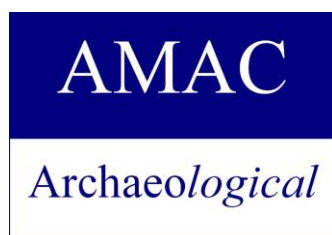


INTERIM ABORIGINAL ARCHAEOLOGICAL REPORT

Central Coast Quarter
26 Mann Street
Gosford, NSW
(Central Coast Council LGA)



Benjamin Streat & Yolanda Pavincich

Archaeological Management & Consulting Group
and Streat Archaeological Services

for
SH Gosford Residential Pty Ltd

August 2019

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Cover Image

Site Inspection Photo
B.Streat (AMAC, 2019) [DSCN3126]

ACKNOWLEDGEMENT OF COUNTRY

SH Gosford Residential Pty Ltd would like to acknowledge the Traditional Custodians of the Gosford area– the Darkinjung Peoples and the Wanangine a.k.a Guringai Peoples– and pay respect to their cultural heritage, beliefs and continuing relationship with the land.

SH Gosford Residential Pty Ltd would also like to acknowledge the post contact experiences of Aboriginal peoples who have attachment to the Gosford area. “We pay our respect to the Elders – past, present and future – for they hold the memories, traditions, culture and hopes of Aboriginal Peoples in the area”.

SH Gosford Residential Pty Ltd recognises the role of the registered Aboriginal parties in the management of the Aboriginal cultural heritage sites, landscape features and values of this project.

SH Gosford Residential Pty Ltd would like to thank the Registered Aboriginal Parties for their participation in this project and for their valuable contribution to this Aboriginal Archaeological Assessment which has been enriched by their willingness to share valuable aspects of their cultural knowledge especially in respect of Caring for Country

INTERNAL REVIEW

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EXECUTIVE SUMMARY

Study Area

Archaeological Management and Consulting Group (AMAC) in conjunction with Streat Archaeological Services Pty Ltd was commissioned by SH Gosford Residential Pty Ltd in August 2019, to undertake an Aboriginal Cultural Heritage Assessment and accompanying Aboriginal Archaeological Assessment for the proposed mixed-use development at 26-32 Mann Street, Gosford, New South Wales.

An Interim Aboriginal Archaeological Assessment report has been prepared based on the conceptual plans proposed for submission. A Full Aboriginal Cultural Heritage Assessment is also currently being prepared including full Aboriginal consultation. These final documents will be completed prior to concept State Significant Development Application (SSDA) determination. This is in response to requirement 12 of the SEARs SSD #10114. The status of said document is in Stage 1 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010).

Requirement 12: Heritage

Prepare an Aboriginal archaeology report in accordance with the relevant offices of Environment and Heritage (OEH) guidelines. Should any Aboriginal heritage items be impacted by the proposed development, an Aboriginal Heritage Cultural Assessment must be submitted.

Aboriginal Consultation

Consultation for the forthcoming report is being undertaken in accordance with the Office of Environment and Heritage and National Parks and Wildlife Act 1974: Part 6; National Parks and Wildlife Act *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010). As an archaeological test excavation programme has been proposed and an Aboriginal Heritage Impact Permit (AHIP) may be applied for, if required.

Consultation is currently in Stage 1 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010). However, a representative from Darkinjung LALC was engaged for the site inspection and provided a copy of this document. Mr. Williams verbally agreed to the recommendations and way forward as outlined in this report.

Physical Evidence

The natural topography of the site is sloping east to west down from Mann Street to a flat level ground -a result of the reclamation works. The highest level of the site is along the eastern boundary (fronting Mann Street). Thick vegetation and trees were encountered on the slope. The flat is covered by bitumen resulting in a higher level of visibility with some areas of exposure revealing disturbed material on the flat.

Significance

No formal significance has of yet been assigned to the study area.

Consultation is currently in Stage 1 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010).

Recommendations

The proposed mixed-use development has the potential to disturb the ground surface. A background analysis of the environment and archaeological context revealed that the

study area has moderate – high surface disturbance. However, the eastern slope has the potential for natural intact soils to be present. Where intact soils are present, these may contain Aboriginal objects and/or deposits as identified with AHIMS site# 45-3-3699. The surrounding landscape features present do indicate that sub-surface Aboriginal objects and/or deposits may be present in undisturbed areas.

The proposed activity is not:

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

The proposed activity is:

- located within 200m of waters

In accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974 (DECCW, 2010)*, it is recommended that further archaeological and cultural assessment is required in accordance with *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974 (DECCW, 2010)*.

The following recommendations have been formulated after consultation with the proponent and the Office of Environment and Heritage (OEH);

- A full Aboriginal Cultural Heritage Assessment including community consultation in accordance with Part 6; National Parks and Wildlife Act, *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010) should take place. AMAC has already been commissioned to carry out this process by SH Gosford Residential Pty Ltd and it is underway. Consultation is currently in Stage 1. An Interim Aboriginal Archaeological Assessment report has been prepared based on the conceptual plans proposed for submission. A Full Aboriginal Cultural Heritage Assessment is also currently being prepared including full Aboriginal consultation. These final documents will be completed prior to concept State Significant Development Application (SSDA) determination. This is in response to requirement 12 of the SEARs SSD #10114.
- Subsequent to this report and in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010)*, a program of systematic, sub surface archaeological test excavation in accordance with the *Code Of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 4 National Parks and Wildlife Act 1974 (DECCW 2010)*, should be undertaken to establish the nature and extent of any archaeological objects and/or deposits that are/may be present;
- If archaeological test excavation in accordance with the *Code of Practice for Archaeological Investigations of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010)* reveals no Aboriginal archaeological objects or deposits; The proposed development as outlined in Figure 7.1- 7.6, should be allowed to 'proceed with caution';
- If archaeological test excavation in accordance with *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974 (DECCW 2010)* reveals Aboriginal

archaeological objects and/or deposits; once the nature and extent of the archaeological site has been established through test excavation and this data has been analysed and synthesised into a test excavation report, an Aboriginal Heritage Impact Permit (AHIP) or Aboriginal Cultural Heritage Management Plan depending on the status of the development, will then need to be in place in order for the proposed development to proceed;

- After this and before any ground disturbance takes place all development staff, contractors and workers should be briefed prior to works commencing on site, as to the status of the area and their responsibilities in ensuring preservation of said area. They should also be informed of their responsibilities regarding any Indigenous archaeological deposits and/or objects that may be located during the following development;

Should any human remains be located during the following development;

- all excavation in the immediate vicinity of any objects of deposits shall cease immediately and the area is to be secured so no further harm is to come to these remains;
- the NSW police and OEH's Environment Line 131 555 are to be informed as soon as possible including any available details of the remains and their location;
- once it has been established that the human remains are Aboriginal ancestral remains, authorisation is required by OEH in consultation with relevant Registered Aboriginal Parties identifying the appropriate course of action

CONTACT DETAILS

The contact details for the following archaeologist, NSW Police, OEH and the Local Aboriginal Land Council are as follows:

Organisation	Contact	Contact Details
NSW Environment Line		131 555
NSW Sydney City Local Area Command		LAC Office: 192 Day Street Sydney NSW 2000 Ph: (02) 9265 6499 Fax: (02) 9265 6434
Archaeological Management & Consulting Group Pty Ltd	Mr. Benjamin Streat or Mr. Martin Carney	122c-d Percival Road Stanmore NSW 2048 Ph:(02) 9568 6093 Fax:(02) 9568 6093 Mob: 0405 455 869 Mob: 0411 727 395 benjaminstreat@archaeological.com.au
Office of Environment & Heritage NSW Department of Planning and Environment	Archaeologist – Head Office	PO Box A290 Sydney South NSW 1232 Ph: (02) 9995 5000 info@environment.nsw.gov.au
Darkinjung Local Aboriginal Land Council (DLALC)	Barry Williams	PO Box 401 Wyong NSW 2259 Ph: (02) 4351 2930 darkinjung@dlalc.org.au

1.0 INTRODUCTION

1.1 BACKGROUND

Archaeological Management and Consulting Group (AMAC) in conjunction with Streat Archaeological Services Pty Ltd was commissioned by SH Gosford Residential Pty Ltd in August 2019, to undertake an Aboriginal Cultural Heritage Assessment and accompanying Aboriginal Archaeological Assessment for the proposed mixed-use development at 26-32 Mann Street, Gosford, New South Wales.

An Interim Aboriginal Archaeological Assessment report has been prepared based on the conceptual plans proposed for DA submission. A Full Aboriginal Cultural Heritage Assessment is also currently being prepared including full Aboriginal consultation. These final documents will be completed prior to concept State Significant Development Application (SSDA) determination in response to requirement 12 of the SEARs SSD #10114. The status of said document is in Stage 1 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010).

Requirement 12: Heritage

Prepare an Aboriginal archaeology report in accordance with the relevant offices of Environment and Heritage (OEH) guidelines. Should any Aboriginal heritage items be impacted by the proposed development, an Aboriginal Heritage Cultural Assessment must be submitted.

1.2 STUDY AREA

The study site is that piece of land described as Lots 11 of the Land and Property Information Deposited Plan 1250131; Lots 2-7 DP 14761 and Lot 469 DP821073 forming 26-32 Mann Street, Gosford, NSW in the Parish of Gosford, County of Northumberland (hereafter known as the study area).

Address	Lot	Deposited Plan
32 Mann Street, Gosford	11	1250131
26 Mann Street, Gosford	2-7	14761
26 Mann Street, Gosford	469	821073

1.3 SCOPE

This report will assess the impact of the proposed development on any identified items or places of Aboriginal archaeological cultural heritage value and to develop mitigative strategies under the appropriate legislation for the management of Aboriginal archaeological and cultural heritage values of the study area.

1.4 AUTHOR IDENTIFICATION

The analysis of the archaeological background and the reporting were undertaken by Mr. Benjamin Streat (BA, Grad Dip Arch Her, Grad Dip App Sc), archaeologist and Director of Streat Archaeological Services Pty Ltd in association with Ms. Yolanda Pavincich and under the guidance of Mr. Martin Carney archaeologist and Managing Director of AMAC Group.

1.5 LEGISLATIVE CONTEXT AND STATUTORY CONTROLS

This section of the report provides a brief outline of the relevant legislation and statutory instruments that protect Aboriginal archaeological and cultural heritage sites within the state of New South Wales. Some of the legislation and statutory instruments operate at a federal or local level and as such are applicable to Aboriginal archaeological and cultural heritage sites in New South Wales. This material is not legal advice and is based purely on the author's understanding of the legislation and statutory instruments. This document seeks to meet the requirements of the legislation and statutory instruments set out within this section of the report.

1.5.1 Commonwealth Heritage Legislation and Lists

One piece of legislation and two statutory lists and one non-statutory list are maintained and were consulted as part of this report: the National Heritage List; the Commonwealth Heritage List and the Register of the National Estate.

1.5.1.1 Environmental Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) offers provisions to protect matters of national environmental significance. This act establishes the National Heritage List and the Commonwealth Heritage List which can include natural, Indigenous and historic places of value to the nation. This Act helps ensure that the natural, Aboriginal and historic heritage values of places under Commonwealth ownership or control are identified, protected and managed (Australian Government 1999).

1.5.1.2 National Heritage List

The National Heritage List is a list which contains places, items and areas of outstanding heritage value to Australia; this can include places, items and areas overseas as well as items of Aboriginal significance and origin. These places are protected under the Australian Government's EPBC Act.

1.5.1.3 Commonwealth Heritage List

The Commonwealth Heritage List can include natural, Indigenous and historic places of value to the nation. Items on this list are under Commonwealth ownership or control and as such are identified, protected and managed by the Federal Government.

1.5.1.4 Register of the National Estate

The Register of the National Estate is a list of natural, Indigenous and heritage places throughout Australia. It was originally established under the *Australian Heritage Commission Act 1975* (AHC Act). This has now been replaced by the Environment Protection and Biodiversity Conservation Act 1999. The register will continue to operate until February 2012 when it will be completely replaced by The Commonwealth Heritage List.

1.5.2 New South Wales State Heritage Legislation and Lists

The state (NSW) based legislation that is of relevance to this assessment comes in the form of the acts which are outlined below.

1.5.2.1 National Parks and Wildlife Act 1974

The NSW National Parks and Wildlife Act 1974 (as amended) defines Aboriginal objects and provides protection to any and all material remains which may be evidence of the Aboriginal occupation of lands continued within the state of New South Wales. The relevant sections of the Act are sections 84, 86, 87 and 90.

An Aboriginal object, formerly known as a relic 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" (NSW Government, 1974).

It is an offence to harm or desecrate an Aboriginal object or places under Part 6, Section 86 of the NPW Act:

Part 6, Division 1, Section 86: Harming or desecrating Aboriginal objects and Aboriginal places:

- (1) *A person must not harm or desecrate an object that the person knows is an Aboriginal object.*

Maximum penalty:

- (a) *in the case of an individual—2,500 penalty units or imprisonment for 1 year, or both, or (in circumstances of aggravation) 5,000 penalty units or imprisonment for 2 years, or both, or*
- (b) *in the case of a corporation—10,000 penalty units.*

- (2) *A person must not harm an Aboriginal object.*

Maximum penalty:

- (a) *in the case of an individual—500 penalty units or (in circumstances of aggravation) 1,000 penalty units, or*
- (b) *in the case of a corporation—2,000 penalty units.*

- (3) *For the purposes of this section, **circumstances of aggravation** are:*

- (a) *that the offence was committed in the course of carrying out a commercial activity, or*
- (b) *that the offence was the second or subsequent occasion on which the offender was convicted of an offence under this section.*

This subsection does not apply unless the circumstances of aggravation were identified in the court attendance notice or summons for the offence.

- (4) *A person must not harm or desecrate an Aboriginal place.*

Maximum penalty:

- (a) *in the case of an individual—5,000 penalty units or imprisonment for 2 years, or both, or*
- (b) *in the case of a corporation—10,000 penalty units.*

- (5) *The offences under subsections (2) and (4) are offences of strict liability and the defence of honest and reasonable mistake of fact applies.*

- (6) *Subsections (1) and (2) do not apply with respect to an Aboriginal object that is dealt with in accordance with section 85A.*

- (7) *A single prosecution for an offence under subsection (1) or (2) may relate to a single Aboriginal object or a group of Aboriginal objects.*

- (8) *If, in proceedings for an offence under subsection (1), the court is satisfied that, at the time the accused harmed the Aboriginal object concerned, the accused did not know that the object was an Aboriginal object, the court may find an offence proved under subsection (2).*

1.5.2.2 Environmental Planning & Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) states that environmental impacts of proposed developments must be considered in land use planning procedures. Four parts of this act relate to Aboriginal cultural heritage.

- Part 3, divisions 3.1 and 3.4 refer to Regional Environmental Plans (REP) and Local Environmental Plans (LEP) which are environmental planning instruments and call for the assessment of Aboriginal heritage among other requirements.
- Part 4 determines what developments require consent and what developments do not require consent. Section 4.15 calls for the evaluation of

The likely impacts of that development, including environmental impacts on both the natural and built environments and the social and economic impacts in the locality (NSW Government 1979).

1.5.2.3 State Environmental Planning Policy 2011

The study area is identified under Schedule 2 State Significant Development – Identified sites Clause 15;

15 Development in Gosford City Centre

Development that has a capital investment value of more than \$75 million on land identified on the Land Application Map (within the meaning of State Environmental Planning Policy (Gosford City Centre) 2018).

1.5.2.4 State Environmental Planning Policy (Gosford City Centre) 2018

The State Environmental Planning Policy is specific for the Gosford City Centre of which includes the area subject of this report. This document was endorsed in 2018. Part 5; Section 5.10 outlines the requirements regarding heritage conservation.

5.10 Heritage conservation

Note. Heritage items (if any) are listed and described in Schedule 5. Heritage conservation areas (if any) are shown on the Heritage Map as well as being described in Schedule 5.

(1) Objectives

The objectives of this clause are as follows:

- (a) to conserve the environmental heritage of Gosford,
- (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.

(2) Requirement for consent

Development consent is required for any of the following:

- (a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance):
 - (i) a heritage item,

- (ii) an Aboriginal object,
- (iii) a building, work, relic or tree within a heritage conservation area,
- (b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item,
- (c) disturbing or excavating an archaeological site while 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,
- (d) disturbing or excavating an Aboriginal place of heritage significance,
- (e) erecting a building on land:
 - (i) on which a heritage item is located or that is within a heritage conservation area, or
 - (ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,
- (f) subdividing land:
 - (i) on which a heritage item is located or that is within a heritage conservation area, or
 - (ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.

(3) When consent not required

However, development consent under this clause is not required if:

- (a) the applicant has notified the consent authority of the proposed development and the consent authority has advised the applicant in writing before any work is carried out that it is satisfied that the proposed development:
 - (i) is of a minor nature or is for the maintenance of the heritage item, Aboriginal object, Aboriginal place of heritage significance or archaeological site or a building, work, relic, tree or place within the heritage conservation area, and
 - (ii) would not adversely affect the heritage significance of the heritage item, Aboriginal object, Aboriginal place, archaeological site or heritage conservation area, or
- (b) the development is in a cemetery or burial ground and the proposed development:
 - (i) is the creation of a new grave or monument, or excavation or disturbance of land for the purpose of conserving or repairing monuments or grave markers, and
 - (ii) would not cause disturbance to human remains, relics, Aboriginal objects in the form of grave goods, or to an Aboriginal place of heritage significance, or
- (c) the development is limited to the removal of a tree or other vegetation that the Council is satisfied is a risk to human life or property, or
- (d) the development is exempt development.

(4) Effect of proposed development on heritage significance

The consent authority must, before granting consent under this clause in respect of a heritage item or heritage conservation area, consider the effect of the proposed development on the heritage significance of the item or area concerned. This subclause applies regardless of whether a heritage management document is prepared under subclause (5) or a heritage conservation management plan is submitted under subclause (6).

(5) Heritage assessment

The consent authority may, before granting consent to any development:

- (a) on land on which a heritage item is located, or
 - (b) on land that is within a heritage conservation area, or
 - (c) on land that is within the vicinity of land referred to in paragraph (a) or (b),
- require a heritage management document to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned.

(6) Heritage conservation management plans

The consent authority may require, after considering the heritage significance of a heritage item and the extent of change proposed to it, the submission of a heritage conservation management plan before granting consent under this clause.

(7) Archaeological sites

The consent authority must, before granting consent under this clause to the carrying out of development on an archaeological site (other than land listed on the State Heritage Register or to which an interim heritage order under the Heritage Act 1977 applies):

- (a) notify the Heritage Council of its intention to grant consent, and
- (b) take into consideration any response received from the Heritage Council within 28 days after the notice is sent.

(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.

(9) Demolition of nominated State heritage items

The consent authority must, before granting consent under this clause for the demolition of a nominated State heritage item:

- (a) notify the Heritage Council about the application, and
- (b) take into consideration any response received from the Heritage Council within 28 days after the notice is sent.

(10) Conservation incentives

The consent authority may grant consent to development for any purpose of a building that is a heritage item or of the land on which such a building is erected, or for any

purpose on an Aboriginal place of heritage significance, even though development for that purpose would otherwise not be allowed by this Policy, if the consent authority is satisfied that:

- (a) the conservation of the heritage item or Aboriginal place of heritage significance is facilitated by the granting of consent, and
- (b) the proposed development is in accordance with a heritage management document that has been approved by the consent authority, and
- (c) the consent to the proposed development would require that all necessary conservation work identified in the heritage management document is carried out, and
- (d) the proposed development would not adversely affect the heritage significance of the heritage item, including its setting, or the heritage significance of the Aboriginal place of heritage significance, and
- (e) the proposed development would not have any significant adverse effect on the amenity of the surrounding area.

1.5.2.5 The Aboriginal Land Rights Act 1983

The NSW *Aboriginal Land Rights Act 1983* (ALR Act), administered by the NSW Department of Aboriginal Affairs, established the NSW Aboriginal Land Council (NSWALC) and Local Aboriginal Land Councils (LALCs). The ALR Act requires these bodies to:

- take action to protect the culture and heritage of Aboriginal persons in the council's area, subject to any other law;
- promote awareness in the community of the culture and heritage of Aboriginal persons in the council's area.

These requirements recognise and acknowledge the statutory role and responsibilities of New South Wales Aboriginal Land Council and Local Aboriginal Land Councils. The ALR Act also establishes the Office of the Registrar whose functions include but are not limited to, maintaining the Register of Aboriginal Land Claims and the Register of Aboriginal Owners.

Under the ALR Act the Office of the Registrar is to give priority to the entry in the Register of the names of Aboriginal persons who have a cultural association with:

- lands listed in Schedule 14 to the NPW Act;
- lands to which section 36A of the ALR Act applies (NSW Government, 1974 & DECCW 2010).

1.5.2.6 The Native Title Act 1993

The *Native Title Act 1993* (NTA) provides the legislative framework to:

- recognise and protect native title;
- establish ways in which future dealings affecting native title may proceed, and to set standards for those dealings, including providing certain procedural rights for registered native title claimants and native title holders in relation to acts which affect native title;
- establish a mechanism for determining claims to native title;

- provide for, or permit, the validation of past acts invalidated because of the existence of native title.

The National Native Title Tribunal has a number of functions under the NTA including maintaining the Register of Native Title Claims, the National Native Title Register and the Register of Indigenous Land Use Agreements and mediating native title claims (NSW Government, 1974 & DECCW 2010).

1.5.2.7 New South Wales Heritage Register and Inventory 1999

The State Heritage Register is a list of places and objects of particular importance to the people of NSW. The register lists a diverse range of over 1,500 items, in both private and public ownership. Places can be nominated by any person to be considered to be listed on the Heritage register. To be placed an item must be significant for the whole of NSW. The State Heritage Inventory lists items that are listed in local council's local environmental plan (LEP) or in a regional environmental plan (REP) and are of local significance.

1.5.2.8 Register of Declared Aboriginal Places 1999

The NPW Act protects areas of land that have recognised values of significance to Aboriginal people. These areas may or may not contain Aboriginal objects (i.e. any physical evidence of Aboriginal occupation or use). Places can be nominated by any person to be considered for Aboriginal Place gazettal. Once nominated, a recommendation can be made to EPA/OEH for consideration by the Minister. The Minister declares an area to be an 'Aboriginal place' if the Minister believes that the place is or was of special significance to Aboriginal culture. An area can have spiritual, natural resource usage, historical, social, educational or other type of significance. Under section 86 of the NPW Act it is an offence to harm or desecrate a declared Aboriginal place. Harm includes destroying, defacing or damaging an Aboriginal place. The potential impacts of the development on an Aboriginal place must be assessed if the development will be in the vicinity of an Aboriginal place (DECCW 2010).

1.5.3 Local Planning Instruments

1.5.3.1 Gosford Local Environment Plan 2014

The Gosford Local Environmental Plan was prepared by Gosford City Council in 2014. Section 5.10 deals with Heritage Conservation. The plan states in Clause 1:

The objectives of this clause are as follows:

- (a) to conserve the environmental heritage of Gosford
- (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.

The plan states in Clause 2, that consent is required when:

- (a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance):
 - (i) a heritage item,
 - (ii) an Aboriginal object,

- (iii) a building, work, relic or tree within a heritage conservation area.
- (b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item.
- (c) disturbing or excavating an archaeological site while 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,
- (d) disturbing or excavating an Aboriginal place of heritage significance.
- (e) erecting a building on land:
 - (i) on which a heritage item is located or that is within a heritage conservation area, or
 - (ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.
- (f) subdividing land:
 - (i) on which a heritage item is located or that is within a heritage conservation area, or
 - (ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.

In addition to this Clause 8 states:

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.

This report is fulfilling section 8 (a) of this clause.

1.5.3.2 Gosford Waterfront Development Control Plan 2014

The Gosford Waterfront Development Control Plan was prepared by Gosford City Council in 2014. Section 8.0 deals with Heritage Items. The plan states:

As part of the assessment process, the consent authority must have regard to:

- Heritage Provisions in Part 5.10 of the Gosford LEP 2014,

It is based on this provision that the protection and conservation of Aboriginal places of heritage significance are assessed.

1.5.4 Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales

This assessment conforms to the parameters set out in the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010).

The Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales states that if;

- a desktop assessment and visual inspection confirm that there are Aboriginal objects or that they are likely, then further archaeological investigation and impact assessment is necessary.

1.5.5 Code of Practice for Archaeological Investigation of Aboriginal objects in New South Wales

This assessment conforms to the parameters set out in the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974*, (DECCW 2010).

1.5.6 Guidelines

This report has been carried out in consultation with the following documents which advocate best practice in New South Wales:

- Aboriginal Archaeological Survey, Guidelines for Archaeological Survey Reporting (NSW NPWS 1998);
- Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010);
- Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010);
- Aboriginal Cultural Heritage Standards and Guidelines Kit (NPWS 1998);
- Australia ICOMOS 'Burra' Charter for the conservation of culturally significant places (Australia ICOMOS 1999);
- Part 6; National Parks and Wildlife Act Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010);
- Protecting Local Heritage Places: A Guide for Communities (Australian Heritage Commission 1999).

1.6 ACKNOWLEDGEMENTS

The author would like to thank the following for advice and input into this assessment:

- Frank Katsanevas of St Hilliers Property;
- Barry Williams of Darkinjung Local Aboriginal Land Council;

2.0 DESCRIPTION OF STUDY AREA

The study site is those pieces of land described as Lots 2-7 (DP14761), Lot 11 (DP1250131) and Lot 469 (DP821073) in Land Titles Office Deposited Plan. The street address is currently known as 26 Mann Street, Gosford, in the Parish of Gosford, County of Northumberland.

It should be noted that the study site forms a recent subdivision of land following development at 32 Mann Street that AMAC Group assessed and completed (land directly fronting Mann Street). Current Lot 11 was part of former Lot 2 (DP1210298) that also contained current Lot 12 of the study site.

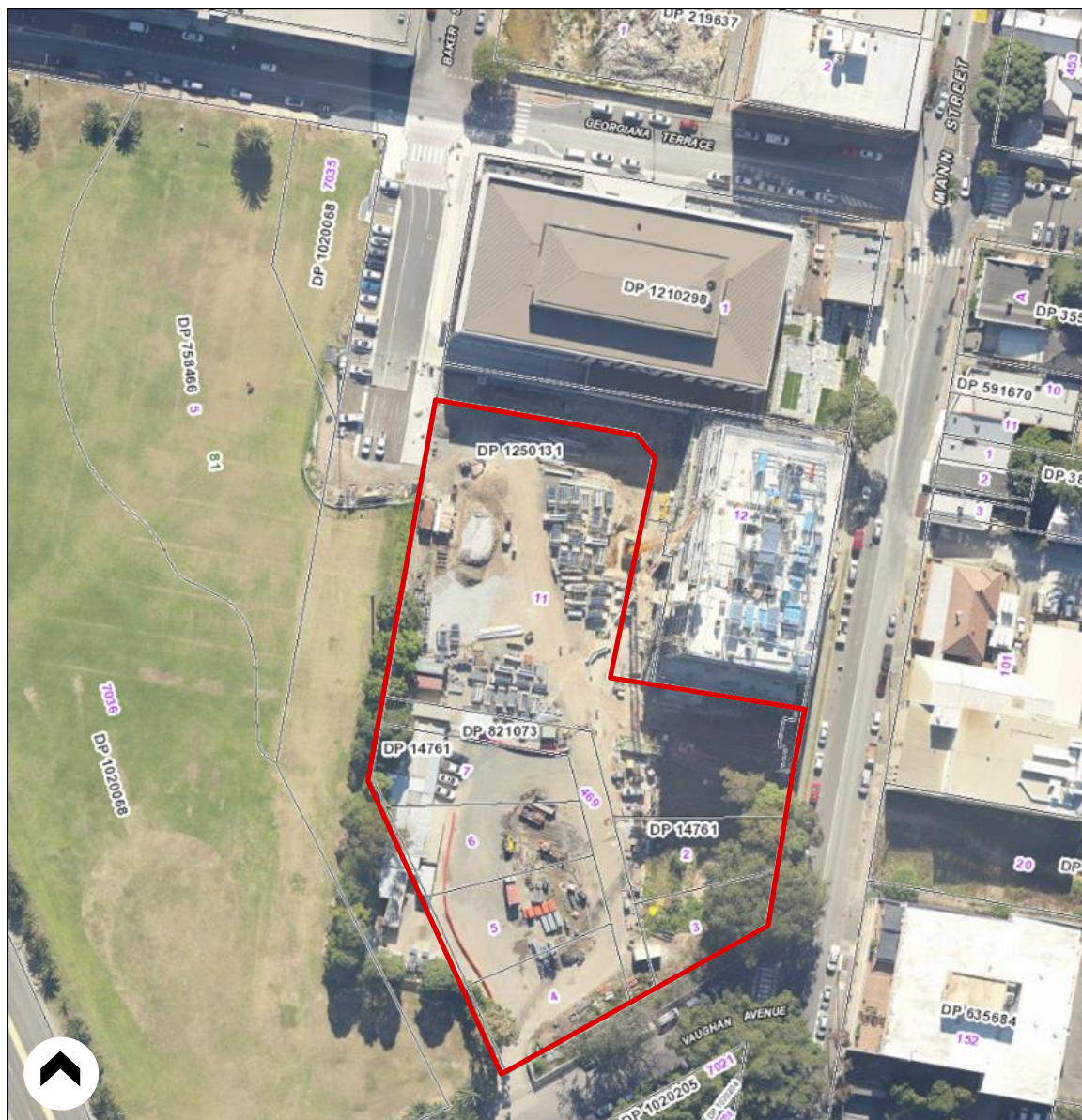


Figure 2.1 Aerial map with site location
Study site outlined in red. Six Maps, LPI Online, accessed 21/08/19



Figure 2.2 Topographic map with study area location.
Study site indicated in purple with black arrow. Six Maps, LPI Online, accessed 21/08/19

Past investigations have resulted in the following observation that the western end of the site has been subject to past reclamation works resulting in significant amounts of fill (over 1m) being imported onto the site. This fill ceases where the land slopes of which test excavation has found natural to be located as well as areas of disturbance present. Artefacts were located at the ATO site (AHIMS site no. 45-3-3699) within an intact A horizon along the eastern slope indicated intact soils have the potential of being present.



ENVIRONMENTAL CONTEXT

To adequately understand and assess the potential Aboriginal archaeological resource that may be present within the study area it is vital to understand the environment in which the Aboriginal inhabitants of the study area carried out their activities. The environment that Aboriginal inhabitants lived in is a dominant factor in shaping their activity and therefore the archaeological evidence created by this activity. Not only will the resources available to the Aboriginal population have an influence on the evidence created but the survival of said evidence will also be influenced by the environment.

2.2.1 Landscape

Sections of the study area have been impacted as a result of the construction of previous buildings, several smaller structures, service provisions and earthworks. The structures do not possess significant basements and as such the soil profile of the study area – specifically the eastern end should be largely intact and therefore intact Aboriginal archaeological deposits still exists. The western section of the site however has been significantly modified as a result of earthworks and levelling events.

2.2.2 Topography

The study area lies on a topographic zone which consists of a gentle gradient towards the western boundary. It is situated at the base of the western face of a hill, therefore site elevations range between 2-10m, but is otherwise relatively flat. The natural site surface has been modified in areas where levelling and filling events have occurred.

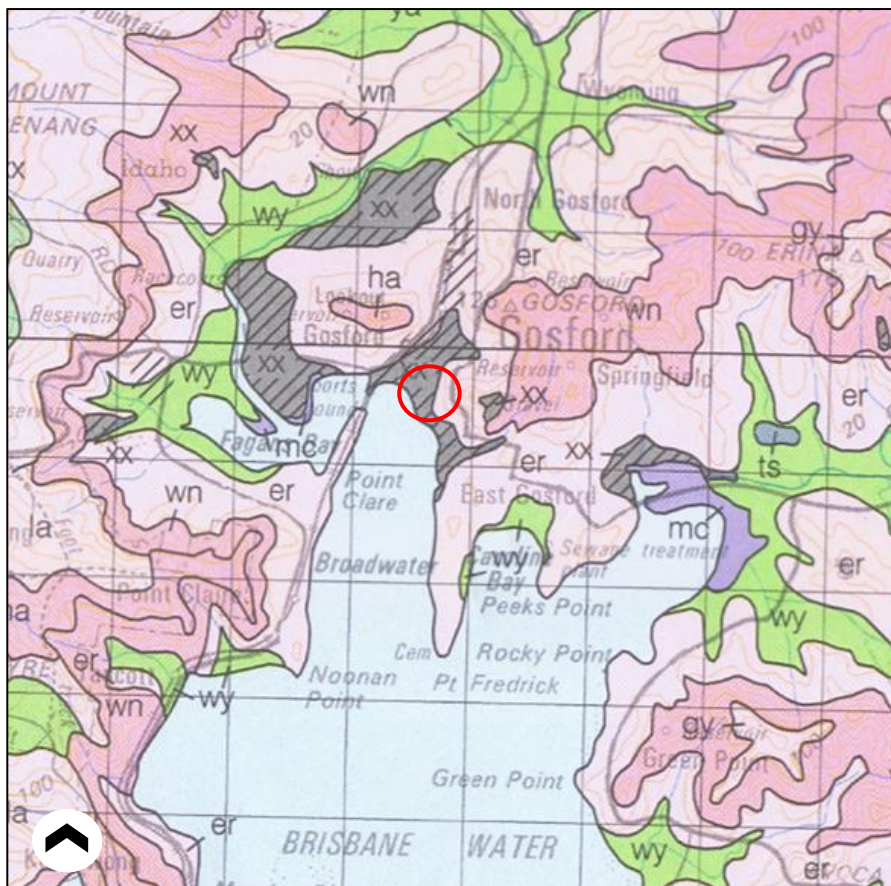


Figure 2.3 Gosford - Lake Macquarie Soil Landscape 1:100 000 sheet map, approximate study area indicated in red.

Gosford – Lake Macquarie Soil Landscape (Murphy, 1993).

2.2.3 Geology and Soils

The soil landscape as identified in the Gosford – Lake Macquarie 1:100 000 map sheet, shows the study area lies on disturbed terrain (xx) (Murphy, 1993). The soils have been identified as being disturbed to a certain extent, of which the original soil has either been removed, buried or greatly disturbed. This classification is due to the reclamation work of the Gosford foreshore in the late 1930s. This is evident in the spread of the (xx) terrain along the foreshore (Figure 3.1). Test excavations of the rear property, as part of the 32 Mann Street programme of test excavation conducted by AMAC in 2017, revealed a significant amount of reclaimed fill (>1.5m) overlaying intertidal flats. This suggests the study area will contain a similar amount of fill as the majority of the study area is within the reclaimed tidal flats and has been subject to significant filling events.

The local geology of the study area consists of Quaternary alluvium of sand, silt and clay at considerable depths towards the western side of the site and Triassic -aged Terrigal Formation in the eastern side of the site which typically comprises of fine grained, lithic quartz sandstone and siltstone with shale interbeds (Douglas Partners, 2014).

Surrounding this disturbed terrain is the Erina (er) soil landscape, this consists of the following soil profile;

Table 2.1 Description of dominant soil material

Dominant Soil Material	Soil Horizon	Description
Er1	A1 Horizon	Brownish-black fine sandy loam with a weak structure and course texture. It also contains inclusions such as sandstone and charcoal fragments as well as roots.
Er2	A2 Horizon	Brown sandy clay loam with an earthy fabric and light sandy clay loam texture. Sandstone and shale rock fragments are common as well as charcoal and roots
Er3	B1 Horizon	Yellowish brown sandy clay loam to sandy clay with a rough fabric. Colours also range from orange, red and grey mottles. Small sandstone rock fragments are present with few roots
Er4	B2 Horizon	Brown strongly pedal clay. Generally occurring as subsoil on shale parent material. Colours range from yellowish brown, dull brown, bright brown and dull orange with red and grey mottling at depth. Rock fragments, roots rare and charcoal fragments absent.
Er5	B2 Horizon	Light grey mottled strongly pedal clay, usually as deep subsoil on shale bedrock. Colour ranges from light grey to greyish yellow brown and commonly with red, yellow or grey mottles. Small shale fragments are present, but roots are rare and charcoal absent.
Er6	B3 Horizon	Brown earthy sandy clay loam, occurs as subsoil on foot-slopes. Colours usually brown, yellowish brown, and brownish yellow. Floaters (sandstone boulders) sometimes present, few roots, and charcoal absent.

In undisturbed/ minor disturbed areas of the site, it is likely that the Erina soil landscape will be present given the nature and positioning of this soil along the Brisbane Waters foreshore. Intact Erina soil profile was located on the property towards the eastern boundary fronting Mann Street.

Table 2.2 Expected Gosford soil profile depth based on landform

Crest

- up to 15cm of brownish black fine sandy loam (**er1**)
- 10 - 30cm of brown sandy clay loam (**er2**)
- up to 100cm of reddish brown clay (**er4**)

N.B The total soil profile will not exceed 100cm, boundaries between the soil horizons generally clear.

Upper Slopes and Mid Slopes

- up to 20cm of brownish black fine sandy loam (**er1**)
- up to 20-35cm of brown sandy clay loam (**er3**)
- up to 150cm of yellow brown sandy clay (**er4**)

N.B The total soil profile will not exceed 150cm on slopes, and boundaries between the soil horizons are sharp.

Lower Slopes

- up to 40cm of brownish black fine sandy loam (**er1**)
- 20 - 50cm of brown sandy clay loam (**er2**)
- up to 150cm of light grey mottled clay (**er3**)

N.B The total soil profile will exceed 200cm and the boundaries between the soil horizons are gradual.

Poor Drainage

- over 100cm of brownish black fine sandy loam (**er1**)
- or up to 60cm of **er1** overlies >150cm of **er6** Brown earthy sandy clay loam

N.B The total soil profile will not exceed 150cm.

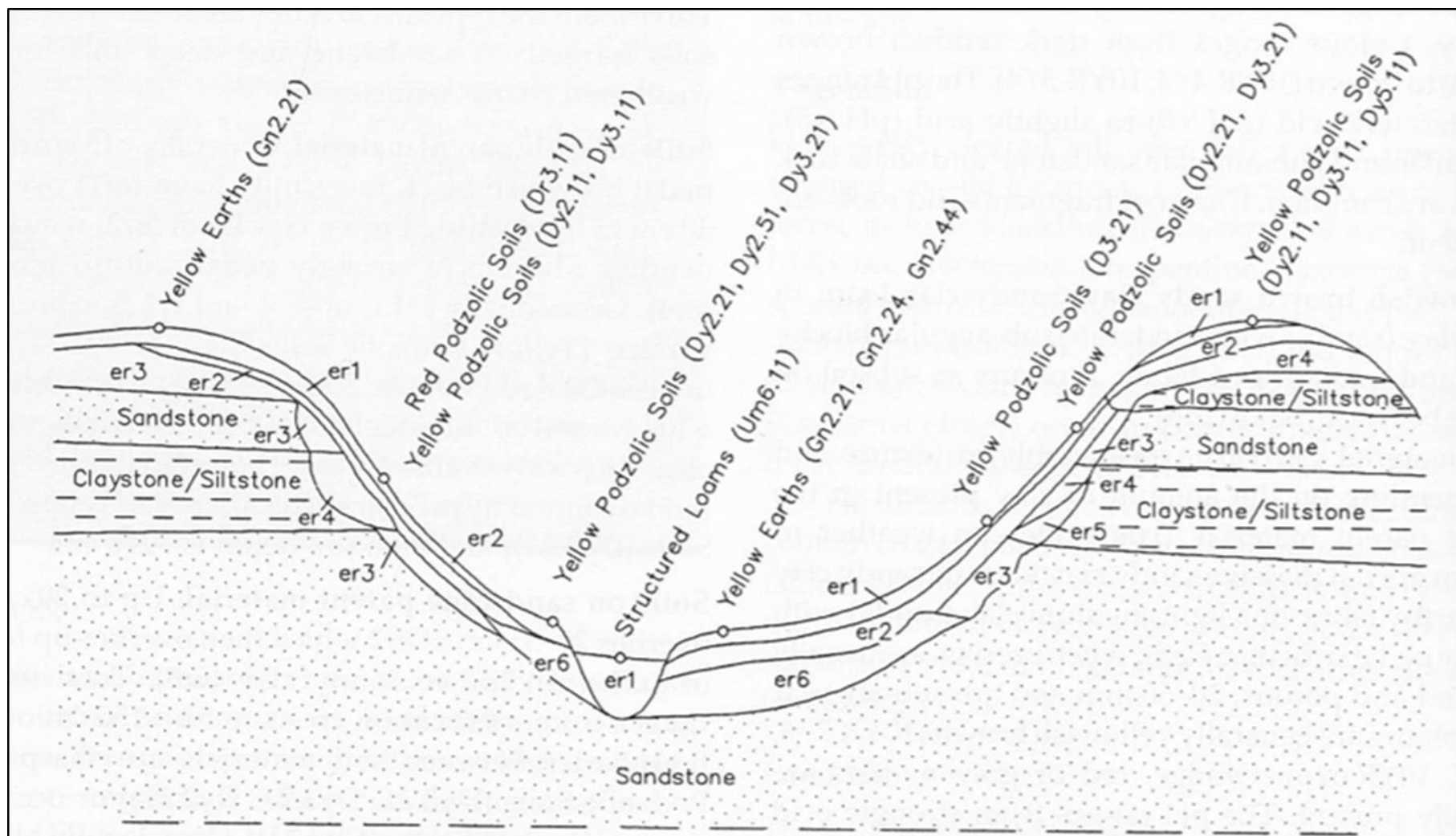


Figure 2.4 Cross Section of the Erina Soil landscape illustrating the relationship of dominant soil deposits.
Soil Landscapes of the Gosford-Lake Macquarie 1:100 000 sheet (Murphy, 1993).

2.2.4 Watercourse

The study area is located within 200m of a major high order stream – Brisbane Waters and within 750m of a lower order unnamed creek. The study area would have originally been within 50m of the original shoreline before the land was reclaimed (see Figure 3.4).

2.2.5 Vegetation

The vegetation found in the study area is no longer in a native state and is comprised of a variety of introduced and noxious types of vegetation. This movement away from the natural vegetation is a result of previous land clearing for farming, residential and urban development. These lands were cleared soon after European settlement due to the positioning of the allotment for development and agriculture.

The native vegetation of this area probably comprised of tall open forest with open heath in exposed coastal areas. It is likely species such as blackbutt (*Eucalyptus pilularis*), forest oak (*Allocasuarina torulosa*), turpentine (*Syncarpia glomulifera*), spotted gum (*E. maculata*), smooth – barked apple (*Angophora costata*), grey ironbark (*E. paniculata*) and the Sydney blue gum (*E. saligna*), swamp mahogany (*E. robusta*) and swamp oak (*Casuarina glauca*) would have been found along the Brisbane Waters edge in account to the poor drainage of the area.

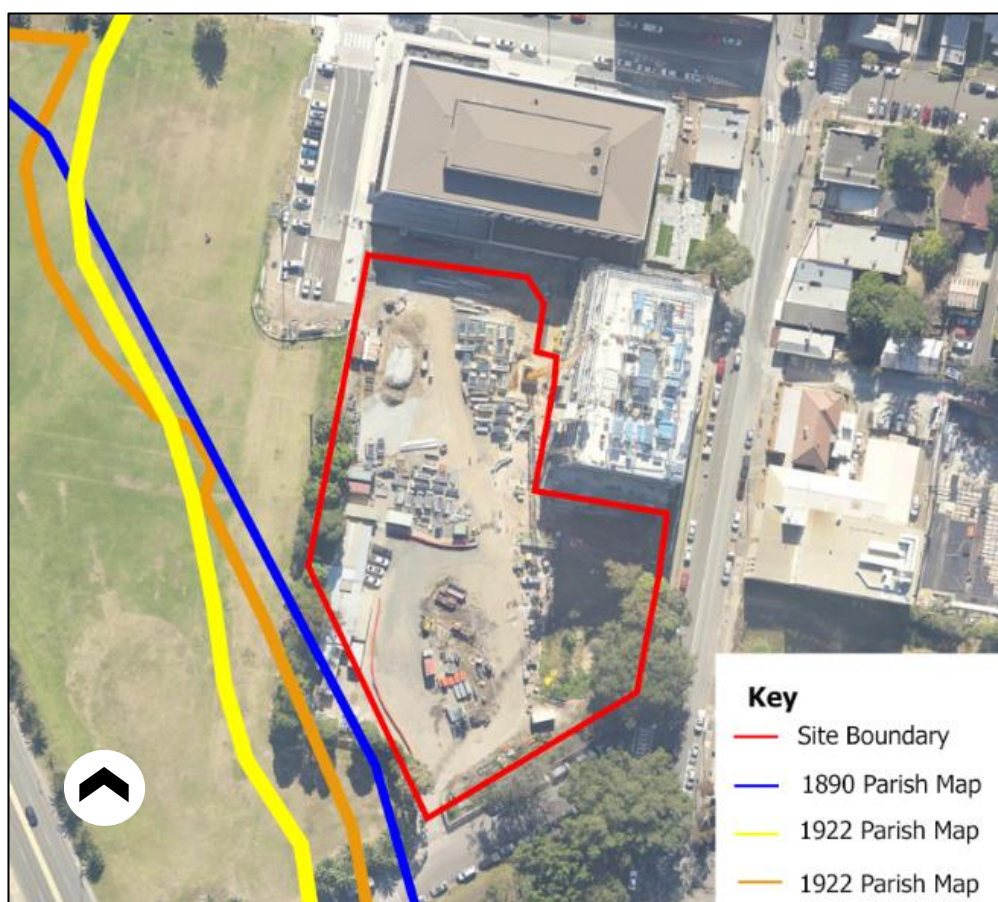


Figure 2.5 Aerial map showing location of study site (indicated in red) with original Gosford foreshore as drawn on Parish maps, pre-reclamation works.

Land and Property Information – Historical Land Records Viewer; Blue – 1890 Parish Map (10858601), Yellow - 1922 Parish Map (10858401) and Orange - 1935 Parish Map (10858301). Six Maps accessed 22/08/19

LAND USE AND DISTURBANCE FACTORS

This section of the report provides an assessment of land use, the level of disturbance and the likely archaeological potential of the study area. The archaeological potential is based on the level of previous disturbance as well as the previously discussed predictive model for the region.

The Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010); defines disturbed lands as given below.

“Land is disturbed if it has been the subject of a human activity that has changed the land’s surface, these being changes that remain clear and observable. Examples include ploughing, construction of rural infrastructure (such as dams and fences), construction of roads, trails and tracks (including fire trails and tracks and walking tracks), clearing vegetation, construction of buildings and the erection of other structures, construction or installation of utilities and other similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure and construction of earthworks)”

This definition is based on the types of disturbance as classified in The Australian Soil and Land Survey Field Handbook (CSIRO 2010). The following is a scale formulated by CSIRO (2010) of the levels of disturbances and their classification.

Minor Disturbance		Moderate Disturbance		Major Disturbance	
0	No effective disturbance; natural	3	Extensive clearing (eg: poisoning and ringbarking)	6	Cultivation; grain fed
1	No effective disturbance other than grazing by hoofed animals	4	Complete clearing; pasture native or improved, but never cultivated	7	Cultivation; irrigated, past or present
2	Limited clearing (eg: selected logging)	5	Complete clearing; pasture native or improved, cultivated at some stage	8	Highly disturbed (quarrying, road works, mining, landfill, urban)

The above scale is used in determining the level of disturbance of the study area and its impact on the potential archaeology which may be present.

2.3.1 Aboriginal Land Use and Resources

The Brisbane Waters provided a rich dietary intake for the local inhabitants of the Darkinjung Peoples and the Wanangine a.k.a Guringai Peoples who occupied the small strip of the coastal land between Gosford and Wyong. The surrounding landscape formed natural borders between other nearby coastal groups including the Awabakal people and Wonnarua people of the north. With a population of approximately 5,000 (at the time of settlement, historical and archaeological documentation suggests that these coastal tribes were semi-sedentary, where social arrangements allowed for a large number to cohabit within one camp.

These coastal tribes depended heavily on marine resources such as fish and shellfish but were not limited to such diets, as cabbage palms and bracken fern roots were also included (Dyall 1971). Farming practices were also utilised in the form of land clearing. This was conducted through the burning of grasslands in order to encourage new growth

which attracted local game. Based on the predominance of rock shelters found within the Hawkesbury sandstone landscape, it is also evident that natural rock overhangs were utilised as an alternate place of temporary and/or repeated occupation. However, open camps were the preferred site due to spiritual beliefs surrounding the collapse of rock shelters if spirits were not appeased.

The procurement of specific resources for ceremonial or domestic purposes would rely on the accessibility and availability of these resources. There are readily mapped resources within the region that may have been exploited by Aboriginal occupants, with more being present before the land was cleared and settled.

The events of colonisation later saw the decimation of the Darkinjung population between 1790, 1830 and 1850 due to the spread of the smallpox epidemic within the region. Of those who survived, were found to regroup with neighbouring peoples in order to form mixed groups within the region of which the Darkinjung land now encompassing what would have been boundaries of neighbouring groups.

Sites containing fresh water and sedentary food sources, coupled with the presence of other resources which may have been exploited or available on a seasonal basis, would suggest that Aboriginal land use of the study area was regular and repeated, with this reflected in the archaeological record. These areas will possess a high archaeological potential (Goodwin 1999).

2.3.2 European Land Use

The northern portion of the study site forms part of a wider portion of the early settlement of the Gosford government village and police paddocks since the 1840s. The southern portion of the study site was originally subdivided into three allotments that were publicly for sale and used as private paddocks. No development is known to have occurred on the study site until the construction of Gosford Public School during the mid-20th century. Known structures including the c.1880 Police Sergeant's Quarters., c.1888-1891 stables and privy that related to the occupation of the police paddocks have all been archaeologically excavated in adjacent sites (32 and 38 Mann Street) and they were constructed to front either Mann Street or Georgiana Terrace.

The southern end of the study area appears to have been used as paddocks following land clearing and surface disturbances.

Only one development phase has occurred to this portion of the site for its conversion to a public school, to which three raised demountable buildings were placed and surrounded by a bitumen surface.



Figure 2.6 2005 aerial of the study area when an active public school.
AMAC 2019, Six Maps accessed 22/08/19

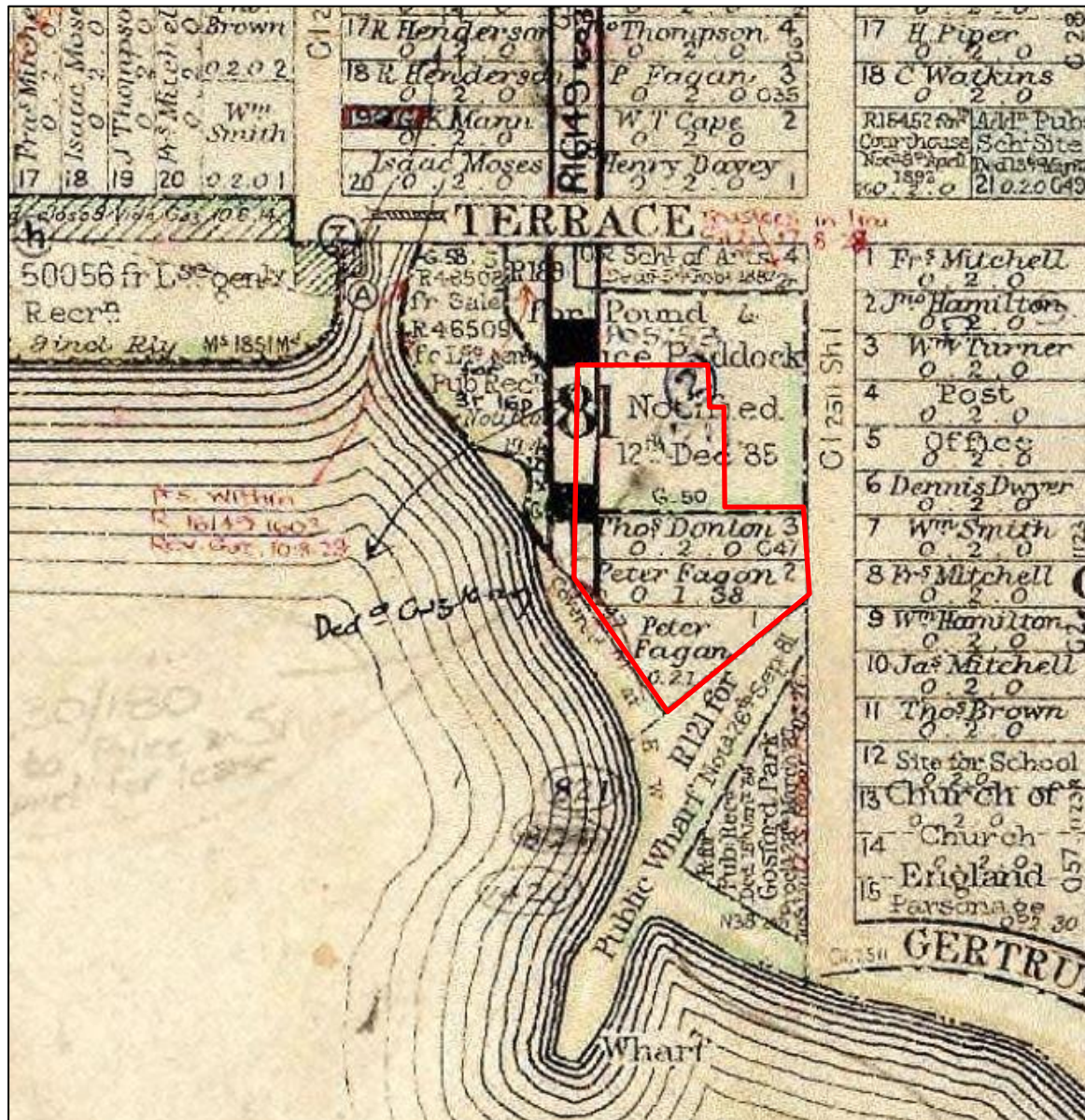


Figure 2.7 Parish Map 1922 unknown creek adjacent to study area
Approximate location of study area indicated in red. 1922 Parish Map (10858401)

2.3.3 Disturbance and Archaeological Potential

It is important to note that the following assessments describe the archaeological potential of the study area. It is acknowledged that if the study area has little or no archaeological potential, the study area may still have cultural significance to the Aboriginal community.

European activities have taken place within the study area including the levelling and earth movement of the western section of the site as part of the reclamation works of which over 1m of fill exists. Intact soils have the potential to be present within the eastern section of the site along the slope as there is no evidence to suggest developments and/or structures of significant depth have taken place and as the soil profile of the area is expected to be considerably deep it is therefore believed that the A horizon (artefact bearing deposit) may be intact.

The proposed activity is not:

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

The proposed activity is:

- located within 200m of waters

The study area lies in a location that is within 200m of a major high order stream – Brisbane Waters and within 100m of a low order unnamed creek. The study area would have originally been within 50m of the original shoreline before the land was reclaimed. There is permanent freshwater within the vicinity of the study area. Archaeological sites will be larger, more complex and have a relatively higher density the closer they are to permanent fresh water (Kohen 1986) with regularly exploitable food resources.

Sites with ephemeral water sources or those which are located in the vicinity of the headwaters of upper tributaries (first order streams) have a sparse distribution and density (McDonald 1992). The study area may contain artefacts which are representative of concentrated and repeated Aboriginal occupation within undisturbed soil profiles.

Moderate - Major disturbance to sections of the landscape: Sub-surface Aboriginal objects with potential conservation value have a low- moderate probability of being present within the study area.

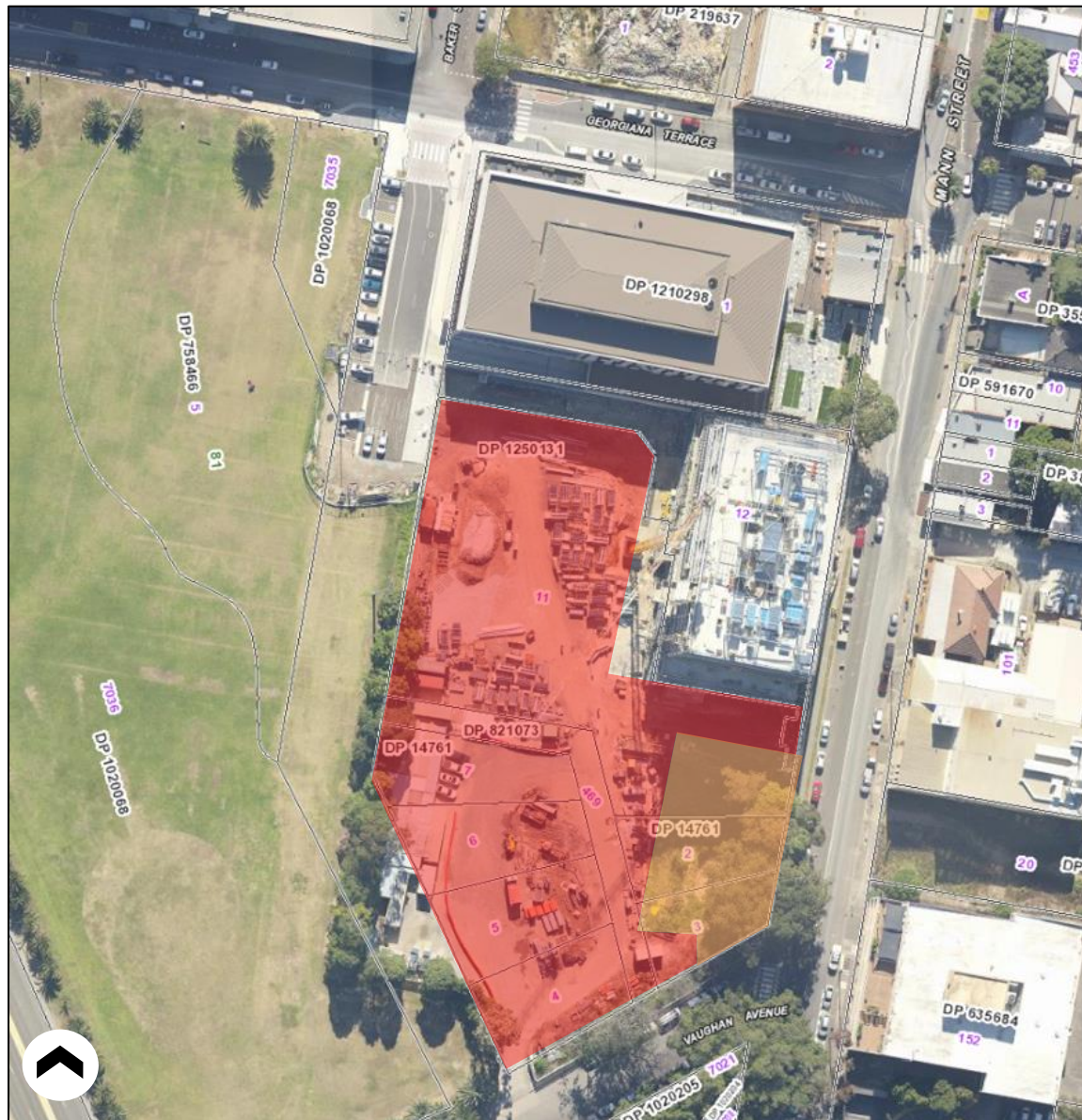


Figure 2.8 Archaeological potential and disturbance map of study area.
Areas of low potential and moderate disturbance indicated in orange, areas of no potential and major disturbance indicated in red.
Six Maps (2016), Spatial technologies (2015), overlay AMAC (2019)

2.3.4 Geotechnical Investigations

2.3.4.1 Douglas Partners 'Report on Preliminary site investigation for contamination – Proposed waterfront development Gosford Public School. Mann Street, Gosford (March 2014).

Douglas Partners conducted a preliminary investigation for contamination of the site in early 2014. 26 bore holes were drilled across the wider original school site area in January 2014. Boreholes 3-8, 13, 16, 17 and 20-26 were sampled within the study site. However, only bore holes 16, 17, 20 and 21 are in the location of the proposed building and driveway. The whole site is defined as 'disturbed terrain' within the *Soil Landscapes of Gosford – Lake Macquarie 1:100 000 Sheet*. The report notes that site elevations range between 2-10m AHD; geological mapping indicates that the eastern portion of the

site is underlain by the Terrigal Formation and the western portion of the site is underlain by the Quaternary alluvium. The report further notes that quantities of fill have been introduced to the site in the steeply sloping area to create level surfaces for structures and site facilities.

A wider study of the Gosford Waterfront area was conducted by Douglas Partners in 2011. The following summary of the geotechnical findings was provided in relation to the Gosford Public school site in 2011:

- filling up to depths of up to 2m, particularly within the lower, western area of the site, underlain by alluvial, loose and very loose sand and silty sand to depths of up to 5-7m.
- The alluvial soils are anticipated to be underlain by stiff to very stiff, becoming hard residual silty clay and sandy clay, grading to sandstone bedrock at depths ranging from about 5m to 14m.
- The bedrock is anticipated to be initially extremely low to very low strength, becoming medium strength within the upper 2-3m of the rock profile, with possible high strength bedrock within 3m, to over 10m from the surface of the bedrock.
- Groundwater is anticipated to be within about 1-2m of the ground surface within the lower (western) sections of this area.

2.3.4.2 Coffey Services Australia Pty Ltd, SH Gosford Residential Pty Ltd (St Hillier's), Contamination Detailed Site Investigation, 32 Mann Street, Gosford (17 April 2018).

Coffey Services Australia on behalf of St Hillier's, conducted a detailed site investigation for contamination of the site in April 2018 (Figure 2.9). The program consisted of soil sampling from nine geotechnical boreholes (BH1 to BH9), eight push tube holes (P1 to P8), three test pits (TP1 to TP3), five surface sampling points (SS1 to SS5) and two hand auger boreholes (HA1 to HA2). Three geotechnical boreholes were converted into monitoring wells for groundwater and hazardous ground gas.

The eastern end of the study area along the slope to Mann Street has the potential for intact soils as the remainder of the study area has been impacted by reclamation works and filling events. The RL of the basement is seen to intersect with these fills or otherwise clay subsoils that have a low-nil potential for Aboriginal objects. BH6 and BH3 taken along the slope which is the target of the proposed testing programme indicates natural soil profiles are present.

BH3 resulted in the following soils of interest.

- 1m of topsoil: Brown silty clay containing traces of organics and root fibres.
- 85cm of alluvium soil: Dark brown clayey sand, fine – medium grained.

BH6 resulted in the following soils of interest.

- 25cm of topsoil: Brown silty clay containing traces of organics and root fibres.
- 1.45m of alluvium soil: grey-brown sandy clay with traces of sand and silt.

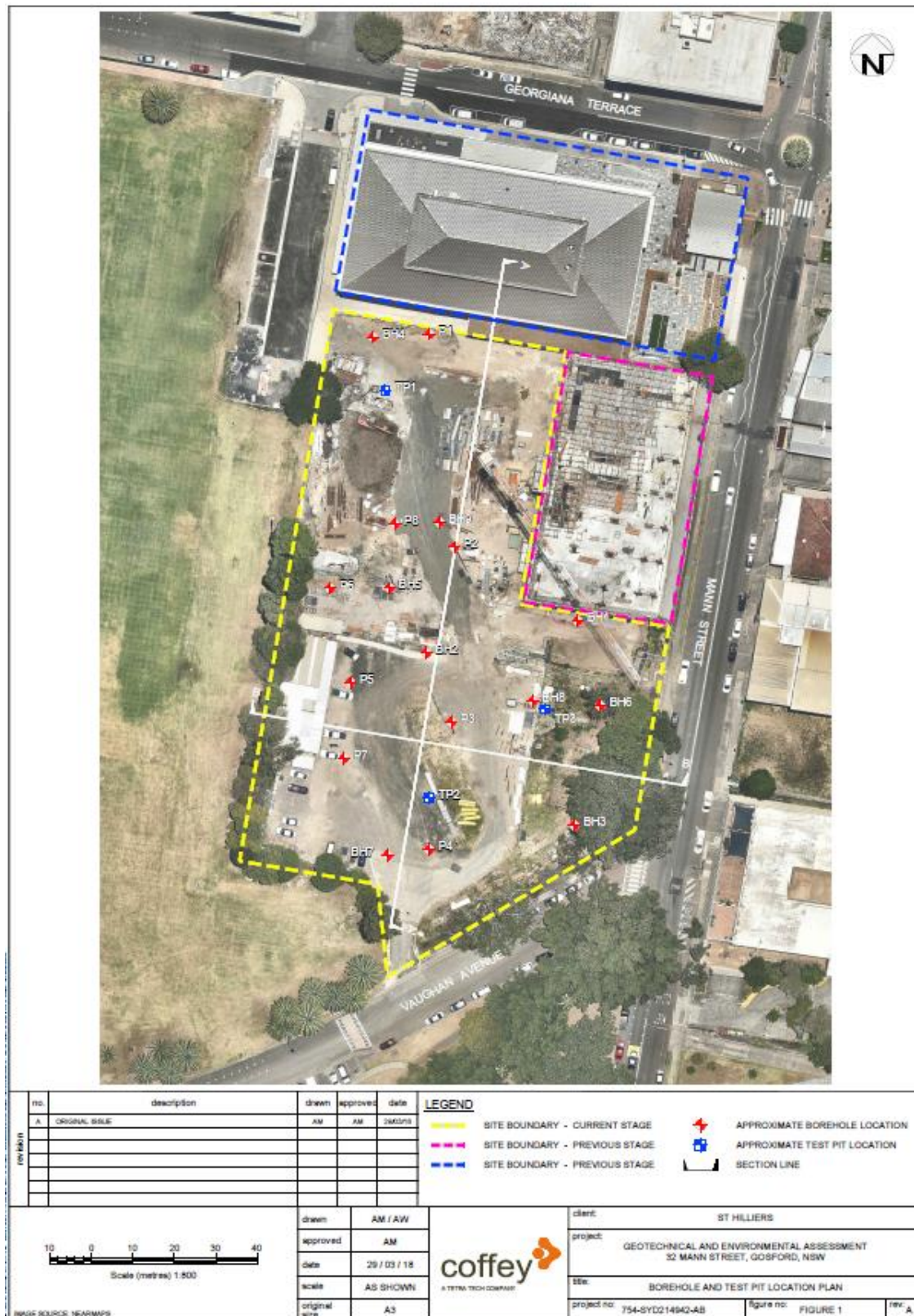


Figure 2.9 Coffey 2018 Geotechnical investigation programme
Coffey 2018



Engineering Log - Borehole

client: **St Hilliers**

principal:

project: **Geotechnical and Environmental Assessment**

location: **32 Mann Street, Gosford, NSW**

Borehole ID: **BH3**

sheet: 1 of 3

project no.: **SYDGE214942**

date started: **23 Feb 2018**

date completed: **23 Feb 2018**

logged by: **LP**

checked by: **AM**

position: E: 345,755.46; N: 6,299,767.29 (MGA94)		surface elevation: 4.00 m (AHD)		angle from horizontal: 90°													
drill model: Geoprobe 7822DT, Track mounted		drilling fluid: Water		hole diameter : 100 mm													
drilling information			material substance														
method & support	penetration	water	samples & field tests	depth (m)	graphic kg	classification symbol	material description SOIL TYPE: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	hand penetrometer (kPa)	structure and additional observations						
AD AS HA W PT	AD/T	Nil Encountered	SPT 4, 5, 7 N*=12	1.0		ML	TOPSOIL: Silty CLAY: low to medium plasticity, brown, pale brown, trace of organics and root fibres.	D - M			TOPSOIL						
						SC	0.8 m: grading to brown-dark brown CLAYEY SAND: fine to medium grained, dark brown, trace of fine grained sand.	MD			ALLUVIUM						
						CH	CLAY: medium to high plasticity, dark brown mottled red-dark grey.	M	St	RESIDUAL SOIL							
						CL	Sandy CLAY: medium to high plasticity, dark brown, grading to brown, pale brown, fine to medium grained sand, trace of silt. CLAY: medium to high plasticity, pale grey, white, trace of silt, sand and root fibres. CLAY: medium to high plasticity, pale grey, white, trace of tree root fibres. 3.2 m: colour changes to pale grey spotted red 4.1 m: colour changes to pale, more tree root fibres present										
						CH											
						CH											
						SPT 3, 5, 8 N*=11	3.0										
						SPT 2, 4, 6 N*=10							4.0				
						SPT 5, 8, 13 N*=21											
							6.0										
	7.0																

Figure 2.10 Borehole 3 engineering log
Coffey 2018



Engineering Log - Borehole

client: **St Hilliers**

principal:

project: **Geotechnical and Environmental Assessment**

location: **32 Mann Street, Gosford, NSW**

Borehole ID: **BH6**

sheet: 1 of 3

project no.: **SYDGE214942**

date started: **01 Mar 2018**

date completed: **01 Mar 2018**

logged by: **LP**

checked by: **AM**

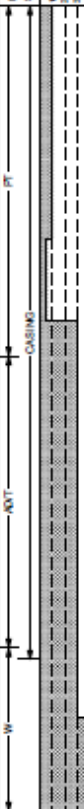
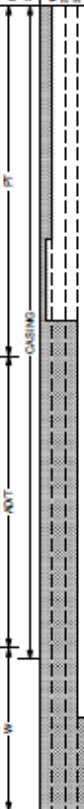
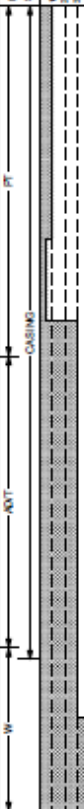
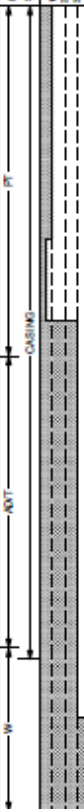
position: E: 345,761.69; N: 6,299,796.39 (MGA84)		surface elevation: 4.00 m (AHD)		angle from horizontal: 90°							
drill model: Geoprobe 7822DT, Track mounted		drilling fluid: Water		hole diameter: 100 mm							
drilling information			material substance								
method & support	penetration	samples & field tests	depth (m)	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	structure and additional observations		
			0.0	SP	TOPSOIL: SILTY SAND: fine to medium grained, brown-pale brown, trace of organics (root fibres).	M	L		TOPSOIL PID: 0.0ppm		
			0.5	SP	SILTY SAND: fine to medium grained, dark brown-black, trace of low plasticity clay and root fibres.					ALLUVIUM	
			1.0	CL	Sandy CLAY: medium to high plasticity, grey-brown, with fine grained sand, trace of silt.		VS			PID: 1.3ppm	
			2.0	CH	2.6 m: clay to sand ratio increases CLAY: high plasticity, grey, with fine grained sand, trace of tree root fibres.		W			PID: 1.0ppm	
			3.0	CH			VSt			PID: 2.2ppm	
			4.0	CH						RESIDUAL SOIL	
			5.0	CH	Silty CLAY: medium plasticity, pale grey-white mottled red-orange, trace of sand (iron stained).		H				
			6.0								
			7.0								
			Borehole BH6 continued as cored hole								
method AD: auger drilling* AS: auger sampling* HA: hand auger W: washbore PT: push tube		support M: mud N: nil C: casing penetration 		samples & field tests B: bulk disturbed sample D: disturbed sample E: environmental sample SS: split spoon sample US: undisturbed sample (40mm diameter) HP: hand penetrometer (kPa) N: standard penetration test (SPT) N*: SPT - sample recovered Nc: SPT with solid cone VS: vane shear; peak/undrained (kPa) R: refusal HB: hammer bouncing		classification symbol & soil description based on Unified Classification System moisture D: dry M: moist W: wet Wp: plastic limit Wl: liquid limit		consistency / relative density VS: very soft S: soft F: firm St: stiff VSt: very stiff H: hard Fb: friable VL: very loose L: loose MD: medium dense D: dense VD: very dense			

Figure 2.11 Borehole 6 engineering log
Coffey 2018

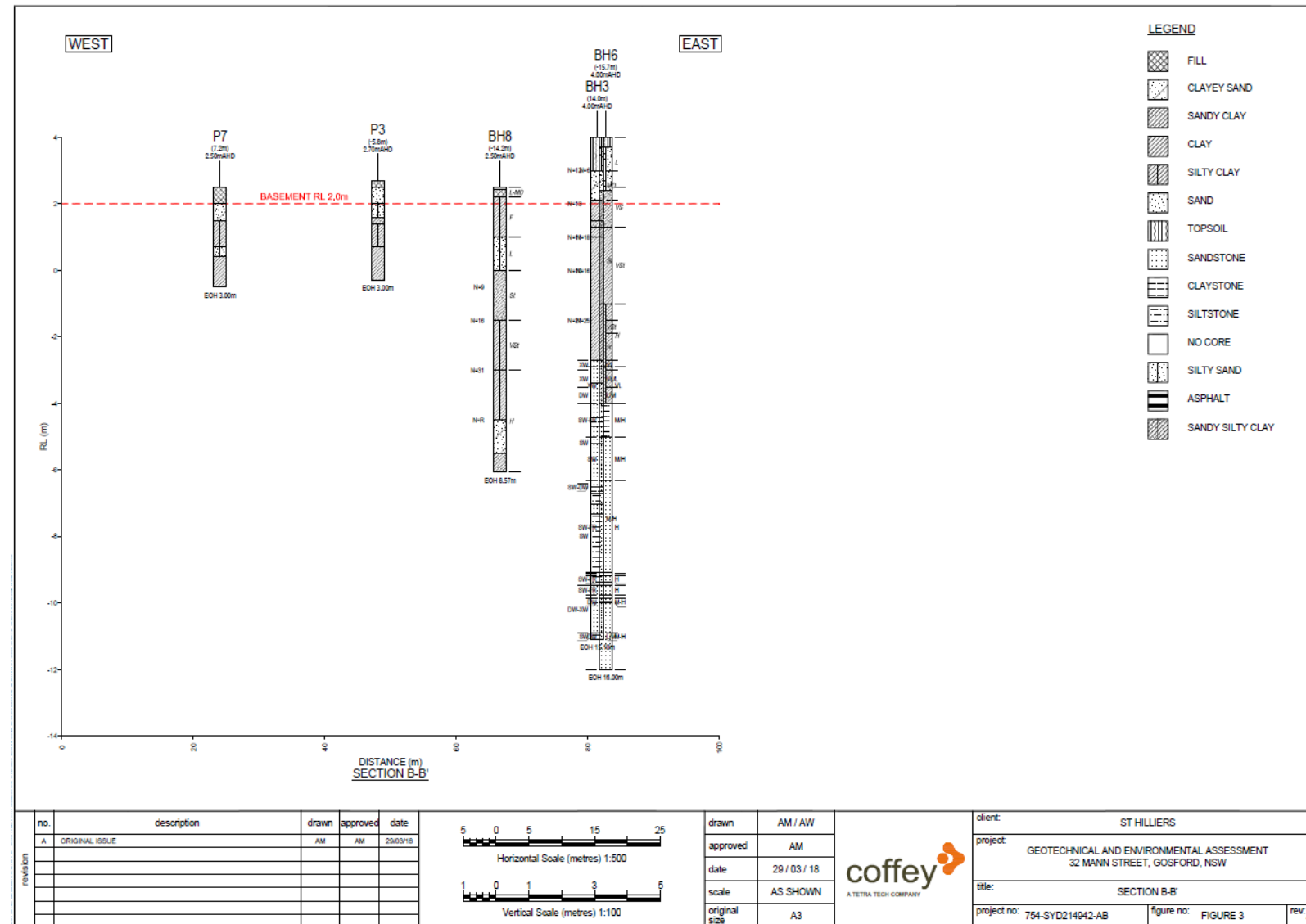


Figure 2.12
Section B-B'
B of borehole
profiles
Coffey 2018

3.0 ABORIGINAL CONSULTATION

This section documents the requirements of the Aboriginal consultation process that should be undertaken as part of any Aboriginal archaeological and cultural heritage assessment where an Aboriginal Heritage Impact Permit (AHIP) or test excavation is required. Section 3.1 outlines the guidelines for Aboriginal consultation issued by the DECCW.

3.1 OEH CONSULTATION REQUIREMENTS

Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW 2010), referring to Part 6 Approvals under the NPW Act were released in April 2010. The responsibilities of the proponent when test excavation is to take place and/or permit under section 90 of the NPW Act are listed below.

<http://www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09781ACHconsultreg.pdf>

Stage 1 – Notification of project proposal and registration of interest

Stage 1 states that:

“4.1.2- Proponents are responsible for ascertaining, from reasonable sources of information, the names of Aboriginal people who may hold cultural knowledge relevant to determining the significance of Aboriginal *objects* and/or *places*. Reasonable sources of information could include (a) to (g) below. Proponents must compile a list of Aboriginal people who may have an interest for the proposed project area and hold knowledge relevant to determining the cultural significance of Aboriginal *objects* and/or *places* by writing to:

- (a) the relevant DECCW (sic) EPRG regional office
- (b) the relevant Local Aboriginal Land Council(s)
- (c) the Registrar, *Aboriginal Land Rights Act 1983* for a list of Aboriginal owners
- (d) the National Native Title Tribunal for a list of registered native title claimants, native title holders and registered Indigenous Land Use Agreements
- (e) Native Title Services Corporation Limited (NTSCORP Limited)
- (f) the relevant local council(s)
- (g) the relevant catchment management authorities for contact details of any established Aboriginal reference group.

4.1.3- Proponents must write to the Aboriginal people whose names were obtained in step 4.1.2 and the relevant Local Aboriginal Land Council(s) to notify them of the proposed project. The proponent must also place a notice in the local newspaper circulating in the general location of the proposed project explaining the project and its exact location. The notification by letter and in the newspaper must include:

- (a) the name and contact details of the proponent

- (b) a brief overview of the proposed project that may be the subject of an application for an AHIP, including the location of the proposed project
- (c) a statement that the purpose of community consultation with Aboriginal people is to assist the proposed applicant in the preparation of an application for an AHIP and to assist the Director General of DECCW in his or her consideration and determination of the application
- (d) an invitation for Aboriginal people who hold cultural knowledge relevant to determining the significance of Aboriginal object(s) and/or place(s) in the area of the proposed project to register an interest in a process of community consultation with the proposed applicant regarding the proposed activity
- (e) a closing date for the registration of interests.

4.1.4- There must be a minimum of 14 days from the date the letter was sent or notice published in the newspaper to register an interest. The time allowed to register an interest should reflect the project's size and complexity.

4.1.5- The proponent must advise Aboriginal people who are registering an interest that their details will be forwarded to DECCW and the Local Aboriginal Land Council (LALC) unless they specify that they do not want their details released.

4.1.6- The proponent must make a record of the names of each Aboriginal person who registered an interest and provide a copy of that record, along with a copy of the notification from 4.1.3 to the relevant DECCW EPRG regional office and LALC within 28 days from the closing date for registering an interest.

4.1.7- LALCs holding cultural knowledge relevant to determining the significance of Aboriginal objects and places in the proposed project area who wish to register an interest to be involved in consultation must register their interest as an Aboriginal organisation rather than as individuals.

4.1.8- Where an Aboriginal organisation representing Aboriginal people who hold cultural knowledge has registered an interest, a contact person for that organisation must be nominated. Aboriginal cultural knowledge holders who have registered an interest may indicate to the proponent they have appointed a representative to act on their behalf. Where this occurs, the registered Aboriginal party must provide written confirmation and contact details of those individuals to act on their behalf.

Stage 2 – Presentation of information about the proposed project

Stage 2 states that:

“4.2.1- The proponent must initiate arrangements for presenting the proposed project information to the registered Aboriginal parties (from Stage 1).

4.2.2- The presentation of proposed project information should provide the opportunity for:

- (a) the proponent to present the proposal, outline project details relevant to the nature, scope, methodology and environmental and other impacts
- (b) the proponent to outline the impact assessment process including the input points into the investigation and assessment activities

- (c) the proponent to specify critical timelines and milestones for the completion of assessment activities and delivery of reports
- (d) the proponent and registered Aboriginal parties to clearly define agreed roles, functions and responsibilities
- (f) the registered Aboriginal parties to identify raise and discuss their cultural concerns, perspectives and assessment requirements (if any).

4.2.3- The proponent should record or document that the proposed project information has been presented. This record or documentation should include any agreed outcomes, and any contentious issues that may require further discussion to establish mutual resolution (where applicable). The proponent should provide a copy of this record or documentation to registered Aboriginal parties.

4.2.4- Depending on the nature, scale and complexity of the proponent's project, it may be reasonable and necessary for the proponent to:

- (a) conduct additional project information sessions to ensure that all necessary information about the project is provided and enable registered Aboriginal parties to provide information about the cultural significance of Aboriginal object(s) and/or place(s) that may be present on the proposed project area
- (b) create the opportunity for registered Aboriginal parties to visit the project site" (DECCW 2010).

Stage 3 – Drafting, review and finalisation of the Cultural Heritage Assessment Report

Stage 3 states that:

"4.3.1- The proponent must present and/or provide the proposed methodology(s) for the cultural heritage assessment to the registered Aboriginal parties.

4.3.2- The registered Aboriginal parties must be given the opportunity to review and provide feedback to the proponent within a minimum of 28 days of the proponent providing the methodology. The review should identify any protocols that the registered Aboriginal parties wish to be adopted into the information gathering process and assessment methodology and any matters such as issues/areas of cultural significance that might affect, inform or refine the assessment methodology. Comments should be provided in writing, or may be sought verbally by the proponent and accurately recorded.

4.3.3- As part of this consultation, the proponent must also seek cultural information from registered Aboriginal parties to identify:

- (a) whether there are any Aboriginal objects of cultural value to Aboriginal people in the area of the proposed project
- (b) whether there are any places of cultural value to Aboriginal people in the area of the proposed project (whether they are Aboriginal places declared under s.84 of the NPW Act or not). This will include places of social, spiritual and cultural value, historic places with cultural significance, and potential places/areas of historic, social, spiritual and/or cultural significance.

4.3.4- Some information obtained from registered Aboriginal parties may be sensitive or have restricted public access. The proponent must, in consultation with

registered Aboriginal parties, develop and implement appropriate protocols for sourcing and holding cultural information. In some cases, the sensitive information may be provided to the proponent by an individual and the proponent should not share that information with all registered Aboriginal parties or others without the express permission of the individual.

4.3.5- Information obtained in 4.3.4 is used to understand the context and values of Aboriginal object(s) and/or place(s) located on the proposed project site. This information must be integrated with the scientific (archaeological) assessment of significance. Together the context, values, and scientific assessment provide the basis for assessing Aboriginal heritage values and recommending management options.

The information collected by the proponent during the consultation process must be used only to inform decision making for any application for an AHIP, unless the registered Aboriginal parties agree otherwise.

4.3.6- The proponent must seek the views of registered Aboriginal parties on potential management options. Management options will include ways to avoid or mitigate harm and/or conserve known Aboriginal object(s) and/or place(s). Management options should consider how Aboriginal people can continue their association with identified Aboriginal heritage values.

4.3.7- The proponent must document all feedback received in Stage 3 from registered Aboriginal parties in the final cultural heritage assessment report. This must include copies of any submissions received and the proponent's response to the issues raised. In some cases, this may require an acknowledgment of sensitive information and a list of Aboriginal people who should be contacted for permission to receive further details" (DECCW 2010).

Stage 4 – Review of draft cultural heritage assessment report.

Stage 4 states that:

"4.4.1- The proponent must prepare a draft cultural heritage assessment report.

4.4.2- The proponent must provide a copy of the draft cultural heritage assessment report to registered Aboriginal parties for their review and comment.

4.4.3- The proponent must give registered Aboriginal parties a minimum of 28 days from sending the draft report to make submissions. The time allowed for comment on the draft report should reflect the project's size and complexity. Comments should be provided in writing or, where provided verbally, accurately recorded.

4.4.4- After considering the comments received on the draft report the proponent must finalise the report. The final report must include copies of any submissions received, including submissions on the proposed methodology and on the draft report. The final report must also include the proponent's response to each submission. The report must then be submitted to DECCW for consideration with the proponent's application for an AHIP.

4.4.5- The proponent must provide or make available copies of the final cultural heritage assessment report and the AHIP application to registered Aboriginal parties and the relevant LALC(s) (whether or not the LALC is registered in Stage

1). The report and application must be provided or made available within 14 days of the AHIP application being made" (DECCW 2010).

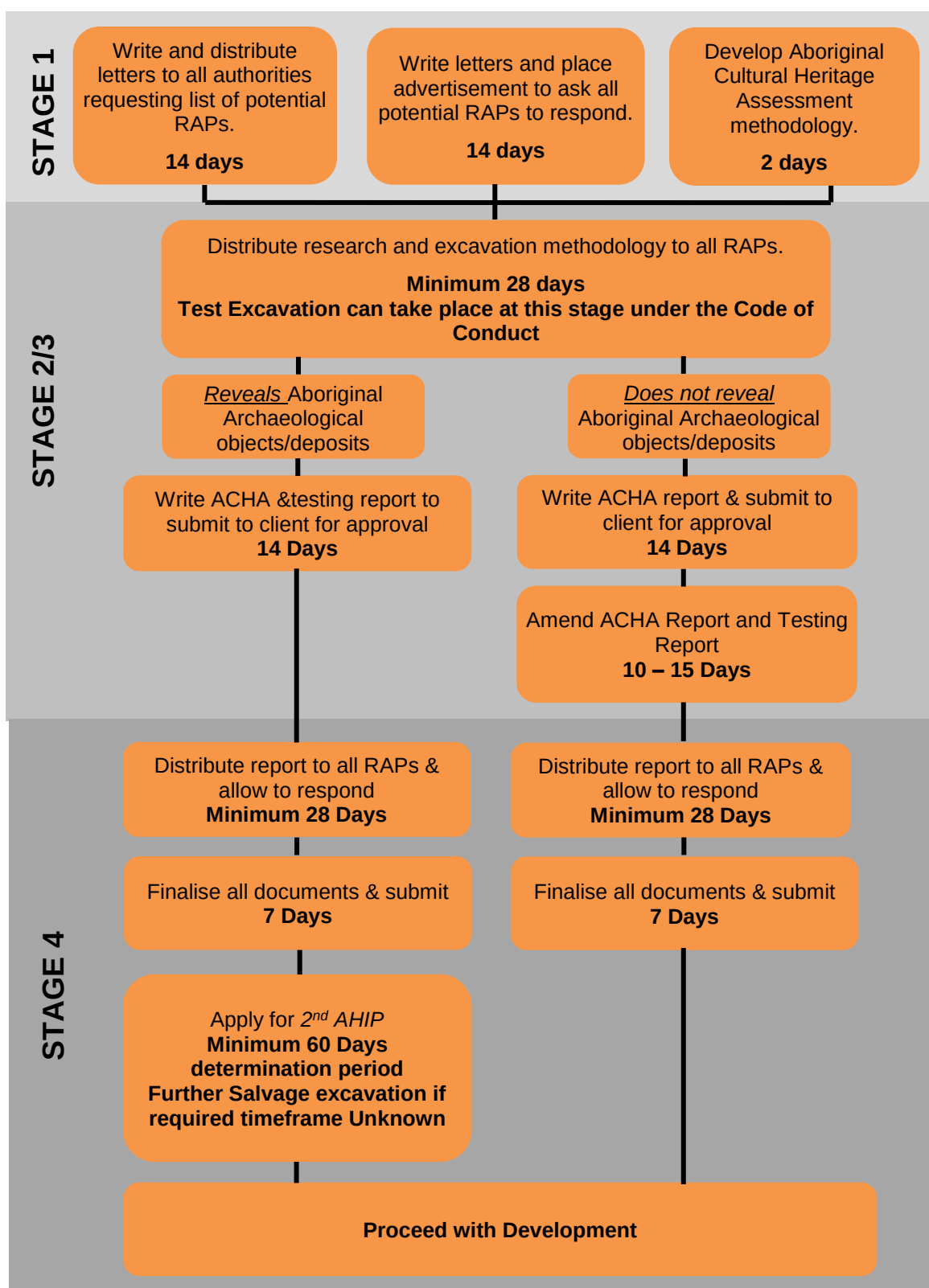
3.2 CONSULTATION SUMMARY

Consultation for the subsequent report is being undertaken in accordance with the Office of Environment and Heritage and National Parks and Wildlife Act 1974: Part 6; National Parks and Wildlife Act *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010); for situations where test excavation under the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010).

Consultation is currently in Stage 1 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010). However, a representative from Darkinjung LALC was engaged for the site inspection and provided a copy of this document. Mr. Williams verbally agreed to the recommendations and way forward as outlined in this report.

Table 3.1: Full Assessment/AHIP Timeframes including Test Excavation Under the Code of Conduct, overlaying consultation stages as per consultation requirement for proponents.

N.B All timeframes are indicative and may be subject to unexpected delays (DECCW 2010).



4.0 BACKGROUND INFORMATION

Pre-field work research consisted of an analysis and synthesis of the background data to determine the nature of the potential archaeological and cultural heritage resource in the region.

The research of this cultural heritage assessment consisted of stages which are listed below:

- Background research;
- Aboriginal consultation and oral history interviews;
- Site inspection and cultural heritage mapping;

Background research entailed a detailed review of sources of information on the history, oral history, ethno history and archaeological background of the study area and surrounds and will include but not be limited to material from:

- OEH archaeological assessment and excavation reports and cultural heritage assessments;
- OEH Library;
- State Library of NSW including the Mitchell Library;
- Local libraries and historical associations;
- National Library of Australia.

A search of the OEH AHIMS was undertaken and the results examined. The site card for each site within 1000m in all directions from the centre of the study area was inspected (where available) and an assessment made of the likelihood of any of the sites being impacted by the proposed development. The OEH library of archaeological reports (Hurstville) was searched and all relevant reports were examined. Searches were undertaken on the relevant databases outlined in Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010);

Further to this the following sources were examined:

- The National Heritage List;
- The Commonwealth Heritage List;
- The NSW State Heritage Inventory;
- The Register of the National Estate;
- The National Native Title Register;
- The Register of Declared Aboriginal Places;
- Prevailing local and regional environmental plans;
- Environmental background material for the study area.

4.1 OEH AHIMS SEARCH RESULTS

The Archaeological Heritage and Information Management System Database (AHIMS) is located at the OEH Offices at Hurstville in New South Wales. This database comprises information about all the previously recorded Aboriginal archaeological sites registered

with OEH. Further to the site card information that is present about each recorded site, the assessments and excavation reports that are associated with the location of many of these sites are present in a library of reports. The location of these sites shown (Figure 4.1) must be viewed as purely indicative as errors in the recording of the locations of sites often occurs due to the disparate nature of the recording process, the varying level of experience of those locating the sites and the errors that can occur when transferring data. If possible, sites that appear to be located near a study area should be relocated.

An AHIMS extensive search was conducted on the date 21/08/19 (Client No.443357). The following table is comprised of the results listed from the extensive search.

Table 4.1 AHIMS Search Results

Site ID	Site name	Context	Site features
45-3-3282	Shelter with deposit	Open site	PAD - shell
45-3-3340	Dane Drive PAD	Open site	PAD - 1
45-3-3430	Rumbalara 2	Open site	Artefact – Shell 2
45-3-3699	ATO Mann Street	Open site	Artefact



Figure 4.1 AHIMS search results
Registered sites indicated in pink with the study area indicated in purple. OEH AHIMS (2019).

4.2 OTHER SEARCH RESULTS

Results for other statutory databases searched are given below;

Heritage Listings/ Register/ Other	Result
National Heritage List	N/A
Commonwealth Heritage List	N/A
NSW State Heritage Register	N/A
Register of Declared Aboriginal Places	N/A
National Native Title Register	N/A

4.3 SUMMARY OF ARCHAEOLOGICAL PREDICTIVE MODEL FOR THE REGION

Predictive modelling is an adaptive process which relies on a framework formulated by a number of factors, including but not limited to the use of local land systems, the environmental context, archaeological work and any distinctive sets of constraints that would influence land use patterns. This is based on the concept that different landscape zones may offer different constraints, which is then reflected in the spatial distributions and forms of archaeological evidence within the region (Hall and Lomax 1996).

Early settlement models focused on seasonal mobility, with the exploitation of inland resources being sought once local ones become less abundant. These principles were adopted by Foley (1981) who developed a site distribution model for forager settlement patterns. This model identifies two distinctive types of hunter and gather settlements; 'residential base camps' and 'activities areas'. Residential base camps are predominately found located in close proximity to a reliable source of permanent water and shelter. From this point the surrounding landscape is explored and local resources gathered. This is reflected in the archaeological record, with high density artefact scatters being associated with camp bases, while low density and isolated artefacts are related to the travelling routes and activity areas (Foley 1981).

However, more recently, investigation into understanding the impacts of various episodes of occupation on the archaeological record has been explored, of which single or repeated events are being identified. This is often a complex process to establish, specifically within predictive models as land use and disturbance can often result in post depositional processes and the superimposition of archaeological materials by repeated episodes of occupation.

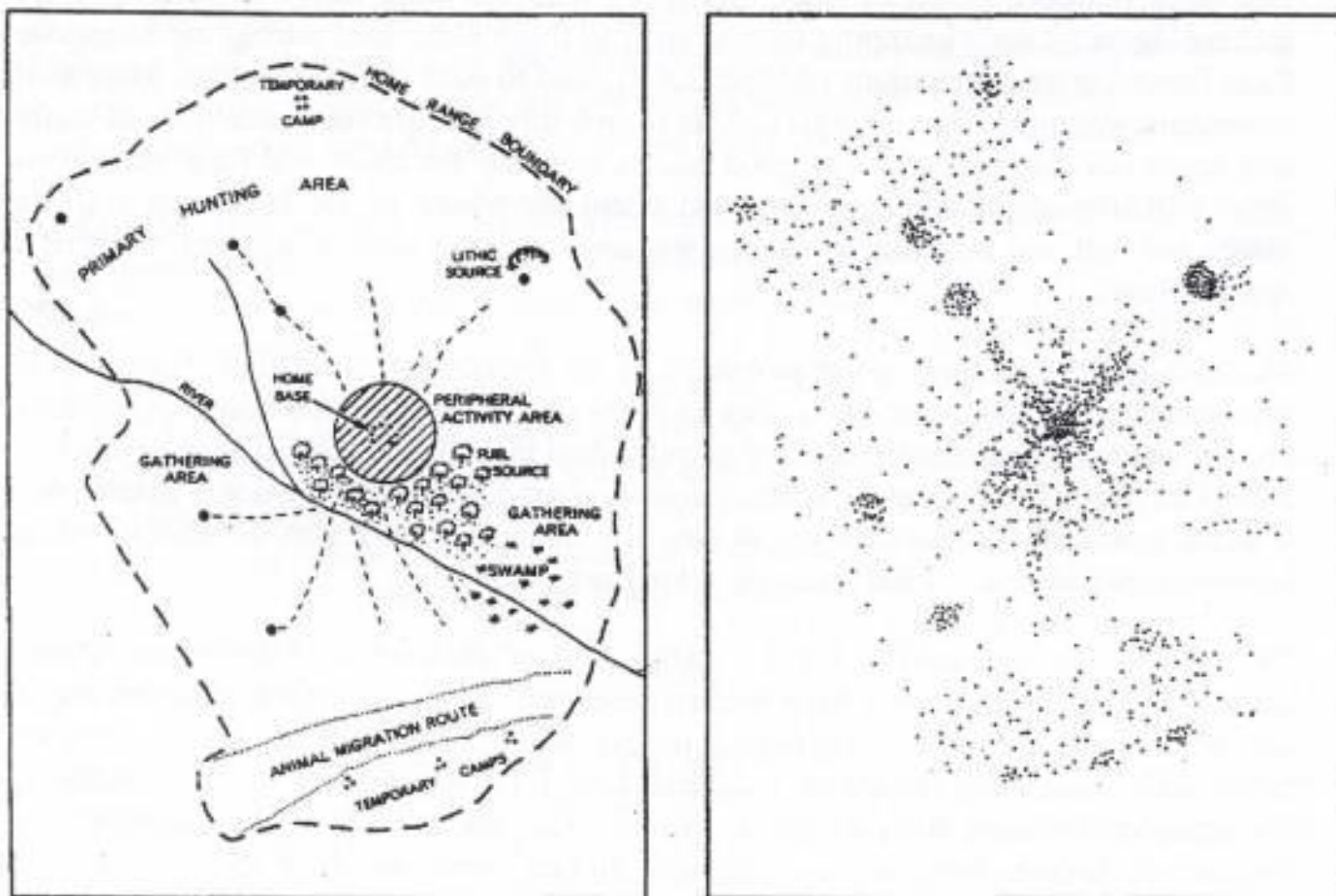


Figure 4.2 Examples of forager settlement patterns
Foley (1981)

The principles behind this model have been incorporated into other predictive models such as that of McBryde (1976). McBryde's model is centred on the utilisation of food resources as a contributor to settlement patterns, specifically with reference to the predictability and reliability of food resources for Aboriginal people within the immediate coastal fringe and/or hinterland zone, with migratory behaviour being a possibility. Resources such as certain species of animals, particularly; small marsupials and reptiles, plant resources and nesting seabirds may have been exploited or only available on a seasonal or intermittent basis. As such, archaeological sites which represent these activities whilst not being representative of permanent occupation may be representative of brief, possibly repeated occupation.

Jo McDonald and Peter Mitchell have since contributed to this debate, with reference to Aboriginal archaeological sites and proximity to water using their Stream order model (1993). This model utilises Strahler's hierarchy of tributaries. This model correlates with the concept of proximity to permanent water and site locations and their relationship with topographical units. They identify that artefact densities are greatest on terraces and lower slopes within 100m of water.

Intermittent streams, however, also have an impact on the archaeological record. It was discovered that artefacts were most likely within 50 – 100m of higher (4th) order streams, within 50m (2nd) order streams and that artefact distributions around (1st) order streams was not significantly affected by distance from the watercourse. Landscapes associated with higher order streams (2nd) order streams were found to have higher artefact densities and more continuous distribution than lower order streams.

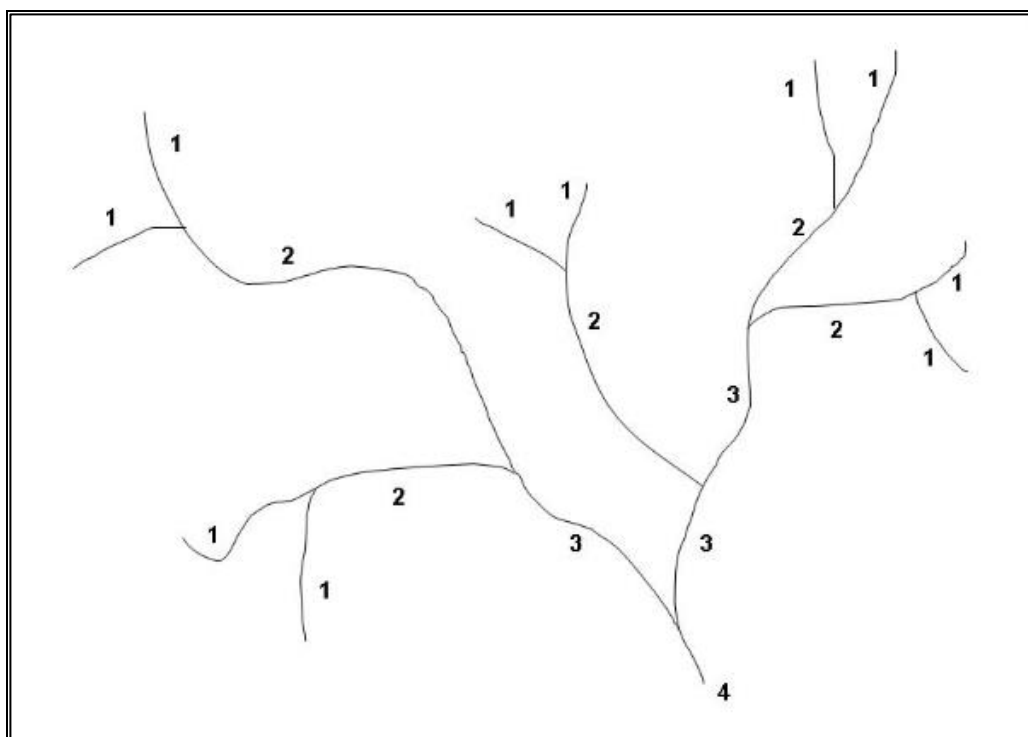


Figure 4.3 **Strahler's hierarchy of tributaries**
Strahler (1957)

Table 4.2 Relationship between landscape unit and site distribution for region

Landscape Unit /Site types	Site Distribution and activity
1st order stream	Archaeological evidence will be sparse and reflect little more than a background scatter
Middle reaches of 2nd Order Stream	Archaeological evidence will be sparse but focus activity (one off camp locations, single episodes and knapping floor)
Upper reaches of 2nd order stream	Archaeological evidence will have a relatively sparse distribution and density. These sites contain evidence of localised one-off behaviour.
Lower reaches of 3rd order stream	Archaeological evidence for frequent occupation. This will include repeated occupation by small groups, knapping floors (used and unused material) and evidence of concentrated activities.
Major creeklines 4th order streams	Archaeological evidence for more permanent or repeated occupation. Sites will be complex and may be stratified with a high distribution and density.
Creek junctions	This landscape may provide foci for site activity, the size of the confluence in terms of stream rankings could be expected to influence the size of the site, with the expectation of there being higher artefact distribution and density.
Ridge top locations between drainage lines	Ridge Tops will usually contain limited archaeological evidence, although isolated knapping floors or other forms of one-off occupation may be in evidence in such a location.
Raw Materials near watersources	The most common raw materials are silcrete and chert in sites closer to coastal headlands, though some indurated mudstone/silicified tuff and quartz artefacts may also be found.
Grinding Grooves	Grinding Grooves may be found in the sandstone or shale/sandstone transition areas.
Scarred trees -	May occur in stands of remnant vegetation.
Ceremonial Sites	Consultation with relevant Aboriginal Stakeholder groups, individuals and review of ethnographic sources often reveal the presence of ceremonial or social sites.

This predictive model has been refined with focus on the dominant environment and landscape zones of the Cumberland Lowlands, such as the Wianamatta Group Shales, Hawksbury Sandstone, Quaternary alluvium, Quaternary Aeolian and Tertiary alluvium. Attenbrow (2002) discovered that the Quaternary alluvial deposits had a greater concentration of archaeological sites, which is likely the result of these deposits being located towards major creek lines and rivers, such as Eastern Creek, Second Ponds Creek etc. Areas of alluvial deposits were found by Kohen (1986) to contain artefact scatters of a large and complex nature the closer they were to permanent creeks.

Umwelt (2004) have identified similar environmental – archaeological relationships which contribute to the mapping and modelling of archaeological sites, such as;

- The pattern of watercourses and other landscape features such as ridge lines affected the ease with which people could move through the landscape;

- Certain landscape features such as crests or gently sloping, well-drained landforms influenced the location of camping places or vantage points that provided outlooks across the countryside;
- The morphology of different watercourses affected the persistence of water in dry periods and the diversity of aquatic resources and so influenced where, and for how long, people could camp or procure food;
- The distribution of rock outcrops affected the availability of raw materials for flakes and ground stone tools;
- The association of alluvial, colluvial and stable landforms affects the potential that sites will survive;
- European land-use practices affect the potential for site survival and/or the capacity for sites to retain enough information for us to interpret the types of activities that took place at a specific location.

The Aboriginal Cultural Heritage Data Audit (DOP, 2005) produced the following table as part of the NSW Comprehensive Coastal Assessment Toolkit (DOP, 2005) which made the following statements outlined in table 4.3 about the predictive location of Aboriginal sites in Coastal NSW. These statements support the conclusions drawn in the following predictive model established for the study area. The study makes one very important claim which is that Aboriginal Ceremonial or Dreaming Sites can only be identified by Aboriginal community knowledge.

All models state that the primary requirement of all repeated, concentrated or permanent occupation is reliable access to fresh water. Brief and possibly repeated occupation may be represented in areas that have unreliable access to ephemeral water sources, however these areas will not possess a high archaeological potential (Goodwin 1999)

Table 4.3 Aboriginal Cultural Heritage Data Audit, Predictive Modelling for Coastal Aboriginal Sites, NSW.

Site Type	Archaeological/ Predictive Modelling
Aboriginal Ceremony and Dreaming Sites	Can only be identified on the basis of Aboriginal community knowledge.
Aboriginal Resource and Gathering Sites	Can occur at any location where plant and animal target species are found at present or were available in the past.
Art Sites:	All rock paintings or drawings and some rock engravings will occur within rock shelters/overhangs, most commonly within sandstone cliff lines and in granite boulder fields. Rock engravings may occur wherever there are suitable rock-surface exposures.
Artefacts:	Will occur in all landscapes with varying densities. Artefacts of greatest scientific significance will occur in stratified open contexts (such as alluvial terraces, sand bodies) and rock shelter floors.
Burials:	Most likely (but not always) to be buried in, or eroding from, sandy soils. Can occur within rock shelters/overhangs, most commonly within sandstone cliff lines and in granite boulder fields.
Ceremonial Ring Sites:	Environmental factors may be of particular importance in site location including association with sources of water, ridges, unstructured soils and geological boundaries. Distance to adjacent ceremonial ring sites may influence site location.
Conflict Sites:	Can only be identified on the basis of historical records and community knowledge.
Grinding Grooves:	Most likely to occur on surface exposures of sandstone. Occasionally occur within sandstone rock shelters.
Modified Trees	Will only occur where target tree species survive and if these are of an age generally greater than 100 years old.
Non-Human Bone and Organic Material Sites:	Will occur in any surface or buried context where preservation conditions allow. Most commonly survive in open shell midden sites and in rock shelter floor deposits.
Ochre Quarry Sites:	Can occur at any location where suitable ochre sources are found, either as isolated nodules or as suitable sediments (clays).
Potential Archaeological Deposits:	Can occur in all landscape types. PADs of greatest scientific significance will occur in stratified open contexts (such as alluvial terraces, sand bodies) and rock shelter floors.
Shell Middens:	Will occur as extensive packed shell deposits to small shell scatters in all coastal zones along beaches, headlands and estuaries, both in open situations and in rock shelters. May occur along rivers and creeks where edible shellfish populations exist or existed in the past.
Stone Arrangements	Tend to be on high ground, often on the tops of ridges and peaks commanding views of the surrounding country. Often situated in relatively inaccessible places.
Stone Quarry Sites:	Can occur at any location where suitable raw materials outcrop, including pebble beds/beaches.
Waterholes	May occur within any river or creek. Rare examples may occur in open exposures of rock.

4.4 ARCHAEOLOGICAL PREDICTIVE MODEL FOR THE STUDY AREA

The following section gives an indication of the likelihood of certain site types being located within the study area. These indications are based on the research and results of assessments and excavations in the vicinity of the study area and also from the Central Coast Region. The predictive model also takes into account the variables of landscape features, landscape resources, landscape disturbance and ethnographic evidence gathered from Aboriginal Stakeholder groups and individuals.

Site Type	Research	Likelihood
Open Artefact Scatters	Archaeological sites are more extensive and complex in landscapes near permanent water and higher order streams. The study site is located within 200m of a major watercourse— Brisbane Waters and within 100m of a low order unnamed creek. The study area would have originally been within 100m of the original shoreline before the land was reclaimed. Therefore, the study area has the potential to display sparse background artefact scatters.	Likely within undisturbed parts of the study area.
Isolated Artefacts	Archaeological sites are more extensive and complex in landscapes near permanent water and higher order streams. The study site is located within 200m of a major high order stream – Brisbane Waters and within 100m of a low order unnamed creek. The study area would have originally been within 100m of the original shoreline before the land was reclaimed. Therefore, the study area has the potential to display sparse background artefact scatters.	Likely within undisturbed parts of the study area.
Midden Deposits	Given the proximity of the study area to the Brisbane Waters foreshore, it is likely to be the site of food procurement, consumption, and refuse discard. It is presently unclear whether intact original soil profiles are present, however, if they are, associated archaeological material may occur within said deposits.	Likely within undisturbed parts of the study area.
Grinding Grooves	Boulders of sandstone or outcrops do not occur in the landscape units represented in the study area.	Unlikely within the study area.
Stone Resource Sites	Rock outcrops of suitable flaking material are almost absent from the soil landscapes represented within the study area.	Unlikely within the study area.
Scarred Trees	Trees of sufficient age onsite were inspected. No scarring/modified was present.	Unlikely within the study area.
Sandstone Shelters	The soil landscapes of the study area do not contain sandstone overhangs	Unlikely within the study area.
Burials	Undisturbed sandy loam deposits do not lie within the study area and the soil landscapes in which the study area is located are generally acidic. Skeletal remains tend to decompose very quickly in acidic soil profiles.	Unlikely within the study area.
Ceremonial Sites	Consultation with relevant Aboriginal stakeholder groups and individuals is taking place, however, it is possible that such information may become available in the future, as a result, of further consultation.	Possible that Ceremonial/Social sites may be present within the study area.

4.5 ARCHAEOLOGICAL CONTEXT

It is generally accepted that Aboriginal occupation of Australia dates back at least 40,000 years (Attenbrow 2002 p.20 - 21 & Kohen et al 1983). The result of this extensive and continued occupation which includes the Sydney region has left a vast amount of accumulated depositional evidence and the Cumberland Lowlands is no exception. The oldest date generally considered to be reliable for the earliest occupation around the region comes from excavations at Parramatta which contain objects or features which have been dated to $30,735 \pm 407$ BP (McDonald et al 2005).

The majority of reliably dated archaeological sites within the region are less than 5,000 years old which places them in the mid to late Holocene period. A combination of reasons has been suggested for this collection of relatively recent dates. There is an argument that an increase in population and 'intensification' of much of the continent took place around this time, leading to a great deal more evidence being deposited than was deposited as a result of the sparser prior occupation period. It is also the case that many archaeological sites along the past coastline may have been submerged as the seas rose approximately to their current level around 6,000 years ago. This would have had the effect of covering evidence of previous coastal occupation. In addition, it is also true that the acidic soils which are predominate around the Sydney region do not allow for longer-term survival of sites (Hiscock 2008 p. 106).

Different landscape units not only influence the preservation of sites but can determine where certain site types will be located. Across the whole of the Sydney Basin, the most common Aboriginal archaeological site type is occupation evidence within Rock Shelters. However, the most common Aboriginal archaeological site type in the Cumberland Lowlands is Open Artefact Scatters or Open Campsites, which are locations where two or more pieces of stone show evidence of human modification. These sites can sometimes be very large, with up to thousands of artefacts and include other habitation remains such as animal bone, shell or fireplaces [known as *hearths*] (Attenbrow 2002 p. 75 – 76). Many hundreds of artefact sites have been recorded within the Cumberland Lowlands. This is despite the fact that at least 50% of the Cumberland Lowlands has already been developed to such an extent that any archaeological evidence which may have once been present has been destroyed.

4.6 PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS NEAR THE STUDY AREA

The study of a midden deposit on the bank of a drainage channel (or possibly former creek) which extended 6m x 1.8m in diameter with the possibility of having extended further but it had been destroyed through erosion. In establishing the dimensions 7 auger holes were dug around the expected perimeter of the site with intact soils present. The site is also 15m away from Narara Creek. The results of this study correlate with the predictive model of the region in which deposits are likely to be present within the vicinity of water tributaries.

Navin Officer 2004 – Aboriginal Cultural Heritage Assessment – Tathra Street, West Gosford

In 2004, Navin Officer conducted a cultural heritage assessment at Tathra Street, West Gosford for a proposed Concrete Batching Plant. The study area is located towards the base slopes of a hill, of which is predominately covered with woodland vegetation. The on-site survey resulted in the location of three rock shelters with midden deposits. These were recorded but since they were not situated within the development footprint no

further archaeological investigation was recommended. The study area was within 500m of Narara Creek.

AHMS 2007 – Aboriginal Cultural Heritage Assessment – Dane Drive and Masons Parade, Gosford

In 2007, an Aboriginal Heritage Assessment was conducted by AHMS (2007) at the intersection of Dane Drive and Masons Parade in response to a roads upgrade. The results of the investigation led to the registration of a Potential Archaeological Deposit (PAD). The AHMS coordinates of site 45-3-3340 places it just outside the boundary of the study area. AMAC Group confirmed through test excavations at 32 Smith Street, Gosford in 2017, that this PAD was located within reclaimed fill and resulted in no Aboriginal objects and/or features of archaeological and/or cultural significance being located. This testing programme resulted in the site card 45-3-3340 being amended.

A.R.C Heritage 2008 – Test Excavation – Avoca Drive, Green Point

Test Excavations were undertaken by A.R.C Heritage in 2008, for the proposed extensions to Avoca Drive, Green Point. A total of 10 test pits (0.50 x 0.50m) were excavated as well as an additional 5 test trenches (1.0 x 1.0m) along intersecting transects conducted on the site. The test excavation programme resulted in the discovery of one quartzite flake, extracted from the A1 horizon within the Erina soil landscape.

AMAC Group 2016 – Test Excavation – 38 Mann Street, Gosford

Test excavation was conducted by AMAC group in 2016, on the ATO development property next door at 38 Mann Street, Gosford. A total of 10 pits were excavated of which two Aboriginal artefacts were located. A layer of fill was found to encompass the site from past filling event. The depths of fill varied along the landscape of the site. Below this fill, intact natural soil profiles were present including the A horizon – artefact bearing deposit. The soil landscape although initially identified as disturbed, contained soils of the Erina soil landscape.

AMAC Group 2017 – Test Excavation – 32 Mann Street, Gosford

Test excavation was recently conducted by AMAC Group in 2017 on the land bounding the study area towards the north and east as part of the initial 32 Mann Street, Gosford development. A total of 10 test pits were excavated resulting in no Aboriginal objects and/or features of archaeological and/or cultural significance. It was demonstrated that a significant amount of fill covered the western end of the site. This was found to extend >1.5m as part of the reclamation works of what would have been the intertidal zone of the original Brisbane Waters foreshore. An intact A horizon was located towards the eastern end of the site.

The practical ramifications of the results of the previously mentioned archaeological assessments and excavations, infers that there is a potential for Aboriginal archaeological objects and/or deposits to be present within any intact original soil profiles located within study area. Higher order streams are located in the landscape units represented in the study area, chiefly Brisbane Waters. The lack of archaeological assessments near the study area is not a reflection of the archaeology present but a reflection of the development within the area where investigation has not been required.

5.0 PHYSICAL EVIDENCE

SITE INSPECTION

Ben Streat of AMAC Group Pty Ltd and Barry Williams of Darkinjung Local Aboriginal Land Council inspected the study site on the 22nd August 2019. The study site is vacant land but contained within a larger construction zone for development occurring at the adjacent sites.

INSPECTION METHODS

The study site was inspected on foot. Where practical the whole of the study area was inspected, however, there were a number of limiting factors, such as there being a considerable amount of grass cover. It was therefore not possible to cover the entirety of the study area. Any areas of exposed soil or areas of erosion were inspected in detail. The level of surface visibility was less than ten percent.

All visible landscape units were inspected as well as photographed where informative details as to land use and disturbance could be ascertained. Information was also collected regarding land surface and vegetation conditions as encountered during the survey.

The following broadly outlines the methods adopted;

- field inspections will be carried out on foot;
- attempts will be made to relocate the registered sites within the study area and assess their condition;
- highly disturbed areas indicated on plans will be inspected to verify the level of disturbance and depending on level of disturbance will be included or excluded from the additional survey;
- undisturbed areas will be inspected in as much detail as the remaining surface coverage and environment will allow and the results will be recorded;
- areas of exposed ground such as tracks or eroded surfaces which allow good surface visibility will form the focus of the field inspections;

5.3 INSPECTION SUMMARY

The entrance to the study site is via Vaughan Avenue at the south end of the site. The natural topography of the site is sloping east to west down from Mann Street to a flat level a result of the reclamation works. The highest level of the site is along the eastern boundary (fronting Mann Street). Thick vegetation and trees were encountered on the slope and the base of the slope is covered by bitumen.

To the north of the site there is a large office building and a large rectangular multi storey building is currently being constructed along Mann Street. Demountable site offices are situated along the western fence as well as trees.

The study area has been significantly cleared. The past public school buildings appear to have been demountable structures rather than brick, subsurface impacts from this later development appear to be shallow.

The site appears to remain relatively intact with some top soils identified. Due to dense overgrown vegetation coverage, visibility was poor along the slope but high along the bitumen surface on the flat.

Unit	Landform	Area (sq. m)	Visibility (%)	Exposure (%)	Effective Coverage (sq. m)	Effective Coverage (%)
1	Slope	2,019	20	20	81	4%
2	Flat	26,753	80	10	2,140	7.9%



Figure 5.1 Site inspection results with unit boundaries.
AMAC 2019, Six Maps accessed 27/08/19



Figure 5.2 Northern end of study site (Unit 2). Facing north.
AMAC, 22nd August 2019, digital image DSCN3114.



Figure 5.3 Northern end of study site (Unit 2). Facing north.
AMAC, 22nd August 2019, digital image DSCN3123



Figure 5.4 Eastern sloping edge of the study site, looking towards Mann Street (Unit 1), Facing southeast.
AMAC, 22nd August 2019, digital image DSCN3117.



Figure 5.5 Southern end of the study site (Unit 1 and 2), facing south.
AMAC, 22nd August 2019, digital image DSCN3119.



Figure 5.6 Manhole for services, facing north east.
Note photograph taken prior to any excavation works.
AMAC Group - DSCN0430 (06/02/2017)

6.0 SIGNIFICANCE ASSESSMENT

The processes of assessing significance for items of cultural heritage value are set out in *The Australian ICOMOS Charter for the Conservation of Places of Cultural Significance: the Burra Charter* (amended 1999) formulated in 1979 and based largely on the Venice Charter of International Heritage established in 1966. Archaeological sites may be significant according to four criteria, including scientific or archaeological significance, cultural significance to Aboriginal people, representative significance which is the degree to which a site is representative of archaeological and/or cultural type, and value as an educational resource. In New South Wales the nature of significance relates to the scientific, cultural, representative or educational criteria and sites are also assessed on whether they exhibit historic or cultural connections.

6.1 ARCHAEOLOGICAL SIGNIFICANCE

6.1.1 Educational Significance

The educational value of any given location will depend on the importance of any archaeological material located, on its rarity, quality and the contribution this material can have on any educational process (Australia ICOMOS, 1999 p. 11).

No specific educational significance can as yet be assigned to the study area

6.1.2 Scientific Significance

The scientific value of any given location will depend on the importance of the data that can be obtained from any archaeological material located, on its rarity, quality and on the degree to which this may contribute further substantial information to a scientific research process. (Australia ICOMOS, 1999 p.11).

No specific scientific significance can as yet be assigned to the study area

6.1.3 Representative Significance

The representative value of any given location will depend on rarity and quality of any archaeological material located and on the degree to which this representativeness may contribute further substantial information to an educational or scientific research process. (Australia ICOMOS, 1999 p.11).

No specific representative significance can as yet be assigned to the study area

6.2 SOCIAL AND CULTURAL SIGNIFICANCE

As defined in the 'Burra Charter' (ICOMOS, 1999) cultural significance is broken into three parts: aesthetic, historic and scientific value for past, present or future generations. Cultural significance is a concept which assists in estimating the value of any given place. Places that are likely to be of significance are those which can contain information which may assist with the understanding of the past or enrich the present, and which will be of value to future generations. The meaning of these terms in the context of cultural significance is outlined below. It should be noted that they are not mutually exclusive, (Australia ICOMOS, 1999 p.12).

6.2.1 Historic Significance

A place may have historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also have historic value as the site of

an important event. For any given place the significance will be greater where evidence of the association or event survives in situ, or where the settings are substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment. (Australia ICOMOS, 1999 p.11).

No historical significance has been assigned to the study area by any participating Aboriginal Stakeholders.

6.2.2 Scientific Significance

The scientific value of any given location will depend on the importance of the data that can be obtained from any archaeological material located, on its rarity, quality and on the degree to which this may contribute further substantial information to a scientific research process. (Australia ICOMOS, 1999 p.11).

No scientific significance has been assigned to the study area by any participating Aboriginal Stakeholders.

6.2.3 Aesthetic Significance

Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, scale, colour, texture and material of the fabric; the smells and sounds associated with the place and its use. (Australia ICOMOS, 1999 p.11).

No aesthetic significance has been assigned to the study area by any participating Aboriginal Stakeholders.

7.0 PROPOSED ACTIVITY

This section outlined the proposed activity including the staging and timeframes along with the potential harm of the proposed activity on Aboriginal objects and or declared Aboriginal places, assessing both the direct and indirect result of the activity on any cultural heritage values associated with the study area.

It also aims to outline the justification for harm with the intention of avoiding and minimising harm where possible.

7.1 DESCRIPTION OF PROPOSED ACTIVITY

The proposed development seeks to construct three multi-storey buildings, public space and landscaping works. Buildings 1 and 3 will consist of mixed residential, commercial and retail use and Building 2 will be a hotel with a conference centre. The proposed development requires subterranean excavation.

- Excavation for levelling of the site including filling and cutting of the current ground surface.
- Excavation for pavement and public space surrounding the three buildings.
- Excavation across the site for the foundations of the three building (pilings, footings, foundation slab).
- Excavation below the current ground surface for the ground, first and second level car parks.
- Excavation for a loading zone on the ground floor.
- Excavation for several lift shafts on the ground floor.
- Landscaping works that include excavation for planting of large trees.

A sample of the development application proposed plans are provided as **Error! Reference source not found.**-Figure 7.6. The specific proposed works are as follows:

No exclusion areas have been planned.

7.2 POTENTIAL HARM TO ABORIGINAL OBJECTS AND CULTURAL HERITAGE

The proposed development activity will disturb the ground surface and may disturb Aboriginal objects and areas of cultural significance. The study area has been shown through research and past test excavation that there is potential archaeological material to be present in intact soils. Test excavation has been proposed in order to assess the nature and extend of any intact deposits within the study area.

7.3 ASSESSING HARM

The proposed development activity will disturb the ground surface and may disturb Aboriginal objects and areas of cultural significance. The study area has been shown through research and past test excavation that there is potential archaeological material to be present in intact soils. Test excavation has been proposed in order to assess the nature and extend of any intact deposits within the study area.

7.4 AVOIDING AND MINIMISING HARM TO ABORIGINAL OBJECTS

The proposed development activity will disturb the ground surface and may disturb Aboriginal objects and areas of cultural significance. The study area has been shown through research and past test excavation that there is potential archaeological material to be present in intact soils. Test excavation has been proposed in order to assess the nature and extent of any intact deposits within the study area.

7.5 JUSTIFICATION OF HARM TO ABORIGINAL OBJECTS

Test excavation has been proposed in order to assess the nature and extend of the soil profile as there is a potential for Aboriginal objects and features of cultural and archaeological significance being present.

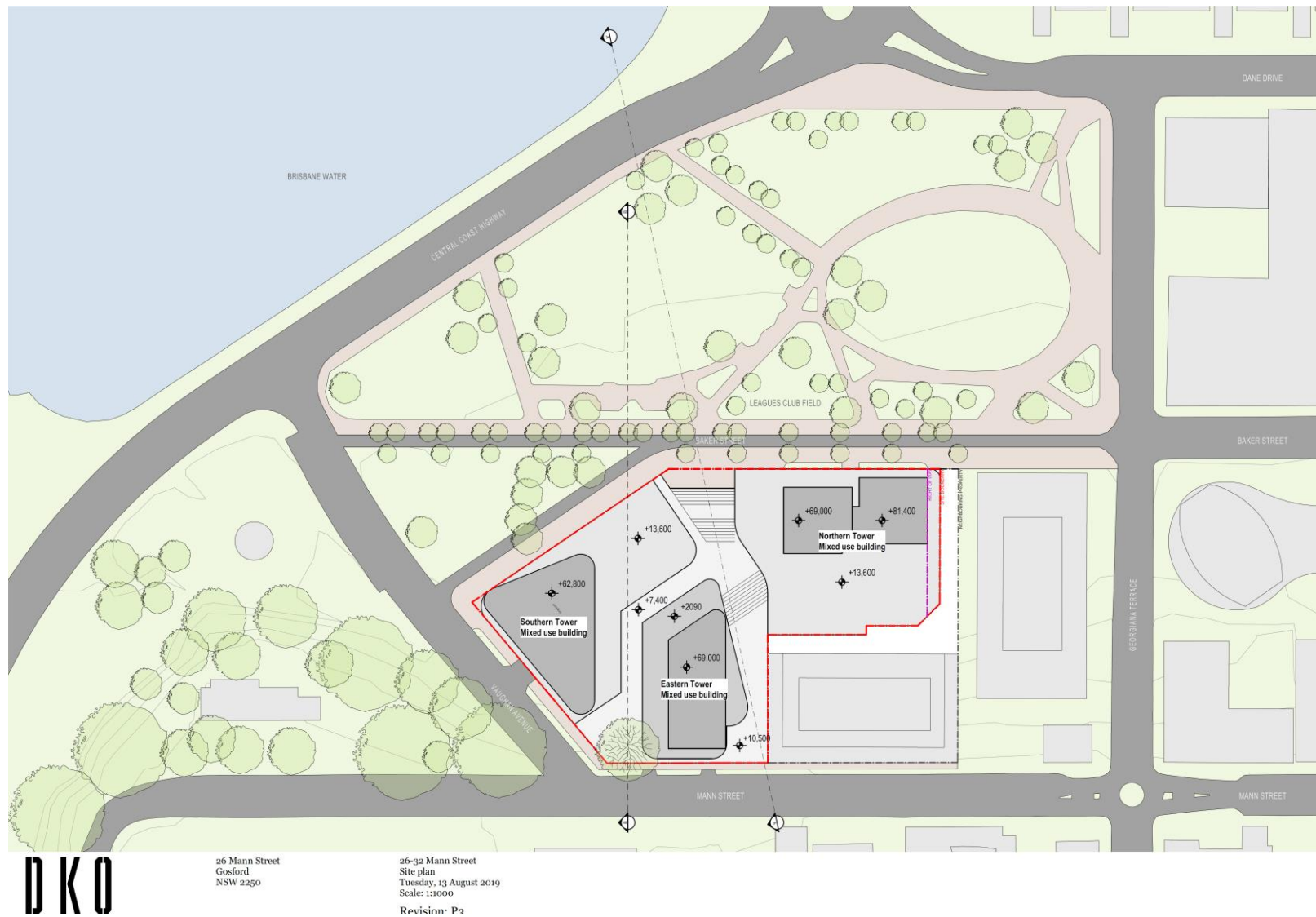
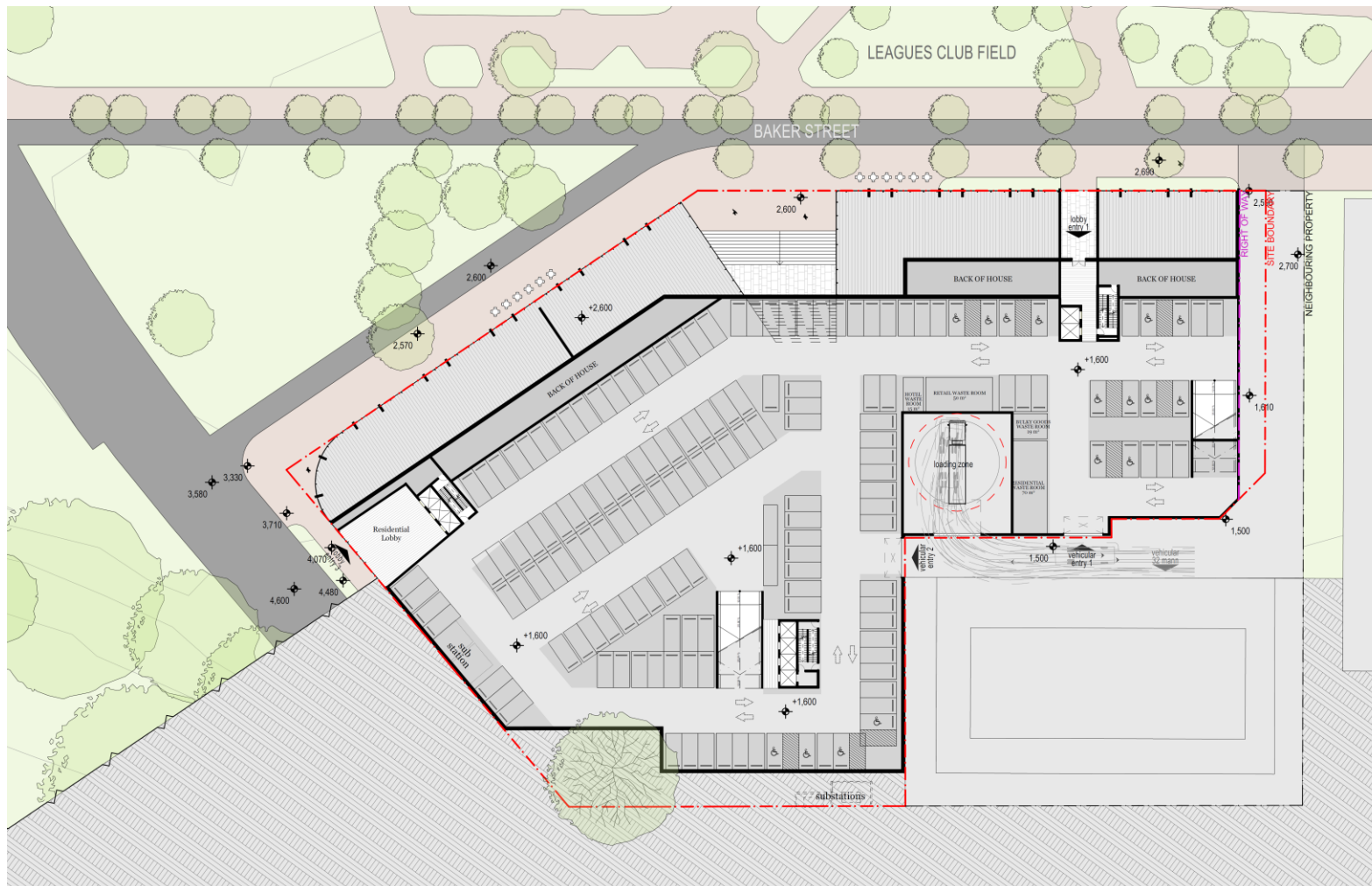


Figure 7.1 **Proposed Site Plan**
DKO – Revision: P3 (13/08/2019).



DKO

26 Mann Street
Gosford
NSW 2250

26-32 Mann Street
Ground Floor (Baker St)
Tuesday, 13 August 2019
Scale: 1:500
Revision: P4

Figure 7.2

Proposed Ground Floor
DKO – Revision: P4 (13/08/2019).

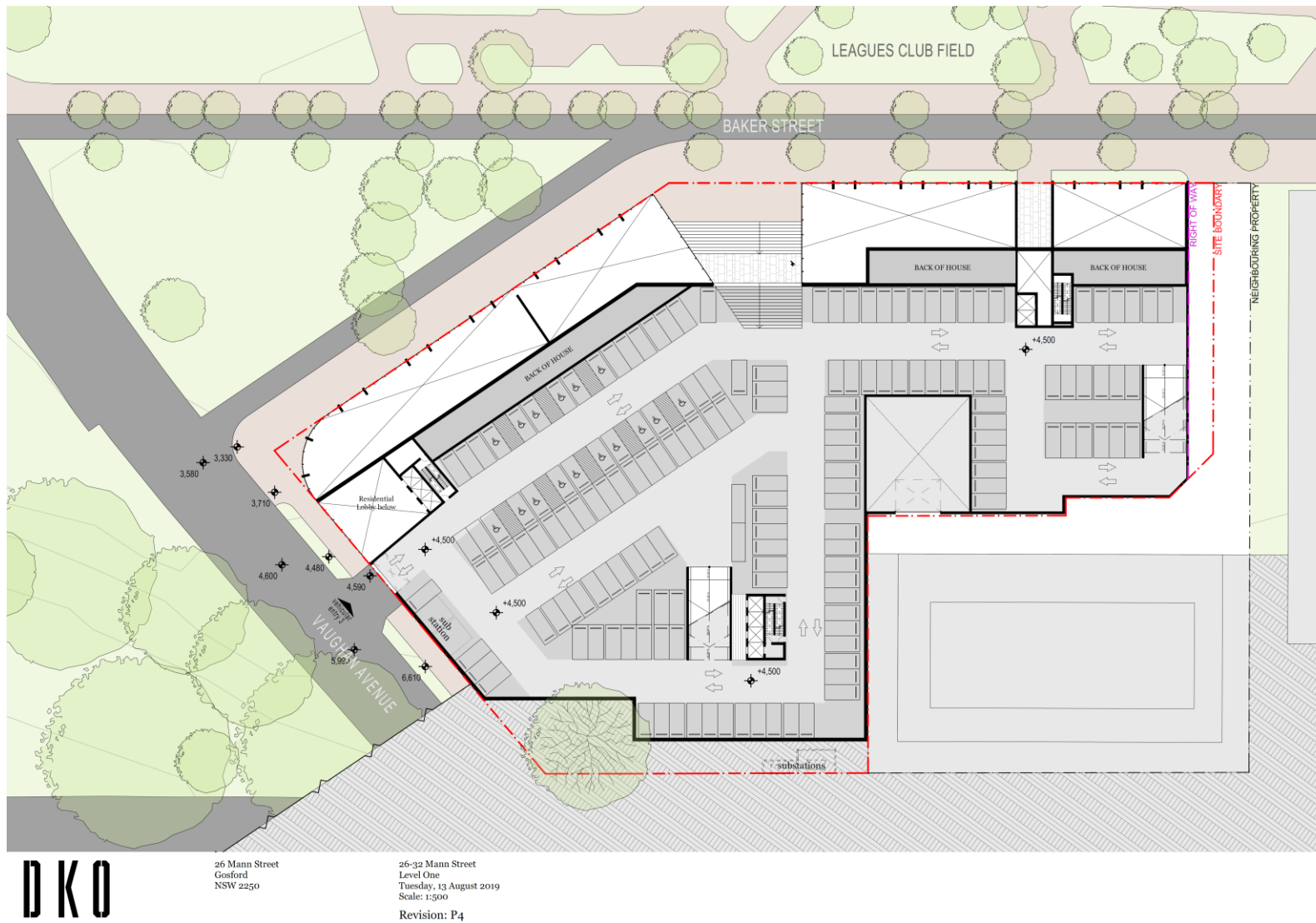


Figure 7.3 **Proposed Level One**
DKO – Revision: P4 (13/08/2019)



DKO

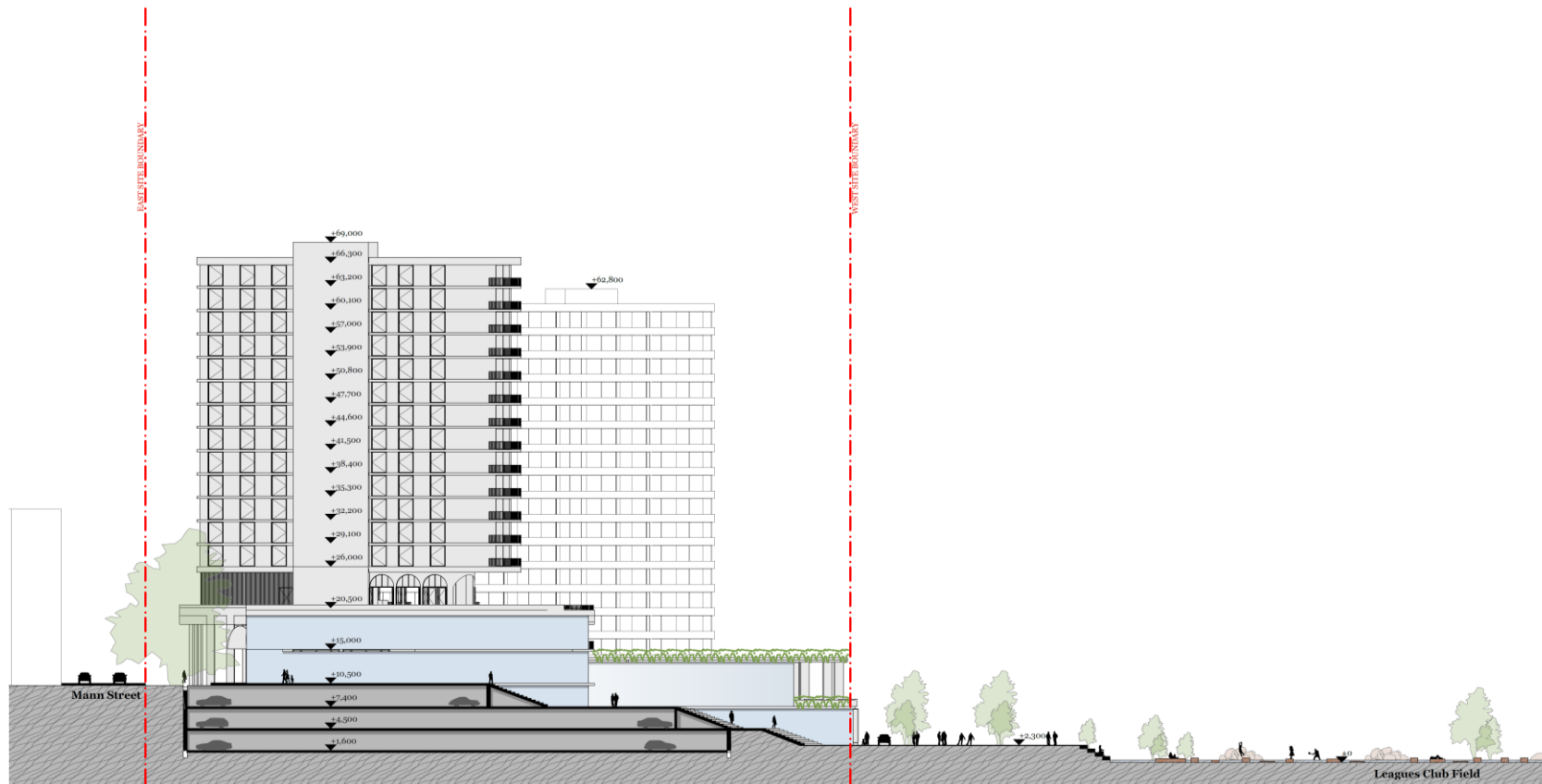
26 Mann Street
Gosford
NSW 2250

26-32 Mann Street
East Site Elevation
Tuesday, 13 August 2019
Scale: 1:500

Revision: P3

Figure 7.4

Proposed East Site Elevation
DKO – Revision: P3 (13/08/2019).



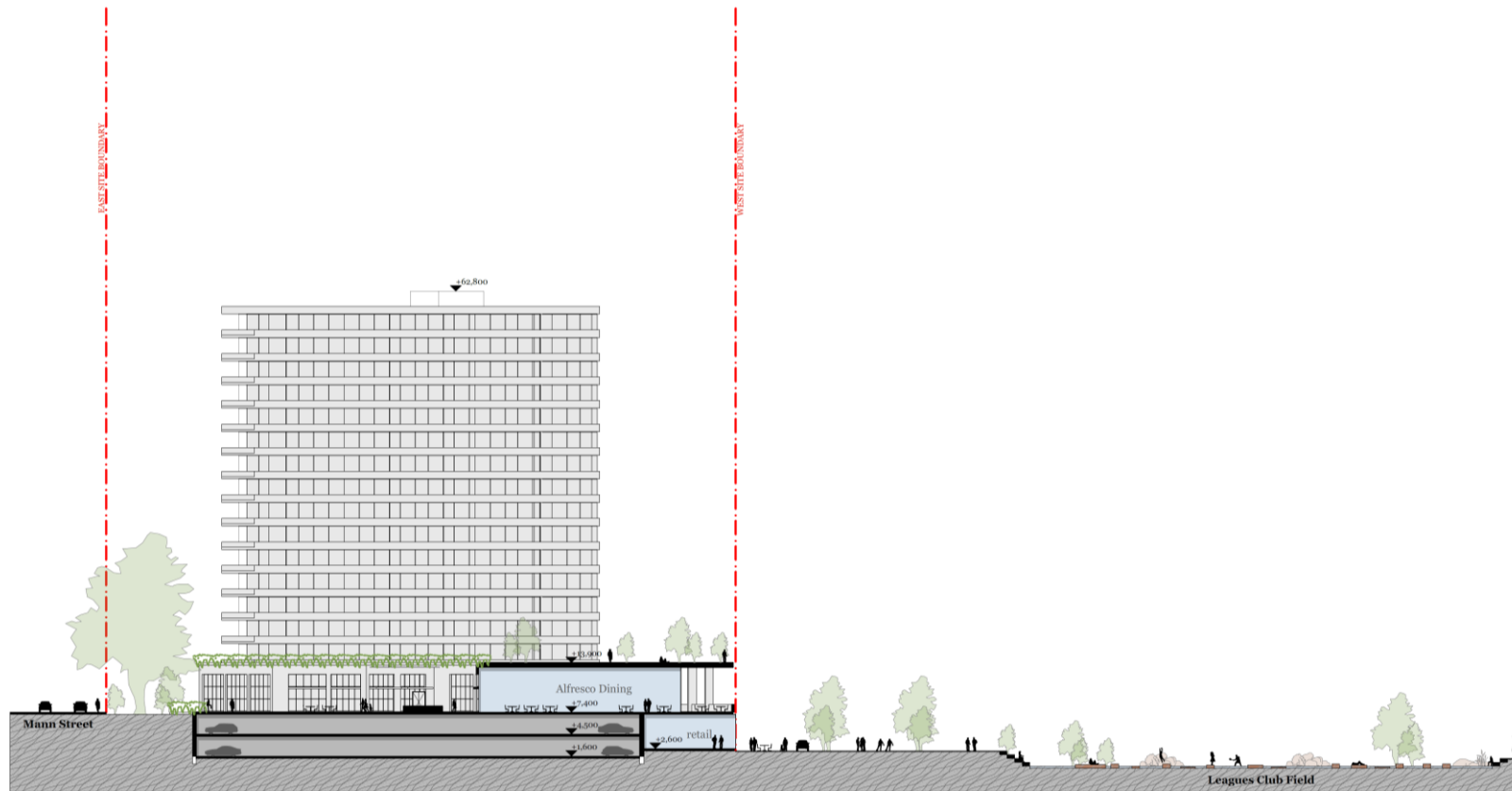
DKO

26 Mann Street
Gosford
NSW 2250

26-32 Mann Street
Site Section A
Tuesday, 13 August 2019
Scale: 1:500
Revision: P2

Figure 7.5

Proposed Site Section A
DKO – Revision: P2 (13/08/2019).



DKO

26 Mann Street
Gosford
NSW 2250

26-32 Mann Street
Site Section B
Tuesday, 13 August 2019
Scale: 1:500
Revision: P2

Figure 7.6

Proposed Site Section B
DKO – Revision: P2 (13/08/2019).

8.0 MANAGEMENT AND MITIGATION

The management recommendations presented in the following section of the report take into account the following:

- Legislation outlined in this report which protects Aboriginal cultural and archaeological objects and places in New South Wales;
- Research and assessment carried out by the author/s of this report;
- Results of previous archaeological assessment and excavation in the vicinity of the study area;
- The concerns and views of the Aboriginal stakeholders listed in this report;
- The impact of the proposed development on any Aboriginal archaeological material that may be present;
- The requirements of the consent authority (Central Coast Council).

8.1 CARE AND CONTROL

Any artefacts recovered shall be reburied as soon as practicable in a secure temporary storage location in accordance with requirement 26 of the Code of Conduct for the investigation of Archaeological objects in NSW, pending any agreement reached as to the long-term management of the salvaged Aboriginal objects. The excavation director is responsible for ensuring that procedures are put in place so that Aboriginal objects that are reburied are not harmed. The location of the secure temporary storage location must be submitted to AHIMS with a site update record card for the site(s) in question.

If any archaeological material is recovered it shall be subject to a care and control agreement established after the nature and significance of the archaeological or cultural material is understood as per requirement 26 of the Code of Conduct for the investigation of Archaeological objects in NSW.

8.2 RECOMMENDATIONS

The proposed mixed-use development has the potential to disturb the ground surface. A background analysis of the environment and archaeological context revealed that the study area has moderate – high surface disturbance. However, the eastern slope has the potential for natural intact soils to be present. Where intact soils are present, these may contain Aboriginal objects and/or deposits as identified with AHIMS site# 45-3-3699.

The surrounding landscape features present do indicate that sub-surface Aboriginal objects and/or deposits may be present in undisturbed areas.

The proposed activity is not:

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

The proposed activity is:

- located within 200m of waters

In accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974 (DECCW, 2010)*, it is recommended that further archaeological and cultural assessment is required in accordance with *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974 (DECCW, 2010)*.

The following recommendations have been formulated after consultation with the proponent and the Office of Environment and Heritage (OEH);

- A full Aboriginal Cultural Heritage Assessment including community consultation in accordance with Part 6; National Parks and Wildlife Act, *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010) should take place. AMAC has already been commissioned to carry out this process by SH Gosford Residential Pty Ltd and it is underway. Consultation is currently in Stage 1. An Interim Aboriginal Archaeological Assessment report has been prepared based on the conceptual plans proposed for submission. A Full Aboriginal Cultural Heritage Assessment is also currently being prepared including full Aboriginal consultation. These final documents will be completed prior to concept State Significant Development Application (SSDA) determination. This is in response to requirement 12 of the SEARs SSD #10114.
- Subsequent to this report and in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010)*, a program of systematic, sub surface archaeological test excavation in accordance with the *Code Of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 4 National Parks and Wildlife Act 1974 (DECCW 2010)*, should be undertaken to establish the nature and extent of any archaeological objects and/or deposits that are/may be present;
- If archaeological test excavation in accordance with the *Code of Practice for Archaeological Investigations of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010)* reveals no Aboriginal archaeological objects or deposits; the proposed development as outlined in **Error! Reference source not found.**Figure 7.6, should be allowed to 'proceed with caution';
- If archaeological test excavation in accordance with *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974 (DECCW 2010)* reveals Aboriginal archaeological objects and/or deposits; once the nature and extent of the archaeological site has been established through test excavation and this data has been analysed and synthesised into a test excavation report, an Aboriginal Heritage Impact Permit (AHIP) or Aboriginal Cultural Heritage Management Plan depending on the status of the development, will then need to be in place in order for the proposed development to proceed;
- After this and before any ground disturbance takes place all development staff, contractors and workers should be briefed prior to works commencing on site, as to the status of the area and their responsibilities in ensuring preservation of said area. They should also be informed of their responsibilities regarding any Indigenous archaeological deposits and/or objects that may be located during the following development;

Should any human remains be located during the following development;

- all excavation in the immediate vicinity of any objects of deposits shall cease immediately and the area is to be secured so no further harm is to come to these remains;
- the NSW police and OEH's Environment Line 131 555 are to be informed as soon as possible including any available details of the remains and their location;
- once it has been established that the human remains are Aboriginal ancestral remains, authorisation is required by OEH in consultation with relevant Registered Aboriginal Parties identifying the appropriate course of action.

GLOSSARY

Term	Definition
Aboriginal/ Aborigine	These terms apply to indigenous Australians throughout time.
Aboriginal Object	A term now used (formerly 'relic') within the NSW <i>National Parks and Wildlife Act, 1974</i> to refer to "...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."
AHIP	Aboriginal Heritage Impact Permit, issued under Part 6 of the National Parks and Wildlife Act 1974, where harm to an Aboriginal object or Aboriginal place cannot be avoided.
Alluvial	Describes material deposited by, or in transit in flowing water.
AMAC	Archaeological Management and Consulting Group.
Artefact	Any object, usually portable, that has been made or shaped by human hand.
Assemblage	A collection of artefacts found in close proximity with one another often excavated together.
Axe grinding Grooves	Areas on a stone surface where other items such as stone tools, wood or bones have been sharpened.
Basalt	A dark coloured, basic volcanic rock.
Bioturbation	Reworking of sediments through the action of ground dwelling life forms. This can also include soil cracking and root activity.
Broken Flake	A flake fragment which displays only part of the diagnostic features of a complete flake.
BP	Before present (AD1950).
Burial	Sites containing the physical remains of deceased Aboriginal people.
Ceremonial Sites	Places or objects of ceremonial, religious or ritual significance to Aboriginal people.
Chert	A hard siliceous rock suitable for flaking into tools.
DCP	Development Control Plan.
DP	Deposited Plan.
Erosion	Process where particles are detached from rock or soil and transported away principally via water, wind and ice.
Flake	A piece of stone, detached by striking a core with another stone.
Flaking/Knapping	The process of making stone tools by detaching flakes from a piece of stone.
Friable	Easily crumbled or cultivated.
Hard setting	Soil which is compact and hard. It appears to have a pedal structure when dried out.
Heritage Division	Formerly known as the Heritage Branch
Holocene	The period of time since the last retreat of the polar icecaps, commencing approximately 10,000 – 110,000
Intensification	Increased social and economic complexity.

Term	Definition
Landscape Unit	An area of land where topography and soils have distinct characteristics, are recognisable, describable by concise statements and capable of being represented on a map.
Laminite	A thinly bedded, fine grained sedimentary rock.
LEP	Local Environment Plan.
LGA	Local Government Area.
Lithics	A term used to describe stone and stone artefacts.
Loam	A medium textured soil of approximate composition of 10- 25% clay, 25-50% silt and 2% sand.
Loose	A soil which is not cohesive.
Matrix	Finer grained fraction, typically a cementing agent within soil or rock in which larger particles are embedded.
Midden	Aboriginal occupation site consisting chiefly of shells, which can also include bone, stone artefacts and other debris.
NPW Act	National Parks and Wildlife Act 1974
OEH	NSW Office of Environment and Heritage (formerly known as the DECCW)
Open Campsite	A surface accumulation of stone artefacts and/ or other artefacts exposed on the ground surface.
Potential Archaeological Deposit (PAD)	An area where no surface archaeological remains are visible but where it has been assessed that there is some potential for sub-surface archaeological remains to be present.
Ped	An individual, natural soil aggregate.
Pedal	Describes a soil in which some or all of the soil material occurs in the form of peds in a moist state.
Plastic	Describes soil material which is in a condition which allows it to undergo permanent deformation without appreciable volume change or elastic rebound and without rupture.
Pleistocene	The epoch of geological time starting 1.8 million years ago.
Quartz	Common mineral with naturally sharp edges and poor fracturing properties. Colour ranging from clear, to milky white and pink.
Quartzite	Homogenous medium to coarse grained metamorphosed sandstone.
Rock Painting	Encompassing drawing, paintings or stencils that have been placed on a rock surface usually within a rock shelter.
Rock Engraving	Pictures which have been carved, pecked or abraded into a rock surface, usually sandstone and predominantly open, flat surfaces.
Sandstone	A detrital sedimentary rock with predominantly sand sized particles.
Scarred/ Carved Tree	A tree from which bark has been deliberately removed.
Sclerophyll	Denoting the presence of hard stiff leaves, typically used to classify forest and indicative of drier conditions.
Sedimentation	Deposition of sediment typically by water.
Silcrete	A sedimentary rock comprising of quartz grains in a matrix of fine grained – amorphous silica.
Silt	Fine soil particles in size ranges of 0.02 – 0.002mm.

Term	Definition
Slope	A landform element inclined from the horizontal at an angle measured in degrees or as a percentage.
SHI	State Heritage Inventory
SHR	State Heritage Register
Subsoil	Subsurface material comprising the B and C horizons of soils with distinct profiles.
Stone Resource Site	A geological feature in the landscape from which raw material for the manufacture of stone tools was obtained.
Texture	The coarseness or fineness of a soil as measured by the behaviour of a moist ball of soil when pressed between the thumb and forefinger.
Topsoil	A part of the soil profile, typically the A1 Horizon, containing material which is usually darker, more fertile and better structured than the underlying layers.
Weathering	The physical and chemical disintegration, alteration and decomposition of rocks and minerals at or near the earth's surface by atmospheric and biological agents.

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APPENDICES

APPENDIX ONE

AHIMS SEARCH RESULT



Office of
Environment
& Heritage

AHIMS Web Services (AWS) Search Result

Purchase Order/Reference : 26-32 Mann

Client Service ID : 443357

Benjamin Streat
122 c-d Percival Road
Stanmore New South Wales 2048
Attention: Benjamin Streat
Email: streatarchaeological@netspace.net.au

Date: 21 August 2019

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lat, Long From : -33.4309, 151.339 - Lat, Long To : -33.4286, 151.3425 with a Buffer of 1000 meters, conducted by Benjamin Streat on 21 August 2019.

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



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

4	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

APPENDIX TWO PLANNING SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS SSD#10114

Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the Environmental Planning and Assessment Act 1979
Schedule 2 of the Environmental Planning and Assessment Regulation 2000

Application Number	SSD-10114
Project Name	26-32 Mann Street, Gosford - Concept DA
Development Description	Mixed use development including commercial, retail (including food and drink premises), hotel accommodation and residential accommodation.
Location	26-32 Mann Street, Gosford (Lot 469 in DP 821073; Lots 2 -7 in DP 14761; Lot 1 DP 1235203) within Central Coast Council Local Government Area.
Applicant	St Hilliers Property Pty Ltd
Date of Issue	22 July 2019
General Requirements	The environmental impact statement (EIS) must be prepared in accordance with, and meet the minimum requirements of clauses 6 and 7 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 (the Regulation). Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development. Where relevant, the assessment of key issues below, and any other significant issues identified in the risk assessment, must include: - adequate baseline data - consideration of the potential cumulative impacts due to other developments in the vicinity (completed, underway or proposed); - measures to avoid, minimise and if necessary, offset predicted impacts, including detailed contingency plans for managing any significant risks to the environment; and - a health impact assessment of local and regional impacts associated with the development, including those health risks associated with relevant key issues. The EIS must also be accompanied by a report from a qualified quantity surveyor providing: - a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived. The report shall be prepared on company letterhead and indicate applicable GST component of the CIV; - an estimate of jobs that will be created during the construction and operational phases of the proposed development; and - certification that the information provided is accurate at the date of preparation.
Key issues	The EIS must address the following specific matters: 1. Statutory Provisions and Strategic Provisions • Address all relevant Environmental Planning Instruments, plans, policies and guidelines, including (but not limited to those) outlined at Attachment A.

	• Provide details of the proposed use for each component of the development, and the relationship between the different uses within the building. • Detail the nature and extent of any prohibitions that apply to the development. • Identify compliance with the development standards applying to the site and provide a detailed justification for any non-compliances. • Address the adequacy of floor space provided for commercial purposes and provide relevant justification. 2. Design Excellence • Prepare a Design Excellence Statement to demonstrate how the proposal exhibits design excellence and contributes to the natural, cultural, visual and built character values of Gosford City Centre. In considering whether the development exhibits design excellence, demonstrate compliance with Clause 8.3 of State Environmental Planning Policy (SEPP) (Gosford City Centre) 2018. • Demonstrate how the City of Gosford Design Advisory Panel (the Panel) advice (dated 26 March and 28 May 2019) has been considered and incorporated into the design of the proposal. 3. Built Form and Urban Design • Demonstrate how the proposal is informed by the Gosford Urban Design Framework (GANSW, 2018) and the Gosford Development Control Plan 2018 (DPE). • Address the height, bulk and scale of the proposed development, including consideration of the building layout, separation, tower and podium heights, massing, setbacks and the size of the proposed floor plates. • Address the design quality of the proposed development, including consideration of building articulation, street activation and interface with the public domain. • Address section 6.7 (Key Site 6 principles) contained within Chapter 6 of Gosford Development Control Plan 2018 (DPE). • Demonstrate how above ground parking and services (including waste management, loading zones and mechanical plant) would be fully integrated into the design of the development. This includes how on-site car parking is provided wholly underground, or otherwise is not visible from, or minimises visual impacts to, the street. • Demonstrate how the future development potential of adjoining properties would not be compromised by the proposal. • Detail the location, size and content of any proposed signage zones and provide an assessment of the proposed signage zones against the requirements of SEPP 64 - Advertising and Signage. • Address the issues raised by Central Coast Council in correspondence dated 19 July 2019. 4. Public Domain/Landscaping • Outline the scope of public domain improvements, pedestrian linkages, street activation, and landscaping to be provided as a part of the proposal. • Investigate options to improve the proposed pedestrian through-site link and the visual connection from Mann Street to Baker Street (and to the Waterfront).
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	• Address the proposal's relationship with the ATO and DFSI buildings and investigate options to provide an additional pedestrian link between Baker Street and Mann Street at the northern most property boundary. • Demonstrate how the proposal considers and addresses the draft concept design for Leagues Club Field, prepared by Hunter & Central Coast Development Corporation. • Demonstrate how the proposal would: ◦ maximise permeability throughout the development and to adjoining sites ◦ maximise street activation within the town centre ◦ provide sufficient open space for future residents ◦ provide access for people with disabilities ◦ minimise potential vehicle, bicycle and pedestrian conflicts. 5. Visual Impacts • Prepare a comprehensive Visual Impact Assessment and view analysis of the proposal to/from key vantage points (including: the Gosford Waterfront, Brisbane Water and the Point Clare to Gosford railway crossing, Brian McGowan Bridge, the railway station, Mann Street, Rumbalara Reserve, Presidents Hill, Leagues Club Field, Poppy Park, Memorial Park and Kibble Park). • Photomontages or perspectives should be provided showing the project. • Demonstrate how the proposal respects and maintains key view corridors (for example to the ridgelines of Presidents Hill and Rumbalara Reserve) and street vistas. 6. Environmental and Residential Amenity • Assess the environmental and residential amenity impacts associated with the proposal, including solar access, acoustic impacts, visual privacy, view loss, overshadowing, lighting impacts and wind impacts. A high level of environmental amenity must be demonstrated. • Demonstrate how the proposal protects solar access to key public open spaces (including the Leagues Club Field, Baker Street, Memorial Park, Poppy Park, The waterfront) and the surrounding public domain. • Demonstrate that the proposed building envelopes are capable of complying with SEPP 65 and the Apartment Design Guide (ADG) and ensure the proposal achieves a high level of environmental and residential amenity. 7. Ecologically Sustainable Development (ESD) • Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000) will be incorporated in the design, construction and ongoing operation phases of the development. • Demonstrate how future buildings would meet or exceed minimum building sustainability and environmental performance standards. • Demonstrate how the proposal meets the Water Sensitive Urban Design principles and incorporates Water Sensitive Urban Design practices. 8. Transport and Accessibility (Construction and Operation) The EIS must be accompanied by a Traffic Impact Assessment (TIA) prepared in accordance with relevant guidelines. The TIA must:
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	- Assess the traffic impacts of the development on the surrounding local and classified road network using SIDRA or similar traffic model and specify any road upgrade works (local and classified) required to maintain acceptable levels of service. - The assessment is to include traffic and parking generated by existing and approved developments, as well as that by the proposal, and consider car sharing facilities to reduce overall parking demands in the area. - Estimate the total daily and peak hour trips generated by the proposal, including vehicle, public transport, pedestrian and bicycle trips. - Assess the adequacy of public transport, pedestrian and bicycle provisions to meet the likely future demand of the proposed development - Demonstrate the proposed road layout, access points, and car parking can comply with the relevant Australian Standards and Council requirements. - Demonstrate sufficient on-site car parking, loading/unloading, pedestrian and cycling facilities (including bicycle parking and end-of-trip facilities) would be provided for the development. - Assess the impact of the proposal on car parking within the Gosford CBD during construction and operation of the proposed development. - Describe the measures to be implemented to promote sustainable means of travel, including public transport use, pedestrian and bicycle linkages. - Prepare a preliminary Construction Traffic Management Plan for the proposal and outline how construction traffic, public transport, bicycle and pedestrian impacts, and parking impacts would be appropriately managed and mitigated. - Detail the public transport options and pedestrian links for future residents of the proposed development. - Address the issues raised by Central Coast Council in correspondence dated 19 July 2019. - Address the issues raised by Roads and Maritime Services in correspondence dated 19 July 2019. 9. Flooding - Assess the potential flooding impacts associated with the development and consider the relevant provisions of the NSW Floodplain Development Manual (2005), including the potential impacts of climate change, sea level rise and increase in rainfall intensity. 10. Stormwater - Prepare a preliminary stormwater management report demonstrating how stormwater would be appropriately managed in accordance with Council's requirements. 11. Water Quality - Assess water quality and hydrology impacts of the development, including any downstream impacts for both surface and groundwater and any impacts on natural processes and functions. 12. Heritage - Assess any impacts on State and local heritage items, including conservation areas, natural heritage areas, relics, gardens, landscapes, views and trees and recommend mitigation and management measures where required. - Prepare an aboriginal archaeology report in accordance with the relevant Office of Environment and Heritage (OEH) guidelines. Should any aboriginal heritage items
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	be impacted by the proposed development, an Aboriginal Heritage Cultural Assessment must be submitted. 13. Social & Economic Impacts - The EIS must include an assessment of the social and economic impacts of the development, including consideration of any increase in demand for community infrastructure and services. 14. Public Benefit and Contributions: - Outline the contributions and proposed public benefits to be delivered as a part of the proposal including details of any Voluntary Planning Agreement. 15. Noise and Vibration - Prepare a noise and vibration assessment in accordance with the relevant EPA guidelines. This assessment must detail construction and operational noise impacts on nearby sensitive receivers and outline the proposed management and mitigation measures that would be implemented. 16. Contamination - Prepare a contamination assessment for the site, by a qualified environmental consultant and demonstrate that the site is suitable for the proposed development, in accordance with the requirements of SEPP 55. 17. Biodiversity - Assess any biodiversity impacts associated with the proposal in accordance with the requirements of the <i>Biodiversity Conservation Act 2016</i>, including the preparation of a Biodiversity Development Assessment Report, where required. - Ensure the existing Ficus on the corner of Vaughan Avenue and Mann Street is preserved. 18. Soil and Water - The EIS shall include a: - Geotechnical assessment - Acid Sulfate Soils Assessment - Groundwater Assessment. 19. Utilities - In consultation with relevant agencies prepare a services and utilities impact assessment which: - assesses the capacity of existing services and utilities and identify any upgrades required to facilitate the development - assesses the impacts of the proposal on existing utility infrastructure and service provider assets and describe how any potential impacts would be managed. 20. Staging and consents - Provide details regarding the staging of the proposed development.
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	• Demonstrate how the visual and amenity impacts of staged construction will be mitigated. • Provide details of any temporary activation of the land during staged construction. • Demonstrate how the staged construction will not adversely impact public use of Leagues Club Field and will not compromise works completed by Hunter and Central Coast Development Corporation. • Detail the proposal's relationship to, and/or consistency with, any existing development consents. 21. Construction Management Plans • Prepare a preliminary Construction Management Plan for the proposed works and outline how construction impacts would be appropriately managed and mitigated. • Demonstrate how public safety will be maintained during construction and operation, including any public safety measures that will be implemented. 22. Air Quality & Pollution • Assess the construction and operation air quality impacts and ensure they meet the requirements of Council and/or the Environment Protection Authority. • Demonstrate whether any activities associated with the proposed development would be a scheduled activity as listed in Schedule 1 of the Protection of the Environment Operations Act 1997 (the POEO Act), or other legislative requirements administered by the EPA.
Consultation	During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, local community groups and affected landowners. In particular, you must consult with: • Central Coast Council • Hunter & Central Coast Development Corporation • NSW Office of Environment and Heritage • Transport for NSW • NSW Roads and Maritime Services • Environment Protection Authority • Ausgrid • NSW Department of Industry (Crown Land, NRAR, Office of Water) • Surrounding residents, businesses and local community groups The EIS must describe the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.
Further consultation after 2 years	If you do not lodge a Development Application and EIS for the development within 2 years of the issue date of these SEARs, you must consult further with the Secretary in relation to the preparation of the EIS.
Documents and Plans	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environmental Planning and Assessment Regulation 2000.

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	In addition to the documents and plans listed in the key issues above, the EIS must include the following: • Survey plan (A3) • Overall site plan (A3) • Concept elevations, floor plans and sections of the proposal (A3) • 3D digital model (refer Central Coast Council's requirements) • Visual Impact Assessment • Design verification statement • Compliance tables for all relevant planning controls • Detailed overshadowing diagrams (A3) • Cross ventilation diagrams (A3) • Energy Efficiency Report • Concept landscape and public domain plans (A3) • A table identifying the proposed land uses including a floor-by-floor breakdown of GFA, total GFA and site coverage • Water Cycle Management Plan Strategy • Arborist report (if required) • Pre-submission consultation statement • Quantity surveyor report
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APPENDIX THREE AHIMS SITE #45-3-3699

		Aboriginal Site Recording Form		 Office of Environment & Heritage	
AHIMS Registrar PO Box 1967, Hurstville NSW 2220					
Office Use Only					
Site Number		4 5 - 3 - 3 6 9 9			
Date received		Date entered into system		Date catalogued	
Entered by (I.D.)					
Information Access					
☐ Gender/male ☐ Gender/female ☐ Location restriction ☐ General restriction ☐ No access					
For Further Information Contact:					
☐ Nominated Trustee					
Title	Surname	First Name	Initials		
Organisation					
Address					
Phone number					
Fax					
☐ Knowledge Holder					
Title	Surname	First Name	Initials		
Organisation					
Address					
Phone number					
Fax					
Aboriginal Heritage Unit or Cultural Heritage Division Contacts					
Geographic Location					
Site Name A T O M a n n S t					
Easting	3 4 5 7 6 4	Northing	6 2 9 9 8 7 4	AGD/GDA	GDA
Mapsheet					
Zone	56	Location Method Non-Differential GPS			
Other Registration					
Primary Recorder					
Title	Surname	First Name	Initials		
M r	S t r e a t	B e n j a m i n			
Organisation A M A C G r o u p					
Address 1 2 2 c P e r c i v a l R o a d S t a n m o r e					
Phone number 2 9 5 6 8 6 0 9 3					
Fax 2 9 5 6 8 6 0 9 3					
Date recorded	16/04/2016				
Office Use Only					
Client on system					
Client on system					

NPWS Aboriginal Site Recording Form - Site Information						page 2
OPEN/CLOSE SITE Open Site						
Site Context Landform ☐ Mountainous ☐ Plain ☒ Rolling hills ☐ Steep hills ☐ Undulating plain Slope 5 degrees Landform Unit ☐ Beach ☐ Coastal rock platform ☐ Dune ☒ Intertidal flat ☐ Lagoon ☐ Tidal Creek ☐ Tidal Flat ☐ Cliff ☐ Crest ☐ Flat ☒ Lower slope ☐ Mid slope ☐ Upper slope ☐ Plain ☐ Ridge ☐ Tor ☐ Valley flat ☐ Levy ☐ Stream bank ☐ Stream channel ☐ Swamp ☐ Terrace ☐ Terrace flat						
Vegetation ☐ Closed forest ☐ Grasslands ☐ Isolated clumps of trees ☐ Open forest ☐ Open woodland ☐ Scrub ☐ Woodland ☒ Cleared ☒ Revegetated ☐ N/A Land use ☐ Conservation ☒ Established urban ☐ Farming-intensive ☐ Farming-low intensity ☐ Forestry ☐ Industrial ☐ Mining ☐ Pastoral/grazing ☐ Recreation ☐ Semi-rural ☐ Service corridor ☐ Transport corridor ☐ Urban expansion ☐ Residential Water Distance to permanent water source 175 metres Distance to temporary water source 0 metres Name of nearest permanent water source Broad Water Name of nearest temporary water						
Directions for Relocation Street address is 38 Mann Street, Gosford NSW						
Current Land Tenure ☐ Public National Park / other Government Dept. ☒ Private Primary report I.D. (I.D. - Office Use only)						

NPWS Aboriginal Site Recording Form - Site Information			page 3
General Site Information			Features
Closed Site Shelter/Cave Formation ☐ Boulder ☐ Wind erosion ☐ Water erosion ☐ Rock collapse Condition of Ceiling ☐ Boulder ☐ Sandstone platform ☐ Silica gloss ☐ Tessellated ☐ Weathered ☐ Other platform Rock Surface Condition ☐ Boulder ☐ Sandstone platform ☐ Silica gloss ☐ Tessellated ☐ Weathered ☐ Other platform Shelter Aspect ☐ North ☐ North East ☐ East ☐ South East ☐ South ☐ South West ☐ West ☐ North West Open Site Site Orientation ☐ N-S ☒ NE-SW ☐ E-W ☐ SE-NW ☐ N/A			☐ 1. Aboriginal Ceremony & Dreaming ☐ 2. Aboriginal Resource & Gathering ☐ 3. Art ☒ 4. Artefact ☐ 5. Burial ☐ 6. Ceremonial Ring ☐ 7. Conflict ☐ 8. Earth Mound ☐ 9. Fish Trap ☐ 10. Grinding Groove ☐ 11. Habitation Structure ☐ 12. Hearth ☐ 13. Non Human Bone & Organic Material ☐ 14. Ochre quarry ☐ 15. Potential Archaeological Deposit ☐ 16. Stone Quarry ☐ 17. Shell ☐ 18. Stone Arrangement ☐ 19. Modified Tree ☐ 20. Water Hole
Site Plan Indicate scale, boundaries of site, features Site Dimensions Closed Site Dimensions (m) Internal length Internal width Shelter height Shelter floor area Open Site Dimensions (m) Total length of visible site Average width of visible site Estimated area of visible site Length of assessed site area			

NPWS Aboriginal Site Recording Form - Site Interpretation and Community Statement page 4

Aboriginal Community Interpretation and Management Recommendations

Preliminary Site Assessment

Site Cultural & Scientific Analysis and Preliminary Management Recommendations

A total of two artefacts were recovered. This site is overlayed with modern fills however intact subsoils were located below and were moderately undisturbed. Due to the insufficient data gained from the assemblage, little comparison can be made or information can be contributed to a local and/or regional context and model. It therefore has low archaeological significance however has the potential to hold high Aboriginal cultural significance. It is recommended that an AHIP be sought prior to the commencement of development works.

This section should only be filled in by the Endorsees

Endorsed by: ☐ Knowledge Holder ☐ Nominated Trustee ☐ Native Title Holder ☐ Community Consensus

Title	Surname	First Name	Initials
Organisation			
Address			
Phone number		Fax	

Attachments (No.)

- ☐ A4 location map
- ☐ B/W photographs
- ☐ Colour photographs
- ☐ Slides
- ☐ Aerial photographs
- ☐ Site plans, drawings
- ☐ Recording tables
- ☐ Other
- ☐ Feature inserts-No.

Comments

NPWS FEATURE RECORDING FORM - ARTEFACT				page 1									
Site I.D. First recorded date 16/4/16 No. of instances Recorded by Ben Streat Yes No Stone artefacts only Yes Artefacts collected Yes Permit issued No	Site Name ATO Mann St Importance Contributes to secondary site impo Percentage of Non-stone Artefacts to Percentage of Stone Artefacts 0-9% 10-19% 20-29% 30-39% 40-49% 50-59% 60-69% 70-79% 80-89% 90-100% 90-100%												
Feature Context & Condition													
Scatter No. N/A Easting 3 3 4 5 6 2 Northing 6 2 9 9 8 0													
Density 1 Dimensions 45 Length (m) 23 Width (m) 0.5 Depth (m) (Artefact count per square metre)													
In situ Yes Stratified Yes													
<table style="width: 100%; border: none;"> <tr> <th style="text-align: left;">Feature Condition</th> <th style="text-align: left;">General Condition</th> <th style="text-align: left;">Recommended Action</th> </tr> <tr> <td style="vertical-align: top;"> ☐ Very good ☒ Good ☐ Poor </td> <td style="vertical-align: top;"> ☐ Weathered ☐ Vehicle damage ☐ Surface water wash ☐ Fire damage ☐ Erosion ☐ Stock damage ☐ Exposed archaeological material </td> <td style="vertical-align: top;"> ☐ Boardwalk ☐ Fencing ☐ Closure to public ☐ Continued inspection ☐ Fire hazard reduction ☐ Expert assessment ☐ Meeting with land manager </td> </tr> <tr> <td></td> <td></td> <td style="vertical-align: top;"> ☐ Revegetation ☐ Signage ☐ Soil erosion control ☐ Track closure/re-routing ☐ Additional recording </td> </tr> </table>					Feature Condition	General Condition	Recommended Action	☐ Very good ☒ Good ☐ Poor	☐ Weathered ☐ Vehicle damage ☐ Surface water wash ☐ Fire damage ☐ Erosion ☐ Stock damage ☐ Exposed archaeological material	☐ Boardwalk ☐ Fencing ☐ Closure to public ☐ Continued inspection ☐ Fire hazard reduction ☐ Expert assessment ☐ Meeting with land manager			☐ Revegetation ☐ Signage ☐ Soil erosion control ☐ Track closure/re-routing ☐ Additional recording
Feature Condition	General Condition	Recommended Action											
☐ Very good ☒ Good ☐ Poor	☐ Weathered ☐ Vehicle damage ☐ Surface water wash ☐ Fire damage ☐ Erosion ☐ Stock damage ☐ Exposed archaeological material	☐ Boardwalk ☐ Fencing ☐ Closure to public ☐ Continued inspection ☐ Fire hazard reduction ☐ Expert assessment ☐ Meeting with land manager											
		☐ Revegetation ☐ Signage ☐ Soil erosion control ☐ Track closure/re-routing ☐ Additional recording											
Feature Plan (Indicate scale, location of Instances)													
Feature Environment (Complete when feature environment differs to site environment, use attributes from cover card, p. 2) Rolling Hills Land form Inter-tidal Flat Land form unit 6 Slope re-vegetated/ cleared Vegetation established urban Land use Water Distance to permanent water source 175 metres Distance to temporary water source 0 metres Name of nearest permanent water source Broad/ Brisbane Waters Name of nearest temporary water													

**Archaeological Management & Consulting Group
And Streat Archaeological Services Pty Ltd
August 2019**