URBIS

HISTORICAL ARCHAEOLOGICAL ASSESSMENT

Reptile & Amphibian Conservation Centre, Taronga Zoo

Bradleys Head Road
Mosman, NSW

Prepared for
TARONGA CONSERVATION SOCIETY AUSTRALIA
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RELEVANT DEFINITIONS

Relevant terms and definitions used throughout this HAA are defined in Table 1.

Table 1 – Terms & Definitions

Term	Definition
Archaeological assessment	A study undertaken to establish the nature, extent, and significance (research potential) of archaeological resources that may exist within a particular site and to identify appropriate measures to manage those resources.
Archaeological potential	The degree of physical evidence present at an archaeological site, usually assessed on the basis of physical evaluation and historical research.
Archaeology	The study of past human culture, behaviour and society through the study and analysis of physical remains, including buildings, graves, tools and other objects.
Australia ICOMOS	The national committee of the international Council on Monuments and Sites.
Burra Charter	Charter adopted by Australia ICOMOS, which establishes the nationally accepted principles for the conservation of places of cultural significance. Although the Burra Charter is not cited formally in statutory legislation, it is nationally recognised as a document that shapes the policies of Heritage NSW, Department of Premier and Cabinet.
Conservation	All the processes of looking after an item so as to retain its cultural significance. This includes maintenance and may, according to circumstances, include preservation, restoration, reconstruction, and adaptation, and will commonly be a combination of more than one of these processes.
Conservation Management Plan	A document explaining the significance of a heritage item, including a heritage conservation area, and proposing policies to retain that significance. It can include guidelines for additional development of maintenance of the place.
Conservation policy	A proposal to conserve a heritage item arising out of the opportunities and constraints presented by the statement of heritage significance and other considerations.
Context	The specific character, quality, physical, historical and social characteristics of a building's setting.
Curtilage	The geographic area that provides the physical context for an item which contributes to its heritage significance. Land titles boundaries do not necessarily coincide with the curtilage.
Heritage and Conservation Registers	A register of heritage assets owned, occupied or controlled by a State agency, prepared in accordance with Section 170 of the *Heritage Act 1977.*
Heritage item	A landscape, place, building, structure, relic or other work of heritage significance.
Heritage significance	Of aesthetic, historic, scientific, cultural, social, archaeological, natural or aesthetic value for past, present or future generations.

Heritage value	Often used interchangeably with the term ‘heritage significance’. There are four nature of significance values used in heritage assessments (historical, aesthetic, social and technical/research) and two comparative significance values (representative and rarity).
Relics	A relic is defined under the NSW *Heritage Act 1977* as any deposit, object or material evidence which relates to the settlement of the area that comprises NSW, not being Aboriginal settlement, and is of state or local heritage significance.
Use	Means the functions of a place and the activities and practices that occur at the place. A compatible use respects the cultural significance of the place.

EXECUTIVE SUMMARY

This report presents the findings of a Historical Archaeological Assessment (HAA) for the proposed development of a Reptile and Amphibian Conservation Centre at Taronga Zoo, 2A Bradleys Head Road, NSW (hereafter referred to as the 'subject area') (see Figure 1 and Figure 2).

Urbis has been commissioned by Taronga Conservation Society Australia (the Proponent) to produce an HAA in accordance with the Secretary's Environmental Assessment Requirements (SEARs) for the State Significant Development (SSD-17483577). This HAA responds to requirement 4 of the SEARs which states:

> *The EIS must include a Heritage Impact Statement, prepared in accordance with relevant guidelines, assessing the impact of the proposal on the heritage significance of the site and surrounding area, including heritage items, conservation areas and archaeology, and includes measures to reduce or mitigate any unavoidable impacts. This must identify compliance with the relevant Conservation Management Plan and Taronga Zoo Conservation Strategy, prepared by GML, dated 2002.*

This assessment has been prepared for the proposed development of Lot 22 DP 8432904 (partial), which is Crown Land managed by the TCSA (the Zoological Park Board). The proposed works will involve the demolition of existing structures and landscape within the subject area and the construction of a new Reptile and Amphibian Conservation Centre.

This assessment has been carried out in accordance with the following guidelines:

- Assessing Significance for Historical Archaeological Sites and 'Relics' (NSW Office of Environment and Heritage (OEH) (2009).
- *Assessing Heritage Significance* (NSW Heritage Manual 2) (NSW Heritage Office 2001).
- *Historical Archaeology Code of Practice* (Heritage Council of NSW 2006).
- *Taronga Zoo Archaeological Management Plan*, 2004, GML
- Taronga Zoo Conservation Strategy, 2002, GML
- *Taronga Zoo Australian Section (Upper) Heritage Items at Site, 2018, Taronga Conservation Society*
- The philosophy and process adopted is that guided by the Australia ICOMOS *Burra Charter* 2013.

Archaeological Potential

This HAA has established that the subject area has:

- nil-low potential to contain evidence of the early land grants and earliest European occupation of the Mosman area;
- low potential to contain evidence of the earliest phase of Taronga Zoo under the directorship of La Souef (1912-1940), including foundations of the former Platypus (and later Coypu) enclosure (1939) and lower portion of the stepped path along the western boundary of the subject area (c.1915); and
- low-moderate potential to contain evidence of development under Strahan's Directorship (1967-1986), including the former Penguin Pond (c.1970s) and Seal Show facility (c.1978).

Archaeological Significance

Although there is low-nil potential for archaeological resources associated with the original land grants to survive, these would have State significance for their ability to reveal information about the early European settlement of the Mosman area which cannot be garnered from available historical sources.

Archaeological resources associated with the earliest phase of Taronga Zoo, including the original stepped path within the western portion of the subject area, foundations of the former Platypus/ Coypu enclosure and extant walls of the aviaries have local significance for their association with the Zoo's establishment under the directorship of La Souef (1912-1940). Foundations of the former Seal Show facility and Penguin Pond have local significance for their association with Strahan's Directorship (1967-1986).

Historical archaeological resources associated with earlier adaptations of the zoo, including foundations of the former Platypus/ Coypu enclosure, Seal Show facility and Penguin Pond, have local significance for their ability to demonstrate evolving zoological philosophy and practice as well as the historical development of the Zoo. The extant base walls of the aviaries have local significance as a visual reminder of the earliest phase of the Zoo's development.

Impact assessment

This HAA has established that:

- The greatest surface disturbance associated with the proposal relates to the proposed excavation works for the ground floor of the RACC, which is located within the footprint of the former Seal Show facility and Penguin Pond in this location. These features do not meet the threshold for local significance as they reflect a recent and well-documented period of the Zoo's development.
- Landscaping is proposed within the footprint of the former Platypus (and later Coypu) enclosure (1939) and stepped path along the western boundary (c.1915). No significant earthworks are proposed in this location and disturbance of these early features is considered unlikely.
- Landscaping works are proposed for the eastern portion of the subject area. The interior of the larger aviary will be landscaped and the smaller aviary will be repurposed as a picnic area. There is some potential for these works to disturb the subsurface footings and foundations of the former aviaries which were dismantled in 2009. The demolition of a portion of the former aviary walls also presents as a minor impact, however, not one which would significantly compromise the interpretation of these early features.

Recommendations

Based on the above conclusions, Urbis provides the following recommendations:

Recommendation 1 - Monitoring

For proposed surface disturbance within the south-western portion of the subject area and interior of the extant aviary walls (see Figure 35), close monitoring should be undertaken by a suitably qualified archaeologist. In general, archaeological monitoring should adhere to the following:

- Demolition should be undertaken in such a way as to minimise impacts to foundations and subsurface structures. The archaeologist should initially be consulted about the proposed demolition methodology.
- An archaeologist should be present at all times during the lifting of current hard surfaces, excavation and/or other activities that result in ground disturbance.
- Where a mechanical excavator is used, it must have a flat or mud bucket, rather than a toothed bucket, to ensure a level ground surface.
- All machinery should work backwards from a slab surface in order to avoid damage to any exposed archaeological relics.
- Fills should be removed sequentially in reverse order of deposition, starting with any imported fill and overburden, which reflect the archaeological stratigraphy and as instructed by the archaeologist.
- If archaeological relics are identified by the monitoring archaeologist, work must stop immediately. Further assessment and recording of the find will be required, following the methods outlined in Section 7.2.6 overleaf.

Recommendation 2 – Chance Finds Procedure – Historical Archaeology

For proposed surface disturbance, including excavation for the RACC first-floor and ground-floor and landscaping works throughout the remainder of the subject area, the following Chance Finds Procedure should be implemented:

1. All works must stop in the immediate vicinity of the find. The find must remain undisturbed and temporary fencing established around the find.
2. The Site Supervisor, or another nominated site representative must contact an appropriately qualified archaeologist.
3. The archaeologist should examine the find, provide a preliminary assessment of significance based on the findings of this HAA, record the item and decide on an appropriate management strategy.

4. Depending on the significance of the find, re-assessment of the archaeological potential of the area may be required, and further archaeological investigation required. If further manual excavation and recording is required, the methods outlined in Section 7.2.6 would be followed.

5. Works in the vicinity of the find can only recommence upon on the written advice of the nominated Excavation Director.

Recommendation 3 – Chance Finds Procedure – Aboriginal Archaeology

Although considered highly unlikely, should any Aboriginal objects, archaeological deposits be uncovered during any site works, a Chance Find Procedure must be implemented. The following steps must be carried out:

1. All works stop in the vicinity of the find. The find must not be moved 'out of the way' without assessment.

2. The archaeologist and Aboriginal representative on site examine the find, provides a preliminary assessment of significance, records the item for the AHIMS register and decides on appropriate management. Such management may require further consultation with the Aboriginal Cultural Heritage Regulation Branch of the Department of Premier and Cabinet (DPC), preparation of a research design and archaeological investigation/salvage methodology and decision on temporary care and control.

3. Depending on the significance of the find, reassessment of the archaeological potential of the subject area may be required, and further archaeological investigation undertaken.

4. Reporting may need to be prepared regarding the find and approved management strategies. Any such documentation should be appended to this ACHAR and revised accordingly.

5. Works in the vicinity of the find can only recommence when all management measure all implemented, and the find is removed from the activity area. Should the find be an unmovable item such as an engraving or grinding groove located on a sandstone surface, further management measures will need to be introduced to avoid harm to the find.

Recommendation 4 – Human Remains Procedure

In the unlikely event that human remains are uncovered during any site works, the following must be undertaken:

1. All works within the vicinity of the find immediately stop.

2. Site supervisor or other nominated manager must notify the NSW Police and DPC.

3. The find must be assessed by the NSW Police, and may include the assistance of a qualified forensic anthropologist.

4. Management recommendations are to be formulated by the Police, DPC and site representatives.

5. Works are not to recommence until the find has been appropriately managed.

1. INTRODUCTION

This report presents the findings of a Historical Archaeological Assessment (HAA) for the proposed development of a Reptile and Amphibian Conservation Centre at Taronga Zoo, 2A Bradleys Head Road, NSW (hereafter referred to as the 'subject area') (see Figure 1 and Figure 2).

1.1. PROJECT BACKGROUND

Urbis has been commissioned by Taronga Conservation Society Australia (the Proponent) to produce an HAA in accordance with the Secretary's Environmental Assessment Requirements (SEARs) for the State Significant Development Application (SSD-17483577). This HAA will accompany an Environmental Impact Statement (EIS) for the proposed works.

The report was prepared having regard to the Secretary's Environmental Assessment Requirements (SEARs) for the project by DPIE (ref no. SSD-17483577) issued on 30 April 2021. This HAA responds to requirement 4 of the SEARs as outlined in the below table:

Table 2 – SEARs and relevant report sections

SEARs Item	Report Section
4. Heritage *The EIS must include:* • *a Heritage Impact Statement, prepared in accordance with relevant guidelines, assessing the impact of the proposal on the heritage significance of the site and surrounding area, including heritage items, conservation areas and archaeology, and includes measures to reduce or mitigate any unavoidable impacts. This must identify compliance with the relevant Conservation Management Plan and Taronga Zoo Conservation Strategy, prepared by GML, dated 2002.*	This HAA has been prepared in accordance with the guidelines as set out in the following publications: • *Assessing Significance for Historical Archaeological Sites and 'Relics'* (2009) • *Historical Archaeological Code of Practice* (2006) This HAA has identified both the archaeological potential (Section 5) and archaeological significance (Section 6) as a means of assessing the potential impacts of the proposal on the non-Indigenous archaeological values of the subject area (Section 7).

1.2. LOCATION AND DESCRIPTION OF THE SUBJECT AREA

Taronga Zoo is located at Bradleys Head Road, Mosman and is situated in the Mosman Local Government area (LGA). The site is bounded by Bradleys Head Road to the east, Athol Wharf Road and Sydney Harbour to the south, Little Sirius Cove to the west and Whiting Beach Road to the north.

Taronga Zoo is legally described as Lot 22 on DP843294 and is Crown Land managed by the TCSA (the Zoological Park Board).

The subject area is currently designated as a picnic area. The north-western component of the site consists of terraced gardens contained behind gabion walls with a grassed area immediately to the south. The eastern component of the site contains a Meerkat enclosure which contains an artificial slope and corresponding landscape elements.

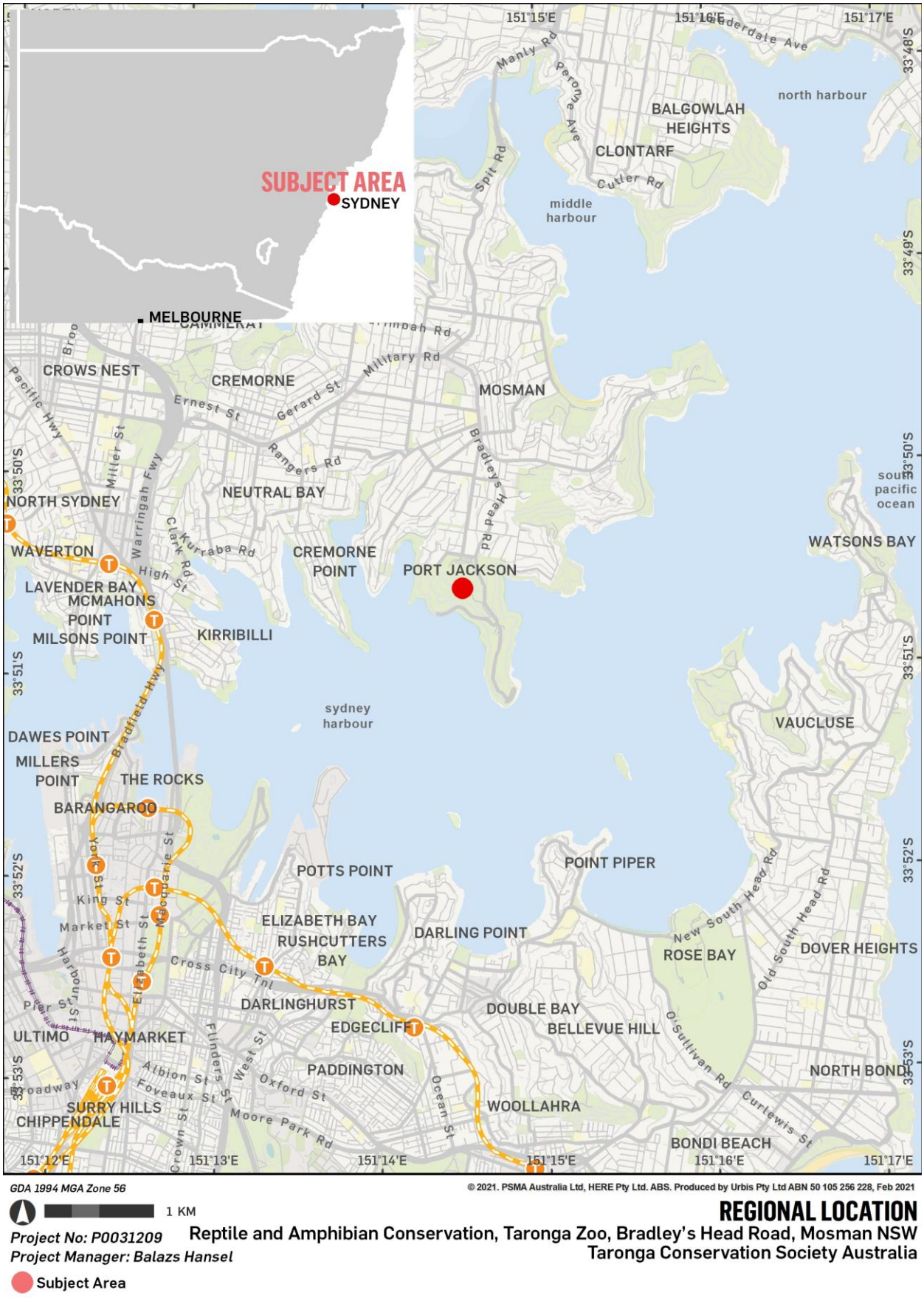


Figure 1 – Regional Location

Figure 2 –Location of the subject area.

1.3. THE PROPOSAL

The current Reptile World at the Taronga Zoo Sydney site has reached the end of its useful life and a new facility is required. The RACC project will be a world-class reptile and amphibian exhibition and animal care facility, achieving operational efficiencies and safety improvements. This project will dramatically increase Taronga's capability to respond to wildlife emergencies, save endangered species, educate students and visitors, support wildlife volunteers and cement NSW as a global leader in wildlife conservation for future generations.

The RACC will be separated over 3 levels as follows:

- *Ground Floor is accessible from the bottom [southern] footpath/roadway only. This level is for staff use and access only;*
- *Level 1 contains the majority of the animal exhibits and is accessible by Guests from the at-grade pedestrian footpath to the east of the site. Guests enter the RACC at this level;*
- *Level 2 contains four animal exhibits, and is accessed via a ramp from the level below, running along the southern facade. Guests exit the building at this level onto the top [northern] footpath/roadway.*

The RACC is designed to sit within the existing landscape and topography of the site, to create an immersive guest experience, and also limit the impacts upon the existing context. The building is nestled into the site, to lessen the overall bulk and scale of the built form. The built form is designed to cascade down the site, which decreases the bulk and scale upon the bottom [southern] footpath/roadway. The roof forms and structures on level 2 are setback from lower two levels, so as to have limited visibility from the bottom [southern] footpath/roadway and beyond. Level 2 contains a mixture of open air trafficable roof areas and semi-enclosed and/or covered animal exhibits.

The project functional areas and their respective GFAs are summarised in Table 3 below.

Table 3 – Project Functional Areas (DWP 07/06/2021)

Level	Function	Gross Floor Area [GFA] ** as defined by Mosman Council LEP*
Ground Floor	- Staff access only [no guest access] - Staff room including amenities and kitchen facilities - Holding and Conservation rooms - Storage and workshop areas - Plant areas - Waste storage areas - Loading Dock	402m²
Level 1	- Main guest entry - Animal exhibits - Guest circulation - Back of house staff access to exhibits - Plant areas	672m²
Level 2	- Main guest exit - Animal exhibits - Guest circulation - Back of house staff access to exhibits - Plant areas	190m²
	Total GFA	**1264m²**
	Site Area (approx)	**2390m²**
	Floor Space Ratio	**0.52 : 1**

The proposal is detailed in Figure 3-Figure 7 below.

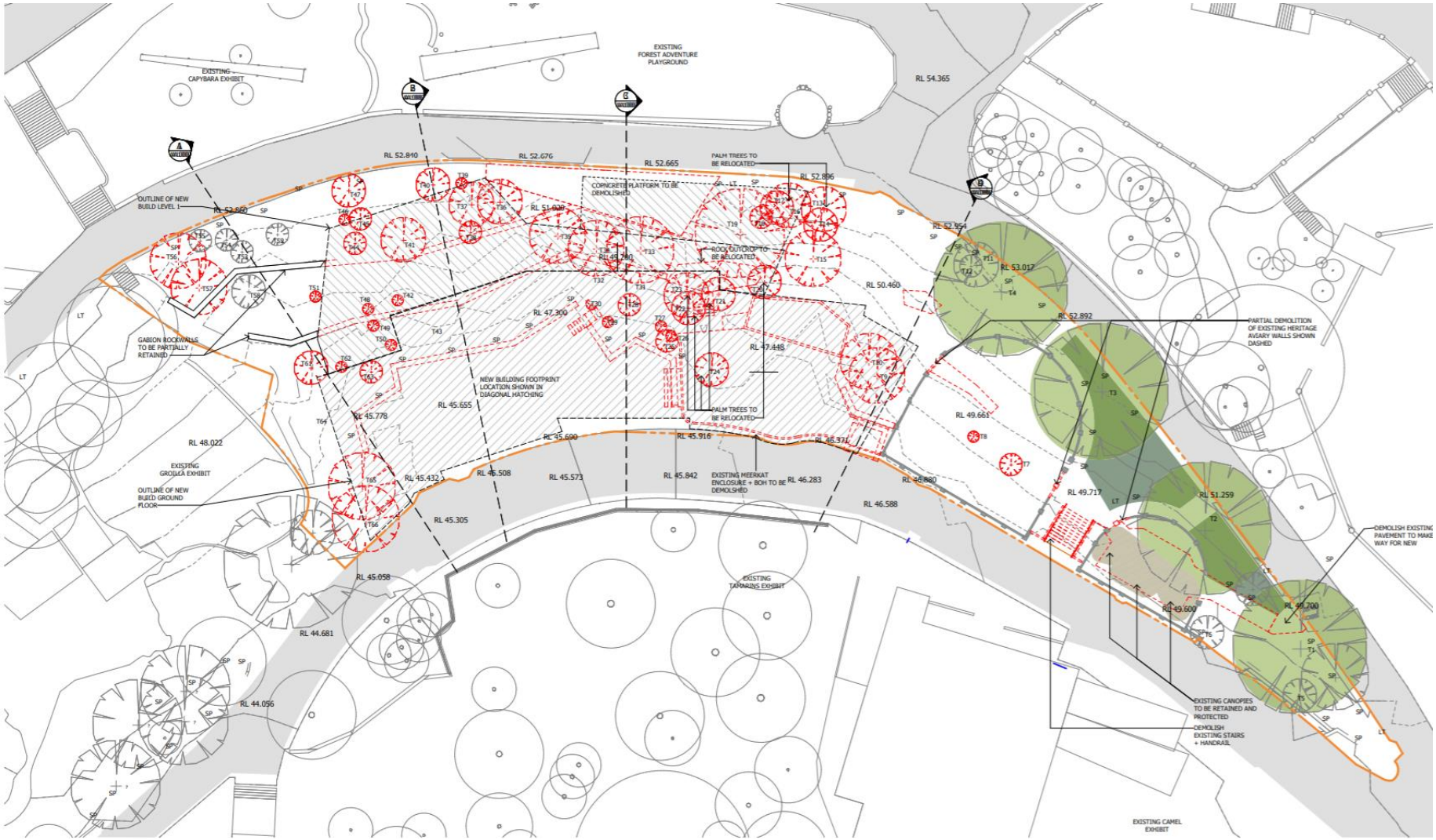


Figure 3 – Site Plan – Existing/ Demolition

Source: DWP, 30/06/2021, Drawing no. AA0100, Issue F

Figure 4 – General Arrangement Plan – Ground Floor

Source: DWP, 23/06/2021, Drawing no. AA1201, Issue E

Figure 5 – General Arrangement Plan – Level 1

Source: DWP, 23/06/2021, Drawing no. AA1202, Issue E

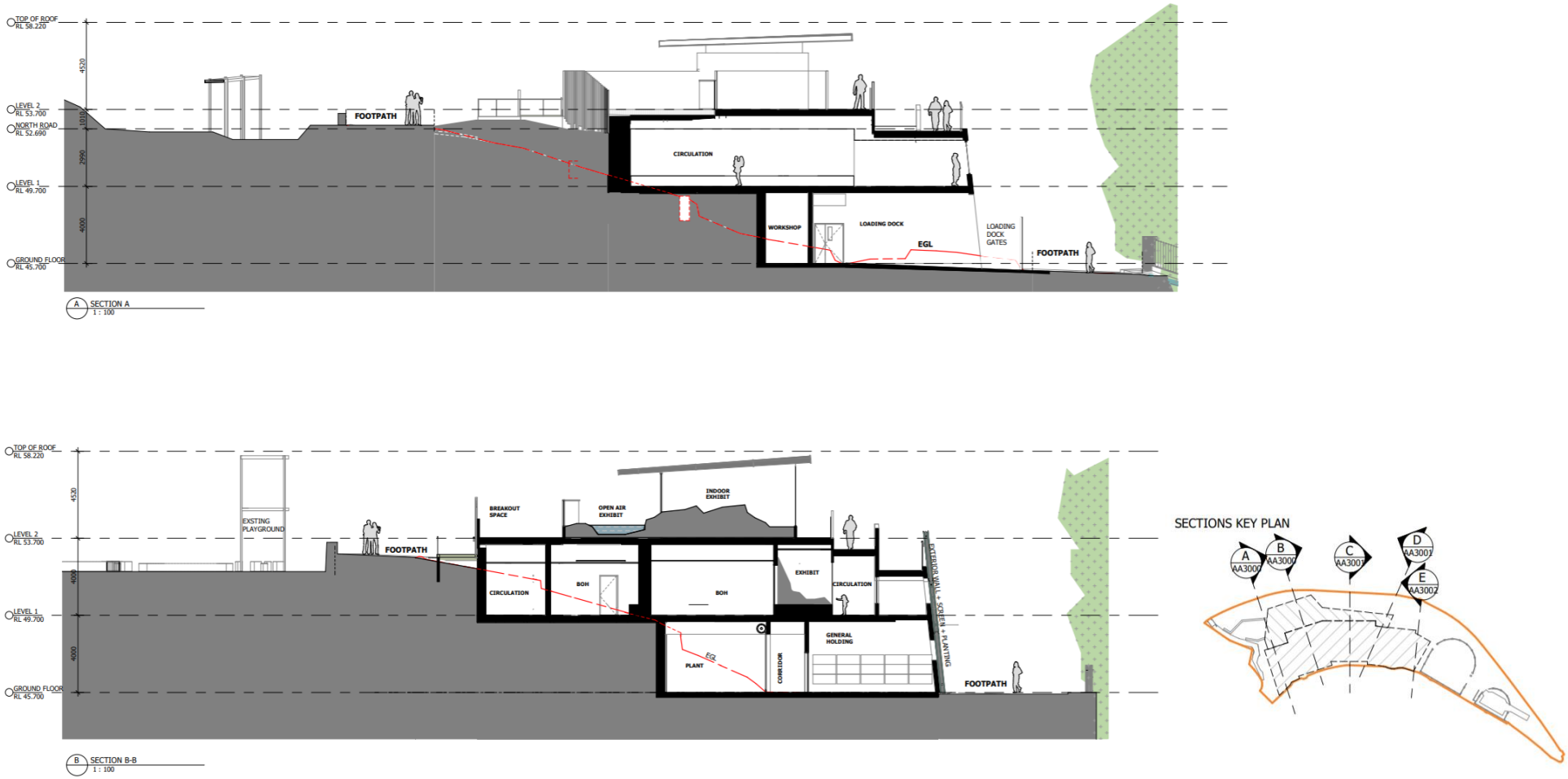


Figure 6 – Building sections – A & B

Source: DWP, 23/06/2021, AA3000, Issue E

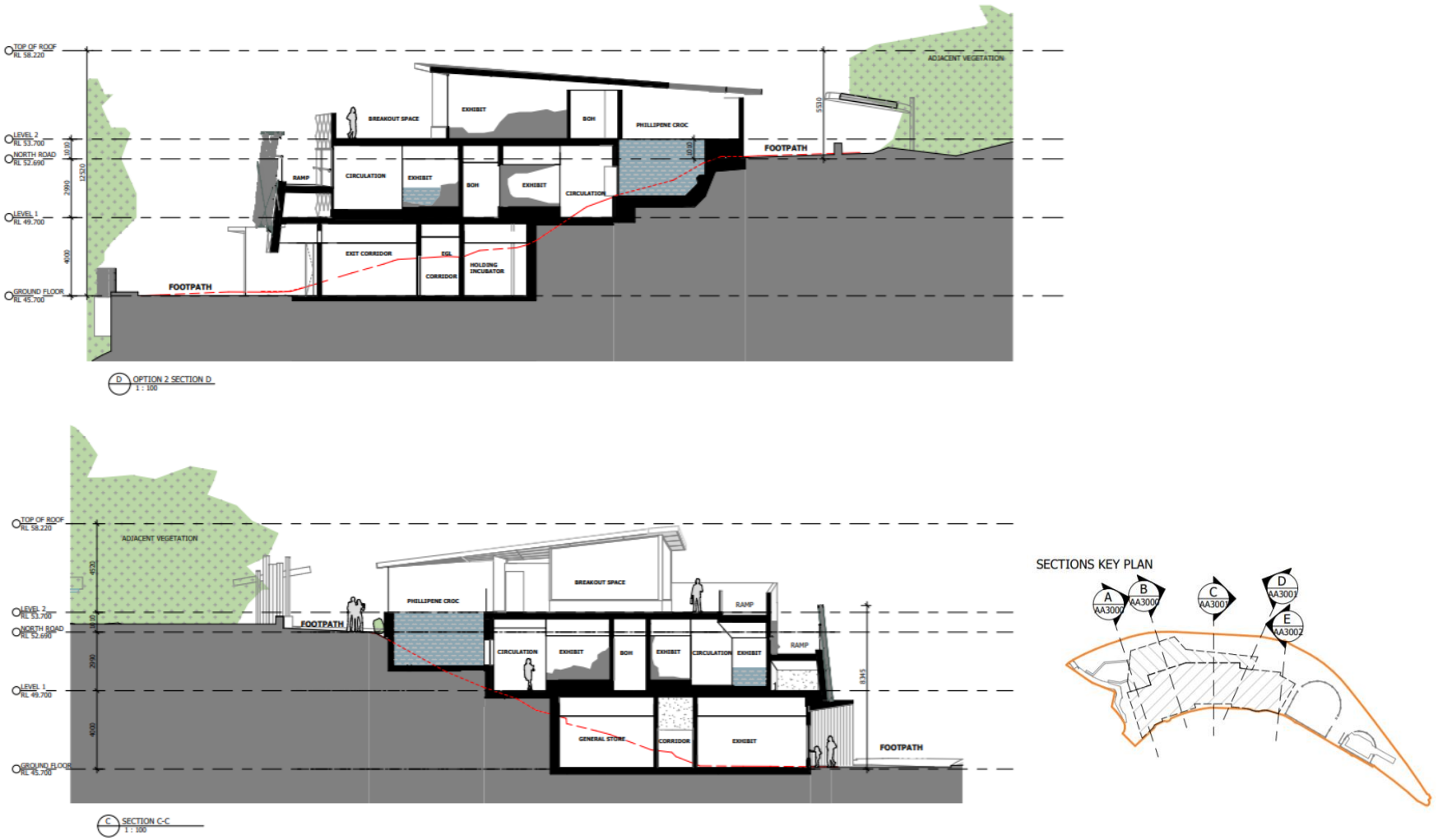
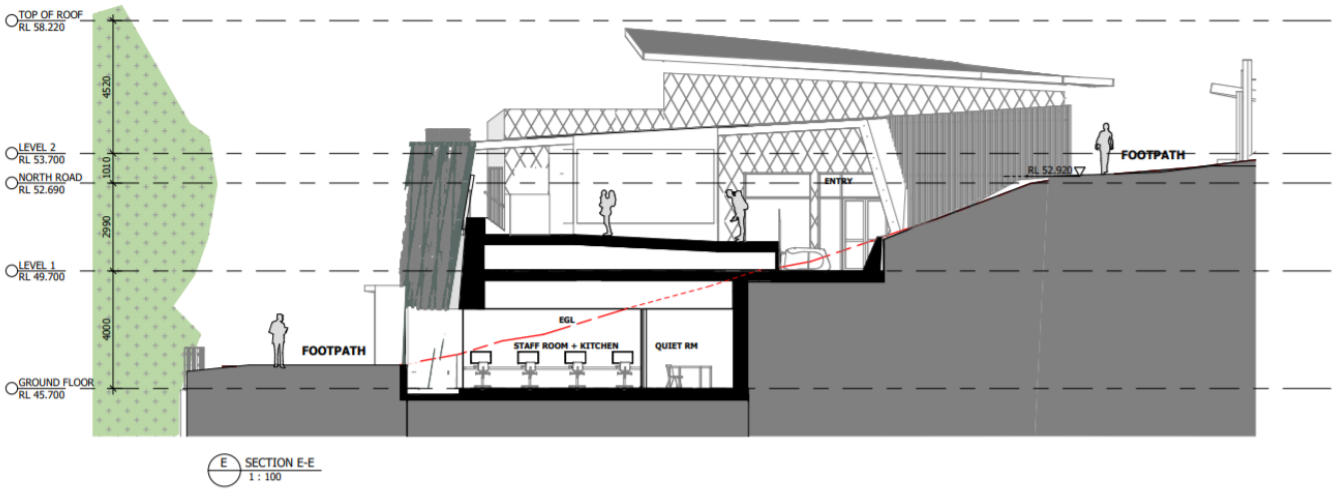


Figure 7 – Building Sections – C & D

Source: DWP, 23/06/2021, AA3001, Issue E



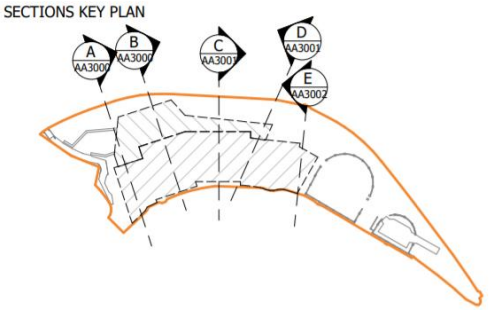


Figure 8 – Building Sections – E

Source: DWP, 23/06/2021, AA3002, Issue D

1.4. METHODOLOGY

This HAA has been prepared with reference to the following guidelines and documents:

- *Assessing Significance for Historical Archaeological Sites and 'Relics'* (NSW Office of Environment and Heritage (OEH) (2009).
- *Assessing Heritage Significance* (NSW Heritage Manual 2) (NSW Heritage Office 2001).
- *Historical Archaeology Code of Practice* (Heritage Office of the Department of Planning NSW 2006).
- *Taronga Zoo Archaeological Management Plan*, 2004, GML
- *Taronga Zoo Conservation Strategy*, 2002, GML
- *Taronga Zoo, Australian Coastline Precinct: Archaeological Monitoring Report,* 2006, Zoological Parks Board of NSW
- *Taronga Zoo: Backyard to Bush Precinct, Archaeological Assessment*, 2001, GML
- *Taronga Zoo Australian Section (Upper) Heritage Items at Site, 2018, Taronga Conservation Society*
- The philosophy and process adopted is that guided by the Australia ICOMOS *Burra Charter* 2013.

1.5. AUTHOR IDENTIFICATION

This HAA has been prepared by Alexandra Ribeny (Urbis, Consultant/ Archaeologist). Balazs Hansel (Associate Director) has reviewed its content.

Unless otherwise stated, all drawings, illustrations and photographs are the work of Urbis.

1.6. LIMITATIONS

This report is limited to a presentation and analysis of potential impacts on the historical archaeological (non-Aboriginal) potential only. The assessment of archaeological potential is limited specifically to the subject area as identified by the red polygon in Figure 2.

No intrusive archaeological methods including archaeological test excavation have been applied for the purposes of this report.

2. STATUTORY CONTEXT

2.1. NATIONAL LEGISLATION

Environment Protection and Biodiversity Conservation Act 1999

2.1.1. Environment Protection and Biodiversity Conservation Act 1999

In 2004, a new Commonwealth heritage management system was introduced under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The National Heritage List (NHL) was established to protect places that have outstanding value to the nation. The Commonwealth Heritage List (CHL) was established to protect items and places owned or managed by Commonwealth agencies. The Australian Government Department of Sustainability, Environment, Water, Population and Communities (DSEWPC) is responsible for the implementation of national policy, programs and legislation to protect and conserve Australia's environment and heritage and to promote Australian arts and culture. Approval from the Minister is required for controlled actions which will have a significant impact on items and places included on the NHL or CHL.

Commonwealth Heritage List

The (CHL) was established by the EPBC Act to protect Indigenous, historic, and natural heritage places owned or controlled by the Australian Government. The CHL and EPBC Act contain provisions for the management and protection of listed places under Commonwealth ownership or control. There are no items on the Commonwealth Heritage List within the study area. As such, the heritage provisions of this act do not apply, and project works for the Proposal would not require referral to the Minister.

The subject area is not included on the CHL, and no historic heritage items in or within the vicinity of the subject area are listed on the CHL.

National Heritage List

The National Heritage List (NHL) was established by the EPBC Act to protect places of significant natural or cultural heritage value at a National level. The EPBC Act requires NHL places to be managed in accordance with the National Heritage Management Principles. Under sections 15B and 15C of the EPBC Act, a referral must be made to the Department of the Environment and Energy for actions that are likely to have a significant impact on National Heritage listed properties. There are no items listed on the National Heritage List within the study area. As such, the heritage provisions of this act do not apply, and project works for the Proposal would not require referral to the Minister.

The subject area is not included on the NHL and no historic heritage items in or within the vicinity of the subject area are listed on the NHL.

2.2. STATE LEGISLATION

2.2.1. NSW Heritage Act 1977

The NSW Heritage Act 1977 (the Heritage Act) provides protection to items of environmental heritage in NSW. This includes places, buildings, works, relics, moveable objects and precincts identified as significant based on historical, social, aesthetic, scientific, archaeological, architectural, cultural or natural values. State significant items are listed on the NSW State Heritage Register (SHR) and are given automatic protection under the Heritage Act against any activities that may damage an item or affect its heritage significance.

Under Section 57(1) of the Heritage Act Heritage Council approval is required to move, damage, or destroy a relic listed in the State Heritage Register, or to excavate or disturb land which is listed on the SHR and there is reasonable knowledge or likelihood of relics being disturbed.

The Act defines a 'relic' as:

> *Any deposit, object or material evidence*
>
> *(a) which relates to the settlement of the area that comprises New South Wales, not being an Aboriginal settlement, and;*

(b) *which is 50 or more years old. A Section 60 application is required to disturb relics on an SHR listed site.*

Under section 139 of the *Heritage Act*, an excavation permit is required to disturb or excavate land *"knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed".* This section of the Heritage Act identifies provisions for items /relics outside of those on the State Heritage Register or subject to an Interim Heritage Order (IHO).

State Significant Development Applications (SSDAs)

The subject proposal is a State Significant Development (SSD), meaning that the provisions of the *Heritage Act 1977*, as outlined above, do not apply. The development application will instead be assessed under Division 5.2 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Projects approved under Division 5.2 do not require approval under Part 4 of the *Heritage Act 1977*, but the Historical Archaeological Assessment (HAA) must outline proposed mitigations measures for any potential harm to relics. The Standard Secretary's Environmental Assessment Requirements (SEARs) must also be strictly adhered to.

State Heritage Register

The Heritage Act is administered by the Office of Environment and Heritage. The purpose of the Heritage Act 1977 is to ensure cultural heritage in NSW is adequately identified and conserved. Items of significance to the State of NSW are listed on the NSW State Heritage Register (SHR) under Section 60 of the Act.

The subject area does not contain, nor is it located within proximity of, any sites which are listed on the State Heritage Register.

Section 170 Heritage and Conservation Register

The Heritage Act also requires government agencies to identify and manage heritage assets in their ownership and control. Under Section 170 of the Heritage Act, Government agencies must keep a register which includes all local and State listed items or items which may be subject to an interim heritage order that are owned, occupied or managed by that Government body. Under Section 170A of the Heritage Act all government agencies must also ensure that items entered on its register are maintained with due diligence in accordance with State Owned Heritage Management Principles.

Taronga Zoo contains over 200 heritage items which are listed on the Heritage and Conservation Register for Taronga Zoo, prepared in accordance with Section 170 of the *Heritage Act 1977.* Those which are located within the subject area are listed in Table 4.

Table 4 - S.170 heritage items located within the subject area

Item Name	Listing	Significance
D-Shaped Aviaries	19B	Local
Natural Stone Features	75L	Local
Taronga Zoo	82A	State
Original & Early Paths	99L	State
Hallstrom Memorial Tablet	116M	Local
Steel Pipe Balustrading	130L	Local
Rustic Stone Garden Walls	151L	Local
Waterhousea floribunda avenue	163L	Local
Piccabeen	201L	Local

Item Name	Listing	Significance
Three Palms	202L	Local
Camelia Group	258L	Local

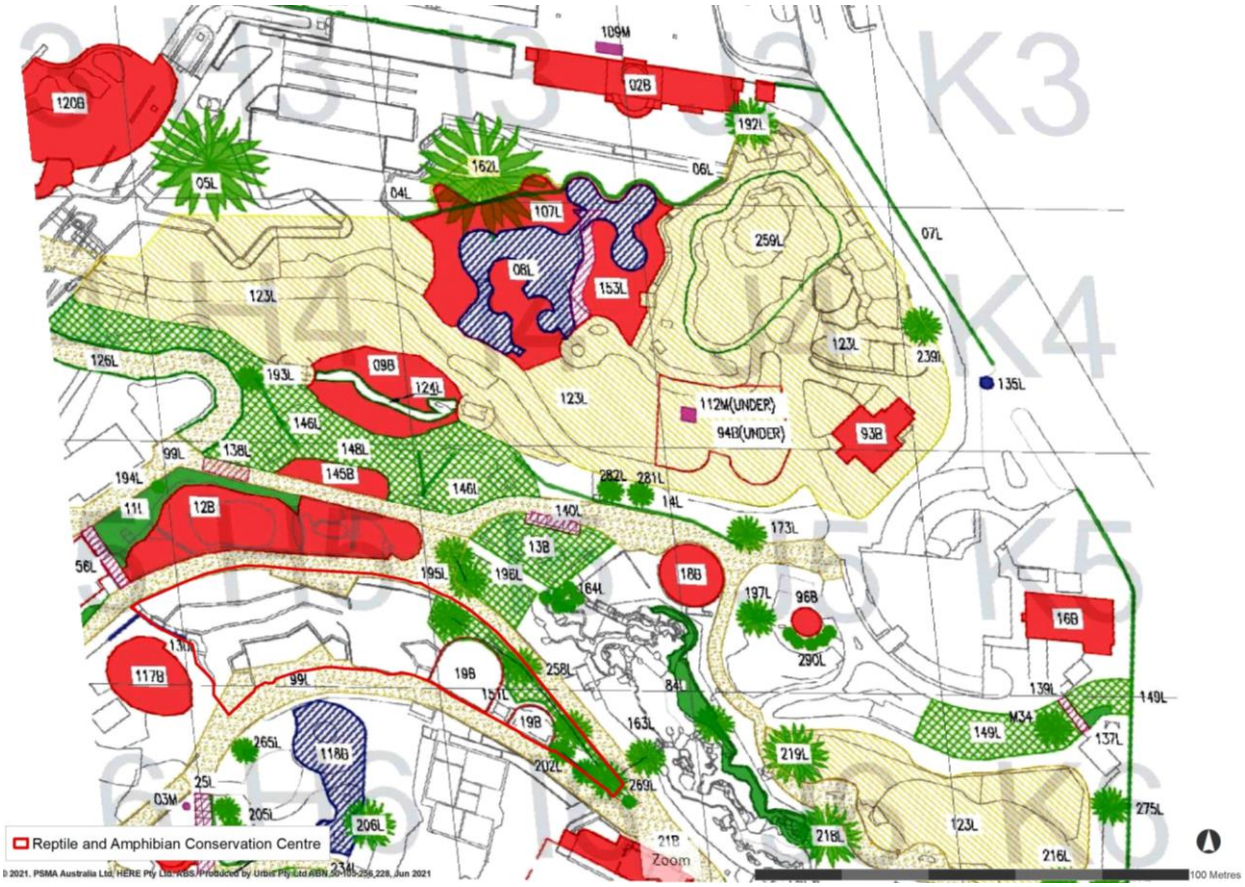


Figure 9 – Section 170 heritage items located within the subject area (outlined in red) including 'D-Shaped Aviaries' (19B), Rustic Stone Garden Walls (151L) and 'Steel Pipe Balustrading' (130L).

Source: Taronga Conservation Society 2018

2.2.2. Environmental Planning and Assessment Act 1979

Local Environmental Plans (LEPs) are made under the Environmental Planning and Assessment Act 1979 (EP&A Act). The Mosman LEP 2012 is applicable to the subject area.

Mosman Local Environmental Plan (LEP) 2012

Under Section 5.10, Clause 2 of the Mosman LEP 2012, development consent is required when:

> *(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.*

Under Section 5.10, Clause 7 it is specified that:

> *(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.

Historical archaeological sites are listed under Part 3 of Schedule 5 of the Mosman LEP 2012.

The subject area is located within the curtilage of a local heritage item which is listed under Part 1 of Schedule 5 of the Mosman LEP 2012 as '"Rainforest Aviary", "Elephant House", bus shelter and office, floral clock and upper and lower entrance gates' (item no. I34). The subject area is also located within proximity of local heritage item 'Ashton Park' (item no. I458).

Figure 10 – Heritage constraints

2.3. NON-STATUTORY INSTRUMENTS

2.3.1. Taronga Zoo Archaeological Management Plan, 2004, GML

The Taronga Zoo AMP identifies the subject area within the following historical archaeological management zones (Figure 11):

Zone C:

Zone 3 encompasses the areas where the archaeological remains of the construction of Bradleys Head Road, the two former Quarantine Stations, and previous Zoo enclosures and associated structures are likely to exist. These areas have been subject to previous development. However, it is possible that archaeological resources remain in deep undisturbed deposits or redeposited fill layers. Therefore there is some potential for the archaeological resources related to the abovementioned structures to remain intact in these areas. The archaeological sensitivity of this zone is assessed as Medium to Low.

Zone D

This Historical Archaeological Management Zone encompasses the rest of the site, where excavations for the foundations of previous Zoo structures have reached down to bedrock or culturally sterile soil profiles, or where there has been little or insignificant historical development. Zone D is not expected to contain any historical material culture and is therefore assessed as having no archaeological sensitivity.

The subject area is bounded to the north and south by sections of the original path network (Zone B). The proposal would have no impact on these.

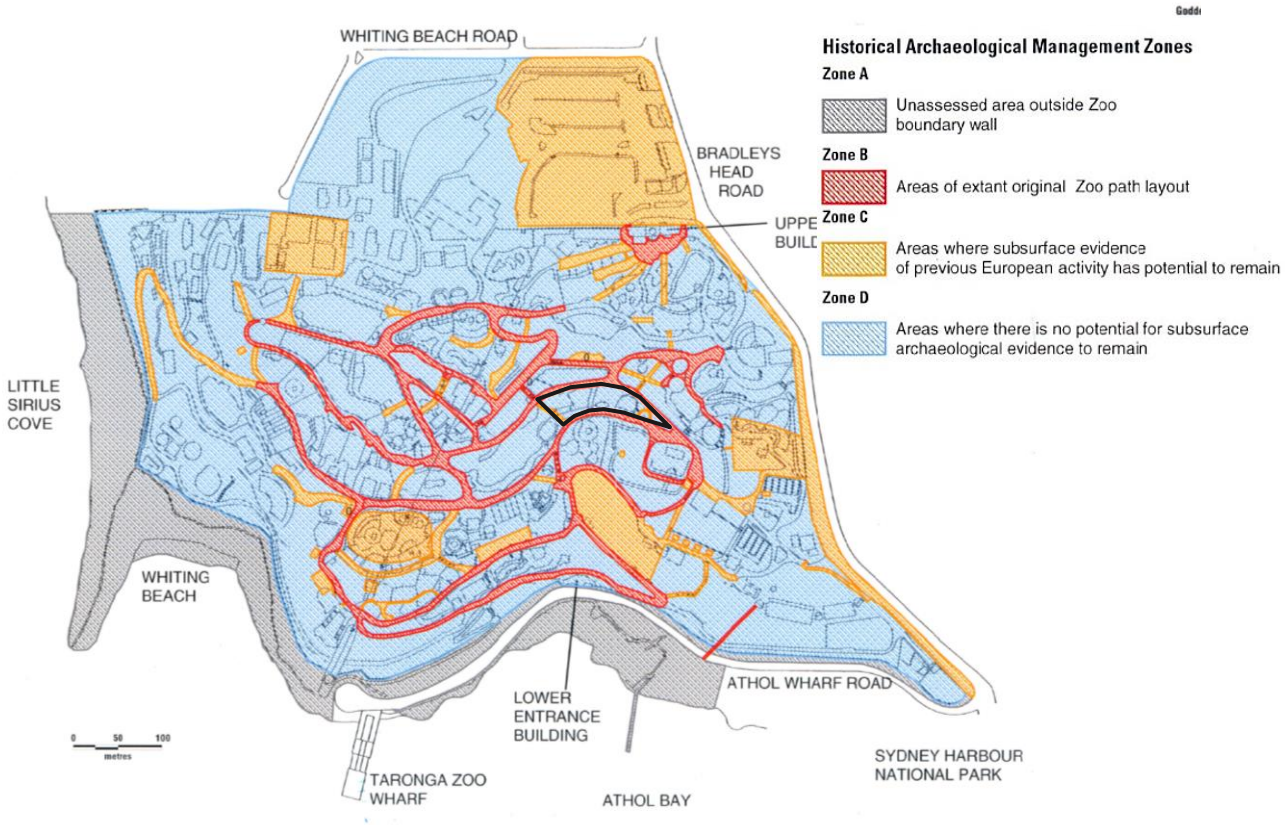


Figure 11 – Historical archaeological management zones. Approximate location of the subject area indicated in black.

Source: Taronga Zoo AMP 2004

The Taronga Zoo AMP identifies the potential for the following historical archaeological remains within the subject area (Figure 12):

- **Category 3:**
  - Former Zoo Paths and Roads (14. Original Pathway 1918-1961)

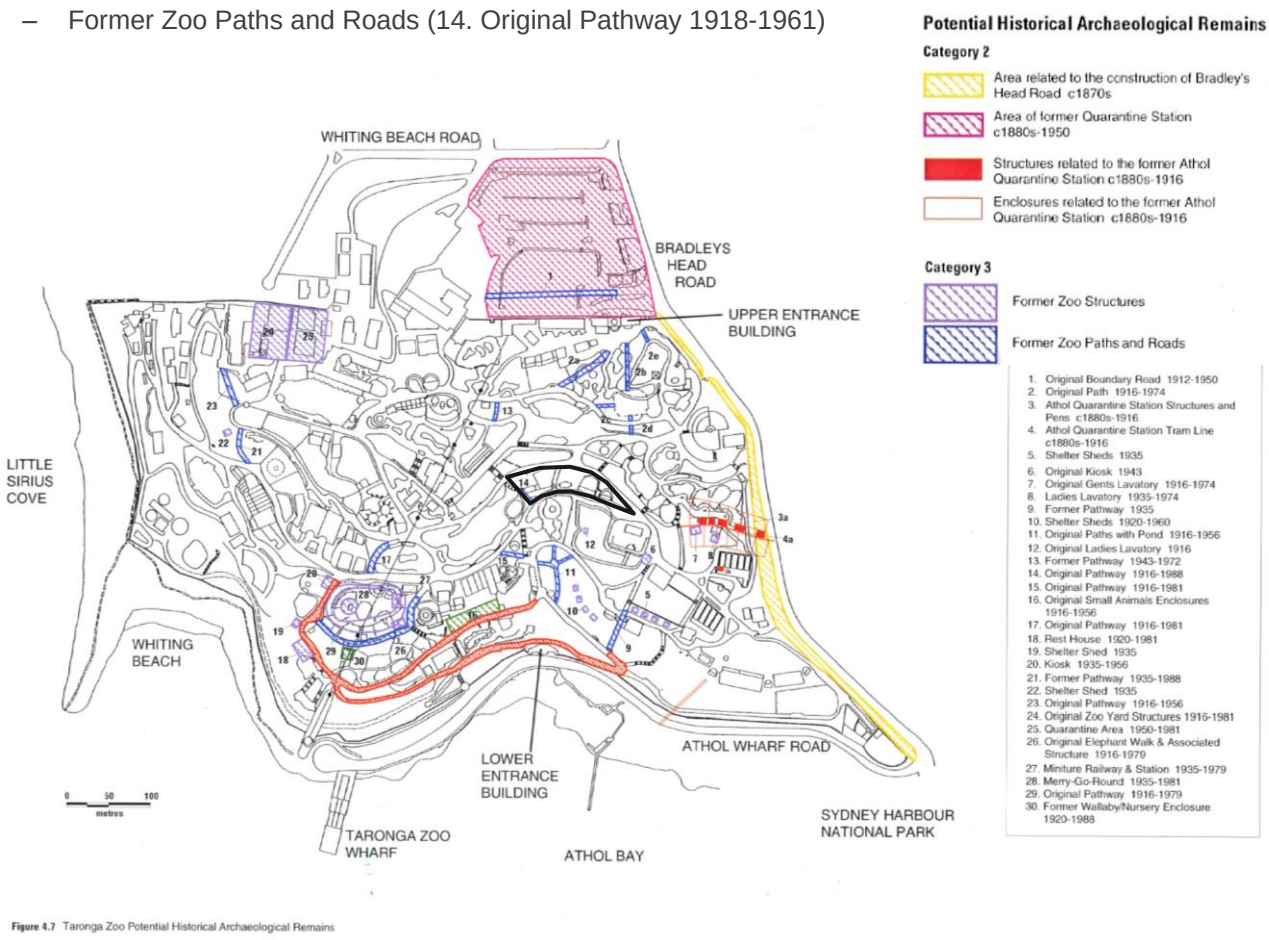


Figure 12 - Potential historical archaeological remains. Approximate location of the subject area indicated in black.

Source: Taronga Zoo AMP 2004

2.4. HERITAGE CONTEXT

The heritage context of the subject area is summarised as follows:

- The subject area is located within the curtilage of a local heritage item which is listed under Part 1 of Schedule 5 of the Mosman LEP 2012 as '"Rainforest Aviary", "Elephant House", bus shelter and office, floral clock and upper and lower entrance gates' (item no. I34). The subject area is also located within proximity of local heritage item 'Ashton Park' (item no. I458).
- Taronga Zoo contains over 200 heritage items which are listed on the Heritage and Conservation Register for Taronga Zoo, prepared in accordance with Section 170 of the *Heritage Act 1977.* Those which are located within the subject area are summarised in Table 4 above.
- The Taronga Zoo AMP identifies the subject area within archaeological management zones C and D.
- The Taronga Zoo AMP identifies the potential for the following historical archaeological remains within the subject area (Figure 12):
  - **Category 3:** Former Zoo Paths and Roads (14. Original Pathway 1918-1961)

3. HISTORICAL DEVELOPMENT OF THE SUBJECT AREA

The following section is based upon a detailed desktop assessment and a literature review of the history of the subject area. This is reproduced from the Heritage Impact Statement prepared by Urbis (Urbis, 2020).

Early European Development (1788-1911)

Taronga Zoo is located within the County of Cumberland, Parish of Willoughby. In 1837 a stone house known as 'Athol' was erected to the south of the subject area. This was later developed as a leisure destination with a hotel and pleasure garden. A Parish Map dating to c.1850s show that the subject area had by this time been incorporated within a land parcel granted in four allotments to Charles Jenkins and J. Holt (see Figure 13). There is no evidence of structures being erected within the subject area in association with this period.

In 1879, a quarantine station for imported stock occupied a portion of the land to the south. By 1891 two stations were operational within the vicinity of the subject area; one near 'Athol' and another on the corner of Whiting Beach and Bradley's Head Road. A freight tramline was established from Athol Wharf to the stations, which was utilised during zoo construction (GML, 2001).

In the 1890s, large portions of the land surrounding Sydney Harbour were resumed for Military Purposes (Figure 14), including Bradley's Head and the animal quarantine facilities which operated upon it. There is no evidence which suggests that any structures were established within the subject area in association with this period. Following federation in 1901, the Military Reserves were given to the Commonwealth. In 1908, Ashton Park, comprising 142 acres of public park land, was gazetted (Figure 15).

Figure 13 – Historic parish map of Willoughby, c. 1850s. Approximate location of the subject area indicated in red outline.

Source: Cumberland County, Parish of Willoughby, Sheet reference 2, 14061301.jp2, HLRV

Figure 14 – 1893-94 Parish Map indicating resumption of land for military purposes. Approximate location of the subject area indicated in red outline.

Source: Higinbotham & Robinson, Atlas of the Suburbs of Sydney - Mosman 1893-1894, accessed 29 June 2021, available at https://dictionaryofsydney.org/media/3919

Establishment of Taronga Zoo and La Souef's Directorship (1912–1940)

In April 1912 17 hectares of Crown Land within the north-western component of Ashton Park was rededicated as a zoological garden (Figure 15). Ground was broken on the site in October 1912 and continued until 1916. Prior to this much of the zoo lands was covered in natural Australian bushland. The Zoo officially opened on Saturday October 7th 1916 (The Sun, 1916).

Figure 16 demonstrates the Zoo in its original plan in 1916, with approximately 23 animal exhibits. The Zoo's original road network had been established by this time, including the roads which define the northern and southern boundaries of the subject area (c.1913). A stepped path was constructed along the site's western boundary, which linked the roads to the north and south. It is understood that this stepped path is partly intact, with the lower section having been removed in association with the Seal Show development in the 1970s. The path is not currently publicly accessible.[1]

Two aviaries had been established within the south-eastern portion of the subject area by c.1915 and another adjacent to the western boundary. These are indicated as '17' in Figure 16. In 1939 a Platypus enclosure was established within the south-western corner of the subject area, as depicted in Figure 19.

A c.1933 photograph of the subject area (Figure 18) shows the steep topography and densely vegetated character of the site at this time. The land immediately to the north of the subject area had been excavated and levelled in preparation for the seal ponds.

[1] Britton, G. 2021. *Assessment of Heritage Impact for a Proposed Reptile & Amphibian Conservation Centre, Taronga Zoo, Mosman*, p.17

Figure 15 – 1917 Parish Map showing Crown Land, previously part of Ashton Park, which had been rededicated as a zoological park. Approximate location of the subject area indicated in red outline.

Source: Taronga Zoo Archives

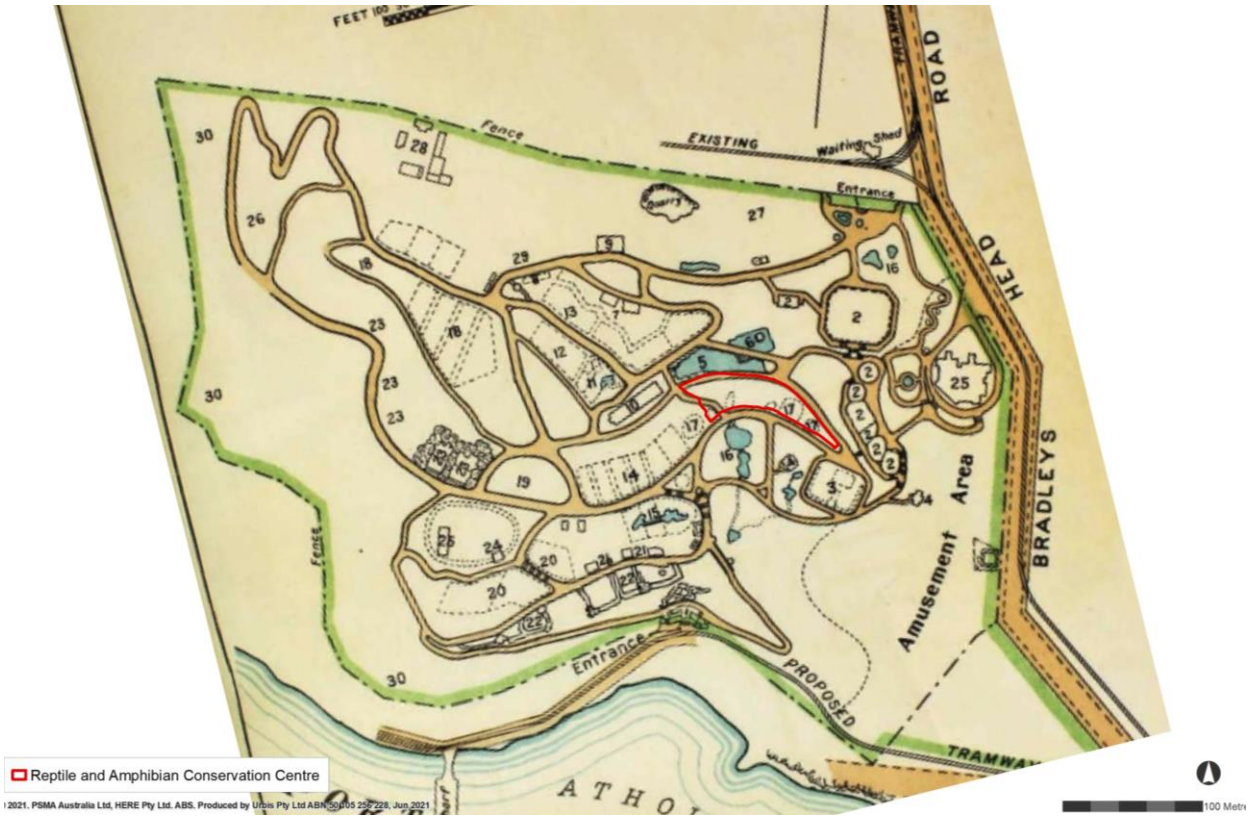


Figure 16 -1916 plan of Taronga Zoological Park, approximate location of the subject area is indicated in red. Two aviaries were located within the eastern portion of the subject area at this time (indicated as '17').

Source: Taronga Zoo Archives.

Figure 17 – Location of the two aviaries located along the southern boundary road, with the larger in the foreground.

Source: Taronga Zoo Archives

Figure 18 – c.1933 photograph showing the steep topography and dense vegetation which characterised the subject area (indicated with arrow) at this time.

Source: Taronga Zoo Archives

Hallstrom's Directorship (1941–1967)

Following the departure of Le Souef in 1939, Taronga Zoo underwent a number of changes under the new director Sir Edward Hallstrom. Rather than the focus on barless exhibits with moats, the moats began to be filled in and chain and wire fences installed to allow visitors to get closer to the animals. Animal enclosures had concrete floors and walls installed (GML, 2006).

A 1940 guidebook (Figure 19) shows the subject area as containing 'gardens shown trees', suggesting the site remained densely vegetated and undisturbed at this time. The aviaries can be observed within the eastern portion of the subject area. The path network was unaltered.

Between 1943-1950 the Platypus enclosure was repurposed as a Coypu enclosure.

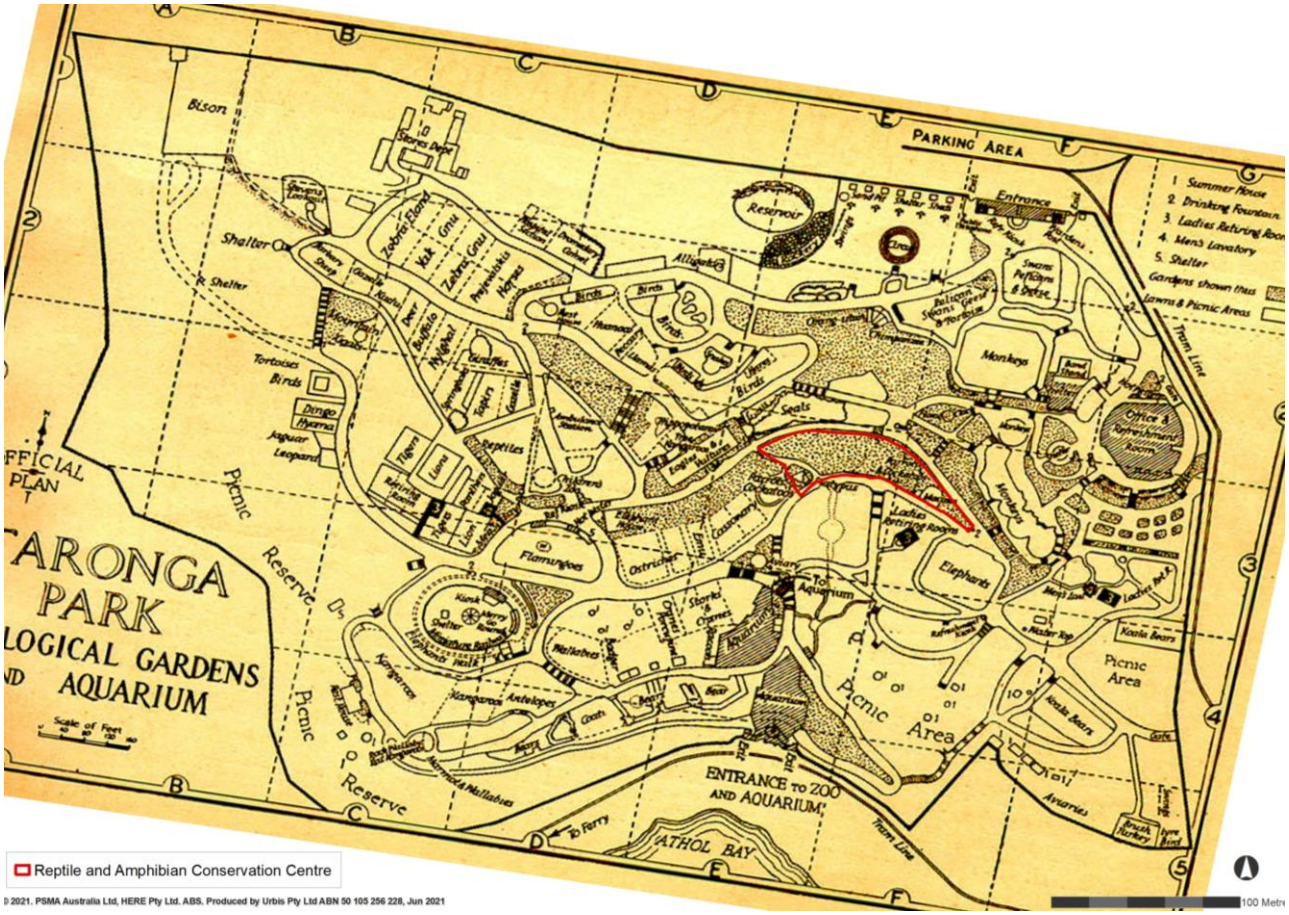


Figure 19 – 1940 Guidebook indicating that the subject area had remained unchanged since 1916. Approximate location of the subject area indicated in red outline.

Source: Taronga Zoo Archives

Strahan's Directorship (1967–1986)

Strahan's directorship (1967-1986) marked the first period of significant disturbance within the subject area.

A Seal Show facility, including an open-air theatre and training and preparation area had been established within the north-western component of the subject area in c.1978. This included an amphitheatre built into the steep topography which characterised the subject area, a long pavilion which was accessed from the south, a stage and back of house spaces.[2]

[2] Britton, G. 2021. *Assessment of Heritage Impact for a Proposed Reptile & Amphibian Conservation Centre, Taronga Zoo, Mosman*, p.17

Construction of the Seal Show facility resulted in the removal of a number of features which characterised the subject area, including the woodland vegetation, former Platypus/ Coypu enclosure and southern section of the stair access to the west of the subject area. Figure 20 below indicates the extent of ground disturbance which resulted from this project. The natural slope was graded, and fill imported in order to establish a sloped profile for tiered seating. The area to the south of the stands was also excavated and rubble fill installed for the creation of the seal pond and adjacent seal pens. A training and preparation structure, constructed with vertical log walling, tongue and groove boarded roof and steal beams was also erected to the west of the theatre over the seal pens.

It is not altogether clear when the Penguin Pond was established within the eastern component of the subject area, however, it was certainly there by the 1970s.[3]

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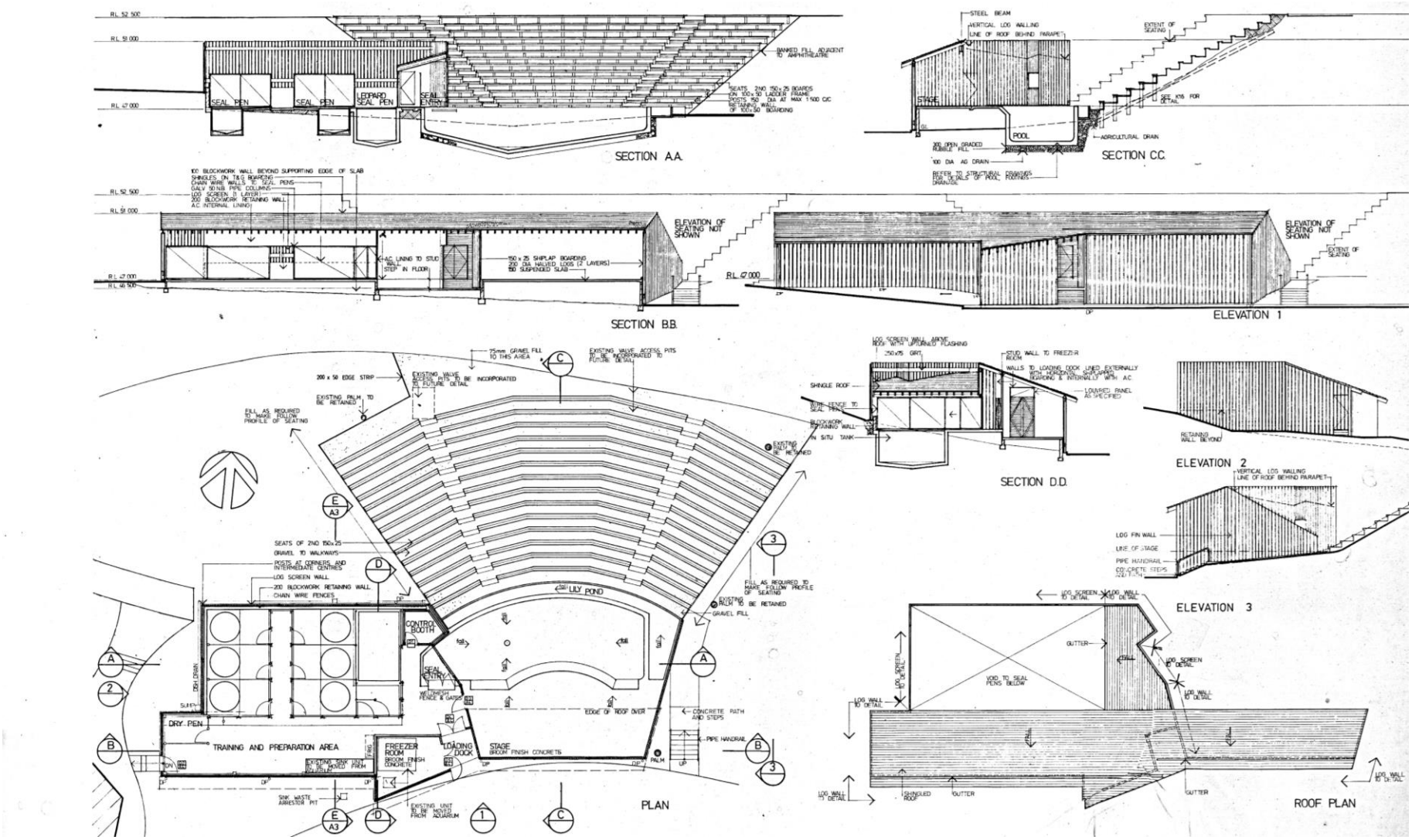

Figure 20 – 1978 plans and sections of Seal Show facilities, which included an open-air theatre and training and preparation area.

Source: Taronga Zoo Archives

Kelly's Directorship to Present (1987-Present)

Under Dr John Kelly's directorship the Zoo underwent a significant capital works program.

A 1998 survey map (Figure 21) indicates the penguin pond to the east of the Seal Show facility at this time. A number of ancillary structures had also been erected within the northern and eastern component of the site. A Gorilla enclosure appears to have replaced the aviary to the south-west of the subject area by this date.

By 2011 the Seal Show facility had been removed from the subject area and the area infilled and revegetated (Figure 22). It is understood that these features were demolished to clay level.[4] The open-air theatre was replaced by terraced gardens contained behind gabion walls. This would have required additional excavation and installation of fill in order to establish a stepped profile.

The penguin pond within the eastern component of the site was infilled and repurposed as a meerkat enclosure, which remains extant. A concrete staircase and footpath remained extant along the south-western boundary of the subject area.

The superstructures (central metal posts and framing, canopies and enclosing mesh) for both aviaries within the eastern portion of the subject area were removed in 2009 though the base walls – indicating the original 'D-shaped' layout - remain mostly intact. Restoration on the remnant walling was undertaken in 2012/2013.[5]

The stair access to the west of the subject area was modified in 2012-2013.

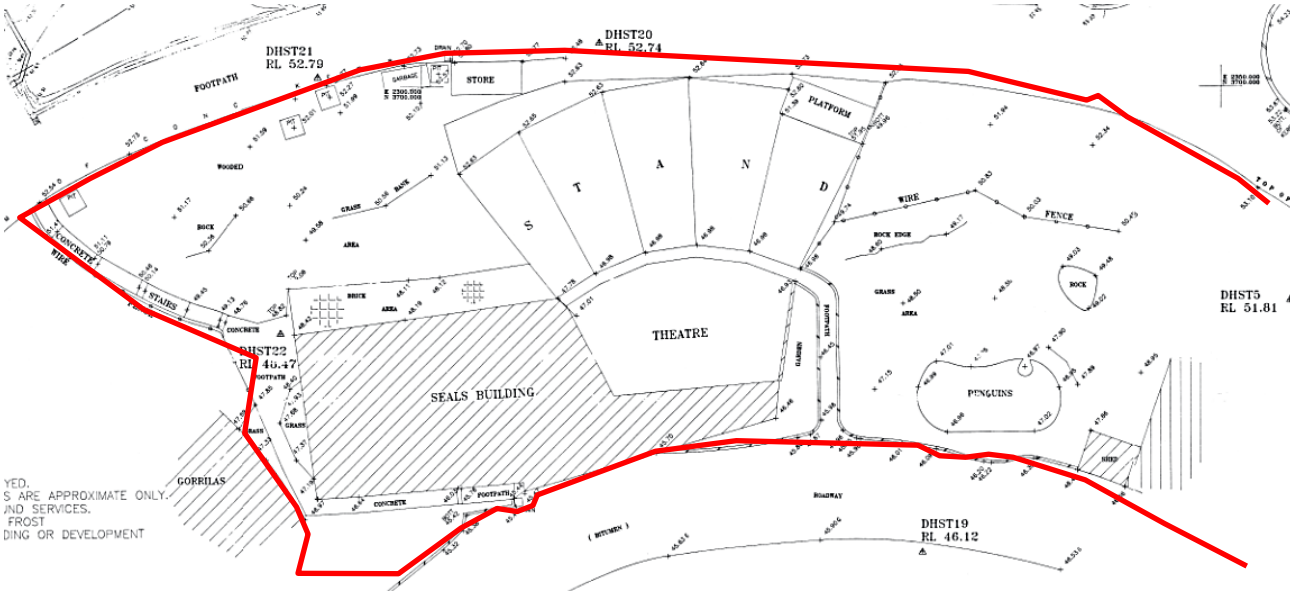

Figure 21: 1998 survey of seal pool showing seal building with stands to north and penguins pool to east. The subject area indicated in red.

Source: Plan showing the relative heights and features of the area surrounding the seal ponds at Taronga Zoo, Frank M Mason & Co. Pty Limited

[4] Communication with architect Jean Rice, 23 February 2021

[5] Britton, G. 2021. *Assessment of Heritage Impact for a Proposed Reptile & Amphibian Conservation Centre, Taronga Zoo, Mosman*, p.15

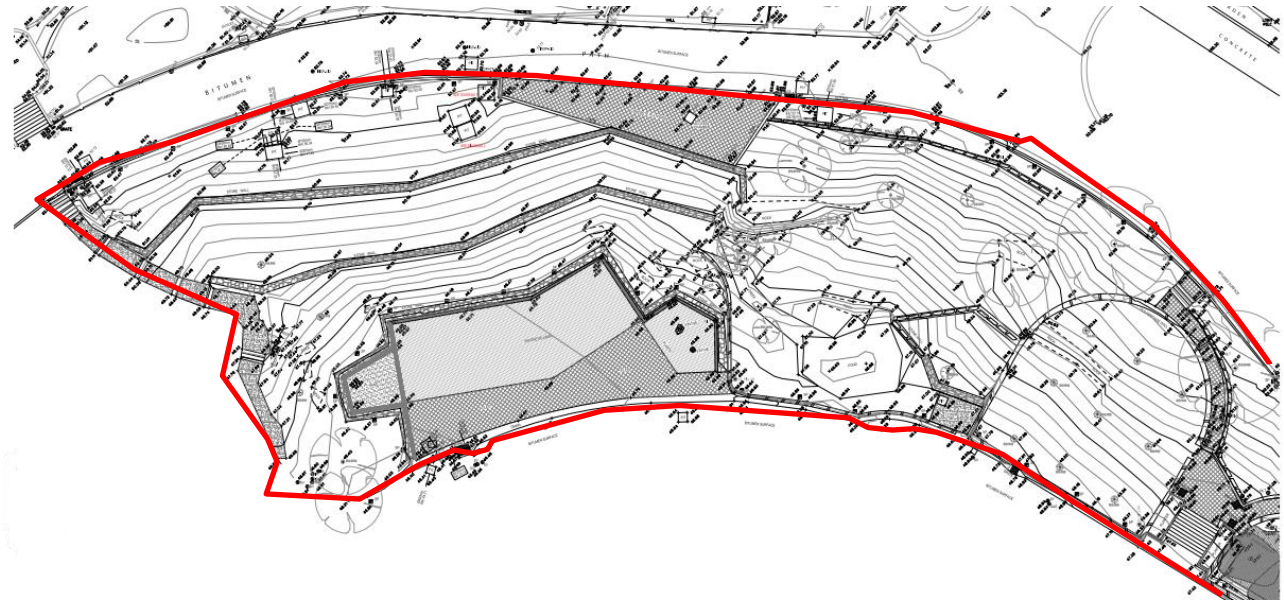

Figure 22: 2011 survey of subject area indicating the extent of terracing and landscaping within the subject area

Source: 2011 DA Survey 29430-90

3.1. HISTORIC AERIAL ANALYSIS

The development of facilities within the subject area has caused substantial levels of ground disturbance. This is demonstrated through the analysis of historic aerials. Historic aerial images from 1930, 1943, 1961 and 1991 were analysed to develop an understanding of disturbance (see Figure 23). A summary of this analysis is included in Table 5.

Table 5 – Analysis of historical aerials

Year	Observation
1930	The 1930 aerial shows the subject area as densely vegetated. The seal ponds had been established to the north of the subject area and aviaries can be observed to the south-east and south-west. The two aviaries within the eastern portion of the site cannot be observed due to the poor image quality.
1943	The 1943 aerial indicates that the subject area had remained unaltered since 1930 (or 1916 based on the guidebook – refer Figure 16). Due to thick vegetation, the Platypus/ Coypu enclosure cannot be observed within the south-western component of the subject area. The two aviaries are visible within the eastern portion of the site.
1961	The subject area remained densely vegetated at this time. The Platypus/ Coypu enclosure can be observed within the south-western portion of the site and the aviaries within the eastern portion.
1991	By 1991 vegetation clearance had been undertaken within the central component of the site and the Seal Show facilities had been established. The seal pond appears as a rounded feature. The Parrots and Cockatoos enclosure remained to the east of the subject area. The path network remained unchanged.

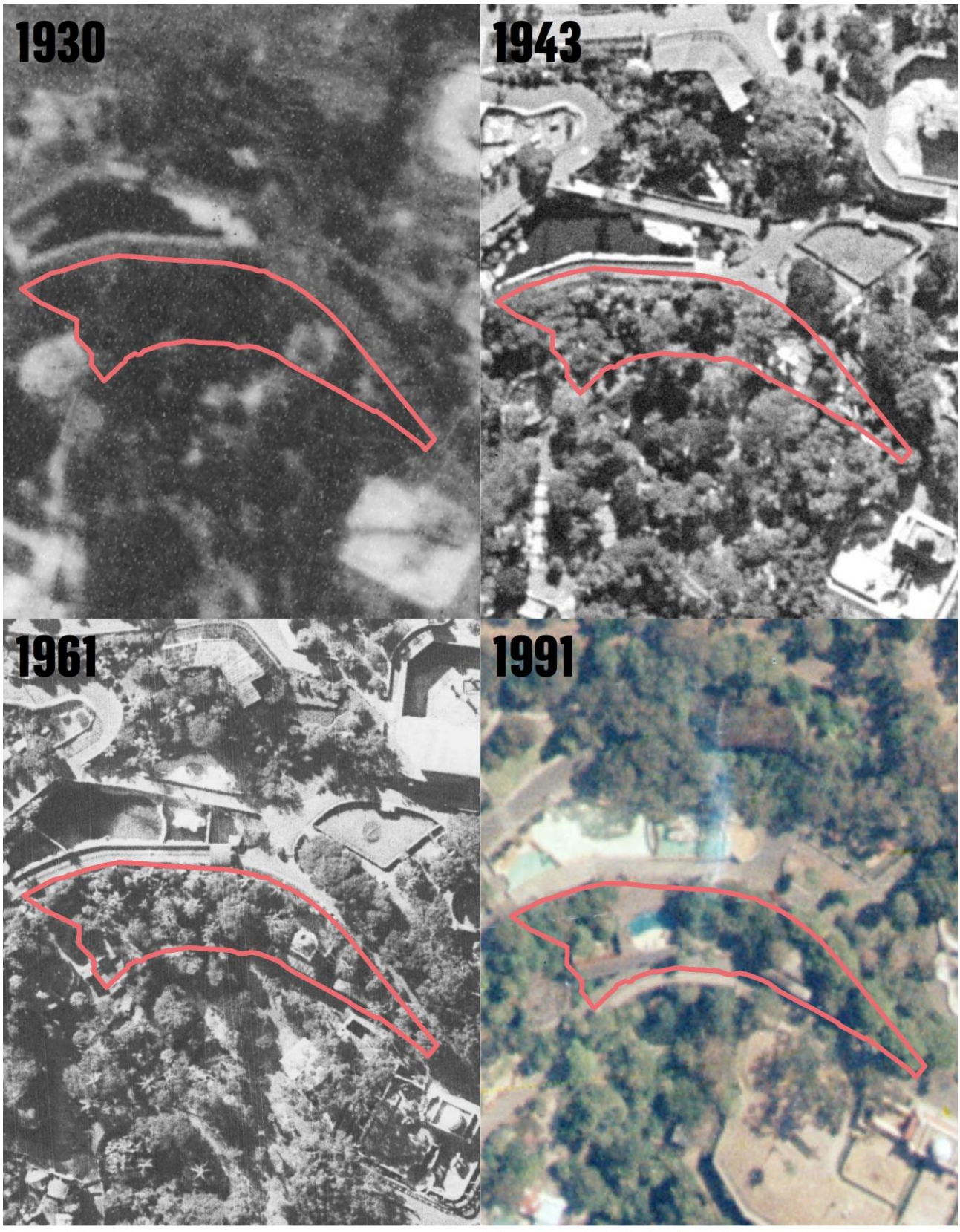

Figure 23 – Historic Aerials

4. SITE INSPECTION

A site inspection of the subject area was undertaken on 23 February 2021. The inspection confirmed that the subject area has not been significantly modified since the late 20th century.

The north-western component of the subject area consists of steeply terraced gardens contained by gabion walls (Figure 24). The terraced topography evidences the former presence of the Seal show theatre at this location. The area to the south of the terracing is grassed. A timber staircase is located along the south-western boundary of the site (Figure 25).

The eastern component of the subject area is occupied by a Meerkat enclosure (Figure 26). The southern perimeter of the enclosure is defined by a timber and glass panel wall. The artificial slope of the enclosure has been created through the importation of fill and introduction of various landscape elements.

The subject area is bounded to the north and south by bitumen roads, which follow the original early 20th century road alignment (Figure 27). The section of road to the north of the site has been extended southwards so that it now cantilevers over the site.

Figure 24 – The north-western portion of the subject area consists of steeply terraced gardens contained behind gabion walls.

Figure 25 – A timber staircase is located along the south-western boundary of the site.

Figure 26 – The eastern component of the subject area contains a Meerkat enclosure.

Figure 27 – The subject area is bounded to the south and north by bitumen roads which follow the original early 20th century road alignment.

5. ARCHAEOLOGICAL POTENTIAL

Historical archaeological potential is defined as:

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

Archaeological research potential of a site is the extent to which further study of relics likely to be found is expected to contribute to improved knowledge about NSW history which is not demonstrated by other sites, archaeological resources or available historical evidence. The potential for archaeological relics to survive in a particular place is significantly affected by later activities that may have caused ground disturbance. These processes include the physical development of the site (for example, phases of building construction) and the activities that occurred there. The archaeological potential of the subject area is assessed based on the background information presented in Section 3, and graded as per:

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

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

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

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5.1. LITERATURE REVIEW

The subject area has not been assessed under any previous archaeological projects.

The following section of the assessment provides an analysis of the results of pertinent archaeological investigations previously conducted in the vicinity of the subject area. These assessments were selected for their proximity to the subject area and similar land use across time. Each selected assessment has involved excavation and/or monitoring programs and the identification of archaeological materials.

GML, 2004, *Taronga Zoo Archaeological Management Plan*

In respect of historical archaeological potential, the Taronga Zoo AMP considered the results of a series of geotechnical investigations, and test excavations and monitoring undertaken in association with a proposed 'Backyard to Bush Precinct' in the south-eastern part of the site, as a means of establishing the archaeological sensitivity of the site as a whole.

The AMP characterises the Zoo site as consisting of sloping sandstone topography which has been levelled through cutting and filling in association with the establishment of the Zoo in the early 20th century. Areas which have been excavated down to bedrock are thus identified as archaeologically sterile. Areas in which soil profiles survived, but which have been heavily disturbed by earthworks and construction, are identified as having medium – low potential. The AMP asserts that there is generally high potential for the survival of historical archaeological features associated with former Zoo structures across the site. This is based on the outcomes of test excavations, which uncovered a small intact sandstone wall.

The Taronga Zoo AMP identifies the subject area within the following historical archaeological management zones (Figure 28):

Zone C:

Zone 3 encompasses the areas where the archaeological remains of the construction of Bradleys Head Road, the two former Quarantine Stations, and previous Zoo enclosures and associated structures are likely to exist. These areas have been subject to previous development. However, it is possible that archaeological resources remain in deep undisturbed deposits or redeposited fill layers. Therefore there is some potential for the archaeological resources related to the abovementioned structures to remain intact in these areas. The archaeological sensitivity of this zone is assessed as Medium to Low.

Zone D

This Historical Archaeological Management Zone encompasses the rest of the site, where excavations for the foundations of previous Zoo structures have reached down to bedrock or culturally sterile soil profiles, or where there has been little or insignificant historical development. Zone D is not expected to contain any historical material culture and is therefore assessed as having no archaeological sensitivity.

The subject area is bounded to the north and south by sections of the original path network (Zone B). The proposal would have no impact on this feature.

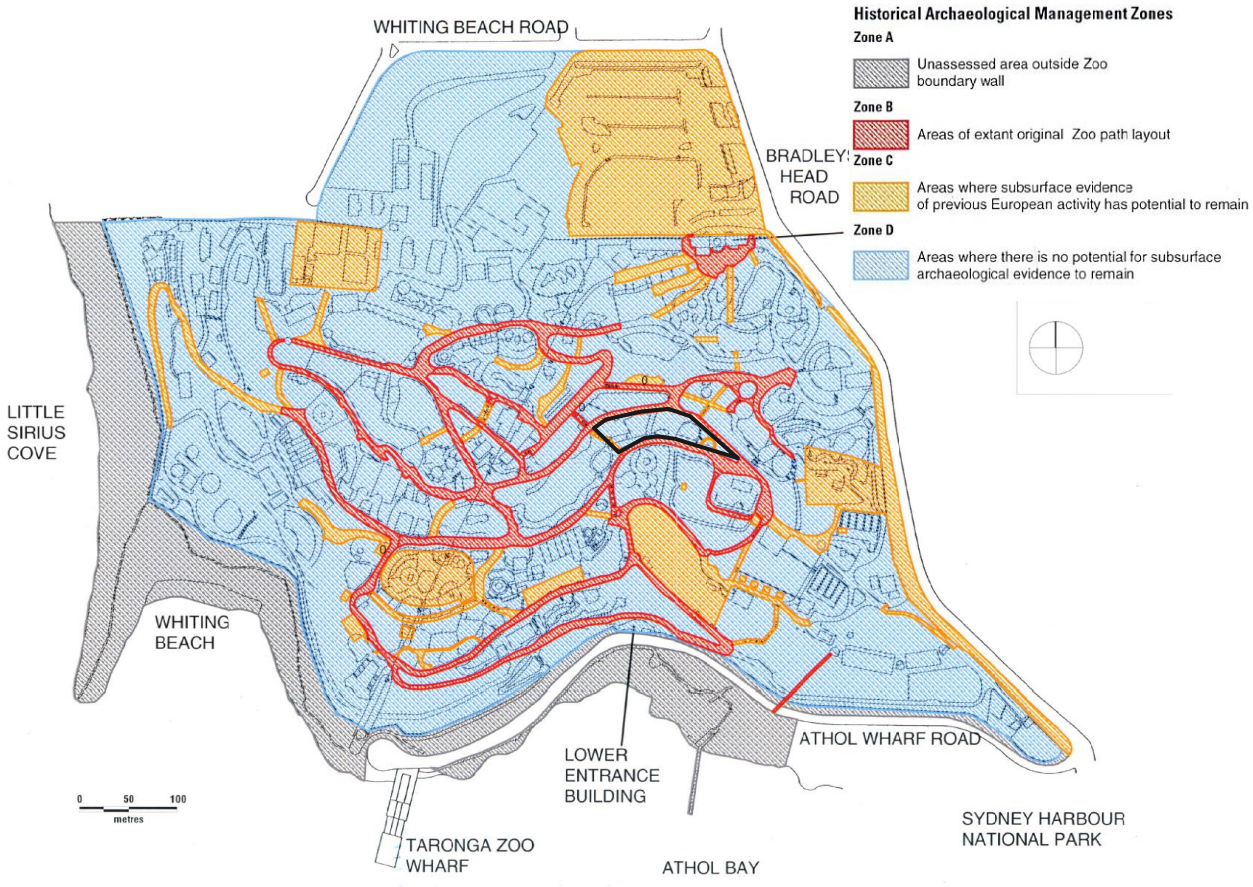

Figure 28 – Historical archaeological management zones. Approximate location of the subject area indicated in black.

Source: Taronga Zoo AMP 2004

The Taronga Zoo AMP identifies the potential for the following historical archaeological remains within the subject area (Figure 29):

- **Category 3:**
  - Former Zoo Paths and Roads (14. Original Pathway 1918-1961)

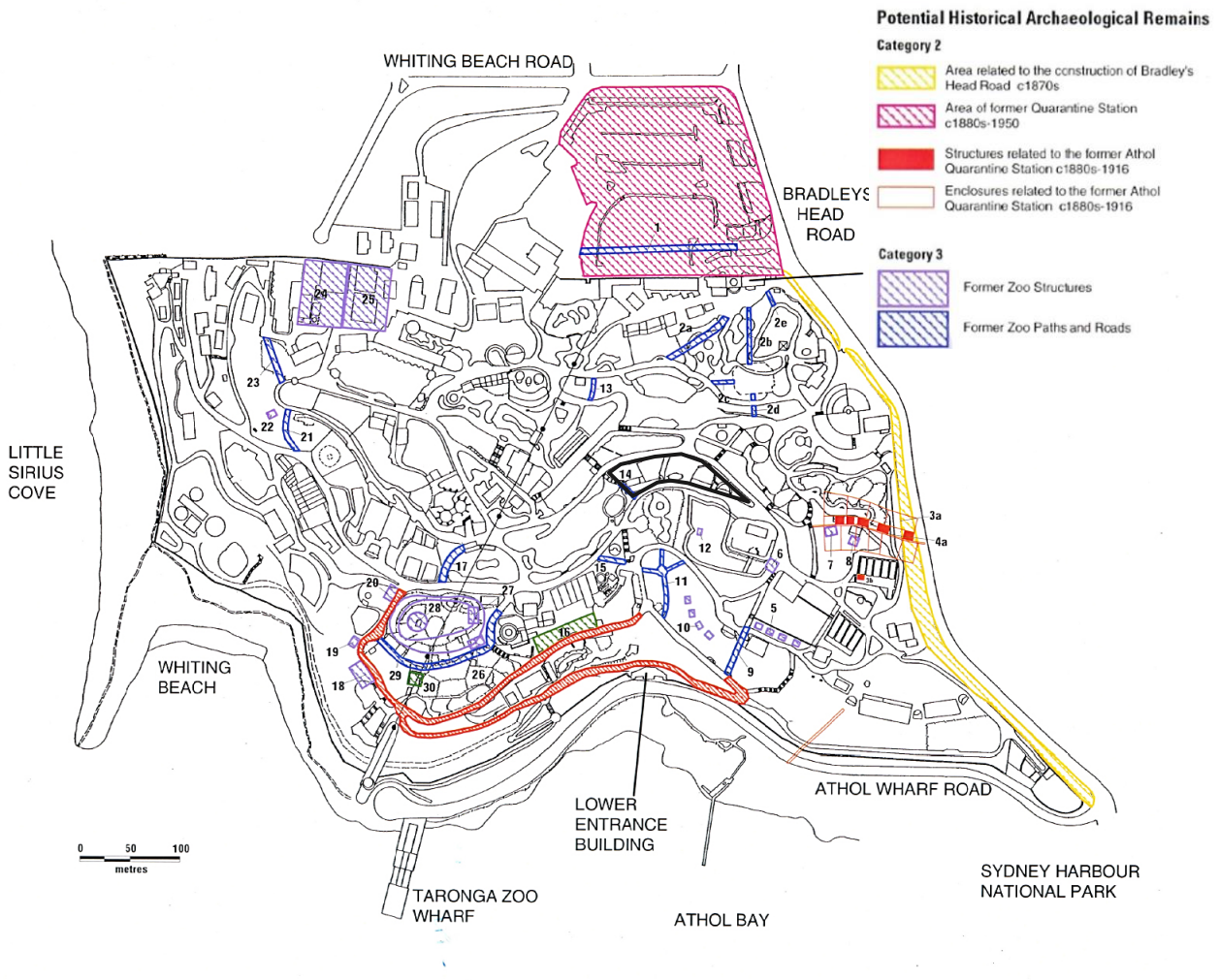

Figure 29 - Potential historical archaeological remains. Approximate location of the subject area indicated in black.

Source: Taronga Zoo AMP 2004

GML, 2006, *Taronga Zoo, Australia Coastline Precinct, Archaeological Monitoring Report*

In 2010 GML was commissioned by the ZPB NSW to monitor ground disturbance of works associated with the redevelopment of the 'Australian Coastline Precinct' (now known as the Great Southern Oceans Precinct'), located approximately 100m south-west of the subject area.

The 2004 AMP had identified areas of historical archaeological potential within the proposed Australian Coastline Precinct (Figure 30). These included the following:

- **AF1 – former pathway / staircase:** constructed 1916 as part of the original path layout of the Zoo. Appeared on guide maps and other historical documentation until c. 1972.
- **AF2 – former animal enclosure:** designated for aviaries from the early phase of development of the Zoo. Date of construction unknown.

Archaeological monitoring was undertaken in two phases, as follows:

Phase 1 – AF1

Investigation revealed that this area had been subject to significant disturbance and that most evidence of this feature had been removed. A few sandstone blocks in an alignment at the top of the slope may have been related to this feature. No reinstatement or additional recordation of this feature was pursued, and it was determined that redevelopment of this area could proceed.

Phase 2 – AF2

Location of this feature had been subject to some disturbance in association with the construction of the adjacent aquarium building. The location of this feature was characterised by fill, which had been installed after the removal of the former animal enclosure. No evidence of this feature was uncovered besides a few remnant concrete footings. No additional conservation or recordation was undertaken for this feature.

The monitoring works exposed an early concrete path with associated kerbing and guttering to the south of AF2. It was determined that this path reflects the original path layout of the Zoo (1912-1916), although it had been resurfaced with concrete at a later date. With the exception of this feature, the monitoring yielded results which were consistent with the available historical information for the site although and revealed that only fragmentary evidence of these features survives.

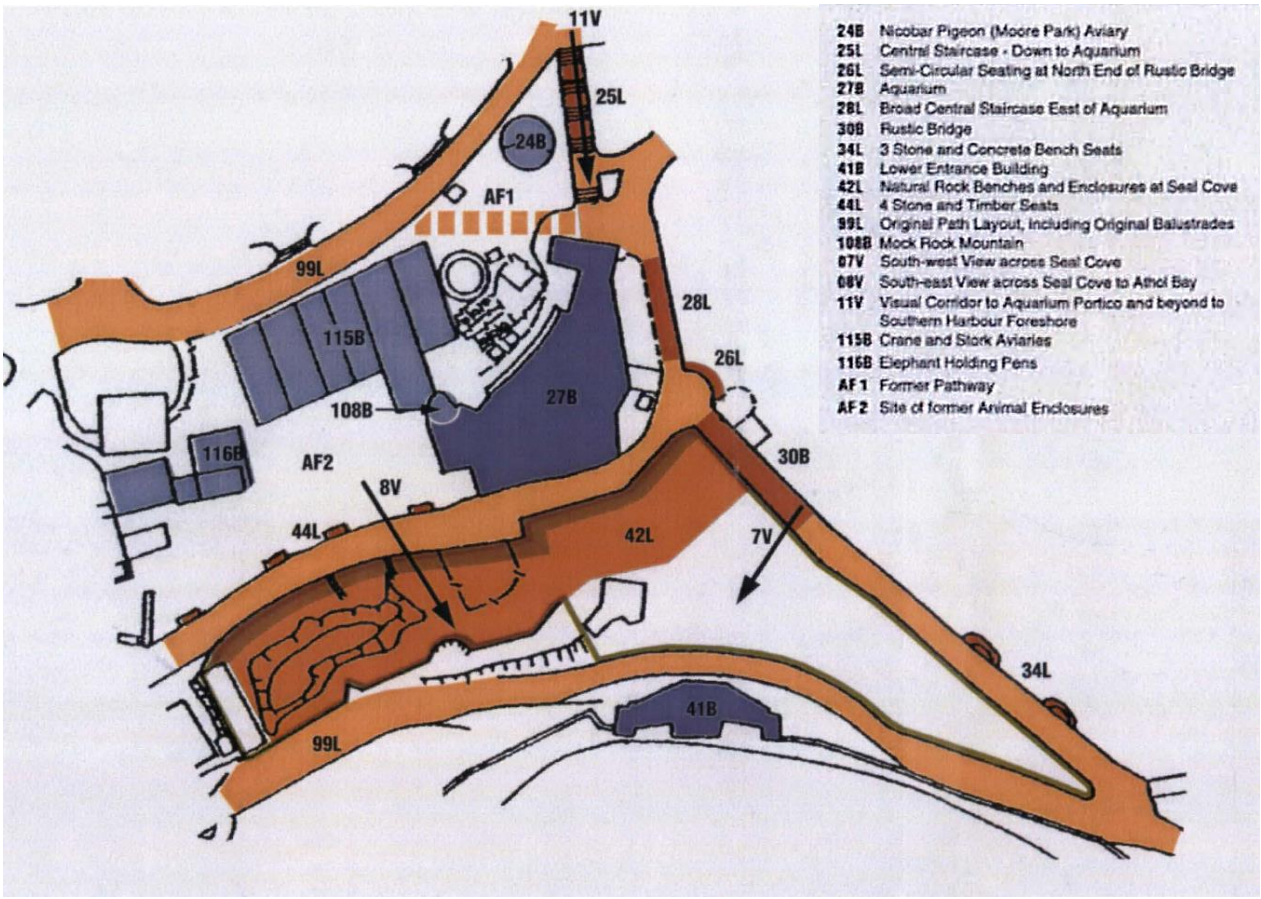

Figure 30 – Location of areas of archaeological potential in relation to the Australian Coastline Precinct

GML, 2010, *Taronga Zoo, Upper Entrance Precinct, Archaeological Monitoring Report*

In 2010 GML was engaged by Taronga Zoo to monitor ground disturbance of works associated with the redevelopment of the 'Taronga Zoo Upper Entrance Precinct' in preparation for the construction of a multi-storey carpark in the area. The Upper Entrance Precinct is located approximately 50m north of the subject area.

Report responded to the AMP and HIS for the Upper Entrance Precinct which identified the potential for a number of Historical archaeological resources, including:

- an animal quarantine station dating to the late 19th century;
- a tramline that operated late 19th – early 20th century; and
- historic roads, paths and landscaping.

Archaeological monitoring undertaken within the proposed Upper Entrance Precinct revealed a high degree of disturbance. The area in the vicinity of the garden beds consists of a 300-450m layer of introduced loam overlaying sandstone bedrock. Likewise, the main area carpark is comprised of an asphalt surface overlaying a shallow (300mm) layer of gravelly fill which, in turn, overlays sandstone bedrock. These modifications to the site date to the late 20th century.

GML, 2011, *Taronga Zoo, Upper Entrance Precinct, Stage 2 Archaeological Monitoring Report*

In 2011 GML was engaged by the ZPB NSW to undertake a second stage of monitoring in association with the redevelopment of the 'Taronga Zoo Upper Entrance Precinct'. The Upper Entrance Precinct is located approximately 50m north of the subject area.

The second stage of monitoring was undertaken in response to previous archaeological assessments which had indicated the potential for remains of the late-19th century animal quarantine station on the site. Although remnants of this feature were not located, a number of historical archaeological relics were exposed as part of the second stage of monitoring. These included:

- a railway ballast related to the tram line that ran to the zoo until 1959;
- concrete bases of shelter sheds in the former picnic area below the Reptile House;
- a concrete footing at the Upper Entrance Gateway; and
- a circular concrete turntable in the Western Wing of the Upper Entrance Building.

Upon assessment of the archaeological significance of these features, it was determined that they would not be retained in situ, with the exception of the concrete turntable.

5.2. GEOTECHNICAL INVESTIGATIONS

Douglas Partners, 2021, *Report on Geotechnical Investigation: Reptile and Amphibian Project, Taronga Zoo*

Douglas Partners was commissioned by Taronga Conservation Society to undertake geotechnical investigations for the proposed Reptile and Amphibian project at Taronga Zoo.

Four cored boreholes were drilled to depths of between 5.5 and 12 metres (RA1 to RA4). In addition, five cone penetration tests (DCPs) were carried out to refusal at depths of between 0.3 – 2.4 metres in the sloping area that was inaccessible to the drilling equipment. The location of the bore holes and DCPs are indicated in Figure 31 below.

The subsurface conditions encountered in the boreholes included:

- **Fill:** typically concrete over sandy fill to depths of about 2.1 metres in the upper boreholes RA1 and RA2, typically synthetic grass or pavers over gravelly or clayey sand and clay fill to depths of about 1.1 meters in the lower boreholes RA3 and RA4; overlying
- **Sandstone bedrock:** sandstone bedrock from depths of between 1.1 – 2.1 metres to the base of the bores at 5.5 – 12 metres depth.

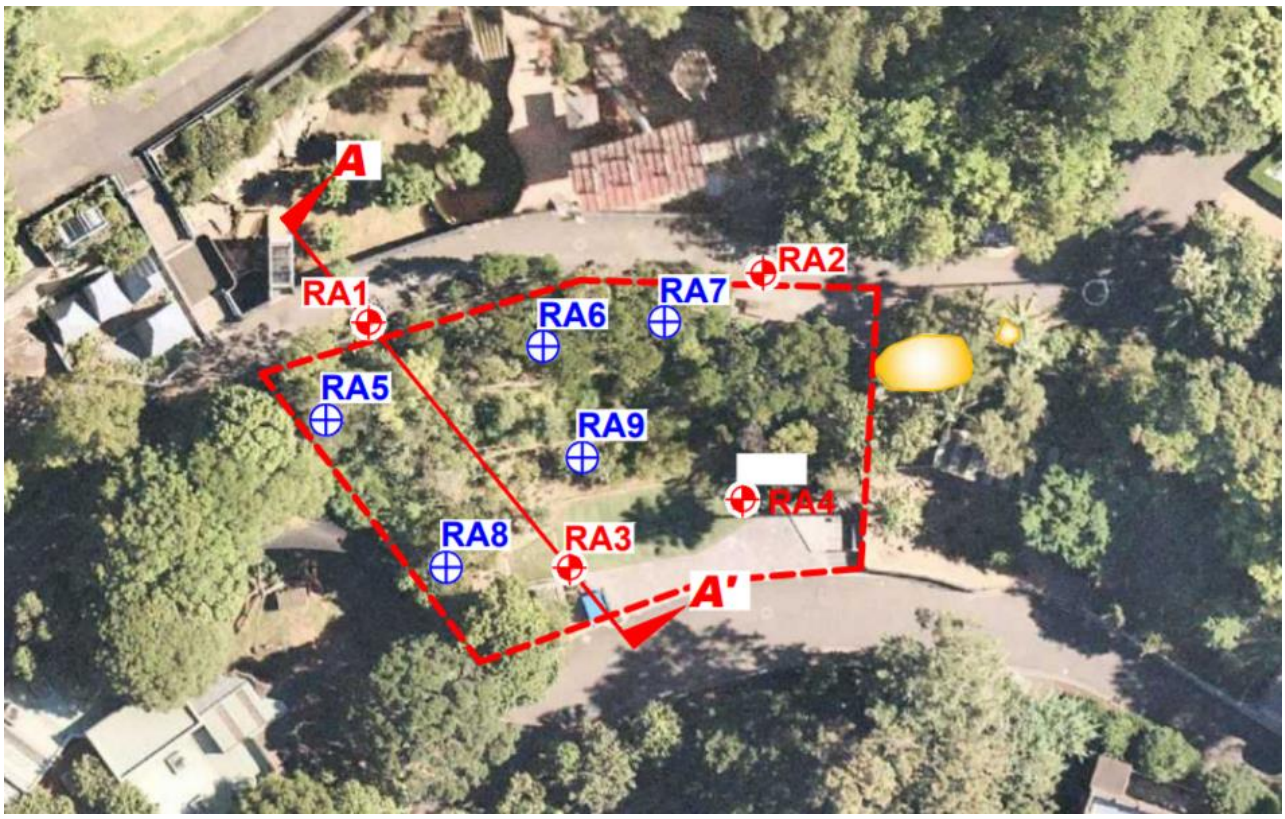

Figure 31 – Location of bore holes and DCPs

Source: Douglas Partners, 2021, Report on Geotechnical Investigation: Reptile and Amphibian Project, Taronga Zoo

Douglas Partners, 2000, *Geotechnical Investigation, Backyard to Bush Precinct, Taronga Zoo, Mosman*

In 2000 Douglas Partners was engaged to prepare a Geotechnical Investigation report for the proposed Backyard to Bush Precinct. 25 boreholes were drilled across the Zoo site, revealing a relatively uniform subsurface soil profile. The stratigraphy of the site was identified as consisting of:

- Upper layer of topsoil.
- Well-compacted brown sands and crushed sandstone at depths of 30cm – 1.5m.
- Sand and clayey sand overlaying weathered sandstone bedrock at depths of 70cm – 2m.

5.3. SUMMARY OF PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

In summary, previous archaeological investigations in the vicinity of the current subject area, with similar land use history or environmental conditions, have identified high levels of disturbance associated with later adaptations of the Zoo, with soil profiles consisting predominantly of imported fill.

However, these investigations exposed a number of historical archaeological remains at varying states of preservation. These findings are consistent with the assertion of the Taronga Zoo AMP that there is high potentiality for the survival of historical archaeological relics across the Taronga Zoo site, including within disturbed profiles.

Further to the above, the AMP identifies potential for:

> *…areas where the archaeological remains of the construction of Bradleys Head Road, the two former Quarantine Stations, and previous Zoo enclosures and associated structures are likely to exist.*

This encompasses the lower (southern) portion of the original stepped path along the western boundary of the subject area and the smaller aviary within the eastern portion of the site.

5.4. ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL

The below table presents a summary of potential archaeological resource and condition of remains within the subject area.

Table 6 – Assessment of Archaeological Potential

Phase	Potential Archaeological Resource	Integrity of archaeological resource	Potential
Early European Development (1788-1911)	Rubbish pits, discard items, post holes associated with fencing and temporary structures, remnant paths	It is considered unlikely that historical archaeological features associated with early land grants would survive within the subject area due to subsequent disturbance. Although animal quarantine facilities were located within the vicinity of the subject area, it is anticipated that these facilities would have been contained and would not have occupied the site. Likewise, there is no evidence which suggests that any permanent structures or modifications were made to the subject area in association with the resumption of the land for military purposes, with the construction of emplacements confined to the headland.	Low-Nil
Establishment of Taronga Zoo and Directorship of La Souef (1912-1940)	Foundations of the former Platypus (and later Coypu) enclosure, evidence of the original lower (southern) portion of the stepped path along western boundary of subject area.	A c.1933 photograph of the subject area (Figure 13) shows the steep topography and densely vegetated character of the site at this time. The Zoo's original road network had been established, including the roads which still define the northern and southern boundaries of the subject area. A stepped path was constructed along the site's western boundary, which linked the roads to the north and south. It is understood that the southern section of this feature was removed and modified in association with the construction of the Seal Show facility in the late 20th century. In 1939 a Platypus enclosure was established within the south-western corner of the subject area, as depicted in	Low

Phase	Potential Archaeological Resource	Integrity of archaeological resource	Potential
		Figure 19. This feature was removed in association with the construction of the Seal Show facility. Although these works were substantial and involved significant excavation and grading works for the establishment of the Seal building, there may be some potential for subsurface evidence of this feature.	
	Footings and foundations of former aviaries. Base walls of former aviaries (extant).	Although the aviary superstructures were removed in 2009, there is moderate potential for footings and foundations to remain in situ. Two aviaries had been established within the south-eastern portion of the subject area by c.1915. The superstructures were removed in 2009 though the base walls remain mostly intact.	Moderate High (extant)
Hallstrom's Directorship (1941-1966)	N/A	The subject area had remained unchanged since 1916. No potential archaeological resources have been identified in association with this period.	Nil
Strahan's Directorship (1967-1986)	Foundations of the former Seal Show facility including the base of the seal pond, footings of the former stage and footings, foundations and services associated with the former training and preparation structure. Footings and foundations of the former Penguin Pond. Evidence of landscaping and earthworks associated with the Seal Show and penguin facilities.	By this time the Seal Show facilities had been established within the western component of the subject area (Figure 20). This would have involved bulk excavation, grading works and importation of fill in order to establish a sloped profile for the theatre's tiered seating. The area to the south of the stands was also excavated and rubble fill installed for the creation of the seal pond and adjacent seal pens. A training and preparation structure, constructed with vertical log walling, tongue and groove boarded roof and steal beams was also erected to the west of the theatre over	Low-moderate

Phase	Potential Archaeological Resource	Integrity of archaeological resource	Potential
		the seal pens, likely removing evidence of the former Platypus/ Coypu enclosure. A penguin pond was also installed within the eastern component of the subject area. The subject area has undergone significant disturbance in association with the subsequent adaptation of the site for picnic facilities. It is also understood that the structures associated with the former Seal Show facilities and penguin pond were removed to clay level. Nevertheless, given the substantial nature of the former Seal Show facility and Penguin pond, there remains low-moderate potential for subsurface evidence. A penguin pond was established to the east of the Seal Show facilities during this period, which would have required additional excavation works.	
Kelly's Directorship to Present (1987-Present)	Existing fabric and configuration of the subject area.	By 2011 the Seal Show facilities had been removed from the subject area and the area infilled and revegetated (Figure 17). It is understood that these features were demolished to clay level. The open-air theatre was replaced by terraced gardens contained behind gabion walls. This would have required additional excavation and installation of fill in order to establish a stepped profile. Physical evidence of this phase remains extant.	High (extant)

5.5. STATEMENT OF ARCHAEOLOGICAL POTENTIAL

Historical sources indicate that by 1850 the subject area had been incorporated within Charles Jenkins and J. Holt land grant. The site was then resumed for military purposes in the 1890s, gazetted as Commonwealth land (part of Ashton Park) in 1908 and was rededicated as a zoological park in 1912. There is no available evidence which suggests that permanent structures were erected within the subject area in association with the early land grants. The steep sandstone topography of the subject area meant that sections had to be cut down to bedrock and fill imported for the purpose of creating level surfaces for the zoo exhibits, thus further reducing the potential for evidence of this period. It is therefore considered that there is low-nil potential for evidence of the earliest European occupation of the site.

In comparison with other sections of the Zoo site, the subject area remained densely vegetated and underwent minimal disturbance until the mid-late 20th century. Under La Souef's Directorship (1912-1940) the original road network was established to the north and south of the subject area. A stepped path was constructed along the western boundary of the subject area by 1916. It is understood that the lower (southern) section of this feature was removed in association with the Seal Show development in the 1970s. An overlay of the 1998 survey sheet on a 1940 guidebook (see Figure 32) shows the original alignment of the stepped path within the footprint of the former Seal building. If the path were in this location, disturbance associated with this substantial structure is likely to have removed all evidence of it. The AMP maps (Figure 28 & Figure 29), however, suggest the alignment of the path was further to the west along the western boundary of the site. The upper (northern) section remains intact and is listed on the s.170 register as item no. 130L.

In 1939 a Platypus enclosure was established within the south-western corner of the subject area. Figure 32 indicates that this feature was also located within the footprint of the former Seal building. The disturbance associated with this substantial structure is likely to have removed all evidence of this early feature.

Two aviaries had been established within the south-eastern portion of the subject area by c.1915. These are indicated as '17' in Figure 16. The superstructures were removed in 2009 though the extant base walls remain intact. This is reflected in the AMP map (Figure 28).

The subsequent phase of development under Hallstrom's Directorship (1941-1966) saw no further changes to the subject area.

The subject area was subject to significant development under Strahan's directorship (1967-1986), with the establishment of the Seal Show facilities, including an open-air theatre and training and preparation area within the north-western portion of the site. Bulk excavation was undertaken and fill imported to establish a sloped profile for the theatre's tiered seating. The area to the south of the stands was excavated for the creation of the seal pond and adjacent seal pens. A training and preparation structure had also been erected to the west of the theatre. A Penguin Pond was established to the east of the Seal Show facilities in the c.1970s, which would have required additional excavation and landscaping.

Under Kelly's Directorship (1987-Present) the Seal Show facilities were removed from the subject area and the site adapted for use as a picnic area. It is understood that foundations of the former theatre, pond and Seal building were demolished to clay level. The open-air theatre was replaced by terraced gardens contained behind gabion walls. This would have required additional excavation and installation of fill in order to establish a stepped profile. The Penguin Pond within the eastern portion of the site was infilled and the site repurposed as a Meerkat exhibit, which remains extant. The disturbance associated with this phase was significant and is likely to have removed the majority of historical archaeological resources associated with earlier phases of the Zoo's development. The findings of the Taronga Zoo AMP further support this assessment, identifying the subject area as having no potential for historical archaeological resources. The greatest identified potential thus relates to evidence of more substantial structures which occupied the site, including footings and foundations of the former Seal building and stage.

It is of note that the AMP more generally identifies high potential for the survival of historical archaeological resources throughout the Zoo site, even in disturbed soil profiles. Archaeological monitoring and test excavations undertaken within the vicinity of the subject area appear to support this assumption, having exposed a number of historical archaeological features.

The archaeological potential associated with each phase of the subject area's development is summarised in Table 7 below.

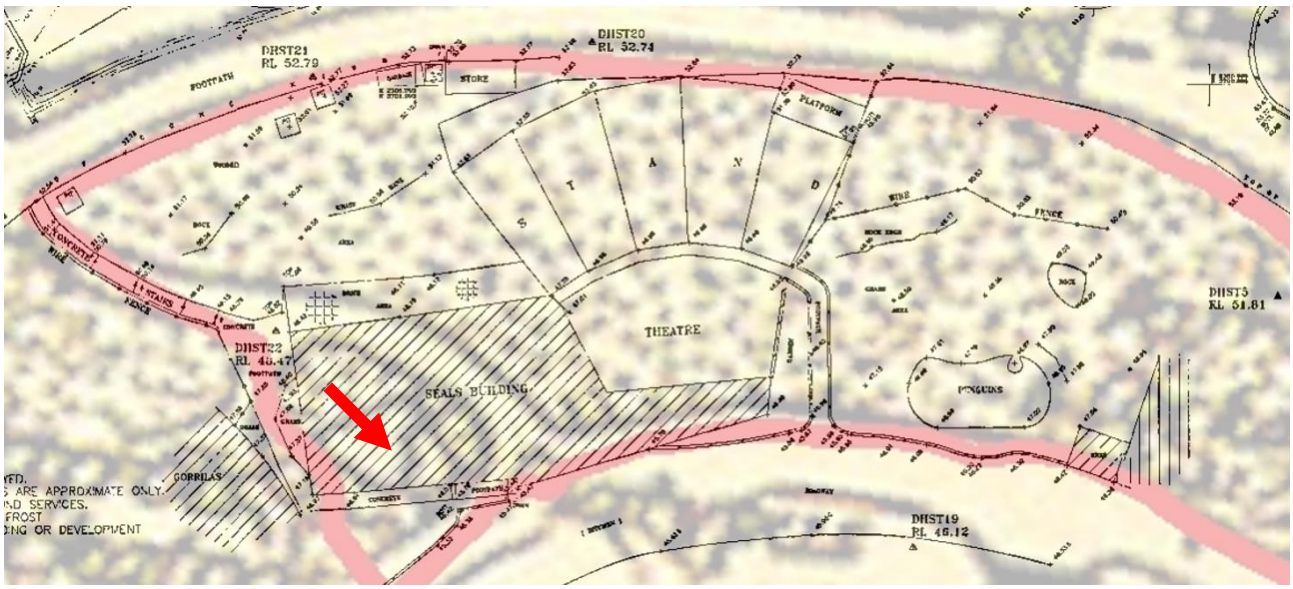

Figure 32 – Overlay of 1998 survey sheet on 1940 guidebook indicating the former alignment of the stepped path and location of the lower (southern) portion relative to the works. The location of the former Platypus/ Coypu enclosure is indicated with an arrow.

Table 7 - Summary of Archaeological Potential

Phase	Potential Archaeological Resource	Potential
Early European Development (1788-1911)	Rubbish pits, discard items, post holes associated with fencing and temporary structures, remnant paths	Low-Nil
Establishment of Taronga Zoo and Directorship of La Souef (1912-1940)	Foundations of the former Platypus (and later Coypu) enclosure, evidence of the original lower portion of the stepped path located to the west of the subject area.	Low
	Footings and foundations of former aviaries. Base walls of aviaries (extant).	Moderate High (extant)
Hallstrom's Directorship (1941-1966)	N/A	Nil
Strahan's Directorship (1967-1986)	Foundations of the former Seal Show facility including the base of the seal pond, footings of the former stage, footings, foundations and services associated with the former Seal building. Foundations of the former Penguin Pond. Evidence of landscaping and earthworks associated with the Seal Show and Penguin Pond.	Low-moderate
Kelly's Directorship to Present (1987-Present)	Existing fabric and configuration of the subject area.	High (extant)

6. ARCHAEOLOGICAL SIGNIFICANCE

6.1. TERMS AND DEFINITIONS

The concept of archaeological significance is independent of archaeological potential. For example, there may be 'low potential' for certain relics to survive, but if they do, they may be assessed as being of 'high (State) significance'.

Archaeological significance has long been accepted as linked directly to archaeological (or scientific) research potential: a site or resource is said to be scientifically significant when its further study may be expected to help answer questions. Whilst the research potential of an archaeological site is an essential consideration, it is one of a number of potential heritage values which a site or 'relic' may possess. Recent changes to the Heritage Act 1977 (Section 33(3) (a)) reflect this broader understanding of what constitutes archaeological significance by making it imperative that more than one criterion be considered.

The below assessment of archaeological significance considers the criteria, as outlined in the NSW Heritage Branch publication *Assessing Significance for Historical Archaeological Sites and 'Relics'.* Sections which are extracted verbatim from this document are italicized.

For the purposes of this assessment, significance is ranked as follows:

- **No Significance –** it is unlikely that any archaeological resources recovered will be attributed significance in accordance with the assessment criteria on a state or local level.
- **Local Significance –** it is likely that archaeological resources recovered will be significant on a local level in accordance with one or more of the assessment criteria.
- **State Significance –** it is likely that archaeological resources recovered will be significant on a state level in accordance with one or more of the assessment criteria.

The following Criteria are used to assess archaeological significance (from *Assessing Significance for Historical Archaeological Sites and 'Relics',* Heritage Branch NSW*).*

Table 8 – significance criteria

Criterion Letter	Criterion	Definition
E	***Archaeological Research Potential***	*Archaeological research potential is the ability of archaeological evidence, through analysis and interpretation, to provide information about a site that could not be derived from any other source and which contributes to the archaeological significance of that site and its 'relics'*
A, B & D	***Associations with individuals, events or groups of historical importance***	*Archaeological remains may have particular associations with individuals, groups and events which may transform mundane places or objects into significant items through the association with important historical occurrences.*
C	***Aesthetic or technical significance***	*Whilst the technical value of archaeology is usually considered as 'research potential' aesthetic values are not usually considered to be relevant to archaeological sites. This is often because until a site has been excavated, its actual features and attributes may remain unknown. It is also because aesthetic is often interpreted to mean attractive, as opposed to the broader sense of sensory perception or 'feeling' as expressed in the Burra Charter. Nevertheless, archaeological excavations which reveal highly intact and*

Criterion Letter	Criterion	Definition
		legible remains in the form of aesthetically attractive artefacts, aged and worn fabric and remnant structures, may allow both professionals and the community to connect with the past through tangible physical evidence
A, C, F & G	***Ability to demonstrate the past through archaeological remains***	*Archaeological remains have an ability to demonstrate how a site was used, what processes occurred, how work was undertaken and the scale of an industrial practice or other historic occupation. They can demonstrate the principal characteristics of a place or process that may be rare or common.*

6.2. ASSESSMENT OF ARCHAEOLOGICAL SIGNIFICANCE

The following table assesses the significance of potential archaeological resources across the site in accordance with the definitions in Table 8 above.

Table 9 – Assessment of Significance

Criterion	Discussion
Archaeological Research Potential	Although there is low-nil potential for archaeological resources associated with the original land grants to survive, these may have State significance for their ability to reveal information about the early European settlement of the Mosman area which cannot be garnered from available historical sources. Historical archaeological resources associated with earlier adaptations of the zoo, including the stepped path along the western boundary and foundations of the former Platypus/ Coypu enclosure may provide information about the historical development of the Zoo which cannot be obtained through historical resources. Evidence of the former Seal Show facility and Penguin Pond within the southern portion of the subject area are unlikely to yield additional information to that which can be garnered from historical sources.
Associations with individuals, events or groups of historical importance	Archaeological resources associated with the earliest phase of Taronga Zoo, including the original stepped path within the western component of the subject area, foundations of the former Platypus/ Coypu enclosure and extant walls of the aviaries, have local significance for their association with the directorship of La Souef (1912-1940).
Aesthetic or technical significance.	The extant base walls of the aviaries within the eastern portion of the site have local significance as a visual reminder of the earliest phase of the Zoo's development.
Ability to demonstrate the past through archaeological remains	Archaeological resources associated with the original land grants would have State significance for their ability to demonstrate the earliest European settlement of the Mosman area. Evidence of the lower section of the western stepped path may have State significance for its ability to reflect the original layout of the Zoo.

Criterion	Discussion
	Historical archaeological resources associated with earlier adaptations of the zoo, including the former Platypus/ Coypu enclosure and footings of the former aviaries may have local significance for their ability to demonstrate evolving zoological philosophy and practice as well as the historical development of the Zoo. Evidence former Seal Show facility and Penguin Pond do not reach the threshold for local significance as they would reflect a recent and well-documented period of the Zoo's development. The extant base walls of the aviaries have local significance as evidence of the earliest phase of development of Taronga Zoo.

6.3. STATEMENT OF ARCHAEOLOGICAL SIGNIFICANCE

Although there is low-nil potential for archaeological resources associated with the original land grants to survive, these would have State significance for their ability to reveal information about the early European settlement of the Mosman area which cannot be garnered from available historical sources.

Archaeological resources associated with the earliest phase of Taronga Zoo, including the original stepped path within the western portion of the subject area, foundations of the former Platypus/ Coypu enclosure and extant walls of the aviaries have local significance for their association with the Zoo's establishment under the directorship of La Souef (1912-1940).

Historical archaeological resources associated with earlier adaptations of the zoo, including foundations of the former Platypus/ Coypu enclosure and former aviaries, may have local significance for their ability to demonstrate evolving zoological philosophy and practice as well as the historical development of the Zoo. Evidence former Seal Show facility and Penguin Pond do not reach the threshold for local significance as they reflect a recent and well-documented period of the Zoo's development.

The extant base walls of the aviaries have local significance as a visual reminder of the earliest phase of the Zoo's development.

Evidence of the lower section of the western stepped path would have State significance for its ability to reflect the original layout of the Zoo.

Table 10 - Summary of Archaeological Potential

Phase	Potential Archaeological Resource	Potential	Significance
Early European Development (1788-1911)	Rubbish pits, discard items, post holes associated with fencing and temporary structures, remnant paths	Low-Nil	Local/ State
Establishment of Taronga Zoo and Directorship of La Souef (1912-1940)	Foundations of the former Platypus (and later Coypu) enclosure.	Low	Local
	Evidence of the original lower portion of the stepped path located to the west of the subject area.	Low	State
	Footings and foundations of the former aviaries. Base walls of the aviaries (extant).	Moderate High (extant)	Local Local

Phase	Potential Archaeological Resource	Potential	Significance
Hallstrom's Directorship (1941-1966)	N/A	Nil	N/A
Strahan's Directorship (1967-1986)	Foundations of the former Seal Show facility including the base of the seal pond, footings, foundations and services associated with the former stage and Seal buildings. Evidence of landscaping and earthworks associated with the Seal Show and Penguin Pond.	Low-moderate	Nil
Kelly's Directorship to Present (1987-Present)	Existing fabric and configuration of the subject area.	High (extant)	N/A

7. ARCHAEOLOGICAL IMPACT ASSESSMENT

The above assessment of archaeological potential (see Section 5) has established that the subject area has:

- Nil-low potential to contain evidence of the early land grants and earliest European occupation of the Mosman area;
- Low potential to contain evidence of the earliest phase of Taronga Zoo under the directorship of La Souef (1912-1940), including foundations of the former Platypus (and later Coypu) enclosure (1939), foundations of the former aviaries (c.1915) and lower portion of the stepped path along the western boundary of the site (c.1915); and
- Low-moderate potential to contain evidence of development under Strahan's Directorship (1967-1986), including the former Penguin Pond (c.1970s) and Seal Show facility (c.1978).

Figure 33 below contains an overlay of the 1998 survey map on the proposal footprint. This indicates that the former Seal building and stage and Penguin Pond to the east were located within the footprint of the proposed RACC. The location of the former Platypus/ Coypu enclosure is indicated with an arrow to the south-west of the RACC. As discussed in Section 5, it is unclear whether the original stepped path was located along the western boundary of the subject area or further to the east.

Figure 34 below provides an overlay of the 1998 survey map on the bulk earthworks plan. The most substantial excavation works will be concentrated in two intervals (as indicated in red and orange) where the slope will be cut to facilitate the ground floor (<5 metres depth) to the south and first floor (<3 metres depth) to the north. In respect of archaeological potential, the proposed excavation will be located within the footprint of the former Seal Show building and stage, Penguin Pond to the east and within a section of the former theatre tiered seating to the north. Fill will also be installed for the purpose of facilitating landscaping and the stepped design of the RACC, as indicated in green.

Geotechnical investigations established that there is a deposit of sandy fill overlying bedrock to depths of 2.1 metres within the upper (northern) portion of the site and 1.1 metres of gravelly/ clayey sand and clay fill overlying bedrock within the lower (southern) portion of the site. It is of note that the fill profile is most shallow within the southern portion of the site where the greatest potential for historical archaeological resources has been identified. As such, it can be assumed that excavation within this location will reach bedrock level, removing all archaeological potential. Excavation within the northern portion of the subject area is less likely to impact archaeological resources based on the more ephemeral character of development in this location (tiered seating for the Seal Show theatre).

Discussion of the potential impacts of the proposal in respect of potential identified relics is provided below.

Seal Show Facility (1970s) and Penguin Pond (1978)

The greatest subsurface disturbance associated with the subject proposal relates to the proposed excavation works for the ground floor of the RACC. Although the soil profile in this location is shallow, there remains potential for evidence of the former Seal Show facility and Penguin Pond in this location. The assessment of significance (see Section 6) has established that evidence of these features would not meet the threshold for local significance as they reflect a recent and well-documented period of the Zoo's development.

Platypus (and later Coypu) enclosure (1939) and stepped path (c.1915) -

The assessment of archaeological potential (see Section 5) established that there is low potential for evidence of the former Platypus (later Coypu) enclosure and lower portion of the former stepped path within the south-western portion of the subject area. The location of these former features may be within the footprint of proposed landscaping within the western portion of the subject area (Figure 33). According to the bulk earthworks plan (see Figure 34), however, no significant earthworks are proposed in this location and any impacts to these early features is therefore considered unlikely.

Former Aviaries (c.1915)

Landscaping works are proposed for the eastern portion of the subject area. A pedestrian way will connect the entrance at the easternmost point of the subject area to the RACC. The pedestrian way will transect both former aviaries. In order to achieve this, a section of the extant aviary walls will be demolished (see Figure 3). The interior of the larger aviary will be landscaped and up to 3 metres of fill will be deposited within the curtilage of the extant walls (Figure 34). The smaller aviary will be repurposed as a picnic area. Although significant excavation is not proposed in this location, there is some potential for these works to disturb the

subsurface footings and foundations of the former aviaries which were dismantled in 2009. It is also noted that a staircase between the former aviaries will be demolished. This feature is not identified as significant. The demolition of a portion of the former aviary walls also presents as a minor impact, however, not one which would significantly compromise the interpretation of these former features.

Based on the above observations, archaeological monitoring is recommended as outlined in those locations indicated in Figure 35 below.

Figure 33 - Overlay of 1998 survey sheet on proposal indicating location of proposed works in relation to the former Seal Show Facility and penguin pond. Location of the former Platypus/ Coypu enclosure is indicated with arrow.

Figure 34 – Overlay of 1998 survey sheet on bulk earthworks plan. Location of the former Platypus/ Coypu enclosure is indicated with arrow.

Figure 35 – Demolition Plan with areas which require archaeological monitoring indicated in blue.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1. ARCHAEOLOGICAL POTENTIAL

This HAA has established that the subject area has:

- nil-low potential to contain evidence of the early land grants and earliest European occupation of the Mosman area;
- low potential to contain evidence of the earliest phase of Taronga Zoo under the directorship of La Souef (1912-1940), including foundations of the former Platypus (and later Coypu) enclosure (1939) and lower portion of the stepped path along the western boundary of the subject area (c.1915); and
- low-moderate potential to contain evidence of development under Strahan's Directorship (1967-1986), including the former Penguin Pond (c.1970s) and Seal Show facility (c.1978).

8.2. ARCHAEOLOGICAL SIGNIFICANCE

Although there is low-nil potential for archaeological resources associated with the original land grants to survive, these would have State significance for their ability to reveal information about the early European settlement of the Mosman area which cannot be garnered from available historical sources.

Archaeological resources associated with the earliest phase of Taronga Zoo, including the original stepped path within the western portion of the subject area, foundations of the former Platypus/ Coypu enclosure and extant walls of the aviaries have local significance for their association with the Zoo's establishment under the directorship of La Souef (1912-1940). Foundations of the former Seal Show facility and Penguin Pond have local significance for their association with Strahan's Directorship (1967-1986).

Historical archaeological resources associated with earlier adaptations of the zoo, including foundations of the former Platypus/ Coypu enclosure, Seal Show facility and Penguin Pond, have local significance for their ability to demonstrate evolving zoological philosophy and practice as well as the historical development of the Zoo. The extant base walls of the aviaries have local significance as a visual reminder of the earliest phase of the Zoo's development.

8.3. IMPACT ASSESSMENT

This HAA has established that:

- The greatest surface disturbance associated with the proposal relates to the proposed excavation works for the ground floor of the RACC, which is located within the footprint of the former Seal Show facility and Penguin Pond in this location. These features do not meet the threshold for local significance as they reflect a recent and well-documented period of the Zoo's development.
- Landscaping is proposed within the footprint of the former Platypus (and later Coypu) enclosure (1939) and stepped path along the western boundary (c.1915). No significant earthworks are proposed in this location and disturbance of these early features is considered unlikely.
- Landscaping works are proposed for the eastern portion of the subject area. The interior of the larger aviary will be landscaped and the smaller aviary will be repurposed as a picnic area. There is some potential for these works to disturb the subsurface footings and foundations of the former aviaries which were dismantled in 2009. The demolition of a portion of the former aviary walls also presents as a minor impact, however, not one which would significantly compromise the interpretation of these early features.

8.4. RECOMMENDATIONS

Based on the above conclusions, Urbis provides the following recommendations:

Recommendation 1 - Monitoring

For proposed surface disturbance within the south-western portion of the subject area and interior of the extant aviary walls (see Figure 35), close monitoring should be undertaken by a suitably qualified archaeologist. In general, archaeological monitoring should adhere to the following:

- Demolition should be undertaken in such a way as to minimise impacts to foundations and subsurface structures. The archaeologist should initially be consulted about the proposed demolition methodology.
- An archaeologist should be present at all times during the lifting of current hard surfaces, excavation and/or other activities that result in ground disturbance.
- Where a mechanical excavator is used, it must have a flat or mud bucket, rather than a toothed bucket, to ensure a level ground surface.
- All machinery should work backwards from a slab surface in order to avoid damage to any exposed archaeological relics.
- Fills should be removed sequentially in reverse order of deposition, starting with any imported fill and overburden, which reflect the archaeological stratigraphy and as instructed by the archaeologist.
- If archaeological relics are identified by the monitoring archaeologist, work must stop immediately. Further assessment and recording of the find will be required, following the methods outlined in Section 7.2.6 overleaf.

Recommendation 2 – Chance Finds Procedure – Historical Archaeology

For proposed surface disturbance, including excavation for the RACC first-floor and ground-floor and landscaping works throughout the remainder of the subject area, the following Chance Finds Procedure should be implemented:

6. All works must stop in the immediate vicinity of the find. The find must remain undisturbed and temporary fencing established around the find.
7. The Site Supervisor, or another nominated site representative must contact an appropriately qualified archaeologist.
8. The archaeologist should examine the find, provide a preliminary assessment of significance based on the findings of this HAA, record the item and decide on an appropriate management strategy.
9. Depending on the significance of the find, re-assessment of the archaeological potential of the area may be required, and further archaeological investigation required. If further manual excavation and recording is required, the methods outlined in Section 7.2.6 would be followed.
10. Works in the vicinity of the find can only recommence upon on the written advice of the nominated Excavation Director.

Recommendation 3 – Chance Finds Procedure – Aboriginal Archaeology

Although considered highly unlikely, should any Aboriginal objects, archaeological deposits be uncovered during any site works, a Chance Find Procedure must be implemented. The following steps must be carried out:

6. All works stop in the vicinity of the find. The find must <u>not</u> be moved ‘out of the way’ without assessment.
7. The archaeologist and Aboriginal representative on site examine the find, provides a preliminary assessment of significance, records the item for the AHIMS register and decides on appropriate management. Such management may require further consultation with the Aboriginal Cultural Heritage Regulation Branch of the Department of Premier and Cabinet (DPC), preparation of a research design and archaeological investigation/salvage methodology and decision on temporary care and control.
8. Depending on the significance of the find, reassessment of the archaeological potential of the subject area may be required, and further archaeological investigation undertaken.
9. Reporting may need to be prepared regarding the find and approved management strategies. Any such documentation should be appended to this ACHAR and revised accordingly.
10. Works in the vicinity of the find can only recommence when all management measure all implemented, and the find is removed from the activity area. Should the find be an unmovable item such as an engraving or grinding groove located on a sandstone surface, further management measures will need to be introduced to avoid harm to the find.

Recommendation 4 – Human Remains Procedure

In the unlikely event that human remains are uncovered during any site works, the following must be undertaken:

6. All works within the vicinity of the find immediately stop.
7. Site supervisor or other nominated manager must notify the NSW Police and DPC.
8. The find must be assessed by the NSW Police, and may include the assistance of a qualified forensic anthropologist.
9. Management recommendations are to be formulated by the Police, DPC and site representatives.
10. Works are not to recommence until the find has been appropriately managed.

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