

Penrith Stadium Refurbishment

State Significant Development Application – Environmental Impact
Statement

143 Station Street, Penrith

Infrastructure NSW



Prepared by Ethos Urban

Submitted for Infrastructure NSW

21 May 2024 | 2220108



'Gura Bulga'

Liz Belanjee Cameron

'Gura Bulga' – translates to Warm Green Country. Representing New South Wales.



'Dagura Buumarri'

Liz Belanjee Cameron

'Dagura Buumarri' – translates to Cold Brown Country. Representing Victoria.



'Gadalung Djarri'

Liz Belanjee Cameron

'Gadalung Djarri' – translates to Hot Red Country. Representing Queensland.

Ethos Urban acknowledges the Traditional Custodians of Country throughout Australia and recognises their continuing connection to land, waters and culture.

We pay our respects to their Elders past, present and emerging.

In supporting the Uluru Statement from the Heart, we walk with Aboriginal and Torres Strait Islander people in a movement of the Australian people for a better future.

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J.	Transport Impact Assessment	<i>JMT Consulting</i>
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P.	Subdivision Plan	<i>LTS</i>
Q.	Heritage Impact Statement	<i>Curio Heritage</i>
R.	Visual Impact Assessment	<i>Ethos Urban</i>
S.	Wind Assessment	<i>Aurecon</i>
T.	Noise and Vibration Impact Assessment	<i>Arup</i>
U.	Historical Archaeological Assessment	<i>Curio Heritage</i>
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HH.	Building Code of Australia Report	<i>Steve Watson & Partners</i>
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LL.	Structural Report	<i>Aurecon</i>
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Under Separate Cover

Estimated Development Cost

WT Partnership

Signed Declaration

Project Details		
Project Name	Penrith Stadium Refurbishment	
Application Number	SSD-64967209	
Land to be Developed	143 Station Street, Penrith NSW 2750 identified as Lot 1 and 2 in DP1147219	
Applicant Details		
Applicant Name	Infrastructure NSW	
Applicant Address	AON Tower, Level 27, 201 Kent Street, Sydney	
Prepared by		
Name	Mara Conde	Ella Coleman
Qualifications	Bachelor of Planning (MQU)	Bachelor of Planning (MQU)
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Registration Number	40820	
Organisation Registered With	Planning Institute of Australia	
<p>The undersigned declares that this EIS:</p> <ul style="list-style-type: none">• has been prepared in accordance with the Environmental Planning and Assessment Regulation 2021;• contains all available information relevant to the environmental assessment of the development, activity or infrastructure to which the EIS relates;• does not contain information that is false or misleading;• addresses the Planning Secretary’s environmental assessment requirements (SEARs) for the project;• identifies and addresses the relevant statutory requirements for the project, including any relevant matters for consideration in environmental planning instruments;• has been prepared having regard to the Department’s State Significant Development Guidelines - Preparing an Environmental Impact Statement;• contains a simple and easy to understand summary of the project as a whole, having regard to the economic, environmental and social impacts of the project and the principles of ecologically sustainable development;• contains a consolidated description of the project in a single chapter of the EIS;• contains an accurate summary of the findings of any community engagement; and• contains an accurate summary of the detailed technical assessment of the impacts of the project as a whole.		

Signature



Date

21 May 2024

Abbreviations

Abbreviation	Meaning
AEP	Annual Exceedance Probability
AHIMS	Aboriginal Heritage Information Management System
BDAR	Biodiversity Development Assessment Report
BOSCAR	Bureau of Crime Statistics and Research
CMP	Construction Management Plan
CPTED	Crime Prevention Through Environmental Design
DCCEEW	Department of Climate Change, Energy, the Environment and Water
District Plan	Western City District Plan
DPHI	Department of Planning, Housing and Infrastructure
DSI	Detailed Site Investigation
EDM	Electronic Direct Mailing
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2021</i>
EPBC Act	<i>Environmental Protection and Biodiversity Act 1999</i>
ESD	Ecologically Sustainable Development
FSR	Floor Space Ratio
HAA	Historical Archaeological Assessment
HIS	Heritage Impact Statement
Industry and Employment SEPP	<i>State Environmental Planning Policy (Industry and Employment) 2021</i>
INSW	Infrastructure NSW
LGA	Local Government Area
NCA	Noise Catchment Area
NVIA	Noise and Vibration Impact Assessment
OSD	Onsite Stormwater Detention
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
Penrith LEP	<i>Penrith Local Environmental Plan 2010</i>

Abbreviation	Meaning
Penrith LSPS	Penrith Local Strategic Planning Statement
Planning Systems SEPP	<i>State Environmental Planning Policy (Planning Systems) 2021</i>
PMF	Probable Maximum Flood
PV	Photovoltaic Cells
RAP	Remediation Action Plan
Region Plan	Greater Sydney Region Plan – A Metropolis of Three Cities
Resilience and Hazards SEPP	<i>State Environmental Planning Policy (Resilience and Hazards) 2021</i>
SAC	Site Assessment Criteria
SEARs	Secretary's Environmental Assessment Requirements
SIA	Social Impact Assessment
SMF	Synthetic Mineral Fibres
SQID	Stormwater Quality Improvement Device
SSDA	State Significant Development Application
Stadia Strategy	NSW Stadia Strategy 2012
Sustainable Buildings SEPP	<i>State Environmental Planning Policy (Sustainable Buildings) 2021</i>
Transport and Infrastructure SEPP	<i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i>
VIA	Visual Impact Assessment
WSUD	Water Sensitive Urban Design

Executive Summary

Purpose of this report

This Environmental Impact Statement (EIS) has been prepared on behalf of Infrastructure NSW (INSW) in support of a detailed State Significant Development Application (SSDA) made to the Department of Planning, Housing and Infrastructure (DPHI) for the refurbishment of Penrith Stadium

Development for the purposes of a 'Recreational Facility (major)' that has a capital investment value of more than \$30 million is classified as State Significant Development (SSD) in accordance with Schedule 1 of the State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP). As the proposed development is carried out by a public authority and has a capital investment value greater than \$30 million, it is SSD for the purposes of the Environmental Planning & Assessment Act 1979 (EP&A Act) and will be assessed by DPHI and determined by the Minister for Planning.

A request for the Secretary's Environmental Assessment Requirements (SEARs) was made on 5 March 2024, and the Secretary of the DPHI issued the SEARs on 5 April 2024. This EIS addresses the matters identified in the SEARs and has been prepared in accordance with the Department's State Significant Development Guidelines (November 2021) and the State Significant Development Guidelines – Preparing an Environmental Impact Statement and the requirements of the EP&A Regulation.

Project background

The NSW Government has committed to the refurbishment of the existing Penrith Stadium to support the growing population of Western Sydney and improve sporting infrastructure. The refurbishment will improve existing facilities within the stadium to better cater for existing sporting matches and support the growth of women's sport. The refurbishment of the existing facilities will take place on the site of the current stadium and improve both the visitor and player experience. The objectives of the development are:

- Improve the spectator experience with new seating and improved sightlines to the field of play.
- Deliver a multi-use contemporary rectangular venue that meets the needs of patrons, hirers and other users for rugby, football, concerts and other new forms of entertainment.
- Provide new and refurbished corporate areas, members areas and general admission areas to enhance the patron experience;
- Promote universal accessibility, safety and security such that the stadium is welcoming, inclusive and safe for all stadium users, including persons requiring universal access;
- Enhance the spectator experience through improved food and beverage and amenities; and
- Activate a precinct that operates not only on event days, but throughout the week.

Project overview

This development application sets out the proposal (SSDA) for the refurbishment of Penrith Stadium.

Specifically, consent is sought for the following in this SSDA:

- Continued use of the site for recreation facility (major) as well as proposed use for concerts and community events.
- Site preparation works, including site services and infrastructure works, earthworks and the erection of site protection hoardings and fencing.
- Demolition of the existing western and eastern stands, merchandise shed, existing video board, venue control box, accessible ramps and disabled seating, and the existing batter, access ramps and stairs to the eastern stand.
- Construction of a new western stand including improved:
 - Player facilities catering for both male and female sporting teams.
 - Amenities for spectators.
 - Food and beverage provision.
 - Grandstand seating.
- Construction of a new eastern stand, including:

- Amenities for spectators.
- Food and beverage provision.
- Grandstand seating.
- Refurbished and new stadium entries along the northern and western boundaries.
- Improvements to the northern and southern hills, including regrading of grassed areas to improve access and circulation.
- Revisions to the existing western training field to create:
 - A dedicated player warm-up space.
 - An activation hub at the western entry to the stadium.
 - Additional car parking.
- Subdivision of part Lot 2 DP 1147219 and consolidation with Lot 1 DP 1147219.

Strategic context

The State Infrastructure Strategy 2022-2042 was the NSW Government's guiding policy for the planning and delivery of stadiums in NSW with planning and investigation for Penrith Stadium beginning in 2021. The State Infrastructure Strategy outlines the importance for investment in infrastructure, especially within major stadium and sporting infrastructure.

The NSW Stadia Strategy 2012 (Stadia Strategy) identifies the vision for the future of stadia within NSW. Penrith Stadium was identified in the Stadia Strategy as a NSW Tier 2 Stadia.

The proposed development is directly consistent with the overarching themes and requirements of all relevant plans, policies and guidelines, which include:

- NSW State and Premier's Priorities.
- Greater Sydney Region Plan and Western City District Plan.
- State Infrastructure Strategy 2022-2042.
- Future Transport 2056.
- NSW Stadia Strategy 2012.
- Penrith Local Strategic Planning Statement 2020.
- Penrith 2036+ Community Strategic Plan (Draft).

Statutory context

This EIS has been prepared in accordance with the requirements of the EP&A Act and Regulation, and **Section 4.0** of the EIS considers all applicable legislation in detail.

The Penrith Local Environmental Plan 2010 (Penrith LEP) applies to the site under which development for the purposes of recreation facilities (major) is permitted with development consent. The proposed development is permissible with consent and meets the objectives of the zone.

Pursuant to clause 4.5 of the EP&A Act and Clause 2.7 of the Planning Systems SEPP, the Minister for Planning is the consent authority for a SSDA made by or on behalf of a public authority. This application is made by Infrastructure NSW who are a public authority.

Community engagement

The consultation program for this SSDA included engagement with the local community, neighbours, key stakeholders, and government authorities and agencies to present an overview of the proposed development gather feedback during the preparation of the SSDA detailed in the Consultation Outcomes Report prepared by WSP (**Appendix E**). It addresses all consultation activities, the key issues discussed, the feedback received and whether there have been any associated amendments to the proposal.

Environmental impact and mitigation measures

This EIS provides an assessment of the environmental impacts of the project in accordance with the SEARs and sets out the undertakings made by INSW to manage and minimise potential impacts arising from the development. The key environmental matter identified include (indicative below):

- Amenity impacts including overshadowing and visual and view impacts.
- Urban design and built form.

- Potential transport impacts.
- Public domain and landscaping.
- Sustainability.
- Aboriginal and Environmental Heritage.
- Noise and Vibration.

The proposed development has been assessed in each of these instances by technical experts across a range of disciplines as required by the SEARs and informed by industry best-practice. In this respect, the physical works as part of this SSDA have been assessed and mitigation measures included for any environmental impacts that may arise, as per the recommendations of the technical assessment and framework established.

Accordingly, the EIS provides a detailed assessment of the environmental, social, and economic impacts of the proposed development drawing upon information provided by a team of experienced technical experts across a range of disciplines. The EIS concludes that the proposed development will not result in any significant social, economic or environmental impacts which cannot be appropriately managed through the identified mitigation measures or standard conditions of consent.

Conclusion and justification

The EIS addresses the SEARs and provides an assessment of the relevant environmental planning considerations for the SSDA for the refurbishment of Penrith Stadium. The potential impacts of the development are acceptable and are able to be managed. Having regard to biophysical, economic, and social considerations, including the principles of ecologically sustainable development, the carrying out of the project is justified for the following reasons:

- The refurbished stadium will facilitate a number of significant social, cultural and economic benefits that might otherwise be lost or remain unrealised, and ensure the continued operation of a regionally significant stadium for greater western Sydney.
- The proposal will facilitate the refurbishment of Penrith Stadium, delivering a multi-use contemporary rectangular venue that meets the needs of patrons, hirers and other users for rugby, football, concerts and other new forms of entertainment.
- The proposal will significantly improve the spectator experience with new seating and improved sightlines to the field of play, as well as new and refurbished corporate areas, members areas and general admission areas.
- The development will promote universal accessibility, safety and security such that the stadium is welcoming, inclusive and safe for all stadium users, including persons requiring universal access.
- The proposal will contribute to activating the precinct, not only on event days but throughout the week.
- The proposal allows for the significant improvement of the public domain on and around the site, allowing for improved connections to all three street frontages. The proposal improves the public domain experience, addressing heat load and solar access throughout the year so that visitors can utilise the public domain on both event and non-event days.
- The proposal will support an estimated 460-500 FTE jobs during construction, with up to 600-650 FTE operational jobs during game days.
- The design of the stadium has been developed with consideration of the design quality of the existing stadium and surrounds to deliver the much-needed function improvements and bring new life to the stadium whilst still respecting the integrity and history of the existing Penrith Stadium.
- The site is well served by existing and future public infrastructure, particularly public transport infrastructure and parking, cycling, road and pedestrian connections, which are readily available given the stadium operates with a similar capacity currently on the site, and services can be augmented to meet the future needs of the refurbished stadium.
- The project has been informed by pre-lodgement consultation, and measures are recommended for ongoing consultation and engagement.
- The proposed development is permissible with consent and meets the relevant statutory requirements of the relevant environmental planning instruments, including the Penrith LEP.
- The proposed development will not result in adverse environmental impacts, with appropriate mitigation measures that will minimise any potential impact.
- The proposed development is suitable for the site and in the public interest.

1.0 Introduction

This Environmental Impact Statement (EIS) has been prepared by Ethos Urban on behalf of Infrastructure NSW (INSW) (the applicant) in support of a State Significant Development Application (SSDA). The EIS is submitted to the NSW Department of Planning, Housing and Infrastructure (DPHI) for a proposed the refurbishment of Penrith Stadium on land at 143 Station Street, Penrith (the site).

Development for the purposes of major recreational facility with a capital investment value of more than \$30 million is identified in Schedule 1 of *State Environmental Planning Policy (Planning Systems) 2021* and is therefore declared to be State Significant Development (SSD) for the purposes of the *Environmental Planning & Assessment Act 1979* (EP&A Act).

This EIS has been prepared in accordance with the requirements of Part 4 of the EP&A Act, clause 175 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation), and the issued Secretary's Environmental Assessment Requirements (SEARs). A SEARs Compliance Table provided at **Appendix A** that identifies where the SEARs have been addressed in this EIS. This EIS should be read in conjunction with the supporting information and plans appended to and accompanying this report. The EIS intends to inform the community and stakeholders about the Proposal, including its social, economic and environmental impacts, mitigation measures and benefits, as well as providing an environmental assessment of the proposal.

1.1 The Applicant

The Applicant's details are presented in **Table 1** below.

Table 1 *Applicant Details*

Applicant:	Infrastructure NSW
Address:	Level 27, 201 Kent Street, Sydney NSW 2000
ABN:	85 031 302 516

1.2 Overview of proposed development

This SSDA seeks consent for the design, construction and operation of the refurbishment of Penrith Stadium at 143 Station Street Penrith.

Specifically, this SSDA seeks approval for:

- Continued use of the site for recreation facility (major) as well as proposed use for concerts and community events.
- Site preparation works, including site services and infrastructure works, earthworks and the erection of site protection hoardings and fencing.
- Demolition of the existing western and eastern stands, merchandise shed, existing video board, venue control box, accessible ramps and disabled seating, and the existing batter, access ramps and stairs to the eastern stand.
- Construction of a new western stand including improved:
 - Player facilities catering for both male and female sporting teams.
 - Amenities for spectators.
 - Food and beverage provision.
 - Grandstand seating.
- Construction of a new eastern stand, including:
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 - Grandstand seating.
- Refurbished and new stadium entries along the northern and western boundaries.
- Improvements to the northern and southern hills, including regrading of grassed areas to improve access and circulation.
- Revisions to the existing western training field to create:

- A dedicated player warm-up space.
- An activation hub at the western entry to the stadium.
- Additional car parking.
- Subdivision of part Lot 2 DP 1147219 and consolidation with Lot 1 DP 1147219.

1.3 Objectives of the Development

The objectives of the development are to:

- Refurbishes Penrith Stadium to provide a better event day experience and to create a stadium that services the broader Penrith area, Western Sydney and Greater Sydney regions.
- Improve the spectator experience with new seating and improved sightlines to the field of play.
- Deliver a multi-use contemporary rectangular venue that meets the needs of patrons, hirers and other users for rugby, football, concerts and other new forms of entertainment.
- Provide new and refurbished corporate areas, members areas and general admission areas to enhance the patron experience.
- Promote universal accessibility, safety and security such that the stadium is welcoming, inclusive and safe for all stadium users, including persons requiring universal access.
- Enhance the spectator experience through improved food and beverage and amenities.
- Activate a precinct that operates not only on event days, but throughout the week.

1.4 Background

The site was developed in the 1940s as a sporting field by Council, with support from the Penrith Junior Rugby League, to transform the site into a core sporting field servicing the Penrith area. The Penrith Panthers entered into the Sydney Firsts Division in 1967 which formally marked the first first-grade match at Penrith Park on 8 April 1967 in the newly redeveloped Penrith Stadium. In the 1980s, there was substantial changes to the site which saw the site move from an oval-shaped field to a rectangular shaped field with the construction of new stands along the eastern and western sides of the field.

The last major expansion to Penrith Stadium took place in 2006 when the west stand was extended with a new section on the south side and new corporate boxes were built.

The most recent Development Application Approval was lodged on the 6th of January 2015 for the alteration of a number of corporate boxes (DA15/0008). DA15/0008 was granted consent subject to conditions, and these works have been undertaken.

1.5 Secretary's requirements

In accordance with Section 4.39 of the EP&A Act, the Secretary of DPHI issued the requirements for the preparation of the EIS on the 5th of April 2024. **Appendix A** provides a detailed summary of the individual matters listed in the SEARs and identifies where each of these requirements has been addressed in this report and the accompanying technical studies.

2.0 Strategic Context

This section identifies key strategic matters relevant to the assessment of the proposal, including the site's features, context, strategic context and other development in the surrounding area. This section also provides an analysis of feasible alternatives that were considered in light of the proposal's objectives.

2.1 Site Overview

2.1.1 Site location and context

Penrith Stadium is situated upon the lands of the Dharug people within the Penrith City Council Local Government Area (LGA). The stadium, also known as BlueBet Stadium, is located at 143 Station Street on the corner of Station Street, Ransley Street and Mulgoa Road.

The site is approximately 1.3 kilometres south west from the Penrith Town Centre and Penrith Station, approximately 34 kilometres west of Parramatta and 56 kilometres west of Sydney CBD.

The stadium is provided pedestrian access from Station Street, Ransley Street and Mulgoa Road, and access to inside the stadium is currently through turnstile or gated entry. The site is well connected to Sydney's transport network through existing bus routes that connect pedestrians to Penrith Station.

A context map is provided in **Figure 1**, and an aerial map is provided at **Figure 2** below.

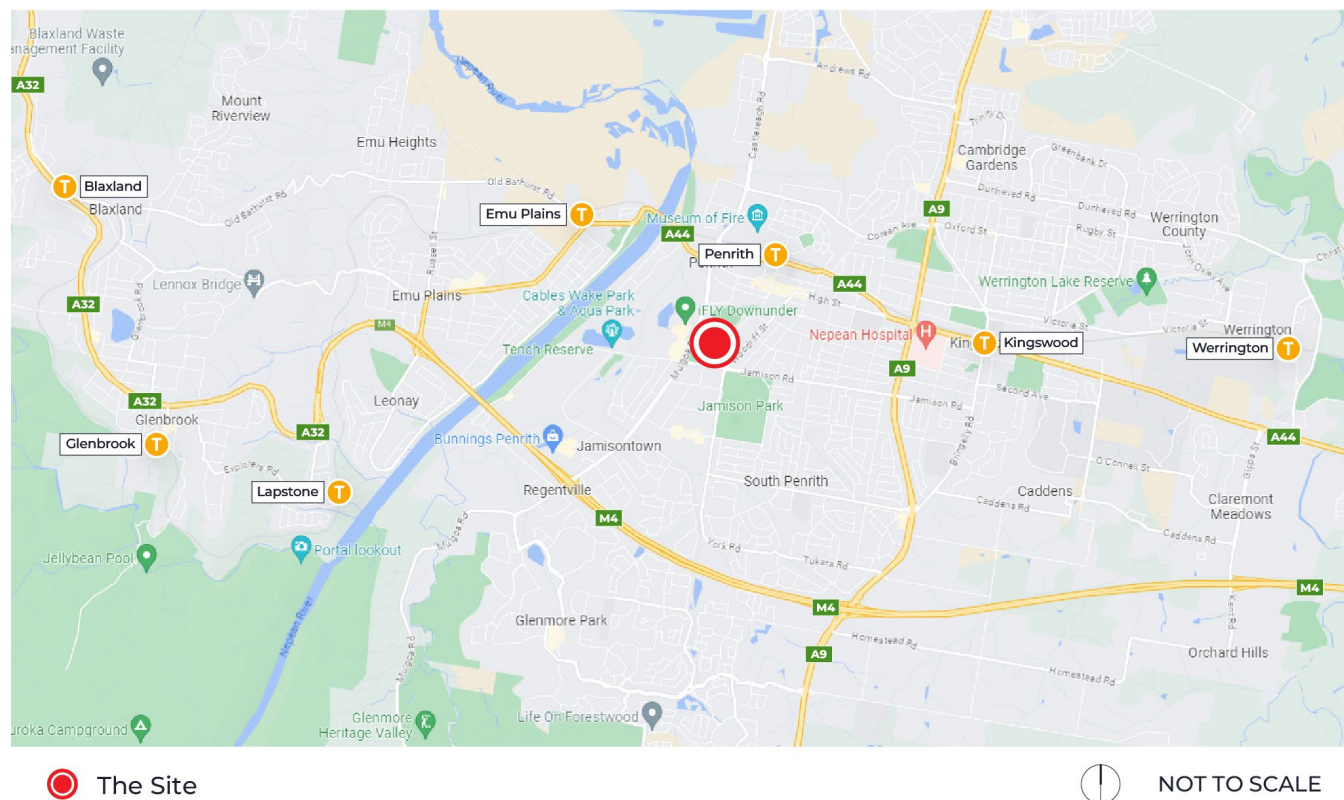


Figure 1 Site context

Source: Ethos Urban



 The Site

 NOT TO SCALE

Figure 2 Aerial context map of the site

Source: Ethos Urban

2.1.2 Site description

The site comprises Lot 1 DP 1147219 and part Lot 2 DP 1147219. The site contains Penrith Stadium, which currently comprises an eastern and western stand, as well as two grass hills at the northern and southern end of the playing field, for spectators to sit and watch the events from. The stadium contains associated player and game facilities, as well as spectator amenities, corporate boxes and media facilities. The stadium currently has a capacity of approximately 22,500 people.

The site also contains a small at-grade car park to the north-west of the stadium, and a training field to the west.

The site is bordered by Station Street in the east, Howell Oval in the south, Mulgoa Road to the west and Ransley Street to the north.

A site map is provided at **Figure 3**.



 Site Boundary 1 - Panthers Leagues Club 2 - Club Paceway 3 - Nepean Village Shops



Figure 3 Site aerial

Source: Ethos Urban

2.2 Key features of site and surrounds

2.2.1 Vegetation

The site is bordered by large mature trees at its eastern boundary to Station Street and its western boundary to Mulgoa Road. Ransley Street is also bordered by medium and large mature trees. Within the site, vegetation comprises of the lawn within the existing stadium and the lawn within Penrith Park in the western portion of the site.

2.2.2 Transport and accessibility

Pedestrian

The site benefits from an extensive pedestrian network that connects the Penrith Stadium to surrounding localities and development. Pedestrians can access the site from Mulgoa Road, Station Street and Ransley Street.

The existing pedestrian infrastructure supporting Penrith Stadium is shown at **Figure 4**.

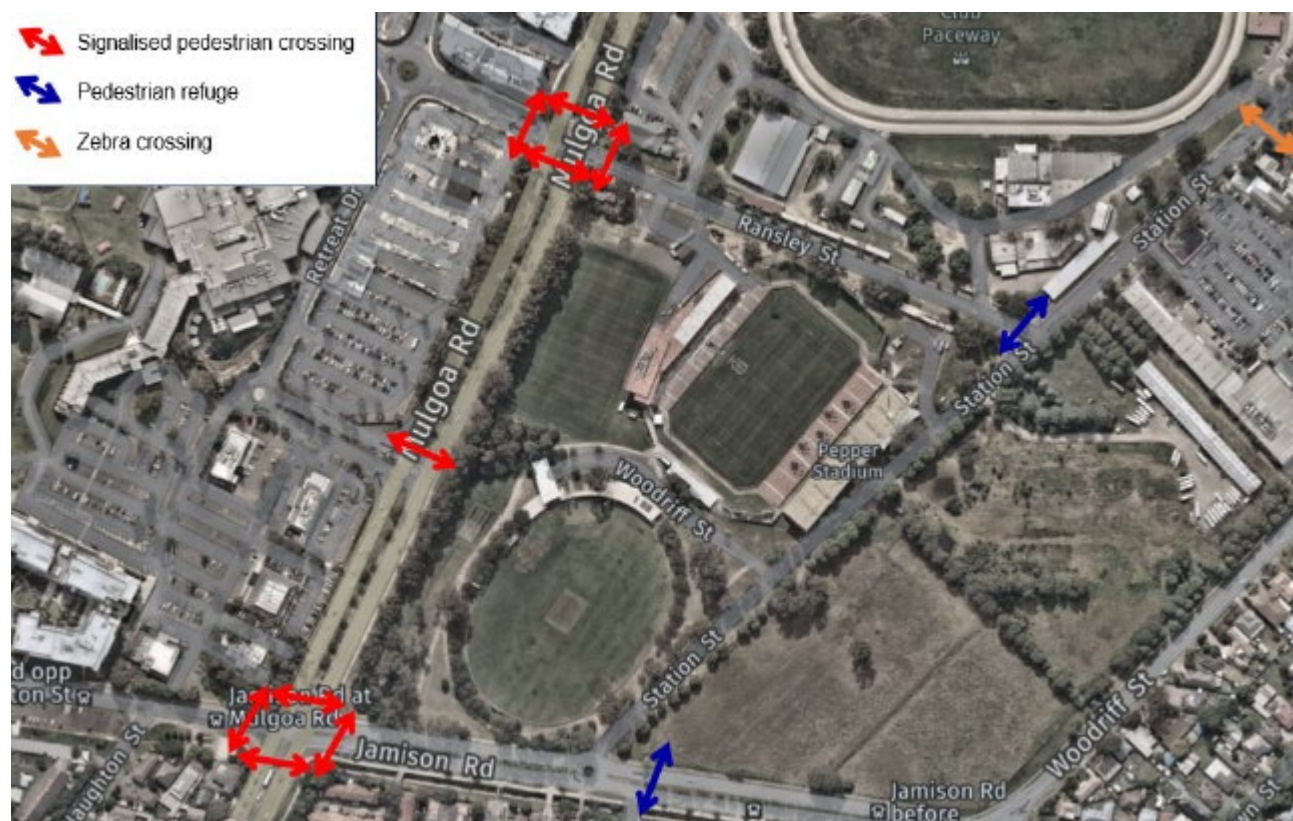


Figure 4 Pedestrian infrastructure within immediate vicinity of Penrith Stadium

Source: JMT Consulting

Bus

The site has two dedicated bus stops on Station Street and Ransley Street. The available buses connect the stadium to surrounding streets and suburbs, as well as to the Penrith Train Station and Bus Interchange. Additionally, there are surrounding bus stops on adjacent streets. The existing bus stops and their routes are as follows:

- Station Street bus stop: 781, 793, 795, 797, 799.
- Ransley Street bus stop: 691, S13.

Train

The Penrith Station is located approximately 1.3km from the site, or an approximately 20-minute walk. It can be accessed by a variety of bus services that pass by the site. The station itself has access to the T1 North Shore, Northern and Western lines and the Blue Mountains line. The T1 line provides access to the Sydney CBD and Central Station where patrons can change for other train lines or light rail networks.

Vehicle access and parking

Penrith Stadium has limited free parking available located adjacent to the site within the grounds of the Penrith Panthers Leagues Club on Mulgoa Road. Public parking is also available at Penrith Cricket Club and the Penrith Paceway. General parking is also available in surrounding residential streets.

A carpark on the site is reserved for disabled parking which operates on a first in, first served basis, where a disabled sticker must be displayed.

Taxis and rideshare

Set down areas for taxis are available within a taxi rank which is located opposite the site on Mulgoa Road at the front of the Penrith Panthers League Club. There is no dedicated rideshare area, and as such drop off and pick up usually occurs informally in the surrounding road network.

2.2.3 Heritage

The site is not identified as a heritage item nor is it within a conservation area.

However, the site is in the vicinity of three heritage items of local significance as identified with the *Penrith Local Environmental Plan 2010* (Penrith LEP). There are two conservation areas of local significance within proximity of the site, being the Hornseywood Avenue Conservation Area and Warwick Street Conservation Area. Both of these conservation areas are over 600 metres away from the site.

2.2.4 Surrounding development

The urban context of the site is characterised by a wide variety of land uses, development typologies and architectural styles. The context surrounding the site is discussed in more detail below.

North

The site is bound by Ransley Street to the north, beyond which is the Penrith Paceway, which includes the racetrack, club facilities and associated commercial/retail premises. To the north-east of the site is the Nepean Shopping Village.



Figure 5 Ransley Street to the north



Figure 6 Penrith Paceway



Figure 7 Nepean Village Shopping Centre

East

The site is bound by Station Street at its eastern boundary. Immediately opposite the site across Station Street is a large, consolidated landholding which is largely vacant except for a light industrial use located within the northern portion of the site. This land is zoned R4 High Density Residential with planning controls that allow development up to 6-7 storeys.



Figure 8 Station Street to the east



Figure 9 164 Station Street, immediately opposite the site

South

The site is bound by Howell Oval to the south, which includes an oval playing field and associated amenities. Further to the south is Jamison Road, beyond which is an open stormwater drainage channel and R4-zoned high density residential area characterised by three-storey residential flat buildings.



Figure 10 Howell Oval



Figure 11 Residential area to the south

West

The site is bound by Mulgoa Road to the west, beyond which is a mixed-use precinct focused around the Penrith Panthers Leagues Club. This precinct includes the Leagues Club, hotel and conference facilities, retail premises, recreation and leisure facilities. A new residential apartment precinct is also located to the west and northwest of the site.



Figure 11 Mulgoa Road



Figure 12 Penrith Panthers Leagues Club

2.3 Strategic Planning Context

The proposal is consistent with the relevant Government plans, policies and guidelines applying to the site as outlined in **Table 2** below.

Table 2 Summary of Strategic Context

Strategic Plan	Strategic Context
NSW State and Premier's Priorities	The proposal will deliver on key state priorities and aims to provide jobs that are closer to home and are well connected to transport and accessible. The proposal will create job opportunities during the project's construction phase of works, and job opportunities that are project related land uses at the completion of the development.
Greater Sydney Region Plan – A Metropolis of Three Cities	<p>The proposal is closely aligned with the Greater Sydney Region Plan – A Metropolis of Three Cities (Region Plan) which is the overarching strategic plan to manage change and growth in the Greater Sydney Region. It sets a 40-year vision where most residents live within 30-minutes of their jobs, education and health facilities, services and great places.</p> <p>The Region Plan provides 10 high level policy directions that are supported by 40 objects that inform District Plans, Local Plans and Planning Proposals. This proposal supports the Greater Sydney Region Plan as Penrith is identified as a Metropolitan City with the responsibility to provide jobs and services for the growing community.</p>
Western City District Plan	<p>The Western City District Plan (District Plan) builds upon the Regional Plan's vision, objectives and strategies to provide a 20-year plan to manage growth in the Western City District.</p> <p>The proposal will deliver the District Plan's vision and objectives is to assist growth and access to jobs and fostering activity in centres over the next 20 to 40 years. This will be achieved through the creation of jobs and activities as a result of the development to promote the local economy. The key priorities of the Western City District Plan that the proposal will meet are:</p> <ul style="list-style-type: none"> • Providing services and social infrastructure to meet people's changing needs. • Creating and renewing great places and local centres, and respecting the District's heritage. • Fostering healthy, creative, culturally rich and socially connected communities. • Growing investment, business opportunities and jobs in strategic centres. • Reducing carbon emissions and managing energy, water and waste efficiently. • Penrith Stadium is a key piece of cultural infrastructure to support a healthy, creative, culturally rich and socially connected community.
State Infrastructure Strategy 2022-2042	The State Infrastructure Strategy 2022-2042 outlines the importance for investment in infrastructure, especially within major stadium and sporting infrastructure. Planning and investigation for the Penrith Stadium began in 2021 as announced by the NSW Government.
Future Transport 2056	The Future Transport 2056 Report is a 40 year strategy that provides a long-term vision for communities and transportation. Whilst a number of these outcomes relate to integrating technological advancements with services and providing regional connections, the proposal is consistent with the desire to encourage active and sustainable options and provide more seamless customer experiences.
NSW Stadia Strategy 2012	<p>The NSW Stadia Strategy 2012 provides a vision for the future of stadia within NSW, prioritising investment to achieve the optimal mix of venues to meet community needs and to ensure a vibrant sports and event environment in NSW.</p> <p>The Penrith Stadium is identified as an NSW Tier 2 Stadia as it has a total capacity between 20,000 to 40,000 people, some corporate facilities and is a home ground for a sporting team that is in the national competition. The Penrith Stadium is one of 11 Tier 2 facilities.</p>
Penrith Local Strategic Planning Statement 2020	<p>The Penrith Local Strategic Planning Statement 2020 (Penrith LSPS) outlines Penrith's social, economic and environmental land use demands for the next 20 years. The LSPS outlines the how growth and change will be managed into the future and will help inform a review of planning controls where required.</p> <p>This proposal encourages active and healthy lifestyles by promoting green space and the use of open spaces. Penrith is a tourist destination and this proposal will enhance tourism in Penrith and provide jobs. Moreover, this proposal offers jobs within the economic catchment and corridors that provide jobs, services, and infrastructure to the local community.</p>
Penrith 2036+ Community	The Penrith 2036+ Community Strategic Plan (Draft) aims to plan and shape the growing city of Penrith, as well as managing and improving the built environment. The proposal will assist in the growth of the city and provide improved infrastructure that improves the functionality and usability

Strategic Plan	Strategic Context
Strategic Plan (Draft)	of the existing Penrith Stadium precinct, supporting Penrith's tourism, arts and cultural industries. The development will allow for better activation of the space to support the growing community.

2.4 Cumulative Impacts

Table 3 identifies nearby relevant future projects. An assessment of the cumulative impacts associated with these projects are considered under the relevant issue in **Section 6.0**.

The project team is aware of other development that is in its early stages around the site, including at 164 Station Street. However, no applications have been lodged at time of writing, and therefore they are not able to be considered in this cumulative impact assessment.

Table 3 Surrounding Development

Development	Description	Location	Timing / Approval Stage
SSD-68603709 SummitCare Seniors Housing Jamisontown, Penrith	Demolition of existing structures and construction of a new seniors development comprising of independent living units, residential care rooms, administrative building, communal facilities, landscaping and car parking.	366 Jamison Road, Jamisontown Approximately 500 metres from the site.	The scoping report to request SEARs was submitted in March 2024. This project is less progressed than the Penrith Stadium project, and therefore its unlikely that these projects will coincide. Coordination may be required prior to the commencement of construction for the Penrith Stadium project (subject to approval) with respect to construction traffic management. This would occur through submission and approval of the final Construction Traffic and Pedestrian Management Plan with the relevant project delivery office within Transport for NSW.
SSD-10475 Winter Sports World	Mixed-use development including an indoor recreation facility, hotel and commercial uses including: <ul style="list-style-type: none"> indoor ski facilities including a ski run, snow play and climbing facilities 170 room hotel with associated facilities cafes and restaurants 	2 Tench Avenue, Jamisontown Approximately 1.5 kilometres from the site.	The SSDA for Winter Sports World was approved in January 2024. This project is more progressed than Penrith Stadium redevelopment, given it is approved. However, Winter Sports World is located more than one kilometre from the site, and therefore any cumulative construction impacts can be appropriately mitigated due to the distance.
Mulgoa Road Upgrades	The Mulgoa Road / Castlereagh Road corridor upgrade will add a third lane in each direction and reduce travel times and congestion, making it easier for motorists to get from Penrith Station to home, or Castlereagh to the Nepean River, or Glenmore Park to the M4 Motorway.	Mulgoa Road, directly north of the site	Some parts of the road upgrades have been completed already, however it is not clear when the portion of the Mulgoa Road upgrade immediately adjacent to the site will be upgraded. Coordination may be required prior to the commencement of construction for the Penrith Stadium project (subject to approval) with respect to construction traffic management. It is proposed that this is negotiated with TfNSW through future consultation. A mitigation measure has been included to consider the impact of the road upgrades (see Appendix D).

2.5 Analysis of Alternatives

Alternative options have been considered by Infrastructure NSW in response to the strategic need and objectives for the development of the site. This includes not undertaking any works on the site ('do nothing'), proceeding with a different use on the site, and proceeding with the proposed redevelopment for the purposes of a Major Recreational Facility.

Option 1 – Do Nothing

The 'Do Nothing' scenario comprises the existing Penrith Stadium remaining in-situ. For the reasons outlined in **Section 2** above, the renewal of the Penrith Stadium represents an important investment in recreational infrastructure in NSW.

Without improvement and renewal, the 'Do Nothing' approach would see the existing Penrith Stadium fall further behind competing facilities interstate and overseas. This would result in missed opportunities for local competition events as well as the potential for hosting major regional, national and international events. This could result in the loss of potential economic, social and cultural opportunities for Western Sydney.

Therefore, the 'Do Nothing' approach is not considered to be an appropriate approach for a regionally significant recreational facility such as the Penrith Stadium.

2.5.1 Option 2 – Use of the Site for an Alternative Purpose

The second option available is to close Penrith Stadium and pursue an alternative use for the site. For the reasons outlined in **Section 2** and discussed in Option 1 above, the renewal of Penrith Stadium represents an important investment in major recreational facilities of NSW and to lose this space to an alternate use would be detrimental to the sporting and recreational industries for Sydney and Greater Western Sydney.

While the use of the site for an alternative land use may be economically beneficial to NSW in the short term, it would not provide the long-term positive recreational or sporting outcomes that can be realised through the retention and renewal of Penrith Stadium.

Therefore, the 'Alternative Purpose' approach is not considered an acceptable alternative for the retention of a major recreational facility such as Penrith Stadium.

2.5.2 Option 3 – Complete Redevelopment

The third option available is to completely redevelop the existing stadium and field, entirely replacing the current built form and field of play. This would involve not retaining any elements of the existing stadium, and entirely rebuilding the stadium facility.

This option for the complete redevelopment of the stadium provides the greatest flexibility in design, allowing the stadium to fully realise contemporary standards for spectator sightlines, proximity to the pitch, and amenity. There may be some negative impacts associated with this option through the loss of association with the existing stadium as the main legacy venue of Penrith Panthers and NRL more largely. In addition, the cost of completing this full redevelopment is significant and much greater when compared to other options.

Further to this, this option does not enable the retention of any existing elements on the site that continue to be in suitable condition for the use of the stadium, such as the field of play. This also has a negative environmental outcome, by requiring greater amounts of construction to rebuild elements that could have been retained.

Therefore, the 'Complete Redevelopment' approach is not considered to be the most suitable option for Penrith Stadium, given there are a number of built form elements that are suitable for retention and future use.

2.5.3 Option 4 – Refurbishment (the project)

The fourth option comprises a refurbishment of the existing Penrith Stadium that will address capacity, improve amenity and upgrade accessibility and security of the stadium. This comprises replacing the existing eastern and western stands, increasing the capacity of the stadium by an additional 2,500 people, up to a maximum of 25,000 people. The design of the new stands improves sightlines to the field, improved public entries and circulation spaces, a new media centre, new corporate facilities, and improved and expanded amenities and facilities, including food and beverage offerings. The refurbishment works will significantly improve the fan experience whilst also adopting industry best-practices and future proofing the stadium.

The refurbishment of the stadium is consistent with the strategic need to address the competitiveness and longevity of the stadium, and realise the economic and social benefits of maintaining the position of Penrith Stadium as a major regional stadium in Western Sydney. The stadium will remain able to attract significant sporting events for both men's and women's sporting matches, as well as non-sporting events, such as concerts.

For these reasons, and for those considered in the options above, the proposed refurbishment of the stadium is considered to be the best and preferred option and is the project which forms the basis for this application. Ultimately, this option is being pursued by the NSW Government.

3.0 Project Description

3.1 Project Overview

The Applicant seeks development consent under Division 4.7 of the EP&A Act for site preparation works, construction of a new western and eastern stand, refurbished and new stadium entries, revision to the existing western training field and subdivision of Lot 2 DP 1147219 and consolidation with Lot 1 DP 1147219.

Specifically, this SSDA seeks approval for:

- Continued use of the site for recreation facility (major) as well as proposed use for concerts and community events.
- Site preparation works, including site services and infrastructure works, earthworks and the erection of site protection hoardings and fencing.
- Demolition of the existing western and eastern stands, merchandise shed, existing video board, venue control box, accessible ramps and disabled seating, and the existing batter, access ramps and stairs to the eastern stand.
- Construction of a new western stand including improved:
 - Player facilities catering for both male and female sporting teams.
 - Amenities for spectators.
 - Food and beverage provision.
 - Grandstand seating.
- Construction of a new eastern stand, including:
 - Amenities for spectators.
 - Food and beverage provision.
 - Grandstand seating.
- Refurbished and new stadium entries along the northern and western boundaries.
- Improvements to the northern and southern hills, including regrading of grassed areas to improve access and circulation.
- Revisions to the existing western training field to create:
 - A dedicated player warm-up space.
 - An activation hub at the western entry to the stadium.
 - Additional car parking.
- Subdivision of part Lot 2 DP 1147219 and consolidation with Lot 1 DP 1147219.

The proposed development is discussed further in the following subsections and detailed on the Architectural Drawings prepared by Populus and included at **Appendix B** as well as the Landscape Drawings prepared by Tyrrell Studio and included at **Appendix H**.

Photomontages of the proposed development are provided in **Figure 12** and **Figure 13**



Figure 12 *Photomontage of proposed development*

Source: Populous, Tyrrell Studio

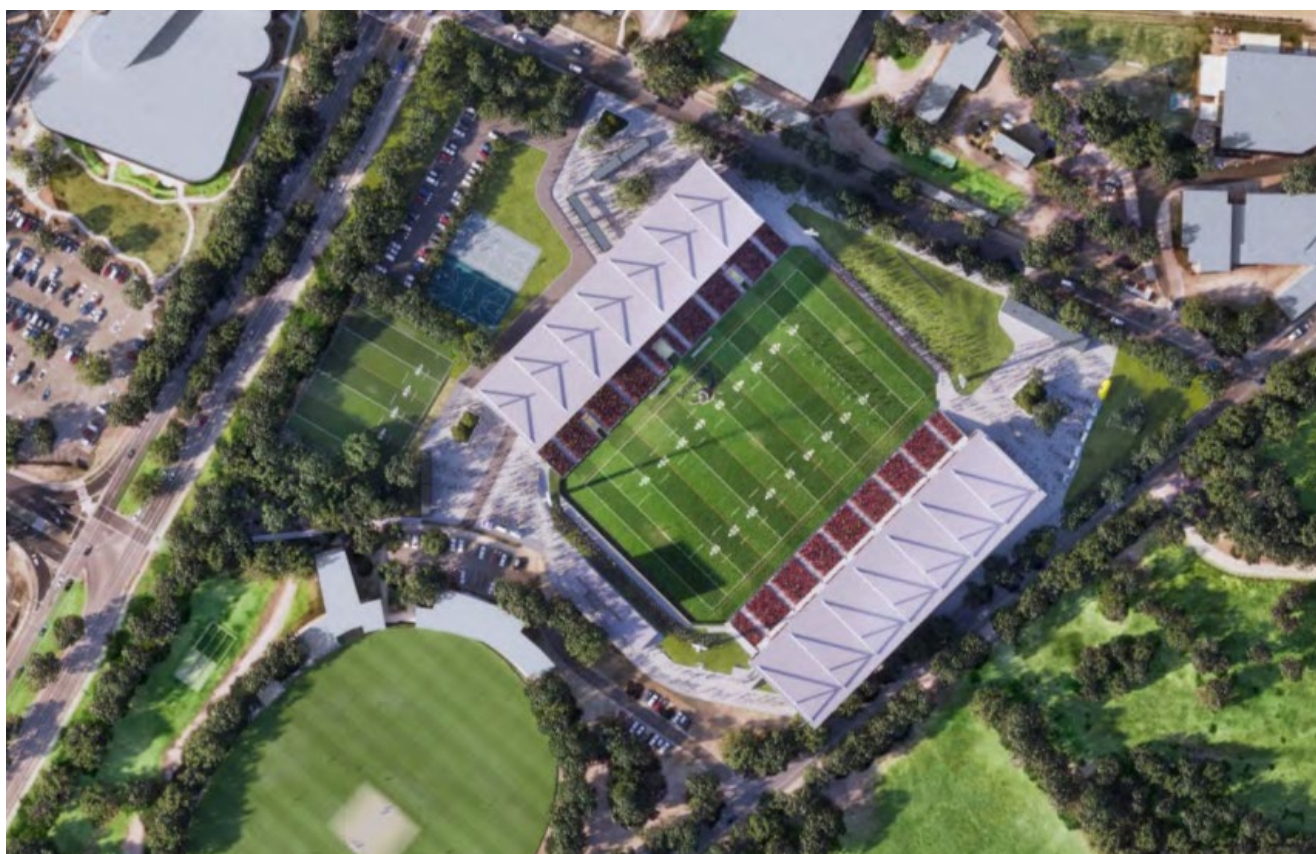


Figure 13 *Photomontage of the proposed development*

Source: Populous, Tyrrell Studio

3.1.1 Project Details

The key project details regard the proposal are outlined in **Table 4** below.

Table 4 Key Project Details

Component	Description
Capacity	Approximately 25,000 (plus an additional 5,000 standing during concert mode), comprising: <ul style="list-style-type: none">Northern Hill: 6,000Southern Hill: 3,000Eastern Stand: 9,000Western Stand: 7,000<ul style="list-style-type: none">General Admission: 4,800Corporate: 2,200
Height	Western Stand: 30.05m Eastern Stand: 28.85m
Trees removed	11 trees
Trees planted	182
Vehicle parking	40 parking spaces
Landscaped Area	59% of site area
Deep Soil Area	36.5% of site area

3.2 Land Use – ‘Recreational Facility (Major)’

This application seeks consent for the refurbishment of the existing Penrith Stadium, as both the existing stadium and renewed stadium are defined as a ‘recreation facility (major)’, and as such no change of use is proposed or required.

It is also noted that Penrith Stadium is not currently restricted in terms of the nature, frequency or duration of events. The operation of the stadium is to be governed by an Event Management Statement (see **Appendix K**) nominating measures for each category of events. This is commensurate with the historic and current significant role of this infrastructure in attracting and hosting events.

In light of this, it is not proposed to constrain the ability of the stadium to continue to host events by imposing any further restrictions on its operational profile in terms of the number of events, attendance capacity, or operational hours. The revised contemporary operational framework for the stadium through the Event Management Statement will ensure the ultimate operation of the stadium does not give rise to any new or otherwise significant environmental impacts.

Events will generally be a single sporting match, however, a single event can also include back-to-back games held over several hours (e.g. junior and reserve grade games held immediately prior to an NRL match). It is also proposed that concerts are held in the refurbished stadium.

It is proposed that the type of events hosted at Penrith Stadium may include, but not limited to, the following:

- Rugby League matches,
- Rugby Union matches
- Football matches
- Domestic sporting fixtures
- Concerts (maximum of 10 per year)
- Cultural events
- Non-event day activities including meetings, conferences, catered functions.

The proposed events are capable of attracting the maximum occupancy crowd (approximately 25,000 seats, and 30,000 for concerts). Whilst most events will not typically reach the maximum capacity, as outlined above it is essential that the ability to accommodate a maximum capacity crowd for all events is provided. Concerts will be capped at 10 events per year.

As per current arrangements, no event annual event restriction is proposed. This will allow for flexibility to provide for a range of events within the NSW stadia network. Furthermore, the rise and professionalisation of women's sport requires flexibility in event programming to accommodate additional fixtures as they develop.

Event management, protocols and procedures

Infrastructure NSW has prepared an Event Management Statement (**Appendix K**) which sets out the operational management principles involved in the operation of the stadium. The Event Management Statement addresses each of the issues raised in the SEARs and sets out an approach for key areas of operations including the types and forms of events and capacity. The Event Management Statement will inform a future detailed Event Management Plan prior to the commencement of operations on the site.

Hours of operation

During operation of the refurbished stadium, the proposed hours of operation are as follows:

- Sporting events- 8am-11pm
- Concerts- 10am- 11pm
- Concert rehearsals- 10am-10pm
- Concert sound checks- 10am-10pm
- Other outdoor events with sound amplification- 10am-8pm
- Organised temporary activities on event days in public domain at the site- 8am-11pm

Bump-in and Bump-out

Prior to events, and following the conclusion of events, bump in and bump out activities will need to occur. This includes:

- Loading and unloading of event deliveries and equipment.
- Drop off and pick up of players.
- Event pack down.
- Egress of staff.

3.3 Design Principles

Connecting with Country

Throughout the design of the proposed development, consultation and engagement has been undertaken with key First Nations Elders and Knowledge Holders. The Architectural Design Report prepared by Populous at **Appendix G** addresses how the proposed development incorporates connecting with Country in its proposed design and principles. Engagement was undertaken as discussed at **Section 5.1.3** to inform the Connecting with Country methodology based on the Dharug ways of knowing, being and doing. The key takeaways from the engagement undertaken to date are:

- Strong connection to the river and flood plains.
- Referenced tumbling basalt river rocks on the river edge.
- Penrith pride is the river and the base of the mountains, not the mountains.
- Continuity, interconnectedness and connecting stories is more important.
- Waterways and what lives around the waterways are important.
- Any opportunity to share what's happened in the past is important.

Following a Walk on Country with Dharug Knowledge Holder, the design team was drawn to concepts of vertical lines connecting the sky and horizontal lines connecting to the earth, which will be embedded into the co-design process, specifically through façade screening elements, in key interior spaces and throughout the precinct.

As the design continues to be developed, the project team and proposed development will continue existing relationships with Elders and Knowledge Holders in progressing the co-design process by expanding engagement with existing Penrith Panthers programmes with the local Aboriginal Community.

Urban Design Principles

The following design principles and urban approaches have been adopted to ensure the overall vision and objectives for the site are achieved:

- **Two edges of clear character and scale: A western park edge and eastern edge**
The stadium should respond to its setting, providing a park frontage address to the west, as well as an urban frontage to Station Street.
- **A landmark to vehicles**
Make use of the prominent intersection of Mulgoa Road and Ransley St as the landmark signage for the stadium, giving the stadium a clear public address.
- **Connected canopy pedestrian link from Panthers Leagues Club to the stadium**
Provide a clear path of travel between the Panthers Leagues Club to the west and the stadium, with a shaded public walk that ties the various entrances to the site together.
- **A civic eastern arrival sequence**
The eastern stand acts as another civic step along Station Street, connecting into the numerous civic services provided along Station Street from Penrith Station to the stadium.
- **Frame and intensify**
Create a sense of enclosure and intensity within the stadium using the eastern and western stands, together with the northern and southern hills and additional landscaping to frame the field of play.

Architectural Principles

There are a number of architectural principles have been adopted to guide the design. These are informed by the shared design principles outlined above.

- Increased shading.
- Accessibility for all.
- Expanding recreation spaces.
- Integrating landscape unique to the site.
- Proximity and connection to the field and a home for Panthers members.
- Distribution of entrances.
- Key sightlines.

The demonstration of some of these principles is shown in **Figure 14**.

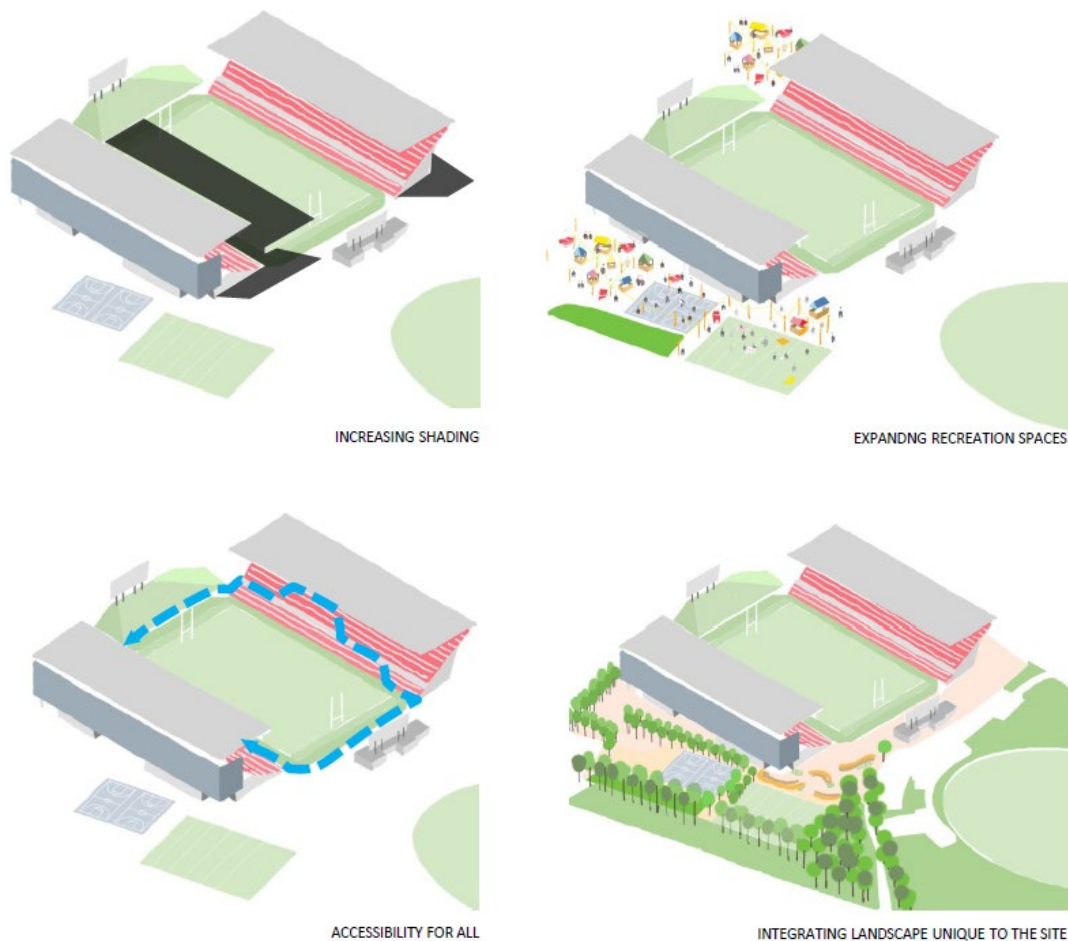


Figure 14 *Architectural principles that have informed the proposal*

Source: Populous

3.4 Site Preparation Works

A variety of site preparation works are proposed prior to the development of any new built form on the site. This includes demolition of existing structures on the site, as described the following sections below.

3.4.1 Demolition

Prior to the construction of the proposed development, a variety of demolition works are to be undertaken. The largest components of demolition will be the existing Western and Eastern Stand, which are proposed to be rebuilt.

The proposed development seeks consent for the demolition of existing structures at the site. Demolition of the following structures will occur:

- Demolition of the West and East Stand.
- Demolition of the existing accessible ramp and PWD seating platform to both the West and East Stand.
- Demolition of the existing venue control box structure.
- Demolition existing video board on north hill.
- Demolition of existing batter including access ramps and stairs on the East Stand.
- Demolition of the existing turnstiles and merchandise shed at the north-west entry.

The demolition plan is shown below at **Figure 15**.

Despite the proposed demolition of the Eastern and Western Stands, and other smaller structures, it is noted that a variety of other structures and spaces will be retained on the site, including the existing landscaped hills to the north and south of the field of play.

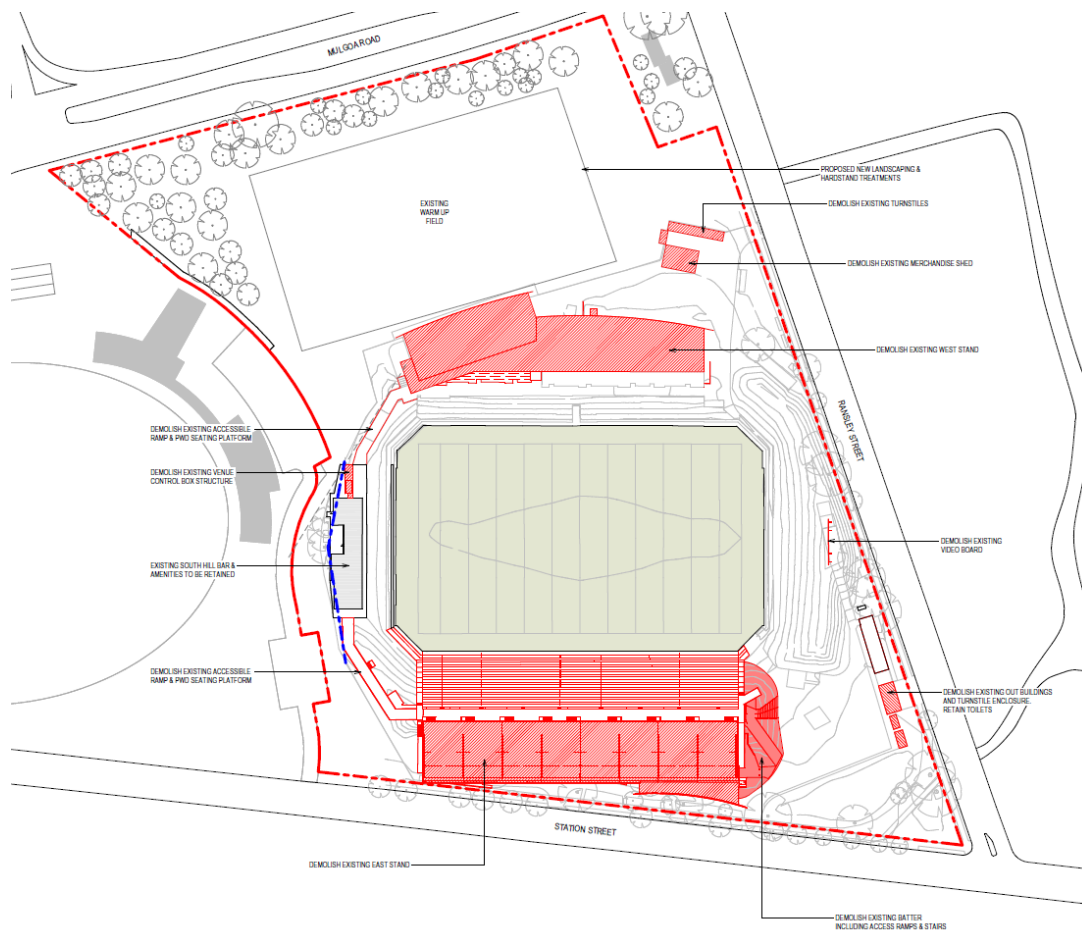


Figure 15 Demolition plan, with proposed demolition shown in red

Source: Populous

3.4.2 Tree Removal

An Arborist Report has been prepared and available at **Appendix W**. Of the trees at the site, 12 trees are proposed to be removed (including one dead tree) and 87 trees will be retained as shown in **Figure 16**. Approximately 180 new trees are proposed to be planted on the site, and 10 new trees to be planted along Ransley Street.

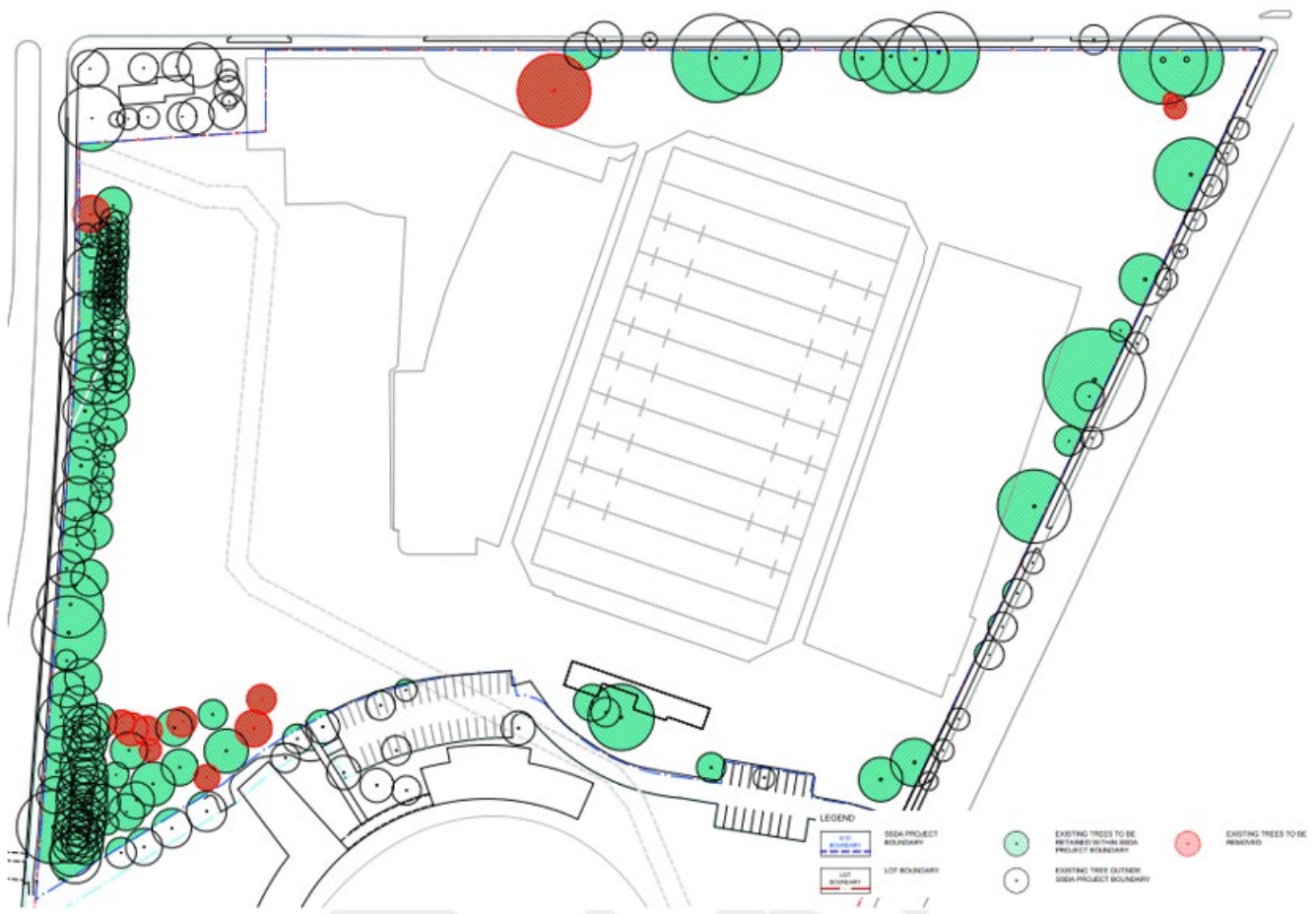


Figure 16 Trees to be removed and retained

Source: Tyrell Studio

3.4.3 Remediation

The proposed development is subject to a Remediation Action Plan (RAP) provided at **Appendix M** which details remediation to be carried out. The site can be made suitable for development through the implementation of the RAP. The RAP has been provided as a result of data gaps for future investigation for the East and Western Stands. Previous investigations have not identified contamination at the site that has triggered a need for remediation, however, a fragment of bonded ACM was identified within the infill soil during testing undertaken, and therefore a RAP is proposed to ensure that the site can be made suitable.

The remedial contingencies identified within the RAP include excavation and off-site disposal and cap and containment of contaminated soil. These remediation works will occur following the demolition of the stands and prior to the commencement of any construction works, if required.

3.5 Stadium Design

The stadium design has been prepared by Populous, with an Architectural Design Report outlining the key design considerations and features provided at **Appendix G**. Key aspects are outlined below.

3.5.1 Playing Field

The playing field will be retained and will continue to act as the primary playing field that services the site. No change is proposed to the location and centreline of the pitch. Wider changes to the stadium seating bowl will somewhat alter the shape of the pitch to be more rectangular, laid out to meet international standards for the relevant sporting codes to ensure that the stadium remains capable of hosting the relevant national and regional sporting events.

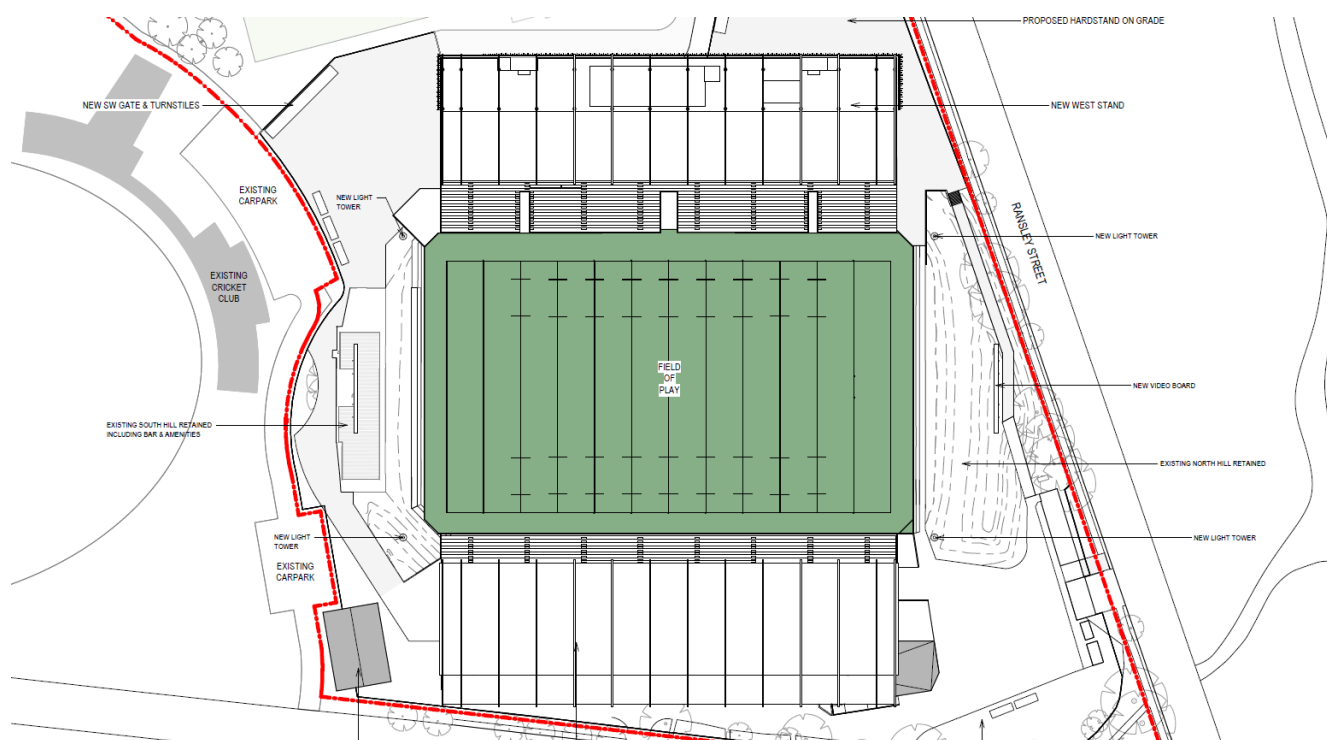


Figure 17 Field of play

Source: Populous

3.5.2 Eastern Stand

The Eastern Stand, located on the eastern side of the playing field, contains a concourse with amenities at the ground level, and tiered seating above. The maximum height of the Eastern Stand is 29.36m. A section view of the Eastern Stand is provided in **Figure 18**.

It is noted that this application does not propose the detailed fit out of any food and drink premises in the Eastern Stand.

Level 1 Concourse

The Level 1 Concourse is the primary concourse for amenities servicing the Eastern Stand. The east concourse allows easy access to the surrounding plaza and precinct, as well as the tiered seating above. The amenities provided in the Eastern Stand include female, male and accessible bathrooms and food and beverage services. This concourse provides views to the field of play to maintain the atmosphere on the concourse and connect fans to the game.

Seating

Above the Level 1 Concourse is five levels of general admission patron seating, provided with access via stairs back to the concourse. The Eastern Stand offers seating to approximately 9,000 patrons.

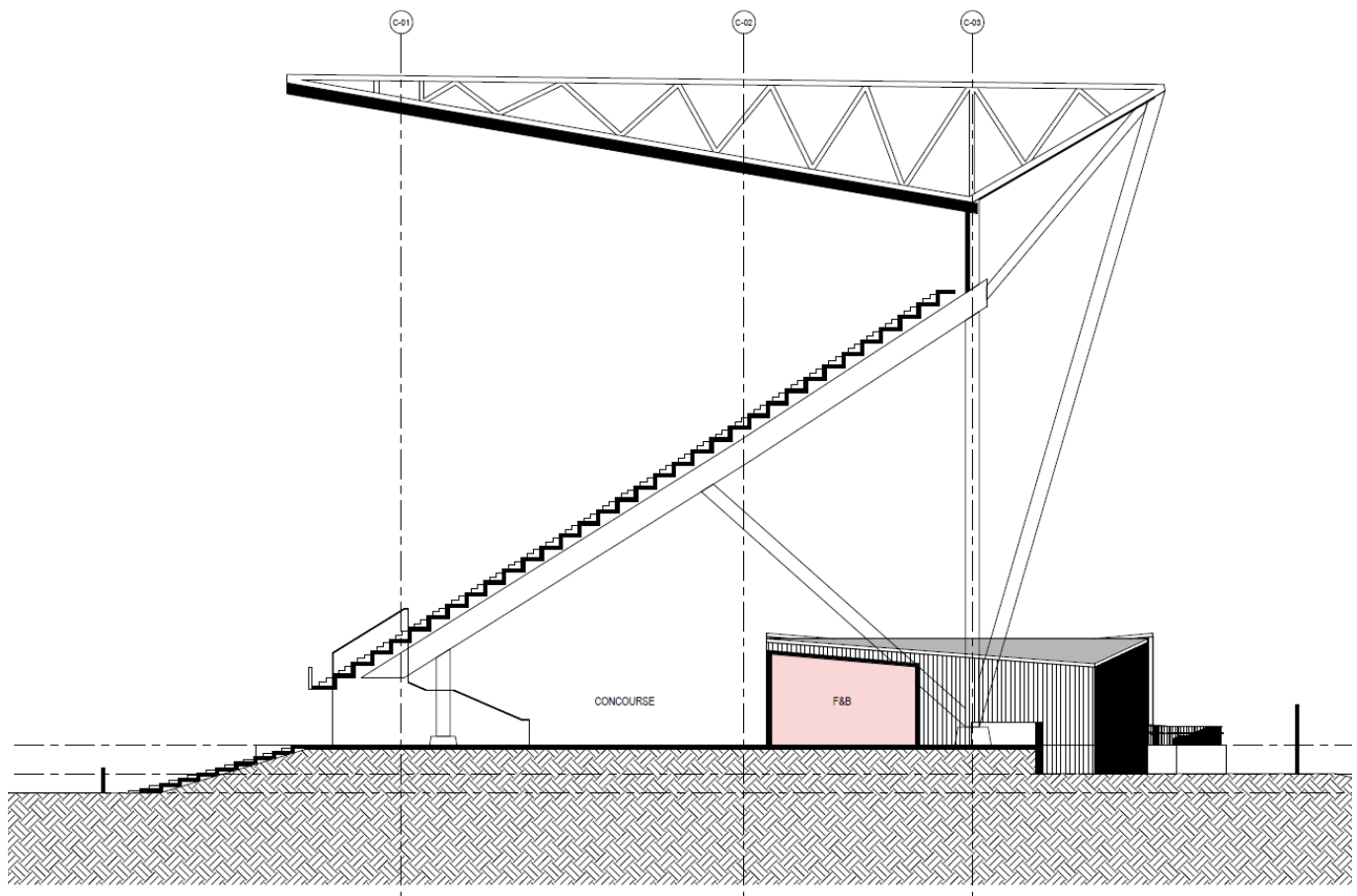


Figure 18 Section of the Eastern Stand

Source: Populous

3.5.3 Western Stand

The Western Stand, located on the western side of the playing field, contains further tiered seating and amenities to service the seating, as well as a range of functional spaces required to service the stadium use. The maximum height of the Western Stand is 30.51m. The Western Stand has a capacity of 7,000 patrons with 4,800 in general admission and 2,200 in corporate sections of the stand. A section view of the Western Stand is provided in **Figure 19**.

It is noted that this application does not propose the detailed fit out of any food and drink premises in the Eastern Stand.

A level-by-level description of the Western Stand is provided in the following sections.

Ground Floor – Field Level

The field level will provide the first level of seating in the stands. Behind the seating is a variety of amenities and facilities, largely servicing the players and users of the field and end-of-trip facilities for staff. The ground floor facilities provide a consolidated back of house facilities to the Western Stand, including:

- Primary patron entry stairs located at either end.
- Food and beverage and toilets located on north end to serve the Northern Hill.
- Food and beverage and toilets added to the southern end of the Western Stand to bolster provisions for the patrons on the Southern Hill.
- Primary kitchen to serve entire Western Stand.
- Event day staff check in from the southwest gate.
- Flexible player's change facilities, configured to divide from four to six change rooms for triple headers. These change rooms are gender neutral to support women's sport.
- Flexible media spaces.
- Venue operations.

- First aid, testing and officials' facilities.
- Loading dock, waste and recycling rooms to be accessed at façade line before and after events.
- Ground maintenance access to the field of play via north-east pitch access gate.
- End-of-trip facilities will be provided for staff on the ground floor, with at least 40 lockers and 4 showers provided.

Level 1 – Concourse Level

Level 1 includes a concourse which provides patrons and staff of the Western Stand access to bathrooms, the stairs and lifts, first aid and food and beverage stalls. General admission patron seating is also located on Level 1, accessed via the concourse. Further facilities on Level 1 include:

- Food and beverage and toilet facilities to serve the approximately 4,600 seats in the lower west tier of the Western Stand.
- Primary stairs from the Ground Level to Level 1, which connect to feature stairs extending further up the Western Stand.

Level 2 – Function Level

Level 2 includes a dedicated function room that is located in the middle of the Western Stand. Additionally, there are two general admission terraces that have access to toilets and food and beverages outlets, a dedicated finishing kitchen and dedicated restroom facilities. General seating is also provided on Level 2.

Level 3 – Suite Level

Level 3 provides 21 suites and corporate boxes, which have the ability to be combined together to make larger suites. Two lounges are proposed to be located on the outer ends of the Western Stand, and a networking terrace runs the length of the level overlooking the field. There is access to food and beverages outlets, dedicated toilets, as well as a kitchen servicing the boxes. Additional general seating in the stands is also provided.

Level 4 – Media Level

Level 4 provides media and operation facilities, needed to service the stadium during events. Two additional lounges are also provided on Level 4, along with dedicated toilets, food and beverage tenancies and other back of house service facilities.

The following facilities are provided on Level 4:

- A camera deck that runs the length of the media and operations boxes, accessed via stairs to ensure the camera operators don't block the view of the boxes behind.
- Two officials boxes.
- Two coaches boxes.
- Two radio boxes.
- Two commentary boxes.
- A box for written press.
- An operations and production box.
- A media lounge.
- Two 115 person capacity lounges at either end of the level as a corporate hospitality offering.
- Small food and beverage outlets.
- Dedicated toilets facilities.

Level 5 – Plant Level

Level 5 contains roof top plant, required to service the operation of the Western Stand. This level is accessible via stairs and lift.

Members Seating

There are currently 3,891 members seats. The proposal will include 4,800 members seats which will be available in the lower tier of the western stand.

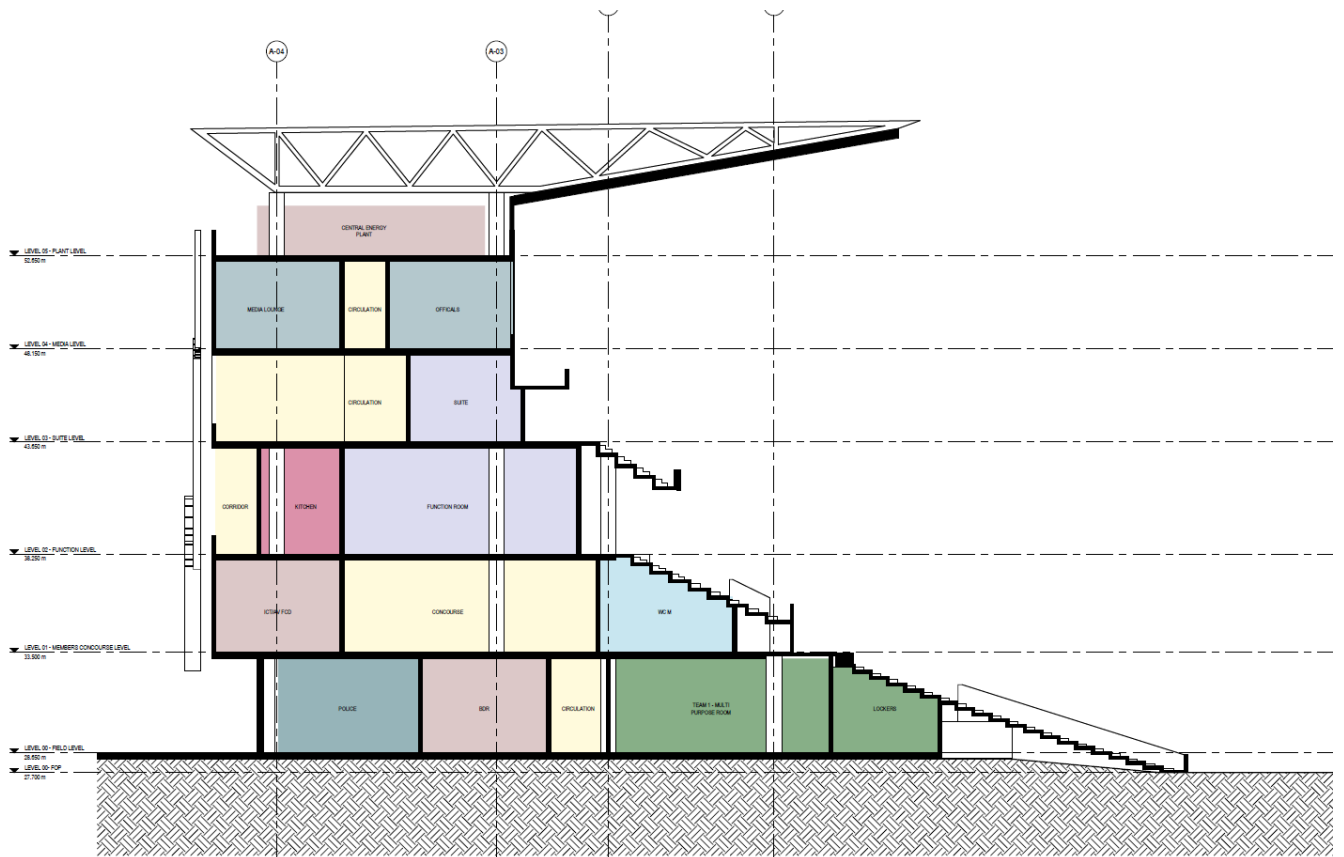


Figure 19 Section of the Western Stand

Source: Populous

3.6 Façade and Materiality

The facades of the Eastern and Western Stands have been developed in conjunction with the Connecting with Country consultants and in response to engagement undertaken, with the design responding to the landscaping and context of each stand.

The façade of each stand consists of a screen, comprising of batons of various dimensions and spacing to create movement and depth in the façade. These screens create visual interest on the outside of the stands, whilst also acting as a shading device to limit heat gain during warmer months.

The primary stairs of the stands utilise highly colourful, visually playful vertical circulation elements that connect with the screens of the façade, acting as visual wayfinding identifiers throughout the precinct.

The proposed façade drawings and concepts are provided below in **Figure 20**.

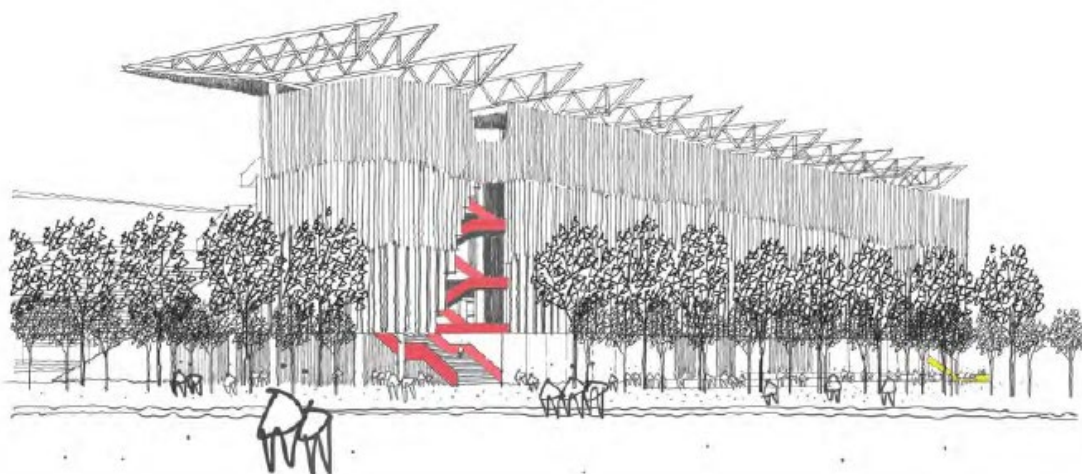


Figure 20 Western Stand façade sketch

Source: Populus

The proposed refurbished stadium utilises a range of robust materials, including:

- Precast concrete
- Painted structural steel
- In situ concrete
- Metal roof sheeting
- Lightweight roofing
- Aluminium blade screen

Precedent images of the materiality and façade design are shown in **Figure 21**.

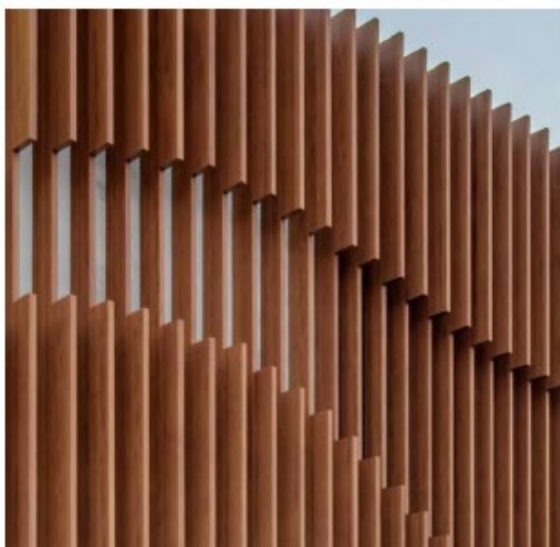
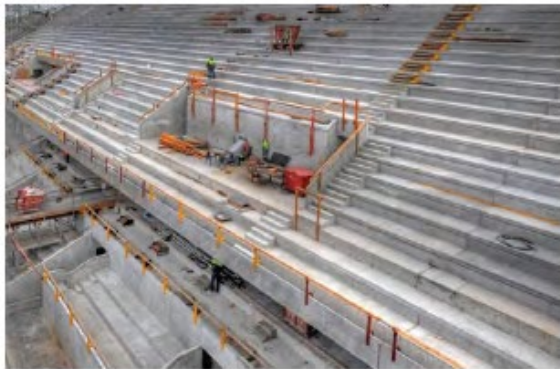


Figure 21 *Materiality precedents*

Source: Populous

3.7 Public Domain

Landscape Plans and a Landscape Design Report have been prepared by Tyrrell Studio and are provided at **Appendix H** and **Appendix I** respectively. The Landscape Design Report outlines the delivery of public open space within the site, and the accessibility from surrounding sites and road connections.

The key design principles informing the public domain design are as follows:

- Creating both a park edge and a street edge to the site.
- Providing urban markers at key corners.
- Deliver a shaded link from Panthers Leagues Club.
- Connect to the local civic spine.
- Provide a legible circuit around the precinct and useable corner nodes at the edges of the site.
- Frame the field with a green backdrop.

These public domain principles are shown in **Figure 22**

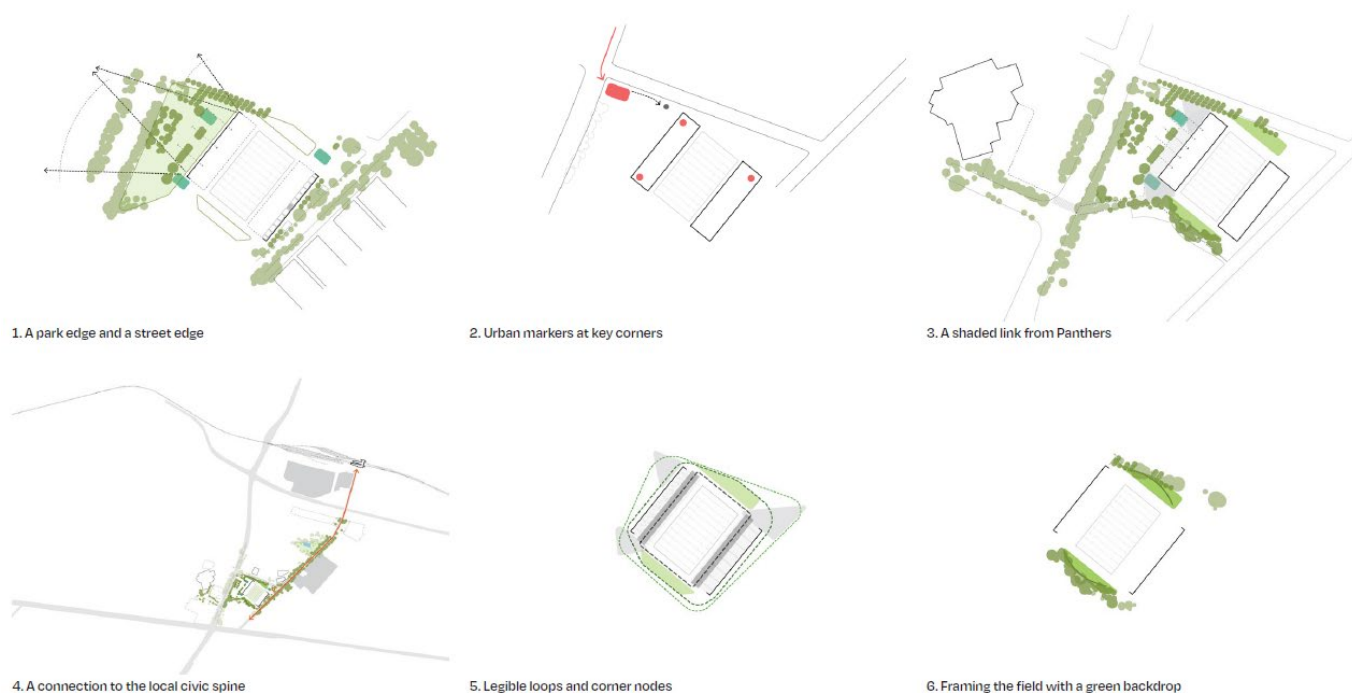


Figure 22 Urban design principles informing the public domain design

Source: Tyrrell Studios

3.7.1 Open Space Areas

The key open space areas proposed to be provided around the precinct can be categorised as hardscape spaces and softscape spaces.

Hardscape Spaces

The hardscape spaces around the precinct refer to the paved areas connecting the stadium into the surrounding street network, as well as a number of gathering spaces, designed for the congregation of visitors during events. The key hardscaped areas are as follows:

- North-east entry and terraced plaza from corner of Ransley Street and Station Street.
- North-west entry and plaza from the corner of Ransley Street and Mulgoa Road.
- Paved path that runs the length of Station Street and behind the Southern Hill to Mulgoa Road, providing a paved connection to Penrith Leagues Club.
- Two new multi-sport community courts located to the west of the Western Stand.
- The carpark will be reestablished, to the west of the community courts, separate by a large planted mound.

These hardscaped spaces are shown in **Figure 23**.

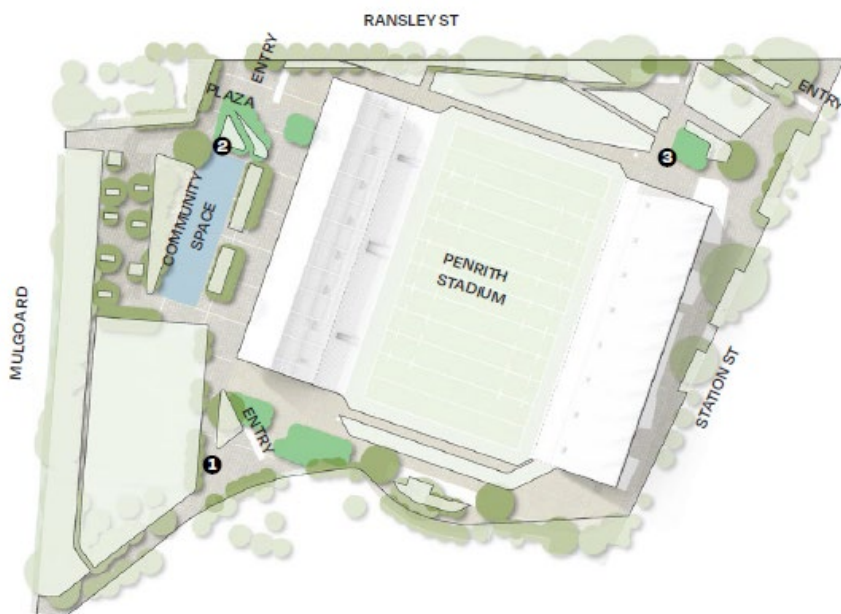


Figure 23 Hardscaped open space areas

Source: Tyrrell Studio

Softscape Spaces

There are numerous softscape spaces proposed in the public domain, including:

- Native tree planting along the western boundary of the site, providing a green backdrop to the western edge.
- The training field is proposed to be located to the west of the stadium. This field will be publicly accessible.
- The northern and southern hills, framing the stadium to the north and south, will be retained and continued to be used for spectators during events.
- A planted mound is proposed, separating the community courts from the carpark.
- A new green space, located on the corner of Station Street and Ransley Street, accessible by the community on both event days and non-event days.

The softscape areas of the public domain are shown in **Figure 24**.

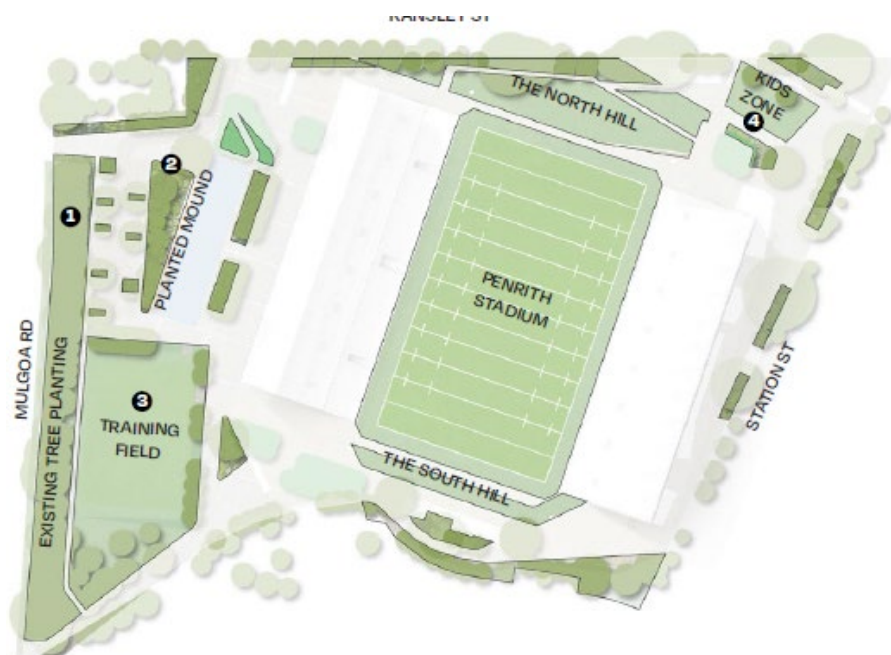


Figure 24 Softscape Open Space Areas

Source: Tyrrell Studio

3.7.2 Entry Points and Activation

Public Edges

Given the precinct's numerous frontages, the landscape design endeavours to provide various spaces along the edges of the site that are publicly accessible, encouraging activation on both event and non-event days. These public edge spaces, made up of a mixture of the hard and softscapes will be publicly accessible at all times.

These areas designed to activate the edges of the site are shown in **Figure 25**.

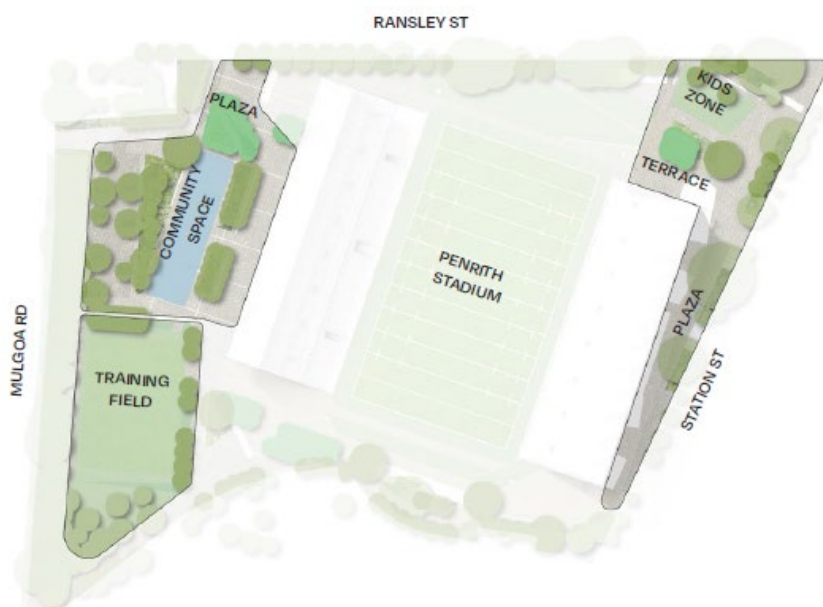


Figure 25 Public Edges and Activation

Source: Tyrrell Studio

Entry Spaces

In conjunction with the activate public edges of the precinct, the public domain includes three distinct entry spaces from which to enter the stadium. Two entries are located on Ransley Street in the north-east and north-west of the site, with another located to the south-west of the stadium, accessed from Mulgoa Road.

These public entries are accompanied by a plaza forecourt that extends from the stadium entrance into the concourse area of the stadium. These entry spaces are shown in **Figure 26** below.



Figure 26 Entry Spaces and Entry Points

Source: Tyrrell Studio

3.7.3 Planting Strategy

A significant increase in tree and landscape planting is proposed as part of the refurbishment of the stadium, including a mixture of native trees and planting endemic to the Penrith region, as well as a variety of deciduous trees varieties.

A mix of tree, shrub and grass layers will be across the public domain to reduce heat, boost biodiversity and create a diversity and interest in the public domain. Deciduous trees are proposed to provide shade during warmer, summer days, whilst providing access to sunlight in public spaces during winter. An extract of the planting palette is shown in **Figure 27**.

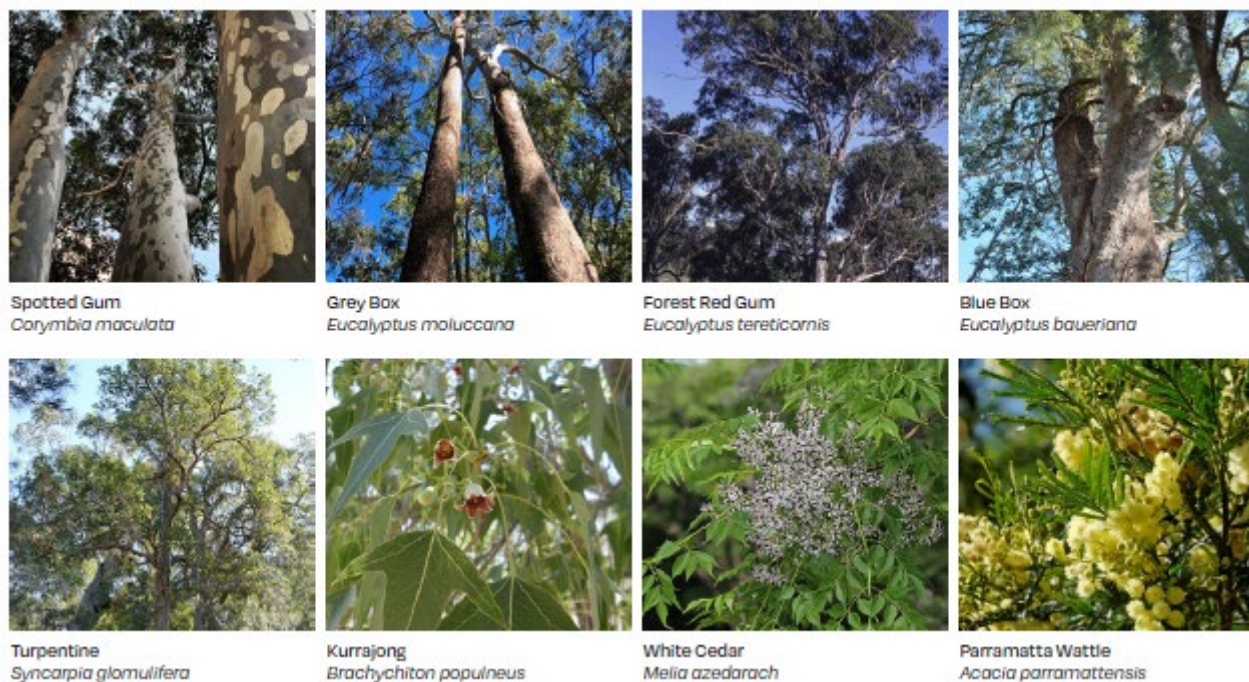


Figure 27 Extract of planting palette

Source: Tyrrell Studio

Proposed Green Cover

The proposal seeks to provide approximately 53% green cover across the site through the provision of additional planting. The areas of green cover are shown in **Figure 28**.



Figure 28 Existing (left) versus proposed (right) green cover across the site

Source: Tyrrell Studio

Proposed Deep Soil

Proposed deep soil with the project boundary is 36.5% of the site area. This includes 25.5% of deep soil under planting and 11% of deep soil containing trees under permeable paving, as illustrated in **Figure 29**.



Figure 29 Existing (left) versus proposed (right) Deep Soil

Source: Tyrrell Studio

3.8 Signage

Numerous types of signage are proposed across the site as part of the refurbishment of the stadium precinct. The proposed signage at the site includes a detailed wayfinding signage system which will assist in creating an effective and highly legible messaging that is universal and equitable to prioritise accessibility throughout the stadium. Proposed signage is outlined in **Table 5**.

Table 5 Proposed signage details

Signage Description	Location	Illumination
Wayfinding		
ID01a – Site Arrival	External – public domain	No
ID02a – Site Identification		No
DR02 – Pedestrian Directional Finger Sign		No
IF01a – Freestanding Site Map		No
IN01a – Interpretive Freestanding		No
IN02a – Interpretive Ground marker		No
DR01a – Directional Freestanding		No
ID03a – Freestanding Gate ID	Internal	No
ID08a – Amenities Super Graphic		No
ID09a – Room Identification sign – wall fixed		No
ID09b – Room Identification Back of House sign – door fixed		No
ID09c – Room Identification – projecting		No

Signage Description	Location	Illumination
ID10a – Conference / event space room identification		No
ID12a – Locker Numbers		No
IF03a – Level Directory		No
EN01a – Wall Applied Environmental Graphic		No
OP02a – Conditions of entry		No
ST01a – Amenities Identification		No
ST02a – Safety signs		No
ID04a – Entry Identification	Stadium entry	No
IF02a – Site Map Wall Mounted	Stadium – internal	No
DR03a – Directional Wall Applied		No
ID05a – Bay Identification Integrated		No
ID05b – Bay Identification Overhead		No
DR03b – Bay Directional		No
ID06a – Row ID		No
ID07a – Seat ID		No
ID09a – Stadium Identification Sign – high level integrated	External – stadium identification signage	Yes
DR04a – Vehicular Directional Freestanding	External – carpark	No
ID09a – Carpark Identification		No
OP01a – Carpark Conditions of Entry		No
DR05a – Vehicular Directional Finger Sign		No

The proposed signage circulation and sign location is provided at **Figure 30**. Further description and details of the signage is provided at the Architectural Design Report at **Appendix G**.

3.9 Parking, Access, and Movement

3.9.1 Parking

Car Parking

The proposed development has onsite parking spaces for approximately 40 cars at any one time. The onsite carpark will be restricted to players, match officials and other VIPs during events, with access by the general public not permitted. The carpark will be managed by Venues NSW which allows it to be use for all events held at Penrith Stadium, however, no agreement or arrangement between the future operator of Penrith Stadium (Venues NSW) and Penrith Panthers regarding the use of this parking has been decided.

Bicycle Parking

The proposed development will include approximately 50 bicycle parking spaces that will be publicly accessible for patrons to utilise during and outside of events. The location of these bicycle parking spaces will be confirmed during detailed design.

3.9.2 Access

Given the site's use as a stadium, the design of pedestrian, vehicular and loading access has considered reducing conflicts between the different users as much as possible. The proposed access arrangements can be seen in **Figure 31**.

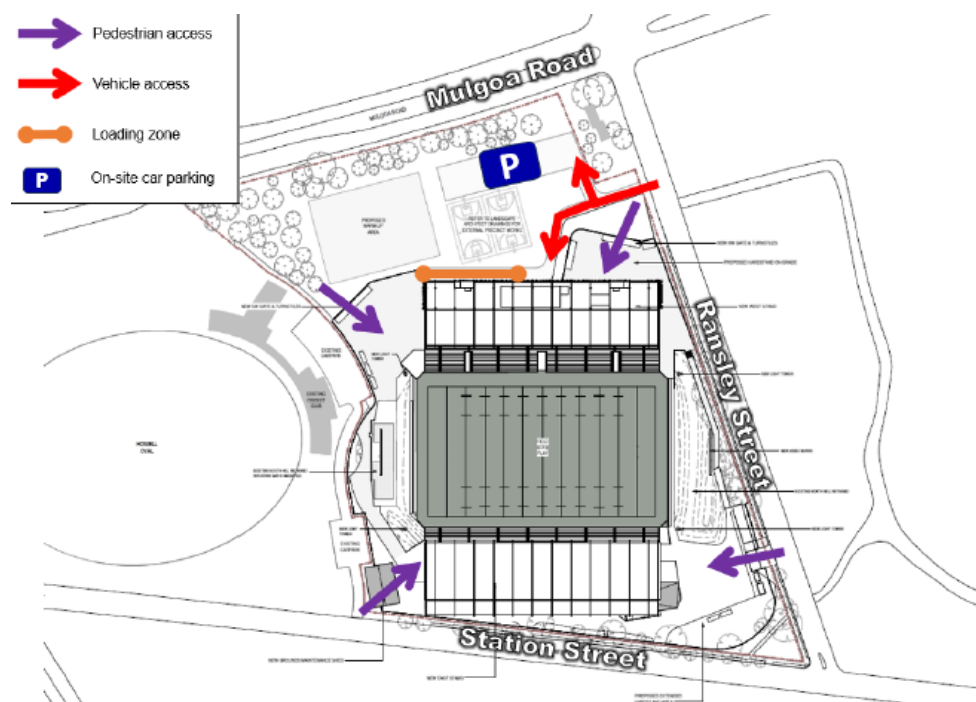


Figure 31 Proposed Future Access Arrangements

Source: JMT Consulting

Vehicle Access

Vehicles can access the site from Ransley Street only. The only vehicular access is to the proposed carpark and loading dock on the western side. Vehicular access will be limited, and the general public will not be able to access this carpark or loading dock.

Loading Facilities

The loading facilities are proposed to be located adjacent to the western grandstand, accessed via Ransley Street. The area will be utilised for stadium deliveries, collection of waste and other relevant loading activities outside of event days. On event days, the loading area will be used by media or other event trucks.

Pedestrian Access

Pedestrians will continue to access the site from Station Street, Mulgoa Road and Ransley Street. Access into the stadium can be achieved through three entry points at the corner of Ransley Street and Station Street, the corner of Ransley Street and Mulgoa Road, the south-west entry point from Mulgoa Road and the southern access point from Station Street.

Coaches

The proposed development will continue to allow coaches for players and match officials to utilise the kerbside parking area on Ransley Street outside the stadium entry point. Traffic management (via traffic controllers and traffic cones) is in place on match days to restrict this kerbside area for the use of coaches only.

Emergency Services

The proposed development will allow emergency vehicles to continue to be provided access to the site from Ransley Street, with the ability to circulate the site or access the playing field itself.

3.9.3 Green Travel Plan

The redevelopment of Penrith Stadium provides an opportunity to heavily promote the use of sustainable modes of transport as a means of accessing the venue and encourage travel behaviour change. A Green Travel Plan has been prepared by JMT Consulting (**Appendix J**) which outlines the following key measures:

- Existing car parking arrangements to be maintained for the venue, with the project not proposing a significant increase in on-site car parking.
- Approximately 50 bicycle parking spaces to be provided in the public domain for use of patrons both during and outside of events.
- Improved travel information to Penrith Stadium, particularly around public transport and walking / cycling routes. The recently opened Sydney Football Stadium provides a good example of displaying appropriate travel information, with travel by public and active transport promoted and use of private vehicles discouraged.
- Working with ticketing agencies to provide customers with travel information after they purchase their tickets online. Key information could be provided such as suitable public transport opportunities, walking routes and bicycle parking locations.
- Making staff aware of available bicycle parking at the venue as part of their induction process.

3.10 Site Servicing and Utilities

In order to support the operation of the stadium, it is proposed to relocate, alter or augment existing infrastructure connections on the site. This includes stormwater, sewer, water, gas and communications infrastructure. An Infrastructure Management Plan has been prepared by Aurecon and is provided at **Appendix N**. This plan identifies the following works:

- **Water:** It is expected that the existing 50mm water connection will require an upgrade to a 150mm connection. The water mains within Station Street will be able to accommodate the water demands of the site for the proposed development. Any upgrades that require the water connection.
- **Water (for fire services):** The Sydney Water mains at Ransley Street and Station Street are suitable to form a dual water supply to service emergency services during instances of fire. Dual water can be achieved through either two independent connections from the water mains at Ransley Street and Station Street or dual fire water supply from one water main and one water storage tank.
- **Sewer:** The existing sewer connection is adequate to support the fixture holding unit loadings for the proposed development. The existing dual sewer rising mains are proposed to be relocated further west and to be reticulated under the proposed training field.
- **Gas:** The development will not be provided with natural gas.
- **Electricity:** The existing electricity infrastructure can allow for the continued supply via the two padmount substations currently located on the site. One of the substations will need to be relocated due to the increased footprint of the Western Stand, and it is recommended that this substation be upgraded to 1500kVA during this relocation.
- **Telecommunications:** The existing points of connection for telecommunications will be retained and augmented if required with new dual connections to service the redeveloped stadium.

3.11 ESD and Sustainability

A key driver in the detailed design, construction and operation of the stadium is the achievement of best practice ecologically sustainable development (ESD) principles to minimise the consumption of resources and guide sustainable operation in the future. The ESD Report is provided at **Appendix O**. The proposed development and refurbishment is targeted to achieve a 5 Star Green Star rating, as well as ensuring general improvements where possible for energy and water consumption, transportation, and material selection and emissions.

Sustainability and ESD initiatives for the proposed development include the following:

- Energy efficiency opportunities including LED light fittings and an intelligent programmable lighting control system such as motion sensors, timeclocks and intelligent switches and schedules to ensure lighting is only provided when needed.
- Considered façade design that provides shading opportunities to reduce heat load.
- Renewable energy will occur through onsite generation through a photovoltaic system (PV) where feasible.
- An integrated water management system that utilises rainwater harvesting for rainwater re-use within the precinct. A media filtration system and tertiary treatment unit will also be installed.
- Water Sensitive Urban Design (WSUD) principles have been incorporated into the design intent in addition to stormwater quality improvement devices (SQID's).

The proposal targets a 5-star Green Star environmental accreditation under the Green Building Council of Australia Green Star Buildings to ensure it is environmentally and socially responsible and responsive to climate change. The Green Star Buildings rating assesses buildings through categories including climate action, resource efficiency and health and wellbeing. An assessment of the ESD principles is provided at **Section 6.8**.

3.12 Subdivision and Consolidation of Land

The proposed development includes the subdivision of Lot 2 in DP 1147219 and the consolidation with Lot 1 in DP 1147219.

The proposed new boundary line can be seen at **Figure 32**. The new boundary line will reflect the subdivision of Lot 2 DP 1147219 to be consolidated with Lot 1 DP 1147219 and will include the entirety of the stadium, the proposed warm up space, community courts, carpark and plaza.

A detailed Subdivision Plan is provided at **Appendix P**.



Figure 32 *Proposed subdivision and new lease boundary proposed*

Source: Nearmap, Ethos Urban

Access to Howell Oval

The subdivision and proposed works will have no impact on Council's access to and management of Howell Oval, to the south of the stadium. The proposed lot consolidation does not include the carpark that services Howell Oval, and subsequently all users and managers of the site will be able to continue to access and manage Howell Oval as per current arrangements. Access from Station Street will remain as the primary road connection into the site and Howell Oval for users and patrons.

3.13 Construction Management

A Preliminary Construction Management Plan has been prepared by EY, which outlines the overarching principles and practices for the management of construction activities on the site, and will be used to inform the preparation of a detailed Construction Environmental Management Plan which would be required to be prepared by the appointed contractor prior to the commencement of works and adhered to for the duration of construction.

Hours of work

All work on site will only occur between the following hours:

- Monday to Friday: 7am-6pm.
- Saturday: 8am-1pm.
- Sunday / public holiday: No work
- Unless otherwise approved in writing by the NSW Department of Planning, Housing and Infrastructure or Transport for NSW due to extenuating circumstances (e.g. erecting and dismantling tower cranes, services connections and other works that would unduly interfere with the surrounding area or road network during normal daytime hours and should therefore be completed out of hours).

4.0 Statutory Context

Development consent is sought for the project under the State Significant Development provision of Part 4 of the EP&A Act. The sections below outline the project's key statutory requirements. This section is complemented by a Statutory Compliance Table included at **Appendix C** that identifies all statutory requirements and where those requirements have been addressed in the EIS.

4.1 Power to Grant Approval

The legislative pathway under which the consent is sought, why the pathway applies, and the relevant consent authority is outlined in **Table 6** below.

Table 6 Power to Grant Consent

Matter	Consideration
Declaration of State Significant Development	<p>Development consent is sought under 'Division 4.7 - Stage Significant Development' of the EP&A Act. Section 4.36(2) of the EP&A Act states that:</p> <p><i>A State environmental planning policy may declare any development, or any class or description of development, to be State significant development.</i></p> <p>Schedule 1 of <i>State Environmental Planning Policy (Planning Systems) 2021</i> lists development that is declared State significant development. Section 13 of Schedule 1 states:</p> <p><i>(1) Development that has a capital investment value of more than \$30 million for any of the following purposes—</i></p> <ul style="list-style-type: none"><i>(a) film production, the television industry or digital or recorded media,</i><i>(b) convention centres and exhibition centres,</i><i>(c) entertainment facilities,</i><i>(d) information and education facilities, including museums and art galleries,</i><i>(e) recreation facilities (major),</i><i>(f) zoos, including animal enclosures, administration and maintenance buildings, and associated facilities.</i> <p>As the proposed development is for the purposes of a major recreation facility, with a CIV of over \$30 million it is declared State significant development. Before a State significant development can be determined, it is subject to a comprehensive assessment under the EP&A Act.</p>
Consent Authority	<p>Section 4.5 of the EP&A Act and Section 2.7 of <i>State Environmental Planning Policy (Planning Systems) 2021</i> states that the consent authority for an application made by a public authority is the Minister for Planning and Public Spaces. Infrastructure NSW are a public authority.</p>

4.2 Permissibility

The permissibility of the proposed development considering the proposed land use/s and land zoning is outlined in **Table 7** below.

Table 7 Permissibility

Matter	Consideration
Land Use	<p>The project is defined as a 'major recreation facility' under the Penrith LEP as it is a place used for large-scale sporting or recreation activities that are attended by large numbers of people.</p>
Permissibility (zoning)	<p>The site is currently zoned RE1 Public Recreation under the Penrith LEP. Schedule 1, Section 43 of the Penrith LEP identifies that recreation facilities (major) are an additional permitted use on the site that are permitted with development consent.</p>

4.3 Other Approvals

The other legislative approvals required for the Proposal in addition to a development consent under Division 4.7 of the EP&A Act are outlined in **Table 8** below.

Table 8 Other Approvals

Matter	Consideration																		
Approvals not required for SSD	<p>Section 4.41 of the EP&A Act stipulates that certain authorisations are not required for State significant development. The following legislative approvals would otherwise be required if the Project was not State significant.</p> <table><tr><th>Legislation</th><th>Approval Otherwise Required</th></tr><tr><td colspan="2">Legislation that does not apply to State Significant Development</td></tr><tr><td><i>Fisheries Management Act 1994</i></td><td>No</td></tr><tr><td><i>Heritage Act 1977</i></td><td>No</td></tr><tr><td><i>National Parks and Wildlife Act 1974</i></td><td>No</td></tr><tr><td><i>Rural Fires Act 1997</i></td><td>No</td></tr><tr><td><i>Water Management Act 2000</i></td><td>No</td></tr></table>	Legislation	Approval Otherwise Required	Legislation that does not apply to State Significant Development		<i>Fisheries Management Act 1994</i>	No	<i>Heritage Act 1977</i>	No	<i>National Parks and Wildlife Act 1974</i>	No	<i>Rural Fires Act 1997</i>	No	<i>Water Management Act 2000</i>	No				
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<i>National Parks and Wildlife Act 1974</i>	No																		
<i>Rural Fires Act 1997</i>	No																		
<i>Water Management Act 2000</i>	No																		
Consistent Approvals	<p>Section 4.42 of the EP&A Act stipulates that certain authorisations cannot be refused if they are necessary for carrying out State significant development. The following table lists legislative approvals that are required for the Project and cannot be refused if the Project is approved.</p> <table><tr><th>Act</th><th>Approval Required</th></tr><tr><td colspan="2">Legislation that must be applied consistently</td></tr><tr><td><i>Fisheries Management Act 1994</i></td><td>No</td></tr><tr><td><i>Mine Subsidence Compensation Act 1961</i></td><td>No</td></tr><tr><td><i>Mining Act 1992</i></td><td>No</td></tr><tr><td><i>Petroleum (Onshore) Act 1991</i></td><td>No</td></tr><tr><td><i>Protection of the Environment Operations Act 1997</i></td><td>No</td></tr><tr><td><i>Roads Act 1993</i></td><td>No</td></tr><tr><td><i>Pipelines Act 1967</i></td><td>No</td></tr></table>	Act	Approval Required	Legislation that must be applied consistently		<i>Fisheries Management Act 1994</i>	No	<i>Mine Subsidence Compensation Act 1961</i>	No	<i>Mining Act 1992</i>	No	<i>Petroleum (Onshore) Act 1991</i>	No	<i>Protection of the Environment Operations Act 1997</i>	No	<i>Roads Act 1993</i>	No	<i>Pipelines Act 1967</i>	No
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<i>Protection of the Environment Operations Act 1997</i>	No																		
<i>Roads Act 1993</i>	No																		
<i>Pipelines Act 1967</i>	No																		
EPBC Approval	<p>The <i>Environmental Protection and Biodiversity Act 1999</i> (EPBC Act) provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities, and heritage places. These are known as matters of National Environmental Significance.</p> <p>If the proposed development will, or is likely, to impact a matter of National Environmental Significance, then it is required to be referred to the Federal Department of the Environment for assessment to determine if it constitutes a ‘controlled action’ requiring EPBC approval. Presently, a bilateral agreement allows the Commonwealth Minister for the Environment to rely on the NSW environmental assessment process when assessing a controlled action under the EPBC Act.</p> <p>The proposed development is not likely to impact a matter of National Environmental Significance, given its urban context and limited vegetated areas impacted. Therefore, the proposed development is not required to be referred to the Federal Department of the Environment to determine if it constitutes a controlled action and the bilateral agreement applies.</p> <p>The proposal has been provided a Biodiversity Development Assessment Report (BDAR) Waiver as it is not likely to have any significant impact on biodiversity values. This is discussed further at Section 6.12.</p>																		

4.4 Pre-Conditions to Exercising the Power to Grant Consent

The pre-conditions to be fulfilled by the consent authority before exercising their power to grant development consent are identified and considered in **Table 9** below.

Table 9 Pre-Conditions to Exercising the Power to Grant Consent

Matter	Consideration
Biodiversity Conservation Act 2016	<p>In accordance with this Act, an assessment of any State Significant proposal's biodiversity impacts must be undertaken as part of the provision of any SSDA, including the provision of a BDAR in instances where it is required.</p> <p>Section 7.14 requires the consent authority to take into consideration the likely impact of the proposed development on biodiversity values.</p> <p>The proposed development is subject to a waiver from the requirement to prepare a BDAR in compliance with this pre-condition. This is discussed further at Section 6.12 and Appendix BB.</p>
State Environmental Planning Policy (Planning Systems) 2021	<p>The Planning Systems SEPP, outlines the requirements and conditions for the proposed development to classify as SSD.</p> <p>The development is considered to be SSD under schedule 1 of the Planning Systems SEPP as it is a recreational facility (major) and has an estimated development cost of more than \$30 million.</p>
State Environmental Planning Policy (Transport and Infrastructure) 2021	<p><i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i> (Transport and Infrastructure SEPP) aims to facilitate the effective delivery of infrastructure of the State. Section 2.121 requires the consent authority to provide Transport for NSW with written notice of the development application for developments considered a 'traffic generating activity'. It is noted that this development is not considered traffic generating, and therefore does not need to be referred to Transport for NSW.</p>
State Environmental Planning Policy (Industry and Employment) 2021	<p>The <i>State Environmental Planning Policy (Industry and Employment) 2021</i> (Industry and Employment SEPP) sets out planning controls for advertising and signage in NSW. Section 3.6 stipulates that a consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied that:</p> <ul style="list-style-type: none"> • The signage is consistent with the objectives of the SEPP; and • The signage satisfies the assessment criteria specified in Schedule 1 of the SEPP. <p>As outlined in Section 3.8, a variety of wayfinding signage and business identification signage for the stadium is proposed. Therefore, an assessment against the relevant controls of the Industry and Employment SEPP is provided at Table 10 below.</p>

Table 10 Signage assesment – Industry and Employment SEPP

Assessment Criteria	Comment
Character of the area	
Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?	The proposed development is compatible with the desired character of the local precinct.
Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?	The proposed development is generally consistent with the nature and siting of the building as a recreational facility. Accordingly, the signage including type is clear and legible in communicating the use of the building for the public.
Special areas	
Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	The proposed signage does not detract from any surrounding areas, including heritage conservation areas. The location is not part of any other environmentally sensitive locations.

Matter	Consideration	
Views and Vistas		
Does the proposal obscure or compromise important views?	The proposed signage is integrated with the proposed building and therefore will not result in any obstruction of views, and the location and content of signage will not otherwise compromise important views within the precinct.	
Does the proposal dominate the skyline and reduce the quality of vistas?	The proposed signage is appropriate to the scale of the building and intended use as a building identification sign.	
Does the proposal respect the viewing rights of other advertisers?	The proposed signage does not impact upon the viewing rights of other advertisers.	
Streetscape, setting or landscape		
Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?	The scale, proportion and form of the proposed signage is consistent with the setting of the stadium within the surrounding sites and contexts.	
Does the proposal contribute to the visual interest of the streetscape, setting or landscape?	The proposed signage contributes to the visual interest of the streetscape and setting by contributing to the identification and recognition of the stadium.	
Does the proposal reduce clutter by rationalising and simplifying existing advertising?	The proposed signage has carefully considered the location and design of existing signage within the stadium and will not contribute to any visual clutter.	
Does the proposal screen unsightliness?	The proposed signage is integrated with the architecture of the building and will enhance the otherwise blank walls.	
Does the proposal protrude above buildings, structures or tree canopies in the area or locality?	The proposed signage does not protrude above the building.	
Does the proposal require ongoing vegetation management?	The proposed signage will not require ongoing vegetation management.	
Site and building		
Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?	The proposed signage has been designed to be fully compatible with the building and is compatible with the architecture of the building.	
Does the proposal respect important features of the site or building, or both?	The proposed signage has been located in the most architecturally appropriate locations to assist in place identification and wayfinding.	
Does the proposal show innovation and imagination in its relationship to the site or building, or both?	The proposed signage has been fully integrated with the building architecture.	
Associated devices and logos with advertisements and advertising structures		
Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	No safety devices, platforms, lighting devices or logos are incorporated as an integral part of the signage.	

Matter	Consideration
	Illumination
	<p>Would illumination result in unacceptable glare?</p>
	<p>Would illumination affect safety for pedestrians, vehicles or aircraft?</p>
	<p>Would illumination detract from the amenity of any residence or other form of accommodation?</p>
	<p>Can the intensity of the illumination be adjusted, if necessary?</p>
	<p>Is the illumination subject to a curfew?</p>
	<p>Illumination of signage will not result in acceptable glare, and the location of the proposed signage will not have an adverse impact on the safety of pedestrians, vehicles or aircraft.</p>
	<p>The location and orientation of signage is such that it will not impact on nearby residential receivers.</p>
	<p>The stadium identification signage will be illuminated. A curfew will be implemented for the stadium sign if required.</p>
	Safety
	<p>Would the proposal reduce the safety for any public road?</p>
	<p>Would the proposal reduce the safety for pedestrians or bicyclists?</p>
	<p>Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?</p>
	<p>The proposed signage has been located in order to avoid any adverse impacts on public roads, and views to building signage will generally be presented to the primary public entrance.</p>
	<p>The proposed signage will be located above ground level and will not distract from essential sight lines for pedestrian and cyclists.</p>
	<p>The proposed signage will be integrated with the buildings and will not obscure sight lines from public area.</p>
State Environmental Planning Policy (Resilience and Hazards) 2021	<p>The <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> (Resilience and Hazards SEPP) aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment.</p> <p>Section 4.6 stipulates that a consent authority must not consent to the carrying out of development unless:</p> <ul style="list-style-type: none"> • It has considered whether the land is contaminated, and if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out. • If the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is suitable that the land will be remediated before the land is used for that purpose. <p>The Detailed Site Investigation and Remediation Action Plan prepared by JK Environments confirms that the site can be made suitable for the proposed development and use by Penrith Stadium development. Refer to Appendix L, Appendix M and Section 6.10.</p>
State Environmental Planning Policy (Sustainable Buildings) 2022	<p>The State Environmental Planning Policy (Sustainable Buildings) 2022 (Sustainable Buildings SEPP) applies to the site under Chapter 3.</p> <p>Section 3.1 stipulates that Chapter 3 applies to non-residential development that involves the erection of a new building with a development estimated cost of \$5 million or more or alterations, enlargement or extension of an existing building with a development cost of \$10 million or more.</p> <p>As this development involves the alteration of an existing development with a cost of works of more than \$10 million, consideration has been given to the sustainability of the building and operations of the stadium. The embodied emissions attributable to the development have been quantified (see Appendix O) and the development will minimise the use of on-site fossil fuels, in line with the goal of achieving net zero emissions in NSW by 2050.</p> <p>This is discussed further at Section 6.8.</p>

4.5 Mandatory Matters for Consideration

The matters that the consent authority is required to consider in deciding whether to grant consent to any development application are identified and considered in **Table 11** below.

Table 11 *Mandatory Matters for Consideration*

Legislation	Matters for Consideration
<i>Environmental Planning & Assessment Act 1979</i>	<p>The proposed development is consistent with the objects of the EP&A Act for the following reasons:</p> <ul style="list-style-type: none"> • It facilitates the orderly and economic development of the land for a public use and will provide an improved major recreation facility that will be contemporary and respond to the community needs. • It allows for additional employment opportunities throughout the construction and operation phases. • It will facilitate ecologically sustainable development. • It will facilitate high quality design outcomes that will benefit future users of the stadium, visitors and spectators. • It is a development for public purposes and will facilitate the delivery of community used spaces. <p>The proposed development is consistent with Division 4.7 of the EP&A Act, particularly for the following reasons:</p> <ul style="list-style-type: none"> • The development has been declared to have state significance. • The development is not prohibited by an environmental planning instrument. • The development has been evaluated and assessed against the relevant consideration under section 4.15 (1), as outlined in this table.
<i>State Environmental Planning Policy (Resilience and Hazards) 2021</i>	Section 3.12 outlines mandatory matters for a consent authority to consider when determining an application for potentially hazardous or offensive development. Chapter 3 applies to any proposals which fall under the policy's definition of 'potentially hazardous industry' or 'potentially offensive industry'. The works proposed as part of this SSDA do not fall within these definitions, and as such a Preliminary Hazard Analysis is not required.
<i>State Environmental Planning Policy (Sustainable Buildings) 2022</i>	As alterations and extensions to an existing building with a cost of development of more than \$10 million, the SB SEPP applies. An Ecologically Sustainable Development Report (ESD) has been prepared for the proposed development at Appendix O . The ESD Report outlines the methods in which the proposed development will ensure sustainability throughout the construction and operation of the development.
<i>State Environmental Planning Policy (Biodiversity and Conservation) 2021</i>	<p>The site is not located within any catchment areas.</p> <p>Despite the site not being located on land identified as having any biodiversity, ecological or environmental high value land, the proposed development has been designed to have minimal adverse impacts on the environment.</p> <p>The development will have any impact on access to the waterfront or foreshore areas.</p>
Penrith Local Environmental Plan 2010	<p>Clause 2.3 <i>Zone Objectives and Land Use Table</i></p> <p>Schedule 1, Section 43, the site is identified on the Additional Permitted Uses Map. As a result, development for the purposes of recreation facilities (major) is permitted with development consent.</p>
	<p>Clause 4.3 <i>Height of Buildings</i></p> <p>The Penrith LEP 2010 does not prescribe a maximum height on the site.</p>
	<p>Clause 4.4 <i>Floor Space Ratio</i></p> <p>The site is not subject to a floor space ratio (FSR) development standard.</p>
	<p>Clause 5.10 <i>Heritage Conservation</i></p> <p>The site is not identified as a heritage item nor is it within a conservation area. However, the site is in the vicinity of three local heritage items. The impacts on the surrounding development on the surrounding heritage items has been addressed through the preparation of a Heritage Impact Statement by Curio Heritage at Appendix Q and is discussed further at Section 6.6.</p>
	<p>Clause 5.21 <i>Flood Planning</i></p> <p>Flooding is assessed at Section 6.13 of this EIS.</p>

Legislation	Matters for Consideration
Clause 7.4 <i>Sustainable development</i>	The proposed development has implemented sustainable development principles through building design and natural ventilation and the promotion of energy efficiency and conservation. This is further discussed at Section 6.8 and Appendix O .
Clause 7.7 <i>Servicing</i>	The site is adequately serviced by water and sewage infrastructure.
Clause 7.30 <i>Urban heat</i>	This clause is applicable to the site as it is located within a recreation zone. The proposed development has adequately responded to the urban heat impact through the significant increase in greenery and canopy cover across the site.

5.0 Stakeholder Engagement

This section describes consultation undertaken and feedback received prior to the lodgement of the EIS for the proposal and engagement to be carried out following lodgement of the EIS. It is supported by a Consultation Report that has been prepared by WSP, included at **Appendix E**.

5.1 Engagement Carried Out

5.1.1 Identified Stakeholders

A comprehensive list of community members and stakeholders to consult throughout during the preparation of the EIS process was developed through:

- The identification of neighbours who would be impacted by the proposal unless mitigation measures were implemented,
- The identification of stakeholders who would have a particular interest in the proposal.
- The identification of stakeholders who would have information of value to the proposal, for example, Aboriginal groups with cultural knowledge relating to the site.
- Consultation with the DPHI. This included the community members and stakeholders listed in the proposals SEARs that the applicant was required to consult with.

As a result of the above process, a number of stakeholders were identified for consultation, including:

- Department of Planning, Housing and Infrastructure.
- Department of Climate Change, Energy, the Environment and Water (DCCEEW).
- Penrith City Council.
- Transport for NSW.
- Sydney Water.
- Venues NSW.
- NSW Police.
- Office of Sport.
- Penrith Panthers Club

5.1.2 Consultation Methods

As detailed in the Consultation Summary Report (**Appendix E**) of the EIS, a range of consultation methods were used to engage stakeholders. This included activities completed prior to lodgement, through the preparation of the EIS and associated technical studies. The consultation methods are detailed in **Table 12** below.

Table 12 Consultation Methods

Activity	Date/Time	Details
Stakeholder Meetings	December 2023 – Current	The project carried out engagement with key stakeholders to inform them about the project and gather their feedback.
Media Launch and Media Release	24 January 2024	A media event held at BlueBet Stadium (Panthers Stadium) supported by a media release announcing new draft plans for the new Penrith Stadium. Major commercial broadcasters covered the event.
Online Survey	24 January – 23 February 2024	An online survey was used to capture public feedback on design features under current project scope. The survey link was published on the project's webpage and distributed through the project's communications channels outlined below.
Project Snapshot Factsheet	24 January 2024	A double-sided, A4-size Project Snapshot factsheet, outlining the proposed scope, project benefits and the community's priorities heard in 2022, was developed and handed out at engagement events. Distributed online, at community pop-ups and to journalists at the media event.

Activity	Date/Time	Details
Social Media	24 January and 15 February 2024	Two LinkedIn posts, published by INSW and shared by Penrith Panthers promoted the project and its key features, aiming to seek community feedback. INSW LinkedIn followers and Penrith Panthers LinkedIn followers.
Online Engagement Hub	24 January 2024	The existing project-specific webpage on Infrastructure NSW website was updated and maintained to serve as a key interface with stakeholders and the wider community. The webpage hosts general project information, details about the engagement sessions and activities, contact information, fact sheets, design images and project updates.
Community Enquiry Phone Number	From 24 January 2024	A free call project information phone line (1800 number) was established and available to stakeholders and community during the consultation period. The phone line was available during regular business hours. Outside of business hours, a recorded message and voicemail facility was available for callers to leave a message for a response.
Project Email Address	From 24 January 2024	A project email address penrithstadium@wsp.com was established and available to stakeholders and the community during the consultation period to provide feedback and enquiries. This email account has an auto-response acknowledging receipt of email received. Correspondence is recorded in the project stakeholder database. 18 emails were received and responded to.
Postcard Letterbox Drop	31 January 2024	A letterbox drop of project postcards was undertaken within 1km of Penrith Stadium. The postcard publicised the project and invited the community to engagement sessions and to complete the survey. 4,638 properties and businesses received a project postcard.
Email Direct Mailing (EDM)	29 January and 16 February 2024	Two EDMs were issued by Infrastructure NSW to the existing project stakeholder mailing list, promoting the redevelopment and encouraging survey participation via the project website.
Western Weekender Advertisement	2 February 2024	A ¼ page portrait advertisement was placed in the Western Weekender to promote the engagement sessions and encourage survey participation.
Community Pop-up Panthers Penrith Leagues Club	8 February 2024	The project team attended a community pop-up at the Panthers Penrith Leagues Club which supported understanding of the project by broader community members and allowed feedback to be provided and recorded on the spot. Display boards were erected which provided key project and design features for pop-up staff to present and talk to community members.
Community Pop-up Nepean Village Shopping Centre	10 February 2024	The project's community engagement team delivered a community pop-up feedback session at Nepean Village Shopping Centre which supported understanding of the project by broader community members and allowed feedback to be provided and recorded on the spot. Display boards on display provided key project and design features for pop-up staff to present and talk to community members.
Online Information Sessions	23 April and 24 April 2024	To provide an update to community members prior to the lodgement of the draft EIS, two online information sessions were held via Zoom. These sessions were presented by representatives from Infrastructure NSW and Populous, and were an opportunity for community members to ask questions of the project team directly. Both online information sessions were recorded and a recording was subsequently uploaded to the project website.
Agency Engagement		
Meeting with Department of Planning, Housing and Infrastructure	April 2024	To provide DPHI with an update on the project and proposed timeframes for lodgement.

Activity	Date/Time	Details
Department of Climate Change, Energy, the Environment and Water (DCCEEW).	3 May 2024	An email was issued to DCCEEW to notify the agency of the proposal. The Biodiversity, Conservation and Science Group responded, confirming they would review the proposal once referred to them following lodgement. No other responses were received.
Penrith City Council	Monthly and as required	Briefings and project updates have been undertaken with feedback received regarding the background information ahead of Government media launch, background and project updates and input into planning and design issues and event-based management as required.
Venues NSW	Ongoing	Project Steering Committee, meetings and briefings for advice about design, planning, program, budget and other relevant project issues.
NSW Police	As required	NSW Police has contacted the project team and consultation will be ongoing throughout the design development and operational phases.
Transport for NSW	20 February 2024	A briefing to consider sustainable travel options, assess parking within and surrounding the stadium precinct and the cumulative impacts from Mulgoa Road upgrades.

This approach follows the *Undertaking Engagement Guidelines for State Significant Projects* (2021) by:

- Engaging with relevant NSW Government agencies, service providers, Council, close neighbours and targeted members of the community who are most likely impacted or interested in the proposal;
- Informing the surrounding community to the site about the proposal and providing opportunities to engage directly with the project team;
- Explaining how community feedback will be considered and documented;
- Providing relevant information in plain English so that potential impacts and implications can be readily understood; and
- Providing channels of communication to gather feedback.

5.1.3 Aboriginal Community Consultation

Consultation was undertaken with Aboriginal groups and led by Ngurra Advisory during the preparation of the Connection to Country Strategy and the Aboriginal Cultural Heritage Assessment as discussed in **Appendix G** and **Appendix V**.

Consultation has been undertaken with Indigenous Groups through desktop research to establish the history and knowledge of the land, identification of key Elders and Knowledge Holders, an initial Walk on Country, identified dates for consultation and ongoing engagement, sharing of preliminary Designing with Country opportunities and thoughts, and a developed framework for establishment of a First Nations Working Group that will provide guidance and advice for the Project Team.

Aboriginal Community consultation was undertaken under the Heritage NSW Consultation Guidelines Process and consultation information is outlined in **Table 13**.

Table 13 Consultation under the Heritage NSW Consultation Guidelines Process

Stage	Date	Details
Stage 1.1 Agency	12/10/2023-26/10/2023	Key statutory bodies were contacted and a public notice was made to advise project location and proposed development and invited registration from local Aboriginal People. 16 RAPs were registered for the project.
Stage 1.2 Advert	31/10/2023-14/11/2023	
Stage 1.3 Invite	21/11/2023-5/12/2023	
Stage 1.3 RAP List	8/12/2023	
Stage 2/3 Methodology	9/01/2024-6/02/2024	Each RAP provided feedback and comments on the proposed development.
Stage 4 Review	21/03/2024-19/04/2024	A draft ACHAR was provided to all RAP for comments. Following the RAP review, the ACHAR has been finalised and

Stage	Date	Details
		any comments, feedback and discussions of cultural values are recorded.

Source: Curio Projects

5.2 Stakeholder Views

Agency Views

Agency consultation was undertaken with key agency stakeholders with interests in the Penrith Stadium refurbishment. Key matters raised by agencies during the preparation of the Scoping Report, SEARs and EIS are outlined in **Table 14**.

Table 14 Agency Feedback and Responses

Agency	Comments	Project Response/Design Updates
DECCW	An email was issued to DCCEEW to notify the agency of the proposal. The Biodiversity, Conservation and Science Group responded, confirming they would review the proposal once referred to them following lodgement. No other responses were received.	Further contact will be made during exhibition
Penrith City Council	Council suggestions include: <ul style="list-style-type: none"> • Use of deciduous trees should be considered in respect of access to sunlight during colder months. • Ensuring maintenance of access to Howell Oval. 	<ul style="list-style-type: none"> • Deciduous trees have been included at stadium entry points that will provide shade in warmer months and access to sunlight in cooler months. • Construction and operation of the stadium has been designed to ensure access to Howell Oval is unrestricted during both construction and operation.
Venues NSW	Suggested design changes include: <ul style="list-style-type: none"> • Increase in size of the main production kitchen. • Inclusion of a ground maintenance area internally. • Provision of access from locker rooms from main tunnel. 	Amendments to the design include: <ul style="list-style-type: none"> • Increased size of main production kitchen (approximately doubled in size). • A grounds maintenance area has been included in the ground floor of the West Stand. • Players now have direct access to the locker rooms from the main tunnel.
NSW Police	NSW Police has contacted the project team to commence discussions regarding operational planning.	An operations working group has been established and NSW Police will be invited to attend this group. The working group will inform operations plans to be implemented for the stadium.
Transport for NSW (TfNSW)	A briefing was held with feedback that the SSDA should consider: <ul style="list-style-type: none"> • Sustainable travel options. • Parking within and surrounding the stadium precinct. • Cumulative impacts from Mulgoa Road upgrades. 	<p>Sustainable travel options and an increased reliance on public and active travel to and from the stadium is considered in Section 3.12 of the Transport Impact Assessment. Parking within and surrounding the stadium has been assessed at Section 3.5 of the Transport Impact Assessment. Following the meeting with TfNSW, parking around Jamison Park was included in the assessment.</p> <p>Cumulative impacts of the Mulgoa Road upgrade have been assessed at Section 2.4, noting TfNSW has not confirmed timing of works within the vicinity of the stadium.</p>

Community Views

The key findings concluded that the communities' values were found to be centred around stadium seating, queues and pedestrian flow, amenities, and a community and regional hub.

The key issues and matters raised by the community and stakeholders during the preparation of the Scoping Report, SEARs and EIS are outlined in **Table 15** below.

Table 15 Community Feedback and Responses

Community Feedback	Project Response
Stadium Seating	
Increased seating capacity- a desire for more than the 25,000 seats proposed.	<p>25,000 seats is considered the most capacity for Penrith Stadium. This is based on historic average attendances as well as forecast future attendance and the role of Penrith Stadium in the overall NSW stadia network.</p> <p>The site is constrained in being able to offer a significantly larger capacity. A maximum capacity of up to 28,000 is considered the largest possible for this site and could only be achieved through development of another grandstand in place of the southern hill. The design has been developed to allow expansion through construction of a southern grandstand in the future should it be desired.</p>
All-weather seat coverage- greater coverage of roofs to grandstand seating.	The current roof coverage for seating is 35%. The proposal increases this to 50% of seats being covered by the proposed roofs of the eastern and western stands.
Improved sightlines- being closer to the action on the field of play.	<p>The stadium seating rake angles at present are:</p> <ul style="list-style-type: none"> • Eastern Stand lower tier- 15.2 degrees • Eastern Stand upper tier- 18.4 degrees • Western Stand lower tier- 13.9 degrees • Western Stand upper tier- 18.7 degrees <p>The proposed seating rake angles are:</p> <ul style="list-style-type: none"> • Eastern Stand lower tier- 15.8 degrees • Eastern Stand upper tier- 33.9 degrees • Western Stand lower tier- 16.4 degrees • Western Stand upper tier- 27.-32.2 degrees <p>The increased seating rake angles will ensure that all seats, particularly upper level seats are closer to the field of play and have markedly better sightlines than the existing stadium.</p> <p>The sightlines from these seats will be significantly improved and in line with other stadia such as Commbank Stadium in Parramatta.</p>
The north and south hills- remove the hills and replace with grandstands, improve sightlines from the hills.	<p>This feedback is in contrast to the feedback received as part of the 2022 consultation where there was a strong desire for retention of the southern and northern hills.</p> <p>The proposal retains the southern and northern hills as they offer significant amenity for families and are considered key to the character of Penrith Stadium. Whilst they are proposed to be retained, improvements have been made to aid circulation. The path of circulation for the southern stand has been moved to behind the amenities building ensuring better accessibility between the east and west stands.</p> <p>Further improvements have been made to the eastern and western edges of the north hill to aid accessibility.</p>
Designated club members seating- desire to know extent and location of members seating.	Members will be located in the lower tier of the western stand with comparable location to 4,800 in west stand which is mix of members GA and premium in new lower west stand with 4,800 seats provided.
Accessibility- greater number of accessible seating with better weather coverage.	The proposal increases accessible seating spaces from the current 37 to 150 seats, including a greater number of these seats being weather protected.
Queues and Pedestrian Flow	
Waiting and queue times- shorter waiting times for stadium entry,	<p>Toilet numbers will increased by:</p> <ul style="list-style-type: none"> • 42.5% for females

Community Feedback	Project Response
bathrooms and food and beverage amenities.	<ul style="list-style-type: none"> • 50% for males • 87.5% for universal access <p>Food and beverage outlets will increase.</p> <p>An additional stadium entry on the south west corner will ensure wait times for stadium entry are reduced.</p>
Pedestrian flow to nearby amenities- access to Panthers Leagues Club, more public transport in the evening, improved lighting and integration of people and cars at the Mulgoa Road entry/exit.	<p>The improved public domain to the west of the stadium will assist in accessibility between the stadia and venues west of Mulgoa Road.</p> <p>Increased path widths, improved lighting and plaza areas will ensure pedestrian flow between these spaces is improved in terms of accessibility and amenity.</p>
Car parking- more parking needed closer to the stadium.	<p>The area surrounding the stadium provides sufficient parking for stadium operations. Any proposal to increase parking closer to the stadium would only serve the stadium function and is not considered sustainable for the intermittent use of this venue.</p>
Amenities and Pricing	
Additional and improved public toilets- newer/upgraded and more toilets.	<p>All existing toilet facilities that will remain in the proposed development will be upgraded/ renovated. The overall toilet capacity is proposed to increase by:</p> <ul style="list-style-type: none"> • 42.5% for females • 50% for males • 87.5% for universal access
More food and beverage outlets- more options to reduce waiting times.	<p>Food and beverage outlets will increase significantly within the proposed scheme. There is also space for food trucks to be located within the stadium grounds when demand necessitates.</p>
Technology improvements- bigger and more visible screens, reducing light and sound impacts.	<p>The proposal replaces the existing one screen with two 150sqm screens. In addition, the stadium will include LED ribbon boards surrounding the field of play which will aid in improving the event experience.</p>
Pricing- concern that redevelopment will lead to increased ticket and food and beverage pricing.	<p>The pricing of tickets and food and beverage will be a matter for the operator and/or hirers.</p>
A Community and Regional Hub	
Community open space- more space for concerts and community events.	<p>The proposal increases the amenity of the surrounding open space and creates areas that can be readily activated by the community for informal recreation outside of event times.</p> <p>The redeveloped stadium will offer improved amenity which is anticipated to result in greater utilisation.</p> <p>The stadium has been designed to accommodate concert events for up to 30,000 people.</p>

State Design Review Panel

The State Design Review Panel (SDRP) has been engaged with on a number of occasions in relation to the proposed development. The most recent SDRP comments have been assessed and responded to in detail within the Design Report provided at **Appendix G**.

5.3 Engagement to be Carried Out

The project team are committed to ongoing community consultation following the submission of the EIS. This includes during the exhibition and assessment of the project and following a determination.

Following its submission, the DPHI will exhibit the EIS on the Major Projects NSW Website and invite submissions from government agencies and the public. Once the exhibition period is complete, the DPHI may require the applicant to prepare a Submissions Report in response to issues raised. The project team will continue to liaise with the DPHI and stakeholders during the proposal's assessment to address queries that may arise.

6.0 Assessment of Impacts

This section of the report assesses and responds to the environmental impacts of the proposed development. It addresses the matters for consideration set out in the SEARs (see **Appendix A**) and heads of consideration pursuant to Section 4.15 of the EP&A Act. The Mitigation Measures proposed to mitigate any environmental impacts are provided at **Appendix D** and reflect the findings of this section.

6.1 Built Form and Urban Design

The proposed development and refurbishment works will deliver much needed upgrades to enhance the stadium's ongoing viability and patron experience, whilst also contributing to the architectural and community presence of Penrith Stadium. As demonstrated in the Architectural Plans at **Appendix B**, the proposed development represents a high-quality architectural outcome for the site with regard to the following.

Scale and form

The proposed refurbishment works will largely retain the existing layout of the precinct through the retention of the existing field position:

- No change is proposed to the distinct architectural features of the stadium, being the eastern and western stands on either side of the field, and two grassed hills in the north and south of the field, for spectators to sit and watch events.
- Whilst the proposed refurbishment works will alter the scale and form of the eastern and western stands of the stadium, it will not detrimentally impact the overall shape and functionality of the stadium. The new eastern and western stand have been designed to increase shade access to the seats, and improve all ability accessibility. The stands will be greater in height than the existing stands, which will significantly improve the sightlines available from all seats to the field of play, due to the increased steepness of the stands.
- During events, pedestrian access and entry to the stadium will remain largely unchanged, with existing access points retained and improved.



Figure 33 Existing Penrith Stadium



Figure 34 Proposed refurbished Stadium

Functional Planning and Internal Environment

The primary objective of the refurbishment works is to rectify the identified functional and accessibility shortcomings of the stadium without requiring the complete redevelopment of the site. It is intended to address existing deficiencies that contribute to poor stadium experience in order to attract and better accommodate spectators to regionally significant sporting and entertainment events.

The refurbished stadium has responded to the identified strategic issues with the current stadium design and operations and has sought to future-proof the stadium by responding to developing trends in the design and construction of modern stadiums. The renewal of the stadium seeks to:

- Reposition stands and seating so that spectators are as close to the field as possible, providing them with fantastic views of the game. The closer, steeper and larger east and west stands will create a wall of people and sound to drive an extraordinary game day stadium atmosphere.
- Go beyond compliance requirements to ensure the stadium delivers an accessible community and club stadium, to ensure all fans have equal experiences on event and non-event days.
- Improve facilities for all players, ensuring that all users of the venue and field are provided for, including men's and women's player facilities.
- Offer a wide diversity of spectator and precinct experiences suitable to the local community and sporting teams for both event and non-event days. This includes innovative design solutions for the seating bowl, concourses, hospitality areas and wider precinct.
- Future proof the stadium by incorporating hirer and community stakeholder future needs to ensure the venue can evolve and grow with Penrith, the Lower Blue Mountains and Greater Western Sydney. The design will carefully consider and allow for, the future requirements of additional stands, extended roofs, connections throughout the site and adaptations for climate change.
- Target a 5-star Green Star environmental accreditation to ensure it is environmentally and socially responsible and responsive to climate change.

Building Heights

The maximum height of the proposed development is RL 59.16 (30.51m) at its highest point. The site is not subject to a maximum permissible height under the Penrith LEP, and the proposed development is therefore permissible under the Penrith LEP.

The maximum height of the proposed stands is considered to be appropriate and acceptable in the context of the site as follows:

- The proposed building height is compatible with the scale of the existing development at the site, as demonstrated in **Figure 35**. The surrounding sites range from 20m to 24m maximum permissible height. Thus, as seen in **Figure 35**, the stadium sits within a similar height range as the surrounding sites and their permissible height.
- The visual impact of the proposed development and the height has low to moderate impact on surrounding developments as discussed at **Section 6.3.1**.
- There are limited environmental amenity impacts resulting from the additional height, including solar access and overshadowing (refer to **Section 6.3.2**) and wind environment (refer to **Section 6.3.3**).

The proposed design has been conscious of respecting the legacy and reinforcing the strength of the current design of Penrith Stadium, which has played a prominent role in the history of Penrith and the Greater Western Sydney region. The proposed works have sensitively integrated with the overall scale, form, details and materiality of the existing stadium to retain its overall form, whilst still achieving the desired functional improvements and an overall high-quality contemporary finish. The refurbishment will bring new life to the stadium and ensure it is capable of attracting and hosting major events and operating into the future.



Figure 35 The proposed refurbished stadium stands is consistent in the context of surrounding buildings

Source: Populous

6.2 Public Domain

In accordance with the SEARs, the landscape and public domain design has been developed to maximise the amount, access to and quality of public spaces, including open space, public facilities and streets and plazas within and surrounding the site. Across the site, there are a range of public open spaces, including:

- Extensive hardscape areas into the stadium precinct, including:
 - The entry walk from Mulgoa Road to the south-western entry.
 - Entry plaza in the north-east and north-west.
 - Community courts
 - Plaza along the western stand.
 - Connected paths along Station Street to the north-east entry and elevated terrace at the concourse level.
- Extensive softscape areas, including:
 - Planted mounds to separate the community courts from the carpark.
 - Training field to the west of the stadium
 - Green space at Ransley Street and Station Street corner.
 - Retained north and south hills.
 - Extensive planting across the site.

These spaces are designed to be welcoming, attractive and accessible to all by providing a frontage of the precinct to both the park to the south and the numerous street frontages surrounding the site. Permeability and connectivity is maximised across the site, with the public external and stadium internal circulation systems connected by public domain intersection spaces. These intersection spaces connect public space with the internal spaces within the stadium, tying together the internal and external public domain, making entries to the stadium clear and accessible.

The proposed public domain on the western side of the stadium will be a smaller training field than the existing playing field currently in this location, however, this reduction is offset by the improved landscaped public domain across the site, which are better suited to the different users across the site. This includes a more versatile space that has two community courts and plaza spaces that are available for multipurpose activities.

The amenity of the public domain around the precinct is protected with large areas receiving substantial solar access, balanced by significant tree planting to ensure that the spaces are shaded from heat when required. Further, the pedestrian and vehicular access has been separated to minimise conflict between the different user groups.

The public domain has been designed to provide a diversity of spaces, responding to the needs of the precinct in both event and non-event modes. The design of the public domain is discussed further in **Section 3.7** and at **Appendix G**.

6.3 Environmental Amenity

6.3.1 Visual and View Impacts

A Visual Impact Assessment (VIA) has been prepared by Ethos Urban and provided at **Appendix R** to identify, describe and assess the significance and appropriateness of the potential visual impacts of the proposed buildings and building alterations and additions outlined in this EIS.

The VIA found the following findings of sensitivity, magnitude and significance of visual impact (see **Table 16**) and is reflected in **Figure 36**.

Table 16 Findings of sensitivity, magnitude and significance of visual impact

Viewpoint Number as identified in Figure 36	Viewpoint Name	Sensitivity	Magnitude	Significance
1	Mulgoa Road and Jamison Road	Low	Imperceptible	Negligible
2	Mulgoa Road and Panthers Place	Low	Noticeable	Low
3	Mulgoa Road (west of site)	Low – moderate	Considerable	Low – moderate
4	Mulgoa Road (north of site)	Low	Perceptible	Negligible
5	Station Street and Ransley Street	Low	Noticeable	Low
6	Station Street (south of the site)	Low	Considerable	Low
7	Penrith Park (west of site)	Low – moderate	Considerable	Low – moderate



Figure 36 Map of Viewpoint Locations relating to Table 16

Source: Virtual Ideas

The VIA concludes there that there is no significant impact on the scenic and cultural landscape, and the design minimises the visual impact and disruption of views. The development has been designed so that that the bulk and scale is compatible with the desired future character of the locality under the planning framework. There

were no visual impacts of high or major significance due to the visual presence of the existing stadium on the site, and for the current visibility mainly from major roads.

Mitigation measures are proposed in the VIA to seek to reduce and minimise any perceived visual impact, and are provided at **Appendix D** and discussed further in the VIA at **Appendix R**. **Figure 37** to **Figure 42** shows the visual impact from several of the key views as described above.



Figure 37 Station Street (south) - existing

Source: Virtual Ideas



Figure 38 Station Street (south) – proposed

Source: Virtual Ideas



Figure 39 Mulgoa Rd and Panthers PI - existing

Source: Virtual Ideas

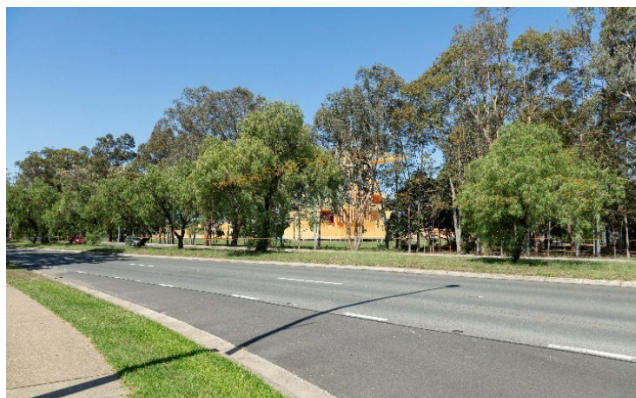


Figure 40 Mulgoa Rd and Panthers PI - Proposed

Source: Virtual Ideas



Figure 41 Mulgoa Road (west) – existing

Source: Virtual Ideas



Figure 42 Mulgoa Road (west) – proposed

Source: Virtual Ideas

6.3.2 Overshadowing

An assessment of solar access and overshadowing was conducted by Populous and is detailed in the Architectural Design Report at **Appendix G**. The assessment indicates shadows cast by the proposed development at one-hour intervals between 9am and 3pm for both the summer and winter solstices, and the spring and autumn equinox, as required by the SEARs.

The shadow diagrams demonstrate that the proposed development largely results in overshadowing within the site, with the majority of the shadows from the western stand falling on the field of play, or on the adjoining training field and public domain to the south.

The shadows from the eastern stand also fall largely within the site, including partially on the public domain to the south. Some shadow falls on Station Street and the large vacant lot to the east of the site, being 164 Station Street. Given that the site is currently vacant and there are no public plans to redevelop the site, it is considered that the impacts from the shadows are limited.

As shown in **Figure 43** and **Figure 44**, the shadowing impacts are minor. It is also noted that there would be a large quantum of existing shadow generated by the existing stadium on the site, and there are no surrounding sensitive uses that are greatly impacted by the additional overshadowing created.



Figure 43 Solar access and overshadowing during the summer solstice

Source: Populous



Figure 44 Solar access and overshadowing during the winter solstice

Source: Populous

6.3.3 Wind Environment

Aurecon has undertaken detailed modelling to quantify the potential impacts of the proposed development on the pedestrian environment (**Appendix S**). The Wind Assessment has applied the Lawson Criteria to determine pedestrian comfort and safety within the public domain surrounding the site. The criteria are considered to be the applicable means of assessing the site as it determines the regular wind conditions of the site. The Wind Assessment also considers the potential wind environment within the stadium itself, particularly focusing on the concourse and seated areas.

The Wind Assessment concludes that there are four key prevailing winds that are to be considered in relation to the site, and considers their impact for amenity within the site and the impacts on the surrounding locality.

Table 17 outlines the prevailing winds and the impact as a result of the development.

Table 17 Prevailing wind and resultant impact

Prevailing wind direction	Amenity impact within the site	Amenity impact for surrounding locality	Mitigation measures
Northerly wind direction	<ul style="list-style-type: none"> To the immediate north are some low-lying buildings and a long 2m wall, but otherwise minimal obstructions. The northern hill is on a slight rise and is likely to experience slightly accelerated flow as the wind passes over this rise. The western corner of the western stand is likely to induce corner acceleration, but this will be mitigated somewhat by the stairs at ground level. 	<ul style="list-style-type: none"> The wake of the eastern stand will extend beyond the site boundary into the pedestrian walkways on Station Street. Given the slender form of the eastern stand, the wake behind the stand will be minimal and pedestrians are unlikely to be impacted by any accelerated flows. Additionally, this stretch of Station Street features mature trees which will reduce wind speeds at ground level. 	<ul style="list-style-type: none"> To improve comfort, wind could be mitigated in this area by increasing landscaping density along the northern fence line
Southerly wind direction	<ul style="list-style-type: none"> The northern hill is on a slight rise and is likely to experience slightly accelerated flow as the wind passes over this rise. However, this area will be partially shielded by the eastern stand. The southern hill will be partially shielded by the low-set amenities building and the new scoreboard above its roof. The southeastern section will be more exposed to wind. The western corner of the western stand is likely to induce corner acceleration, but this will be mitigated somewhat by the stairs at ground level. 	<ul style="list-style-type: none"> For the southerly wind, the wake of the western stand will extend beyond the site boundary into the pedestrian walkways on Ransley St. In high wind conditions, the wake shed from the stand will likely feature some accelerated flow passing on the pedestrian walkways on Ransley St. As the proposed western stand is twice the height of the existing stand and closer to Ransley St, this outcome is likely to be less favourable than the existing conditions 	<ul style="list-style-type: none"> Increase landscaping density along the southern fence line Increase vegetation along the western corner of western stand. Tree planting in the area to provide a canopy and by landscaping along the site boundary to obstruct winds.
South westerly direction	<ul style="list-style-type: none"> The development will have minimal sheltering from the suburban southern approach. To the immediate south-west is a cricket field and some small low-set buildings. The northern hill is on a slight rise and is likely to experience slightly accelerated flow as the wind passes over this rise. The southern hill will be partially shielded by the low-set amenities building and the new scoreboard above its roof. The remaining sections will be more exposed to wind. This wind could be mitigated by increasing 	<ul style="list-style-type: none"> For the southerly wind, the wake of the western stand will extend beyond the site boundary into the pedestrian walkways on Ransley St. In high wind conditions, the wake shed from the stand will likely feature some accelerated flow passing on the pedestrian walkways on Ransley St. As the proposed western stand is twice the height of the existing stand and closer to Ransley St, this outcome is likely to be less favourable than the existing conditions. 	<ul style="list-style-type: none"> Tree planting in the area to provide a canopy and by landscaping along the site boundary to obstruct winds.

Prevailing wind direction	Amenity impact within the site	Amenity impact for surrounding locality	Mitigation measures
	<p>landscaping density along the southern fence line.</p> <ul style="list-style-type: none"> The tiered seating on the western stand will be impacted by the wind moving across the face of the stand. At the south-western edge of the tiered seating, there may be corner acceleration of the wind impacting the side of the stand and rolling over onto the tiered seating The western corner of the western stand is likely to induce corner acceleration, but this will be mitigated somewhat by the stairs at ground level. 		
Westerly wind direction	<ul style="list-style-type: none"> The northern hill will be shielded by the western stand. The southern hill will be partially shielded by the low-set amenities building and the new scoreboard above its roof. The remaining sections will be more exposed to wind. The tiered seating on the western stand will be predominantly shielded from the wind. At the south-western edge of the tiered seating, there may be corner acceleration of the wind impacting the side of the stand and rolling over onto the tiered seating. 	<ul style="list-style-type: none"> Given the slender form of the eastern stand, the wake behind the stand will be minimal and pedestrians are unlikely to be impacted by any accelerated flows. 	<ul style="list-style-type: none"> Introduce fencing on the boundaries of the stands.

Aurecon concluded that the overall wind conditions are considered suitable for the intended use of the site, with the introduction of some landscaping elements to minimise wind in some locations. The relevant mitigation measures are provided at **Appendix D**, and further discussion on wind is provided at **Appendix S**.

6.3.4 Reflectivity

The materials selected for the external changes to the stadium, including the new roof and the northern and southern facades, were chosen to minimise reflectivity. The metal roof sheeting, aluminium blade screens and concrete-like materials achieve a matte texture. Highly reflective materials such as glass will be limited in their application. All materials will achieve a spectral finish of less than 20%.

Through the selection of appropriate materials and finishes, proposed development will not result in any significant or adverse privacy impact.

6.4 Transport, Traffic, Parking and Access

JMT Consulting have prepared a Transport Impact Assessment (**Appendix J**) to outline a strategy for access to Penrith Stadium during the construction and operation phase. This is accompanied by the Preliminary Construction Pedestrian and Traffic Management Plan prepared by JMT Consulting and provided at **Appendix J**. Mitigation measures are provided at **Appendix D** and discussed further in the Transport Impact Assessment and the Preliminary Construction Pedestrian and Traffic Management Plan at **Appendix J**.

6.4.1 Construction Traffic Impact

A Preliminary Construction Pedestrian and Traffic Management Plan has been prepared to assess the proposed access and operation of construction vehicles and their potential traffic impact on the surrounding area. The contractor will be responsible for monitoring and coordinating all vehicles entering and exiting the site.

Work Hours

Consistent with the standard construction hours in the *Interim Construction Noise Guidelines*, the construction would be undertaken within the following hours:

- **Monday-Friday:** 7am – 6pm
- **Saturday:** 8am – 1pm
- **Sunday and public holidays:** No works

Construction Vehicle Access and Vehicle Routes

There will be three access points utilised during the construction of the development and have been selected to make use of existing driveways into the site (see **Figure 45**). Traffic controllers will be present at the vehicle cross over points to manage the interactions and safety of pedestrians.

The main construction access will be via the state road network (see **Figure 46**). It is anticipated that majority of the construction vehicles will access the site from the M4 Motorway and Mulgoa Road. From here, all construction vehicles will utilise Jamison Road and Station Street to enter one of the three access points.

Access to Howell Oval will still be provided during construction and the existing car parking spaces located adjacent to Howell Oval will continue to be accessible by members of the public as per current operation.

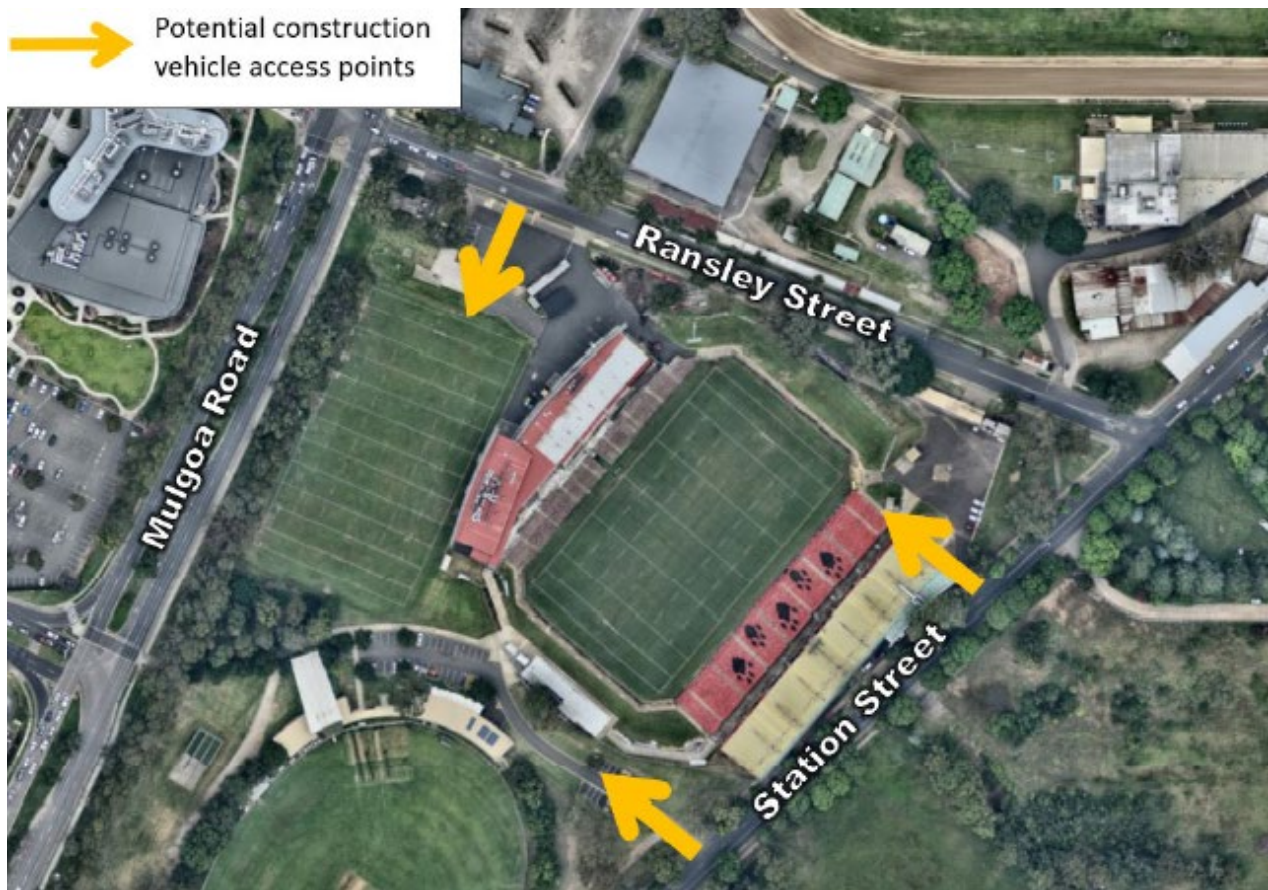


Figure 45 Construction Site Access Points

Source: JMT Consulting



Figure 46 Inbound Construction Vehicle Access

Source: JMT Consulting

Construction Vehicle Volumes

JMT Consulting estimate the following construction vehicle volumes (see **Table 18**).

Table 18 *Estimated Construction Vehicle Volumes*

Activity	Average Weekday Traffic Generation	Maximum Hourly Traffic Generation
Demolition	40 – 50 vehicles	6 – 7 vehicles
Construction	40 – 50 vehicles	6 – 8 vehicles
Fit Out	20 – 30 vehicles	3 – 4 vehicles

Additionally, construction workers will generate approximately 27 vehicles during demolition and 150 vehicles during the construction phase. This traffic generation is significantly lower than what is currently generated by events at Penrith Stadium and the construction works will enter and depart the site outside of peak periods of the surrounding road network.

Work Zones

It is expected that all construction vehicles and materials will be held within the site boundary and no on-street work zone will be required to be established.

6.4.2 Operational Transport Impact

A Transport Impact Assessment has been prepared by JMT Consulting and is provided at **Appendix J**.

Access

During operation, proposed access points for vehicles are from Ransley Street, which provides access to the on-site car parking of approximately 40 car parks and the loading zone (see **Figure 47**).

The existing pedestrian access points will be retained and there will be an addition of a new access point at the south-west corner of the stadium via Station Street. By adding an additional access point, this will benefit the precinct by distributing and dispersing the pedestrian movements and reduce access delays at the three existing stadium entries.

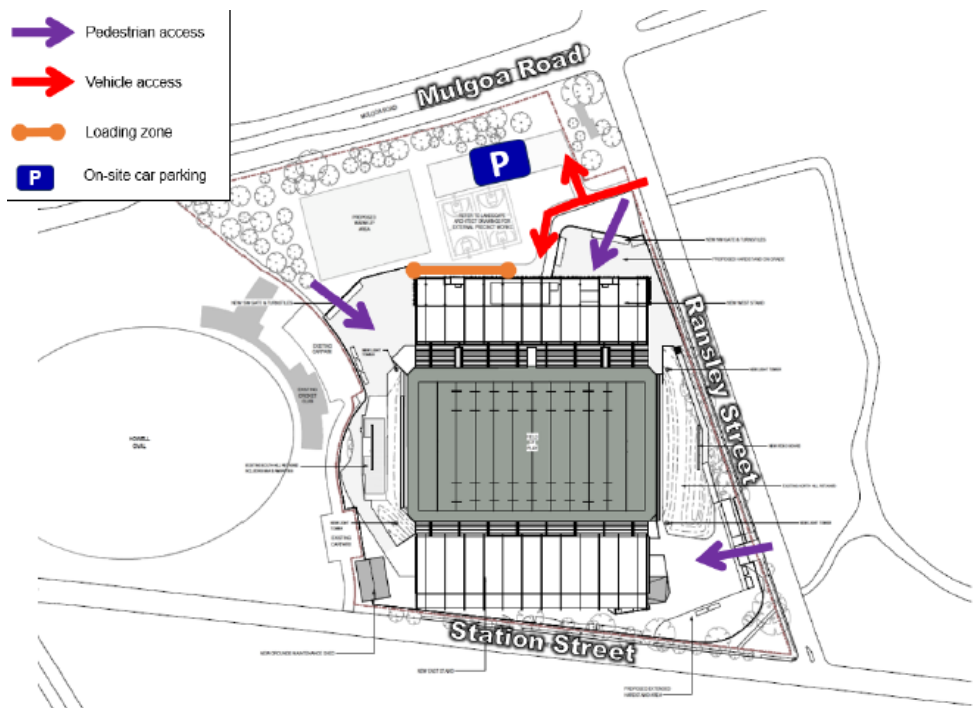


Figure 47 *Proposed future access arrangements*

Source: JMT Consulting

Pedestrian Access

Pedestrians will be able to access the site from 3 entry points at each corner of the site. The northern plaza entry area is proposed to be increased in area to accommodate for pedestrian queuing and storage. The entry pathways will be upgraded to connect the site and south-eastern pedestrian entry point to Mulgoa Road pedestrian crossing.

The proposed entry gate at the corner of Station and Ransley Street will reduce the existing issues that causes pedestrian queuing onto the road. The proposed gate is set back from the footpath to allow for gathering and queuing of pedestrians within the site. Pedestrian analysis demonstrates that approximately 50% of arrivals to the stadium will utilise the western gates with the remaining 50% utilising the eastern (corner of Station and Ransley Street) entry gate.

Car Parking

There will be an onsite car park available for approximately 40 cars. No parking for the general public will be provided on the site, which is consistent with the existing operational arrangements. There are approximately 9,500 off-street parking spaces within a 10-minute walk of Penrith Stadium that can be accessed on event days (see **Figure 48**).

The capacity of parking available offsite through street parking in the surrounding area is expected to double with the future demand and considered to be appropriate for ongoing usage.



Figure 48 Surrounding carparking

Source: JMT Consulting

Bicycle Parking

The proposal will include approximately 50 bicycle parking spaces that will be publicly accessible for patrons to use both during and outside of events. These bicycle parking spaces will support cycling as a mode of transport

to the venue and reduce reliance on private vehicles – thereby minimising the impact of the proposal on the surrounding road network.

These spaces will be provided subject to allocation in the public domain throughout the detailed design process.

Traffic Assessment

The proposed development involves an increase in capacity by 2,500 people (10% increase). As a result of this minor increase in capacity, JMT Consulting conclude that the traffic implications are not considered to be significant.

The proposed development is expected to generate an additional 102 cars in traffic movements as seen in **Table 19**. The impact of an additional 102 cars expected in traffic movements will not adversely impact the road networks as sporting events held at Penrith Stadium are generally held outside peak road network periods later in the evening and after 9pm when road networks are less congested and busy. Due to the implementation of the Green Travel Plan (see **Section 6.4.2**), there is a targeted 5% decrease in car mode travel to events.

Table 19 Forecast increase in traffic movements

Scenario	Capacity	Car Mode Share	Car Occupancy	Number of Cars
Existing Stadium – Sporting Event	22,500	61.9%	2.94	4803
Future Stadium – Sporting Event	25,000	56.9%	2.94	4905
Change	+2,500	-5%	-	+102

Source: JMT Consulting

Penrith Stadium will also benefit from the upgrade works being undertaken by the NSW Government along the Mulgoa Road Corridor. As a result of these works, TfNSW indicates that all signalised intersections within the vicinity of Penrith Stadium will be able to operate at a better capacity in future years. This will improve connectivity and congestion for the surrounding road networks especially during event periods. These works are largely completed, or currently being undertaken.

It is noted that concert events at the future Penrith Stadium will have the ability to accommodate up to 30,000 people, which is reflective of the field being used to accommodate additional capacity. Any large concert event would be very infrequent and would typically be a community focused concert or an all-day multi-act performance which would disperse attendance over a period of time. The vast majority of concerts (maximum 10 per year) are not expected to exceed an attendance of 25,000 people – reflective of the capacity of a sporting event at Penrith Stadium.

Local or international headline acts, which have greater traffic impacts given they have a concentrated traffic profile (particularly post-event), would likely utilise other larger-capacity stadia such as CommBank stadium (35,000 capacity), Sydney Football Stadium (55,000 capacity) or Stadium Australia (80,000 capacity).

Any concert held at Penrith Stadium with an expected attendance of greater than 25,000 people would be subject to an event specific Traffic Management Plan. Large concerts would not coincide with the road network peak periods and it has been demonstrated that there is substantial capacity in surrounding parking areas to accommodate large events held at Penrith Stadium.

JMT Consulting conclude that due to the infrequent nature of large concerts on the site, traffic and parking impacts are therefore considered acceptable, and will be subject to a separate event specific traffic management plan.

Event Transport Management

Event transport management currently occurs during events and will continue to be implemented for events to manage the safe and efficient movement of people. Event transport management will include the restricted access to the on-site car park on game days for authorised vehicles only. No general public access to the on-site car park will be permitted on event days. Additionally, no service vehicles will be permitted to access the site within two hours of the start or end of the event to limit conflict with patrons.

Venues NSW will implement event specific traffic management plans, in close consultation with TfNSW, to manage the impacts of events at the site. It is proposed that a future Event Traffic and Transport Management Plan to be developed in consultation with Transport for NSW prior to the opening of the venue.

Bump-in and Bump-out

As outlined in **Section 3.2**, prior to events, and following the conclusion of events at the stadium, a range of bump in and bump out activities will need to occur. This is largely an extension of the loading functions that are proposed to occur, and given they will be occurring outside of peak times, it is not anticipated that there will be any resultant traffic impact from these movements, given they will likely be concentrated outside of peak times, particularly following the conclusion of events.

6.5 Noise and Vibration

Arup has prepared a Noise and Vibration Impact Assessment (NVIA) (**Appendix T**) to identify and provide a quantitative and qualitative assessment of the noise and vibration generating sources produced during the construction and operation of the project.

6.5.1 Noise Environment

The site is surrounded by a range of residential, recreational, commercial and vacant land uses. The NVIA has grouped surrounding noise sources into Noise Catchment Areas (NCAs). Identified noise sources currently experienced surrounding the site are predominantly produced from surrounding roads, aircraft noise and general noise activity from users of the surrounding facilities. **Figure 49** identifies the surrounding sensitive receivers adjacent to the site.

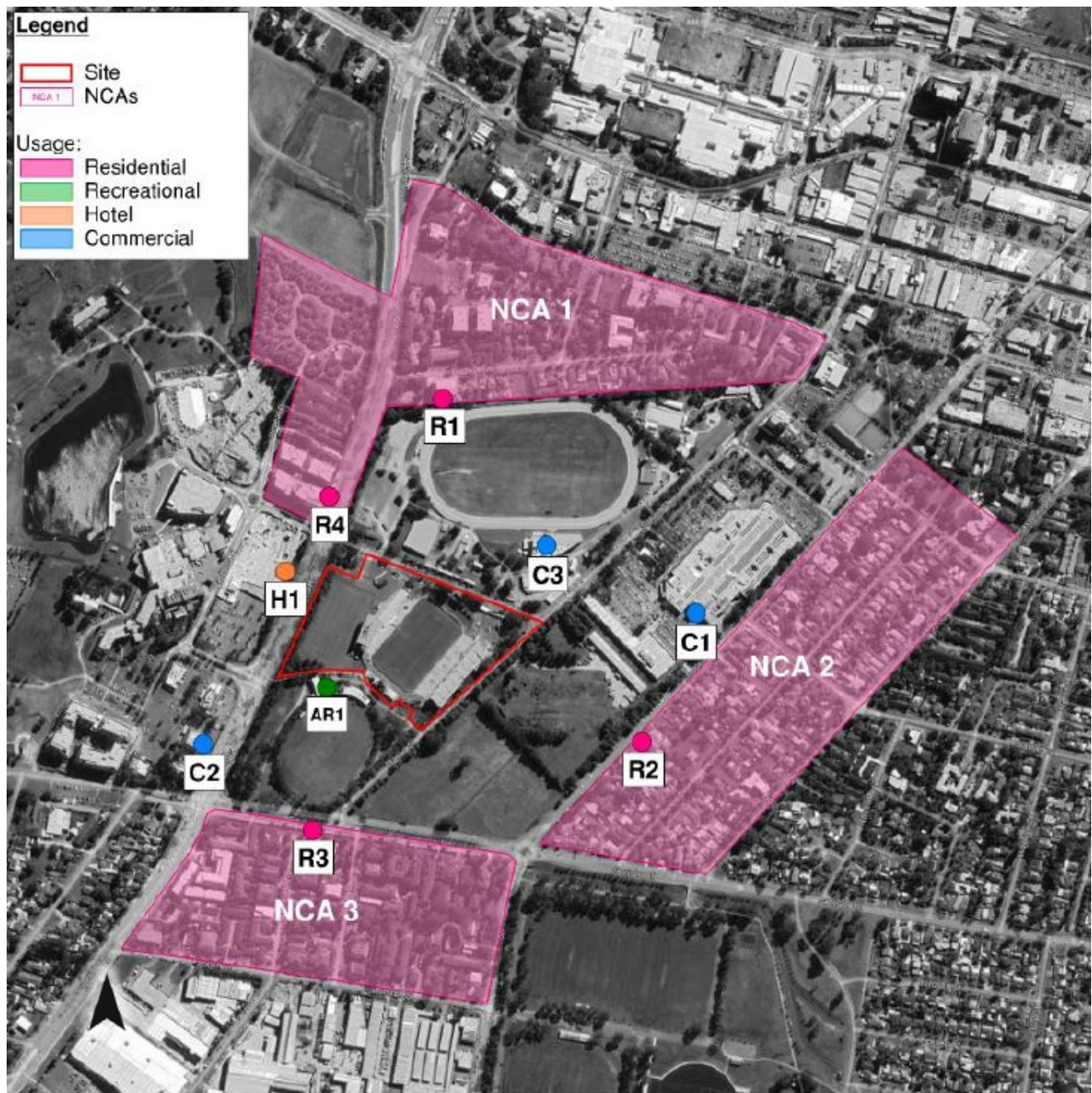


Figure 49 Noise Sensitive Receiver locations and NCAs.

Source: Arup

Noise monitoring was undertaken by Arup with noise measurements taken at locations representative of NCA background noise levels.

The short-term and long-term measurement locations are outline in **Table 20** below.

Table 20 Measurement Summary

ID	NCA	Measurement Location	Measurement Type	Comment on location suitability
Meas. 1	1	20 Rodley Ave	Long and short term	Considered representative of background noise levels at the worst affected receivers within NCA 1. Although residential receivers R4 are considered more affected by Mulgoa Road traffic than the measurement location, background noise monitoring at measurement location 1 is considered to result in a conservative assessment.
Meas. 2	2	112 Woodriff Street	Long and short term	Considered representative of reasonably most-affected residences within NCA 2.
Meas. 3	3	256 Moore Park Road	Long and short term	Considered representative of reasonably most-affected residences within NCA 3.

Based on the above base noise environments surrounding the site, the following sections outline the potential noise impacts based on this baseline noise environment.

6.5.2 Construction

Noise

The identified NCAs outlined in **Section 6.5.1** have been used to formulate the construction noise criteria for the development, which has been utilised to evaluate the construction impacts of the proposed development. The construction noise criteria also considers the extent and program works in the site and the relevant noise policies, noise monitoring and guidelines.

The NVIA finds that the increased traffic generated on the surrounding road networks due to construction activities will result in residences located along Mulgoa Road being most affected. However, the NVIA finds that exceedances may occur at the nearest residential receivers in all directions. There are no major exceedances expected for commercial and hotel receivers as they are less than 10dB, with no major disruptions expected. Exceedances at Howell Oval are predicted to be up to 22dBA during demolition, however, the impacts on sporting events are not anticipated to be significant.

The impacts of construction traffic are less than the 2dB ‘minor impact’ criteria and therefore represent an insignificant effect on the ambient noise environment.

Despite the exceedances identified by Arup in the NVIA for nearest residential receivers, Arup anticipate that this can be appropriately mitigated by incorporating the following mitigation measures:

- Preparing and implementing a Construction Noise and Vibration Management Plan prior to the issuing of a Construction Certificate.
- Regular training and for workers and contractors to use equipment in ways to minimise noise.
- Turn off all vehicles, plant and equipment when not in use.
- High noise activities will be programmed to occur during the daytime hours where possible and scheduled in consideration of the nearest sensitive receivers.
- Truck movements will avoid residential streets where possible..

Mitigation measures have been identified by Arup to minimise impacts resulting from construction noise which have been outlined at **Appendix D**.

Vibration

Due to the distance of surrounding sites and infrastructure, no adverse vibration impacts are anticipated. Vibration is not considered to be a significant risk during construction.

Mitigation measures have been identified by Arup to further minimise impacts resulting from construction vibration, which have been outlined at **Appendix D**.

6.5.3 Operational

Sporting Event Operational Noise

During event mode there are a range of likely noise sources resulting from the stadium. The standard operation noises include:

- Crowd noise.
- Public announcement system.
- Pre-match and half-time entertainment.
- Post-scoring celebrations.
- Post-match interviews.

All of these anticipated noise sources currently occur during the operation of the existing stadium. However, Arup have reviewed whether the increase in crowd capacity by 2,500 people (10%) will impact on noise emissions.

Arup conclude that there is a negligible increase of 1dB predicted as a result of the increase in crowd size, which is not expected to be noticeable by the relevant noise receptors. There will also be no significant increase in noise emissions due to the in-house PA system.

Mitigation measures have been identified by Arup to minimise impacts resulting from operational noise which have been outlined at **Appendix D**.

Concert Event Noise

Concerts will be proposed to be held at Penrith Stadium up to 10 times per year, however, high profile acts are unlikely to be held at Penrith Stadium. In addition to the concert itself, sound tests and rehearsals will also take place which will contribute to noise impacts.

The most significant noise sources from the new stadium are:

- Music and announcements from amplification systems during events.
- Crowd noise during events.

There are proposed noise limits for concerts which are a concert noise limit of 75dBA and 90dBC at the property boundary of residential receivers. Additionally, there will be proposed time limits in place for concert events, which must conclude prior to 11pm and can last a maximum of 5 hours. These measures, together with the infrequent nature of these events, means that impacts are appropriately mitigated. Arup note that noise impacts can differ between the type of event and event details which includes crowd size, genre of music and time of day.

Results show that based on a centre-of-field noise level of 100dBA and 111dBC, concert noise impacts comply with the concert noise limits in a south stage facing north configuration. There is compliance with the noise limits due to the directionality of sound systems facing away from residences to the south, residences to the west and east being shielded by the proposed West and East Stands, and distance and shielding to residences in the north. However, north stage facing south configuration results in residences to the south predicted to exceed the noise limit criteria by up to 4dB due to the direct line-of-sight to the stadium. Therefore, a mitigation measure is included that requires a south facing stage configuration.

Mitigation measures have been identified by Arup to minimise impacts resulting from operational noise which have been outlined at **Appendix D**.

Non-Event Operational Noise

Non-event operational noise includes the following:

- Loading dock operations.
- Car park operations.

- Building services and external plant.
- Traffic generated by operation of the site.

The noise impacts resulting from these daily operations are minimal and given the distance of the site to nearby sensitive receivers, it is not considered that there will be any significant impacts. However, Arup have assessed the potential noise impacts of any late night loading activities, such as after events.

Results show that there is general compliance for the loading dock and car park for sleep disturbance and amenity noise criteria. There is one negligible exceedance of 1dB of night time criteria predicted should loud loading activities occur at nighttime. This is not considered to impact the surrounding amenity, given the infrequent loading activities occurring later in the evening.

Additionally, there are no traffic noise impacts anticipated outside of event times as the car parking size remains the same.

Mitigation measures have been identified by Arup to minimise impacts resulting from operational noise which have been outlined at **Appendix D**.

6.6 Heritage and Archaeology

6.6.1 Non-Indigenous Heritage

Curio Projects has prepared a Heritage Impact Statement (HIS), which is provided at **Appendix Q**. This report examines the potential impact of the proposed development on the heritage significance of surrounding heritage items and heritage conservation areas, as identified in the Penrith LEP and the *Heritage Act 1977*, and other statutory registers.

As identified within the HIS, the site itself is not a heritage item, however, it is within the vicinity of several heritage items (see **Figure 50**). The closest heritage item is located approximately 400 metres from the site and due to the physical separation from the heritage items within the vicinity of the site, there are no direct physical impacts on the structure or fabric of any heritage items.

The proposed development will have neutral and acceptable impact on views and the visual impact to and from heritage items as the existing views between the heritage items and the site are currently obstructed by surrounding structures and landscaping elements, including mature trees.

Overall, the proposed development will have a neutral and acceptable impact on the significance of nearby heritage items in Penrith and will conserve their significant setting and views.

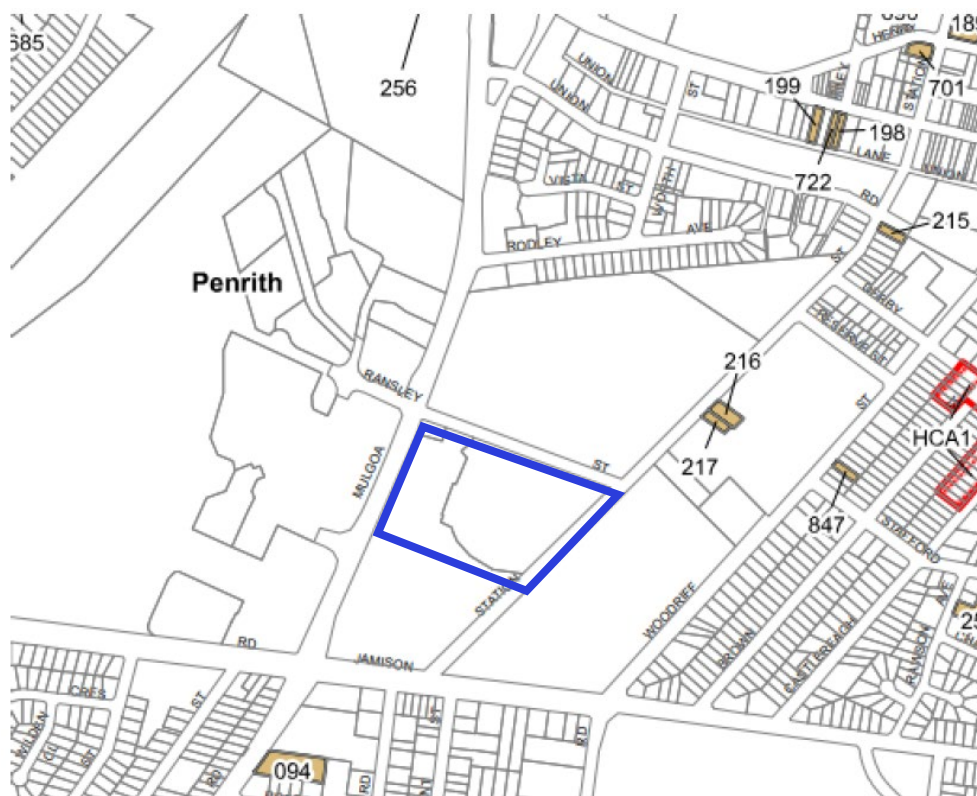


Figure 50 Surrounding heritage context (approximate site outlined in blue)

Source: Curio Projects

6.6.2 Archaeology

Curio Projects has prepared a Historical Archaeological Assessment (HAA), provided at **Appendix U**, which examines the potential impact of the proposed development on the archaeological significance of surrounding archaeological sites.

The site does not contain any known or potentially significant archaeological deposits. The HAA has found that the site contains low potential to contain any significant archaeological resources of past uses. This is partially attributed to the extensive time period in which the site has been used as a recreation facility similar to its current use. Additionally, the proposed development is assessed to have nil to low potential to impact upon any archaeological relics. **Table 21** outlines the potential archaeological potential of the site across its history.

Table 21 Non-Aboriginal Archaeological potential and significance

Phase/Time Period	Archaeological Impact	Mitigation measure
Phase 1: 1788-1804	Nil	If encountered, remains are unlikely to reach the threshold of local or State significance.
Phase 2: 1804-1884	Nil to low	
Phase 3: 1884-1955	Low to moderate	
Phase 4: 1955-current	Moderate	

An Unexpected Finds Procedure will be in place, and should any suspected relics be identified, the proposed development and works will cease and any relics are to be notified to Heritage NSW. This mitigation measure, as well as other relevant mitigation measures, are provided at **Appendix D**.

6.6.3 Aboriginal Cultural Heritage

An Aboriginal Cultural Heritage Assessment Report has been prepared by Curio Projects and is provided at **Appendix V**.

The site is located on Dharug Country, with approximately 15 different clans making up the Dharug Nation, including the Mulgoa, who were thought to occupy the region around Penrith. The study area sits 1.3km from the Nepean River and 815 metres from Peach Tree Creek. The study area is therefore associated with archaeologically

sensitive landforms and/or landscape features. It is likely that the area was used by Aboriginal people in the past for short term occupation, land use and resource gathering.

An extensive search of the Aboriginal Heritage Information Management System (AHIMS) database was undertaken and confirms there are no known artefacts of potential archaeological deposits identified within the site. A total of 21 sites were located within the vicinity of the site, however the proposed development will not have any impact on these registered artefacts.

Overall, the site is considered to be of high social and cultural significance as it is located close to the Nepean River which is a common significance shared within the entire Nepean region. However, the site is not identified to contain any information regarding specific historical events, activities or significance to Aboriginal People. No archaeological investigation has been undertaken.

Should any archaeological deposits be present within the study area, they have the potential to hold social, historical and scientific values that must be assessed against the relevant criteria. The site is therefore considered to have high social and spiritual significance to the local Aboriginal (Dharug) Community. Overall, there is moderate to high potential for Aboriginal archaeological resources, within either preserved or disturbed contexts, to be present at the site.

Mitigation measures relevant to the protection of Aboriginal Cultural Heritage through the refurbishment of Penrith Stadium are included at **Appendix D**.

6.7 Tree Removal

An Arborist Report has been prepared by Tree IQ and is provided at **Appendix W**. The following sections detail tree removal and protection for the proposed works.

Tree removal

12 trees are proposed to be removed (including one dead tree) and 86 trees are to be retained as shown in **Figure 51**.

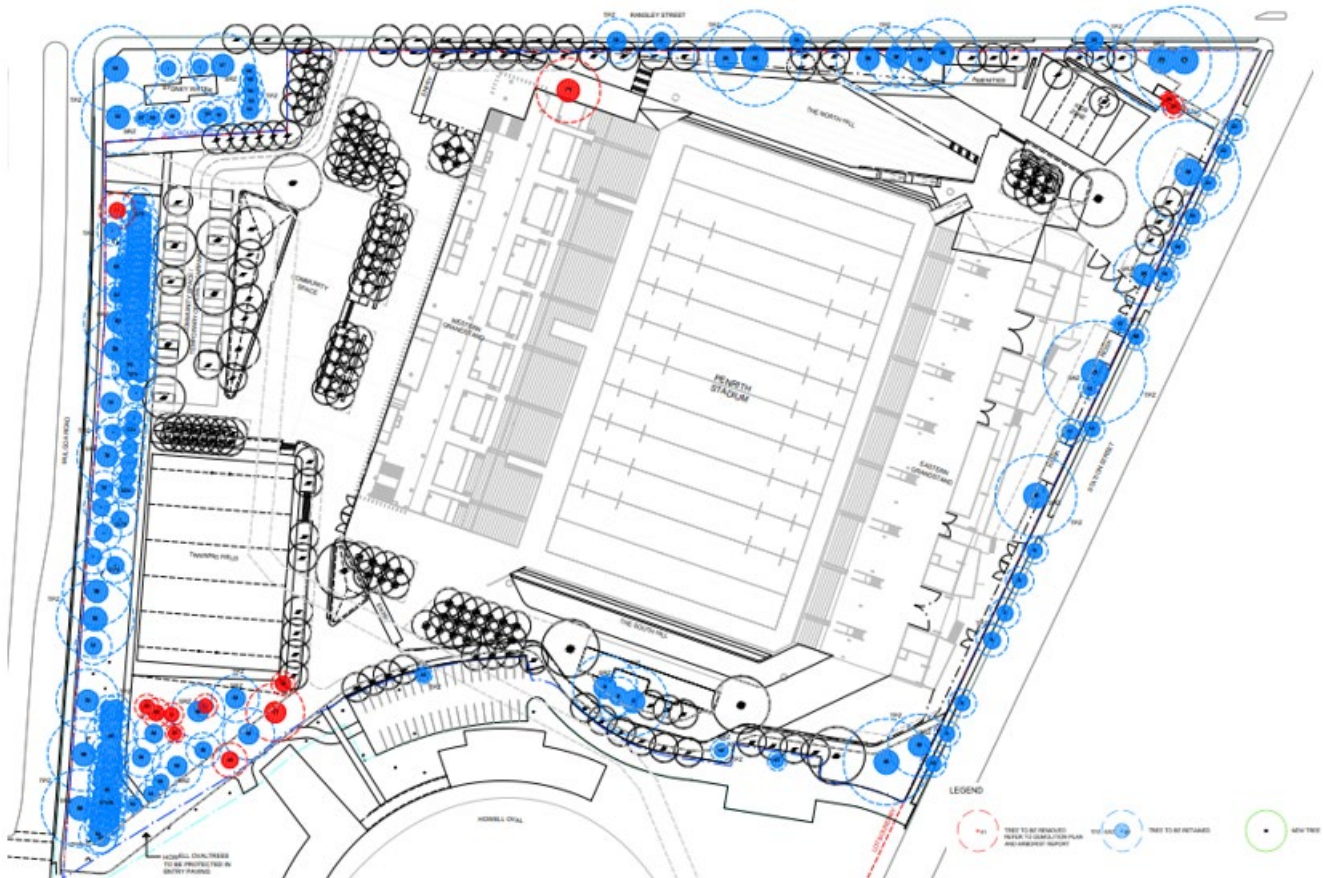


Figure 51 Tree Management Plan with trees to be removed, retained and new trees

Source: Tyrrell Studio

Trees in the south west corner of the site are proposed to be removed to improve site lines and pedestrian amenity along the access between Mulgoa Road and the south west stadium entrance. The trees proposed to be removed maintain a retention value of consider for removal and consist of the following species:

- 46- *Ulmus parvifolia* (Chinese Weeping Elm)
- 49- *Ulmus parvifolia* (Chinese Weeping Elm)
- 51- *Harpephyllum caffrum* (Kaffir Plum)
- 53- *Harpephyllum caffrum* (Kaffir Plum)
- 54- *Melia azedarach* (White Cedar)- group of 2 trees
- 55- *Harpephyllum caffrum* (Kaffir Plum)
- 57- *Quercus robur* (English Oak)

In addition to the above trees a further tree (47- *Eucalyptus punctata* (Grey Gum)) is proposed to be removed from this location. This tree has a retention value of consider for retention, however it is noted that the tree contains wounds and is in various stages of decay.

Tree 39, a *Schinus molle* var. *areira* (Peppercorn Tree) is proposed for removal as it located directly adjacent to the proposed western stand structure. The proposed stand encroaches on the structural root zone of the tree, meaning its retention is not possible.

Trees 27 and 28, both *Melaleuca bracteata* (Black Tea Tree) are proposed for removal to provide space for a new north-east entry point to the stadium grounds. This entry replaces the existing entry on Ransley Street and provides sufficient capacity for gathering and queuing prior to events. At present the existing entry does not provide any capacity for queuing within the site and relies on the public footpath, which has potential to create conflict between pedestrians and vehicles using Ransley Street.

The removal of these trees will be offset through the planting of approximately 180 new trees throughout the site, which will be endemic species more suited to the locality. A small number of deciduous trees are proposed at stadium entry points to ensure shade is provided in warmer months and greater access to sun during cooler months. The proposed deciduous plantings are characteristic of cultural plantings through Penrith and the lower Blue Mountains and responds to feedback regarding access to sunlight in cooler months from Penrith City Council. 10 trees are proposed along Ransley Street.

Tree protection

The Arborist Report identifies that the remaining 86 trees on the site will be retained. The proposed works fall largely within the existing building footprint.

Despite the minor encroachment on some tree protection zones, the Arborist Report concludes the proposed works should not adversely impact the health of the existing trees. Where encroachment within a TPZ occurs, these works are to be carried out in accordance with the recommendations identified by Tree IQ, including use of sensitive construction methodologies and supervision of works by an arborist where necessary.

Mitigation measures relating to the protection of trees are provided at **Appendix D**.

6.8 Sustainability

The refurbishment of Penrith Stadium represents an opportunity to enhance the sustainability of the operations of the stadium, through its built form and operations. The Environmentally Sustainable Development (ESD) Report prepared by Aurecon (**Appendix O**) details how the proposed refurbishment will enhance the overall sustainable design and operation of the stadium. The proposed works are targeted to achieve a 5 Stage Green Star rating through implementing a range of sustainability measures, as outlined in **Section 3.11** and at **Appendix D**.

In order to address the requirement to address the Sustainable Buildings SEPP, a NABERS Embodied Emissions Material Form and net zero statement has been provided at **Appendix O**.

6.9 Safety and Security

A Crime Prevention Through Environmental Design (CPTED) Report has been prepared by Ethos Urban at **Appendix X**, which details the project, policy and crime context for the project and makes recommendations about the necessary CPTED strategies to reduce opportunities for crime to occur.

This strategy includes a detailed assessment which includes:

- A review of Safety By Design Manual by the NSW Police Force.
- Collection and analysis of local and NSW State crime statistics from the Bureau of Crime Statistics and Research (BOSCAR).
- A crime risk assessment, in accordance with the current NSW policy and practice, of matters of surveillance, lighting and technical supervision, territorial reinforcement, environmental maintenance, activity and space management, access control, and design, definition and designation.

This assessment has found that the site is located within an area rated as having a 'high' crime risk. However, with the implementation of the recommendations outlined in the CPTED Report, the crime risk rating of the site would be 'moderate', due to the high-quality design of the refurbished stadium that is consistent with the principles of CPTED.

Mitigation measures relating to crime risk on the site are outlined at **Appendix D**.

6.10 Contamination and Remediation

The Detailed Site Investigation (DSI) has been prepared by JK Environmental and is provided at **Appendix L**. The DSI assesses the general conditions of the site, including any soil contamination and groundwater quality in accessible areas in order to assess site risks in relation to contamination and establish if remediation is required.

The DSI assessment has identified that the site does not require remediation based on the current dataset.

Figure 52 outlines the locations of testing and contamination discussed throughout this section and at the DSI provided at **Appendix L**.

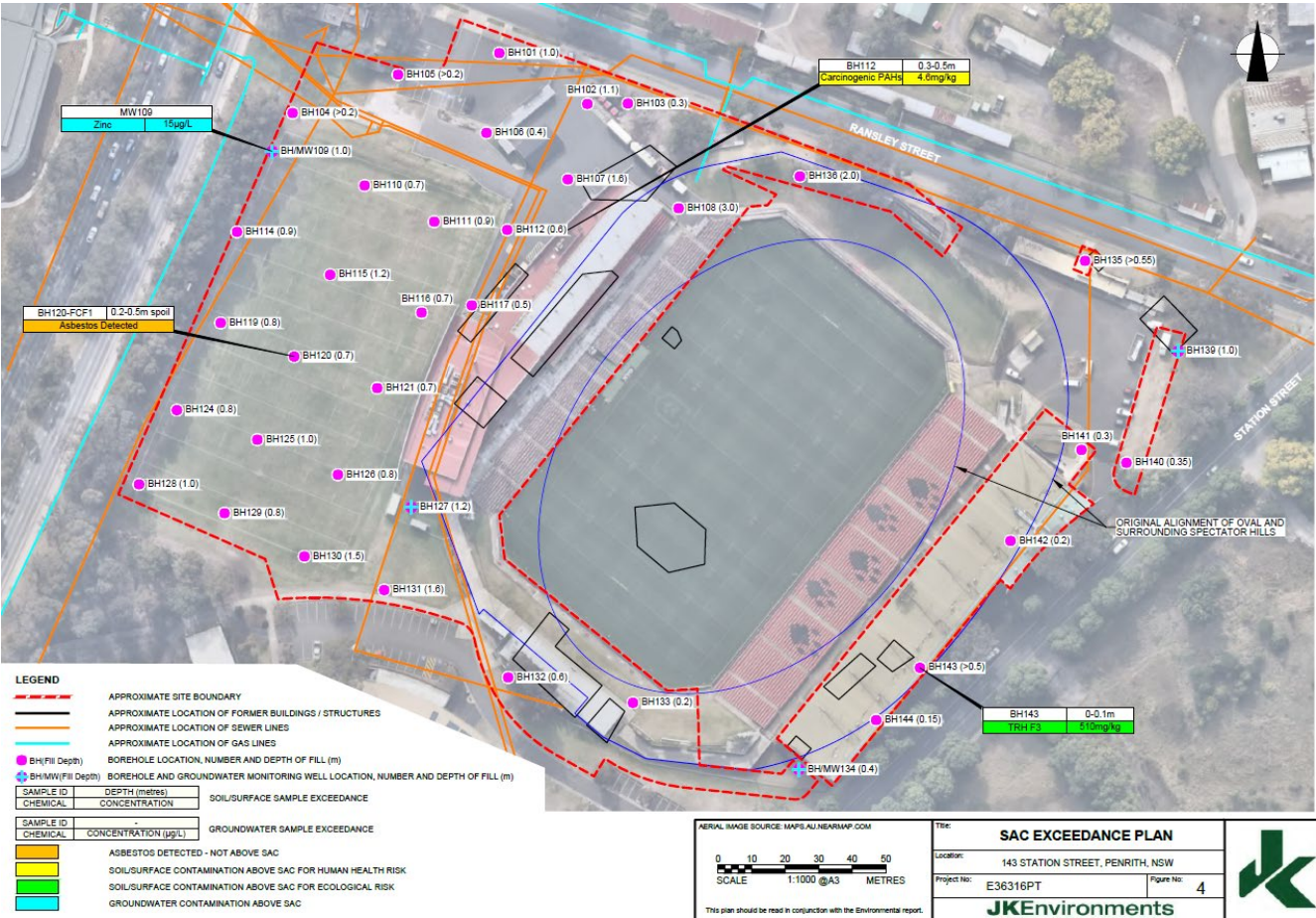


Figure 52 Site Assessment Criteria Exceedance Plan

Source: JK Environmental

6.10.1 Contamination

To determine soil contamination, soil sampling was taken from 39 boreholes, which provided samples from the site fill and from natural soils underlying the filling. Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs) were detected at a concentration that exceeds the health-based site assessment criteria (SAC) in fill/soils in one location to the west of the stadium. Additionally, asbestos was detected in the fill spoil in the western portion of the site in a bonded/non-friable form. Given that the asbestos was reported at very low concentrations that were below the SAC, the DSI determines that asbestos in fill soils poses a relatively low risk in the current site configuration and there is low potential for airborne asbestos fibres to be generated whilst the fill soils are not disturbed.

Remediation of the site is not considered to be required based on the current dataset. However, given the identification of asbestos in fill/soil at the site, the sampling limitations (i.e. sampling from boreholes instead of test pits), and the spatial data gaps (i.e. sampling not undertaken beneath the buildings and structures), a RAP is recommended. As outlined in **Section 3.4.2**, a RAP has been prepared and once undertaken, the site is capable of being considered appropriate for the ongoing use as a stadium.

6.10.2 Salinity

A Salinity Assessment has been prepared by JK Environmental and is provided at **Appendix Y**. Results of testing undertaken show slight to moderate saline conditions in some cases, indicating that saline conditions may increase with depth. Additionally, the soil pH results were classed as very strongly acidic to very strongly alkaline.

Despite the salinity assessment, it can be noted that no excavation will occur as part of the proposed development.

The proposed earthworks for structures close to or on existing grade concrete may result in exposure of soils generally classed as non-saline across the site. Mitigation measures are provided within the Salinity Assessment at **Appendix Y** and the Mitigation Measures at **Appendix D**.

6.10.3 Groundwater Contamination

The installation of four groundwater monitoring wells was undertaken with a concentration of zinc in the groundwater that is above the ecological SAC, however, the risks posed to off-site receptors are low considering the proximity of the nearest receiving water body. No further actions are required.

6.11 Geotechnical and Groundwater

6.11.1 Geotechnical Assessment

A Geotechnical Report has been prepared by JK Environmental (**Appendix AA**), which considers the existing ground condition, and the potential impact of the development on this land.

Investigations undertaken by JK Environmental identify the following conditions below ground:

- Fill, comprising predominantly sandy soils.
- Alluvial sands and clays.
- Alluvial gravel and cobbles.
- Bedrock
- Groundwater.

Based on this, JK Environmental anticipate that any piles required to support the new grandstands will likely be founded in the underlying siltstone bedrock, meaning continuous flight auger piles will be required. The existing geotechnical condition will otherwise be capable of supporting the proposed development. This is discussed further at **Appendix AA**.

6.11.2 Groundwater Assessment

An assessment of the groundwater conditions for the site and potential impacts of the proposed development on groundwater has been prepared in a Surface and Groundwater Impact Assessment prepared by JK Environments and provided at **Appendix Z**. There are no identified surface waterbodies at the site with a general maximum surface gradient of between approximately 1 ° and 3 °. It can be noted that as the site contains a large grassed sports field, there is the potential for surface water infiltration to occur at the site which may impact the groundwater levels, however, this is largely consistent within the existing site conditions.

Overall, the groundwater at the site is non-aggressive to mildly aggressive towards buried concrete and non-aggressive towards buried steel. However, minimal excavation is proposed at the site and therefore, service trench excavations are unlikely to intercept and impact groundwater. Piling for the new grandstand may intercept ground water and this is to be reviewed during detailed design stage of the project.

Mitigation measures to reduce any potential impact to groundwater are provided at **Appendix D**.

6.12 Biodiversity

A BDAR Waiver Request was prepared by WSP and has been submitted separately to DPHI and the Department of Environment and Heritage prior to the lodgement of this application. A waiver was granted prior to the exhibition of the application (see **Appendix BB**). The waiver request provided an assessment of the biodiversity significance and context of the site and determined that the proposed works did not warrant undertaking a further detailed assessment. It confirmed that:

- The development site is highly modified from its original state.
- The existing vegetation within the site and surrounding the stadium is not naturally occurring.
- There will be none, to little loss of vegetation composition, structure, or function because of the project, as such no offsets can be calculated or would be required.
- No threatened ecological communities are located in or adjacent to the development site, there are no identified breeding habitats in the development site and development is unlikely to have a detrimental impact on habitat connectivity.

Additionally, the proposed development and landscaping plans provide a substantial replacement of planting, including native trees, shrubs and grasses and groundcover and deciduous trees.

The BDAR Waiver thus determines that the proposed development is unlikely to have a significant impact on threatened species or their habitats, and as such no mitigation measures are identified as being necessary.

6.13 Flooding and Stormwater

Aurecon has prepared a Flood Study (**Appendix CC**) detailing the flood risk of the site and associated management strategies at the site.

6.13.1 Flooding

The site has been reviewed against available flood modelling for the area and it is identified that the site is not inundated with the 1% and 0.5% Annual Exceedance Probability (AEP) events, however, the site is partially inundated in the 0.2% AEP and completely in the probable maximum flood (PMF) event. Despite flooding anticipated within the 0.2% AEP and PMF, the site is considered to be flood fringe function, which is defined as an area not contained within a floodway or considered a flood storage area, but still are affected by some level of flooding.

In addition to the available flood modelling, a review of the Penrith Council's local overland flooding model has been undertaken, and the modelling results indicate that the proposed development is not at risk of local flooding in any flood events up to the 0.5% AEP event. The Council flood study indicates that the playing field is at risk of local flooding, however, this study does not consider the local field drainage that would drain the field and it is therefore unlikely that the playing field would be subject to flooding.

Notably, the site is positioned above the critical 1% AEP plus 0.5m freeboard level for regional flooding, maintaining flood immunity to the building. Further, the building modifications proposed to the extent of built form footprint and site levels are negligible, and therefore, flood risk remains minimal, with flooding only becoming potentially localised and minor in events at and beyond the 0.2% AEP.

As there is no change to the proposed use of the site and the proposed development is a refurbishment of the existing stadium, the current city-wide strategy Emergency Management Plan will remain in place. Evacuation in the case of flooding would be towards the east of the site along the connecting roads with the Great Western Highway or the Western Motorway being the closest designated evacuation routes. The primary feature of the EMP is the ability to cancel and re-schedule events to substantially reduce any risks to human life during a flood event. Major flooding events within the catchment are well-understood and have long notice periods which allows events to be cancelled in advance if there is a significant flood event expected.

As the work is outside of the regional and local 1% AEP flooding extent, no impact on surrounding properties is expected in these events.

Mitigation measures relating to flooding are provided at **Appendix D**.

6.13.2 Stormwater

An Integrated Water Cycle Management Report has been prepared by Aurecon (see **Appendix DD**).

Water Quantity

The design of the refurbishment includes consideration of the pervious and impervious area of the built form, and the resultant stormwater implications. The proposed stormwater catchment areas for the proposed development are shown at **Figure 53**. The catchment areas have increased as compared to the existing scheme as follows:

- Impervious or hardstand areas: 5,910m²
- Roof area: 4,638m²

As a result, the pervious areas have decreased by 10,548m².

As a result of the increase in catchment area, the proposed redevelopment requires the implementation of an on-site detention (OSD) storage tank of a volume of 710m³. The proposed hardstand and roof area are collected and drained into the combined OSD tank. It is concluded by Aurecon that this will be a sufficient response to mitigate any environmental impacts resulting from the change to pervious areas across the site and resultant stormwater impacts.

Mitigation measures are provided at **Appendix D** and discussed further in the IWCM Report at **Appendix DD**.



Figure 53 Existing Stormwater Plan

Source: Aurecon

Water Quality

Penrith City Council requires the development to meet pollutant reduction targets through measures integrated with the landscaping, irrigation, water use/reuses and reticulation. In order to address the pollutant targets, modelling has been undertaken that incorporates the following pollution reduction methods:

- Rainwater reuse tanks for stormwater harvesting of the proposed stadium roof.
- Gross pollutant traps.
- Filters.
- Litter baskets.

As demonstrated in the MUSIC modelling undertaken by Aurecon, a combination of these methods successfully addresses Council’s pollutant reduction targets, as shown in **Table 22**.

Appendix DD provides further detail in the IWCM and Mitigation Measures are provided at **Appendix D**.

Table 22 Water quality results following the implementation of reduction methods

Pollutants	% Reduction achieved	Council requirement	Compliance
Total Suspended Solids (TSS) (kg/yr)	89.7	85	✓
Total Phosphorus (TP) (kg/yr)	64.2	60	✓
Total Nitrogen (TN) (kg/yr)	47.3	45	✓
Gross Pollutants (GP) (kg/yr)	96.3	90	✓

Source: Aurecon

6.14 Waste Management

6.14.1 Construction Waste

A Construction & Demolition Waste Management Plan has been prepared by Foresight Environmental and is provided at **Appendix JJ**. This report details the expected waste to be generated as a result of demolition and construction.

A total of 17,471 tonnes of demolition waste is expected for the Eastern Stand and a total of 15,052 tonnes of demolition waste is expected for the Western Stand. A total of 7,453 tonnes of construction waste is expected for the Eastern Stand and a total of 17,700 tonnes of construction waste is expected for the Western Stand.

As detailed by Foresight Environmental (**Appendix JJ**), onsite and offsite systems are detailed. The onsite separation system is encouraged to lower recycling costs to avoid additional costs associated at recycling facilities. Onsite separation will include re-use of materials or recycling. Despite utilising onsite separation where possible, it is likely that majority of materials will be disposed together and collected for separating and processing at an offsite recycling facility. Offsite recycling will be undertaken by an offsite contractor.

6.14.2 Operational Waste

An Operational Waste Management Plan by Foresight Environmental and is provided at **Appendix EE**. The Plan details the waste management procedures during operation of the development. The plan also identifies the likely waste streams and quantities during the operation of the development which has been based on benchmark data. **Table 23** details the estimated waste generation during operation for all areas, however waste will also be generated also be generated less frequent streams inclusive of sanitary waste, hazardous waste and bulky waste.

Table 23 *Estimated Waste Generation during Operation for all Areas (total)*

Waste Stream	Litres Per Event Per Week	Litres Per Month
Paper	1,334	5,781
Cardboard	3,579	15,508
Organics	630	2,728
Comingled Recycling	6,309	27,338
Paper Handtowel	5,681	24,618
General Waste	9,353	40,528
TOTAL	26,885	116,501

Source: Foresight Environmental

The following waste management systems and facilities have been incorporated into the design of the development to promote reuses, recycling, and safe disposal of waste:

- The central waste storage area and recycling storage room is located on the ground level of the Western Stand. The main waste and recycling storage room will include the following bin storage:
 - General Waste: 9 x 1100L
 - Mixed Recycling: 6 x 1100L
 - Food Waste (organics): 8 x 120L
 - Bulky Waste Storage Area: 8m²
 - Paper and Cardboard: 5 x 1100L
 - Paper Handtowel: 3 x 1100L
 - Bin Wash Area: 3m²
- Bins will be collected once a week. This can be adjusted based on the capacity of recommended services depending on the size and waste generation of one event day. The bins will be collected weekly from the waste storage area located on ground floor of the Western Stand. The appointed waste contractor will access the site from Ransley Street and will park within the loading zone to collect waste.
- Public Bins:
 - Public bins will be located throughout public domains, Level 1 and Level 2.
 - Standard bin hub configuration will include 2 x 240L bins with covered bin enclosure.
 - All bins located in public areas will be brought to the central waste storage area by cleaning staff prior to collection.
- Kitchen and Retail:
 - Front of house for staff use will be within cabinetry for public use. Back of house kitchen bins are to be provided within the kitchen purely for kitchen staff use.
 - Kitchen and retail bins will be removed and transferred to the central waste storage area as required throughout the event/day.
- Function Rooms, Suites, Operations Rooms, Lounges:
 - Staff and patrons will be responsible for depositing their waste and recyclables. Cleaning staff will collect bin liners at the end of each day (or as required) and transfer rubbish to the central waste and storage area.

6.15 Construction Management Plan

EY has prepared a preliminary Construction Management Plan (CMP) provided at **Appendix FF**. This plan details the construction processes and procedures to be undertaken. The CMP considers the construction methodology, sequencing and logic for mitigating potential construction risks to the precinct and its stakeholders. The information included in the CMP will inform a further detailed Construction Environmental Management Plan (CEMP) and associated technical studies that will be completed in coordination with the appointed contractor prior to the commencement of works on the site.

This should be read in conjunction with the assessment on construction traffic, transport and access/egress discussed in **Section 6.4.1**, and the assessment of construction noise and vibration discussed in **Section 6.5.2**.

Events

All events occurring at Penrith Stadium will halt during the refurbishment of the precinct. Therefore, no consideration is required of the ongoing impact of construction on events occurring on the site.

Air Quality, Odour and Dust

A separate assessment has been prepared by SoundIN (**Appendix NN**) assessing the proposed likely construction activities on the site to determine potential air quality and dust impacts and identify mitigation and management strategies to minimise these impacts. SoundIN does not identify any odour sources associated with the construction of the development as requiring assessment or management.

A qualitative risk assessment of the proposed construction works and site conditions confirm that in the absence of mitigation measures, the works have, at worst, a medium risk of dust soiling impacts and a low risk of human health impacts.

A range of mitigation and management measures have been identified to minimise these impacts, which have been incorporated into the mitigation measures at **Appendix D**.

Sediment and Erosion Control

Erosion and sediment controls are to be provided during the construction phase in accordance with the best practice principles and site management techniques are described in Landcom's Managing Urban Stormwater series (commonly referred to as the Blue Book) and the preliminary CMP prepared by EY (**Appendix FF**).

Hazardous Materials

As outlined in **Section 3.4.1**, demolition of the two existing stands is proposed. As a result, a Hazardous Material Risk Assessment has been prepared by ContinUOne and is included as part of the CMP (**Appendix FF**).

Samples were taken from three locations within the Western Grand Stand in the fibre cement sheeting within the ground level canteen, ground level male toilets and the mezzanine level walkway areas. Of the three taken, the following hazardous materials were identified:

- Non friable asbestos, synthetic mineral fibres (SMF) and lead paint were identified in the existing Northern Toilet Block.
- SMF and polychlorinated biphenyls (PCBs) were identified in the existing Western Stand at ground level.
- SMFs were identified in the Western Stand at the mezzanine level.

The Hazardous Materials Assessment includes a range of recommendations that have been incorporated into the mitigation measures at **Appendix D**.

With the implementation of these relevant mitigation measures, it is considered that that the site and buildings can be safely demolished and removed appropriately, without having an impact on the suitability of the site for the ongoing use.

6.16 Accessibility

The Access Review Report prepared by Morris Goding Access Consultants is provided at **Appendix GG**. The Access Review Report indicates that accessibility requirements can be met for external site linkages, building access, common area access and sanitary facilities. As part of the mitigation measures, it is proposed that an access consultant continue to work with the project team to ensure that appropriate accessibility outcomes are achieved in the detailed building design and external domain design.

Mitigation measures are provided at **Appendix D** and discussed further in the Access Review Report at **Appendix GG**.

6.17 Building Code of Australia

Steve Watson & Partners have prepared a Building Code of Australia (BCA) Statement of Compliance which is provided at **Appendix HH**.

The BCA assessment states that the design is capable of complying with the relevant components of the BCA and achieved by satisfying the relevant provisions and subject to regulatory reviews as the design develops.

Mitigation measures are provided at **Appendix D** to ensure the proposal complies with the relevant standards and provisions.

6.18 Fire Engineering

A Fire Engineering review has been undertaken by Aurecon (**Appendix KK**). Aurecon has reviewed the design and confirmed that against the relevant performance requirements of the BCA, the fire safety design is compliant. A range of performance solutions and deemed to satisfy provisions will be incorporated, as per the BCA, to provide a satisfactory design. This is discussed further at **Appendix KK**.

6.19 Structural Assessment

Aurecon have undertaken the structural design of the development, coordinated with the architects (**Appendix LL**). Aurecon has confirmed that the structural design will achieve compliance with the relevant Australian Standards, BCA requirements and accepted engineering practices and principles.

6.20 Social Impacts

A detailed Social Impact Assessment (SIA) has been prepared by Aurecon and is provided at **Appendix HH**. This report considers and identifies the key potential impacts and social benefits of the proposed development.

The key potential impacts associated with the project have been identified as the following:

- Inconvenience and disruption associated with the temporary closure of Penrith Stadium resulting in relocation of events and restricted access to the site and car park during construction. The disruption of construction could cause short-term changes to the local area and impact on the sense of place, resulting in changes to the local amenity and accessibility to the site.
- Closure of the venue to undertake construction activities may temporarily impact local business due to the reduced patronage, passing trade and the limited parking available.
- There may be impacts on the sensitive non-residential receivers within the immediate locality including businesses as a result of increase noise during construction. The duration of noise and vibration impacts are anticipated to last 18 months which will negatively impact the surrounding sites.

However, the potential impacts are largely temporary or can be appropriately mitigated through the various environmental mitigation measures proposed throughout this EIS. Further, the most significant social benefits of the proposal are as follows:

- Improve existing facilities within the stadium to enhance the visitor experience, customer satisfaction, community well-being and participation in sporting and cultural events and improved recreational opportunity for Penrith to provide social and economic benefits to the local, Greater Western Sydney and NSW communities.
- Improved visual amenity of the Penrith Stadium and patron experience through upgraded technology, lighting and seating, food and beverage offerings, and improved accessibility of the surrounding area.

- Boost the visitor economy infrastructure within the local and regional area and positively influence the visibility of local businesses through improved amenities and facilities and increased accessibility, functionality and visitation to the area.
- Increased access to employment opportunities during construction to provide employment to up to 300 people.

Overall, the SIA finds that the development has a medium impact (both positive and negative) during the construction phase, which will be temporary and short term and able to be mitigated through appropriate mitigation measures (**Appendix D**). During the operation phase, Aurecon considers the impacts to be low in scale and largely positive.

6.21 Contributions

On behalf of Infrastructure NSW as an applicant for SSD-64967209, an exemption is requested for the payment of development contributions for the project of Penrith Stadium Refurbishment.

The Penrith Stadium site is subject to the Penrith Council's s7.12 Contributions Plan, as it is a non-residential development with a development value of at least \$100,000. The purpose of the Contributions Plan is to raise funds from private, commercially driven non-residential developments to be put towards the cost of public facilities and infrastructure that are needed to meet the needs arising from the occupants of those developments. Imposing a levy on the Penrith Stadium project, which is public infrastructure, would conflict with the public policy of the plan, particularly as the proposed development will provide upgraded public infrastructure that will deliver a significant public benefit to the residents within and around Penrith. The provision of renewed public infrastructure, with only a small (10%) increase in capacity, will not generate demand for the other types of local infrastructure funded by the s7.12 Contributions Plan such as road upgrades, stormwater infrastructure, community facilities or local recreational facilities, and the enhanced public domain within the stadium exterior will improve local access to recreational facilities.

While Council's Plan does not explicitly exclude Crown Developments or public infrastructure projects from the payment of s7.12 contributions, it is appropriate for no levy to be required in this instance. The Applicant and future operator (Venues NSW) are government agencies utilising government funding to provide and operate a recreational facility (major) for the community. The levying of a development contribution would divert a portion of these public funds, which have specifically been provided to fund the refurbishment of the stadium as a major recreational facility, to local services without any direct link to the impact on those services. The nature of the proposed development is to support the delivery of refurbished existing infrastructure and public domain within the Penrith LGA and therefore the development does not generate significant demand for new infrastructure as the stadium is existing.

This position is supported by Planning Systems Circular D6 which states that *'Crown activities providing a public service or facility lead to significant benefits for the public in terms of essential community services and employment opportunities. Therefore, it is important that these essential community services are not delayed by unnecessary disputes over conditions of consent. These activities are not likely to require the provision of public services and amenities in the same way as developments undertaken with a commercial objective.'* It is noted that the Penrith Council does not automatically grant exemptions to Crown Developments, however, the Planning Circular D6 sets out the reasons why Crown developers can seek exemptions from development contributions.

The project will deliver significant improvements to public infrastructure through delivery of both the refurbished major recreational facility as a stadium and the associated public domain for use by the community. Accordingly, it would not be appropriate for the consent authority to impose a condition requiring the payment of a s7.12 Contribution.

7.0 Project Justification

In general, investment in major projects can only be justified if the benefits of doing so exceed the costs. Such an assessment must consider all costs and benefits, and not simply those that can be easily quantified. This means that the decision on whether a project can proceed or not needs to be made in the full knowledge of its effects, both positive and negative, whether those impacts can be quantified or not.

The proposed development involves the refurbishment of the existing Penrith Stadium precinct, as outlined in **Section 3.0**. The assessment must, therefore, focus on the identification and appraisal of the effects of the proposed change over the site's existing condition.

In considering the justification of the proposed development and in reference to Section 4.15 of the EP&A Act which specifies matters for consideration a consent authority must consider in determining a development application, the following matters have considered:

- Design of the proposed development, including actions taken to avoid or minimise the impact of the proposed development while still achieving the objectives of the project;
- Consistency with the strategic context;
- Consistency with the statutory requirements;
- The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality;
- The suitability of the site for the development; and
- The public interest.

7.1 Design of the Proposed Development

The alternatives considered and actions taken to avoid or minimise the impacts of the project have been set out in the preceding sections of this EIS. The proposed mitigation measures are set out in **Appendix D** of this EIS. Subject to the implementation of these mitigation measures, in addition to the considered and thoughtful design response, it is considered that any potential impacts of the proposal will be minimal and acceptable.

7.2 Consistency with the Strategic Context

The strategic context for the proposal has been discussed at **Section 2.0** of this EIS, and the proposal is considered to be consistent with the relevant strategic context.

7.3 Consistency with the Statutory Requirements

The relevant statutory requirements have been discussed in **Section 4.0** and assessed in **Appendix C**

Specifically, this EIS has addressed all of the matters specified in the issued SEARs dated 5 April 2024 (refer to **Appendix A**) and Section 190 and 192 of the EP&A Regulation (refer to **Appendix C**).

7.3.1 Consistency with the Objects of the Act

The Proposal is consistent with the relevant Objects of the Act as listed under Section 1.3 of the EP&A Act and will not result in any unjust or significant environmental impact. Specifically, the Proposal is consistent with the Objects of the Act as it will:

- Facilitate ecologically sustainable development through the provision of a considered response to sustainability and ESD (refer to **Section 6.8**).
- Promote the orderly and economic use and development of land by ensuring the ongoing use of the site for public purposes.
- Promote good design and amenity of the built environment by delivering a well-designed and contextual stadium that considers the surrounding context of the site, as well as the functional needs of the stadium.
- Promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants.

7.3.2 Principles of Ecologically Sustainable Development

Section 193 of the EP&A Regulation outlines four (4) principles of ecologically sustainable development to be considered in assessing a project. They are:

- The precautionary principle;
- Intergenerational equity;
- Conservation of biological diversity and ecological integrity; and
- Improved valuation, pricing and incentive mechanisms.

An analysis of these principles is provided in the following sections.

Precautionary Principle

The precautionary principle is utilised when uncertainty exists about potential environmental impacts. It provides that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. The precautionary principle requires careful evaluation of potential impacts in order to avoid, wherever practicable, serious or irreversible damage to the environment.

This EIS and its supporting reports and studies has not identified any serious threat of irreversible damage to the environment and therefore, the precautionary principle is not relevant to the proposal. The proposed technical studies accompanying this EIS appropriately establish strategies and a framework for the future detailed design and delivery of the Penrith Stadium Refurbishment project, emphasising that there is no potential threat of serious or irreversible damage at this stage.

Proactive measures to prevent environmental degradation have been included within the design, construction, and operational phases of the refurbished stadium. The contractor will implement environmental management plans during the construction phase and operational procedures of the stadium will actively pursue relevant targets to meet the relevant mitigation measures and mitigate or minimise potential environmental risks.

Intergenerational Equity

Intergenerational equity is concerned with ensuring that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations. The proposal has been designed to benefit both the existing and future generations by:

- Implementing safeguards and management measures to protect environmental values.
- Providing a high level of sustainability and demonstrates responsibility in the consumption of resources, ensuring the efficiency of operations into the future.
- Providing an important social, cultural and sporting facility that is capable of hosting sporting and other events into the future.
- Facilitating job creation and more widely supports local hospitality, accommodation and entertainment industries, contributing to the long-term health of the visitor economy in Penrith and Western Sydney.

The proposal has integrated short and long-term social, financial and environmental considerations so that any foreseeable impacts are not left to be addressed by future generations. Issues with potential long-term implications such as waste disposal would be avoided and/or minimised through construction planning and the application of safeguards and management measures described in this EIS and the appended technical reports.

Conservation of biological diversity and ecological integrity

The principle of biological diversity upholds that the conservation of biological diversity and ecological integrity should be a fundamental consideration. The proposal would not have any significant effect on the biological diversity and ecological integrity of the study area. As it has been demonstrated in **Section 6.0** and throughout this EIS, the proposed refurbishment of the stadium will not result in any significant effect on the biological and ecological integrity of the study area, subject to the implementation of the mitigation measures set out in **Appendix D**.

Improved valuation, pricing and incentive mechanisms

The principles of improved valuation and pricing of environmental resources requires consideration of all environmental resources which may be affected by a proposal, including air, water, land and living things. The cost of infrastructure, design measures, and other sustainability initiatives associated with the refurbishment of

the stadium have been incorporated into the cost of development and will be delivered in the most cost-effective way via a life cycle cost approach that provides best return on investment.

Mitigation measures for avoiding, reusing, recycling and managing waste during construction and operation would be implemented to ensure resources are used responsibly in the first instance. Additional measures will be implemented to ensure no environmental resources in the locality are adversely impacted during the construction or operational phases. Refer to the mitigation measures at **Appendix D**.

7.4 Likely Impacts of Development

Having regard to the natural environment, built environment and economic and social impacts of the proposed development, the likely impacts of development are considered acceptable as outlined in the following sections.

Additionally, the proposed mitigation measures detailed within **Section 6.0** and **Appendix E** outlined mitigation and management measures that will minimise the impact of the proposed development.

Natural and Built Environment

The EIS for the proposed development has demonstrated that the proposal adopts appropriate management strategies and will generate limited environmental impacts, due to the proposed mitigation measures and the design of the development.

All relevant potential environmental impacts are thoroughly addressed in **Section 6.0**.

Social and Economic

An assessment of the likely social impacts of the project has been undertaken in the Social Impact Assessment at **Appendix II** of the EIS, prepared in accordance with DPHI's *Social Impact Assessment Guideline 2021*. The assessment confirms that the proposal has the potential to result in both positive and negative impacts. The identified negative impacts are primarily short-term related to completing construction activities on the site and have informed mitigation measures at **Appendix D**. The identified positive impacts range from short-term to long-term and will impact both the local area and the wider functionality, usability and the improved sporting facility within Penrith and broader Western Sydney.

In addition, the ongoing phase of the project will support approximately 460-500 construction jobs and approximately 600-650 full time jobs on game days.

Overall the refurbishment of Penrith Stadium will ensure positive social outcomes for the broader community subject to the implementation of the identified mitigation measures at **Appendix D**. Investment in the sporting facility will provide widespread, significant and long term benefits. A detailed assessment of the social impacts was assessed in this EIS at **Section 6.18**.

7.5 Suitability of the Site

Having regard to the characteristics of the site and its immediate surrounding context, the proposed development is suitable for the site for the following reasons:

- The site is currently utilised as Penrith Stadium and no change of use is proposed.
- The site is zoned as RE1 Public Recreation under the Penrith LEP with 'recreational facilities (major)' permitted as an additional use on the site and the proposed development is therefore permitted with consent.
- The proposal will refurbish the existing stadium to ensure the stadium retains its status as a Tier 2 venue in NSW.
- The proposal facilitates to an activated precinct that not only operates on event days, but throughout the week for use by communities within and surrounding Penrith.
- The development has been designed to be undertaken in a manner that minimises impacts on its surrounds, and has been designed to respect the natural, historical, and environmental qualities of the site.
- The proposal will result in only minor environmental impacts that can be appropriately managed and mitigated to an acceptable level.
- The site is located within close proximity to the Panthers Leagues Club which is the primary national level team utilising Penrith Stadium.

7.6 Public Interest

Having regard to the public interest, the proposed development is in the public interest for the following reasons:

- Delivers significant social, cultural and economic benefits to the local, Sydney and NSW community by providing a stadium that will provide a high-quality venue for viewing sport, with the functionality and amenity required to attract national events, resulting in direct and indirect benefits in terms of employment and expenditure within the economy of NSW.
- Provides for increased efficiency in stadium operations by providing an upgraded facility that is fit for modern requirements with improved player facilities and patron experience.
- Achieves a high level of environmental performance by targeting a 5 Star Green Star Rating in accordance with the ESD Strategy, implementing measures that promote and support the uptake of sustainable transport options, and designing the stadium with consideration of environmental risks and climate change.
- Facilitates increased visitation by non-car travel modes including public transport, cycling and walking, through increased provision of bicycle parking, improved coordination with new and existing infrastructure outside of the stadium and the implementation of a Green Travel Plan as part of the future operation of the stadium.
- Provides a more family friendly experience for those attending concerts and sporting events at the stadium, with increased cover and weather protection during events to allow a greater number of people, of different ages and characteristics, to attend events.
- Provides a better spectator experience for events taking place in the stadium, leading to an enhanced sense of wellbeing and customer satisfaction, improved attendances, and increase opportunity for community interactions and social cohesion.
- The development will not result in any significant environmental impacts that cannot be managed through adherence to the mitigation measures at **Appendix D** and any further mitigation measures and conditions identified during assessment.

8.0 Conclusion

This EIS has been prepared to consider the natural environment, built environment and social and economic impacts of the proposed Penrith Stadium refurbishment. The EIS has addressed the issues outlined in the SEARs (**Appendix A**) and accords with section 190 and 192 of the EP&A Regulation with regard to consideration of the relevant environmental planning instruments, built form and social and environmental impacts resulting from the proposed development. Appropriate mitigation measures have been identified to manage the impacts of the development through the construction and operational phases of the development.

This SSDA seeks consent for the detailed design, construction and operation of the refurbished Penrith Stadium. The project is consistent with the objectives of the relevant strategic planning documents applying to the land, including the Western City District Plan.

Having regard to environmental and economic and social considerations, including the principles of ecologically sustainable development, the carrying out of the project is justified for the following reasons:

- The refurbished stadium will facilitate a number of significant social, cultural and economic benefits that might otherwise be lost or remain unrealised, and ensure the continued operation of a regionally significant stadium for greater western Sydney.
- The proposal will facilitate the refurbishment of Penrith Stadium, delivering a multi-use contemporary rectangular venue that meets the needs of patrons, hirers and other users for rugby, football, concerts and other new forms of entertainment.
- The proposal will significantly improve the spectator experience with new seating and improved sightlines to the field of play, as well as new and refurbished corporate areas, members areas and general admission areas.
- The development will promote universal accessibility, safety and security such that the stadium is welcoming, inclusive and safe for all stadium users, including persons requiring universal access.
- The proposal will contribute to activating the precinct, not only on event days but throughout the week.
- The proposal allows for the significant improvement of the public domain on and around the site, allowing for improved connections to all three street frontages. The proposal improves the public domain experience, addressing heat load and solar access throughout the year so that visitors can utilise the public domain on both event and non-event days.
- The proposal will support an estimated 460-500 FTE jobs during construction, with up to 600-650 FTE operational jobs during game days.
- The design of the stadium has been developed with consideration of the architectural merit of the existing stadium and surrounds to deliver the much-needed function improvements and bring new life to the stadium whilst still respecting the integrity and history of the existing Penrith Stadium.
- The site is well served by existing and future public infrastructure, particularly public transport infrastructure and parking, cycling, road and pedestrian connections, which are readily available given the stadium operates with a similar capacity currently on the site, and services can be augmented to meet the future needs of the refurbished stadium.
- The project has been informed by pre-lodgement consultation, and measures are recommended for ongoing consultation and engagement.
- The proposed development is permissible with consent and meets the relevant statutory requirements of the relevant environmental planning instruments, including the Penrith LEP.
- The proposed development will not result in adverse environmental impacts, with appropriate mitigation measures that will minimise any potential impact.
- The proposed development is suitable for the site and in the public interest.

Given the merits described above, and the significant benefits associated with the proposed development, it is requested that the application be approved.