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Glebe Mid-Rise Development Baseline Historical Archaeological Assessment—Planning Proposal Stage 1

Prepared for Land and Housing Corporation (NSW)

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Executive summary

Extent Heritage Pty Ltd has been commissioned by NSW Land and Housing Corporation to prepare a Baseline Historical Archaeological Assessment to inform Planning Proposal Stage 1 for a social housing renewal project at 17-31 Cowper Street and 2A-2D Wentworth Park Road, Glebe. This project is multi-phased, involving the likely rezoning of the site through a Planning Proposal (Stage 1) followed by a Development Application (DA) Stage 2.

The site is listed as several items on the Section 170 Register for the NSW Land and Housing Corporation. The site is not listed as a heritage item on Schedule 5 of Sydney LEP 2012, however it sits within the Glebe St. Phillips local Conservation Area and it is adjacent to Heritage Item I670 (street trees).

This report assesses the level of historical archaeological potential and its significance at the site. Through this assessment archaeological constraints and opportunities are identified with regards to the proposal and its potential impacts.

Key findings

- The likelihood of surviving archaeological remains (of local significance) to be present on the site is considered low-high.
- Historical interpretation opportunities to illustrate the history of the area and utilise the archaeological resource to inform our understanding of the occupants of the site and activities carried out there
- Given that the site has generally moderate potential to contain archaeological remains of local archaeological significance, they would constitute relics in the meaning of the *Heritage Act 1977* (NSW) and as such afforded protection under the 'relics' provisions of the Act. Any ground disturbance works with the potential to disturb or destroy archaeological relics are constrained by the Act and would require an excavation permits to allow them to proceed.

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1. Introduction

1.1 Project initiation

Extent Heritage Pty Ltd (Extent Heritage) has been commissioned by NSW Land and Housing Corporation (LAHC) to prepare a Baseline Historical Archaeological Assessment as part of the Planning Proposal and Development Application for a social housing renewal project at 17-31 Cowper Street and 2A-2D Wentworth Park Road, Glebe (the site).

The site is located within a conservation area and listed as several items on a State Agency Heritage and Conservation Register.

The purpose of the report is to assess the level of historical archaeological potential and its significance at the site. Through this assessment archaeological constraints and opportunities will be identified with regards to the proposal and its potential impacts.

1.2 Site location and identification

The site is located in 17-31 Cowper Street and 2A-2D Wentworth Park Road, Glebe. It lies within the City of Sydney Local Government Area (LGA). It consists of Lot 18 DP 244897 and Lot 17 DP 244897 (Figure 1, Figure 2).

The site comprises two blocks separated by Park Lane. Wentworth Park Road is to the north, Cowper Street to the east, Wentworth Street to the south and Mitchell Lane East to the west. The northern block, Lot 18 DP 244897 or 2A-2D Wentworth Park Road, comprises four two-storey terrace houses. The southern block, Lot 17 DP 244897 or 17-31 Cowper Street, comprises a two-storey block of fifteen one-bedroom units.

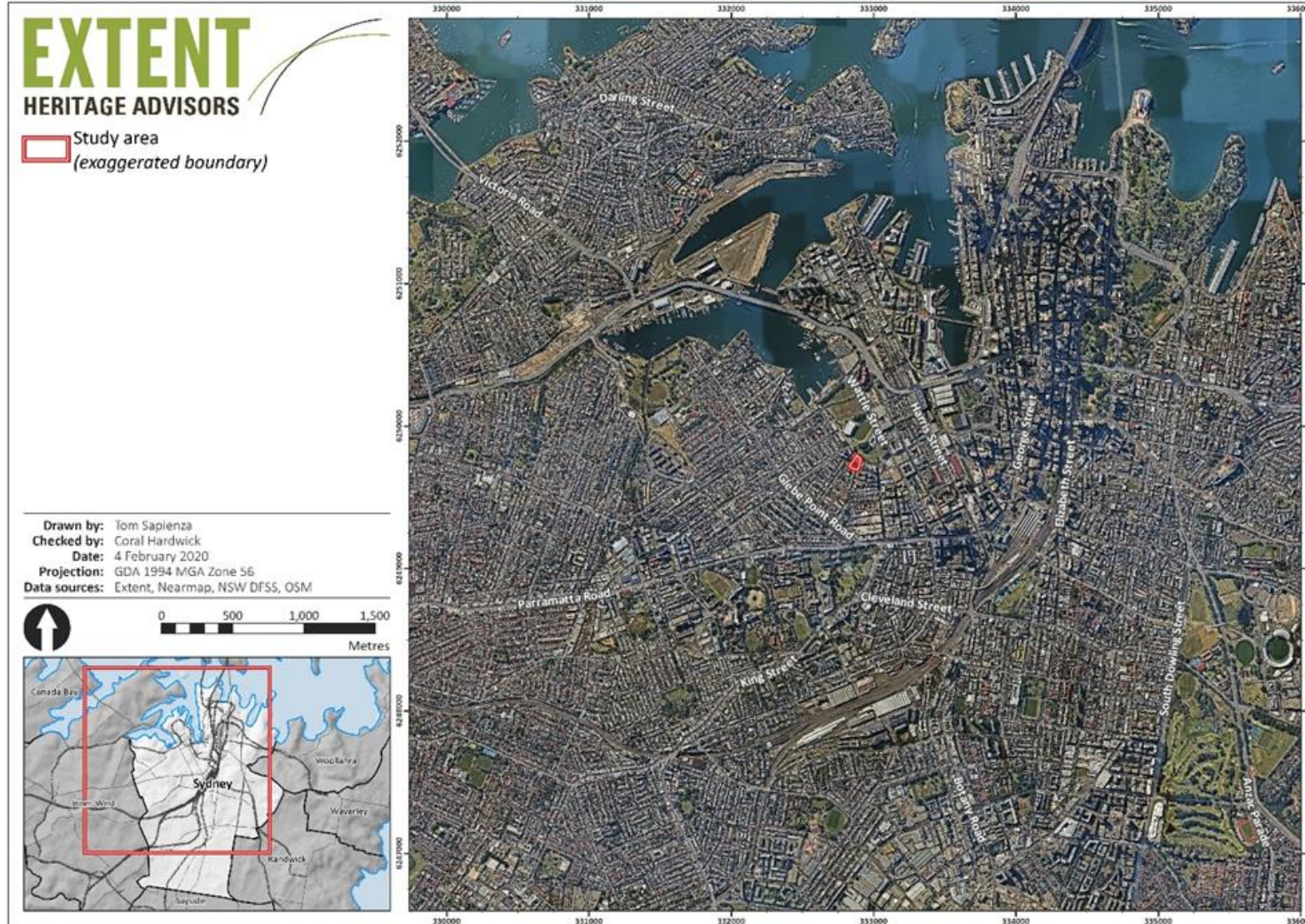


Figure 1. Aerial photograph indication location of the site, outlined in red, within the inner suburbs of Sydney (Source: Nearmap modified by Extent Heritage, February 2020).



Figure 2. Aerial photograph indicating the location of the site at 17-31 Cowper Street and 2A-2D Wentworth Park Road, outlined in red (Source: Nearmap modified by Extent Heritage, February 2020).

1.3 Development description

The Glebe Mid Rise Project proposes to develop the site with two multi-storey apartment blocks with basement carparking and a row of five attached terrace residences.

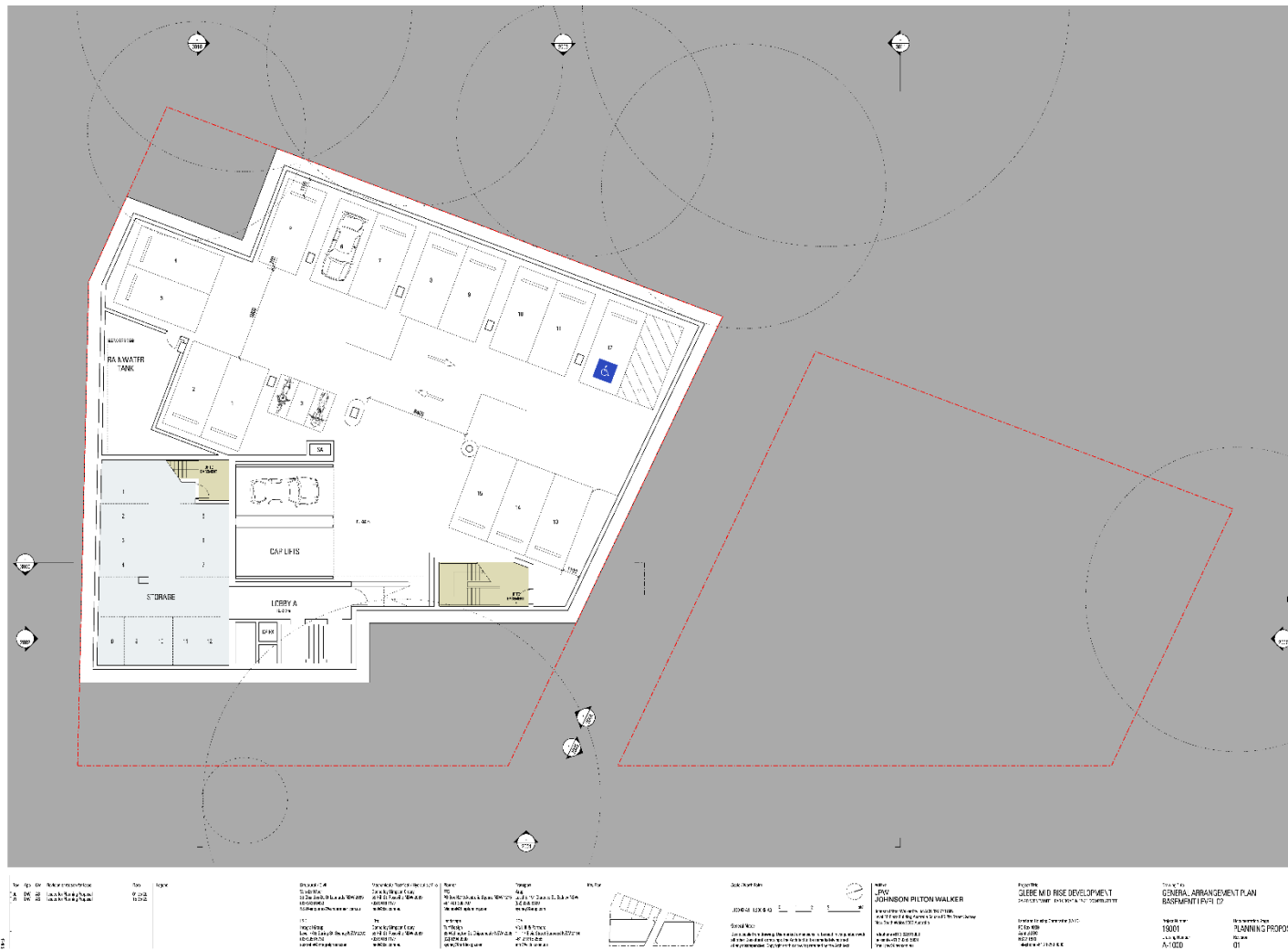


Figure 3. Finalised concept plan of the proposed development, Revision 1 05-15-20. Basement level 2, comprise a carpark at 31 Cowper Street, is shown in this plan (Source: Johnson Pilton Walker 2019).

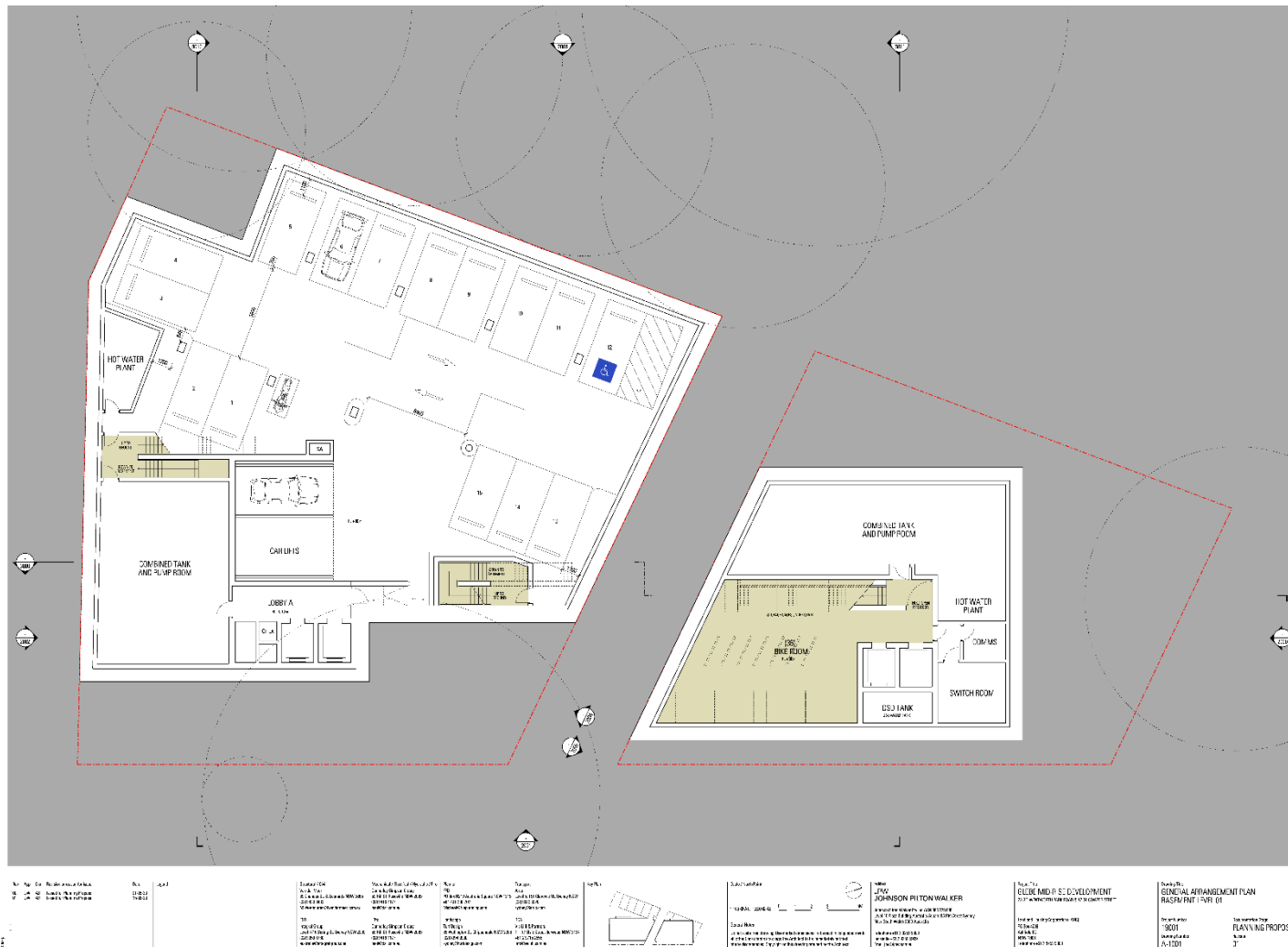


Figure 4. Finalised concept plan of the proposed development, Revision 1 05-15-20. Basement level 1, comprising a carpark at 17-31 Cowper Street and bike storage at 2A-2D Wentworth Park Road, is shown in this plan (Source: Johnson Pilton Walker 2019).

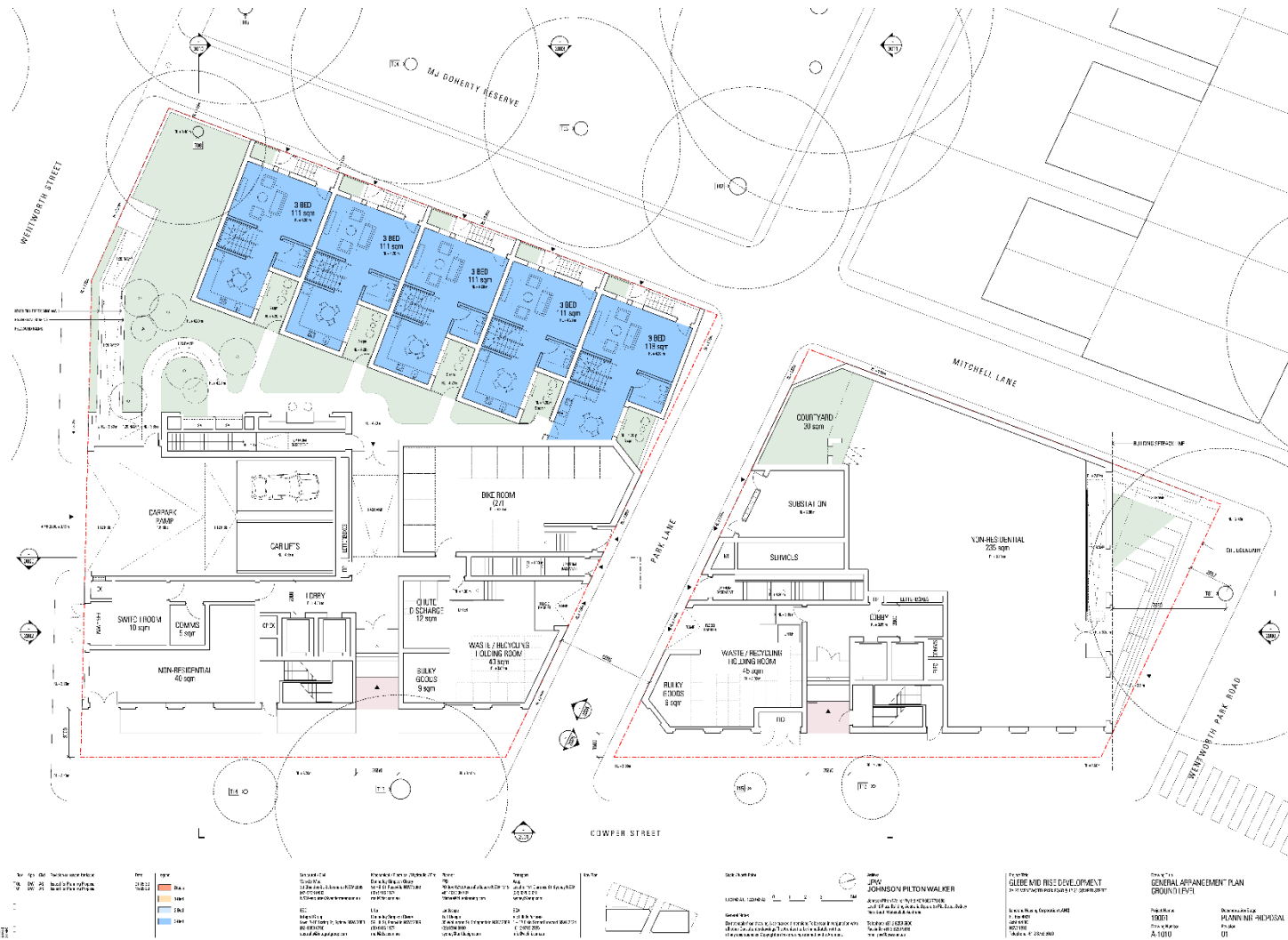


Figure 5. Finalised concept plan of the proposed development, Revision 1 15-05-20, showing the ground floor of the blocks at 17-31 Cowper Street and 2A-2D Wentworth Park Road (Source: Johnson Pilton Walker 2019).

1.4 Statutory context

In regard to historical archaeology, the site is subject to the following controls:

- Heritage Act 1977 (NSW)
 - LAHC NSW S170 Register
- Environment Planning and Assessment Act 1979 (NSW)
 - City of Sydney Local Environmental Plan 2012

1.4.1 Heritage Act 1977 (NSW)

The Heritage Act 1977 (NSW) (the Heritage Act, the Act) is designed to conserve the environmental heritage of New South Wales and regulate development impacts on the state's heritage assets. Significant historical archaeological features are afforded automatic statutory protection by the 'relics' provisions of the Act.

A relic is defined as any deposit, artefact, object or material evidence that:

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

In accordance with Section 139, it is an offence to disturb or excavate land, where this may affect a relic, without the approval/excavation permit of the NSW Heritage Council, unless an endorsed 'Exemption' or 'Exception' is issued for works that are minor in nature or with minimal impact onto the heritage significance of the place. In general, sites which may contain archaeological relics are managed under Sections 140 and 141 of the Heritage Act. However, sites with archaeological potential that are listed on the State Heritage Register (SHR) are dealt with under Sections 60 and 63 of the Heritage Act.

The requirement to obtain approvals under the Heritage Act does not apply to developments that are approved SSDs, under S89J of the EP&A Act. The potential heritage impact is instead managed by the environmental assessment process.

There are no heritage items on the SHR listed within the site.

1.4.1.1 NSW Land and Housing Corporation Section 170 Heritage and Conservation Register

As a government agency, the NSW Land and Housing Corporation (LAHC) has responsibility under Section 170 of the Heritage Act 1977 (NSW) to identify, conserve and manage heritage assets owned, occupied or managed by that agency. The following table details the LAHC S170 register entries for the site.

Table 1. List of items on the Section 170 Register for the NSW LAHC within the site.

Item Name	Item no.
17-31 Cowper Street	3620709
2A Wentworth Park Road	3621264
2B Wentworth Park Road	3621265
2C Wentworth Park Road	3621266
2D Wentworth Park road	3621267

1.4.2 Environmental Planning and Assessment Act 1979 (NSW)

The Environmental Planning and Assessment Act 1979 (NSW) (EPA Act) controls the making of environmental planning instruments, including State Environment Planning Policies (SEPPs), which deal with matters of State or regional environmental planning significance; and Local Environmental Plans (LEPs), which guide planning decisions for local government areas. The site falls within the City of Sydney Local Government Area (LGA). The relevant environmental planning instrument is the City of Sydney Local Environmental Plan 2012 (Sydney LEP 2012).

1.4.2.1 City of Sydney Local Environmental Plan 2012

The objectives of Sydney LEP 2012 with respect to heritage conservation and archaeological sites are provided in clause 5.10 which (amongst other objectives) aims to conserve archaeological sites and requires consent to demolish, move or alter known or potential archaeology. Additionally, it requires that the consent authority must notify the heritage council of this development and take into consideration their response.

The site is not listed as a heritage item on Schedule 5 of Sydney LEP 2012; however, it sits within the Glebe St. Phillips local Conservation Area and it is adjacent to Heritage Item I670. (as shown in Figure 6).

Table 2. Sydney LEP 2012 listings in or within the vicinity of the site.

Item	Address	Significance	Item No
Conservation Area	Glebe	Local	C32
Street Trees	Cowper Street	Local	I670

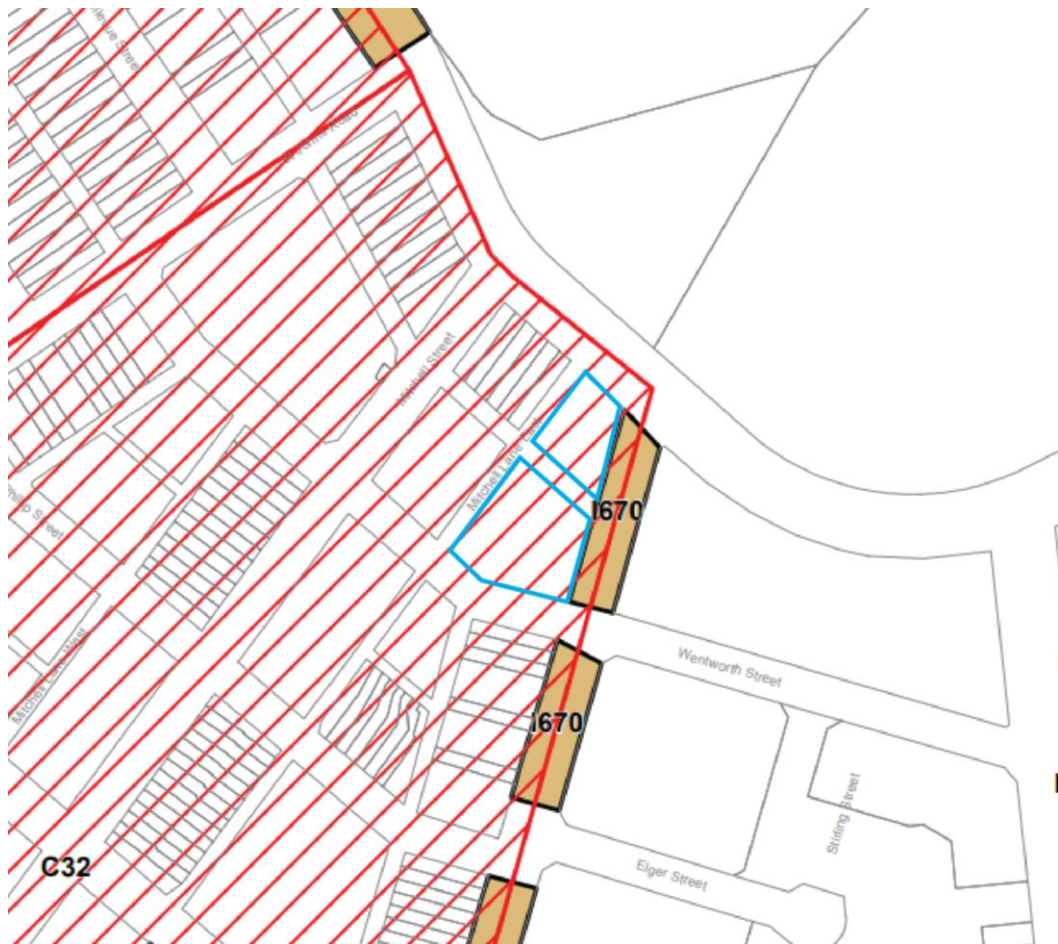


Figure 6. Detail of Sydney LEP 2012 Sheet HER_008 showing heritage items (brown), and conservation areas (hashed in red) in vicinity of site (outlined in blue).

1.5 Previous reports and investigations

The site has not been subject to previous heritage reports or investigations.

1.6 Objectives

The objectives of this report are to:

- identify any potential historical archaeological resources at the site and assess their significance;
- prepare archaeological sensitivity mapping for the site; noting the nature and level of risk;
- identify potential risks by the proposed development and provide recommendations for their management.

1.7 Approach and methodology

This report was prepared in accordance with the principles and procedures established by the following documents:

- The Australia ICOMOS Charter for Places of Cultural Significance, 2013 (the Burra Charter) (Australia ICOMOS 2013);
- Assessing Significance for Historical Archaeological Sites and Relics (Heritage Branch 2009); and
- ‘Historical Archaeology Code of Practice’ (Heritage Council 2006).

1.8 Limitations

This report deals with the historical archaeology of the site only. The Aboriginal and cultural heritage values of the site are not addressed in this report.

The site inspection was undertaken as a visual study only, and no physical investigation was carried out to inform this report.

This report does not address Aboriginal cultural heritage. This component of the project is dealt with in a separate report: Glebe Mid-rise Development Preliminary Aboriginal Archaeological Assessment (Extent, February 2020).

1.9 Author identification

This report was prepared by Francesca McMaster (Heritage Advisor) and Tom Sapienza (Senior Heritage Advisor). Historical background was prepared by Gabrielle Harrington, Research Assistant.

It was reviewed by Graham Wilson, Principal Heritage Advisor. Quality assurance was provided by Anita Yousif, Associate Director, NSW Archaeology.

1.10 Acknowledgements

We acknowledge the assistance of Fred Chan (Development Manager), NSW Land and Housing Corporation.

2. Historical context

2.1 Introduction

This historical context relies largely on the compilation of primary and secondary historical resources, as well as detailed analysis of historical plans and aerial images. This section of the report also provides a historical timeline to aid identification of the main phases of historical development.

2.2 History

Cadigal are recognised as the traditional owners of the site. In 1788 the land surrounding the site consisted of a harbourside mixture of sandy, sandstone slopes and swampy mud and sand where the freshwater Blackwattle Creek emptied into the harbour. The swamp extended as far as the present William Henry Street (Fitzgerald & Golder 1994, 12).

At the onset of European settlement in 1789 the Sydney Glebe lands were granted to the Church of England. This followed a decree by British Authorities to allocate 400 acres in each township to support a Church of England clergyman. This land remained largely unused until 1828 when the Church and School Corporation subdivided Glebe into 28 allotments (Figure 7). Lots 7 and 8 of this subdivision were handed over to the trustees of St Phillip’s with the income derived to be used for diocesan purposes. The site of 17-31 Cowper Street and 2A-2D Wentworth Park Road is located within this 1828 subdivision which became known as St Phillip’s Estate subdivision.



Figure 7. Detail of 1837 Plan of Sydney showing portion of land known as St Phillips. (Source: National Library of Australia, Call No. MAP T 1551).

In 1842 St Phillip's Estate was further subdivided with lots being offered on 28-year leases. Within this subdivision, plots of land were leased at low rates on the condition that the lessee built at his own expense a house or houses of substantial character, with not more than two dwellings per allotment and that at the expiration of the lease the property became that of the ground landlord (NSW OEH n.d.). By 1844, sixty cottages had been constructed on the St. Phillips Estate and were likely to be of weatherboard construction (Solling 2007, 97). An 1873 photograph of the area does not show any indication of structures being built on the site at this time (Figure 8).

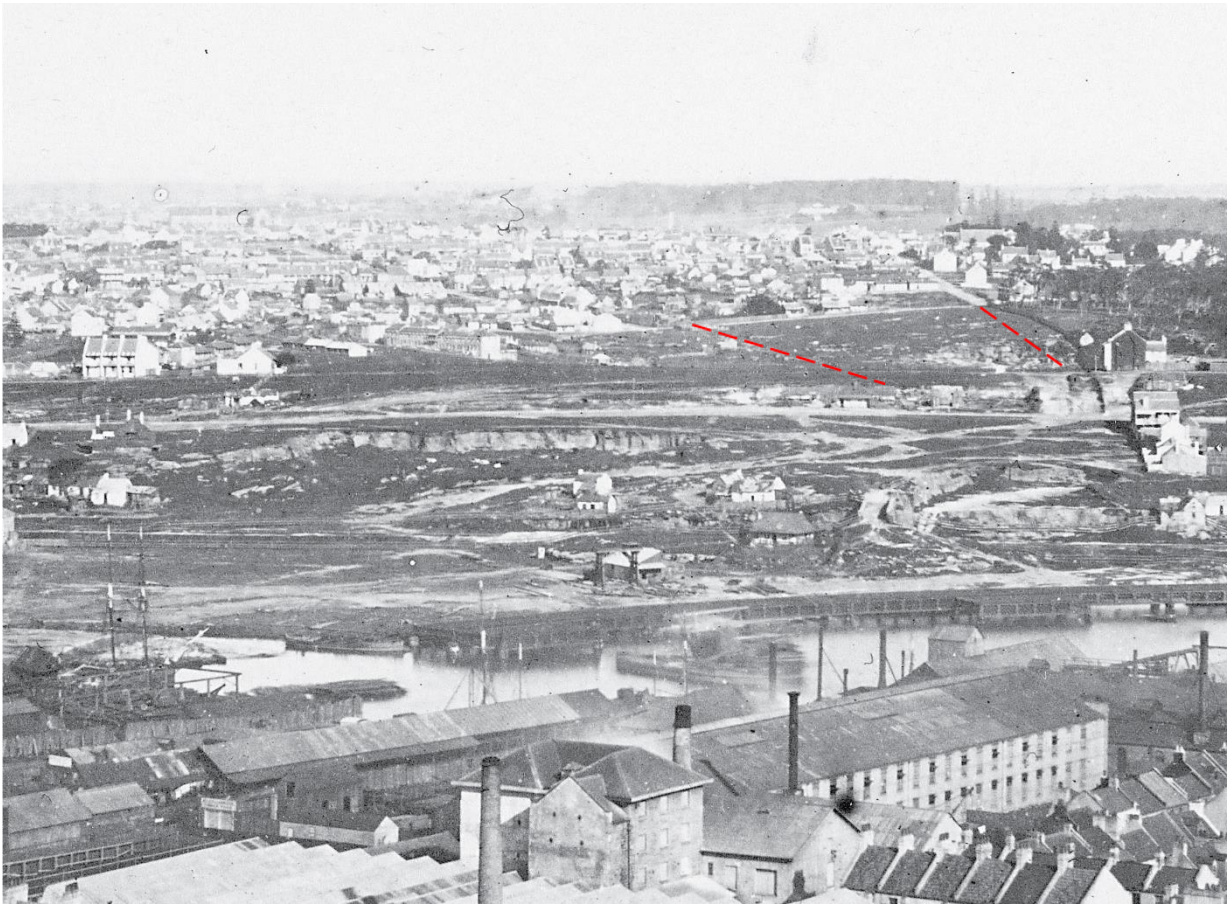


Figure 8. Detail of 1873 photograph with approximate location of site marked by red dashed lines. (Source: SLNSW, Town Hall clock tower view 1873).

Between the 1830s and 1860s noxious industries developed along the shore of Black Wattle Cove, including abattoirs and boiling down works. These industries pumped pollution down Blackwattle Creek into the cove beyond. These industries were eventually moved out of Glebe following public petition, however, even after departure the stench from the pollution continued to arise from the water and mud. In 1868 Blackwattle Creek was recorded as an “open sewer” (Thorp 1990, 8), and in 1876 the Sydney Health Board concluded that the streams of filth and sewage that ran down Glebe’s lanes near Blackwattle Swamp made the precinct ‘positively sickening’. This led to calls for the area to be infilled to remove the pollutants and stench.

By 1873 the Blackwattle Bay Reclamation Act was passed, however, infilling of the creek and head of the swamp did not commence until 1876 (Thorp 1990, 2). By 1880 silt deposits dredged from the harbour bed had been used to fill the swamp, with dykes and seawalls created as part

of the process (Thorp 1990, 10). The transformation was incredible, with claims that the once “fertile source of miasmatic disease” had taken on a healthy character (Gibbs and Shallard 1882, 35). Varying high water marks across parish and metropolitan plans make it difficult to ascertain the location of the site in relation to the original shoreline and the 1876-1880 reclamation of Black Wattle Bay. The 1840 plan (Figure 9) suggests the site sits to the south of the high-water mark, as does the 1890 plan (Figure 10) post-reclamation. Estate plans for Lyndhurst and Glebe estates show the high-water mark in varied positions. Using georeferencing software and any historical plans with marked measurements, the 1840 plan was shown to be accurate. This variance may be indicative of two different high-water mark readings being taken, an earlier reading that was taken in relation to the ability to launch vessels from the level the tide reached versus a level taken later of the actual level of the high tide.

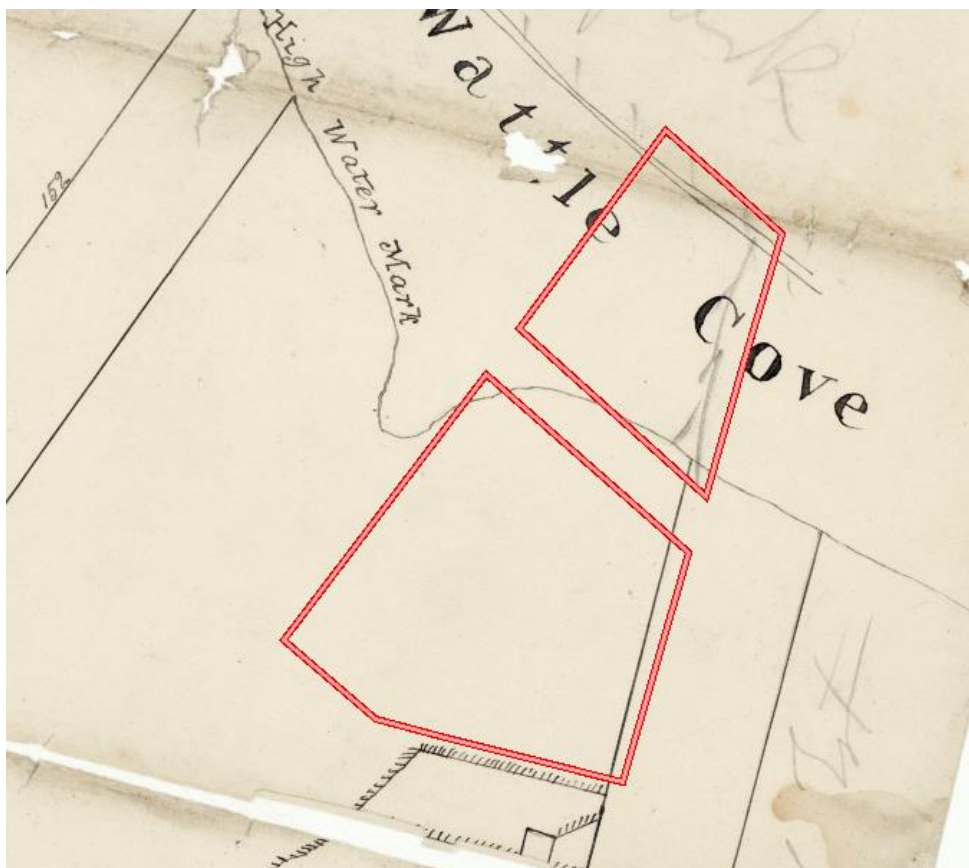


Figure 9. 1840 Glebe detail plan shows the location of the high-water mark in relation to the site (outlined in red). (Source: Mitchell Library FL 8990680).

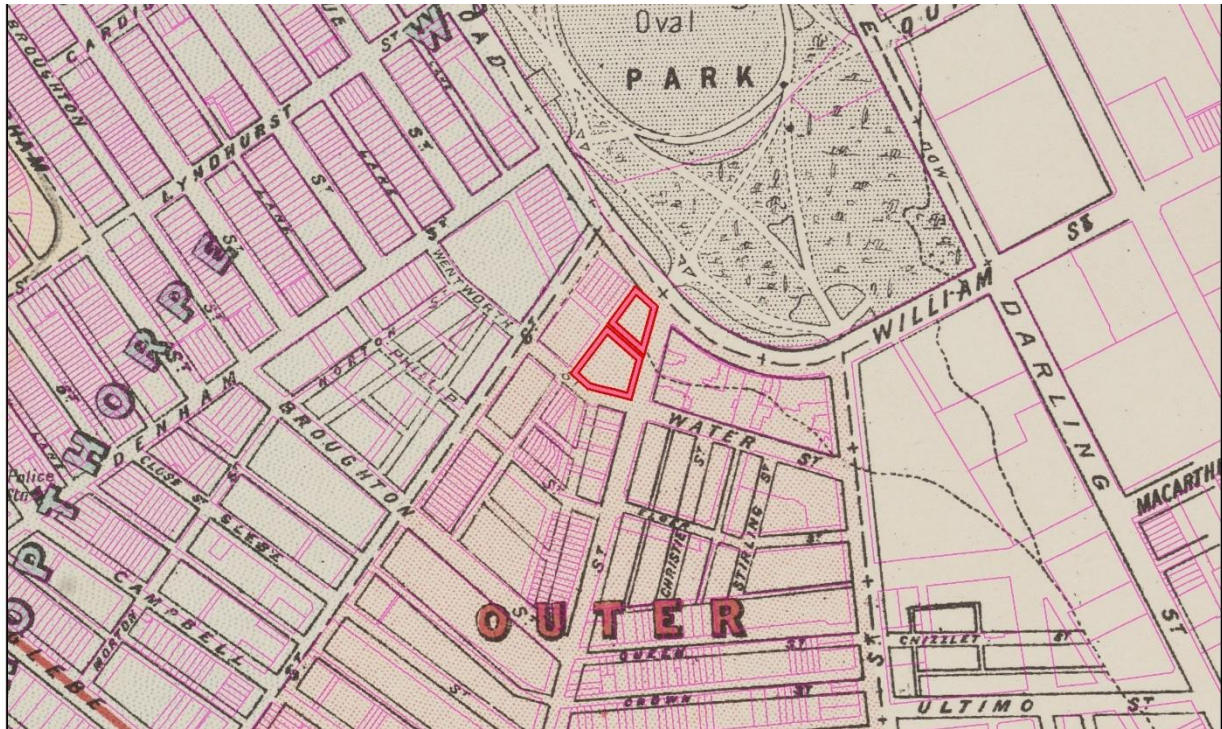


Figure 10. 1890's Glebe showing site (outlined in red) partially across the high-water mark (marked as a dotted line). (Source: SLNSW Mitchell Library, Call No. FL4501717).

In c.1870 St Phillip's Estate was subdivided and redeveloped from the 1842 lease and had a combination of commercial and residential buildings. The next 20 years were the most intensive period of building in which the terrace became the most dominant style of building in the area. In c.1880s the Metropolitan Mutual Permanent Building and Investment Association acquired new leases for fifty-year terms from the Church of England and set out to redevelop St Phillip's Estate including Cowper Street and Park Road (now Wentworth Park Road) (Solling 2007, 102). As a result, between 1877 and 1885 rows of one and two-storey terraces were constructed along Cowper Street and Park Road. These are visible in the 1888 Map of Glebe (Figure 11). In 1892 it appears that a corner store was located at the subject site in the terrace on the corner of Wentworth Park Road and Cowper Street (Solling 2007, 113).



Figure 11. 1888 map of Glebe Municipality showing terraces established within the site (outlined in red) along Cowper Street. (Source: Historical Atlas of Sydney).

Glebe Council, established in 1859, undertook its own sewerage works in 1886 in response to soaring disease and people leaving the suburb in favour of more sanitary residences. Contractors began laying pipes by 1886, but only 200 houses were connected with cesspits reportedly remaining the main form of sanitation (Solling 2007, 93). By 1901 the suburb had 22.8km of sewer pipes compared to a mere 5.4km in 1892. Disease, however, continued to be an issue into the 20th century with the outbreak of the bubonic plaque in 1900. Middle class families moved to Sydney's newer suburbs, with Glebe increasingly becoming home to people on lower incomes, especially blue-collar workers who had to remain close to the city to pick up work. For the next decade a zone embracing Redfern, Newtown, Surry Hills, Camperdown, Paddington, Glebe, and Balmain became more industrialised and overtly working class in their demographic profile (Solling 2011). This demographic remained relatively unchanged up until the 1950s.

Sands Directory covers the site from 1888 until 1933. A wide range of trades are represented by those living in the terraces; from bricklayers, butchers, dressmakers and carpenters. Grocers or confectioners appear to operate corner stores at either end of the Cowper Street terraces for the duration of the entries in the Sands Directory (1889-1932). The Wentworth Street buildings are interestingly not present in the Sands Directory until 1893, despite being marked on 1888 plans of the area. This is likely an error on the part of the Sands Directory.

A panoramic image of Wentworth Park dating between c.1910 and 1922 shows rows of terraces, including those at 17-31 Cowper and 2A-2D Wentworth Park Road (Figure 12). The corner store, noted as present in 1892, is visible in this photograph. The Sands Directory indicates that these terraces were occupied until at least 1933, however, by 1939, mapping shows the site as vacant land (Figure 9). Based on this mapping from the 1930s and aerial photography from the 1940s,

many terrace houses built in the area were demolished by this time and the lots were left vacant until further development in the mid-20th Century.

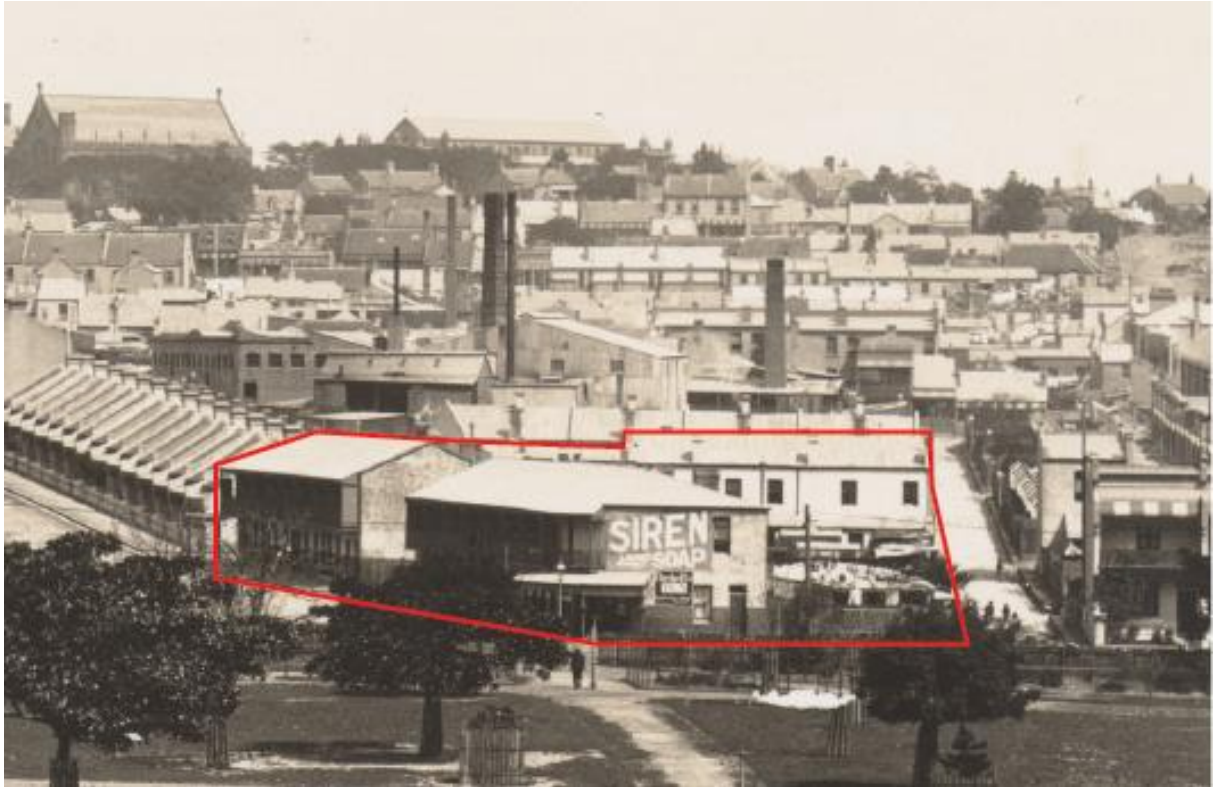


Figure 12. Close up of panoramic photograph of Wentworth Park c. 1910 -1930, terraces are visible within the site (outlined in red). (Source: State Library of NSW, Call No. DL PX 165, Photograph No. 65-66).

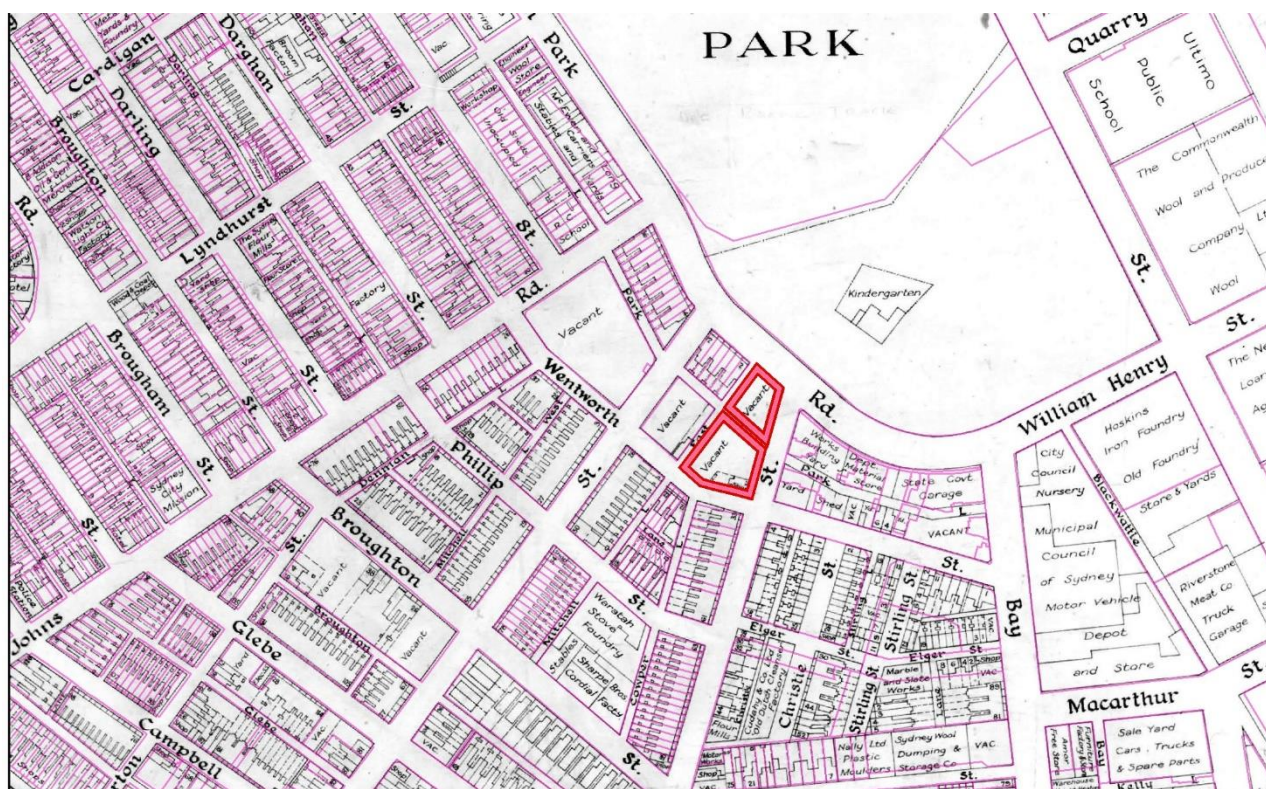


Figure 13. Overlay of present-day structures on 1939 Glebe detail map showing the site as mostly vacant. (Source: Historical Atlas of Sydney).

Planning street cards for Glebe provide an overview of applications made and actual use of the site from 1949 onwards (City of Sydney n.d.). These show that from 1952-57 17-31 Cowper Street was predominately used as a storage site for fuel containers, empty fruit containers, and the storage of machinery for Wall Machinery Pty Ltd (1952). Between 1957-1964 applications were made to use the area as a Service Station for Broadway Motors, however there is no indication these applications were approved. In 1964, lock-up garages were authorised to be built for the Glebe Administration Board, the construction of which is visible in aerial photographs from 1965 (Figure 14). These planning cards further detail that between 1969 and 1972, 2A-2D Wentworth Park Road was used as an off-street parking lot (City of Sydney n.d.). Based on aerial photography, these appear to continue to be used for these purposes until at least 1986 (Figure 15).



Figure 14. Aerial photograph, 1965 with site outlined in pink. Note the construction of the lock-up garages in progress on the southern lot. (Source: NSW Department of Finance and Spatial Services).



Figure 15. Aerial photograph, 1986 with site outlined in pink. The lock-up garages remain on the southern lot. (Source: NSW Department of Finance and Spatial Services).

In 1974, the Commonwealth acquired the Glebe Estate from the Church of England to undertake urban renewal of the area. This was a large-scale tract of land in Glebe inhabited largely by low-income families, and was being the first example of government acquisition of property to rehabilitate rather than redevelop (Solling 2011). Due to a change in the political environment,

this rehabilitation project suffered a series of funding cuts with only 230 of the proposed 710 buildings having been upgraded. A strategy plan was prepared by the Urban Renewal Group, which proposed that vacant sites would be used for infill accommodation (NSW Department of Housing 1998, 15). A Strategy Plan Report for the Glebe Estate maps the site as a proposed location for infill housing with new residential development proposed (NSW Department of Housing 1998, 16-17).

The extant terrace style apartments at 17-31 Cowper Street and 2A-2D Wentworth Park Road were constructed as a result of this Glebe Rehabilitation Project with 17-31 Cowper Street completed in 1989 and 2A-2D Wentworth Park Road completed in 1990. 1989 aerial photography of the site shows the two vacant blocks with the lock up garages at 17-31 Cowper Street no longer present. Interestingly, 2A-2D Wentworth Park Road may have site preparation underway in this photograph with some sign of changes to the site visible (Figure 16). The 1991 aerial photograph shows both extant structures complete (Figure 17). Figure 17 Presently, the apartments remain in use as private residences.



Figure 16. 1989 Aerial photograph with the site marked in pink. Note that the northern allotment appears may have site preparation commenced for the construction of the extant building in 1990 (Source: NSW Department of Finance and Spatial Services).



Figure 17. 1991 Aerial photograph with the site outlined in pink showing the two extant structures as they appear today. (Source: NSW Department of Finance and Spatial Services).

2.3 History timeline

Date	Event
Pre 1788	The Cadigal of the Eora people are recognised as the traditional owners of the subject area
1789	400 acres of land at Blackwattle Bay granted to the Church of England, consistent with a decree by British Authorities for land to be granted in each township to the support a Church of England clergyman. Under the ownership of the church the land was slowly cleared, however, Reverend Cowper claimed that it was valueless and rock, belying its intention as land to support the clergy. ¹
1828	The grant to the Church of England remained relatively unused until 1828 when it was subdivided into 28 allotments in an attempt to support the clergy through selling off land that was untenable as farm land. Lots 7 and 8 of this subdivision were handed over to the trustees of St Phillip's with the income derived to be used for diocesan purposes. The site sits within Lot 8 of the 1828 subdivision. An 1837 Plan of Sydney shows the Glebe of St Phillips Church and Glebe of St James Church extending to Blackwattle Bay. Use of this land at this time is not detailed, there are no buildings marked on plan.

¹ Pollard 1966 'Cowper, Williams (1778-1858)' *Australian Dictionary of Biography*, National Centre of Biography, Australian National University. First appeared in Volume 1 (MUP 1966). Available at <http://adb.anu.edu.au/biography/cowper-william-1929/text2301> [accessed 31/01/2020]

c.1830	From the 1830s onwards various industries began to occupy the shore of Blackwattle Bay and Creek. These industries, including abattoirs and boiling down works, pumped noxious waste into the creek and bay beyond. These pollutants, and sewage from the surrounding residences, increasingly polluted the waterways to such a point that the area became known as an open sewer.
1842	The Glebe of St Phillips was subdivided in 1842 as part of the St Phillip's Estate. Lots were offered on a 28-year lease. By 1844 sixty cottages had been constructed on the St Phillips Estate.
1873-1880	By the 1860s calls were made to remove the industries lining, and polluting, Blackwattle Bay and Blackwattle Creek. However, the stench the decades of pollution continued to emanate from the waters and mud of the swamp and creek. In 1873 the Blackwattle Bay Reclamation Act was passed with infilling of the creek and head of the swamp to commence in 1876 and be completed by 1880. The swamp and creek were filled using silt deposits dredged from the harbour bed, with dykes and seawalls created as part of the process. The backfilled swamp was transformed into a parkland, named Wentworth Park. The position of the site in relation to the high-water mark and the area of reclamation is unclear. The high-water mark varies across historic maps, making it difficult to identify the exact position of the site.
c.1870	St Phillip's Estate was subdivided and redeveloped and had a combination of commercial and residential buildings. The next two decades to follow were a period of intense building in the inner suburbs of Sydney, with the terrace becoming the most dominant style of building in the area. An 1873 photograph taken from Sydney Town Hall clock tower, as part of a panorama series, captures the site. It shows a rock, barren looking landscape with no development present.
c.1880	Metropolitan Mutual Permanent Building and Investment Association acquired new leases for fifty-year term from the Church of England and set out to redevelop the area, including where the site is situation. Between 1877 and 1885 rows of one and two-storey terraces were built along Cowper Street and Park Road. Some of these terraces are still standing. The 1888 Map of Glebe shows these terraces lining Cowper Street and Wentworth Street.
1880-1900	Glebe Council, which had been established in 1859, endeavoured to establish its own sewerage system in the 1880s in response to increasing numbers within the suburb and soaring disease due to unsanitary conditions. The system was slow to take off with most residences retaining cess pits, but by 1901, 22km of pipes had been laid.
1900	Outbreak of Bubonic Plague in Sydney saw middle class families move out of the older, less sanitary, suburbs into the newer suburbs. This saw a zone encompassing Glebe, Redfern, Newtown, Surry Hills, Camperdown and Balmain become increasingly industrialised and home to blue-collar workers who had to remain close to the city for work.
c.1910	A panorama photograph of Wentworth Park, taken between 1910 and 1930, captures the site and the c.1877 terraces that were built there. The image is of good enough resolution to view portions of the yards of the Cowper Street facing residences and a corner store at the northern end of the block.
c.1933	Sands indicate that the terraces were occupied up until at least 1933. A 1939 Detail Map of Glebe shows the site as vacant except for a shop on the south-eastern corner facing Cowper Street.
1943	The site is shown as vacant in 1943 aerial imagery. Terrace houses line the surrounding streets.

C.1950s	Planning cards were used to keep record of development applications submitted to council. These applications may or not have been approved but do provide an indication of the type of business the site was being used for or attracting applications for. In the 1950s it is noted as being used for storage of various types, from empty fruit containers to storing Machinery for Wall Machinery Pty Ltd (1952). A 1957 entry shows an application for a service station for Broadway Motors, however, there is no indication that this was approved.
1964	In 1964 Lock up garages were authorised to be built. The 1965 aerial imagery of the site appears to have captured these garages under construction on the southern portion of the site.
1969	Between 1969 and 1972, 2A-2D Wentworth Park Road is noted on the planning cards as being used for off-street parking. Aerial photography confirms this and also possibly indicates that the lot was, at one stage, asphalted over.
1974	Commonwealth Government acquires the Glebe Estate from the Church of England to undertake Urban Renewal of the area.
1984	Strategy Plan Report for the Glebe Estate maps the site as an area proposed for infill housing with new residential development proposed.
1989	Aerial photography of the site shows that the lock-up garages have been demolished between 1986 and 1989. Site preparation for the 1990 construction of terraces at 2A-2D Wentworth Park Road may be shown in the 1989 aerial, with possible track marks and piles of soil visible. The image is not of a good enough resolution to clearly make out the works involved. The extant block of 15 single bedroom units at 17-31 Cowper Street was constructed in 1989.
1990	The extant row of two-storey, three-bedroom units at 2A-2D Wentworth Park Road were built in 1990. A 1991 aerial image shows both extant structures completed.

3. Physical description

3.1 Site inspection

The site was inspected and photographed by Extent Heritage representatives Anita Yousif and MacLaren North on 29 November 2019. They were accompanied by Fred Chan of NSW Land and Housing Corporation. The inspection was undertaken as a visual study only. The aim of the site inspection was to become familiar with the site's context, note its current condition and observe any evidence of former site formation processes relevant for the survival of any historical archaeological remains.

The site consists of two lots, each containing a block of apartments that were constructed as infill housing as a part of the Glebe Rehabilitation Project. The lots are divided by Park Lane, with 17-31 Cowper Street forming the south end of the site and 2A-2D Wentworth Park forming the north end.

The topography of the site shows a gentle drop from the south to the north (Figure 23 and Figure 24). This is obvious in both 17-31 Cowper Street and 2A-2D Wentworth Park Road, where the north portion of both lots is slightly raised and accessed by a staircase (Figure 25 and Figure 26). This indicates that at least part, if not all, of both residential blocks was constructed on a layer of introduced fill.

The site is surrounded by a number of services and street gutters to which the service networks of both lots are connected (Figure 27 and Figure 28). Several drainage inlets were observed within the central courtyard of 17-31 Cowper Street.

3.2 Geotechnical and environmental investigations

Douglas Partners February 2020, *Geotechnical Investigation 31 Cowper Street and 2A-2D Wentworth Park Road, Glebe*. Prepared for NSW Land and Housing Corporation

Geotechnical investigations were carried out at the study area in January 2020 with a total of seven boreholes sunk (Figure 18). A report was produced in February 2020. The investigation found that a layer of sand and gravelly sand fill overlaid very soft to stiff and loose clayey sand and sandy clay alluvium, which sat above residual weathered sandstone, and lastly medium to coarse grained sandstone bedrock.

At 2A-2D Wentworth Park Road the sand and gravelly sand fill was observed up to a 1.9m in depth and contained some brick, sandstone gravel, ash, plastic, charcoal, glass, slag and ceramic tile. The alluvium beneath the fill was noted to have a high moisture content, becoming wetter at depth, indicative of the groundwater levels at the site. The residual layer beneath, of dense, pale grey clayey sand, may represent soils as deposited within the Blackwattle swamp area before reclamation. Sandstone bedrock was observed below. Of particular interest within this part of the study area are sections of note in Borehole 7, in the north-eastern corner. At a depth of 1m pale brown to brown soil with trace of rusted metal objects, silt, ash and charcoal were noted. This finding may represent intact historical deposits at a depth of 1m.

At 17-31 Cowper Street the sand, gravelly sand and clayey sand upper fill was observed up to 2.4m depth and included inclusions of some brick, sandstone gravel, ash, plastic charcoal, slag, glass and ceramic tile. Some concrete slab and gravelly sand 'roadbase', typically associated with footpaths and car parking areas, was observed. As with 2A-2D Wentworth Park Road, the alluvium beneath the fill was also observed to increase in moisture content the deeper it went. This overlay residual dense, pale grey-brown clayey sand before coming onto sandstone. Of particular interest to understanding the archaeological resource of the site is findings within Borehole 4, at the northern end of 17-31 Cowper Street. At a depth of 1 to 1.9m mixed fills containing ceramic tile, glass, timber, ash and slag were observed. These fills overlaid brown sand and silt that was noted by Douglas Partners and possibly being fill. This fill may represent the part of the C.1870 reclamation event.

These results indicate that an extensive layer of mixed fill overlies soils associated with reclamation and natural soil profiles. These layers of fill contain various materials that may indicate demolition events. Some isolated observations could be indicative of intact historic deposits. An inferred cross section from the north to south of the study area indicates the natural slope of the sandstone bedrock and where fills have been introduced, likely as part of the reclamation process (Figure 19).

Douglas Partners August 2010, *Glebe Affordable Housing Project, Cowper Street, Glebe.* Prepared for Housing NSW

Geotechnical investigations of Cowper Street Affordable Housing Project, of the present-day site, provide further insight into the soil profile of the area. The site was bounded by Bay street to the east, Wentworth Street to the north, Cowper street to the west and Queen Street to the south.

The results of the testing found bedrock depth varied from between 1.3 to 3.3m beneath fill and clayey/silty sands. The fill was described as dark grey, gravelly sand with some silty clay and had an average depth of 0.5m across the site. The clayey/silty sand identified beneath this fill was fine to medium grained and observed to be mostly clean with an average depth of between 0.3 and 0.5m deep.

These results indicate that there is potential in the area for natural soil profiles, as observed in the clayey/silty sands, to survive above bedrock with an overlying layer of fill potentially capping any archaeological resources cut into these natural soil profiles or built atop them. This layer of overlying fill may also be associated with reclamation events in the area.

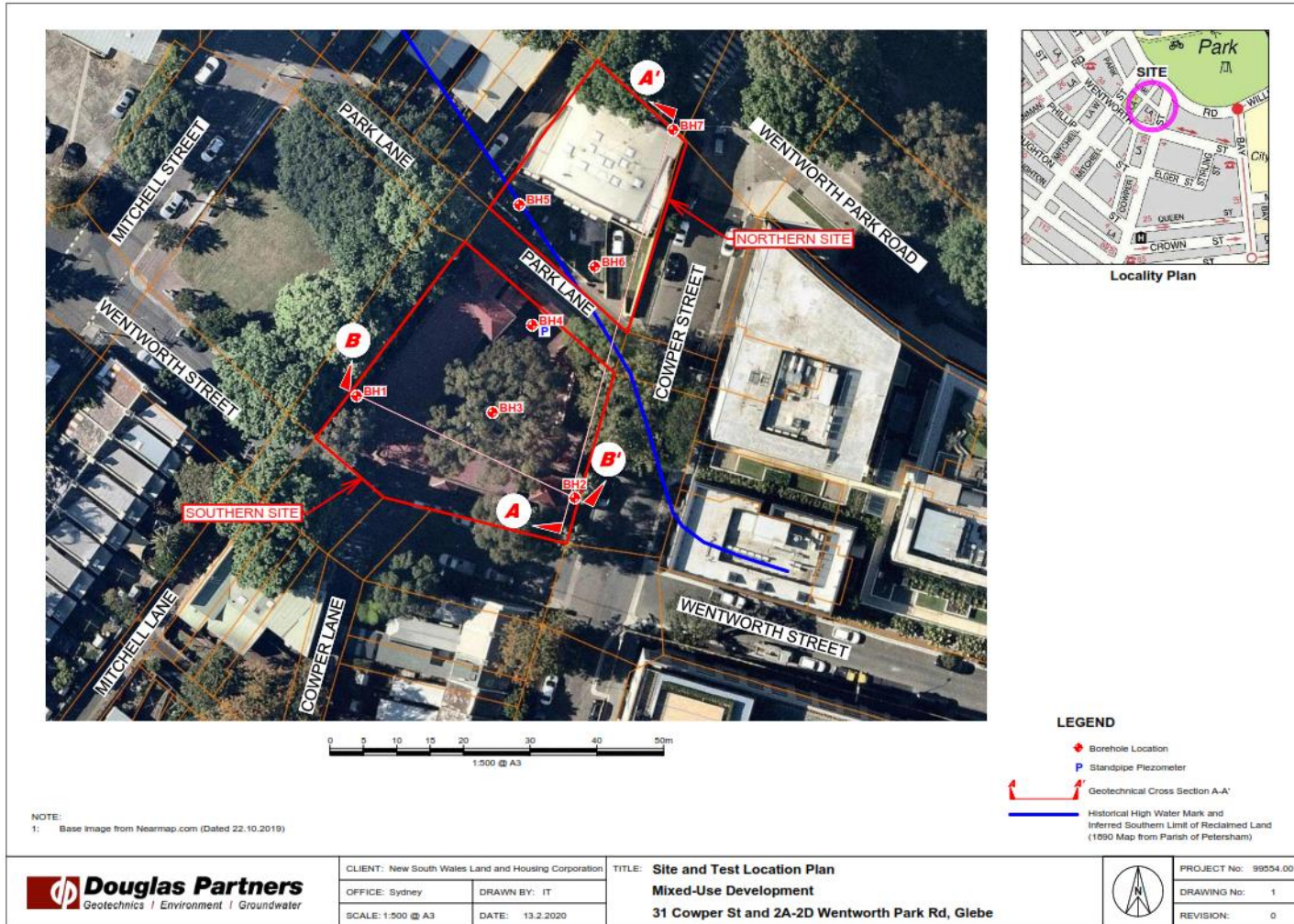


Figure 18. Site and Test Location Plan of the Geotechnical program carried out January 2020. (Source: Douglas Partners, 2020 p 38).

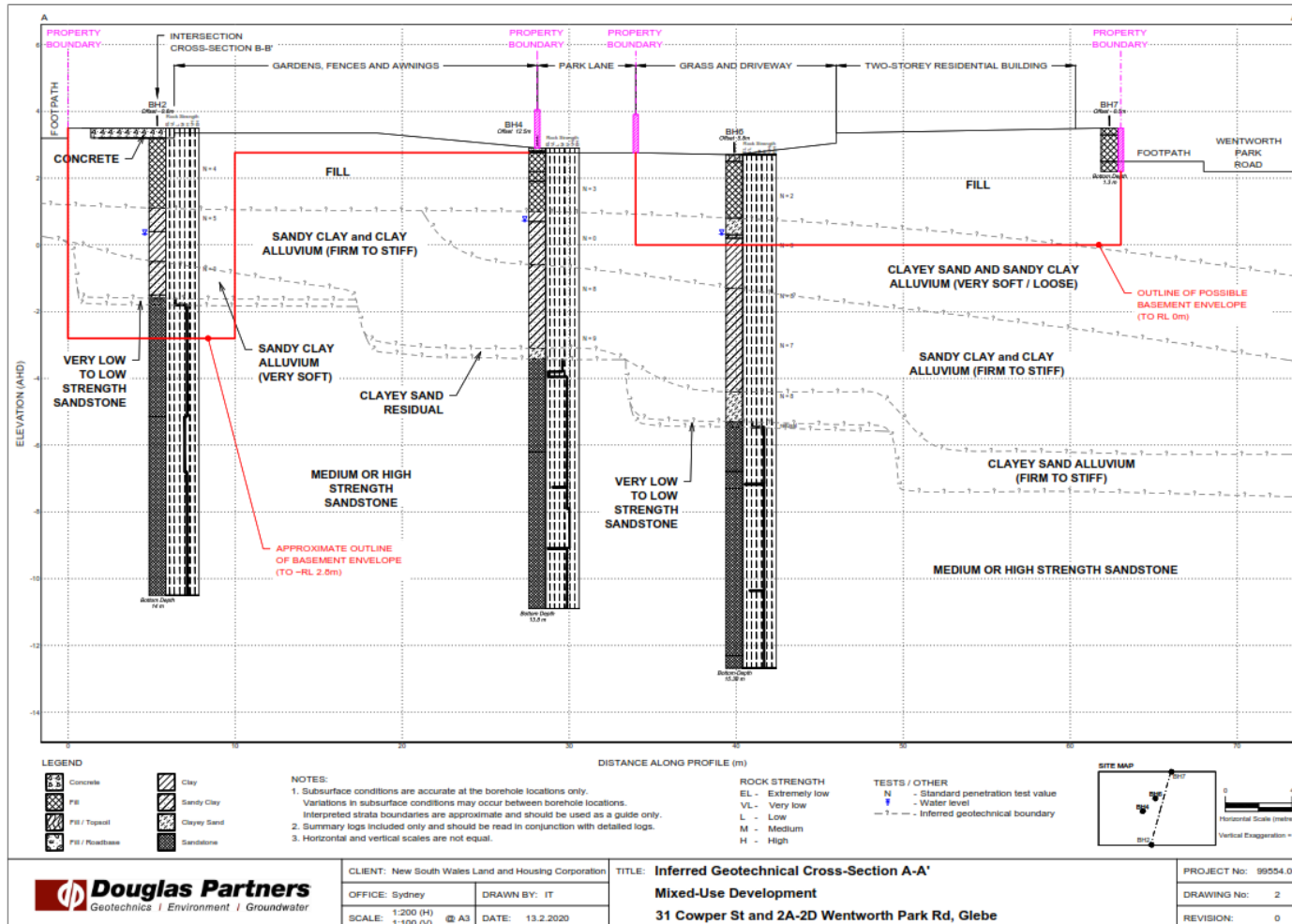


Figure 19. Inferred Geotechnical Cross-Section A-A following geotechnical investigation carried out January 2020. (Source: Douglas Partners, 2020 p 39).

3.3 Discussion about site integrity

Based on the observations made during the site visit and the results of the 2010 geotechnical investigations at the neighbouring site, it is possible that the site has had fill introduced to raise the ground level, potentially as preparation for the construction of the extant structures and capping natural soil profiles beneath. These observations indicate the possibility of intact archaeological resource surviving beneath the extant structures.



Figure 20. 17-31 Cowper Street, looking northwest.



Figure 21. 2A-2D Wentworth Park Road, looking northwest.



Figure 22. West view of Park Lane dividing the site into two lots.



Figure 23. West view of 17-31 Cowper Street, showing a gentle drop in a south-north direction.



Figure 24. Rear of 2A-2D Wentworth Park Road showing slight elevation, view looking north.



Figure 25. Stairwell at the front of 2A-2D Wentworth Park Road, view looking south.



Figure 26. Stairwell at the north access to central courtyard of 17-31 Cowper Street, view looking south.



Figure 27. Services along Mitchell Lane, looking north.



Figure 28. Street gutter inlet along Mitchell Lane – obscured by dry foliage, looking east.



Figure 29. Drainage inlets within the central courtyard of 17-31 Cowper Street.

4. Historical archaeological potential

4.1 Archaeology of the neighbourhood

Cowper Street Housing Estate, Glebe NSW, Archaeological Investigation (Casey & Lowe Pty Ltd, 2012)

In August-September 2011 Casey & Lowe undertook archaeological excavation at Cowper Street Housing Estate. Excavation was prompted following a 2011 Historical Archaeological Assessment that found the site to have moderate potential for the survival of archaeological remains from the 1850s and 1870s. These remains were assessed to have local level significance. Based on this assessment and recommendations for archaeological excavation, research questions were designed to address the mid-19th century use of the area, specifically housing and living standards.

Archaeological investigation was carried out ahead of the proposed development of the site and the extent of archaeological remains across the site was found to be much less substantial than anticipated, with substantial impact of 1950s-1960s development. Substantial archaeological remains that were uncovered included a double cesspit, sandstone footings across multiple trenches but with no occupation related deposits associated, and two structures. A revised statement of significance following excavation stated that the site offered little in adding information on the use of the area and the standards of living of the occupants.

41-49 Mountain Street, Ultimo NSW, Archaeological Test Excavation Programme Interim Excavation Report (Austral archaeology, 2007)

Following an Archaeological Assessment being carried out in 2005, Austral Archaeology recommended test excavation be carried out at 41-49 Mountain Street ahead of a development as it was considered that there was moderate to high potential for historical archaeological deposits to exist beneath the extant structures. Five trenches were proposed in order to test for surviving features including buildings, yards, landscaping elements and associated artefacts.

The excavation found that the natural slope of the landform had been built up using industrial waste and other fill in the early 20th century. This event had effectively capped some archaeological remains with demolition material, yard deposits, services, an underfloor deposit and foundations present under the fill. These features have been interpreted as likely associated with structures shown on 1865 and 1888 plans. Based on these results open area excavation of the site was recommended.

22-36 Mountain Street and 16-20 Snail Street Ultimo, Archaeological Excavation Report (Godden Mackay Logan, 2005)

Excavation at 22-36 Mountain Street Ultimo revealed a wealth of archaeological remains with 6 phases, from pre-1788 to 2003, identified in the archaeological record. Survival of the earlier phases appears to principally be due to the laying of over two metres of imported fill in the early 20th century as part of the Government Resumption of the site.

Significant artefact assemblages were recovered from the site, assisting in answering research questions considering who had lived in the ‘slums’ in the area in the nineteenth century, how they lived, evidence of the slum clearance and what infrastructure was in the area. Structural remains also assisted in confirming historical observations of the slums, as well as shedding new light on how the buildings were configured and the materials people were constructing buildings out of. Personal touches to buildings, such as decorative items, were also found in the archaeological record further illustrating how people were using the site.

50-54 Cowper Street, Glebe NSW, Archaeological Assessment (Casey & Lowe Pty Ltd, 2014)

This 2014 Archaeological Assessment identified the site to have areas of high to moderate archaeological potential of local heritage significance. The remains assessed as potentially surviving included artefact deposits associated with c.1865 structures, structure remains associated with c.1870 structure and structural remains associated three phases of butcher shops facing Cowper street.

Geotechnical testing at the site had shown that 1.7m of fill overlaid bedrock in some areas. This was interpreted as indicative of the likely survival of sub-surface features such as cesspits in particular are likely to survive. Excavation of the site, with a focus on several historical lots, was recommended in the 2014 assessment and an *Archaeological Research Design S140 Excavation Permit Application* (Casey & Lowe Pty Ltd) was made in 2014.

The site was subject to archaeological excavations during its redevelopment, however excavation report for this address has not been located.

4.2 Site formation and historical archaeological potential

Based on the historical research undertaken to date the following broad historical phases of site development could be identified:

Phase 1: Early land grants and subdivisions 1789-1870

The site sits within a 400-acre grant made to the Church of England in 1789. Following the grant being made the land was slowly cleared of vegetation in preparation for farming, however, it was noted to have been of poor quality and rocky, making it unsuitable for farming. This led to the decision to subdivide the land and sell off parcels of it in 1828, providing income to the Clergy as farming was untenable. A further subdivision was undertaken in 1842. The site was part of several parcels of land not leased by the Church and does not appear to have been developed during this period. An 1870 photograph shows no structures on the site, gently sloping down towards the water with rocky outcrops visible. Geotechnical investigation results appear to reflect this slope from the south to north.

Phase 2: The reclamation of Blackwattle Swamp and residential development 1870-1933

In response to public petition and public health concerns, the Blackwattle Swamp and Creek were backfilled between 1876 and 1880. The reclamation was carried out through the use of seawalls and dykes and silt deposits dredge up from the harbour bed. The location of the site

in relation to the high-water mark and the reclamation event is unclear as surveys throughout the 19th century show the high-water mark in different locations. Evidence of the reclamation process may be encountered if works were to impact deep enough or in the area likely to have been reclaimed.

In c.1880 the Metropolitan Mutual Permanent Building and Investment Association acquired leases in and, between 1877 and 1885, constructed rows of two storey terraces within the site. In the 1888 Map of Glebe these terraces are shown to have double and single cess pits at their rear. By 1901 it is possible that sewerage had been provided to the area with Glebe Council undertaking a largescale sewerage program of its own. In general, the historical archaeological potential from this phase is considered to have some potential with deeper subsurface features, such as cesspits, likely to survive, and the potential for wall footings and other structural elements from the terraces to survive dependent on the later phases of development.

Phase 3: Demolition and light industrial use 1933-1989

Sands Directory indicates that the terraces were occupied up until the at least 1933 with demolition confirmed by a 1939 Detail Map of Glebe showing the site as vacant, except for a building marked 'Shop' at the south-eastern corner of the site, facing Cowper Street. 1943 aerial imagery show that this structure, too, has been demolished. 1955 aerial shows objects on the ground of the 17-31 Cowper Street block, this may be in relation to the area being used as a wood yard, as marked on the 1939-1955 map of Glebe. In 1964 a lock-up garage is approved to be built at 17-31 Cowper Street. The 1965 aerial image captures this structure during construction. The garage remains standing at 17-31 Cowper until c.1989. Throughout the 1960s and '70s, 2A-2D Wentworth Park Road is noted as being used for off street parking, with aerials indicating the block has been asphalted over. 2A-2D Wentworth Park Road and 17-31 Cowper Street are acquired by the Commonwealth Government from the Church of England in 1974.

Phase 4: Redevelopment 1989 - present

By 1989 the lock-up garage is demolished and aerial images show 2A-2D Wentworth Park Road and 17-31 Cowper Street vacant. Fifteen single bedroom units are built at 17-31 Cowper Street in 1989, and four, three-bedroom terraces are built at 2A-2D Wentworth Park Road by 1990. The impact of this development on the earlier phases is unclear. Dependent on methods of demolition and construction, the impact may have been minimal. However, based on the probable extent of reclamation into the site it is possible that the northern block, 2A-2D Wentworth Park Road, would have required deep piling and ground water management during construction which may have impacted the historical archaeological resource in this area.

4.3 Summary of historical archaeological potential

below lists the potential archaeological remains from all phases of historical development with summarised formation process which may have affected the survival of those relics. Their likelihood of survival is graded in accordance with the following classification: Nil, Low, Moderate, High and Extant. The graphic representation of the site's archaeological potential is provided in Figure 30.

Table 3. Summary of Historical Archaeological Potential

Phase	Site feature or site activities	Potential remains	Level [or likelihood] of survival
1: 1789 – 1870 Early land grants and subdivision	Land clearing	Removal of trees, burnt soil, tree boles	Low-nil
2: 1870-1933 Blackwattle Swamp and residential development	Reclamation of Blackwattle Swamp and residential development of the area	Reclamation fills as part of reclamation process Structure remains (brick, stone or timber), cuts, fills, underfloor deposits, yard areas, fence lines and artefacts	Low - Moderate
	Deep sub-surface features such as cesspits	Structural elements (brick, stone or timber) cuts, fills and artefacts	High
3:1933-1989 Demolition and light industrial use	Demolition of terrace buildings, construction of garage structure and asphaltting of 2A-2D Wentworth Park Road	Evidence of demolition event and structural elements (brick, concrete, iron), construction cuts, and fills and services. Evidence of asphaltting of 2A-2D Wentworth Park Road.	Moderate
4: 1989 – present Redevelopment	Demolition of garage structure and construction of public housing.	Evidence of demolition event. Structural remains (brick, concrete), construction cuts and fills, services	Moderate – Extant

The site has potential to contain historical archaeological remains associated with the late 19th century and 20th century development of the area. The features likely to be preserved include:

- Structural remains of the c.1888 terraces, yard areas and fills associated with the demolition of these buildings c.1933.
- Structural remains of deeper features, such as the cesspits marked at the rear of the c.1880 terrace buildings, as well as any unmarked wells and cisterns.
- Construction, structural and surfacing remains associated with the 20th century use of the site.

The level of survival of these items will vary across the site, dependent on methods of demolition, later phases of construction and the impact of service installation in the 20th century. Areas within the footprint of the extant structures have less potential for survival than those

outside the footprint. Deeper subsurface features, such as cesspits, would have a greater potential for survival.



Figure 30. Map of the site with the historical archaeological potential marked.

5. Assessment of historical archaeological significance

5.1 Basis for assessment

Archaeological significance refers to the heritage significance of known or potential archaeological remains. While they remain an integral component of the overall significance of a place, it is necessary to assess the archaeological resources of a site independently from aboveground and other heritage elements. Assessment of archaeological significance is more challenging as the extent and nature of the archaeological features is often unknown and judgment is usually formulated on the basis of expected or potential attributes.

The following significance assessment of the subject area's archaeological resource is carried out by applying criteria expressed in the publication 'Assessing Significance for Historical Archaeological Sites and 'Relics', prepared by the Heritage Branch, formerly Department of Planning (NSW) (now the Heritage Division, Office of Heritage and Environment) in December 2009.

5.2 Existing statement of significance

As items on the Land and Housing Corporation (NSW) S170 register, the extant structures at 17-31 Cowper Street and 2A-2D Wentworth Park Road have existing statements of significance:

2A-2D Wentworth Park Road:

Significant as a record of the Glebe Rehabilitation Project and an example of good contextual design in an historic townscape. Representative of late C20th infill.

17-31 Cowper Street:

Of marginal heritage significance as an example of infill public housing in an older residential area. Records the historical development pattern of Glebe. Representative of last major period of development.

5.3 NSW heritage criteria for assessing significance related to archaeological sites and relics

Based on the NSW heritage criteria for assessing significance related to archaeological sites and relics, the site has been assessed as significant at a local level in meeting various criterion:

- Criterion E for archaeological research potential in its association with the working-class development of Glebe. If subsurface features were to survive, their contents would have the potential to yield information associated with the occupants of the site and activities carried out there. This information would potentially assist in illustrating the development of Glebe in the late 19th and early 20th century. These features and any artefacts recovered, would

have local significance for their potential to contribute to our understanding of the development of Glebe.

- Criteria A, B & D for association with the development of Glebe as a working-class neighbourhood and as an area of housing infill in the 20th century
- Criteria A, C, F & G is dependent on the level of preservation of the potential archaeological resource at the site. Well-preserved and legible archaeological remains associated with the c.1880 terraces and artefacts recovered from potential sub-surface features, have the ability to demonstrate the characteristics of the areas 19th and early 20th century development.

5.3.1 Bickford and Sullivan's questions

The above assessment criteria are supplemented by the established assessment framework that has been developed by Anne Bickford and Sharon Sullivan (1984), who set three fundamental questions to assist in determining the research potential of an archaeological site. These questions are as follows.

Can the site contribute knowledge that no other resource can?

The potential archaeological resources have a limited ability to contribute to our knowledge regarding the development of the site that cannot be obtained from other sources.

Can the site contribute knowledge that no other site can?

The potential archaeological remains at this site may provide physical evidence that could be used to supplement what is already known about Glebe and its history from other sources.

Site specific knowledge could be obtained through archaeological evidence relating to individual dwellings or occupants of the site that provides details usually omitted from the official records.

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 site was part of the historical development of Glebe and the information that might be derived from this site would primarily address site-specific research questions, and as such would be significant at a local level.

The site is not considered to have an ability to provide answers to broader research questions recording the archaeology of NSW or beyond.

5.4 Summary statement of significance

The historical archaeological significance of the site is principally contained within the potential for the survival of evidence associated with the late 19th century use of the site, following reclamation of Blackwattle Swamp and the construction of rows of terraces along Cowper and Wentworth Streets c.1888. The archaeological remains present may include evidence of the

reclamation and structural elements associated with the c.1888 buildings, yard areas, deposits and cesspits.

Subsequent demolition and construction events are, however, likely to have impacted the c.1880 phase of development of the area with deeper sub-surface features more likely to survive than shallower wall footings, yard surfaces and associated deposits.

Consequently, the archaeological potential of the site to contain archaeological relics of local significance varies between Low and High.

Table 4. Table indicating research potential and significance of historical archaeological phases at the study area

Phase	Level [or likelihood] of survival	Research Potential	Significance
1: 1789 – 1870 Early land grants and subdivision	Low-nil	High	Local
2: 1870-1933 Blackwattle Swamp and residential development	Low – High	Moderate	Local
3:1933-1989 Demolition and light industrial use	Moderate	Nil	Nil
4: 1989 – present Redevelopment	Moderate – Extant	Nil	Local



Figure 31. Map of the site with assessed significance of the site marked.

6. Potential development impact

6.1 Proposed development

Concept designs for the site propose the demolition of the extant structures, deep excavation for basement car parks and the construction of two multi-storey apartment blocks over both lots.

6.2 Potential impact

Where demolition and/or construction activities require excavation into the ground surface, including building slab and surface removal, generally clearing/levelling and service or foundation excavations, potential archaeological remains from the late 19th century and early 20th century may be disturbed. The finalised concept design for the basement car parks and bike storage would involve deep excavation of the areas to approximately 4.5-5m below the current ground surface, which would remove any potential archaeological remains that may survive.

6.3 Proposed mitigation

Based on the site's varying levels of archaeological potential (as assessed by this report) it is recommended that mitigation of potential development impacts includes archaeological investigations by way of either test excavation and/or excavation and recording so that archaeological features are preserved and the site can be appropriately investigated and recorded prior to development commencing. This mitigation strategy should be based on the historical archaeological potential and assessed significance outlined in Section 4.0 and 5.0.

7. Conclusions and recommendations

7.1 Conclusions

The finalised concept designs for the proposed development of the site indicate demolition of the extant structures and construction of two new apartment blocks with basement car parks and bike storage. The basement level portions of the development would require bulk excavation of the area.

Although potentially disturbed by 20th century developments, the site still has potential to contain archaeological remains that constitute relics under the Heritage Act. The site's archaeological potential ranges from low to high, with the assessed extent of each sub-area being shown in (Figure 30).

Deeper subsurface features, such as cesspits, have a high potential for survival as they are less likely to have been impacted by 20th century development of the site. Evidence of the c.1888 terrace buildings, such as wall footings, cuts, fills and associated deposits, has been assessed to have a low to moderate potential for survival across the site.

Although the extent of reclamation fills within the site has been established to be unclear, there remains the moderate potential for remains from the c.1876 reclamation of Blackwattle Swamp to be uncovered within the site.

There is low-nil potential for historical archaeological relics associated with the pre c.1876 use of the area to be present.

The potential archaeological resources have been assessed to be significant at a local level.

7.2 Opportunities and Constraints

On the balance of the evidence presented in this report, the likelihood of surviving archaeological remains (of local significance) to be present on the site is considered low-high.

These results present the following opportunity to the proposed development:

- Historical interpretation opportunities to illustrate the history of the area and utilise the archaeological resource to inform our understanding of the occupants of the site and activities carried out there

The following constraint would exist for the proposed development:

- Given that the site has generally moderate potential to contain archaeological remains of local archaeological significance, they would constitute relics in the meaning of the *Heritage Act 1977* (NSW) and as such afforded protection under the 'relics' provisions of the Act. Any ground disturbance works with the potential to disturb or destroy archaeological relics are constrained by the Act and would require an excavation permits to allow them to proceed.

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