

Baseline Aboriginal Archaeological Assessment

Stage 1 DA Concept Application - Blackfriars Research
Facility, UTS, Sydney

2-14 Buckland Street, Chippendale, NSW



Report to
University of Technology Sydney

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Document Control

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Executive Summary

The University of Technology Sydney (UTS) propose to redevelop its Blackfriars Precinct in Chippendale and a concept design for the proposal is being developed (Stage 1). The redevelopment is a state significant project and the Department of Planning and Environment has issued SEARs for a Stage 1 DA. This baseline Aboriginal archaeological assessment has been prepared following the procedures set out in the *Due Diligence Code of Practice for the Protection of Objects in NSW* (DECCW 2010) to inform the Stage 1 DA project planning. The objective of this preliminary assessment has been to identify potential archaeological constraints that may exist for the proposal that would require formal Aboriginal community consultation and evaluation following the guidelines identified in the SEARs, and to guide accordingly how the site redevelopment in Stage 2 can be managed to avoid or appropriately mitigate future Aboriginal archaeological impacts.

The site is located close to where the wetland system at the head of Blackwattle Bay originally met more elevated topography and was recorded historically to have been swampy with numerous ‘rivulets’ and a tributary of Blackwattle Creek originally ran through the site itself. Blackwattle Creek is recorded to have originally been tidal up to the line of Parramatta Road at Chippendale near present-day Buckland Street and the site is thereby underlain by large quantities of reclamation fill over deep alluvium deposits. From the 1820s the site formed part of a large industrial development that included a distillery and a reservoir that was created by the damming of Blackwattle Creek. These features were filled around the turn of the twentieth century. There is no evidence for the presence of buried paleosols with archaeological potential, and historic plans show the originally meandering and probably tide affected drainage of Blackwattle Creek over which the site developed was dammed and the ground progressively reclaimed from the 1820s and may not have been ‘dry land’ in the past.

The background archaeological research and assessment of the Blackfriars Precinct site indicate that no previously documented Aboriginal archaeological sites or objects occur within the boundaries of the study area or within close proximity. The below ground surface profiles across the site will have been extensively disturbed by land reclamation and subsequent historic and some modern building and demolition phases via large scale excavation, grading and levelling to establish sound building platforms on the deep sandy profiles that are covered by over 4.0m of reclamation fill in places. It is likely that any Aboriginal archaeology formerly present within the uppermost soil profiles on any former dry ground if any originally existed will have been destroyed and/or significantly disturbed by historical landuse and will unlikely to be found in situ in this originally active flood plain environment. Potential archaeology that may occur at the site will most likely comprise isolated finds and/or very low-density distributions of flaked stone artefacts. Such finds will be encountered in extensively disturbed recovery contexts that

will retain minimal stratigraphic integrity. These Aboriginal objects, even if in disturbed (or fill) contexts, are nevertheless statutorily protected under the provisions of the NPW Act.

It is assessed that the proposed site redevelopment is unlikely to have an adverse heritage impact upon the Aboriginal archaeological values of the place and that no significant archaeological constraints are apparent that would restrict the proposal proceeding as planned. Should any Aboriginal objects be discovered during future ground disturbance works at the site, then these activities within the vicinity of the find location will be required to stop and the OEH will need to be informed of the discovery in accordance with Section 91 of the NPW Act.

This baseline Aboriginal archaeological assessment has been prepared for UTS following the procedures set out in the *Due Diligence Code of Practice for the Protection Objects in NSW* (DECCW 2010) to inform the Stage 1 DA project planning with the objective of identifying potential archaeological constraints that may exist for the proposal, and to guide how the site redevelopment in Stage 2 can be managed to avoid or mitigate future Aboriginal archaeological impacts.

1.2 Statutory heritage context and controls

1.2.1 *Environmental Planning & Assessment Act Part 4, Division 4.1*

The project is being undertaken as a State Significant Development (SSD 6746) under Part 4, Division 4.1 of the Act and the Secretary's Environmental Assessment Requirements (SEARs) for this project were issued in November 2014 and included the following requirements relevant to Aboriginal archaeology:

- *Where relevant, the EIS shall address Aboriginal heritage in accordance with the Draft Guidelines for Aboriginal Cultural heritage Impact Assessment and Community Consultation (2005) and Aboriginal Cultural heritage Requirements for Proponents (DECCW 2010).*

1.2.2 *State & Commonwealth legislation*

Aboriginal and Torres Strait Islander Heritage Protection Act 1984

This Act aims to preserve and protect areas and objects of particular significance to Aboriginal people. The processes for the protection of a threatened place are outlined in a gazetted Ministerial Declaration and can include the preclusion of development. This Act can also protect objects by Declaration, in particular Aboriginal skeletal remains. Although this is a Federal Act, it can also be invoked on a State level. The Blackfriars Precinct is not affected by the operations of this Act

Environment Protection and Biodiversity Act (1999)

This Act took effect in 2000 and under Part 9 of the Act any action that is likely to have a significant impact on a matter of National Environmental Significance may only proceed with the approval of the Commonwealth Minister responsible. An action is defined under this Act as a project, development, undertaking, activity (or series of activities), or alteration. An action will also require approval if it is on Commonwealth land. The Act defines 'environment' as both natural and cultural environments, and therefore includes the consideration of Aboriginal and historic cultural heritage sites and items. Under the Act, protected heritage items are listed on the National Heritage List (NHL - items of significance to the nation) or the Commonwealth Heritage List (CHL - items belonging to the Commonwealth or its agencies). These two lists have replaced the Register of the National Estate (RNE).

The heritage registers mandated by the EPBC Act have been consulted for the project and this search indicates that there are no Aboriginal heritage sites or items identified within the study area or immediately nearby that are affected by the EPBC Act.

The Native Title Act 1993

The *Native Title Act 1993* provides recognition and protection for native title and the Act established the National Native Title Tribunal (NTT) to administer native title claims to rights and interests over lands and water by Aboriginal people. The NTT also administers the processes that govern the right of Aboriginal people to negotiate. The Act also provides for Indigenous Land Use Agreements (ILUA) which is an agreement between a native title group and others about the use and management of land and was introduced as a result of amendments made to the Act in 1998. An ILUA can be negotiated over areas where native title has, or has not yet, been determined and can form part of a native title determination or be settled separately from a native title claim. In addition, an ILUA can be negotiated and registered whether there is a native title claim over an area or not. The site is freehold land and cannot be subject to an Aboriginal Land Claim under this Act.

1.2.3 Statutory protection for Aboriginal cultural heritage

The *Office of Environment and Heritage* (OEH) is the primary government agency with the responsibility for the protection and management of Aboriginal archaeological sites and cultural heritage values in NSW. It does this through the administration of the *National Parks and Wildlife Act 1974* that was amended through the *National Parks and Wildlife Amendment Act 2010*. Key points of the amended Act are as follows:

- Part 6 of the Act provides protection for Aboriginal objects and places by establishing offences of harm defined to mean destroying, defacing, damaging or moving an Aboriginal object. Aboriginal objects are defined as ‘any deposit, object or material evidence (not being a handicraft for sale) relating to Indigenous and non-European habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains’.
- A declared Aboriginal Place that is of special significance to Aboriginal people may or may not contain Aboriginal objects as physical/tangible evidence, and protection provided to Aboriginal objects and places applies irrespective of the level of their significance or issues of land tenure.
- It is an offence (under Section 86) of the NPW Act to knowingly, or cause or permit harm to an Aboriginal object (or place) without prior written consent from the Director-General of the OEH. Defences and

exemptions to the offence of harm under the NPW Act include that harm is carried out under the terms and conditions of an approved Aboriginal Heritage Impact Permit (AHIP).

1.3 Heritage assessment and reporting methodology

1.3.1 Introduction

This report has been prepared following the heritage recording, assessment and reporting guidelines and standards below:

- Australia ICOMOS. 2002 (Revised). The Burra Charter. The Australia ICOMOS Charter for Places of Cultural Significance. Australia ICOMOS Inc.¹
- NSW Department of Environment, Climate Change & Water. 2010a (September). Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales. DECCW. Sydney.
- NSW Department of Environment, Climate Change & Water. 2010b (September). Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales. DECCW. Sydney.²

1.3.2 Background research & evaluation

The following heritage registers and lists have been reviewed for this report.

- NSW Office of Environment & Heritage (OEH) Aboriginal Heritage Information Management System (AHIMS) Sites Register.
- NSW Heritage Council – State Heritage Register & State Heritage Inventory.
- SLEP 2012 – Heritage Items.
- Water NSW and RMS s.170 registers.

1.3.3 Literature review

The Aboriginal archaeological review presented here is based on the sources referenced in this report and the historical research for the site has been adapted from the following:

- Draft Archaeological Assessment & Impact Statement, Stage 1 DA Blackfriars Research Facility Stage 1, UTS, Sydney. Casey Lowe Pty Ltd. August 2015.

1.4 Report outline

This report presents the following:

- An introduction to the project (**Section 1.0**).

¹ The Burra Charter establishes nationally accepted principles for the conservation of places of cultural significance.

² A flow chart explaining how to follow the OEH due diligence process is appended (**Appendix 1**). The principles and objectives of this best-practice assessment and action approach underpin this SoHI.

- A background Aboriginal archaeological heritage context for the site (**Section 2.0**).
- An historical overview for the study area (**Section 3.0**).
- Conclusions to support the Aboriginal archaeological statement of heritage impact for the proposal (**Section 4.0**).
- Aboriginal archaeological heritage management recommendations (**Section 5.0**).
- References (**Section 6.0**).
- Supporting documentation (**Appendices**).

2.0 Aboriginal archaeological context

2.1 The place today

The site is occupied by a number of one and two storey buildings used for educational purposes and a childcare centre is in the north-western corner of the block. The configuration of the buildings encloses an open courtyard space broadly rectangular in shape with the major dimensions measuring about 100m by 70m. These are covered with asphaltic concrete or lawn, and there is a difference in level across the site of approximately 1.5m that falls in a westerly direction. The site is underlain by large quantities of reclamation fill over alluvium and estuarine deposits.

As discussed in the following section, the site formed part of a large industrial development between the 1820s and early 1880s. From 1825, a distillery and later a brewery and sugar refinery occupied the land and part of the industrial development included a reservoir created by the damming Blackwattle Creek with a smaller pond for the refinery's effluent. Parts of the reservoir and pond were within the site and were back filled before 1900. In 1883, Blackfriars School was established on the site.

2.2 The place in the past

Prior to European settlement, Blackwattle Creek originated in swampy land in the grounds of Sydney University and ran northeast towards Victoria Park and Chippendale before it drained into the estuarine mouth of 'Blackwattle Swamp'. Other watercourses that are likely to have originally provided fresh water to Aboriginal people in the past and within relatively close proximity to the subject site included Johnston's and Orphan School Creeks. The subject site is located close to where the wetland system at the head of Blackwattle Bay originally met the more elevated land beyond, and was recorded at Contact to have been marshy and swampy with numerous rivulets feeding into it. Run-off from the nearby hill to the east of the site would have also contributed to the damp condition of the creek(s) margins that are likely to have characterised the local landscape before urbanisation. Closer to the Bay, the ground would have been covered with sand and heavy clay-mud that would have been exposed at low-tide. Beyond a mangrove and mudflat zone, the gently sloping foot-slopes would have also been prone to seasonal water-logging during extensive periods of rain.

Blackwattle Creek is recorded to have originally been tidal up to the line of Parramatta Road at Chippendale near (present-day Buckland Street). An 1871 plan (AONSW AO Map 59) shows the pre 1806 alignment of Parramatta Road and depicts the original 1802 timber '*Blackwattle Swamp Bridge*' that was constructed to cross the low-lying landscape in this locality, and also a later (1845) crossing nearby in the vicinity of Blackwattle Lane. The local area was renowned during the early post-Contact period for its waterfowl and game, and was recorded to possess abundant freshwater and fertile alluvial

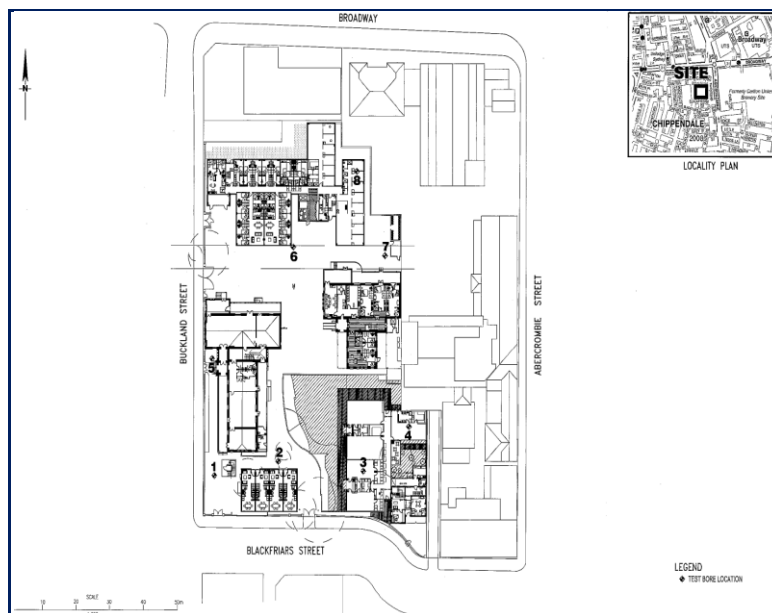
soil. The swampy sections of Blackwattle Creek, where it ran through Chippendale at least, were described as being *'boggy, in part rich soil, suitable for intensive agriculture'* (Fitzgerald 1990:14).

The original vegetation of the area is likely to have been a mix of dry sclerophyll woodland and open forest, supporting eucalypts such as Redgum, Blackbutt, Stringybark, Mahogany and Ironbark. It appears Turpentine-Ironbark Forest (with trees up to 20m to 30m in height in an open forest structure) covered the clayey soils of the more elevated Wianamatta shales from around Hyde Park through Chippendale, Newtown, St Peters and Glebe and possibly extended as far west as Auburn prior to extensive timber felling that rapidly followed European settlement. Early depictions of the 'Blackwattle Swamp' area show a heavily wooded 'valley' characterised by a thick under-storey of black wattle. The wattle was rapidly harvested by the early European colonists and used for the construction of *'wattle and daub'* huts in the first years of the settlement. The use of the tall-timber canopy is less clear, but it is likely that much of the resource was likewise used for early housing construction and for fuel.

2.3 Geotechnical information

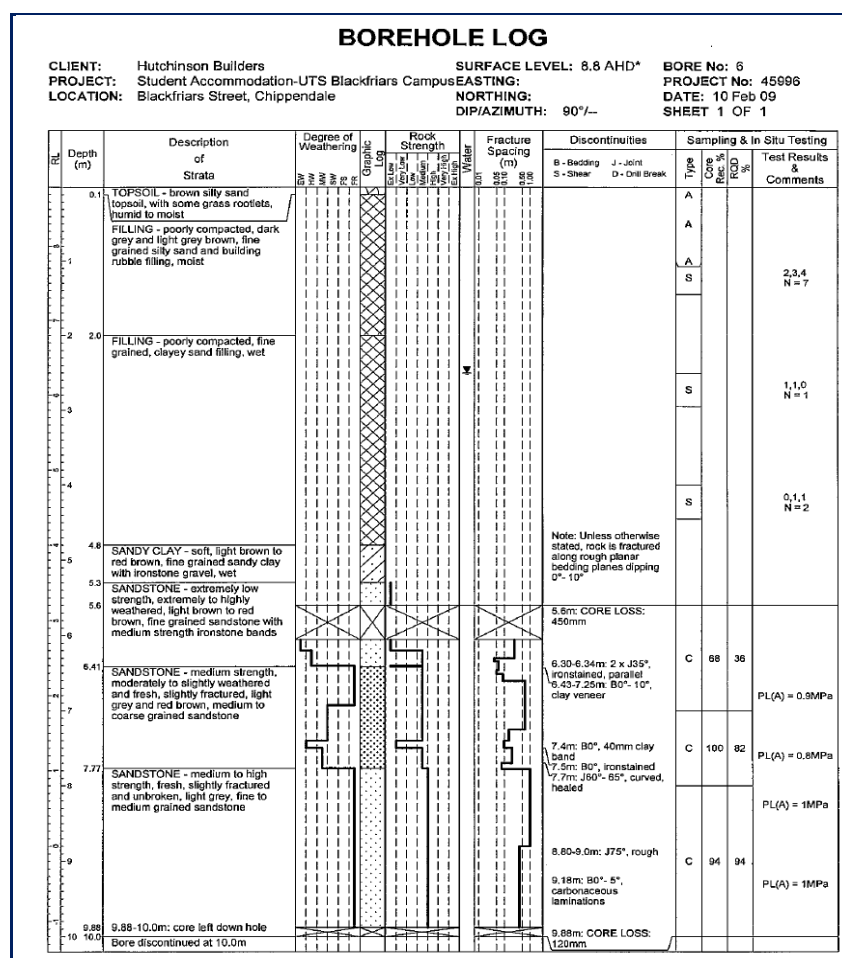
The Sydney 1:100 000 Geological Series Sheet indicates that the site is underlain by stream alluvium and estuarine deposits as well as introduced filling. The natural deposits are mainly alluvium on the site as indicated by the results of a geotechnical assessment through the excavation of a series of bore logs in the locations indicated below (Douglas Partners March 2009).

Figure 2.1: Geotechnical borehole locations (Douglas Partners 2009)



The bores encountered relatively uniform conditions with poorly compacted fill of considerable depth occurring under the surface pavement or lawn across the entire site. This ranged in thickness from 2.0m on the western side of the site to 4.8m towards the eastern side of the site overlying soft to firm clay (alluvium) and then sandstone bedrock that was encountered at depths ranging from 3.8m to 5.2m. No evidence for buried paleosoils or other stratigraphic anomalies are apparent in the subsurface soil sequence. Groundwater was encountered in all bores ranging in depths between 2.3 m and 3.8 m (RL 8.0m to 4.9m). The bore log profile for BH 6 that was sunk in the middle of the site and broadly indicate of the nature of the subsurface profiles below ground that may or may not contain Aboriginal archaeological deposits and objects. As discussed shortly, the 4.0m+ of reclamation fill will retain no stratigraphic integrity and Aboriginal archaeological sensitivity and the alluvial deposits below are below the present water table and are unlikely to have been dry ground in the recent prehistoric past before Blackwattle Bay and its creek systems were dammed.

Figure 2.2: Indicative bore log data (BH 6) for the centre of the site (Douglas Partners 2009)



2.4 The Aboriginal people

Attenbrow (2010) summarises what we know of the Aboriginal groups that are known to have occupied the Sydney City area at Contact.

- People belonged to several different language groups and various different spellings for each in the literature that include the Guringai to the north, the Darug (predominately) to the west, the Tharawal (predominately) to the south, with lands occupied by the Darkinjung and Gandangara converging to the northwest and southwest respectively.
- Dialect or language boundaries existed around the Sydney region marking a distinction between the coastal or ‘saltwater’ people and the inland or ‘woods’ groups. Sydney (coastal and hinterland) clans were bi-or multi-lingual.
- The size and distribution of the population is unknown. Estimates give a rough figure of 1,500 (or more) people on the coastal strip between Broken Bay to Sydney and inland to Parramatta (Kohen & Lampert 1988:345). A similar number may have occupied the Cumberland Plain. Other researchers have put this combined figure as high as 8,000 people occupying the Sydney landscape between Botany Bay, the Hawkesbury River, and the Blue Mountains, at Contact.
- Groups recorded to have been associated with the immediate country taking in today’s Sydney CBD and land to the south towards Green Square included the Cadigal and Wangal. Where the boundaries that may have existed between most of the individual Sydney groups in the past is not precisely known in most cases.
- Groups appear to have comprised multiple extended families ranging from 30 to 70 people or more, through which they had connections to specific areas of land, and were organised around complex social, economic, spiritual and land-use inter clan relationships and individual groups/clans had specific primary access rights to different resource zones on the coast, rivers, and inland areas.

Phillip Gidley King recorded following of the Cadigal and the Wangal in 1793:

‘The tribe of Cadi inhabit the south side, extending from the south head to Long-Cove; at which place the district of Wanne, and the tribe of Wangal, commences, extending as far as Par-ra-mata, or Rose-Hill’.

Phillip had previously recorded in 1790 a slightly different common boundary between the two groups:

‘From the entrance of the harbour, along the south shore, to the cove adjoining this settlement the district is called Cadi, and the tribe Cadigal; the women, Cadigalleon. The south side of the harbour

*from the above-mentioned cove to Rose Hill, which the natives call Parramatta, the district is called Wann, and the tribe Wanngal’.*³

The traditional Aboriginal owners of the Sydney landscapes were alienated from their land quickly following European settlement at Sydney Cove. The historical records tell us initial encounters between the arrivals and the Sydney Aboriginal population were relatively cordial at first. Subsequent pressures on food resources and land access led to changes, and conflict developed. This affected the local and wider communities far more than the settlers, and was further exasperated as the effects of introduced disease(s) in 1789 rapidly spread through the Sydney Aboriginal community.

The consequence of the high Aboriginal death rate during this period, and the significant effects it had on traditional Aboriginal social, economic and spiritual lives, led to adaptation and the re-configuration of surviving Sydney individuals and families within broader social frameworks that subsequently blurred the distinctions that had previously existed within the Sydney Aboriginal population. Clans as a result combined to form new groups and new social and economic patterns. A wider Aboriginal social history for this ‘post Contact’ period in Sydney is outside the scope of this report, but a number of recent interpretations of how urban Aboriginal life developed reconstructed from the records (see for example Karskens 2010) shed new light on this subject.

2.5 Regional archaeological overview

Archaeological excavations on the lower end of George Street in Parramatta have shown Aboriginal occupation of this area on the river begun at least 9,000 years ago. Older dates have also been inferred from artefact attributes and depth-age curve reconstructions at this site and trends from other archaeological sites that have been salvaged through archaeology nearby on the ‘Parramatta Sand Sheet’ since that time. Charcoal at the ‘RTA-G1’ site was rare in the lower excavation levels and a small sample of dry sieved material was collected and has been dated to c.30,000 years BP (Wk-17435 – 30,735 +/- 407BP - JMCHM 2005:119). The stratigraphic associations between the lowest artefacts in the vicinity, the dated charcoal, and the surrounding sediments from which both have provenance are not sufficiently secure to assume Aboriginal occupation occurred at this early date. However, there is a reasonable probability that archaeological evidence of this antiquity (Pleistocene) will be identified in the future and securely dated.

More recent investigations on the Hawkesbury River at Pitt Town have reported Aboriginal occupation evidence dating to possibly 36,000 BP in a similar Pleistocene age geomorphological river terrace

³ It is also possible the land around the study area was used by the Gameygal to the south around Botany Bay.

context to Parramatta which may be the earliest evidence of Aboriginal people in the Sydney Basin (AHMS Pty Ltd 2013). A site at Cranebrook Terrace on the Nepean River (Penrith/Emu Plains) has produced a date of c.41,000 BP (Nanson et al 1987), but the precise association of the deposits from which this date has been obtained and the Aboriginal artefacts identified is subject to some debate. Rock shelter sites with evidence Aboriginal occupation beginning over 22,000 BP have been excavated in the Blue Mountains and its foothills (Stockton & Holland 1974 and Kohen et al 1984), and two dates ranging from 10,000 to 12,000 BP have also been reported for an open campsite at Regentville (Penrith).

The earliest dated coastal sites are located to the south of Sydney at Burrill Lake that shows evidence for first occupation approximately 20,000 BP (see Lampert 1971), and at Bass Point which is dated to approximately 17,000 BP for first occupation (see Bowdler 1970). Both of these sites were amongst the first excavated Aboriginal heritage sites scientifically investigated on the NSW south coast, and advances in environmental and archaeological research since that time have confirmed that both sites would have been occupied at a time when the sea level was much lower and the present coastline would have been more distant when the country formed parts of inland environments drained by a series of rivers and streams. At the former site for example, when first used the Burrill Lake shelter was in an estuarine locality at the foot of wooded hills about one kilometre from the sea where the faunal remains from the site indicated a greater emphasis on the adjacent estuary and woodland than the sea but retaining links with the foreshore. There are no other coastal Aboriginal sites of comparable age known at present. A shell midden at Kurnell (Doughboy Head 1 – Smith et al 1990) has been dated to 12,000 BP (charcoal). However, the early date has been questioned because of inadequate documentation of the stratigraphy and sample retrieval process, and the similarity of the artefact typology to other sites on the Peninsula that date to within the last 5,000 years (Dallas 1996:9).

Indications about how people may have lived around the time of sea level fluctuations and subsequent stabilisation along the eastern sea-board of New South Wales during this period are provided by an open occupation site with stone artefacts and a hearth that has been dated to approximately 9,300 BP to 10,000 BP at Discovery Point (close to Tempe House - McDonald CHM 2005:56) when this location will have been several kilometres inland and situated on a wind-blown dune. A second open campsite (containing a cooking hearth) identified at the Prince of Wales Hospital in Randwick has returned a dated to c.8,400 BP (Godden Mackay Logan 1997:25-26) from a hearth comprising a rough circle of 27 sandstone fragments on the western fringe of a huge sand-dune ridge that ran between Botany Bay. It is believed people used the seashore for marine resources on one side of the ridge and inland to exploit the swamps. Residue on the sandstone materials making up the hearth indicates it had been used to cook seafood. Traces of possibly a dozen or so other heavily eroded former 'fire places' were also

recorded within the old and deep mobile sand dune. It is proposed (ibid: 40) that the site *‘was formed under conditions of high [residential] mobility, perhaps the results of short-term forays, and represents a different settlement and subsistence pattern to that observed at contact and in the archaeological record during the last 3000 years’*. However, it is also possible that a pattern of gaining the dune and wetland resources during short-term visits on a daily basis could have continued throughout the Holocene, irrespective of the level of residential mobility at base camps along the ocean and estuarine shorelines (see Attenbrow 2002: 7-8). The age of the sand hills themselves was investigated through OSL dates obtained for two sediment samples from which it has been concluded that *‘the entire sand body present at the POW site was created during the terminal Pleistocene, between 30,000 and 40,000 years ago.’* (ibid: 23–25).

Most Aboriginal archaeological sites in the region that have been dated are however within the last 2,500 to 3,000 years. Evidence suggests the initial occupation of the Sydney landscape was not intensive or included large groups of people, and that around 5,000-7,000 years ago (when the sea levels had stabilized at the present levels) more intensive use of the landscape by Aboriginal people subsequently began. Many open sites situated away from the coast appear likely to have been first occupied in the last 1,500 years before Contact.

Evidence excavated from the earliest of these archaeologists sites suggest a pattern of the exploitation of a wide range of terrestrial and aquatic food resources by possibly highly mobile groups of Aboriginal people (Attenbrow 2010:152-54). The late Pleistocene and early Holocene stone artefacts suggest a preference for silicified tuff that was probably sourced from secondary geological contexts such as from the Hawkesbury/Nepean River gravels (McDonald 2008). However, there are also some indications of the opportunistic exploitation of other raw material types such as silcrete, quartzite and quartz. These early occupation sites have been largely found in stratified (layered) rock shelter deposits or within alluvial deposits, particularly on the margins of large river systems such as the Hawkesbury-Nepean and Parramatta Rivers. Some researchers (see McDonald 2007) have argued that early occupation of the Sydney Basin was focused on these primary river systems and was characterised by a high degree of ‘residential mobility’ (frequent movement between campsites).

The archaeological evidence for the mid to late Holocene Aboriginal occupation of the Sydney region is both more abundant and, in many ways, seemingly reflecting the development of more complex social and economic systems (see for example Attenbrow 2010, McDonald 2008). The available archaeological data suggest a marked increase in site usage and population density over time, as well as a growth in the size and complexity of social aggregation. Complex long-distance exchange networks are also suggested by the archaeological record, as are major developments in artistic and funerary activities. Developing

economic specialisation is indicated by the emergence and subsequent proliferation of complex fishing and stone-working technologies (e.g. backed artefact manufacture), with changes in the composition of stone tool assemblages over time possibly being linked to the minimisation of subsistence risk (see Hiscock 1994, 2002). This in itself is no doubt closely associated with climatically-driven environmental changes (Attenbrow et al. 2009), and changing access to and/or availability of stone resources.

Over time the territory of occupation expanded and these mobile groups who carried silicified tuff from the Hawkesbury-Nepean River gravels and used the resource sparingly to produce relatively large cores and flake tools. When sea levels rose around 6,000 years BP, coastal groups that previously occupied the now drowned coastal strip most likely moved inland and the population possibly steadily increased to a point when around 4,000 years BP when many new sites were occupied. It is argued that this evidence suggests that for the first time people took up permanent and semi-permanent occupation in different areas of the region. Some groups probably lived full time on the Cumberland Plain, while others occupied the surrounding sandstone country (see Kelleher Nightingale Consulting April 2008).

There also appears to have been an increase in rock shelter occupation at this time, along with major changes in stone tool technology, most notable of which is the use of locally available stone. The raw material that was most commonly used in the local landscape was silcrete and was used for a wide range of tasks. The majority of artefacts at most sites are often small (<5cm) and its probable people prepared stone at or close to stone source and transported materials back to residential camp sites.

During the last 1,000 years the use of ground stone appears to have increased although these artefacts are infrequently found in surface or excavated archaeological assemblages (fragmentary evidence often occurs at most sites). An increase in bipolar flaking at this time probably indicates further intensive use of local resources, but backed artefact manufacture declines. This may be due to the fact that there was less need for these tools as result of either changing social networks or less priority being given to their bulky production.

In 1788, Sydney groups were living in defined territories and interaction between groups is evident in art sites with changing frequencies of different raw materials indicating more restricted social movement, and contact via exchange networks. The most common and durable form of evidence that survives as a record of past Aboriginal occupation and use of Sydney are flaked and ground stone artefacts. Other items made from organic materials, the remains of discarded food refuse, and art have generally not survived over time. How we understand how and when Aboriginal people used the Sydney landscape in the past is largely based upon changes apparent in the composition of stone tool assemblages and use of stone raw materials from analysis of excavated archaeological assemblages. Archaeological phases

within what is known as the *Eastern Regional Sequence* (ERS) include the *Capertian* (or Pre-Bondaian), and the *Early, Middle* and *Late Bondaian*:

- The *Capertian* (*Pre-Bondaian*) stone tool phase appears to have been essentially composed of large and quite heavy stone artefacts fashioned from fine grained siliceous cherts and silcrete materials. Tool types included uni-face pebble tools, core tools, denticulate stone saws, scrapers, hammer-stones, some bipolar cores and flakes, and burins.
- The change from the *Capertian* to the *Bondaian* appears to have taken place sometime after 8,000 years before present, and is defined by a noticeable shift in stone tool size, raw material use, and in the range of raw materials utilised by people for subsequent tool production. Features of the *Capertian* phase appear to have continued in many areas on the east coast of Australia, but backed and edge ground implements appear to have been progressively introduced and widely used over this time period.
- The three phases which are recognised as belonging to the *Bondaian* sequence are largely based on the timing of the introduction, and subsequent decline, of backed stone implements, as well as the increased use of bi-polar flaking techniques. Other technological innovations which are evident during the *Bondaian* period include the introduction of ground edge implements (around 4,000 years before present), and the widespread use of shell fish hooks for fishing during the last 1,000 years. The three *Bondaian* phases are summarised below.
- The *Early Bondaian* phase (from approximately 8,000 to approximately 4,000 years ago) appears to have been dominated by the use of fine grained siliceous cherts and silcrete materials. While the use of the larger and heavier stone implements characterising the earlier *Capertian* period seems to have persisted, archaeological evidence suggests backed and edge ground implements were widely introduced and used over time.
- The *Middle Bondaian* phase (from approximately 4,000 years ago to approximately 1,000 years ago) appears to have been dominated by the use of fine grained siliceous cherts and silcrete materials and the manufacture and use of smaller backed implements. This phase is seemingly characterised by the increased manufacture of micro-blades such as Bondi Points and bi-polar artefacts, and the use of quartz as a ready source of a raw material for the production of flaked stone implements.
- The *Late Bondaian* phase (last 1,000 years) appears to have been dominated by the increased use of quartz (with the use of other raw materials of stone), common manufacture and use of edge ground implements, and the use of bone and shell implements (including shell fish-hooks) at some investigated Aboriginal archaeological sites.

2.6 Local archaeological context

2.6.1 Recorded Aboriginal archaeological sites in the City

A number of Aboriginal archaeological sites have previously been recorded within the CBD of Sydney and its immediate surrounds and include:⁴ Most of these, which generally comprise the most durable types of archaeological evidence (stone artefacts) have usually been identified and occasionally salvaged within redevelopment circumstances.

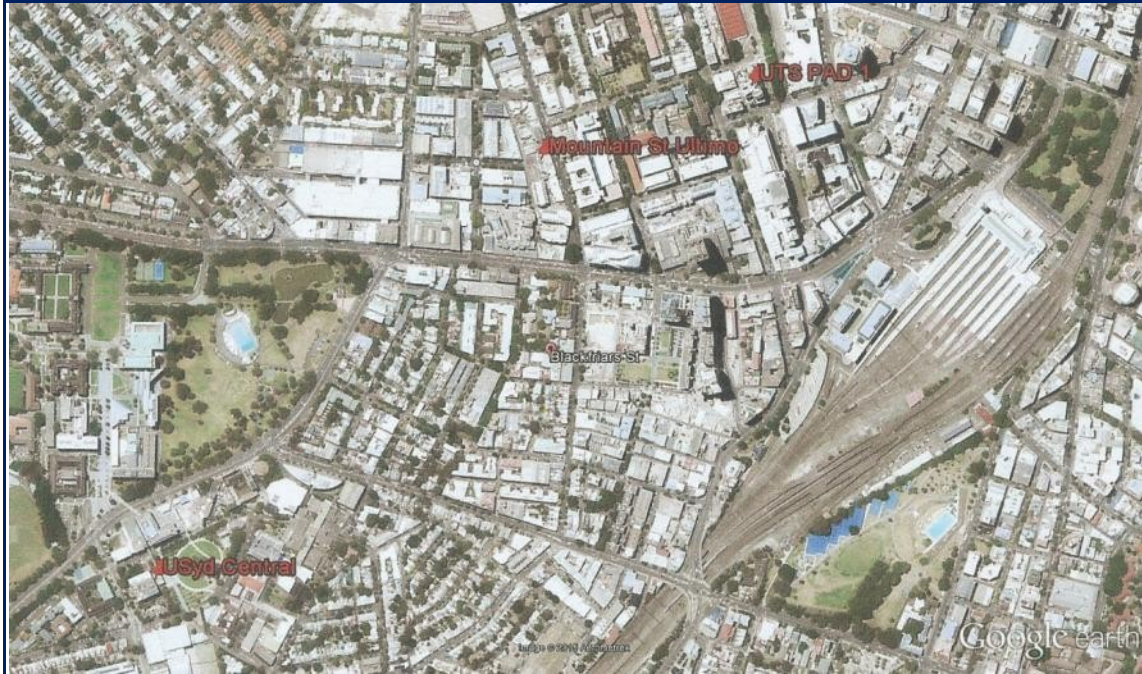
- Open campsites and/or shell midden deposits at Moore's Wharf in Millers Point, Lilyvale Cottage on the corner of Cumberland and Essex Streets, at Angel Place between Pitt and George Streets, at the Conservatorium of Music, at the 'Quadrant' site on Broadway, at the city block bounded by Kent, Erskine, Napoleon and Sussex Streets (KENS), and at William Street in Woolloomooloo. A small number of flaked stone artefacts have also been identified on a redevelopment site situated on Mountain Street to the north of the Quadrant site, along with a number of localities within the grounds of Sydney University. The largest numbers of flaked stone artefacts have been reported from these sites have been at KENS (about a 1,000 Aboriginal objects) and at Woolloomooloo. The small 'dinner time' camp at Lilyvale comprising shell midden (and fish bone materials but no stone) is the only dated site in the City that shows the mainly rock oyster and bream/snapper remains were leftover from what was probably a short term stop off camping event by a family group about 300 years ago before Contact.
- A rock engraving at Dawes Point Park, along with a shell midden at Bennelong Point is also listed on AHIMS. The status of the former site is unclear, whilst the latter is likely to have been destroyed by nineteenth century reclamation of the Point and/or the later twentieth century construction of the Sydney Opera House. First Government House is also registered as an Aboriginal burial/historic site.

2.6.2 AHIMS search

A search of the *NSW Aboriginal Heritage Information Management System (AHIMS) Aboriginal Sites Register* maintained by the *Office of Environment and Heritage (OEH)* was undertaken at the initiation of the project (**Appendix 2**). This search indicated no Aboriginal sites, objects, or identified areas of potential Aboriginal archaeological sensitivity have previously been recorded on and/or immediately nearby to the Blackfriars Precinct study area. The nearest known sites are illustrated below, and the results of investigations at each are summarised.

⁴ Recent works for the Barangaroo project have unearthed new Aboriginal archaeological evidence although details of this were unavailable at the time of writing this report.

Figure 2.3: Nearest known Aboriginal heritage sites on AHIMS (Google earth)



Quadrant Site at Broadway & Mountain Streets

A program of Aboriginal archaeological test excavation was undertaken within a block located at Broadway and Mountain Streets during September 2001 and March 2002 at the head of Blackwattle Bay (Steele 2003a). The excavations were undertaken as part of a broader historical-archaeological investigation completed in advance of the redevelopment of the site.

An Aboriginal Archaeological Assessment prepared for the site in early 2001 (Steele 2001) presented the following statement of Aboriginal archaeological potential:

'It is considered that along the original banks and within the adjacent sediments of the Blackwattle Creek situated within the vicinity of the eastern boundary of the site there exists the greatest potential for evidence relating to Aboriginal occupation of the study area to be encountered. Potential archaeological deposits and features that may be resident within the boundaries of the study area include the following:

- *Evidence relating to the former creekline's original topography, vegetation regime and nature of subsequent changes to the watercourse that may be revealed through archaeological investigation.*
- *Evidence for pre-Contact Aboriginal visitation and use of the study area occurring in the form of flaked stone artefacts and midden deposits.*

- *Evidence for Contact-period Aboriginal occupation of the site. Such evidence would most likely be identified in the form of European artefacts that had subsequently been modified to suit Aboriginal use. Examples (which have been recorded from other Contact situations) would most likely include re-worked (flaked) bottle glass and ceramics. Although generally considered to be less secure as a means of reflecting potential evidence for Aboriginal-European contact, the co-association of European and Aboriginal artefacts within certain excavation contexts may also be indicative of contemporary Aboriginal-European site-use’.*

Archaeological investigations were completed over two stages. The first revealed that much of the area fringing the alignment of the former creek line was low-lying and boggy. The more elevated portions of the site leading away from the watercourse were likewise found to be extensively disturbed by mid to late nineteenth century and early twentieth century commercial and residential building and associated site use. The natural soil profiles exposed were extensively truncated and missing their pre 1788 topsoil components. As a result, no Aboriginal sites were identified and it was concluded that any finds that may occur within the remaining un-tested areas of the site would most likely comprise low-density items of flaked stone with provenance to disturbed recovery contexts.

The second stage of the investigation involved the assessment of a series of European pits and post holes situated to the rear of the Phoenician Club that resulted in the identification of a small and isolated remnant patch of sandy loam covering a maximum area of approximately 5m by 10m. This was situated at the most elevated part of the site and produced a total of 14 Aboriginal flaked stone artefacts. The raw materials from which the artefacts were fashioned were confined to quartz (7 items), silcrete (6 items) and a single flake of unidentified stone. No definitive technological data was found to be available from any of the artefacts recovered. This was a function of the following factors:

- All but two of the artefacts showed evidence for heat damage which had served to obscure any technological attributes that may formerly have been present.
- Only one artefact could be identified as a formal tool type. This comprised a single rounded silcrete Microlith. However, this item had also been heat damaged subsequent to manufacture and use which again obscured technological attributes.

It was concluded that this limited Aboriginal artefact collection represented a background distribution of isolated finds that were recovered from a disturbed (historical) landscape, possibly reflecting sporadic past Aboriginal visitation and use. The following summary was presented in the final excavation report (Steele 2003a).

‘The poorly-drained nature of the Blackwattle Creek landscape, as demonstrated through excavation, is likely to at least in part explain the absence of more substantial Aboriginal archaeological remains identified on the Quadrant site. Aboriginal people in the past are likely to have exploited the various food and raw material resources available within the creekline/swamp environments contained within and immediately adjacent to the study area, but are at the same time unlikely to have established long-term occupation sites on the lower lying and poorly drained land.

As evidenced by the discovery of the Aboriginal artefacts to the rear of the Phoenician Club, the portion of the local landscape likely to have contained more substantial evidence for past Aboriginal visitation and use of the locality would have been found along the higher site elevations overlooking Blackwattle Creek that were offered by the residual soil landscape of the Hawkesbury Sandstone adjacent to today’s Mountain Street. As previously outlined, these areas however also coincided with intense historical settlement and construction activities which served to largely remove the A-horizon soil profiles originally resident in this locality, and these processes appear to have served therefore to destroy any further archaeological deposits that may have been present.

In summary, no evidence to indicate that in situ knapping events, heat treatment activities or prolonged visitation of the study area was uncovered during the Quadrant investigations, whilst past Aboriginal use of the more elevated land overlooking the creek during the course of general foraging and resource gathering can be inferred’.

Mountain and Smail Streets at Broadway

In 2003 a combined historical-archaeological and Aboriginal program of test excavation was undertaken down-stream of the Quadrant site (some 200m to the north) at the corner of Smail and Mountain Streets. The site was located in a landform representing the upper estuarine mudflats of the Blackwattle Creek and Bay area. In summary, the investigations revealed that:

- The development site occupied a thin strip of low lying land that formerly fringed the banks and channel of Blackwattle Creek.
- Subsurface profiles consisted of considerable depths of heavy black sandy clay loams that appeared to have been frequently inundated and/or were largely waterlogged in the past as previously observed at the Quadrant site. These deposits in turn had also been extensively disturbed by ongoing European occupation and development of the place as a result of creek modification, housing construction and deposition of fills associated with reclamation.

- A distinctive orange clay deposit, initially identified in one part of the site as possibly representing a buried 'paleosoil', was found more likely to reflect a past burning event that had baked the waterlogged clay loam soils flanking the creek (inclusive of their associated vegetation). Whether this burning was natural or cultural in origin was unclear.
- The site did not contain any comparable elevated portions of land to the Quadrant site from which the Aboriginal finds at that site were recovered.
- The Aboriginal finds recovered (3 to 4) derived from either past Aboriginal casual loss/discard, had been transported onto the site as a result of fluvial action (floods), or had provenance to reclamation fill dumped onto the site during the late nineteenth century.

The Aboriginal flake stone artefacts (all silcrete) recovered during this project were located in disturbed historical period deposits. No intact soil profiles were identified on the site (in so far as the historic terraces were found to have been constructed directly upon mudflat deposits), and it was considered that the finds had provenance to secondary contexts (extremely boggy and disturbed mud-flat deposits) that retained limited archaeological integrity. As such, the finds were not assessed to retain much Aboriginal cultural or scientific significance.

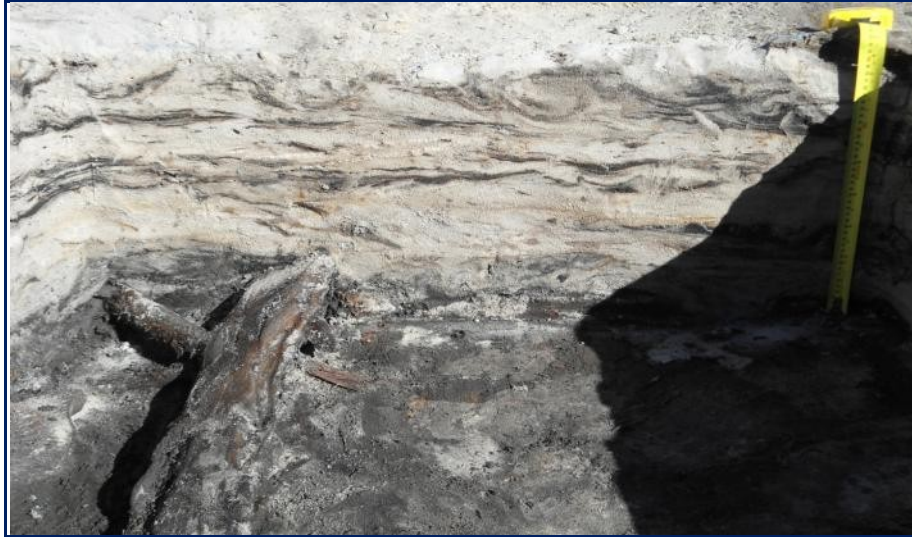
UTS PAD 1

Test excavation was undertaken prior to the construction of the Dr Chau Chak Wing Building. This found metres of reclamation fill over natural sands. The sawn-off tree stump shown was in situ, and appears to be a forest red gum that was growing along the bank of the former creek line that crossed the site at the time the place began to be used by Europeans.

Figure 2.4: Test excavations in alluvial sands and silts at the Dr Chau Chak Wing Building



Figure 2.5: Typical profile of tidal estuarine sands over mangrove mud profiles



The image above shows the typical profiles recorded at the site comprised a sequence of overlapping and ill-defined layers and lenses of white (and yellow) sand and clay overlying a stiff clay mangrove 'mud-flat'. They are likely to reflect a repeated sequence of sands and clays deposited by tidal action over time across the banks and flats of the creek, with the low-lying and swampy ground being most likely periodically inundated during heavy and/or prolonged periods of rain. Particularly fine sand lenses observed in places between other layers of coarser sandy/silt and clay may also reflect the accumulation of wind-blown sediments that may have increased following the clearance of vegetation and the mobilisation of colluvial deposits from the nearby hillsides as European occupation and development of Ultimo steadily increased from the middle of the nineteenth century.

No Aboriginal flaked stone artefacts were recovered during excavation. A small number of (abraded and water-worn) European glass and ceramic fragments were recovered during wet screening but none of the finds displayed any evidence of modification (flaking) to suggest that they had been used by Aboriginal people. After sorting through the artefact collections recovered from the site, the historical-archaeological team located three stone items suspected to be possibly of Aboriginal origin. These items came from two separate excavation contexts:

- Area 2: House 24 – Room 2 – Context No 285 (1 silcrete flake).
- A 10: Context 1009 (2 flints items).

The first of these historical excavation contexts was beneath the floor of the rear room of a mid century stone cottage at the surface interface of the underlying natural sands in a construction deposit. The

second recovery context was a discrete gravel-rich deposit associated with the suspected line of the meandering creek channel nearby to the mid nineteenth century cottage.

The first of two flint items from the first context measured approximately 25mm by 18mm by 6mm and was a translucent grey to yellow flake that had been 'rolled' with edges and ridges with extensive micro-damage and surfaces that were 'crazed'. Some of the crazing is reminiscent of heat damage and technological detail for this item was as a result limited. The type of flint represented appeared to have been sourced from the south coast of England, with an implication that it may have originally been imported as ballast. Similar materials have been found in a number of historic excavation contexts, particularly at sites such as Old Government House and Cumberland Street in The Rocks.

Although technological data was largely obscured on this item, a flake has been removed from the ventral surface of this item (that is a broken proximal flake that has been snapped medially), and this type of flaking is a technology used in the production of gun flints, where large flakes have been removed from cores and were subsequently have been used as cores themselves. These 'core flakes' were subsequently rotated, with smaller flakes (the gun flints) then being then struck off. Although not certain, this flint item may have been a broken gun flint flake core. The second of these flint items measured approximately 20mm by 15mm by 4mm, and was light grey brown in colour and retained some black cortex. This natural item was again similar to flint materials common to south coast of England geological contexts.

A silcrete flake was recovered from the second excavation context that was a dark reddish brown colour displaying two bulbs of percussion, both with flat platforms. The original and larger platform and bulb suggested the removal a large flake from a core, which was subsequently rotated and flaked itself, with the original ventral surface then representing the 'new' dorsal scar. Although the 'technology' of this single item is unusual – 'a flaked-flake', in isolation, no conclusion could be justifiably reached as to its possible age on technological grounds.

2.7: Aboriginal archaeological expectations

2.4.1 General Considerations

It is likely that prior to the arrival of Europeans Aboriginal people sought a wide variety of animal and plant resources for food and for the manufacture of equipment along the shorelines and immediate hinterland (swales and in filled coastal lagoons) situated to the east and the south of the study area. Fishing and shellfish gathering are likely to have been pursued by people all year round, whilst the hunting of kangaroos and wallabies, along with smaller land mammals within hinterland areas may also have contributed significantly to the diet. Likewise, it is also probable that the collection of a diverse

range of plant resources for food, medicine and manufacturing purposes represented an important part of past subsistence practices. The presence of sandstone suitable either for camping (in overhangs), for tool manufacture/maintenance (axe sharpening) and rock engraving that variously occurs along these foreshore zones is also likely to have determined that they were subject to frequent Aboriginal visitation, occupation and use over a long period of time.

It is also possible that creek lines situated between principal resource zones may have been subject to repeated (but short-term) visitation and use by people moving to and from more favourable areas. Evidence for short term use (possibly by small groups of people), of hinterland creeks such as Shea's Creek and other more ephemeral drainage closer to the site, may be reflected by the accumulation of archaeological remains associated with successive one-off camping events including single episode stone knapping activities, food preparation, consumption and refuse discard.

Potential archaeological evidences fall into four categories: isolated finds (background scatter), open camp sites, potential archaeological deposits (and possibly axe grinding grooves and engravings on buried sandstone surfaces), and burials.

An isolated find is a single stone artefact, not located within a rock shelter, and which occurs without any associated evidence of Aboriginal occupation within a radius of approximately 50m. These finds may be indicative of random loss or deliberate discard of a single artefact, the remnant of a now dispersed and disturbed artefact scatter; and/or an otherwise obscured or sub-surface artefact scatter. Except in the case of the latter, isolated finds are commonly considered to be components of the background scatter present within any particular landform.

Background scatter is a term used generally by archaeologists to refer to artefacts that cannot be usefully related to a place or focus of past activity (except for the net accumulation of single artefact losses) but there is no single concept for background discard or 'scatter' and thereby no agreed definition. It is often assumed that background discard occurs in the absence of 'focused' activity involving the production or discard of stone artefacts in a particular location. An example of unfocused activity is occasional isolated discard of artefacts by people during travel through country. In practical terms, over a period of thousands of years an accumulation of 'unfocused' discard may result in an archaeological concentration that may be identified as a 'site'.

An Aboriginal site is defined as any material evidence of past Aboriginal activity that remains within a context or place that can be reliably related to that activity. Site types within the local landscape include open artefact scatters, coastal and freshwater middens, rock shelters with occupation deposit and/or rock art, grinding groove sites and scarred trees. In a rock shelter, a site can be defined as one or more

artefacts occurring within or immediately adjacent to the sheltered space, and unlike a single artefact in an open context, a rock shelter provides a probable occupational focus to the interpretation of a single artefact and can therefore be considered to be indicative of a site.

A potential archaeological deposit (or PAD) can be defined as any location where the potential for subsurface archaeological material is considered to be moderate or high. A area assessed as having the potential to contain Aboriginal objects are commonly identified on the basis of landform types, surface expressions of Aboriginal objects, surrounding archaeological material, disturbance, and a range of other factors. While not defined in the *National Parks and Wildlife Act 1974* (as amended), PADs are generally considered to retain Aboriginal objects (but may or may not be associated with surface artefacts) and are therefore protected and managed in accordance with that Act.

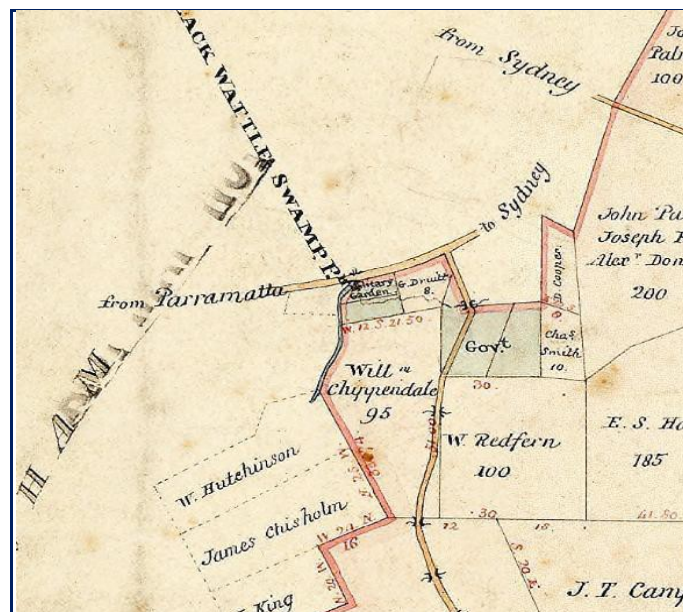
Burials in open landscape contexts with deep sand profiles are more difficult to predict. As a general rule for the current proposal, should human skeletal material or suspected skeletal material be identified during the course of future construction works, all works must cease and the Metropolitan Local Land Council, the NSW Coroner's Office, NSW Police and the OEH should be contacted immediately and advice sought about how the find is to be appropriately managed.

3.0 Historical context

3.1 Early land use (1788 – 1824)

Settlement of the land at Chippendale was slow and the earliest history is sketchy because it was on the fringe of the developing town for some time. Casey Lowe Pty Ltd (August 2015) report that even in the 1830s few people lived south of Goulburn Street and the area was mostly given over to the manufacture of bricks and tiles as part of Brickfield Hill. Further along George Street the land was unoccupied, and the first land grant in the vicinity of site was in 1815 to newly arrived William Chippendale. Farms belonging to Redfern, Chisholm, Grose and Hutchinson were nearby and John Harris of Ultimo Estate was on the other side of Parramatta Road. The area had several small creeks, including Blackwattle Swamp Creek, which ran together to form a swampy area, crossed the road at what is now Broadway, and ran northwards to Blackwattle Bay. The area east of Blackwattle Creek was known as the Military Garden and appears to have been in use by 1814 after Lieutenant Colonel O’Connell was paid from the Police Fund for expenses incurred by the 73rd Regiment ‘making a Military Garden at Sydney’. Major Druitt was granted 8 acres immediately to the west of the Military Garden by Macquarie in 1819, and the Police Fund accounts paid Joseph Wharton in 1820 on account of a ‘batten fence’ around the Military Garden. Later evidence suggests that the western fence of the Garden did not follow the Blackwattle Creek exactly but extended southeast from Parramatta Street (later Broadway), corresponding with the later east boundary of Robert Cooper’s grant.

Figure 3.1: Early undated map of the Parish of Alexandria showing the ‘Military Garden’ and Coopers Grant on Blackwattle Creek (Casey & Lowe August 2015)



3.2 Robert Cooper's industrial complex (1824 – 1852)

The first major development on the study area was in the form of Robert Cooper's distillery that had commenced along with a watermill on the site and its surrounds by 1824 and construction of new buildings continued where in 1826 the *Sydney Gazette* reported, 'Mr. Cooper's immense site of buildings at the Brisbane Distillery keep rising higher and higher'. In 1828 it was reported that he was importing two steam engines for use in a mill and by 1829, Cooper had constructed three substantial buildings and was building a fourth to house the second of the two steam engines. A further building was under construction in 1830; it was variously described as a 'cyder mill' and a brewery. By the 1830s there is evidence of a new cloth mill, which was probably new machinery in an existing building.

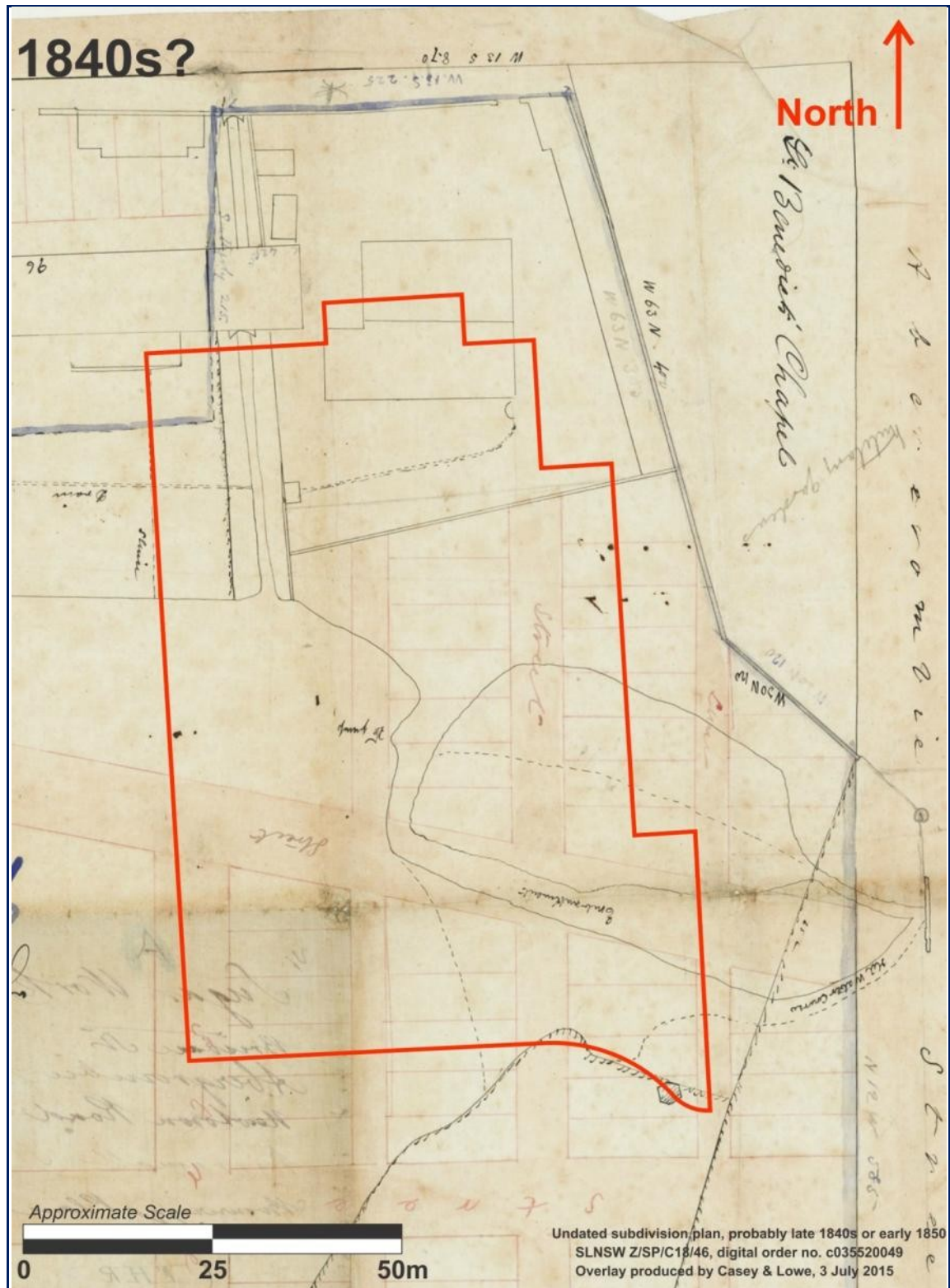
Cooper also dammed the creeks feeding into the swamp and created a lake to provide a plentiful source of water for his works. He had created this lake from the Blackwattle Swamp. According to Cooper, this had extended up to Parramatta Street (now Broadway) until he had constructed an embankment. This dam created a broad lake which by 1826 was attracting native ducks. In 1830 the dam burst (or perhaps simply overflowed) after heavy rain.

In 1833 the establishment included along with the dammed lake a variety of buildings. These consisted of 'a secure and capacious reservoir', a 'distill-house' with a capacity of 3,000 gallons, and a flour mill containing a large steam engine, two pairs of mill stones and machinery for smutting and dressing grain. There was also a five storey high store house that contained cisterns for grain with two malt kilns, a 'substantial bakehouse' and a smith's workshop in its vicinity, a 'cloth factory' with an engine house at its extreme end containing a 20 horse power steam engine, two pairs of mill stones and various machinery for making coarse cloth, flannel and blankets, and a brew-house 'on a considerable scale and formed entirely underground'.

3.3 Conclusions

The site was originally crossed by meandering and tide affected drainage associated with Blackwattle Creek that was progressively dammed, reclaimed and built on at an industrial scale from the 1820s. The attached plans show this from the 1840s and 1860s and the nature and scale of this landuse suggests there is little chance that original creek line and bank landforms and ground surfaces survive intact below the many meters of fill that now cover the site. It is expected land reclamation and subsequent large scale building for the dam and distillery will have fully destroyed the integrity of the former creek line, and large scale site preparation earthworks for subsequent building and construction phases will have resulted in further large scale disturbance of original ground surfaces. In this scenario, the potential for Aboriginal archaeology to survive at the site is minimal.

Figure 3.2: The site in the 1840s (Casey Lowe Pty Ltd August 2015)



North

St. Bourget's Chapel

Handwritten text: *Handwritten text, possibly a signature or name, written vertically.*

1850

Approximate Scale

0 25 50m

Undated subdivision plan, probably late 1840s or early 1850
SLNSW Z/SP/C18/46, digital order no. c035520049
Overlay produced by Casey & Lowe, 3 July 2015

Figure 3.3: The site in 1855 (Casey Lowe Pty Ltd August 2015)

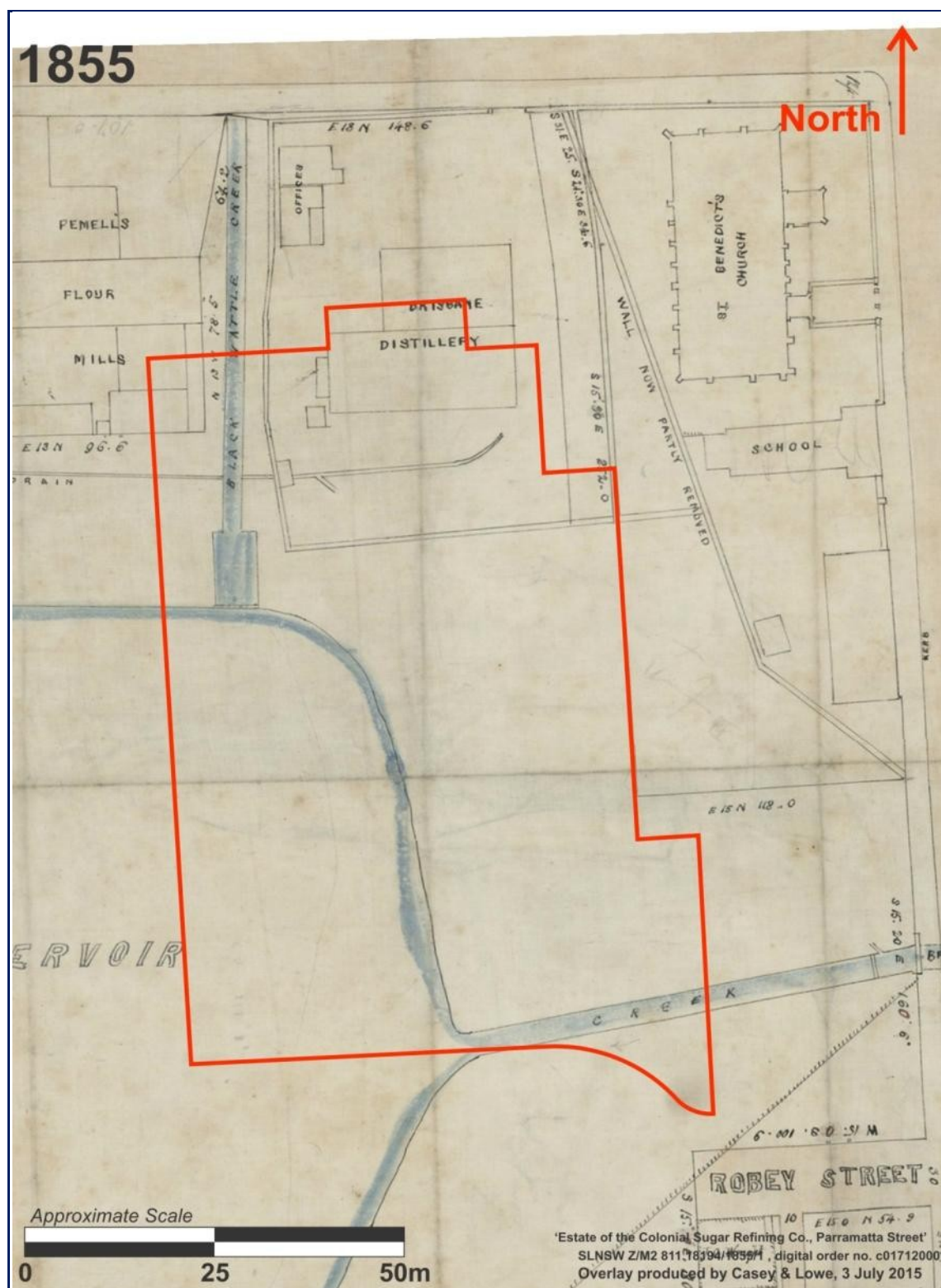
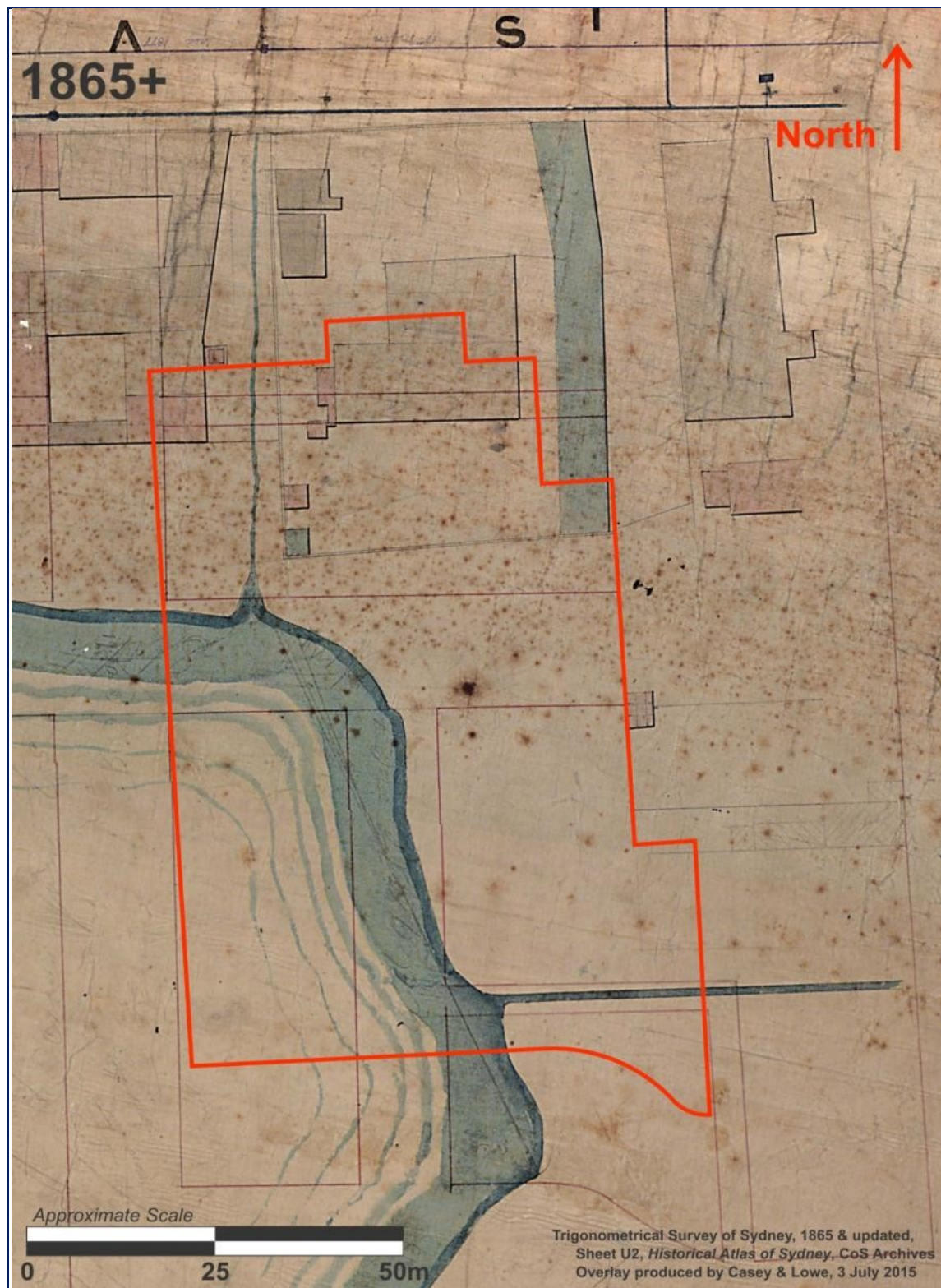


Figure 3.5: The site in 1865+ (Casey Lowe Pty Ltd August 2015)



4.0 Significance & archaeological heritage impact statement

4.1 Aboriginal archaeological heritage impact statement

4.1.1 *Issues for consideration*

The background archaeological research and assessment of the Blackfriars Precinct site indicate that:

- No previously documented Aboriginal archaeological sites or objects are known to occur within the boundaries of the study area or within close proximity. The nearest known sites listed on AHIMS were located on landforms originally on or nearby Blackwattle Creek to the north of Broadway before they were salvaged through archaeology.
- The below ground surface profiles across the study area will have been extensively disturbed over time as a result of land reclamation of the meandering Blackwattle Creek landscape from the 1820s if not before. Subsequent historic and some modern building and demolition phases have also occurred that will have also impacted on the ground surfaces at the site through large scale excavation, grading and levelling to establish sound building platforms on the deep sandy profiles that covered by over 4.0m of reclamation fill in places on the site.
- It is likely that any Aboriginal archaeology formerly present within the uppermost soil profiles on any former dry ground, and it's debatable if any originally existed within the study area to begin with, will have either been destroyed and/or significantly disturbed by historical landuse and will unlikely to be found *in situ*.
- The potential for high density archaeological finds at the site would appear unlikely based on the landscape position of the study area (originally low-lying and possibly flood prone). If any Aboriginal objects are found their numbers would be expected to be very low and the finds would not be *in situ* because of historic landuse disturbances and natural process including water-borne movement and displacement of potential artefacts in this originally active flood plain environment.

4.1.2 *Assessing Aboriginal heritage significance*

The reason for significance assessments are to explain why particular sites or places may be important to the community and to allow for appropriate management strategies to be developed when changes in landuse circumstances may potentially affect the assessed significance values of a site or a place.

Cultural significance is defined in the *Australian ICOMOS Charter for the Conservation of Places of Cultural Significance* (the *Burra Charter*) as '*aesthetic, historic, scientific or social value for past, present*

or future generations' (Article 1.1). This aspect of significance may be derived from the fabric of a place, association with a place, or the research potential of a place. While these definitions are more commonly used with reference to buildings or items, they can also in a number of respects also apply to archaeological features and deposits.

This preliminary assessment of Aboriginal cultural heritage significance of the potential Aboriginal archaeological resources that may be contained within the site incorporates a consideration of the Aboriginal cultural values as they were explained during the consultation process with the project RAP's, follows current OEH guidelines (NPWS 1997:5-11), and also uses additional criteria that are derived from the Burra Charter (see below). An important position that needs to be made clear as part of the assessment process is that not all sites are equally significant and not all heritage sites at a general level will warrant equal consideration and management. The significance of heritage sites also changes over time, often as more research is undertaken in archaeological and environmental circumstances, and as community values change and develop over time.

This does not lessen the value of the heritage assessment approach, but is an integral part of the process of determining what is conserved for future generations and why. OEH guidelines for the assessment of significance of Aboriginal sites, objects and places identify two types of significance criteria; *cultural significance* and *archaeological significance*.

Cultural significance concerns the values of a site or feature to a particular community group which in this case is the local Aboriginal community. Aboriginal Archaeological heritage sites, objects, and some landscapes are all often important for different reasons, or have become important to Aboriginal people over time. This importance involves both people's historical links to 'country' in general, and possible attachments to specific areas in particular, as well as an overall concern of many Aboriginal people for the continued protection of the land and its cultural heritage sites.

Scientific significance in archaeological contexts is usually assessed using criteria that aim to evaluate a given site's contents, state of preservation (integrity), representativeness or rarity, and research potential. An evaluation of the significance of the potential Aboriginal archaeological resources at the Blackfriars Precinct according to the criteria below is provided using the following as a guide:

- *Archaeological research potential* incorporates values of intactness (whether it has stratigraphic integrity or is disturbed), the association of the site to other sites in the local or regional (or State) context, and sometimes also how the site may fit into a datable chronology if one exists, when considering how the site may contribute to our further understanding of past Aboriginal

life. This area of assessment is consistent with *Criterion 'e'* of the *Heritage Branch* guidelines that are used to assess the potential historical archaeological resources of the site (see below).

- *Representativeness* is a term to convey the idea that most Aboriginal archaeological sites are representative of a particular 'type' or sub-type/class which for example would apply to a rock shelter with art as distinct from an open campsite with stone artefacts. A key issue is whether particular sites should be conserved to ensure a representative sample of the archaeological record is retained for future generations. This general area of assessment is consistent with *Criterion 'a'* of the *Heritage Branch* guidelines (see below).
- *Rarity* can apply to a unique or uncommon archaeological site itself or elements of its component parts (archaeological rare finds or contexts), and can be assessed at a local, regional, State and national level. This area of assessment is consistent with *Criterion 'a'* of the *Heritage Branch* guidelines (see below).

4.1.3 Assessment against standard criteria

NSW Heritage Branch *Assessing Heritage Significance* establishes seven evaluation criteria that reflect significance categories and representativeness by which a place can be evaluated. The following responses to each below have been guided by the Aboriginal archaeological and cultural heritage findings and conclusions that are documented in this report.

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).

It is expected that the potential Aboriginal archaeology that may survive on the site will comprise isolated and un-stratified stone artefacts that will be of a general character and composition that will be representative of similar sites recorded in the local landscape.

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).

The potential Aboriginal archaeological resources will represent materials people lost or threw away at different times in the past as they undertook daily tasks, and by representing aspects of this past life, the objects themselves and their history retain considerable cultural significance to Aboriginal people. The identities of the people who may have visited and used the place in the past to create the potential archaeology are unknown, but it is likely that their individual role in NSW's cultural-evolution was minor.

Criterion (c) – an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).

It is unlikely that the potential Aboriginal archaeological resources at the site fulfil this criterion.

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.

It is expected that the land will have value to the local Aboriginal community.

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).

The potential archaeological resource is assessed to have moderate research potential, and the environmental research potential of the site is considered to be moderate with possibly comparable evidence recorded at the Dr Chau Chak Wing Building.

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).

It is unlikely that the site will contain archaeology that will be uncommon or rare, but the discovery of an 8,000 year old campsite at Randwick in 1995 within a 'dune field' context with swamps and drainage suggests the possibility of such a find cannot be discounted.

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.

It is expected that the potential archaeological resource at the site is likely to be broadly representative of similar Aboriginal sites in the Sydney region, but the site may retain environmental information that is geographically specific to the history of the natural evolution of coastal Sydney.

4.1.4 Evaluation

No anomalies or disconformities are apparent in the in situ subsurface profiles to suggest the presence of buried paleosols with archaeological potential. Historic plans and stratigraphic profiles recorded via geotech indicates the originally meandering and probably tide affected drainage of Blackwattle Creek over which the site developed was dammed and the ground progressively reclaimed from the 1820s and may not have been 'dry land' in the past.

It is assessed that the proposed site redevelopment is unlikely to have an adverse heritage impact upon the Aboriginal archaeological values of the place and that no significant archaeological constraints are apparent that would restrict the proposal proceeding as planned.

5.0 Recommendations

5.1 Management of Aboriginal and environmental heritage

Potential Aboriginal archaeology that may occur at the site will most likely comprise isolated finds and/or very low-density distributions of flaked stone artefacts. Such finds will be encountered in extensively disturbed recovery contexts that will retain minimal stratigraphic integrity. These Aboriginal objects, even if in disturbed (or fill) contexts, are nevertheless statutorily protected under the provisions of the NPW Act.

Should any Aboriginal objects be discovered during future ground disturbance works at the site, then these activities within the vicinity of the find location will be required to stop and the OEH will need to be informed of the discovery in accordance with Section 91 of the NPW Act.

6.0 References

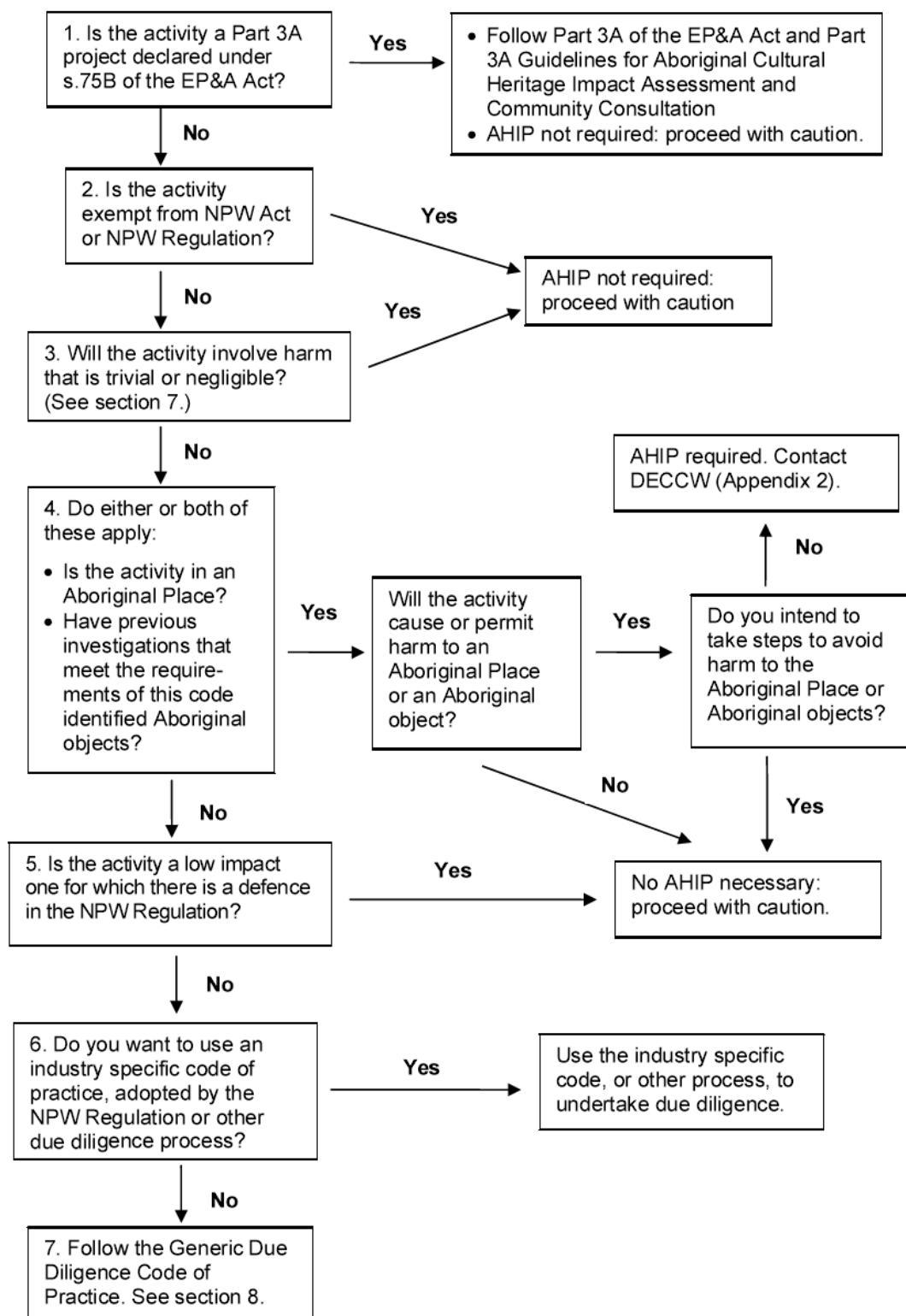
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Appendix 1

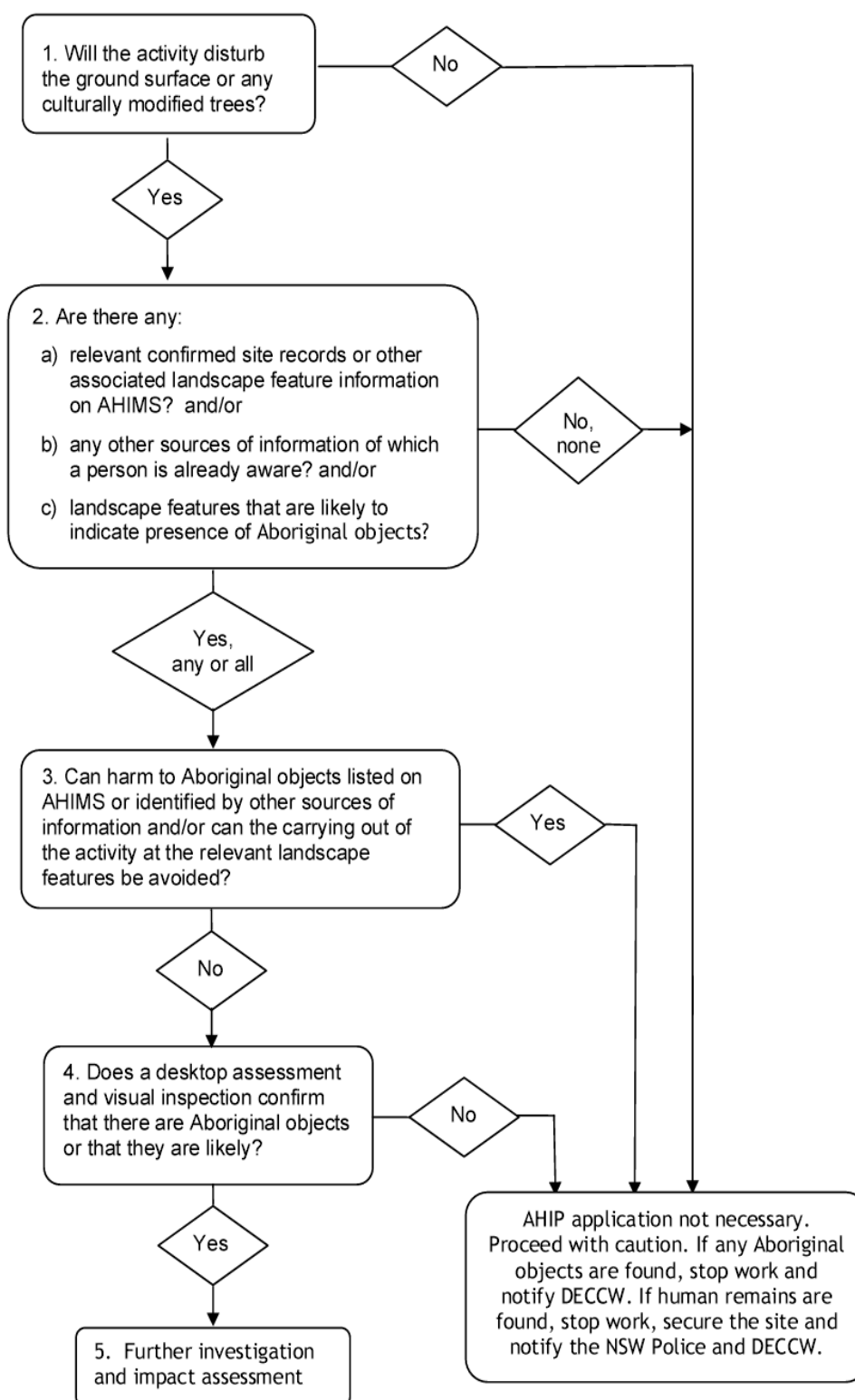
OEH Due Diligence Code of Practice

Protection of Aboriginal Objects in NSW – NPWS Act 1974

1 Do you need to use this due diligence code?



8 The generic due diligence process



Appendix 2

AHIMS Sites Search



Office of
Environment
& Heritage

AHIMS Web Services (AWS) Search Result

Purchase Order/Reference : Blackfriars

Client Service ID : 185426

Dominic Steele Archaeological Consulting

Date: 12 August 2015

21 Macgregor Street
CROYDON New South Wales 2132

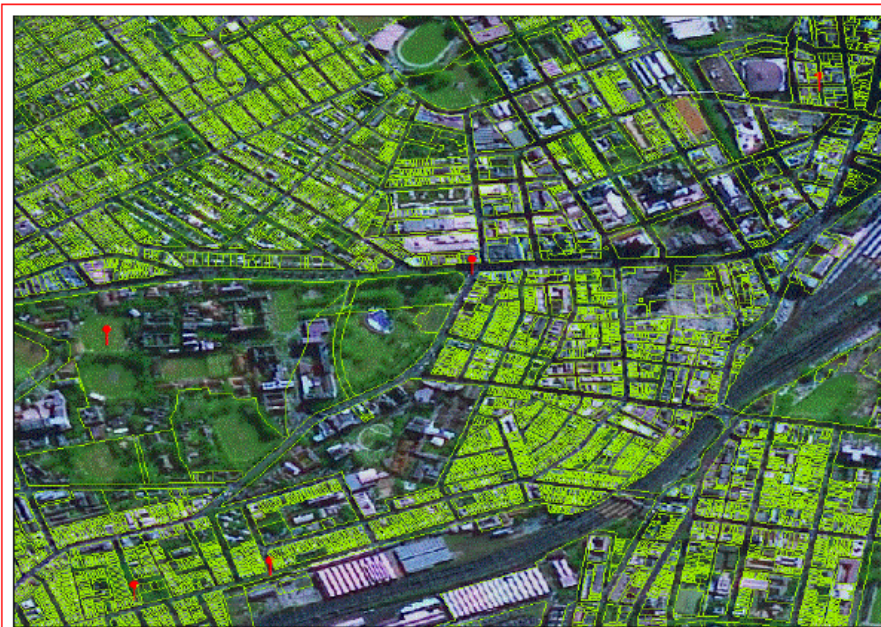
Attention: Dominic Steele

Email: dsca@bigpond.net.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Datum :GDA, Zone : 56, Eastings : 332000 - 334000, Northings : 6248000 - 6250000 with a Buffer of 50 meters, conducted by Dominic Steele on 12 August 2015.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

12	Aboriginal sites are recorded in or near the above location.
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0	Aboriginal places have been declared in or near the above location. *
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Office of Environment & Heritage
AHIMS Web Services (AWS)
 Extensive search - Site list report

Purchase Order/Reference : Blackhairs ext
 Client Service ID : 185427

SiteID	SiteName	Datum	Zone	Eastings	Northings	Contact	Site Status	Site Features	Site Types	Reports
45-6-3071	445-473 Wattle Street PAD	GDA	56	333285	6249412	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		
Contact										
45-6-3064	445-473 WATTLE ST PAD	GDA	56	333285	6249412	Open site	Valid	Potential Archaeological Deposit (PAD) : 1	Permits	102763
Contact										
45-6-2979	UTS PAD 1 14-28 Ultimo Rd Syd	GDA	56	333650	6249590	Open site	Valid	Potential Archaeological Deposit (PAD) :-	Permits	102494,10276 3,102765
Contact										
45-6-2987	Poultry Market 1	GDA	56	333746	6249575	Open site	Valid	Artefact : 1	Permits	102494,10276 3
Contact										
45-6-2745	University of Sydney Law Building PAD	AGD	56	332350	6248740	Open site	Valid	Potential Archaeological Deposit (PAD) :-	Permits	102201,10249 4,102763,1027 65
Contact										
45-6-2767	Tent Embassy	AGD	56	332680	6248680	Open site	Valid	Aboriginal Resource and Gathering : 1	Permits	102494,10276 3,102765
Contact										
45-6-2822	USD: Central	AGD	56	332750	6248550	Open site	Valid	Artefact :-	Permits	100302,10249 4,102763,1027 65
Contact										
45-6-2629	Broadway 1	AGD	56	333060	6249100	Open site	Valid	Artefact :-	Permits	102494,10276 3,102765
Contact										
45-6-2680	Broadway Picture Theatre PAD 1	AGD	56	333150	6249000	Open site	Valid	Potential Archaeological Deposit (PAD) :-	Permits	102142,10249 4,102763,1027 65
Contact										
45-6-2666	Wattle Street PAD 1	AGD	56	333150	6249450	Open site	Valid	Potential Archaeological Deposit (PAD) :-	Permits	102494,10276 3,102765
Contact										
45-6-2663	MountaIn Street Ultimo	AGD	56	333300	6249400	Open site	Valid	Artefact :-; Potential Archaeological Deposit (PAD) :-	Permits	102494,10276 3,102765
Contact										

Report generated by AHIMS Web Service on 12/08/2015 for Dominic Steele for the following area at Datum: GDA, Zone: 56, Eastings: 3332000 - 334000, Northings: 6248000 - 6250000 with a Buffer of 50 meters. Additional Info : for a SSD. Number of Aboriginal sites and Aboriginal objects found is 12

This information is not guaranteed to be free from error omission. Office of Environment and Heritage (NSW) and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

Page 1 of 2

Report generated by AHIMS Web Service on 12/08/2015 for Dominic Steele for the following area at Datum : GDA, Zone : 56, Eastings : 332000 - 334000, Northings : 6248000 - 6250000 with a Buffer of 50 meters. Additional Info : for a SSD, Number of Aboriginal sites and Aboriginal objects found is 12

This information is not guaranteed to be free from error omission. Office of Environment and Heritage (NSW) and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette](http://www.nsw.gov.au/gazette) (<http://www.nsw.gov.au/gazette>) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

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