Busby's Bore

The heritage significance of Busby's Bore has been discussed in detail above. Relics belonging to the bore may be of State significance.

The relics would require in situ retention.

Assessed heritage significance: State[70]

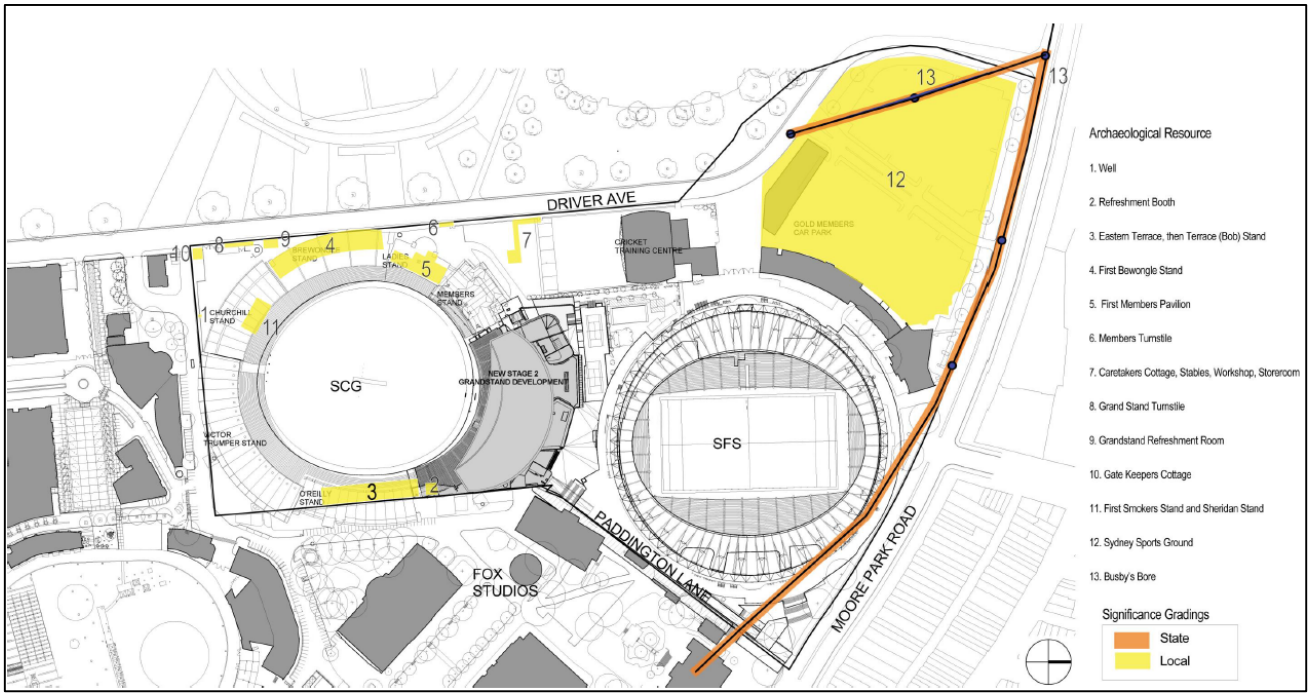


FIGURE 52: SIGNIFICANCE OF HISTORICAL ARCHAEOLOGICAL RESOURCE (SOURCE: GML 2013B: SCG DRAFT CMP, APPENDIX C, FIGURE 2.1)

8.2. Reassessment of Archaeological Significance

With respect to the current subject site, these questions are answered as follows.

Can the site contribute knowledge that no other resource/site can?

Busby's Bore is of State significance and information about its form and location within the SFS site would not be able to be recovered from any other source. While the Bore extends across other locations and sites, the Bore was constructed over a period of 10 years, and has been demonstrated to vary greatly in depth and form between locations along its path. Therefore, knowledge about Busby's Bore within the study area would not be able to be recovered from any other source.

Is this knowledge relevant to general questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?

An archaeological resource associated with Busby's Bore has the high potential to contribute detailed information regarding the construction of the Bore itself, and may also be able to provide information on the use of the Bore and changes over time. This information could relate in turn to wider research questions and themes such as convict working conditions (and the use of convict labour in general), information relating to early government regulation of the Sydney water supply, urban growth, public health, and 19th century engineering techniques.

[70] GML 2013b: Appendix C: 15

8.3. NSW Criteria for Assessing Archaeological Significance

The following criteria has been developed by the NSW Heritage Division to assist archaeologists to determine the significance of archaeological sites and relics.

Archaeological Research Potential (NSW Heritage Criterion E)

Archaeological research potential is the ability of archaeological evidence, through analysis and interpretation, to provide information about a site that could not be derived from any other source and which contributes to the archaeological significance of that site and its 'relics'.

The integrity of the site, the state of preservation of archaeological material and deposits will also be relevant.

- To which contexts (historical, archaeological and research-based) is it anticipated that the site will yield important information?
- Is the site likely to contain the mixed remains of several occupations and eras, or is it expected that the site has the remains of a single occupation or a short time-period?
- Is the site rare or representative in terms of the extent, nature, integrity and preservation of the deposits (if known)?
- Are there a large number of similar sites?
- Is this type of site already well-documented in the historical record?
- Has this site type already been previously investigated with results available?
- Is the excavation of this site likely to enhance or duplicate the data set?

Associations with Individuals, Events or Groups of Historical Importance (NSW Heritage Criterion A, B & D)

Archaeological remains may have particular associations with individuals, groups and events which may transform mundane places or objects into significant items through the association with important historical occurrences.

- Does the archaeological site link to any NSW Historic Themes? Will the site contain 'relics' and remains which may illustrate a significance pattern in State or local history?
- Is the site widely recognized?
- Does the site have symbolic value?
- Is there a community interest (past or present) which identified with, and values the specific site?
- Is the site likely to provide material expression of a particular event or cultural identity?
- Is the site associated with an important person? (the role of the person in State of local history must be demonstrated/known)
- What is the strength of association between the person and the site?
- Did the person live or work at the site? During the phase of their career for which they are most recognized? Is that likely to be evident in the archaeology/physical evidence of the site?
- Did a significant event or discovery take place at the site? Is that evident/or likely to be evidence in the archaeology/physical evidence of the site?

Aesthetic or Technical Significance (NSW Heritage Criterion C)

Whilst the technical value of archaeology is usually considered as 'research potential' aesthetic values are not usually considered to be relevant to archaeological sites. This is often because until a site has been excavated, its actual features and attributes may remain unknown. It is also because aesthetic is

often interpreted to mean attractive, as opposed to the broader sense of sensory perception or 'feeling' as expressed in the *Burra Charter*.

Nevertheless, archaeological excavations which reveal highly intact and legible remains in the form of aesthetically attractive artefacts, aged and worn fabric and remnant structures, may allow both professionals and the community to connect with the past through tangible physical evidence.

- Does the site/is the site likely to have aesthetic value?
- Does the site/is the site likely to embody distinctive characteristics?
- Does the site/is the site likely to embody a distinctive architectural or engineering style or pattern/layout?
- Does the site demonstrate a technology which is the first or last of its kind?
- Does the site demonstrate a range of, or change in, technology?

Ability to Demonstrate the Past through Archaeological Remains (NSW Heritage Criteria A, C, F & G)

Archaeological remains have an ability to demonstrate how a site was used, what processes occurred, how work was undertaken and the scale of an industrial practice or other historic occupation. They can demonstrate the principal characteristics of a place or process that may be rare or common.

A site may best demonstrate these aspects at the time of excavation. It may also be possible to explain the nature of the site and demonstrate past practices via public interpretation either before, during, or after excavation.

- Does the site contain well-preserved or rare examples of technologies or occupations which are typical of particular historic periods or eras of particular significance?
- Was it a long-term or short-term use?
- Does the site demonstrate a short period of occupation and therefore represents only a limited phase of the operations of a site or technology of a site? Or does the site reflect occupation over a long period?
- Does the site demonstrate continuity or change?
- Are the remains at the site highly intact, legible and readily able to be interpreted?

8.4. Archaeological Significance Assessment

The archaeological significance assessment presented here is in relation to each of the four phases of use of the study area, and has been assessed in accordance with the 'NSW Heritage Criteria for Assessing Significance related to Archaeological Sites and Relics'.[71]

8.4.1. Historical Archaeological Research Potential (Current NSW Heritage Criterion E)

Depending on extent of Australian Army records, particularly dating to the early period of the use of the Engineers Depot site, with regards to site layout and function, presence or absence of zig-zag anti-aircraft trenches and other infrastructure, the potential archaeological resource relating to the army depot use of the site *may* have historical archaeological research potential at a local level.

Any archaeological remains of the Sydney Sports Ground, should the remain within the subject site, are unlikely to contribute to the archaeological record, as the layout and function of the SSG is relatively well documented through a number of sources including maps, plans, images and descriptions.

[71] NSW Heritage Branch 2009, *Assessing Significance for Historical Archaeological Sites and 'Relics'*: p.11

Therefore, any subsurface evidence associated with the SSG is considered to not meet the criteria as a 'relic' of local or State significance in accordance with the NSW Heritage Act.

Busby's Bore has high potential to contribute detailed information regarding the construction of the Bore itself, and may also be able to provide information on the use of the Bore and changes over time. This information could relate in turn to wider research questions and themes such as convict life and working conditions (and the use of convict labour in general), information relating to early government regulation of the Sydney water supply, urban growth, public health, and 19th century engineering techniques. Archaeological deposits associated with the Bore possess research potential relating to substantive historical and scientific questions relating to 19th century work and technology, as well as to changes in the early Sydney environment. Therefore, Busby's Bore has archaeological research potential at a State level.

8.4.2. Associations with Individuals, Events or Groups of Historical Importance (NSW Heritage Criterion A, B & D)

Depending on extent of Australian Army records, particularly dating to the early period of the use of the Engineers Depot site, with regards to the use of the site in the lead up to and during WW2, the potential archaeological resource relating to the army depot use of the site *may* have associative significance at a local level.

While the Sydney Sports Ground is representative of the ongoing use of the subject site as a public recreation and sporting ground, extending back from its designation as Sydney Common, to use as the army rifle range, to Sydney Sports Ground, and finally its current iteration as the Sydney Football Stadium, any archaeological evidence relating to the SSG would be unlikely to contribute further to the historical record of use of the site in this way. Therefore, while the site may have associative significance as a sporting ground, it does not meet the threshold for archaeological significance for this criteria.

The heritage listing for Busby's Bore states that 'the bore is associated with John Busby and Commissioner Bigge, and symbolizes their aspirations for Sydney and themselves'. Therefore, Busby's Bore has associative significance at a State level.

8.4.3. Aesthetic or Technical Significance (NSW Heritage Criterion C)

While Busby's Bore is not visible above the ground, and therefore is not considered to have 'aesthetic value' by the classical definition, Busby's Bore is a unique example of early government water supply management in Sydney, demonstrating a distinctive engineering style and unpredictable layout due to the convict hand excavation. Therefore, Busby's Bore is considered to have technical and aesthetic significance at a State level.

It is unlikely that any archaeological resource relating to the Engineer Army Depot, or the Sydney Sports Ground, would meet the criterial for aesthetic or technical significance, unless substantially intact, backfilled zig-zag trenches were discovered and could be interpreted in some way, where possible.

8.4.4. Ability to Demonstrate the Past through Archaeological Remains (NSW Heritage Criteria A, C, F & G)

As a relatively intact surviving example of a 19th century convict-built water supply, Busby's Bore is a rare example of convict built public infrastructure from early urban Sydney. Busby's Bore was also Sydney's main water supply from 1837 to 1853, making it unique. In addition, the Bore is representative of English rock mining techniques of the early 1800s, and is highly representative of

public works undertaken by convict labour in the early days of the Sydney colony. Therefore, Busby's Bore meets this criterion for significance at a State level.

It is unlikely that any archaeological resource relating to the Engineer Army Depot, or the Sydney Sports Ground, would meet this criteria for significance.

8.5. Statement of Significance

The main archaeological significance relating to the SFS Redevelopment site relates to the likely presence of Busby's Bore. Busby's Bore is listed on the State Heritage Register as:

> *a unique engineering achievement which played a crucial role in the development of urban Sydney. As a product of convict labour and a major factor in the establishment of local administration in NSW (in the form of the Sydney Corporation) the bore is associated with the important steps that changed Sydney from penal colony to colonial trading port.*
>
> *The fabric of the bore and associated archaeological deposits possess research potential relating to substantive historical and scientific questions relating to 19th century work and technology and to changes in the environment.*
>
> *The intactness of the bore and the fact that it is still in use make it a rare survivor from the first half of the 19th century within urban Sydney.*[72]

An archaeological resource associated with Busby's Bore has the high potential to contribute detailed information regarding the construction of the Bore itself, and may also be able to provide information on the use of the Bore and changes over time. This information could relate in turn to wider research questions and themes such as convict working conditions (and the use of convict labour in general), information relating to early government regulation of the Sydney water supply, urban growth, public health, and 19th century engineering techniques.

Depending on extent of Australian Army records, particularly dating to the early period of the use of the Engineers Depot site, with regards to site layout and function, the potential archaeological resource relating to the army Engineers Depot use of the site may meet the criteria for significance at a local level.

Any archaeological remains of the Sydney Sports Ground, should they remain within the subject site, are unlikely to contribute to the archaeological record, as the layout and function of the SSG is relatively well documented through a number of sources including maps, plans, images and descriptions. Therefore, any subsurface evidence associated with the SSG is considered to not meet the criteria as a 'relic' in accordance with the NSW Heritage Act.

[72] Busby's Bore, State Heritage Listing, Available from: http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=5045164

9.0 Proposed Redevelopment—Stage 1 DA

The SFS Redevelopment Stage 1 application includes a Concept Proposal and Early Works package. The Concept Proposal comprises:

- A new stadium with up to 45,000 seats on the site of the existing stadium including:
  - New facilities for general admission;
  - New playing pitch;
  - Hospitality facilities; and
  - Ancillary food and beverage and entertainment facilities.
- New basement with service vehicular access for servicing and bump-in/bump-out.
- New public domain works surrounding the stadium, building on the venue's unique parkland setting.
- Urban Design and Public Domain Guidelines.
- Signage strategy.

Indicative concept building envelope plans are included within the Environmental Impact Statement for the project. These plans outline the extent of the proposed stadium building envelope and surrounding public domain to be included in the Stage 1 planning application.

From a capacity, operational and mix-of-use perspective, the new stadium will be consistent with the existing Allianz Stadium.

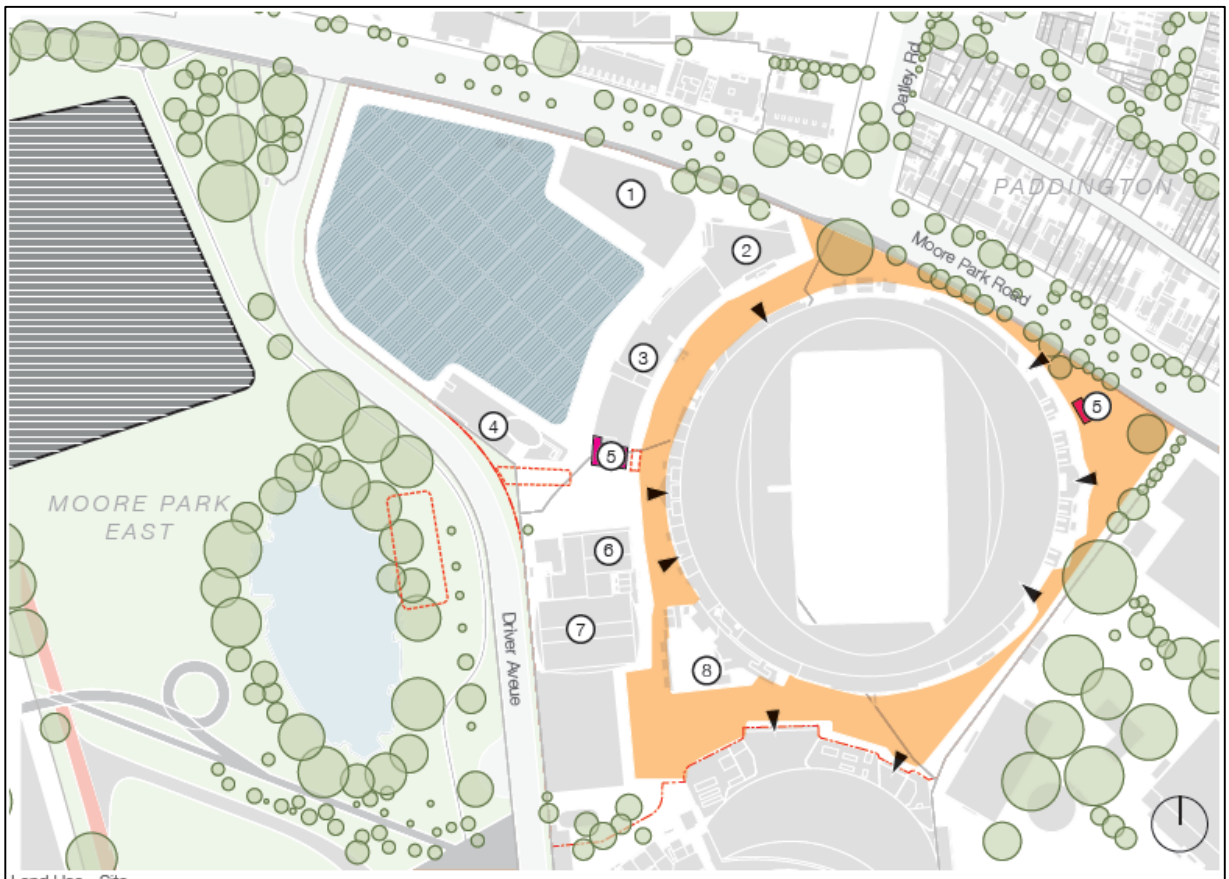
The Stage 1 Early Works comprises:

- Site establishment, including erection of site protection fencing and temporary relocation of facilities;
- Decommissioning and demolition of the existing stadium and associated structures including the existing Sheridan, Roosters and Waratahs buildings and the administration building of Cricket NSW to ground level and 'make safe' of the site;
- Use of the existing Moore Park 1 (MP1) car park for construction staging; and
- Make good of the site suitable for construction of the new stadium (subject to separate Stage 2 application).

The SFS Redevelopment will create a new stadium with up to 45,000 seats through a range of seating styles and corporate facilities. The stadium will include state of the art technology with digital screens throughout to improve the fan experience. Sightlines will be improved and facilities including catering, amenities and accessibility will be designed to service future needs, creating a world-class customer experience befitting a global city such as Sydney.

While the Stage 1 Concept Proposal

With respect to archaeology, the Stage 1 Early Works as proposed through the Concept Plan SSDA, including demolition of the existing stadium and associated building (as described above) to ground level only. Concept Design plans are presented below in Figure 54 to Figure 59.



Land Use - Site

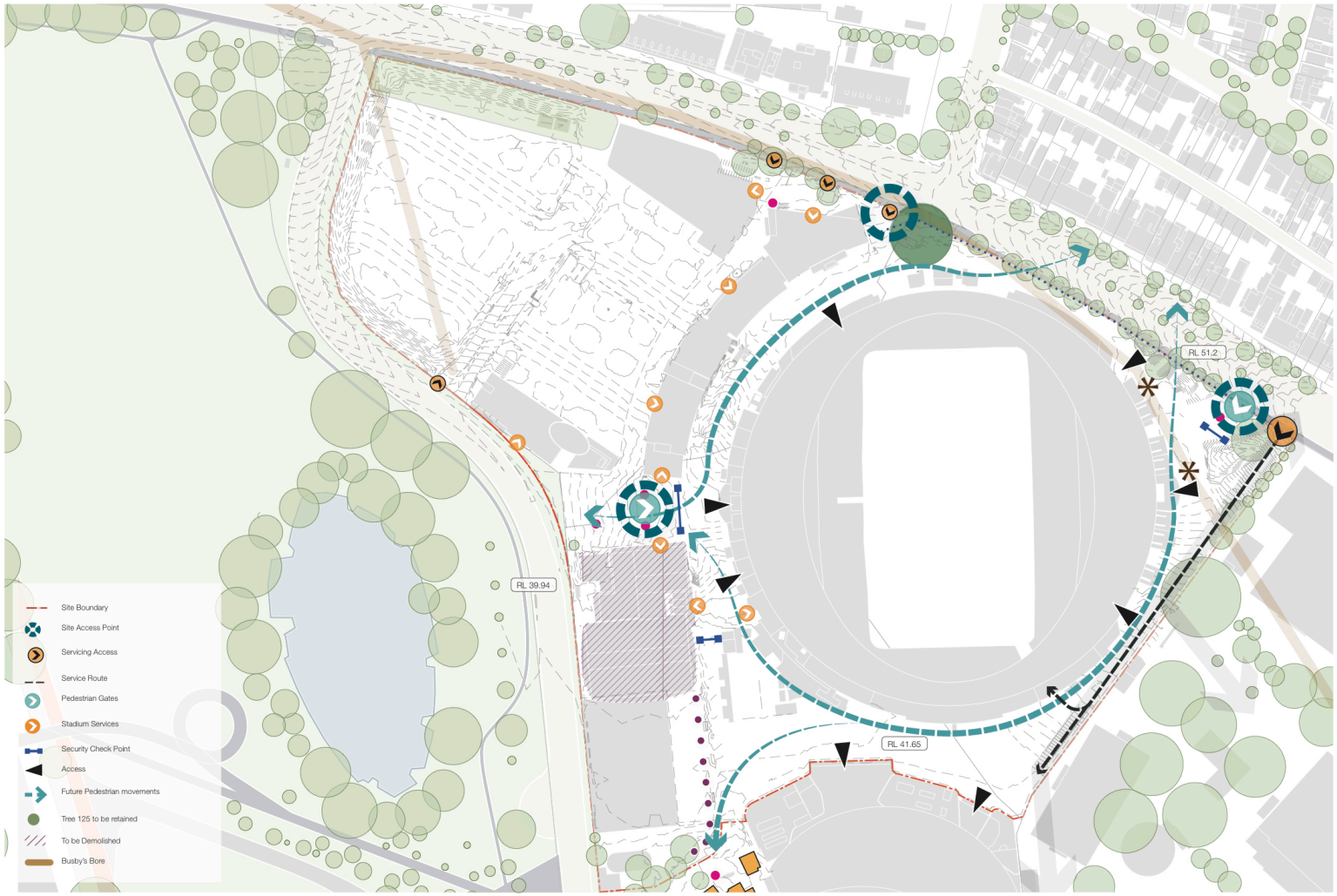
Located on the site alongside the SFS and SCG are a number of associated sporting, education, health and fitness uses which activate the precinct day-to-day. Sporting codes including Rugby League and Union also utilise the high performance fields in Moore Park East for training.

1. Rugby Australia Building
2. The Stadium Sports Medicine Clinic and Sheridan Centre
3. Sydney Roosters
4. NRL Headquarters
5. Stadium Shop
6. Stadium Entry and Services
7. Cricket NSW
8. The Stadium Club
9. Outdoor Cricket & Tennis

Key

- Project Boundary
- Venue Entries
- Temporary Event Zones
- Stadium Store
- MP1 Carpark
- Open Space
- External Concourse
- EP1 Event Carpark

FIGURE 53: EXISTING SITE PLAN (SOURCE: SJB ARCHITECTS, URBAN DESIGN GUIDELINES: 46)



Site Analysis

Scale
N/A

Drawing number
[00]
Revision number
[00]

Project number
[5812]
Project name
[Sydney Football Stadium]

Project address
[Moore Park]
Client
[INSW

Key

SJB Architects
Level 2, 490 Crown Street, Surry Hills NSW 2010
T. 61 2 9380 9911 sjb.com.au
SJB Architecture (NSW) Pty Ltd
ABN 20 310 373 425 ACN 081 094 724
Adam Haddow 7188 John Pradel 7004

FIGURE 54: SITE ANALYSIS (SOURCE: SJB ARCHITECTS, 2018)

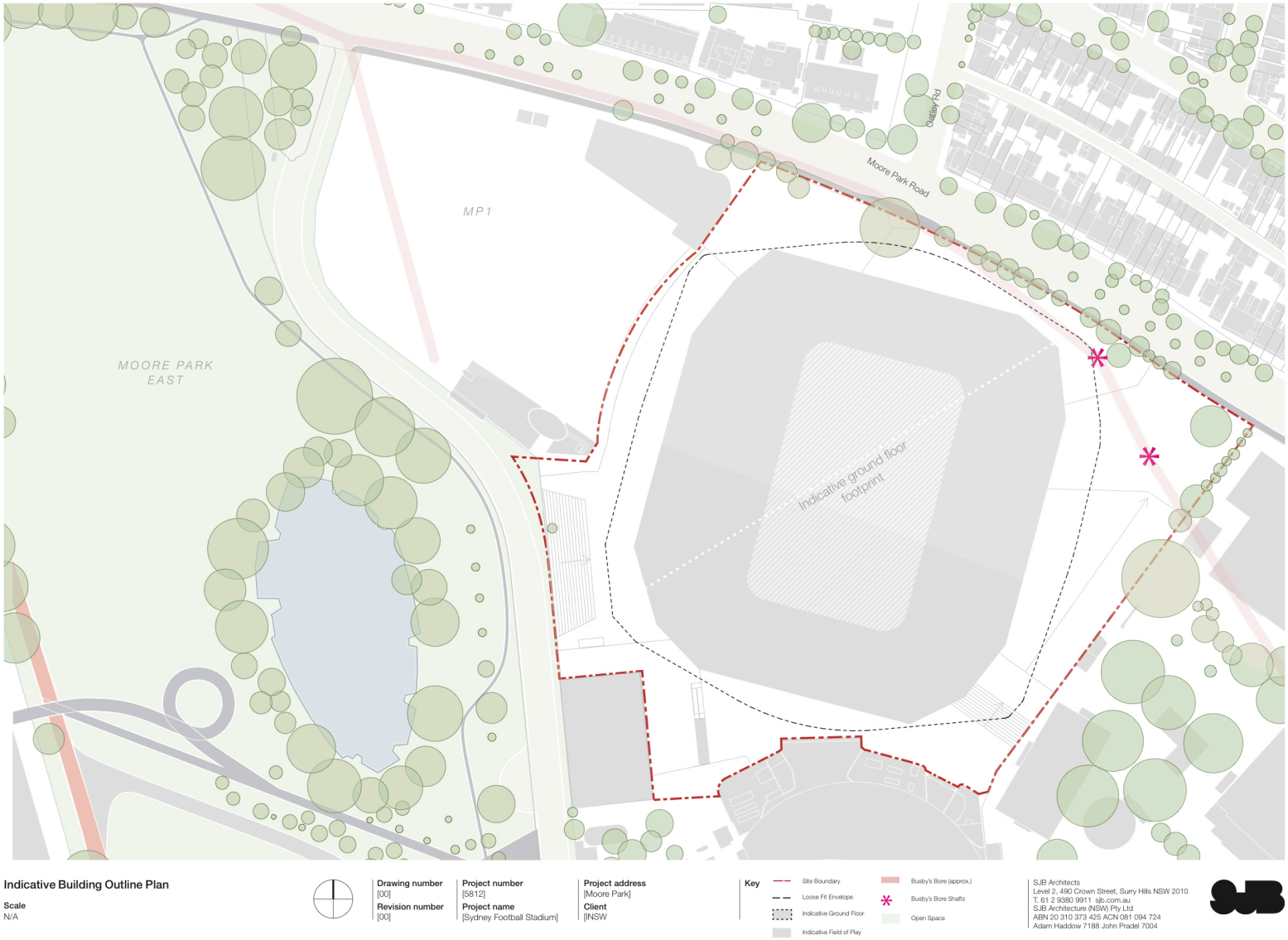


FIGURE 55: INDICATIVE BUILDING OUTLINE PLAN (SOURCE: SJB ARCHITECTS, 2018)

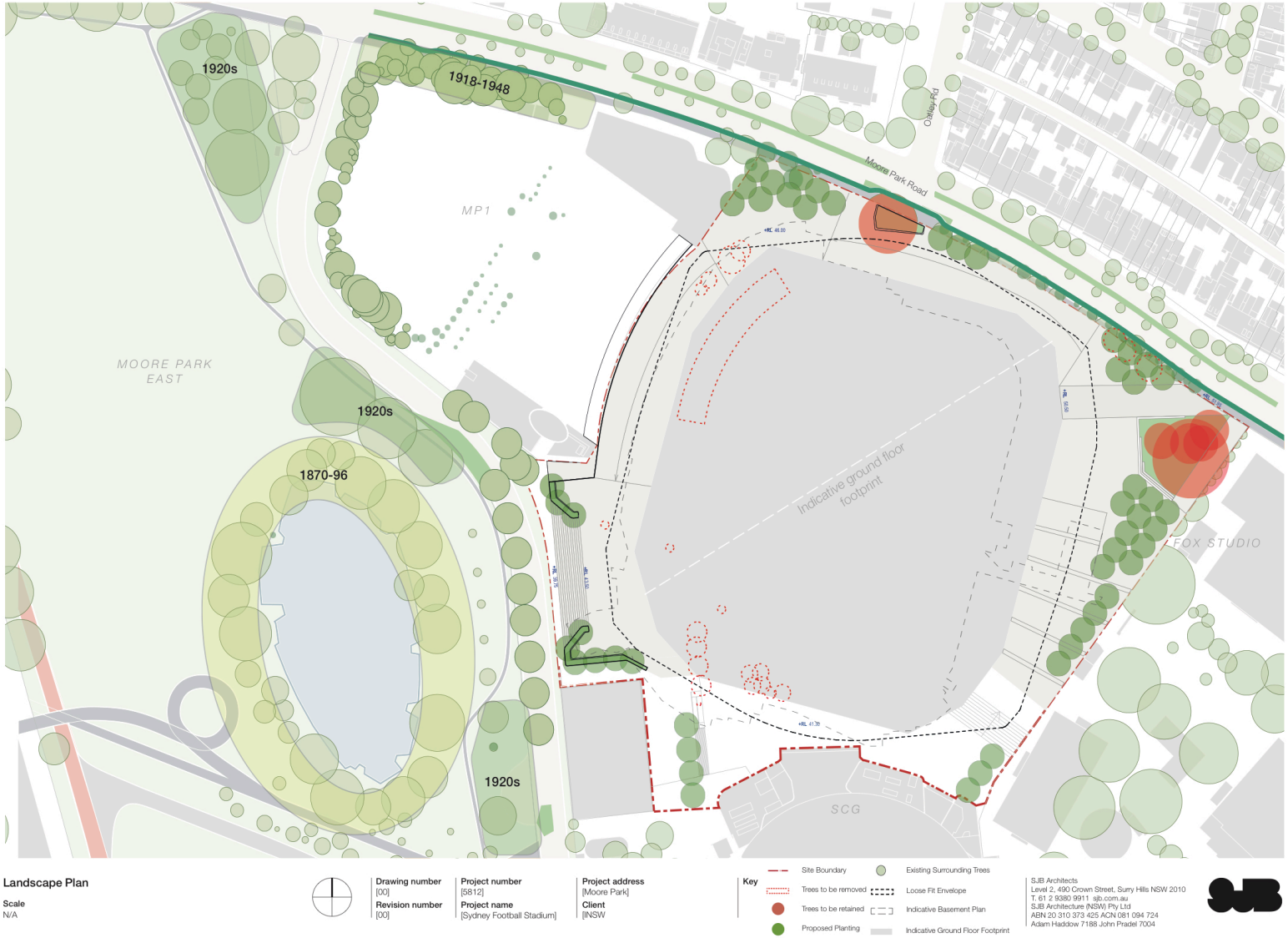
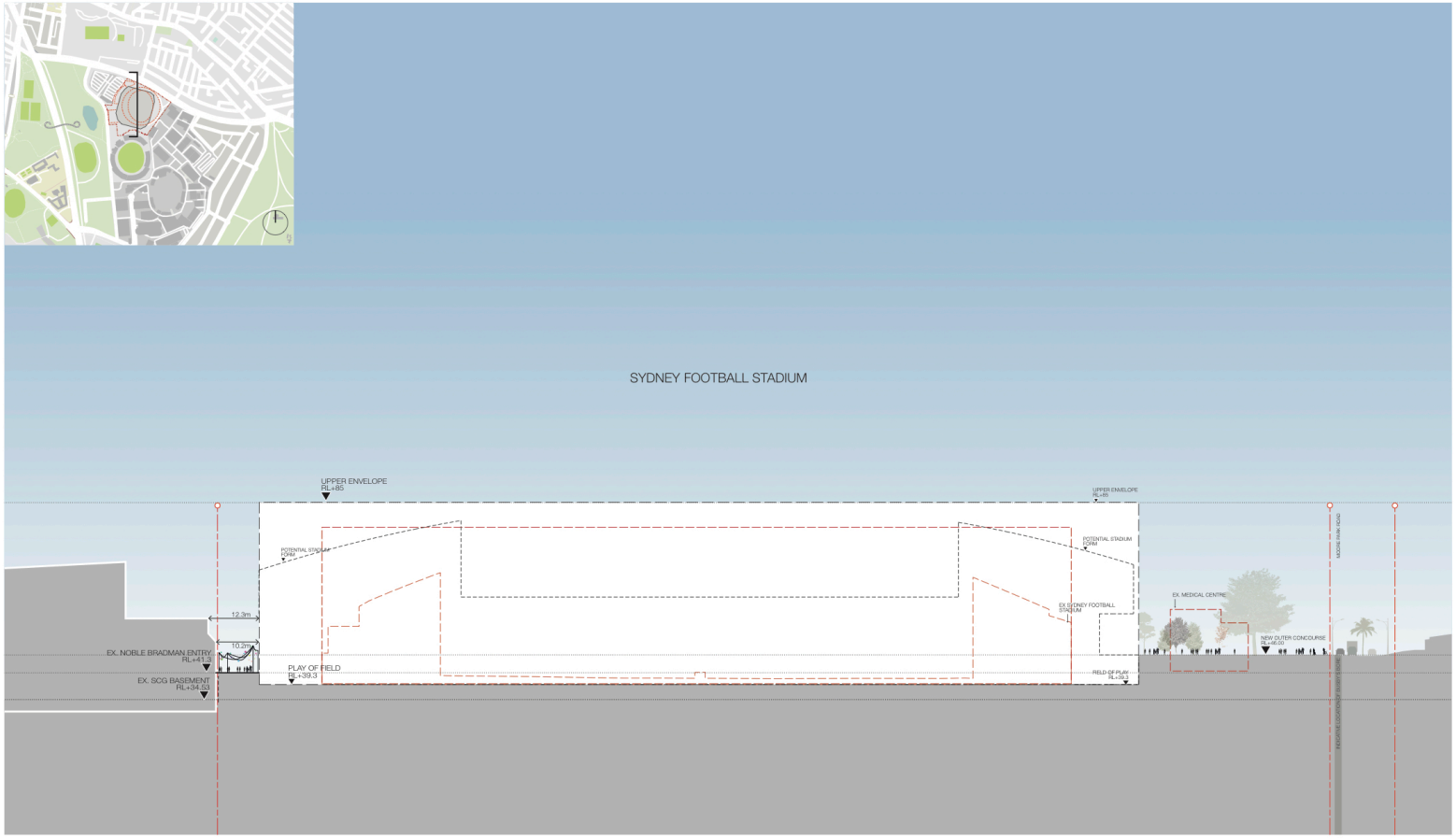


FIGURE 56: LANDSCAPE PLAN (SOURCE: SJB ARCHITECTS, 2018)



Section A1

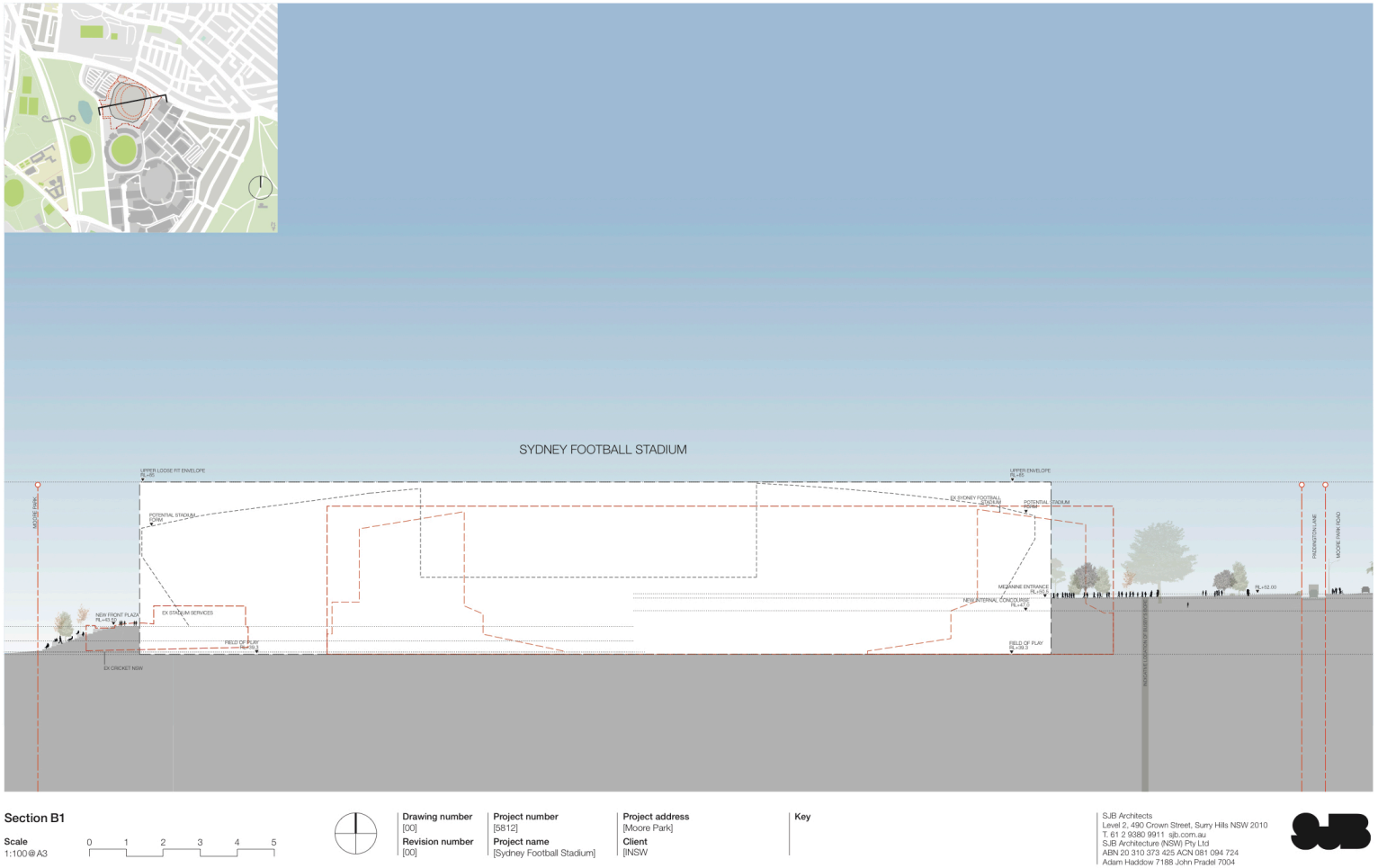
Scale
1:100 @ A3

0 1 2 3 4 5

Drawing number	Project number	Project address	Key
[00]	[5812]	[Moore Park]	
Revision number	**Project name**	**Client**	
[00]	[Sydney Football Stadium]	[INSW	

SJB Architects
Level 2, 490 Crown Street, Surry Hills NSW 2010
T. 61 2 9380 9911 sjb.com.au
SJB Architecture (NSW) Pty Ltd
ABN 20 310 373 425 ACN 081 094 724
Adam Haddow 7188 John Pradel 7004

FIGURE 57: SECTION A1 (SOURCE: SJB ARCHITECTS, 2018)



Section B1

Scale 1:100@A3

0 1 2 3 4 5

Drawing number	Project number	Project address	Key
[00]	[5812]	[Moore Park]	
Revision number	**Project name**	**Client**	
[00]	[Sydney Football Stadium]	[INSW	

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Adam Haddow 7188 John Pradel 7004

FIGURE 58: SECTION B1 (SOURCE: SJB ARCHITECTS, 2018)

10.0 Potential Archaeological Impacts

The Stage 1 Early Works as proposed through the Concept Plan SSDA, includes demolition of the existing stadium and associated buildings (as described in Section 9.0 above) to ground level only. No below ground works are proposed for the Stage 1 Early Works at the site. Therefore, Stage 1 Early Works will have no potential to physically impact upon any archaeological resource.

However, this Archaeological Assessment Report has been prepared with a view to the potential wider archaeological impact for the future development, to be expanded upon once Stage 2 development works are known. It is understood that the maximum concept plan envelope includes an allowance for a limited basement within the stadium footprint, subject to further detailed design and assessment as part of the Stage 2 Development Application. It should be notes that the location of the basement will be designed to avoid the zone of influence of Busby's Bore, as much as practical, however again, this will be further addresses through the Stage 2 application, particularly in relation to proposed site construction impacts (which are as yet unknown).

Therefore, while the Stage 1 Early Works themselves will not impact the ground surface, the potential archaeological impacts as summarised below, relate to a wider assessment of the potential development, rather than specifically to Stage 1 archaeological impacts (of which there will be none). At present, the method of construction of the new stadium is unknown (i.e. via piling, extent and exact location of excavation for proposed limited basement etc), and will be determined through the Stage 2 Development Application for the redevelopment of the site. However, the preliminary potential archaeological impacts of the overall development have been presented here for early consideration for future project planning and consideration for detailed design.

10.1. Potential Aboriginal Archaeological Impacts

The Aboriginal Due Diligence Assessment for the SFS Redevelopment site (as presented in Section 4.0 of this report) has identified that the site has the potential for Aboriginal objects/site. Therefore, the following considerations are made, with regards to potential impact of future DA stages for the site, to be further developed and finalised upon development of final design and construction methods of the new stadium.

- While it is understood that the development works associated with the Stage 1 Concept Proposal will have no ground impacts (and therefore will not impact potential Aboriginal archaeology), wherever subsequent construction and development works will impact natural soil profiles, there is the potential to impact Aboriginal archaeology.

- The basement as proposed through the Stage 1 Concept Proposal, will likely have the potential to impact on natural soil profiles (dependent on the location and depth of excavation proposed).

- Aboriginal objects, both in situ (i.e. in original context) as well as in disturbed contexts, are protected under the *NSW National Parks and Wildlife Act 1974*, regardless of the archaeological research potential or significance presented by the Aboriginal objects.

- Potential impacts to Aboriginal archaeology would normally require an Aboriginal Heritage Impact Permit (AHIP) in accordance with Section 90 of the NPW Act, however once the project is approved as SSD, the requirement for this permit will be removed.

- However, this does not remove the requirement to undertake Aboriginal cultural heritage and archaeological assessments/investigation in accordance with OEH statutory guidelines, including Aboriginal community consultation, preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR) and Archaeological Technical Report (ATR) etc.

- Aboriginal community consultation for the SFS Redevelopment project has been initiated and is in progress at the time of writing. Discussion of the current status of the Aboriginal cultural heritage assessment process for the SFS Redevelopment site is provided in the Heritage Impact Statement report for the Stage 1 Concept Plan SSDA (Curio Projects 2018), to which this archaeological report functions as an appendix.

- Development within the subject site has the potential to impact Aboriginal archaeology, particularly in any areas requiring excavation, e.g. for the proposed basement. This will require further detailed Aboriginal archaeological investigation and mitigation through the course of the project.

10.2. Potential Historical Archaeological Impacts

As for the assessment of potential impacts to Aboriginal archaeological resources at the site, the Stage 1 Concept Plan will not disturb the existing ground surface, and therefore has no potential to impact on any potential historical archaeological resources within the subject site. However, the following considerations are made with regards to potential impact of future DA stages for the site, to be further developed and finalised upon development of final design and construction methods of the new stadium.

- While it is understood that the development works associated with the Stage 1 Concept Proposal will have no below ground impacts (and therefore will not impact potential historical archaeology), wherever subsequent construction and development works will impact the ground surface (e.g. excavation for the proposed basement, piling etc), there will be potential to impact historical archaeology (depending on location of the proposed ground impacts).

- Busby's Bore is known to be present within the subject site, with the location of two shafts known (Shafts 9 and 10), and the location of two shafts unknown (Shaft 11 and Intervening Shaft No. 4). The exact trajectory and depth below ground level of the Bore itself, is also not accurately known within the subject site. Therefore, depending on the development impacts (once known), there may be the potential for impact to Busby's Bore within the SFS Redevelopment site.

- Potential impacts of the final design and construction of the stadium to Busby's Bore cannot be accurately assessed at this time, as neither the development ground impacts, nor the exact location and/or condition of the Bore within the subject site are known. These will be detailed in the Stage 2 DA.

- While it is acknowledged that numerous efforts over the years have been made to locate the unknown shafts within the subject site, additional efforts should be made by the client during the course of the Stage 1 demolition works to locate the remaining two unknown shafts and the path of the Bore itself, in order to further our knowledge and understanding of this State Heritage item, and aim to redesign around it, where possible.

- A dilapidation survey may be required (to be undertaken by appropriately qualified structural engineers) for Busby's Bore to determine its current location and condition within the subject site in order to accurately assess potential impacts (if any) of the demolition works caused by vibration. This will be dependent upon whether the Bore can be located, its existing condition (i.e. some sections are known to have collapsed), and whether safe access can be gained to the Bore.
- Therefore, the potential to impact Busby's Bore should be considered carefully during design works, with development designed to avoid any impact to the Bore itself, and associated shafts, where possible.
- The proposed basement should be carefully designed through the Stage 2 DA process to avoid any impact to Busby's Bore and associated shafts, where possible, with acknowledgement of the 360 degree 3m curtilage included within as part of the State heritage listing for the Bore.
- There is the low potential to encounter a historical archaeological resource associated with the former Engineers Depot in the east of the site (i.e. beneath and immediately adjacent to the existing stadium), where the construction of the existing SFS has not already removed the potential resource. This should be considered during detailed design of the development, and managed appropriately depending on final impacts (e.g. potentially through the development of a Historical Archaeological Research Design and Excavation Methodology).

11.0 Conclusions and Recommendations

This Archaeological Assessment (AA) report for the SFS Redevelopment site, Moore Park, has assessed the historical context and associated archaeological potential of the subject site, in relation to both Aboriginal and historical archaeology. The following conclusions and recommendations represent the findings for this AA report.

11.1. Aboriginal Archaeology Conclusions

The following conclusions and recommendations are made regarding the management of Aboriginal archaeology at the subject site:

- The subject site does not contain any registered Aboriginal sites, however this is likely due to lack of Aboriginal archaeological survey and excavation in the immediate area, and not a reflection of lack of use of the site by Aboriginal people.
- Prior to 1788, the subject site would have been a rich resource zone for exploitation by the local Gadigal people, due to its presence along the edge of the Botany Aquifer and Wetlands system, providing numerous freshwater resources including fishing and hunting grounds, as well as potentially appropriate ground for short term campsites for use of the landscape resources.
- The subject site is located on Tuggerah Soil Landscape, which is generally characterized by deep quartz sands (2m in depth) overlying interbedded clays and Quaternary marine sands.
- Aboriginal archaeological investigation in recent years, particularly in relation to the construction of the Sydney Light Rail have demonstrated the presence of Aboriginal archaeological deposits at nearby site such as beneath the carpark of the Moore Park Tennis Centre, and at the Randwick Stabling Yards.
- Archaeological excavations have demonstrated that Aboriginal archaeological deposits have the potential to be present even beneath layers of historical 'fill' and in areas of previous development.
- In general, the Aboriginal Due Diligence assessment as presented within this AA report has determined that the subject site has the potential for Aboriginal archaeological deposits to be present across the entire site, both within deeper natural soil profiles that exist beneath the layers of historical fill, as well as potentially in a disturbed context within the layers of fill due to historical disturbance.
- The Stage 1 works as proposed through the Concept Plan SSDA, including demolition of the existing stadium and associated building (as described above) to ground level <u>only</u>. Therefore, Stage 1 works will have no potential to impact upon any Aboriginal archaeological resource.
- Stage 2 works (including detailed design and construction) have the potential to impact upon Aboriginal archaeology, the impacts of which should be assessed in detail once specific design and impacts are known.

11.2. Aboriginal Archaeology Recommendations

The following recommendations are made regarding Aboriginal archaeology within the SFS Redevelopment site, both in relation to the Stage 1 Concept Plan development, as well as in consideration of future development stage works at the site.

1. Where possible, development impacts within natural soil profiles (as proposed through Stage 2 development) should be minimised as much as practicable to limit the impact to potential Aboriginal archaeological deposits and likely Aboriginal cultural heritage values. Lower impact construction techniques such as piling should be considered for the development where possible.

2. As the project will be undertaken as SSD, the requirement for an Aboriginal Heritage Impact Permit (AHIP) in accordance with Section 90 of the *NSW National Parks and Wildlife Act 1974* is removed, however the due process including compliance with OEH statutory guidelines, Aboriginal community consultation etc still applies to the project as a condition of the project consent.

3. The formal process of Aboriginal cultural heritage assessment has been initiated for the subject site (discussed in the HIS for the Stage 1 Concept Proposal), in accordance with the NSW Office of Environment and Heritage statutory guidelines, including:

    a. Consultation with the local Aboriginal community in accordance with OEH guidelines, *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010;*

    b. Preparation of an Aboriginal cultural heritage methodology for the site (in accordance with above guidelines);

    c. Preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR) and Archaeological Technical Report (ATR), including proposed Aboriginal archaeological mitigative strategies, to be developed in consultation with the Aboriginal community (in accordance with OEH guideline *Guide to Investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW*)

4. The outcomes of the above process should be detailed in full within the Stage 2 heritage documents for the SFS Redevelopment.

5. The ATR should develop a program of Aboriginal archaeological test excavation at the site in collaboration with the identified Registered Aboriginal Parties (RAPs) for the project.

6. If possible, early Aboriginal archaeological test excavation is recommended for the subject site, the results of which could provide archaeological sensitivity mapping for the site, identifying areas more appropriate for higher impacts, and areas of higher Aboriginal archaeological sensitivity that should have a lesser impact, to feed into the detailed design work (where possible).

7. Should early test excavation not be possible at the site, Aboriginal archaeological test excavation should be developed in direct association with the main development ground works, i.e. any areas of bulk excavation, piling etc.

8. Any works involving Aboriginal Cultural Heritage management should be undertaken in close consultation with the local Aboriginal community.

9. There is a need to consider safety and stability issues in the development of any Aboriginal archaeological test excavation (Botany sands profile are known to be unstable to excavate), which should be addressed through the development of the Aboriginal Archaeological Research Design and methodology, to be developed through the ATR.

10. Aboriginal cultural heritage, including the results of any Aboriginal archaeological investigations (if undertaken through the course of the project) should be included within a Heritage Interpretation Strategy for the site in order to publically convey the significance of the site and surrounding wetlands area to the Aboriginal community past and present.

11. Prior to commencement of Stage 2 construction at the site, an Unexpected Aboriginal Finds Policy should be prepared for the site.

11.3. Historical Archaeology Conclusions

The following conclusions and recommendations are made regarding the management of historical archaeology at the study area:

- The subject site has a rich history of historical use extending back to 1811 as part of the Sydney Common.
- The State Heritage Registered listed Busby's Bore (a convict built 3.6km long tunnel that served as Sydney's sole water source from 1839–1859) is known to be present within the subject site.
- Two Shafts of Busby's Bore are confirmed to be located within the subject site (Shaft 9 and 10), one is considered likely to be located within the study area ('Intervening Shaft 4') and one shaft is considered to be possibly within the study area (Shaft 11).
- Shafts 12 and 13 are understood to be located within the Moore Park Road easement, and therefore are not within the SFS Redevelopment site.
- The site has also had a long history of military association, associated with the Victoria Barracks, and used as a Military Rifle Range (1849–1892), and then as the Engineers/Military Depot from 1899–1986 (focused on the eastern side of the site, generally in the area of the current SFS).
- The north-western part of the site functioned as the Sydney Sports Ground from 1899 to 1986, used for a wide range of sports including cricket, cycling, athletics, football and rugby.
- The Sydney Sports Ground functioned as the Sydney Speedway from 1937 to 1955, becoming the major racetrack in Australia after WW2.
- The Engineers Depot and the Sydney Sports Ground land were resumed and all buildings demolished in 1986, to make way for the construction of one of Sydney's major Bicentennial projects of the Sydney Football Stadium.
- The site retains low to moderate archaeological potential for an archaeological resource relating to the Engineers/Military Depot. Should this resource be present within the subject site and require impact through the proposed development, it may require mitigation via archaeological monitoring to record and remove any associated archaeological deposit (if present).
- The site retains low potential for remains associated with the Sydney Sports Ground. However, the Sydney Sports Ground is well recorded through numerous sources such as plans, maps, descriptions and photographs, and therefore, it is not considered that subsurface remains associated with the Sydney Sports Ground would be able to contribute in a meaningful way to the archaeological record.

11.4. Historical Archaeology Recommendations

The following recommendations are made regarding historical archaeology within the SFS Redevelopment site, both in relation to the Stage 1 Concept Plan development, as well as in consideration of future development stage works at the site.

1. Any potential impact to the State Significant Busby's Bore should be avoided, where possible.
2. Protection zones should be established around known Busby's Bore shafts (Shafts 9 and 10) within the SFS site during all stages of development works (including Stage 1 demolition to hard stand), including a subsurface buffer to avoid subsurface disturbance to the path of Busby's Bore as it passes under the northern side of the subject site.
3. An attempt should be made by the client to accurately locate and survey Shaft 11 and Intervening Shaft No. 4 of Busby's Bore (and the path of the Bore itself across the subject site, if possible) to ensure location is known, and protection zones can be established during all stages of site development works (i.e. demolition and site preparation).
4. A dilapidation survey may be required (to be undertaken by appropriately qualified structural engineers) for Busby's Bore to determine its current location and condition within the subject site in order to accurately assess potential impacts (if any) of the demolition works caused by vibration. This will be dependent upon whether the Bore can be located, its existing condition (i.e. some sections are known to have collapsed), and whether safe access can be gained to the Bore.
5. A revised Archaeological Assessment should be prepared once the Stage 2 design has been completed and details of the development impacts across the site are known, that reassesses the impacts that the development may have on potential historical archaeological resources, and presents mitigative strategies where appropriate.
6. Once the project has been approved as SSD, the requirement for Section 60 and Section 140 permits in accordance with the NSW Heritage Act 1977 will no longer apply to the site.
7. Should ground disturbing works in the vicinity of Busby's Bore tunnel and/or shafts, the former Engineers Depot or Sydney Sports Ground be required prior to approval of the SSD, appropriate approvals should be sought prior to ground disturbing works..
8. A Historical Archaeological Research Design (ARD) should be prepared to mitigate the impact to, and guide development in proximity to potential historical archaeological resources, notably Busby's Bore, and potential archaeological remains associated with the former Engineers Depot.

11.5. Overall Recommendations and Preliminary Mitigation Strategy

It is understood that Stage 1 Concept Proposal development works will consist of demolition to hard stand only, and will not disturb the ground surface (and therefore will not disturb any potential archaeological deposit, Aboriginal or historical). However, it is recommended that preliminary archaeological investigation (as necessary and where possible) such as archaeological test excavation, be undertaken in combination with the Stage 1 site demolition works. This would allow the results of the archaeological testing to then feed into the detailed Stage 2 design, which could potentially include input into preferable locations of any required significant ground impacts etc, to avoid impacts to archaeological deposits.

Any proposed Aboriginal archaeological test excavation process should be determined in consultation with the Aboriginal community (through the process of the Aboriginal Cultural Heritage assessment for the site, which has commenced at the time of writing), and guided by the ACHAR and ATR reports (as detailed in Aboriginal archaeological recommendations above).

Once ground impacts are known a Historical Archaeological Research Design (ARD) should be prepared to mitigate the impact to, and guide development in proximity to potential historical archaeological resources, notably Busby's Bore, and potential archaeological remains associated with the former Engineers Depot.

Investigative work should be undertaken to attempt to identify the remaining two unknown shafts within the subject site. Should this work be undertaken prior to SSDA approval, physical investigation (should it be proposed) would potentially require a Section 57 exemption from a Section 60 Application, to allow minor investigative works in the vicinity of Busby's Bore to attempt to identify its exact location within the subject site. Should the client decide to undertake this investigative process, a Historical Archaeological Research Design and Methodology should be prepared to guide the investigative works.

A detailed archaeological mitigation strategy (both Aboriginal and historical) will be developed through the Stage 2 DA process for the SFS Redevelopment site, during the process of detailed design and identification of required ground impacts of the development. The archaeological advice and recommendations provided in this report should be acknowledged during the detailed architectural design of new Stadium design, particularly with respect to required ground impacts.

A Heritage Interpretation Strategy should be prepared for the SFS Redevelopment site, in collaboration with the Stage 2 detailed design, to publicly present the history and cultural significance of the SFS site, to include Aboriginal archaeological and cultural heritage significance, as well as historical archaeological significance.

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APPENDIX A—AHIMS Extensive Search Result