ABORIGINAL AND HISTORICAL ARCHAEOLOGICAL DUE DILIGENCE ASSESSMENT 26 ELIZABETH STREET, LIVERPOOL, NSW





URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

Associate Director Balazs Hansel, MA Archaeology, MA History

Senior Consultant Andrew Crisp, BA Archaeology (Hons), M. ICOMOS.

Consultant Meggan Walker, BA Archaeology (Hons)

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EXECUTIVE SUMMARY

Urbis has been engaged by Binah Group (the Proponent) to provide an Aboriginal Objects Due Diligence Assessment (ADD) for the proposed redevelopment of Lot 1 DP 217460 and Lot 10 621840, 26 Elizabeth Street Liverpool, NSW (hereafter referred as the 'subject area') (Figure 1 and Figure 2).

The subject area covers approximately 3200 m² and has recently been cleared of all pre-existing structures under CD-711/2018. The subject area is now covered by concrete and asphalt, but prior to demolition was also covered by structures associated with Peter Warren Toyota.

This DDA was prepared to investigate whether the proposed development will have the potential to harm Aboriginal or historic archaeological resources that may exist within the subject area and inform the proposed development of any archaeological constraints. The assessment was prepared in accordance to the Due Diligence Code, incorporating historical archaeological context, and included the following:

- Comprehensive background research of the Aboriginal Heritage Information Management System (AHIMS) register, relevant site cards and archaeological reports.
- Searches of statutory and non-statutory heritage listings.
- Analysis of previously conducted archaeological assessments within and in the vicinity of the subject area.
- Analysis of landscape features and their potential to retain archaeological deposits (PADs).
- Analysis of historical land use and its impact on the subject area.
- Site visit to confirm the results of the desktop assessment.
- Analysis of available historic information relevant to the subject area.

The assessment concluded that:

- There are no Aboriginal objects or sites within the subject area.
- There are no landscape features associated with the potential for Aboriginal archaeological sites within the subject area.
- There are heritage items within the vicinity subject area.
- The subject area has been zoned as containing high potential for 'high significance' (convict) items in accordance with the Liverpool Archaeological Zoning Plan (Casey & Lowe, 1996).
- The subject area has experienced moderate to high level of disturbance in association with previous phases of development. The level of subsurface impact especially on any surviving historical archaeological resources could not be established.

Based on the above conclusions, Urbis recommends the following:

- No further investigation for Aboriginal archaeological constraints is necessary, and the Proponent should keep a copy of this DDA report as a proof to have exercised due diligence for the subject area.
- There is moderate to high potential for historical archaeological resources to be present in association with the early occupation of the subject area from the 1840's to the mid-twentieth century.
- A detailed Historical Archaeological Assessment and Research Design should be undertaken to support an application for a Section 140 excavation permit under the NSW Heritage Act 1977. This can be a condition of Development Consent and performed prior to any excavation taking place.

1. INTRODUCTION

1.1. LOCATION AND PURPOSE OF THIS ASSESSMENT

Urbis has been engaged by Binah Group (the Proponent) to provide an Aboriginal and historical archaeological due diligence assessment (DDA) for the proposed redevelopment of Lot 1 DP 217460 and Lot 10 DP621840, 26 Elizabeth Street Liverpool, NSW (hereafter referred as the 'subject area') (Figure 1 and Figure 2).

The subject area covers approximately 3200 m² and has recently been cleared of all pre-existing structures under CD-711/2018. The subject area is now covered by concrete and asphalt but, prior to this demolition, was also covered by structures associated with Peter Warren Toyota.

This DDA was prepared to investigate whether the proposed development has the potential to impact on any archaeological resources that may exist within the subject area. The assessment will follow the generic steps of the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW, 2010) ('Due Diligence Code') and incorporate the historical archaeological component to the same framework. For clarity, assessment and consequent conclusion for Aboriginal and historical archaeology will be provided under separate sub-sections for each relevant section of the DDA.

1.2. PROPOSED WORKS

The proposed works involve the redevelopment of the subject area. Demolition of previous structures was completed under CD-711/2018. This phase will involve the construction of a 35 storey mixed use development with four levels of basement car parking. The construction of the basement will have a direct impact on the existing environment, remove the existing soil profile and consequently will impact and potentially destroy archaeological resources that may be present.

1.3. STATUTORY BACKGROUND

1.3.1. The National Parks and Wildlife Act 1974 (NPW Act)

The National Parks and Wildlife Act 1974 (NSW) (the NPW Act) is the primary piece of legislation for the protection of Aboriginal cultural heritage in New South Wales (NSW). The Office of Environment and Heritage (OEH) administers the NPW Act. The NPW Act provides statutory protection for Aboriginal objects by making it illegal to harm Aboriginal objects and Aboriginal places, and by providing two tiers of offence against which individuals or corporations who harm Aboriginal objects or Aboriginal places can be prosecuted. The NPW Act defines Aboriginal objects and Aboriginal places:

Aboriginal object means 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.

Aboriginal place means any place declared to be an Aboriginal place under section 84. The highest tier offences are reserved for knowledgeable harm of Aboriginal objects or knowledgeable desecration of Aboriginal places. Second tier offences are strict liability offences - that is, offences regardless of whether or not the offender knows they are harming an Aboriginal object or desecrating an Aboriginal place - against which defences may be established under the *National Parks and Wildlife Regulation 2009* (NSW) (the NPW Regulation).

Section 87 (1), (2) and (4) of the NPW Act establishes defences against prosecution under s.86. The defences are as follows:

- The harm was authorised by an Aboriginal Heritage Impact Permit (AHIP) (s.87(1)); and
- Due diligence was exercised to establish Aboriginal objects will not be harmed (s.87(2)).

Due diligence may be achieved by compliance with requirements set out in the NPW Regulation or a code of practice adopted or prescribed by the NPW Regulation (s.87(3))

This DDA follows the Due Diligence Code and aims to establish whether Aboriginal objects would be harmed by the proposed redevelopment of the subject area under s.87(2) of the NPW Act and therefore will provide defence in accordance to the above.

1.3.2. The Heritage Act 1977

The *Heritage Act 1977* is the primary legislation for the management of historical archaeological resources including relics including the following.

- A person must not disturb or excavate any land knowing or having reasonable cause to suspect
 that the disturbance or excavation will or is likely to result in a relic being discovered, exposed,
 moved, damaged or destroyed unless the disturbance or excavation is carried out in
 accordance with an excavation permit
- 2. A person must not disturb or excavate any land on which the person has discovered or exposed a relic except in accordance with an excavation permit.
- 4. The Heritage Council may by order published in the Gazette create exceptions to this section, either unconditionally or subject to conditions, in respect of any of the following:
- (a) any relic of a specified kind or description,
- (b) any disturbance or excavation of a specified kind or description,
- (c) any disturbance or excavation of land in a specified location or having specified features or attributes,
- (d) any disturbance or excavation of land in respect of which an archaeological assessment approved by the Heritage Council indicates that there is little likelihood of there being any relics in the land

Under the NSW Heritage Act 1977 a 'relic' is considered an item of 'environmental heritage':

"...means those places, buildings, works, relics, moveable objects, and precincts, of State or local heritage significance."

A 'relic' also described by the NSW Heritage Act 1977 as:

any deposit, artefact, object or material evidence that:

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

Relics or elements of environmental heritage must not be disturbed without an excavation permit. An excavation permit is a formal document submitted to the Heritage council for the permission to 'disturb' a relic. The application for the excavation permit submitted to the Heritage Council of NSW must:

- Nominate a suitably qualified archaeologist as an Excavation Director who complies with the Heritage Council's Excavation Director Criteria to direct the excavation that will have the potential to disturb a relic.
- Include the proof of the payment of the prescribed application fee.
- Be accompanied by an Historical Archaeological Assessment and methodology or research design.

1.4. AUTHORSHIP

This DDA has been prepared by Meggan Walker, Urbis Consultant Archaeologist, and Andrew Crisp, Urbis Senior Archaeologist, with review and quality control undertaken by Balazs Hansel, Urbis Associate Director Archaeology.

1.5. LIMITATIONS

The field inspection undertaken as part of this assessment was limited by the asphalting and concreting of much of the subject area which reduced visibility variables to effectively 0%.

This report provides a preliminary due diligence assessment for Aboriginal and historic archaeological potential and does not provide any detailed description or statements of significance for any identified archaeological values.

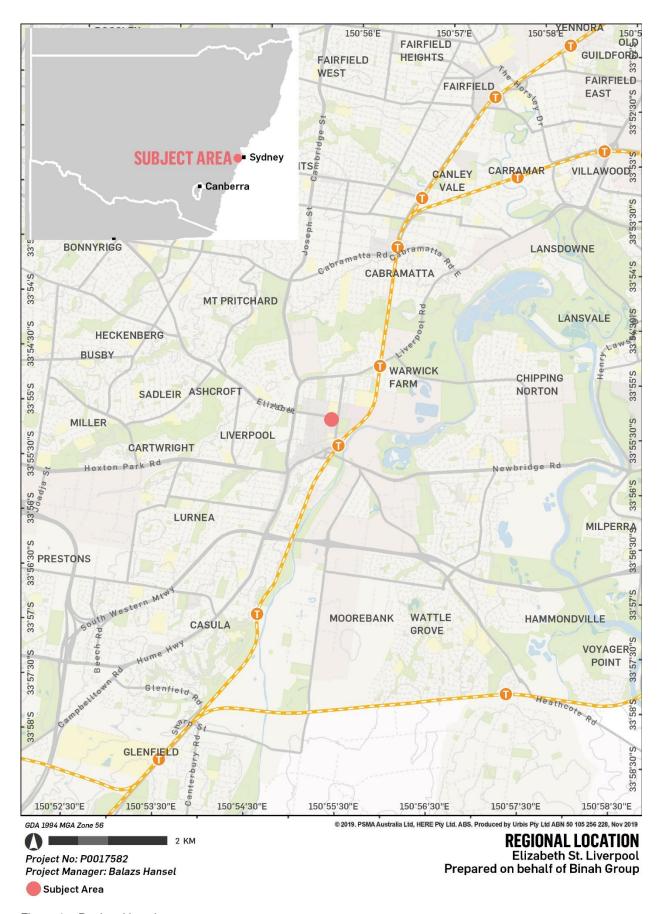


Figure 1 – Regional location



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Project No: P0017582

Project Manager: Balazs Hansel

Subject Area — Contours

Figure 2 - Location of the subject area

SUBJECT AREAElizabeth St. Liverpool
Prepared on behalf of Binah Group

2. THE DUE DILIGENCE PROCESS

2.1. OVERVIEW

The NPW Act provides statutory protection for Aboriginal objects and places in NSW.

Section 87 (2), Part 6 of the NPW Act provides that a person who exercises 'due diligence' in determining that their actions will not harm Aboriginal objects has a defence against prosecution for the strict liability offence, outlined by Section 86 of Part 6 of the NPW Act, if they later unknowingly harm an object without an Aboriginal Heritage Impact Permit (AHIP).

The Due Diligence Code (DECCW, 2010) was developed to help individuals and/or organisations to establish whether certain activities have the potential to harm Aboriginal objects within a given proposed activity footprint. Following the generic due diligence process, which is adopted by the NPW Regulation would be regarded as 'due diligence' and consequently would provide a defence under the NPW Act.

The due diligence process outlines a set of practicable steps for individuals and organisations in order to:

- 1. Identify whether or not Aboriginal objects are, or likely to be, present in an area;
- 2. Determine whether or not their activities are likely to harm Aboriginal objects (if present) and
- 3. Determine whether an AHIP application is required to carry out the harm.

This assessment follows through the steps of the due diligence process and provides clear and concise answers, and where necessary detailed description to every aspect of the due diligence code to ensure the compliance of the proposed development and assessment of any Aboriginal heritage constraints.

The process has been applied to assess the potential for historical archaeological resources as well.

IS THE ACTIVITY A LOW IMPACT ACTIVITY FOR WHICH THERE IS A 2.2. **DEFENCE IN THE REGULATIONS?**

2.2.1. Aboriginal archaeology

The proposed activity will include bulk excavation, major earthworks and the construction of a new multistorey building with subsurface levels. As such it is not defined as low-impact activity under the NPW Regulation.

2.2.2. Historical archaeology

The proposed activity will have the potential to disturb any subsurface archaeological resources that exist within the subject area.

2.3. WILL THE ACTIVITY DISTURB THE GROUND SURFACE?

The proposed activity will include the removal of concrete slabs, bulk excavation, major earthworks ad the construction of a new multistorey building with four subsurface levels. These activities will significantly disturb the ground surface and will result in the destruction of any surviving archaeological resources both Aboriginal and historical if present.

ARE THERE ANY RELEVANT CONFIRMED ARCHAEOLOGICAL SITES OR **2.4**. ASSOCIATED LANDSCAPE FEATURE INFORMATION

2.4.1. Aboriginal archaeological context

AHIMS

The search of the Aboriginal Heritage Information Management System (AHIMS) was carried out on the 12th November 2019 (AHIMS Client Service ID: 463824) for an area of approximately 4 km by 4 km.

The AHIMS search identified no Aboriginal objects and/or Aboriginal places within the subject area.

The AHIMS search identified thirty four Aboriginal objects and one Aboriginal Place within the extensive search area (Figure 3 and Table 1).

Aboriginal objects are the official terminology in AHIMS for Aboriginal archaeological sites. From now-on we will use the term of 'Aboriginal sites', 'AHIMS sites' or 'sites' to describe the nature and spatial distribution of archaeological resources in relation to the subject area.

A summary of all previously registered Aboriginal sites within the extensive search area is provided in Table 1 and the basic and extensive AHIMS search results are included in Appendix A.

Table 1 – Summary of extensive AHIMS search (AHIMS Client Service ID: 463824)

Site Type	Context	Total	Percentage
Artefact Scatter	Open	18	53%
Scarred Tree	Open	8	24%
Artefact Scatter with PAD	Open	4	12%
Isolated Find	Open	2	6%
Midden	Open	1	3%
PAD	Open	1	3%
		34	100%

All of the sites identified within the search area were open sites, with a dominance of artefact scatters which, when combined with other features, comprised 65% (n=22) of search results. There were also a number of scarred trees identified, comprising 24% (n=8) of results. However, the origins of some of these scarred trees could not be conclusively determined as Aboriginal given the difficulties surrounding confirming Aboriginal origin or scars.

Spatially, sites within the area are concentrated around major waterways, with the Georges River a clear focal point for Aboriginal activity. Ropes Creek and Brickmakers Creek are also in proximity to a number of archaeological sites.

This site distribution and typology reflects an environment in which sites are mostly occurring as surface artefacts exposures and reinforces the generic predictive model for the Cumberland Plain formulated by McDonald (see McDonald, 1992), which suggests that Aboriginal objects are anticipated to occur in higher frequency and density within 200 m of high order streams. Artefact scatters are also anticipated within 200 m of lower order streams, but these are generally low density, background scatters and generally reflective of less prolonged, transitional use of the landscape.

Regional Aboriginal archaeological context

Aboriginal people have lived in the Sydney area for more than 20,000 years. The oldest archaeologically accepted date for a site in the greater Sydney region is 17,800 years before present (BP), which was recorded in a rock shelter at Shaw's Creek (Nanson et al 1987), near Castlereagh. Evidence of Aboriginal occupation has been found dated to 50-60,000 years before present (BP) at Lake Mungo in western NSW, so given the various disperse models of human occupation, it is likely that Aboriginal people have lived in the Sydney region for even longer than indicated by the oldest recorded dates we have at present. The archaeological material record provides evidence of this long occupation, but also provides evidence of a dynamic culture that has changed through time.

The existing archaeological record is limited to certain materials and objects that were able to withstand degradation and decay. As a result, the most common type of Aboriginal objects remaining in the archaeological record are stone artefacts. Archaeological analyses of these artefacts in their contexts have provided the basis for the interpretation of change in material culture over time. Technologies used for making tools changed, along with preference of raw material. Different types of tools appeared at certain times, for example ground stone hatchets are first observed in the archaeological record around 4,000 BP in

the Sydney region (Attenbrow 2010:102). It is argued that these changes in material culture were an indication of changes in social organisation and behaviour.

The Eastern Regional Sequence (ERS) was first developed by McCarthy in 1948 to explain the typological differences he was seeing in stone tool technology in different stratigraphic levels during excavations such as Lapstone Creek near the foot of the Blue Mountains (McCarthy et al 1948). The sequence had three phases that corresponded to different technologies and tool types (the Capertian, Bondaian and Eloueran). The categories have been refined through the interpretation of further excavation data and radiocarbon dates (Hiscock & Attenbrow 2005, JMcDCHM 2005). It is now thought that prior to 8,500 BP tool technology remained fairly static with a preference for silicified tuff, quartz and some unheated silcrete. Bipolar flaking was rare with unifacial flaking predominant. No backed artefacts have been found of this antiquity.

After 8,500 BP silcrete was more dominant as a raw material and bifacial flaking became the most common technique for tool manufacture. From about 4,000 BP to 1,000 BP backed artefacts appear more frequently. Tool manufacture techniques become more varied and bipolar flaking increases (JMcD CHM 2006). It has been argued that from 1,400 to 1,000 years before contact there is evidence of a decline in tool manufacture. This reduction may be the result of decreased tool making, an increase in the use of organic materials, changes in the way tools were made, or changes in what types of tools were preferred (Attenbrow 2010). The reduction in evidence coincides with the reduction in frequency of backed blades as a percentage of the assemblage.

After European colonisation, Aboriginal people of the Cumberland Plain often continued to manufacture tools, sometimes with new materials such as bottle glass or ceramics. There are several sites in Western Sydney were flaked glass has been recorded, for example at Prospect (Ngara Consulting 2003) and Oran Park (JMCHM 2007).

Previous Aboriginal archaeological works within the area

Previous archaeological investigations can provide invaluable information on the nature, spatial distribution and extent of archaeological resources in a given area. While there were no readily available previous assessments of the subject area itself, there have been numerous archaeological investigations carried out in the Liverpool area during the last 30 years. A number of these reports have been sourced from the AHIMS register. A summary of findings of the most pertinent to the subject area is provided in Table 2.

Table 2 – Regional archaeological context

Consultant - Year	Summary of assessment	Relevance to subject area
Smith, L.J., 1989.	In this assessment Smith aimed to establish a spatial predictive model for the southern Cumberland Plain and to test whether the conclusions drawn for the northern Cumberland Plain apply. The 5-day survey program for the Liverpool Release Areas identified 26 previously unrecorded archaeological sites, with 19 scatters, 5 isolated finds and 2 scarred trees. Smith hypothesised that artefacts would be located within 50m of water sources and in lower densities than in the northern Cumberland Plain. Smith effectively surveyed 0.63% of the subject area on foot, once visibility conditions were accounted for (incidentally, Smith viewed visibility conditions as a primary factor in the locating of archaeological sites). Smith determined artefact scatters and isolated finds were located on almost all topographic features within the study area, with the exception of slopes. Smith found that 62% of sites occurred within 50m of a water source, with 53% within 10m and only 2 sites located at a distance greater than 100m. This assessment informed early predictive models for the Cumberland Plain and was formative in the development of Jo McDonald's (1992) predictive model widely applied today.	 One of the earliest assessments for the Liverpool LGA assessing spatial distribution and patterning of Aboriginal archaeological sites. Identified importance of the availability of resources including waterways and variables in landform patterns.
Cain, F., 1991.	Archaeological survey assessment of the M5 Toll Plaza, which built on previous assessments from Haglund (1984). Cain identified visibility across the surveyed grounds as ranging from 0% to 100% due to thick pasture cover, with areas of heavy disturbance. Of the seven soil exposures, three contained artefacts, with two artefact scatters, one isolated find and one potential scarred tree (determined to be European in origin). Artefact density was determined to be low in comparison to other sites on the Cumberland Plain.	 Identified low density artefact scatters compared to other parts of the Cumberland Plain. Recorded high level of disturbance and its impact on the survival of Aboriginal archaeological sites.
	Archaeological assessment intended to investigate the archaeological potential within Precinct 4 of Hoxton Park Stage II Release Area, establish the archaeological significance of the site and determine any threats to areas of archaeological significance proposed by the development. This assessment was also used as an opportunity to test the predictive model established by Smith and Kohen. This assessment resulted in the recording of 147 artefacts in total, with silcrete the dominant raw material. The spatial location and density of artefacts recovered from these excavations, with highest density approximately 80-90m from the creek on higher ground, disputed previous claims about spatial distribution of sites within the Cumberland Plain region and led to the development of the currently accepted predictive model.	 The assessment formulated and detailed the predictive model based on stream order classification and the implications on spatial distribution of archaeological sites. The assessment also discussed
		the impact of various levels of

Consultant - Year	Summary of assessment	Relevance to subject area
		disturbance on the integrity of sub-surface archaeological deposits.
	Aboriginal heritage due diligence assessment for linear infrastructure alignment. The assessment found no archaeological constraints to the subject area and also recorded high level of disturbance.	 Identified high level of disturbance caused by the high density of development in the Liverpool area and its impact on Aboriginal archaeological sites. The current subject area is located within similar environmental settings.

Summary of Aboriginal archaeological background information

The conclusions drawn from the analysis of the Aboriginal archaeological background information are the following:

- There are no Aboriginal sites registered within the subject area.
- No previous Aboriginal archaeological assessments have been conducted for the subject area.
- The most common archaeological sites within the wider region are accumulation of flaked stone artefacts occurring in an open context as surface scatters, the majority of which are low density.
- PADs are located in the region in association with archaeologically sensitive landforms.
- Archaeological sites can be found across a variety of landforms in the Cumberland Plain with more frequency in the vicinity of permanent water. Of particular archaeological potential are lower slopes and river terraces.
- Archaeological assessments within the vicinity have identified a correlation between disturbance and archaeological potential, with high level of disturbance reducing and potentially removing archaeological potential.
- Absence of surface artefacts can simply be the result of poor visibility variables and does not necessarily
 indicate an absence of artefactual material in subsurface contexts.
- The subject area has been highly disturbed by various development activities since the colonisation of the area.

2.4.2. Historical Archaeological Context

Historical overview of the subject area

This preliminary historical overview of the subject area was adapted from the Statement of Heritage Impact for the subject area prepared by GBA (GBA, 2019).

The subject area was initially part of a 300 acre property owned in 1814 by Richard Guise. Following the establishment of Liverpool as a township, the subject area may have been resumed or sold. It was then included in a smaller parcel granted in 1837 to John Rowley. With the establishment of the Liverpool Township came the now LEP listed street plan created by Robert Hoddle, which includes Elizabeth Street.

The subject area was subsequently subdivided and changed hands numerous times. The property was likely to have been used for residential or small-scale retail purposes before being purchased in 1966 by Peter Warren and used as a car dealership and service centre.

The inventory sheet from the Liverpool Archaeological Zoning and Management Plan (Casey & Lowe, 1996), suggests that during Rowley's ownership of the subject area, by 1840, a shop with two outbuildings was present within the subject area. This is noted to have remained standing until the 1950s and is shown in the 1943 aerial discussed in Section 2.6.2.

Previous historic archaeological works within the area

A number of historical archaeological assessments have been undertaken around the Liverpool area, in close proximity to the subject area. The regional historical archaeological context is discussed in Table 3. The most relevant archaeological assessments to the subject area are discussed in detail below.

Liverpool Archaeological Zoning and Management Plan

The 1996 archaeological zoning plan for the Liverpool City Council, prepared by Casey and Lowe (Casey & Lowe, 1996a) zoned areas of archaeological potential within the Liverpool city centre. Casey & Lowe undertook targeted field survey based upon the overlay of a series of historical plans onto modern property subdivisions, to provide an inventory for only those properties that had known for the potential of archaeological remains. This also allowed for the identification of those that were occupied during various phases of the development of Liverpool. Properties identified as likely to contain archaeological materials were then inspected in detail to identify and record disturbance levels.

This assessment zoned the subject area as having high significance and requiring archaeological assessment prior to the submission of a Development Application (justifying the present assessment). Casey

and Lowe identified areas of 'high' significance as containing archaeological remains associated with the convict period.

Casey and Lowe identify the subject area as containing archaeological potential on the basis of the location of the following archaeological themes: Convict period, post-convict, transition and 20th Century. Three historic phases were identified. Phase one is associated with a shop and two outbuildings (1840-1875). Phase 2 is associated with shops (1875-1939) and phase 3 is associated with the original shop (1939-1951). They determined that disturbance was low, and there were no identifiable above ground remains.

Table 3 – Regional archaeological context

Consultant - Year	Summary of assessment	Relevance to subject area
Thorp, 1995.	Historical assessment of Bigge Park approximately 71m east of the current subject area. Thorp discusses the historical context and the varying significance of the subject area. Regarding archaeological significance, Thorp stated "there are no known significant archaeological sites within Bigge Park although some evidence of a nineteenth century pavilion may be contained in it". With regard to Memorial Park, 345m north west of the subject area, Thorp concludes that there is high archaeological potential. This is due to the historic use of the park area as a cemetery and the likelihood for in situ burials to remain.	 In proximity to the subject area. Provides example of the anticipated material record of the wider region.
Casey and Lowe, 1996b.	Archaeological assessment of Liverpool train station, approximately 210m south east of the subject area. Casey and Lowe determined, on the basis of historical research and archaeological analysis, that the area is likely to have significant archaeological remains associated with a stationmaster's residence and a brick drain. They also concluded a high potential for archaeological deposits, relics, features and artefacts. Excavation was recommended.	 In proximity to the subject area. Provides example of the anticipated material record of the wider region.

Summary of historic archaeological background information

The conclusions drawn from the historic archaeological background information are the following:

- The subject area has been previously zoned as containing high archaeological potential for materials of 'high significance' (Casey & Lowe, 1996a).
- The first structures within the subject area were constructed c. 1840 and remain present until the 1950s, with moderate levels of subsequent disturbance.
- Previous assessments in the region have identified archaeological materials associated with all phases of the development of Liverpool.

On the basis of these conclusions, the subject area is determined to have high potential for historic archaeological materials to occur.

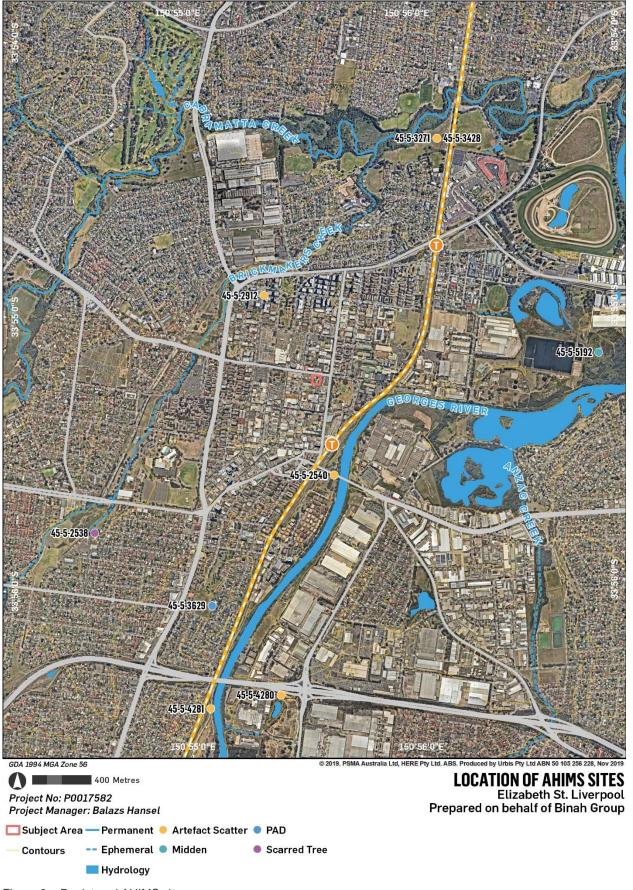


Figure 3 – Registered AHIMS sites

2.5. STEP 2B – ARE THERE ANY OTHER SOURCES OF INFORMATION OF WHICH A PERSON IS ALREADY AWARE?

This section includes a high-level assessment of historical (built) heritage constraints of the subject area. The assessment based on the statutory and non-statutory heritage listings and information available from previously undertaken archaeological investigations.

2.5.1. Liverpool Council Local Environment Plan 2008

The Liverpool Council Local Environment Plan (LEP) 2008 Schedule 5 provides information on items of local heritage significance and outlines consent requirements for undertaking activities within identified areas of significance.

A search of the Camden Council LEP 2010 Schedule 5 was undertaken on 13th November 2019. The search identified several items in proximity to the subject area, addressed in Table 4 below.

Table 4 -	Liet	$\cap f$	itame	in	provimity	on	IFP
Table 4 -	LIST	ΟI	ILEITIS	ш	DIOXIIIIII	OH	LEF.

Item number	Item name	Approx. Distance	Significance
N/A	Bigge Park Conservation Area	Directly to the east.	Local
83	Milestone	77m west.	Local
89	Plan of Town of Liverpool (early town centre street layout–Hoddle 1827)	Directly to the north	Local
85	All Saints Roman Catholic Church	22m north (across Elizabeth Street).	Local

2.5.2. Liverpool Council Development Control Plan 2008

The subject area is identified within the Liverpool Council Development Control Plan (DCP) 2008. The Liverpool DCP addresses heritage in Part 1, Sections 16 and 17.

Section 16 pertains to Aboriginal archaeology, and identifies it's objectives as "To identify and where possible preserve relics of the occupation of the land by Aboriginal communities". This identifies controls relating to Aboriginal heritage, including identifying a need for archaeological assessments in places identified as having potential including land to which the following applies:

- 1) Aboriginal sites, places or relics have previously been identified.
- 2) Within an identified cultural landscape.
- 3) That has not been cleared.

None of these criteria apply to the subject area.

Section 17 pertains to heritage and archaeological sites with a number of identified objectives. These are essentially to conserve the heritage significance of items, conservation areas and archaeological sites; to promote heritage conservation and consideration; to promote public awareness, appreciation and knowledge; and to enhance the amenity and heritage values of the LGA. This section identifies controls for development of heritage items, conservation areas or archaeological sites. This section applies to developments affecting a heritage item, land identified as an archaeological site or land within or in the vicinity of a heritage conservation area or item as listed on the LEP.

The subject area is adjacent to a number of heritage items and one conservation area as identified on the LEP (see Table 4), and thus an assessment is required.

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2.5.3. NSW State Heritage Register (SHR)

The State Heritage Register (SHR) lists items that have been assessed as being of State heritage significance to New South Wales. Items appearing on the SHR are granted protection under s.60 of the *Heritage Act* 1977 (Heritage Act).

A search of the SHR was completed on 13th November 2019. No items within or in proximity to the subject area were identified.

2.5.4. State Government Agency Conservation (Section 170) Registers

Section 170 of the Heritage Act requires that State Government Agencies establish and maintain a Heritage Conservation Register for heritage items located on land under their control or ownership. Items listed on the s.170 Register are listed on the State Heritage Inventory (SHI) and bound by the regulations of the Heritage Act.

A search of the SHI was completed on 13th November 2019. No items within or in proximity to the subject area were identified.

2.5.5. Australian Heritage Database

The Australian Heritage Database contains information about more than 20,000 natural, historic and Indigenous places including: places in the World Heritage List, Places in the National Heritage List, places in the Commonwealth Heritage list; and places in the Register of the National Estate (non-statutory). The list also includes places under consideration, or that may have been considered for any one of these lists.

A search of the Australian Heritage Database was completed on 13th November 2019. No items within or in proximity to the subject area were identified.

2.5.6. Historical Archaeological Potential

The historic archaeological potential of the subject area has been considered in Section 2.4.2 of this report. Conclusions are made on the basis of the historic land use of the subject area, the findings of previous local archaeological assessments and the likelihood of preservation based of levels of subsequent disturbance.

The historical archaeological potential of the subject area is determined to be moderate-high, with Casey & Lowe (1996a) zoning the subject area as of high significance requiring further assessment prior to a DA. The subject area is determined to be of 'high' significance owing to the potential for convict era remains.

2.5.7. Summary of Historical (built) Heritage and Archaeology Review

The following conclusions were made after the assessment of the relevant statutory and non-statutory historic heritage and archaeological constraints:

- The subject area is in proximity to a number of heritage listed items on the Liverpool LEP, including Bigge Park Conservation Area, a Milestone, the Plan of the Town of Liverpool and All Saints Roman Catholic Church (see Table 4), and consequently requires a detailed historical archaeological assessment.
- There are no items listed on any other heritage listings including the SHR, SHI or Australian Heritage Database within or in proximity to the subject area.
- The subject area has previously been identified as containing archaeological potential and requiring assessment prior to the lodgement of a DA. The significance of the subject area was identified as high, in association with convict era remains.

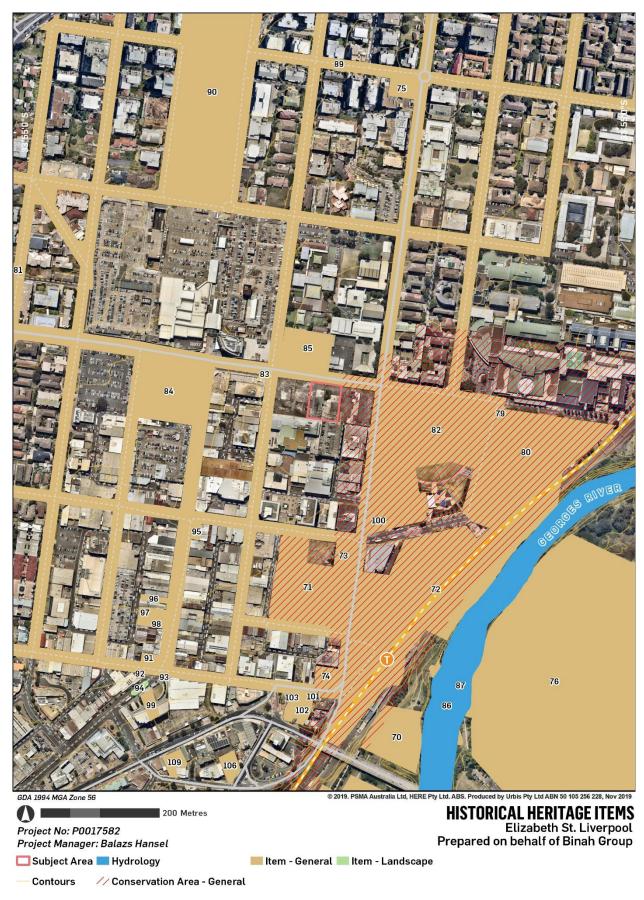


Figure 4 – Heritage items in the vicinity

2.6. ARE THERE ANY LANDSCAPE FEATURES THAT ARE LIKELY TO INDICATE THE PRESENCE OF ABORIGINAL OBJECTS?

The Due Diligence Code identifies certain landscape features that have high potential for Aboriginal archaeological resources and cultural heritage. The following landscape features are identified as having high potential for Aboriginal objects:

- within 200 m of waters including freshwater and the high tide mark of shorelines; or
- located within a sand dune system; or
- located on a ridge top, ridge line or headland; or
- located within 200 m below or above a cliff face: or
- within 20 m of or in a cave, rock shelter, or a cave mouth.

There are no known Aboriginal archaeological sites registered within the subject area.

The subject area is approximately 390m west of the Georges River and is situated upon a heavily modified landform.

2.6.1. Soil Landscape and Hydrology

The subject area is located upon the Cumberland Plain. The Cumberland Plain lies on Triassic shales and overlain by Hawkesbury sandstone. The region consists of mostly low rolling hills and wide valleys.

There is one soil landscape identified within the subject area (Figure 5), the Blacktown soil landscape.

The Blacktown Soil Landscape is described as residing upon gently undulating rises on Wianamatta Group shales and Hawkesbury shale. Soils are described as shallow to moderately deep (<100 cm) Red and Brown Podzolic Soils (Dr3.21, Dr3.11, Db2.11) on crests, upper slopes and well-drained areas; deep (150-300 cm) Yellow Podzolic Soils and Soloths (Dy2.11, Dy3.11) on lower slopes and in areas of poor drainage. Dominant soil materials include friable brownish-black loam, hard setting brown clay loam, strongly pedal mottled brown light clay, and light grey plastic mottled clays.

The depth of natural soils is relevant to the potential for archaeological materials to be present, especially in areas where disturbance is high. In general, as disturbance increases, Aboriginal archaeological potential decreases. Historic land use activities are discussed in Sections 2.4.2 and 2.6.2 of this report, however disturbance is determined to be relatively high across the entirety of the subject area in association with previous structures. As a result, there is low potential that the soil profile remains intact.

The subject area is in close proximity to the Georges River, which runs approximately 390m south east. The landform of the subject area has been historically modified.

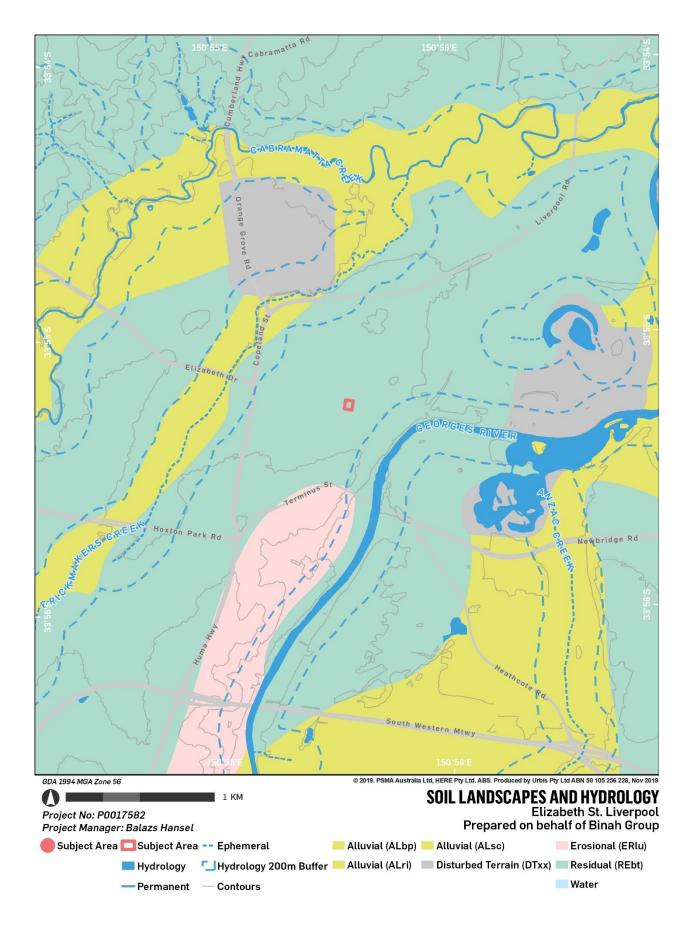


Figure 5 – Soil landscape and hydrology

2.6.2. Analysis of Historical Aerial Photographs

An informative way of assessing the level of soil disturbance is to analyse historical aerial photographs which can provide vital information on the changing environment and the impacts of historical land use within a given area. Aerial photographs from 1943, 1965 and 1989 and 2019 were analysed to evaluate previous land use and associated impacts.

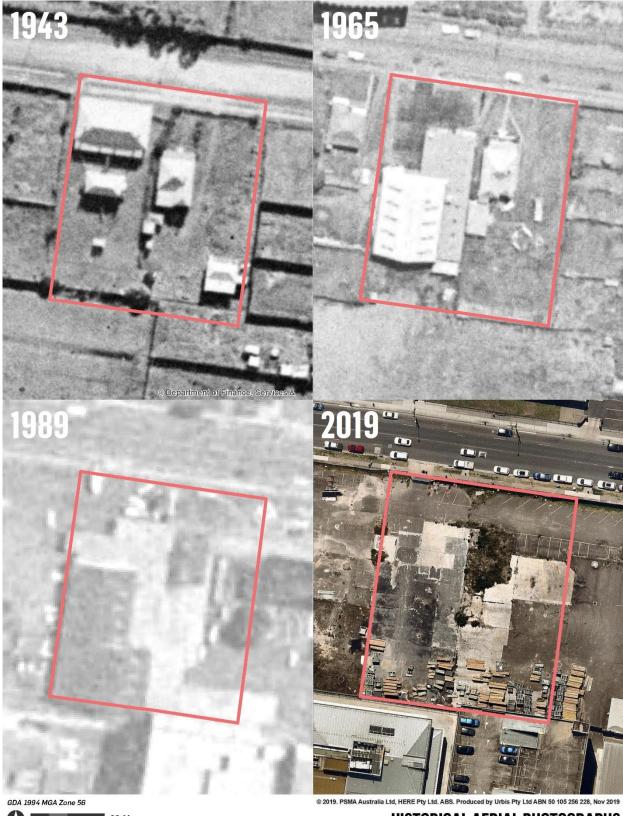
Table 5 – Analysis of historic aerial imagery

Year	Observation
1943	By 1943 the subject area has already been cleared and subdivided, with structures present. These structures include a main building with two outhouses on Lot 1 DP 217460. This is likely the 1840s shop mentioned in the Casey & Lowe zoning plan (1996a).
	On the neighbouring lot, Lot 10 DP621840, there is a residential style structure, with further outbuildings present.
1965	In the 1965 aerial, the previous structures on Lot 1 DP 217460 have been demolished and a larger structure which occupies the majority of the lot constructed. This is the Peter Warren car dealership and sales yard. In this lot, the shadow of the original structure is still visible to the north.
	In Lot 10 DP621840, the main structure remains standing with further development of the outhouse to the south. The structure present in the south east corner of this lot in 1943 has been demolished.
1989	The 1989 aerial is extremely poor in condition and thus only limited information can be gleaned from it. It appears the structure from 1965 is still present with some alteration and the north west of the subject area, where the original store was located, has been disturbed.
	In Lot 10 DP621840 it appears as though the prior structures have been demolished with built elements associated with the lots to the south encroaching into this area. The level of disturbance across the subject area associated with this aerial seems high.
2019	By 2019 the subject area is drastically changed. All previous structures have been demolished and the subject area has been asphalted/concreted in association with its functioning as the car yard and sales room for Warren Toyota. There are areas of exposed soils towards the north of the subject area, and these sections appear highly disturbed.

The subject area has been the subject of consecutive developments since as early as 1943, with historical research affirming that structures have been present since at least 1840. While the demolition and construction associated with various phases of occupation has clearly resulted in some disturbance, the presence of the shadow of the 1840s store in the 1965 aerial suggested this disturbance does not descend deep into the soil profile with the potential for footings remaining.

Development associated with the Warren Toyota sales room and car yard resulted in the asphalting/concreting of the subject area, which will not have involved high levels of disturbance and may have resulted in the preservation of any archaeological materials below the asphalt/concrete level.

Historical land use and associated disturbance within the subject area is generally consistent with the rest of the Liverpool City area, which was heavily developed prior the introduction of legislation protecting Aboriginal and historical heritage and archaeology.



20 M
Project No: P0017582
Project Manager: Balazs Hansel
Subject Area

Figure 6 – Historical aerial imagery

HISTORICAL AERIAL PHOTOGRAPHS Elizabeth St. Liverpool Prepared on behalf of Binah Group

2.7. CAN HARM TO ABORIGINAL OBJECTS LISTED ON AHIMS OR IDENTIFIED BY OTHER SOURCES OF INFORMATION AND/OR CAN THE CARRYING OUT OF THE ACTIVITY AT THE RELEVANT LANDSCAPE FEATURES BE AVOIDED?

There are no Aboriginal sites located within the area of proposed impacts, nor relevant landscape features which may indicate Aboriginal archaeological potential. There is low to nil potential for Aboriginal objects survived within the subject area, and consequently no need to redesign the proposed activity.

However, there is potential for historical archaeological resources and further investigation will be needed to understand the nature, spatial extent, potential and significance of those resources.

2.8. DOES THE DESKTOP ASSESSMENT AND VISUAL INSPECTION CONFIRM THAT THERE ARE ABORIGINAL AND/OR HSITORICAL ARCHAEOLOGICAL RESOURCES OR THAT THEY ARE LIKELY?

The desktop assessment confirmed the following:

- No Aboriginal objects or sites have been previously recorded within the subject area or identified during the visual inspection for this assessment.
- The subject area has experienced moderate to high levels of disturbance association with previous phases of development.
- There are no landscape features associated with Aboriginal archaeological potential present within the subject area.
- There are heritage items within the vicinity subject area.
- The subject area has been zoned as containing high historical archaeological potential for 'high significance' (convict) items in accordance with the Liverpool Archaeological Zoning Plan (Casey & Lowe, 1996).

Visual inspection of the subject area was carried out by Andrew Crisp (Urbis Senior Consultant) on 22nd November 2019. The visual inspection confirmed the following:

- GSV was zero as a result from the hardstand present across the majority of the subject area.
- The extant hardstand within the subject area is a result of multiple phases of development rather than a single demolition and sealing event (such as may occur when a site is cleared of structures and carpark established).
- The visual inspection confirmed that the hard stand within the subject area is a patchwork of foundation slabs of now demolished structures with the remaining ground surface sealed using asphalt or concrete (Figure 7, Figure 8, Figure 9, Figure 10, Figure 11 and Figure 12). It is likely that the earlier structures identified through the historical aerials have influenced the current hard stand development.
- The current hard stand is not a level surface but truncates the ground surface in a number of locations (Figure 9 and Figure 10). Furthermore, in the north-eastern portion of the subject area (in the approximate location of the easternmost structure visible in the 1943 and 1965 aerials) a depression/cavity is visible (Figure 10). This is likely the result of the demolition process used for the earlier structure and has resulted in moderate to high levels of subsurface disturbance to an estimated depth of 1 m below the current hard stand level (accurate depths could not be established based on dense vegetation).
- The depth of potential subsurface disturbance across the subject area is likely to fluctuate based on the
 results of the visual inspection. It is anticipated that any natural topsoil within the subject area has been
 subjected to moderate to high levels of disturbance or removed entirely.



Figure 7 – View across subject area from north western corner. Aspect south east



Figure 8 – View from the north western corner of subject area. Aspect south

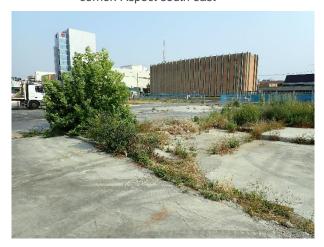


Figure 9 – View of the varying levels of the current hard stand within the eastern half of the subject area. Aspect north west



Figure 10 - View toward the depression left following the demolition of earlier structure. Aspect north



Figure 11 –View from the centre of the subject area. Aspect south



Figure 12 - View across the southern portion of the subject area. Aspect east

IDENTIFYING HISTORICAL ARCHAEOLOGICAL 3. **POTENTIAL**

This section presents an assessment of the potential for historical archaeological resources to be present within the subject area. Archaeological resources may generally exist 'in-situ' or in a disturbed context below or above ground, and also within the cavities of existing structures. Such resources have the potential to provide insight into the use and occupation of the site that is not identifiable through other resources.

3.1. ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL

Historical archaeological potential is defined as:

The degree of physical evidence present on an archaeological site, usually assessed on the basis of physical evaluation and historical research. (Department of Urban Affairs and Planning 1996)

Archaeological research potential of a site is the extent to which further study of relics likely to be found is expected to contribute to improved knowledge about NSW history which is not demonstrated by other sites, archaeological resources or available historical evidence. The archaeological potential of the subject area is assessed based on the background information presented earlier in the report, and graded as per:

- Nil Potential: the land use history demonstrates that high levels of ground disturbance have occurred that would have completely destroyed any archaeological remains. Alternatively, archaeological excavation has already occurred, and removed any potential resource.
- Low Potential: the land use history suggests limited development or use, or there is likely to be quite high impacts in these areas, however deeper sub-surface features such as wells, cesspits and their artefact-bearing deposits may survive.
- Moderate Potential: the land use history suggests limited phases of low-moderate development intensity, or that there are impacts in this area. A variety of archaeological remains is likely to survive, including building footings and shallower remains, as well as deeper sub-surface features.
- High Potential: substantially intact archaeological deposits could survive in these areas.

The potential for archaeological relics to survive in a particular place is significantly affected by land use activities that may have caused ground disturbance. These processes include the physical development of the site (for example, phases of building construction) and the activities that occurred there. The following definitions are used to consider levels of disturbance:

- Low Disturbance: the area or feature has been subject to activities that may have had a minor effect on the integrity and survival of archaeological remains.
- Moderate Disturbance: the area or feature has been subject to activities that may have affected the integrity and survival of archaeological remains. Archaeological evidence may be present, however it may be disturbed.
- High Disturbance: the area or feature has been subject to activities that would have had a major effect on the integrity and survival or archaeological remains. Archaeological evidence may be greatly disturbed or destroyed.

Table 6 - Assessment of the potential archaeological resource and likelihood of survival at the subject area

Phase and Date	Potential Archaeological Resource	Integrity of Archaeological Evidence	Archaeological Potential
Phase 1: 1840 - 1875	Subsurface remains of structures, including the shop and, outbuildings, sub-floor occupational deposits, rubbish pits and privies.	Consequent development of the site could have impacted the upper layer of accumulated deposits and disturbed the remaining structures of the original buildings. However, no major sub-surface development was undertaken in the subject area that would have destroyed or completely removed the archaeological resource.	Moderate to high
Phase 2: 1875 - 1939	Subsurface remains of the shop, sub-floor occupational deposits, rubbish pits and privies.	In addition to the above, modification to the original building might have resulted in additional disturbance and removal of earlier phases of the structures and associated deposits. The late 19 th and early 20 th century water reticulation might have expedited the need for on-site rubbish pits and privies and the consequent accumulation of associated deposits.	Moderate to high
Phase 3: 1939 - 1951	Subsurface remains of the shop, sub-floor occupational deposits, rubbish pits and privies.	In addition to the above, the demolition of the shop and all associated buildings and the capping of the accumulated deposits with concrete and asphalt might have sealed all accumulated archaeological resource from further disturbance.	Moderate to high

3.2. SUMMARY OF ARCHAEOLOGICAL POTENTIAL

Overall, the subject area has moderate to high potential to contain archaeological materials associated with the old shop and outbuildings present on Lot 1 DP 217460 since the 1840s. This was first identified by Casey & Lowe in the 1996 archaeological zoning plan (Casey & Lowe 1996). The presence of the building shadow in the 1965 aerial reaffirms this potential.

The activities within the subject area subsequent to the demolition of the 1840s structure are unlikely to have caused considerable disturbance or have removed the archaeological potential of the subject area. On the contrary, through the concreting/asphalting of the subject area it is likely that any subsurface archaeological materials have been protected from disturbance.

CONCLUSIONS AND RECOMMENDATIONS 4.

This DDA was prepared to investigate whether the proposed development will have the potential to harm Aboriginal or historic archaeological resources that may exist within the subject area and inform the proposed development of any archaeological constraints. The assessment was prepared in accordance to the Due Diligence Code, incorporating historical archaeological context, and included the following:

- Comprehensive background research of the Aboriginal Heritage Information Management System (AHIMS) register, relevant site cards and archaeological reports.
- Searches of statutory and non-statutory heritage listings.
- Analysis of previously conducted archaeological assessments within and in the vicinity of the subject
- Analysis of landscape features and their potential to retain archaeological deposits (PADs).
- Analysis of historical land use and its impact on the subject area.
- Site visit to confirm the results of the desktop assessment.
- Analysis of available historic information relevant to the subject area.

The assessment concluded that:

- There are no Aboriginal objects or sites within the subject area.
- There are no landscape features associated with the potential for Aboriginal archaeological sites within the subject area.
- There are heritage items within the vicinity subject area.
- The subject area has been zoned as containing high potential for 'high significance' (convict) items in accordance with the Liverpool Archaeological Zoning Plan (Casey & Lowe, 1996).
- The subject area has experienced moderate to high level of disturbance in association with previous phases of development. The level of subsurface impact especially on any surviving historical archaeological resources could not be established.

Based on the above conclusions, Urbis recommends the following:

- No further investigation for Aboriginal archaeological constraints is necessary, and the Proponent should keep a copy of this DDA report as a proof to have exercised due diligence for the subject area.
- There is moderate to high potential for historical archaeological resources to be present in association with the early occupation of the subject area from the 1840's to the mid-twentieth century.
- A detailed Historical Archaeological Assessment and Research Design should be undertaken to support an application for a Section 140 excavation permit under the NSW Heritage Act 1977. This can be a condition of Development Consent and performed prior to any excavation taking place.

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APPENDIX A AHIMS BASIC AND EXTENSIVE RESULTS

