



1 Sirius Road, Lane Cove

Historical Heritage Assessment and Statement of Heritage Impact

FINAL REPORT

Prepared for Greenbox Architecture Pty Ltd

15 January 2019

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Glossary

CBD	Central Business District
CHL	Commonwealth Heritage List
DA	Development Application
DCP	Development Control Plan
DEE	Department of the Environment and Energy
DP	Deposited Plan
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ICOMOS	International Council on Monuments and Sites
LEP	Local Environmental Plan
LGA	Local Government Area
NHL	National Heritage List
NSW	New South Wales
OEH	NSW Office of Environment and Heritage
SEARs	Secretary's Environmental Assessment Requirements
SoHI	Statement of Heritage Impact
SHR	State Heritage Register
SHI	State Heritage Inventory
SSD	State Significant Development
Study area	The area of impact for the proposed works

Summary

Biosis Pty Ltd was commissioned by Greenbox Architecture to undertake a heritage assessment and statement of heritage impact (SoHI) for the proposed Lane Cove West Data Centre (study area). The study area is located in Lane Cove, NSW and is approximately 8.5 kilometres north-west of the Sydney central business district (CBD).

The study area, defined by the area of impact of the proposed works, is Lot 1 DP 1151370. An approach has been undertaken to allow for the assessment of both the study area as well as any additional areas in the broader vicinity which are likely to be affected by the proposal, either directly or indirectly. Identified constraints will be used to guide detailed design, with an emphasis on avoiding impacts where feasible. The results of this assessment determined that no significant heritage values were identified within the study area, however there are two locally listed sites in the vicinity.

The historical context presented in this report indicates that the study area was covered in heavy vegetation until the late 20th century. No formal structures were identified on Crown plans or plans contained within Certificates of Titles. During this period the land was owned by private individuals. Ownership was then transferred to the Cumberland Paper Mills. Potential archaeological resources associated with these occupations could include post holes of fence lines and rubbish pits. Industrial use of the land by Robert Corbett and Sons was the first time structures were recorded. This included a building in the centre of the block and a steel tank to the north west. Potential archaeology related to this land use could include post holes or footings for fencing, foundations of the building and rubbish pits. However, these archaeological materials have been assessed as not holding heritage significance. The impacts to the study area under the SSD application are considered acceptable, as there are no items of heritage significance with the study area that will be impacted by these activities, provided that the following recommendations are implemented. There are however locally listed heritage items to the north and north east of the study area which may be impacted.

This assessment has been formulated to support a State Significant Development (SSD) application under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The SSD application will be lodged for associated estate works consisting of vegetation clearing, bulk earthworks and the construction of a data storage building, electrical substation, office area, loading docks and associated infrastructure, car parking and landscaping.

These recommendations have been formulated to respond to client requirements and the significance of the site. They are guided by the International Council on Monuments and Sites (ICOMOS) *Burra Charter* with the aim of doing as much as necessary to care for the place and make it useable and as little as possible to retain its cultural significance.¹

Recommendation 1 No further assessment required

This assessment has identified no items of heritage significance or archaeological potential within the study area. There is the potential for minimal heritage impacts to surrounding locally listed items. As such, no further assessment is required prior to the approval of the SSD application. Prior to any ground disturbance occurring within the study area, an unexpected finds procedure should be implemented as outlined in Recommendation 2

¹ Australia ICOMOS 2013

Recommendation 2 Development of an Unexpected Finds procedure

Relics are historical archaeological resources of local or State significance and are protected in NSW under the *Heritage Act 1977*. Relics cannot be disturbed except with a permit or exception/exemption notification. Should unanticipated relics be discovered during the course of the project, work in the vicinity must cease and an archaeologist contacted to make a preliminary assessment of the find. The Heritage Council will require notification if the find is assessed as a relic.

1 Introduction

1.1 Project background

Biosis Pty Ltd has been commissioned by Greenbox Architecture to undertake a historical heritage assessment and SoHI of a proposed Data Centre on Lot 1 DP 1151370 located in Lane Cove, New South Wales (NSW) (Figure 1, Figure 2), referred to as the 'study area' herein. The assessment involved background research and an archaeological survey in order to identify any heritage items or areas of archaeological potential within the study area, and has been formulated to support an SSD application.

1.2 Location of the study area

The study area is located in Lane Cove, NSW and is approximately 8.5kilometers north west of the Sydney CBD. It is bounded by Lot 853 DP 752067, Lot 7372 DP 1661897, Stringybark Creek, Lot 955 DP 752067 and Lot 22 DP 825400 to the north, Sirius Road, Lot 5 DP 241786, Lot 7,8 DP 241877 and SP 80721 to the east, Lot 1, 2, DP 732557 to the south and Lot 2 DP 546860 and Lot 1 DP 884454 to the west.

The study area is within the:

- Lane Cove Local Government Area (LGA)
- Parish of Willoughby
- County of Cumberland.

1.3 Planning approvals

This assessment will support an SSD application under Part 4 of the EP&A Act. In preparing this assessment, Biosis has taken into account the Secretary's Environmental Assessment Requirements (SEARs) for the project (SSD 9741) relating to historical heritage, specifically that the Environmental Impact Statement (EIS) must include:

An assessment of non-Aboriginal cultural heritage items and values of the site and surrounding area in accordance with the relevant Office of Environment and Heritage guidelines.

This assessment has taken into account all potential impacts within the study area. It also takes into account the effect the development will have on the locally listed sites located immediately to the north of the study area.

1.4 Scope of assessment

This report was prepared in accordance with current heritage guidelines including *Assessing heritage significance, Assessing Significance for Historical Archaeological Sites and 'Relics'* and the *Burra Charter*²³. This report provides a heritage assessment to identify if any heritage items or relics exist within or in the vicinity of

² Heritage Office 2001

³ Australia ICOMOS 2013

the study area. The heritage significance of these heritage items has been investigated and assessed in order to determine the most appropriate management strategy.

The following is a summary of the major objectives of the assessment:

- Identify and assess the heritage values associated with the study area. The assessment aims to achieve this objective through providing a brief summary of the principle historical influences that have contributed to creating the present – day built environment of the study area using resources already available and some limited new research.
- Assess the impact of the proposed works on the cultural heritage significance of the study area.
- Identifying sites and features within and around the study area which are already recognised for their heritage value through statutory and non – statutory heritage listings.
- Recommend measures to avoid or mitigate any negative impacts on the heritage significance of the study area or listed sites in the vicinity.

1.5 Limitations

This report is based on historical research and field inspections. It is possible that further historical research or the emergence of new historical sources may support different interpretations of the evidence in this report.

The historical research undertaken for this report is based on primary documents including Crown and deposited plans, Certificates of Title and historical parish maps. This information was supplemented by existing studies and sources in order to present a history of the study area. Some issues were encountered with locating maps of the area from 1854 to 1920 (excluding Certificate of Titles which typically do not show structures), this impacts the ability to identify any structures which may have been recorded. Access could not be gained to the locally listed items to the north of the study area.

Although this report was undertaken to best archaeological practice and its conclusions are based on professional opinion, it does not warrant that there is no possibility that additional archaeological material will be located in subsequent works on the site. This is because limitations in historical documentation and archaeological methods make it difficult to accurately predict what is under the ground.

The significance assessment made in this report is a combination of both facts and interpretation of those facts in accordance with a standard set of assessment criteria. It is possible that another professional may interpret the historical facts and physical evidence in a different way.

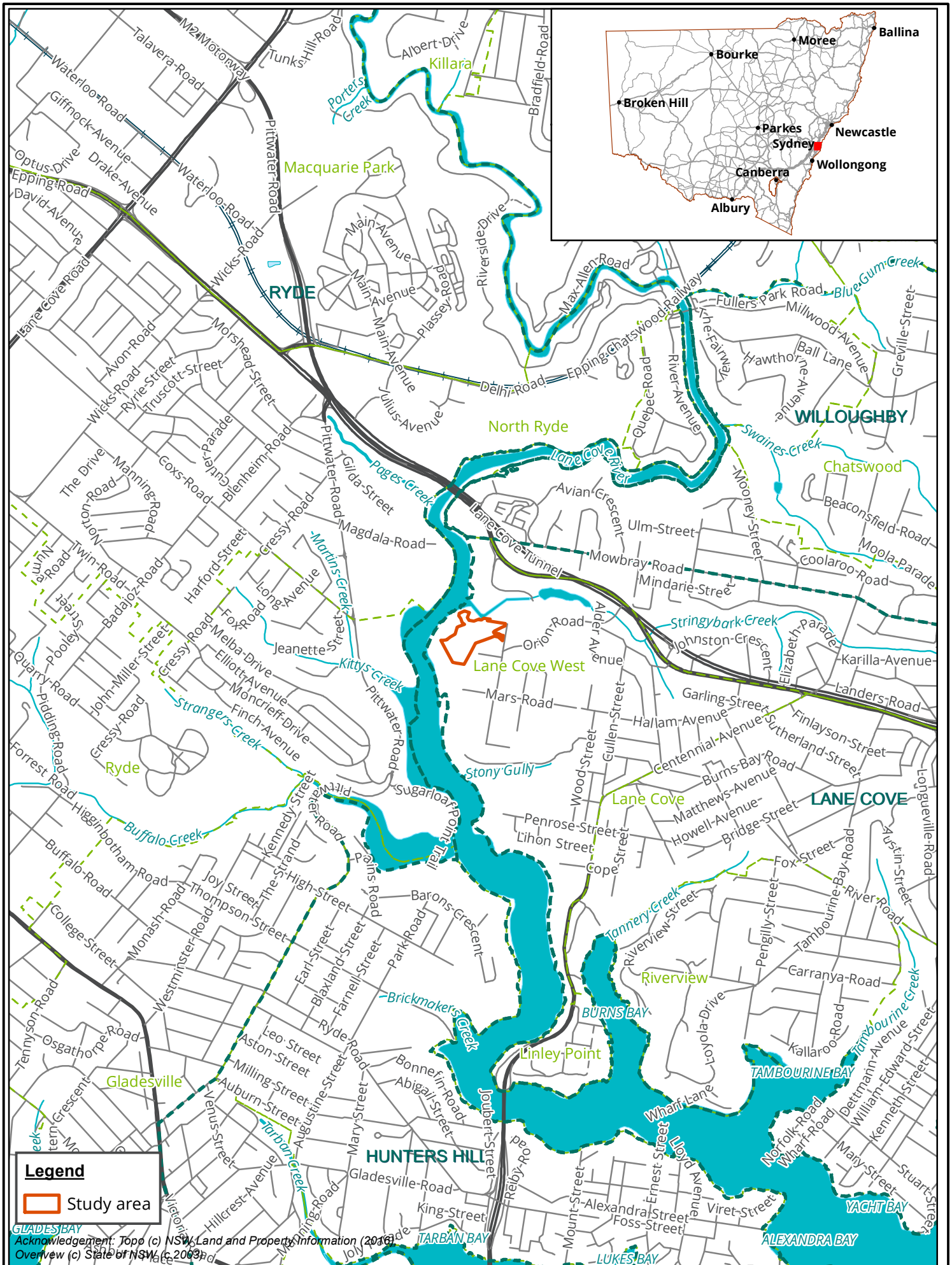



Figure 1: Location of the study area

Legend

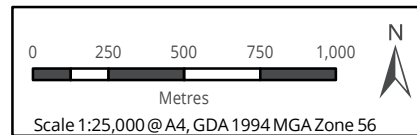
 Study area

Acknowledgement: Topo (c) NSW Land and Property Information (2016)
 Overview (c) State of NSW (c.2003)



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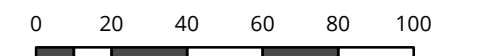




Legend

Study area

Figure 2: Study area detail'



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2 Statutory framework

In NSW cultural heritage is managed in a three-tiered system: national, state and local. Certain sites and items may require management under all three systems or only under one or two. The following discussion aims to outline the various levels of protection and approvals required to make changes to cultural heritage in the state.

2.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Act 1999* (EPBC Act) is the national Act protecting the natural and cultural environment. The EPBC Act is administered by the Department of the Environment and Energy (DEE). The EPBC Act establishes two heritage lists for the management of the natural and cultural environment:

- The National Heritage List (NHL) contains items listed on the NHL have been assessed to be of outstanding significance and define 'critical moments in our development as a nation'.⁴
- The Commonwealth Heritage List (CHL) contains items listed on the CHL are natural and cultural heritage places that are on Commonwealth land, in Commonwealth waters or are owned or managed by the Commonwealth. A place or item on the CHL has been assessed as possessing 'significant' heritage value.⁵

A search of the NHL and CHL did not yield any results associated with the study area.

2.2 NSW Heritage Act 1977

Heritage in NSW is principally protected by the *Heritage Act 1977* (as amended) which was passed for the purpose of conserving items of environmental heritage of NSW. Environmental heritage is broadly defined under Section 4 of the *Heritage Act 1977* as consisting of the following items: 'those places, buildings, works, relics, moveable objects, and precincts, of State or Local heritage significance'. The Act is administered by the Heritage Council, under delegation by the Heritage Division, Office of Environment and Heritage (OEH). The *Heritage Act 1977* is designed to protect both known heritage items (such as standing structures) and items that may not be immediately obvious (such as potential archaeological remains or 'relics'). Different parts of the *Heritage Act 1977* deal with different situations and types of heritage and the Act provides a number of mechanisms by which items and places of heritage significance may be protected.

2.2.1 State Heritage Register

Protection of items of State significance is by nomination and listing on the State Heritage Register (SHR) created under Part 3A of the *Heritage Act 1977*. The Register came into effect on 2 April 1999. The Register was established under the *Heritage Amendment Act 1998*. It replaces the earlier system of Permanent Conservation Orders as a means for protecting items with State significance.

A permit under Section 60 of the *Heritage Act 1977* is required for works on a site listed on the SHR, except for that work which complies with the conditions for exemptions to the requirement for obtaining a permit. Details of which minor works are exempted from the requirements to submit a Section 60 Application can be

⁴ 'About National Heritage' <http://www.environment.gov.au/heritage/about/national/index.html>

⁵ 'Commonwealth Heritage List Criteria'

<http://www.environment.gov.au/heritage/about/commonwealth/criteria.html>

found in the Guideline 'Standard Exemptions for Works requiring Heritage Council Approval'. These exemptions came into force on 5 September 2008 and replace all previous exemptions.

There are no items or conservation areas listed on the SHR within the study area.

2.2.2 Archaeological relics

Section 139 of the *Heritage Act 1977* protects archaeological 'relics' from being 'exposed, moved, damaged or destroyed' by the disturbance or excavation of land. This protection extends to the situation where a person has 'reasonable cause to suspect' that archaeological remains may be affected by the disturbance or excavation of the land. This section applies to all land in NSW that is not included on the SHR.

Amendments to the *Heritage Act 1977* made in 2009 changed the definition of an archaeological 'relic' under the Act. A 'relic' is defined by the Heritage Act as:

'Any deposit, object or material evidence:

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

(b) which is of State or Local significance'.

It should be noted that not all remains that would be considered archaeological are relics under the NSW *Heritage Act 1977*. Advice given in the Archaeological Significance Assessment Guidelines is that a 'relic' would be viewed as a chattel and it is stated that,

*'In practice, an important historical archaeological site will be likely to contain a range of different elements as vestiges and remnants of the past. Such sites will include 'relics' of significance in the form of deposits, artefacts, objects and usually also other material evidence from demolished buildings, works or former structures which provide evidence of prior occupations but may not be "relics".'*⁶

If a relic, including shipwrecks in NSW waters (that is rivers, harbours, lakes and enclosed bays) is located, the discoverer is required to notify the NSW Heritage Council.

Section 139 of the *Heritage Act 1977* requires any person who knows or has reasonable cause to suspect that their proposed works will expose or disturb a 'relic' to first obtain an Excavation Permit from the Heritage Council of NSW (pursuant to Section 140 of the Act), unless there is an applicable exception (pursuant to Section 139(4)). Excavation permits are issued by the Heritage Council of NSW in accordance with sections 60 or 140 of the *Heritage Act 1977*. It is an offence to disturb or excavate land to discover, expose or move a relic without obtaining a permit. Excavation permits are usually issued subject to a range of conditions. These conditions will relate to matters such as reporting requirements and artefact cataloguing, storage and curation.

Exceptions under Section 139(4) to the standard Section 140 process exist for applications that meet the appropriate criterion. An application is still required to be made. The Section 139(4) permit is an exception from the requirement to obtain a Section 140 permit and reflects the nature of the impact and the significance of the relics or potential relics being impacted upon.

If an exception has been granted and, during the course of the development, substantial intact archaeological relics of state or local significance, not identified in the archaeological assessment or statement required by this exception, are unexpectedly discovered during excavation, work must cease in the affected area and the Heritage Office must be notified in writing in accordance with section 146 of the *Heritage Act 1977*. Depending

⁶ NSW Heritage Branch, Department of Planning 2009, p.7

on the nature of the discovery, additional assessment and, possibly, an excavation permit may be required prior to the recommencement of excavation in the affected area.

2.2.3 Section 170 Heritage and Conservation Registers

Section 170 of the *Heritage Act 1977* requires that culturally significant items or places managed or owned by Government agencies are listed on departmental Heritage and Conservation Register. Information on these registers has been prepared in accordance with Heritage Division guidelines.

Statutory obligations for archaeological sites that are listed on a Section 170 Register include notification to the Heritage Council in addition to relic's provision obligations. There are no items within or adjacent to the study area that are entered on a State government instrumentality Section 170 Register.

2.3 Environmental Planning and Assessment Act 1979

2.3.1 Lane Cove Local Environmental Plan 2009

The Lane Cove Local Environmental Plan (LEP) contains schedules of heritage items that are managed by the controls in the instrument. As the project is being undertaken under Part 4 of the EP&A Act, council is responsible for approving controlled work via the development application (DA) system. Heritage items in the vicinity of the study area are identified in Figure 4.

The study area is situated within the vicinity of two items which are listed as being both heritage items and archaeological sites of local significance:

- Cumberland Paper Mills, (Item No. I214 and A5), 170 Epping Road, Lot 22 DP 825400, Lots 954 and 955 DP 752067, approximately 15 metres to the northeast
- Chicago Mills, (Item No. I215 and A6), 160 Epping Road, Lot 13 DP 807958, approximately 250 metres to the north.

Please note that while Figure 4 is a copy of the map in the LEP, the listings shown here are incorrect. The Chicago Mills archaeological site and heritage item are located approximately 250 meters to the north of the study area and are not shown on this map. The archaeological item that is shown in light yellow should be the Cumberland Paper Mills archaeological site. The Cumberland Paper Mills heritage item is correct, shown in darker yellow to the north east of the study area.

2.3.2 Lane Cove Development Control Plan 2010 Part B

The Lane Cove Development Control Plan 2010 (DCP) outlines built form controls to guide development. The DCP supplements the provisions of the LEP. The majority of the heritage controls within the DCP relate to the alteration of listed heritage items and the Greenwich Heritage Area which the study area is not located in. It does however stipulate that:

- A Heritage Impact Statement is to be prepared as part of any DA for development "in the vicinity of a heritage item. "In the vicinity of a heritage item" is to be interpreted as meaning "adjacent to or adjoining" that item.

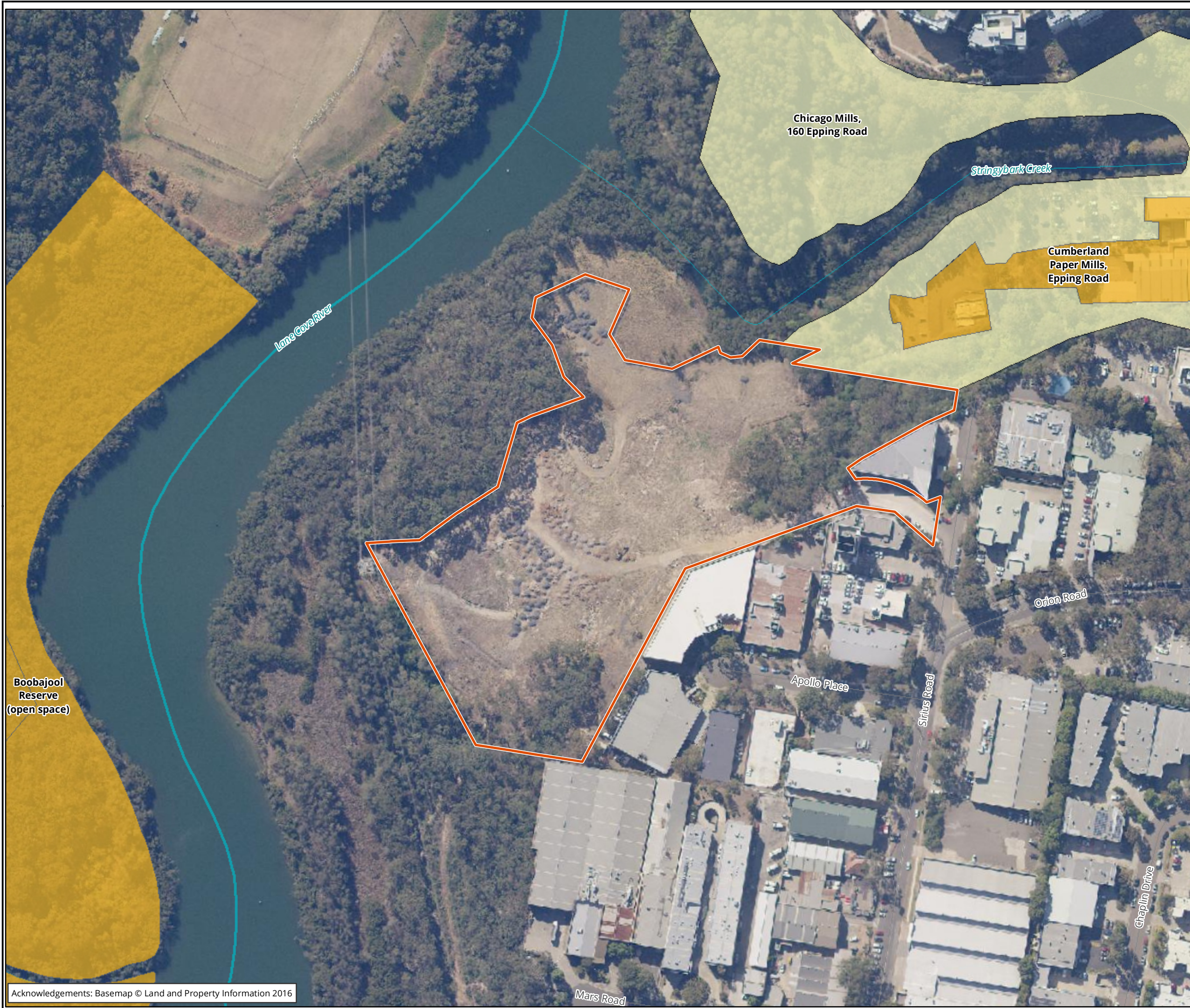
Part E, Locality 1 – Land off Sirius Road in the DCP also has specific controls relating to the study area. However none of these are related to heritage.

2.4 Summary of heritage listings

A summary of heritage listings within and in the vicinity of the study area is presented in Table 1 and Figure 4.

Table 1 Summary of heritage listings within and adjacent to the study area

Site name	Address / Property description	Listings		Significance
		Individual item	As a Conservation Area	
Cumberland Paper Mills	170 Epping Road Lot 22 DP 825400 Lots 954 and 955 DP 752067	I214	A5	Local
Chicago Mills	160 Epping Road Lot 13 DP 807958	I215	A6	Local



- Legend**
- Study area
 - Item - General
 - Item - Archaeological

Figure 4: Location of heritage items in the vicinity of the study area



Scale: 1:2,000 @ A3
 Coordinate System: GDA 1994 MGA Zone 56



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3 Historical context

Historical research has been undertaken to identify the land use history of the study area, to isolate key phases in its history and to identify the location of any built heritage or archaeological resources which may be associated with the study area. The historical research places the history of the study area into the broader context of Lane Cove.

3.1 Topography and resources

Lane Cove is a suburb in Northern Sydney, located near the Lane Cove River and Port Jackson. The topography is characterised by undulating to rolling rises and low hills with a local relief of 20 to 80 metres and slopes of between 10% and 20% on Hawkesbury Sandstone with broad convex crests, moderately inclined side slopes and wide benches. The landscape has been extensively cleared.⁷

3.2 Aboriginal past

The Sydney area has been home to Aboriginal people for over 30,000 years with the earliest known radiocarbon date for the Aboriginal occupation of the Cumberland Plains being associated with an archaeological deposit at Parramatta approximately 13 kilometres to the west of the study area, which was dated to 30,735 ± 407 BP⁸ The study area falls within the country of the Guringai and Darug language groups,⁹ which stretched from what is now known as Newcastle through to the southernmost part of present day Sydney.¹⁰ The study area was originally occupied by the Cam-mer-ray-gal Group of the Ku-ring-gai Aboriginal tribe.

3.3 Historical development

3.3.1 Early exploration and land grants (1788 to 1865)

The first recorded European landing in Lane Cove was in 1788 by Lieutenant Henry Lidgbird Ball who crossed the Greenwich Peninsula on return from a trip to Middle Harbour.¹¹ Ball was a naval officer who commanded the H.M.S *Supply* in the First Fleet and was a member of numerous exploring parties around the Port Jackson area between 1788 and 1790.¹²

The first written use of the name Lane Cove occurred on 2 February 1788, soon after the arrival of the First Fleet in Port Jackson. Several possibilities for the name have been suggested, although none have been supported by written evidence. One suggestion was that it was named after Lieutenant Michael Lane, a respected cartographer, who worked with Captain James Cook in Canadian waters. The other possibility is that the name was bestowed in honour of John Lane, son of the Lord Mayor of London, and a good friend of Governor Arthur Phillip.

⁷ Chapman & Murphy 1989, p.64

⁸ Jo McDonald Cultural Heritage Management Pty Ltd 2005

⁹ Tindale 1974

¹⁰ Lane Cove Council 2018a

¹¹ Lane Cove Council 2018b

¹² Parsons 1966

Many of the first land grants in the area were never settled by the owners, being exchanged for land elsewhere, sold or cancelled. For those who attempted to settle, life was not easy. Much of the area was steep, heavily timbered, with poor, rocky soil and few roads. The settlers were plagued with bushrangers and bushfires. From the earliest days of settlement, Lane Cove was an important source of timber for house and ship building, of grass for animal feed, and of shells which were burnt to produce lime for building. A stockade was erected in Woodford Bay, with a permanent garrison of soldiers to protect convict workers and settlers. Throughout the 19th century, farms, orchards dairies were the district's main rural industries, with river transport providing easy access to the city markets.

While part of the surrounding area was granted to privates and non-commissioned officers of the New South Wales Corp in 1794, the study area land was not purchased until later. The study area is split over three original land grants which belonged to Thomas Moore who purchased 40 acres in April 1832 (very small part of the study area in the northern section), Henry O'Brien who purchased 10 acres in April 1834 (centre of the study area) and William Hamey who purchased 11 acres in April 1855 (southern part of the study area). These allotments can be seen on crown plans and parish maps (Plate 1, Plate 2, Plate 3).



Plate 1 1833 Crown Plan showing Thomas Moore and Henry O'Briens grants (Source: NSW Land Registry Services, Crown Plan 138.690)



Plate 2 1854 Crown Plan showing the three original grants (Source: NSW Land Registry Services, Crown Plan 627.690)

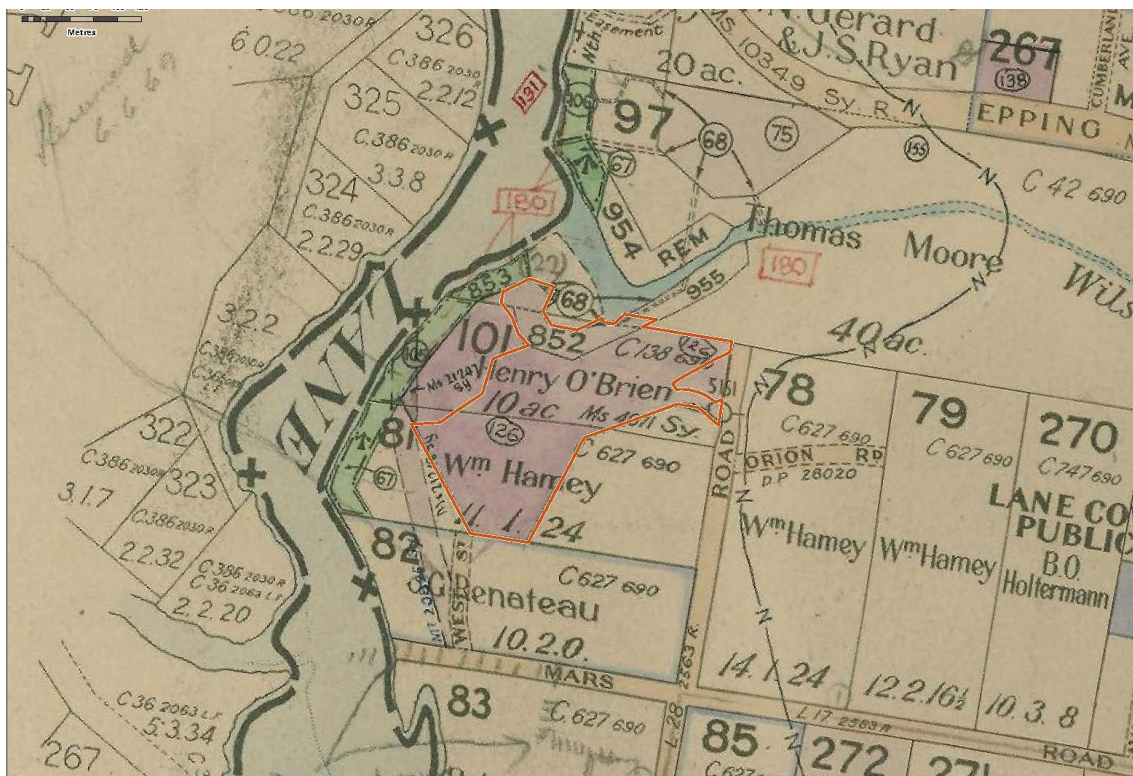


Plate 3 Parish Map of Willoughby showing original grants (Source: NSW Land Registry Services, County of Cumberland Parish of Willoughby (sheet 1A))

3.3.2 Development of the area (1865 to 1912)

The municipality of North Willoughby was proclaimed in October 1865 and divided into two wards, with the Lane Cove district forming the River Ward. 1885 saw residents petition the Colonial Secretary to allow self-government which was unsuccessful. However another petition in 1893 was successful with the new municipality of Lane Cove proclaimed in 1895.

Lane Cove which expanded very slowly in comparison the Sydney City and other areas such as Parramatta. One site that bucked this trend is the lot north of the study area. The Chicago Cornflour Factory run by Clifford Love & Co. opened in 1894 for the primary manufacturing of cornflour and starch.¹³ The site was selected due to the copious supply of fresh water that was available due to the supply line from two large reservoirs at Chatswood.¹⁴ It is one of the oldest continuously-operating factories in Australia. The actual factory is still operating, located near Clifford Bridge up the Lane Cove River to the north. This is listed as 'Chicago Mills', a locally significant heritage item, the area surrounding it is a locally listed archaeological site.

While portions of the site changed ownership there is no evidence of any physical presence or development in this period. In December 1886 the lot originally belonging to William Hamey (southern portion) was sold to Francis Bede Freehill, solicitor and Annie Molony. The grant shows two lots of land, one which comprises the southern portion of the study area and the other to the east of the study area across what is now Sirius Road. These parcels of land were transferred to John Molony, accountant and Michael Hogan of Sydney in August 1897.¹⁵

At the beginning of the 20th century, Lane Cove was still largely undeveloped. The 1901 Census listed only 301 dwellings, occupied by less than 2,000 residents. However this rapidly expanded and by 1914 the population had increased to 4,600. The area surrounding Mars Road to the south of the study area was heavily subdivided in the 20th century and reflects the development trend of the area.

In around 1911, The Chicago Starch Mills was renamed and became 'Clifford Love & Co. Ltd.'. This was due to an amalgamation of businesses owned by Clifford and his son.

The southern portion of the study area, originally owned by William Hamey but now possessed by John Molony and Michael Hogan was transferred to Arthur James Hogan of Chatswood in July 1904.¹⁶

3.3.3 Expanding industry (1912-1955)

The Cumberland Paper Mills were constructed to the north east of the study area in 1912. The majority of the buildings still stand today and it is a locally listed heritage site.

In February the southern portion of the study area, originally owned by William Hamey 1916 it was transferred to Robert Williamson of North Sydney, Master Mariner.¹⁷

In August 1914 the area of land originally belonging to Henry O'Brien (the centre lot) was sold to Thomas Romer Miller of Sydney and Manuel Frances Josephson of Randwick, gentlemen. However in November 1917 Thomas Miller died and the sole proprietor of the lot was now Manuel Josephson. He very quickly transferred the grant to Richard Henry Harris in August 1918 who took out a mortgage on the land.

¹³ 'The Chicago Starch Mills. Opening of the Works' 1894

¹⁴ Washington 2012

¹⁵ NSW Land Registry Services, Certificate of Title Volume 817 Folio 221

¹⁶ NSW Land Registry Services, Certificate of Title Volume 817 Folio 221

¹⁷ NSW Land Registry Services, Certificate of Title Volume 2646 Folio 229

An amended survey plan from 1912 of Thomas Moore's grant shows that part of the study area is now designated as the Stringybark Creek Reservation (Plate 4). A Parish Map from February 1917 has it listed for 'public recreation' (Plate 5). A tree preservation scheme to protect the river its banks was made and implemented by the Cumberland Paper Mills.¹⁸ The Cumberland Paper Board Mills Limited bought the land originally belonging to Henry O'Brien (the centre lot) in April 1920.

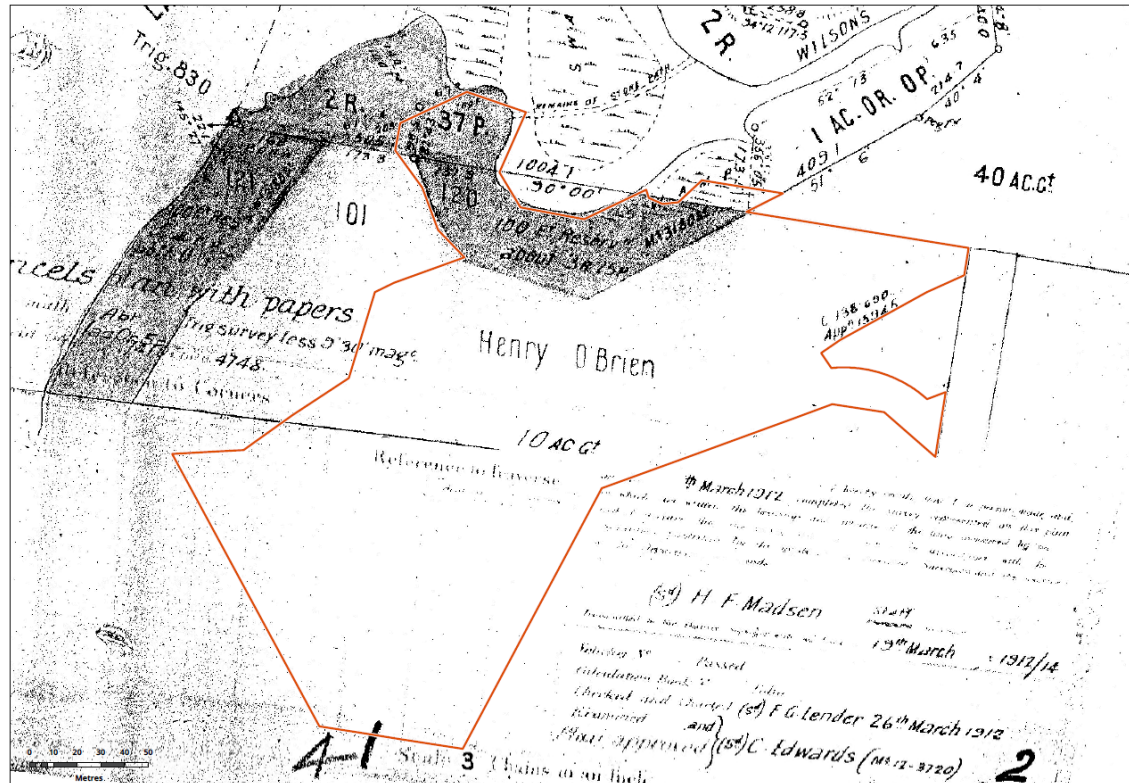


Plate 4 Amended survey plan showing the alteration of Henry O'Brien and Thomas Moore's grants, Stringybark Creek reservation is shaded in (Source: Lane Cove Library, Local History Section. Call no. LHM 994.4139/1912/MAD)

¹⁸ Gum 1950



Plate 5 Parish Map from 1917, the green shaded area denotes areas for 'public recreation' (Source: Lane Cove Library, Local History Section. Call no. LHM 994.41301.1917)

The study area can be seen in a subdivision plan from 1920, no structures appear to have been built (Plate 6). The Cumberland Mill can also be seen in this subdivision plan, to the north of the study area.



Plate 6 Subdivision plan from 1920 showing no development on the study area (Source: Lane Cove Library Local History LHM994.4139/1920/VIC)

It appears that the grants that made up the study area were not used extensively for farming or development, as historical aerials illustrate much of the area was still heavily vegetated. This is confirmed by various articles written about the mills to the north, labelling the surrounding area as remote, timbered land.¹⁹ Subdivisions for housing now occurred at a rapid rate, with new residents being lured by the promise of extended tram services linking the area with Ryde or Hunters Hill and a planned railway from Eastwood to St. Leonards.

The Cumberland Paper Board Mills Limited officially bought the northern portion of the study area, originally owned by Thomas Moore in April 1922. The company merged with Australasian Paper and Pulp Co. Ltd. to form Australian Paper Manufacturers (APM) in 1927.²⁰ The southern portion of the study area, originally owned by William Hamey was transferred in October 1927. The entire study area is now owned by to the Australian Paper Manufactures Limited.

In 1928 a fire destroyed 'practically the whole of the extensive works' of the Cumberland Paper Mill.²¹ The remains were sold to Robert Corbett and Sons Pty Ltd who used it for a chemicals manufacturing plant.²² They also bought the 100 feet next to the river to the west of the study area to perpetuate the life of the river and provide protective cover for the small jetty on the river.²³ In 1933 the two main portions of the site (centre and southern originally owned by O'Brien and Hamey) were leased to Robert Corbett and Company Limited.²⁴

¹⁹ Gum 1950

²⁰ Washington 2012

²¹ 'Fires and Storm' 1928)

²² Lane Cove Council 2018b

²³ Gum 1950

²⁴ NSW Land Registry Services, Certificate of Title Volume 2646 Folio 229; NSW Land Registry Services, Certificate of Title Volume 6796 Folio 99

These portions were then bought by Robert Corbett and Company Limited in 1938.²⁵ The northern portion of land marked 'reservation' in Plate 6 was officially bought years later in 1942.²⁶

A 1942 plan from the Metropolitan Water, Sewerage and Drainage Board shows a steel tank in the study area. This plan lists the as the premises of Robert Corbett Pty Ltd (Plate 7).

A 1943 historical aerial (Plate 8) illustrates that majority of the study area had still not yet been cleared. In the northern portion of the study area, the large steel tank shown in Plate 7 is present, with the land extending 80 metres to the south-east providing a small clearing with a track running throughout. In the western portion of the study area a 14 metre long building can be seen. It is not known what the building was used for, however it is not present in current aerials, indicating that it has since been demolished.



Plate 7 NSW Metropolitan Water, Sewerage and Drainage Board Plan Sheet no.111 showing a steel tank on the study area (Source: Lane Cove Library, Local History Section. Call no LHM 628.1/1922-1942/NEW111)

²⁵ NSW Land Registry Services, Certificate of Title Volume 2503 Folio 109; NSW Land Registry Services, Certificate of Title Volume 2646 Folio 229

²⁶ NSW Land Registry Services, Certificate of Title Volume 5350 Folio 100

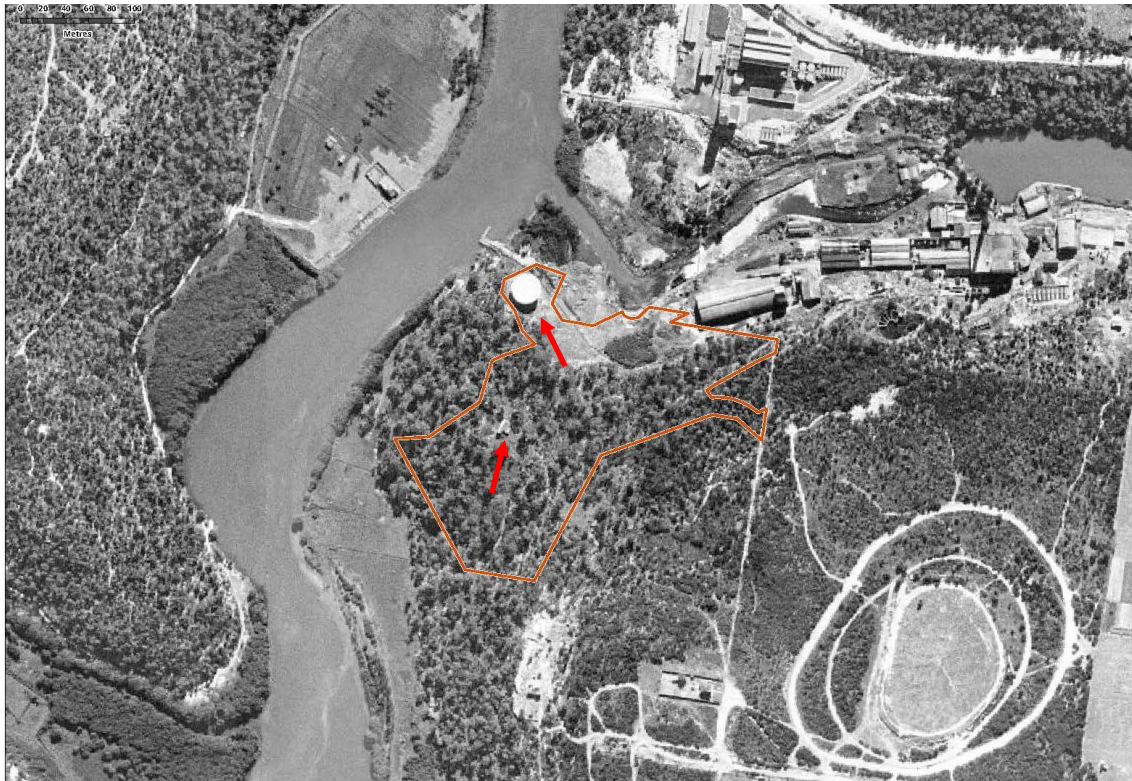


Plate 8 1943 aerial showing dense vegetation in the majority of the study area and two structures (Source: Land and Property Information)

In 1952 Robert Corbett became a subsidiary company of CSR Chemical Ltd. The natural features of the area did not allow development of the site to cater for the most modern chemical processes.²⁷

3.3.4 Modern ownership (1955-present)

All three parcels of land were mortgaged by Robert Corbett Pty Ltd to the Commercial Banking Company of Sydney Limited in 1955. Residential and industrial development increased following World War II and the first block of flats was built in 1962.²⁸ By 1979 nearly 200 blocks of flats had been built along the main roads. This trend of residential development has continued till the current day.

The Certificate of Title Volume 11600 Folio 241 issued on the 15th of June 1971 is the first Certificate of Title to show the study area lot in the same configuration as it is presently. This listed the Electricity Commission of New South as the owner of the lot.²⁹

In 1978 Robert Corbett Pty Ltd closed completely, it was voluntarily liquidated in March 1981 and partial demolition of the factory commenced. In 1979 it was sold to Johnson & Sons.³⁰

A Lane Cove Council DCP map from October 1998 (Plate 9) shows the steel tank was still present but the building in the centre of the study area had been removed.

²⁷ Washington 2012

²⁸ Moore et al. 1993

²⁹ NSW Land Registry Services, Certificate of Title Volume 11600 Folio 241

³⁰ Washington 2012

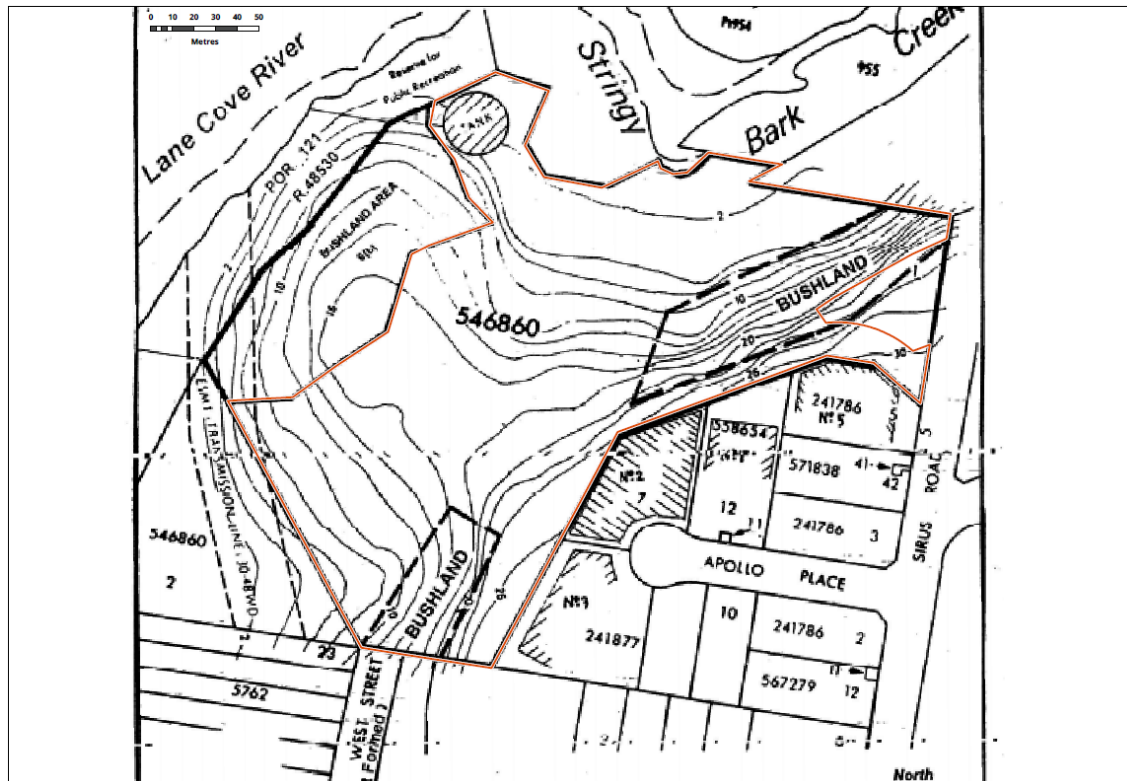


Plate 9 Lane Cove Council DCP map from October 1998 (Source: Lane Cove DCP)

Current aerials (Plate 10) illustrate that the study area has undergone massive vegetative clearing and industrial development, with majority of the area being highly disturbed. The structures present in the 1943 aerials are no longer present, with sparse vegetation surrounding the edges of the study area. Within the study area, there are large piles of rubble and fill objects, heavily concentrated towards the western side of the area. Graded dirt roads appear throughout the study area, particularly towards the western side. In the southern portion there is an incised channel bank 20 metres east of the southern boundary. The eastern portion of the area backs onto to a highly developed light industrial area.



Plate 10 Current aerial showing cleared land with no structures (Source: Land and Property Information)

3.4 Chronology of the study area

Based upon the historical research presented it is possible to summarise the chronology of the study area, this is presented in Table 2. This chronology is based on historical events and developments within the study area. The study area was originally in three grants, these have been distinguished in the table by the numbers on the original parish plan (Plate 3):

- 97 - northern portion of the site originally owned by Thomas Moore
- 101 - middle portion of the site originally owned by Henry O'Brien
- 81 - southern portion of the site originally owned by William Hamey

The part of the study area which was designated as the Stringybark Tree Reservation in 1912 can also be seen in Plate 3, this is labelled as 852.

Table 2 Chronological development of the study area

Date	Grant	Historical event or development	Buildings
1832	97	Thomas Moore purchases original grant.	-
1834	101	Henry O'Brien purchases original grant.	-

Date	Grant	Historical event or development	Buildings
1855	81	William Hamey purchases original grant.	-
1886	81	Original lot sold to Francis Bede Freehill, solicitor and Annie Molony.	-
1897	81	Transferred to John Molony, accountant and Michael Hogan of Sydney.	-
1904	81	Transferred to Arthur James Hogan of Chatswood.	-
1914	101	Original lot sold to Thomas Romer Miller of Sydney and Manuel Francis Josephson of Randwick, gentlemen.	-
1916	81	Transferred to Robert Williamson of North Sydney, Master Mariner.	-
1917	852	Part of the lot originally owned by Thomas Moore and part of the lot originally owned by Henry O'Brien is designated as a preserve, for public recreation.	-
1917	101	Death of Thomas Romer Miller, Manual Francis Josephson is now the sole proprietor of the land.	-
1918	101	Grant transferred to Richard Henry Harris who takes out a mortgage on the land.	-
1920	101	Lot bought by The Cumberland Paper Board Mills Limited.	-
1920	852	Lot officially opened as "reservation" for a tree preservation scheme for the Cumberland Paper Mills.	-
1922	852	Lot officially bought by the Cumberland Paper Mills.	-
1927	81	Lot officially bought by the Cumberland Paper Mills.	-
1927	All lots	All three lots are now owned by the Cumberland Paper Mills.	-
1933	101, 81	Lots leased to Robert Corbett and Sons Pty Ltd.	-
1938	101, 81	Lots bought by Robert Corbett and Sons Pty Ltd.	-
1942	852	Lot Bought by Robert Corbett and Sons Pty Ltd.	-
1942	All lots	All three lots are now owned by Robert Corbett and Sons Pty Ltd, who also owns the previous Cumberland Paper Mills to the north.	Steel tank shown on the Metropolitan Water, Sewerage and Drainage Board plan.
1943	All lots	-	Historic aerial shows heavy vegetation, steel tank and a building in the centre of the site.
1955	All lots	Land mortgaged to the Commercial Banking Company of Sydney Limited.	-
1971	All lots	Resumption occurs and the Electricity Council of NSW takes ownership. The three lots are amalgamated to form the	-

Date	Grant	Historical event or development	Buildings
		current study area.	
1998	All lots	-	The steel tank is still present on the DCP plan, the other building in the centre of the lot has gone.
2019	All lots	-	Site has been cleared – There is no evidence of the steel tank and building.

3.5 Research themes

Contextual analysis is undertaken to place the history of a particular site within relevant historical contexts in order to gauge how typical or unique the history of a particular site actually is. This is usually ascertained by gaining an understanding of the history of a site in relation to the broad historical themes characterising Australia at the time. Such themes have been established by the Australian Heritage Commission and the Heritage Office and are outlined in synoptic form in Historical Themes³¹.

There are 38 State historical themes, which have been developed for NSW, as well as nine National historical themes. These broader themes are usually referred to when developing sub-themes for a local area to ensure they complement the overall thematic framework for the broader region.

A review of the contextual history in conjunction with the local historical thematic history has identified one historical theme which relates to the occupational history of the study area. This is summarised in Table 3.

Table 3 Identified historical themes for the study area

Australian Theme	NSW Theme	Local Theme
Developing local, regional and national economies	Industry	Activities associated with the manufacture, production and distribution of goods

³¹ NSW Heritage Council 2001

4 Physical inspection

A physical inspection of the study area was undertaken on 10 January 2019, attended by Maggie Butcher (Consultant Archaeologist, Biosis) and Dino DiPaolo (Design Manager, A.W. Edwards). The principal aims of the survey were to identify heritage values associated with the study area; this included any heritage items (Heritage items can be buildings, structures, places, relics or other works of historical, aesthetic, social, technical/research or natural heritage significance. 'Places' include conservation areas, sites, precincts, gardens, landscapes and areas of archaeological potential).

4.1 Landscape character assessment

The purpose of this section is to provide an analysis and description of the study area as part of a cultural landscape. The cultural landscape concept emphasises the landscape-scale of history and the connectivity between people, places and heritage items. It recognises the present landscape is the product of long-term and complex relationships between people and the environment. For the purposes of this report cultural landscapes are defined as: '... those areas which clearly represent or reflect the patterns of settlement or use of the landscape over a long time, as well as the evolution of cultural values, norms and attitudes toward the land'.³²

4.1.1 An overview of cultural landscapes

In order to fully understand the heritage significance of the study area it is necessary to consider the character of the landscape within which it is situated. The heritage value of a landscape may be related to its aesthetic, archaeological, historical, scientific, social, or architectural values, each or all of these values can exist at any one time. The identification of these values is important in discussing the study area and its constituent elements heritage significance.

Three general landscape categories have been developed and applied by heritage organisations to assist in understanding different types of landscapes³³:

- **Designed landscapes:** Those that are created intentionally such as gardens, parks, garden suburbs, city landscapes, ornamental lakes, water storages and campuses.
- **Evolved landscapes:** Those that display an evolved land use in their form and features. They may be 'relict' such as former mining or rural landscapes. They may be 'continuing' such as modern active farms, vineyards, plantations or mines.
- **Associative cultural landscapes:** These are landscape features that represent religious, artistic, sacred or other cultural associations to individuals or communities.

4.1.2 Character areas

The study area is located within a broader evolved landscape. This part of Lane Cove evolved through the development of many industries in the area. This was due in large part to access of clean water from the Lane Cove River, and large lots of land that were developed in a later period compared to more centralised Sydney. Industry in the area began with the Chicago Cornflour Factory in 1894 and continued with the Cumberland Paper Mills in 1912 and Robert Corbett and Sons in 1928. The Cornflour factory, although undergoing many

³² Context Pty Ltd et al. 2002

³³ UNESCO 2012

name and ownership changes is still operational and is a large part of the industrial landscape. The site is within the Lane Cove West Business Park which is zoned IN2 Light Industrial under the provisions of the LEP. An objective of this zoning classification which continues to contribute to the evolving landscape is 'to support and protect industrial land for industrial uses'.

4.1.3 Views to and from the study area

It is important to analyse and describe views to and from the site in order to analysis if and how the proposed development would impact the area or views from/to listed items. This enables a greater understanding of what aspects of the landscape need to be conserved and protected.

The Chicago Cornflour Mill and the Cumberland Paper Mills are situated to the north of the study area. When the Chicago Cornflour Mill was first established the majority of surrounding area was bushland. The area soon developed into an industrial space with the addition of other factories, including the Cumberland Paper Mills. While the surrounding area has been turned into a light industrial space, the locally listed Cumberland Paper Mills sit surrounded by a buffer of tall trees up on a ridge and cannot be seen from site. Plate 12 shows the obscured view. In turn, the study area is currently unlikely to be seen from this location. The Cumberland Paper Mill buildings are set back over 100 metres from the edge of the study area. They are also sit higher topographically than the majority of the study area, affording a view of the local area including taller industrial buildings, Lane Cove River and surrounding bushland.

4.2 Site Setting

The study area is located within a light industrial area and consists of at Lot 1 DP 1151370. The study area is bounded by Lot 853 DP 752067, Lot 7372 DP 1661897, Stringybark Creek, Lot 955 DP 752067 and Lot 22 DP 825400 to the north, Sirius Road, Lot 5 DP 241786, Lot 7,8 DP 241877 and SP 80721 to the east, Lot 1, 2, DP 732557 to the south and Lot 2 DP 546860 and Lot 1 DP 884454 to the west. The study area consists of undulating overgrown cleared bushland (Plate 11, Plate 12) with sandstone bedrock clearly visible in the majority of the site (Plate 12), predominantly in the south eastern portion of the site. The site slopes down generally to the north-west and west (Plate 11, Plate 12). From the middle to the base of these slopes there appears to be a large amount of fill (Plate 13). There are also mounds of soil which have been illegally dumped all over the site (Plate 13). There is evidence of a storm water service running north south towards the northern boundary of the site (Plate 14). There is no surface evidence of other services, built heritage or archaeology.



Plate 11 General view of the site from the top of the south eastern side of the site, facing north west



Plate 12 View from the north west up the slope, sandstone bedrock can be seen across the site, facing south east



Plate 13 View of fill and rubbish dumps, looking north west



Plate 14 Loose rubble with wire netting running towards the north end of the site, facing north

4.3 Built fabric assessment

There were no structures or elements of the built environment present.

4.4 Archaeological assessment

The potential archaeological resource relates to the predicted level of preservation of archaeological resources within the study area. Archaeological potential is influenced by the geographical and topographical location, the level of development, subsequent impacts, levels of onsite fill and the factors influencing preservation such as soil type. An assessment of archaeological potential has been derived from the historical analysis undertaken during the preparation of this report.

4.4.1 Archaeological resource

This section discusses the archaeological resource within the study area. The purpose of the analysis is to outline what archaeological deposits or structures are likely to be present within the study area and how these relate to the history of land use associated with the study area.

The historical context presented in this report indicates that the study area was covered in heavy vegetation until the late 20th century. No formal structures were identified on Crown plans or plans contained within Certificates of Titles. During this period the land was owned by private individuals, then by the Cumberland Paper Mills. The lack of documentation in relation to structures decreases the likelihood of the presence of substantial archaeological remains, as significant structures are typically recorded. However ephemeral remains of these occupations may remain. Potential archaeological resources could include post holes of fence lines and rubbish pits.

The first, and only recorded structures on the lot appeared in 1942-3 and included a steel tank and 14 metre long building. These were constructed when the land was owned by Robert Corbett and Sons Pty Ltd, a chemical manufacturing company. These have both since been demolished. Potential archaeology related to this land use could include post holes or footings for fencing, foundations of the building and rubbish pits. The steel tank, as seen in the 1943 aerial appears to be partially above ground. This was removed after 1998. The pit which would have resulted from this removal would have been backfilled.

4.4.2 Integrity of sub-surface deposits

The site has changed dramatically throughout the 20th century. Instead of being covered by thick copes of trees the site has been cleared and is now overgrown with weeds. No structures are present. The site visit revealed that the position of the building in the centre of the lot was in an area in which the sandstone bedrock was at a very high level. In general, the less fill that is present, the less potential there is for archaeology. The building was also previously surrounded by trees, their clearance would have disturbed shallow foundations that were present. This clearing would have also disturbed any rubbish pits or post holes that may have been present. The stormwater pipe would also have disturbed any archaeology that was present in the area in which it was constructed.

4.4.3 Research potential

Archaeological research potential refers to the ability of archaeological evidence to provide information about a site that could not be derived from any other source and which contributes to the archaeological significance of that site. Archaeological research potential differs from archaeological potential in that the presence of an archaeological resource (i.e. archaeological potential) does not mean that it can provide any additional information that increases our understanding of a site or the past (i.e. archaeological research potential).

The research potential of a site is also affected by the integrity of the archaeological resource within a study area. If a site is disturbed, then vital contextual information that links material evidence to a stratigraphic sequence may be missing and it may be impossible to relate material evidence to activities on a site. This is generally held to reduce the ability of an archaeological site to answer research questions.

Assessment of the research potential of a site also relates to the level of existing documentation of a site and of the nature of the research done so far (the research framework), to produce a 'knowledge' pool to which research into archaeological remains can add.

Developing local, regional and national economies – Industry – Activities associated with the manufacture, production and distribution of goods

The study area has likely been utilised for activities associated with early industry in the Lane Cove area since the land was bought by Cumberland Paper Mills in 1912. However, while there may be both disturbed and undisturbed archaeological material associated with these activities within the study area, it is unlikely that any remains would provide further information regarding industry, activities associated with manufacture, production and distribution of goods that cannot be ascertained from historical documentation.

4.4.4 Summary of archaeological potential

Through an analysis of the above factors a number of assumptions have been made relating to the archaeological potential of the study area, these are presented in Table 4 and Figure 5.

The assessment of archaeological potential has been divided into three categories:

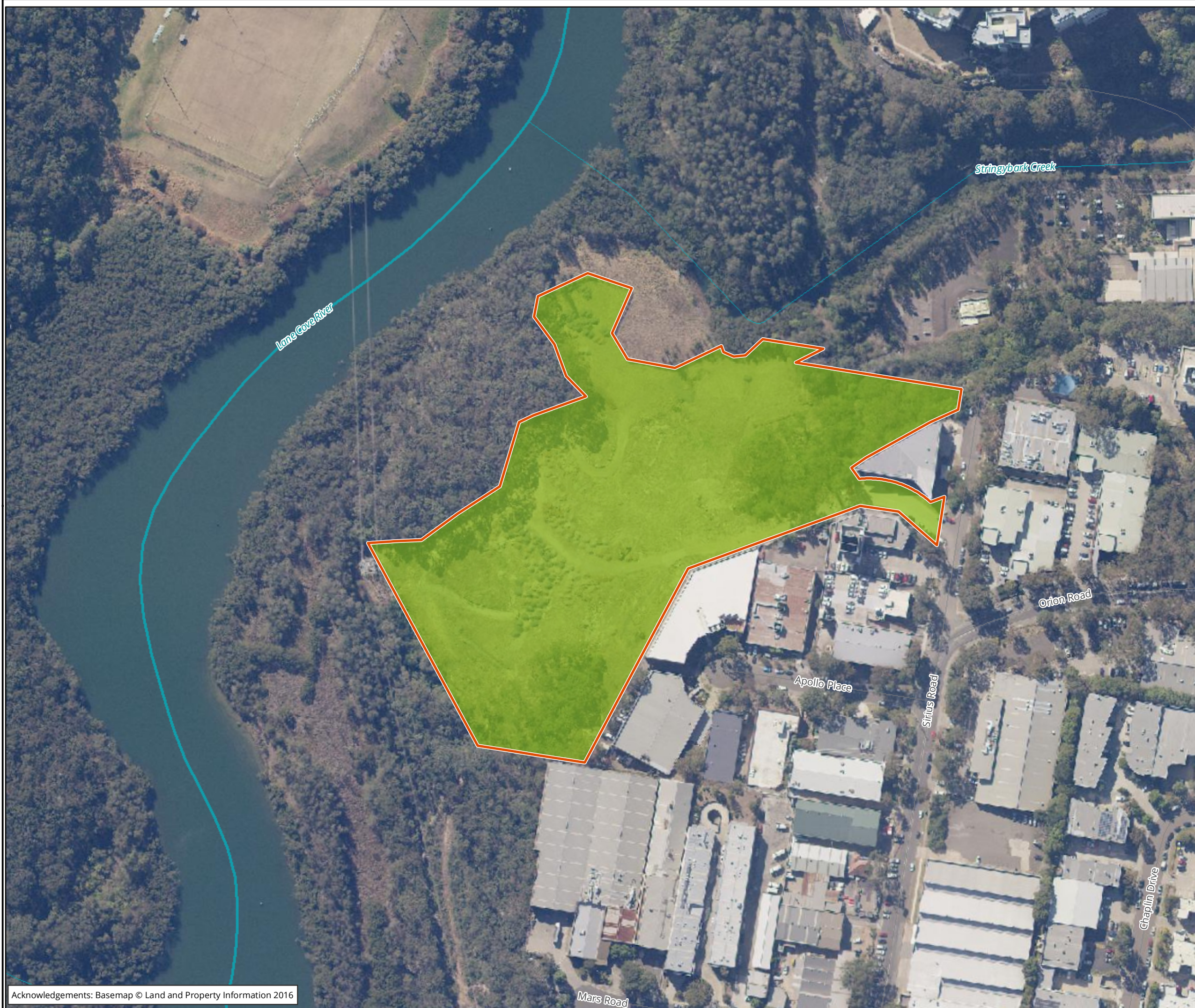
- **High archaeological potential** – based upon the historical context and documentary evidence presented within this report there is a high degree of certainty that archaeologically significant remains relating to this period, theme or event will occur within the study area.
- **Moderate archaeological potential** – based upon the historical context and documentary evidence presented within this assessment it is probable that archaeological significant remains relating to this period, theme or event could be present within the study area.
- **Low archaeological potential** – based upon the historical context and documentary evidence presented within this assessment it is unlikely that archaeological significant remains relating to this period, theme or event will occur within the study area.

During the early land ownership (1834-1912) no structures were recorded and the study area was covered in heavy vegetation. Possible archaeological features associated with early land ownership are most likely ephemeral and include post holes of fence lines and rubbish pits. As discussed in Section 4.2 the bedrock is very high on this site. Clearing the vegetation would have disturbed archaeological remains from this period. This factor, combined with the lack of historic sources and types of remains possible indicate that there is a low potential for archaeology from this early period. It is unlikely that these remains would answer research questions which would provide further information regarding industry, activities associated with manufacture, production and distribution of goods that cannot be ascertained from historical documentation.

The later period when the site was owned by Robert Corbett and Sons Pty Ltd was the only time in which structures were recorded. This included a steel tank and 14 metre long building as seen in the 1943 aerial survey. These have both been demolished, the steel tank was removed after 1998. Possible remains from this period include post holes or footings for fencing, foundations of the building and rubbish pits. Again, due to the high level of bedrock on this site and the clearance of the trees which surrounded the structures, the potential archaeological remains would have been disturbed. These factors indicate that the potential for substantial archaeological remains from this period is low. It is unlikely that these remains would answer research questions which would provide further information regarding industry, activities associated with manufacture, production and distribution of goods that cannot be ascertained from historical documentation.

Table 4 Assessment of archaeological potential

Description	Probable feature(s)	Possible construction date	Archaeological potential
Features associated with early land ownership	Post holes, fence lines, rubbish pits	1834+	Low
Building in centre of the lot	Footings, associated deposits	Early-mid 20th century	Low
Steel tank	Footings, cut from removal of tank	Early-mid 20th century	Low



Legend

Study area

Archaeological potential

Low

Figure 5: Archaeological potential of the study area



Scale: 1:2,000 @ A3
 Coordinate System: GDA 1994 MGA Zone 56

biosis
 Biosis Pty Ltd
 Albury, Ballarat, Melbourne,
 Sydney, Newcastle, Wangaratta & Wollangong

Matter: 29212,
 Date: 11 January 2019,
 Checked by: MIB, Drawn by: DK, Last edited by: dkazemi
 Location: P:\29200s\29212\Mapping\29212_F5_ArchaeologicalPotential.mxd

5 Significance assessment

An assessment of heritage significance encompasses a range of heritage criteria and values. The heritage values of a site or place are broadly defined as the 'aesthetic, historic, scientific or social values for past, present or future generations'³⁴. This means a place can have different levels of heritage value and significance to different groups of people.

The archaeological significance of a site is commonly assessed in terms of historical and scientific values, particularly by what a site can tell us about past lifestyles and people. There is an accepted procedure for determining the level of significance of an archaeological site.

A detailed set of criteria for assessing the State's cultural heritage was published by the (then) NSW Heritage Office. These criteria are divided into two categories: nature of significance, and comparative significance.

Heritage assessment criteria in NSW fall broadly within the four significance values outlined in the Burra Charter. The Burra Charter has been adopted by state and Commonwealth heritage agencies as the recognised document for guiding best practice for heritage practitioners in Australia. The four significance values are:

- historical significance (evolution and association)
- aesthetic significance (scenic/architectural qualities and creative accomplishment)
- scientific significance (archaeological, industrial, educational, research potential and scientific significance values)
- social significance (contemporary community esteem).

The NSW Heritage Office issued a more detailed set of assessment criteria to provide consistency with heritage agencies in other States and to avoid ambiguity and misinterpretation. These criteria are based on the Burra Charter. The following SHR criteria were gazetted following amendments to the *Heritage Act 1977* (Heritage Act) that came into effect in April 1999:

- Criterion (a) - an item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).
- Criterion (b) - an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area).
- Criterion (c) - an item is important in demonstrating the aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).
- Criterion (d) - an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.
- Criterion (e) - 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).
- Criterion (f) - an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area).

³⁴ Heritage Office 2001

- Criterion (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 a class of the local area's cultural or natural places; or cultural or natural environments.

5.1 Levels of heritage significance

Items, places, buildings, works, relics, movable objects or precincts can be of either local or state heritage significance, or have both local and state heritage significance. Places can have different values to different people or groups.

Local heritage items

Local heritage items are those of significance to the local government area. In other words, they contribute to the individuality and streetscape, townscape, landscape or natural character of an area and are irreplaceable parts of its environmental heritage. They may have greater value to members of the local community, who regularly engage with these places and/or consider them to be an important part of their day-to-day life and their identity. Collectively, such items reflect the socio-economic and natural history of a local area. Items of local heritage significance form an integral part of the State's environmental heritage.

State heritage items

State heritage items, places, buildings, works, relics, movable objects or precincts of state heritage significance include those items of special interest in the state context. They form an irreplaceable part of the environmental heritage of NSW and must have some connection or association with the state in its widest sense.

The following evaluation attempts to identify the cultural significance of the study area. This significance is based on the assumption that the site contains intact or partially intact archaeological deposits.

5.2 Statement of Significance

Table 5 Evaluation and statement of significance for possible archaeological material within the study area

Item	Significance assessment criteria							Level of significance	Statement of significance
	A	B	C	D	E	F	G		
Features associated with early land ownership								Nil	<p>The possible archaeological material associated with the early land ownership of the study area, such as post holes, fence lines and rubbish pits, are not considered an important component of the cultural history of NSW or the Lane Cove district and they are not associated with the life or works of a person(s) of importance in local or state cultural history. These possible materials will not yield information that will contribute to a greater understanding of the cultural history of NSW or the Lane Cove district, and they unlikely to demonstrate aesthetic characteristics or a high degree of creative or technical achievement in the state or local area, They do not hold a strong or special association with a community or cultural group for social, cultural or spiritual reasons in NSW or the Lane Cove district. The possible archaeological materials are not considered to possess uncommon, rare or endangered aspects of NSW or the Lane Cove district's cultural history, nor do they demonstrate the principal characteristics of a class of cultural places or environments within the state or local area.</p> <p>The possible archaeological materials associated with the early land ownership within the study area do not hold heritage significance.</p>

Item	Significance assessment criteria							Level of significance	Statement of significance
	A	B	C	D	E	F	G		
Building in centre of the lot and steel tank								Nil	<p>The possible archaeological material associated with the industrial ownership of the study area (Cumberland Paper Mills Pty Ltd and Robert Corbett & Sons), such as post holes, fence lines, rubbish pits and building foundations, are not considered an important component of the cultural history of NSW or the Lane Cove district. While the land may be associated with a group of persons (and Robert Corbett & Sons Pty Ltd) of importance to NSW and the Lane Cove district, the possible remains on this site do not reflect this. These possible materials will not yield information that will contribute to a greater understanding of the cultural history of NSW or the Lane Cove district, and they unlikely to demonstrate aesthetic characteristics or a high degree of creative or technical achievement in the state or local area, They do not hold a strong or special association with a community or cultural group for social, cultural or spiritual reasons in NSW or the Lane Cove district. The possible archaeological materials are not considered to possess uncommon, rare or endangered aspects of NSW or the Lane Cove district's cultural history, nor do they demonstrate the principal characteristics of a class of cultural places or environments within the state or local area.</p> <p>The possible archaeological materials associated with the industrial ownership within the study area do not hold heritage significance.</p>

6 Statement of heritage impact

This SoHI has been prepared to address impacts resulting from the proposed redevelopment of the study area. The SoHI identifies the level of impact arising from the proposed development and discusses mitigation measures which must be taken to avoid or reduce those impacts. This section of the report has been prepared in accordance with the Heritage Manual guideline *Statements of Heritage Impact*³⁵.

6.1 Proposal details

The proposed works are shown in Figure 3 and include the construction of the Lane Cove West Data Centre comprising:

- A data storage building (approximately 35,144m²)
- An electrical substation
- Ancillary office area and loading docks
- Site-wide earthworks and vegetation clearing
- Associated infrastructure, car parking and landscaping

Details of the proposed works are shown in Plate 15, Plate 16 and Plate 17

³⁵ Heritage Office & DUAP 1996

Plate 15 Section of the central hall showing RL of tallest part of the data centre (Greenbox Architecture)

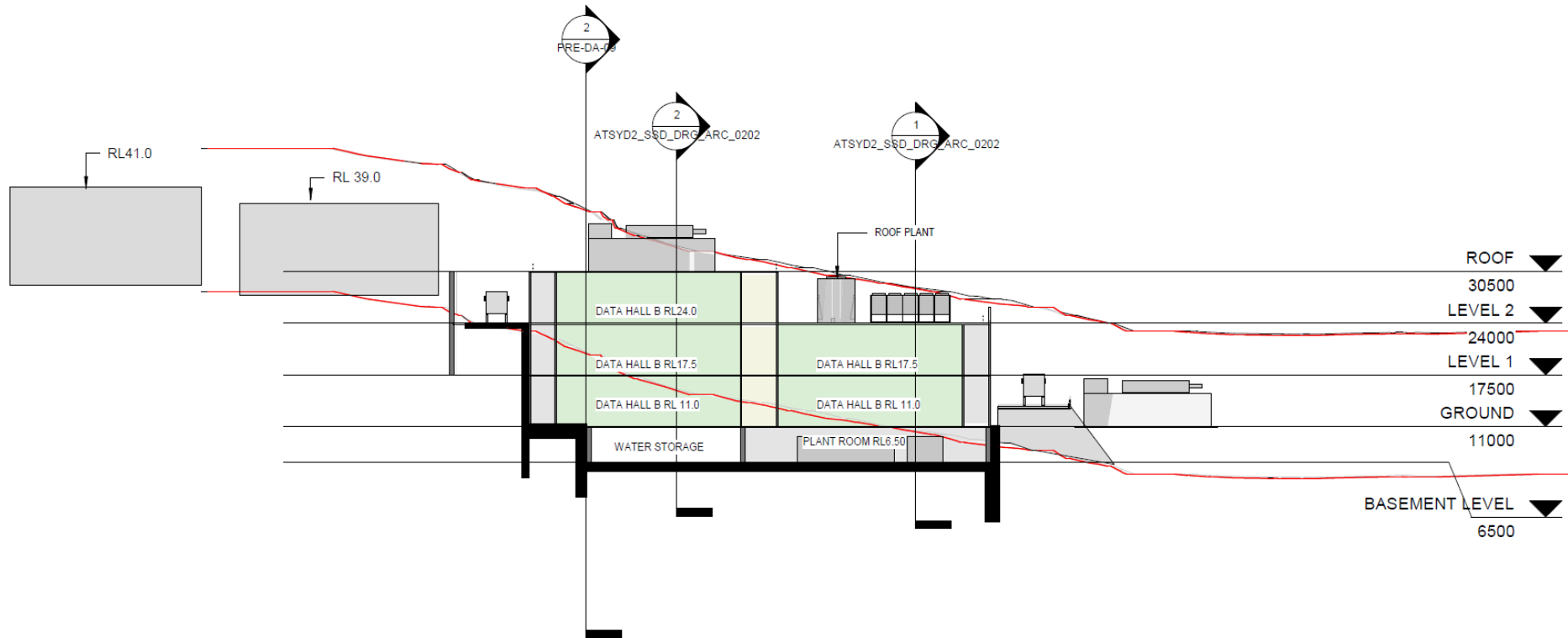


Plate 16 Basement level of proposed development (Greenbox Architecture)

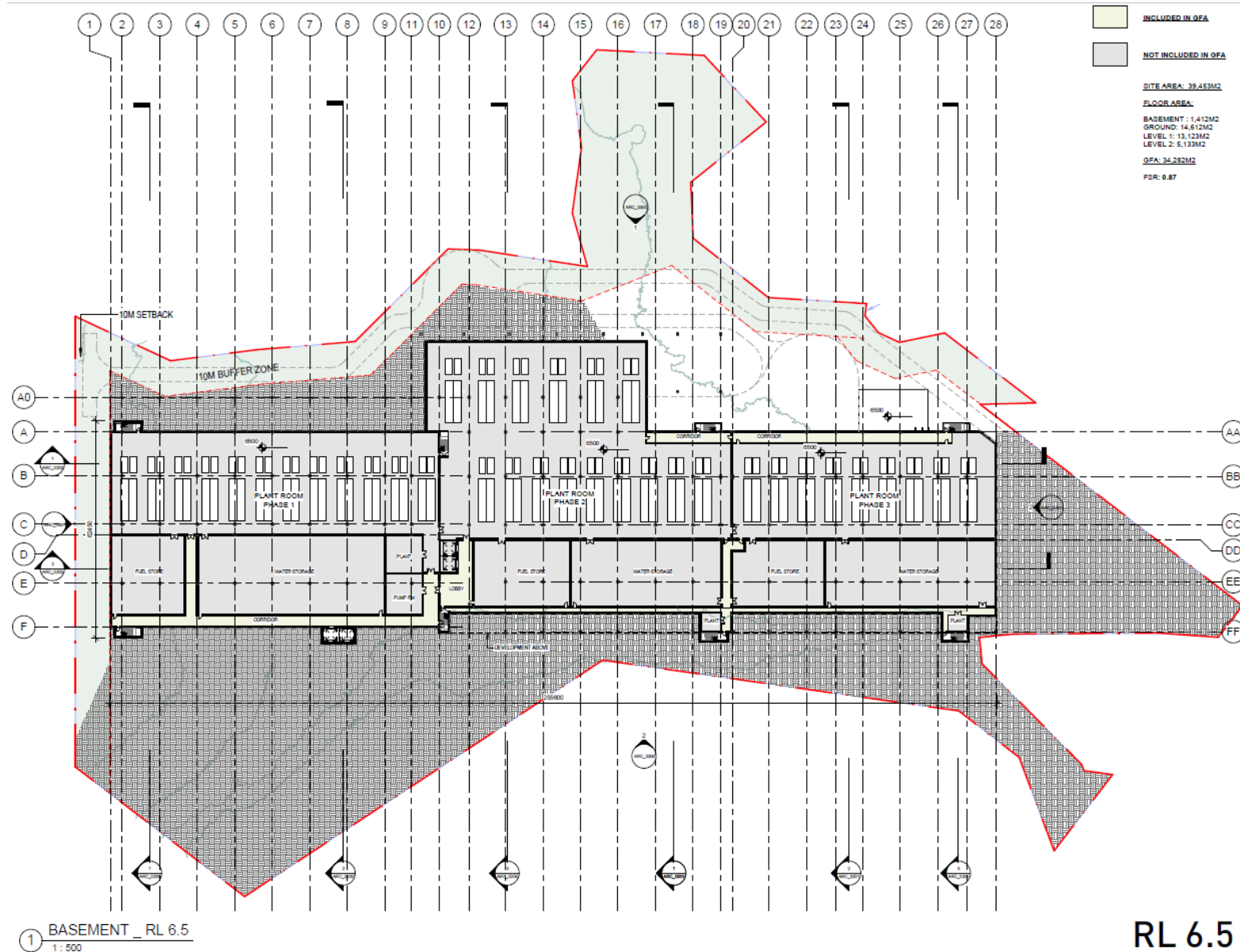
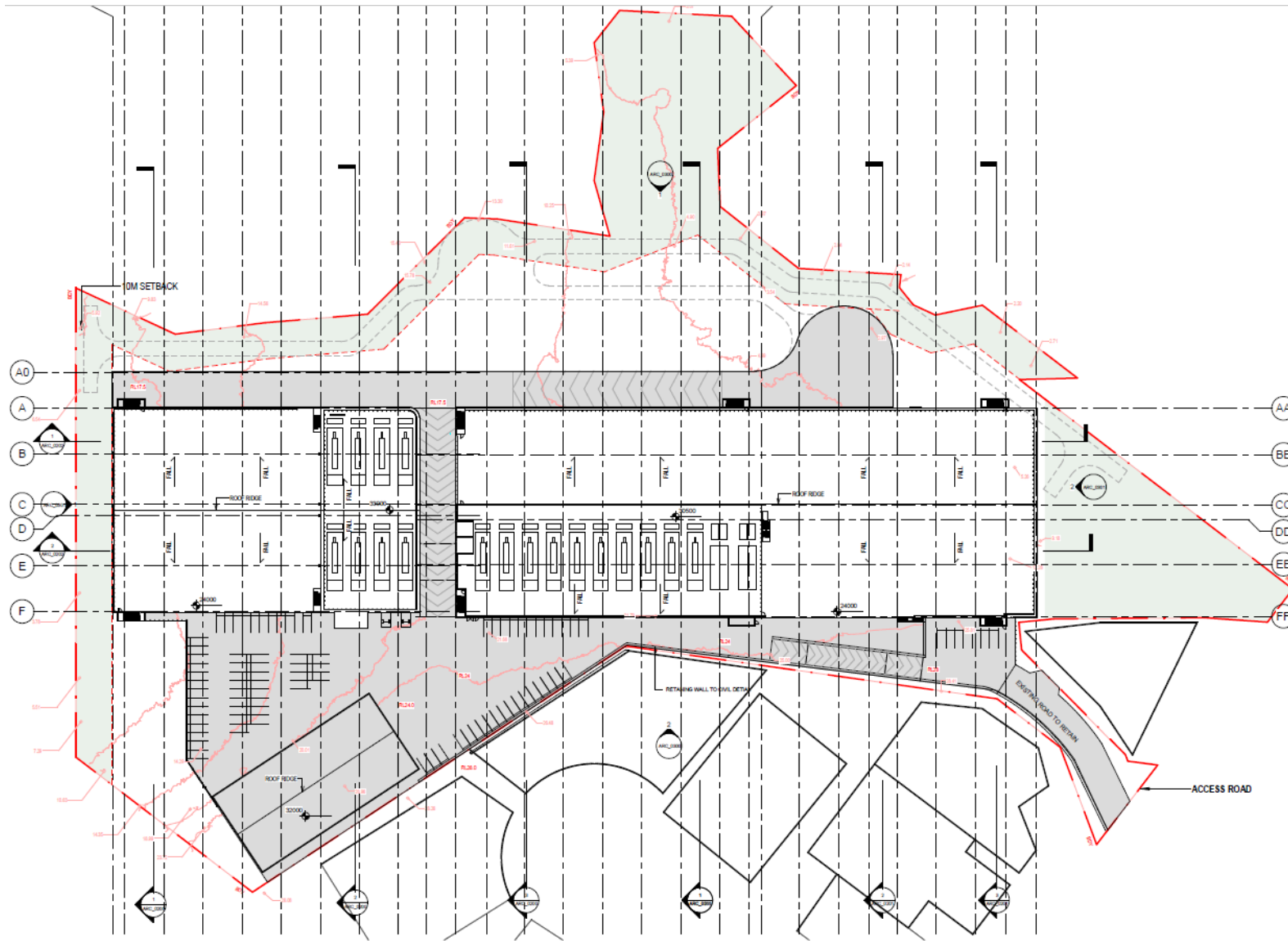


Plate 17 Roof level of proposed development (Greenbox Architecture)



1 ROOF PLANT LAYOUT
SCALE: 1:500

RL 30.5

6.2 Assessing impact to heritage item(s)

6.2.1 Discussion of heritage impact(s)

The discussion of impacts to heritage can be centred upon a series of questions which must be answered as part of a SoHI which frame the nature of impact to a heritage item. The Heritage Manual guideline *Statements of Heritage Impact* includes a series of questions in relation to indicate the criterion which must be answered³⁶:

- *How is the impact of the new development on the heritage significance of the item or area to be minimised?*
- *Why is the new development required to be adjacent to a heritage item?*
- *How does the curtilage allowed around the heritage item contribute to the retention of its heritage significance?*
- *How does the new development affect views to, and from, the heritage item? What has been done to minimise negative effects?*
- *Is the development sited on any known, or potentially significant archaeological deposits? If so, have alternative sites been considered? Why were they rejected?*
- *Is the new development sympathetic to the heritage item? In what way (e.g. form, siting, proportions, design)?*
- *Will the additions visually dominate the heritage item? How has this been minimised?*
- *Will the public, and users of the item, still be able to view and appreciate its significance?*

The proposed development is on land that has low potential for archaeological items. These items would not be locally or state significant. It is however situated in the vicinity of two archaeological areas and heritage items. These are the Chicago Mills and the Cumberland Paper Mills. The study area has been selected for this proposed development due to its location in an already zoned industrial area and size. The design encompasses a number of mitigations measures that reduce the impact of the development on these heritage listed items, however these may not completely mitigate the impact on the heritage items. These are discussed in relation to the following sections and are outlined in Table 6.

6.2.2 Quantifying heritage impact(s)

Based upon the discussion of impacts to heritage items, impact to these items can be quantified under three main categories: direct impacts, indirect impacts and no impact. These kinds of impacts are dependent on the proposed impacts, nature of the heritage item and its associated curtilage.

Direct impacts

Direct impacts are where the completion of the proposed development will result in a physical loss or alteration to a heritage item which will impact the heritage value or significance of the place. Direct impacts can be divided into whole or partial impacts. Whole impacts essentially will result in the removal of a heritage item as a result of the development where as partial impacts normally constitute impacts to a curtilage or partial removal of heritage values. For the purposes of this assessment direct impacts to heritage items have been placed into the following categories:

- Physical impact - whole: where the development will have a whole impact on a heritage item resulting in the complete physical loss of significance attributed to the item.

³⁶ Heritage Office & DUAP 1996

- Physical impact - partial: where the project will have a partial impact on an item which could result in the loss or reduction in heritage significance. The degree of impact through partial impacts is dependent on the nature and setting of a heritage item. This typically these impacts are minor impacts to a small proportion of a curtilage of an item or works occurring within the curtilage of a heritage item which may impact on its setting (i.e. gardens and plantings).

Indirect impacts

Indirect impacts to a heritage item relate to alterations to the environment or setting of a heritage item which will result in a loss of heritage value. This may include permanent or temporary visual, noise or vibration impacts caused during construction and after the completion of the development. Indirect impacts diminish the significance of an item through altering its relationship to its surroundings; this in turn impacts its ability to be appreciated for its historical, functional or aesthetic values. For the purposes of this assessment impacts to heritage items have been placed into the following categories:

- Visual impact – this has been quantified using the assessment outlined in Section 4.1.

Cumulative impacts

Cumulative impacts relate to minimal or gradual impacts from a single or multiple developments upon heritage values. A cumulative impact would constitute a minimal impact being caused by the proposed development which over time may result in the partial or total loss of heritage value to the study area or associated heritage item. Cumulative impacts may need to be managed carefully over the prolonged period of time.

No impact

This is where the project does not constitute a measurable direct or indirect impact to the heritage item.

6.3 Assessment of impacts

A discussion, assessment and mitigation of impacts to heritage items located within or adjacent to the study area is presented in Table 6.

Table 6 Assessment of impacts to heritage items either within or adjacent to the study area

Heritage item	Significance	Discussion and mitigation	Assessment
<p>Chicago Mills</p>	<p>Local</p>	<p>The Chicago Mills is listed as both an archaeological area and local heritage item and is located approximately 250 metres to the north of the study area.</p> <p>Archaeological area - As it is located at such a distance away across Stringybark Creek the proposed development will not be disturbing the ground in the vicinity of the Chicago Mills archaeological area. The archaeology will not be disturbed.</p> <p>Heritage item – Chicago Mills demonstrates multiple heritage values, including being of importance in the course of Lane Cove’s cultural history, demonstrating aesthetic characteristics to a high degree of technical achievement and it has the potential to yield information that will contribute to an understanding of the local cultural history. The majority of these heritage values will not be effected by the proposed development. The most likely value to be effected is the aesthetic characteristics of the heritage item. When the Chicago Cornflour Factory was built by Clifford Love & Co. the surrounding area was bushland. It has since been transformed into an industrial area. The separation of Chicago Mills from the development with 250 metres of bushland plus 10 metre buffer zone on the study area (Plate 16) will provide some visual buffer. The height of the development will be RL30.5 (Plate 17) and may still be visible as the Chicago Mills is on a topographical rise of between 10 and 20 metres. However this height is still less than the buildings situated to the east and south of the study area, lessening the chance of it visually dominating the landscape (Plate 15). As the proposed development is an industrial building, this keeps with the character of the area.</p> <p>Due to these multiple factors, while it may be partially viewable from the Chicago Mills site, it does not directly affect the Chicago Mills heritage values and will minimally indirectly impact the Chicago Mills heritage values</p>	<p>The proposed development does not directly impact the Chicago Mills heritage values, however it may indirectly impact the Chicago Mills heritage values</p>

Heritage item	Significance	Discussion and mitigation	Assessment
Cumberland Paper Mills	Local	<p>The Cumberland Paper Mills is listed as both an archaeological area and local heritage item. The archaeological area listing sits directly adjacent to the study area while the heritage item sites approximately 100 metres to the north east of the study area.</p> <p>Archaeological area – The archaeological area has the potential to contain remains which have multiple heritage values, mostly having the potential to yield information that will contribute to an understanding of the cultural history of Lane Cove. The proposed development will undertake large earthworks, clearing much of the site down to RL6.50. The removal of such large amounts of fill directly adjacent to an archaeological area increases the risk of the listed area being disturbed. However steps have been taken to avoid this. As can be seen in Figure 4 only a small portion of the site sits directly adjacent to the listed archaeological area. Plate 16 shows the proposal includes a 10 metre buffer zone from the buildings to the listed area. If this buffer zone is implemented this reduces the risk of the archaeological area being disturbed. It is unknown how close to the surface any archaeological remains are located so it is vital the property boundary be clearly marked out during excavations in order for plant to not disturb potential archaeology on the adjacent listed lot, the 10 meter buffer should also aid in avoiding this situation. If these mitigations are upheld, it is unlikely the proposed development will impact the Cumberland Paper Mills archaeological heritage values.</p> <p>Heritage item - Cumberland Paper Mills demonstrates multiple heritage values, including being of importance in the course of Lane Cove’s cultural history, demonstrating aesthetic characteristics to a high degree of technical achievement and having the potential to yield information that will contribute to an understanding of the local cultural history. The majority of these heritage values will not be effected by the proposed development. The most likely value to be effected is the aesthetic characteristics of the heritage item. The Cumberland Paper Mills were built when Lane Cove was first starting to transform from bushland to an industrial area. This is still reflected in the area today with the industrial park being surrounded by reserves. The new development will also reflect this with a combination of structures, landscaping and buffer zones. The Cumberland Paper Mills sits on a topographic ridge of 20-30 metres surrounded by trees. Plate 17 shows the height of</p>	<p>The proposed development may directly affect the Cumberland Paper Mills heritage values as an archaeological area. However with the precautions for the archaeological area this will be minimal. The proposed development may indirectly affect the Cumberland Paper Mills heritage values as a heritage item. However with the precautions for the archaeological area this will be minimal.</p>

Heritage item	Significance	Discussion and mitigation	Assessment
		<p>the development to be RL30.5. The development may be partially viewable from the Cumberland Paper Mills site. However this height is still less than the buildings situated to the east and south of the study area, lessening the chance of it visually dominating the landscape (Plate 15). As the proposed development is an industrial building, this keeps with the character of the area.</p> <p>Due to these multiple factors, while it may be partially viewable from the Cumberland Paper Mills site, it does not directly affect its heritage values and will minimally indirectly impact the Cumberland Paper Mills heritage values</p>	

6.4 Statement of heritage impact

This SoHI has been prepared to address impacts resulting from the proposed development of the study area. The SoHI identifies the level of impact arising from the proposed development and discusses mitigation measures which must be taken to avoid or reduce those impacts. The proposed impacts under the SSD includes estate works consisting of vegetation clearing, bulk earthworks and the construction of a data storage building, electrical substation, office area, loading docks and associated infrastructure, car parking and landscaping.

This assessment has identified that there may be archaeological material present within the study area related to the early ownership of the land, such as post holes, fence lines and rubbish pits, and its historical use for industrial purposes, such as building and steel tank footings and remains. However, these archaeological materials have been assessed as not holding heritage significance. The impacts to the study area for the proposed works associated with the SSD application are considered acceptable, as there are no items of heritage significance within the study area that will be impacted by these activities, provided that an unexpected finds policy is implemented to identify and record any archaeological material that may be encountered during the proposed works.

Items which may be impacted from the proposed development on the study area are to the north. These are the Chicago Mills and the Cumberland Paper Mills. These items are of local significance. The Chicago Mills archaeological area and heritage item is located approximately 250 metres to the north, the Cumberland Paper Mills archaeological area is located directly adjacent to the study area and heritage item is approximately 100 metres to the north-east. These are both surrounded by trees on natural ridges of 10-20 and 20-30 metres respectively. The design of the proposed works encompasses a number of mitigations measures that reduce the impact of the development on these heritage listed items. These include a buffer zone of 10 metres around the north, south and west boundaries (Plate 16, Plate 17), maximum height of the building being RL 30.5, less than the surrounding buildings (Plate 15, Plate 17) and design of the building to fit into the industrial character of the area. The proposed development may indirectly impact the Chicago Mills and directly and indirectly impact the Cumberland Paper Mills. However through the design of the proposed development combined with the natural buffers and character of the area, this impact will be minimal. Should future alterations to the design cause impacts to heritage items they would not be covered by this assessment.

7 Conclusions and recommendations

7.1 Recommendations

These recommendations have been formulated to respond to client requirements and the significance of the site. They are guided by the ICOMOS *Burra Charter* with the aim of doing as much as necessary to care for the place and make it useable and as little as possible to retain its cultural significance.³⁷

Recommendation 1 No further assessment required

This assessment has identified no items of heritage significance or archaeological potential within the study area, and minimal heritage impacts to surrounding heritage items. As such, no further assessment is required prior to the approval of the SSD application. Prior to any ground disturbance occurring within the study area, an unexpected finds procedure should be implemented as outlined in Recommendation 2

Recommendation 2 Development of an Unexpected Finds procedure

Relics are historical archaeological resources of local or State significance and are protected in NSW under the *Heritage Act 1977*. Relics cannot be disturbed except with a permit or exception/exemption notification. Should unanticipated relics be discovered during the course of the project, work in the vicinity must cease and an archaeologist contacted to make a preliminary assessment of the find. The Heritage Council will require notification if the find is assessed as a relic.

³⁷ Australia ICOMOS 2013

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