


# Sydney Football Stadium New Precinct Village and Car Park – MP1 Car Park

Addendum Heritage Impact  
Assessment

Report to VenuesNSW

December 2021



 artefact

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## Document history and status

Revision	Date issued	Draft by	Reviewed by	Date reviewed	Revision type
1	11/08/2021	M. Lever	S Wallace	13/08/2021	First Draft
2	14/8/2021	M. Lever	S. Wallace	16/8/2021	Second Draft
3	3/9/2021	M. Lever	S. Wallace	3/9/2021	Third Draft
4	6/9/2021	M. Lever	S. Wallace	6/9/2021	Fourth Draft
5	27/9/2021	M. Lever	S. Wallace	27/9/2021	Fifth Draft
6	14/12/2021	S.Wallace and I Stuart	S Wallace		Addendum HIA/Response to Submissions First Draft

<b>Printed:</b>	
<b>Last saved:</b>	27/9/2021
<b>File location:</b>	C:\Users\MLever\Desktop\SFS
<b>Author:</b>	M. Lever
<b>Project manager:</b>	S. Wallace
<b>Name of organisation:</b>	Artefact Heritage
<b>Name of Project:</b>	21150-Sydney Football Stadium New Precinct Village and Car Park – MP1 Car Park – Statement of Heritage Impact
<b>Name of document:</b>	Sydney Football Stadium New Precinct Village and Car Park – MP1 Car Park – Statement of Heritage Impact
<b>Document version:</b>	DRAFT

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## EXECUTIVE SUMMARY

Artefact Heritage have been engaged by Venues NSW (VNSW), to provide a Heritage Impact Assessment (HIA) which outlines the proposal, addresses the potential impacts to non-Aboriginal heritage and archaeology, and provides recommendations for mitigation and management of any potential impacts for the proposed development detailed below.

On 6 December 2018, the then Minister for Planning approved a concept development application and concurrent early works package (SSD 9249) to facilitate redevelopment of the Sydney Football Stadium (SFS).

The concept approval established the maximum building envelope, design and operational parameters for a new stadium with up to 45,000 seats for patrons and allowing for 55,000 patrons in concert mode. The concurrent Stage 1 works, which were completed on 28 February 2020, facilitated the demolition of the former SFS and associated buildings.

Stage 2 of the SFS Redevelopment (SSD 9835) was approved by the Minister for Planning and Public Spaces on 6 December 2019. Stage 2 provides for:

- construction of the stadium, including:
- 45,000 seats (additional 10,000 - person capacity in the playing field in concert mode) in four tiers including general admission areas, members seating and corporate / premium seating;
- roof cover over all permanent seats and a rectangular playing pitch;
- a mezzanine level with staff and operational areas;
- internal pedestrian circulation zones, media facilities and other administration areas on the seating levels;
- a basement level (at the level of the playing pitch) accommodating pedestrian and vehicular circulation zones, 50 car parking spaces, facilities for teams and officials, media and broadcasting areas, storage and internal loading areas;
- food and drink kiosks, corporate and media facilities; and
- four signage zones.
- construction and establishment of the public domain within the site, including:
- hard and soft landscaping works;
- publicly accessible event and operational areas;
- public art; and
- provision of pedestrian and cycling facilities.
- wayfinding signage and lighting design within the site;
- reinstatement of the existing Moore Park Carpark 1 (MP1) upon completion of construction works with 540 at-grade car parking spaces and vehicular connection to the new stadium basement level;
- operation and use of the new stadium and the public domain areas within the site for a range of sporting and entertainment events; and
- extension and augmentation of utilities and infrastructure.

SSD 9835 has been modified on six previous occasions:

- MOD 1 amended Conditions B14 and B15 to satisfy the regulatory requirements of the Contaminated Land Management Act 1997;
- MOD 2 approved the design, construction and operation of the Stadium Fitness Facilities;
- MOD 3 approved design refinements to the western mezzanine and introduced a new condition to facilitate approval of signage details within the approved signage zones;
- MOD 4 relocated the approved photovoltaic array from the SFS roof to the Level 5 plant room roofs and revised the approved sustainability strategy;
- MOD 5 updated plan references and dates in the Instrument of Consent; and
- MOD 6 approved the use and fit out of the eastern mezzanine for the Sydney Roosters Centre of Excellence.

### **Purpose of this Report**

A HIA was initially prepared in September 2021 to support the Precinct Village and Car Park modification. That HIA specifically addressed the Secretary's Environmental Assessment Requirements (SEARs) issued in respect of SSD 9835 and as relevant to the Precinct Village and Car Park project and was prepared to support a further modification to the SSD 9835 approval (MOD 7). It addressed any additional mitigation measures over and above those required under the existing SSD Consolidated Conditions of Approval.

The Department of Planning, Industry and Environment (DPIE) publicly exhibited MOD 7 between 28 October 2021 and 24 November 2021. A number of submissions were received from local councils, State agencies, organisations and the general public. A number of submissions provided feedback in relation to heritage and accordingly this HIA has been updated to respond to the matters raised and is herein referred to as the Addendum HIA. This Addendum HIA should be read in conjunction with the Response to Submissions Report (Ethos Urban, December 2021) and supporting appendices.

This Addendum HIA should also be read in conjunction with the following reports and documents, which formed part of the exhibited MOD 7:

- Planning Statement prepared by Ethos Urban (August, 2021);
- Architectural plans/elevations/sections and Architectural Design Statement, prepared by Cox Architecture (August, 2021);
- Design Integrity Assessment Report prepared by Cox Architecture (August, 2021);
- Landscape plans and Landscape Design Report prepared by Aspect (August, 2021);
- Transport Assessment prepared by JMT (August, 2021);
- Noise and Vibration Assessment prepared by Arup (August, 2021);
- Stormwater and Flooding Assessment prepared by Arup (August, 2021);
- Visual Impact Assessment prepared by Ethos Urban (August, 2021);
- Social/Economic Statement prepared by Ethos Urban (August, 2021);
- Sustainability Assessment prepared by LCI (August, 2021);
- Security Statement/CPTED prepared by Intelligent Risks (August, 2021);
- Contamination Assessment prepared by Douglas Partners (September 2021).



## Conclusions

This Addendum HIA has determined the following:

- No items of built heritage are located within the study area.
- No items of built heritage within 250m of the study area will be directly impacted by the proposal.
- Items of built heritage within 250m of the study area will be subject to minor temporary (visual) impacts and neutral permanent (visual) impacts as a result of the proposal.
- No impacts are intended to occur to the nearby spur of Busby's Bore, an item listed on the State Heritage Register (SHR 00568), Sydney Water s.170 Heritage Register as item 4571074 and on the Sydney LEP 2012 as item 2420164.

## Recommendations

- 1) As the precise location of the spur and shaft of Busby's Bore has not been confirmed to date, it is acknowledged that some impacts may occur during piling and excavation of the car park. The recommended process to facilitate location of the spur/shaft and avoidance is as follows:
  - a. implementation of a detailed investigative program of archaeological and historical work to establish the location and depth of the Busby's Bore spur and shaft as precisely as possible. The investigative program is to incorporate the existing work undertaken by John Holland and take a multidisciplinary approach. The results of the investigation are to be provided to DPIE, Heritage NSW and Sydney Water at the conclusion of this investigation.
  - b. Where it is found that impacts to the spur/shaft are likely, and redesign cannot be achieved to avoid impacts, an Archaeological Research Design and Methodology for uncovering the fabric of the item, recording and removal is to be provided to DPIE, Sydney Water and Heritage NSW for consultation
- 2) A Construction Heritage Management Plan (CHMP) must be prepared including
  - a. An updated Methodology Statement – Working Near Busby's Bore as prepared by Infrastructure NSW dated September 2018, specifically including the details of the proposed works in this development consent.<sup>1</sup>
  - b. This methodology statement must include specific measures adopted to avoid direct and vibrational impacts to the spur and shafts of Busby's Bore in this location, where possible.
  - c. The CHMP is to incorporate the recommendations of the Archaeological Research Design and Methodology in regard to archaeological management of Busby's Bore.
  - d. The CHMP must include unexpected finds protocols for management of heritage identified outside of archaeological supervision.

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<sup>1</sup> Infrastructure NSW 2018. SFS Response to Submissions. SSD 9249 Attachment 8 – Methodology Statement – Working Near Busby's Bore

- e. The CHMP must include heritage induction protocols to enable staff to identify heritage material and manage them in accordance with requirements of the NSW Heritage Act (1977)
- 3) The proponent must prepare a Construction Noise and Vibration Management Sub-Plan (CNVMP). The plan must address include details of management measures to protect the archaeological heritage items including Busby's Bore in accordance with the requirements of the Methodology Statement – Working Near Busby's Bore prepared by Infrastructure NSW dated September 2018.
- 4) The Heritage Interpretation Plan approved pursuant to Condition B46 of SSD 9835 is to be updated to include the Precinct Village and Car Park and satisfactorily mitigate any impacts to Busby's Bore. The updated Plan is to be informed by the Heritage Interpretation Strategy, and must include an approach for use of any salvage fabric of Busby's Bore and its spurs located within the Precinct Village and Car Park site in an interpretive display.

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## 1.0 INTRODUCTION

### 1.1 Introduction

On 6 December 2018, the then Minister for Planning approved a concept development application and concurrent early works package (SSD 9249) to facilitate redevelopment of the Sydney Football Stadium.

The concept approval established the maximum building envelope, design and operational parameters for a new stadium with up to 45,000 seats for patrons and allowing for 55,000 patrons in concert mode. The concurrent Stage 1 works, which were completed on 28 February 2020, facilitated the demolition of the former SFS and associated buildings.

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- MOD 5 updated plan references and dates in the Instrument of Consent; and
- MOD 6 approved the use and fit out of the eastern mezzanine for the Sydney Roosters Centre of Excellence.

## 1.2 The proposal

### 1.2.1 Vision

Venues NSW (VNSW) is proposing to introduce a village community space, event plaza and multi level car park to complement the SFS and adjoining Moore Park and Centennial Parklands. The proposed development will facilitate the permanent closure of the EP2 on-grass parking areas within Moore Park opposite the MP1 car park and enable its use for open space purposes consistent with the Moore Park Masterplan. This proposal will be approved under a further modification.

The vision for the Precinct Village and Car Park is set out below:

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*The Precinct Village and Car Park provides a platform and canvas for an exceptional community asset and iconic design, that visually and physically connects to the adjacent Moore Park East and Kippax Lake. It provides patrons with quality café and dining experiences in an idyllic parkland setting and well-being play and relaxation nodes which engage with all ages. An event plaza, connected to the Stadium plaza provides a seamless opportunity for greater patron and community engagement through non-event and event day functions (Architectural Design Statement, Cox August 2021).*

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### 1.2.2 Location

The Precinct Village and Car Park is proposed to be located on the land west of the SFS, currently approved under SSD 9835 as the MP1 Car Park. It will extend to Moore Park and Driver Avenue and will adjoin the existing UTS, Rugby Australia and NRL Central buildings, all of which are to be retained and do not form part of the project site. A Location Plan is provided at Figure 1, the study area of this report is shown in Figure 2.



## Site Description

The site is located at the corner of Moore Park Road and Driver Avenue, Moore Park, and is contained within the existing MP1 West and East car park.

In a broader context, the site is largely surrounded by Centennial and Moore Parks, the Fox Studios and Entertainment Quarter precincts and the residential suburb of Paddington. Located approximately 3km from the Sydney CBD and approximately 2km from Central Station, the site is connected to Sydney's transport network through existing bus routes and also benefits from a dedicated stop on the recently completed Sydney CBD and South East Light Rail.

### Legend

- Approved Site Boundary
- Proposed Stadium Fitness Facility
- Centennial / Moore Park
- Light Rail
- LGA Boundaries

0 250 500 750m



Figure 1: Study area location – Cox Architecture





Document Path: D:\GIS\GIS\_Mapping\21150 SFS HISIMXD1 August 2021\Study Area.mxd



## Study Area

21150 Sydney Football Stadium - Heritage Impact Statement

LGA: City of Sydney

SCALE 1:1,500  
SIZE A4  
DATE 2/08/2021

0 0.015 0.03 0.06 Kilometers



Figure 2: The study area

### 1.2.3 Development Description

The Precinct Village and Car Park has been designed to align with the conditions and commitment established within SSD 9835, particularly relating to delivering a LEED Gold rated sustainable precinct, and will include:

- Up to a maximum of 1,500 space multilevel carpark below ground level with the following access arrangements:
- 1 x egress point onto Moore Park Road to be used on event days only;
- 1 x two-lane access point from Driver Ave to be used on event and non-event days; and
- dedicated area within the car park for operation/servicing vehicles.
- Reconfiguration of the currently approved drop off requirements for the elderly and mobility impaired.
- Free flow level pedestrian access to and from the SFS concourse from Driver Ave and Moore Park Road.
- Electric car charging provision.
- A versatile and community public domain, comprising:
- provision for 4 x north-south orientated tennis courts on non-event days with the potential to become an event platform on event days;
- children's playground;
- 1,500m<sup>2</sup> cafe / retail / restaurants with associated amenities in a single storey pavilion (6 metre) low level;
- customer service office and ticket window; and
- vertical transport provisions.
- Utilities provision augmentation.

Figure 3 shows the proposed layout of the precinct, while Figure 4 and Figure 5 show elevations at Driver Avenue and Moore Park Road.





### Figure 3: Proposed layout



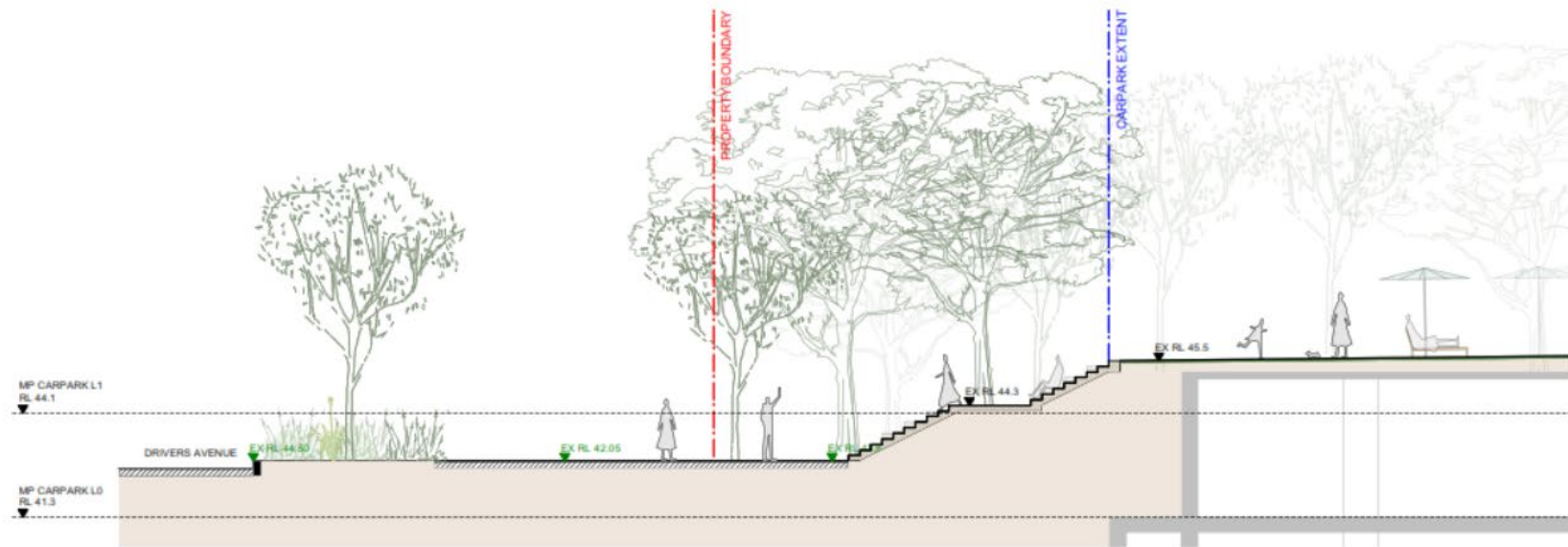


Figure 4: Cross section and elevation at Driver Ave, view north west

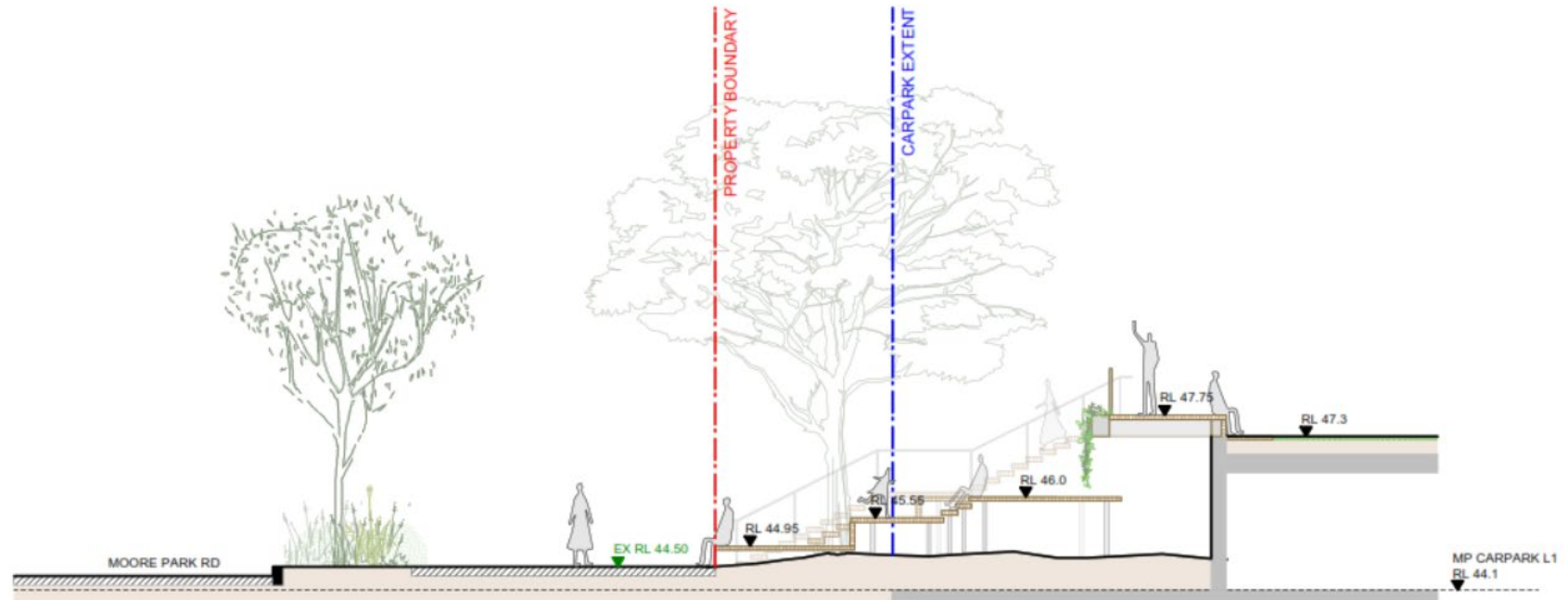


Figure 5: Cross Section and elevation at Moore Park Rd, view east

#### 1.2.4 Proposed Operation

During events, the Precinct Village is proposed to be accessible to the general public during the same operating hours as the SFS.

On non-event days, the use of the courts for tennis is proposed to be accessible during the same operating hours as the Stadium Fitness Facilities.

On non-event days, the cafe / retail / restaurants and customer service office and ticket window components of the Precinct Village operating hours are proposed to be:

- 7am and 10:30pm Monday to Saturday;
- 7am and 7pm on Sundays;

The Car Park will be automated, replicating the existing arrangements at the nearby Entertainment Quarter and will be accessible 24 hours a day, 7 days a week.

The public domain is proposed to be curated as a series of distinct, flexible and purpose specific settings for event day patrons and the general public. These inviting public places will offer rich, engaging and shared experiences. An indication of the activity types, frequencies and durations proposed within the public domain is provided in the Architectural Design Statement (Cox Architecture, August 2021) and Planning Statement (Ethos Urban, August 2021).

#### 1.2.5 Delivery

The Precinct Village and Car Park is proposed to be delivered in two stages:

- Stage 1, herein referred to as the East Car Park, consists of the area between the Rugby Australia and NRL Central buildings, immediately adjacent to the SFS concourse.
- Stage 2, herein referred to as the West Car Park, consists of the residual area immediately adjacent to the proposed East Car Park, bounded by Driver Ave and Moore Park Road.

The East Car Park is proposed to be delivered ahead of the opening of the SFS in 2022. The West Car Park is proposed to be delivered after the SFS opening, sometime in 2023.

### 1.3 Proposed Modifications

To facilitate the Precinct Village and Car Park, SSD 9249 and SSD 9835 are required to be modified. The proposed modification to SSD 9249 (concept development application) has been submitted under separate cover. SSD 9835 is proposed to be modified to facilitate construction, fit-out and operation of Precinct Village and Car Park as described above.

### 1.4 Purpose of this Report - SEARs

This Addendum HIA has been prepared to support the Precinct Village and Car Park modification. This report specifically addresses the following Secretary's Environmental Assessment Requirements (SEARs) issued in respect of SSD 9825 and as relevant to the Precinct Village and Car Park project as tabulated below and has been updated to also address feedback received during the public exhibition of MOD 7 by the DPIE.

**Table 1: SEARS for SSD-9835**

<b>Secretary's Environmental Assessment Report Section Requirements</b>	
Provide a heritage impact statement (HIS) addressing the extent of impact on the heritage significance of the heritage items/heritage conservation areas, landscape items and settings within the site and in the vicinity, in accordance with the guidelines in the NSW Heritage Manual. In particular, assess the impact of the proposal on the following heritage items:	
Busby's Bore including tunnels, shafts and wells (SHR No. 00568); existing trees within the site;	Section 6.3, Section 8.2
Sydney Cricket Ground Members Stand and Lady Members Stand (SHR No. 00353);	Section 5.3.2, Section 7
Centennial Park, Moore Park, Queens Park (SHR No. 01384);	Section 5.3.4, Section 7.7
Paddington South Conservation Area;	Section 5.3.5, Section 7
Moore Park Conservation Area; and	Section 4.2.6, Section 7.7
Sydney Cricket Ground Conservation Area	Section 5.3.7, Section 7.2
Address the proposal's compliance with policies or relevant Conservation Management Plans (if applicable) for the abovementioned sites / conservation areas along with relevant mitigation measures (where relevant) in the HIS	Section 7.7
Provide an archaeological assessment that identifies the locations and appropriate buffer zones of archaeological relics in or near the current project boundary area including Busby's Bore	Section 6, Section 8.2
Provide an archaeological research design and excavation methodology, prepared by a suitably qualified Excavation Director based on the archaeological assessment and impact analysis, to support the mitigation strategy.	Recommendations have been made in Section 8.2 that this must be undertaken prior to works



## Secretary's Environmental Assessment Report Section Requirements

Provide mitigation measures (recommended by a suitably qualified Structural Engineer) to avoid direct or indirect impact on significant archaeological relics	Recommendations have been made in Section 8.2 that this must be undertaken prior to works
Provide a draft Construction Heritage Management Plan that details measures to avoid impacts on surrounding heritage items. This should incorporate the recommendations of the Methodology Statement – Working Near Busby's Bore dated September 2018 (SSD 9249).	Recommendations have been made in Section 8.2 that this must be undertaken prior to works
Provide a Heritage Interpretation Plan such that the history and significance of the site is interpreted and incorporated as part of the detailed design of the site including the landscaping, public domain areas and new stadium itself.	Recommendations have been made in Section 8.2 that this must be undertaken prior to works
Consider the impacts of the proposed stadium design on the settings and view lines for the above-mentioned heritage items and include 10 appropriate management and / or mitigation measures to minimise adverse visual impacts	Not relevant
Relevant Policies and Guidelines: • Centennial Parklands Conservation Management Plan.	Section 7.7

This Addendum HIA is to be read in conjunction with the following reports and documents, which were exhibited as part of MOD 7 between 28 October 2021 and 24 November 2021:

- Planning Statement prepared by Ethos Urban (August, 2021);
- Architectural plans/elevations/sections and Architectural Design Statement, prepared by Cox Architecture (August, 2021);
- Design Integrity Assessment Report prepared by Cox Architecture (August, 2021);
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- Visual Impact Assessment prepared by Ethos Urban (August, 2021);
- Social/Economic Statement prepared by Ethos Urban (August, 2021);
- Heritage Impact Statement prepared by Artefact (August, 2021);
- Sustainability Assessment prepared by LCI (August, 2021);
- Security Statement/CPTED prepared by Intelligent Risks (August, 2021);
- Contamination Assessment prepared by TBC by VNSW (August, 2021);

- Aboricultural Assessment prepared by Tree IQ (August, 2021);
- Wind Assessment prepared by Arup (August, 2021);
- Infrastructure Services Strategy prepared by Arup (August, 2021);
- Geotechnical Assessment prepared by Arup (August, 2021);
- Public Domain Lighting Assessment prepared by Arup (August, 2021); and
- BCA and Accessibility Statement prepared by Before Compliance (August, 2021).

This Addendum HIA should also be read in conjunction with the Response to Submissions Report prepared by Ethos Urban (December, 2021) including all supporting appendices.

## 2.0 METHODOLOGY

This Addendum HIA has been prepared in accordance with the guidelines outlined by the NSW Heritage Office, now Heritage NSW, DPC, the Department of Urban Affairs & Planning, the Heritage Branch Department of Planning and Australia International Council on Monuments and Sites (ICOMOS), as identified in the following documents:

- NSW Heritage Office 2001. *NSW Heritage Manual: Assessing Heritage Significance*
- NSW Heritage Office 2002. *NSW Heritage Manual: Statements of Heritage Impact*
- NSW Heritage Branch, Department of Planning 2009. *Assessing Significance for Historical Archaeological Sites and 'Relics'*
- Australia ICOMOS 2013. *The Burra Charter. The Australian ICOMOS Charter for Places of Cultural Significance.*

### 2.1 NSW heritage significance assessment

Determining the significance of heritage items or a potential archaeological resource is undertaken by utilising a system of assessment centred on the *Burra Charter* of Australia ICOMOS.

The principles of the charter are relevant to the assessment, conservation and management of sites and relics. The assessment of heritage significance is outlined through legislation in the *NSW Heritage Act 1977* (Heritage Act) and implemented through the *NSW Heritage Manual*<sup>2</sup> and the *Archaeological Assessment Guidelines*.<sup>3</sup> The criteria specified by the guidelines encompass the four values identified in the *Burra Charter*, historical significance, aesthetic significance, scientific significance and social significance, and also consider representativeness and rarity values.

If an item meets one of the seven heritage criteria, and retains the integrity of its key attributes, it can be considered to have heritage significance. The significance of an item or potential archaeological site can then be assessed as being of local or state significance. If a potential archaeological resource does not reach the local or state significance threshold, then it is not classified under the Heritage Act.

'*State heritage significance*' in relation to a place, building, work, relic, moveable object or precinct, means significance to the State in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item.

'*Local heritage significance*' in relation to a place, building, work, relic, moveable object or precinct, means significance to an area in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item.<sup>4</sup>

The overall aim of assessing archaeological significance is to identify whether an archaeological resource, deposit, site or feature is of cultural value. The assessment will result in a succinct statement of heritage significance that summarises the values of the place, site, resource, deposit or feature. The heritage significance assessment criteria are described in Table 2 below.

<sup>2</sup> NSW Heritage Office 2001. *NSW Heritage Manual: Assessing Heritage Significance*.

<sup>3</sup> NSW Heritage Council 1996. "Archaeological Assessment Guidelines," in *NSW Heritage Manual*. New South Wales: Heritage Office.

<sup>4</sup> This section is an extract based on the NSW Heritage Branch, Department of Planning 2009. *Assessing Significance for Historical Archaeological Sites and Relics*, p. 6.

**Table 2: NSW heritage significance assessment criterion**

Criterion	Description
<b>A – Historical Significance</b>	An item is important in the course or pattern of the local area's cultural or natural history
<b>B – Associative Significance</b>	An item has strong or special associations with the life or works of a person, or group of persons, of importance in the local area's cultural or natural history
<b>C – Aesthetic Significance</b>	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area
<b>D – Social Significance</b>	An item has strong or special association with a particular community or cultural group in the local area for social, cultural or spiritual reasons
<b>E – Research Potential</b>	An item has potential to yield information that will contribute to an understanding of the local area's cultural or natural history
<b>F – Rarity</b>	An item possesses uncommon, rare or endangered aspects of the local area's cultural or natural history
<b>G – Representativeness</b>	An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places of cultural or natural environments (or the cultural or natural history of the local area)

## 2.2 Assessment of heritage impact

This Addendum HIA has been prepared using the document *Statement of Heritage Impact 2002*, contained within the *NSW Heritage Manual*, as a guideline.

Impacts on heritage significance are identified as either:

- Direct (physical) impacts, resulting in the demolition or alteration of fabric of heritage significance
- Indirect (visual) impacts, resulting in changes to the setting or curtilage of heritage items or places, historic streetscapes, views or vistas.
- Potential direct impacts, resulting in impacts from factors including, but not limited to, vibration, subsidence and demolition of adjoining structures

Specific terminology and corresponding definitions are used in this assessment to consistently identify the magnitude of the proposal's direct, indirect or potentially indirect impacts on heritage items or archaeological remains. The terminology and definitions are based on those contained in guidelines produced by ICOMOS and are shown in Table 3.<sup>5</sup> It is assumed that all direct and potential direct impacts are a result of construction. Indirect impacts are assumed to be operational unless specified as temporary in which case they are related to construction.

<sup>5</sup> Including the document *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties*, ICOMOS, January 2011.

**Table 3: Terminology for assessing the magnitude of heritage impact**

Magnitude	Definition
<b>Major</b>	<p>Actions that would have a long-term and substantial impact on the significance of a heritage item. Actions that would remove key historic building elements, key historic landscape features, or significant archaeological materials, thereby resulting in a change of historic character, or altering of a historical resource.</p> <p>These actions cannot be fully mitigated.</p>
<b>Moderate</b>	<p>Actions involving the modification of a heritage item, including altering the setting of a heritage item or landscape, partially removing archaeological resources, or the alteration of significant elements of fabric from historic structures.</p> <p>The impacts arising from such actions may be able to be partially mitigated.</p>
<b>Minor</b>	<p>Actions that would result in the slight alteration of heritage buildings, archaeological resources, or the setting of an historical item.</p> <p>The impacts arising from such actions can usually be mitigated.</p>
<b>Negligible</b>	<p>Actions that would result in very minor changes to heritage items.</p>
<b>Neutral</b>	<p>Actions that would have no heritage impact.</p>

## 2.3 Historical archaeological assessment

An archaeological assessment has been undertaken for this Addendum HIA. Historical archaeological potential is defined as the potential of a site to contain significant archaeological remains, including works or relics as identified in the Heritage Act. The assessment of historical archaeological potential is based on the identification of former land uses and evaluating whether subsequent actions (either natural or human) may have impacted on archaeological evidence for these former land uses. Knowledge of previous archaeological investigations, understanding of the types of archaeological remains likely to be associated with various land uses, and the results of site inspection are also taken into consideration when evaluating the potential of an area to contain archaeological remains.

The potential for the survival of archaeological remains in a particular place is significantly affected by activities which 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 likelihood for the survival of these remains (i.e. their archaeological potential) is distinct from the 'archaeological significance' and 'archaeological research potential of these remains', should any exist. These designations refer to the cultural value of potential archaeological remains and are the primary basis of the recommended management actions included in this document. For example, there may be 'low potential' for certain remains to survive, but if they do, they may be assessed as being of state significance.

The *NSW Heritage Manual* provides the framework used for the significance assessment of the potential archaeological remains within the construction footprint. These guidelines incorporate the aspects of cultural heritage value identified in the *Burra Charter*. The Heritage Council also issued the 1996 *Archaeological Assessment Guidelines*<sup>6</sup> and the Heritage Branch (now Heritage NSW, DPC) issued the 2009 *Assessing Significance for Historical Archaeological Sites and 'Relics'*.<sup>7</sup> The

<sup>6</sup> NSW Heritage Council 2009. "Archaeological Assessment Guidelines".

<sup>7</sup> NSW Heritage Branch, Department of Planning 2009. *Assessing Significance for Historical Archaeological Sites and 'Relics'*.

assessment of historical archaeological sites requires a specialised framework in order to consider the range of values of an archaeological site.

The grades of archaeological potential used in this report are outlined in Table 4 below.

**Table 4: Grades of archaeological potential**

Grading	Justification
<b>Nil</b>	No evidence of historical development or use, or where previous impacts such as deep basement structures would have removed all archaeological potential
<b>Low</b>	Research indicates little or low intensity historical development, or where there have been substantial previous impacts, disturbance and truncation in locations where some archaeological remains such as deep subsurface features may survive
<b>Moderate</b>	Analysis demonstrates known historical development and some previous impacts, but it is likely that archaeological remains survive with some localised truncation and disturbance
<b>High</b>	Evidence of multiple phases of historical development and structures with minimal or localised twentieth century development impacts, and it is likely the archaeological resource would be largely intact.

## 2.4 Limitations

This Addendum HIA provides an assessment of listed and potential unlisted non-Aboriginal heritage items and potential historical archaeological resources only. This Addendum HIA does not provide an assessment for Aboriginal heritage values, which is detailed in a separate technical paper for the project.

## 2.5 Authorship

This report has been prepared by Michael Lever (Heritage Consultant, Artefact Heritage). Sandra Wallace (Managing Director, Artefact Heritage) and Dr Iain Stuart (Principal, Artefact Heritage) provided management input and technical review.

The qualifications of the heritage consultants involved in the production of the report is included in Table 5 below.

**Table 5: Qualifications of report authors**

Name	Qualification	Experience	Role
Michael Lever	Bachelor of Arts (Hons) (Archaeology) PhD Candidate	11 years	Author
Iain Stuart	Bachelor of Arts (Hons) (Archaeology) M.Env.Sci. PhD (Archaeology)	Over 30 years	Technical Expert



Sandra Wallace	Bachelor of Arts (Hons) (Archaeology) PhD (Archaeology)	18 years	Reviewer
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## 3.0 LEGISLATIVE CONTEXT

### 3.1 Introduction

There are several items of local, State, National and Commonwealth legislation that are relevant to this Addendum HIA. A summary of these Acts and the potential legislative implications follow.

Heritage listed items within the project area and study area were identified through a search of the following relevant state and federal statutory and non-statutory heritage registers:

- World Heritage List (WHL)
- Commonwealth Heritage List (CHL)
- National Heritage List (NHL)
- State Heritage Register (SHR)
- Section 170 (s170) Heritage and Conservation Registers
- City of Sydney LEP 2012
- NSW State Heritage Inventory (SHI) Database
- Register of the National Estate (RNE)
- National Trust Register (NSW) [NTR].

Items listed on these registers have been assessed against the NSW heritage assessment guidelines. Statements of heritage significance, based on the NSW Heritage Assessment guidelines, as they appear in relevant heritage inventory sheets and documents, are provided in this assessment.

#### 3.1.1 Commonwealth legislation and policy

##### 3.1.2 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a legislative framework for the protection and management of matters of national environmental significance, that is, flora, fauna, ecological communities and heritage places of national and international importance. Heritage items are protected through their inscription on the WHL, NHL, or the CHL.

The EPBC Act stipulates that a person who has proposed an action that will or is likely to have; a significant impact on the relevant heritage values of a World, National or Commonwealth heritage site must refer the action to the Minister for the Environment (hereafter the Minister). The Minister would then determine if the action requires approval under the EPBC Act. If approval is required, an environmental assessment would need to be prepared. The Minister would approve or decline the action based on this assessment.

**There are no heritage items within the study area listed on the WHL or CHL.**

##### 3.1.2.1 National Heritage List

The 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 Agriculture, Water and the Environment for actions that are likely to have a significant impact on NHL properties.

**There are no heritage items within the study area listed on the NHL.**

## 3.2 State legislation and policy

### 3.2.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A) establishes the framework for cultural heritage values to be formally assessed in the land use planning and development consent process. The EP&A Act requires that environmental impacts are considered prior to land development; this includes impacts on cultural heritage items and places as well as archaeological sites and deposits. The project has been declared to be SSI and so approval from the Minister for Planning and Public Spaces is required under Part 5 Division 5.2 of the EP&A Act before the project can proceed. The proponent of the project must prepare an EIS in accordance with the SEARs issued by the Secretary of the Department of Planning, Industry and Environment. The EIS is then reviewed by the Department and once finalised, is placed on public exhibition. After the public exhibition has finished, the proponent will prepare a report for the Department responding to the submissions and, as part of the post-exhibition process, will have an opportunity to modify the project. The Department will then conclude its assessment and prepare a report to the Minister for determination of the proponent's request for approval.

Part 3 of the EP&A Act also requires that local governments prepare planning instruments (such as LEPs and Development Control Plans [DCPs]) in accordance with the EP&A Act to provide guidance on the level of environmental assessment required. The construction footprint falls within the boundaries of the city of Sydney LGA and is subject to the Sydney LEP. The study area includes one item listed on the South Sydney LEP 1998.

**There are three heritage items within the study area listed on the LEPs. These are:**

**Busby's Bore Centennial Park to College Street Sydney, ID 2420164 on the South Sydney LEP 1998**

**Busby's Bore ID 21198 on the Sydney LEP 2012 (two branches)**

**Sydney Cricket Ground Conservation Area ID C37 on the Sydney LEP 2012**

**Moore Park Conservation Area ID C36 on the Sydney LEP 2012**

#### 3.2.1.1 Development control plans

The Sydney (DCP) 2012 and South Sydney (DCP) 1997 are supporting documents that complement the provisions contained within the above mentioned LEPs, providing specific design detail in regard to sympathetic development on, or in the vicinity of, items listed within the LEPs.

### 3.2.2 NSW Heritage Act 1977

The NSW *Heritage Act 1977* (Heritage Act) is the primary piece of legislation affording protection to heritage items (natural and cultural) in NSW. Under the Heritage Act, 'items of environmental heritage' include places, buildings, works, relics, moveable objects and precincts identified as significant. Significance is based on historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic values. State significant items can be listed on the NSW SHR and are given automatic protection under the Heritage Act against any activities that may damage an item or affect

its heritage significance. The Heritage Act also protects ‘relics’, which can include archaeological material, features and deposits.

#### 3.2.2.1 State Heritage Register

The SHR was established under Section 22 of the Heritage Act and is a list of places and objects of particular importance to the people of NSW, including archaeological sites. The SHR is administered by Heritage NSW, DPC and includes a diverse range of over 1500 items, in both private and public ownership. To be listed, an item must be deemed to be of heritage significance for the whole of NSW.

To carry out activities within the curtilage of an item listed on the SHR, approval must be gained from the Heritage Council by securing a Section 60 permit. In some circumstances, under Section 57(2) of the Heritage Act, a Section 60 permit may not be required if works are undertaken in accordance with the NSW Heritage branch document *Standard Exemptions for Works Requiring Heritage Council Approval*<sup>8</sup> or in accordance with agency specific exemptions. This includes works that are only minor in nature.

**There is two items within the study area listed on the SHR. These are:**

**Centennial Park, Moore Park, Queens Park ID 01384**

**Busby's Bore including tunnels, shafts and wells ID 00568**

#### 3.2.2.2 Section 170 Heritage and Conservation Registers

Under the Heritage Act, all government agencies are required to identify, conserve and manage heritage items in their ownership or control. Section 170 of the Act requires all government agencies to maintain a Heritage and Conservation Register that lists all heritage assets and an assessment of the significance of each asset. They must also ensure that all items inscribed on its list are maintained with due diligence in accordance with State Owned Management Principles approved by the Government on advice of the NSW Heritage Council. These principles serve to protect and conserve the heritage significance of items and are based on NSW heritage legislation and guidelines.

**There is one item, two branches of which are located within the study area as listed on the Sydney Water s.170 Heritage Register. This is Busby's Bore ID 4571074. The listing for this item stipulates a 360° three (3) metre curtilage surrounding the Bore and its shafts.**

#### 3.2.2.3 Relics Provisions

The Heritage Act also provides protection for ‘relics’, which includes archaeological material or deposits. According to Section 139 (Division 9: Section 139, 140-146):

- (1) A person must not disturb or excavate any land knowingly or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, damaged or destroyed unless the disturbance is carried out in accordance with an excavation permit.
- (2) A person must not disturb or excavate any land on which the person has discovered or exposed a relic except in accordance with an excavation permit.
- (3) This section does not apply to a relic that is subject to an interim heritage order made by the Minister or a listing on the State Heritage Register.

<sup>8</sup> Heritage Council of New South Wales, 2009. *Standard Exemptions for Works Requiring Heritage Council Approval*.

- (4) The Heritage Council may by order published in the Gazette create exceptions to this section, either unconditionally or subject to conditions, in respect of any of the following:
- (a) Any relic of a specified kind or description
  - (b) Any disturbance or excavation of a specified kind or description
  - (c) Any disturbance or excavation of land in a specified location or having specified features or attributes,
  - (d) Any disturbance or excavation of land in respect of which an archaeological assessment approved by the Heritage Council indicates that there is little likelihood of there being any relics in the land.

Section 4(1) of the Heritage Act (as amended in 2009) defines a relic as:

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*...Any deposit, artefact, object or material evidence that: relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and is of State or local heritage significance.*

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A relic has been further defined as:

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*Relevant case law and the general principles of statutory interpretation strongly indicate that a 'relic' is properly regarded as an object or chattel. A relic can, in some circumstances, become part of the land be regarded as a fixture (a chattel that becomes permanently affixed to land).<sup>9</sup>*

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Excavation permits are issued by the Heritage Council of NSW, or its delegate, under Section 140 of the Heritage Act for relics outside SHR curtilages or under Section 60 for significant archaeology within SHR curtilages. An application for an excavation permit must be supported by an Archaeological Research Design (ARD) prepared in accordance with the NSW Heritage Division archaeological guidelines. Minor works that will have a minimal impact on archaeological relics may be granted an exception under Section 139 (4) or an exemption under Section 57 (2) of the Heritage Act.

#### **3.2.2.4 Works**

The Heritage Act defines 'works' as being in a separate category to archaeological 'relics'. 'Works' refer to remnants of historical structures which are not associated with artefactual material that may possess research value. 'Works' may be buried, and therefore archaeological in nature, however, exposure of a 'work' does not require approved archaeological excavation permits under the Act.

The following examples of remnant structures have been considered to be 'works' by the NSW Heritage Council:

- Former road surfaces or pavement and kerbing
- Evidence of former drainage infrastructure, where there are no historical artefacts in association with the item

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<sup>9</sup> NSW Heritage Branch, Department of Planning 2009. *Assessing Significance for Archaeological Sites and 'Relics'*, p. 7.

- Building footings associated with former infrastructure facilities, where there are no historical artefacts in association with the item
- Evidence of former rail track, sleepers or ballast
- Evidence of former rail platforms and former platform copings.

Where buried remnants of historical structures are located in association with historical artefacts in controlled stratigraphic contexts (such as intact historic glass, ceramic or bone artefacts), which have the potential to inform research questions regarding the history of a site, the above items may not be characterised as ‘works’ and may be considered to be ‘relics’. The classification of archaeological remains as a ‘work’ therefore is contingent on the predicted remains being associated with historical structures as well as there being no prediction of the recovery of intact artefactual deposits which may be of research interest.

### 3.3 Non-statutory heritage registers

In addition to the heritage registers established by State and Commonwealth legislation, there are a number of relevant non-statutory registers which should be considered. The following non-statutory registers were searched:

- Register of the National Estate (RNE)
- National Trust Register (NTR)

The RNE lists historic, Aboriginal and natural heritage places throughout Australia. Originally established under the *Australian Heritage Commission Act 1975*, the RNE entered more than 13,000 places into the register. The RNE was frozen on 19 February 2007 following amendments to the *Australian Heritage Council Act 2003*. It ceased to be a statutory register in February 2012. The RNE is now maintained on a non-statutory basis as an archive and education resource.

**There are two non-statutory heritage items within the study area listed on the RNE. These are:**

**Busby’s Bore ID 1795**

**Centennial Park ID 1757**

**There is one item within the study area listed on the NTR:**

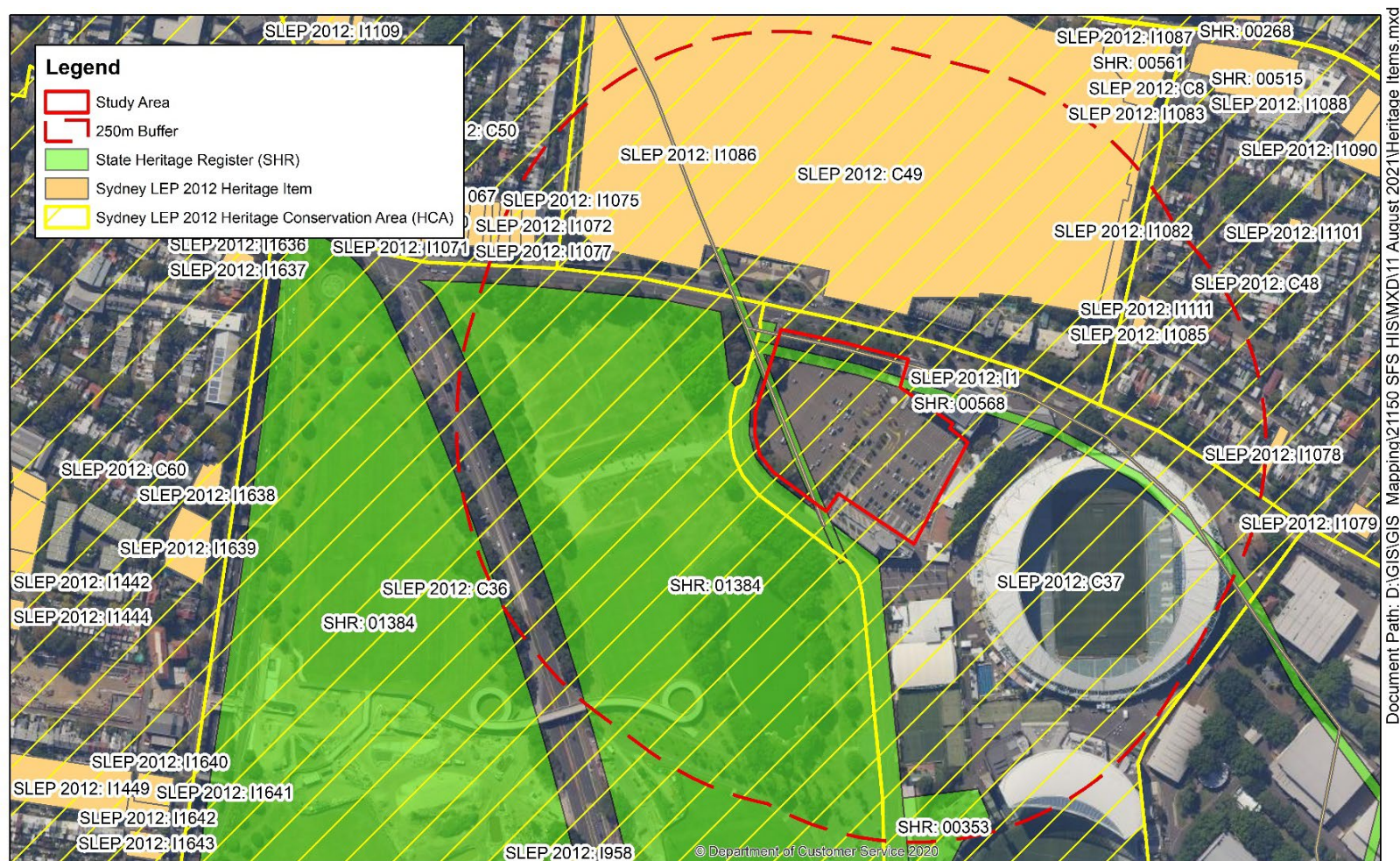
**Busby’s Bore**

### 3.4 Summary of heritage listings within or adjacent to the study area

The heritage items listed within or within 250m of the study area are shown below in Figure 6 and are listed in Table 6 following.



Figure 6: Listed heritage items within 250m of the study area



**Table 6: Summary of heritage listings within or adjacent to the study area**

Register	Item	Listing level	ID#
World Heritage List	Nil	Nil	Nil
Commonwealth Heritage List	Nil	Nil	Nil
Register National Estate	Busby's Bore	National – non Statutory	
South Sydney LEP 1998	Busby's Bore Centennial Park to College Street Sydney	Local	2420164
Sydney LEP 2012	Busby's Bore	Local	21198
Sydney LEP 2012	Sydney Cricket Ground Conservation Area	Local	C37
Sydney LEP 2012	Moore Park Conservation Area	Local	C36
State Heritage Register	Centennial Park, Moore Park, Queens Park	State	01384
State Heritage Register	Busby's Bore including tunnels, shafts and wells	State	00568
Sydney Water s.170 Heritage Register	Busby's Bore and curtilage	State	4571074
NTR	Busby's Bore	National - non statutory	

### 3.5 Summary of Heritage listings within 250m of the study area

**Table 7: Summary of heritage listings within 250m of the study area**

Register	Item	Listing level	ID#
World Heritage List	NIL	NIL	NIL
Commonwealth Heritage List	Victoria Barracks Precinct	National	105277
Sydney LEP 2012	Victoria Barracks Group	Local	I1086
Sydney LEP 2012	Victoria Barracks Conservation Area	Local	C49
Sydney LEP 2012	South Paddington Conservation Area – General	Local	C48
Sydney LEP 2012	Terrace House	Local	I1074

Register	Item	Listing level	ID#
Sydney LEP 2012	Terrace Group	Local	I1077
SHR	Sydney Cricket Ground - Members Stand and Lady Members Stand	State	00353
NTR	Busby's Bore	National - non statutory	
Register National Estate	Victoria Barracks Building VB1 & Parade Ground	National – non Statutory	N/A
Register National Estate	Victoria Barracks Building VB2 Guard House	National – non Statutory	N/A
Register National Estate	Victoria Barracks Buildings MQVB16 and VB56	National – non Statutory	N/A
Register National Estate	Victoria Barracks Buildings VB13,15,16 & 17	National – non Statutory	N/A
Register National Estate	Victoria Barracks Buildings VB41, 45 & 53	National – non Statutory	N/A
Register National Estate	Victoria Barracks Buildings VB60 and VB62	National – non Statutory	N/A
Register National Estate	Victoria Barracks Buildings VB69, 75 & 76 including Garden	National – non Statutory	N/A
Register National Estate	Victoria Barracks Buildings VB83, 84, 85, 87 & 89	National – non Statutory	N/A
Register National Estate	Victoria Barracks Buildings VB90, 91, 91A & 92	National – non Statutory	N/A
Register National Estate	Victoria Barracks Perimeter Wall and Gates	National – non Statutory	N/A
Register National Estate	Victoria Barracks Precinct	National – non Statutory	N/A



## 4.0 HISTORICAL BACKGROUND

This section provides an overview of the historical development of the study area.

### 4.1 Aboriginal occupation

Prior to the arrival of Europeans in 1788 and the subsequent appropriation of their land, Aboriginal people lived in small family or clan groups that were associated with particular territories or places with areas of land, known as 'estates' or 'country'<sup>10</sup>. On a daily basis Aboriginal people lived in small groups which were made up of nuclear families, often patrilineal, along with unmarried clan members.<sup>11</sup>

The Aboriginal population of the Sydney area had access to and utilised a wide range of natural resources including both terrestrial and marine flora and fauna. While Tench indicated that fishing was the 'chief part of a subsistence'<sup>12</sup> terrestrial animals such as kangaroos, possums and various birds were hunted on a regular basis. Aboriginal people within the Sydney area also manipulated the landscape through periodic burning of the undergrowth, this encouraged terrestrial animals to graze and facilitate hunting.<sup>13</sup>

Accounts of Governor Phillip and Phillip Gidley King identified the Gadigal people as the inhabitants of the area between South Head and Darling Harbour, with the Wangal people as the inhabitants of the area from Darling Harbour west to Rose Hill (Parramatta).<sup>14</sup> The Moore Park area is within the land of the Gadigal.<sup>15</sup>

The Gadigal people and other nearby tribes would have been amongst the first to experience the impacts of the arrival of the First Fleet at Sydney Cove, with the physical and social dislocation emergent from the European settlement. Smallpox epidemics also had a large impact on the local tribes with Bennelong estimating in 1790 that more than half of the Aboriginal population of Sydney had died during one outbreak in 1789.<sup>16</sup> European colonisation also had other impacts of the local Aboriginal populations with the loss of access to traditional lands and resources and the breakdown of traditional cultural practices.

### 4.2 Early land grants and use

In 1811 Governor Macquarie dedicated a 1000-acre parcel of land, containing the study area, for public recreational use. This area became known as the Sydney Common and was established in order to discourage people from grazing their animals in other public reserves such as Hyde Park.<sup>17</sup> The eastern portion of the Common was swampland which was declared as a freshwater reserve in the 1820s and now includes much of Centennial Park.

While the Common was established in the 1810s, transport and access to the Randwick area was minimal until Botany Road was laid out in the 1840s. In 1841 the Victoria Military Barracks were constructed in the northern part of the Common, located on modern Oxford Street. The Barracks were

<sup>10</sup> Aboriginal Heritage Office [AHO] 2015: 37; Attenbrow 2010: 22-30; Irish 2017: 17

<sup>11</sup> Irish, Paul 2017, Hidden in plain view: The Aboriginal people of coastal Sydney, New South, p17

<sup>12</sup> Tench, Watkin, 1788, A Narrative of the Expedition to Botany Bay, eBooks@Adelaide, p53

<sup>13</sup> CSELR, EIS, 2013, p118

<sup>14</sup> Attenbrow, Val, 2002 Sydney's Aboriginal Past: Investigating the archaeological and historical records, UNSW Press, Sydney, p24

<sup>15</sup> CSELR, EIS, 2013, p137

<sup>16</sup> Attenbrow, Val, 2002 Sydney's Aboriginal Past: Investigating the archaeological and historical records, UNSW Press, Sydney, p21

<sup>17</sup> Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 37.

constructed with local Sydney sandstone and originally housed British Troops. In the late 1800s the NSW colony became less reliant on the British Empire for military support and the colony became responsible for filling the barracks with Australian soldiers.<sup>18</sup>

Much of the Common has continued in its intended function as a public reserve, incorporating Centennial Park and the Moore Park area including the Sydney Cricket Ground and former Football Stadium.

### 4.3 Busby's Bore

Upon landing at Botany Bay in 1788 Captain Arthur Phillip proclaimed the area unsuitable for settlement on account of unreliable drinking water supply. Phillip moved the colony to Sydney Cove, where the Tank Stream provided a reliable source of freshwater, however it quickly became polluted by the colonial activities. The swampland in Sydney Common had been proclaimed a freshwater reserve by Governor Macquarie in the early 1820s and by 1826 John Busby, a Surveyor and Civil Engineer, had proposed that the swampland should be converted into a series of dams for drinking water.<sup>19</sup> The new dams would be connected to Hyde Park – located 3.6 kilometres from Centennial Park - by a convict-built gravity tunnel. It was originally intended that a reservoir of 65 million litres would be constructed in Hyde Park, however this plan was abandoned.

Construction commenced in September 1827 and the tunnel became known as Busby's Bore. The gravity fed tunnel was excavated through sandstone bedrock, with small sections laid with sandstone masonry.<sup>20</sup> The tunnel was primarily 1.5 metres in height and 1.2 metres wide and had a maximum depth of 24 metres below the ground surface in some locations.<sup>21</sup> The convict labourers excavated the tunnel with hand picks and shovels and worked in confined underground spaces which often filled with water and required draining.<sup>22</sup> Gunpowder was utilised to detonate areas of particularly dense bedrock.<sup>23</sup> Historical documentation suggests that Busby supervised from the ground surface and did not enter the tunnel, therefore remaining ignorant to the working conditions of the labourers and the durability of the bedrock.<sup>24</sup> The existing path of the bore tunnel deviates from Busby's official surveyed route, and this has been explained by the convict labourers taking the "path of least resistance."<sup>25</sup> Several abandoned tunnels remain throughout Sydney, including beneath the south western portion of the study area, where it appears the convict labourers abandoned their route upon encountering bedrock that could not be excavated with the available tools and methods at the time.

The works were completed in 1837 and the water was piped across Hyde Park to the corner of Elizabeth and Park Streets on a timber viaduct. Here (at the current location of Museum Station), the water from Centennial Park was collected and transported throughout Sydney via horse and cart. Upon the establishment of Sydney's first water pipe system in the 1840s, the pipes were connected to the Bore system and the fresh drinking water was distributed throughout the city automatically.<sup>26</sup> Along the route of the tunnel, 28 shafts have been located to date. Six of these shafts have been located near the study area, known as Shafts 9-13.<sup>27</sup> Recently a further shaft – Shaft 8 – was located in Moore Park Road.

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<sup>18</sup> *Op. Cit.*

<sup>19</sup> Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 39.

<sup>20</sup> *Op. Cit.*

<sup>21</sup> *Op. Cit.*

<sup>22</sup> *Op. Cit.*

<sup>23</sup> *Op. Cit.*

<sup>24</sup> *Op. Cit.*

<sup>25</sup> *Op. Cit.*

<sup>26</sup> *Op. Cit.*

<sup>27</sup> *Op. Cit.*



A plan dated 15 August 1833 shows the route of Busbys Bore at that time (construction continued for another four years).<sup>28</sup> The plan is unsigned; the surveyor is presumed to be Busby but it also could have been Assistant Surveyor Robert Hoddle who was preparing a similar plan for an extension to Busby's Bore at the same time.

In 1842, the responsibility for Sydney's water supply was transferred to the newly established Municipal Council of Sydney. Newspaper reports referred to various inspections and a "dam" at Lachlan Swamps, but with little specific detail.

Until 1859 Busby's Bore was the sole reliable fresh water source in Sydney, however the growth of the city required additional water supply options to be examined. This resulted in the implementation of the Botany Swamps Scheme in 1859 and the Upper Nepean Scheme in 1890.<sup>29</sup> The Botany Swamps Scheme was developed from the late 1850's to increase the supply of water to Sydney. The Botany Scheme utilised the swamps, wetlands and the aquifer that recharged them downstream from the Lachlan Swamps along Mill Pond Creek. The wetlands were to be dammed and the water directed downstream to a large dam and pumping station from which the water was pumped in iron pipes uphill to Sydney from where it would be reticulated from a reservoir in Crown Street.<sup>30</sup>

In 1854-55 John Warner, Superintendent of Water Works for the City of Sydney was instructed to survey and report on the condition of Busby's Bore. Warner's weekly reports were collated by his supervisor George Wilson, Inspector of Water Works and tabled in 1855 but not published until 1868. These inspections seem to have been in connection with the Lachlan Swamps Scheme.

With respect to the spur off Busby's Bore at Shaft 8 Warner wrote:

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*proceeding on I met another Shaft, at the length of 4 links: here is the off-shoot shown on the chart. This Shaft is immediately under the quarry at the rear of the Military Barrack, diameter, 6 feet, a stream of water pouring down it of two inches diameter, quite clear of the walls. From this Shaft the turning to the off-shoot (south) or to the Barrack (north) is sharp, in fact at right angles. I followed the off-shoot, 3½ chains, the water gradually deepened from 3 feet 2 inches at the Shaft, to 5 foot, 2 inches at the end of the 3½ chains. To proceed further was dangerous, and as I could meet only a dead end, perhaps useless.*

*In this off-shoot the height from floor to roof is seldom less than 10 feet, width at surface of water averages 4 feet.*<sup>31</sup>

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Warner appears to have been surveying the tunnel (i.e.: Busby's Bore) as his reports record chainages and dimensions. A plan and section were published in the report. This 1855 plan serves as the basis for other survey plans showing the location of Busby's Bore<sup>32</sup>.

As can be seen from Figure 7 below, the study area appears to intersect part of a mapped spur of Busby's Bore. The spur was either a line of the tunnel that hit unfavourable conditions for tunnelling (such as deep sand deposits) or was driven to tap extra water resources. The 1855 plan indicates

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<sup>28</sup> Plan showing the course of the tunnel for supplying water to Sydney, 1835, T.851 Item No [5780], State Records NSW.

<sup>29</sup> Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 40.

<sup>30</sup> Henry, F. J. J. *The Water Supply and Sewerage of Sydney*. Edited by Sewerage New South Wales. Metropolitan Water and Board Drainage. Sydney: Halstead Press, 1939, p47-50

<sup>31</sup> 'Report of a Survey (with Plan and Section) of the Water Tunnel (Known as Busby's Bore) between Lachlan Swamp and Sydney made by order of the City Commissioners, in December 1854 and January 1855'. Accessed 13 December 2021. <https://nla.gov.au/nla.obj-474739033>. This is often called the Wilson report.

<sup>32</sup> For example, the plan of the curtilage of Busbys Bore for the State Heritage Register is based on the 1855 plan.

that a further two shafts of Busby's Bore are located on the spur beneath the study area (Figure 9). The extent to which these shafts still exist and their precise alignment is not known.

For the most part Busby's Bore was driven through solid rock, however in some locations where deep sands were present, the Bore was constructed as an ashlar block trench, capped with masonry blocks. This is the case under Oxford Street Darlinghurst, between Riley and Liverpool Streets, approximately 1.2km north west of the study area. Construction of Busby's Bore in this manner is shown in **Error! Reference source not found..**

In the area of the vicinity of the study area – Shaft 8 and Shaft 12 – Warner reports solid masonry construction. This method of construction is supported by evidence from remote sensing inspection of Shaft 8 on the 9<sup>th</sup> November 2021 which shows a neatly constructed shaft and the crown of Busby's Bore (Figure 11).<sup>33</sup> This evidence is totally consistent with Warner's account. The depth from the road surface to the crown of Busby's Bore was 9.1m and the depth to the inside of the invert was 11.5m.

While Shaft 8 has been identified and what appears to be the entrance to the spur has been sighted, the investigations to date have not been able to accurately locate the spur beyond its junction with Shaft 8. It is proposed to further investigate the shaft using a underwater or floating drone to precisely locate the spur. Reports on this work will be provided to DPIE, HNSW and Sydney Water.

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<sup>33</sup> Draintech Solutions. Job 5687 Busby Bore 9.11.21. Report to Ussher Survey by Draintech Solutions (2021).

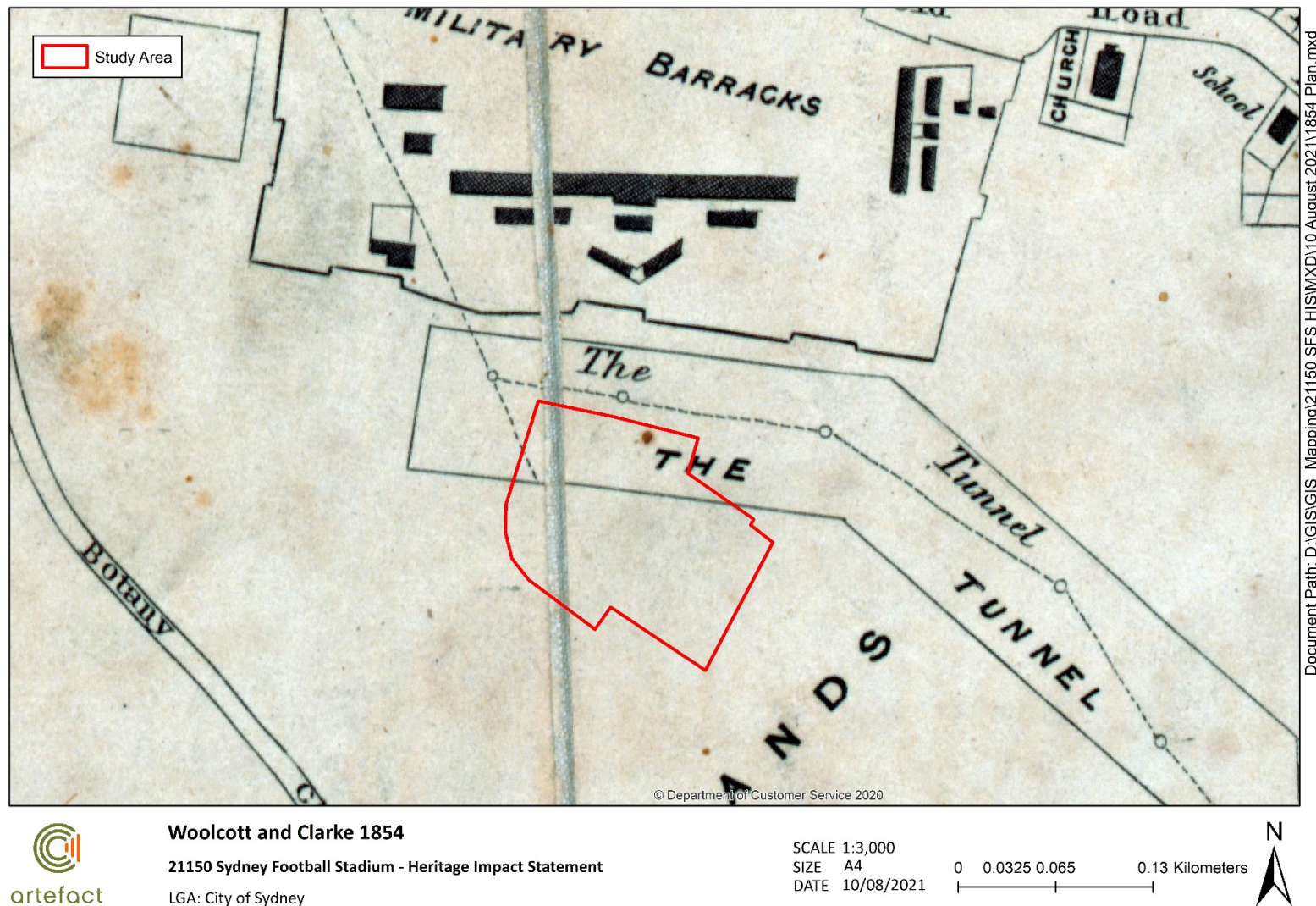


Figure 7: The study area mapped over 1854 historical mapping



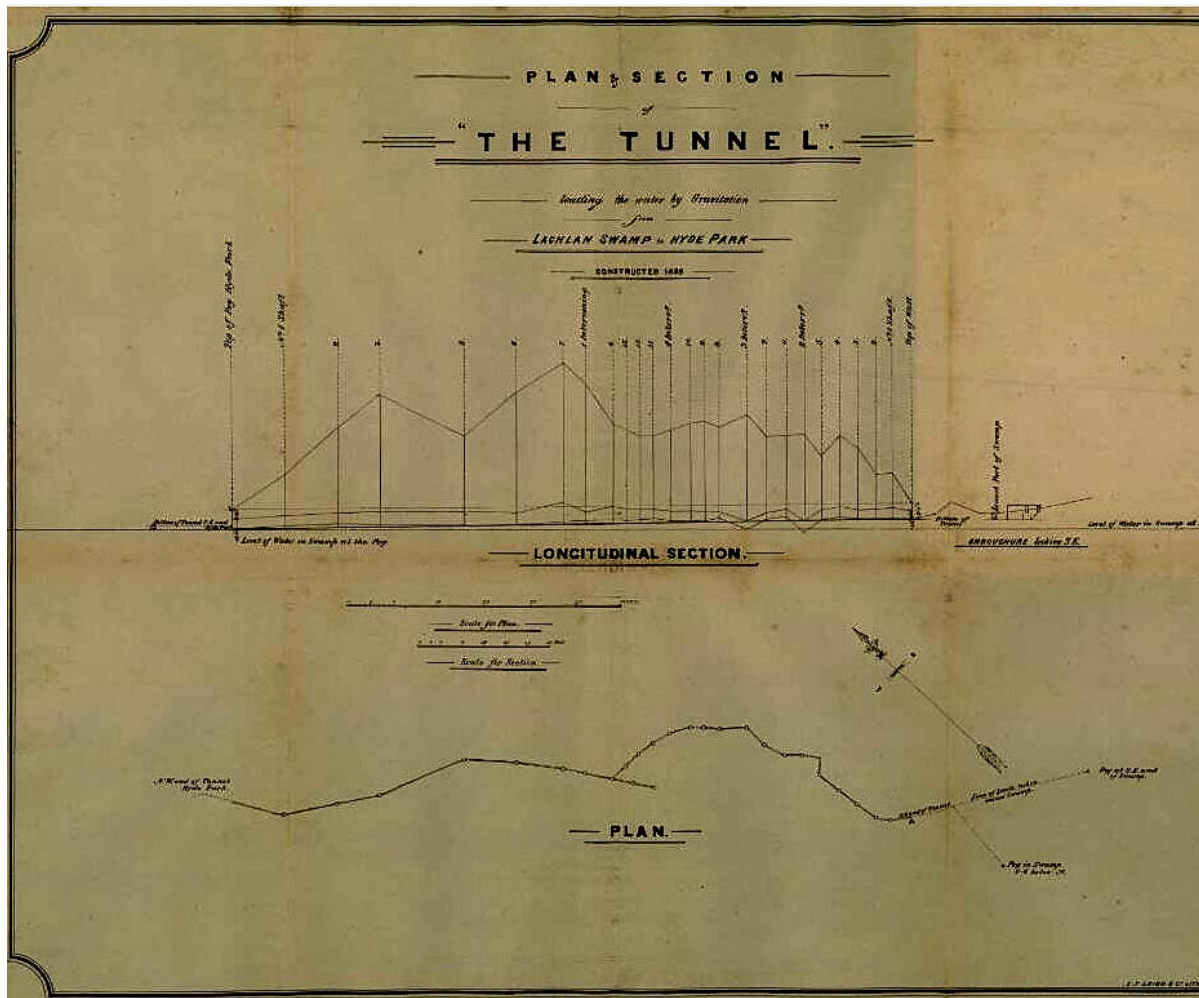


Figure 8 Plan and Section of Busby's Bore (from Warner 1855)

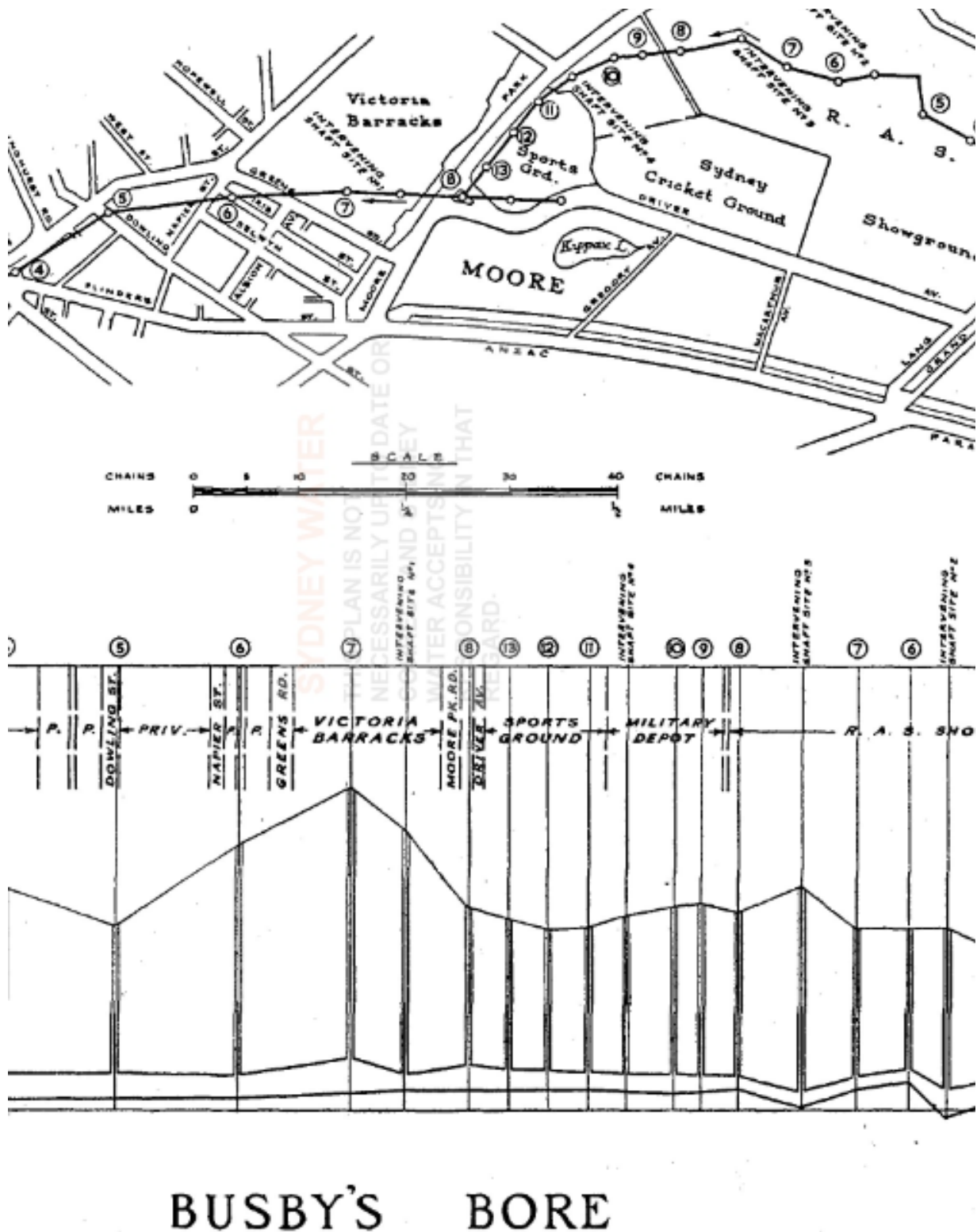


Figure 9: Busby's Bore local detail - Sydney Water plans



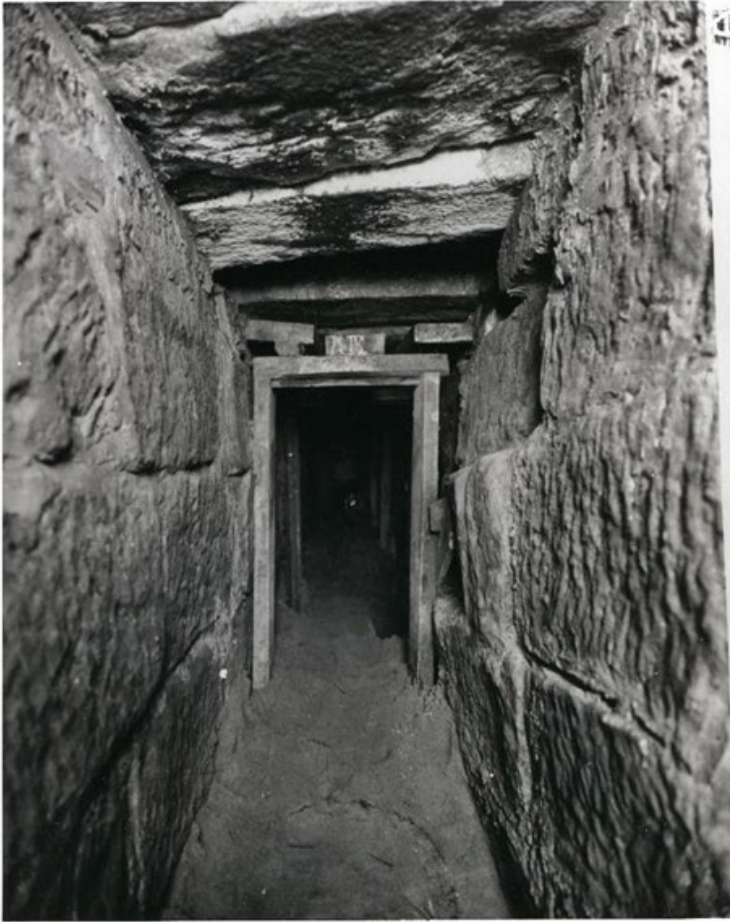


Figure 10 Construction of Busby's Bore under Oxford Street



Figure 11 View of the bottom of Shaft 8 at the junction with the overt of the Bore

#### 4.4 Victoria Barracks Rifle Range

The Victoria Barracks, located at the northern end of the Sydney Common, opened in 1841 and housed British soldiers. Additional land for a rifle range and recreational grounds for the soldiers was required and in 1849 more of the Sydney Common was incorporated into the Barracks Grounds. In 1852 another 25 acres were resumed for a military garden and cricket ground, in the location of the current Sydney Cricket ground.<sup>34</sup> Seven more acres were incorporated into the rifle range in 1862.<sup>35</sup>

In 1882 the Sydney Cricket Ground was established, and the rifle range was subsequently relocated to Maroubra, as it was deemed dangerous to have the range near public recreational land. The Victoria Barracks rifle range was officially closed in 1890.<sup>36</sup>



**Figure 12: Victoria Barracks rifle range at Moore Park** <sup>37</sup>

#### 4.5 Moore Park

The Sydney Common came under the jurisdiction of the Sydney Council in 1861 and Moore Park was established by 1866. This resulted in the dedication of 378 acres of the northwest portion of the Sydney Common as a recreational ground for the public. It incorporated the cricket ground and provided additional sporting facilities. The park was named Moore Park after the Mayor of Sydney at the time, Charles Moore. Throughout the late nineteenth and early twentieth centuries the Moore Park area grew as a recreational precinct, incorporating Centennial Park, the Sydney Cricket Ground upon its establishment in 1882, and hosting the Royal Easter Show within the Royal Agricultural Society site from 1881 until the late-1900s.

<sup>34</sup> Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 42.

<sup>35</sup> *Op. Cit.*

<sup>36</sup> *Op. Cit.*

<sup>37</sup> Centennial Parklands. 'Etching of Military Rifle Range.' *The Amazing History of Moore Park*.

## 4.6 The Sydney Sports Ground

By 1902 the Sydney Sports Ground had been developed, located in the former rifle range land. The land was originally dedicated as an athletic ground in 1899 upon the closure of the rifle range and was located in the area of the current Sydney Football Stadium carpark.<sup>38</sup> The development of the Sydney Sports Ground was to ensure that there were facilities for organised sports other than cricket.<sup>39</sup> Early development of the sports ground included the construction of fencing and the levelling of the site with introduced fill.<sup>40</sup> Landscaping for the new ground included the planting of six fig trees, fifty oak trees, fifty border plants and shrubs which were supplied by the Sydney Botanic Garden.<sup>41</sup> Two grandstands and amenities blocks were constructed (Figure 13) The ground had facilities for a variety of sports such as cricket, rugby, cycling, and other recreational uses including scout rallies, brass band contests, dog shows and dirt track racing. Rugby was the most successful sport at the ground and largely funded upgrades to the ground. Other sports, including cycling and dirt track riding were no longer held at the ground past the 1930s. The sports ground had a brief tenure as the main car racetrack or speedway in Australia, however this was closed in 1955.<sup>42</sup>

The extent of excavation associated with formation of the Sydney Football Stadium is evident from Figure 13 in which the second storeys of the grandstands are visible as level with or below the level of surrounding earth embankments.



**Figure 13: Sydney Football Stadium 1937<sup>43</sup>**

## 4.7 Historically mapped evidence of change in the study area

The study area and Moore Park in general have been subject to very significant levels of ground disturbance. Little historical mapping and very little topographic mapping of natural conditions in the study area is available. The following section therefore uses several 19<sup>th</sup>-century maps and images in which the study area is captured, to inform an understanding of historical natural ground levels within

<sup>38</sup> Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 50.

<sup>39</sup> Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 50.

<sup>40</sup> *Op. Cit.*

<sup>41</sup> *Op. Cit.*

<sup>42</sup> Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 52.

<sup>43</sup> [Sam Hood Image](#)



it. It could be safely assumed that the Victoria Barracks rifle range seen in Figure 12 above that occupied part of the study area prior to the Sydney Sports Ground, was a level expanse of terrain.

This is evidenced both from the representation of it in Figure 12 above, and also from the practical necessity to have a relatively flat surface over which to shoot. It is likely however that most of the study area was in general an undulating and dune like expanse of terrain that rose upwards to the Victoria Barracks. Support for this proposition can be deduced from several sources. The Victoria Barracks were strategically positioned at a high point in the local landscape. Although the landscape of the study area is mapped Figure 14 as concave, reflecting real ground levels of the Sydney Sports Ground, the surrounding preserved natural contour lines demonstrate a general trend upwards from the south to the north and towards Victoria Barracks. These contour lines indicate that the location of the Sydney Sports Ground previously sloped gradually over approximately 400 metres from a low point of 130 metres elevation in the south to a high point of 145 metres elevation in the north west.

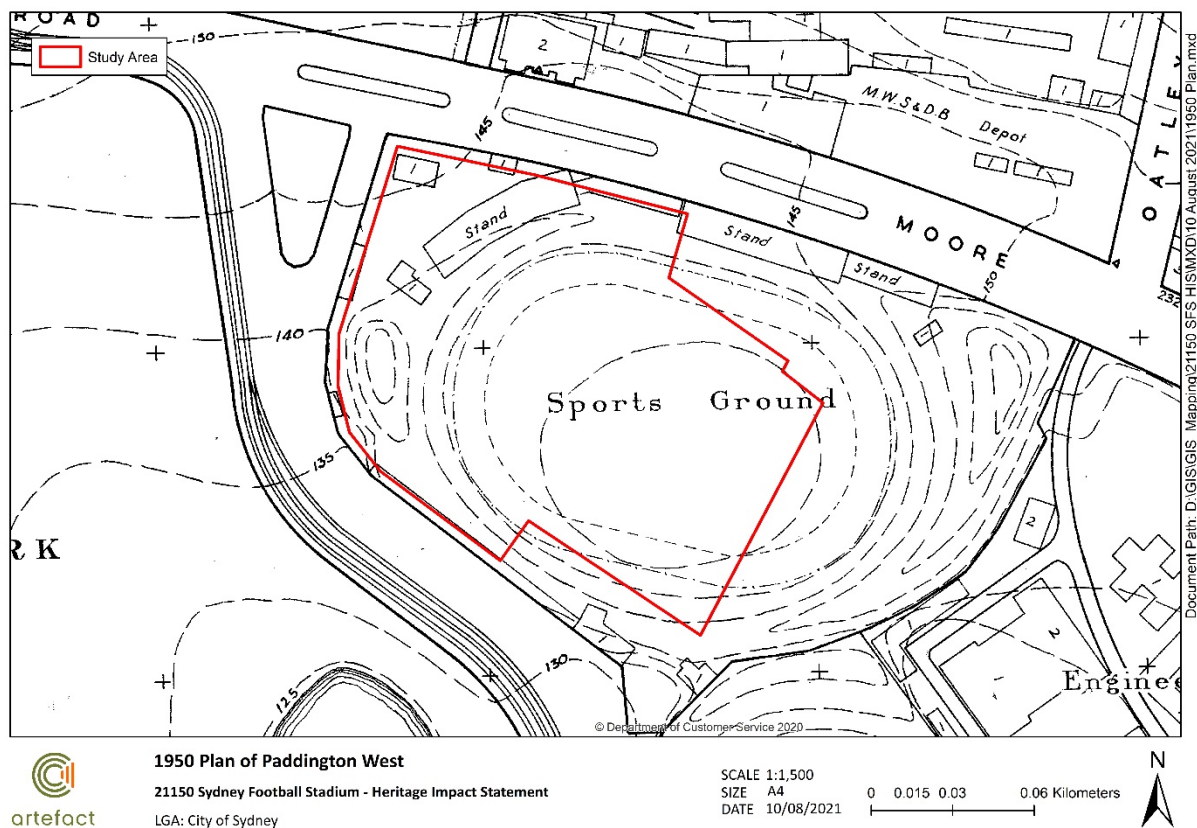


Figure 14: City of Sydney topographic map of Paddington West, 1950. NLA Trove

#### 4.8 Aerial photographic evidence of change in the study area

The purpose of this section is to document the nature of any potential changes to ground surface conditions and archaeological potential within the study area from the time that earliest aerial images are available (1930). These images have been obtained at regular intervals and as will be observed from them, there does not appear to have been older surviving built structure within the study area, nor is there a likelihood that more recent structures have been erected since the demolition of the Sydney Sports Ground. The images below demonstrate that from 1930 onwards, the Sydney Sports Ground comprised effectively identical infrastructure. Following the demolition of the Sydney Sports Ground the study area appears to have been immediately put to use as a parking facility.



**Figure 15: Study area 1930 - Sydney Sports Ground. NSW Historical Image Viewer**



**Figure 16: Study area 1943. NSW Historical Image Viewer**

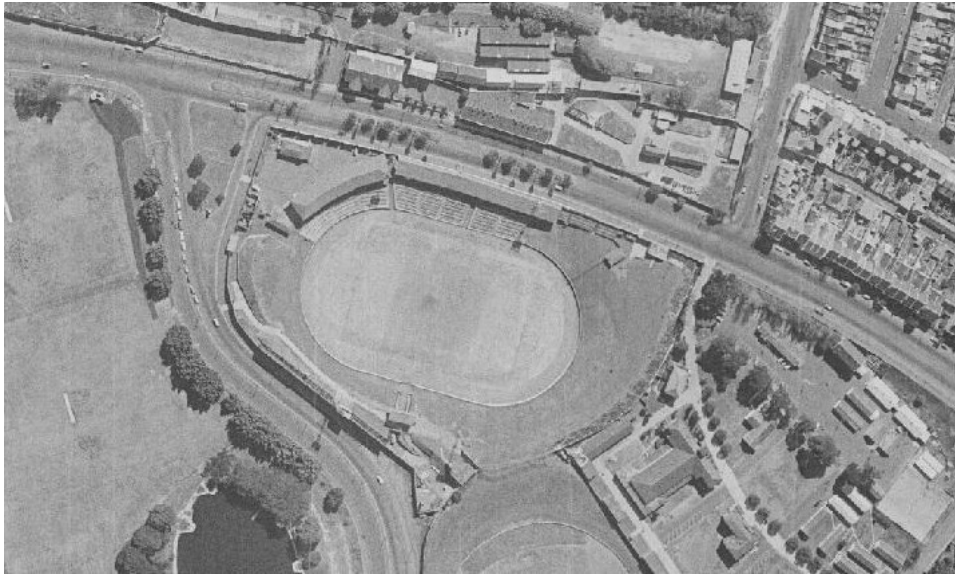


Figure 17: Study area 1951. NSW Historical Image Viewer



Figure 18: Study area 1961. NSW Historical Image Viewer





**Figure 19: Study area 1965. NSW Historical Image Viewer**



**Figure 20: Study area 1978. NSW Historical Image Viewer**



Figure 21: Study area 1986. NSW Historical Image Viewer



Figure 22: Study area 1998. NSW Historical Image Viewer

## 5.0 BUILT HERITAGE ASSESSMENT

### 5.1 Items within the study area

As outlined in Section 3.0, and Section 4.0 no heritage listed items have been definitively identified to date within the study area. Archaeological investigations are ongoing to determine the presence of the Busby's Bore spur, however to date, evidence is inconclusive. It is possible that the spur may lie under the proposed works area. The implications of this possibility are addressed in Section 6.0

### 5.2 Items within 250m of the study area

A number of built heritage items have been identified within 250m of the study area. Those items listed on statutory registers are assessed in Table 8 below. The Victoria Barracks Conservation Area, incorporating the Victoria Barracks Group has been assessed here as one item with assessment extracted from the Statement of Significance in the SHR listing for it.

### 5.3 Heritage significance assessment

Victoria Barracks is one of the best-known examples of military architecture in Australia. The Regency-style Victoria Barracks were designed by Lieutenant-Colonel George Barney, who also built Fort Denison and reconstructed Circular Quay. Most of barracks was constructed using locally quarried sandstone between 1841 and 1849. The barracks were occupied by British troops up until 1870 and then taken over by the New South Wales colonial forces. After the Federation in 1901, Victoria Barracks housed the various headquarters responsible for administering and co-ordinating the military. Between 1931 and 1936 the barracks was home to the Royal Military College of Australia and from July 1938 to July 1940 it also housed the Command and Staff School. Today, Victoria Barracks is home to the Headquarters of Forces Command. The Barracks are widely considered to be one of the best examples of a military barracks in the world. <sup>44</sup>

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<sup>44</sup> <https://www.armymuseumnsw.com.au/Page1.php>





**Figure 23: Victoria Barracks main building<sup>45</sup>**



**Figure 24: Victoria Barracks main gate<sup>46</sup>**

### 5.3.1 Heritage significance of the Victoria Barracks Conservation Area

**Table 8: Heritage significance of the Victoria Barracks Conservation Area**

<sup>45</sup> By Nick-D - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=10671894>

<sup>46</sup> By J Bar - Own work, CC BY 3.0, <https://commons.wikimedia.org/w/index.php?curid=2574552>

Criterion	Description	Discussion
Historical significance (Criterion A)	An item is important in the course or pattern of the local area's cultural or natural history	<p>The area is an exceptional example of a pre-1850 colonial barracks complex in Australia which is still used as a military base. It is a good and intact example of nineteenth century military barracks planning, evidencing nineteenth century attitudes to planning, defence, the role of military and the daily life and operations of the British military. It is the principal physical evidence in NSW of many of the phases of the state's military history in the nineteenth and twentieth century. It contains a substantial number of buildings, groups of buildings and other features and vegetation of high individual significance.</p> <p><b>Meets this criteria at a National and state level.</b></p>
Associative significance (Criterion B)	An item has strong or special associations with the life or works of a person, or group of persons, of importance in the local area's cultural or natural history	<b>Not identified</b>
Aesthetic significance (Criterion C)	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area	<p>It encompasses one of the most important groups of Edwardian military buildings in Australia. The area encompasses one of the best groups of colonial sandstone buildings in NSW and is a very fine example of colonial buildings in the Greek Revival style. The area provides a strong townscape link between high density development of nineteenth century Paddington and the open space of Moore Park. Along with Victoria Barracks, Melbourne, it is one of the most architecturally imposing nineteenth century military establishments in Australia.</p> <p><b>Meets this criteria at a state level.</b></p>
Social significance (Criterion D)	An item has strong or special association with a particular community or cultural group in the local area for social, cultural or spiritual reasons	<b>Not identified</b>
Technical / research significance (Criterion E)	An item has potential to yield information that will contribute to an understanding of the local area's cultural or natural history	<p>The area is a potentially valuable site for future archaeological investigation of past methods of constructions and ways of life, of key interest is the locations of the original buildings both extant and removed.</p> <p><b>Meets this criteria at a local level.</b></p>
Rarity (Criterion F)	An item possesses uncommon, rare or endangered aspects of the local area's cultural or natural history	<p>It survives as the only substantial military barracks complex built in Australia in the early Victorian period. With Anglesea Barracks, Hobart and Lancer Barracks, Parramatta, it is one of the few surviving sites evidencing the British military presence in Australia in the colonial period. The Barracks has the only surviving perimeter wall in NSW which was constructed as a defensive system around the barrack complex.</p> <p><b>Meets this criteria at a state level.</b></p>
Representativeness (Criterion G)	An item is important in demonstrating the principal characteristics	The complex is representative of nineteenth century British Military compounds.



Criterion	Description	Discussion
	of a class of NSW's cultural or natural places of cultural or natural environments (or the cultural or natural history of the local area)	<b>Meets this criteria at a state level.</b>
<b>Conclusion</b>	<b>The Victoria Barracks Conservation Area meets four criteria at a state level and one criteria at a local level and is listed on the Commonwealth Heritage List as of national significance</b>	

### 5.3.2 Heritage Significance of the Sydney Cricket Ground Members Stand and Lady Members Stand



Figure 25: The Sydney Cricket Ground Members Stand (OEH NSW)

Table 9: Heritage Significance of the Sydney Cricket Ground Members Stand and Lady Members Stand

Criterion	Description	Discussion
Historical significance (Criterion A)	An item is important in the course or pattern of the local area's cultural or natural history	<p>The establishment of the Sydney Cricket Ground dates from 1854 when matches were played there by members of the Military from Victoria Barracks. From 1876 all major cricket matches were played at these grounds. The earliest grandstands date from around the turn of the century when four grandstands were constructed. Of these, only the Members Stand and the Lady Members Stand survive.</p> <p>The Members Stand is a large two level grandstand built c1900 and designed by architect, J. Kirkpatrick. The stand incorporates an earlier three storey stuccoed brick club room at the rear (Heritage Branch Report, 1984).</p> <p><b>Meets this criterion at a state level.</b></p>

Criterion	Description	Discussion
Associative significance (Criterion B)	An item has strong or special associations with the life or works of a person, or group of persons, of importance in the local area's cultural or natural history	<b>Not identified</b>
Aesthetic significance (Criterion C)	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area	Like the Members Stand, the Lady Members Stand is an elegant two level grandstand constructed of cast iron and with an extensive three storey members' room at the rear (Heritage Branch Report, 1984). <b>Meets this criterion at a state level.</b>
Social significance (Criterion D)	An item has strong or special association with a particular community or cultural group in the local area for social, cultural or spiritual reasons	The Sydney Cricket Ground is the premier location for international cricket in NSW and has longstanding social significance for the large numbers of NSW citizens who follow this sport. <b>Meets this criterion at a state level</b>
Technical / research significance (Criterion E)	An item has potential to yield information that will contribute to an understanding of the local area's cultural or natural history	<b>Not identified</b>
Rarity (Criterion F)	An item possesses uncommon, rare or endangered aspects of the local area's cultural or natural history	<b>Not identified</b>
Representativeness (Criterion G)	An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places of cultural or natural environments (or the cultural or natural history of the local area)	The Sydney Cricket Ground Members Stand and Lady Members Stand represent ongoing utilisation of the local area as a recreation and sporting precinct. <b>Meets this criterion at a local level</b>
<b>Conclusion</b>	<b>The Sydney Cricket Ground Members Stand and Lady Members Stand meet three criteria at a state level and one criterion at a local level.</b>	

### 5.3.3 Heritage Significance of Terrace House I1074 (22 Moore Park Road, Paddington)

**Table 10: Heritage Significance of Terrace House I1074 (22 Moore Park Road, Paddington)**

Criterion	Description	Discussion
Historical significance (Criterion A)	An item is important in the course or pattern of the	The house was built c 1872 for Richard Seymour on part of the subdivision of the Sydney Common by Sydney Municipal Council that was sold from the 1860s onwards.

Criterion	Description	Discussion
	local area's cultural or natural history	<b>Meets this criterion at a local level</b>
Associative significance (Criterion B)	An item has strong or special associations with the life or works of a person, or group of persons, of importance in the local area's cultural or natural history	The house has some association with Charles Beal who was the team manager of the Australian cricket team on the tour in 1882 that lead to the legend of the Ashes. <b>Meets this criterion at a local level</b>
Aesthetic significance (Criterion C)	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area	The site contains a representative example of a mid-Victorian Italianate terrace that forms part of a group of similar period middle class terrace housing set in a prominent position along Moore Park Road overlooking Moore Park. <b>Meets this criterion at a local level</b>
Social significance (Criterion D)	An item has strong or special association with a particular community or cultural group in the local area for social, cultural or spiritual reasons	<b>Not identified</b>
Technical / research significance (Criterion E)	An item has potential to yield information that will contribute to an understanding of the local area's cultural or natural history	<b>Not identified</b>
Rarity (Criterion F)	An item possesses uncommon, rare or endangered aspects of the local area's cultural or natural history	<b>Not identified</b>
Representativeness (Criterion G)	An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places of cultural or natural environments (or the cultural or natural history of the local area)	A representative example of a mid-1870s Victorian Italianate terrace found in the inner suburbs of Sydney <b>Meets this criterion at a local level</b>
<b>Conclusion</b>	<b>Terrace House I1074 (22 Moore Park Road, Paddington) meets four criteria at a local level</b>	

### 5.3.4 Heritage Significance of Centennial Park, Moore Park, Queens Park (SHR No. 01384);

**Table 11: Heritage Significance of Centennial Park, Moore Park, Queens Park (SHR No. 01384)**

Criterion	Description	Discussion
Historical significance (Criterion A)	An item is important in the course or pattern of the	Centennial Park is historically significant as part of the site of the second Sydney Common and public open space proclaimed by Governor Lachlan Macquarie on 5th October

Criterion	Description	Discussion
	local area's cultural or natural history	1811. It is the site of Sydney's second and third water supply, Busby Bore and the Lachlan Water Reserve. It is the site of Sydney's first public suburban drive - the Grand Drive. It is the first designed suburban park, based on the English model of integrated suburban residential development and recreational open space. The Park provided the setting for the following prominent events: The Centenary Celebrations, 1888; The Annual Military Review; the Commonwealth Swearing-in Ceremony 1901; the American Fleet Review 1908; mourning for the death of King Edward 1910; Peace Celebrations and Thanksgiving Service 1918; Sesqui-Centenary Celebrations 1938; Federation Jubilee 1951; Federation Pavilion dedication 1988; Bi-Centenary Celebrations 1988. The most significant periods in the history of the park are: pre-European, natural environment pre-1788; Lachlan Water Reserve 1811-1887; Centennial Park 1888-1930, 1984-present [1990]. (Burton 1990). <b>This criterion is met at the state level.</b>
Associative significance (Criterion B)	An item has strong or special associations with the life or works of a person, or group of persons, of importance in the local area's cultural or natural history	Not rated
Aesthetic significance (Criterion C)	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area	Centennial Park is a designed environment that, after 100 years, still retains the unity and continuity of its designed elements. Aesthetically it combines contrasting landscape types with spatial diversity that, together with a surrounding built environment that complements the scale of the Park while providing minimal visual intrusion, works together to provide a harmony of scale. <b>This criterion is met at the state level.</b>
Social significance (Criterion D)	An item has strong or special association with a particular community or cultural group in the local area for social, cultural or spiritual reasons	Centennial Park, designed as a People's Park, has provided an important social venue for meetings of a range of community groups, commemorative events, sporting events, military venues, concerts and general public recreation. <b>This criterion is met at the state level.</b>
Technical / research significance (Criterion E)	An item has potential to yield information that will contribute to an understanding of the local area's cultural or natural history	Centennial Park has been the site of horticultural experimentation, particularly with grass species and native tree species. It has also been the site of conservation of indigenous bird species and is the location of indigenous plant species representative of the ecology of the Botany sands system. <b>This criterion is met at the state level</b>
Rarity (Criterion F)	An item possesses uncommon, rare or endangered aspects of the local area's cultural or natural history	Not rated
Representativeness (Criterion G)	An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places of cultural or natural	Not rated

Criterion	Description	Discussion
	environments (or the cultural or natural history of the local area)	
<b>Conclusion</b>	<b>The item meets four criteria at a state level</b>	

### 5.3.5 Heritage Significance of Paddington South Conservation Area

**Table 12: Heritage Significance of Paddington South Conservation Area**

Criterion	Description	Discussion
Historical significance (Criterion A)	An item is important in the course or pattern of the local area's cultural or natural history	<p>An early Colonial / Victorian Institutional, religious and residential development circa 1860-1880 on land subdivided from the Sydney Common.</p> <p>The area included an early grant to Charles Gordon for the establishment of a windmill in what is now known as Stewart Place.</p> <p>Meets this criterion at a local level.</p>
Associative significance (Criterion B)	An item has strong or special associations with the life or works of a person, or group of persons, of importance in the local area's cultural or natural history	<p>Fine middle class terrace housing set on prominent position over looking the former Common. The area possesses landmark buildings and streetscape qualities. The terraces display a high degree of coherence and continuity.</p> <p>Meets this criterion at a local level.</p>
Aesthetic significance (Criterion C)	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area	
Social significance (Criterion D)	An item has strong or special association with a particular community or cultural group in the local area for social, cultural or spiritual reasons	<p>Continued use and expansion of religious and institutional facilities to service the needs of the community providing a continued community and residential focus since the 1850s.</p> <p>Meets this criterion at a local level.</p>
Technical / research significance (Criterion E)	An item has potential to yield information that will contribute to an understanding of the local area's cultural or natural history	
Rarity (Criterion F)	An item possesses uncommon, rare or endangered aspects of the local area's cultural or natural history	<p>Unusually high concentration of institutional and religious development in the northern section of the area resulting from former dedication of land as Sydney Common.</p> <p>Part of the first Conservation Area in Australia.</p>



Criterion	Description	Discussion
Representativeness (Criterion G)	An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places of cultural or natural environments (or the cultural or natural history of the local area)	Representative of institutional and religious development in Australia. Representative of Victorian residential subdivision c 1850s.  Meets this criterion at a local level.
<b>Conclusion</b>	<b>The Paddington South Conservation Area meets four criteria at a local level</b>	

### 5.3.6 Heritage Significance of Moore Park Conservation area

The Moore Park Conservation area does not appear as a separate listing on the NSW State Heritage Inventory and little added data is to hand other than that it comprises the locally listed and western portion of the same area that is listed as a group under the SHR listing for Centennial Park, Moore Park, and Queens Park (SHR No. 01384);

### 5.3.7 Heritage Significance of Sydney Cricket Ground Conservation area

The Sydney Cricket Ground Conservation area does not appear as a separate listing on the NSW State Heritage Inventory and little added data is to hand other than that it includes the SHR listed (00353) Men's and Ladies Members stands.

### 5.3.8 Heritage Significance of Terrace Group I1077 (28-30 Moore Park Road, Paddington)

**Table 13: Heritage Significance of Terrace Group I1077 (28-30 Moore Park Road, Paddington)**

Criterion	Description	Discussion
Historical significance (Criterion A)	An item is important in the course or pattern of the local area's cultural or natural history	<b>Not identified</b>
Associative significance (Criterion B)	An item has strong or special associations with the life or works of a person, or group of persons, of importance in the local area's cultural or natural history	<b>Not identified</b>
Aesthetic significance (Criterion C)	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area	<b>Not identified</b>
Social significance (Criterion D)	An item has strong or special association with a particular community or cultural group in the local	<b>Not identified</b>

Criterion	Description	Discussion
	area for social, cultural or spiritual reasons	
Technical / research significance (Criterion E)	An item has potential to yield information that will contribute to an understanding of the local area's cultural or natural history	<b>Not identified</b>
Rarity (Criterion F)	An item possesses uncommon, rare or endangered aspects of the local area's cultural or natural history	<b>Not identified</b>
Representativeness (Criterion G)	An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places of cultural or natural environments (or the cultural or natural history of the local area)	A representative example of a mid 1870s Victorian Italianate terrace found in the inner suburbs of Sydney <b>Meets this criterion at a local level</b>
<b>Conclusion</b>	<b>Terrace Group I1077 (28-30 Moore Park Road, Paddington) meets one criteria at a local level</b>	

## 6.0 ARCHAEOLOGICAL ASSESSMENT

### 6.1 Introduction

The following section contains a preliminary assessment of archaeological potential within the study area. This assessment is based on an analysis of available historical plans, secondary sources and an understanding of previous impacts within the study area. The aim of this assessment is to identify portions of the study area with potential to contain significant archaeological resources which will require further management as part of the project.

Historical archaeological potential is defined here as the potential of a site to contain historical archaeological remains. The assessment of historical archaeological potential is based on the identification of former land uses and evaluating whether subsequent actions (either natural or human) may have impacted on archaeological evidence for these former land uses.

### 6.2 Summary of historical land use phases

As evidenced in Section 4.0 above, there are four overlapping phases of colonial land use associated with the study area:

1. 1811- The Sydney Common
2. 1827 – Busby's Bore
3. 1849-1890- Victoria Barracks Rifle range
4. 1899-1986 – Sydney Sports Ground

It seems probable that only Busby's Bore will have left significant and enduring archaeological remains in the study area. The potential significance of all four archaeological remains are assessed in the section below.

### 6.3 Assessment of archaeological significance for Busby's Bore

In 2009, the NSW Heritage Division of the Office of Environment and Heritage (now Heritage NSW, DPC) issued a new set of guidelines titled *Assessing Significance for Historical Archaeological Sites and 'Relics'*. These guidelines call for broader consideration of multiple values of archaeological sites beyond their research potential. Under the guidelines, the significance of a potential archaeological site can then be assessed as being of local or State significance. If a potential relic is not considered to reach the local or State significance threshold, then it is not a relic under the Heritage Act. The overall aim of assessing archaeological significance is to identify whether an archaeological resource, deposit, site or feature is of cultural value.

Table 14 provides a significance assessment for the significant archaeological remains that may be present within the study area. The potential archaeological remains have been assessed against the guidelines outlined in Table 2. This assessment has been derived from the Sydney Water S.170 register.<sup>47</sup>

<sup>47</sup> <https://www.sydneywater.com.au/SW/water-the-environment/what-we-re-doing/Heritage-search/heritage-detail/index.htm?heritageid=4571074&FromPage=searchresults> - accessed 28/07/2021

**Table 14: Assessment of archaeological significance for Busby's Bore**

Criterion	Description
A) Historical	Busby's Bore, is of exceptional significance as an important public work constructed between 1827 and 1837. It was Sydney's main water supply between 1837 and 1852. It shaped modern Sydney. Busby's Bore was an important factor leading to the establishment of the Sydney Corporation in 1842
B) Association	The Bore is associated with John Busby and Commissioner Bigge and symbolises their aspirations for Sydney, and themselves. Busby's Bore meets this criterion at the State level.
C) Aesthetic	The majority of Busby's Bore is located underground. There are, however, a number of wells/shafts tapped into the bore. The aesthetic significance of the Bore is also evident in the important surroundings where these wells and shafts meet the surface.
D) Social	Busby's Bore, as an important public work constructed between 1827 and 1837 and Sydney's main water supply between 1837 and 1852 is a physical remnant of many of the major processes which have shaped modern Sydney. Busby's Bore was an important factor leading to the establishment of the Sydney Corporation in 1842. It highlights the Colonial Government's lack of interest in managing the problems caused by Sydney's fast growing urban population. Busby's Bore meets this criterion at the State Level
E) Research	The Bore was seen as a major engineering achievement of its time. The Bore's fabric possesses research potential regarding its construction techniques, the technology and materials available in the colony at the time, convict working conditions, the history of its use through changes made to it over time and the success of government regulation of the water supply through evidence of illegal entries. The archaeological deposits surrounding the Bore may also provide evidence of its use and construction. Archaeological deposits within the curtilage of the Bore may possess research potential relating to; aboriginal occupation of the area, environmental changes since colonisation including the introduction of new species, grazing, drainage of swamps and development and the development of the Royal Agricultural Society's Showground.
F) Rarity	Busby's Bore is a unique engineering achievement, which played a crucial role in the development of urban Sydney. As a product of public works carried out by convict labour and as a major factor in the establishment of local administration in NSW (in the form of the Sydney Corporation). The intactness of this early 19th century, convict built water supply, makes it a rare survivor from this period within urban Sydney. As the main water supply to Sydney from 1837 to 1853 the Bore is a unique item
G) Representative	The Bore is representative of English rock mining techniques of the period and of rock mining in other parts of Australia. It is representative of public works carried out by convict labour and the 19th century engineering techniques.
Integrity	Is considerably intact apart from a section underneath Oxford Street filled with pipe and sand

## 6.4 Statement of archaeological significance

Any substantial occupation deposits associated with Phases 1 to 3 may be of State significance for historical and research values. Busby's Bore itself including shafts and evidence of workings are of State significance under almost all criteria. Archaeological remains associated with Phase 4 may be

significant at a local level. A summary of the archaeological significance of the potential archaeological remains is provided in Table 15 below.

## 6.5 Summary of archaeological potential and significance

**Table 15: Summary of archaeological potential and significance**

Phase	Potential archaeological remains	Significance	Potential
<b>Phase 1 (1811-) Sydney Common</b>	Remains of plantings, pathways, waterbodies	Low-Moderate - Local	Low
<b>Phase 2 (1827 -) Busby's Bore</b>	Rock-hewn tunnel, vertical access shafts, evidence of mining activity, tools	High - State	High
<b>Phase 3 (c1849-1890) Rifle Range</b>	Earthworks, open bunkers, target installations	Low-Moderate - Local	Low
<b>Phase 4 (1899 – 1986) Sports Ground</b>	Earthworks, grandstand remains, sub-surface access tunnels and storage areas	Low - Local	High



## 7.0 HERITAGE IMPACT ASSESSMENT

### 7.1 Proposal

Detailed construction and excavation plans are not yet to hand. It is understood that the proposal includes the construction of a three storey subsurface car park (Figure 23), and that this will entail bulk excavation of large quantities of soil from the study area. These activities have the potential to impact archaeological remains. Piling and shoring including sheet piling will be carried out to depths below the floor levels of the car park basement. Above this car park, a terraced recreation area - a Village Precinct is proposed (Figures 3, 4 5).

### 7.2 Archaeological Impacts

#### 7.2.1 General heritage impacts

The proposal includes the bulk excavation of an area that once comprised the Sydney Sports Ground. This facility was demolished in 1986 using modern methods of bulk soil excavation and fill, and protocols for the removal of materials including remains of the Sydney Sports Ground infrastructure such as grandstands and track remains. This report has assessed that there is therefore only a low likelihood that archaeological remains predating or dating from the Sydney Sports Ground will be present in the study area and that these remains would be of low to moderate local significance if encountered.

#### 7.2.2 Potential impacts to Busby's Bore

The construction plans provided by ARUP and shown below are current as of 6 August 2021. Figure 26 shows the proposal footprint relative to Busby's Bore, and the extrapolated location of Busby's Bore spur in this location. Mapping of the Busby's Bore spur by ARUP is derived from Dial Before You Dig (DBYD) data, which has the potential to be inexact. Enquiries by Artefact Heritage to Sydney Water regarding the location of Busby's Bore did not result in greater clarity than direction to DBYD plans. The projection of depth of the Busby's Bore spur below the proposed development is mapped in Figure 27 and has been derived by ARUP from Sydney Water plans, provided previously here as Figure 9. These plans indicate that the lowest level of the proposed car park in this location (L3) will have a constructed depth of RL 32300mm. It is assumed that excavation greater than this will be required to allow for introduction of concrete slab and reinforcing. Busby's Bore is projected in this location as having an upper height limit of RL 30000mm. The proposed impacts are therefore an estimated 2000mm from the estimated upper limit of Busby's Bore. The proposed development will therefore not directly impact the fabric of Busby's Bore. A curtilage of 3m applies to Busby's Bore.<sup>48</sup> The proposed impacts may intrude to this curtilage.<sup>49</sup>

Updated plans of the proposed construction relative to Busby's Bore have been provided, dated 13 August 2021 and these plans show an effectively identical level of overlap of footprint over Busby's Bore curtilage (Figure 28).

Investigations undertaken to date **have not** conclusively confirmed the presence of the Busby's Bore spur line which surveys indicate could traverse the Precinct Village and Car Park site. Investigations

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<sup>48</sup> Graham Brooks and Associates Pty Ltd. 2004. DRAFT Busby's Bore Conservation Management Plan. Sydney Water Heritage Study

<sup>49</sup> ARUP 20 August 2021. SSD 9835 Sydney Football Stadium Redevelopment Section 4.55 Modification. Precinct Village and Car Park (MOD7) Stormwater and Flooding Assessment. Report to Venues NSW

to date have included additional survey work by Usher & Company (engaged by John Holland Group) and dropping a camera into Shaft 8 to determine the presence of the spur. Usher & Company has confirmed that the actual location of the shafts fall within 1% accuracy as compared to the 1855 plan. At the time of preparing this Addendum HIA, John Holland Group and Usher & Company are continuing to ground truth the survey plan, sourcing a remote-control drone to go into the spur and survey the length and direction of the spur. Archaeological excavation to locate the Bore is not feasible given the expected depth of the spur being 10m within sandstone. Artefact recommends Venues NSW continue to use best endeavours to locate the spur, however, although it may be desirable to ground truth the location of the Busby's Bore spur there is no guarantee that methods to ground truth the location will be successful. Therefore, to request an absolute condition that the Bore be definitely located (as suggested by Heritage NSW) is imposing a condition that might be impossible to fulfill without deep excavation at time of construction.

Relying on the 1855 plan, given the high degree of accuracy, is deemed suitable.

In the interim, the avoidance of impact to the Busby's Bore spur is based upon the accuracy of the estimates of the relative levels of the base of construction and the crest of the spur tunnel. While ARUP can confirm the depth of the proposed excavation, the level and length of the spur in this location can only be estimated (based on the evidence available to date). The predicted separation of 2000mm is an adequate buffer, however it is an assumption at the time of writing and will remain so until such time as the spur is precisely located (if it indeed exists within the vicinity of the site).

Historical plans (**Error! Reference source not found.**, Figure 9) indicate that there may be either one or two shafts associated with Busby's Bore in the study area. Shafts still exist in the Fox Studios site and the Moore Park Showground and at the Victoria Barracks<sup>50 5152</sup>. Shaft 9 and Shaft 10 exist within the Sydney Football Stadium site (and have been protected)<sup>53</sup>. Shaft 8 has been located near the corner of Moore Park Road and Driver Avenue in November 2021<sup>54</sup>. There is a high likelihood that other shafts still exist although it is also highly likely that the ground surface around them has been built up over time<sup>55</sup>.

There is existing and established precedent regarding impacts to Busby's Bore shafts. For example, when Oxford Street was widened in 1909 to accommodate a double track tram line, the top of the shafts were relocated approximately 3m to the north east to the kerb of Oxford Street as it was then.<sup>56</sup> The new shafts descended and then accessed the original shafts via a short underground tunnel. This example demonstrates one way of avoiding impact to the shafts that could be considered for the Precinct Village and Car Park site should additional shafts be discovered during construction works

Artefact has been advised by Venues NSW that redesign of the car park basement structure is unlikely to be accommodated. If additional shafts and the spur are present within the Precinct Village and Car Park site, and redesign is not feasible, impact to the fabric and alignment of the shaft and spur is anticipated. It is likely that any such impacts would be moderate but would not affect the State significance of the item as a whole. Once more information is obtained on the precise location of the

<sup>50</sup> GML 1996. Busby's Bore Heritage Impact Statement Report to Fox Studios Australia and the NSW Heritage Office

<sup>51</sup> GML 1998. Busby's Bore Shaft 21 Heritage Impact Statement and Research Design Report for Fox Studios Australia, and the NSW Heritage Office

<sup>52</sup> GML 2001. Busby's Bore - Moore Park Showground. Archaeological excavation report. Report for Fox Studios Australia, Bovis Lend Lease, Centennial Park & Moore Park Trust and the NSW Heritage Office

<sup>53</sup> Curio Projects. Heritage Impact Statement + Archaeology Research Design and Excavation Methodology: Sydney Football Stadium, Redevelopment Stage 2 Ssda. Prepared by Curio Projects for Infrastructure NSW (2019).

<sup>54</sup> Over 50m away from the project area.

<sup>55</sup> A limited Ground Penetrating Radar survey undertaken in late November 2021 has failed to locate the shafts.

<sup>56</sup> Landpartners Limited. Report on Survey of Busby's Bore Whitlam Square To Taylor Square Oxford Street Darlinghurst. Report by LandPartners Limited to Sydney Water (2008)

spur and shafts, an updated impact assessment will be provided in the Archaeological Research Design and Methodology.



Figure 26: ARUP construction footprint and projected location of Busby's Bore & spur

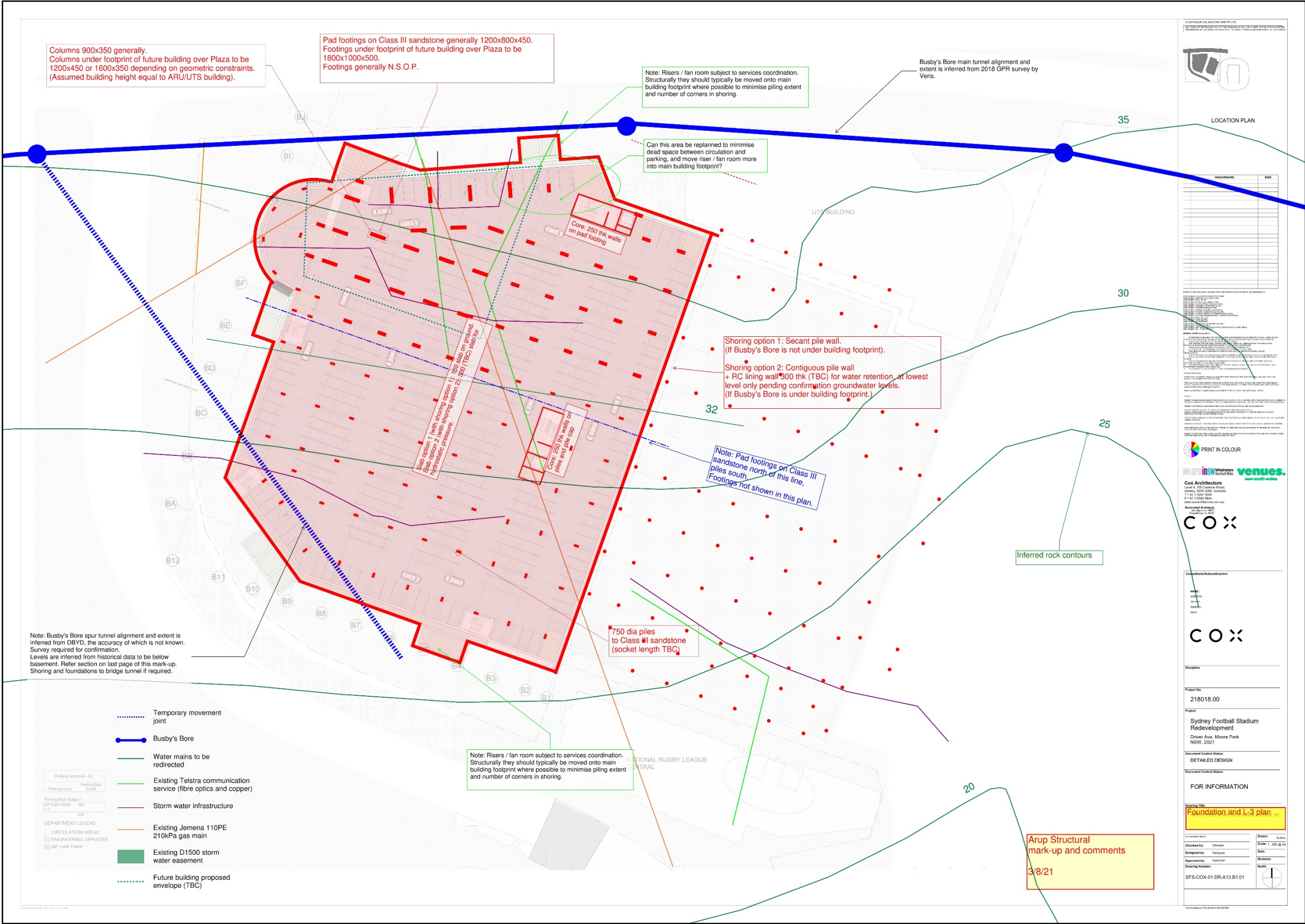




Figure 27: Arup projection of Busby's Bore levels (red) relative to maximum proposed development depth

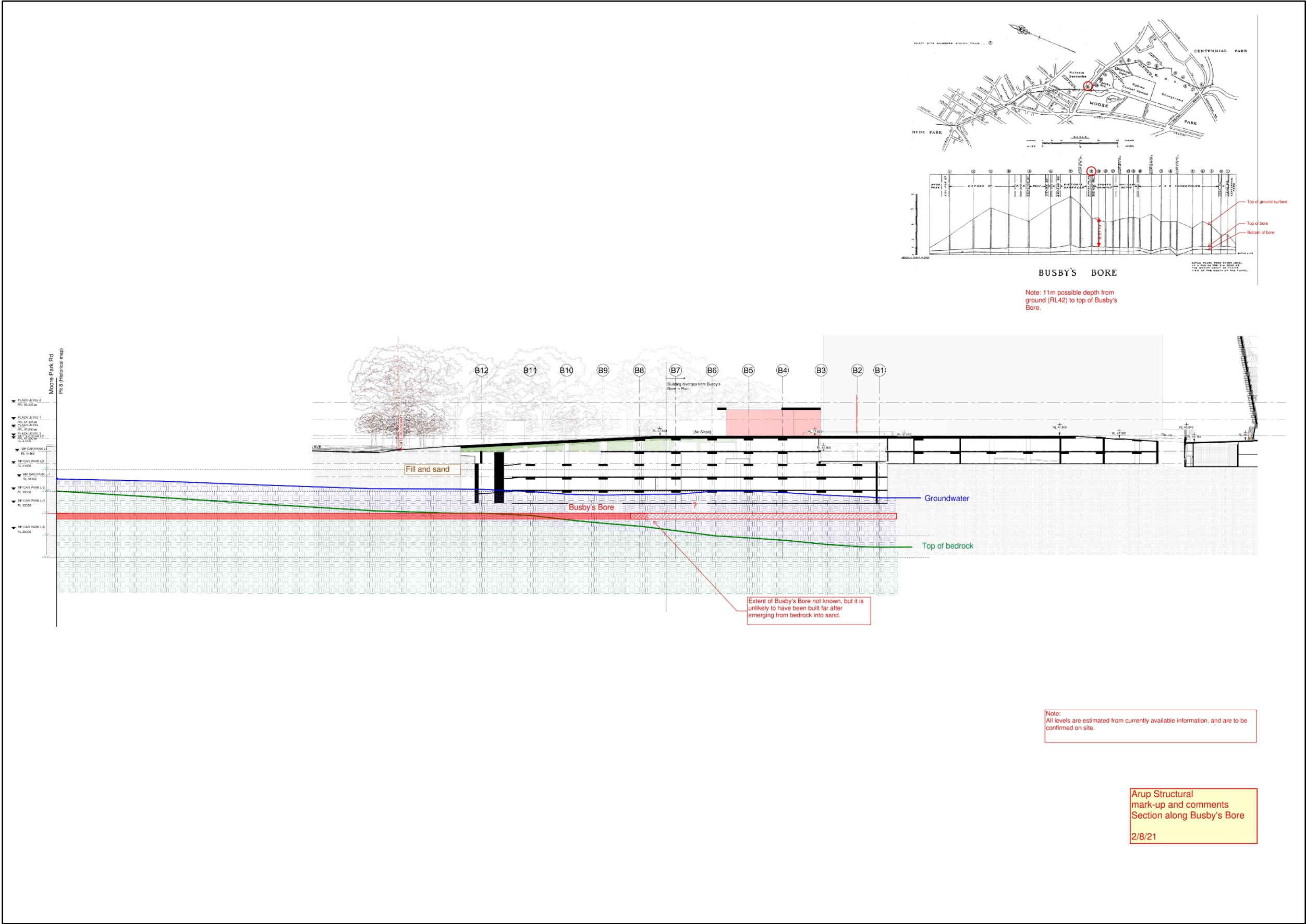
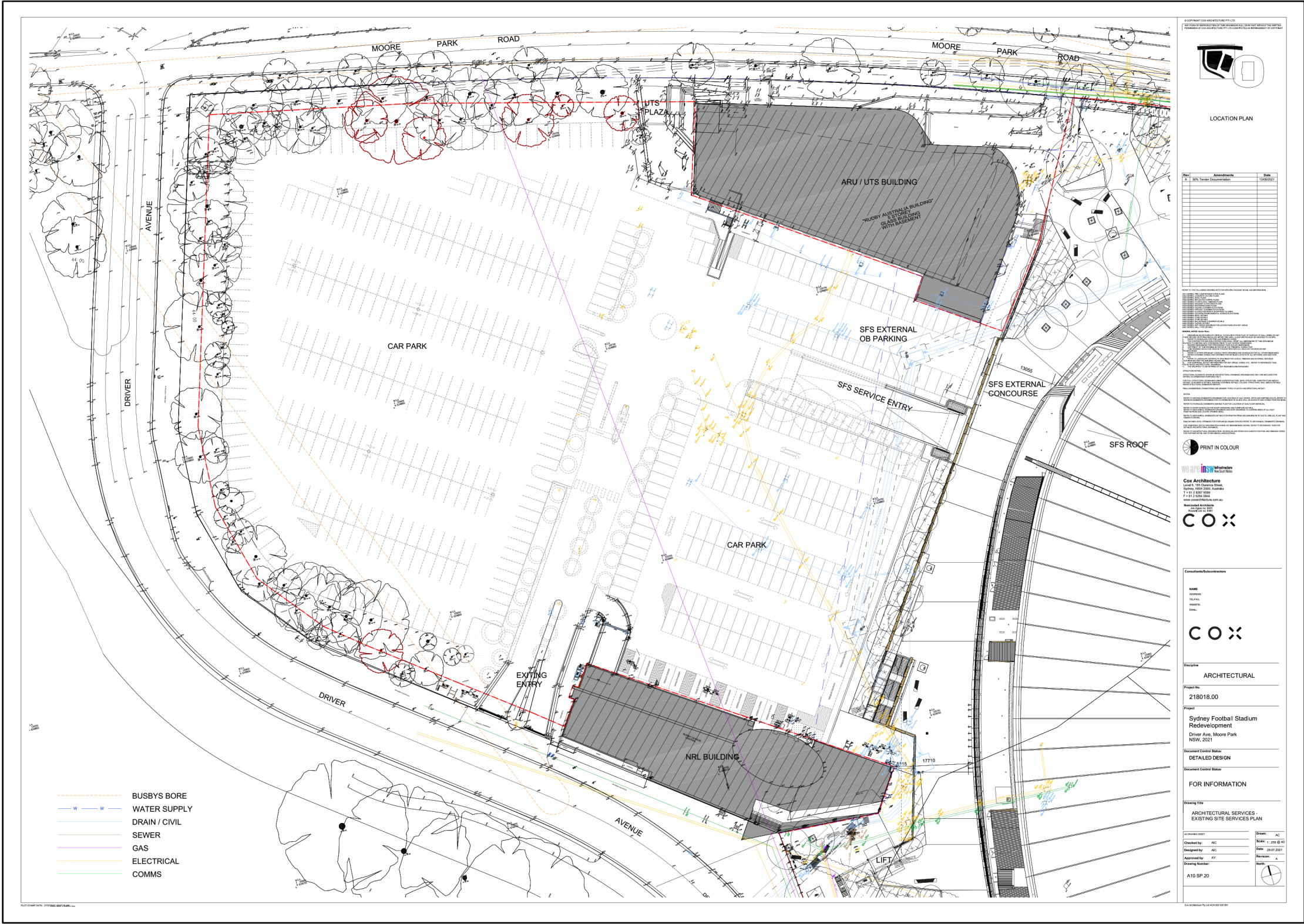


Figure 28: Planning dated 13 August 2021. Busby's Bore curtilage in orange



### 7.3 Built heritage

No items of built heritage currently stand within the footprint of the study area. A number of items of heritage significance currently stand within 250m of the study area. The potential impact to the heritage values of these items by the proposal is summarised in Table 16.



**Table 16: Summary of potential temporary impacts to listed heritage items within 250m of the proposal**

Item	Rating	Nature of Temporary impact	Degree of impact
Victoria Barracks Conservation Area	National & State	Indirect (visual)	Minor
Sydney Cricket Ground Members Stand and Lady Members Stand	State	Indirect (visual)	Minor
Terrace House I1074 (22 Moore Park Road, Paddington)	Local	Indirect (visual)	Minor
Terrace Group I1077 (28-30 Moore Park Road, Paddington)	Local	Indirect (visual)	Minor
Centennial Park, Moore Park, Queens Park & Moore Park Conservation Area	State & Local	Indirect (visual)	Minor
Sydney Cricket Ground Conservation Area	Local	Indirect (visual)	Minor
Paddington South Conservation Area	Local	Indirect (visual)	Minor
Moore Park Conservation Area	Local	Indirect (visual)	Minor
Sydney Cricket Ground Conservation Area	Local	Indirect (visual)	Minor

**Table 17: Summary of potential permanent impacts to listed heritage items within 250m of the proposal**

Item	Rating	Permanent impact	Degree of impact
Victoria Barracks Conservation Area	National & State	Indirect (visual)	Neutral – development is behind existing and new tree plantings
Sydney Cricket Ground Members Stand and Lady Members Stand	State	Indirect (visual)	Minor
Terrace House I1074 (22 Moore Park Road, Paddington)	Local	Indirect (visual)	Neutral – development is behind existing and new tree plantings

Item	Rating	Permanent impact	Degree of impact
Terrace Group I1077 (28-30 Moore Park Road, Paddington)	Local	Indirect (visual)	Neutral –development is behind existing and new tree plantings
Centennial Park, Moore Park, Queens Park & Moore Park Conservation Area	State & Local	Indirect (visual)	Positive - development is proposed to key Village area into surrounding parkland through terracing and planted areas
Sydney Cricket Ground Conservation Area	Local	Indirect (visual)	Minor
Paddington South Conservation Area	Local	Indirect (visual)	Minor
Moore Park Conservation Area	Local	Indirect (visual)	Minor
Sydney Cricket Ground Conservation Area	Local	Indirect (visual)	Minor



## 7.4 Statement of heritage impact - Built heritage

The statement of heritage impact summarised in Table 19 has been developed from the Heritage Division's (now Heritage NSW, DPC) guidelines for *Statements of Heritage Impact* (2002).

**Table 18: Statement of heritage impact for the proposal – built heritage**

Heritage consideration	Discussion
<b>What aspects of the proposal respect or enhance the heritage significance of the study area and nearby heritage items?</b>	No listed heritage items will be impacted by the proposal. The proposal will enhance the heritage significance of the study area through returning the study area to a location primarily utilised for public recreation. The proposal will further enhance the heritage significance of the study area through plantings and grassed areas that will reflect the historical natural ecology of the area. Heritage interpretation strategies will act to reference current development to the heritage of the study area.
<b>What aspects of the proposal could have a detrimental impact on the heritage significance of the study area and nearby heritage items?</b>	Temporary works including bulk excavation and movement of construction vehicles and plant will have a detrimental impact the heritage significance of the area.

## 7.5 Historical archaeological impact assessment

The proposed development will not impact a spur of Busby's Bore, an item listed on the Sydney Water s.170 Heritage Register as item 4571074 and on the Sydney LEP 2012 as item 2420164.

## 7.6 Statement of heritage impact

The statement of heritage impact summarised in Table 19 has been developed from the Heritage Division's (now Heritage NSW, DPC) guidelines for *Statements of Heritage Impact* (2002).

**Table 19: Statement of heritage impact for the proposal - archaeological values**

Heritage consideration	Discussion
<b>What aspects of the proposal respect or enhance the heritage significance of the study area and nearby heritage items?</b>	The proposal will enhance the heritage significance of the study area through returning the study area to a location primarily utilised for public recreation. The proposal will further enhance the heritage significance of the study area through plantings and grassed areas that will reflect the historical natural ecology of the area. Heritage interpretation strategies will act to reference current development to the heritage of the study area.
<b>What aspects of the proposal could</b>	Temporary works including bulk excavation and movement of construction vehicles and plant will have a detrimental impact on the heritage significance of the area.

Heritage consideration	Discussion
have a detrimental impact on the heritage significance of the study area and nearby heritage items?	
Is the proposal sited on any known, or potentially significant archaeological deposits? If so, have alternative positions for additions been considered?	<p>The proposal is potentially sited above a spur and shafts of Busby's Bore, an item listed on The State Heritage Register ID 00568, the Sydney Water s.170 Heritage Register as item 4571074 and on the Sydney LEP 2012 as item 2420164.</p> <p>It should be noted that the precise location and depth of the spur tunnel and shafts is not known at this time.</p> <p>Given the nature and design of the proposal it is not possible to relocate works from above Busby's Bore. Recommendations will be made to avoid direct and vibrational impacts by the proposal on Busby's Bore or its shafts or to manage impacts if they cannot be avoided</p>

## 7.7 The Centennial Parklands Conservation Management Plan

The Centennial Parklands Conservation Management Plan (CPCMP) <sup>57</sup> recognises Centennial Parklands as a location of particular heritage value and identifies a number of opportunities and constraints for conservation in keeping with the guidelines of the Burra Charter. Sections 4.2 to 4.5 of the CPCMP lists items, some of which are relevant to assessment of potential impact of the proposal on heritage values of the Centennial Parklands. These are listed below in Table 20.

**Table 20: Centennial Parklands Conservation Management Plan**

CPCMP Requirement	CPCMP Section	How affected by the proposal
Centennial Parklands is a place of exceptional heritage significance that should be conserved and managed in accordance with accepted conservation principles and practice;	4.2	The proposal will have minor temporary impact to the visual amenity of Centennial Parklands. This is offset by a positive contribution by the proposal in enhancing the vegetated nature of the Parklands through intensive use of plantings within the proposal.
The social significance of Centennial Parklands is linked to its past and present use as a place of public recreation. This use should be continued and facilitated within the physical constraints of the place;	4.2	The proposal compliments this value by providing greater facilities for recreation within the proposal and its surrounds.

<sup>57</sup> <https://www.centennialparklands.com.au/about-us/planning/conservation-management-plan> (undated)

CPCMP Requirement	CPCMP Section	How affected by the proposal
Decisions about works, maintenance, repairs or more extensive adaptation works are necessarily constrained by needing to take into account the impact on the significance of the place, both as a whole and on individual components	4.2	The proposal has been subject to significant planning oversight and has been designed to integrate with and seamlessly blend with the Parkland surrounds.
An opportunity exists for the removal or alteration to fabric and features having little significance so as to reveal the greater significance of the Parklands;	4.2	The proposal entails the removal of a hardstand car park that is not visually congruent with the Parklands, and replacement with facilities designed to integrate to and enhance recreational activities.
An opportunity exists to provide interpretation of areas with archaeological potential such the Busby's Bore and shafts and dams from former water reserve phases.	4.3	A Heritage Interpretation Strategy is underway to provide public engagement with these aspects of the local past.
Opportunity for encouragement of tree planting and restoration programmes in surrounding local government areas to extend fauna corridors and improve catchment quality within and around the Parklands and to reinstate the originally intended avenue links to the Parklands.	4.4	The proposal entails significant plantings of endemic species.
Maintain, protect, improve, encourage use and enjoyment of Trust lands.	4.5	The proposal represents a significant improvement to public amenity immediately adjacent to Parklands.
Maintain right of public use and appropriate use for public events	4.5	The proposal will return to public use for recreation, the large parcel of land previously in use as a hardstand car park.

## 8.0 CONCLUSIONS AND RECOMMENDATIONS

### 8.1 Conclusions

This Addendum HIA has determined the following:

- No items of built heritage are located within the study area.
- No items of built heritage within 250m of the study area will be directly impacted by the proposal.
- Items of built heritage within 250m of the study area will be subject to minor temporary (visual) impacts and neutral permanent (visual) impacts as a result of the proposal.
- No impacts are intended to occur to the nearby spur of Busby's Bore, an item listed on the State Heritage Register (SHR 00568), Sydney Water s.170 Heritage Register as item 4571074 and on the Sydney LEP 2012 as item 2420164.
- 

### 8.2 Recommendations

- 1) As the location of the spur and shaft of Busby's Bore has not been confirmed it is acknowledged that some impacts may occur during piling and excavation of the car park. The recommended process to facilitate location of the spur/shaft and avoidance if possible is:
  - a. Implementation of a detailed investigative program of archaeological and historical work to establish the location and depth of the Busby's Bore spur and shaft as precisely as possible. The investigative program is to incorporate the existing work undertaken by John Holland and take a multidisciplinary approach. The results of the investigation are to be provided to DPIE, Heritage NSW and Sydney Water at the conclusion of this investigation.
  - b. Where it is found that impacts to the spur/shaft are likely and redesign cannot be achieved to avoid impacts an Archaeological Research Design and Methodology for uncovering the fabric of the item, recording and removal would be provided to DPIE, Sydney Water and Heritage NSW for consultation
- 2) A Construction Heritage Management Plan (CHMP) must be prepared including
  - a. An updated Methodology Statement – Working Near Busby's Bore as prepared by Infrastructure NSW dated September 2018, specifically including the details of the proposed works in this development consent.<sup>58</sup>
  - b. This methodology statement must include specific measures adopted to avoid direct and vibrational impacts to the spur and shafts of Busby's Bore in this location where possible.
  - c. The CHMP would reflect the recommendations of the Archaeological Research Design and Methodology in regards to archaeological management of Busbys Bore.

<sup>58</sup> Infrastructure NSW 2018. SFS Response to Submissions. SSD 9249 Attachment 8 – Methodology Statement – Working Near Busby's Bore

- d. The CHMP must include unexpected finds protocols for management of heritage identified outside of archaeological supervision.
  - e. The CHMP must include heritage induction protocols to enable staff to identify heritage material and manage them in accordance with requirements of the NSW Heritage Act (1977)
- 3) The proponent must prepare a Construction Noise and Vibration Management Sub-Plan (CNVMP). The plan must address include details of management measures to protect the archaeological heritage items including Busby's Bore in accordance with the requirements of the Methodology Statement – Working Near Busby's Bore prepared by Infrastructure NSW dated September 2018.
- 4) A Heritage Interpretation Plan would be prepared to mitigate any impacts to Busby's Bore. The plan would be based on the projects Heritage Interpretation Strategy, but would include an approach for use of any salvage fabric of the bore in an interpretive display.



## 9.0 REFERENCES

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