adaptation by institutional uses and alienation of its peripheral lands. As a complex of parkland landscape character with gardens, built form and remnant indigenous vegetation it demonstrates the evolution of different attitudes towards institutional care in NSW. The groundworks design and siting of the buildings is associated with Mrs Macquarie, Reverend Samuel Marsden, Francis Greenway and subsequent Colonial and Government Architects (particularly Walter Liberty Vernon) and individuals associated with health care such as Frederick Norton Manning and Dr Greenup (excerpt from Tanner Architects, 2005). (SHI Inventory entry, 2008).

As discussed above, any surviving archaeological remains of the agricultural occupation within the study area, the cricket pavilion or fills containing artefactual material out of its original archaeological context and are unlikely to meet the threshold for significance.

7 Proposed works

Western Sydney University is proposing to build a new state-of-the-art Indigenous Centre of Excellence (ICoE) as a new tertiary education facility on campus. The centre will be located in the northeast of the campus, within the area currently used as a car park (approximately 284 car parking spaces, P1). Prior to the construction of the ICoE, WSU is proposing to create a temporary relocated car parking facilities for 320 cars in two areas on either side of Fifth Street.

The proposed works include:

- Site establishment works including laybacks and temporary fencing.
- Tree removal and minor landscaping works.
- Civil works:
 - Earthworks including battering and retention of ground around car park perimeter.
 - Stormwater trenching.
 - Electrical trenching and installation of lighting.
- Pavement works, hard-stand paving, line marking and signage.

7.1 Western car park

The proposed works for the construction of the western car park include levelling of the ground, installation of services including stormwater, other drainage works and electrical conduits, and various surfacing, signage and landscaping works. Analysis of the earthworks cut and fill volumes plan (Figure 7.1) indicates the current level to be built-up by up a maximum of 1m across the western end of the study area and the current level of the mound to be cut-down by a maximum of 2.5m in the north end of the study area.

Other substantial below-ground works in the western car park include:

- Installation of two new 150mm diameter electrical conduits from the existing mains distribution board in the western end of the Vernon Group along the south side of Fifth Street then crossing over Fifth Street to the south side of the western car park (Figure 7.2). Additional electrical connections may be required for the lighting and ticket machine.
- 14 single and three double light poles (Figure 7.3), requiring 17 pits measuring 450 x 450mm, excavated to a maximum depth of 1.8m (Figure 7.4).
- Stormwater trenching along the northern edge of the western car park, approximately 130m long, at a depth ranging from 1m to 1.7m and six kerb inlet pits with depths ranging from 833mm to 1,605mm (Figure 7.5).
- Installation of one ticket machine.
- Various surfacing, signage and landscaping works including retaining walls.

7.2 Assessment of impacts from proposed works

As there is considered to be nil-low potential for the archaeological resource to have survived in this part of the study area there are no anticipated impacts from the proposed works.



Figure 7.1 Map indicating the required level of soils to be removed for the proposed car parks (Source TTW).

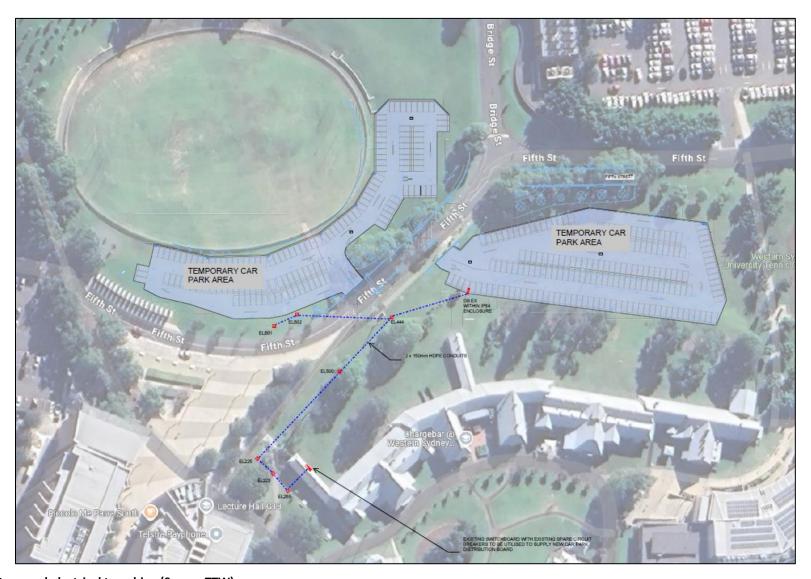


Figure 7.2: Proposed electrical trenching (Source TTW).

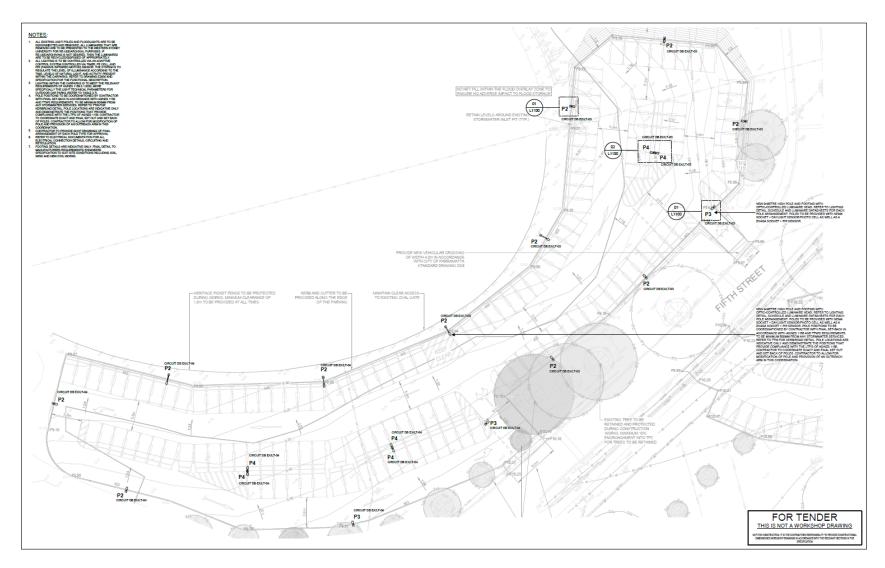


Figure 7.3 Proposed positioning of light poles in western car park (Source Steensen Varming Electrical).

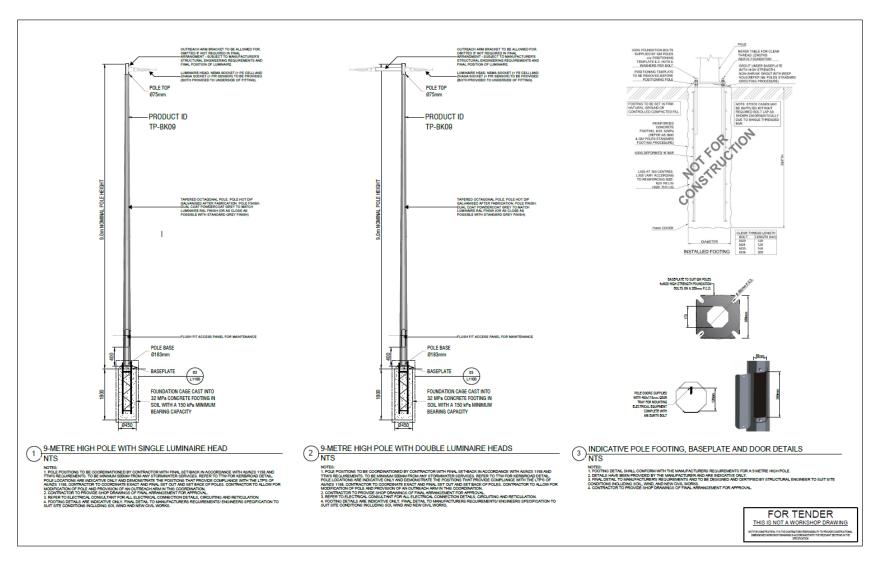


Figure 7.4: The technical details of the light poles to be installed in the proposed car parks (Source Steensen Varming Electrical).

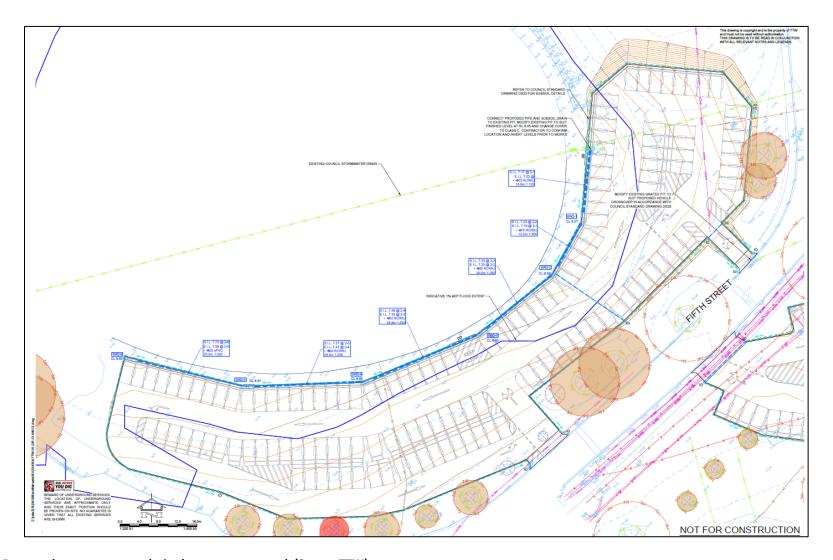


Figure 7.5 Proposed stormwater works in the western car park (Source TTW)

8 Managing the archaeological resource

Heritage places contribute to an understanding and character of a community by providing tangible evidence of its history and identity. At times of change, they help to preserve a connection to the past, and can provide a point of reference for interpreting the past to future generations. Article 15 of the Burra Charter refers to managing *change*, which should be guided by the *cultural significance* of the *place* and its appropriate interpretation. The Burra Charter process also recognises that the development of preferred conservation options requires consideration of a range of other factors which could affect the future of a place. These include:

- requirements of the owner, in this case The University of Western Sydney;
- the physical condition and safety requirements of the place; and
- heritage statutory obligations and other issues related to heritage.

The primary concern for The University of Western Sydney is the protection of the heritage and archaeological values of the study area, and maintaining public enjoyment. The western car park has been assessed as having nil-low potential for archaeological remains and any surviving remains would have nil-low research potential and are unlikely to meet the threshold for significance. (Section 5.3 above). The proposed works will be managed under an Unexpected Finds Procedure.

8.1 Archaeological research design and methodology

Archaeological remains can enhance the historical record and as such make a contribution to an understanding of the history and settlement of a local area. In view of the substantial costs involved in the archaeological investigation or excavation of a site, the research design should be problemoriented; however, allowance should always be made for new questions to respond to unexpected archaeological evidence. Archaeological research questions provide a framework for an archaeological investigation and for the analysis of the results of the excavation and artefacts recovered during excavations. As the western car park study area has been assessed as having nillow archaeological potential, an Unexpected Finds Procedure is considered to be an adequate management strategy.

8.1.1 Unexpected Heritage Finds Procedure

An unexpected heritage find is an object or place that is discovered during the carrying out of the project and which may be a heritage item but not identified in the archaeological assessment or suspected to be present.

If unexpected historic relics are exposed, work would stop in the affected area and an AMBS Historic Archaeologist would be contacted to assess the integrity and significance of the exposed relic(s). Unexpected relic(s) that are exposed during works would be managed in accordance with the following procedure:

- If the suspected heritage find is assessed by the AMBS Historic Archaeologist to have no significance and/or integrity, AMBS will provide written approval for work to proceed.
- Relics assessed by the AMBS Historic Archaeologist as having local significance may require
 additional management strategies and/or approvals. Following AMBS' written approval
 that the find has been appropriately managed, work may resume.
- If the relic(s) is assessed as having State heritage significance, the AMBS Historic Archaeologist would inform the project team and Heritage NSW, in writing, with details of the nature, integrity and significance of the relic. An appropriate management strategy would be determined and implemented in consultation with Heritage NSW. AMBS would provide written approval for works to resume once all relic and/or areas of archaeological

- sensitivity with state heritage significance have been appropriately investigated and recorded.
- If the relic, on investigation, proves to be part of a feature or an archaeologically sensitive area, the AMBS Historic Archaeologist would inform the project team and Heritage NSW, in writing, with details of the nature, integrity and significance of the relic to determine the appropriate management strategy, which may include open area salvage excavation. Works would not proceed until AMBS provides a clearance certificate affirming that archaeological investigations have been completed, artefacts retained for analysis, and that no relics remain in situ.

8.1.2 Archaeological research questions

The archaeological resources of any site are finite but have the potential to provide insights into everyday life that is not available from other resources. To ensure that the research potential and significance is realised, archaeological investigations undertaken anywhere in the study area should aim to address substantive research themes. The following research questions would inform the procedure of archaeological investigations:

- Have remains (structural or otherwise) survived in the archaeological record? Can they be firmly associated with a particular period or event?
- How does the presence or absence of archaeological remains change the assessment of archaeological potential and/or significance at the site?

9 Conclusion and recommendations

Any archaeological remains that survive within the western car park are unlikely to meet the threshold for local significance. An Unexpected Heritage Finds Procedure will be in place for the duration of the proposed works.

9.1 Recommendations

Based on the results of our assessment, the following recommendations are made in relation to the proposed works. These recommendations are guided by the provisions of the Burra Charter (Australia ICOMOS, 2013) and heritage best practice.

Recommendation 1

An Unexpected Heritage Finds Procedure will be implemented for the duration of the proposed works.

Recommendation 2

If archaeological remains are uncovered and determined to be relics, additional approvals may be required. No relics are to be removed until Heritage NSW has been notified and advised on whether additional approvals are required.

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