

Aboriginal Heritage Due Diligence Assessment Croydon Public School, 39 Young St, Croydon, NSW

**By Vanessa Hardy
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**Report Prepared for
NBRS Architecture
Level 3, 4 Glen Street
Milsons Point, NSW 2061**

PO Box 490 Dulwich Hill NSW 2203 Australia
phone: 02 9518 3421 fax: 02 9518 3421
email: admin@heritageconnect.com.au



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1.0 INTRODUCTION & PROJECT AREA

1.1 PROJECT AREA

Cultural Heritage Connections Pty Ltd was commissioned by NBRS Architecture in March 2018 to undertake a due diligence Aboriginal archaeological assessment of Croydon Public School at 39 Young St, Croydon, NSW (the project area). The project area is also known as lots 1 & 2 DP 225904 and is within the Burwood Council Local Government Area (LGA).

The project area is bounded by Boundary Street to the south and Young Street to the east. The northern and western boundaries of the site are residential development.

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

1.2 PROJECT CONTEXT & AIMS

The assessment is to consider the potential for harm to Aboriginal objects on the subject land prior to the proposed upgrade to the school. The development will include modifications of some existing buildings, construction of new buildings and associated landscaping. A concept plan is included in Appendix 1.

No Aboriginal objects have been previously recorded within the project area boundaries.

The assessment has been designed to meet the requirements of the former Department of Environment, Climate Change and Water's (DECCW), now OEH, *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (DECCW 2010c)* (hereafter 'Code of Practice'). A summary of the due diligence process, taken from the Code of Practice, is presented in Figure 2.

The major aims of a due diligence assessment are to:

- identify whether or not Aboriginal objects are, or are likely to be, present in the area;
- if objects are present or likely to be present, determine whether or not the proposed development activities are likely to harm Aboriginal objects; and
- determine whether further assessment or an Aboriginal Heritage Impact Permit (AHIP) is required.

In order to meet these objectives, the following tasks are required:

- undertake a search of the OEH AHIMS and a review of site cards for those sites within close proximity of the project area;
- check for landscape features which may indicate the presence of Aboriginal objects;
- undertake a desktop assessment using relevant background data to categorise the project area and form predictions about the likely presence of cultural sites;
- undertake a site inspection to check the desktop conclusions as well as to look for Aboriginal objects and any other relevant features that may not have been revealed during background review; and
- if necessary, consider strategies to avoid harming Aboriginal objects.

1.3 LEGISLATION SUMMARY

1.3.1 National Parks and Wildlife Act 1974 (amended 2010)

The *National Parks and Wildlife Act 1974* (NPW Act) protects Aboriginal objects and Aboriginal places in NSW. It has been amended by the National Parks and Wildlife Regulation 2009 (NPW Regulation). Under the NPW Act, the following are offences unless an exemption or defence is provided for under the Act:

- A person must not knowingly harm or desecrate an Aboriginal object (knowing offence)
- A person must not harm or desecrate an Aboriginal object or Aboriginal place (strict liability offence)

The maximum penalty for the knowing offence is \$550,000 or \$275,000 (depending on whether there are aggravating circumstances) and 1 or 2 years' goal for an individual. For a corporation the maximum penalty for the knowing offence is \$1.1 million. The maximum penalty for the strict liability offence is \$110,000 or \$55,000 (depending on whether there are aggravating circumstances) for an individual or \$220,000 for a corporation.

Harm includes acts or omissions that "destroy, deface or damage" an Aboriginal object or Aboriginal Place, and in relation to an object, move the object from the land on which it has been situated. Harm does not include something that is trivial or negligible.

Section 91 of the Act also obliges any person who discovers an Aboriginal object to report it to the OEH for it to be entered on the AHIMS.

An Aboriginal object is defined as:

"...any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal 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."

An Aboriginal object is legally protected irrespective of land tenure, the significance of the object and whether or not it has been recorded.

"Aboriginal Places" are places so declared under Section 84 of the Act.

Anyone who exercises due diligence in determining that their actions will not harm Aboriginal objects has a defence against prosecution for the strict liability offence if they later harm an object. Due diligence can be exercised by complying with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW 2010c) (or industry-specific codes of practice) that has been adopted under the National Parks and Wildlife Regulation 2009. The code provides a process to enable a reasonable determination of whether or not Aboriginal objects will be harmed by an activity or whether further investigation or an Aboriginal Heritage Impact Permit (AHIP) are required.

There is also a range of defined exemptions and low impact activities defined in the Regulation for which due diligence is not required. These include undertaking specified farming, land management, maintenance, surveying or environmental rehabilitation works.

Clause 80B Defence of carrying out certain low impact activities: section 87 (4)

(1) It is a defence to a prosecution for an offence under section 86 (2) of the Act, if the defendant establishes that the act or omission concerned:

(a) was maintenance work of the following kind on land that has been disturbed:

(i) maintenance of existing roads, fire and other trails and tracks,

Under the amended Act a permit will no longer be required to *look for* Aboriginal objects providing the investigation is undertaken in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b). Archaeological test excavations that follow the code do not require an AHIP. If objects are present and harm cannot be avoided it is necessary to apply for an AHIP.

There are also requirements for consultation with Aboriginal people relating to AHIP applications. These are set out in the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a).

1.3.2 Environmental Planning and Assessment Act 1979

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

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

Burwood Local Environmental Plan 2012

5.10 Heritage conservation

(1) Objectives

The objectives of this clause are as follows:

- (a) to conserve the environmental heritage of Burwood,
- (b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,
- (c) to conserve archaeological sites,
- (d) to conserve Aboriginal objects and Aboriginal places of heritage significance.

(8) Aboriginal places of heritage significance

The consent authority must, before granting consent under this clause to the carrying out of development in an Aboriginal place of heritage significance:

- (a) consider the effect of the proposed development on the heritage significance of the place and any Aboriginal object known or reasonably likely to be located at the place by

means of an adequate investigation and assessment (which may involve consideration of a heritage impact statement), and

(b) notify the local Aboriginal communities, in writing or in such other manner as may be appropriate, about the application and take into consideration any response received within 28 days after the notice is sent.

1.4 LIMITATIONS AND AUTHORSHIP

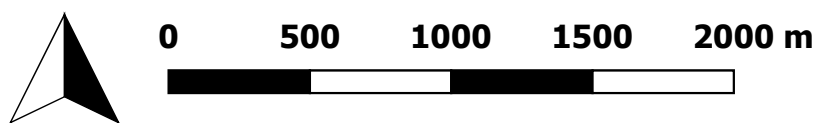
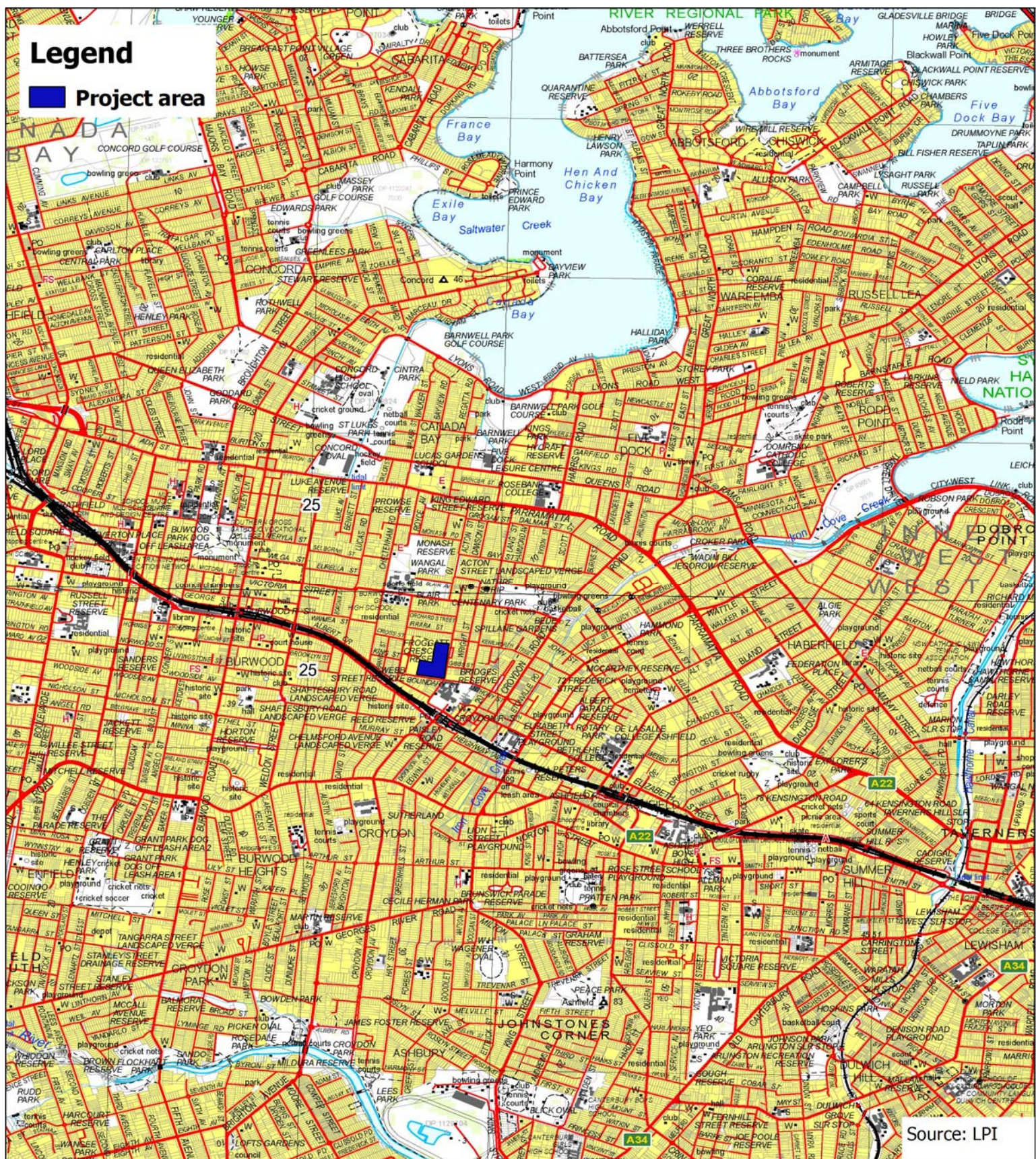
Cultural Heritage Connections recognises that Aboriginal people are the determinants of the cultural significance of their heritage. This is also recognised by OEH who provide a guideline for minimum requirements for consultation with Aboriginal stakeholders (DECCW 2010a) when archaeological testing or an AHIP are required.

Metropolitan Local Aboriginal Land Council (MLALC) were contacted at the outset of the assessment and collaborated in the site inspection. They have stated that they have no objections to the development as assessed. MLALC comments are included in Appendix 2.

Assessment of non-Aboriginal archaeological potential has been undertaken in a separate report. Analysis of the archaeological background, design of the methodology, field inspection and reporting for this assessment was undertaken by Vanessa Hardy (BA Hons), archaeologist and Director of Cultural Heritage Connections Pty Ltd.

1.5 REPORT OUTLINE

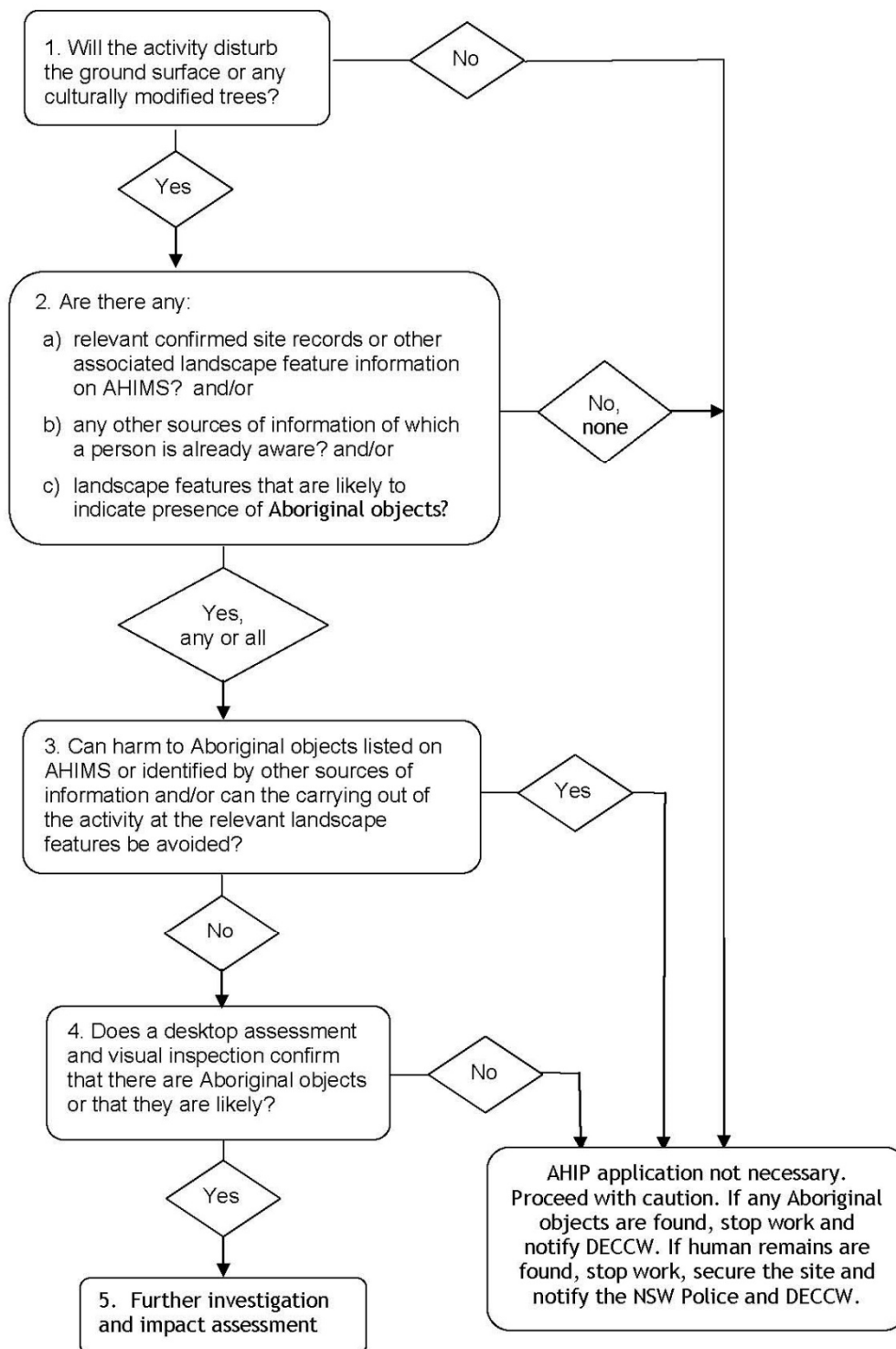
The following section (Section 2.0) of this report provides a summary of the environmental context of the project area. Section 3.0 examines the archaeological background and Section 4.0 presents the results of the site inspection. Section 5.0 provides a discussion and presents recommendations arising from the assessment.



Maps and figures in this document may be based on third party data, may not be to scale and are intended as a guide only. We do not warrant the accuracy of such maps or figures.

Figure 1: Project area location

Figure 2: Due diligence process (DECCW 2010)



2.0 ENVIRONMENTAL CONTEXT

Analysis of the environmental context is essential for developing accurate models of cultural activity, site distribution patterns and the archaeological potential of any given area. Environmental characteristics influence the types of archaeological sites. An understanding of how the landscape looked and behaved in the past can help us to predict where Aboriginal people may have undertaken various activities and therefore the types of archaeological sites that may be found in the present. In addition, environmental processes influence the preservation of sites. Heavy erosion or acidic soils are likely to destroy or damage certain types of evidence, reducing the likelihood of locating evidence of past occupation.

The project area is located within the Sydney Basin. Its environmental setting is discussed below.

2.1 GEOLOGY & LANDSCAPE

The project area is within the Cumberland Lowlands. The Cumberland Lowlands (also known as the Cumberland Plain) is an area of approximately 180,000 hectares of land within the Sydney Basin. The underlying geology is predominantly Wianamatta Group shales. The Lowlands are, in general, gently undulating plains on shale with a “dense drainage net of predominantly northward flowing channels” (Bannerman and Hazelton 1990). The topographic relief of the region is generally subdued with elevations typically less than 100 metres AHD. Slopes are typically less than 5%. The majority of the Cumberland Lowlands is within easy access (less than 500 metres) of a temporary or permanent water source.

Most of the Cumberland Lowlands is underlain by Wianamatta Group shales. Triassic sediments of the Wianamatta Group overlay the Mittagong formation and divide into two formations: the Ashfield Shale and the overlying Bringelly Shale. The Ashfield Shale is the most extensive to the west of Sydney, comprised of black to dark grey siltstone and laminite. Extensive areas of Bringelly Shale are also present across the lowlands. Bringelly Shale is typically comprised of shale (claystone and siltstone), carbonaceous claystone, laminite and fine to medium grained lithic sandstone (Bannerman and Hazelton 1990).

Stone suitable for tool manufacture occurs across the Cumberland Lowlands. Recorded artefacts have been made from silcrete, chert, mudstone/tuff, quartz, quartzite and basalt. Many of these materials can be commonly found as cobbles or boulders eroding out of deposits near creek lines. The most commonly recorded material type in the Lowlands is silcrete. Two large outcrops of St Marys formation silcrete occur at Plumpton Ridge and at Marsden Park with smaller outcrops known at Riverstone and Erskine Park (Jo McDonald CHM 2002e).

The due diligence Code of Practice provides a list of landscape features which can indicate an area has potential to contain Aboriginal occupation evidence. These are listed as areas on land that is *not disturbed* that are:

- within 200 metres of waters;
- located within a sand dune system;
- located on a ridge top, ridge line or headland;

- located within 200 metres below or above a cliff face; or
- within 20 metres of or in a cave, rock shelter, or a cave mouth.

The entire project area could be considered disturbed according the Code of Practice definition. This assessment also considers the sub-surface potential of the area.

The project area is just over one kilometre south of the tidal limit of the wetlands that are now reclaimed land adjacent to Canada Bay. Iron Cove creek is approximately 450 metres to the east. In the past tributaries of the creek would have been closer to the subject land. However, development has modified and removed some minor creeks.

The project area is an 'L' shaped block of approximately 230 metres long north-south and 80 metres to 140 metres wide east-west. Its gently undulating topography slopes down toward the north at around 3-4 degrees (JK Geotechnics 2017).

The entire western boundary of the subject land slopes down to the adjoining properties. The slope is approximately 2 degrees at the northern end and about 20 degrees at the southern end. This slope is a result of the ground surface lowering in the adjacent property due to quarrying for the adjacent brick works.

The sensitive landscape features listed in the Code of Practice and repeated above, do not occur in the project area.

2.2 SOILS

The project area is mapped within the residual Blacktown Soil Landscape (Hazelton, et al. 1989). This landscape is common across the Cumberland Plain.

Typical soil profiles of the Blacktown soil landscape are – on crests: up to 30 centimetres of friable brownish black loam to clay loam topsoil overlying 10-30 centimetres of hard setting brown clay loam A2 horizon overlying B horizon and subsoils; upper slopes and midslopes: up to 30 centimetres of A1 horizon topsoil over 10-20 centimetres of A2 horizon overlying B horizon clay; lower sideslopes: up to 30 centimetres of A1 horizon and 10-30 centimetres if A2. Ironstone and gravel shale fragments tend to increase in quantity with depth. This suggests a maximum of 60 centimetres of soils that could contain archaeological deposits (Bannerman and Hazelton 1990). These depths would vary across the landscape.

The geotechnical assessment for the project area (JK Geotechnics 2017), shows that the southwestern portion of the project area is deep fill (to depths of 4.6 to 9 metres). This is a result of the backfilling of the quarry on the site during its use as a brick works. This portion of the subject site was given to the school by the brick company in 1932.

The remaining eastern portion of the site is shallow fill (from 0.3 to 1.4 metres) covering residual silty clay, grading into weathered shale (JK Geotechnics 2017). No natural topsoils suitable for retaining Aboriginal objects was recorded during geotechnical testing. It is unlikely that residual natural A horizon soils are present within the project area.

2.3 FLORA AND FAUNA

The vegetation communities of the greater Sydney area have over 200 species with edible parts (Attenbrow 2002). Many plants were exploited as a minor food resource, for example berries or plant nectars. Aboriginal firing of the landscape may have resulted in

opening up of grasslands in the valleys and ridge tops, which, in turn, increased the habitat for large macropods.

The project area has been completely cleared since European settlement. In the past, the area would have provided a wide variety of flora and fauna resources for the Aboriginal communities who lived there.

Dry sclerophyll forest is most commonly associated with soils of the Blacktown Landscape. Its dominant species would have included Grey Box (*Eucalyptus moluccana*) and Spotted Gum (*E. maculata*). Forest Red Gum (*E. tereticornis*), narrow-leaved ironbark (*E. creba*) and broad-leaved ironbark (*E. fibrosa*) would also have been present (Bannerman and Hazelton 1990; Benson and Howell 1990).

Wood was used to make canoe poles, weapons, woomeras, boomerangs and was used for firewood. Plant resins were used to fix parts of tools together. Bark was used for huts, carrying vessels, canoes, shields, fishing lines, bedding, blankets and torches, amongst other things (Attenbrow 2002: 113). Fibres were used to make ropes that could then be used in traps and nets for trapping animals, birds and fish. Local knowledge of medicine plants was also an important part of Aboriginal culture.

Animal resources were important to the Aboriginal people of the region, not only as a food source but because they could also be used for manufacturing. The use of animal skin clothing and animal bone tools has been well documented.

Overall, the resources available to inhabitants of the project area region could have provided a varied and generally reliable resource to sustain the many economic and social requirements of large Aboriginal groups.

2.4 LAND USE HISTORY

Following European arrival, by around 1808, the project area was included in a large land grant to Thomas Rowley. Most of the local area was used as farming land until the railway between Sydney and Parramatta was opened in 1855 and more intensive subdivision began.

The school land was part of an orchard, which was subdivided, and allotments were auctioned in 1877. The land was resumed by the government for the school in 1882 (Dunlop 1974). The school was built between 1882-1884 and opened in 1884.

The school was adjacent to a brick works which operated until approximately the 1930s and went into liquidation around 1947.

The layout was similar to other schools of the time and the construction included a two-storey headmaster's residence to the north. A variety of additions and modifications have been made since the original building's construction. The original school site, at the corner of Boundary and Young Streets was extended to the west in 1932 (deep filled land discussed above), and again in 1937 and 1947 onto land given by the brick company (Dunlop 1974).

The project area has been completely cleared of all vegetation. External ground surfaces are a combination of artificial hard surface, landscaped garden and some grassed areas. The current extent of the school site and the quarried remains of the adjacent brick pit are shown in the 1943 aerial photo for the site (Figure 3). The extent of disturbance to

the site is likely to have removed any evidence of past Aboriginal activity that may have been present.

Figure 3: 1943 aerial showing disturbances in the project area vicinity (SixMaps)



1:4,514
0 50 100m



3.0 ARCHAEOLOGICAL CONTEXT

For the purposes of determining settlement and site location patterns, archaeologists examine regional and local trends in the distribution of known sites in relation to environment and topography. This information can be used to provide a picture of behaviour in the past as well as indicate how evidence of that past behaviour might be preserved in the archaeological record. The following provides a brief overview of relevant regional and local archaeological evidence.

3.1 REGIONAL PREDICTIVE MODELLING

Timing of the Aboriginal occupation of the Sydney region has been subject of some research. An early date (41,700 $\pm$ 3000/-2000 BP (years before present)) was taken from artefacts found in gravels of the Cranebrook Terrace on the Nepean River (Stockton and Holland 1974), however there is some disputes over the actual age of the deposits.

A site (RTA-G1) excavated by McDonald (2005b) from the Parramatta Sand Sheet in the city centre of Parramatta has been dated to 30,735 $\pm$ 407 BP. This date is considered more reliable. A rock shelter site north of Penrith on the Nepean, known as Shaws Creek K2, is another Pleistocene dated site, dated to 14,700 $\pm$ 250 BP (Attenbrow 2010:18). More recently, a salvage excavation at Pitt Town on the banks of the Hawkesbury River has the lowest deposits containing artefacts dated to 15,000 BP (Williams, et al. 2012: 95).

The evidence of site dates demonstrates that Aboriginal people have inhabited the greater Sydney region for many thousands of years. In light of this it is expected that a range of evidence of that past habitation may be present.

Many hundreds of artefact sites (also known as open campsites or artefact scatters) have been recorded within the Cumberland Lowlands. This is despite the fact that at least 50% of the Cumberland Plain has already been developed to such an extent that any archaeological evidence that may have once been present has been destroyed. Open artefact scatters can range from a few discarded stone pieces (resulting from a one-off use of an area) to large sites which may have been visited by a large number of people and/or been repeatedly used over many years. In these larger sites, distinct areas relating to specific activities can sometimes be located, such as knapping floors where individuals would have sat to manufacture stone tools. Sites can also include other habitation remains such as animal bone, shell or fireplaces (known as hearths). In areas where sandstone rock overhangs are present sites are commonly located within the overhangs and other sites such as middens, where shellfish are processed and discarded occur along waterways.

3.1.1 Occupation Modelling

Over the last 30 years, a series of models of occupation of the Cumberland Lowlands have been proposed. These are being continually refined as further work takes place across the Lowlands and the broader Sydney region

An analysis of 666 sites recorded on the Cumberland Lowlands (Jo McDonald CHM 1998) found that open artefact scatters (89%) were the most common site type across the area, with scarred trees making up 2.1%. Shelters and axe grinding grooves accounted for only 3.6% of recorded sites, and these were concentrated at the junction of shale and sandstone geology along the periphery of the Lowlands. The study also highlighted

difficulties associated with archaeological visibility on the Plain by assessing the potential for areas with no surface evidence to contain buried sub-surface deposits. The study found that an absence of surface evidence is not a reliable guide to the potential, nature or density of sub-surface material. The results of McDonald's studies clearly demonstrate the limitations of surface survey for identification of archaeological deposits. It was concluded that one of the main reasons a high proportion of sites were recorded in creek flat areas was the increased visibility conditions rather than it being a reflection of past human behaviour patterns (Jo McDonald CHM 1998).

McDonald synthesised the various Rouse Hill studies ((Jo McDonald CHM 1998, 2002c, 2002a, 2002d, 2002b, 2002e) and developed a predictive model for the local area based on sub-surface investigation as well as surface finds. This has broader application for the entire Cumberland Lowlands. McDonald's model includes the following key elements:

- Site complexity and density in the area is far greater than what analysis of material recorded during initial limited testing programs or analysis of surface remains suggests.
- Most areas, even those without identifiable surface remains, may contain sub-surface archaeological material.
- There is potential for stratified and/or intact deposits in some areas, particularly in stable or aggrading landforms including alluvial deposits.
- The potential for intact deposits is not necessarily greatly diminished by ploughing of an area, which only tends to affect the top 30 centimetres of a deposit.
- Extensive testing has revealed the presence of backed blade manufacturing sites, heat treatment locations, general camp sites and other specialised activity areas.
- Sites are more extensive and complex in landscapes with more permanent water.
- Sites with ephemeral water sources were found to be sparser and to contain evidence of more localised one-off behaviour.
- Grinding grooves may be found in the sandstone or shale/sandstone transition areas.
- Scarred trees may occur in stands of remnant vegetation.
- The most common raw material is silcrete, though some indurated mudstone/silicified tuff and quartz artefacts may also be found.

After ground-truthing the model in a number of places, including at the Australian Defence Industries site (McDonald and Mitchell 1997), McDonald concluded that the three main factors influencing the density and complexity of open artefact sites in the Cumberland Lowlands are:

- stream order;
- landscape unit (ie landform type); and
- proximity to a stone source suitable for extracting stone for tool manufacture.

Baker (AMBS Consulting 2000) proposed a model based on excavation at Mungerie Park (near Caddies Creek). He suggested that three zones of 'archaeological complexity' could be described, namely

- a 'complex zone' of overlapping knapping floors or activity areas and high-density artefact concentration due to repeated occupation;
- a 'dispersed zone' where activity areas are more spatially discrete due to either less frequent use or activities occurring away from main camp sites; and
- a 'sparse zone' of consistently low-density artefact distribution likely to be resulting from discard events rather than knapping (AMBS Consulting 2000: 53-54).

McDonald reviewed this and other models in the light of excavations along Second Ponds Creek and nearby sites. She suggests that the earliest occupants of the Sydney region focused habitation on the Nepean River and large creek lines. As time progressed they gradually moved away from these locations and began to occupy more distant places. At this point populations were highly mobile and transported stone material from the Nepean River Gravels. When this was not possible they made do with whatever local stone sources were available. As sea levels rose and then stabilised after 6,000 before present (BP), groups from the coast were forced inland. Population gradually increased, and many new occupation sites were inhabited in different regions. People began to focus on local stone sources, in the Rouse Hill region people relied on silcrete. Heat-treating of the stone became more common. It is likely that stone was partially worked or prepared at its source and transported back to habitation camps. Backed artefacts became increasingly common. In the last 1,000 years ground stone becomes more common and it is possible that changes in frequencies of use of different raw materials points to 'more restricted social movement, and contact via exchange networks' (Jo McDonald CHM 2005a).

A review of the various occupation models based on the wealth of data in the Rouse Hill Development Area (McDonald and White 2010) produced the following key findings supporting some of the previous models:

- artefact distribution can better be seen as part of a landscape rather than discrete sites as implied by Kohen and others;
- artefact distribution does appear to be related to proximity to water, although this further varies with stream order;
- stream order does seem to be a significant factor in site distribution as suggested by McDonald and Mitchell (1997);
- artefact density does appear to vary significantly with landform (McDonald and Mitchell 1997);
- the orientation of open land surfaces seems to have an influence on the selection of artefact discard locations - with slopes facing north and north-east generally having higher densities;
- distance from known silcrete sources does not seem to have a large influence on artefact density;

- these trends in artefact density and distribution indicate long-term, large scale patterns; and
- social and/or symbolic factors may also have influenced site selection (McDonald and White 2010; AECOM 2011).

3.2 LOCAL CONTEXT

A landscape such as the project area would have provided access to a number of different resource zones; making it an attractive location for past occupation.

As mentioned above, sites at Parramatta have produced the oldest dates in the Sydney Basin. Aboriginal occupation of the local region goes back at least 30,000 years. These early dates have been recorded in association with occupation on the preserved Pleistocene landform (sand sheet) along the banks of the Parramatta River. The site patterning of the project area vicinity will also be influenced by the nearby foreshores and bays of the Parramatta River. The *Port Jackson Archaeological Project* was undertaken in the early to mid-1990s partly because it was recognised that the archaeology of Port Jackson and surrounds was comparatively poorly documented (Attenbrow 1990). This is, to a large extent still the case compared to the extensive amount of work that has been carried out on the adjacent Cumberland Plain. Relatively few excavations have been undertaken in the sandstone geology of Sydney Harbour and its associated rivers. Predictive site modelling for the Parramatta River and surrounds has been limited due to the lack of detailed information. In general terms more sites have been recorded on sandstone geology than shale (Irish 2002: 21-22).

It is documented that a wide variety of sites were present throughout Sydney. Governor Phillip commented on the observations of rock engravings by exploration parties with the First Fleet and also ordered that the burial mounds along Middle Harbour be investigated (Attenbrow 1990: 1). The Port Jackson project investigated the distribution of shell middens throughout 8 'sub catchments'. It was concluded that 98% of middens are on Hawkesbury sandstone geology. Most of the known sites occur on Council reserves or Crown Lands with only 8% on private or 'non-reserve' land. The highest density of sites was recorded in Middle Harbour. Over half (61%) of the midden sites and 80% of the archaeological deposits were located within rock shelters with over half of all sites occurring within ten metres of the high-water level. It was also acknowledged that some of these patterns might be due to the relative level of development on ridgelines as opposed to adjacent to the waterfront (Attenbrow 2002).

3.2.1 Database Searches

Searches of the NSW State Heritage Register, Inventory and the Australian Heritage database were undertaken. No Aboriginal archaeological sites or places of cultural heritage significance were recorded on these databases. No Aboriginal sites are recorded on *The Burwood Local Environmental Plan 2012*.

A search of the OEH AHIMS database was undertaken on 5 April 2018 for an area at Datum: GDA, Zone: 56, Eastings: 323000 - 329000, Northings: 6247000 - 6253000. A total of 7 sites have been recorded within this area. None of the sites is within the project area.

Six of the seven sites are associated with the nearby foreshore and bays of the Parramatta River to the north. Of these six sites, five contain shell midden one of the midden sites is within a shelter while the other four are open sites. The sixth foreshore site is a rock shelter with art. The seventh site is an open artefact scatter on the Cooks River to the southwest of the subject land. This patterning is consistent with the predictive models for the river/harbour foreshore landscapes. It is not surprising that there are fewer sites on the Cumberland Plain landforms in the project area in light of the intensive development of the area.

The locations of the registered sites recorded in AHIMS are shown in Figure 4. The location information for sites recorded within the AHIMS is subject to variation in recording methods. Coordinates provided are often indicative rather than exact. As can be seen by some of the site being recorded in the water, the accuracy of locations cannot always be relied on. The author cannot vouch for the accuracy of the information provided by OEH or other agencies.

Elsewhere in the local region, due to the intensive development of the locality many previously existing sites would now be destroyed. It is telling that most of the recorded sites within a few kilometres of the project area have been located within undeveloped lands such as reserves or parks.

3.3 SUMMARY

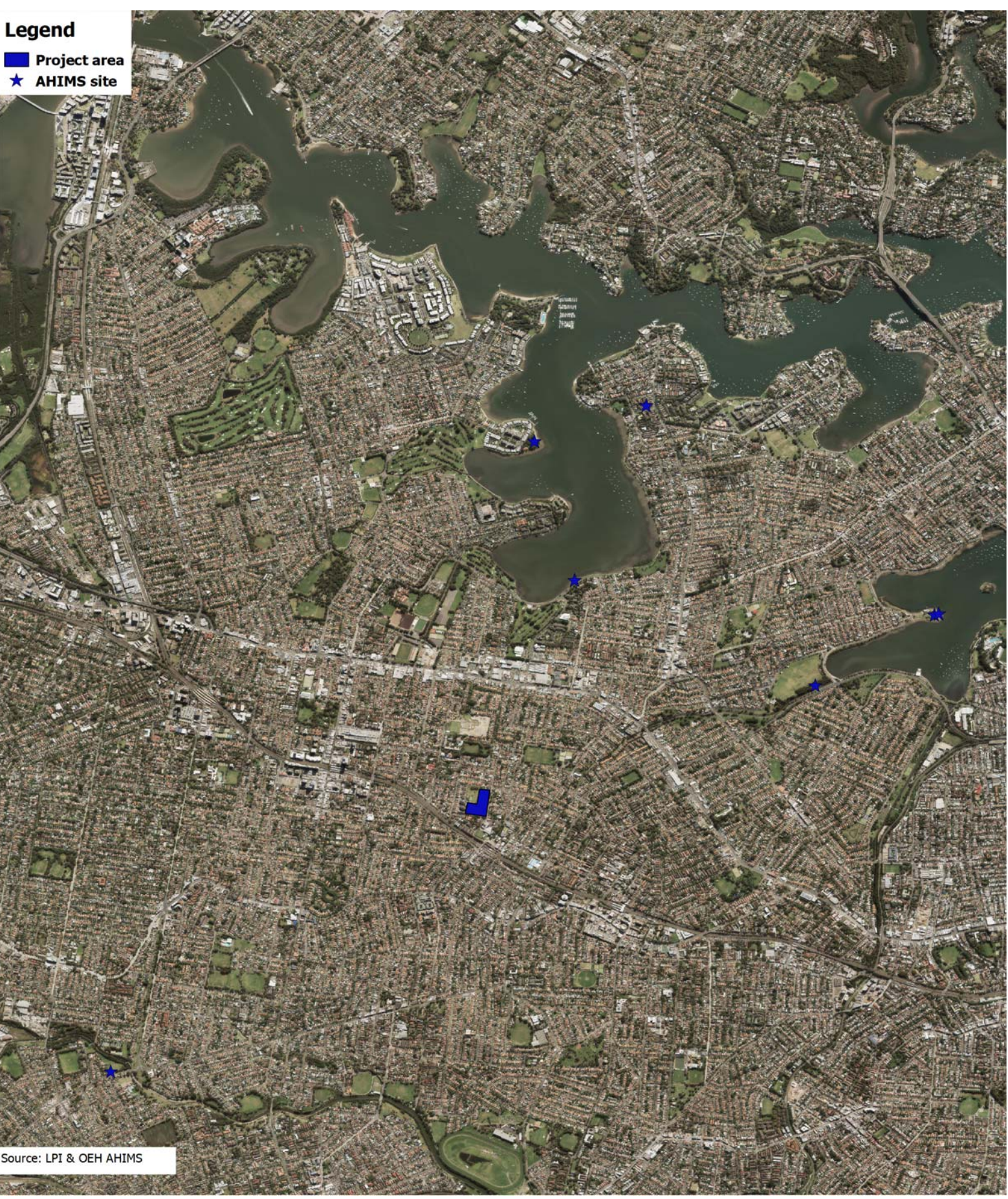
The region would have been a favoured place of occupation for Aboriginal groups in the past. The project area vicinity has abundant resources and would have provided for relatively large groups. Artefact scatters of high density on Cumberland Plain landforms are usually found within 200 metres of significant waterways with the highest significance sites within 100 metres on elevated terraces. Subsurface artefact densities will be lower on upper slopes and crest/ridgelines and higher on lower slopes.

The most common site type in the locality is midden sites. This is due to the proximity of the Parramatta River. Middens occur within and out of rock shelters. Rock shelter sites are overall more common than open sites in the sandstone geology of the harbour foreshore landscapes.

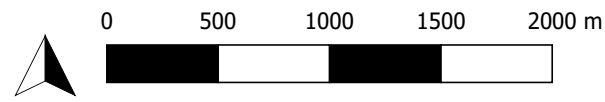
In summary, there would have been relatively large Aboriginal populations utilising the project area and surrounds. The number of sites recorded on AHIMS is a fraction of what once would have been present. The major factor influencing the potential for unrecorded sites to be preserved will be the level of disturbance in the area.

Legend

- Project area
- AHIMS site



Source: LPI & OEH AHIMS



Maps and figures in this document may be based on third party data, may not be to scale and are intended as a guide only. We do not warrant the accuracy of such maps or figures.

Figure 4: AHIMS sites

4.0 SITE INSPECTION

The project area was inspected on 26 April 2018 by Vanessa Hardy along with Selina Timothy, Culture and Heritage Officer with Metropolitan Local Aboriginal Land Council (MLALC).

4.1 AIMS & METHODS

The aim of the site inspection was to determine whether any unrecorded Aboriginal objects or areas of sub-surface archaeological potential would be likely to occur in the project area and whether development of the subject land could have the potential to impact these sites or areas. The external parts of the project area were inspected on foot. No inspection was undertaken within standing buildings.

4.2 RESULTS

The project area land is within a slope landform, which slopes to the north. The majority of the area is hard or other artificial surfaces inhibiting surface visibility. The western portion of the land includes playground area with artificial grass (Figure 5). At the northern boundary of the western portion of land there is a sharp drop to the lower adjacent land. In the north of the project area the boundary to the west includes a more gradual slope to the west (Figure 6). The neighbouring land to the west of the project area has been highly modified from its use as a quarry for the adjacent brickworks. The land has been excavated to several metres depth. The entire project area has been subject to considerable disturbance, including deep filling as discussed in Section 2.2.

No Aboriginal objects were located during the site inspection. No trees with potential for Aboriginal scarring are located in the project area. No areas of archaeological potential or archaeological sensitive landforms were noted within the project area.

4.2.1 Summary

No known sites are recorded within the project area boundaries. No Aboriginal objects were located during the site inspection. The site inspection revealed a highly disturbed landscape with low potential for Aboriginal objects.

Figure 5: Project area western playground



Figure 6: Sloping area in north of grounds



5.0 DISCUSSION & RECOMMENDATIONS

This section provides a summary of the results of the assessment and a discussion of the due diligence requirements for the project. It also presents recommendations for ongoing management based on the assessment findings and the legislative context.

5.1 DEVELOPMENT IMPACTS

A concept plan for the subject land showing existing buildings is included in Appendix 1.

As designs are not yet final, for the purposes of considering harm it has been assumed that impacts could include disturbance or removal of soils anywhere across the project area.

5.2 ABORIGINAL COMMUNITY INPUT

The MLALC were contacted prior to the site inspection to participate in providing cultural significance input for the project. Selina Timothy, Culture and Heritage Officer, attended site with the archaeologist and was provided a map of the existing site. The proposed additions to the school were discussed.

The MLALC have stated that they have considered the Aboriginal heritage constraints of the proposed development and have no objections. They have recommended that if any Aboriginal cultural material are located during the course of the development MLALC and OEH should be contacted immediately. They have also stressed that any culturally significant items found during works should be cared for, respected and recorded in an appropriate manner.

A copy of the LALC comment is included in Appendix 2.

5.3 DISCUSSION & CONCLUSIONS

On the basis of the documented disturbance it is concluded that the project area has low archaeological potential. It has been subject to deep cutting and filling in the western portion. The remainder of the site contains buildings and hard surfaces and has also been shown to contain fill over sub soils and degrading shale. There does not appear to be any original A horizon soils remaining.

The extent of the disturbance to the ground surface is considered likely to have removed any pre-existing traces of past Aboriginal occupation.

5.4 DUE DILIGENCE

Due diligence is defined in the Code of Practice as “taking reasonable and practical steps to determine whether a person’s actions will harm an Aboriginal object and, if so, what measures can be taken to avoid that harm”.

The following discussion relates to the generic due diligence process shown in Figure 2, as applied to the project area.

Step 1 – Yes is disturbance likely

It was determined that future development works would be likely to disturb the ground surface.

Step 2 – Are there are sensitive landforms in the project area? - No

The due diligence Code of Practice provides a list of landscape features which can indicate an area has potential to contain Aboriginal occupation evidence. These are listed as areas on land that is *not disturbed* that are:

- within 200 metres of waters;
- located within a sand dune system;
- located on a ridge top, ridge line or headland;
- located within 200 metres below or above a cliff face; or
- within 20 metres of or in a cave, rock shelter, or a cave mouth.

Although the land meets the definition of *disturbed* under the due diligence guidelines, the assessment presented in this report includes a consideration of the likelihood of development having an impact on sub-surface Aboriginal objects beneath the level of known surface disturbance.

The landforms in the project area are not assessed as sensitive.

Step 3 – Can impacts to the landform be avoided? N/A

Development of the project area will affect the ground surface; however, the landforms are not assessed as sensitive.

Step 4 – Are Aboriginal objects present or likely to be present – low potential

No objects are known to be present. The level of disturbance across the area is high. The project area landscape is not assessed as archaeologically sensitive due to the absence of sensitive landforms and the level of disturbance. This suggests that there is low to negligible potential for intact deposits and Aboriginal objects to occur.

5.5 RECOMMENDATIONS

On the basis of the findings of the above archaeological assessment and the legislative framework for protecting and assessing Aboriginal archaeological sites in NSW, the following recommendations are provided:

1. The project area is assessed as having a low likelihood to contain intact archaeological deposit and/or Aboriginal objects. It is recommended that development can 'proceed with caution' as outlined in the due diligence guidelines.
2. MLALC have considered the Aboriginal heritage constraints for the site and have no objections to the proposed development. They have recommended that if cultural materials are located during the development MLALC and OEH should be contacted immediately and any culturally significant items on site should be cared for, respected and recorded in the correct way.
3. On-site employees or contractors involved in ground surface disturbance should be made aware of the statutory obligations that apply to the discovery of Aboriginal objects.

4. If Aboriginal objects are uncovered during ground surface works, all works must cease and OEH and the Metropolitan LALC should be contacted to determine a course of action.
5. In the unlikely event that suspected human remains are found the *Coroners Act 2009* requires that all work must cease, the site should be secured and the NSW Police and the NSW Coroner's Office should be notified. If the remains are found to be Aboriginal pre-contact, OEH and the LALC should be contacted to assist in determining appropriate management.

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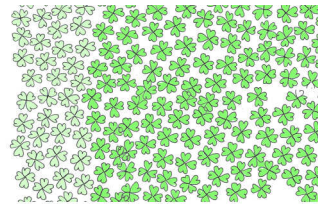
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APPENDIX 1: DEVELOPMENT CONCEPT PLAN



APPENDIX 2: METROPOLITAN LALC COMMENT



Metropolitan Local Aboriginal Land Council

36-38 George Street Redfern NSW 2016
PO Box 1103 Strawberry Hills NSW 2012
Telephone: (02) 8394 9666 Fax: (02) 8394 9733 Email: bookings@metrolalc.org.au

Wednesday 16th May 2018

Vanessa Hardy M. ICOMOS MEIANZ
Director & Principal Archaeologist
Cultural Heritage Connections Pty Ltd
PO Box 490
Dulwich Hill
NSW 2203

Dear Vanessa

**Re: Aboriginal Site Survey Report
Croydon Public School
39 Young Street Croydon, NSW**

On Tuesday 26th April 2018, I as representative of Metropolitan Local Aboriginal Land Council participated in a site inspection survey at the above property. The purpose of my role was to identify any Aboriginal Heritage constraints to the proposed development by NBR Architecture of Croydon Public School. The entire property was assessed at this time by foot with Vanessa Hardy, Director and Principal Archaeologist of Cultural Heritage Connections.

Property Description

The project area is bounded by Boundary Street to the south and Young Street to the east. The Northern and western boundaries of the site are residential development.

Photos and notes were taken throughout the proposed development site. This report outlines the findings of the Metropolitan Local Aboriginal Land Council (MLALC) and to make recommendations and any constraints that MLALC feel will protect any identified site.

Prior to commencement for compiling of this report, MLALC was informed about this property and discussions took place with Vanessa about the development. A registered search was undertaken for any known sites in the area and subject to this no sites were identified.

Aboriginal Heritage

The surveyed area contained no evidence of significant Aboriginal artefacts, no Aboriginal scarring of trees were located in the project area nor were any areas of archaeological landforms were noted within the project area on inspection. The area has been disturbed and built upon as the landscape suggests disturbance to the ground surface and is considered likely to have removed any pre-existing traces of Aboriginal occupation within the area.

Conclusions and Recommendations

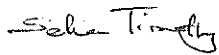
If any cultural materials are unearthed during any stages of the proposed development then all works are to cease and MLALC and Office of Environment and Heritage are to be contacted immediately.

Cultural significant items found during works carried out are to be cared, respected and recorded in the correct way.

MLALC have no objections to the proposed development of Croydon Public School, 37 Young Street, Croydon, NSW.

If you require further information please do not hesitate in contacting the MLALC Office for assistance.

Regards,

A handwritten signature in black ink, appearing to read 'Selina Timothy'.

Selina Timothy

Culture and Heritage Officer

Metropolitan Local Aboriginal Land Council (MLALC)