

Greenwich Hospital Historical Archaeology Updated Impact Assessment



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**Report Prepared for
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CONTENTS

EXECUTIVE SUMMARY	5
1.0 INTRODUCTION	7
1.1 BACKGROUND CONTEXT	7
1.2 PROJECT AREA	9
1.3 AIMS	9
1.4 LEGISLATION SUMMARY	10
1.4.1 <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)	10
1.4.2 <i>Environmental Planning and Assessment Act 1979 (NSW)</i>	11
1.4.3 <i>Heritage Act 1977 (NSW)</i>	11
1.5 LIMITATIONS AND AUTHORSHIP	12
2.0 SITE HISTORY & CONTEXT	13
2.1 INTRODUCTION & CHRONOLOGY	13
2.2 LAND USE AND LAND TENURE HISTORY	14
2.2.1 Phase 1 – Early Land Grants & Sarah Nichol's Estate	15
2.2.2 Phase 2 – Standish House (Pallister) 1880-1937	15
2.2.3 Phase 3 – Sydney Church of England Girls' Grammar School (1937-c 1942)	22
2.2.4 Phase 4 – Pallister Girls' Home (1942-c 1975), Greenwich Hospital & Pallister (1966-Present)	23
2.3 CURRENT SITE	23
3.0 ARCHAEOLOGICAL POTENTIAL & SIGNIFICANCE	25
3.1 PREVIOUS ARCHAEOLOGICAL ASSESSMENT	25
3.2 ARCHAEOLOGICAL POTENTIAL SUMMARY	26
3.2.1 Areas of Archaeological Potential	27
3.3 ARCHAEOLOGICAL SIGNIFICANCE	29
3.3.1 The Observatory	29
3.3.2 Entrance, Clay Driveway and Carriage Loop	29
3.3.3 Plantings, Site Landscaping & Pergola	30
3.3.4 Sports Grounds	30
3.4 SUMMARY	31
4.0 IMPACT ASSESSMENT	33
4.1 PROPOSED DEVELOPMENT	33
4.2 JUSTIFICATION OF THE OBJECTIVES OF THE PROPOSED ACTIVITY	34
4.3 POTENTIAL IMPACTS	34
4.4 IMPACT MITIGATION	35
<i>Condition B14 Historic archaeological monitoring and excavation</i>	35
<i>Condition B12 Heritage Interpretation Strategy</i>	36

5.0 DISCUSSION & RECOMMENDATIONS	37
5.1 DISCUSSION & CONCLUSIONS	37
5.2 RECOMMENDATIONS.....	37
REFERENCES	38
APPENDIX 1 – DEVELOPMENT PLANS	39
APPENDIX 2 -ARCHAEOLOGICAL RESEARCH DESIGN & EXCAVATION METHODOLOGY	42

FIGURES

FIGURE 1: PROJECT AREA	10
FIGURE 2: PHOTOGRAPH SHOWING THE NORTHEAST CORNER OF THE UPPER LEVEL VERANDAH IN 1894 (SOURCE: LANE COVE LIBRARY, LOCAL HISTORY COLLECTION, 'STUART ST VINCENT WELCH PHOTOGRAPH COLLECTION')	17
FIGURE 3: STANDISH IN THE EARLY 1900S (SOURCE: LANE COVE LIBRARY, LOCAL HISTORY COLLECTION, 'STUART ST VINCENT WELCH PHOTOGRAPH COLLECTION').....	17
FIGURE 4: UNDATED PHOTOGRAPH OF THE ENTRANCE GATE TO STANDISH WITH ADJACENT CLAY TENNIS COURT (SOURCE NBRS: 2004 FIGURE 21)	18
FIGURE 5: THE STANDISH OBSERVATORY, UNDATED PHOTOGRAPH (SOURCE: LANE COVE LIBRARY, LOCAL HISTORY COLLECTION, 'VERTICAL FILE – PALLISTER').....	18
FIGURE 6: RECONSTRUCTION OF THE GROUNDS C. 1917 (SOURCE MCDONALD 1985, FIGURE 8). 19	
FIGURE 7: VIEW FROM RIVER WITH OBSERVATORY LOCATION IN RELATION TO HOUSE (SOURCE: LANE COVE LIBRARY, LOCAL HISTORY COLLECTION, 'STUART ST VINCENT WELCH PHOTOGRAPH COLLECTION')	20
FIGURE 8: UNDATED PHOTO OF STANDISH OBSERVATORY (SOURCE: LANE COVE LOCAL STUDIES LIBRARY)	20
FIGURE 9: THE OBSERVATORY IN 1938 (NBRS 2004: FIGURE 20).....	21
FIGURE 10: 1943 AERIAL PHOTO (SOURCE: SIX MAPS)	22
FIGURE 11: CURRENT SITE LAYOUT	24
FIGURE 12: GML (2018) TABLE ASSESSING SIGNIFICANCE	25
FIGURE 13: VIEW ACROSS RIVER ROAD TO STANDISH POST 1892. LIKELY TAKEN FROM THE CURRENT GREENWICH PRIMARY SCHOOL FACING SOUTHEAST (SOURCE: LANE COVE LIBRARY LOCAL STUDIES).....	28
FIGURE 14: REVISED AREAS OF ARCHAEOLOGICAL POTENTIAL	28
FIGURE 15: THE SWIMMING POOL IN THE LOWER GARDEN OF 'STANDISH'. (SOURCE: LANE COVE LIBRARY, LOCAL HISTORY COLLECTION, 'STUART ST VINCENT WELCH PHOTOGRAPH COLLECTION')	31
FIGURE 16: PROPOSED DEVELOPMENT – SITE LAYOUT	35

EXECUTIVE SUMMARY

Cultural Heritage Connections Pty Ltd (CHC) was commissioned by HammondCare in July 2021 to undertake an updated historical archaeological assessment for the proposed redevelopment of Greenwich Hospital, at 97-115 River Road, Greenwich.

The initial concept design for the project was assessed and approved as SSD-8699 and an archaeological assessment and impact statement were prepared as part of the concept design phase (GML 2018).

This updated historical impact assessment is submitted to the Department of Planning, Industry and Environment (DPIE) in support of a State Significant Development Application (SSD-13619238) for the redevelopment of Greenwich Hospital into an integrated hospital and seniors living facility on land identified as 97-115 River Road, Greenwich (the site). The extent of the site is shown in Figure 1.

The site contains the State Heritage listed Pallister House. No modifications are proposed for Pallister House. All other existing buildings would be demolished, except for the heritage-listed Pallister House. Subsequent construction, including the additional wing of Pallister House and the hospital buildings, will likely have removed much of the previous archaeological remains that may have been present across the site. Pallister and the surrounding gardens and area to the north and east are relatively undeveloped. This area has moderate to high potential to contain localised areas of archaeological remains from the period relating to Pallister House under existing landscaped and bitumen surfaces.

The potential archaeological remains include the subsurface remains of the observatory and remnants of the previous roads and pathways. The assessment of areas of archaeological potential in this report is generally consistent with the previous assessment of the Concept Design for the project (GML 2018). However, in the absence of any historic plan the location of the observatory can only be approximately determined. It is therefore assessed that the area of moderate to high archaeological potential should be expanded to include the majority of the minimally developed area of the site. This entire area should be included in any sub-surface testing or monitoring of the site as part of impact mitigation.

This report provides the following conclusions:

- There is potential for significant archaeological relics and/or deposits to be contained within the project area.
- Archaeological remains are likely to be of local significance, depending on their nature and extent.
- Significant remains are likely to be those associated with the construction of Standish/Pallister House and the observatory as well as occupation of the site by John St Vincent Welch and his family.
- The proposed development will involve activities that will disturb the ground surface and include excavation of soils that have moderate to high potential to contain archaeological relics. Therefore, further management and mitigation of these impacts is warranted.

Based on the assessment findings and the legislative framework for protecting and assessing historical archaeological sites in NSW, the following recommendations are provided.

- 1) The ARDEM included in Appendix 2 should be reviewed by Heritage NSW and implemented prior to ground disturbing works within the project area.
- 2) As outlined in Condition B14, results of the archaeological works should be documented in an excavation report that includes opportunities for *in situ* conservation within 12 months of completion of the archaeological excavation. It should be provided to the Planning Secretary, the Heritage Council of NSW and to the local Council's local studies unit.
- 3) Consideration should be given within the report to conservation of any significant artefacts and protection in perpetuity by the landowner.
- 4) Relevant information should be included in the interpretation plan prepared for the project area.
- 5) Information relating to potential heritage and a procedure for dealing with unexpected finds should be included within site inductions for all contractors involved in ground disturbing works. Heritage provisions and/or protocols should be included in the construction management plan for the development.

1.0 INTRODUCTION

1.1 BACKGROUND CONTEXT

Cultural Heritage Connections Pty Ltd (CHC) was commissioned by HammondCare in July 2021 to undertake an updated historical archaeological assessment for the detailed design and construction phase for the redevelopment of Greenwich Hospital.

This updated historical archaeological assessment report is submitted to the Department of Planning, Industry and Environment (DPIE) in support of a State Significant Development Application (SSD-13619238) for the redevelopment of Greenwich Hospital into an integrated hospital and seniors living facility on land identified as 97-115 River Road, Greenwich (the site). The extent of the site is shown in Figure 1.

The subject proposal is for the detailed design and construction of the facility following its concept approval under SSD-8699. Specifically, SSD-13619238 seeks approval for the following:

- Demolition of the existing hospital building and associated facilities at the site;
- Construction of a new hospital facility and integrated healthcare campus comprising of hospital, residential aged care, seniors housing, overnight respite, across:
 - A new main hospital building up to RL 80.0;
 - Two new seniors living buildings, Northern building up to RL 56.36, and Southern building up to RL 60.65;
 - A new respite care building up to RL 56.9;
- Construction of associated site facilities and services, including pedestrian and vehicular access and basement parking;
- Site landscaping and infrastructure works; and
- Preservation of Pallister House which will continue to host dementia care and administrative functions.

In accordance with section 4.39 of the *Environmental Planning & Assessment Act 1979* (EP&A Act), the Secretary's Environmental Assessment Requirements (SEARs) for SSD-13619238 were issued on 24 February, 2021. This report has been prepared to respond to the following SEARs:

<i>SEAR</i>	<i>Relevant section of report</i>
<i>Address Heritage conditions imposed under SSD-8699</i>	<i>The relevant conditions are included below.</i>
<i>All future development applications for new built form must demonstrate how the archaeological significance on the Site has been avoided and the impacts the development may have on this significance. This assessment must</i>	<i>This report addresses this condition for non-Aboriginal (historical) archaeological impacts. The Aboriginal impacts are considered separately. This report is an updated impact assessment in line with the current Detailed Design (SSD-13619238)</i>

SEAR	Relevant section of report
<i>consider both Aboriginal and non-Aboriginal archaeological impacts.</i>	<i>requirements to form part of an EIS for the Detailed Design SSD.</i>
<p><i>A historical archaeological program must be prepared for the Site and it must:</i></p> <ul style="list-style-type: none"> <i>a) be managed by a suitably qualified and experienced historical archaeologist, including fulfil [sic] the Heritage Council's Excavation Criteria (2019) for the excavation of locally significant archaeological sites;</i> <i>b) be guided by an Archaeological Research Design and Excavation Methodology, prepared in accordance with Heritage Council of NSW guidelines, in consultation with the Heritage Council of NSW.</i> <i>c) document the results of the archaeological program in a final excavation report, which must:</i> <ul style="list-style-type: none"> <i>i. outline opportunities for conservation in situ (as a preference) according to significance, development and interpretation;</i> <i>ii. be prepared within 12 months of the completion of archaeological excavation;</i> <i>iii. include details of any significant artefacts recovered, where they are located and details of their ongoing management, conservation and protection in perpetuity by the landowner; and</i> <i>iv. be provided to the Planning Secretary, the Heritage Council of NSW and to the local Council's local studies unit.</i> 	<p><i>This report includes an Archaeological Research Design and Excavation Methodology (ARDEM) to address point (b).</i></p> <p><i>This report and the ARDEM have been prepared by archaeologists who meet the criteria named in point (a).</i></p> <p><i>Points (c) i-iv will be addressed following completion of the archaeological program in a stand-alone report.</i></p>

The initial concept design for the project was assessed and approved as SSD-8699. An archaeological assessment and impact statement was prepared as part of the concept design phase (GML 2018).

1.2 PROJECT AREA

Greenwich Hospital is located at 97 – 115 River Road, Greenwich. The real property descriptions are Lot 3 and Lot 4 DP 584287. The project area is within the Lane Cove Local Government Area (LGA). The site is roughly rectangular in shape and incorporates an area of approximately 3.376 hectares. The site has road frontages to River Road and St Vincent's Road. The subject site is zoned SP2 Infrastructure (Health Service Facilities) under Lane Cove Local Environmental Plan 2009 (LEP).

The location of the project area is shown in Figure 1.

Greenwich Hospital has operated from the site since 1966. HammondCare has owned and operated Greenwich Hospital since 2008. Lot 3 DP 584287 contains the existing Greenwich hospital, associated inpatient and outpatient facilities, car parking and service areas. Existing buildings range between 1 and 5 storeys in height and are interconnected through internal corridors and external pathways. The site is serviced by water, sewer, telecommunication and power services.

The existing site layout, building locations and associated facilities are shown in Appendix 1.

Lot 4 DP 584287 contains the two-storey late Victorian house known as 'Pallister' and grounds. 'Pallister' is listed as state heritage item (SHR 00574). The L-shape lot forms the site's heritage curtilage.

The components of the curtilage area that contribute to the significance of Pallister House are:

- Pallister, the two-storey late Victorian house;
- Tear-drop shaped carriage loop;
- Mature fig tree; and
- Bridle path from the corner of River Road and St Vincent's Road towards 'Pallister'.

No demolition, alterations or additions are proposed to Pallister.

1.3 AIMS

The aims of the assessment are to:

- Identify whether or not significant sub-surface relics are, or are likely to be, present in the area;
- If they are present, or likely to be present, determine whether or not the proposed development has the potential to harm relics;
- Make recommendations about the nature of any further archaeological work including sub-surface testing or monitoring; and
- Provide recommendations for mitigation and conservation measures.

The assessment methodology is consistent with the NSW Office of Environment and Heritage (OEH) Heritage Division document *Statements of Heritage Impact*. The assessment

also references other relevant OEH Heritage Division documentation and has been prepared in accordance with the principles of the 2013 Australia ICOMOS Burra Charter.

Figure 1: Project Area



1.4 LEGISLATION SUMMARY

The section summarises the legislation relevant to the protection of historic heritage in NSW. It does not purport to be legal advice. It presents an interpretation of the implications for the management of archaeological sites within NSW and the project area as understood by the consultant.

1.4.1 *Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)*

This Act establishes

- the National Heritage List, which includes natural, Indigenous and historic places that are of outstanding heritage value to the nation.
- the Commonwealth Heritage List, which comprises natural, Indigenous and historic places on Commonwealth lands and waters or under Australian Government control, and identified by the Minister for the Department of the Environment (the Minister) as having Commonwealth Heritage values.

Approval of the Minister is required prior to any action that could have a significant impact on the national heritage values of a listed place.

1.4.2 *Environmental Planning and Assessment Act 1979* (NSW)

The EP&A Act requires that environmental impacts are considered in land use planning and decision-making. The definition of ‘environmental impacts’ includes impacts on the cultural heritage of the project area. The Act sets out specific statutory assessment processes including:

- Part 4: Development that requires consent under consideration of environmental planning instruments.
- Part 5: An assessment process for activities undertaken by public authorities and for developments that do not require a development consent but an approval under another mechanism.

The Act establishes a framework for historical heritage values to be formally assessed in land-use planning and development consent/approvals including planning instruments.

As detailed above, the proposed development is being assessed as an SSD Application. SSD projects are assessed under Division 4.7 of the EP&A Act and require development consent from the Independent Planning Commission or the Minister for Planning (or delegate) before they may proceed. The Department of Planning, Industry and Environment co-ordinates the whole-of-government assessment of the merits of these projects.

1.4.3 *Heritage Act 1977* (NSW)

The *NSW Heritage Act 1977* protects the State’s natural, historical and cultural heritage. Historical heritage places and objects of State significance may be listed on the State Heritage Register and are subject to protection under Section 60 of this Act.

Section 139 of the Act protects ‘relics’, which are defined as “any deposit, artefact, object or material evidence that:

- relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and
- is of State or local significance”.

For example, relics can refer to the in-situ foundations and remains of potential farmsteads and debris from occupation, in situ footings or to rubbish pits and bottle dumps. Under Section 139, “a person must not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit” and “must not disturb or excavate any land on which the person has discovered or exposed a relic except in accordance with an excavation permit”. The relics’ provisions can be subject to specific exceptions under the Act dependent on the nature of works and the assessed significance of the relic/s in a heritage assessment.

Under SSD some permits under the Heritage Act may not be required. The Department of Planning, Industry and Environment co-ordinates the whole-of-government assessment for the project and will include input from Heritage NSW.

1.5 LIMITATIONS AND AUTHORSHIP

This assessment has not considered the Aboriginal cultural significance or Aboriginal archaeological potential of the study area. This is addressed in a separate report also prepared by CHC.

This assessment has not considered the standing structures on the site, it is focused on the archaeological potential of the area. The Heritage Impact Statement (HIS) and schedule of conservation works for the State Heritage listed Pallister House are also covered in separate stand-alone reports.

Research, reporting and assessment for this report were undertaken by Professor Eleanor Casella, Principal Historic Archaeologist and Vanessa Hardy, archaeologist and Director of Cultural Heritage Connections Pty Ltd.

2.0 SITE HISTORY & CONTEXT

2.1 INTRODUCTION & CHRONOLOGY

The project area has been subject to previous assessments including an archaeological assessment and impact statement (GML 2018). In addition, a Conservation Management Plan (CMP) has been prepared for Pallister House (NBRS&P 2004).

These previous assessments detail the background history and archaeological potential of the site. In addition, in tandem with this assessment report, a Heritage Impact Statement (HIS) for Pallister House and an interpretation plan are being prepared. The Aboriginal history and cultural heritage of the project area is addressed in a separate report. This document draws on the previous histories and presents a summary of the archaeological evidence for the site as well as revising the impact assessment in light of the finalised development plans. Table 1 provides a summary of the post-1788 chronology relevant to the site and its occupants.

Table 1: Site Chronology

Year	Site Event
1848	Lands Department Documents show that 320 Hectares initially settled by Sara Nicholls
1854	The area of 320 acres was granted by the Crown to Archibald Little and John Yeoman in trust for Sarah Nichols
1873	John Yeoman as Trustee of Nichols Estate, sold land to James Otis and John Lackey
1877	Richard George Underwood purchased area on Corner of Greenwich Road, and River Road is an allotment of 1 ½ acre described as Lot 31 and part of lot 38 and erected a cottage
1878	Sub-division of Nichols Estate was offered for auction by Richardson and Wrench, and the Estate was transferred to John Dawson Solicitor
1878	Robert Henry Marnier Forster purchased Lots 39.40, 41, 42, 43, Section D of the Nichols Estate
1881	Robert Henry Marnier Forster died and left Estate to his wife Maria, who sold it to Henry Foster
1890	St Vincent Welch bought adjoining lots of the land from Henry Foster in October 1890. His land now contained Lots 42 and 43, an area of 5 acres
1891	Plans indicate that strip of land between Lots 42 and 41 became a road known as St Vincent's Road
1892	Villa was constructed for John St Vincent Welch and was called Standish
1893	Welch moves into Standish.
1894	The land in front of the house had been cleared and fenced and used as a paddock.
1896	Welch purchased lots 1-8 Section 2 DP 3101, which was property adjoining Welch's other property to the south fronting Gore Street were purchased and become the site of the Tennis courts and pool
1900	1900, St. Vincent Welch had had an observatory built in the grounds for a telescope that was bought from England in 1860 to observe the transit of Venus
1904	Welch discharged the Mortgage and transferred the property to Emily.
1910	Sandstone pool carved into the rock face and the grounds of Standish show a well-established garden including a pergola and steps referred to as 'the Tarpeian Way'
1913	Emily Welch Died
1918	John St Vincent Welch died and was survived by his four sons. His son Kenyon Welch and his family lived in Standish
1920	Property sold to Mr Stanley North Innes.
1924	Innes increased the size of the Standish estate with the purchase of Lot 44, an area of around 3.5 acres of land adjoining Standish to the West. The estate now encompassed nearly 10 acres. The observatory fell into disrepair during the Innes occupation.
1937	Innes sold all the property they owned to the Sydney Church of England Grammar School for Girls (SCEGS) for the expansion of the school

Year	Site Event
1938	The new wing for Pallister house was constructed for classrooms designed by the architectural firm Adam, Wright and Apperly. Construction of a new driveway to River Road. The observatory is demolished after 1938.
1942	The school is closed due to fears of safety being so close to the Harbour during wartime, presumed to be due to the threat of Japanese attack. The school merged with Redlands College in 1946 and never returned to the site.
c 1942-1945	Australian's Women's land Army was billeted at Standish – sites is largely unused.
1944	Home Mission Society purchased Standish to assist underprivileged girls. They were unable to raise sufficient funding and re-sold the property.
1946	The property was sold to Church of England Deaconess' Institute as a Girls' Home, and renamed Pallister.
1947	"Pallister Home for Girls" opens on the Greenwich Hospital site providing a home for girls, many of whom were referred by the Courts. It is named in honour of Anna Pallister, a Church Deaconess interested in social reform.
1960-1964	Lots 1-8 fronting Gore Street were sold off, and houses constructed on each site
1962	Subdivision of grounds of Pallister to form two lots (Lots 1 and 2 DP 215290). Pallister is then located on lot 1. Hospital subsequently erected on Lot 2
1963	Home of Peace Hospitals, a subsidiary activity of the Anglican Deaconess Institution, occupied the western section of the site and constructed the first phase of Greenwich Hospital
1967	Greenwich Hospital is opened by the Minister for Health and dedicated by Anglican Archbishop Marcus Loane
1976	The control of the management of Pallister was transferred to the Home of Peace Hospitals Subdivision of Lots 1 and 2 in DP 215290 into two new allotments, Lots 3 and 4 in DP 584287. Pallister is located on Lot 4 and Greenwich Hospital on Lot 3
1981	Pallister ceased to be occupied by the Department of Education Special Schools, and Pallister became part of Greenwich Hospital
1982	Adolescent Counselling Service was run from Pallisters House
1984	Pallister's was used by the Department of Health as the Health Media and Education Centre
1997	The new twenty-bed purpose-built Riverglen Unit opens at Greenwich to provide mental health care services for older people
2012	New Professorial positions in Palliative Care and Pain Medicine are created. The Pallister House Learning & Research Centre commences. Greenwich Hospital's Pain Clinic opens
2013	New state-wide Dementia Behaviour Management & Advisory Services (DBMAS) commence operations from their base at Pallister House, collocated with HammondCare's Dementia Centre on Greenwich Hospital campus
2014	A thorough refurbishment of Greenwich Hospital is completed, with total renewal of patient accommodation and staff facilities for all hospital clinical units

2.2 LAND USE AND LAND TENURE HISTORY

This section provides a summary compilation of the existing site background, as relevant to inform the archaeological predictions. More comprehensive site histories can be found in previous reports (GML 2018, NBRS 2004, NBRS 2018). Much of this section has been drawn from earlier reports. Additional contextual information relating to the observatory known to have existed on site is also presented.

The previous historical archaeological assessment divides the development periods on the site to four phases. In order to keep consistency of comparison the same Phases are used here. The historic overview describes the post 1788 time period, and does not include any potential time where Aboriginal groups may have continued to use the area. Aboriginal cultural heritage and archaeology are addressed in a separate stand-alone assessment.

2.2.1 Phase 1 – Early Land Grants & Sarah Nichol's Estate

A few days after arriving at Port Jackson, Governor Phillip directed a number of exploration parties to survey the north shore of the Harbour. In his journal on the 2nd of February, Commander William Bradley noted seeing several Aboriginal canoes in what he referred to as 'Lane Cove'. Lane Cove soon became the general name for the whole of the North Shore (NBRS 2004: 10). The first European incursion into the area now known as 'Greenwich' was likely that by Lieutenant Ball, commander of the HMS Supply, in April 1788 (GML 2018:7). The North Shore was a centre for timber getting in the early years of the colony. By 1805 a number of mills were present. The first land grants in the area were in 1794.

The area was initially unpopular and had a reputation for bushrangers and conflict with Aboriginal inhabitants, as well as being prone to bushfires. In the 1830s the town of St. Leonards was established and the government began to subdivide and auction land. The first record of freehold purchase was Amaziah Green and from the 1840s the first recorded use of the name 'Greenwich' in real estate advertisements (GML 2018: 8).

In 1854, 320 acres of land (including the project area) were granted to Sarah Nichol who used the property for dairying and grazing. While it isn't known what the area was used for prior to this date, it is likely that that some grazing may have taken place (GML 2018: 8).

2.2.2 Phase 2 – Standish House (Pallister) 1880-1937

In the second half of the nineteenth century, Greenwich became more suburban. Land continued to be subdivided and a number of 'gentlemen's villas' were constructed. These included: Joseph Palmer's home on the Longueville peninsular 'Amalfi' (1881); John St Vincent Welch's first home 'Y'berth' (1883) on the corner of Greenwich Road and River Road; the home of Jeremiah Roberts, first mayor of Lane Cove, 'Coolabah' (c1880, adjoining Y'berth); 'Warminster' (1886) on Greenwich Road; 'Airlie' (1878) home of William Tullach on Greenwich Road; and 'Rothsay' (1893) also on Greenwich Road (NBRS 2004: 11).

Transport and roads were a factor inhibiting the growth of Greenwich and its surrounds. By the late nineteenth century residents of the area (present-day Greenwich, Lane Cove, Longueville, Northwood, and Tambourine Bay) began petitioning the government to establish a municipality. The 'Borough of Lane Cove' was proclaimed on the 9th February 1895. One of the aldermen elected at the first election was John St Vincent Welch. Improvements in transport including the cable tramways and the opening of the Hornsby to St Leonards railway line in 1890 and extension to Milson's Point in 1893, precipitated the growth of the area. By 1919 the population of the Lane Cove district was 19,000. The opening of the Harbour Bridge in 1932 continued the acceleration of the development of the North Shore (NBRS 2018).

Standish/Pallister

Standish (renamed 'Pallister' in 1947) was constructed in 1892 for John St Vincent Welch, and still stands on the Greenwich Hospital site. The house is set back from River Road and faces south-east. It was built looking over bushland towards River Road. From the

south of the house views extended across the Lane Cove and Parramatta Rivers to the Blue Mountains (NBRS, 2004, 24).

By 1894 the land between the house and River Road had been cleared as well as fenced and was being used for grazing as shown in Figure 2. The garden to the north of the house does not appear to have been established at this stage. The carriage loop seems to be located on the right. Modifications to the rest of the site include the clay driveway. Its entrance was on River Road. It had a circular carriage loop in front of the house (see Figure 3), that is largely still present. The drive continued past the northern side of the house and the kitchen wing, past the men's quarters and continued to the stables and garage area below. The entrance had two timber gateways, a large one for carriages and a smaller one for pedestrians (Figure 4). There were timber fences to River Road and possibly along the property's eastern boundary as well. The land on the eastern side, where it drops away is said to have contained 'caves and grottoes' (NBRS, 2004, 24). Photos show that a lawn was planted in front of the house and shrubs and trees along the driveway. Paths, a pergola, gardener's cottage, stables, garages and men's quarters were also present. Additionally, photos of the grounds show a number of taps, suggesting that some kind of water pumping system had been installed (NBRS 2004: 25). On the southern side below the house there were walls and pathways. There were steps leading down to the lower garden, tennis court and swimming pool. The steps were known as the 'Tarpeian Way'. A grass tennis court and swimming pool were established after the eight lots fronting Gore Street were purchased in 1896. The pool, constructed before 1910, was carved into the sandstone shelf and lined with large sandstone blocks (NBRS, 2004, 24). The pool is no longer within the grounds that form part of Greenwich Hospital. It is within the land known as 51 Gore Street and therefore outside the project area. Two more clay tennis courts were located near River Road.

The house still stands including later additions and modifications. Remnant garden and plantings associated with the house are also still present. The standing building and its associated setting are subject to a separate heritage impact statement.

John St. Vincent Welch was interested in astronomy and had an observatory built on the Standish Grounds (Figure 5). One of a small group of private amateur observatories in the Greater Sydney region that operated before WWII (Tyler 2009), the Pallister Observatory was constructed in 1900 to house an English-made telescope originally brought to Australia in 1860 for measurements of the Transit of Venus (1874 and 1882). It was possibly associated (at least on an informal level) with the Government Observatory located on Flagstaff Hill/Fort Phillip in central Sydney. Photographic and historic evidence suggests the possibility of unique archaeological remains.

Figure 2: Photograph showing the northeast corner of the upper level verandah in 1894
(Source: Lane Cove Library, Local History Collection, 'Stuart St Vincent Welch Photograph Collection')

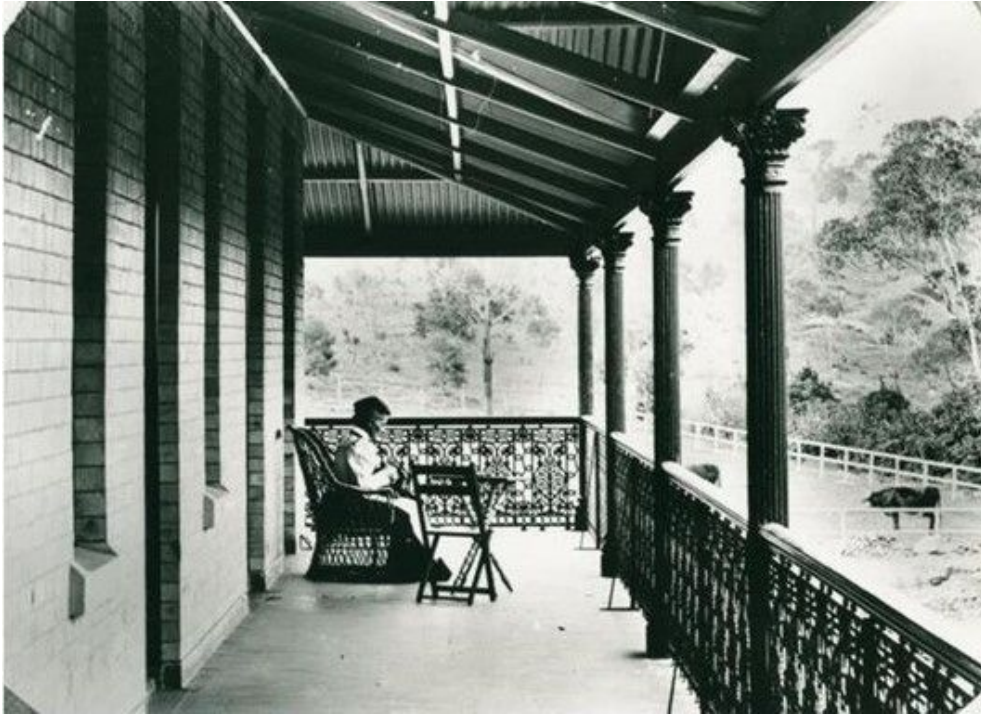


Figure 3: Standish in the early 1900s (Source: Lane Cove Library, Local History Collection, 'Stuart St Vincent Welch Photograph Collection')



Figure 4: Undated Photograph of the entrance gate to Standish with adjacent clay tennis court (Source NBRIS: 2004 Figure 21)



Figure 5: The Standish observatory, undated photograph (Source: Lane Cove Library, Local History Collection, 'Vertical File – Pallister')



Although its exact location cannot be determined without further archaeological investigations, the drawn reconstruction of Pallister 1917 as presented in Macdonald (1985) (see Figure 6) and family photographs (Figure 7 and Figure 8) place the Observatory to the Northeast of Pallister House along the route of the clay driveway. It was therefore likely to be located underneath the current Hospital carpark to the Northeast of Pallister House. These sources also suggest the possibility of archaeological remains. The Pallister Observatory was a circular brick structure with external white plaster render. These walls and foundations would have supported the heavy weight of its Muntz copper-alloy dome, and its telescope and astronomical equipment would have been mounted on a set of substantial piers. Although the dilapidated structure was demolished after 1938 (Figure 9), there is the possibility of surviving remnant footings, mounting piers, and associated artefact collections from the Pallister Observatory.

Figure 6: Reconstruction of the grounds c. 1917 (Source Mcdonald 1985, Figure 8).

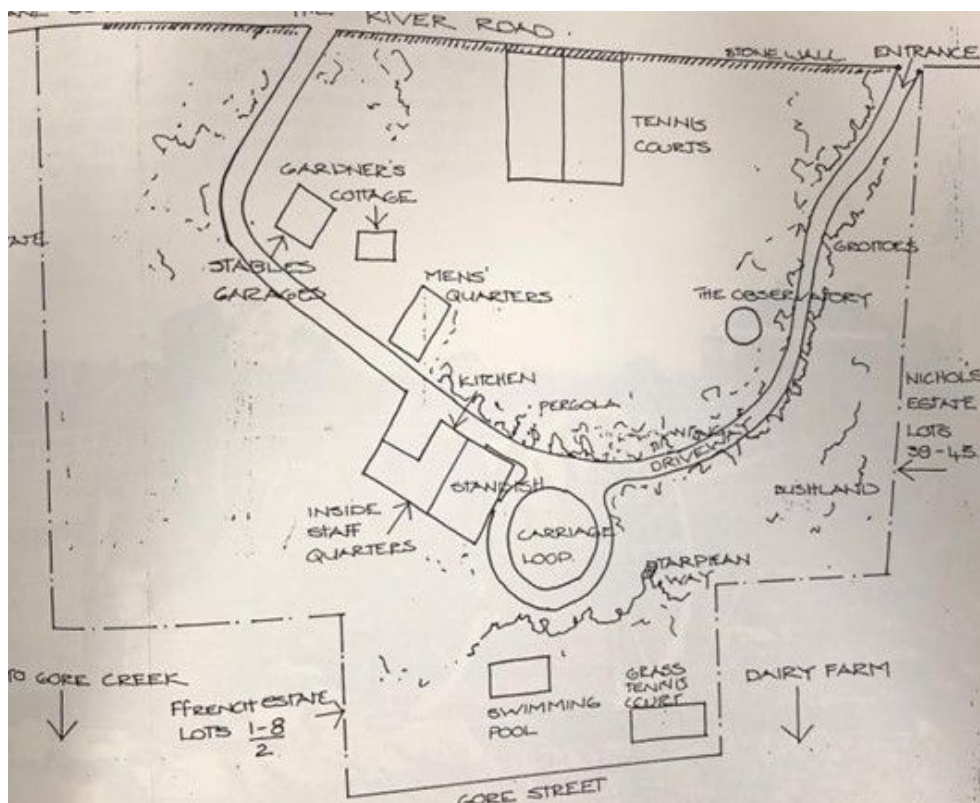


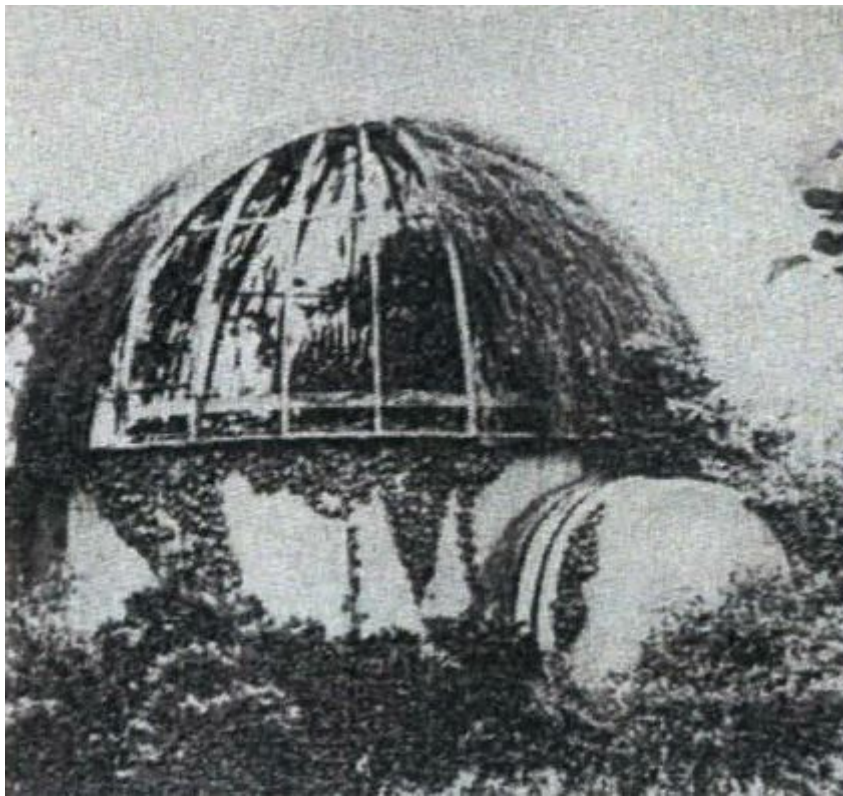
Figure 7: View from river with observatory location in relation to house (Source: Lane Cove Library, Local History Collection, 'Stuart St Vincent Welch Photograph Collection')



Figure 8: Undated photo of Standish Observatory (Source: Lane Cove Local Studies Library)



Figure 9: The observatory in 1938 (NBRS 2004: Figure 20)



The Pallister Observatory represented an amateur popularisation of a long-standing tradition of scientific astronomy within colonial Australia. Following the erection of a temporary telescope at Botany Bay by the French explorer La Pérouse for observation of the 1769 Transit of Venus, the first permanent Australian observatory was established in 1822 on Constitution Hill, Parramatta, within the Old Government House and Domain. Founded by Governor Thomas Brisbane, this Observatory provided the colony with essential astrological (navigation) and meteorological data until its demolition in 1848 (BM&A 1986). Archaeological works undertaken in 1988 documented limited surviving material remains, consisting of two large sandstone transit telescope pier stones, four associated original marker trees, and remnant archaeological footings of the 8.5 metre (28 foot) square observatory (Bickford 1988).

In 1858 its services were replaced by a new Government Observatory on the grounds of Fort Phillip on Flagstaff Hill in central Sydney. Consisting of a “Time Ball” tower and Muntz copper-alloy metal dome telescope tower, the Sydney Observatory reached its zenith of use from 1875 when it was commissioned to create the Sydney Zone of The Astrographic Catalogue – a unique international astrological collaboration that by 1964 had generated the first comprehensive “great star catalogue” across both Northern and Southern Hemispheres (Tyler 2009). With increasing scientific concerns over data contamination from city lights, traffic vibrations, and magnetic disturbances from tramlines, the growing number of private amateur observatories (including Pallister’s) may have contributed auxiliary data for the overall government project. From 2008-2010, the NSW Government Architect’s Office and consultant company Casey & Lowe undertook archaeological excavations at the Flagstaff Hill (Sydney Observatory) site. Their works

focused upon earlier remains of Fort Phillip (1804-1855), and did not recover any archaeology directly associated with the Sydney Observatory (Allen 2011).

Standish was sold in 1920 to Sydney North Innes. There are no details of major changes to the property during his occupancy. In general, the grounds were 'not fully maintained' (NBRS 2004: 27).

2.2.3 Phase 3 – Sydney Church of England Girls' Grammar School (1937-c 1942)

In 1937 the property was sold to the Sydney Church of England Grammar School for Girls (SCEGS) for the expansion of the school. By this time the observatory was in disrepair. Modifications during this period were largely to the house itself and are assessed in the built heritage HIS.

A new wing was constructed in 1938 to the rear of Standish, for classrooms. It was designed by the architectural firm Adam, Wright and Apperly (NBRS: 2004: 1938). Plans for proposed additions to the grounds were drawn up including new playing fields and sports facilities. It is not clear that all or any of these were constructed (GML 2018: 13).

It is likely that an additional driveway was constructed at this time as it is shown on the 1943 aerial photograph (Figure 10).

The school vacated the site in 1942 due to concerns about the proximity to the harbour during wartime (NBRS 2004: 33).

Figure 10: 1943 aerial photo (Source: SIX Maps)



2.2.4 Phase 4 – Pallister Girls' Home (1942-c 1975), Greenwich Hospital & Pallister (1966-Present)

The property was possibly unused from 1942 until 1946 although there are suggestions it was used for the Australian Women's Land Army (GML 2018:13). Standish was renamed 'Pallister' when the property was purchased by the Church of England Deaconess' Institute as a girls' home in 1946. It was named in honour of Anna Pallister, a Church Deaconess interested in social reform. 'Pallister Home for Girls' opened in 1947. There are no records of major changes to the property during its use as a girls' home.

The lots fronting Gore Street were sold between 1960-1964. The land remaining was subdivided in 1963 creating two lots. Lot 1 retained the girls' home and lot 2 was used to establish a separate venture which later became Home of Peace Hospitals (GML 2018: 13).

The main hospital buildings currently on site were constructed between 1966 and 1969. These would have removed any evidence of previous buildings on the site such as footings of outbuildings etc. By the 1970s most of the grounds had also been taken over by Greenwich Hospital and any remnants of the tennis and netball courts had disappeared under lawn.

The property was subdivided again in 1976 as Lots 3 and 4, and the hospital buildings expanded. This created the current lot layout, with Pallister being on Lot 4 and the hospital Lot 3. Lot 4 of DP584287 forms the heritage curtilage of Pallister House. In 1981 Pallister House became part of Greenwich Hospital.

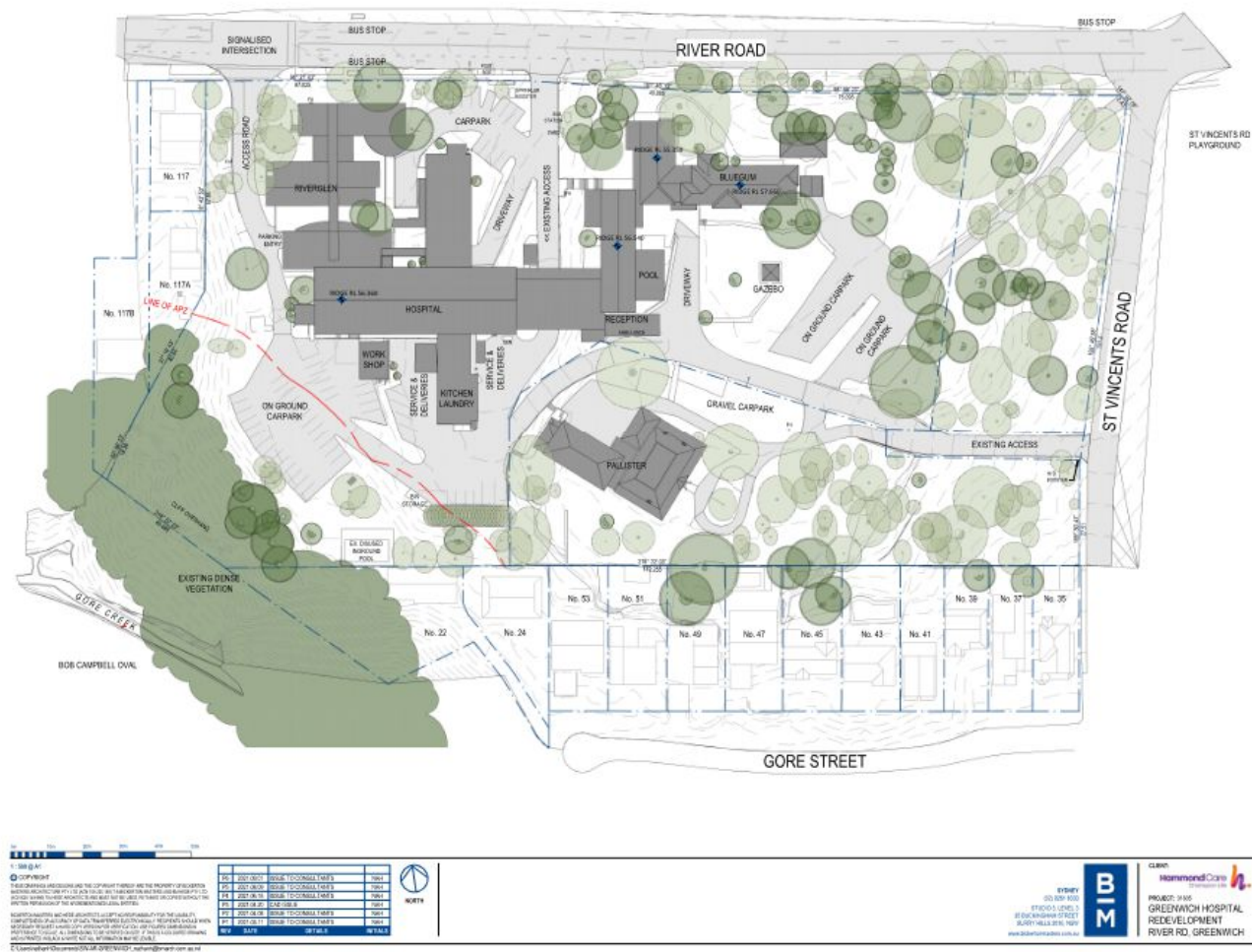
2.3 CURRENT SITE

The project area is largely occupied by the hospital buildings and associated parking and roadways. The north-west of the site is dominated by the hospital buildings. The current layout of the site is shown in Figure 11.

The State Heritage listed house Pallister remains on site in a setting that incorporates native plantings and cultural planting associated with the house.

Pallister and the surrounding gardens and area to the north and east are relatively undeveloped. This area has potential for intact archaeological relics to be preserved under existing landscaped and bitumen surfaces.

Figure 11: Current site layout



3.0 ARCHAEOLOGICAL POTENTIAL & SIGNIFICANCE

This section discusses the potential for archaeological relics to be preserved within the project area and reviews the likely significance of preserved remains should they be present.

3.1 PREVIOUS ARCHAEOLOGICAL ASSESSMENT

The concept design phase was subject of an impact assessment for historic archaeology (GML 2018). This assessment draws on the previous GML assessment as well as the built heritage assessment (NBRS 2018) to update the impact assessment, and account for the potential impact of the current design footprint. The previous assessment documented the significance of potential archaeological relics for the project area. The table summarising significance is presented here as Figure 12. Additional comments on significance, which are consistent with the previous assessment, are presented in Section 3.3.

Figure 12: GML (2018) Table Assessing Significance

Table 5.1 Assessment of Potential Archaeological Remains at Greenwich Hospital (the Study Area) against the NSW Heritage Criteria.

Criteria	Response
<i>(a) an item is important in the course, or pattern, of NSW's cultural or natural history (or the local area)</i>	<p>Development in the study area appears to have commenced around 1854 when part of the area was given in trust to Sarah Nichol. The land was utilised for grazing and dairying. Any archaeological remains associated with this phase of development could be significant at a local level, depending on their integrity.</p> <p>No further development was identified in the study area until 1892 when the land was purchased by John St Vincent Welch. The study area has undergone multiple phases of subdivision and amalgamation which reflects the patterns of land ownership and development of the northern Sydney suburbs. Land use in the area has reflected a similar pattern, with a gradual transition from gentleman's estate and farming or orcharding through to use for aged care facilities, residences and schools.</p> <p>Archaeological remains from the study area have the potential to contribute to an understanding of these patterns and could be significant at a local level, depending on integrity and intactness.</p> <p>Archaeological remains associated with the c1900 observatory constructed by Welch may provide insight into the development of amateur astronomy in NSW and are likely to be significant at a local level, depending on their integrity and intactness.</p>
<i>(b) an item has a strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the local area)</i>	<p>Greenwich Hospital contains Pallister and a remnant garden setting associated with John St Vincent Welch, who was a prominent businessman, one of the first aldermen for the borough of Lane Cove, and served the community of Sydney in a variety of ways.</p> <p>His son, Dr Kenyon St Vincent Welch, is also associated with the property and was the first doctor appointed to the Flying Doctor Service.</p> <p>John St Vincent Welch is reported to have designed Pallister, and his family resided on the property after his death until 1937. Archaeological remains which could be directly associated with John St Vincent Welch and his family may be significant at a local level.</p>
<i>(c) an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)</i>	<p>The construction and details of the c1900 observatory are largely undocumented. Archaeological remains of the structure could demonstrate a high degree of technical achievement as an amateur observatory. Evidence of such achievements would be significant at a local level.</p> <p>The aesthetic characteristics of the archaeological remains at Greenwich Hospital are unknown, given that they have not been excavated. There is some potential that archaeological remains from the study area would provide tangible physical evidence of past lifeways. They may be of significance at a local level; however, this would depend on their condition and integrity.</p>
<i>(d) an item has strong or special association with a particular community or cultural group in NSW for social, spiritual or cultural reasons (or the local area)</i>	<p>Elements of the study area have strong spiritual and community connections with the Church of England and the wide range of welfare and community services provided at the site during its use as a school and home for underprivileged girls. These elements are largely extant and archaeological remains within the study area are unlikely to demonstrate these associations.</p>

Criteria	Response
(e) an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the local area)	<p>The study area has the potential for archaeological remains associated with the construction and use of the Pallister estate (1892–1920), including structural remains and sealed deposits. Descriptions of the site from c1917 indicate there were several outbuildings associated with the main house, including stables, men's quarters, a gardener's cottage and an observatory. Decorative gardens, landscape features and playing courts are visible on aerial photographs from 1943 to the front (north) of the house.</p> <p>Archaeological evidence associated with the construction and use of Pallister would have the potential to provide insight into late nineteenth and early twentieth-century life in what was then a semi-rural area of the North Shore of Sydney. There is also potential to provide insight into changes which occurred in Greenwich as the town became more suburban. These changes may relate to rubbish disposal patterns, water availability and changes in artefact deposition patterns over time.</p> <p>There may be some archaeological evidence associated with the use of the site as a school in the interwar period and its transition from private residence to educational institution. This would most likely be represented by changes in the artefact assemblage; however, changes to the use of the site are most likely to be visible in the structural changes made to the main house, Pallister, rather than in the archaeological record.</p> <p>Archaeological deposits and features from the Greenwich Hospital site have the potential to provide data relevant to the examination of class, gender, ethnicity, diet, consumer patterns and modification of the environment to create formal gardens. Comparative analysis of archaeological remains from the study area with assemblages from both rural and urban sites in NSW would most likely provide new insight into the study of late nineteenth-century estates in NSW. The research potential of archaeological remains from the study area could be of significance at a local level, depending on their nature and extent.</p>
(f) an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the local area)	<p>While ongoing subdivision and redevelopment of the greater Sydney area renders archaeological evidence associated with early land use increasingly uncommon, anticipated archaeological remains from the study area would not be considered rare or endangered within the local area.</p> <p>Extant examples of private observatories constructed are not widely documented in NSW and it is likely that early examples from the late nineteenth and twentieth centuries are uncommon. The potential archaeological remains associated with the former observatory at the study area are uncommon within the local area, and possibly the wider NSW context, and could be significant at a local level or state level depending on their intactness and integrity. The archaeological remains associated with the development and use of Pallister, however, are not likely to meet this criterion.</p>
(g) an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places or cultural or natural environments (or the local area)	<p>Much like other gentlemen's estates on the North Shore of Sydney, the study area has the potential to provide insight into the life of the site's owner and other occupants.</p> <p>Archaeological remains from the study area have the potential to provide data relevant to the NSW historical themes of 'Environment—Cultural Landscape', 'Domestic Life' and 'Economy—Developing Local, Regional and National Economies'. Depending on their integrity and intactness, they could be significant at a local level.</p>

3.2 ARCHAEOLOGICAL POTENTIAL SUMMARY

The previous archaeological assessment (GML 2018) identified areas where archaeological relics could be preserved. As part of this report those areas and conclusions were reviewed. This section summarises the likely archaeological resource within the project area.

Heritage NSW defines archaeological potential as follows:

The degree of physical evidence present on an archaeological site usually assessed on the basis of physical evaluation and historical research. It refers to the surviving condition of archaeological sites. Common terms for describing archaeological potential are:

- *known archaeological features/sites (high archaeological potential);*
- *potential archaeological features/sites (medium archaeological potential); and*
- *no archaeological features/sites (low archaeological potential).*

The significance of an archaeological site will derive from its potential and ability to contribute information to research questions. The significance of potential items is often

difficult to assess accurately due to the lack of certainty about their presence and condition.

Phase 1 – Archaeological Potential

There is low likelihood of remains dating to this period surviving. In general, evidence of farming and grazing is limited to fence post holes, evidence of land clearing such as burnt out tree roots, and occasional outbuildings. There is no evidence to suggest that there were any structures constructed within the project area during this phase.

Phase 2 – Archaeological Potential

Standish/Pallister is still present on the site. Other archaeological elements associated with this period include: landscape features such as paths, driveways, water infrastructure, plantings and gardens, fences and gates. The outbuildings and associated features include the stables and garage, gardener's cottage, men's quarters, pergola, aviary, tennis courts, steps, potential cisterns and wells as well as the observatory. Artefacts could have been deposited as underfloor deposits associated with outbuildings or within cisterns and wells or other refuse disposal areas.

Phase 3 – Archaeological Potential

Additions to the house were made during this period, potentially removing traces of earlier additions to the rear of the building. A new driveway access was constructed. Some additions to sporting grounds may have occurred but it is not clear which specific additions were constructed. The observatory was demolished.

Phase 4 – Archaeological Potential

None of the additions in this phase (hospital buildings and associated infrastructure) are of archaeological significance. The construction of the hospital is likely to have removed other buildings believed to have been in the area, including the men's quarters (see Figure 13). This phase of development has included only minor disturbance to the eastern portion of the property including Pallister and its surrounds. Some hard surface car park and access ways are present in the eastern portion of the site.

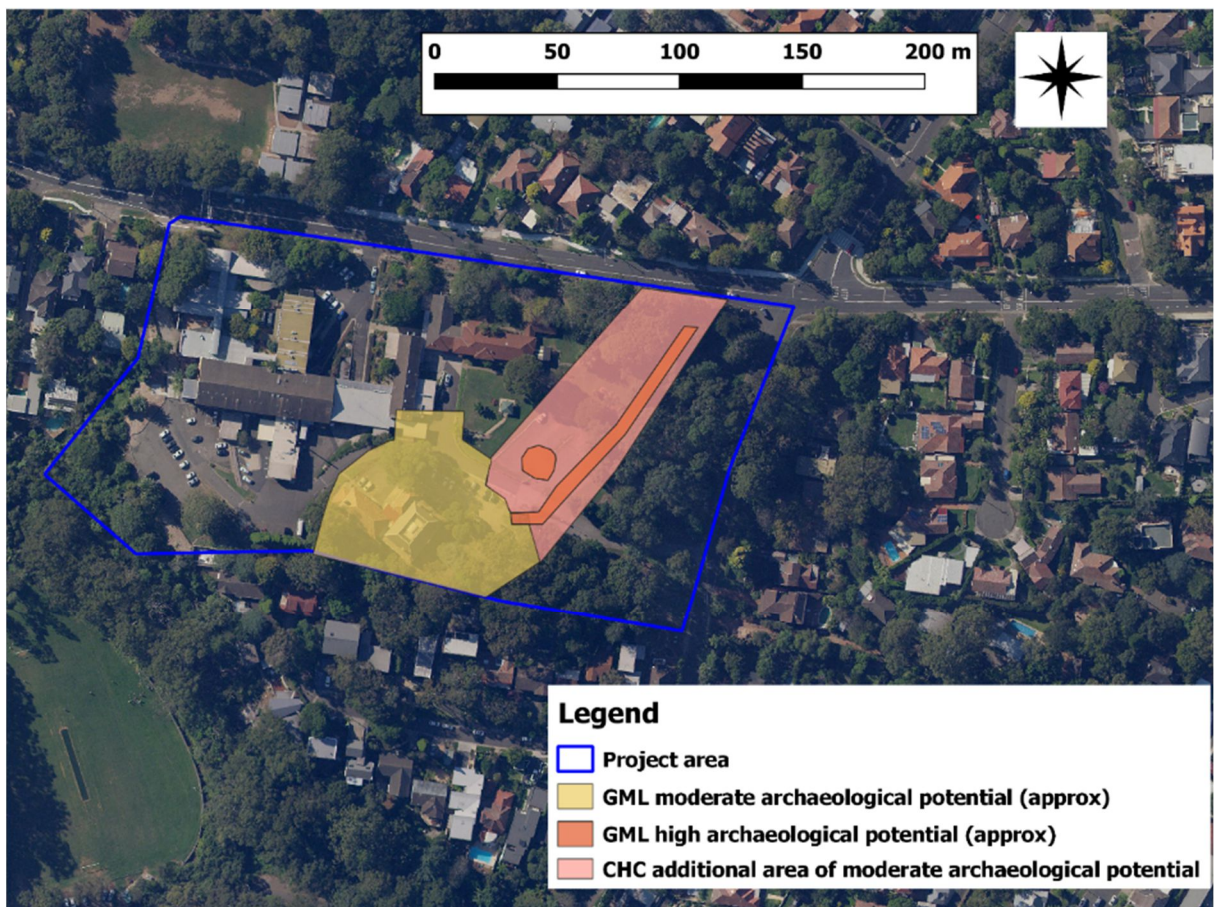
3.2.1 Areas of Archaeological Potential

The assessment of areas of archaeological potential in this report is generally consistent with the previous assessment of the Concept Design for the project (GML 2018). However, in the absence of any historic plan the location of the observatory can only be approximately determined. It is therefore assessed that the area of moderate to high archaeological potential should be expanded to include the majority of the minimally developed area of the site. Figure 14 shows the approximate areas of archaeological potential assessed by GML (2018) as well as the revised additional area of potential. This entire area should be included in any sub-surface testing or monitoring of the site as part of impact mitigation.

Figure 13: View across River Road to Standish post 1892. Likely taken from the current Greenwich Primary School facing southeast (Source: Lane Cove Library Local Studies).



Figure 14: Revised Areas of Archaeological Potential



3.3 ARCHAEOLOGICAL SIGNIFICANCE

A site or resource is said to be scientifically significant when its further study may be expected to help answer questions. This scientific significance is defined as ‘research potential’ (Bickford and Sullivan, 1984 pp 23–24) This is a concept initially developed in the United States for cultural resource management, and extended by Bickford and Sullivan in the Australian context. It was formally redefined through the following questions. These can be used as a guide for assessing the research potential of an archaeological site within a relative framework:

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

Consideration of these questions tends to prioritise the assessment of Criterion (e) of the Heritage NSW assessment criteria (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). It has been noted that ‘the key test that must be applied in understanding the scientific research values of a known or potential archaeological site is the question of whether further studies of the physical evidence may reasonably be expected to help answer research questions’ (Archaeological Assessment Guidelines 1996: 26). However, consideration should also be given to additional questions addressing the other significance Criteria. The significance of the potential archaeological deposit within the project area has been reviewed as part of this assessment. These conclusions are that the potential and significance are consistent with the previous assessment undertaken at Concept Design phase (GML 2018). The assessment of significance from the previous report is included in Figure 12. The following sections present additional commentary on the archaeological elements that could be preserved within the project area.

3.3.1 The Observatory

Any remains of the Pallister Observatory are likely to be of Local Significance because existing photographic and historical evidence suggests the structure was substantially demolished after 1938 as part of general groundworks by the SCEGS. A limited archaeological footprint is therefore anticipated. However, the structure is particularly worthy of further archaeological investigation to determine if it should be reassessed as of State Significance due to its direct historical association with the evolution of Australian astronomy, and its potential contributions to the Sydney Zone of The Astrographic Catalogue.

3.3.2 Entrance, Clay Driveway and Carriage Loop

Access paths and carriageways were early additions to the Pallister grounds. Between 1892 and 1894, a large clay driveway was constructed as a rough semi-circular access route across the property. Constructed on River Road, the formal entrance consisted of a large timber gateway for carriages and smaller adjacent gate for pedestrians. It connected to a distinctive circular carriage loop in front of Pallister House (Macdonald 1985: 34). Site

improvements during 1938 included the construction of a new driveway to River Road (CMP 2004: 30).

As common access features, these historic pathways are assessed as of potential Local Significance due to their association with the overall layout of the Pallister property. Nevertheless, a greater archaeological understanding of these historic landscape features would define their changing composition, orientation, and extent, and therefore help better incorporate these original Pallister features into the design and interpretation process.

3.3.3 Plantings, Site Landscaping & Pergola

The Pallister landscape features offer a good example of late 19th century garden design, particularly the rustic Arts and Crafts garden style popular from the late Victorian through Edwardian periods (Baskin & Dixon 1996). Surviving elements immediately surrounding Pallister House appear substantially intact, and provide a good sample of the original domestic landscaping. These historic features are of Local Significance as a surviving component of the Pallister House turn-of-century garden landscape, and its role in the NSW Heritage Register Listing. While evidence of additional garden features, grottos, and plantings may exist below the current Hospital carpark, they are unlikely to meet the threshold of local archaeological significance. However, the recording of the location of any surviving elements could be incorporated into interpretation for the overall site.

3.3.4 Sports Grounds

On the upper Pallister grounds, a set of clay tennis courts and netball court were situated along the River Street perimeter, and encircled within the clay roads (CMP 2004: 24; Figure 21). In 1938, the school prospectus, headmistress annual report, and site photographs demonstrated that the SCEGS Pallister grounds retained these original clay courts along the River Street perimeter, still encircled by the access roadways (CMP 2004: 30; Figures 31 and 32). While archaeological remains of these sporting facilities may lie beneath current Hospital lawns, roads or carparks, these features would be ephemeral at best. As common school sporting amenities, they are unlikely to meet the threshold of local significance.

A number of outdoor recreation amenities were part of the Pallister (Standish) property. To the south of Pallister House, a swimming pool (Figure 15) and grass tennis court occupied the lower garden terrace that fronted Gore Street (accessible by the rustic “Tarpeian Way” steps). Constructed sometime between 1896 and 1910, the pool was carved directly into the natural sandstone shelf, and lined with large sandstone blocks. As a consequence of the later property sub-division, the pool is now within 51 Gore Street Greenwich, and is not within the project area.

Figure 15: The swimming pool in the lower garden of 'Standish'. (Source: Lane Cove Library, Local History Collection, 'Stuart St Vincent Welch Photograph Collection')



3.4 SUMMARY

The project area has moderate to high potential to contain localised areas of archaeological remains from the period relating to Standish (Pallister) House. Subsequent construction, including the additional wing of Pallister House and the hospital buildings, will likely have removed much of the previous archaeological remains that may have been present. In the eastern portion of the project area, there is potential for archaeological relics to be preserved. The potential archaeological remains include the remains of the observatory and remnants of the previous roads and pathways. The GML report indicated specific areas of high archaeological potential including a road corridor and circular area presumed to be the location of the observatory. Available evidence does not indicate the exact location of the observatory. Therefore, as part of this assessment, the area of archaeological potential has been expanded from those previously assessed in order to account for the lack of certainty over the exact locations for both the observatory and original property road alignments. The revised area of archaeological potential is shown in Figure 14. Table 2 provides a summary of archaeological potential and significance.

Table 2: Summary of Archaeological Potential and Significance

	Archaeological Evidence	Likelihood of survival	Location on site	Potential significance
Phase 1 1788-1882	Prior to construction on site, possible grazing activity <ul style="list-style-type: none"> Burnt tree roots Fence postholes 	Low	Across site. Most of which would have been destroyed by subsequent construction of both Standish and associated buildings and the Hospital buildings.	Unlikely to meet criteria for local significance
Phase 2 1883-1937	Standish construction and subsequent occupation, observatory	Low to moderate	Low to negligible in areas of hospital buildings. Low – moderate in areas in the east of the site under existing car park and where development has not occurred. Moderate to high potential for some remains of the observatory and roadways to be preserved.	Local significance, depending on extent and condition of remains. Remains of the observatory may meet requirement for State significance
Phase 3	Driveway, possible additional sports facilities	Low to moderate	Ephemeral sports grounds unlikely to be preserved – moderate potential for additional driveway location. Some possibility for artefacts to occur.	Phases 3 & 4 are unlikely to have any relics or elements that meet the criteria for local archaeological significance.
Phase 4	Evidence from this period is largely extant and not relevant to the archaeological assessment.			Phases 3 & 4 are unlikely to have any relics or elements that meet the criteria for local archaeological significance.

4.0 IMPACT ASSESSMENT

Drawing from the proposed development plans available and the background analysis, this section provides an overview of potential impacts on the site's predicted archaeological resource.

4.1 PROPOSED DEVELOPMENT

The proposed redevelopment of Greenwich Hospital has been designed to increase the service potential and amenity of the site. This project proposal comprises of health, residential care, seniors living and community facilities. The site will welcome a mix of residents, patients, and visitors, catering for a range of needs from retired active seniors through to vulnerable and frail residents. The development will comprise two medium rise seniors living building, a high-rise health, wellness, and residential care building, and a low-rise respite facility. The design of these facilities are intended to sensitively respond to the existing heritage precinct and unique natural landscape. Pallister House will continue to serve as a health training office and facility complementing the new hospital buildings. It will retain strong visual and physical links to the proposed community and health functions.

The key objectives of the Greenwich Development are as follows:

- To create a new Health and Seniors Living campus which shifts away from the institutional design model, and instead represents a homely environment which is well integrated with the wider community.
- To increase capacity to continue to meet the local need for frail aged residential service.
- To continue and enhance specialised health service offerings such as rehabilitation, palliative and supportive care, pain management, mental health care for older people, community and other vital support services.
- To enhance the natural landscape of the Greenwich site to provide a high-quality, welcoming space for residents, patients and the wider community.
- To enhance heritage precinct landscape and create strong relationships between the site, Pallister House, and the proposed buildings.

The proposal includes the following:

- Construction of a new hospital facility and integrated healthcare campus comprising of hospital, residential aged care, seniors housing, overnight respite, across:
 - A new main hospital building up to RL 80.0;
 - Two new seniors living buildings, Northern building up to RL 56.36, and Southern building up to RL 60.65;
 - A new 2-3 level respite care building up to RL 56.9;
- Construction of associated site facilities and services, including pedestrian and vehicular access and basement parking;
- Site landscaping and infrastructure works; and

- Preservation of Pallister House which will continue to host dementia care and administrative functions.

4.2 JUSTIFICATION OF THE OBJECTIVES OF THE PROPOSED ACTIVITY

The building fabric of Greenwich Hospital has reached the end of its design and useful life and is no longer suitable for best practice service delivery. HammondCare's long term goal has been to upgrade the site and deliver an innovative and integrated model of health care, consistent with HammondCare's 'Future Directions' strategic plan. The impacts of not proceeding with the proposed development include:

- Continued under-utilisation of the site;
- Reduced access to a range of healthcare services; and
- Loss of significant, additional employment opportunities and significant community benefit.

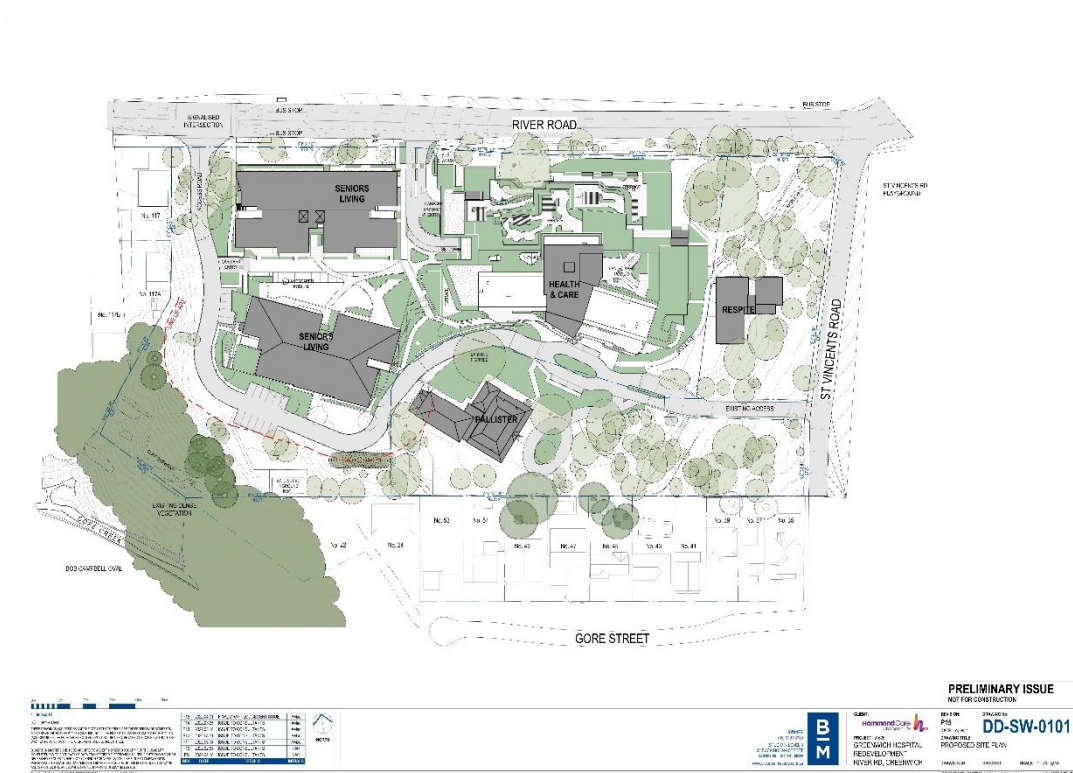
4.3 POTENTIAL IMPACTS

Development activities with the potential to disturb the ground surface include:

- The demolition of existing buildings and structures on site (excluding Pallister House which will be retained in its current form)
- Earthworks including excavation, and remediation works;
- Some tree removal and replacement; and
- Other service and landscaping works.

An overview of the proposed new site layout is shown in Figure 16 with plans also presented in Appendix 1.

Figure 16: Proposed Development – Site Layout



4.4 IMPACT MITIGATION

To manage and mitigate impacts to the potential archaeological resource, further archaeological investigation should be undertaken. Mitigation measures have already been included as part of the Independent Planning Commission's Development Consent for SSD application 8699. In particular the following conditions are relevant to mitigating impacts for historical archaeology.

Condition B14 Historic archaeological monitoring and excavation

A historical archaeological program must be prepared for the Site and it must:

- be managed by a suitably qualified and experienced historical archaeologist, including fulfil [sic] the Heritage Council's Excavation Criteria (2019) for the excavation of locally significant archaeological sites;*
- be guided by an Archaeological Research Design and Excavation Methodology, prepared in accordance with Heritage Council of NSW guidelines, in consultation with the Heritage Council of NSW.*
- document the results of the archaeological program in a final excavation report, which must:*
 - outline opportunities for conservation in situ (as a preference) according to significance, development and interpretation;*
 - be prepared within 12 months of the completion of archaeological excavation;*
 - include details of any significant artefacts recovered, where they are located and details of their ongoing management, conservation and protection in perpetuity by the landowner; and*

- iv. be provided to the Planning Secretary, the Heritage Council of NSW and to the local Council's local studies unit.*

Condition B12 Heritage Interpretation Strategy

The first development application for the new built form must include a heritage interpretation plan prepared in accordance with the NSW Heritage Division publication Interpreting Heritage Places and Items Guidelines.

An archaeological research design and excavation methodology (ARDEM) has been prepared and is included as Appendix 2. This design will guide monitoring and testing for the project area. It is proposed that a staged approach be taken, with monitoring of initial ground surface disturbance for areas of moderate or high archaeological potential, and where necessary testing or open area excavation.

The archaeologists for the project are also collaborating with other heritage professionals to best incorporate the historic archaeology of the project area into a comprehensive interpretation plan for the whole redevelopment.

5.0 DISCUSSION & RECOMMENDATIONS

5.1 DISCUSSION & CONCLUSIONS

This report provides the following conclusions:

- There is potential for significant archaeological relics and/or deposits to be contained within the project area.
- Archaeological remains are likely to be of local significance, depending on their nature and extent.
- Significant remains are likely to be those associated with the construction of Standish/Pallister House and occupation of the site by John St Vincent Welch.
- The proposed development will involve activities that will disturb the ground surface and include excavation of soils that have moderate to high potential to contain archaeological relics. Therefore, further management and mitigation of these impacts is warranted.

The findings of the previous archaeological assessment (GML 2018) are largely supported by this review.

5.2 RECOMMENDATIONS

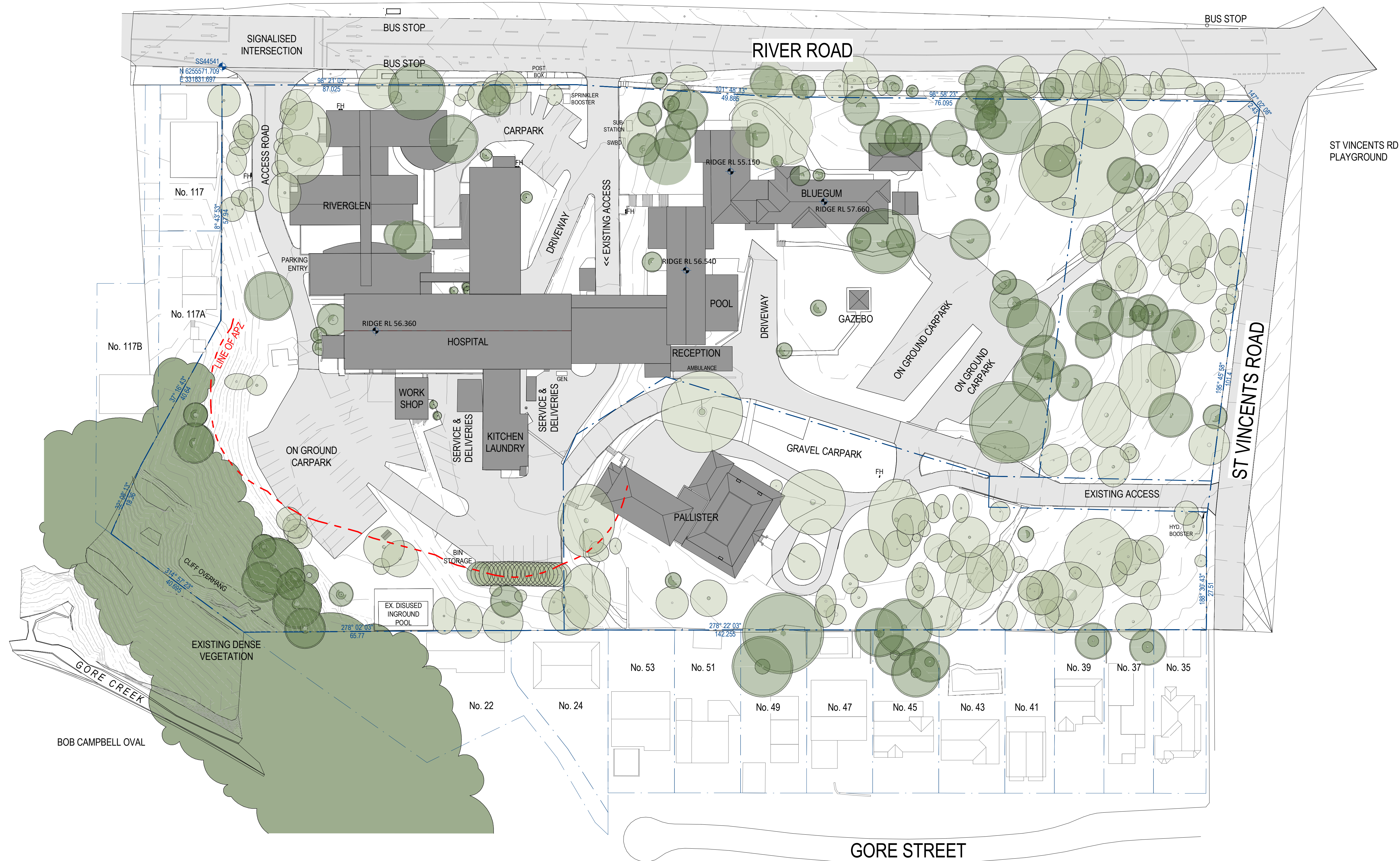
Based on the findings of the above assessment and the legislative framework for protecting and assessing historical archaeological sites in NSW, the following recommendations are provided.

- 1) The ARDEM included in Appendix 2 should be reviewed by Heritage NSW and implemented prior to ground disturbing works within the project area.
- 2) As outlined in Condition B14, results of the archaeological works should be documented in an excavation report that includes opportunities for *in situ* conservation within 12 months of completion of the archaeological excavation. It should be provided to the Planning Secretary, the Heritage Council of NSW and to the local Council's local studies unit.
- 3) Consideration should be given within the report to conservation of any significant artefacts and protection in perpetuity by the landowner.
- 4) Relevant information should be included in the interpretation plan prepared for the project area.
- 5) Information relating to potential heritage and a procedure for dealing with unexpected finds should be included within site inductions for all contractors involved in ground disturbing works. Heritage provisions and/or protocols should be included in the construction management plan for the development.

REFERENCES

- ALLEN, CAITLIN 2011 “Fort Phillip: Archaeological Excavations. Sydney Observatory, Final Excavation Report, File No. 09803” NSW, Department of Finance & Administration. NSW Heritage Library H11382 (P994.41 OBSE)
- BASKIN, JUDITH AND TRISHA DIXON 1996 *Australia's Timeless Gardens*. Canberra: National Library of Australia.
- BICKFORD, ANNE 1988 “Parramatta Park – The Observatory Site – Excavation of the Foundations”.
- BRIAN McDONALD & ASSOCIATES (BM&A) 1986 *Parramatta Park Historic Buildings and Monuments Study*. Unpublished report prepared for Parramatta City Council.
- GML HERITAGE 2018 *Greenwich Hospital Archaeological Assessment and Impact Statement*. Report prepared for HammondCare.
- HERITAGE OFFICE 1996 *Archaeological Assessments: Archaeological Assessment Guidelines*.
- MACDONALD S.T. 1985 *Standish*. Unpublished B. Arch thesis submitted to the University of Sydney.
- NBRS&P 2004 *Conservation Management Plan Pallister 95 River Road Greenwich NSW 2065*. Unpublished report.
- NBRS&P 2018 *Statement of Heritage Impact. Greenwich Hospital Concept Plan Redevelopment, 95-117 River Road, Greenwich NSW 2065*. Unpublished report.
- TYLER, PETER J. 2009 “Seeing the Stars in the City – A History of Early Astronomy in Sydney” *Journal and Proceedings of the Royal Society of New South Wales*. Volume 142: 1-14.

APPENDIX 1 – DEVELOPMENT PLANS



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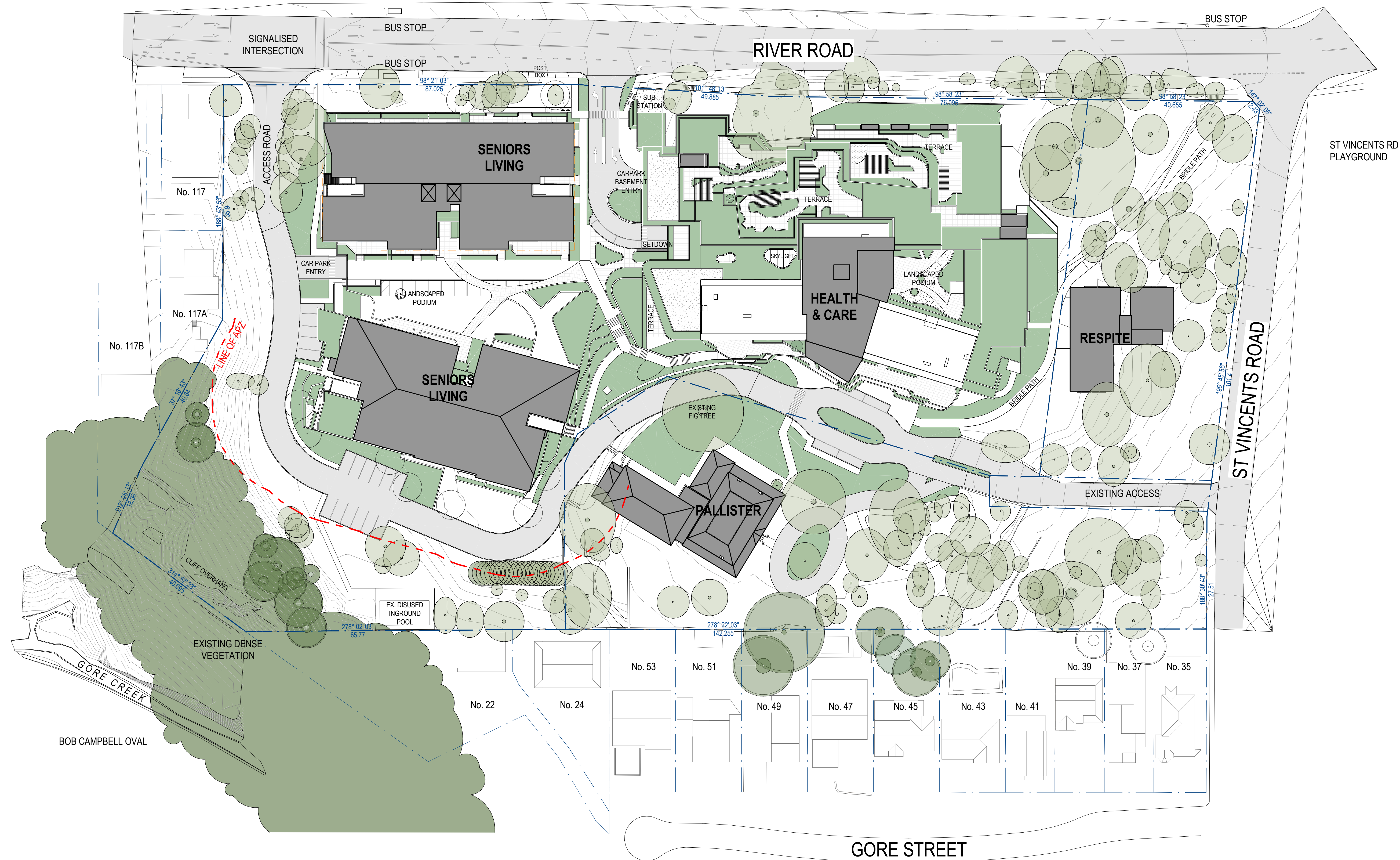


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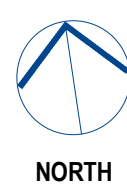
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APPENDIX 2 -ARCHAEOLOGICAL RESEARCH DESIGN & EXCAVATION METHODOLOGY

1.1 BACKGROUND

This Archaeological Research Design and Excavation Methodology (ARDEM) is submitted to the Department of Planning, Industry and Environment (DPIE) in support of a State Significant Development Application (SSD-13619238) for the redevelopment of Greenwich Hospital into an integrated hospital and seniors living facility on land identified as 97-115 River Road, Greenwich (the site). The extent of the site is shown below.



The subject proposal is for the detailed design and construction of the facility following its concept approval under SSD-8699. Specifically, SSD-13619238 seeks approval for the following:

- Demolition of the existing hospital building and associated facilities at the site;
- Construction of a new hospital facility and integrated healthcare uses and services, including:
 - A new main hospital building up to 8 storeys;
 - Two new assisted independent living buildings up to RL 60.65;
 - A new single storey respite care building;
- Construction of associated site facilities and services, including pedestrian and vehicular access and basement parking;
- Site landscaping and infrastructure works; and
- Preservation of Pallister House which will continue to host dementia care and administrative functions.

This document provides a context and methodology to undertake historical archaeological excavations within the project area. It is to be read in conjunction with the revised archaeological impact assessment (CHC 2022).

In accordance with section 4.39 of the Environmental Planning & Assessment Act 1979 (EP&A Act), the Secretary's Environmental Assessment Requirements (SEARs) for SSD-13619238 were issued on 24 February, 2021. This document has been prepared to respond to the following SEARs:

SEAR	Relevant section of report
<p>Condition B14 Historic archaeological monitoring and excavation</p> <p><i>A historical archaeological program must be prepared for the Site and it must:</i></p> <ul style="list-style-type: none"> <i>a) be managed by a suitably qualified and experienced historical archaeologist, including fulfil [sic] the Heritage Council's Excavation Criteria (2019) for the excavation of locally significant archaeological sites;</i> <i>b) be guided by an Archaeological Research Design and Excavation Methodology, prepared in accordance with Heritage Council of NSW guidelines, in consultation with the Heritage Council of NSW.</i> <i>c) document the results of the archaeological program in a final excavation report, which must:</i> <ul style="list-style-type: none"> <i>i. outline opportunities for conservation in situ (as a preference) according to significance, development and interpretation;</i> <i>ii. be prepared within 12 months of the completion of archaeological excavation;</i> <i>iii. include details of any significant artefacts recovered, where they are located and details of their ongoing management, conservation and protection in perpetuity by the landowner; and</i> <i>iv. be provided to the Planning Secretary, the Heritage Council of NSW and to the local Council's local studies unit.</i> 	<p>This ARDEM addresses point 'b'</p>

1.2 RESEARCH DESIGN

This research design draws on the historical context presented in [SECTION / REPORT REF] to provide a thematic context for investigation of the project area. The research questions provide a framework to consider any archaeological remains in a local and broader context. The use of historic themes and standardised recording methods will enable information recovered to be compared to similar sites in the local area and across

the region more broadly. The archaeological assessment concluded that any significant archaeological relics that may remain on site will relate to the period of occupation as a private residence 'Standish' (1880-1937). This ARDEM, therefore, focuses on that time period. Earlier occupation is considered less likely to have been preserved in the archaeological record, however if present may also have local significance.

1.2.1 General questions

- Are there archaeological features or deposits present in the project area?
- What is their nature and extent of any features or deposits?
- What time period do the features or deposits relate to?
- How does the excavated material compare to available historical information?
- How does information from the excavated material add to our knowledge of the project area and region?

1.2.2 Site specific questions

- Is there evidence remaining of use of the site during the period of occupation by the St Vincent Welsh family?
- Is there evidence remaining of the observatory known to have existed on the site?
- What can the remains tell us about site access (paths, roadways etc.)?
- What do remaining materials tell us about the nature of occupation and the preferences of the individuals occupying the site?
- What range of materials are present on the site and how does this compare to similar sites in the region?
- Is there any evidence of Aboriginal use of the site continuing into the contact period?

1.2.3 Heritage Council of NSW Historic Themes

The following historical themes, identified by the Heritage Council of NSW are the most likely to be applicable to the potential archaeological resource.

Australian Theme	NSW Theme	Local Themes	Comment
3 Developing local, regional and national economies	Science	Activities associated with systematic observations, experiments and processes for the explanation of observable phenomena	Any remains of the observatory that are still present would be related to this theme
3 Developing local, regional and national economies	Technology	Activities and processes associated with the knowledge or use of mechanical arts and applied sciences	Any remains of the observatory that are still present would be related to this theme
4 Building settlements, towns and cities	Land tenure	Activities and processes for identifying forms of ownership and occupancy of land and water, both Aboriginal and non-Aboriginal	It is unlikely that remains relating to earliest land tenure will be present, but information relating to the progression of access routes and building phases on the site would be related to this theme
8 Developing Australia's cultural life	Domestic life	Activities associated with creating, maintaining, living in and working around houses and institutions.	The period of domestic use of Pallister house and associated landscape features would relate to this theme

1.3 EXCAVATION METHODOLOGY

To best determine the nature and extent of any archaeological relics or deposits a staged investigation methodology is proposed. Initial excavation on site will take the form of monitoring removal of existing fill and hard surfaces to determine whether in situ features are present. If significant features are identified they will be recorded in situ and a decision taken whether controlled excavation could yield additional information. Features such as roadways, historic landscaping or other works will likely be recorded without further investigation. Deposits with potential to yield additional information such as structural details of buildings or other artefact bearing deposits will be investigated via controlled testing. If initial testing reveals further stratified deposit with potential to yield significant archaeological information, controlled open-area excavation will be undertaken.

1.3.1 Archaeological Methods

For the initial monitoring, the existing surface will be carefully removed by machine under archaeological supervision. Excavation will commence using a small machine (5-7 tonnes) equipped with a range of flat-edged or 'mud buckets' (generally 400-1200 mm wide) to remove deposits. Mechanical excavation will be undertaken via a series of shallow scrapes so that the exposed surface in the trench is progressively reduced in a controlled manner. Where space is constrained or excavation is required around in situ features a smaller flat-edged trimming bucket (300 – 450mm) will be used. Small hand tools such as picks, shovels, pointing trowels, brushes and pans will be used in manual excavation for cleaning up excavated areas or revealing exposed features or deposits. The archaeologist will endeavour to expose and identify all significant historic features and deposits.

It is considered unlikely that the maximum depth of archaeological excavations will not exceed 1.5 m. However, WH&S requirements dictate that pits or trenches deeper than 1.5 m in depth require either shoring or opening out and benching. Benching is recommended as the appropriate response.

Progression from monitoring to controlled excavation:

The Excavation Director in consultation with the supervising archaeologist will have discretion over the excavation, and accounting for a range of factors which are unquantifiable, and therefore subject to change. The intended methods are set out below.

Mechanical excavation will cease on encountering in situ historical features and deposits that are the target of the excavation. The exposed features and deposits will then be cleaned up by hand and recorded.

Any deposits deemed to be significant will be assessed for viability of conservation in situ. If necessary, advice will be sought from Heritage NSW. If deposits are not suitable or sufficient for in situ conservation, it may be appropriate to undertake controlled salvage excavation. In this event, deposits and features will be removed in strict archaeologically stratigraphic reverse order of deposition, with salient characteristics carefully recorded (see methods below). Small hand tools such as picks, shovels, pointing trowels, brushes and pans will be used in manual excavation for either cleaning up excavated areas or revealing exposed features or deposits.

The Client will be advised if the archaeological monitoring confirms the existence of significant archaeological material and the need for controlled salvage excavation.

Sufficient lead time should be provided for both monitoring and possible salvage excavation so as to avoid critical path complications with the construction program.

1.3.2 Recording Methods:

Best practice principles of stratigraphic excavation and recording will be adopted. Recording and documentation of archaeological contexts will conform to standard archaeological methods. The archaeological works will be recorded by way of measured drawings, surveys, photographs and written descriptions. Measured plans will be prepared during the excavation. The site is to be recorded in such a way that excavated features and deposits can be related to each other, the whole site and, if necessary, the wider urban setting. Plans will be completed in a range of scales, utilising a variety of different methods: from site and feature plans, to elevations, sections and overlays. Levels will be recorded as necessary throughout the course of the excavation. This data will be used to understand the relationship of the stratigraphy and features encountered.

All significant elements will be photographed with a scale bar. Digital media will be used for photographic recording. In addition to the compilation of thorough field notes, provenance data and descriptions will be recorded on numbered context recording sheets. Documentary records of the excavation will be supplemented by the preparation of Context Schedules and a Harris Matrix for the excavation areas. The Excavation Director or the supervising archaeologist will keep a field journal and a visual diary, creating a written and photographic record of the daily progression of the excavation.

On-site fieldwork recording will be undertaken in paper hardcopy, on pre-prepared recording forms. These will follow a standard layout and will include all major categories of field data typically recorded during archaeological excavation (context number, context description, soil & artefact inclusions, soil consistency & characterisation and stratigraphic relationships etc.) During cataloguing and laboratory analysis a combination of Microsoft Office computer programmes will be utilised, including MS Excel (spreadsheet functions) and MS Word (document processing). Additionally, Adobe Photoshop will be used for manipulation of digital images (photography) and Deneba Canvas for generation of line drawings (site maps, feature detail drawings).

1.3.3 Artefact Collection and Post-Excavation Analysis:

All artefacts recovered from significant or potentially significant in situ artefact bearing contexts will be retrieved and retained for post-processing. Artefacts from imported fill deposits, disturbed contexts (including surface collections), and/or which are non-diagnostic will not be retained unless they are rare, and/or have a high interpretive value or are otherwise of significance. All artefacts deemed worthy of retention will be catalogued. Artefacts will be recorded with all standard information required to identify them.

This information will include site name, area number, space (if required), unit (or context) number, date excavated and excavator's initials. If deemed necessary, some artefacts or artefact groupings may be recorded in situ (through inclusion on measured drawings or through survey) prior to their removal. All artefacts will be cleaned (if appropriate), bagged in suitable polyethylene or paper bags, double tagged with Tyvek (or similar) labels. The labels will be annotated using permanent ink pens. Analysis by a historical archaeological artefacts expert will then proceed.

Recovered artefacts will be sorted, cleaned, separated and bagged for cataloguing and analysis off site. Analysis will divide artefacts into material types and use standard Activity/Function/Sub-function groupings. The methodology will enable future comparison with similar assemblages, if required. Artefacts will be bagged and labelled with unique ID numbers. It will be the client's responsibility to provide a repository for storage of any artefacts. The final location will be discussed with the client and will depend on the nature of material recovered. If possible, artefacts may be used for interpretive displays on site.

1.3.4 Reporting

The final report will be delivered within 12 months of completion of the excavation as required under the SSD conditions. Copies of the report will be provided to the Planning Secretary, the Heritage Council of NSW and to Lane Cove Council's local studies library. All artefacts, site records and final report would be provided to the client.

The final excavation report will include the following as a minimum:

- An executive summary;
- An accurate site location and site plan/s (with scale and north arrow); a clear plan showing the location of areas excavated relative to known points/fixtures (e.g. building or property boundary). Plans will include levels reduced to the Australian Height Datum (AHD) where necessary;
- Historical research, references, and bibliography;
- Detailed information on the excavation including the aim, the context for the excavation, procedures, treatment of artefacts (cleaning, conserving, sorting, cataloguing, labelling, scale photographs, drawings, location of repository) and analysis of the information retrieved;
- Nominated repository for artefacts recovered;
- A response to the research questions;
- Conclusions drawn from the archaeological program. Including, a reassessment of the site's heritage significance; a statement(s) on how archaeological investigations at this site have contributed to the community's understanding of the relics identified and recommendations for the future management of the site;
- Comparative analysis, where relevant, to inform the significance of the site based on the archaeology;
- Details of how the information recovered has or will be publicly disseminated including how it will be incorporated in the interpretation plan.

1.4 NOMINATED TEAM

Vanessa Hardy (BA Hons) and Dr Eleanor Casella will be joint Excavation directors for the project. Both are archaeologists with extensive experience and meet the Heritage Council of NSW Excavation Director Criteria.

Professor Eleanor Casella is a Fellow of the Royal Society of Antiquaries (FRSA), under royal appointment by HM Prince Charles. She has also served on the English Heritage Advisory Committee, under appointment by HM Minister of Digital, Culture, Media & Sport.

Eleanor is a historical archaeologist, with particular expertise in Australian colonial and industrial archaeology. She has directed large-scale archaeological projects across Australia, the UK, and Ireland. She has authored numerous consultant reports, archaeological publications, field-based projects, and artefact collections management strategies. She has over 20 years' experience in survey and excavations, project management, heritage policy, community/stakeholder consultation, public outreach, and media dissemination. Currently an Adjunct Professor at the University of Tasmania, her publications primarily focus on Australian institutional sites (hospitals, prisons, orphan schools, internment camps) within their wider global historic context.

Vanessa Hardy, Principal Archaeologist and Company Director of Cultural Heritage Connections, has over 20 years' experience in cultural heritage management and archaeological consulting. Her experience spans a broad range of heritage assessment types including both Indigenous and non-Indigenous archaeological and heritage management planning, archaeological and historical research and project management. Vanessa is an active member of Australia ICOMOS.