SFS Response to Submissions

(SSD9249)

Attachment 7- Addendum Heritage Impact Statement

September 2018

Addendum Heritage Impact Statement- Sydney Football Stadium- Response to Submissions

Prepared for Infrastructure NSW by Curio Projects

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1.0 Introduction

1.1 The Purpose of this Report

This report forms an addendum to the Heritage Impact Statement (Appendix L to the EIS) lodged with the Stage 1 State Significant Development Application for the Sydney Football Stadium Redevelopment- SSD9249.

This report supplements the Heritage Impact Statement in relation to comments received as part of the public exhibition process. The structure of this report is as follows:

- **Section 2-** response to comment DPE10 of Attachment 2 to the Response to Submissions.
- **Section 3-** response to comment DPE5 of Attachment 2 to the Response Submissions.
- **Section 4 (and appendices)-** response to comments HC2-HC4 of Attachment 1 to the Response to Submissions.

2.0 Assessment- Busby's Bore CMP

This section outlines the assessment against the draft guidelines and policies in the Draft Busby's Bore Conservation Management Plan, 2004. The summary table has been developed to address the following comment by the Department of Environment and Planning (DPE10 of Attachment 2 to the Response to Submissions):

The submitted Heritage Impact Assessment Report (HIA) identifies Busby's Bore Conservation Management Plan (COMP) 2004. However, the components of this COMP have not been considered in assessing the impacts of the proposal on Busby's Bore.

It is important to note that the Busby's Bore CMP remains in a draft form and was never endorsed by the NSW Heritage Division. Given that it was written 18 years ago, it contains many out-of-date legislative references. As with the draft SCG CMP, it has still been used a reference source for the Stage 1 Development Application. Where relevant, Curio's response relates to the post-2010 legislative requirements rather than those referenced in the Draft CMP. It is understood that there is a new Busby's Bore CMP which is currently being prepared by Sydney Water, but is not yet available for public access.

DRAFT BUSBY'S BORE CONSERVATION POLICIES	DEMONSTRATED COMPLIANCE
7.1 Retention of Significance *Busby's Bore should be retained and conserved in ways that protect and enhance the features and characteristics that define its cultural significance. The entire length of the Busby's Bore should be considered when planning for conservation.* ***Guidelines*** *1The surviving historic Busby's Bore fabric should be retained and conserved.* *2Explore ways to present Busby's Bore to the general public, that do not rely upon access below ground.* *The precise location of the route and all of its shafts should be identified to be best extent technologically possible, prior to any adaptive re-use investigations.* *Approval will be sought under S.60 of the Heritage Act prior to any proposed excavation or disturbance of the Bore.* ***The Busby's Bore Draft CMP also notes in Section 3.1.3 Location and Curtilage that:*** *In general terms, the site of Busby's Bore is known, however its precise location is not. No plan was made before or during construction and as the Tunnel has been considered obsolete since the 1850s, an accurate location map has not been desired.* (p49)	***Guideline 1: The surviving historic Busby's Bore fabric should be retained and conserved.*** The Heritage Impact Statement (HIS) at Appendix L of the exhibited EIS discusses the proposed retention, investigation and interpretation of Busby's Bore in section 9.3.2. of the HIS submitted with the SSD Concept Plan (Curio Projects, p82-85). It notes that the SSD Stage 1 Concept Proposal does not propose any excavation or direct impacts to Busby's Bore. It also identifies that the proposed redevelopment, to be finalised in a Stage 2 SSDA intends to retain and interpret significant fabric of Busby's Bore in accordance with Policy 7.1. and Guideline 1, where possible. The HIS concludes that: • *The potential to impact Busby's Bore should be considered carefully during design works (for the Stage 2 SSDA), 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, with acknowledgement of the 360 degree 3m curtilage included within as part of the State heritage listing for the Bore, where possible.* The HIS also notes that, prior to any demolition works on site, a dilapidation survey may be required (structural engineers) for Busby's Bore in order to assess if there will be any unintended vibration impacts that may need to be mitigated as a result of the proposed Stage 1 demolition program. It notes that this will need to be detailed in the final Construction Noise and Vibration Management Plan that is to be development by the Contractor, and that it 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 (HIS, p88)

DRAFT BUSBY'S BORE CONSERVATION POLICIES	DEMONSTRATED COMPLIANCE
There is a clear need to identify the location of the Bore and all of its shafts, and to profile the various sections and assess their condition and integrity. At present the data is not available to prepare an interim assessment such as that prepared for the Tank Stream (p52)	***Guideline 2: Explore ways to present Busby's Bore to the general public, that do not rely upon access below ground.*** The interpretative potential of the Bore has been identified in the Urban Design Guidelines at Appendix C of the exhibited EIS (prepared by SJB, with heritage input from Curio Projects). It states that: *The site has a rich convict (Busby's Bore) and military history which also has the opportunity to be reinterpreted within a varied and engaging interpretation throughout the site, especially within the public domain. (Urban Design Guidelines p58).* *Given the multi-layered cultural heritage significance of the precinct, including Aboriginal, non-Aboriginal, archaeological, social and recreational, there is the opportunity to celebrate the site's rich history and evolution, through the creation of unique, beautifully integration interpretation. The built design, public domain enhancements and interpretative products can be informed by the site's multi-faceted heritage. (Urban Design Guidelines p68)* In addition, to the inclusion of interpretation in the Urban Design Guidelines, the HIS and the Archaeological Assessment (AA) at Appendix M of the exhibited EIS both identified the need to prepare a comprehensive interpretation strategy for the heritage values of the site, therefore demonstrating compliance with draft Guideline 2 for Policy 7.1. ***The precise location of the route and all of its shafts should be identified to be best extent technologically possible, prior to any adaptive re-use investigations.*** The HIS states that 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 path of the Bore itself, in order to ensure that there will be no impact to this State Heritage item where possible (p83). The management of any impacts to Busby's Bore depends upon whether the Bore can be accurately located or not (noting that Section 3.1.3. of the draft CMP states that the Bore's precise location is not known.) The HIS, AA and the draft CMP all note the limitations in being able to identify the precise locate and existing condition of the shaft. In accordance with the HIS recommendations, since lodgement of the SSD, the project archaeologists are working with Sydney Water, NSW Infrastructure, the SCG and the project Structural Engineers to develop a methodology to undertake a safe non-invasive investigation of the Bore. ***Approval will be sought under S.60 of the Heritage Act prior to any proposed excavation or disturbance of the Bore.*** An application to undertake investigative works for the Bore will be prepared and the approval of Sydney Water (as landowner) and the NSW Heritage Division will be sought. The intention is to access the Bore via Shaft 9 and Shaft 10, to investigate the possible pathways of the Bore as soon as owner's consent and Heritage Council approval has been granted. This is in accordance with the draft guidelines for Policy 7.1.

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7.2 Built Environment ***7.2.1 Conservation of Significant Built Fabric*** *The significant fabric of Busby's Bore, including offcuts and shafts and other as yet unidentified elements of the original material, should be conserved. This site is protected by the NSW Heritage Act and approvals will be sought for any activities which may affect this fabric.*	***The significant fabric of Busby's Bore, including offcuts and shafts and other as yet unidentified elements of the original material, should be conserved.*** As previously stated, there are no proposed impacts to Busby's Bore as part of the Stage 1 Concept Proposal demolition works. It is intended that, the fabric of Busby's Bore, if found during investigative works will be recorded, assessed and assigned a level of significance depending on extent, nature, integrity etc (in consultation with the NSW Heritage Division, Sydney Water), and then conserved and interpreted as part of the Stage 2 works, if found to be highly significant. In addition, a 'Busby's Bore Methodology' has been prepared by the project team, including the archaeologists, acoustic engineers and structural engineers to monitor the vibration levels in Shafts 9 and 10, throughout the proposed Stage 1 Concept Proposal demolition works, in order to ensure that works will cease in the vicinity of the shafts if the proposed vibration levels are considered to be reaching a high threshold (included in the RTS). ***This site is protected by the NSW Heritage Act and approvals will be sought for any activities which may affect this fabric.*** As noted previously, an application to undertake investigative works for the Bore will be prepared and the approval of Sydney Water (as landowner) and the NSW Heritage Division will be sought. The ability to further research the depth and location of the Bore depends on whether Sydney Water and the NSW Heritage Division will allow access to investigate the Bore through the shafts and whether this can be done in a safe manner. In terms of future impacts, the HIS also notes that subsequent construction and development works, as part of Stage 2 may have the potential to impact historical relics, due to the need for excavation, but that such impacts cannot be gauged until the potential impacts are finalised and attempts to more accurately locate the Bore have been undertaken. Therefore, at this stage the client is seeking statutory approval to gather further information about the precise location of the Bore, and its condition (i.e. significance of different sections of the Bore, including levels of intactness, extent and integrity), through archaeological and structural investigations so that future impacts to any significant sections of the Bore can be avoided, as noted in the HIS.
7.3 Engineering and Movable Significance Policy *The engineering significance of Busby's Bore demonstrated by its fabric and in the surviving archival construction drawings should be conserved as an essential part of its significance.* ***Guidelines*** *Preserve the surviving historic plans and drawings of Busby's Bore currently stored in Sydney Water Archives, Plan Room and other collections.* *Further investigation should be undertaken to clarify location of documents held by other archives and libraries in Sydney, including the eventual re-copying of material once held at the Mitchell Library (see Reference List). The material and plans*	***The engineering significance of Busby's Bore demonstrated by its fabric and in the surviving archival construction drawings should be conserved as an essential part of its significance.*** Agreed and noted. ***Guideline: Further investigation should be undertaken to clarify location of documents held by other archives and libraries in Sydney, including the eventual re-copying of material once held at the Mitchell Library (see Reference List). The material and plans retrieved should be reviewed, copied, and the copies should be collected and stored with SWC Archives.*** Additional research information was obtained by Curio Projects during the preparation of the Archaeological Assessment for the Stage 1 Concept Proposal SSD. The archaeological assessment and HIS was provided to Sydney Water for information and use in the preparation of a new DRAFT CMP that Sydney Water is currently preparing for the Bore. Sydney Water noted

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retrieved should be reviewed, copied, and the copies should be collected and stored with SWC Archives.	that it contained very useful information and data with respect to the Bore. Therefore, the HIS and AA comply with Policy 7.3.
7.4 Archaeological Resources ***7.4.1 Aboriginal Archaeological Resources*** *Any potential Aboriginal archaeological resources within the Busby's Bore Site should be conserved in accordance with the requirements of the NSW National Parks and Wildlife Act 1974 and Busby's Bore Conservation Management Plan and their potential for interpretation considered.* ***Guidelines*** *In the event Aboriginal archaeological material is unexpectedly discovered during any works to this site, work shall immediately cease in the affected area and the National Parks and Wildlife Service will be contacted for advice.* *Should disturbance be required where Aboriginal archaeological material has been identified, an application under section 90 of the National Parks and Wildlife Act will be required for this disturbance.*	***Any potential Aboriginal archaeological resources within the Busby's Bore Site should be conserved in accordance with the requirements of the NSW National Parks and Wildlife Act 1974 and Busby's Bore Conservation Management Plan and their potential for interpretation considered.*** Section 9.3.1 Potential Aboriginal Impacts of the HIS (p81-82) identifies that whilst the Stage 1 Concept Proposal works will have no ground impacts (and therefore will not impact potential Aboriginal archaeology), the basement as proposed will likely have the potential to impact on natural soil profiles in Stage 2 Works (depending on location and depth of excavation). It also notes that 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 is removed. Instead, there is still a requirement to undertake Aboriginal cultural heritage and archaeological assessments/investigations in accordance with OEH statutory guidelines as part of the SSD Stage 2 process. The HIS identifies that Aboriginal community consultation has already been undertaken, with the details included in the HIS of the status of current processes. As previously stated, the Urban Design Guidelines (SJB), also note that: *Given the multi-layered cultural heritage significance of the precinct, including Aboriginal, non-Aboriginal, archaeological, social and recreational, there is the opportunity to celebrate the site's rich history and evolution, through the creation of unique, beautifully integration interpretation. The built design, public domain enhancements and interpretative products can be informed by the site's multi-faceted heritage. (Urban Design Guidelines p68)* ***In the event Aboriginal archaeological material is unexpectedly discovered during any works to this site, work shall immediately cease in the affected area and the National Parks and Wildlife Service will be contacted for advice.*** In the HIS, Curio Projects have recommended that prior to the commencement of Stage 2 construction at the site, an Unexpected Aboriginal Finds Policy should be prepared for the site, which would include the need to contact the local Aboriginal Community and the National Parks and Wildlife Service for advice, should any unexpected Aboriginal objects be found. The HIS also notes however, that since there is the potential to impact Aboriginal archaeology, further detailed archaeological investigation and mitigation will be required throughout the course of the project (p82 HIS). ***Should disturbance be required where Aboriginal archaeological material has been identified, an application under section 90 of the National Parks and Wildlife Act will be required for this disturbance.*** It is noted that since the draft CMP was written in 2004, the legislation has changed (2010) and approval under section 90 is required prior to disturbance of Aboriginal archaeological material. In addition, the SSD legislation turns off the requirement of the NPW Act for applicants to obtain consent under S90 of the Act.

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7.4.2 European Archaeological Resources ***Policy Statement*** *Busby's Bore will be conserved as a significant archaeological site and the research potential of Busby's Bore is recognised. Significant undisturbed archaeological deposits will be left undisturbed. Any exposure of the Bore will utilise this opportunity for high quality recording.* ***Guidelines*** *An application under Section 60 of the Heritage Act will be required for the disturbance of the approximate area of the Bore and shafts including three metre (where practicable) curtilage. Any archaeological resources must be managed in accordance with the recommendations arising from the Archaeological Assessment and any approval issued by the NSW Heritage Council.* *In the event archaeological material is unexpectedly discovered during any works, work shall immediately cease in the affected area and the Heritage Office will be contacted for advice.*	***Busby's Bore will be conserved as a significant archaeological site and the research potential of Busby's Bore is recognised. Significant undisturbed archaeological deposits will be left undisturbed. Any exposure of the Bore will utilise this opportunity for high quality recording.*** It is proposed that where 'significant' archaeological deposits may be discovered, that they will be left insitu, where possible, or be subject to archaeological investigation and high-quality recording, in accordance with any requirements of an Archaeological Research Design, approved by Sydney Water and the NSW Heritage Division. ***An application under Section 60 of the Heritage Act will be required for the disturbance of the approximate area of the Bore and shafts including three metre (where practicable) curtilage. Any archaeological resources must be managed in accordance with the recommendations arising from the Archaeological Assessment and any approval issued by the NSW Heritage Council.*** Noted and agreed. It is also noted that the NSW Heritage Division in their submission stated that: *As noted above, archaeological information is not anticipated to be impacted during Stage 1 as demolition is to ground level only, however the following recommendations are made to ensure that any future development of the site appropriately assesses and manages archaeological impacts:* *All recommendations of the report entitled 'Archaeological Assessment for Sydney Football Stadium, Stage 1 Concept Design' prepared by Curio Projects, dated 5 June 2018 should be implemented by the proponent.* • *An additional archaeological assessment or an amendment of the current archaeological assessment should be completed for all subsequent stages of the project, to assess the impacts of development on the archaeological information at the site.* • *An appropriate archaeological research design and excavation methodology should be prepared by a suitably qualified Excavation Director for review by the Heritage Council of NSW or its delegate for any works which will impact archaeological information or Busby's Bore.*

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7.5 Social Environment *The interpretation of Busby's Bore should seek to establish and convey the item's significance. This will require both interpretation of the place as an element of Sydney's historical landscape and as a landmark site in its own right. The interpretation of Busby's Bore should be based upon the themes and evidence presented in this draft CMP.* ***Guidelines*** *Any interpretation of Busby's Bore should be consistent or implement an interpretation policy formulated by Sydney Water for the presentation and interpretation of Sydney Water's significant and representative assets and be guided by the constraints and opportunities identified in Chapter 6.*	***The interpretation of Busby's Bore should seek to establish and convey the item's significance. This will require both interpretation of the place as an element of Sydney's historical landscape and as a landmark site in its own right. The interpretation of Busby's Bore should be based upon the themes and evidence presented in this draft CMP.*** This is noted and agreed with. As previously stated in this table (Section 7.1) there is the intention to interpret the significance of Busby's Bore with the design of public spaces, including landscaped areas. This was identified in the HIS, AA and Urban Design Guidelines submitted with the Stage 1 Concept Proposal. ***Guideline: Any interpretation of Busby's Bore should be consistent or implement an interpretation policy formulated by Sydney Water for the presentation and interpretation of Sydney Water's significant and representative assets and be guided by the constraints and opportunities identified in Chapter 6.*** Noted and Agreed. It is also noted that the draft CMP was written 14 years ago and that currently there is a new CMP being prepared. Sydney Water are not in a position to make this document available as it is only in its early draft stages and is considered by Sydney Water to be a confidential working document.
8.1 Item Management Processes *The Site should be archivally recorded prior to any major works. A copy of the recording should be lodged with NSW Heritage Council, and a copy should remain with the Sydney Water Corporation.* *Specialist consultants in the relevant fields with experience in dealing with heritage material should be commissioned as necessary, such as structural engineers and archaeologists specialising in Australian historical archaeology.* *A schedule of conservation and maintenance works is not necessary for Busby's Bore.*	*The Site should be archivally recorded prior to any major works. A copy of the recording should be lodged with NSW Heritage Council, and a copy should remain with the Sydney Water Corporation.* Agreed. This could form a condition of consent for the Stage 2 SSD. ***Specialist consultants in the relevant fields with experience in dealing with heritage material should be commissioned as necessary, such as structural engineers and archaeologists specialising in Australian historical archaeology.*** Agreed and has been and is continuing to be complied with. ***A schedule of conservation and maintenance works is not necessary for Busby's Bore.*** Noted.
ADDITIONAL DRAFT CMP CONSIDERATIONS	**DISCUSSION OF DRAFT CMP SUB-SECTIONS**
SECTION 4.0 ASSESSMENT OF SIGNIFICANCE ***CRITERION E –*** ***An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history, or the cultural or natural history of the local area*** *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 draft CMP identifies that Busby's Bore and its surrounds has research potential and the ability to contribute information, in accordance with Criterion E. In the summary statement of significance, the archaeological research potential of the site is again stated.** Section 4.5 of the draft CMP notes that the research potential of the archaeological deposits associated with the Bore relates to substantive historical and scientific questions relating to nineteenth century work and technology to changes in the environment. Therefore, archaeological investigation of sections of the Bore could significantly add to our understanding of the site (under the right circumstances, and in accordance with any Sydney Water and Heritage Act approvals), as stated in the draft CMP. The draft CMP policies do not clearly articulate this potential, other than through the identified of the need to apply for permits under the Heritage Act, if impacts are proposed. Therefore, there is a legitimate and reasonable expectation that if well-justified and undertaken by appropriately qualified archaeologists, that archaeological investigation and research in

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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. P58* ***4.5 Statement of Heritage Significance*** *Busby's Bore is a unique engineering achievement, which played a crucial role in the development of urban Sydney.* *As a product of convict labour and as a major factor in the establishment of local administration in NSW (in the form of the Sydney Corporation), it is associated with the important steps that changed Sydney from penal colony to colonial trading point. It is demonstrative of the attempt made by the Colonial Administration to ensure an adequate water supply for Sydney residents from 1837.* *The fabric of the Bore and associated archaeological deposits possess research potential relating to substantive historical and scientific questions relating to nineteenth century work and technology and to changes in the environment.* *The Bore, the first major infrastructure tunnel built in Sydney, and excavated by hand, is intact and is a rare survivor from the first half of the 19th century within urban Sydney.* *(Godden Mackay Logan, June 2001:26 and Sydney Water S.170 Heritage and Conservation Register).*	certain areas of the Bore would be beneficial, despite having the potential to impact on the fabric and surrounds of sections of the Bore. It is considered likely that the new CMP would better articulate that the combination of insitu retention and archaeological investigation and interpretation could be used to identify and interpret the significance and values of the Bore.
LOCATION OF BUSBY'S BORE – SUBSECTION 3.0 OF DRAFT CMP	***PRECISE IDENTIFICATION OF BUSBY'S BORE***
3.1.1 Position within the Water Supply System *Busby's Bore does not currently perform any current operational function for Sydney Water. As such, no specific management plan, inspection plan or well documented location plans exist for this asset. P49 DRAFT CMP* ***3.1.3 Location and Curtilage*** *In general terms, the site of Busby's Bore is known, however its precise location is not. No plan was made before or during construction and as the Tunnel has been considered obsolete since the 1850s, an accurate location map has not been desired.*	The draft CMP identifies that there are no inspection plans or well documented location plans that exist for the Sydney Water owned asset (Section 3.1.1). It even notes that: *The exact location of the Bore has never been surveyed definitively. It is notorious for its meandering route and the plan used by the Heritage Council to list the Bore relies on a Board plan (see Figure 3-1) which in turn, is based on the 1892 survey.* Therefore, despite the best efforts to try and precisely locate Busby's Bore within the subject site, as part of the proposed early works (as discussed in the HIS and in this table), it is considered highly likely that non-invasive techniques for precisely identifying the Bore are unlikely to be overly successful. It is more likely that at some point in the construction process, there will be a requirement to impact upon sections of the Bore that were not previously known to have existed and will therefore, need to be archaeologically investigated, rather than retained insitu.

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The only 'original' plan known to exist of Busby's Bore is an 1892 plan based on information appearing in a lithograph which had been produced in 1868 to illustrate an unpublished 1855 report (Refer Figure 2-8). The exact location of the Bore has never been surveyed definitively. It is notorious for its meandering route and the plan used by the Heritage Council to list the Bore relies on a Board plan (see Figure 3-1) which in turn, is based on the 1892survey. *The State Heritage Register listing of the Bore is not confined to the property Sydney Water may own or manage. The heritage listing includes the Bore and a minimum curtilage of three metres in a 360-degree radius around the Bore's fabric (where appropriate). This and other listings applying to Busby's Bore is outlined in Chapter 5 of this document. P49*	It is considered that the draft CMP in the assessment of significance clearly states that the archaeological research potential of the Bore is high and would likely provide information regarding construction, use, location and paleobotanical resources that no other research could. Therefore, it is considered that mitigation for Busby's Bore should include a combination of insitu retention, where possible, and where it is able to be planned for, as well as a program of archaeological investigation, should unexpected impacts occur.

3.0 Assessment of Draft CMP Views

The following table outlines the view assessment of heritage views as contained within the draft Sydney Cricket and Sports Ground CMP (draft CMP). The first two columns of the table below outline the view number and description of the heritage views as contained within the draft CMP. A comment is provided regarding the appropriateness of the view to the proposed development in column 3 and where the view is deemed relevant an assessment of the impact in terms of heritage is provided in column 4.

It is noted that the draft CMP does not contain any further description of the heritage views, justification for their nomination as significant views, locations or view angles or gradings of sensitivity. This section is provided in response to comment DPE5 of Attachment 2 to the Response to Submissions and should be read in conjunction with the Visual Impact Assessment at Appendix H of the exhibited EIS and Attachment 12- Addendum Visual Impact Assessment of the Response to Submissions. This section clarifies the assessment of significant historic views at section 7.2 of the Heritage Impact Statement contained as Appendix L to the exhibited EIS.

Heritage View (DRAFT CMP)	Description of Heritage View	Relevance of view to the proposed development	Heritage Impact
V1	From the Cricket Ground and its stands and the Sydney Football Stadium to the Fox Studios clocktower on the Frank Hurley Stand (former RAS Members Stand)	This view has not been included as it assesses impacts of views from the SCG to the east and south-east. The proposal will not impact these views. Views from the SFS will be assessed during Stage 2. The concept proposal included in the Stage 1 SSDA is for a concept envelope only, thus areas that are publicly accessible and will include this view cannot be assessed until the Stage 2 SSDA.	Not applicable.
V2	The views of the Member's Pavilion and Ladies' Pavilion to and from within the Cricket Ground and its stands.	The relevant views have been undertaken.	Views are included in Attachment 12 to the Response to Submissions, including: **Viewpoint 21-** Victor Trumper Stand, Sydney Cricket Ground **Viewpoint 22-** Clive Churchill Stand, Sydney Cricket Ground These views demonstrate that the proposed envelope will be visible from these locations. The existing SFS is partially visible from viewpoint 21, however is not visible from viewpoint 22. Both viewpoints include the heritage significant Ladies Stand

			and Members Pavilion as well as the more modern Bradman-Noble Stand of the SCG. V2 does however mention the setting of the view and views from within the SCG to the Members Pavilion and Ladies Pavilion will not be impacted by the proposal.
V3	Views of the Members Pavilion, Ladies Stand and western tower of the MA Noble stand to and from the Members Entrance, Practice Wickets and from the Members Garden.	The relevant views have been undertaken. It is noted that the wording of this heritage view is inaccurate. There cannot be views **of** the Members Pavilion, Ladies Stand and western tower of MA Noble Stand **to** the Members Entrance, Practice Wickets and the Members Garden.	Relevant views included within the Visual Impact Assessment submitted as Appendix H to the exhibited EIS and included: **Viewpoint 1-** SCG members entrance forecourt. Further views are included in Attachment 12 to the Response to Submissions, including: **Viewpoint 13-** SCG to north-west of Members Stand. **Viewpoint 14-** SCG to the north of the Members Stand (outside the western tower to the MA Noble Stand). These views collectively demonstrate that no views to either the MA Noble Stand (now mostly demolished), Members Pavilion, Ladies Stand and the western tower of the MA Noble stand will be impacted by the proposal. The visual impact level of effect from a heritage perspective is considered negligible as there are no visual impacts to or from heritage items or streetscapes associated with the increased Stage 1 Concept Proposal envelopment.
V4	Views from and to the western tower of the MA Noble Stand.	The relevant views have been undertaken. It is noted that no views to the western tower of the MA Noble Stand are available from the public domain surrounding the SFS, apart from on Driver Avenue looking south. This view will not be impacted by the proposal	Views are included in Attachment 12 to the Response to Submissions, including: **Viewpoint 14-** SCG to the north of the Members Stand (outside the western tower to the MA Noble Stand). **Viewpoint 15-** Driver Avenue to the north of Kippax Lake. **Viewpoint 17-** Gregory Avenue below Tibby Cotter Bridge. Both viewpoints 15 and 17 demonstrate that there is no view from the east or north east to the western tower of the MA Noble Stand. Therefore, there are no new impacts from a heritage perspective on V4, as identified in the draft CMP. Viewpoint 14 demonstrates that the view from the western tower of the MA Noble Stand will change and this is noted as having a low-medium level of visual effect. This however will have a negligible heritage impact as the view from the western

			tower of the MA Noble Stand is not to any heritage significant items. The viewscape relates to modern elements only.
V5	Views of the Sydney Football Stadium from within the SCG Site	The relevant views have been undertaken. It is noted that limited views to the Sydney Football Stadium are available within the SCG. The draft CMP denotes the existing SFS as having high heritage significance. As explained in Appendix L- Heritage Impact Statement to the exhibited EIS and this document, the declaration of the existing SFS as being of high heritage significance is contested and it is noted that the existing SFS is not a listed item under any local or state statutory listings.	Views are included in Attachment 12 to the Response to Submissions, including: **Viewpoint 21-** Victor Trumper Stand, Sydney Cricket Ground **Viewpoint 22-** Clive Churchill Stand, Sydney Cricket Ground These views demonstrate that the proposed envelope will be visible from these locations. The existing SFS is partially visible from viewpoint 21, however is not visible from viewpoint 22. Both viewpoints include the heritage significant Ladies Stand and Members Pavilion as well as the more modern Bradman-Noble Stand of the SCG, however these are not elements covered by the intent of this view from the draft CMP. Views to the Sydney Football Stadium would change as a result of the proposal, however, given that the Sydney Football Stadium is not a heritage listed item, it is considered that the proposed visual impact of loss of views to the existing stadium is neutral. The visual relationship between the SCG and the new stadium would continue as part of the proposed new development.
V6	Views to Moore Park and Kippax Lake from the Gold Members carpark and the Main Entrance	This view is not included as views from the Gold Members carpark (MP1) and the Main Entrance (outside the SCG) to the west (where Moore Park and Kippax Lake are located) will not be impacted by the proposal.	Not applicable
V7	The Driver Ave Streetscape featuring the Driver Avenue boundary wall, the Members Entrance, the Ladies Pavilion, Members Pavilion and western tower of	The relevant views have been undertaken.	Views are included in Attachment 12 to the Response to Submissions, including: **Viewpoint 15-** Driver Avenue to the north of Kippax Lake. **Viewpoint 16-** Driver Avenue, to the east of SCG Brewongle Stand **Viewpoint 17-** Gregory Avenue below Tibby Cotter Bridge. These views demonstrate that the heritage significant elements nominated within this view including the Members Entrance,

	the MA Noble stand.		the Ladies Pavilion, Members Pavilion and western tower of the MA Noble stand will not be obstructed by the proposal. Whilst the proposal will feature within some of these views as a piece of modern architecture, this will not be incongruous to the existing Bradman-Noble stand. As such there is considered to be no heritage impact to these views.
V8	From Moore Park along the axis of Gregory Avenue between Members Pavilion and Ladies Pavilion, to the Fox Studios clocktower on the Frank Hurley Stand (former RAS Members Stand)	The relevant views have been undertaken. It is noted that the CMP was prepared prior to the construction of the Tibby Cotter bridge and hence this view has been modified by this structure (as represented by Viewpoint 2 of Appendix H- Visual Impact Assessment, submitted with the EIS)	Views are included in Attachment 12 to the Response to Submissions, including: **Viewpoint 17-** Gregory Avenue below Tibby Cotter Bridge. This view demonstrates that none of the heritage significant items (Members Pavilion, Ladies Pavilion, Fox Studios clocktower) are altered or impacted as a result of the proposal. As such there is considered to be no heritage impact to these views.
V9	Streetscape views of the mature fig from Moore Park Road	The relevant views have been undertaken. Additional views to capture V9 are provided at Attachment 12 of the RTS. This is in addition to Viewpoint 4 and 5 of Appendix H- Visual Impact Assessment, submitted with the EIS)	Relevant views included within the Visual Impact Assessment submitted as Appendix H to the exhibited EIS and included: **Viewpoint 4-** intersection of Oatley Road and Renny Street. Further views are included in Attachment 12 to the Response to Submissions, including: **Viewpoint 18-** Footpath in front of 254-262 Moore Park Road. **Viewpoint 19-** Footpath in front of 228 Moore Park Road. These views demonstrate that there will be no change to views to the mature fig. Whilst the setting behind the fig may be modified this does not include any heritage listed items and as such no heritage impact will result from the modification of this view.
V10	Streetscape views of the Sydney Football Stadium	The relevant views have been undertaken. The draft CMP denotes the existing SFS as having high heritage significance. As explained in Appendix L- Heritage Impact Statement to the exhibited EIS and this document, the declaration of the existing SFS as being of high heritage significance is contested and it is noted that the existing SFS is not a listed item under any local or state statutory listings.	Relevant views included within the Visual Impact Assessment submitted as Appendix H to the exhibited EIS and included: **Viewpoint 4-** intersection of Oatley Road and Renny Street. Viewpoint 5- intersection of Moore Park Road and Poate Road. Further views are included in Attachment 12 to the Response to Submissions, including: **Viewpoint 18-** Footpath in front of 254-262 Moore Park Road. **Viewpoint 19-** Footpath in front of 228 Moore Park Road.

			Views to the existing SFS as a result of this proposal will change significantly. The heritage significance of this view is predicated on the draft CMP's assessment of the SFS as having high heritage significance. It is considered that this view will not be impacted from a heritage perspective, for the reasons outlined in the column to the left. From a statutory perspective, no views to or from heritage-listed items are impacted.
V11	Distant night views of the floodlit grounds	This view has not been included as the Stage 1 SSDA related to the concept envelope only. Night time views will be assessed as part of the Stage 2 SSDA once the design of the stadium is finalised and the impact of lighting can be assessed.	

4.0 SFS Comparative Analysis

4.1 Introduction

This comparative analysis has been developed to address the following comments provided by the NSW Heritage Council (comments HC2-HC4 of Attachment 2 to the Response to Submissions) in response to the public exhibition of the Sydney Football Stadium redevelopment SSD 9249:

The Heritage Division notes that the Sydney Football Stadium is ranked as having high significance in the Sydney Cricket and Sports Ground – Conservation Management Plan – Draft (SCG CMP), prepared in 2013 by Godden Mackay Logan. It is further noted that although the Heritage Impact Statement (HIS) references the CMP in its assessment, a copy of the document has not been provided with the SSD submission. The HIS states that the CMP bases the site's heritage values on its historical significance as '…a venue for significant sporting matches, concerts and events over the years; for its historic associations with the architectural firm Philip Cox and Partners; for its aesthetic significance as a technologically advanced design and creative landmark in Sydney; and for its social significance as a large sporting venue...' The draft CMP includes policies for the retention and conservation of the high heritage significance of the Sydney Football Stadium and recommends that an SECP (Specific Elements Conservation Policy) be prepared for the stadium to guide any future management and adaptive works.

The HIS contests the above assessment contained in the draft CMP and states that the significance of the existing Sydney Football Stadium primarily relates to '…its continuity of use and its intangible heritage value which relates to the long-term use of the site for sporting activities dating back to the late 1800s, and its visual dominance and significance within as a stadium within the Moore Park Road Streetscape and as part of the wider SCG site', and not the stadium building itself. The HIS concludes that the proposed development would have a neutral impact on the heritage values of the site and surrounds. The statement is, however, not supported by any comparative analysis of similar types of stadium developments in Sydney and NSW or a comparative study of body of works by Philip Cox and Partners. The HIS lacks a comprehensive assessment of the heritage significance of the Sydney Football Stadium and the level of heritage impact posed by its demolition.
Given the above noted inconsistencies in the assessments provided in the draft CMP and the HIS and the insufficient heritage assessment provided in the HIS, it is considered that further information should be sought. It is recommended that the Department of Planning and Environment (the Department) seeks the following information from the applicant prior to determining the application:

- *A detailed comparative analysis of similar types of stadium developments in Sydney and NSW and a comparative study of the body of works by Phillip Cox and Partners to further evaluate the significance of the Sydney Football Stadium building at State and Local levels. The additional assessment should be prepared by an appropriately qualified specialist on Modernist Architecture.*
- *Amended HIS and proposal to address the findings of the above noted comparative analysis and assessment.*

The Applicant notes that the existing Sydney Football Stadium (SFS) is not a statutorily listed heritage item under either the Local Environment Plan or the State Heritage Register. As such this comparative analysis has been developed in response to these comments rather than to address any requirements in relation to the heritage merit of the building.

The existing SFS is a Tier 1 stadium within the Sydney Stadium network. In order to qualify for Tier 1 status, a stadium is required to include:

- Seating capacity greater than 40,000;
- Regularly host international sporting events;
- Offer extensive corporate facilities, including corporate suites, open-air corporate boxes and other function/dining facilities; and
- Be the home ground for sporting teams playing in national competitions.

The existing SFS is one of three Tier 1 stadia within Greater Sydney, the others being the adjacent Sydney Cricket Ground and Stadium Australia at Sydney Olympic Park. These stadia compete on a national and international basis for large events. Tier 1 stadia are supported by a number of Tier 2 stadia within Sydney and NSW. Tier 2 stadia are required to include:

- Seating capacity of between 20,000 and 40,000;
- Some corporate facilities; and
- Be the home ground for sporting teams playing in national competitions.

Consequently, a comparative analysis of the existing SFS with other Sydney and NSW stadia would ignore one of the key elements of a Tier 1 stadium, being to host and attract regular international sporting events. A primary driver for the project is the ability for the SFS to retain its status as a competitive Tier 1 stadium both nationally and internationally. As noted in section 2.1 of the EIS:
In a competitive rectangular stadium landscape nationally and internationally, where more modern and better-equipped stadia in other capital cities compete to attract major events, the existing SFS is now facing serious commercial and operational challenges in remaining relevant and competitive for existing and future hirers and patrons. Owing to the age of SFS, there are a number of deficiencies in the provision of facilities that are required to function as a Tier 1 stadium. The stadium has aged poorly and fails to meet modern patron and hirer expectations in terms of patron experience, crowd management, safety/security, accessibility, facilities for core tenants, operational efficiency, premium hospitality and food/beverage offerings and media requirements.

A number of alternatives to the redevelopment of SFS were explored within the Business Case for the project. These alternatives are outlined at section 2.4.1 of the EIS (extracted at Appendix 1 of this document) and within the Business Case summary available via www.infrastructure.nsw.gov.au The alternatives consider works that would be required to ensure both the safety and comfort of patrons as well as the competitiveness of the facility. In order to remain competitive and retain its status as a Tier 1 stadium, considerable intervention would be required. Options 1 and 2 outline the 'do nothing' and 'base case' options where either no intervention or minimal intervention would be undertaken to the existing SFS. These options were not considered feasible as they would not ensure the ongoing safety and comfort of patrons and furthermore would not meet the criteria for modern Tier 1 stadia. Option 3- 'Refurbishment Option' would require more extensive intervention to the stadia include a new roof covering 95% of the seats and a new basement ring road. It was considered that this option would involve significant cost and maintain a construction program similar to that of Option 4- 'New Stadium.' There would be significant intervention to the existing SFS building fabric under option 3 to ensure it maintains status as a Tier 1 stadium. Most importantly, the main architectural feature of the existing stadium, the roof, would need to be demolished and replaced with a new structure of a different design. This is an important consideration in understanding the viability of alternatives to the proposal in relation to retention of the existing built form.

In order to properly undertake this comparative analysis, national and international comparisons have been made of Tier 1 stadia. Comparison to stadia within Sydney and NSW only would not allow comparison between like-for-like stadium developments.

The structure of this comparative analysis is as follows:

Section 4.2- Comparative Analysis- this section has been completed by Cox Architecture provides an overview of the evolution of stadia design, the reasons for renewal, examples of stadia renewal and an outline of significance in relation to the Cox portfolio.
Section 4.3- Heritage Status of the Sydney Football Stadium- outlines the heritage provisions relating to the existing SFS.
Section 4.4- Draft Sydney Cricket and Sports Ground Conservation Management Plan- outlines the utilisation of the draft CMP as one element in the assessment provided in the Heritage Impact Statement (HIS) included as Appendix L to the exhibited EIS. This section also provides a detailed assessment of the project against the provisions of the draft CMP.
Section 4.5- Assessment of the Significance for the SFS Subject Site- reassesses the significance as provided in the HIS in light of the comparative analysis.
Section 4.6- Conclusions and Recommendations- supplements the conclusions and recommendations of the HIS in light of this comparative analysis.
Appendix 1- contains a copy of the Business Case alternatives, outlined in section 2.4.1 of the EIS
Appendix 2- contains a statement in relation to the listing of the SFS on the register of the National Trust.
Appendix 3- contains a letter from Cox Architecture supporting the redevelopment of the SFS on the proviso that the replacement be of equal or greater merit than the original.
Appendix 4 - contains examples of international Tier 1 stadia that have undergone redevelopment.

This comparative analysis has been developed by Cox Architecture and Curio Projects.

4.2 Comparative Analysis

4.2.1 Evolution of the Modern Stadium

The Sydney Football Stadium was built in the late 1980's at the end of what could be considered was the 'pragmatic' stadium era and just prior to the Hillsborough Stadium disaster in the UK in 1989. This was the last in a series of stadium fires and other catastrophic events over a decade in Europe. The resulting Taylor Report became a significant and influential document on the minimum recommendations for stadium design and management. Although the Sydney Football Stadium's initial design met reasonable life safety requirements, it lacked major revenue generating opportunities. These were post fitted in compromised locations.

In the following decade a new generation of stadia were developed to address both commercial key safety concerns of the Taylor Report, including anti-social behaviour. So apart from safety they also focused on family friendly environments that were more comfortable to attract a more diverse array of spectators.

A benchmark facility of the 1990's was Oriole Park at Camden Yards in Baltimore. This baseball stadium was completed in 1992 to replace the Memorial Stadium. It featured a wide range of not only spectator facilities, but extensive corporate facilities, including dine and view restaurant, unique scoreboard/advertising features and barbeque areas. This highly commercial focus was very successful and as newer stadia were developed they further capitalised from corporate sponsorship. Increased revenue brought in by the broadcasting rights led to an increasing demand for better communication and marketing opportunities within stadia. Sports lighting levels needed to be increased for high definition broadcasting, better sound reinforcement systems and advertising positions. It also put pressure on the various venues through the sports codes and media to improve spectator attendance.

More focus was put into the design and provision of spectator facilities to create a "Fan First" experience. Ranging from the quality of seats, increased numbers of toilets, easier circulation, more and better food and beverage options, pre, during and post entertainment, plus improved environments both internally and externally. Video screens are as large as they can be, and TV monitors are now readily seen from all circulation areas of the venue.

The other major development has been the integration of facilities and flexibility to meet a greater diversity of uses other than sport, plus the overlay requirements of major international sports events.

Stadia are now regularly used for major entertainment events such as concerts and other public gatherings. They need to allow for temporary amenities and access/egress provisions if the permanent facilities can't suffice.

For major international sports events such as the FIFA World Cup and the Summer Olympic Games, major overlays are required within the venue and its perimeter. These requirements have grown significantly over the last 20 years, for example the FIFA hand book on stadia design is now over 420 pages, whereas the 2005 handbook was 37 pages. Requirements include minimum facility recommendations as well as overlay. Key areas where the requirements have increased over the last 2 decades are in security, media and corporate facilities required.

4.2.2 Shorter Cycles for Renewal

The increasing cycle of renewal of stadia is typified by the 1996 Atlanta Olympic Stadium. It was built in stages to suit firstly the Olympic requirements and then the second stage was its finalisation to replace the 1966 Turner Field Baseball stadium, which was then demolished. Following failed negotiations between the Atlanta Braves home team and the Atlanta Fulton County Recreation Authority, the Stadium's owner over the Brave's demand for significant upgrades to fan and revenue generating opportunities, they moved to a new venue at the end of the 2016 lease. The County then seriously considered demolishing the venue. Instead extensive renovations were undertaken to convert it to a rectangular football field with the sites acquisition by Georgia State University.
In an article entitled "The Short Life of an NFL Stadium" in 2014, CNN reporter Chris Isidore wrote about this accelerating trend in the USA. Focusing on the demolition and rebuilding of the Georgia Stadium. It was 22 years old when demolished to make way for the new venue, although it was designed for a life of 50 years.

He noted that the Georgia Stadium was one of 2 new stadia under construction for NFL teams at that time. Another 10 had been completed within the preceding 12 years. The median age of an NFL stadium being 31 years. He reasoned that new stadia maximised revenue in a way that old stadia couldn't.

It was reported in 2017 by Kevin Seifert that between 2000 and 2020 the NFL will have opened 20 new or rebuilt stadia at a public cost of over US$6.7 billion.
This trend has also continued throughout other parts of the world. In the UK large numbers of Premier League stadia are being or planned to be rebuilt or refurbished. Arsenal's Emirates Stadium opened in 2006 and started the move to modernise. It has been followed by Chelsea announcing a new 60,000 seat stadium in 2016, Liverpool having plans for a 60,000-seat venue and Tottenham Hotspurs new 56,000 seat stadium nearing completion as a replacement for the old White Hart Lane Stadium.

Other recent redevelopments of modern stadia include:

- In Turin, Italy the 26 year old 69,000 seat Stadio delle Alpi was demolished in 2006 to make way for a new venue.
- In England, the 18 year old 25,000 seat Don Valley Stadium was demolished for redevelopment in 2008.
- In Shenyang, China the 19 year old 65,000 seat Wulihe Stadium was demolished for redevelopment in 2007.

4.2.3 Recent Developments for Australian Stadia

Post the Sydney Olympic Games, Australia lacked consistency of suitable Tier 1 venues in its major capital cities. In preparing the Australian Bid for the 2018/2022 FIFA World Cup, FFA identified this and proposed a National Stadium Strategy to the Federal Government. This included having a Tier 1 rectangular plus Tier 1 oval stadium in every Capital city. Since that report in 2009 then there has been significant redevelopment and plans for further. This includes:

- NIB Stadium. Stage 1 of the redevelopment was completed in 2013. This rectangular stadium in Perth is now proposing the second stage, which includes the demolition and construction of the west and south stands to finalise its redevelopment.
- Optus Stadium, Perth. New oval stadium completed earlier this year for primarily AFL and cricket. This new venue effectively replaced the aging Subiaco as the main football venue in WA.

- Adelaide Oval. Completed in 2014 the stadium now accommodates AFL as well as cricket. It superseded the 1974 Football Park as SA's premier football venue and included the demolition of the Chappell stands that were completed in 2003.
- Etihad Stadium Refurbishment. This Melbourne multi-purpose stadium has plans for significant redevelopment in the next few years.
- AAMI Stadium. This rectangular stadium in Melbourne was completed in 2010 to replace Olympic Park Stadium that was built for the 1956 Olympic Games.
- Melbourne Cricket Ground. The new North Stand was completed for the 2006 Commonwealth Games. Planning is proceeding for the replacement of the Southern Stand that was completed in 1992.
- Canberra Stadium. The Canberra Stadium had a major refurbishment in the mid 90's to convert it from an athletics stadium to a rectangular stadium. The ACT Government is currently planning its replacement nearer to a more central location.

The Sydney Football Stadium has not had any significant refurbishments since it was completed. It is effectively the oldest Tier 1 stadium in Australia and well behind the other more modern venues.

Appendix 4 provides a summary table of comparative Tier 1 Stadia including local and international examples. This demonstrates that Sydney Football Stadium is a standard example of a Tier 1 stadium, noting that all Tier 1 stadia, whether historic or modern were designed to be landmark elements within their local environment. This is largely due to the size of Tier 1 stadia being designed to house more than 40,000 spectators.

4.2.4 Significance in the Cox Portfolio

One of the key pursuits for Cox Architecture was in steel structures in the 1980's. As with the use of timber in earlier projects, there has also been a characteristic Australian tradition in the use of steel, in the early wind devices, prefabricated sheds and water towers. They tended to have an extraordinary skeletal quality, using minimal steel structure, and most were simply clad in corrugated iron. When Cox began using steel, the feeling was that its versatility and expressive qualities had not been fully explored in contemporary Australian architecture.

The National Athletics Stadium (now Canberra Stadium) and its associated National Indoor Sports and Training Centre were the first of Cox's schemes to explore the minimalist use of steel. In the stadium, Cox endeavoured to create the effect of a roof hovering over the landscape using masts and cables to lighten the structure in a way not possible with timber supports. For the Sports and Training Centre, Cox used great sentinel steel columns and supported the roof on cables slung between them. In both buildings, there is a delight in seeing the structural forces at work, clearly displayed, yet with a grace and ease belying their complexity.

These projects were in many ways catalysts for later schemes in which other potentials of steel have been explored. Despite its hardness, steel is surprisingly malleable and Cox found that it could easily be moulded, sculpted and carved out forms to reflect or express a particular context. In led to a significant group of "white steel" buildings that were commissioned for the Australian Bicentennial. The cascading vaults of the National Maritime Museum, for instance, are dramatically different from the skeletal frames suspending the Sydney Exhibition Centre, yet both are designed to convey maritime themes while reflecting the industrial context of Pyrmont. The National Tennis Centre's emblem is its movable steel roof, but the main objective was to reflect the neighbouring skeletal building peaks such as on the Victorian Arts Centre, the city towers and the lighting stanchions of the Melbourne Cricket Ground.

The last of the quartet of "white steel" buildings was the Sydney Football Stadium. It was partly

descended from the National Athletics Centre and partly a response to its urban context. Its undulating roofscape is referential to the languid character of the National Athletics Stadium, but here it was conceived as a way of scaling down towards neighbouring residences, while rising up to maximise the spectator experience. It has a rollicking larrikin nature whilst capturing the theatre in the round.

From a practical point of view the approach of detailing and assembly was adopted for the various clear span buildings that followed including the Cairns Convention Centre and RAS Showring (now Spotless Stadium).

The significant of this phase in Cox's work is further described in the Stuart Harrison article titled "White Steel – The sports building work of Philip Cox, from 1977 and their global influence" published in 20 March, 2008 and Jennifer Taylor's article entitled "Philip Cox's Bicentennial Buildings".

4.3 Heritage Status of the Sydney Football Stadium

4.3.1 Statutory Heritage Listing

As noted in Section 2.3- Statutory Heritage Listings of the Heritage Impact Statement (HIS), Sydney Football Stadium (SFS) itself is not individually listed on any statutory heritage registers[1].

The SFS is not identified as an item of local or State heritage significance in the City of Sydney Local Environmental Plan 2012, nor is it identified as an item of State heritage significance on the NSW State Heritage Register.

It is not the subject of an Interim Heritage Conservation Order (under the NSW Heritage Act, 1977).

4.3.2 Non- Statutory Heritage Listing

The Sydney Football Stadium was listed on the National Trust Register in June 2015 in response to proposed redevelopment plans for the SFS.[2] Listing by the National Trust has no statutory effect and is a register held by the National Trust of places that the Trust considers worthy of conservation.

Information related to individual listings of places on the National Trust Register are not currently able to be publicly accessed online[3]. The website- https://www.nationaltrust.org.au/services/trust-register-nsw/ states that there are no items to display.

In a statement released by the NSW National Trust regarding the Trust's assessment of the site's significance, it is noted that no assessment of the significance of the SFS against the *NSW Heritage Significance Criteria*[4] is provided. In addition, the statement does not provide a comparative analysis with any other commensurate Tier 1 Stadia in NSW, nationally or internationally. The full National Trust statement is included as Appendix 2.

[1] *Heritage Impact Statement for Sydney Football Stadium, Stage 1 Concept Design SSDA*, prepared for Infrastructure NSW by Curio Projects, 5 June 2018. (p17-18)
[2] https://www.nationaltrust.org.au/initiatives/sydney-football-stadium/
[3] https://www.nationaltrust.org.au/services/trust-register-nsw/
[4] *Assessing Heritage Significance,* prepared by the NSW Heritage Office. July 2001 (p8-10).

4.4 Draft Sydney Cricket and Sports Ground Conservation Management Plan

The *Sydney Cricket and Sports Ground— Conservation Management Plan—DRAFT* (draft CMP), prepared in 2013 by Godden Mackay Logan for the Sydney Cricket and Sports Ground Trust (SCGT) is a non-statutory draft document that to date, remains as a working document and has not been finalised by the SCGT for submission to, and endorsement by, the NSW Heritage Council.

While the draft CMP covers a wider area including the SCG and surrounds, it also encompasses the whole of the SFS Redevelopment site, including the SFS.

One of the key shortfalls with the draft CMP is that it has assessed the significance of the SFS to be high, without having undertaken an assessment of significance for the individual building and its components in accordance with the *NSW Heritage Significance Criteria.*[5]

In addition, a comparative analysis of the SFS with Tier 1 Stadia of commensurate age, capacity and function has not been undertaken and included in the draft CMP. The impact of these shortfalls in terms of providing a well-founded assessment of significance of the SFS are highlighted in the following sections of this report.

4.4.1 Draft CMP Comparative Analysis

The comparative analysis section of the draft CMP (section 4.0) only provides a comparative analysis of the Sydney Cricket Ground against other cricket grounds and ovals across the State capitals of Australia. It does not provide a comparative analysis of the built form and fabric of the c.1988 SFS against other modern (or historic) sites of similar size, age, capacity and function, either within Australia or internationally.

The HIS did not include a comparative analysis of the SFS with any other similar buildings, as the SFS is not listed on any statutory heritage registers. It is not generally a requirement for a c.1988 building that is not subject to statutory heritage listings to be subject to a comparative analysis in a HIS. It is however, expected that if a CMP proposes to nominate a building as having high heritage significance, the CMP should contain a thorough comparative analysis to support this recommended level of significance.

The comparative analysis section of the draft CMP only briefly mentions the SFS once, which is to note that its construction had no direct effect on the main grounds of the SCG. It states: *The major development of the 1980s at the SCG, the new Sydney Football Stadium, did not directly affect the main ground.*[6] .

Further, the draft CMP makes the point in the comparative analysis that:

Other large-scale developments in recent times at other grounds have necessitated major development of the historic grounds. This is particularly so for the Gabba where all the stands date from between 1995 and 2005, and the MCG which was basically rebuilt between 1991 and 2006 with the exception of retaining the façade of the Members Pavilion (1928).[7]

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[5] Ibid.

[6] *Sydney Cricket and Sports Ground— Conservation Management Plan—DRAFT* (SCG CMP), prepared in 2013 by Godden Mackay Logan for Sydney Cricket and Sports Ground Trust (SCGT) (p104)

[7] Ibid. (p104)

This point is important in demonstrating, through comparative analysis, that major changes to fabric, including full demolition, and/or partial retention of historic fabric (such as historic sections of the SCG) is a common and necessary part of the evolution of major sporting sites both nationally, and internationally.

This conclusion is supported in the summarising statement for the draft CMP comparative analysis. It highlights the significance of the SCG, and its ability to continually develop to meet the changing needs of a variety of sports. It states:

In summary, in the context of the major cricket/football grounds of the Australian capital cities, the SCG has the oldest continual association with the game of cricket. It is representative in terms of its siting and public ownership and in terms of its continual development to meet changing needs of a variety of sports.[8]

The draft CMP makes no specific mention of the SFS in the summarising conclusions of its comparative analysis.

4.4.2 Draft CMP Assessment of Significance

Curio Projects in reviewing the draft CMP, noted that there were several inconsistencies with respect to the assessment of significance for elements of the site. In particular, at section 7.0- Heritage Significance Assessment, the HIS notes:

The heritage significance of the subject site in accordance with the above criteria has been partially assessed in the Sydney Cricket and Sports Ground—Conservation Management Plan—Draft (GML 2013), however the draft CMP focuses mainly on the significance of the built heritage values and significance of the SCG site itself, as opposed to the wider precinct.
Furthermore Section 7.4 Site Significance Assessment of the HIS discusses the issue of the draft CMP's assessment of significance for archaeological resources and notes that the draft CMP fails to address the potential Aboriginal significance of the site. The HIS provides an updated assessment of potential archaeological and social significance based on additional research undertaken by Curio.

For the purposes of the RTS, however, this report speaks only to the heritage significance assessment of the SFS subject site.

Section 5.4 of the draft CMP, titled *Heritage Significance of the Sydney Cricket Ground Site* is stated to be based on supporting evidence provided in the following sections of the draft CMP:

- Section 2.0 Historic Development
- Section 3.0 Physical Evidence;
- Section 4.0 Comparative Assessment; and the
- Historical Archaeological Assessment

Section 2.0 Historic Development. The draft CMP discusses the prior use of the SFS grounds for major sporting events and notes that the construction of the SFS required the closure and demolition of the historic Sydney Sports Ground (which was used to hold international car and motorbike racing events) and the acquisition of the c.1800s Army depo on Moore Park.

Section 3.0 Physical Evidence. As with the rest of the draft CMP, the history of the SFS is limited to one-two paragraphs with the focus of the history on the development of the SCG itself. The historical description of the within the draft CMP is stated as:

[8] Ibid. (P95)

Sydney Football Stadium
White-painted steel exo-truss framed structure with a continuous, undulating, steel deck roof upper levels are clad in composite panels. Lower levels use two-tone (beige and brown) infill brickwork. The white-painted expressed steel structure, curved roof forms and two-tone brickwork have been adopted as the architectural language for subsequent work on the SCG site.

The Sydney Football Stadium was designed as one enclosure seating 40,000 spectators; it was soon enlarged to accommodate additional private boxes, some within the expressed steel frame. The stadium was recently expanded to seat 45,000. Views to the Fox Studios Clocktower (former RAS Member's Stand) are available from within the Stadium.

Member's Club facilities, including gym and restaurant facilities, are accommodated under the southwestern portion of the stadium.

Designed by Philip Cox and Partners in 1985, this building was a finalist in the World Quaternario Awards, and won the 1988 NSW ACEA Excellence in Engineering Award. It is listed on the Australian Institute of Architects Register.

The major changes to the SFS include the addition of concourse seating.[9]

Section 4.0 Comparative Assessment. As discussed in Section 4.1 of this report, there is no comparative assessment (analysis) of the SFS building included in the draft CMP.

Section 5.0 Analysis of Significance
The draft CMP's assessment of significance for the SFS (and its individual components) is based on the statements from sections 2.0, 3.0 and 4.0 outlined above. The assessment within these sections leads to a conclusion within the draft CMP at section 5.4 that states the significance of the SFS as:

The Sydney Football Stadium was a technologically advanced structure for its time and represents local landmark of high heritage significance. Sydney Football Stadium was awarded the NSW ACEA Excellence in Engineering award in 1988.

Limitations
It is worth noting the limitations outlined at section 1.5 of the draft CMP:

The assessed significance of individual key components relates to their contribution to the significance of the site as a whole ***and not as individual components****.*

The limitations further note that a full social values assessment of the SFS, including discussions and consultations with the main SFS site users, such as the sports clubs with a presence on the site, users of the site (members, spectators and players) has not formed part of the assessment of the social values of the site. Section 1.5 of the draft CMP also states:

The CMP has not sought to assess the significance of the place to the local Aboriginal communities, which would require consultation with identified Aboriginal stakeholders. Such an assessment is recommended.

[9] *Sydney Cricket and Sports Ground— Conservation Management Plan—DRAFT* (SCG CMP), prepared in 2013 by Godden Mackay Logan for Sydney Cricket and Sports Ground Trust (SCGT) (p55)

The CMP considers the social values of SCG site but does not constitute a full social values assessment. This would require discussions and consultations with the sports clubs with a presence on the site, users of the site (members, spectators and players) and relevant community groups. [10]
Therefore, given the stated limitations, and the limited SFS-related evidence provided in the body of the draft CMP, it is unclear how the assessment of the significance for the SFS has been concluded as being high. As outlined in the HIS it is questioned how the draft CMP has been able to conclude that the fabric of the c.1988 is of such social and architectural significance that it should be retained in its current form, at the expense of being able to meet current International Tier 1 Stadium requirements.

[10] Ibid.(p10)

4.4.3 Analysis of Significance of Site Components – draft CMP

The HIS included at section 7.2 an analysis of the heritage significance assessment contained within the draft CMP (section 5.6) as relevant to the existing SFS. To address comments made by the Heritage Council, this analysis is expanded below to include the entire significance assessment as contained in the draft CMP. As outlined in the table below, the conclusions of section 7.2.1 of the HIS hold, namely that reassessment of the significance of the SFS from that outlined in the draft CMP is warranted.

5.4.1 Criterion A (Historic: Evolution) *An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).*	
STATED SIGNIFANCE	**CURIO COMMENT**
Cricket in Sydney and New South Wales *The SCG site has been the home ground for a continual succession of cricket clubs beginning with the Garrison Club from 1852, the Military and Civil Cricket Club and currently Cricket NSW. The SCG site is possibly the longest continually used site for cricket matches in NSW (since 1852, with the first documented match in 1854).* *The site has been important in the development of a diverse range of sporting activities (including athletics, tennis, cycling, four codes of football) and the development of technologies associated with these sports (eg broadcasting technology, electrical lighting for night sport). The SCG and SSG played important roles in the building of colonial and national identity from self-rule through to Federation.*	Relates to cricket only, also relates to long-term historic cricketing activities on the land now housing the SFS members car park. Agreed, however it fails to emphasise the historic significance of the Sydney Sports Ground, including contribution to motorbike and car racing on a local, State, National and International scale, spanning decades, up until demolition of the final SSG in 1987 to allow for construction of the SFS. This is outlined in section 3.6 of the HIS.
Recreational Lands *The SCG site has been part of a swathe of open space in public ownership for recreation since it was proclaimed as Sydney Common in 1811 by Gov. Lachlan Macquarie. The site has been an important focus for leisure and sporting activities for the people of Sydney and NSW since 1854.*	Agreed. Hence long-term historical and intangible heritage values, as discussed and assessed by Curio in sections 7.1 and 7.5 of the HIS. Included in HIS history, section 3.2-Sydney Common.

STATED SIGNIFANCE	**CURIO COMMENT**
Venue for Significant Events in NSW History *The site has been the venue for Test matches (cricket and rugby league) and has hosted many visiting overseas sporting teams. It was the venue for the Empire Games in 1938. Other notable sporting events include the 1st International rugby game with New Zealand in 1884, the 1st touring Sydney British rugby union team's game versus NSW in 1888, the Sydney Thousand cycling events and the Sydney Olympic Games in 2000 (Women's football).* *SFS has hosted increasing one-off music concerts (e.g. WaveAid 2005, Robbie Williams 2006, Live Earth 2007) and other non-sporting events such as Edinburgh Tattoos.'*	This statement isn't clear about which part of the site's history the significant events/history relates to. There should be a clear assessment of the former Sydney Sports Ground No. 1 which was demolished for the SFS carpark. When speaking about a venue for significant events in NSW history, the assessment should be clear that most of those events were held at the SSG which was demolished to make way for the SFS. Notably (extracted from section 3.6 of the HIS)*:* *The **Sydney Sports Ground No. 1** was a highly significant sporting venue, including Stadium and Dirt track racing venue in Sydney, New South Wales in existence from as early as 1902. The ground was located where the car park of the Sydney Football Stadium (SFS) currently sits.* *The Sydney Sports Ground No. 1 had two main grandstands and was surrounded by a grass covered hill, giving it a capacity of more than 35,000. It was demolished along with the smaller No.2 Ground in 1986 to allow the building of the SFS, which opened in 1988.* *During its lifespan the Sports Ground hosted Rugby League, Rugby Union, Soccer, Motorcycle speedway and Speedway car racing.* ***Sydney Sports Ground Speedway** - Motorcycle Racing on the original concrete track located on this site was first held in 1907 when the arena was known as the Sydney Sports Ground. The track was removed in the mid-1920s and replaced in 1937 by a quarter mile dirt track. Racing for Solo and Sidecar motorcycles and Speed cars continued to the mid-1950s. and the Sydney Sports Ground was world famous as the venue for Australian Championships for all*

	speedway divisions and motorcycle test matches between Australia and England.
***Military Connection**: 'The site had a continual and varied association with the military from 1849 until 1986, including accommodating the Engineers depot and military training functions and, during the First and Second World Wars, important training and enlistment functions.'*	Agreed. This assessment doesn't highlight that this function only ceased in 1986 to allow for the acquisition of the land for construction of the SFS.
***Water Supply**: 'The site is the location for a substantial section of Busby's Bore which is important in the early history and development of Sydney.*	Agreed.
Criterion B (Historic Association) An item has strong or special association with the life or works of a person, or group of persons, of importance in the cultural or natural history of NSW (or the cultural or natural history of the local area).	
STATED SIGNIFANCE	**CURIO COMMENT**
Sports Clubs *The site is notable for its association with the Cricket NSW and its predecessors. Long-term associations with other sporting clubs include the Sydney Lawn Tennis Club.*	It would be expected that the SFS should be identified here if the SFS is to have a high significance, but the assessment generally focuses on the connections to cricket, not football.
Significant People *The SCG site important associations with a number of significant figures in New South Wales history, including associations with many notable Australian trustee/politicians (George Reid, Richard Driver, Pat Hills). It is notable for its*	Agreed, however the assessment of significance focuses on politicians and associations with cricketers, but does not mention significant sporting figures associated with the former raceway, or indeed football. It does not highlight

associations with Test matches and visiting overseas teams, e.g. Lilywhites English XI	any significant people associated with the SFS or significant sporting people associated with the former SSG. For example, as described in the HIS (p38): *In an era when death was an accepted risk of the sport, 12 competitors lost their lives while racing at the Sydney Sports Ground. In the most tragic accident, close friends off the track, champion racers, Norm Clay and Ray Duggan both died after crashing together in a Solo race there on 21 January 1950.* Many Australian world champions raced at the track, including Lionel Van Pragg, Australia's first world champion.
Cricket and Sporting Identities *The SCG site has long been associated with a diverse range of individuals of the cricket and wider fraternity, including Don Bradman, Victor Trumper, Nicholas Shehadie, Ned Gregory and Philip Sheridan*	Agreed. Although it tends to still focus on cricket as being the most prominent. There needs to be a much more thorough analysis to adequately capture the essential intangible social values held within the site's history and evolution over time. Examples specific the demolished SSG include: Sir Donald Bradman played the world's first cricket match under light at the non-demolished SSG In 1930. Muhammad Ali also staged an exhibition bout against Joe Bugner and Jimmy Ellis in 1979 at the SSG and announced his retirement there. Other key events and athletes who featured at the Sports Ground, included John Landy, Betty Cuthbert (Athletics), Jack Bradham (motorsport), Arthur Beetson, Clive Churchill, Dave Brown (Rugby League), Ken Catchpole, Bledisloe Cup matches, Shute Shied Grand Finals (Rugby Union), Johnny Warren, 1981 World Youth Championships (Football), Simon and Garfunkel (music)
Architects	Agreed. It is understood that as a result of upgrades, modifications and demolition to allow for new structures, such as the SFS, over time that

Throughout its history, the SCG site has been associated with a number of important Sydney architects including John Kirkpatrick, Richard Shute, and more, extensively, with the architectural firms of Robertson and Marks and Phillip Cox and Partners.	many of the buildings and structures associated with the noted architects no longer exist within the SCG site.

Criterion C (Aesthetic Significance) An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).	
STATED SIGNIFANCE	**CURIO COMMENT**
Architectural Components *The Member's Pavilion and Ladies Pavilion are recognised items of architectural merit and are of Exceptional Significance. As a pair they are complementary in style and detail and are evidence of historically important gender aspects of cricket in the 19th and 20th centuries.*	Agreed- not relevant to the SFS.
The MA Noble Stand was a fine example of an Art Deco style grandstand and a rare example of its period and style. A portion of the western tower on its north east corner has been retained in the Stage 2 redevelopment of the new Northern stand.	It is noted that MA Noble Stand is now mostly demolished and is not relevant to the SFS.
The Members Pavilion and Ladies Pavilion, together, form an exceptional group constructed between 1890 and 1905 and confer upon the SCG site aesthetic significance at a State level. Together with the Member's Entrance, Member's Garden, Driver Street Walls and Walk of Honours they form the SCG's historic grandstand precinct.	Agreed- not relevant to the SFS.
***Landmark Qualities**:* *The SCG site is a significant local landmark on the major thoroughfare of Moore Park Road which together with the adjacent Fox Studios, Entertainment Quarter, Moore Park and Centennial Park provides a notable swathe of regional recreational facilities and recreational open space.*	Agreed. This is, however, due to their historic architectural features.
The Member's Pavilion and Ladies' Pavilion are distinctive elements in the streetscape and are landmark features of the SCG, as are the brick perimeter walls and Member's Entrance.	Agreed. This is, however, due to their historic architectural features.

The Sydney Football Stadium is also a distinctive streetscape element, especially in more distant views as are the site's light towers on the night skyline.	Agreed. However, it should be noted that all Tier 1 stadia with this level of capacity, location, and function are generally a distinctive streetscape element, whether well-designed or not, as demonstrated in the comparative analysis of similar stadium types around the world (Appendix 4). The SFS does not contain light towers- these elements relate to the SCG.
Landscape Components *The single mature fig on Moore Park Road boundary is a rare survivor; evidence of the Military Depot on the site.*	Agreed- this tree is to be retained as part of the proposed development.
Innovation *The Sydney Football Stadium is a technologically advanced design, a creative landmark in Sydney architecture. It was awarded the NSW ACEA Excellence in Engineering award in 1988.* *Light Towers were an innovation that allowed the introduction of night cricket, the Inaugural Day-Night International (November 1978) and World Series Cricket.*	This statement is not supported by any comparative analysis or further discussion in the draft CMP (see section 4.2 of this report). It is agreed, however, that historically, the SFS **was** technologically advanced at the time of construction in c.1988. This was acknowledged through one local engineering award and in academic publications. However, it did not win any other design, engineering or architectural awards locally, nationally or internationally. Section 2.0 of this report, prepared by Cox notes that: ***The Sydney Football Stadium has not had any significant refurbishments since it was completed. It is currently the oldest Tier 1 stadium in Australia and well behind the other more modern venues.*** For a c.1988 modern building to meet the criteria of high significance and be retained for its significant built heritage fabric it should be able to demonstrate significance through a range of different ways, including comparative analysis, a full assessment of significance of the building and its components against the NSW Assessing Heritage Significance guidelines and possible recognition through architectural and design awards at a

	minimum of a local or State level. Given that the SFS is a stadium that needs to be functional at a Tier 1 level in 2018, it must be able to still demonstrate this excellence or else it will no longer be able to function as a Tier 1 stadium. The draft CMP provides none of the above-mentioned information to support the claim. The comparative analysis (section 2 of this report) demonstrates that generally all local, national and international Tier 1 stadia demonstrate various aspects of technologically advanced design (for the time of construction) and provide landmark qualities within their setting, by the virtue of their size, bulk, design and intended public use. In addition, it is important to note that the use of the SFS for its intended ongoing purpose is now limited by its 1988 design, so therefore it is representative of an innovative design at a point in time that has now been superceded by new more technically advanced stadia design requirements and innovations. Even by 1990, stadium design and management radically changed following the release of the Taylor report. Taylor's report on stadium design and management was produced following the Hillsborough Stadium disaster in the UK in 1989. The report had a major impact on stadium design and management throughout the world and led to major stadium renovations, demolitions and change throughout the 1990s and beyond.
Criterion D (Social Significance) An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.	
STATED SIGNIFANCE	**CURIO COMMENT**
Important as the headquarters to a number of state sporting associations and clubs and their members, most notably the headquarters of Cricket NSW	Again, this stated significance does not specifically name any sporting associations tied to the SFS but instead highlights the headquarter of Cricket NSW as being the most notable association.

(formerly NSW Cricket Association) which has been associated with the site from the 1870s. The site is of Social significance at a State level.	
Discussion *Although a formal assessment of the contemporary social values of the SCG site was not undertaken as part of this study, the historical research (and identification of historical associations) provides evidence of the various communities with both close and less direct attachments to the site.* *Communities with which the site is most likely to have direct associations (from a particularly close relationship and/or one continuing over a number of years) include:* • *Club members;* • *SCG staff—those who have worked at the site including the many former employees and current maintenance staff, gardeners, curators etc;* • *Cricket and football players, trainers, coaches, etc—this would include past and present people who have used the site since the early 1960s; and* • *Cricket and football spectators.* *Other groups with less direct associations with the site include:* • *Members of the wider public, particularly spectators;* • *Local residents and commuters who value the place as a local landmark and/or recreation venue;* • *Survivors of the many thousands of soldiers and support staff (and their families) who were trained at or occupied the SCG before leaving for overseas service in World Wars I and II; and* • *Sports men and women who have participated in a variety of sports at the SCG site.*	In order to determine the significance of the SFS as high due to its architecture and the community's attachment to the building (as stated in the draft CMP), then the draft CMP should have undertaken a formal assessment of the contemporary social values of the SFS, in order to demonstrate this attachment. It is noted that this did not occur, so therefore it is not clear on what basis the community would have an attachment to the actual fabric of the building itself, rather than to the more broader precinct, and its activities, events and experiences obtained during a visit to the stadium (i.e. concert experience, major sporting events). In the community consultation sessions held as part of the pre-lodgement consultation, none of community members talked of a special attachment to the building fabric itself, but were instead interested in the earlier history of the site, of which many knew very little. Further evidence of the draft CMP's stated significance based on community attachment to the fabric, must be provided in order for it to support the assessed level of high significance (in the draft CMP) and by the National Trust. There is definitely a demonstrable association and attachment to place, including the broader precinct over an extremely long period of time. This attachment is related to the memories, activities and associated achievements, events and multiple uses of the site over time. It is not however, evidence that so far can be associated with the tangible evidence of the building fabric of the c.1988 SFS specifically. Formal consultation with the Aboriginal community has provided evidence of cultural associations with the subject site (cultural landscape), and this will

	continue to inform planning of the project. The draft CMP did not include or undertake any consultation with the Aboriginal community.

Criterion E (Research Potential)

An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area)

STATED SIGNIFICANCE	CURIO COMMENT
***Historical Archaeology**: There is generally low potential for in situ archaeological relics to survive at the site. Those that might survive are likely to be disturbed and/or partial remains with limited value to research questions relating to the history of the city, state or nation. Their value would reside principally in their ability to demonstrate the evolution of the ground itself, which is a matter well attested by alternative sources of information (oral histories, photographs, historic plans, architects drawings etc). A relatively small number of locations have been identified as having elevated potential for the survival of archaeological relics; however, these too would generally have limited research potential. The majority of archaeological relics at the site would be significant at local level, and would not warrant in situ retention.* *Busby's Bore is an important exception to the observation, above. Busby's Bore is a unique engineering achievement. The fabric of the bore and associated archaeological deposits possess research potential relating to substantive historical and scientific questions regarding 19th century work and technology and environmental engineering. It has historical archaeological significance at a State level. Relics belonging to Busby's Bore would be of State significance and would likely require in situ retention, where possible.*	Using primary archival evidence and associated archaeological evidence from nearby excavations, Curio Projects have prepared a new assessment of significance with respect to the archaeology, as outlined in the HIS at section 7.5. It is important to note that the archaeological resources, as stated, have value *'in their ability to demonstrate the evolution of the ground itself , which is a matter well attested by alternative sources of information'* thus emphasising Curio's point in the HIS, that the long-term use and evolution of the site demonstrates a historical, continuity of use whereby, once an existing sporting venue is no longer fulfilling its requirements, it has been adapted or demolished within the SCG precinct in order to allow sporting events to continue into the future.

Criterion F (Rarity) An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area)	
Uncommon or Rare Attributes *The ensemble of the SCG's cricket oval and grandstand contains representative stands from the 19th, 20th and 21st century. The Members' Pavilion and Ladies' Pavilion represent a rare intact group of late 19th century grandstands. The Ladies' Pavilion is unique in Australia as the only capital city cricket stand dating from the 1890s. The MA Noble Stand western tower is a rare component of the 1930s grandstand and will be retained in the Stage 2 development of the new Northern stand.* *The movable heritage of the SC&SGT represents a rare collection of records and items related to cricket and other sports in Sydney and New South Wales.*	This does not form part of the application and was not considered. It is noted that the c.1988 SFS is not identified in the draft CMP as having any uncommon or rare attributes.

Criterion G (Representativeness) An item is important in demonstrating the principal characteristics of a class of NSW's (or a class of the local areas)	
STATED SIGNIFICANCE	**CURIO COMMENT**
The Sydney Cricket Ground site is representative of cricket grounds in Australian Capital cities as being located on public land and having an association with a wide variety of sports other than cricket.	Agreed. As with the rest of the draft CMP, there is generally no discussion of any specific SFS related significance in this assessment.
Integrity/Intactness *The amount of change which has occurred on the SCG site is a noteworthy aspect of the place's management. It has continued to change and develop with changing technologies and spectator and member expectations with an emphasis on retaining traditional functions on site and commemoration rather than on conservation of built and landscape fabric.*	Agreed. This concurs with the rationale behind the HIS's proposed demolition of the non-heritage listed c.1988 SFS in order to allow the stadium to continue to function as a world-class Tier 1 Stadium. The comparative analysis of world-wide Tier 1 Stadium evolution over the last hundred years (as discussed in this report) demonstrates that all international stadium (Tier 1 Stadium) must constantly change and evolve using a clever balance of adaption, partial demolition, full demolition or in extreme cases, relocation, in order to continue to remain relevant and function as Tier 1 Stadium. As explained by Cox Architecture, the timeframes for renewal are resulting in shorter life cycles, both nationally and internationally (Section 2.0 of this report, and as demonstrated in Appendix 4)

4.5 Assessment of Significance for the SFS Subject Site

4.5.1 Background

The HIS was prepared using several different sources of information to help inform Curio's assessment of significance for the SFS, including the draft CMP, additional primary archival research, consultation with key stakeholders including the SCG Trust, Cox Architecture and the local Aboriginal community.

Specifically, the following research documentation was used in the preparation of the HIS:

- a review of the heritage status of the SFS (not heritage listed);
- a detailed review of the draft CMP;
- an assessment of the stated National Trust position regarding the SFS[11];
- extensive primary research, including a site-specific history of the land and its uses prior to construction of the SFS;
- consultation with identified Aboriginal stakeholders, including a site visit with the identified Aboriginal stakeholders and follow-up discussions regarding the potential Aboriginal cultural heritage significance of the subject site (and broader precinct);
- consultation with, and numerous follow-up discussions with SFS Architects, Cox Architecture (refer to Appendix 3);
- a review of existing documentation related to existing SFS stakeholder requirements as provided throughout the DA process (sporting clubs, members, SCG, players etc);
- consultation with stakeholders, such a SCG Trust, SFS members, local community (consultation sessions);
- a review of why the existing site does not meet with current relevant standards, or current Tier 1 Sporting Stadia standards;
- a review of what would be required, in terms of modifications to the existing stadium, to satisfy Tier 1 requirements and relevant standards; and
- a review of whether the SFS had ever won any local, State, National or International architectural or associated industry awards. (It has won 1 NSW award for Engineering).

In addition to this, at the request of the NSW Heritage Division, the significance of the subject site has been reassessed in light of the comparative analysis outlined in this report. This reassessment is limited, to the significance of the c.1988 SFS for the purposes of addressing comments by the NSW Heritage Division. Any additions that impact the assessment of significance as included at section 7.5 of the HIS are highlighted in **bold** for ease of reference.

4.5.2 Statement of Significance for SFS

*Overall, the SFS redevelopment site has **historical** significance as a key sporting and recreation venue within the Sydney Cricket Ground Trust land (SCG). The subject site includes land that forms part of the SCG Trust land. Its history of land use and development spans from Aboriginal occupation of the site through to acquisition of the land for the Sydney Common; military training and associated recreation grounds (as part of the Victoria Barracks); as well as adaptation from the mid-1880s onwards for use as a formal Sydney sporting and recreation venue.*

The cultural landscape in which the current SFS sits has a rich, highly significant history, and possible archaeological resource, which relate to the early military training and recreational uses, the first cricket ground, and other now-demolished significant historical sporting venues, such as the Sydney Sports Grounds no. 1 and no. 2.

[11] https://www.nationaltrust.org.au/news/national-trust-opposes-sydney-football-stadium-demolition/

The site's significance is embedded in the history of the site – people's recollections of key events, the memorable stories of great sporting triumphs, the major sporting achievements and the major failures that occurred at that site over many generations. The ***recorded*** *events at* ***the SFS*** *site****, including world-record motorbike and speed car races, motor racing deaths, as well as major music and athletic events that were held at the various former and current stadia across the SCG site*** *are the key intangibles values that underpin the SCG site's overall heritage significance.*

In particular, the high social and cultural significance of the site as a place to watch and celebrate major sporting and recreational events has ensured that the site has continued to evolve and improve since its informal use as a sporting and recreation ground for the military in the mid- 1800s through to the present time.

The current c.1988 SFS represents ***a key phase in the continuous evolution, modification and use of the precinct for major training, sporting and recreational events*** *since the late 1800s.*

The site has high significance as having been a major source of natural fresh water for Aboriginal and non-Aboriginal people. The swampy landscape with natural springs would have been utilised by Aboriginal people prior to the clearing of the site for use as the Sydney Common.

The presence of the Lachlan Swamp and natural springs directly led to the construction of Busby's Bore which was Sydney's most significant fresh water supply from the mid 1830s through to the mid-1850s.

As a result, the overall SFS Redevelopment site has associative significance related to Busby's Bore, as well as the historical and associative significance of the land as an ongoing place of Australian military training and recreational grounds, sporting endeavours, recreational events and achievement.

The site location has high Aboriginal archaeological potential (scientific significance) and is likely to have Aboriginal social and cultural significance as part of a wider Aboriginal cultural landscape (to be further determined and confirmed through ongoing Aboriginal community consultation through the current project).

The Sydney Football Stadium ***has a commanding presence as a landmark Tier 1 Stadium*** *within its surrounding precinct. The stadium was built* ***by prominent architects, Philip Cox and was designed in such a way that it has not directly affected the main ground of the historic, heritage listed SCG.***

The stadium is historically significant for being one of 4 iconic projects that were designed by Cox for completion as part of the Australian Bicentennial celebrations in 1988. The series of Bicentennial projects were seminal to the development of the Philip Cox and Partners Architectural Practice. *Most importantly, the SFS stadium is* ***historically*** *significant for housing key sporting and recreational events from* ***c.1988 – present.***

The amount of change which has occurred on the SCG site is a noteworthy (and significant) aspect of the precinct's management. It has continued to change and develop with changing technologies and spectator and member expectations with an emphasis on retaining traditional functions on site and commemoration rather than on conservation of built and landscape fabric.[12]

[12] *Sydney Cricket and Sports Ground— Conservation Management Plan—DRAFT* (SCG CMP), prepared in 2013 by Godden Mackay Logan for Sydney Cricket and Sports Ground Trust (p119)

*In conclusion, the **primary** significance of the Sydney Football Stadium relates to the **subject site's continuity of use for more than 150 years for local, State, National and International sporting and recreational events.***

4.6 Conclusions and Recommendations

This comparative analysis prepared by Cox Architecture and Curio Projects, is in response to the NSW Heritage Division's concern that a detailed comparative analysis of similar types of stadium developments in Sydney and NSW, as well as a comparative study of the body of works Phillip Cox and Partners was required to further evaluate the significance of the Sydney Football Stadium building and the acceptability of its proposed demolition to allow for the construction of a new Tier 1 Stadium. it is noted that neither the draft CMP or the National Trust have provided a comparative analysis in their assessments of the significance of the SFS building.

The comparative analysis was prepared by Cox Architecture, the architects for the existing SFS building, (also the architects involved in the SSD Stage 1 Concept Proposal) who are qualified specialists in Modernist Architecture, along with Curio Projects, qualified heritage specialists.

The reassessment of significance, as requested by the NSW Heritage Division supplements the assessment of significance provided in the HIS in light of the comparative analysis. It is noted that no change to the significance has resulted from this analysis.

4.6.1 Conclusions of the Comparative Analysis

The comparative analysis undertaken by Cox Architecture provides a comprehensive analysis of the SFS in the context of post-1980s and current national and International Tier 1 stadia design and implementation. In particular, it highlights how Tier 1 sporting stadia, both modern and historic, have constantly been upgraded, demolished, replaced and at times relocated, in order to comply with a complex range of stadia user requirements, which include, but are not limited to:

- ever-evolving changes in minimum safety standards (i.e. the Taylor Report[13]),
- increased sporting club and player expectations (i.e. improved dressing rooms, facilities);
- increased stadia revenue through commercial opportunities;
- increased compliance requirements of governing bodies (i.e. the FIFA Handbook, now 450 pages compared to 37 pages in 2005);
- changing spectator and visitor needs/expectations (i.e. extensive corporate facilities, dining and view opportunities);
- changes in technology to allow for sports broadcasting and commercialisation

As demonstrated in section 2, Tier 1 stadia are now subject to shorter cycles for renewal, in order to retain their Tier 1 status and to meet with ever-increasing end-user needs. This is also the case across Australia, the USA, the UK, Europe and South America for Tier 1 sporting venues. As a result, many historic, highly significant Tier 1 Stadia have either been demolished, subject to extensive modifications or are currently slated for demolition in order to retain their Tier 1 status continue to function as sporting and event stadia (see Appendix 4).

The common theme that sits across all of the Tier 1 Stadium sites, is that the Tier 1 Stadia around the world, including historical stadia and stadia built as recently as the 1990s-2000s, will continue to be modified, partially demolished or fully demolished and rebuilt numerous times over, in order to adapt to

[13]Hillsbourough Stadium Disaster Inquiry report https://web.archive.org/web/20140330053408/http://southyorks.police.uk/sites/default/files/hillsborough%20stadium%20disaster%20final%20report.pdf

stadium user needs and ensure that they comply with ever-evolving statutory and non-statutory requirements to maintain their Tier 1 status on an international level.

The comparative analysis demonstrates that proposed demolition and redevelopment of the SFS to provide a modern Tier 1 Stadium is consistent with the treatment of historic and modern landmark Tier 1 sporting stadia, both nationally and internationally. The comparative analysis demonstrates that world-wide, regardless of the individual architectural merits or age of an existing stadium building, the key significance of a Tier 1 Stadium site is to continue to provide the safest, most attractive venue possible in order to ensure ongoing use and demand.

In conclusion, as stated in the draft CMP, section 5.4.8 Integrity/Intactness:
The amount of change which has occurred on the SCG site is a noteworthy aspect of the place's management. It has continued to change and develop with changing technologies and spectator and member expectations with an emphasis on retaining traditional functions on site and commemoration rather than on conservation of built and landscape fabric.[14]

4.6.2 Conclusions Regarding Significance

As a result of this comparative analysis and a reconsideration of the HIS's assessment of significance, it is concluded that the HIS was correct in stating that the primary significance of the non-heritage listed SFS subject site is embedded in the history of the site. This is through people's recollections of key events, the memorable stories of great sporting triumphs, the major sporting achievements and the major failures that occurred at that site over many generations. The recorded events at the SFS site, including world-record motorbike and speed car races, motor racing deaths, as well as major music and athletic events that were held at the various former and current stadia across the site are the key intangibles values that underpin the site's overall heritage significance.

In particular, the high social and cultural significance of the site as a place to watch and celebrate major sporting and recreational events has ensured that the site has continued to evolve and improve since its informal use as a sporting and recreation ground for the military in the mid- 1800s through to the present time.

The current c.1988 SFS represents a key phase in the continuous evolution, modification and use of the precinct for major training, sporting and recreational events since the late 1800s. As discussed in the draft CMP the amount of change which has occurred on the site (including the heritage listed SCG) is a significant aspect of the place's management. It has continued to change and develop with changing technologies and spectator and member expectations with an emphasis on retaining traditional functions on site and commemoration rather than on conservation of built and landscape fabric.[15] The conclusions of the draft CMP are consistent with the HIS's assessed impact of the proposed demolition of the non-heritage listed c.1988 SFS as being acceptable, provided it will allow for the construction of an equally distinctive, landmark stadium that represents a continuity of use in a modern context.

In conclusion, the comparative analysis of Tier 1 stadia worldwide (as discussed in this report) demonstrates that all international stadium (Tier 1 Stadium) are required to constantly change, innovate and evolve using a clever balance of adaption, partial demolition, full demolition or in extreme cases, relocation, in order to continue to remain relevant and functional as Tier 1 Stadium.

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[14] *Sydney Cricket and Sports Ground— Conservation Management Plan—DRAFT* (SCG CMP), prepared in 2013 by Godden Mackay Logan for Sydney Cricket and Sports Ground Trust (SCGT) (p119)
[15] Ibid.(p119)

4.6.3 Recommendations

The recommendations as outlined in section 10 of the HIS remain. The only modification to these recommendations as a result of this comparative analysis would be to mandate the undertaking of an archival recording as outlined in section 9 of the HIS. This requirement has been added to the Final Mitigation Measures for the project at section 5 of the Response to Submissions Report.

Appendix 1—Business Case Alternatives

The following is extracted from section 2.4.1 of the Sydney Football Stadium Environmental Impact Statement, June 2018:

2.4.1 Alternative Options

Four primary options have been considered by Infrastructure NSW in responding to the identified strategic need for and objectives for the provision of a Tier 1 rectangular stadium at Moore Park. The options outlined below are generally aligned with those described in the Business Case Summary published by Infrastructure NSW in March 2018. The Business Case Summary document can be accessed via www.infrastructure.nsw.gov.au.

Option 1 – Do Nothing

The 'Do Nothing' scenario would involve the existing Sydney Football Stadium remaining in situ. For the reasons set out in Sections 2.3.1, the stadium does not currently meet the criteria for a Tier 1 stadium, and is delivering a comparatively poorer experience for players and spectators as other stadia are modernised and redeveloped within the local, national and international contexts. Without improvement, the 'Do Nothing' scenario would see the existing stadium fall further behind competing facilities interstate and overseas, with Sydney and NSW missing out on major events due to the poor quality of the existing facility. This would include both local competition events as well as missed opportunities associated with the potential hosting of major regional and international events. This would result in the loss of potential economic, social and cultural opportunities.

Due to the existing shortcomings of the stadium in terms of accessibility, amenities and safety, the 'Do Nothing' scenario is not considered to be an acceptable approach for a major public facility. Over the short to medium-term, it is likely that the SFS would not be able to continue operating for safety reasons.

Option 2 – 'Base Case' – Minimal investment

The 'Base Case' option would involve undertaking minimal capital works to refurbish the SFS to addresses immediate safety, security and compliance issues in order to keep the venue operational. The Base Case improves safety and security, but does not achieve full compliance, notably in the areas of disability access and the provision of an adequate number of toilets, due to the lack of physical space in the existing stadium structure. It also does not improve the spectator experience, or the operational efficiency of the stadium, as the seating bowl and roof line are unchanged and no basement spaces are included.

Under the 'Base Case' the SFS would be able to continue operations over the medium-term, but would still not meet the criteria for a Tier 1 stadium due to safety, amenity and facility issues that are inherent to the current stadium design and functionality. Whilst the stadium would likely maintain the majority of its existing event profile, the shortcomings in the user and visitor experience would likely see a decline in attendance and the loss of major national, regional and international events to other stadia beyond NSW. This would result in the loss of potential economic, social and cultural opportunities for Sydney and NSW.

Option 3 – Refurbishment Option

Option 3 comprises a full refurbishment of the SFS beyond the 'Base Case' to attain Tier 1 status for the current venue. Refurbishing the stadium encompasses the works included in the Base Case together with a new roof covering 95 per cent of the seats and a basement with a 360-degree ring road. This option would address immediate safety, security and compliance issues and improve the amenity of the stadium. The provision of roof coverage to most seats would improve the fan experience, and a basement and ring road would significantly improve back-of-house operations.

Despite the moderate improvements in spectator experience and operability which the refurbishment would bring, many of the limitations and constraints of the current venue's structure would remain. Viewing positions within the stadium would be unchanged, much of the corporate product would remain in poor locations, and concourses, amenities and concessions would continue to fall short of relevant benchmarks. In addition, much of the current building would be retained in the refurbishment option and the remaining useful life of the stadium after refurbishment would therefore be shorter than that of a fully redeveloped stadium built to modern standards. The proposed works required under Option 3 would be substantial, involve significant cost, and would require the stadium to be closed for an extended period of time with similar construction impacts to those outlined in Option 4 for development of a new stadium. The Business Case Summary prepared by Infrastructure NSW demonstrates that the total project costs for a full stadium refurbishment ($599.27m) would be less than 5% lower than the cost of constructing a new purpose-built stadium ($626.68m – Option 4).

Option 4 – New Stadium

The construction of a new Tier 1 stadium in the location of the current SFS would meet the current and anticipated future expectations of a modern sporting venue, delivering a standard of user and visitor experience which is commensurate with the premier role of Moore Park as the Eastern City's major sporting precinct. As a modern stadium purpose-built to meet current and anticipated future requirements, the new stadium option would meet all current construction and operational facility, building, accessibility and safety standards. Delivery of a new stadium provides the flexibility to address existing shortcomings that cannot be addressed under a refurbishment option, for example, the restricted physical proximity to Moore Park Road, full pedestrian concourse within and around the stadium, and the provision of an internal basement ring-road to facilitate loading and servicing.

Within the Business Case Summary, Option 4 considered the provision of both 40,000 and 45,000 seat stadium options. The provision of the smaller option provided minimal cost savings and resulted in a generally similar physical envelope and built form, whilst providing a reduced capacity that limits the social and economic benefits of providing a new stadium.

A key benefit of Option 4 is the ability of a new stadium to meet the current and anticipated future requirements of a modern stadium, such that both the physical and functional lifespan of the new facility is maximised. By delivering a purpose-built stadium with the benefit of current knowledge of design and construction techniques and a closer perspective to future sports and spectator requirements, Option 4 provides the ability to deliver a stadium that will last longer physically and remain relevant and useable. The design lifespan of a new stadium under Option 4 is 50 years, which significantly exceeds that of the renovation and refurbishment options.

Ultimately, for the reasons outlined above and detailed further in this EIS, the NSW Government has determined that the development of a new stadium capable of meeting the current and future requirements of a modern stadium represents the best outcome from a social, economic and environmental perspective, and is the project which forms the basis for this planning application.

Appendix 2- Statement by the National Trust

APPENDIX 2 – NSW NATIONAL TRUST STATEMENT REGARDING THE SFS

The Stadium opened on 24th January 1988 to celebrate Australia's Bicentenary. It is of State heritage significance as an excellent example of a Late Twentieth Century Structuralist style public building. It is an important building in the career of the prominent Australian architect Philip Cox who played a significant role in Australia's cultural history. The Stadium is critically acclaimed nationally and internationally by the architectural and engineering professions as a significant example of Twentieth Century architecture demonstrating a high level of creativity in its concept, and a high level of integrity in the execution of the original design concept.

The Sydney Football Stadium was designed in 1985 by the notable architectural firm, Philip Cox Richardson Taylor and Partners Pty Ltd. It is one of a suite of outstanding Cox buildings built in Sydney and is part of the enduring image of the celebratory function of the Bicentennial. In 1988 the firm produced five major steel structures in close collaboration with internationally renowned engineers Ove Arup and Partners. Three were sited at Darling Harbour, Sydney's major Bicentennial project.

The Sydney Football Stadium is acknowledged as an aesthetically distinctive design and was a significant technical innovation; after 1988 the Cox practice's 'white stadia expressionism' was adopted globally by other architects and influenced the design of international sports and exhibition facilities.

It has been recognised as an important contributor to world and Australian architecture in numerous publications and the award of the 1988 Building and Civil Design Award, Institute of Engineers and as a Finalist World Quaternario Award.

The Sydney Cricket Ground and the Sydney Football Stadium are in the vicinity of a range of heritage items, notably the Fox Studios (former Sydney Showground) and Centennial Park. The Sydney Football Stadium is one of a suite of related structures in the SCG representing two of the nation's favourite pastimes football and cricket and sport generally.

The Sydney Football Stadium has strong associations with some of the country's most prominent sports people and holds undoubted social value in the wider community. It is technically expressive, rejoicing in the bravado of both sporting and structural exploits.

The Sydney Football Stadium was the result of a Design and Construct Competition in August 1985 to replace the antiquated Sydney Sports Ground, which was won by the firm Civil & Civic. The design team was Philip Cox Richardson Taylor & Partners as architects and Ove Arup & Partners as structural and civil engineers. The building was then situated adjacent to Sydney's two largest arenas – the Sydney Cricket Ground and the Royal Agricultural Society Showground.

Construction commenced on site in April 1986 after only a 4-month period for detailed design, and the stadium was completed on time and within budget for its opening in January 1988.

The Sydney Football Stadium is designed as one enclosure, seating in excess of 40,000 spectators, with a continuous curving roof around the circumference.

Structurally, the warping of the roof allows a more efficient roof structure while avoiding excessive shading of the turf playing field. The continuous roof edge contains lighting directed toward the field, eliminating any need for lighting towers with their inevitable overspill. This method of floodlighting

also gives rise to a more uniform coverage of the pitch, with no defined shadows. The circular form provides good acoustic control while generating an exciting atmosphere.

The seating bowl was sunk into the ground to reduce built structure scale, visual and environmental impact. Sports lighting was mounted to the leading edge of the roof to avoid the spill caused by lighting towers. The roof was designed in bays to allow for substantial completion on the ground before lifting into position. The circular design places the majority of the seats adjacent to the centre line.

Constraints of the site included its position in the historical Moore Park Conservation Area, the surrounding residential housing, and its confinement by the Cricket Ground to the south, and a major road to the north. By enclosing the field in a circle, the majority of spectators are seated at centre field for better viewing. Thus the extent is reduced at either (residential) end allowing the scale to be reduced. Lighting is in a perimeter bend on the roof edge ensuring there is no spill of light.

The brief for this Bi-centennial project required an economically viable stadium able to seat at least 40,000 spectators with optimum viewing conditions, to provide roof for shade over 60% of spectators, whilst minimising over-shading of grassed playing area, to produce a building appropriate to its environment and to minimise the effects of light and noise on the surrounding residential areas.

The site presented a number of constraints which included its position within the historic Moore Park conservation area, the problems associated with surrounding residential housing, and the confines of this site with a well established and much patronised Cricket Ground to the south and a major through road to the north.

In order to accommodate the confines of the site the field was enclosed in a circle, with the majority of spectators seated at centre field for better viewing. This has the twofold effect of providing the maximum number of seats at the optimum spectator position, while reducing the numbers and therefore the scale at either end where the effects on the surrounding residential areas are greatest.

The seating bowl was sunk into the ground to further reduce the built structure and its visual and environmental impact.

Structurally, the warping of the roof shape allows a more efficient roof structure, whilst avoiding excessive shading of the turf playing field. In order to maintain that structural integrity, a continuous roof edge was needed. The opportunity was taken to utilise the edge as a band of continuous lighting directed toward the field, thus eliminating any need for lighting towers with their inevitable light overspill.

The continuous circular form provides good acoustic control in addition to generating a quality of atmosphere not possible at the nearby Cricket Ground.

Spectators are divided into two categories – members who take up the upper level western stand and ticket holders who occupy the eastern stand and all the terraces. Circulation is designed as a continuous level ring concourse with all spectators entering the arena on concourse level. On each stand, part of the seating is cut away to provide bars with direct views of the playing fields. In terms of expression and language, the Stadium is a sculptural form which successfully combines architecture and structure.

The Sydney Cricket Ground (SCG) was established on the former 1852 Garrison Ground behind Victoria Barracks, Paddington, by the NSW Cricket Association. Between 1878 and 1909, a substantial building

program produced seven spectator stands, a scoreboard and related facilities around the playing field. The ground has hosted athletics, baseball, tennis and cycling, but its major sports have always been cricket and, more recently, various codes of football. Rugby league and rugby union matches were removed from the SCG in 1988, when the Sydney Football Stadium (currently called Allianz Stadium) was constructed adjacent, and SCG members' facilities were expanded and upgraded. Opening on 24 January 1988 it was a major Bicentennial project, costing $68 million.

The Sydney Football Stadium was the main competition venue for the Olympic Games football during the Sydney Olympics in 2000, attracting 226,519 spectators. In 2001, NSW Rugby Union moved its administration HQ to the Sydney Football Stadium. The site has been managed by a public trust since 1877, currently the Sydney Cricket and Sports Ground Trust. In 2002, the stadium changed its name to Aussie Stadium as a result of a sponsorship deal with Aussie Home Loans. The deal ended in 2007, and after referring back to the old name for five years, the naming rights were sold again to Allianz in 2012.

The history of these grounds reflects the sports and cultural history of Sydney and NSW. It is one of the Sydney Cricket and Sports Ground Trust's goals to be an effective custodian of this heritage.

The design of the Allianz Stadium followed a progression of innovative projects out of the Cox Office – buildings of clearly expressed engineering producing a proud and strong architecture – the two stadiums in Bruce ACT, predating (Lord) Richard Rogers first tensile building, and then the township of Yulara, NT, a wonderful mix of traditional and "new" residential design and construction. The Australian predecessors of this structural expression remain the Melbourne Olympic Pool (Mcintyre and Borland 1956), the Myer Music Bowl (Yuncken Freeman 1959), and the Sydney Harbour Bridge.

Allianz Stadium underwent some small renovations in 2006, which also raised capacity with a further 3,000 seats.

The Allianz Stadium has hosted many international football matches, including rugby league and rugby union Tests, Bledisloe Cup matches and World Cup and Olympic Games Football since it opened in 1988. It has hosted many concerts for International entertainers as well as events such as the Edinburgh Military Tattoo and performances of the opera 'Aida'. The Stadium demonstrates accumulated memory & collected life and has strong or special association with particular communities or cultural groups in NSW for social and cultural reasons. [1]

[1] https://www.nationaltrust.org.au/initiatives/sydney-football-stadium/

Appendix 3- Letter from Cox Architecture

Cox Architecture

SYDNEY
BRISBANE
MELBOURNE
PERTH
CANBERRA
ADELAIDE
DUBAI
ARCHITECTURE
PLANNING
URBAN DESIGN
INTERIOR DESIGN

13th August, 2018

Infrastructure NSW
Level 15, Macquarie House
167 Macquarie Street,
Sydney, NSW, 2000

Attention: Mr David Riches

Dear Sir,

RE: SYDNEY FOOTBALL STADIUM
PROPOSED DEMOLITION OF THE BUILDING

Cox Architecture understands that the NSW Government and Sydney Cricket and Sports Ground Trust propose that the Sydney Football Stadium designed by our practice and opened in 1988 will be demolished to allow for the construction of a new modern stadium.

The Sydney Football Stadium was one of 4 iconic projects that were designed by Cox for completion as part of the Australian Bicentennial celebrations in 1988. In addition to the Stadium, the other 3 projects were the Sydney Convention and Exhibition Centre, National Tennis Centre and National Maritime Museum. These projects are seminal to the development of our practice.

We have been aware of the Trust's intention to potentially replace the current Stadium for at least 4 years. Cox Architecture was engaged at various times to assist in the planning either the refurbishment or demolition and replacement of the existing stadium.

Whilst we remain very proud of the Stadium we accept that the NSW Government is committed to its renewal as part of the NSW Stadia Strategy. Our position has been and remains that was that any replacement of the iconic Sydney Football Stadium, which is recognised as one of Australia's outstanding examples of 20th Century Architecture, should be of equal or greater merit than the original.

Yours Faithfully,
Cox Architecture

RUSSELL LEE
DIRECTOR

Cox Architecture Pty Ltd
ACN 002535891
Nominated Architects
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Appendix 4- Tier 1 Stadia Examples

STADIUM – AUSTRALIA	CAPACITY	BUILDING HISTORY	EXAMPLES OF KEY EVENTS
NAME: ETIHAD STADIUM (Docklands Stadium), Melbourne **ARCHITECTS:** Daryl Jackson, Bligh Lobb, Popolus **MAIN SPORT:** AFL	56,347	**Pre-1996** Former Docklands, dormant wasteland **1996** Decision to build new Stadium for AFL **2000** Stadium Opened	• Lowest tier of seating designed to be fully retractable, the first in Australia • Solution rarely used due to high cost and effect on turf condition • First stadium with opening sliding roof in the southern hemisphere, allowing for a wide variety of events without rainfall worries. • Grounds are used by at least 4 AFL clubs every season. • Rugby and Soccer also played at the field • 2015 stadium joined the Speedway Grand Prix series. • Hosted many memorable concerts for world's biggest stars, including Taylor Swift, Justin Timberlake, Adele, AC/DC, Andre Rieu, Eminem • Largest Concert

Figure 1: Etihad Stadium

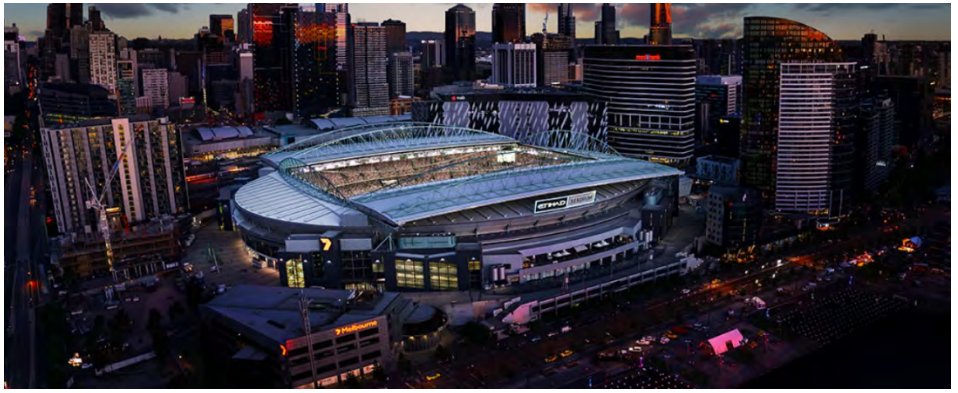


Figure 2:. Etihad Stadium by night (https://etihadstadium.com.au/about-the-stadium/)

Figure 3 (to the left): Etihad Stadium under construction (Source:https://etihadstadium.com.au/history/)

COMPARISION TO SYDNEY FOOTBALL STADIUM

- Etihad Stadium has the flexibility to cater for many sporting codes
- The c.2000 State-of-the-Art stadium introduced a new level of comfort and facilities for Melbourne Sports Fans
- Located in city centre, similar to SFS
- Retractable seating allows for modification of seating configuration for different football events.
- Famous retractable roof of the Etihad Stadium, only one of its kind in Southern Hemisphere and ensures events proceed in perfect conditions.
- Etihad is most technologically advanced and connected stadium in Australia.

STADIUM – AUSTRALIA	CAPACITY	BUILDING HISTORY	EXAMPLES OF KEY EVENTS
NAME: OPTUS STADIUM, PERTH **ARCHITECT:** HKS ARCHITECTS, ARUP, COX ARCHITECTS, HASSELL STUDIO **MAIN SPORT:** AFL, Cricket	60,000	**1908** First Subiaco Stadium **1969** Three-tier stand added western end **1981** Two-tier stand added to members wing **1995- 1997** further renovations including light tower **1999** - $35 million renovation to convert to all-seat stadium **2007** Construction of new stadium planned **2014** New stadium building works Commenced in new location **2018** –New Optus Stadium opened 21 January and Subiaco Stadium to be demolished	• Known as Mueller Park when first built in 1908 • Formerly the capacity stadium in Western Australia • Subiaco had capacity to seat 42,922 • Home to West Coast Eagles FC, Fremantle Dockers FC, Western Force • Subiaco hosted Perth Glory Games, two National Soccer League grand finals, international rules matchs and rock concerts • Venue for major music concerts, such as Elton John, The Bee Gees, Led Zeppelin, Billy Joel, Paul McCartney, Eagles, Neil Diamond, Robbie Williams, U2, Andre Rieu, Fleetwood Mac, Adele, Guns N'Roses

Figure 1: An historic 1977 image of Subiaco Oval (Source: The West Australian).

Figure 2:. Former Subiaco Stadium (Source: https://en.wikipedia.org/wiki/Subiaco_Oval)

Figure 3 (to the left): Optus Stadium completed (Source: https://optusstadium.com.au/about/)

COMPARISION TO SYDNEY FOOTBALL STADIUM

- Much debate over rebuild of Subiaco Stadium or demolition. Demolition eventually determined to be the best option, and construction of new stadium in a different location.
- Problems with Subiaco included large size and oval shape, with venue not well-suited to music concerts due to poor acoustics, but had to be used for large concerts as no other large-scale venue in Perth
- Since opening in 2018, Optus Stadium is landmark in terms of functionality, technological advancement and urban planning.
- Optus Stadium is designed with 'fans-first' approach and functions as a leisure hub.
- Optus Stadium is landmark example of Cox's collaborative work.

STADIUM – AUSTRALIA	CAPACITY	BUILDING HISTORY	EXAMPLES OF KEY EVENTS
NAME: AAMI STADIUM **ARCHITECT:** COX ARCHITECTS, ARUP SPORT **MAIN SPORT:** FOOTBALL, RUGBY LEAGUE	30,050	1956 Olympic Park Stadium built Melbourne Olympic Games 2010 AAMI Stadium opened to supersede the Olympic Park Stadium 2011 Olympic Park Stadium was demolished.	• 1956 Olympic Park Stadium built as an athletics training venue for 1956 Olympics. • Was then used as a football stadium but could only house 11,000 people. • Cox Architects created a unique roof construction which creates stadium's façade and uses 50% less steel than regular elements • Provides an unusual shape, combining 20 domes that support one another, receiving numerous awards following the ground's opening.

Figure 1: Cox Architect's multiple award winning AAMI Stadium (Source:

Figure 2:. Exterior of AAMI Stadium's Doom Roof (Source: Rob Deuscher 2013.)

COMPARISION TO SYDNEY FOOTBALL STADIUM

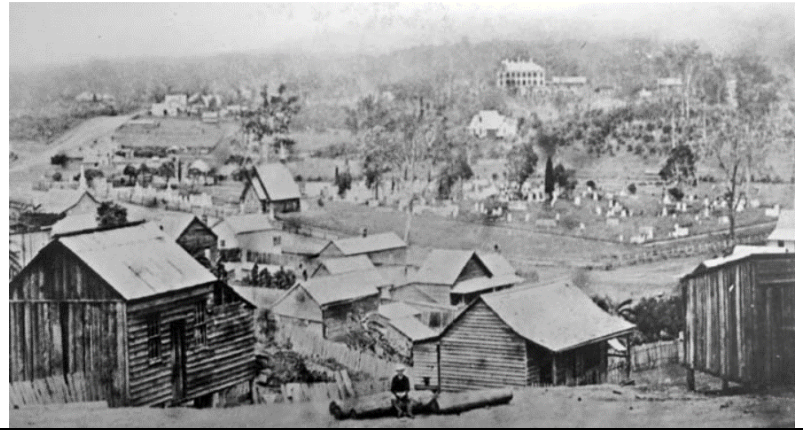
- Designed by Cox Architects with Arup Sport more than 30 years after SFS and has won multiple awards
- Replaced the 1956 Olympic Park Stadium which was demolished in 2011.
- Designed to be able to be renovated to seat another 20,000 people, through existing foundations/design work.
- SFS has won one award for engineering, whereas AAMI Stadium has won multiple awards.
- Stadium contains fully covered seating and provides rectangular field suitable for football.

Figure 3 (to the left) AAMI PARK (Source: http://www.stadiumguide.com/aamipark/)

STADIUM –	CAPACITY	BUILDING HISTORY	EXAMPLES OF KEY EVENTS
NAME: SUNCORP STADIUM (Lang Park, The Cauldron), Brisbane **ARCHITECT:** HOK Sport and PDT **MAIN SPORT:** RUGBY LEAGUE, FOOTBALL, RUBY UNION	**53,223**	**1840-1875** North Brisbane Burial Ground **1911** Site was redeveloped for recreational purposes **1914** –Oval was fenced off, named Lang Park **1953** New grandstands erected **1962** -Frank Burke Stand built **1975** – Ron McAulife Stand built **1994** -Frank Burke Stand replaced with Western Grandstand **2001-2003** New stadium built	• Prior to sport and recreational uses were introduced, the site was Brisbane's largest cemetery, the North Brisbane Burial Grounds • Named Lang Park after Reverend John Dunmore Lang, who brought immigrants to Brisbane in mid 19th century. • From 1930s onwards, soccer was regularly played on the grounds • Rugby was introduced to the site in 1953 and remains dominant. • 1962 – Frank Burke Stand was built and site stopped being used as a public recreation ground. Lang Park Trust was established. • Stadium was mainly used for rugby and soccer • Hosted Rugby World Cup four times -1968, 1975, 1977 and 2008 • Hosted 1993 Youth World Cup and major music events • Late 1990s new state-of-the-art stadium was planned, retains parts of the former grandstand

Figure 1: Lang Park Stadium, prior to demolition (Source http://www.capsecurity.com.au/history-of-suncorp-stadium/. Photo: Davos Blog)

Figure 2:. Suncorp Stadium 2012
(Source: http://stadiumdb.com/stadiums/aus/suncorp_stadium. Photo by: The Ball is Round)



COMPARISION TO SYDNEY FOOTBALL STADIUM

- Site has a long, varied history of use, including long history of recreational and sporting uses, similar to SFS
- Suncorp Stadium one of the leading rectangular stadium designs in Australia, and Internationally
- Structure is considered to allow for greater intimacy and involvement for fans.
- Stadium represents the trend of constant change and renewal to adapt to user needs and improve user experience.

Figure 3 (to the left): c.1870 photograph of the North Brisbane Cemetery which sits beneath the Suncorp Stadium (Source: https://en.wikipedia.org/wiki/North_Brisbane_Burial_Ground)

STADIUM – SPAIN	CAPACITY	BUILDING HISTORY	EXAMPLES OF KEY EVENTS
NAME: CAMP NOU, Barcelona **ARCHITECTS:** FRANCESC MIJTANS-MIRO, GARCIA BARBON, SOTERAS MAURI **MAIN SPORT:** FOOTBALL FC Barcelona's home stadium	99,354	**1909** First FC Stadium. **1922** Second FC Stadium. **1957** Third FC Stadium in new location due to capacity increase **c. 1982, 1994, 2008** renovations **c.2019** Due to be demolished and rebuild to commence.	• Central to battle between Spanish Authorities and the Catalan People (2nd stadium) • Venue of Euro 1964 Championships • Host of 2 Cup Winner's Cup Finals c.1972 + 1982 • 1982 World Cup, with third tier added to stadium • 1989 European Cup Final • 1999 Champion League Final • Largest stadium in Spain and Europe

Figure 1: Camp de Les Corts, FC Barcelona Club c.1922 -c.1957 then demolished . (Source: http://www.stadiumguide.com/lescorts/)

Figure 2: Camp Nou. 1957. Located near the first two FC Barcelona Clubs, but not on the exact same site. (Source: http://www.stadiumguide.com/campnou/)

COMPARISION TO SYDNEY FOOTBALL STADIUM

- Camp Nou will be the 4th football stadium to be located on the site.
- Future stadium will include the construction of a roof to cover all seats
- Proposed major upgrades to include – Wi-Fi technology, improved VIP hospitality services and increase in seating capacity by 6,000
- Focus of new stadium is on improving quality of experience, not quantity
- Ranks as one of Barcelona's top tourist attractions due to history and connection to Barcelona FC

Figure 3:
(Source: https://www.wired.co.uk/article/barcelona-camp-nou-new-stadium-renovations-redevelopment-experience)

STADIUM – USA	CAPACITY	BUILDING HISTORY	EXAMPLES OF KEY EVENTS
NAME: ORIOLE PARK AT CAMDEN YARDS, Baltimore, Maryland. **ARCHITECT:** POPULOUS (Formerly HOK Sport) **MAIN SPORTS:** BASEBALL	45,971 – 48,187	**1922** Municipal Stadium/Baltimore Stadium. **1954** Memorial Stadium completed. **2001**. Memorial Stadium demolished. **1992** Oriole Park completed in a new location to accommodate modern stadium requirements. **c. 2008, 2009, 2011, 2012** modifications and renovations	• Home to the Oriole's since moving from St. Louis in 1954 • Early example of the predominant trend of big league symmetrical 'multi-purpose stadium'. • 1984 Baltimore Colts moved to Indianapolis because Maryland officials refused to commit money for a replacement of Memorial Stadium • Baltimore, not wanting to lose status as a major-league city, and risk losing the Orioles as well then planned new stadium in new location. • C.1992 stadium design sparked trend in construction of family-friendly ballparks • 1995 Cal Ripken Jnr set record breaking 2,131st consecutive game. • 1996 Eddie Murray achieved 500th home run. • April 29, 2015. Game against White Sox was closed to the public due to Baltimore riots. First time ever in MLB history.

Figure 1: Former Memorial Stadium.

Figure 2: Oriole Park in 1996 (source: Jerry Reuss, 1996)

COMPARISION TO SYDNEY FOOTBALL STADIUM

- Both stadiums replaced earlier, historically significant stadiums
- Oriole Stadium designed after Taylor report was released, SFS completed before.
- Remains third most popular baseball stadium in USA
- Oriole Park popular for its family-friendly, retro feel and high-end experiences

Figure 3 (to the left): Oriale Park Stadium (Source: http://www.ballparks.com/baseball/american/oriole.htm)

STADIUM – USA	CAPACITY	BUILDING HISTORY	EXAMPLES OF KEY EVENTS
NAME: GEORGIA DOME, also known as Atlanta Olympic Stadium, Atlanta (Demolished 2017) **ARCHITECT:** HENRY INTERNATIONAL, ROSSER FABRAP INTERNATIONAL & TVSDESIGN **MAIN SPORT:** OLYMPICS, SUPER BOWL, NFL, FOOTBALL,	80,000 concerts 71,228 football	**1992** Georgia Dome Stadium completed. **2006 – 2008** more than $300 million spent on renovations **2010** Plans for new stadium announced. **2017** Demolished **2017** Successor, Mercedes-Benz Stadium opened. It was built adjacent to the south	• 1992 debuted as 2nd largest covered stadium in the world. • 1995 – roof integrity became a major issue, with sections falling onto the field. • Home Stadium for Atlanta Falcons – NFL • George State University Panthers Football Team • 1993-2016 hosted 25 editions of Peach Bowl • 1994-2016 hosted 23 SEC Championship Games • Only stadium in the world to host the Olympics, Super Bowl and Final Four. • Between 1992-1999 it was the largest cable hooked domed structure of any type in the world.

Figure 1: Georgia Dome in 1992 (Source: https://edition.cnn.com/2017/11/20/sport/georgia-dome-imploded/index.html)

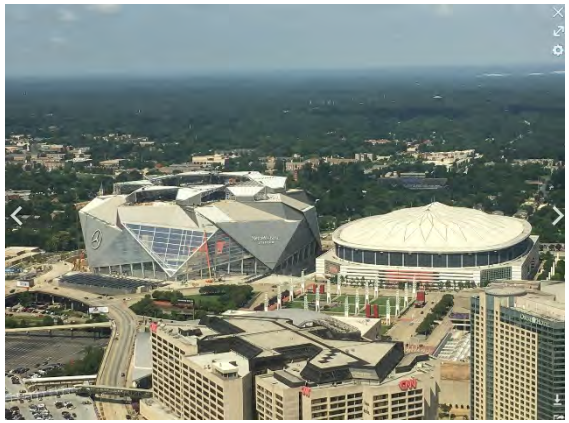


Figure 2: New Mercedes Benz Stadium nearly completion to the left, with Georgia Dome Stadium just prior to demolition on the right. 2017. (Source:wheresmyfc. July 2, 2017)

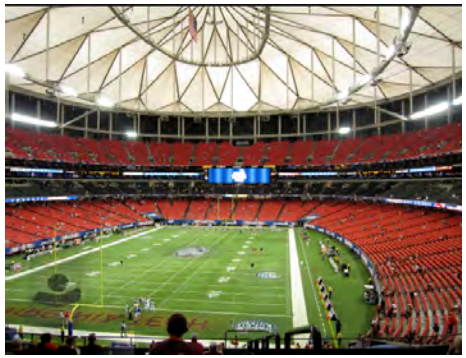


Figure 3: Georgia Dome during 1996 Summer Games (Source: Ross Catrow.Flickr).

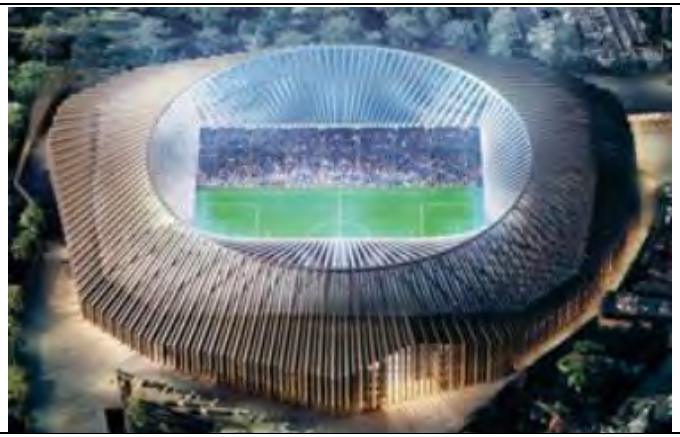
COMPARISION TO SYDNEY FOOTBALL STADIUM

- Georgia Dome Stadium built after Taylor report released.
- Demolished after 24 years, as no longer considered state-of-the-art and was not meeting the fans' user needs and expectations.
- Georgia Dome is historically significant for its architectural and engineering achievements at the time of its construction, being largest covered stadium in the world and featuring the world's largest cable-supported roof fabric.

STADIUM – UK	CAPACITY	BUILDING HISTORY	EXAMPLES OF KEY EVENTS
NAME: CHELSEA STADIUM, London **ARCHITECTS:** Archibald Leitch (1905-1930) KSS Group (1990-1998) **MAIN SPORT:** Athletics Venue, then Football Stadium	41,837	**1877** Stamford Bridge Athletics Stadium opened **1905** Stadium was completely rebuilt as a football stadium **1930** New terraces added **1965, 1970s** demolition of west + east terraces, replaced with new **1994** – North terraces, Shed terraces demolished + replaced with new **1997 -2001** extensive reconstruction + refurbishment **2018** – approved for complete demolition and rebuild	• From 1877 used almost exclusively for athletic meetings by London Athletics Club for first 27 years • Ownership changed hands in 1904. • Stamford Bridge Stadium one of the oldest football grounds in England • Home of Chelsea Football Club since 1905 • 1905 new stadium built by renowned Scottish football Stadium architect, Archibald Leitch and included key features of his work • Fulham turned down opportunity to play there, so Chelsea Football Club was formed • Taylor Report led to major changes in the 1990s • Roof added for grey hound dog races also held on the track to protect bookmakers and betting customers • Ground has changed from original oval to all sides closed

Figure 1: Former Stamford Bridge Stadium in 1928.
(Source:Britianfromabove.org.uk)

Figure 2: Current Stamford Bridge Stadium
(Source:Mark Freeman. http://www.stadiumguide.com/stamfordbridge/)



COMPARISON TO SYDNEY FOOTBALL STADIUM

- Approval granted in March 2018 to demolish Stamford Bridge Stadium and build new stadium, with 60,000-person capacity
- New stadium stated by the club as vital for them to carry out keeping up with the biggest clubs in the world.
- Similar capacity to SFS, new stadium needed to increase capacity and commercial potential
- Stamford Bridge has historical significance, continuity of use as a football stadium since 1905

Figure 3 (to the left): Artist's impression of new Chelsea Stadium
http://stadiumdb.com/news/2017/06/chelsea_stamford_bridge_development_a_positive_move_for_the_cl

STADIUM –	CAPACITY	BUILDING HISTORY	EXAMPLES OF KEY EVENTS
NAME: TOTTENHAM HOTSPURS (formerly White Hart Stadium) **ARCHITECT:** Archibald Leitch (1904-1934) **MAIN SPORT:** FOOTBALL	56,000	**1899** White Hart Lane opened **1899-1905** Rapid expansion, with covered stands **1905-1915** – increased capacity to 50,000 **1960s** -renovated terraces to seating **1980** – old West Stand demolished **1982** – New stand complete **1989** – East Stand extensively renovated **1990s** – stadium converted to all-seater **1998** – second tier built **2008** – plans presented for new stadium **2016** Construction commenced on new stadium **2016-2017** White Hart Lane demolished	• White Hart Lane Stadium was home to Tottenham Hotspurs for 118 years until its demolition in 2017 for the new stadium • 1899-1905 capacity of grounds increased to 40,000 • 1938 record crowd of 75,038 for match between Tottenham and Sunderland • Hosted 1948 Olympics Football games, • Hosted American Football • Very closely associated with the work of Archibald Leitch (1905-1934)

Figure 1: White Hart Lane in the 1920s
(Source: http://www.stadiumguide.com/whitehartlane/)

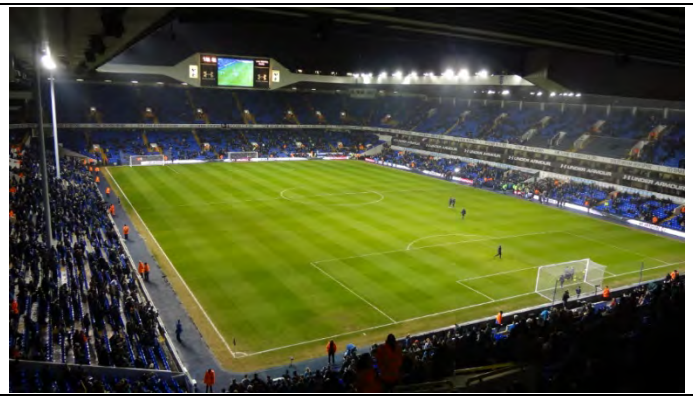


Figure 2: White Hart Lane prior to demolition in 2017 (Source: http://www.stadiumguide.com/whitehartlane/)

COMPARISON TO SYDNEY FOOTBALL STADIUM

- Long history and association with football, having been the home of Tottenham Hotspurs for 118 years at the one stadium
- Decided that it was best to demolish the existing building to create new stadium.
- New stadium is the most expensive private stadium currently under construction, due to complete 2018-2019.
- New stadium will have 50% more public, open and green spaces
- Proposed Michelin Star Dining, private skyboxes

Figure 3 (see left): Artist's Impression of new stadium under construction
(http://stadiumdb.com/news/2017/09/london_heres_the_massive_plan_next_to_tottenhams_stadium