URBIS

Environmental Impact Statement

Queenwood Sporting Facilities

January 2026
Prepared for: Queenwood School for Girls

Urbis staff responsible for this report were:

Director	Sarah Horsfield
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Project Code	P0054351
Report Number	Final

Acknowledgment of Country

Urbis acknowledges the Traditional Custodians of the lands we operate on.
We recognise that First Nations sovereignty was never ceded and respect First Nations peoples continuing connection to these lands, waterways and ecosystems for over 60,000 years.
We pay our respects to First Nations Elders, past and present.

Urbis is committed to incorporating our respect for First Nations cultures, peoples and storytelling in our work across the Country. We are proud to have partnered with Darug Nation artist, **Hayley Pigram**, and to profile her artwork - **Sacred River Dreaming**.

The river is the symbol of the Dreaming and the journey of life. The circles and lines represent people meeting and connections across time and space. When we are working in different places, we can still be connected and work towards the same goal.

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EIS Declaration

Project Details		
Project name	Queenwood Sporting Facilities	
Application number	SSD-73688210	
Address	1100 Oxford Falls Road, Oxford Falls	
Applicant details		
Applicant name	Queenwood School for Girls	
Applicant address	49 Mandolong Road Mosman NSW 2088 Australia	
Environment Impact Statement (EIS) prepared by		
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Declaration		
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Registration number	REAP no. 50177	

The undersigned declares that this EIS:

- has been prepared in accordance with Part 8 Division 5 of 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 mis-leading;
- 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	15 January 2025

Glossary and Abbreviations

Reference	Description
ACHAR	Aboriginal Cultural Heritage Assessment Report
ACM	Asbestos Containing Material
AEP	Annual Exceedance Probability
AHD	Australia Height Datum
AHIMS	Aboriginal Heritage Information Management System
AIA	Arboricultural Impact Assessment
ASS	Acid Sulphate Soils
BAM	Biodiversity Assessment Method
BC Act	*Biodiversity Conservation Act 2016*
BC Reg	*Biodiversity Conservation Regulation 2017*
BCA	Building Code of Australia
BDAR	Biodiversity Development Assessment Report
CMP	Construction Management Plan
CTMP	Construction Traffic Management Plan
CWC	Connecting with Country
DCP	Development Control Plan
DP	Deposited Plan
DPHI	New South Wales Department of Planning, Housing and Infrastructure
DSI	Detailed Site Investigation
EDC	Estimated Development Cost
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPA Regulation	*Environmental Planning and Assessment Regulation 2021*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EIS	Environmental Impact Statement
EPA	New South Wales Environment Protection Authority
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
GANSW	Government Architect New South Wales
GFA	Gross Floor Area

Reference	Description
GTP	Green Travel Plan
LAeq	A frequency-weighted Equivalent Continuous Sound Level
LEP	Local Environmental Plan
LGA	Local Government Area
LSPS	Local Strategic Planning Statement
MUSIC	Model for Urban Stormwater Improvement Conceptualisation
NML	Noise Management Level
NRAR	Natural Resource Access Regulator
NSW	New South Wales
NVIA	Noise and Vibration Impact Assessment
OEMP	Operational Environmental Management Plan
R&H SEPP	*State Environmental Planning Policy (Resilience and Hazards) 2021*
PAD	Potential Archaeological Deposit
PBP	Planning for Bushfire Protection
PCT	Plant Community Type
PMF	Probable Maximum Flood
POM	Plan of Management
PSI	Preliminary Site Investigation
Planning Systems SEPP	*State Environmental Planning Policy (Planning Systems) 2021*
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SIA	Social Impact Assessment
SIDRA	Signalised & Unsignalised Intersection Design and Research Aid
Site	Lot 1100 DP814628
SSD	State Significant Development
SSDA	State Significant Development Application
T&I SEPP	State Environmental Planning Policy (Transport and Infrastructure) 2021
TfNSW	Transport for New South Wales
TIA	Traffic Impact Assessment
VIA	Visual Impact Assessment
WMP	Waste Management Plan
WSUD	Water Sensitive Urban Design

Summary

Overview

This Environmental Impact Statement (**EIS**) has been prepared by Urbis Ltd (**Urbis**) on behalf of Queenwood School for Girls (**the applicant**). The EIS is submitted to the NSW Department of Planning, Housing and Infrastructure (**DPHI**) in support of a State Significant Development Application (**SSDA**) for the site at 1100 Oxford Falls Road, Oxford Falls (**the site**).

The site is located on the land of the Garigal or Caregal people of the Eora nation, and we pay our respects to their elders past and present and their deep and continuing connection to their land. In preparing this EIS we acknowledge the importance of a Country-centred approach to the design, guided by Aboriginal people, who know that if we care for Country, Country will care for us.

The SSDA seeks to deliver new school sport and recreation facilities directly associated with an existing educational establishment being Queenwood School for Girls, to enhance opportunities for students from the existing school campuses to learn, train and compete in sport, as Queenwood currently does not own these types of school sporting facilities.

An aerial photograph of the site detailing the development footprints is provided at **Figure 1**Figure 1.

Figure 1 Aerial Photograph

Source: Urbis, 2025

The Project Story

Project Vision and Need

Queenwood School for Girls is a multicampus independent non-denominational Christian primary and secondary school for girls located in Mosman on the Lower North Shore of Sydney. The school was established in 1925 and currently caters for approximately 900 students from Kindergarten to Year 12.

Queenwood currently do not have their own outdoor sports fields or indoor sports halls on their senior campus and are required to lease facilities from external providers so that their students can train and compete in various sports. This arrangement reduces flexibility, limits the availability of these facilities year-round and represents a significant ongoing cost for the school.

Opportunities to develop large scale school sporting facilities in proximity to the school's existing campuses in Mosman are extremely limited and not practical or feasible. The school previously leased tennis facilities at the nearby Oxford Falls Raquet Club and are very familiar with this locality. Queenwood also share these sporting facilities with the community.

Sport is an important part of a Queenwood education. Physical Education lessons are timetabled from Kindergarten to Year 10, and the majority of girls choose to participate in extra-curricular sport. With over 15 sports offered, Queenwood students have a wide opportunity to learn new skills, develop friendships, improve fitness and well-being, and participate in sport at representative level.

The proposed school sporting facilities will meet Queenwood's sporting and recreational needs as well as accommodate secondary school functions such as exams, professional learning, PDHPE classes including dance and fitness and other learning activities. The focus for the development is to provide multi-functional school sporting facilities that can be accommodated on the site which are appropriate to school level and local community sport.

The proposed educational establishment has an estimated development cost (**EDC**) over $20 million and involves the erection of a building for an existing school on land that, immediately before the commencement of the development, was not used for the purposes of a school. The project is therefore classified as a State Significant Development (**SSD**) under Schedule 1, Section 15 of the *State Environmental Planning Policy (Planning Systems) 2021* (**Planning Systems SEPP**).

Project Objectives

Critical to achieving the Project Aims is the requirement to:

- Provide state of the art facilities to meet Queenwood's educational, sporting and recreational needs. Sporting needs include sports training, games and school-level competitions, including inter-school IGSA competition on weekends.
- Meet contemporary learning and competition standards for the various sports courts and facilities.
- Enable high-quality sporting and teaching facilities beyond what the school can currently provide on its existing campuses.
- Rehabilitate the existing riparian corridor and the remnant native forest on the site.
- Provide social and economic benefits to the local community through sharing of the sporting facilities at certain times and job creation during the construction phases of development.

Feasible Alternatives

Section 192 of the *Environmental Planning and Assessment Regulation 2021* (**EP&A Regulation**) requires an analysis of any feasible alternatives to the proposed development, including the consequences of not carrying out the development.

Several alternatives which were considered in relation to this project. The key options are listed and discussed in the following table.

Table 1 Analysis of Feasible Alternatives

Option	Comments
Option 1 – Do Nothing	Queenwood School for Girls is a leading educational establishment that seeks to provide its students with the highest standards of learning opportunities including in sport. For the school to maintain this standard, Queenwood requires additional sporting facilities to meet the growing demand for sports facilities that can be used for training and competitions. A "do nothing" approach would diminish the quality of sporting and educational learning provided to its current and future school students.
Option 2 – Alternative Building and Courts Siting	Several options were explored before the final layout of the site was determined. Given the constraints on the site, there was limited opportunities to develop alternative design options for the indoor sports hall on the eastern portion of the site. Four options were developed in order to determine the optimum design solution for the site. All of the options were required to maintain a 10m wide Vegetated Riparian Zone (**VRZ**). ▪ Option 1 orientated the 2 indoor sports courts to be side-by-side. ▪ Option 2 orientated the 2 indoor sports courts to be end-to-end, which created a larger street frontage to Oxford Falls Road and a reduction in the quantum of native remnant forest trees retained. ▪ Option 3 rotated the 2 indoor sport courts to be 90 degrees to each other, which did had operational and functionality issues, and reduced surveillance to occupants on the courts. ▪ Option 4 located the 2 indoor sports courts on top of each other in a two-storey layout which created a smaller footprint but unacceptable height and visual impacts. Option 1 was considered to be the optimal design solution as it maintains the 10m VRZ, maximised the remnant native forest trees retention and has the smallest street frontage to Oxford Falls Road. It also provides the most compact and functional layout. The proposed orientation of the sports courts also provides the most functional and flexible layout and maximises surveillance and supervision of occupants on the courts.

Project Overview

The project seeks to deliver new sport and recreation facilities directly associated with an existing school being Queenwood School for Girls, to enhance opportunities for students from the existing school campuses to train and compete in sport. Queenwood currently does not own these types of school sporting facilities. Specifically, the proposal will seek consent for:

- Demolition of existing structures on the site, along with tree removal.
- A change of use from a residential dwelling to educational establishment to permit an educational establishment and school sporting facilities on the site.
- Use of the site by the community.
- Excavation to accommodate a single basement level cut and fill to accommodate the development.
- Construction of a two-court indoor multipurpose hall that can accommodate basketball and netball on top of the underground parking area. The building also includes associated amenities such as change rooms, and general learning areas.

- Construction of an elevated ramp connecting the indoor sports hall to the outdoor multipurpose pitch.
- Construction of an outdoor multipurpose pitch which can accommodate hockey, soccer and 12 tennis courts. The pitch will include a synthetic turf surface and flood lights to enable all season use.
- Vehicular access, car and bus parking and drop off areas, both internal and external to the site within the road reserve.
- Fencing, associated amenities, storage and ancillary services, including a septic tank.
- Associated amenities and ancillary services.
- The project is not intended to be staged.
- Landscaping and riparian improvement works, including a pedestrian bridge across the tributary of Middle Creek and a detailed tree replacement planting strategy across the site.

Based on current understanding of likely use by Queenwood and the wider community, (noting the community use will be subject to future arrangements with community sporting groups) the indicative hours of operation are:

- Monday to Friday: 7:00am – 9:30pm
- Saturday: 7:00am – 9:00pm
- Sunday: 8:00am – 8:00pm

Use of the site by Queenwood is expected to occur during normal teaching hours, with before and after school training sessions on weekdays and school sport/competition on Saturdays. These hours have informed the relevant technical studies for the proposal and are generally consistent with the operating hours of the Oxford Falls Racquet Club.

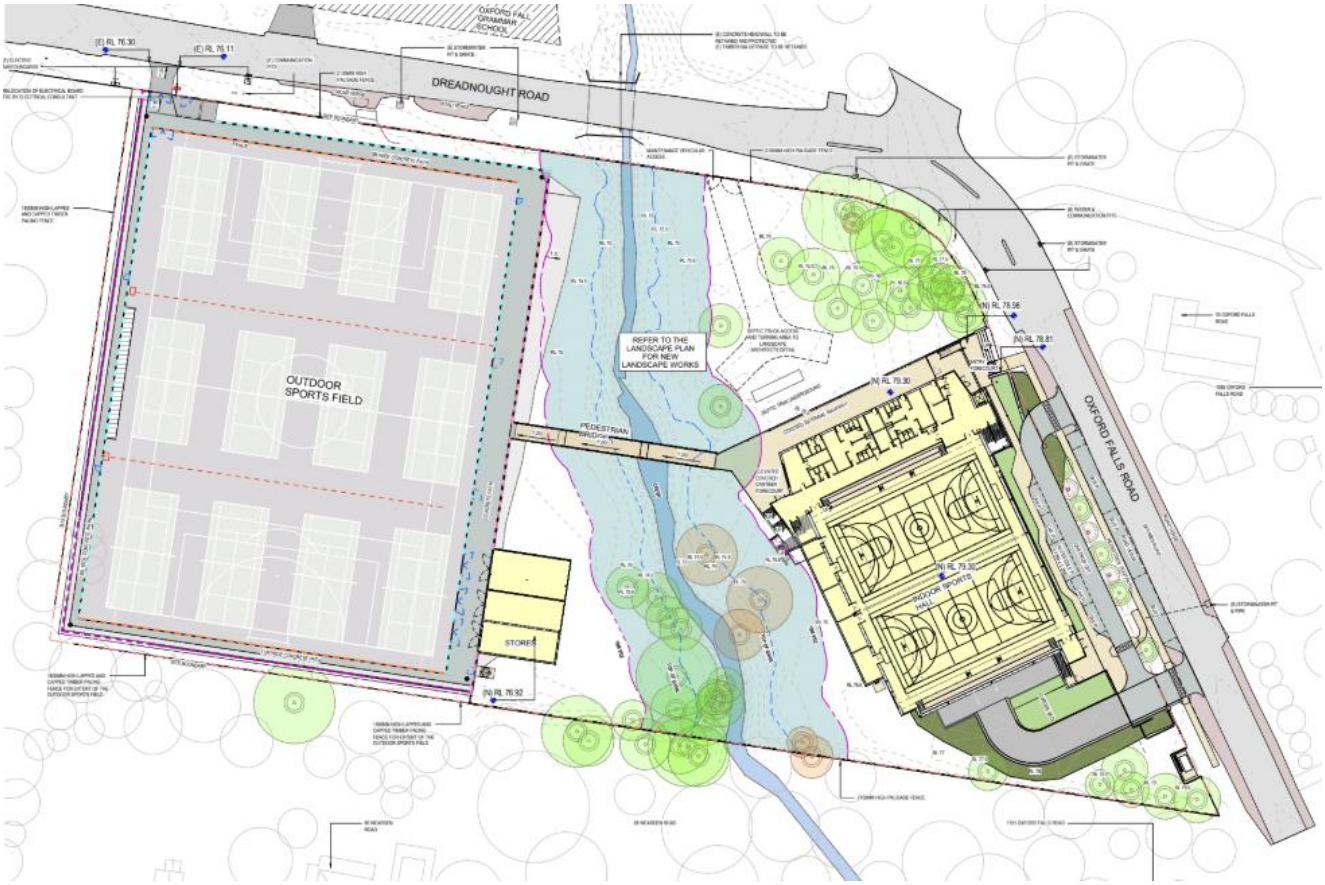
Discussions with Council and local community sporting groups will continue to explore opportunities for community use when not required by the school. Final operational arrangements will be confirmed post-approval in consultation with the appointed community use operator.

The proposed site plan and photomontage is provided at **Figure 2**Figure 2 and **Figure 3**Figure 3**.**

Figure 2 Photomontage

Source: TKD and Inspired Exteriors,, 2025

Figure 3 Proposed Site Plan



Source: TKD, 2025

Community and Stakeholder Engagement

Community and stakeholder engagement has been undertaken by Urbis and the Project Team in the preparation of the SSDA. This includes direct engagement and consultation with:

- Traditional custodians;
- The community;
- Government, agency and utility stakeholders

The outcomes of the community and stakeholder engagement have been incorporated into the proposed development and are discussed in detail at **Section 5** and **Appendix D** of this EIS.

Strategic Justification

The EIS has assessed the project against the requirements of the Secretary's Environmental Assessment Requirements (**SEARs**) (**Appendix A**), and the relevant planning instruments and policies (**Section 4 and Appendix B**).

The key issues identified within the SEARs have been assessed in **Section 6** of the EIS. This assessment has been informed by specialist reports which include recommendations and mitigation measures. The assessment of key issues includes the mitigation measures which can be adopted to ensure the project does not result in any significant adverse impacts. These mitigation measures are included at **Appendix C.**

Overall, the project provides a positive development outcome for the site and surrounding area for the reasons outlined in Table 2.

Table 2 Summary of Development Outcomes

Matter	Response
Connecting with Country	Following the purchase of the land in July 2024, the school held a Smoking Ceremony and Welcome to Country conducted by Uncle Laurie on 19 September 2024. Uncle Laurie is a descendent of the local Indigenous community. The ceremony acknowledged and paid respect to the traditional owners of the land and welcomed Queenwood onto the land. The ceremony was attended by the Chair of Council, the Principal, the Property Committee, the school Executive, Director of Sport, and student leaders. On 24 June 2025, the school conducted a Walk on Country with Uncle Dean Kelly. Uncle Dean Kelly is a Wailwan man from Yuin Country working as a Community Liaison Officer for NSW National Parks and Wildlife Service. Queenwood are committed to a developing a genuine connection and engagement with local Indigenous communities on which land this project is located. The following insights from Country have been incorporated into the design of the proposed activity: ▪ Water as Lifeblood ▪ Bush and Environment ▪ Sport and Exercise ▪ Gathering and Learning
Better Placed Guidelines and Design for Schools Guide	Better Placed Guidelines and Design for Schools Guide are addressed within the Architectural Design Report prepared by TKD. The proposal addresses the relevant guidelines through the following design interventions: **Better Fit – Contextual, local and of its place** The proposed school sports facilities will provide indoor and outdoor courts for basketball, tennis, hockey, and netball, serving both the school and wider community. Located in Oxford Falls alongside other sporting and educational facilities, the design preserves remnant bushland, rehabilitates the riparian corridor, and has been designed to minimise impacts on neighbours. Materials have been chosen for bushfire compatibility and to blend with the streetscape, with facade treatments proposed to reduce bulk and scale. **Better Performance – Sustainable, adaptable and durable** The design incorporates solar analysis, photovoltaic panels, LED lighting, rainwater reuse, and natural ventilation. Durable materials ensure low maintenance, and landscaping retains significant trees while adding new planting where possible. **Better for Community – Inclusive, connected and diverse** The facilities will be accessible to the broader community at certain times and will be fully compliant to accessibility standards. The design supports a variety of sports, addressing a shortage of facilities in the Northern Beaches Local Government Area (**LGA**).

	Better for People – Safe, comfortable and liveable Pedestrian and vehicle movements have been separated for safety. The building orientation and materials seek to maximise natural light and ventilation across the site. CPTED principles have been applied in the design for surveillance and safety in public and parking areas. **Better Working – Functional, efficient and fit for purpose** Consultation with the school and local community informed the design, which accommodates international court sizes and supports multiple activities in a weatherproof, adaptable sports venue. **Better Value – Creating and adding value** The project seeks to balance cost and quality. The proposed design seeks to reduce operational costs through natural light, ventilation, and provision for future solar and rainwater systems. The proposal also provides value to the community, as it will improve community access to sporting facilities within the area by allowing community access at certain times. **Better Look and Feel – Engaging, inviting and attractive** Robust, low-maintenance materials have been used, with landscaping to screen buildings and integrate them into the surrounding natural setting, including large native canopy trees along Oxford Falls Road.
The project is consistent with strategic planning policies	The proposal has considered the following strategic planning policies: ▪ Greater Sydney Region Plan: A Metropolis of Three Cities ▪ Our Greater Sydney 2056: Northern City District Plan ▪ Future Transport Strategy 2056 (**TfNSW**) ▪ Northern Beaches Local Strategic Planning Statement: Towards 2040
The project is consistent with State and local development controls	The development is permissible with consent and meets the relevant statutory requirements of the relevant environmental planning instruments, including: ▪ *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (**EPBC**); ▪ *NSW Biodiversity Act 2016* (**BC Act**); ▪ *Environmental Planning and Assessment Act 1979* (**EP&A Act**); ▪ *Environmental Planning Assessment Regulation 2021* (**the Regulations**); ▪ *State Environmental Planning Policy (Planning Systems) 2021* (**Planning Systems SEPP**); ▪ *State Environmental Planning Policy (Transport and Infrastructure) 2021* (**T&I SEPP**); ▪ *State Environmental Planning Policy (Resilience and Hazards) 2021* (**R&H SEPP**);

	▪ *State Environmental Planning Policy (Biodiversity and Conservation) 2021* (**B&C SEPP**); ▪ *State Environmental Planning Policy (Industry and Employment) 2021* (**I&E SEPP**); ▪ *State Environmental Planning Policy (Sustainable Buildings) 2022* (**SB SEPP**) ▪ *Warringah Local Environmental Plan 2000* (**WLEP 2000**)
The project minimises impacts on the natural environment	The proposal addresses the principles of ecologically sustainable development (**ESD**) in accordance with the requirements at Clause 194 of the Regulations and as outlined below: ▪ The project does not pose any serious threat to the environment, nor any irreversible damage to the environment. As outlined in the BDAR prepared by AEP (**Appendix O**), there are no threatened species recorded on the site. Despite the development having impacts on native vegetation, areas have been excluded from the development footprint to ensure impacts to biodiversity values have been avoided and minimised where possible. ▪ The project aims to minimise the unnecessary use of materials and procuring materials with a low carbon footprint where appropriate. ▪ The proposed development will not adversely impact the environment for future users as evident in the assessments of matters relevant to biodiversity, landscaping, water quality management as appropriate management and mitigation measures have been incorporated. ▪ The development has been designed to ensure biological diversity and ecological value is improved on the site via careful landscape design. Landscaping on the site will feature a selection of endemic plantings to promote habitat for insects and native birds. ▪ The proposal will incorporate waste minimisation techniques where possible into construction and demolition to prevent materials from being brought onto the site that will eventually become waste. The proposal also includes a series of mitigation measures to ensure waste is limited and monitored throughout the entirety of the project.
▪ The project minimises impacts on the built environment	▪ Visual Impact: As set out in **Section 6.2.4** and the Visual Impact Assessment prepared by Urbis (**Appendix I**), the proposed development is considered to be acceptable in visual impacts terms. Visual impacts have been considered during the design development of the site and will be mitigated through the proposed landscaping and extensive tree planting in the site setbacks. ▪ Overshadowing: Shadowing studies have been undertaken which demonstrate the proposed development will not create any shadowing impacts directly onto any adjoining dwellings in midwinter. There will be some very minor additional shadow cast on a very small portion of the open space of adjoining properties to the south. However, these properties will retain

	solar access to the majority of their large yards for the majority of the day during mid-winter ▪ Traffic and Parking Impacts: As set out in Transport Impact Assessment prepared by JMT Consulting (**Appendix N**), the proposal will not result in detrimental traffic impacts on the surrounding residents and road networks. Surrounding road networks will continue to operate at an acceptable level in terms of traffic generation. The proposal is considered suitable from a traffic generation perspective. The parking for the proposed activity will be provided in an off-street basement arrangement. ▪ Trees and Landscaping: As set out **Section 3.3.2,** the proposal seeks to remove trees across the site to accommodate the proposed school sport multiple-purpose building and outdoor courts. Whilst the proposal will result in removal of trees to allow for the proposed development, a key priority of the design is protecting and rehabilitating the Native Remnant Forest in the northeastern corner of the site, as well as rehabilitating the existing riparian corridor that flows through the centre of the site. ▪ Noise and Vibration: As set out in the Noise and Vibration Assessment prepared by JHA and **Section 6.7**, the operation of the proposal is anticipated to comply with the required noise levels at surrounding receivers including nearby residential receivers. The proposal is found to have acceptable impacts in relation to noise and vibration, including during operation of the facility. ▪ Materiality: The external materials and finishes to be used within the design seek to complement the surrounding built and natural environment of Oxford Falls as outlined in Architectural Design Report prepared by TKD (**Appendix F**) and **Section 3.4.3**.
The project has positive social impacts	▪ The proposed development will provide an inclusive sports and recreation facility catering to the needs of the student population and wider community (at certain times). ▪ The proposed facilities will provide increased opportunities for social engagement, physical activity and improvement in physical fitness and wellbeing for staff and students and the wider community. ▪ The facility will provide increased access and opportunity for participation in indoor and outdoor sports within a welcoming and safe environment for school staff, school students and members of the community. ▪ The proposed development is unlikely to generate any long term negative social impacts. In fact, the proposal will have positive social impact as the school facilities will be able to be used by the community at certain times. Further, research from the Australian Bureau of Statistics shows that 25 per cent of Australian children aged 5-17 are overweight or obese. Children who play sport have a reduced risk of obesity, better fitness, coordination and balance. Kids sport also has positive

	impacts on children's social and emotional wellbeing. It develops well-rounded individuals who become healthier, more confident, and socially engaged community members. Sports build crucial life skills like teamwork, leadership, and resilience, while also fostering a sense of belonging and community connection. These skills translate into a more cohesive and productive society, with higher education attainment rates and lower crime rates linked to youth sports participation.
The project has positive economic impacts	The construction of the proposal represents a significant investment for sporting and recreation facilities within the Northern Beaches LGA. The proposal will also generate 149 construction jobs. The proposal will provide 20 operational jobs in the form of maintenance staff on the site as well as existing coaches and staff for sports employed by Queenwood.
The site is suitable for the project	▪ The proposal is permissible with consent under Section 3.36(1) of the T&I SEPP as the RU2 Zone and Oxford Falls Valley Locality B2 are "equivalent land use zones" with equivalent permissible land uses in accordance with Section 3.3(6)(b) of the T&I SEPP. ▪ There are no significant environmental constraints that would limit the proposal from being developed at the site. ▪ The design of the proposal responds to the environmental constraints overlay on the site and the broader site context, whilst seeking to deliver a high-quality school sport and recreation facility development. The design has taken into consideration the site qualities as well as neighbouring land uses and built form.
The project is in the public interest	▪ The proposal will ensure more students have access to purpose built school sporting facilities and training spaces. Ongoing discussions will occur with Council and local community sporting groups on the potential for community use of facilities outside of school use. ▪ The proposal has been designed to make a positive contribution to the overall built form of the site, having regard to the emerging character of this part of Oxford Falls as an educational and recreational precinct, and the environmental constraints of the site including the riparian corridor which is proposed to be protected and rehabilitated. ▪ The proposal will contribute positively to energy efficiency and environmental sustainability across the site. ▪ The proposal will also create temporary employment opportunities in manufacturing, construction and construction management during the project's construction phase of works.

The EIS demonstrates that the project has significant merit and should be approved subject to the implementation of the mitigation measures described in this report and supporting documents.

1 Introduction

This Environmental Impact Statement (**EIS**) has been prepared by Urbis Ltd (**Urbis**) on behalf of Queenwood School for Girls (**the applicant**). The EIS is submitted to the NSW Department of Planning, Housing and Infrastructure (**DPHI**) in support of a State Significant Development Application (**SSDA**) for the site at 1100 Oxford Falls Road, Oxford Falls (**the site**).

1.1 Applicant Details

The applicant details for the proposed development are listed in the Table 3.

Table 3 Applicant Details

Proponent	Queenwood School for Girls
Postal Address	49 Mandolong Road Mosman NSW 2088 Australia
ABN	83 000 532 696
Nominated Contact	Carmel Norton, Chief Operations and Finance Officer

1.2 The Project

The project seeks to deliver new sport and recreation facilities directly associated with an existing school being Queenwood School for Girls, to enhance opportunities for students from the existing school campuses to train and compete in sport, as Queenwood currently does not own these types of school sporting facilities. Specifically, the proposal will seek consent for:

- Demolition of existing structures on the site, along with tree removal.
- A change of use from a residential dwelling to educational establishment to permit an educational establishment and its sporting facilities on the site.
- Use of the site by the community.
- Excavation to accommodate a single basement level cut and fill to accommodate the development.
- Construction of a two-court indoor multipurpose hall that can accommodate basketball and netball on top of the underground parking area. The building also includes associated amenities such as change rooms, and general learning areas.
- Construction of an outdoor multipurpose pitch which can accommodate hockey, soccer and tennis courts. The pitch will include a synthetic turf surface and flood lights to enable all season use.
- Landscaping and riparian improvement works, including a pedestrian bridge across the tributary of Middle Creek, connecting the indoor sports hall to the outdoor multipurpose pitch and a detailed tree replacement planting strategy across the site.
- Vehicular access, car and bus parking and drop off areas, both internal and external to the site within the road reserve.
- Fencing, associated amenities, storage and ancillary services, including a septic tank.
- The project is not intended to be staged.

Based on current understanding of likely use by Queenwood and the wider community, (noting the community use will be subject to future arrangements with community sporting groups) the indicative hours of operation are:

- Monday to Friday: 7:00am – 9:30pm
- Saturday: 7:00am – 9:00pm

- Sunday: 8:00am – 8:00pm

Use of the site by Queenwood is expected to occur during normal teaching hours, with before and after school training sessions on weekdays and school sport/competition on Saturdays. These hours have informed the relevant technical studies for the proposal and are generally consistent with the operating hours of the Oxford Falls Racquet Club. The proposal will have a maximum capacity of 140 people with ability for up to 250 individuals during an emergency evacuation event.

Discussions with Council and local community sporting groups will continue to explore opportunities for community use when not required by the school. Final operational arrangements will be confirmed post-approval in consultation with the appointed community use operator.

1.3 Project Background

In 2024, Queenwood completed a 12-month due diligence (**DD**) of the site. Specifically, the DD investigations aimed at understanding the site's affectations and constraints, while looking to quantify a possible developable area in consideration of Queenwood's sporting and educational needs.

This was informed through a series of technical investigations, some of which involved site walks for the purpose of ground truthing. These investigations have been completed and consolidated to form first a 'developable area', and second, a series of development options.

As part of the DD, targeted assessments were undertaken by the following disciplines:

- Aboriginal Archaeology
- Ecological and arboriculture
- Traffic and parking
- Stormwater, flooding, and civil design
- Planning pathways, including the provision of legal advice
- Architecture and design

The design team undertook investigations to identify site constraints, while also seeking to understand a developable area suitable to support the proposed use of the site. This DD period also involved consultation with DPHI and Northern Beaches Council.

The current design development and preparation of EIS documentation has built upon the work and investigations undertaken to inform the DD, most notably ensuring that the site's important natural attributes are retained and enhanced. In particular, the riparian corridor which has been assessed as being quite degraded.

2 Strategic Context

This section of the EIS describes the key features of the site and its relationship to its local context. It also discusses how the project aligns with relevant strategic planning policy. It identifies other projects that should be considered in assessing the cumulative impacts of the project and also outlines the potential feasible alternatives explored by the applicant.

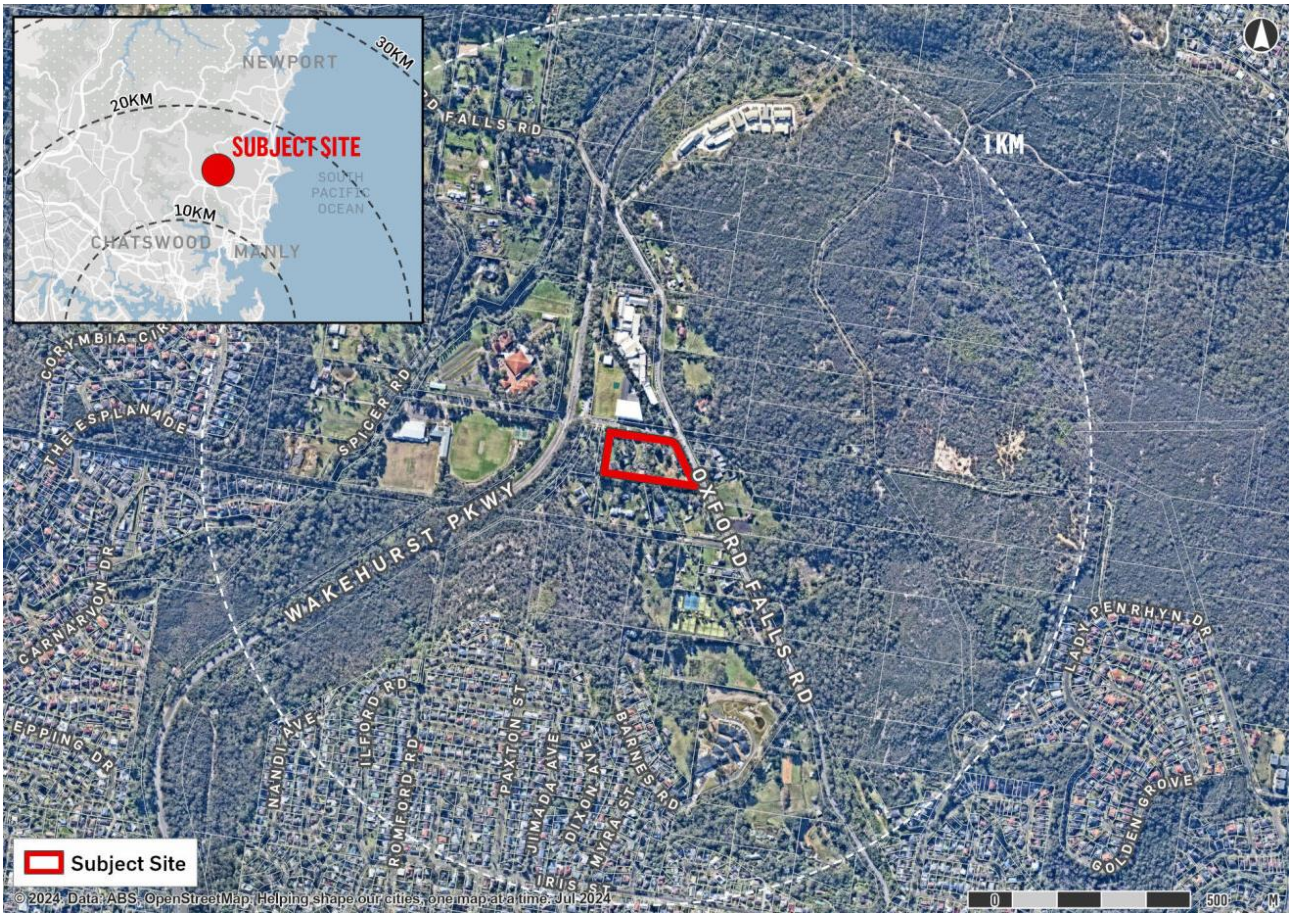
2.1 Key Features of Site and Locality

The site is situated in the suburb of Oxford Falls, which features a mix of large-lot residential properties, education and recreation facilities, and a small commercial precinct. The area also contains telecommunications infrastructure for Optus and Telstra. Much of Oxford Falls is bordered by surrounding bushland.

The site is located approximately 20km north of Sydney's Central Business District and approximately 16km from North Sydney's Central Business District.

The location of the site is illustrated in Figure 4. The key features of the site are described in **Table 4** below. Photographs of the current site condition are provided in **Figure 5**Figure 5.

Figure 4 Local Context Map



Source: Urbis, 2025

Table 4 Site and Locality Description

Characteristic	Description
Key Site Features	
Address	1100 Oxford Falls Road, Oxford Falls
Legal Description (Title Particulars)	Lot 1100 in Deposited Plan 814628
Site Area	Approximately 2.14 hectares
Existing Development	The site currently contains a single dwelling and pool with ancillary sheds. The existing use of the site previously included storage of boats and stabling of horses which has resulted in degradation of the existing vegetation on site.
Site Dimensions	The site has an irregular shape with the following approximate dimensions: ▪ North – 159m ▪ East – 131m ▪ South – 232m ▪ West – 109m
Site Access	The site has a dual frontage to Dreadnaught Road and Oxford Falls Road.
Adjacent land uses north	Immediately north of the site is Oxford Falls Grammar School which is located alongside large-lot residential properties. Further north lies a small business park and areas of bushland.
Adjacent land uses east	Directly east is a residential property that includes an art gallery and horse stables. Beyond this, the land transitions into bushland.
Adjacent land uses south	To the south are residential properties, a tennis centre which was previously leased by Queenwood, and a seniors living facility. Further south is a pocket of bushland which provides the boundary with the suburb of Frenchs Forest, characterised by low-density housing with mixed use development adjoining Warringah Road.
Adjacent land uses west	Directly west of the site is Peace Park, which includes the heritage-listed former Oxford Falls Public School. Further west lies Wakehurst Parkway, bordered by a mix of residential, public worship, and educational uses. Notably, St Pius X School features several sporting fields and associated facilities.
Topography	The site slopes gently from the west to east ranging from RL 79.0m to RL 76.0m AHD.
Vegetation	The site contains vegetation of varying varieties and values. The vegetation is concentrated around the perimeter of the lot and through the centre of the site around the riparian zone. Areas of ecological significance are prominent in the north-east corner of the site, and along the riparian zone, both of which are proposed to be retained and enhanced as part of the proposed works.
Hydrology	The site contains a riparian zone identified as a tributary of Middle Creek, which runs north and south through the centre of the site.
Flooding	The site is mapped as flood prone land. The 1% AEP flood levels on the site are 74.45m-74.60m AHD and the PMF ranges between 75.31 and 75.73 m AHD.

Heritage	The site is not mapped as a heritage item, nor is it located within a heritage conservation area. A locally listed heritage item (the former Oxford Falls Public School) is adjacent to the west of the site along the Wakehurst Parkway. A Heritage Impact Statement has been prepared by Urbis which assesses the impact of the proposal on the adjacent heritage item.
Aboriginal Archaeology	There are no known Aboriginal Objects or Places registered within the site. Investigations on the site outline that archaeological potential was assessed as low across the site.
Bushfire	The site is partially mapped as bushfire prone land. The site is mapped as vegetation buffer.
Biodiversity	The majority of the site consists of cleared understorey, patches of remnant native canopy, planted vegetation and an exotic dominant riparian corridor. Native vegetation within the site includes two Plant Community Types (**PCTs**) including Sydney Coastal Sandstone Gully Forest and Sydney Enriched Sandstone Moist Forest. No threatened species have been identified within the site.
Geotechnical	The ground profile comprises the following: 1. Fill material from 0.0-1.4m thick at borehole BH1. 2. Soil comprising generally slayey sand underlain by sandstone. 3. Extremely, highly weathered to slightly weathered sandstone from approximately 4.5m. 4. Medium strength sandstone class III, approximately 5.5m below ground level (at borehole BH7 and BH9). 5. High strength sandstone class II, approximately 11.2, below the ground level at BH10. Groundwater levels range from 73.92 m AHD to 77.86m AHD across the site.
Acid Sulfate Soils	The site is not mapped as containing Acid Sulfate Soils.
Contamination	Based on the findings of the Detailed Site Investigation (**DSI**), a number of hotspots of copper, lead, zinc, benzo(a)pyrene and/or asbestos contaminated soil were identified. It was recommended that these concerns be addressed through additional soil investigations, and preparation of a RAP to manage the impacted soils. Findings of the DSI and RAP have been outlined in **Section 6.11**.
Access	The main access to Oxford Falls is via the Wakehurst Parkway which runs north-south through the middle of the suburb.

Figure 5 Site and Locality Photographs

Picture 1 View looking west towards existing house

Picture 2 View looking south towards existing watercourse and large cleared area including horse stables located to the east.

Picture 3 View of watercourse and exotic plant species looking east.

Picture 4 Oxford Falls Road boundary looking south with the site located to the west.

2.2 Other Development in the Area

The site is located within Oxford Falls. A review of approved and likely future major projects which may be relevant in the cumulative impact assessment of the proposal was undertaken. A review of Councils DA Tracker and the Major Projects portal revealed that there have been no relevant recent proposals under assessment or approved surrounding the site.

As noted in the Transport Impact Assessment prepared by JMT Consulting (**Appendix N**), planned road improvements are to be undertaken by Transport for NSW (**TfNSW**) along Wakehurst Parkway between Frenchs Forest Road, Frenchs Forest and Pittwater Road, North Narrabeen. These include intersection upgrades and focus on improving safety and capacity.

The approved works at the Wakehurst Parkway / Dreadnought Road intersection include the following:

- Upgrades to the Dreadnought Road intersection including new bus stops, additional signalised pedestrian crossings, new southbound left turn slip lane and extension of the right turn bay from Wakehurst Parkway onto Dreadnought Road.
- Additional lanes in both directions between Dreadnought Road and Oxford Falls Road to improve traffic flow.
- Upgrades to the Oxford Falls Road intersection including a new southbound right turn bay and a dedicated northbound left turn lane.

- New bus stops along the Wakehurst Parkway to service the existing 155 bus route.

These approved upgrades will significantly enhance accessibility and safety to the subject site – providing additional traffic capacity to accommodate future site users. Works are anticipated to commence in the second half of 2025.

The potential cumulative impacts of the project within **Section 6** of the EIS in accordance with the DPHI *Assessing Cumulative Impacts* guidelines.

2.3 Feasible Alternatives

Clause 192(1)(c) of the *Environmental Planning and Assessment Regulation 2021* (**the Regulation**) requires an analysis of any feasible alternatives to the proposed development, including the consequences of not carrying out the development.

The project team examined several feasible alternatives to the proposed development as outlined in Table 5.

Table 5 Project Alternatives

Option	Discussion
Option 1 – Do Nothing	A 'do nothing' approach was dismissed as the objectives of the Project would not be met. If the Project was not to proceed, the site would remain underutilised, and delivery of much needed school sporting facilities for Queenwood would not be realised.
Option 2 – Alternative Designs	A number of site layout and designs were considered by TKD to work around the site constraints and developable area. The following options were explored ▪ Option 1 orientated the 2 indoor sports courts to be side-by-side. ▪ Option 2 orientated the 2 indoor sports courts to be end-to-end, which created a larger street frontage to Oxford Falls Road and a reduction in the quantum of native remnant forest trees retained. ▪ Option 3 rotated the 2 indoor sport courts to be 90 degrees to each other, which did had operational and functionality issues, and reduced surveillance to occupants on the courts. ▪ Option 4 located the 2 indoor sports courts on top of each other in a two-storey layout which created a smaller footprint but unacceptable height and visual impacts. Option 2, 3 and 4 were not considered suitable for the proposed site in relation to environmental and operational impacts.
Option 3 – Preferred Design	Option 1 for the Indoor Sports Hall was selected as the optimum design solution for the site for the following reasons: ▪ It maintains the 10m wide Vegetated Riparian Zone. ▪ It maximises the retention of the Remnant Native Forest. ▪ It results in the smallest street frontage facing Oxford Falls Road. ▪ It provides the most compact and functional layout. The orientation of the sports courts provides the most functional and flexible layout and maximises surveillance and supervision of occupants on the courts

2.4 Strategic Planning Alignment

The proposed development is aligned with the State, district and local strategic plans and policies applying to the site as outlined in **Table 6**Table 6 below.

Table 6 Strategic Planning Consistency

Plan	Detail
Greater Sydney Region Plan – A Metropolis of Three Cities	The Greater Sydney Region Plan (**Region Plan**) provides the overarching strategic plan for growth and change in Sydney. It is a 20-year plan with a 40-year vision that seeks to transform Greater Sydney into a metropolis of three cities - the Western Parkland City, Central River City and Eastern Harbour City. The Region Plan identifies key challenges facing Sydney including increasing the population to eight million by 2056, 817,000 new jobs and a requirement of 725,000 new homes by 2036. The Region Plan includes objectives and strategies for infrastructure and collaboration, liveability, productivity and sustainability. Education facilities are considered as critical social infrastructure in Sydney. The proposal seeks to provide additional educational and sporting facilities for an existing school within an emerging education and recreation facilities precinct, with nearby established schools being Oxford Falls Grammer and St Pius X. The site is adjacent to the location of the former Oxford Falls Public School, which was established in 1928. As mentioned in other parts of the EIS, the proposal will generate 149 construction jobs and 20 operational jobs. Sustainability is also a key consideration, particularly in the proposed design, construction, and operation of the building. The design has incorporated sustainable design principles and is further discussed in **Section 6.3** of the report.
North District Plan District Plan	The *North District Plan* (**District Plan**) is a 20-year plan to manage growth in the context of economic, social and environmental matters to implement the objectives of the Greater Sydney Region Plan. The intent of the District Plan is to inform local strategic planning statements and local environmental plans, guiding the planning and support for growth and change across the district. The District Plan contains strategic directions, planning priorities and actions that seek to implement the objectives and strategies within the Region Plan at the district-level. The Structure Plan identifies the key centres, economic and employment locations, land release and urban renewal areas and existing and future transport infrastructure to deliver growth aspirations. The planning priorities and actions of relevance to the proposed development are listed and discussed below: ▪ **Providing services and social infrastructure to meet people's changing needs** Queenwood is adapting to changing requirements of students and trends in learning methods. Queenwood is focused on providing high-quality facilities for collaborative learning and sporting opportunities for its students. The new sports facility will consist of indoor and outdoor multipurpose sports courts and student amenities to meet the ever-increasing demand for high-quality physical education for students. As a result of

	the new sporting facilities on the site, Queenwood students and the wider community will have access to state-of-the-art sporting facilities.
Northern Beaches Local Strategic Planning Statement	The Northern Beaches Local Strategic Planning Statement (**LSPS**) is Northern Beaches Council's plan to guide land use planning over the next 20 years. The LSPS implements priorities from the Community Strategic Plan and brings together land use planning actions in other Council adopted strategies. The proposal aligns with the following LSPS planning priorities: ▪ **Planning Priority 10: World class education facilities** – The proposal will result in a high-quality, state of the art, designed education, sport and recreation facilities which will serve the needs of the school and the wider community (at certain times). ▪ **Planning Priority 11: Community facilities and services that meet changing community needs** – The proposal proposes community access for certain times to allow the wider community to use the Queenwood facilities. ▪ **Planning Priority 17: Centres and neighbourhoods designed to reflect local character, lifestyle and demographic changes** – The proposed redevelopment of the existing residential site fits into the emerging character of Oxford Falls as a sporting and education precinct. Therefore, the proposed development suits the emerging character of the area and will support the growing needs of Queenwood and the broader community for sporting facilities within Northern Beaches LGA.
Better Placed	In August 2017, the Government Architect for NSW (**GANSW**) released Better Placed which seeks to establish priorities and objectives that shape design to create well-designed built environments. It presents a collection of priorities and objectives that aspire to shape design that addresses key challenges and directions and creates good design outcomes for NSW. The proposed development is consistent with the Better Placed objectives as it will: ▪ Better fit: contextual, local and of its place ▪ Better performance: sustainable, adaptable and durable ▪ Better for community: inclusive, connected and diverse ▪ Better for people: safe, comfortable and liveable ▪ Better working: functional, efficient and fit for purpose ▪ Better value: creating and adding value ▪ Better look and feel: engaging, inviting and attractive The Architectural Design Report (**Appendix F**) discusses how the proposal has incorporated these seven objectives into the design process.
Connecting to Country Framework	The NSW Government Architect's "Connecting to Country" framework aims to integrate Aboriginal cultural knowledge into the planning, design, and development of the built environment. It seeks to foster a deep respect and understanding of the Aboriginal connection to Country, promoting its recognition and celebration in contemporary design and planning. The framework serves as a guide to create spaces that are culturally inclusive, sustainable, and reflective of Australia's rich Aboriginal heritage.

The project is consistent with the Connecting to Country framework as it will integrate the following insights and strategies gathered from Uncle Dean through ongoing consultation and the Walk on Country:

Water as 'Lifeblood'

- Restoration of the watercourse and riparian corridor to improve water quality and the environment.
- Placement of buildings and structures so that they allow water to flow around them and do not restrict flood waters.

Bush and Environment

- Maximising the retention of the remnant native trees where possible.
- Elevating pedestrian access through the site above the natural features to protect the restored environment.
- Design buildings in response to the risk from bushfires from the surrounding bushland.
- Reuse of the native trees removed in landscape seating and the creation of aboriginal boomerangs and clapping sticks.

3 Project Description

The following section of the EIS summarises the key numeric components of the proposed development and describes the demolition, site preparation, construction and operational phases in further detail.

The proposal seeks consent for the erection of school recreational facilities associated with the existing Queenwood School for Girls. The focus of the development is to provide multi-functional school sporting facilities that are appropriate for Independent Girl's Schools Association (IGSA) interschool sport and competition, as well as providing sporting facilities/ educational facilities for Queenwood. As a consequence, the school sporting facilities are required to meet specific standards and spatial requirements for competition.

The proposal seeks consent for:

- Demolition of existing structures on the site, along with tree removal.
- A change of use from a residential dwelling to educational establishment to permit an educational establishment and school sporting facilities on the site
- Use of the site by the community.
- Excavation to accommodate a single basement level cut and fill to accommodate the development.
- Construction of a two-court indoor multipurpose hall that can accommodate basketball and netball on top of the underground parking area. The building also includes associated amenities such as change rooms, and general learning areas.
- Construction of an elevated ramp connecting the indoor sports hall to the outdoor multipurpose pitch.
- Construction of an outdoor multipurpose pitch which can accommodate hockey, soccer and 12 tennis courts. The pitch will include a synthetic turf surface and flood lights to enable all season use.
- Vehicular access, car and bus parking and drop off areas, both internal and external to the site within the road reserve.
- Fencing, associated amenities, storage and ancillary services, including a septic tank.
- The project is not intended to be staged.

Based on current understanding of likely use by Queenwood and the wider community, (noting the community use will be subject to future arrangements with community sporting groups) the indicative hours of operation are:

- Monday to Friday: 7:00am – 9:30pm
- Saturday: 7:00am – 9:00pm
- Sunday: 8:00am – 8:00pm

Use of the site by Queenwood is expected to occur during normal teaching hours, with before and after school training sessions on weekdays and school sport/competition on Saturdays. These hours have informed the relevant technical studies for the proposal and are generally consistent with the operating hours of the Oxford Falls Racquet Club. The proposal will have a maximum capacity of 140 people with ability for up to 250 individuals during an emergency evacuation event.

Discussions with Council and local community sporting groups will continue to explore opportunities for community use when not required by the school. Final operational arrangements will be confirmed post-approval in consultation with the appointed community use operator.

The overall proposal for the Oxford Falls Sporting Precinct seeks to provide two key school sporting facilities:

1. Multipurpose Indoor Sports Hall

The proposed indoor sports hall has been designed to accommodate a wide range of activities. This two-court space will be line marked for basketball, netball, futsal, and volleyball, and will also allow for six

badminton courts. Spectators will be catered for with fixed three-tier seating, complemented by team and scorers' benches. A first floor viewing area will overlook Court 1, while flexible general learning areas (**GLAs**) with operable walls will provide additional space for education or events. Supporting amenities, includes a staff office, first aid room, equipment storerooms, student change facilities, toilets and showers for students, spectators and parents, as well as a canteen and kitchen with an associated storeroom.

The indoor sports hall will be the main entrance for all students, staff and spectators. All vehicle access and servicing will be provided off Oxford Falls Road with dedicated car drop-off and turn-around area, basement car park, and bus parking and drop-off zone.

2. Multipurpose Outdoor Sports Field

A raised walkway across the creek will connect the multipurpose outdoor sports field on the western side of the creek to the indoor facilities along Oxford Falls Road.

The outdoor sports field, constructed with synthetic turf, will be suitable for football (soccer), hockey, and tennis. It will feature a team bench, convenor/scorers booth, and designated spectator areas. All outdoor sporting areas will be equipped with flood lighting to enable evening use and maximise accessibility. A maintenance shed and storage cages for sports equipment are provided adjoining the outdoor facilities. The outdoor multi-purpose field will be flood lit, namely, to allow usage during winter months.

Figure 6 Perspective Image of development along Oxford Falls Road

Source: TKD and Inspired Exteriors, 2025

Figure 7 Perspective Image of development along Dreadnought Road

Source: TKD and Inspired Exteriors, 2025

3.1 Project Overview

The key components of the proposed development are summarised below. A copy of the architectural plans prepared by TKD are enclosed in **Appendix E**.

Table 7 Project Summary

Project Element	Summary
Site/Project Area	The subject site has an approximate area 21,403m^2 and is legally known as Lot 1100 in Deposited Plan 814628. The proposal also proposes works within the public domain along Oxford Falls Road including bus bays to avoid conflicts between pick up/drop off and buses.
Proposed uses	Educational establishment (sporting facilities), with community use
Demolition	The existing single dwelling and pool with ancillary sheds and stables will be demolished as part of this application.
Earthworks/Cut and Fill	Cut and fill is required to facilitate basement parking associated with the multipurpose hall. Minor earthworks are required to facilitate the elevated ramp connecting the two main facilities and to construct the outdoor sporting fields.
Gross Floor Area (**GFA**)	Total of 5904.42m^2 of GFA which includes: ▪ Fully enclosed covered area (**FECA**): 3002.48m^2 ▪ Unenclosed covered area (**UCA**): 2901.94m^2
Maximum height	▪ Maximum Roof Height (indoor sports hall): 14.159m (RL 89.827)
Vehicular Access	Vehicular access will be from Oxford Falls Road towards the southeastern side of the site, well away from the busier Wakehurst Parkway to prevent any traffic backlog. Additional points of vehicular access have been provided on Dreadnought Road to allow for very limited service vehicle access and ambulance access to the outdoor sports field.

Parking	Basement Parking: 83 Carparking Spaces (including 2 x accessible car spaces) Oxford Falls Road roadside parking: 3 Coach / Bus or 6 carparking spaces when not used for buses.
Hours of Operation	▪ Monday to Friday: 7:00am – 9:30pm ▪ Saturday: 7:00am – 9:00pm ▪ Sunday: 8:00am – 8:00pm Use of the site by Queenwood is expected to occur during normal teaching hours, with before and after school training sessions on weekdays and school sport/competition on Saturdays. Discussions with Council and local community sporting groups will continue to explore opportunities for community use when not required by the school. Final operational arrangements will be confirmed post-approval in consultation with the appointed community use operator.
Signage	Identification signage is integrated into the design with signage provided on the Oxford Falls Road (western) frontage of the multipurpose hall and the northern frontage of the sports storage area adjoining the outdoor sports field.
Estimated Development Cost	$44, 887, 116.00
Jobs	Construction – 149 jobs Operation – up to 20 jobs which is primarily existing Queenwood staff. Staff associated with use by the wider community will be dependent on final community use arrangements for the site.
Timing	Based on approval in 2026, construction is anticipated to begin in Q1/Q2 2027, subject to Queenwood's broader strategic and operational considerations.

3.2 Design Principles & Response

3.2.1 Key Principles

The following key design principles have been adopted to ensure the project vision and objectives can be achieved:

- Rehabilitate the Vegetated Riparian Zone – Ensure that the area surrounding the Strahler 1st order stream is preserved with no significant built form development proposed within the riparian corridor.
- Locate the external multipurpose pitch for soccer and hockey towards the western side of site – to accommodate the spatial requirements of the outdoor sporting field to meet competition requirements and on the part of the site which is currently developed for residential purposes.
- Locate two-court indoor multipurpose halls in the southeastern side of site, setback from the remnant native forest on the northeast
- Construct an elevated pedestrian walkway to connect the external pitch and indoor halls while minimising the intrusion into the Vegetated Riparian Zone.

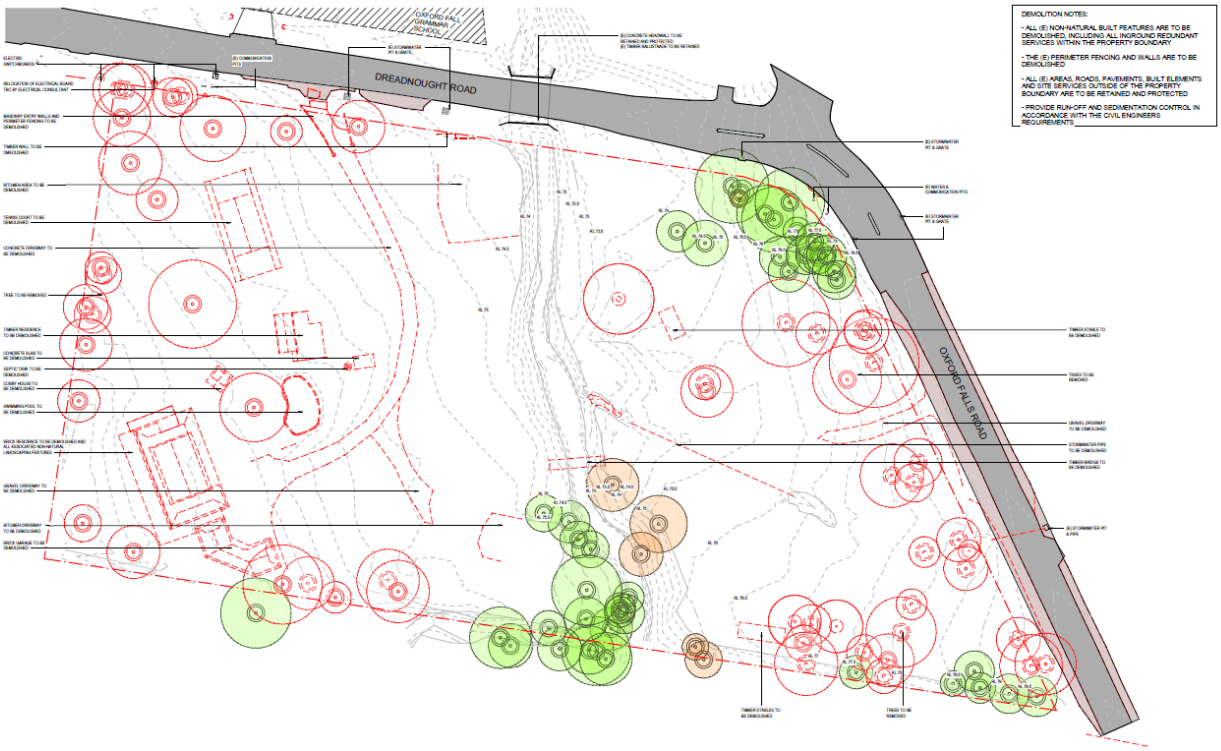
3.3 Site Preparation Activities

3.3.1 Demolition

The demolition of all existing structures on the site is required to prepare the site for construction. The site currently consists of an existing brick residence, swimming pool, septic tank, timber residence, tennis court, concrete driveway and timber stables, which are all proposed to be demolished as part of this application.

The majority of the structures to be demolished are located towards the western side of the creek. The eastern side of the site is identified as containing vegetation and grassland which will not require major demolition works prior to construction. An extract of the demolition plan is shown in **Figure 8** below.

Figure 8 Extract of Demolition/Tree Removal Plan



Source: TKD, 2025

3.3.2 Tree Removal

The Arboricultural Impact Assessment (**AIA**) (**Appendix J**) prepared for the site, assessed a total of 183 individual trees and 1 stand (comprising of 5 trees) identified on the site. The assessment report also identified that 32 trees were in poor or dead condition, 125 in fair condition and 26 in good condition.

The proposal will require the removal of 120 individual trees to allow for the construction of the proposed activity. Out of the 120 trees, 87 trees are located directly within the development footprint, 12 trees will be impacted by the predicted structural root zone encroachment, and 17 trees will be impacted by predicted tree protection zone (**TPZ**) encroachment. In addition, four (4) other trees that are not within the footprint of the proposed works will also require removal as they are already dead or exhibiting advanced dieback and should be removed to ensure the safety of the contractors.

It is noted that an extensive 1:1 tree replacement strategy has been developed by Inspired Exteriors replacing a lot of exotic planting with endemic species., as described in **Section 3.4.7**.

3.4 Physical Layout and Design

3.4.1 Site Layout

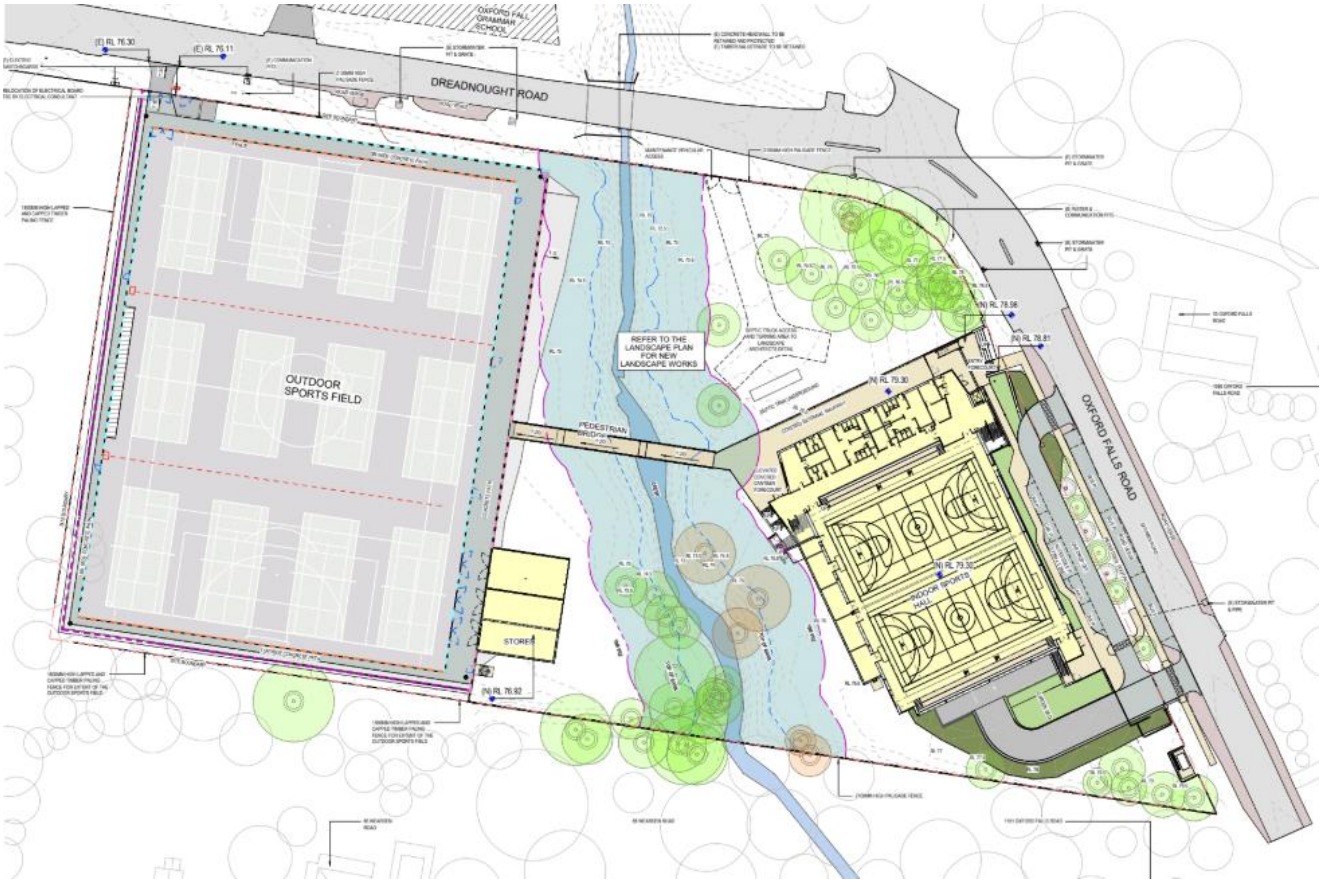
The physical layout of the site responds to a detailed analysis of the site constraints, design principles and Connection to Country.

The proposed layout of the site has been designed in response to the site's constraints including the riparian corridor and native remnant forest. Additionally, the layout and design were informed by operational requirements of Queenwood, including the size of the courts that are proposed to meet competition sporting standards.

The design of the proposed built form has been orientated to Oxford Falls Road for primary access to the site to minimise traffic and visual impacts to Dreadnaught Road. The orientation of the building considers the following key factors based on the detailed site analysis and insights from Country:

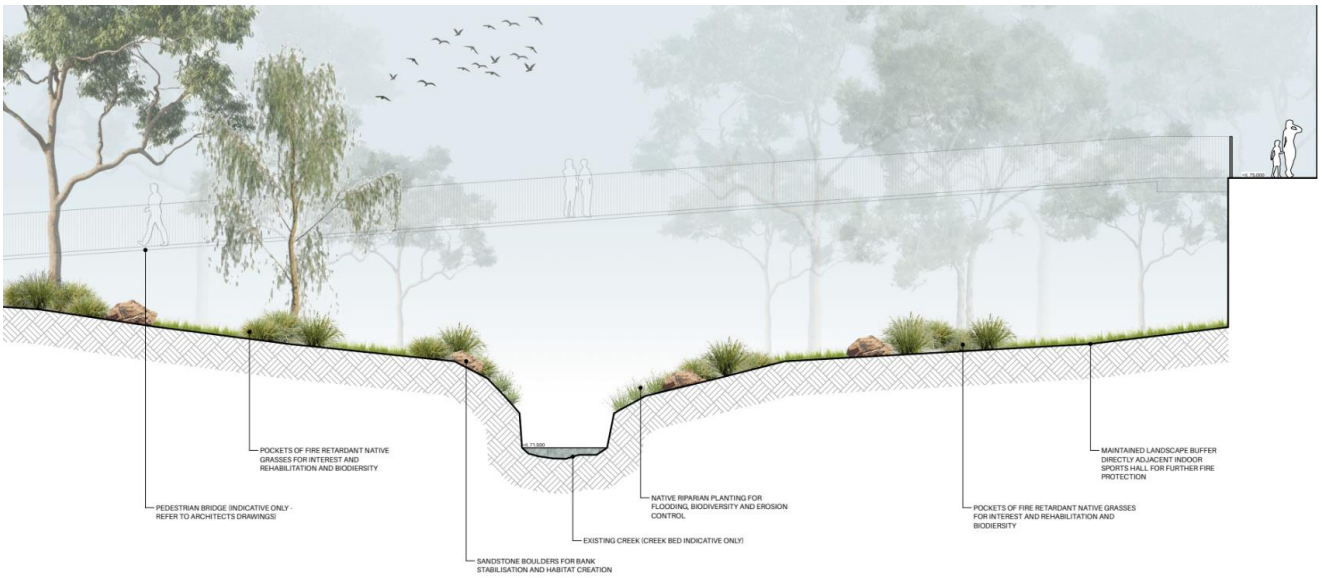
- Restoration and rehabilitation of the water course and Vegetated Riparian Zone (**VRZ**). No significant built form development is permitted within this zone as illustrated in **Figure 9**Figure 10**.**
- Locate the outdoor sports field on the western portion of the site, as this is the only area of land able to accommodate the sports field dimensions. This area of land also allows the sport field to be orientated in the optimum north-south orientation.
- Locate the indoor sports hall on the remaining eastern portion of the site whilst maximising the retention of the remnant native forest. This area of the site also provides the safest and most functional area of the site for vehicles to enter and exit the site.
- Incorporate an elevated pedestrian walkway to connect the two main facilities whilst protecting the restored water course, Vegetated Riparian Zone and remnant native forest.
- The raised pedestrian walkway will facilitate the efficient and timely movement of people on and off of the site and between the facilities, whilst allowing people to view and appreciate the rehabilitated riparian corridor.
- Maximise tree retention of important trees with a 1:1 tree replacement strategy, which replaces many existing exotic plantings with endemic species.

Figure 9 Site Layout



Source: TKD, 2025

Figure 10 Landscape Section of revegetated riparian corridor



Source: Inspired Exteriors, 2025

3.4.2 Design and Built Form

The design of the indoor sports hall has been carefully considered to balance functionality, user experience, and architectural expression. The building form has been articulated to meet the practical requirements of education, sports and community use while presenting a refined and responsive design outcome.

Covered verandahs are integrated at key entry points and along the northern changeroom and amenities block, providing essential weather and sun protection for users. These verandahs also play an important architectural role by introducing depth and modulation to the building's façades, thereby reducing the perceived bulk and visual mass of the overall structure.

Further articulation is achieved through the strategic placement of windows and external sun shading elements. These features break down the façade, enhancing visual interest, and allow generous natural light to penetrate internal spaces, improving comfort and energy efficiency.

The main entry has been deliberately highlighted as a clear and welcoming focal point. This is achieved through a combination of a projecting verandah roof, extensive glazing, and a low sandstone entry wall featuring school signage. The inclusion of stairs and accessible ramps ensures a legible and inclusive approach, making the entrance easily recognisable and inviting for first-time visitors.

In response to the specific functional needs of the sports courts, low-level windows have been positioned toward the corners to minimise glare and distraction while maintaining visual connection to the surrounding landscape. In contrast, full-height glazing has been introduced to circulation areas, stairwells, and first-floor classrooms to capture expansive views across the site, enhancing the sense of openness and connection between indoor and outdoor spaces.

Overall, the design integrates practical performance with architectural quality, ensuring that the indoor sports hall serves as a functional, comfortable, and visually engaging facility for both everyday use for the school and broader community.

Figure 11 Perspective Image of Development along Oxford Falls Road

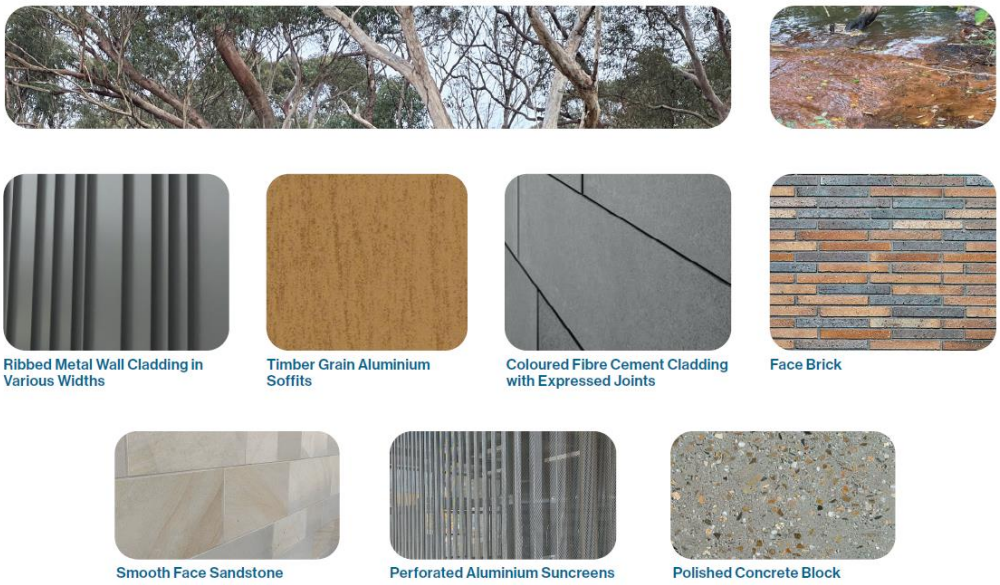
Source: TKD and Inspired Exteriors, 2025

3.4.3 Materials and Finishes

The following materials are proposed to be used across the site and the external design of the site:

- Face Brick: Used at the building base to provide an earthy, robust, and grounded finish that reflects the site's natural tones.
- Sandstone Cladding: Applied to lower levels of the main façade along Oxford Falls Road, offering a refined entry treatment consistent with the other school campuses of Queenwood.
- Fibre Cement Cladding: Neutral grey panels with expressed joints will be used on upper façades for a subtle, textured appearance.
- Ribbed Metal Cladding: Dark, recessive finishes will be used above the brick base to complement the landscape and add fine-grain texture.
- Perforated Aluminium Screens: Will be integrated across window areas for sun shading and façade articulation.
- Polished Concrete Blockwork: To be used externally around the changerooms and toilet areas for durability and low maintenance.
- Timber-Grain Soffit Panels: Installed to verandah roofs to introduce warmth and contrast to the neutral exterior palette.
- Internal Timber Finishes: Extended to selected walls and ceilings to maintain continuity and provide a natural interior atmosphere.

Figure 12 External Materials and Finishes

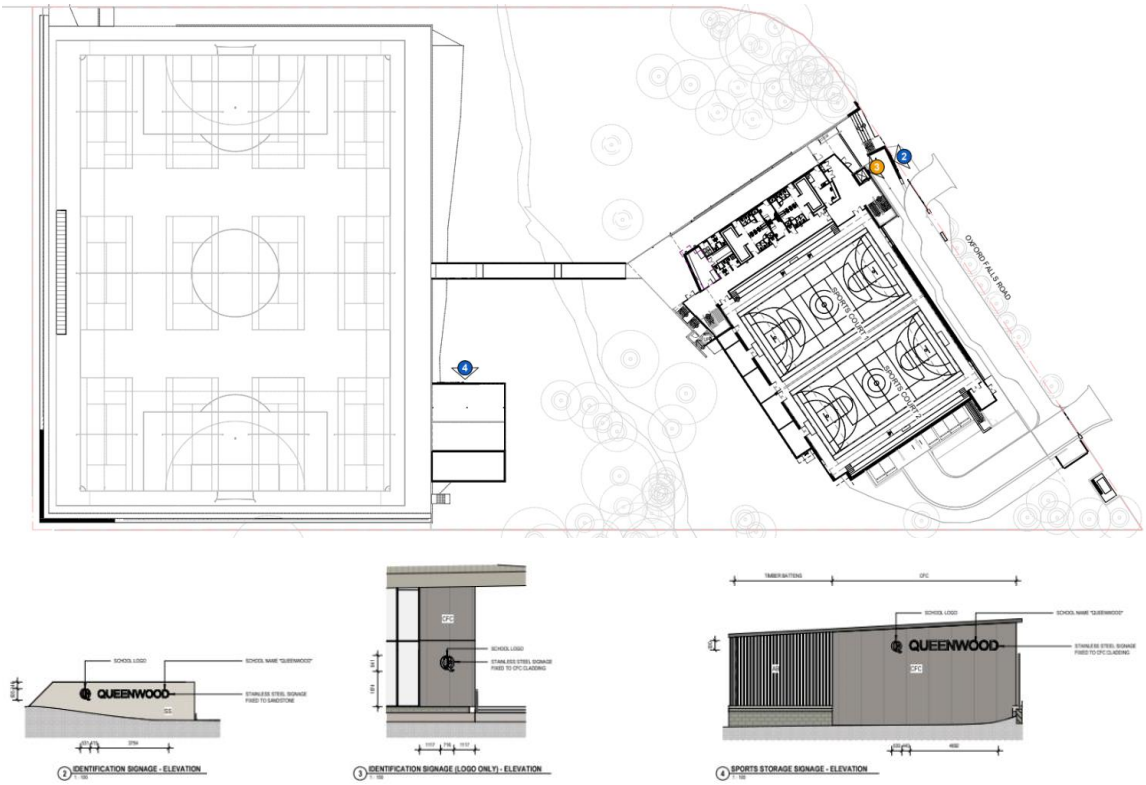


Source: TKD, 2025

3.4.4 Signage

Signage is integrated into the overall design and provided in the form of stainless steel letters each individually fixed to the building. Consent is sought for two identification signs on the western elevation of the indoor multipurpose hall (total signage area approximately 2.87sqm) and the northern elevation of the sports storage area (total signage area approximately 2.87sqm) adjoining the outdoor sports field as illustrated in **Figure 13**Figure 13**.**

Figure 13 Proposed Signage Plan



Source: TKD, 2025

3.4.5 Sustainability

The proposed development includes an Ecologically Sustainable Design (**ESD**) Report (**Appendix L**) prepared by JHA which defines the sustainability strategy and supporting initiatives embedded into the design, which have been informed by stakeholder consultation, climate change assessment and the site's ecological context.

Key ESD initiatives integrated into the design include:

- Fully electrified building services, avoiding operational fossil fuel use and complying with Net Zero provisions.
- High-efficiency HVAC, lighting and domestic hot water systems to minimise energy use and peak demand.
- On-site renewable energy via a rooftop PV system (up to 99kW).
- Passive design strategies, including high-performance glazing, insulation, shading and natural ventilation, to reduce reliance on mechanical systems and improve occupant comfort.
- Water efficiency through WELS-rated fixtures, a 50kL rainwater reuse system and water-sensitive urban design (WSUD) measures.
- Construction waste minimisation and the use of durable, low-embodied carbon materials wherever feasible.
- Conservation of biodiversity and retention of native vegetation in the riparian corridor to maintain ecological integrity.

3.4.6 Public Domain

The proposed development seeks to deliver works within the public domain to facilitate the school including the following:

- Kerb, driveway and guttering works along the site frontage of Oxford Falls Road,
- Construction of a continuous footpath along the site frontage between the southern boundary of the site to the primary pedestrian access point to the main entry,
- Three (3) bus parking spaces located along the road verge of Oxford Falls Road,
- Landscaping works including canopy trees.

The above public domain works have been discussed with Northern Beaches Council who have reviewed the preliminary proposal. Further consultation and review of the final SSDA package by Council will inform the final design of the proposed public domain works. Queenwood propose to deliver the public domain works in line with Council specifications and requirements following further consultation.

3.4.7 Landscaping

The proposed landscape strategy for the site has been prepared by Inspired Exteriors. As noted in the Landscape Concept Plans (**Appendix G**), the following works are proposed as part of the landscape works:

- Construction of a pedestrian bridge across the tributary of Middle Creek which runs through the site, providing safe and convenient access between the two school sporting facilities.
- Rehabilitation of the existing riparian corridor, including removal of invasive species, replanting with native vegetation, and measures to improve habitat quality and ecological function.
- Implementation of a comprehensive 1:1 tree replacement planting program across the site, ensuring that removed or declining trees are replaced with suitable, endemic species to maintain canopy cover, improve biodiversity, and maintain appropriate visual amenity.
- Feature planting along Oxford Falls Road has been designed to create an attractive streetscape, reinforce the site's identity, and contribute to the landscape character of the surrounding area. This

includes landscape buffer treatments to soften views and provide screening along key boundaries including:

- Southern and western boundaries adjoining neighbouring properties.
- Northern boundary adjoining Dreadnought Road.
- Eastern boundary adjoining Oxford Falls Road.

Remnant trees in the north-east corner of the site will be retained and protected, recognising their ecological value and contribution to the landscape setting. In accordance with the WLEP 2000 calculations, 8,228.75m2 (or 38.44%) of the site is landscaped area.

The proposed landscaping plan proposes to plant 241 new native trees to improve diversity across the site, improve biodiversity, habitat and canopy outcomes. Planting of the new trees will be located along the proposed Vegetated Riparian Zone, outside of the building footprints for the two key facilities. Additionally, out of the new proposed trees, 160 tall native hedge trees will also be planted along the western and southern boundaries as clipped screening to ensure that habitat connection is established.

The proposed planting species include a number of endemic species including *Angophora costata, Allocasuarina littoralis, Banksia integrifolia, Tristaniopsis laurina* and *Hymenosporum flavum*.

Figure 14 Landscape Masterplan

Source: Inspired Exteriors, 2025

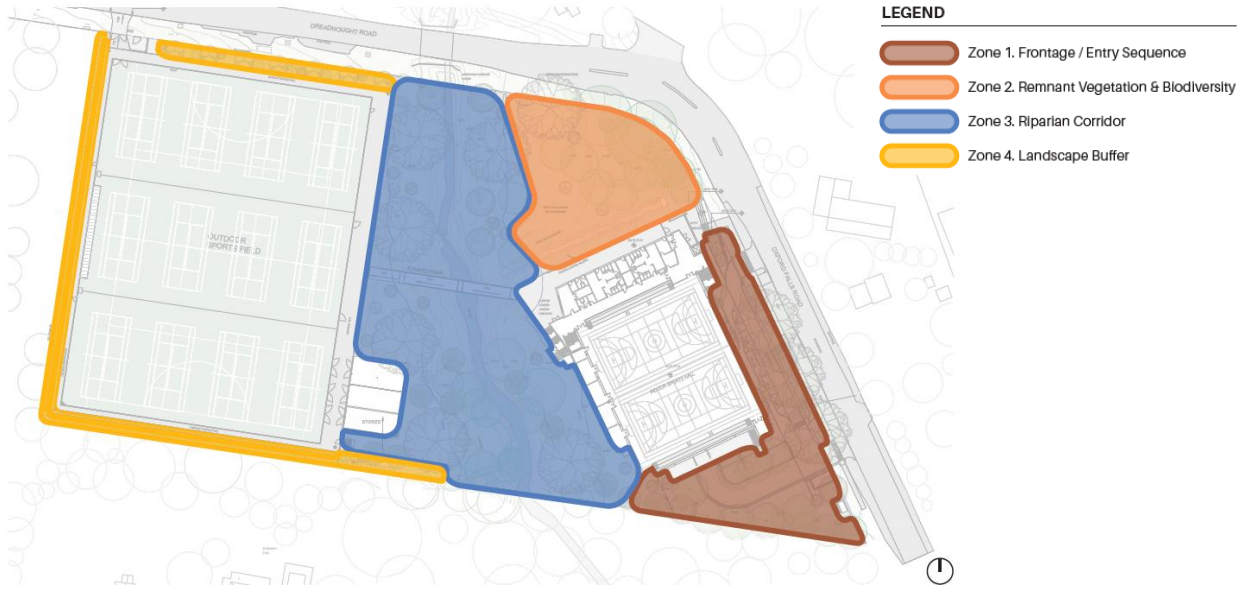
Figure 15 Landscape Section Depicting Riparian Corridor and Bridge

Source: Inspired Exteriors, 2025

The proposed landscape design has been separated into four key zones that represent opportunities for landscape design across the site. The proposed landscape design focuses on environmental amenity, trees and landscaping, biodiversity and visual impact. The zones are as follows:

- Zone 1: Frontage / Entry Sequence – A defined and welcoming entry with layered planting and verge gardens along Oxford Falls Road, designed to soften built form and strengthen the street interface.
- Zone 2: Remnant Vegetation & Biodiversity – Retention and enhancement of vegetation in the north-east corner to improve habitat value, ecological connectivity, and support regeneration and conservation.
- Zone 3: Riparian Corridor – The site's central ecological spine, dividing eastern and western areas, supporting biodiversity, rehabilitation, and opportunities for cultural and educational engagement.
- Zone 4: Landscape Buffers – Planting along key boundaries to screen and soften site edges, protect residential amenity, and provide a landscaped setback.

Figure 16 Landscape Masterplan Zones



Source: Inspired Exteriors, 2025

3.5 Stormwater Management

The proposed stormwater layout for the project includes three separate networks. These networks include:

- **Flood Diversion Trunk Line**: A stormwater drainage line is proposed to collect the stormwater from Oxford Falls Road and the proposed bus stop and parking out of the property. This network collects the upstream flood through multiple inlet-pits, conveys it through a swale inside the property (on the north side of the proposed building) and finally discharging to the creek.
- **Indoor Sports Hall Network:** This network will collect the stormwater from internal roads, drop off parking, the indoor sport hall, walkways and hardstands around it. The network collects the stormwater from the roads and hardstands internal to the property and connects to a treatment chamber on the northern side of the building, before discharging it to the proposed swale. The basement driveway's stormwater will be collected with two inlet pits but will be conveyed through the building hydraulic system before connecting to the treatment chamber. The roof stormwater system is to be collected in two proposed rainwater tanks. The overflow of the proposed tanks connects to the treatment chamber before discharging the proposed swale.
- **Outdoor Sports Field Network:** The stormwater drainage network collects the stormwater from the multi-purpose sports facility and the walkways around it. This network includes subsoil drainage system under the sport field, two V drains at the northern and eastern side of the field which collects the overflow on the walkways and a pit and pipe network to collect the stormwater from the subsoil network and V drains and convey to a treatment chamber, before discharging to the creek through a headwall.

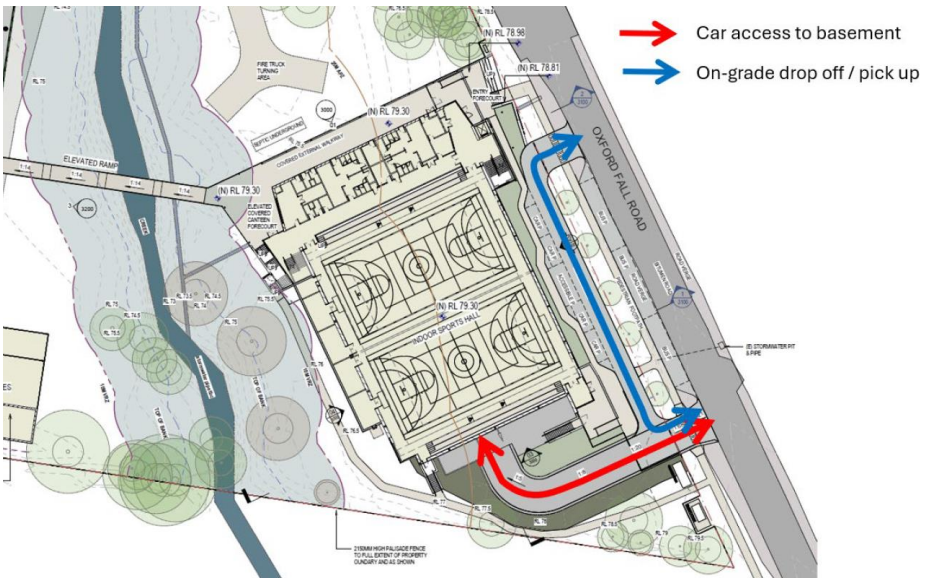
3.6 Transport and Parking

3.6.1 Vehicle Access

The proposal provides the following vehicle access arrangements:

- Consolidated site access point on Oxford Falls Road: serving both the on-site basement car park, as well as an on-grade drop off / pick up area.
- Exit point on Oxford Falls Road: solely for the purpose of exiting from the drop off/ pick up area.
- Internal driveways will accommodate traffic in both directions.
- Two entry points for service and ambulance vehicle access from Dreadnought Road.

Figure 17 Proposed Vehicle Access Arrangements



Source: JMT, 2025

3.6.2 Drop off and Pick Up

The design proposes a dedicated drop off / pick up zone within the site boundary. This zone will include four regular bays and one accessible drop off / pick up parking bay. A passing lane is proposed to be provided so that each drop off / pick up bay can operate independently of one another, allowing for efficient operations during busy periods.

Vehicular access to the drop off / pick up zone is provided via Oxford Falls Road through separate entry and exit driveways. Cars have the ability to enter the zone from either direction on Oxford Falls Road and similarly turn either left or right on exit.

3.6.3 Buses and Coaches

Up to three buses are able to pick up and set down passengers along Oxford Falls Road adjacent to the site frontage. The proposed bus parking will support travel to and from sporting fixtures by school students. This will facilitate reduced usage of private vehicles.

All buses would be directed to approach the site from Oxford Falls Road and then exit via the Dreadnought Drive / Wakehurst Parkway intersection. When the bus parking is not in use, 6 on street parking spaces are able to be utilised.

3.6.4 Car Parking Provision

The proposed development will provide for 82 on site car parking spaces (including two accessible spaces) within the basement. Staff parking can be adequately accommodated within the basement parking area, as numbers will fluctuate depending on the use of the facilities.

3.7 Waste Management

An Operational Waste Management Plan has been prepared for the proposal by Elephants Foot. The report notes that all components of the site will share bulk bins within a Bin Storage Area located in the indoor sports hall. An area of $7m^2$ is required to facilitate for 1 x 1100L General Waste bin and 1 x 1100L Recycling bin.

For the indoor sports hall, waste and recycling receptacles will be placed throughout the school sporting facility. The bins have been recommended to be placed in high-activity areas, including changing rooms, the canteen, and main circulation zones.

For the outdoor school sports fields, outdoor bins will be placed around the sports fields. Bins will be placed in convenient locations and areas of high traffic to minimise littering.

A private waste contractor will be engaged to service the general waste and recycling bins as per an agreed collection schedule. General waste and recycling are proposed to be collected three times weekly.

On the day of service, a private waste collection vehicle will enter the site from Oxford Falls Road and park in the loading area adjacent to the Bin Storage Area. The waste collection staff will exit the vehicle and collect the bins from the Bin Storage Area then return the empty bins. Once the bins are serviced, the collection vehicle will exit the site onto Oxford Falls Road in a forward direction.

3.8 Utilities and Services

3.8.1 Electrical Utility

There are currently above ground high voltage assets located along the far side of Oxford Falls Road. The site will operate as a low voltage customer and connect into Ausgrid's network. The below summarises the high voltage supply strategy for the site:

- Introduction of a new kiosk-type substation on the southeast corner of the site, tapping off the existing high voltage cabling on the opposite side of Oxford Falls Road.
- Underground cabling across Oxford Falls Road to loop in the proposed substation.

- A temporary builder's supply and main switchboard will likely be established on site during the construction phase, designed and detailed prior to construction.

3.8.2 Communication Utility

The communications services to the site will be delivered in the form of two diverse fibre lead-ins. Both lead-ins will be designed to NBN standards, with the intent being that NBN will be one provider, and the second provider will be a carrier of Queenwood's choosing.

3.8.3 Hydraulic Infrastructure

The nearest potable water asset is a 150 mm water main owned by Sydney Water, located to the east of the site in Oxford Falls Road. A new connection will be established to this asset to provide supply for both domestic potable water and the site's fire hydrant system.

3.8.4 Natural Gas

There is no natural gas infrastructure available for connection to the site. In alignment with the school's commitment to de-gasification, the proposed development will not incorporate natural gas as part of its building services strategy.

3.8.5 Sewer Connection

There is currently no sewer infrastructure within the vicinity of the site to enable connection to Sydney Water's network. The development will therefore utilise an on-site septic tank system to manage wastewater.

4 Statutory Context

This section of the report provides an overview of the key statutory requirements relevant to the site and the project, including:

- *Commonwealth Environment Protection and Biodiversity Conservation (**EPBC**) Act 1999*
- *NSW Biodiversity Act 2016* (**BC Act**)
- *Environmental Planning and Assessment Act 1979* (**EP&A Act**)
- *Environmental Planning Assessment Regulation 2021* (**the Regulations**)
- *Roads Act 1993 (**Roads Act**)*
- *Water Management Act 2000 (**WM Act**)*
- *State Environmental Planning Policy (Planning Systems) 2021* (**Planning Systems SEPP**)
- *State Environmental Planning Policy (Transport and Infrastructure) 2021* (**T&I SEPP**)
- *State Environmental Planning Policy (Resilience and Hazards) 2021* (**R&H SEPP**)
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021* (**B&C SEPP**)
- *State Environmental Planning Policy (Industry and Employment) 2021* (**I&E SEPP**)
- *State Environmental Planning Policy (Sustainable Buildings) 2022* (**SB SEPP**)
- *Warringah Local Environmental Plan 2000* (**WLEP2000**)

It identifies the key statutory matters which are addressed in detail within the EIS, including the power to grant consent, permissibility, other approvals, pre-conditions and mandatory considerations.

4.1 Statutory Requirements

The following sections provide a summary of the relevant statutory requirements having regard to the *State Significant Development Guidelines*. A detailed statutory compliance table for the project is provided at **Appendix C**.

4.1.1 Power to Grant Approval

The legal pathway under which the consent is sought, why this pathway applies, and the relevant consent authority is outlined in **Table 8**Table 8.

Table 8 Power to Grant Approval

Matter	Consideration
Declaration of SSD	Clause 15 within Schedule 1 of the Planning Systems SEPP identifies educational establishments as state significant development if it meets the criteria outlined in that clause, as follows: *15 Educational establishments* *(1) Development that has an estimated development cost of more than $20 million that—* *(a) is for the purpose of a new school, or* *(b) involves the erection of a building for an existing school on land that, immediately before the commencement of the development, was not used for the purposes of a school.*

	(2) Development for the purposes of the erection of a building, or alterations or additions to an existing building, at an existing school that has an estimated development cost of more than $50 million. *(3) Development for the purposes of a tertiary institution, including an associated research facility, that has an estimated development cost of more than $50 million.* In respect to the above, we note: ▪ The proposed educational establishment (school sport facilities and classrooms) has an estimated development cost greater than $20 million (being approximately $44 million). The proposal involves the erection of a building for an existing school (Queenwood) on land that, immediately before the commencement of the development, was not used for the purposes of a school. The proposed development therefore qualifies as State Significant Development under the T&I SEPP. This costing estimate has been provided by an accredited quantity surveyor.
Consent Authority	Under section 4.5 of the EP&A Act

4.1.2 Permissibility

The permissibility of proposed development is outlined in **Table 9**Table 9.

Table 9 Permissibility

Matter	Consideration
Land use(s)	Educational Establishment
Land use zone(s)	Locality B2 – Oxford Falls Valley – WLEP 2000
Permissibility	The site's zoning is identified as 'deferred matter' on the Land Application Map of the WLEP 2011 meaning the provisions of the WLEP 2000 continue to apply to the Site. Under WLEP 2000 the site is not zoned and instead applies 'locality statements' to manage land use. This is a unique situation in NSW land use planning. Under the WLEP 2000, the site is located within Locality B2 – Oxford Falls Valley. Section 3.36(1) of the T&I SEPP states that development for the purpose of a school may be carried out by any person with development consent on land in a 'Prescribed zone'. "Prescribed zone" is defined to mean any of the 26 land use zones referred to in Section 3.34(1) of the T&I SEPP, including Zone RU2 Rural Landscape. Section 3.3(6) of the T&I SEPP states: *(6) A reference in this Chapter to a lot or to land in a named land use zone is a reference—* *(a) to land that, under an environmental planning instrument made as provided by section 3.20(2) of the Act, is in a land use zone specified in the Standard Instrument, and* *(b) to land that, under an environmental planning instrument that is not made as provided by section 3.20(2) of the Act, is in a land use zone in which equivalent land uses are permitted to those permitted in the named land use zone.* It is reasonable to view the term "locality" as equivalent to/synonymous with the term "land use zone" for the purpose of clause 3.3(6) of the T&I SEPP. Therefore,

applying clause 3.3(6)(b) of the T&I SEPP, the reference to prescribed zone in clause 3.36(1) is a reference to land that, under the WLEP 2000 (which is an EPI that was not made under section 3.20(2) of the EP&A Act), is in a land use zone in which equivalent land uses are permitted to those permitted in the relevant prescribed zone.

The RU2 Zone and Locality B2 are zones with equivalent permissible land uses for the purpose of section 3.3(6)(b) of the T&I SEPP. Therefore, the proposal is permitted with consent under the T&I SEPP.

In a meeting on 5 February 2024, DPHI verbally advised Urbis that they agreed with this view. Further, by way of email dated 14 February 2024, DPHI provided the following written advice:

- The Zone RU2 and Locality B2 are zones with equivalent permissible land uses, and that a SSDA seeking consent for the educational use could be sought under the T&I SEPP on this basis.
- That the proposed development would trigger the SSDA pathway for the purpose of issuing SEARs. That is, the development will have a Capital Investment Value (**CIV**) over $20 million, the proposed development involves the erection of a building 'for an existing school', and the site is not presently used for the purposes of a school.

Therefore, in light of the above findings, it is considered that the proposed development is a permissible land use under the T&I SEPP for the purposes of an educational establishment.

Northern Beaches Council are currently progressing with a new comprehensive Draft Northern Beaches Local Environment Plan (**Northern Beaches LEP**) to harmonise existing planning legislation which is currently managed via multiple environmental planning instruments. The Draft LEP has now received Gateway Determination and is in the pre exhibition phase. Council are concurrently preparing a consolidated draft Development Control Plan (**DCP**). At the time of writing, this is not a relevant matter for consideration under the EP&A Act.

It is intended that once the LEP is finalised, the new controls for the site will be incorporated into the new environmental planning instrument. The Draft LEP proposes to impose a RU4 Primary Production Small Lots zoning onto the site. The RU4 zone is considered a prescribed zone under the T&I SEPP and therefore the proposed educational establishment use would remain permissible under the proposed zone.

4.1.3 Other Approvals

The other approvals required to carry out the project are outlined in **Table 10**Table 10 below.

Table 10 Other Approvals

Matter	Consideration	
Consistent approvals s4.42 of the EP&A Act 1979	**Act**	**Applies (Y/N)**
	Fisheries Management Act 1994 (s144)	No
	Coal Mine Subsidence Compensation Act 2017 (s22)	No
	Mining Act 1992 (380A)	No
	Petroleum (Onshore) Act 1991 (s24A)	No
	Protection of the Environment Operations Act 1997 (s43)	No
	Roads Act 1993 (s138)	Yes

	Pipelines Act 1967	No
EPBC Act	The EPBC Act protects and manage nationally and internationally important flora, fauna, ecological communities, and heritage places. Bilateral Agreement 18 allows for the streamlining of environmental assessments and approvals between the Australian Government and the states and territories, ensuring both levels of government work together to protect Australia's unique environment while reducing duplication in the approval process. There are no Matters of National Environmental Significance (**MNES**) that are relevant to the scope of this SSDA, and as such does not require referral to the Federal Department of the Environment.	
Water Management Act 2000	Section 91 of the *Water Management Act* deals with the requirement to obtain a controlled activity approval from Water NSW for certain works carried out on waterfront land. Waterfront land is defined as the bed, bank or land within 40 metres of the highest bank of a river, lake or estuary — which includes riparian corridors. The site includes a riparian corridor that runs through the centre of the site and therefore will include works within 40m of the highest bank of river. Therefore, activity approval is required from WaterNSW for the proposed removal of vegetation and construction of the sporting facility, noting all built form works have been setback 10m from the top of the bank of the riparian zone.	
Roads Act 1993	Section 138 of the *Roads Act* 1993 requires applicants to obtain the consent of the appropriate road's authority (in this case Northern Beaches Council) before carrying out any works within a public road reserve. This includes activities such as excavation, installing infrastructure, landscaping, or any other works that may impact the road, footpath, verge, or associated public domain areas. The proposal seeks to provide public domain works on a council owned road, Oxford Falls Road and therefore consent is required from Northern Beaches Council prior to works being carried out.	
Other Approvals	No other approvals are relevant to the development. The proposed development is not classified as Integrated Development under Section 4.46 of the EP&A Act. Therefore, the proposal does not require separate approvals from the NSW Rural Fire Service as part of the SSDA. Accordingly, assessment and determination responsibilities will rest solely with the consent authority, DPHI, without the need to seek concurrence or General Terms of Approval (**GTAs**) from relevant state agencies.	
Approvals etc. that do not apply	Fisheries Management Act 1994 - permit under s201,205 or 219	
	Heritage Act 1977 – approval under part 4 or excavation permit under s139	
	National Parks and Wildlife Act 1974 – an Aboriginal Heritage Impact Permit, s90	
	Rural Fires Act 1997 – a bush fire safety authority under s100B	

4.2 Pre-Conditions to Granting Consent

Table 11 outlines the pre-conditions to exercising the power to grant approval which are relevant to the project and the section where these matters are addressed within the EIS.

Table 11 Pre-Conditions

Statutory Reference	Pre-Condition	Section in EIS
EP&A Regulations	**Part 8 Infrastructure and environmental impact assessment** An EIS must be prepared in accordance with the SEARs issued for the project, and contain the relevant information identified in section 190 and 192 of the EP&A Regulations. This EIS has been prepared in accordance with Part 8 of the EP&A Regulations. This EIS addresses the SEARs issued by the Secretary as part section 175 of the EP&A Regulations and contains the detailed information identified in section 190 and 192 of the EP&A Regulations. Specifically, this includes a statement prepared by a Registered Environmental Assessment Practitioner (**REAP**). The development is consistent with the principles of environmentally sustainable development as per section 193 of the EP&A Regulations as discussed in Section 4. This application will be placed on public exhibition on the NSW Major Projects Portal.	Signed Declaration Each item of the SEARs has been addressed at **Section X** of this EIS. Further reference should also be made to the SEARs response table that has been provided at **Appendix B.**
Biodiversity Conservation Act 2016	In accordance with the BC Act, the assessment of an SSDA must consider biodiversity impacts. Section 7.14 of the BC Act requires the consent authority to consider the likely impact of the proposed development on biodiversity values. A BDAR has been submitted as part of the EIS and includes an assessment against the requirements of the BC Act.	**Section 6.6**
Resilience and Hazards SEPP – clause 4.6(1)	Potential sources of contamination exist at the site but are not expected to preclude the proposed development. Under the R&H SEPP a consent authority must be 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. Based on the findings of the DSI, a number of hotspots of copper, lead, zinc, benzo(a)pyrene and/or asbestos contaminated soil were identified. It was recommended that these concerns be addressed through additional soil investigations, and preparation of a Remediation Action lPan (**RAP**) to manage the impacted soils. Subject to implementation of the RAP procedures the site will be suitable for the proposed use as an educational establishment.	**Section 6.11**

4.3 Mandatory Considerations

Table 12 Table 12 outlines the relevant mandatory considerations to exercising the power to grant approval and the section where these matters are addressed within the EIS

Table 12 Mandatory Consideration

Statutory Reference	Mandatory Consideration	Section in EIS
Consideration under the EP&A Act and Regulations		
Section 1.3	Relevant objects of the EP&A Act	**Appendix C**
Section 4.15 (1)(a)(i) Relevant environmental planning instrument	Relevant environmental planning instruments including: ▪ *State Environmental Planning Policy (Resilience and Hazards) 2021* ▪ *State Environmental Planning Policy (Planning Systems) 2021* ▪ *State Environmental Planning Policy (Transport and Infrastructure) 2021* ▪ *State Environmental Planning Policy (Biodiversity and Conservation) 2021* ▪ *State Environmental Planning Policy (Sustainable Buildings) 2022* ▪ *Warringah Local Environmental Plan 2000*	**Appendix C**
Section 4.15 (1)(a)(ii) Relevant draft environmental planning instrument	N/A	N/A
Section 4.15 (1)(a)(iii) Relevant development control plan	As the site is a deferred matter under the WLEP 2011, the relevant provisions generally found within a DCP are located within Part 4 of WLEP 2000. Noting that DCPs do not apply to SSDAs.	**Appendix C**
Section 4.15 (1)(a)(iiia) any planning agreement or draft planning agreement	None relevant to the proposed development.	**Appendix C**
Section 4.15(1)(b) the likely impacts of that development,	The likely impacts of the development including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,	**Section X**
Section 4.15(1)(c)	The suitability of the site for the development.	**Section 7.6**
Section 4.15(1)(d)	Any submissions made in accordance with the Act or regulations.	**Section 7.4**
Section 4.15(1)(2)	The Public Interest.	**Section 7.7**

Statutory Reference	Mandatory Consideration	Section in EIS
Mandatory relevant considerations under EPIs		
State Environmental Planning Policy (Resilience and Hazards) 2021	Section 4.6 – Contamination and remediation to be considered in determining development applications A Remediation Action Plan (**RAP**) was conducted by Aargus on 11 November 2024 to determine whether the site is contaminated and whether any remediation measures will need to be undertake as part of the proposal to redevelop the site into a Sport and Recreational facility. The RAP concluded that the site is suitable with reference to Section 4.6 of the *State Environmental Planning Policy (Resilience and Hazards) 2021* subject to implementation of remediation and validation works in accordance with the plan.	**Appendix C**
State Environmental Planning Policy (Transport and Infrastructure) 2021	Section 3.58 Traffic-generating development applies to development for the purpose of an educational establishment (a) that will result in the educational establishment being able to accommodate 50 or more additional students, and (b) that involves— (i) an enlargement or extension of existing premises, or (ii) new premises, on a site that has direct vehicular or pedestrian access to any road. Comments will be provided by TfNSW during public exhibition.	**Appendix C**
State Environmental Planning Policy (Biodiversity and Conservation) 2021	Section 6.6 – Water Quality and Quantity Section 6.7 – Aquatic Ecology Provisions are not applicable as the site is not located within the following catchments in accordance with Section 6.1 of the Biodiversity and Conservation SEPP.	**Appendix C**
State Environmental Planning Policy (Industry and Employment) 2021 (**I&E SEPP**)	Section 3.6 – Granting of Consent to Signage A consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied that the signage is consistent with the objectives of this Chapter as set out in section 3.1(1)(a), and that the signage the subject of the application satisfies the assessment criteria specified in Schedule 5.	**Appendix C**
Considerations under other legislation		
Biodiversity Conservation Act 2016 Part 7 and Part 8 (2) (**BC Act**)	The likely impact of the proposed development on biodiversity values as assessed in the biodiversity development assessment report. The Minister for Planning may (but is not required to) further consider	**Appendix C** and **Section 6.6**

Statutory Reference	Mandatory Consideration	Section in EIS
	under that Act the likely impact of the proposed development on biodiversity values. A BDAR has been submitted as part of the EIS and includes an assessment against the requirements of the BC Act.	
Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (**EPBC Act**)	Chapter 2 of the EPBC Act establishes controls for assessing and regulating the environmental impact of activities (including development) where a MNES may be affected. Under the EPBC Act, any action which has, will have, or is likely to have a significant impact on MNES is defined as a "controlled action" and requires approval from the relevant Commonwealth Minister. Assessment of significance is required in accordance with the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance published by the Commonwealth Department of Agriculture, Water and the Environment (**DAWE**). A BDAR has been submitted as part of the EIS and includes an assessment against the requirements of the EPBC Act.	**Appendix C** and **Section 6.6**
Rural Fires Act 1997	Planning for Bushfire Protection (NSW Rural Fire Service 2018) has been considered in the design and assessment provided within the EIS.	**Appendix C** and **Section 6.12**
Roads Act 1993	Section 138 regulates works and structures in, on or over a public road including requirements for concurrence from TfNSW. The Guide for Traffic Generating Developments will be considered as part of the Transport Assessment for the project and assessed within the EIS.	**Appendix C** and **Section 6.5**
Development Control Plan		
Any DCP	Clause 2.10(1) of the Planning Systems SEPP provides that the provisions of Development Control Plans do **not** apply to SSD. Further, s3.36(9) of the T&I SEPP states a provision of a DCP that specifies a requirement, standard or control in relation to school development is of no effect, regardless of when the development control plan was made.	Not applicable
Development Contribution Plan		
Northern Beaches Section 7.12 Development Contribution Plan 2024	The proposed development is subject to Northern Beaches Development Control Plan which applies a 1% levy rate to development with a cost of more than $200,000.	**Section 4**

5 Community Engagement

The following sections of the report describe the engagement activities that have been undertaken during the preparation of the EIS and the community engagement which will be carried out if the project is approved.

5.1 Engagement Carried Out

Community and stakeholder engagement has been undertaken by the Project Team in the preparation of the SSDA. Consultation was also undertaken with the certain stakeholders to inform the detailed assessment of key matters. The engagement carried out for the project is outlined in **Table 13**Table 13.

Table 13 Engagement Carried Out

Stakeholder	Key Date(s)	Action
Community Stakeholders		
School community: ▪ Students ▪ Parents ▪ Queenwood Parents' Association ▪ Staff and faculty ▪ Senior leadership ▪ School Board ▪ Alumni	A newsletter was sent out on the 22nd of August to the Queenwood community. There has been no feedback received from the school community from the newsletter.	Queenwood will continue to internally consult with the school community throughout the assessment and construction process of the proposal.
Local Community	On 2 September 2025, a community newsletter was distributed to 1216 properties surrounding the site. This newsletter provided an overview of the SSDA and outlined how residents could make enquiries and provide feedback via the 1800 number and project email address. The newsletter also included details and how to participate in a SIA survey through a QR code provided. Two Community Pop-Up sessions were held at Forest Way Shopping Centre on: ▪ 18 September 2025 ▪ 20 September 2025 These sessions provided the community with the opportunity to meet the project team, gain a more comprehensive understanding of the proposed development, ask questions and provide feedback.	Community feedback and responses have been provided in **Section 5.2** of this report.

Stakeholder	Key Date(s)	Action
State Member for Wakehurst, Mr Michael John Regan, MP	On Thursday, 4 September 2025, Urbis Engagement, on behalf of Queenwood issued an email providing an overview of the proposal, a copy of the community newsletter and an invitation to attend a project briefing. On Tuesday 7 October 2025, Urbis Engagement and the Queenwood project team attended a briefing with Mr Michael Regan, the State Member for Wakehurst, at Parliament House.	At the briefing held with Mr Michael Regan at Parliament House, questions and feedback were provided on: ▪ Current status of project ▪ Site issues ▪ Number of students on site ▪ Concentrated use / permanent teaching spaces ▪ 24/7 usage ▪ Site boundary ▪ Neighbour concerns ▪ Outdoor court surface ▪ Community use ▪ Types and number of courts ▪ Community consultation ▪ Project staging and timeframes Responses to the matters raised above were provided to Mr Michael Regan and have also been included within this EIS.
Federal Member for Mackellar, Dr Sophie Scamps	On Thursday, 4 September 2025, Urbis Engagement, on behalf of Queenwood issued an email providing an overview of the proposal, a copy of the community newsletter and an invitation to attend a project briefing.	At the time of writing this report, no feedback has been received from the Federal Member for Mackellar, Dr Sophie Scamps.
Northern Beaches Council Mayor, Sue Heins Deputy Mayor, Ruth Robins	On Thursday, 4 September 2025, Urbis Engagement, on behalf of Queenwood issued an email providing an overview of the proposal, a copy of the community newsletter and an invitation to attend a project briefing.	At the time of writing this report, no feedback has been received from the Northern Beaches Council Mayor or Deputy.
Cr Vincent De Luca OAM, Narrabeen Ward Councillor	On Thursday, 4 September 2025, Urbis Engagement, on behalf of Queenwood issued an email providing an overview of the proposal, a copy of the community newsletter and an invitation to attend a project briefing. On Thursday, 4 September 2025, Urbis Engagement received an email response from Cr Vincent De Luca OAM enquiring if the facility would be open	Cr Vincent De Luca OAM was provided with a response that Queenwood is committed to providing the community with access to these high-quality, multipurpose sporting and recreational spaces at mutually agreed times. While the primary purpose of the development is to enhance opportunities for students from the existing school campuses to train

Stakeholder	Key Date(s)	Action
	to the public when not used by the school. On Wednesday, 17 September 2025, Urbis Engagement responded to Cr Vincent De Luca OAM.	and compete in sport, it will also make a valuable contribution to the Northern Beaches by ensuring the broader community can benefit from these excellent resources. The details of the proposed use have also been outlined within this EIS.
Cr Robert Giltinan OAM, Narrabeen Ward Councillor	On Thursday, 4 September 2025, Urbis Engagement, on behalf of Queenwood issued an email providing an overview of the proposal, a copy of the community newsletter and an invitation to attend a project briefing. On Sunday, 7 September 2025, Urbis Engagement received an email response from Cr Robert Gilitinan OAM.	Cr Gilitinan provided his support for the project outlining that '*Any sporting structure designed to provide our children with places to play and to keep healthy playing various activities has my support 110 percent. The grand nature of the complex sounds very exciting, and I trust all will go well in your future plans. Very best wishes*.'
Aboriginal Stakeholders		
Metropolitan Aboriginal Land Council	Urbis Archaeology engaged with the Metropolitan LALC throughout the Aboriginal Cultural Heritage Assessment (ACHAR) consultation process via email on 3 October 2024.	At the time of writing this report, no feedback has been received from the Metropolitan LALC on the draft ACHAR.
Registered Aboriginal Parties (RAPS)	Following the purchase of the land in July 2024, the school held a Smoking Ceremony and Welcome to Country conducted by Uncle Laurie on 19 September 2024. Uncle Laurie is a descendent of the local Indigenous community. The ceremony acknowledged and paid respect to the traditional owners of the land and welcomed Queenwood onto the land. The ceremony was attended by the Chair of Council, the Principal, the Property Committee, the school Executive, Director of Sport, and student leaders. On 24 June 2025, the school conducted a Walk on Country with Uncle Dean Kelly. Uncle Dean Kelly is a Wailwan man from Yuin Country working as a Community Liaison Officer for NSW National Parks and Wildlife Service. Urbis Archaeology engaged with RAPs throughout the ACHAR consultation process via email on the 3 October	Further details about the consultation process and how feedback from RAPs has been considered in the proposal is provided in the ACHAR. Queenwood are committed to a developing a genuine connection and engagement with local Indigenous communities on which land this project is located. The following insights from Country have been incorporated into the design of the proposed activity: ▪ Water as Lifeblood ▪ Bush and Environment ▪ Sport and Exercise ▪ Gathering and Learning

Stakeholder	Key Date(s)	Action
	2024. A total of 14 parties registered interest in the project. A separate email was sent on 13 December 2024 to RAPs who had expressed an interest in the project which was held on 17 December 2024. One response was received to attend the site visit and meeting.	
National Native Title Tribunal	Urbis Archaeology engaged with the Metropolitan National Native Title Tribunal throughout the Aboriginal Cultural Heritage Assessment (ACHAR) consultation process via email on 3 October 2024. A response was received on the 3 October 2024.	Further details about the consultation process and how feedback from the National Native Title Tribunal has been considered in the proposal is provided in the ACHAR.
NTS Corp	Urbis Archaeology engaged with NTS Corp throughout the Aboriginal Cultural Heritage Assessment (ACHAR) consultation process via email on 3 October 2024	At the time of writing this report, no feedback has been received from the NTS Corp on the draft ACHAR.
Office of the Registrar, Aboriginal Land Rights Act 1983	Urbis Archaeology engaged with Office of the Registrar, Aboriginal Land Rights Act 1983 throughout the Aboriginal Cultural Heritage Assessment (ACHAR) consultation process via email on 3 October 2024. A response was received on 3 October 2024.	Further details about the consultation process and how feedback from the Office of the Registrar, Aboriginal Land Rights Act has been considered in the proposal is provided in the ACHAR.
Key Agencies		
NSW Department of Planning, Housing and Infrastructure (DPHI) Planning and Assessment Team Government Architect NSW (**GANSW**)	On Thursday 3 July 2025, a meeting was held with Urbis Planning and DPHI's Social Infrastructure team.. On Thursday 7 August 2025, a briefing to GANSW and DPHI was held outlining Queenwood's vision, the need for the proposed sports facilities, and their intended operation, including school and community use, and addressed transport arrangements for students.	DPHI and GANSW raised planning considerations around bushfire management, flooding, biodiversity impacts, public domain works, vehicle and bus access, and accessibility compliance, noting the site's environmental overlays and the need for thorough documentation and mitigation. Feedback was provided on design matters included increasing tree canopy cover, expanding bushland conservation, reconsidering the fire truck turning circle, addressing sustainability concerns with synthetic surfaces, refining setbacks, enhancing the

Stakeholder	Key Date(s)	Action
		sports hall's design and materials palette, reviewing the pedestrian entry, and optimising the bridge design and gradient. Queenwood acknowledged the feedback and have addressed these matters in ongoing design development as outlined in **Section 6.2.1** and in further technical environmental assessment as outlined in **Section 6.**
Northern Beaches Council Planning and Assessment Team Social Planning Team	Meetings were held with Council's Planning Team on 25 June and 28 August 2025. On Wednesday 25 June 2025 a meeting was held at Northern Beaches Council. The meeting provided opportunity to discuss the SSD proposal for the Queenwood facilities at Oxford Falls and request advice on the provisions of Warringah LEP 2000 and need to hold a public hearing. On Thursday, 28 August 2025, another meeting was held at Council's offices. Since the last meeting, the project design has progressed from concept to a detailed package, incorporating feedback from GANSW.	Council requested consultation occur with DPHI on the requirement for a public hearing. Council was advised that DPHI would assess whether a public hearing was not required during the assessment of the SSDA. Council supported the parking design of the proposal but had concerns about the reduced setback to Oxford Falls Road, potential lighting spill and noise impacts, and management of community access. Details were provided on timing for community engagement and lodgement. The SSDA documentation includes a light spill impact assessment and acoustic modelling, providing justification for the setback to Oxford Falls Road, including additional tree planting and design refinement. A community use framework will be developed with consultation with Council/community sporting groups post-approval.
Transport for NSW	Traffic consultants, JMT Consulting did not deem it necessary to make contact with TfNSW in preparing the EIS as TfNSW usually only provide detailed commentary during formal exhibition.	
Sydney Water	On Tuesday, 29 October 2024, JHA Consulting applied online through the Sydney water website. The results indicate that the available pressure and flow are sufficient to meet the project's requirements without the need for onsite tanks or pumps for the fire hydrant system. It is also confirmed that there is adequate water supply to meet the combined fire hydrant and sprinkler demand, as well as the potable water demand. Hydrant 20L/S sprinklers 12L/S max flow available from Sydney Water 35L/S.	

Stakeholder	Key Date(s)	Action
Biodiversity, Conservation and Science Department (**BCS**)		On Friday, 8 November 2024 AEP reached out to BCS seeking comment on the project team's strategy for retention of the native vegetation PCT 3595 in the north-east corner of the site. On Tuesday, 26 November 2024, BCS declined to comment, noting that advice will be provided at the EIS exhibition stage. The project team has continued with the assessment of the BDAR per the SEARS guidelines.
Water NSW		JHA Consulting did not deem it necessary to make contact with WaterNSW in preparing the EIS as WaterNSW usually only provide detailed commentary during formal exhibition.
Rural Fire Service		Bushfire consultants, BlackAsh, did not deem it necessary to make contact with the RFS in preparing the EIS as the RFS usually only provide detailed commentary during formal exhibition.
Department of Climate Change, Energy, the Environment and Water (**DCCEEW**)		On Thursday, 13 November, GRC Hydro reached out to DCCEEW seeking comment on the project team's strategy for flood management and evacuation. Thursday, 13 November DCCEWW declined to comment, noting that advice will be provided at the EIS exhibition stage. The project team has continued with the assessment of flood matters per the SEARS guidelines.
State Emergency Service (**SES**)		On Thursday, 13 November, GRC Hydro reached out to SES seeking comment on the project team's strategy for flood management and evacuation. On 4 December 2025, SES provided comments and recommended that consideration of flooding issues is undertaken in accordance with the requirements of NSW Government's Flood Prone Land Policy. This has been considered within the FIRA (**Appendix U**).

This engagement outlined above was consistent with the community participation objectives in the Undertaking Engagement Guidelines for State Significant Projects and complied with the community engagement requirements in the SEARs as summarised below:

- The approach to engagement for the project has been informed by and is consistent with DPHI's *Undertaking Engagement Guidelines for State Significant Projects* and the Engagement Institute's (formerly IAP2 Australia)'s Public Participation Spectrum.
- Based on a thorough analysis of the surrounding community and potential project impacts, stakeholders to be consulted included government agencies, elected officials and members of parliament, and the surrounding community.
- In line with the Engagement Institute's Public Participation Spectrum and DPHI's Community Participation Plan, engagement for this SSDA aimed to:
  - Provide consistent, relevant, jargon-free and up-to-date information on the project potential impacts and benefits, and the planning process through accessible, tailored open lines of communication
  - Provide methods and opportunities for the community to give feedback to help inform the planning process
  - Respond appropriately and in a timely manner to concerns or questions raised by the community and stakeholders throughout the lifecycle of the project
  - Manage expectations by closing the feedback loop and sharing how stakeholder and community views influenced the project.

In accordance with the Regulations, the EIS will be placed on formal public exhibition once DPHI has reviewed the EIS and deemed it 'adequate' for this purpose. Following this exhibition period, the applicant will respond to any matters raised by notified parties.

5.2 Community Views

The key issues raised by the community and key stakeholders are summarised in the table below. A detailed community engagement summary is provided as **Appendix D** which details the way in which these issues have been addressed in the EIS.

Table 14 Community Feedback

Key Issue	Project Response
Relevant Statutory Issues	
Site Zoning and Boundaries A member of the community sought clarification on the site's zoning, its history of use, and its proximity to surrounding facilities such as the tennis courts. They asked for more detailed information, including site maps and road layouts, development timelines, project management arrangements, and the potential impacts on current leases and tenants. Concerns were also raised about the proximity of the development to property boundaries.	The proposal involves a change of use of the site from a residential dwelling to an educational establishment, with a focus on developing a state-of-the-art multi-sport school precinct. Consent is also sought for use of the site by the community. Currently, the site includes a residence, a tennis court, and a vegetated riparian corridor. The community was informed that further detailed information, including site maps, road layouts, and setbacks to property boundaries, will be made available to the public during the formal exhibition period of the SSDA. The proposal includes careful consideration of project timelines and management arrangements, with ongoing updates to tenants on the site and community stakeholders as the development progresses. This EIS details how the design has responded to surrounding receivers in relation to visual, overshadowing and overlooking impacts to ensure surrounding properties are not adversely impacted.
Community Engagement/Use	
Public Access and Community Use Stakeholders sought clarification on whether the wider community would have access to the facility outside of school use and expressed support for wider community access.	Queenwood advised that they are committed to making a valuable contribution to the Northern Beaches LGA by providing the community with access to the school sporting facilities at certain times. Arrangements are to be agreed in the future.
Communication and Engagement The community showed interest in the consultation process itself, asking how feedback would be collected moving forward and how they could stay informed. They also inquired about the project timeline and future engagement activities.	Feedback from the community has been collected through engagement activities and has formed part of the outcomes report included within the SSDA package. In addition, an independent Social Impact Assessment (**SIA**) has been prepared to examine the potential impacts of the proposal, incorporating community input as part of the analysis. Queenwood is committed to ensuring ongoing communication with the community as the project progresses. Regular updates will be provided, and the

	community will be able to keep up to date with the proposal through the DPHI Major Projects portal page. Opportunities for feedback will also continue throughout the planning and assessment stages, particularly during the public exhibition period of the SSDA.
Environmental Impacts	
Traffic Issues Stakeholders noted that traffic in the area is already heavily congested during school drop-off and pick-up times, particularly in relation to Oxford Falls Grammar School, and expressed concern that the proposal may increase these issues.	Queenwood confirm that the facility will primarily be used by the school during the week at off-peak times, which will mean it will not contribute to current traffic and road congestion during peak school pick-up and drop-off periods in the area. While the facility will be used for sporting activities on weekends, the proposal includes the provision of underground car parking to reduce reliance on on-street parking and ease local congestion. During the construction period, a comprehensive Construction Management Plan (**CMP**) will be prepared and enforced. This plan will include detailed scheduling for heavy vehicles and truck movements, ensuring deliveries and construction activities are managed to avoid the busiest times of day and reduce impacts on surrounding residents. Queenwood is committed to ensuring minimal disruption to nearby residents throughout both construction and operation of the facility, with traffic and parking carefully managed to maintain safety and accessibility for the local community. A Transport Impact Assessment has been prepared and accompanies this EIS which outlines the proposed impacts of the proposed activity on the surrounding traffic network as outlined in **Section 6.5** of this report.
Noise Impacts The community raised concerns about the proposed hours of operation, with particular concerns about extended or 24-hour use. Stakeholders felt that noise from the facility could impact nearby residents and would echo through the surrounding bushland if not managed appropriately. There were concerns for the impacts of noise on local wildlife. Stakeholders expressed concerns about the impact of construction, including potential disruption to the local area during the building phase particularly in relation to noise and traffic impacts during construction.	A comprehensive CMP will be required to be prepared before construction works begin. This plan will set out strict measures to manage construction noise, scheduling noisy works such as jackhammering to appropriate daytime hours and ensuring disruption to nearby residents is kept to a minimum. Queenwood confirm the facility will not be open 24/7. It will comply with the relevant noise criteria outlined in the Noise and Vibration Impact Assessment at **Appendix P**. The school proposes sports activities to end on the site by 9:30pm on weeknights, 9pm Saturdays and 8pm Sundays. A Plan of Management (**Appendix JJ**) has been prepared to be further finalised during operation in consultation with the future community operator. A Noise and Vibration Report has been prepared for the development analysing the proposed acoustic impact of the proposed activity with further details outlined within **Section 6.7**.
Environmental Impacts Concerns were raised about the potential impact of the proposal on the local	A detailed Biodiveristy Assessment Report (**BDAR**) (**Appendix O**) was prepared for the proposal which found no threatened species on the site. The report outlines that

environment, particularly around the removal of existing trees, flooding, water runoff and the impact of using synthetic turf, the protection of the riparian corridor, and the effects on wildlife habitats.	while 0.41 hectares of native vegetation will be removed, significant areas have been preserved, particularly the north–south riparian corridor, ensuring wildlife can move freely and access safe habitats. A detailed Stormwater Management Plan (**Appendix M**) is proposed to incorporate techniques to manage runoff and prevent contamination of local waterways, including Narrabeen Lagoon. Erosion and sediment controls will protect soils and water quality during construction and operation. Having a synthetic turf surface for the multiple purpose sports field will enable multiple sporting activities to take place on the field during all types of weather. This approach also allows the field to meet competition requirements, ensuring high-quality playing conditions and broader accessibility for different sports. Measures will be implemented to minimise potential impacts on local wildlife from floodlighting, with lighting design including mitigation controls to reduce light spill beyond the site. These strategies aim to ensure minimal disruption to species such as owls in the surrounding environment. An assessment of the proposed turf against the new *NSW Synthetic Turf Sports Fields in Public Open Space guidelines is provided in* **Appendix DD** which confirms the proposed synthetic turf is compliant with the guidelines.
Planning and Approvals	
The community asked questions about the planning and approval process, including the role of the State Significant Development Application (SSDA) and whether the project would override local council decisions. Concerns were expressed about the lack of official zoning for Oxford Falls and whether council approval would be required.	The planning pathway is via a SSDA to be assessed by DPHI. The proposal meets the relevant requirements for assessment by the state government as outlined in **Section 4** of this report and **Appendix B**. Notwithstanding, Northern Beaches Council has been consulted a number of times prior to the lodgement of the SSDA. Northern Beaches Council will also provide feedback during the public exhibition, ensuring Councils considerations are considered by DPHI. Queenwood is open to ongoing discussions with Northern Beaches Council.

5.3 Engagement to be Carried Out

Further ongoing community and stakeholder consultation will be undertaken if the project is approved. This post approval consultation will address ongoing project matters raised during the preparation of the EIS and consistent with the community participation objectives in the *Undertaking Engagement* guide.

Queenwood will continue to keep stakeholders and the community informed of the project approval process through the exhibition and determination phases by:

- Providing an update to the community once lodgement of the SSDA has occurred, enabling ongoing communication about it potential impacts, and next steps in the planning pathway.
- Ongoing engagement with agencies to address feedback received during public exhibition of the project.

- Enabling the community to seek clarification about the project through ongoing management two-way communication channels, including an email address (engagement@urbis.com.au) and phone number (1800 244 863).

6 Assessment of Impacts

This section describes the way in which the key issues identified in the SEARs have been assessed. It provides a comprehensive description of the specialist technical studies undertaken regarding the potential impacts of the proposed development and recommended mitigation, minimisation and management measures to avoid unacceptable impacts.

Detailed tables have been provided within the appendices as outlined in Table 15. This information includes a reference to where these matters have been addressed in the EIS.

Table 15 Key Appendices

Key Appendix	Reference
SEARs compliance table	Appendix A
Statutory compliance table	Appendix B
Proposed mitigation measures table	Appendix C
Community and Stakeholder Engagement Report	Appendix D

The detailed technical reports and plans prepared by specialists and appended to the EIS are individually referenced within the following sections.

6.1 Character of the Locality

The site is located within the B2 Oxford Falls Valley Locality under the WLEP 2000. The LEP requires applications to demonstrate their consistency with the locality statement which is as follows:

> *The present character of the Oxford Falls Valley locality will remain unchanged except in circumstances specifically addressed as follows*:
>
> - *Future development will be limited to new detached style housing conforming with the housing density standards set out below and low intensity, low impact uses. There will be no new development on ridgetops or in places that will disrupt the skyline when viewed from Narrabeen Lagoon and the Wakehurst Parkway.*
> - *The natural landscape including landforms and vegetation will be protected and, where possible, enhanced. Buildings will be located and grouped in areas that will minimise disturbance of vegetation and landforms whether as a result of the buildings themselves or the associated works including access roads and services. Buildings which are designed to blend with the colours and textures of the natural landscape will be strongly encouraged.*
> - *A dense bushland buffer will be retained or established along Forest Way and Wakehurst Parkway. Fencing is not to detract from the landscaped vista of the streetscape.*
> - *Development in the locality will not create siltation or pollution of Narrabeen Lagoon and its catchment and will ensure that ecological values of natural watercourses are maintained.*

The proposed school sporting and learning facilities have been designed and sited to ensure they maintain the desired future character of the Oxford Falls Valley locality.

While the facilities introduce new recreational uses, they are low impact in nature and do not involve any development on ridgetops or in locations that would disrupt the skyline when viewed from Narrabeen Lagoon or the Wakehurst Parkway. It is noted that the site will also only be used in intermittent periods during the week by the School, primarily after school for training periods to reduce congestion and further impacts on

the surrounding environment. There will be regular periods during the weekdays where the site is not in use. Community use will be confirmed during detailed design and operation of the site and will be designed to reduce impact on the surrounding locality.

The layout of the buildings and outdoor areas has been carefully planned to minimise disturbance to existing vegetation and landforms. The raised walkway across the riparian corridor provides a functional connection between the indoor and outdoor facilities while providing an opportunity to rehabilitate the existing creek line. Landscaping and material selections have been chosen to blend the built form with the surrounding natural environment, supporting visual integration with the locality. Lighting associated with the outdoor sports fields has been to minimise light spill and reduce potential impacts on local fauna and neighbouring properties.

Extensive landscaping is retained along both street frontage, with fencing and built elements both designed to avoid detracting from the landscaped streetscape.

Stormwater management and erosion control measures have been integrated into the design to prevent pollution of Narrabeen Lagoon and its catchment. The ecological values of the creek and surrounding watercourses will be protected.

6.2 Design Quality

An Architectural Design Report (**Appendix F**) has been prepared by TKD Architects which articulates the built form, design principles and qualities of the proposed development and describes the site context, noting the design principles that have guided the proposed development.

Item 3 of the SEARs requires design quality to be achieved in accordance with the *Design Guide for Schools* and to be addressed by this SSDA. The project's consistency with the Design Guide for Schools is outlined below and detailed in the Architectural Design Report. Design quality principles set out in Schedule 8 of the Transport and Infrastructure SEPP are also detailed in the Architectural Design Report.

Better Fit - *Contextual, local and of its place*

- The proposed sporting facilities development will provide much-needed additional sporting facilities for Queenwood students. The proposal will provide the school community with both internal and external sport courts and training areas for various sporting activities including basketball, tennis, hockey and netball. The proposed development will offer state of the art facilities for members of the school and will able to be shared with the wider community outside of school use.
- Contextually, locating the school sports facilities in Oxford Falls where there is an emerging agglomeration of sporting and educational facilities, is considered an appropriate response to the local context.
- The proposed built form seeks to preserve remnant bushland and existing mature native trees where possible, rehabilitate the existing riparian corridor, and avoid overshadowing to neighbouring dwellings. The proposal has been designed to minimise impact to adjoining neighbours, with appropriate mitigation measures, as well as respond the existing natural environment.
- The materiality of the buildings was selected to be compatible with the bushfire risk associated with the site whilst still ensuring the proposed design is compatible with the character of the surrounding area.
- The building facade has been articulated on Oxford Falls Road using lower projecting roof forms, sunshades and rich sandstone cladding, which are located below the 8.5m height limit. The facade areas above this height are clad in dark recessive neutral colours. The overall effect is that the lower portions are expressed and articulated, and this gives the overall impression of a reduced bulk and scale.

Better Performance - *Sustainable, adaptable and durable*

- Solar analysis was undertaken as part of the initial investigations to inform the building's energy efficiency / comfort levels, and to ensure the solar amenity of neighbouring residents remains unaffected with no additional overshadowing to any dwelling house.

- Environmental initiatives have been integrated into the design including photovoltaic panels on the roof, energy efficient LED lighting, rainwater capturing and reuse and provision of natural ventilation to the main sports hall through motorised glass louvres assisted by ceiling fans.
- The multipurpose design supports various sports and some educational activities. Durable materials such as brick, sandstone, fibre cement and metal wall cladding will ensure the building is low maintenance.
- Retention of existing significant trees where possible is also sought along with embellished and replacement planting and landscaping across the site.

Better for Community - *Inclusive, connected and diverse*

- The facilities are proposed to not only be used by the school but also the wider community at certain times outside of school use, which will allow for greater access to much needed sporting facilities for Oxford Falls and wider Northern Beaches residents.
- The design prioritises accessible and equitable access across the site. The Indoor Sports Hall, Outdoor Sports Field and all connecting paths will be fully accessible and compliant with AS1428.1. Circulation paths are clear and easy to navigate and will allow occupants and users to efficiently move around the site.
- The proposed development seeks to diversify the number of sporting facilities that may be held on the site allowing for the facilities to be used by various sporting groups within the school as well as the wider community, which will help address a lack of available sporting facilities within the Northern Beaches LGA.

Better for People - *Safe, comfortable and liveable*

- The arrangement of floor and basement levels within the multi-purpose hall will enable appropriate separation between vehicles and students / pedestrians.
- The proposed positioning of the access gate away from vehicle access to the site will increase safety for pedestrians using the Oxford Falls public footpath and improve safety between pedestrians and vehicle users accessing the driveway which has been located to the south of the site.
- The design has considered the building orientation and includes facade treatments to maximise the benefits of natural ventilation and natural light for user wellbeing and comfort. The proposed external materials respond to the site and incorporate a palette of earthy and neutral materials that will sit comfortably and be recessive within the natural environment.
- A suitable amount of transparency throughout the site and building will provide for active and passive surveillance. The outdoor courts have a high degree of visibility from the bridge and viewing areas. CPTED principles are applied to the basement carpark in respect of secure entry points, multiple egress points, safe levels of lighting, minimising blind spots and mechanical surveillance.

Better Working - *Functional, efficient and fit for purpose*

- The proposed development has been determined in consultation with the school community. Given the school currently has a limited area to hold regular sporting trainings, a weatherproof and purpose-built sports facility will provide a functional space anticipated to be highly valued by the school community.
- The size of the sports centre and outdoor courts has been deliberately designed to meet competition basketball and hockey field spatial requirements. The multipurpose approach results in adaptable and highly functional sporting and educational facilities which can support a multitude of activities.

Better Value - *Creating and adding value*

- The project has sought the careful balance economical and quality considerations. Investing in well-designed and high-quality sporting spaces will increase student and staff moral.
- The large footprint and height required for a multi court sporting centre venue necessitates an economical and sensible approach to manage budget constraints. The design embraces and

manipulates light and air into the interiors, which is both practical for optimising sporting performance and calming when in non-sporting modes. This also reduces operational costs due to the non-reliance on artificial lighting and mechanical cooling systems. The roof of the building allows for installation of a future PV solar array and rainwater storage and reuse which further lower ongoing operational costs for the school.

- The proposed development seeks to introduce a school recreational use on a previously private residential site, that can be used by the Queenwood students and staff, competing students from other schools, as well as the wider community. This will allow Queenwood to create a deeper sense of community whilst also helping address the need for more sporting facilities within the LGA.

Better Look and Feel - *Engaging, inviting and attractive*

- The proposed building has been designed with a selection of materials that are robust, low maintenance and refined. The buildings will be mainly visible to the public from Oxford Falls Road.
- To ameliorate the impacts of the reduced setback to Oxford Falls Road, a carefully considered landscape design has been proposed to provide appropriate screening of the building and to ensure that it sits comfortably within a landscape setting. The frontage to Oxford Falls Road will have a number of large native canopy trees, that are in character with the remnant native trees being retained and protected at the north-eastern corner of the site.
- The sports courts have low level windows located towards to corners of the courts to reduce the potential impact of glare on the users of the sports courts but permits views from inside the building out into the landscape. Full height windows to the main circulation stairs, lobbies and the first-floor classrooms will afford good views over the site.

A key design objective of the new facilities is to foster a strong sense of school community and enhance the student experience. The design seeks to respond thoughtfully to the surrounding natural landscape and the emerging sporting and education precinct.

In summary, the proposal achieves design quality in accordance with the *Design Guide for Schools as*:

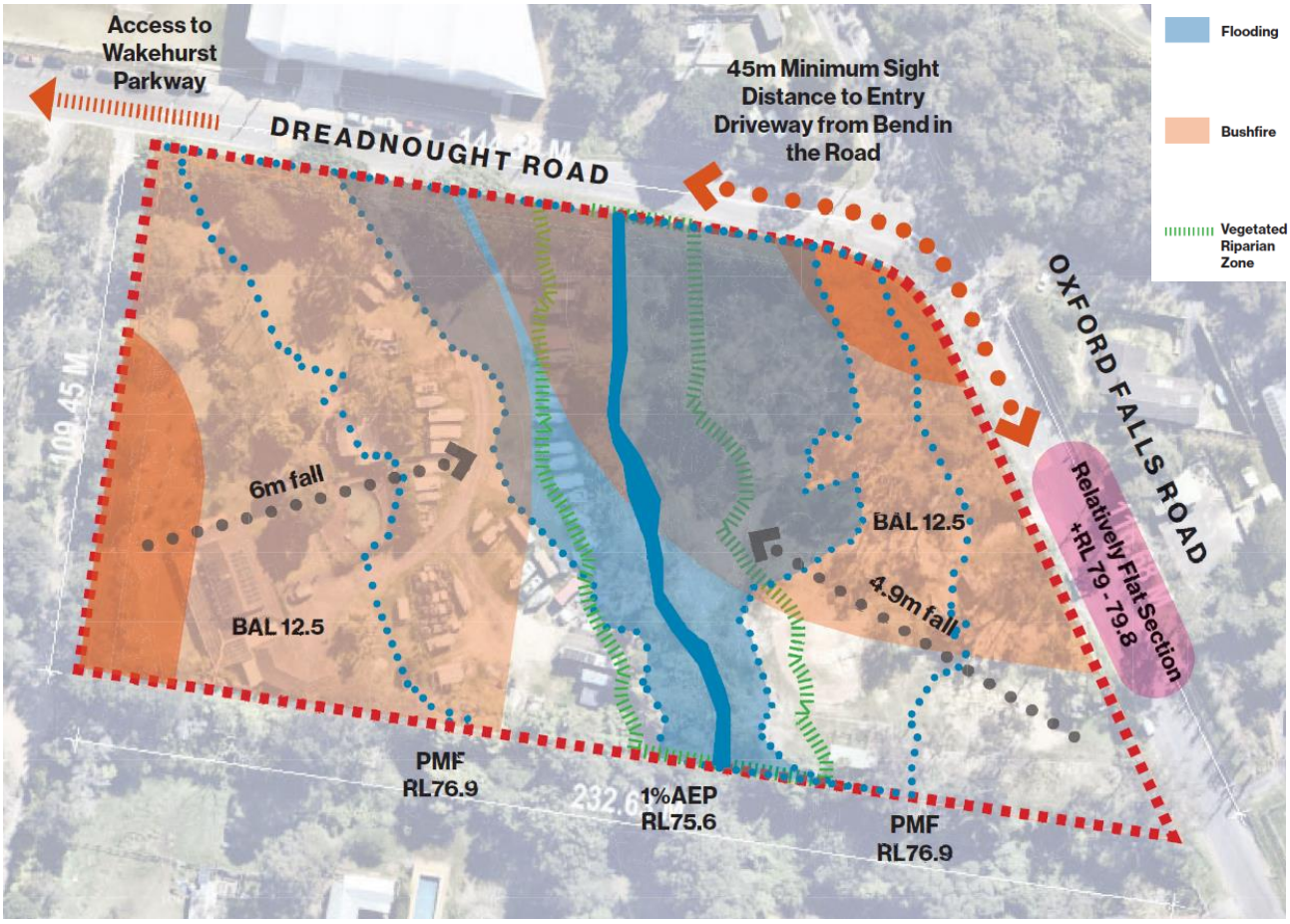
- The proposal has addressed key matters that were raised through engagement with the Council and DPHI/GANSW including a reduction in the overall building height, increased landscaping to Oxford Falls Road and greater clarity in wayfinding and vehicle access to the site.
- The proposal achieves Design Excellence through the modulation of building forms, materials and finishes representing that blend with the immediate character of the area including the surrounding educational and recreational facilities.
- The design is sympathetic to the surrounding natural environment, providing suitable landscaped setbacks and a resultant-built form that minimises impacts to surrounding receivers and neighbours. The proposal provides an appropriate tree replacement strategy, preserves remnant bushland and will rehabilitate the riparian corridor, overall resulting in an improved outcome to what is currently on site.
- The proposed built form exhibits a high-quality design outcome that is has been purposedly setback from the residential site boundaries ensuring there is minimal additional overshadowing to adjacent properties and to reduce visual impact.

6.2.1 Built Form and Urban Design

The proposed layout of the school sporting facilities has been developed to consider the sites environmental overlays by retaining areas of native remnant forest and providing appropriate 10m setbacks to the riparian corridor. The site is impacted by bushfire hazard, flooding along the riparian corridor, and surrounding existing traffic and road constraints.

The below site analysis map in Figure 18 outlines the site planning approach for the proposed development, which has been informed by the environmental constraints.

Figure 18 Site Analysis Map



Source: TKD, 2025

- **Protect and Rehabilitate the Watercourse and Riparian Corridor**

  The site layout and design allows for the protection and rehabilitation of the riparian corridor. The existing exotic plant species and weeds that have overgrown the existing watercourse will be removed and replaced with native plant species that will act to stabilise the ground and restore the watercourse back to its natural condition.

  A 10m wide Vegetated Riparian Zone (VRZ) has been established. The outdoor sports field and indoor sports hall have been located outside of this zone. An elevated pedestrian bridge connecting the school sporting facilities will span across this area to ensure that the VRZ is protected from pedestrian traffic but is able to be viewed as the watercourse is crossed.

- **Protect and Rehabilitate the Remnant Native Forest**

  The design of the proposal retains as many of the remnant native forest trees as possible. As detailed at **Section 2.3**, a number of options were considered for the design/location Indoor sports hall. The selected design maximises the retention of these trees compared to other layouts which were considered.

- **Accommodate the Required Sporting Facilities**

  The western portion of the site is relatively clear and large enough to able to accommodate a full size hockey field, soccer field and 12 x tennis courts (in one multiple purpose field), which are required for Queenwood to train and host competitions in these sports. There is the potential for local sporting groups to use these facilities when not in school use.

  The eastern portion of the site is able to accommodate a two court Indoor sports hall whilst minimising the removal of the remnant trees in the north-east of the site.

Setbacks

The site is subject to **building** setbacks. Whilst setback controls are usually found in DCPs, Warringah LEP 2000 (which is 25 years old and a unique planning instrument in NSW) has setbacks as development standards within the LEP. These building setbacks include:

- Front building setback to all roads of 20m
- Rear and side building setbacks of 10m

These setbacks are to be landscaped but can contain driveways and fences.

Firstly, it is important to note that these LEP setback controls are outdated as they are more than 25 years old and were written with the intention that these controls would apply to residential dwellings. Educational establishments (including sporting facilities) have very different spatial requirements to residential dwellings. Further, only one **building** is proposed on the site, which is the indoor sports hall. Noting, there are a number of ancillary structures proposed on site. Such as fences, driveways, lighting, storage, covered seating, car parking and a substation.

Figure 19 Site Plan with cut out to identify setback associated with indoor sports hall

Source: TKD, 2025

Section 3.43 of the T&I SEPP states that development consent may be granted for development for the purpose of a school that is State significant development even though the development would contravene a development standard imposed by this or any other environmental planning instrument under which the consent is granted. Consequently, there is not a requirement to prepare a formal request to vary a development standard under Clause 4.6.

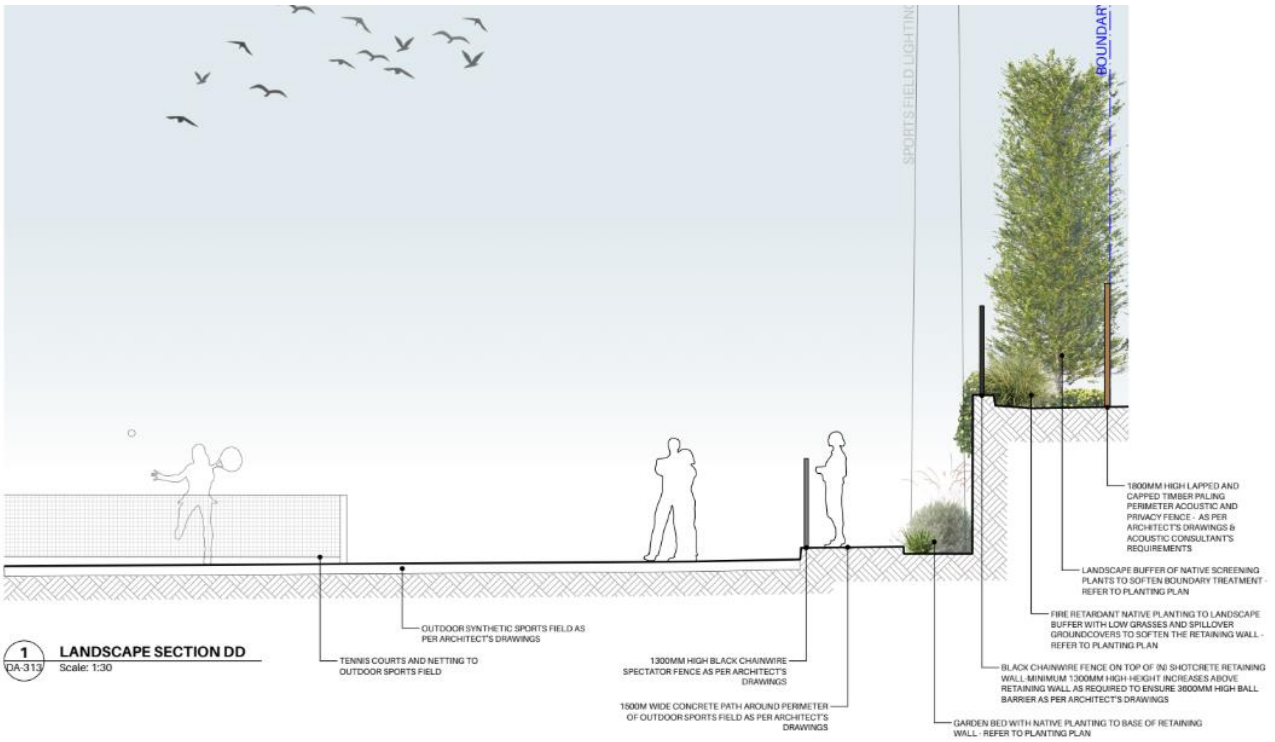
As a result of the above site planning considerations, it is noted that the proposed indoor sports hall does not meet the 20m front building setback under WLEP 2000 to Oxford Falls Road.

However, the indoor sports hall complies with the 10m side building setback to the north (noting driveways and fences are permitted in this setback) and provides a generous setback to Dreadnaught Road.

The constrained nature of the site from a flooding, bushfire and riparian corridor perspective has limited the areas of the site which are able to be developed for built form whilst reducing environmental impact. The reduced front building setback to Oxford Falls Road allows the indoor sports hall to provide an appropriate street address for an educational establishment, provide wayfinding into the site and allows for ease of safe access for vehicles, buses and pedestrians whilst providing a suitable setback from the riparian zone that traverses through the centre of the site. To reduce the impacts of the reduced front building setback to Oxford Falls Road, a considered landscape design has been proposed to provide appropriate screening of the building and to ensure that it sits comfortably within a landscape setting. Whilst, the built form frontage is not densely landscaped, the overall frontage to Oxford Falls Road will include a number of large native canopy trees, that are in character with the remnant native trees being retained and protected at the north-eastern corner of the site. It is also important to note that the Indoor sports hall takes up less than 25% of the total street frontage of the site and a large part of the Oxford Falls frontage will provide a landscaped setback. Notably, it will provide an improved landscaped front building setback when compared to Oxford Falls Grammar to the north, which has a much larger built form extended along the street frontage, with limited landscaping and setbacks along part of its frontage. Further, a number of residential homes along Oxford Falls Road have non-compliant front setbacks and a number of residential properties have been cleared and provide very minimal landscaping in the front setback.

The only built form on the western side of the site are storage cages that comply with the 10m side setback to the north and covered seating on the western side which are setback approximately 5m from the western rear boundary (which is a heavily landscaped park, known as Peace Park). There are a number of light poles and a concrete path that surrounds the outdoor sports field which are located within the 10 side/rear setback. Further to this, the outdoor sports field requires particular spatial requirements to facilitate a soccer field, hockey field and tennis courts to meet IGSA competition requirements. This has resulted in reduced landscaped setbacks along the southern, western and northern boundaries as a result of the size of the site. The edge of the sports field is setback 5m from the southern and western boundaries. Substantial screen planting will be grown within the 5m setback to form a 4m high screening hedge to ensure the amenity of surrounding neighbours to the south is not significantly impacted. Further to this, it is noted that the portion of the site does not include any buildings that will encroach on the 10m setback, and the sports field will be sunken down at the southwestern corner by 3m providing a natural screen and acoustic barrier between the sports field and neighbours.

Figure 20 Proposed Landscape Setback of Outdoor Sports Field



Source: Inspired Exteriors, 2025

Dreadnought Road is a secondary Road and should not be considered as a front setback. It clearly is a side setback. Whilst not constituting a building, the proposed light poles and concrete path will extend into the 10m side building setback to Dreadnaught Road. However, dense buffer planting is proposed along setback. This is a more appropriate response than the limited setback to the large school building and sport field on the opposite side of the road at Oxford Falls Grammar, which provides minimal setback and very limited landscaping.

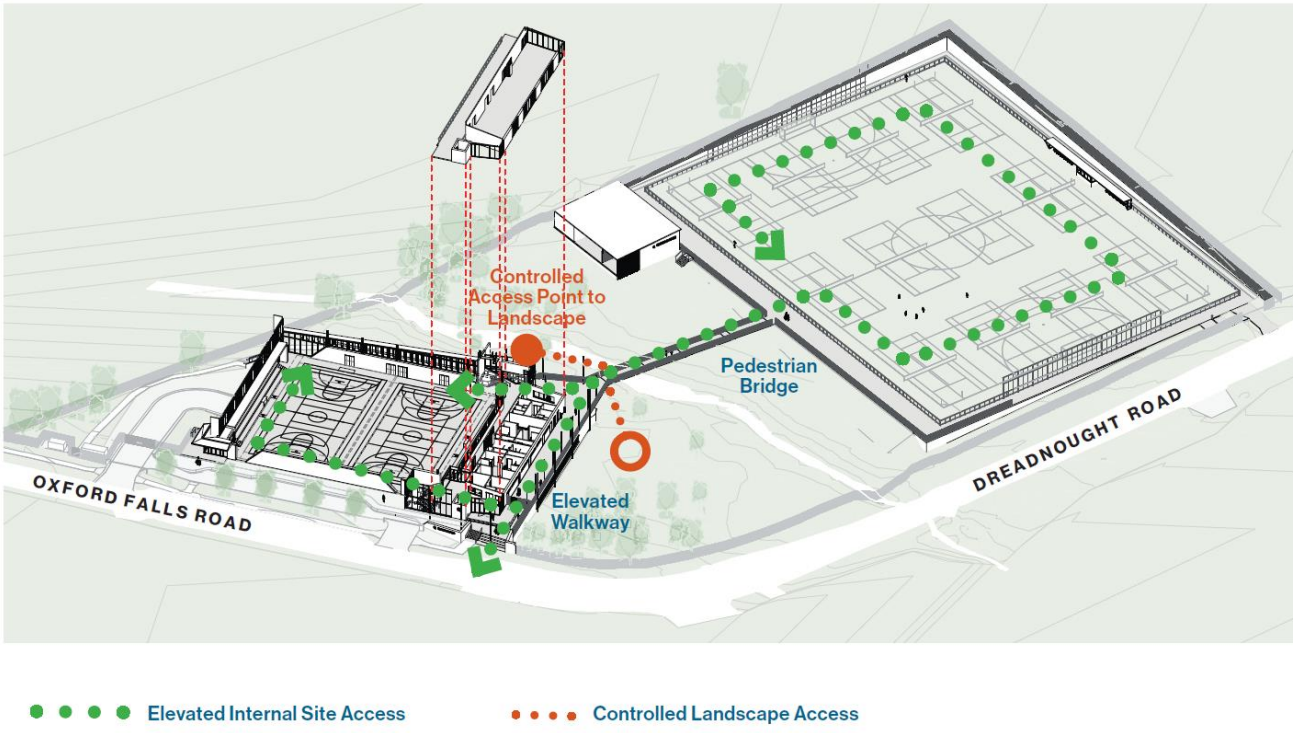
Therefore, the proposed setbacks are considered suitable for the proposed development as a result of the minimal built from, in carefully reading to the existing environmental constraints on the site and by providing suitable landscape buffers to reduce visual and amenity impacts.

Internal Site Access

Pedestrians will access the site from Oxford Falls Road if being dropped off from the internal car drop off area or bus drop off area. Access from the basement carpark to the Indoor sports hall is via the Main Entry Lobby at the northern corner, connected by stair and lift, with additional entry from Oxford Falls Road and the porte-cochere. A secondary entry at the south-east corner serves the southern courts. The Outdoor Sports Field is reached directly from the carpark via an external stair on the hall's western side. Canteen, changerooms and toilets are centrally located at the north-west corner, with double-sided facilities for both indoor and outdoor users. A 3-metre-wide elevated pedestrian bridge links the hall and field, protecting the watercourse and enabling efficient two-way movement. All areas and paths are fully accessible and compliant with AS1428.1.

The proposed access strategy for the site will ensure that students, teacher and competitors will be directed to the area of the site where they are training or competing, with no large areas for agglomerating before and after activities to ensure a reduction in crowds. The walkways effectively guide pedestrians through the site and back out as needed.

Figure 21 Access Strategy



Source: TKD, 2025

Synthetic Turf

The proposal seeks to install a synthetic turf material on the outdoor sports field. A response to NSW Synthetic Turf Guidelines has been provided with the SSDA package (**Appendix DD**) which outlines how the current design responds to and adheres to the new *NSW Synthetic Turf Sports Fields in Public Open Space guidelines*.

The report outlines that the design will include a short-pile, sand filled synthetic surface to be used as a hockey/soccer/multi-use sports field. Environmental protection measures, such as stormwater treatment and kerbing, have been incorporated in the design to reduce microplastic migration and to align with the new guidelines.

The inclusion of a kerb (typically 200mm high) around the perimeter of the hockey turf will suitably mitigate the risk of turf fibres migrating outside the pitch. Stormwater treatment strategies such as catch baskets on all open pits has been included in the design to stop turf fibres from entering the stormwater system. Both these design choices will help mitigate the risks associated with introducing synthetic fibres and materials into the design.

The report notes that in response to challenges associated in the increase in heat on a synthetic surface, these concerns are more significant with synthetic turf with rubber performance infill as the infill contributes largely to the heat radiation, which is not proposed as part of this development.

6.2.2 Building Height and Scale

The indoor sports hall has a maximum height of 14.159m to the upper roof and a maximum height of 11.675m to the lower roof along the northern edge of the Indoor sports hall.

WLEP 2000 prescribes a maximum building height of 8.5m for the site (with a 7.2m height from natural ground level to the underside of the ceiling on the uppermost floor of the building).

Section 3.43 of the T&I SEPP states that development consent may be granted for development for the purpose of a school that is State significant development even though the development would contravene a development standard imposed by this or any other environmental planning instrument under which the consent is granted.

Consequently, there is not a requirement to prepare a formal request to vary a development standard under Clause 4.6. Regardless, this assessment examines the site and surrounding development, compatibility, appropriateness and any potential impacts of the proposed building height.

Firstly, it is important to note that these LEP height controls are outdated as they are more than 25 years old, and were written with the intention that these controls would apply to residential dwellings. Educational establishments (sporting facilities) have very different spatial requirements to residential dwellings.

The proposed height of the building is a result of the following requirements for the development:

- The proposed indoor sports hall required minimum clear heights for competitions which are mandated by the relevant sporting bodies. Basketball games require a 7m clear height and netball requires 8.3m.
- The building needed to be located above the flood levels determined by the Probable Maximum Flood (**PMF**) level of RL 76.9m.
- The ground floor level needed to be located at RL 79.3m or higher in order to ensure that flood water coming across Oxford Falls Road from the east can be directed away and will not enter the building.
- The roof required a certain depth in order to accommodate the large spanning roof structure, retractable basketball backboards, and large ceiling fans as part of the natural ventilation systems.

An assessment of the relevant environmental impacts associated with the proposed designed are further addressed within Section 6.2 of this report. In summary:

- The majority of shadow cast by the proposed development (including the sports hall) falls within the subject site boundary, with minor additional shadow cast on a very small portion along the northern

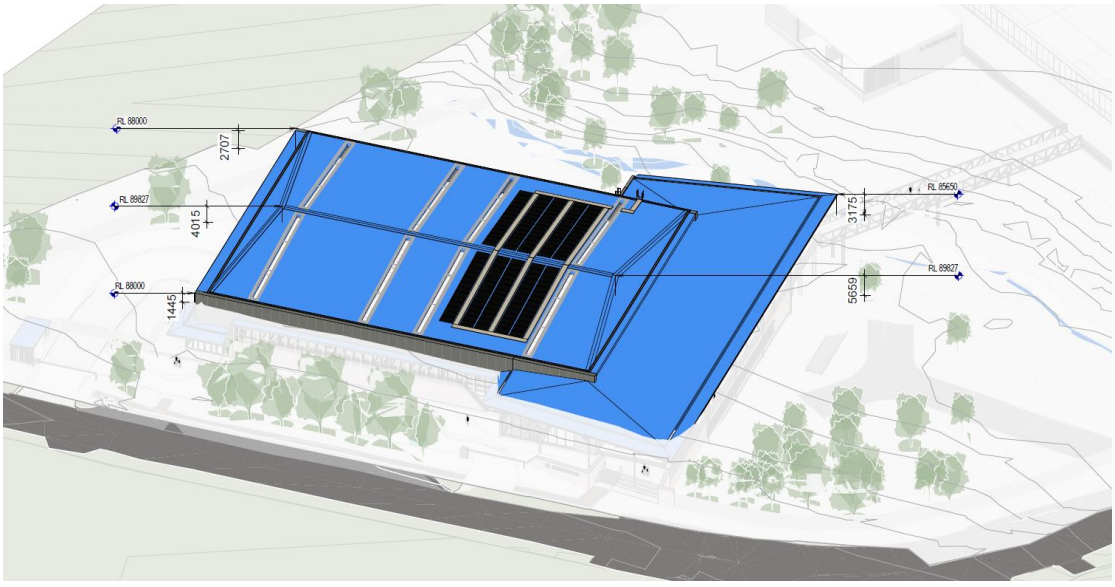
edge of the large open space of the residential properties to the south between 9am to 3pm in the mid-winter

- The building maintains compliance with the 10m WLEP 2000 side setback which is the predominant setback with adjoining residential properties. As such, privacy is maintained with trafficable floor space generally located within the height control.
- The VIA concludes that the proposed built form is not dissimilar in character, form and height to existing educational and sporting development in the immediately surrounding area and the proposal creates low to medium visual effects.

TKD Architects have advised that in order to mitigate the impact of the buildings bulk and scale, the following strategies have been incorporated into the design through design development:

- The school has elected to provide a clear height of 7m above the sports courts required for basketball, rather than the higher 8.3m height required for netball. This has reduced the overall building height by 1.3m.
- The basement carpark has been lowered below the PMF by 1.1m in order to the lower the overall building height whilst maintaining the ability for the carpark to be naturally ventilated. The perimeter of the carpark will include 1.1m high walls and barriers to ensure protection from flood waters up to the PMF level.
- The indoor sports halls have been located side-by-side and the building orientated to minimise the extent of building frontage facing Oxford Falls Road.
- The building facade has been articulated on Oxford Falls Road using lower projecting roof forms and sunshades and rich sandstone cladding, which are located below the 8.5m height limit. The facade areas above this height are clad in dark recessive neutral colours. The overall effect is that the lower portions are expressed and articulated, and this seeks to provide the overall impression of a reduced bulk and scale.

Figure 22 Height Plane Diagram



Source: TKD, 2025

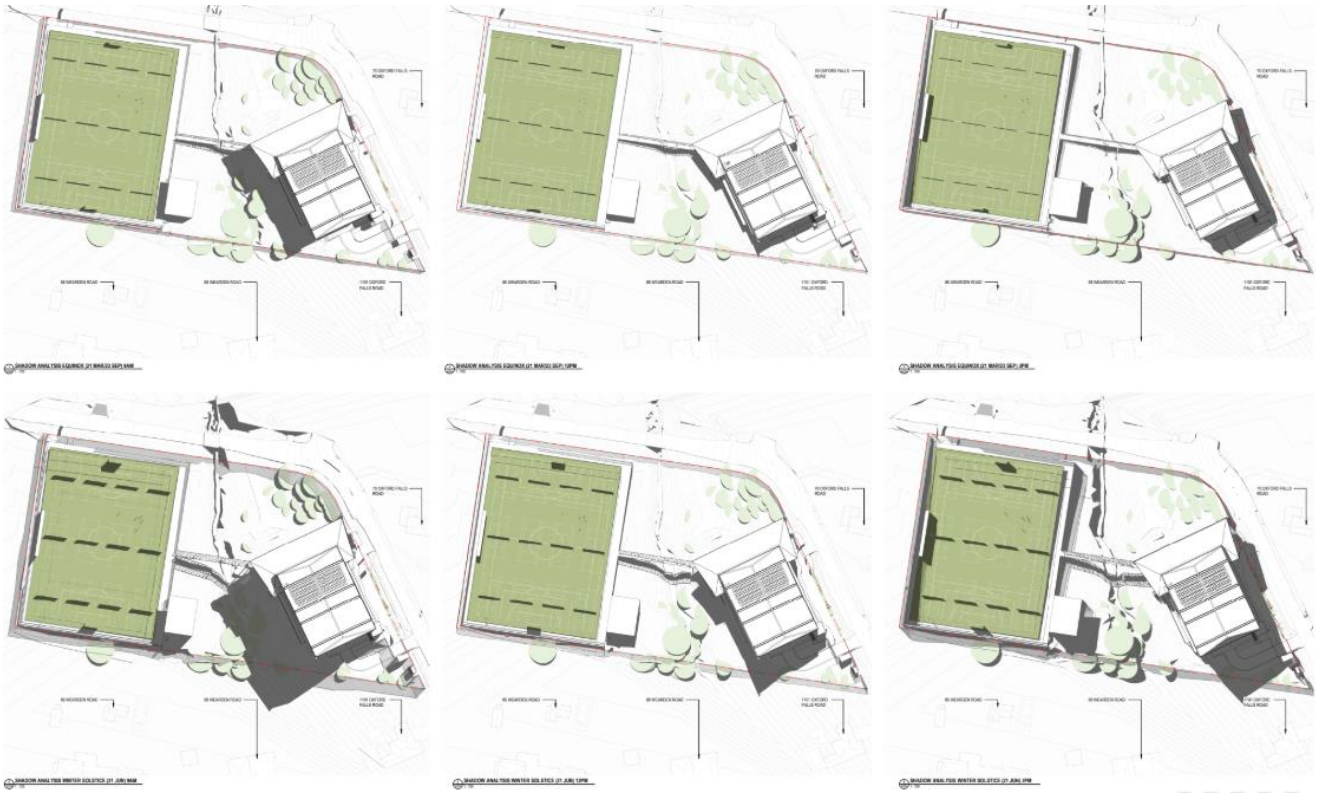
6.2.3 Environmental Amenity

TKD Architects have prepared shadow analysis diagrams within the Architectural Design Report at **Appendix F**. The shadow diagrams demonstrate that the majority of shadow cast by the proposed development falls within the subject site boundary, with minor additional shadow cast on a very small portion along the

northern edge of the large open space of the residential properties to the south between 9am to 3pm in the mid-winter. There is no overshadowing to the dwelling houses to the south.

In addition, the internal amenity and proposed solar access within the indoor school sports hall has been carefully designed to ensure suitability for the playing spaces with regards to glare and hot spots. Shading devices have been utilised to ensure direct sunlight to the playing court surfaces is controlled.

Figure 23 Shadow Diagrams



Source: TKD, 2025

The proposed design includes a number of strategies for minimising any impacts to neighbours:

Indoor School Sports Hall

- The majority of the activities within the indoor school sports hall will be contained within the building envelope, where noise can be contained and the sports activities will be screened from view.
- The proposed canteen, toilets and changerooms have been located towards the centre of the site to minimise their impacts to surrounding neighbours. These facilities are largely screened and are not visible from the public domain or from neighbours located along the southern boundary.
- Native trees will be planted along the eastern and southern boundaries of the site to provide visual screening of the development to neighbours.

Outdoor Sports Field

- Due to the slope of the land, the Outdoor Sports Field will be sunken down at the south-west corner by approximately 3m. This will provide a natural screen and acoustic barrier between the sports field and neighbours to the south.
- The edge of the sports field has been setback 5m from the southern and western boundaries.
- A 1.8m high timber lapped and capped fence will be provided along the southern and western boundaries of the sports field. This will provide a physical visual and acoustic barrier between the sports field and neighbours.
- Substantial screen planting will be grown within the 5m setback to form a 4m high screening hedge.

6.2.4 Visual Impact

A Visual Impact Assessment (**VIA**) has been prepared by Urbis and is provided at **Appendix I**. The VIA has been prepared to analyse the visual effects of the proposed built form on nearby sensitive receivers and public domain views from four key locations surrounding the site.

6.2.4.1 Existing Environment

The VIA outlines that Oxford Falls has a high scenic value as a result of its natural features and minimal development. The visual context of the area includes vegetated ridgelines and rolling topography, sandstone tiers, dense areas of vegetation and native forest, and watercourses including Oxford Creek, Middle Creek and the Oxford Falls Cascades. Oxford Falls is visually distinct from surrounding urban development to the east, south and west which is characterised by residential development, with Oxford Falls acting as a threshold between urbanised development and a more rural and naturalistic appearing environment.

The primary visual receivers in the vicinity of the site include the Oxford Falls Grammar School immediately to the north, where sports facilities such as a natural turf playing field, running track, basketball courts, fitness centre and teaching rooms are located.

Residential dwellings are located to the north, east and south of the site with views often filtered or obscured by intervening vegetation, large lot sizes and undulating topography. To the east, 'The Stables' art exhibition space is positioned at the base of a ridgeline, with steep, densely vegetated slopes rising behind it, limiting broader visibility. To the south of the site, there are residential properties along Wearden Road which are generally single or double storey, with substantial spatial separation and limited visual connection due to mature trees and landscaped boundaries. The locally heritage-listed former Oxford Falls Public School, now known as Peace Park, sits adjacent to the site at the corner of Dreadnought Road and Wakehurst Parkway.

Surrounding public locations which have views to the site and the proposal are limited to close surrounding roads, namely Dreadnought Road, Oxford Falls Road and a small section of Wakehurst Parkway. Dreadnought Road and Oxford Falls Road have been assessed to have low to moderate users daily.

6.2.5 Potential Impact

Residential development surrounding the site is limited to Dreadnought Road, Oxford Falls Road and Wearden Road, where there are 16 dwellings within a 500m radius of the site. Based on fieldwork observations and desktop analysis, 7 of these dwellings would likely be able to perceive some level of visual effects of the proposal:

- 33 Dreadnought Road
- 70 Oxford Falls Road immediately east of the site
- 1101 Oxford Fall Road immediately south of the site
- 1087 Oxford Falls Road
- 86 & 88 Wearden Road
- 2628 Brooker Avenue.

Urbis undertook a desktop review of all relevant statutory and non-statutory documents, an analysis of aerial imagery and topography and lidar data to establish the potential visual catchment to inform fieldwork inspections. Following fieldwork, Urbis selected and recommended 4 public view locations for further analysis which are as follows:

- Viewpoint 1 - View east from Dreadnought Road and Wakehurst Parkway.
- Viewpoint 2 - View east form Oxford Falls Public School within Peace Park (heritage item).
- Viewpoint 3 - View south from driveway of 1083 Oxford Falls Road.
- Viewpoint 4 - View northwest from outside 1087 Oxford Falls Road.

From the above dwellings, vegetation within the private lots is proposed to provide some level of visual filtering of the proposal, as well as proposed planting along the boundary of the site.

- Views from 70 Oxford Falls Road are likely to have the greatest potential to perceive any visual change due to its proximity to the east of the site. There is a line of low to mid height trees along the western boundary of the property between the dwelling and the site.
- 1087 Oxford Falls Road occupies an elevated position south-east of the site with minimal intervening vegetation which will provide views to the site and proposal, noting that these views would be oblique. Dwellings on Wearden Road along the southern site boundary include vegetation within the properties which will have a filtering effect on views north from the dwellings.
- 1101 Wearden Road has the lowest level of vegetation within its lot which will likely result in filtered views to the Indoor sports hall due to vegetation removal within the proposal site.
- 86 & 88 Wearden Road have more significant levels of vegetation within their properties, particularly for number 88. It is likely that filtered views from the second storey of number 86 would be possible.

Figure 24 Proposed Visual Impact looking north west along Oxford Falls Road

Source: Urbis, 2025

Figure 25 Proposed Visual Impact from Dreadnought Road

Source: Urbis, 2025

As a result of the above factors the viewpoints of the four public view locations have been assessed as below:

- VP1 – Medium-low
- VP2 – low
- VP3 – low
- VP4 – low

The VIA outlines that the surrounding context of the site has a significant influence on the visibility of the proposal. The surrounding topography, existing development and vegetation will almost entirely block or heavily filter views of the proposal given the height of the proposed Indoor sports hall building and open, levelled expanse of the sports field.

The existing and proposed vegetation around and within the site will play a large role in decreasing the visual catchment from where the proposal may be viewed from medium and distant viewing locations. From close viewing locations, primarily Dreadnought and Oxford Falls Road, the level of Physical Absorption Capacity (**PAC**) is naturally assessed to be less as a result of the decreased distance, however vegetation and the design and layout of the development will block or filter large sections of the overall proposal as demonstrated in the photomontages

6.2.5.1 Summary

The VIA concludes that the proposed built form is not dissimilar in character, form and height to existing educational and sporting development in the immediately surrounding area. Further, the analysis of the 4 public domain photomontages found that:

- The proposal creates low to medium visual effects (extent of visual change) on the baseline factors.
- The majority of visual effects on baseline factors are rated as low.

- The visual impact for the assessed viewpoints ranges from low to medium-low.
- The proposal does not block views to any heritage items or areas of unique scenic quality.
- PAC within the surrounding context is high and lessens the visual effects and impacts of the proposal.
- The high level of PAC results in the visual catchment of the site and proposal being constrained and limited to close viewing locations.
- Proposed planting along the site boundary and within the site will, over time as planting matures, further filter views of the development and lessen the visual effects.

Therefore, the report outlines that the proposal can be supported on visual impact grounds.

6.2.5.2 Mitigation Measures

As a result of the assessment no mitigation measures are required for the proposal to address visual impacts.

6.2.6 Trees and Landscaping

Landscape Plans has been prepared by Inspired Architecture (**Appendix G**) and an Arboricultural Impact Assessment has been prepared by AEP (**Appendix J**). It is noted that the tree numbering in the arborist report is reflective of a whole of site survey of trees so are not sequential.

6.2.6.1 Existing Environment

There are a number of established trees and vegetation across the site. This established vegetation provides a level of screening into the site from the site's boundaries in its existing form. A total of 183 individual trees and one stand of five trees were assessed across the site and its surrounds. The trees are a mix of native and exotic species, including *Eucalyptus piperita, Angophora costata, Melaleuca hypericifolia,* and *Cinnamomum camphora*. Of the trees assessed, 32 were found to be in poor or dead condition, 125 in fair condition and 26 in good condition. Landscape significance ratings identified 51 trees of high significance, 88 of moderate, 30 of low, and 14 of very low significance. Based on life expectancy and condition, 77 trees were assigned a high retention value, 29 moderate, 64 low, and 13 very low.

6.2.6.2 Potential Impacts

86 trees will require removal as they are located within the proposed development footprint. These include:

- 33 'High Retention Value' (Trees 49, 50, 51, 54, 56, 66, 67, 82, 134, 135, 136, 137, 138, 139, 141, 142, 147, 148, 150, 151, 152, 154, 155, 156, 157, 158, 161, 166, 171, 172, 184, 185, 186, 188, 195);
- 15 'Moderate Retention Value' (Trees 46, 57, 59, 60, 61, 63, 64, 65, 73, 81, 84, 190, 196, 197, 198);
- 36 'Low Retention Value' (Trees 42, 43, 44, 45, 52, 53, 55, 58, 62, 68, 69, 70, 71, 72, 74, 75, 76, 77, 78, 79, 80, 86, 106, 107, 132, 133, 140, 143, 144, 145, 146, 149, 153, 173, 179, 183); and
- Two (2) 'Very Low' Retention Value Trees (Trees 27, 105).

The report outlines that four (4) individual trees – 109, 117, 118, and 160 and one (1) stand - comprising five (5) trees – are unlikely to be significantly impacted by the proposed works. However, as they are already dead or exhibiting advanced dieback, they should be removed to ensure the safety of contractors and site users. One (1) tree – 182 also has a low predicted impact on its TPZ from the proposed works. However, the report notes that the tree is in decline, and exhibits notable structural defects, and is an exotic species.

The remaining 67 individual trees and one stand of five trees on the site can be retained with appropriate tree protection measures. The proposed tree removals will alter the existing landscape character of the site and reduce canopy coverage; however, biodiversity impacts from vegetation loss have been addressed separately in the accompanying BDAR.

The proposal seeks to provide a high-quality landscaping strategy which has been designed to retain existing trees where possible and provide more embellished and additional vegetation / landscaping where appropriate at a one-to-one ratio of replacement trees. The design will feature 31.9% canopy

coverage as well as also provide 38.44% landscaped open space across the site which complies with the requirements of the WLEP 2000. The proposed development is considered to have an acceptable impact from a tree removal perspective which will suitably replace the existing vegetation, with predominately native and endemic vegetation to replace the existing vegetation, including 36 low and 2 very low retention value trees.

6.2.6.3 Mitigation Measures

The Arboricultural Impact Assessment provides the following mitigation measures:

- Trees 52 and 53: Caution is required during removal, as these trees are in proximity to an overhead light cable.
- Trees 140, 146, 149, 153, 157, and 168: These trees have been identified as standing dead and should be removed to ensure the safety of contractors and site users.
- Trees 42, 55, 86, 107, 108, 145, and 182: These trees exhibit notable structural defects, are in decline, and display low vigour. Their condition poses a potential hazard in close proximity to the proposed development, and they should be removed for the safety of contractors and site users.
- Trees 109, 117, 118, and 160: Although these trees are unlikely to be significantly impacted by the proposed works, they are already dead or exhibit advanced dieback. As such, their removal is recommended to ensure site safety.
- Pre-construction Tree Protection measures, Site Management issues and Tree Protection measures during construction are to be implemented as set out within Section 7.0 of the Arboricultural Impact Assessment.
- Prior to all site works commencing, a Project arborist is to be appointed with the responsibility of implementing all Tree Protection Measures in this report as well as compliance with AS4970-2009 Protection of Trees on Development Sites. The Site Arborist is to hold qualifications equivalent of AQF Level 5.
- Storage of materials, mixing of materials, vehicle parking, disposal of liquids, machinery repairs and refuelling, site office and sheds, and the lighting of fires, stockpiling of soil, rubble or any debris shall not be carried out within the TPZ of existing trees.

6.2.7 BCA and Accessibility

A BCA and Accessibility Report was prepared by Steve Watson and Partners and is attached at **Appendix K**. The report noted that the proposed works will achieve compliance with the *Building Code of Australia 2022* (**BCA**), EP&A Act and the Regulations 2021. The report also highlights aspects of the proposal that will require design amendments and be subject to performance-based design utilising the relevant performance requirements documented within the BCA.

The assessment has addressed compliance with the *Federal Disability Discrimination Act* (**DDA**), *Disability (Access to Premises - Buildings) Standards 2010*, Parts D4, E3 and F4 of the *Building Code of Australia 2016* (BCA), AS 1428.1:2009 - (General Requirement for Access).

The development has been reviewed to ensure that paths of travel, ingress and egress, facilities and amenities as well as emergency egress and hearing augmentation comply with relevant statutory guidelines. The report contains recommendations throughout in order to ensure compliance.

The following are the areas that require amendments to the design:

- Where fixed seating is provided in a Class 9b assembly building, wheelchair seating spaces comply with AS 1428.1 must be provided in accordance with Table D4D10.
- Details of the pedestrian bridge is to be submitted for review to the certifier, including details relating to the choice of balustrades.

The following are the main issues proposed to be addressed by the Fire Safety Engineer via a Performance Solution:

- Reduction of Fire Resistance Level of columns in the sports court.
- Vertical separation of openings in external walls. Provisions of fire hose reels and hydrants.
- Non-compliant fire isolated stairway Stair 01.
- Egress to an exit and between alternative exits.
- Emergency power supply related to bushfire prone areas

The following are the main issues proposed to be addressed by the BCA and Access via a Performance Solution:

- Access to the building for people with a disability from the main pedestrian entry points at the allotment boundary is proposed via a stairway.
- Number of sanitary facilities required for students and staff/parents.
- Students and Staff to share the same facilities.

Overall, compliance will be readily achieved and will be further assessed as part of the detailed design stage, prior to the issue of a Construction Certificate.

6.3 Ecologically Sustainable Development

The development aims to effectively implement sustainable practices to minimise the project's overall environmental impacts. An Ecologically Sustainable Development Report (**ESD**) has been prepared by JHA and is attached at **Appendix L**, in response to the SEARs. The report identifies design initiatives and features of the proposed development that has the potential to reduce the overall environmental impact. The proposed development has included a variety of sustainability initiatives reflective of the project's commitment to sustainability.

The EP&A Act adopts the definition of ESD from section 6(2) of the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

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

Appropriate design interventions must be implemented to avoid the delivery of a suboptimal design outcome with respect to sustainability. The proposed development has achieved this project objectives through implementing the measures detailed below.

The following key focuses have been adopted by the project team and underpin the design of the proposal:

- Fully electrified building services, avoiding operational fossil fuel use and complying with Net Zero provisions.
- High-efficiency HVAC, lighting and domestic hot water systems to minimise energy use and peak demand.
- On-site renewable energy via a rooftop PV system (up to 99kW).
- Passive design strategies, including high-performance glazing, insulation, shading and natural ventilation, to reduce reliance on mechanical systems and improve occupant comfort.

- Water efficiency through WELS-rated fixtures, a 50kL rainwater reuse system and water-sensitive urban design (WSUD) measures.
- Construction waste minimisation and the use of durable, low-embodied carbon materials wherever feasible.
- Conservation of biodiversity and retention of native vegetation in the riparian corridor to maintain ecological integrity.

Overall, the implementation of the initiatives noted within the ESD Report demonstrate the proposal's commitment to ESD principles throughout the design, construction, and operation.

6.4 Civil And Stormwater Drainage Design

A Civil Stormwater Management Report has been prepared by WSCE (**Appendix M**). The report addresses the proposed civil and stormwater management measures for the proposal, including design responses to flooding, drainage, water quality treatment, and erosion and sediment control.

6.4.1 Existing Environment

The report outlines that there are two existing stormwater pipes which cross Oxford Falls Road and discharge through two headwalls at the site boundary. A site survey was undertaken which outlines that existing stormwater drainage is largely reliant on overland flow paths to the existing low point in the site's topography. The survey identified the following stormwater system:

- The creek running across the site
- A few minor swales, mainly along the southern site boundary
- A stormwater pipe crossing Oxford Falls Road and discharging to the site via a head wall
- A private 225mm pipe running between a local depression and the creek.

6.4.2 Proposed Impacts

Stormwater management for the proposed development has been designed to comply with *Northern Beaches Council's Water Management for Development Policy* (2021) and the *Water Sensitive Urban Design* (**WSUD**) *& MUSIC Modelling Guidelines* (2016).

The stormwater drainage system incorporates three distinct networks to manage runoff from the indoor sports hall, outdoor sports field, and upstream catchments. These networks include a pit and pipe system, overland flow paths, and grassed swales designed to convey and treat stormwater up to the 1% Annual Exceedance Probability (AEP) event.

A Water Sensitive Urban Design approach has been adopted to ensure the protection of downstream water quality. The proposed Indoor sports hall will be located within the existing overland flow path. Therefore, to manage flood risk, flooding events will be managed through a "Flood Diversion Trunk Line" diverting water around the building. The new drainage line will collect stormwater from Oxford Falls Road and the proposed bus stop and parking through multiple inlet-pits, convey it through a new swale on the Northern side of the building and discharge to the creek.

A stormwater network will also be created around the outdoor sports field through a subsoil drainage system under the sports field. Two V drains on the northern and eastern side of the field will collect overflow from the walkways. A pit and pipe network will gather stormwater from both the subsoil system and the V drains. This collected water will be directed to a treatment chamber to ensure it is properly treated before being discharged into the creek along the centre of the site.

In consultation with Northern Beaches Council, it has been confirmed that on-site detention (**OSD**) is not required given the site's location within a mapped floodplain. Instead, stormwater quantity will be managed through the diversion of upstream flows and the maintenance of natural overland flow paths to the central creek.

A MUSIC model was developed in accordance with Council's guidelines, demonstrating that the proposed treatment measures achieve or exceed Council's pollutant reduction targets. The results confirm that the proposed stormwater management system will maintain post-development runoff quality consistent with Council's WSUD objectives and will prevent adverse downstream impacts.

In summary, the proposed stormwater management system will ensure that:

- Post-development flows do not increase the risk of flooding to adjacent properties;
- Stormwater discharge quality meets or exceeds Council's pollutant reduction targets; and
- Erosion and sedimentation during construction are effectively managed through site-specific control measures.

6.4.3 Mitigation Measures

An Erosion and Sediment Control Plan has been prepared as part of the Civil Stormwater Management Report to manage potential construction phase impacts in accordance with Landcom's *"Managing Urban Stormwater: Soils and Construction"* (**Blue Book**).

Key mitigation measures incorporated within the Erosion and Sediment Control Plan include:

- Installation of sediment fencing and geotextile barriers along site perimeters and downslope areas to prevent off-site sediment transport.
- Provision of stabilised construction vehicle entries ('cattle racks') to prevent the tracking of sediment onto public roads.
- Use of filter bales, EcoSocks and sediment traps to protect kerb inlets, gully pits, and internal stormwater drainage pits.
- Installation of temporary sediment basins to capture and treat runoff from disturbed areas prior to discharge.
- Implementation of progressive stabilisation through mulching, temporary turfing, and replanting of disturbed soil surfaces.
- Regular inspection and maintenance of erosion and sediment control devices, particularly following rainfall events.

Two sediment basins will be constructed to manage runoff from distinct catchments:

- Eastern Basin (Indoor Sports Hall): 0.6 ha disturbed area; 249 m^3 capacity.
- Western Basin (Outdoor Sports Fields): 0.95 ha disturbed area; 411 m^3 capacity.

Both provide adequate settling and storage volumes to capture sediment.

Overall, the proposed strategy represents an effective and integrated approach to stormwater management that will mitigate potential hydrological and water quality impacts associated with the development.

6.5 Traffic

A Transport and Accessibility Impact Assessment (**TAIA**) has been prepared by JMT Consulting and is enclosed in **Appendix N.** This report provides an analysis of the existing transport network and considers the traffic and transport implications of the proposed development. The purpose of the TAIA is to demonstrate the development meets the SEARs and is compliant and consistent with the access, traffic and parking requirements prescribed by Council and TfNSW.

The assessment also includes a Green Travel Plan and Preliminary Construction Traffic Management Plan.

6.5.1 Existing Environment

The site fronts both Dreadnought Road and Oxford Falls Road, which are both local roads. Wakehurst Parkway is a classified State road which serves as a major north-south arterial link, providing connectivity between the Northern Beaches and the lower North Shore. Vehicular access to the site is currently obtained via a driveway on Dreadnought Road approximately 120 metres east of Oxford Falls Road intersection.

Currently, parking on site relates to the existing use of the site (residential purposes) and is informal in nature.

Public bus services in the area are limited. Wakehurst Parkway is serviced by a single public bus route, with the nearest stop located at the Wakehurst Parkway / Warringah Road intersection, approximately three kilometres south of the site. Additional local bus services operate within residential areas between the site and Warringah Road.

A number of school bus services to Oxford Falls Grammar School also operate during the morning and afternoon peaks on school days only. The location of the school's bus drop-off and pick-up zone is located on Oxford Falls Road approximately 200m north of the subject site.

A signalised pedestrian crossing is provided on the northern leg of Wakehurst Parkway and Dreadnought Road intersection. No crossings are available however on the southern, eastern or western legs of the intersection. There is a footpath available on the northern side of Dreadnought Road west of the Wakehurst Parkway, however no formed footpath adjacent to the subject site.

One on-road cycle lane is available on the Wakehurst Parkway on the approach to the intersection with Dreadnought Road. However, this is the extent of cycling facilities in the local area.

6.5.2 Potential Construction Impacts

A preliminary Construction Traffic Management Plan (**CTMP**) has been prepared as part of the TAIA to address the proposed construction of the subject site. The plan outlines the management of construction vehicle movements, pedestrian safety, worker parking arrangements, and mitigation measures to minimise impacts on the surrounding road network and community. A detailed CTMP will be prepared prior to the commencement of works once the contractor is engaged.

Construction Vehicle Access and Routes

The site will accommodate various vehicle types, including:

- 12.5m Heavy Rigid Vehicles (HRVs)
- 8.8m Medium Rigid Vehicles (MRVs)
- 6.5m Small Rigid Vehicles (SRVs)
- Utes and vans

It is anticipated that 20 to 30 construction vehicles will access the site on a typical day, subject to confirmation by the appointed contractor. This volume is expected to be lower than traffic generated during the operational phase of the project. Peak construction traffic is estimated at 5–10 vehicles per hour, which is not expected to impact the operation of the surrounding road network.

Construction vehicle access to the site is proposed via Wakehurst Parkway, with minimal or no use of Oxford Falls Road. This preferred route makes use of a State arterial road, which helps to reduce travel through residential streets, avoid conflicts with nearby construction projects, and limit impacts on the public transport network. The final construction vehicle routes will be confirmed in the detailed CTMP prior to the commencement of works.

Given the size of the site, parking will be available for contractors during construction. Once the basement car park is completed, it may also be used for contractor parking. The detailed CTMP will outline worker travel arrangements and measures to minimise impacts on the surrounding street network, including:

- Informing workers of public transport options during site induction;

- Providing arrangements for equipment/tool storage to support public transport use;
- Encouraging carpooling; and
- Restricting worker parking within 100 metres of the site boundary.

A works zone may be established on the southern side of Dreadnought Road adjacent to the site. If implemented, hoarding will be installed to protect pedestrians. All loading and unloading activities will occur within the site or within the approved works zone. No road closures or occupation of roadways are anticipated, however if required, these will be coordinated with Council and TfNSW to minimise disruption.

Pedestrian Management

Temporary fencing and hoardings will be installed along the site frontage to maintain safe pedestrian movements. Footpaths will remain open at all times, with traffic controllers positioned at vehicle access points, when required, to manage interactions between vehicles and pedestrians. Traffic control plans will be developed in the detailed CTMP to ensure pedestrian safety.

Cumulative Construction Impacts

Other construction projects may occur in the vicinity during the works. The appointed contractor will regularly review cumulative heavy vehicle traffic generation and coordinate routes with Council and TfNSW to minimise impacts. The anticipated construction traffic volume of 5–10 vehicles per hour can be accommodated by the local road network.

Emergency Vehicle Access

Emergency vehicle access will be maintained at all times. The contractor will liaise with NSW Police, Fire Brigade, and other emergency services, providing a 24-hour contact for out-of-hours emergencies.

6.5.3 Potential Operational Impacts

Traffic Generation

Traffic counts were undertaken at the key intersections immediately surrounding the site during the morning and afternoon peak hour periods on Thursday 21 November and Saturday 23 November 2025, with the traffic data collected at the following locations:

- Wakehurst Parkway / Dreadnought Road; and
- Dreadnought Road / Oxford Falls Road

Traffic data was also collected on Oxford Falls Road adjacent to the subject site over a weeklong period in November 2024. The data indicates that Oxford Falls Road carries approximately 4,700 vehicles on a typical weekday and 3,000 vehicles on a Saturday, reflecting its status as a local road through the area. The following scenarios have been considered in the traffic modelling undertaken for the project.

- Scenario 1: Existing traffic volumes (current intersection configuration)
- Scenario 2: Existing traffic volumes + 10 years growth + Wakehurst Parkway / Dreadnought Road intersection upgrade ('Future Base' scenario)
- Scenario 3: Existing traffic volumes + 10 years growth + Wakehurst Parkway / Dreadnought Road intersection upgrade + development traffic flows ('Future Base + Development' scenario)

With consideration of the Wakehurst Parkway upgrades (as described in **Section 2.2**), which are likely to be completed prior to the operation of the Queenwood sporting facilities, the Wakehurst Parkway / Dreadnought Road intersection is forecast to remain at Level of Service D with spare capacity. This is consistent with the findings of the traffic modelling undertaken by TfNSW to support the Wakehurst Parkway improvements program. The relatively minor level of additional traffic generated by the proposal does not significantly impact the operation of the intersection, with average vehicle delays increasing by just a few seconds compared to the 'future base' scenario. The Dreadnought Road / Oxford Falls Road is also anticipated to retain a Level of Service A based on the future base scenario.

Vehicle Access

As noted in **Section 3**, the proposal provides the following typical vehicle access arrangements:

- Consolidated site access point on Oxford Falls Road serving both the on-site basement car park as well as an on-grade drop off / pick up area; and
- Exit point on Oxford Falls Road solely for the purpose of exiting from the drop off / pick up area.

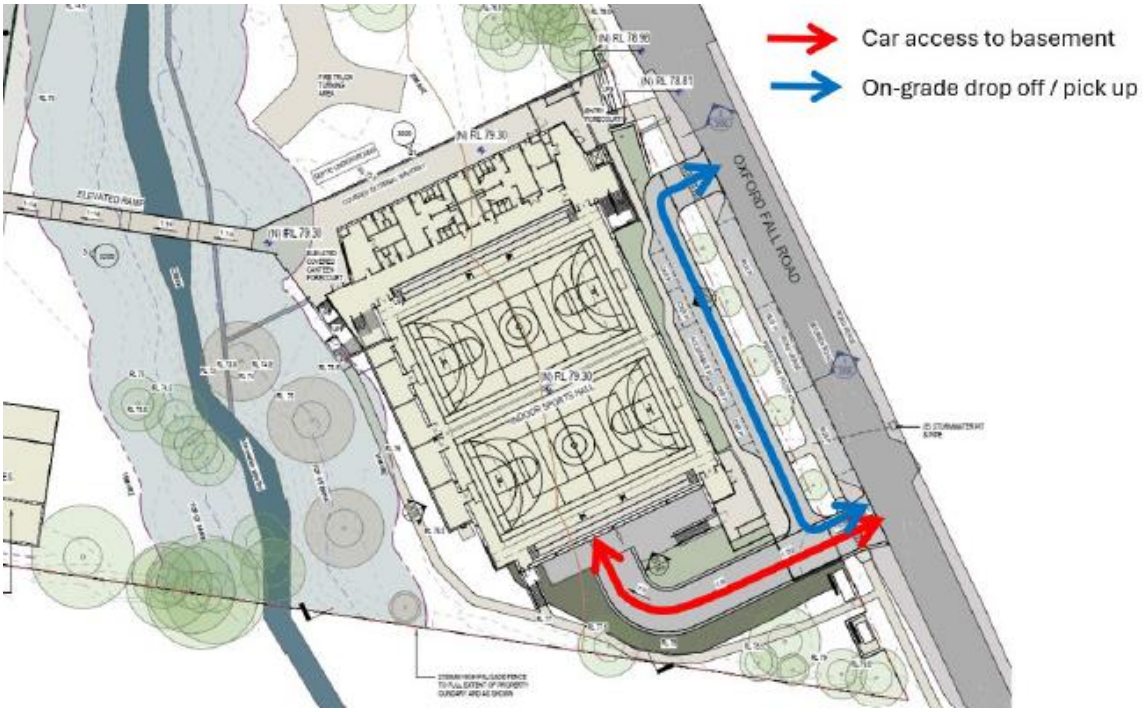
The access driveway has been designed in accordance with Australian Standards with respect to widths and gradients, with a 5% gradient provided for the first 6m within the site. Additional vehicle access points are provided along Dreadnought Road which includes two driveway one towards the eastern and one towards the western boundary which will provide access to select vehicles including service vehicles and ambulances.

Swept paths prepared by JMT Consulting confirm the internal driveways accommodate traffic movements in both directions with suitable provision made for passing vehicles.

The proposal makes provision for a dedicated drop off / pick up zone within the site boundary. This zone includes four regular bays and one accessible drop off / pick up parking bay which is considered sufficient to accommodate expected demands. A passing lane is provided so that each drop off / pick up bay can operate independently of one another, allowing for efficient operations during busy periods.

Vehicular access is provided via Oxford Falls Road through separate entry and exit driveways. Cars have the ability to enter the zone from either direction on Oxford Falls Road and similarly turn either left or right on exit.

Figure 26 Proposed vehicle arrangements



Source: JMT Consulting

Car Parking Rates

The TfNSW Guide to Transport Impact Assessment does not specify parking requirements for school sporting facilities and the 25-year-old (out dated) WLEP 2000 requirements for primary schools/education require staff parking is provided on site at a rate of one space per staff member on site. A site-specific assessment is considered the most appropriate way to analyse the parking needs of the proposal. Consequently, a site-specific assessment has been undertaken by JMT Consulting which considers the potential parking needs for the site based on various factors including site population, car mode share and car occupancy.

The proposal provides for 82 on-site car parking spaces (including two accessible spaces) which exceeds the anticipated maximum demands generated by the site and can adequately meet staff parking demand.

Other measures proposed to manage car parking for the site includes:

- Provision of a dedicated drop off / pick up zone within the site boundary – relieving many parents of the need to park their vehicles and instead allow them to drop off and pick up their children.
- Inclusion of dedicated bus parking zone along Oxford Falls Road to reduce overall car parking demands.

In this context the proposed level of car parking is considered suitable to accommodate expected demands arising from the proposal.

6.5.4 Mitigation Measures

Construction

The following measures will be implemented to minimise construction impacts:

Traffic Management

- Use designated routes that avoid local roads, with minimal reliance on Oxford Falls Road, and ensure trucks enter and exit in a forward direction.
- Schedule deliveries during standard hours, avoiding school peaks where possible, and prevent trucks from queuing or circulating on local streets.
- Cover all truck loads during transport and enforce on-site speed limits.

Pedestrian Safety

- Avoid unnecessary pedestrian delays at vehicle access points.
- Install clear pedestrian warning and safety signage in accordance with relevant standards.

Site Operations

- Store all materials within the site boundaries.
- Provide facilities for equipment and tool storage to support workers using public transport.

Worker Travel and Behaviour

- Encourage public transport use by construction workers.
- Develop and enforce a driver charter outlining access and behaviour requirements.
- Compliance and Induction
- Require all staff and subcontractors to complete a site induction which includes approved access routes, site access restrictions, parking arrangements, safety protocols and approved work hours

Operational

A Green Travel Plan (**GTP**) will be prepared as a condition of consent and implemented prior to operation of the site. A draft GTP is provided within the TAIA prepared by JMT Consulting. Recommended initiatives to be investigated include:

- Travel Access Guide (**TAG**): A visual guide or app for staff and visitors showing public transport, walking and cycling routes, updated as transport options change.
- Public Transport Information: On-site boards or digital tools to help plan journeys and raise awareness of alternative travel modes.
- Active Transport Facilities: Secure bicycle parking, showers, change rooms, and wayfinding signage to encourage cycling and walking.
- Carpooling: A staff carpooling program to reduce single-occupancy vehicle trips.

The GTP will be monitored and reviewed regularly, with travel surveys undertaken to assess its effectiveness. Mode share will be reviewed at least 18 months after occupation to ensure the plan is achieving its objectives.

6.6 Biodiversity

Clause 7.9 of the Biodiversity Conservation Act 2016 applies to SSD applications and requires SSD applications to be accompanied by a Biodiversity Development Assessment Report (**BDAR**) unless it is determined the proposed development is not likely to have any significant impact on biodiversity values. A BDAR was prepared by AEP (**Appendix O**) to identify and assess any biodiversity impacts associated with the development. The BDAR has been prepared using the Streamlined Assessment Module for small areas, as outlined in Appendix C of the Biodiversity Assessment Method (**BAM**) (DPIE 2020a).

The BDAR assesses impacts to MNES listed under the Environment Protection and Biodiversity Conservation Act 1999 (**EPBC Act**). No Commonwealth listed entities were identified as occurring on the Subject Land, and it is considered unlikely the proposed development will result in a significant impact to a MNES, and as such, no referral is recommended under the EPBC Act.

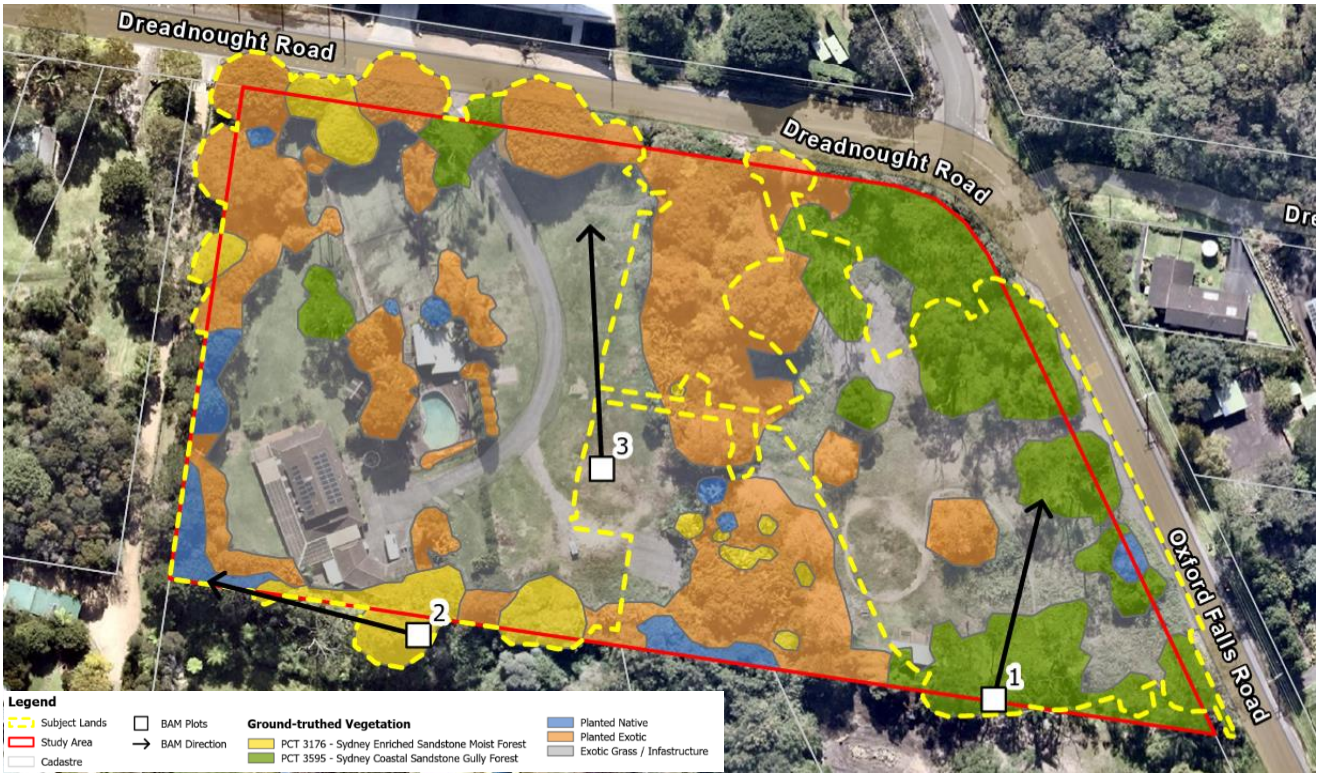
6.6.1 Existing Environment

The BDAR outlines that majority of the site consists of cleared understorey, patches of remnant native canopy, planted vegetation and an exotic dominant riparian corridor. The site has been subject to different land use practices overtime, including the grazing of horses. The native vegetation within the Subject Land has been ground truthed, and have been deemed to contain two (2) Plant Community Types (**PCTs**):

- PCT 3595: Sydney Coastal Sandstone Gully Forest: and
- PCT 3176: Sydney Enriched Sandstone Moist Forest. This PCT is associated with the Biodiversity Conservation Act 2016 (BC Act) listed Critically Endangered Ecological Community (**CEEC**): *Hygrocybeae Community of Lane Cove Bushland Park in the Sydney Basin Bioregion*.
- A Strahler 1st order stream travels through the centre of the site, separating the western and eastern side of the Subject Land. The stream has a low flow, flowing into Middle Creek which is north-west of the study area. The riparian area is highly degraded and dominated by exotic species in high density, as observed during the site assessments. Estuaries and wetlands were not identified within, adjacent or downstream of the Subject Land.

Other areas of native vegetation within the subject land have been classified as 'Planted Native.' It is outlined that approximately 0.48 ha of native vegetation is located on the site. No threatened species were identified within the subject land.

Figure 27 Plant Community Types



Source: AEP, 2025

6.6.2 Potential Impacts

AEP conducted a site assessment in October 2023 and March 2024 as part of feasibility studies to assess areas of biodiversity value, leading to the identification of several key ecological features. The identification of native vegetation areas and the riparian corridor were considered through the design phase.

The proposed footprint of the building and field has been situated to avoid native vegetation in the north-east portion of the site, as well as avoid the riparian areas. Earlier design iterations put forward by TKD Architects were assessed as resulting in greater impacts to PCT 3595 particularly in the north-east of the site. In response, the layout was refined to consolidate the development footprint and shift it further south, reducing the extent of ecological impact and better aligning with the avoid and minimise principles.

The report outlines that the removal of existing human-made structures and exotic vegetation is not expected to result in biodiversity loss, as these provide minimal habitat value. To protect water bodies and maintain hydrological integrity, the development has avoided impacts to the riparian corridor.

Measures will be implemented to prevent indirect impacts such as erosion, dust, and the spread of weeds. Erosion and sediment controls will be installed to protect soil stability and maintain water quality, while weed and pest managements strategies will be enacted to limit the spread of invasive species. Additionally, traffic restrictions and dust suppression methods will be applied during construction to reduce potential impacts on adjacent vegetation. By utilising a previously developed site, limiting vegetation removal, and applying best-practice environmental controls, the project ensures the residual ecological impacts are low and manageable. The avoidance and minimisation measures incorporated into the design align with sustainable development principles while supporting biodiversity conservation objectives.

Therefore, the proposed development will not create unacceptable impacts to biodiversity as a result of the construction and operation of the school sporting facilities.

6.6.3 Mitigation Measures

The BDAR provides a summary of mitigation measures to avoid and minimise impacts to the site during construction works as outlined below:

- Avoid, minimise and offset impacts to native vegetation on the site.
- Avoid impacts to the riparian corridor. Appropriate erosion and sediment controls are to be implemented to protect soil stability and water quality. This aligns with the details provided within the Civil Stormwater Management Report (**Appendix M**) prepared by WSCE.
- Instigate clearing protocols, including preclearing surveys, ongoing works surveys and staged clearing, using a trained ecologist or licensed wildlife handler during clearing events. Limit disturbance of vegetation and fauna to the minimum necessary to undertake the proposal.
- Use hygiene protocols to prevent the spread of weeds or pathogens. All machinery entering the site should be appropriately washed down and disinfected prior to work on the site to prevent the potential spread in accordance with the national best practice guidelines.
- Use of adaptive dust management. Stabilised surfaces should be reinstated as quickly as practical after construction
- Training of staff and conducting site briefings to communicate environmental features to be protected and measures to be implemented. Appropriate inductions should be provided prior to clearing.

6.7 Noise and Vibration

A Noise and Vibration Impact Assessment (**NVIA**) has been prepared by JHA Consulting Engineers and is attached in **Appendix P** of this report. The assessment addresses both construction noise and vibration, and operational noise associated with the proposed sporting facilities.

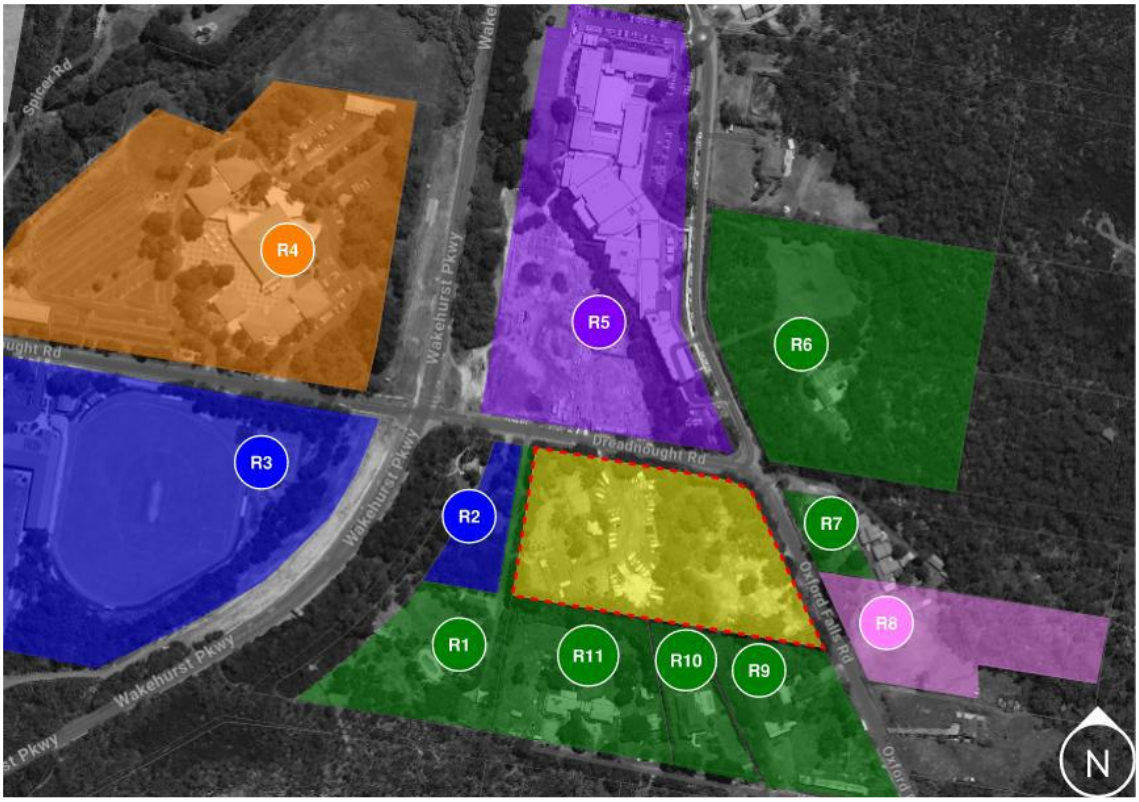
6.7.1 Existing Environment

Noise-sensitive receivers around the site include residential, recreational, educational, and religious uses, grouped into Noise Catchment Areas (**NCAs**). To understand the local noise environment and to establish the noise criteria to the nearest noise sensitive receivers surrounding the site, long-term noise monitoring was carried out from Tuesday 17 to Thursday 26 June 2025. Short-term monitoring was carried out on Tuesday 25 March 2025.

Attended and unattended noise surveys were conducted by JHA in the locations for long-term noise monitoring (L1), short-term noise monitoring (S1 & S2) shown in **Figure 27** to establish the ambient and background noise levels of the site and surrounds, in accordance with Fact Sheets A and B of the NSW Noise Policy for Industry (NPI).

Background noise levels (RBLs) were **43 dB(A) day**, **41 dB(A) evening**, and **28 dB(A) night**. Existing ambient noise is dominated by Wakehurst Parkway traffic and Oxford Falls Grammar School activity.

Figure 28 Noise Catchment Areas surrounding site



Source: JHA

Figure 29 Location of short (S1 and S2) and long term (L1) noise monitoring

Source: JHA

6.7.2 Construction Noise and Vibration Impact

A detailed construction staging program is yet to be finalised, however for construction acoustic modelling, the assessment has assumed typical works including excavation, piling, structural construction, and landscaping. Construction works (and associated loudest plant/equipment) are expected to comprise the following activities:

- Bulk excavation.
- Bored piling for foundations.
- Erection of the building structure (cranes, powered hand tools, concrete pumps, vibrators).
- Façade installation (powered hand tools).
- Landscaping and external works (front-end loaders, trucks, rollers).

Noise associated with construction activities will be managed in accordance with the *NSW EPA Interim Construction Noise Guideline* (ICNG, 2009) and *Assessing Vibration: A Technical Guideline* (2006). Where construction noise is predicted to exceed the "noise affected" level, feasible and reasonable measures are to be implemented to minimise impacts.

Typically, the most significant sources of noise or vibration will occur during demolition, excavation, piling, and concrete works. The predicted noise level at the nearest residential receivers R1, R2, R9, R10 and R11 are outlined below:

- Excavator: $\leq$85 dB
- Piling rig (bored): $\leq$89 dB
- Concrete pump truck: $\leq$86 dB
- Mobile crane: $\leq$89 dB
- Truck (20 tonnes): $\leq$85 dB
- Rock breaker: $\leq$93 dB
- Powered hand tools: $\leq$80 dB
- Vibratory roller: $\leq$103 dB

Construction noise levels at nearby residential receivers are expected to exceed the Noise Management Level (NML) of 53 dB(A) and may also exceed the Highly Noise Affected Level (HNAML) of 75 dB(A) for short durations during intensive activities such as rock breaking and piling. These impacts will be temporary and occur intermittently during standard construction hours.

Construction vibration impacts will be managed with reference to BS 7385.2:1993 (structural damage) and BS 6472.1:2008 (human comfort). Recommended safe working distances from sensitive receivers range between 2–73 metres, depending on the type and size of equipment used.

6.7.3 Mitigation Measures

To manage and minimise construction noise and vibration impacts, the following feasible and reasonable measures are recommended:

- **Work Hours:** Limit construction to standard hours – Monday to Friday 7:00am–6:00pm, and Saturdays 8:00am–1:00pm.
- **Quieter Methods:** Adopt quieter equipment and construction methods where practicable (e.g. use of rippers instead of hydraulic hammers, slower auger piling speeds).

- **Scheduling:** Undertake noisy works during less sensitive periods, such as mid-morning or mid-afternoon, and avoid simultaneous operation of multiple high-noise activities near sensitive receivers.
- **Communication:** Provide prior notification (letter or leaflet) to surrounding residents, schools, and community facilities advising of expected timing and duration of works.
- **Respite Periods:** Implement respite periods for high noise activities exceeding 75 dB(A), such as Monday to Friday 7:00–8:00am and 12:00–1:00pm.
- **Vehicle and Material Handling:**
  - Use non-tonal reversing alarms where safe and practicable.
  - Avoid dropping materials into trucks and secure loads with straps instead of chains.
  - Turn off engines when idling and limit vehicle speed on-site to 10 km/h.
- **Noise and Vibration Monitoring:**
  - Undertake monitoring during high-impact works and in response to complaints at the nearest sensitive receivers.
  - Engage a qualified acoustic consultant to prepare and oversee a Construction Noise and Vibration Management Plan (CNVMP) prior to construction.
- **Complaints and Induction:**
  - Implement a complaints-handling procedure consistent with the acoustic report.
  - Include noise and vibration management protocols in site inductions for all workers and subcontractors.

With implementation of these measures, construction noise and vibration impacts can be effectively managed and reduced to acceptable levels for the duration of works.

6.7.4 Operational Noise Impact

The primary sources of noise generation associated with the proposed school sporting precinct are as follows:

- **Mechanical plant noise** from air conditioning, ventilation, and other equipment servicing the indoor sports building and associated facilities. Major mechanical equipment is anticipated to include rooftop condensers and plant equipment located within enclosed or screened areas.
- **Recreation and sporting noise** from activities occurring on the outdoor playing fields and within the indoor courts.
- **Vehicle movements** associated with students, staff, and limited visitors accessing the site during standard school hours.
- **General operational activities** including maintenance, waste collection, and periodic deliveries.

Operational Plant Noise

The NVIA has assessed mechanical noise from the proposed development which will operate during all daytime periods (7am to 6pm) when the internal areas will be occupied. It is to be noted that the location of the services has not yet been finalised, and external plant will be located within the Level 1 Plantroom with louvred air intake facing Dreadnought Road or they will be placed on the northern section of the roof.

The assessment has considered the required plant for the development and outlined that at all surrounding receivers; the external mechanical plant noise emissions will meet the noise level criteria. The receivers selected include the following:

- R5 Oxford Falls Grammer (outdoor play area)
- R6 1083 Oxford Falls Road
- R7 70 Oxford Falls Road
- R8 1085 Oxford Falls Road
- At project boundary

The preliminary worst case mechanical plant noise assessment demonstrates the external mechanical plant noise emissions will meet the noise level criteria at the nearest noise sensitive receivers.

Figure 30 Mechanical Noise Assessment

Calculation	Overall A-weighted noise level, in dB(A)				
	R5 Oxford Falls Grammar School (outdoor play area)	R6 1083 Oxford Falls Road	R7 70 Oxford Falls Road	R8 1085 Oxford Falls Road	At project lot boundary
Sum of L_{Aeq} CUs @1m from plant, dB	67	67	67	67	67
Reflections, dB	3	3	3	3	3
Distance attenuation, dB	-40 (100m)	-34 (50m)	-28 (25m)	-28 (25m)	-26 (19m)
$L_{Aeq,15min}$ resulting at receiver	30	36	42	42	44
Daytime criteria NPI & T&ISEPP / Complies?	53 / Yes	48 / Yes	48 / Yes	48 / Yes	48 / Yes

A more detailed acoustic assessment of all plant is required to continue through the detailed design phase once the required plant has been selected, to confirm if any noise control measures are required to achieve the noise criteria at the selected nearest sensitive noise receivers.

Outdoor Sports Field Noise

The use of the outdoor sports field is proposed in the day and evening time. Evening community use of the outdoor playing fields will also occur outside of school use at certain times that are yet to be determined. Notwithstanding the noise assessment has assessed 7am to 10pm

Figure 31 Predicted noise levels from outdoor field during the day time period

Calculation	Overall A-weighted noise level, in dB(A)				
	R1	R2	R9	R10	R11
Overall Sound Power Level of the outdoor sports field, dB(A)	99	99	99	99	99
Predicted noise level at the nearest receiver, dB(A)	46	49	42	44	45
Day time Noise Level Criteria, dB(A) / Complies?	48 / Yes	48 / Yes*	48 / Yes	48 / Yes	48 / Yes

Figure 32 Predicted noise levels from the outdoor field during the evening period

Calculation	Overall A-weighted noise level, in dB(A)				
	R1	R2	R9	R10	R11
Overall Sound Power Level of the outdoor sports field, dB(A)	96	96	96	96	96
Predicted noise level at the nearest receiver, dB(A)	43	46	39	41	42
Evening Noise Level Criteria, dB(A) / Complies?	43 / Yes	48 / Yes	43 / Yes	43 / Yes	43 / Yes

Source: JHA, 2025

Noise predictions indicate that levels will remain compliant with the relevant Noise Policy for Industry (NPI) and Transport and Infrastructure SEPP criteria at all surrounding sensitive receivers both during the daytime (7am to 6pm) and the evening time (6pm-10pm). It is also noted that the assessment conducted is the worst case scenario with maximum expected spectator noise. Typical operation for the fields is expected to have noise levels 5-10db lower than predicted.

It is acknowledged that the acoustic modelling has included consideration of a 1.8m high solid fence around the western and southern sides of the outdoor playing field area. This is incorporated into the current architectural plans.

Indoor Sports Hall Noise

The report outlines that with typical activities within the three general learning spaces will not generate significant noise in comparison to the internal and external sports areas. Noise from the indoor courts has the potential to disrupt the acoustic amenity of the surrounding sensitive receivers and the natural ventilation louvres proposed have also been assessed. As a result of the louvres that are proposed, recommendations have been made to minimise noise impacts to nearby receivers including being located along the northern and eastern upper areas.

Traffic Noise Generation

The report provides a traffic noise assessment for the proposed use. The additional vehicle trips generated by the facility are proposed to comply with the NSW Road Noise Policy which has a maximum criterion of a 2.0dB increase.

Figure 33 Predicted traffic noise level increase for roads around the proposed facility.

	Existing	*future base + development*	*dB increase*	*Complies*
Saturday Peak Traffic Flow (vehicles/hour)	384	543	1.5	Yes
PM Peak Traffic Flow (vehicles/hour)	596	762	1.0	Yes

Source: JHA, 2025

Summary

Predicted operational noise emissions are summarised as follows:

- Mechanical plant noise is expected to comply with applicable project noise trigger levels. The design incorporates acoustic screening, plant enclosure, and appropriate equipment selection to ensure emissions do not exceed the background noise level plus 5 dB(A).
- Outdoor sporting activities (including training, matches, and physical education use) will generate noise levels between 42–49 dB(A) at the nearest residential receivers, remaining within the daytime criteria.
- Outdoor sporting activities (including training, matches, and physical education use) will generate noise levels between 39–46 dB(A) at the nearest residential receivers, remaining within the evening criteria.
- Indoor activities are contained within acoustically treated buildings, and noise breakout through glazing and louvres is not expected to exceed external trigger levels.
- Traffic noise associated with the development is negligible.
- Traffic modelling indicates an increase of less than 2 dB(A), which is not perceptible under the NSW Road Noise Policy.
- Delivery vehicles will be limited to occasional small van deliveries and routine waste collection. Noise impacts associated with these activities are minor and consistent with existing school operations.

Routine maintenance such as cleaning, landscaping, and waste collection will occur during 7:00am to 6:00pm Monday to Friday and 8:00am to 1:00pm Saturdays. Waste collection is to be limited to 7:00am to 6:00pm weekdays. No sleep disturbance assessment has been undertaken as the proposed sporting precinct will not operate beyond 10:00pm.

Accordingly, the dominant operational noise source is expected to be mechanical plant equipment, with all other activities operating within acceptable levels. Receiver noise predictions confirm that with the incorporation of the proposed mitigation measures, operational noise emissions will not exceed the applicable criteria, and there are **no residual noise impacts**.

6.7.5 Mitigation Measures

- A detailed noise emissions assessment of all mechanical plant must be undertaken at the Construction Certificate stage once final equipment selection and locations are confirmed, identifying any additional acoustic treatments required to meet trigger levels.
- The sporting precinct (including outdoor fields and indoor courts) will only operate between 7:00am and 10:00pm Monday to Saturday, and 8:00am to 8:00pm Sundays.
- Waste collection and maintenance are to occur between 7:00am–6:00pm Monday to Friday and 8:00am–1:00pm Saturdays.
- Façade glazing and acoustic louvres are to comply with minimum ratings specified in the Acoustic Report to control breakout noise.
- All plant and equipment are to be maintained to ensure they do not emit excessive noise.

It is concluded that with the implementation of these mitigation measures, operational noise emissions from the proposed development will comply with the established site criteria and maintain the acoustic amenity of surrounding residential and educational receivers.

6.8 Geotechnical

6.8.1 Existing Environment

A Geotechnical Assessment has been prepared by Aargus and is attached at **Appendix Q**. Field investigations carried out from 9 October 2024 to 14 October 2024 included:

- A site walk-over inspection by a Geotechnical Engineer in order to determine the overall surface conditions and to identify relevant site features.
- Review of Dial Before You Dig plans and service locating carried out using electromagnetic detection equipment to ensure that the investigation locations are free from underground utilities.
- Machine drilling of ten (10) boreholes across the site, five boreholes in the west part of the site and the other five at the east side of the site. All boreholes were drilled up to 6-12m depth with augers and then rock coring.
- Standard Penetrometer Testing (**SPT**) was carried out in the surface boreholes within the soils at nominal 1.5m, 3.0m, 4.5m, depths intervals to assist with the determination of the in-situ conditions.
- Three groundwater monitoring wells were installed, and Aargus measured groundwater levels over a four-week period to establish the groundwater level.

6.8.2 Potential Impacts

Based on the ground conditions encountered during the Geotechnical Investigation, it was found that beneath the shallow topsoil / fill material, natural Clayey sand was encountered to depths between 4.5m & 7.5m BGL, then extremely to slightly weathered sandstone bedrock. Key geotechnical constraints to the development were outlined to include excavation conditions, groundwater control (during construction and

long-term), temporary shoring, permanent retaining, foundation conditions, and hazards related to slope instability risk.

Ground Profile

The investigations conducted on the site confirmed the following in relation to the existing ground profile:

- Fill material was uncovered from 0.0-1.4m thickness at the borehole BH1.
- The sites soil comprises generally Clayey Sand underlain by Sandstone.
- There is extremely to highly weathered to Slightly weathered Sandstone from approximately 4.5m.
- Medium Strength Sandstone Class III, approximately 5.5m below the ground level was uncovered at BH7 and BH9.
- High Strength Sandstone Class II, approximately 11.3m below the ground level was uncovered at BH10.

Groundwater

Groundwater was also discovered during auger boring in the boreholes. Groundwater monitoring wells were installed in boreholes BH1, BH6 and BH10. The following groundwater levels were uncovered:

- BH1 – 77.86m AHD (Surface Level), 74.86m AHD (Level)
- BH6 – 73.92 m AHD (Surface Level), 70.92m AHD (Level)
- BH10 – 77.23 m AHD (Surface Level), 73.73m AHD (Level)

Salinity

Soil samples recovered from the boreholes were tested for salinity, electrical conductivity (EC), pH, chloride (Cl-), and Sulphate (S04) content. Slightly saline soils were uncovered in BH3, BH7, BH9 and BH10 and moderately saline soils in BH6.

Excavation Works

Excavation is expected to be through fill then residual soils of variable strength. Excavation within the soils and very low strength bedrock is expected to be readily achieved using a large hydraulic excavator down to the level of medium strength bedrock. However, localised use of rock breaking equipment or ripping may not be required if and where high strength bands are encountered. It is considered that from a geotechnical perspective the proposed excavation and development is feasible provided the recommendations outlined are implemented, the project is appropriately designed, and sound engineering/construction practices are adopted.

The report outlines additional works that are required to be carried out prior to works commencing:

Pre-Construction

- Dilapidation surveys of adjacent properties and infrastructure,
- Preparation of a geotechnical monitoring plan (GMP) to satisfy RMS requirements.

During Construction

- Inclinometer installation and monitoring during construction to satisfy RMS requirements (RMS to confirm if this is required),
- Temporary working platform assessment,
- Footing and shoring pile inspections during construction.

6.8.3 Mitigation Measures

Aargus have recommended the following site preparation measures:

- Where dust is likely to be a nuisance, suitable screens or barricades are to be adopted during demolition, excavation and building works. Water sprays are to be used to dampen down the surface and reduce dust emission where required.
- A vibration monitoring plan is to be prepared to monitor the potential vibration effects of demolition works, during piling and excavation on existing buildings within adjoining properties, and roads along the site boundary.
- Where any adjacent buildings (or infrastructure) are located within a zone of influence, consideration will be given to inspection pits to determine the requirement for underpinning in any affected adjacent properties.
- A Geotechnical Monitoring Plan is to be prepared to provide site specific guidance for excavation and vibration monitoring.
- Earth retaining structures is required to be designed to withstand the lateral earth pressure, hydrostatic pressure and earthquake load (if applicable) pressures, and the applied surcharge loads in their zone of influence, including existing structures, traffic and construction related activities.
- Design of shallow and pile foundations is required to be carried out in accordance with Australian Standards AS2870-2011 (Reference 4) and AS2159-2009 (Reference 5), respectively.
- Any groundwater or surface water run-off that has accumulated at bulk excavation level, is required to be removed prior to concrete pouring. Any loose debris and wet soils should also be removed from excavations.
- An experienced Geotechnical Professional is required to review footing designs to ensure compliance with the recommendations in the geotechnical report and assess foundation excavations to ensure suitable materials of appropriate bearing capacity have been reached.

6.9 Ground Water and Water Quality

A Surface Water and Groundwater Impact Assessment Report has been prepared by Aargus and is appended at **Appendix R**. The Report outlines the surface water management and water-related servicing infrastructure required by the proposal and details the proposed drainage design.

6.9.1 Existing Environment

Aargus has undertaken extensive site investigations as part of the Geotechnical Assessment (**Appendix Q**) and the contamination assessments (Contamination Assessment and Remediation Action Plan) enclosed within **Appendix S** and **Appendix T** respectively.

The report outlines the following findings:

- Groundwater wells were installed as part of geotechnical investigations, with no groundwater sampled and no water quality data was obtained for the site.
- A review of acid sulphate soils (**ASS**) maps sourced from NSW Planning portal spatial viewer, shows that the site not in acid sulphate soils zone, but is 2.5km away from the high probability 1-3m below ground surface area.
- Soil samples were collected and sent to a NATA accredited laboratory for salinity classification, as part of Geotechnical investigations by Aargu. Slightly saline soils were found in the subsurface material.
- The site is located within Middle Creek catchment, where runoff from the site enters the local watercourse both through the constructed stormwater system and as overland flow. The quality of surface water entering local waterways would largely be a function of contaminants on the roads and adjacent areas.
- The DSI prepared for the site outlined that the site has potential contaminants including asbestos, Copper, Lead, Zinc, Benzo(a)pyrene, Chrysotile & Amosite Asbestos. Further to this there are several

ecological criteria exceedances for metals and hydrocarbons. The site soils are considered not suitable for use in landscaping areas.

6.9.2 Potential Impacts

The report outlines the potential impacts of construction and operation of the proposal. Specifically, the report outlines the following key potential construction phase impacts:

- Accidental spills or leaks of substances, during routine operation and maintenance activities, have the potential to contaminate both surface water and groundwater mitigation and management measures were identified as part of this assessment to address the above impacts.
- Moderate risk areas of saline soils mapped throughout the construction footprint with the potential to impact on surface water, shallow groundwater and constructed structures associated with the proposal, if not managed appropriately
- Accidental spills or leaks of substances (such as fuels, oils, lubricating fluids and seepage from potentially high saline spoil) have the potential to contaminate surface water and groundwater if not appropriately managed.
- Groundwater levels may be impacted where construction activities intersect groundwater and/or where construction impacts surface water regimes that are hydraulically connected to shallow groundwater (eg dewatering).
- Groundwater users may be impacted. Bore water levels may decrease at registered groundwater bores located within the extent of groundwater drawdown due to dewatering required for cuts/excavations that intersect shallow groundwater along the proposal.
- Alteration of existing surface water and groundwater flow pathways due to new infrastructure or modified landforms including piles, embankments, or other closely spaced structures.
- Deep cuttings intersecting shallow groundwater and disrupting the existing groundwater flow regime
- The reduced permeability of the substrate beneath embankments may modify the flow direction of shallow groundwater in portions of the alluvium and possibly the saturated portion of weathered bedrock.

The implementation of the mitigation and management measures outlined below, have been outlined to be sufficient in ensuring that the proposal would have a minimal impact on groundwater.

6.9.3 Mitigation Measures

The following mitigation measures have been provided within the report to ensure that the proposed development will have a minimal impact during construction and operation:

- Prepare a soil and water management plan and incorporate this into the Construction Environmental Management Plan (**CEMP**). Install sediment and erosion control measures in accordance with the Blue Book (DECC, 2008). Prepare water quality monitoring plan and incorporate in the CEMP.
- Storage of hazardous goods and refuelling activities is to take place in bunded areas. Implement a water quality monitoring program. A water quality monitoring plan is to be prepared and incorporated in the CEMP.
- Storage of hazardous goods and refuelling activities is to take place in bunded areas.
- Excavations are to be minimised below the groundwater table. Minimise the duration of time where excavations below the water table are open/occur.
- Where practical and where space allows, adopt WSUD guidelines for drainage infrastructure (appropriate plant species selection, etc).
- Install impermeable liners or redesign to shallower depth stormwater basins where they may intercept groundwater.

6.10 Flood Risk

A Flood Risk Assessment has been prepared by GRC Hydro and accompanies this application at **Appendix U**. The report details the existing flood risk on the site as well as how the proposed activity responds to the flooding conditions on the site. Further to the assessment a Preliminary Flood Evacuation Response Plan has been prepared to outline the shelter in place and evacuation provisions on the site.

6.10.1 Existing Environment

The site is affected by flooding from a creek tributary of Middle Creek, which runs south to north through the site, as well as overland flow. Northern Beaches Council has a catchment flood study with limited information at the site, and so new hydrologic/hydraulic models were established for this assessment. Modelling (both Council and GRC Hydro results) shows creek flooding is confined to the centre of the site in a 1% AEP event. The subject site slopes down towards the centre of the lot, with the creek running south to north, towards Dreadnought Road, with ground elevations between 71m and 81m AHD.

Dreadnought Road which is adjacent to the site, located to the north has an approximately elevation of 75-77m AHD but dips down to 73.9m AHD where the creek passes beneath the road. A twin cell culvert is located beneath Dreadnought Road with invert 2.5 m below the road level, and a 4.3 m width x 1.8 m height which drains to the creek. The site lies in the upper reaches of the Narrabeen Lagoon catchment and is affected by both mainstream/creek flooding and overland flow. An unnamed tributary of Middle Creek passes through the centre of the site and joins Middle Creek 450 m downstream of the site. The creek through the site has a catchment of 144 ha to the south, consisting of steep bushland with some residential areas. Creek flooding occurs when heavy rainfall over the catchment accumulates as runoff and exceeds the channel capacity.

The peak flood depths and levels for each event are shown for the existing/pre-development case is outlined below:

- In the 20% AEP and 5% AEP floods, the majority of creek flow is in-bank and only small areas of out of-bank flow are expected to occur. The western half of the site is not flood affected with the exception of a small breakout flow from the creek along the southern boundary. Dreadnought Road is not overtopped by creek flow.
- In a 1% AEP flood, significant out-of-bank flooding occurs along the creek, but the slope of the site means the affected area will be relatively limited, and the large majority of the site is not flooded by creek flow. The breakout flow between the two creeks is larger. There is shallow flow across Dreadnought Road where the road above the culvert, is overtopped.
- In a 0.2% AEP flood, creek flooding is wider with around 20m of flow width along the centre of the site.
- In a PMF, flood depths and the flood extent are significantly larger. The creek has a flow width of around 80m down the centre of the site with depths of >1.0 m over the central 30 m. Areas of the site lying above 76.5 m AHD is generally not affected by PMF creek flow, which still constitutes around half of the site area.

6.10.2 Potential Impacts

The report provides an assessment of the proposed development in relation to flood risk on the site which outlines the following:

- The outdoor sports field is to be located on the west half of the site, with levels ranging from RL 77.6m AHD at the southwest corner to RL 76.4m AHD at the northeast corner.
- The indoor sports hall on the east half of the site, including basement carparking underneath. The ground floor level is 79.30m AHD.
- The basement car park level is 75.80m AHD and is sealed off from ingress of floodwater on the west/creek side of the building.

- An elevated pedestrian bridge between the two halves of the site, above the creek. The bridge deck varies from 77.2 to 79m AHD. Inclusion of any piers is not known at this stage, so the bridge has been assumed to have 0.8 m of blockage, or 2% of the flow area, at the creek level.
- A new stormwater drainage network is proposed as part of the development, for draining overland flow. A DN 900 pipe and several pits are proposed along Oxford Falls Road to collect overland flow from the east. Within the site, a series of DN 225, DN 300, and DN 375 pipes are proposed alongside the building and around outdoor sport field to collect localised runoff and discharge it to the creek.
- No changes to the ground levels adjacent to the creek, the creek channel or the Dreadnought Road culverts are proposed.

The proposed design has two floor levels where a Flood Planning Level (**FPL**) applies – the basement car park and the ground floor of the indoor sports hall. The proposed development has been designed to be protected against the shallow overland flooding on the east side of the building and the deeper creek flow on the west side of the building. The FIA has assessed the relevant FPL areas of the site and whether the design meets the relevant FPL. The figure below demonstrates below that the basement parking entrances are set above the closest applicable PMF flood level.

In the case of a flooding event, the indoor sports hall will be a shelter in place refuge. site occupants can readily access the sports hall, using the elevated walkway if they are not already in the building. The floor space is in the order of 2900 m^2 (excluding the basement) and the maximum occupancy of 250 people, so there is more than 1 m^2 per person. The sports hall will be accessible to all occupants. The site has a simple layout with regards to accessing the refuge area.

Figure 34 Flood Planning Levels

Entry	Design Level (mAHD)	PMF (mAHD) and mechanism	Meets FPL Req.
A – Vehicle ramp to basement	79.93 on driveway crest	79.79 from overland flow	Yes
B – Entry Lobby 02	79.3	Not flooded	Yes
C – Main Entry Lobby	79.3	79.06 from overland flow	Yes
D – Various forecourt entries	79.3	Not flooded.	Yes
E – Entry Lobby 01	79.3	76.2 from creek	Yes
F – Stairs to basement	76.9 on stairs landing	76.5 from creek	Yes
G – Stair 06	79.30	76.9 from creek	Yes

GRC undertook an assessment of the proposed development against the 1% AEP. The assessment confirmed that the development has no impact on creek flow and flood levels are unchanged within the site, as well as on upstream and downstream properties. The modelling carried out demonstrates that there is significant diversion of the minor drainage flow from Oxford Falls Road although impacts are completely contained within the site and along Oxford Road. There is no change to flood hazard on Oxford Falls Road.

In summary, the location of built form on site is located in the 'flood fringe' portion of the site, away from the main areas of flood flow. The majority of the site and the development footprint is not flooded in the 1% AEP event. However, as a sensitive use, the development has been designed to ensure:

- Flood Planning Level requirements are incorporated into the design
- Emergency access and evacuation is incorporated into the design and assessed
- The works do not worsen flood behaviour for others in the locality.

Further to the above, the Flood Emergency Response Plan (**Appendix U2**) outlines the procedures to respond to a flood event including general preparation requirements and emergency specific procedures including evacuation routes on the site. The proposed evacuation path which has been informed by consultation with SES, for the site is along Oxford Falls Road where occupants will travel south away from

Dreadnought Road which is flood affected. The plan outlines that site occupants are to shelter in place in the sites sports hall which is protected against all possible floods.

6.10.3 Mitigation Measures

No mitigation measures are proposed for the development given the building has been designed to the relevant FPL's and the development will not impact on creek flow and flood levels.

The Flood Emergency Response Plan provides the required procedures to be followed leading up to potential flooding events and during flood events to manage potential risks.

6.11 Contamination and Remediation

Contamination investigations have been undertaken by Aargus which includes a Detailed Site Investigation (**DSI**) and Remediation Action Plan (**RAP**).

6.11.1 Existing Environment

Based on available information, the site historical usage is summarised as follows:

- Land title information provided suggested that the site was first granted to Rural Reconstruction Board then acquired by private individuals since 1970. In 2024, the site was transferred to the current owner Queenwood School for Girls Ltd.
- The land use of the site appeared to have been residential from at least 1943 with few structures in the western half of the site and vacant land in the eastern half. From 1970, the structures at the western portion decreased gradually and by 1991 the western half of the site was redeveloped into two residential buildings, a swimming pool and a garage. The layout of the site remained unchanged since then.
- The general land use of the surrounding area has been predominantly residential, with a mix of commercial and market garden areas from 1943 to 1982. From 1991 to 2024, commercial development was observed to increase, particularly in the northern and western areas, while residential properties continued to expand south and east of the site.
- The site is not listed in any of the EPA records.
- The land is not affected by one of the matters prescribed by Section 59 (2) of the Contaminated Land Management Act 1997.

6.11.2 Potential Impacts

Detailed Site Investigation

A soil investigation was carried out on 9 and 10 October 2024 and was designed to meet the Data Quality Objectives of the report. Thirty-two boreholes (BH1 to BH32) were drilled by adopting a systematic grid sampling pattern across the site to provide general site coverage with consideration given to accessibility, site features and the proposed development zones.

- BH1 to BH7 & BH9 – general site coverage in the western portion.
- BH8 – in the vicinity of the driveway / garage.
- BH10 to BH17 – in the vicinity of the former boat storage areas and/or driveway areas.
- BH18 – at the potential fill area.
- BH19 to BH32– general site coverage in the eastern portion.

The soil assessment for the site obtained using the above boreholes, revealed the following:

- Heavy metals concentrations were below the HIL 'A' (Residential use with gardens/accessible soils, including children's daycare centres, preschools and primary schools) with the exception of lead concentration in the sample BH10 (0.0-0.1m), BH11 (0.0-0.1m), BH12 (0.0-0.1m).
- Heavy metals concentrations were below the site derived EILs with the exception of the copper concentration in the sample BH10 (0.0-0.1m), BH11 (0.0-0.1m), BH12 (0.0-0.1m) and the zinc concentration in the sample BH10 (0.0-0.1m), BH11 (0.0-0.1m), BH12 (0.0-0.1m).
- Total recoverable Hydrocarbons (**TRH**) and Benzene, Toluene, Ethylbenzene, Xylenes and Naphthalene (**BTEXN**) concentrations were below the Health Screening Levels (**HSL**) 'A&B', Ecological Screening Levels (**ESLs**) and/or Management Limits, with the exception of the benzo(a)pyrene concentration in the sample BH12 (0.0-0.1m).
- PAH, OC & PCB concentrations were below the HIL 'A', EILs and/or ESLs with the exception of the benzo(a)pyrene concentration in the sample BH12 (0.0-0.1m).
- Asbestos was not detected in any of the samples analysed, with the exception of Chrysotile & Amosite Asbestos detected in the sample BH10 (0.0-0.1m), BH11 (0.0-0.1m), BH12 (0.0-0.1m), BH15 (0.0-0.1m), BH17 (0.0-0.1m).

The hotspots are located in the area of the site where numerous boats were previously parked, therefore, this area is required to be investigated further to determine the extent of potential contamination associated with this activity.

Upon completion of the site investigation and laboratory analysis, the soil assessment revealed the following analytes and respective locations which exceeded the SAC:

- Copper, Lead, Zinc & Asbestos in BH10 and BH11.
- Copper, Lead, Zinc, BaP & Asbestos in BH12.
- Asbestos in BH15 and BH17.

The report outlines that there are some areas of potential environmental concern, in relation to imported fill of unknown origin, previous site uses, leaks of motor vehicles, past use of adjoining properties and potential presence of hazardous materials in current or past building structures, which may pose risks to human and environmental receptors.

Based on the results of this investigation, it is considered that the risks to human health and the environment associated with soil contamination at the site are low within the context of the proposed use of the site for construction into sport and recreational facilities including a two-court indoor multipurpose hall with underground parking area, an external multipurpose pitch, and associated amenities, car and bus parking and drop off areas.

Remediation Action Plan

Based on the findings of the DSI as outlined above, a number of hotspots of copper, lead, zinc, benzo(a)pyrene and/or asbestos contaminated soil in BH10, BH11, BH12, BH15 & BH17 were identified. It was recommended that these concerns be addressed through additional soil investigations, and preparation of a RAP to manage the impacted soils in BH10, BH11, BH12, BH15 & BH17. It was also recommended that further investigations are undertaken in the former boat storage area to determine the extent of potential contamination associated with this activity.

The extent of remediation would be limited to hotspots BH10, BH11, BH12, BH15 & BH17. The topsoil materials at these hotspots are impacted to a depth of 0.3m BGL. It is intended to initially excavate each of the hotspots 5m long x 5m wide x 0.4m vertically deep, place into the one stockpile SP1, classify and then appropriately disposed of at EPA licenced landfill facility that can accept asbestos waste. The approximate volume of Stockpile SP1 will be is 50m^3.

Excavation and offsite disposal was considered the most appropriate remediation strategy for the site as a result of the proposed development as well as the preferred client construction/remediation processes. Therefore, all contaminated material which exceeds the validation criteria will be disposed off site. Should the

additional soil investigations indicate other areas of concern and the requirement for further remediation, an addendum or revision to the RAP is required to amend the remediation strategy.

The remediation strategy is proposed to be undertaken in place and in line with the following stages:

- Prepare the site with fences, erosion controls, signage and environmental controls.
- An accredited Occupational Hygienist is to prepare an Asbestos Removal Control Plan (ARCP) which will outline the requirements for the handling, monitoring and contractor (CLASS A) disposal requirements for the Special Waste soils in the vicinity of Hotspots BH10, BH11, BH12, BH15 & BH17.
- Excavate each hotspot (BH10, BH11, BH12, BH15 & BH17) 5m x 5m by 0.4m deep and place into the one stockpile SP1, with an approximate volume of 50m3.
- The stockpile (SP1) will be sampled by recovering 4 samples to allow for an appropriate waste classification report to be prepared.
- Upon classification, the stockpile SP1 will be appropriately disposed of at EPA licenced landfill facility that can accept asbestos waste.
- The floors and walls of each of the five Hotspots BH10, BH11, BH12, BH15 & BH17 will be validated by taking 1 floor sample and 4 wall samples plus QA/QC samples. Chasing up of contaminants may be required during this stage of works if levels are found over site criteria.
- Remediation will occur by managing soil for offsite disposal to landfill for contaminated soils.

Based on the proposed scope of the remediation and validation works, it is expected that the works should be completed within approximately one to two weeks following receipt of the regulatory approvals. This timeframe does not include reporting which should be completed approximately one to two months after completion of the remediation and validation works.

It is recommended that the RAP be reviewed after the detailed design for the proposed development is completed and before starting remedial works and updated accordingly to ensure suitable remediation methods inform the Site works. Additionally, the environmental consultant should be informed of any proposed changes to the remediation approach, and the RAP updated in consultation with the relevant parties if necessary.

In summary, the site can be made suitable for future educational and recreational uses from a contamination perspective, provided appropriate remediation, management, and site validation are conducted in accordance with the site RAP.

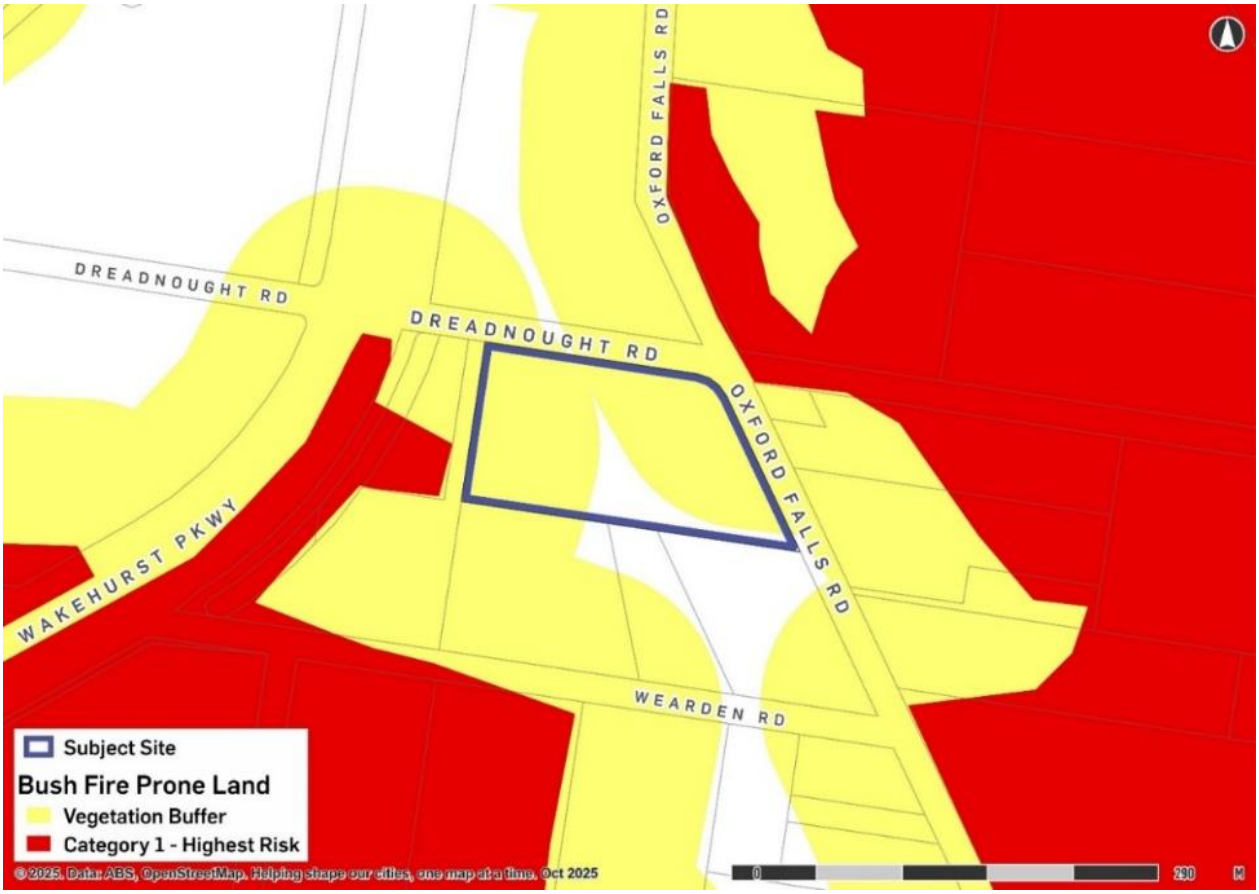
6.12 Bushfire Risk

A Bushfire Risk Assessment Report (**BRAR**) (**Appendix V1**) has been prepared for the proposed development by BlackAsh. The report seeks to assessment the development located on bushfire prone land to ensure it complies with the NSW Rural Fire Service *Planning for Bushfire Protection* (**PBP 2019**) under s.4.46 of the EP&A Act. A draft Bushfire Emergency Management and Evacuation Plan (**Appendix V2**) has also been prepared to outlined the procedures and responsibilities for managing bushfire risk during the operational period of the proposal.

6.12.1 Existing Environment

The site is identified as bushfire prone land, mapped as vegetation buffer and surrounded by Category 1 vegetation.

Figure 35 Bushfire Prone Land Mapping



Source: Urbis, 2025

6.12.2 Potential Impact

The proposed development is not classified as Integrated Development under Section 4.46 of the EP&A Act. Therefore, the proposal does not require separate approvals from the NSW Rural Fire Service as part of the SSDA. Accordingly, assessment and determination responsibilities will rest solely with the consent authority, DPHI, without the need to seek concurrence or General Terms of Approval (**GTAs**) from relevant state agencies.

BlackAsh have determined the suitable Asset Protection Zones (**APZ**) for the site. For proposed new residential subdivisions, the PBP 2019 requires that a minimum separation is provided in the form of an APZ. A conservative position has been taken in relation to the consideration of APZ using the APZ for Special Fire Protection Purpose (**SFPP**) developments, which are based on keeping radiant heat levels at below 10kW/m^2 (BAL-19) to ensure safe evacuation of occupants and fire fighters.

The following APZs have been proposed for the site as demonstrated in Figure 36 and applied to the site as outlined below in **Figure 37.**

Figure 36 APZ Assessment

Direction	Slope	Vegetation	PBP Acceptable Solution APZ (metres)	Minimum APZ Provided
North-East	Upslope 15.6°	Forest	67	>37m*
North	N/A	Managed lands	N/A	N/A
East	N/A	Managed lands	N/A	N/A
South	N/A	Managed lands	N/A	N/A
West	Upslope 1.3°	Coastal Heath	37m	>37m*

Source: BlackAsh, 2025

Figure 37 Minimum APZ Requirements

Source: BlackAsh, 2025

The Bushfire Attack Levels (**BAL**) to the site have been assessed and determined as BAL-19. The limit of BAL-19 construction from the hazard to the north-west of the site is located just short of concrete decking which connects with a pathway across the drainage line in proximity to the Sports Complex external wall. The proposed playing fields on the western boundary, have no requirements in accordance with AS 3959-2018 and therefore have no BAL or construction to adhere to. The following outlines how the development provides suitable infrastructure and access to meet the requirements of AS2419 and PBP 2019:

- The site is serviced by an existing reticulated water supply to comply with AS2419 and PBP 2019.
- The proposed sporting facilities will be connected to the reticulated water main.
- The site is connected to the local mains electrical supply and therefore comply with PBP 2019.
- The proposed Indoor sports halls have a direct frontage for access to Oxford Falls Road to the east. The existing driveway and internal manoeuvrability will enable safe operational access for emergency services personnel in supressing a bushfire, while people are access or egressing the site and complies with the intent of PBP 2019.
- Access to the bushfire hazard is also provided from Dreadnought Road. This complies with PBP 2019.

The report confirms that the site is suitable for the proposed development from a bushfire management perspective as well as can comply with the PBP 2019, subject to implementing the below mitigation measures.

The draft Bushfire Emergency Management and Evacuation Plan (**Appendix V2**) outlines shelter in place procedures, off-site evacuation protocols and triggers for action based on Fire Danger Ratings and bushfire proximity. The Plan outlines a bushfire shelter point and assembly location identified as 'A' in **Figure** 38 with onsite refuge areas outlined as 'R.' The Plan provides further details on Total Fire Bans and Extreme Fire Weather protocols, emergency alerts, risk avoidance, bushfire preparation and the schools

emergency procedures. The plan is required to be reviewed no less than every three years and/or following a bushfire emergency resulting in significant evacuations.

Figure 38 Bushfire Shelter Point and Assembly Location

Source: BlackAsh, 2025

6.12.3 Mitigation Measures

The following recommendations have informed mitigation measures for the site and proposed development to ensure the proposed development is compliant with Section 100B of the *Rural Fires Act 1997* and PBP 2019:

- The entire site must continue being maintained as an APZ in accordance with the NSW RFS Standards for APZs and PBP 2019.
- Water, electricity and gas supplies through the proposed development must comply with section 6.8.3 of PBP 2019. for the proposed Sports Complex.
- The Indoor Sports Centre is to be constructed in accordance with BAL-19 of Australian Standard AS 3959-2009 Construction of buildings in bushfire prone areas (AS 3959-2018).
- Prior to occupation of the site, a Bush Fire Emergency Management and Evacuation Plan is to be prepared.
- The procedures outlined within the draft Bushfire Emergency Management and Evacuation Report are required to be reviewed no less than every three years and/or following a bushfire emergency resulting in significant evacuations.

A final Bushfire Emergency Management and Evacuation Report will be prepared prior to construction and operation of the site.

6.13 Waste Management

A Construction (**CWMP, Appendix W**) and Operational Waste Management Plan (**OWMP, Appendix X**) has been prepared by Elephants Foot**.** The plans provide guidance on the sustainable management of general waste and recyclable materials that will be generated during the development's construction and operational phases.

6.13.1 Demolition and Construction

The CWMP considers waste management during all phases of the development and provides the best opportunity to minimise the volume of waste generated throughout the project's lifetime. Whilst recycling and reuse of materials are important aspects of waste management, waste minimisation techniques incorporated into construction and demolition can prevent materials from being brought onto the site that will eventually become waste.

Demolition Waste Volumes and Management

The existing building at the site will be demolished and a new building will be constructed. Where possible, materials will be reused, such as crushing concrete for use as clean fill. However, the majority of the components of the building will either be reused for the same purpose or disposed of offsite.

The report estimates that 6767.1 tonnes of demolition waste will be generated by the proposed activity with 99.8% of materials being diverted from landfill.

Construction Waste Volumes and Management

Waste generated during the construction stage of the development will be managed by the principal contractor and sub-contractors, with materials being reused and recycled wherever possible. Where neither reuse nor recycling are possible, waste will be disposed of as general waste at a licensed landfill site.

The report predicts that approximately 373.6 tonne of construction waste will be generated as a result of the proposal with 99.4% of waste will be able to be diverted from landfill (371.2 tonnes).

It is important to note that source separation of waste on-site may offer cost savings when compared to the disposal of mixed waste at landfill sites. Further cost savings may be achieved through the use of reusable and recycled-content materials and by reusing materials salvaged from the demolition stage of the development.

Waste Storage and Collection

Designated waste storage areas will be established for the collection of all waste and recyclables. The waste storage areas shall have appropriate signage to clearly identify the area to construction workers and to prevent unauthorised access to the area.

6.13.2 Operational

In line with the *NSW EPA's Better Practice Guide for Resource Recovery in Residential Developments,* Elephants Foot have determined the estimated volume of waste for the proposed activity.

An Operational Waste Management Plan has been prepared for the proposal by Elephants Foot. The report notes that all components of the site will share bulk bins within a Bin Storage Area located in the indoor sports hall.

Indoor School Sports Hall Waste

For the indoor school sports hall, waste and recycling receptacles will be placed throughout the sporting facility. The bins have been recommended to be placed in high-activity areas, including changing rooms, the canteen, and main circulation zones.

At the end of each day, cleaners will circulate around the facility and empty the waste and recycling receptacles. Then the cleaners transport waste and recycling to the Bin Storage Area and place the items into the correct bulk bin.

Outdoor Sports Fields Waste

For the outdoor sports fields, outdoor bins will be placed around the sports fields. Bins will be placed in convenient locations and areas of high traffic to minimise littering.

The groundskeeper will monitor the fullness of the outdoor bins. When full or as required, the outdoor bins will be emptied into the main bulk bins in the Bin Storage Area.

Waste Collection

A private waste contractor will be engaged to service the general waste and recycling bins as per an agreed collection schedule. General waste and recycling are proposed to be collected three times weekly.

On the day of service, a private waste collection vehicle will enter the site from Oxford Falls Road and park in the loading area adjacent to the Bin Storage Area. The waste collection staff will exit the vehicle and collect the bins from the Bin Storage Area then return the empty bins. Once the bins are serviced, the collection vehicle will exit the site onto Oxford Falls Road in a forward direction.

6.13.3 Mitigation Measures

- Contaminated material stockpiled on site will be minimised as far as possible and are to be stored on HDPE liner, in a bunded location which is protected from inclement weather;
- Sediment fences are to be installed around the base of stockpiles and the stockpiles should be covered. Where excavated material requires validations, samples should be taken for NATA laboratory testing as per the requirements of the contamination assessment prior to restoration works, backfilling exercises and disposal.
- Any trucks carrying contaminated materials are to be securely and completely covered immediately after loading the materials (to prevent windblown emissions and spillage) and must be licensed by the NSW Environmental Protection Authority (EPA);
- Decontamination of all equipment prior to demobilisation from the site is important so that contaminated materials are not spread off-site.
- Wherever practical, excavation material will be reused as part of the development;
- Excavation material that is not natural (virgin) material will be transported to an approved landfill site or off-site recycling depot;
- A waste classification assessment of the fill material will be undertaken prior to it being acceptable for waste disposal purposes;
- Transportation routes for excavation material removed from site will be identified and used.

6.14 Hazardous Materials

A Hazardous Building Materials Survey has been prepared by JK Environments (**Appendix Y**) informed by two site visits to the site on 3 September 2024 and 1 July 2025.

The site inspection and subsequent laboratory analysis of samples taken outlined the following materials were found within the site and therefore suitable removal mitigation measures are required to be implemented to reduce potential impacts during demolition and construction of the proposed activity.

6.14.1 Asbestos

- Asbestos containing materials were identified within the interior and the exterior of the Original House. Only bonded asbestos containing materials were encountered at this building.
- Asbestos containing materials were identified within the exterior of the Main Residence at the site at the time of the inspection, 2025. Both bonded and friable asbestos containing materials were encountered at within the exterior of the Main Residence.

- Potential bonded asbestos containing materials were identified in the form of electrical backing boards (within the Original House and the Main Residence) and fibre cement packers (within the Original House only) above the brick pier foundations at the time of inspection.
- Potential friable asbestos materials were identified in the form of internal insulation within the fuses of the Main Residence.

Mitigation Measures

- All works associated with the disturbance and removal of bonded asbestos containing materials must be undertaken by a Licenced Class B Asbestos Removalist.
- As potentially friable asbestos has been identified on site, all works associated with the disturbance and removal of friable asbestos containing materials must be undertaken by a Licenced Class A Asbestos Removalist.
- The asbestos removalist must prepare an Asbestos Removal Control Plan for the proposed works. The control plan should include an allowance for asbestos air fibre monitoring during the removal and thorough clean up works upon completion of the removal works.
- An asbestos management plan must be prepared for the proposed works in areas containing asbestos. A clearance inspection must be undertaken on completion of works and prior to any other construction activities being undertaken.
- If previously unidentified materials (suspected of containing asbestos) are identified during the demolition phase, works should cease, and the material should be inspected and classified by an experienced consultant. The area should be isolated and barricaded until the material has been classified as non-hazardous or removed and the area cleared.

6.14.2 Lead

Lead containing paint systems were identified throughout the interior and the exterior of the Original House at the time of inspection. The paint systems were all deteriorated at the time of the inspection.

Mitigation Measures

All identified lead containing paint films must be removed / treated in accordance with the regulations and codes relevant to the material and by an experienced hazardous materials removal contractor.

6.14.3 Other Materials

Fluorescent light fittings potentially housing Polychlorinated Biphenyls (**PCB**) containing capacitors were identified throughout the interior of the Main Residence and the associated garage. The fittings were visually inspected at the time of the inspection.

Materials containing Synthetic Mineral Fibre (**SMF**) were identified in the form of internal insulation within a hot water heater unit, air conditioning units and insulation within the ceiling space at both buildings at the site. All materials were in good condition at the time of the inspection.

Mitigation Measures

- PCB work is to be conducted in accordance with the *Environmental Protection & Heritage Council's Polychlorinated Biphenyls Management Plan, Revised Edition April 2003*. This includes:
  - Prior to demolition when the power is disconnected, inspect the light fittings;
  - Metal PCB containing capacitors are to be removed, placed in plastic lined 200 litre drums and disposed of as PCB Scheduled Waste. Any light fitting that shows signs of oil staining from capacitors is to be disposed of as PCB contaminated;
  - Protective clothing including eye protection, PCB resistant gloves and overalls are to be worn;

  - Contaminated gloves and disposable coveralls are to be disposed of as PCB contaminated waste; and
  - Contractors licenced to transport and handle PCBs must be used for transport and disposal.
- All SMF containing materials must be removed in accordance with the national Standard and code and by an experienced hazardous materials removal contractor.

6.15 Aboriginal Cultural Heritage

An Aboriginal Cultural Heritage Assessment Report (**ACHAR**) has been prepared by Urbis (**Appendix Z**) as well as an Aboriginal Archaeological Technical Report (**AATR**). The assessments have been undertaken to identify any potential Aboriginal objects and other cultural heritage values within the study area.

6.15.1 Potential Impacts

The ACHAR found no registered Aboriginal Objects or Aboriginal Places located within the subject area. Three linear striations were observed during the archaeological survey which were initially considered possible grinding grooves but were determined to be the result of modern machinery and therefore not recorded on the Aboriginal Heritage Information Management System (**AHIMS**). The site is located within 200 metres of an ephemeral creek line and historic wetlands, with features that indicate past Aboriginal land use. The creek line and banks will remain protected as part of a designated riparian corridor.

Initial desktop assessment identified low archaeological potential in areas of high disturbance and high potential in areas of low to moderate disturbance on the site. Test excavation revealed high disturbance across most of the site due to historical landscape modification and presence of imported fill, with only limited areas retaining partially intact soil profiles. Following excavation, the archaeological potential was re-assessed as low across the entire site, and the overall Aboriginal cultural heritage significance was determined to be low.

Given the absence of known Aboriginal objects and the low likelihood of unknown objects being present, the proposed activity is unlikely to cause harm to Aboriginal heritage or impact inter-generational equity. It is recommended that the following mitigation measures are implemented on the site during works occurring to ensure there are suitable protocols to manage and unexpected finds.

6.15.2 Mitigation Measures

As Aboriginal objects are unlikely to be located within the study area and therefore unlikely to be harmed, no mitigation measures are proposed, rather recommendations have been suggested by Urbis.

- **Unexpected Finds Protocol**

  Should any archaeological deposits be uncovered during any site works within this portion of the subject area, the following steps must be followed:

  1. All works within the vicinity of the find must immediately stop. The find must not be moved ‘out of the way’ without assessment. The find must be cordoned off and signage installed to avoid accidental impact.

  2. The site supervisor or another nominated site representative must contact either the project archaeologist (if relevant) or Heritage NSW (Enviroline 131 555) to contact a suitably qualified archaeologist.

  3. The nominated archaeologist must examine the find, provide a preliminary assessment of significance, record the item and decide on appropriate management measures. Such management may require further consultation with Heritage NSW and the project RAPs, preparation of a research design and archaeological investigation/salvage methodology and registration of the find with the Aboriginal Heritage Information Management System (AHIMS).

4. Depending on the significance of the find, reassessment of the archaeological potential of the subject area may be required and further archaeological investigation undertaken in consultation with the RAPs for the project. 5. Reporting may need to be prepared regarding the find and approved management strategies. 6. Works in the vicinity of the find can only recommence upon receipt of approval from Heritage NSW.

- **Human Remains Procedure**

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

  1. All works within the vicinity of the find must immediately stop. The find must be cordoned off and signage installed to avoid accidental impact.

  2. The site supervisor or other nominated manager must notify the NSW Police and Heritage NSW (Enviroline 131 555).

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

  4. Management recommendations are to be formulated by the NSW Police, Heritage NSW and site representatives in consultation with the RAPs for the project.

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

6.16 Heritage

A Heritage Impact Statement (**Appendix DD**) has been prepared by Urbis which assesses the impact of the proposed development on the adjacent heritage item to the west of the site identified as the Oxford Falls Public School.

Figure 39 Heritage Mapping

Source: Urbis, 2025

6.16.1 Existing Environment

The state outlines that the site is currently occupied by a late 20th-century brick residence, a pool house constructed between the 1920s and 1940s, a tennis court, and ancillary outbuildings. The site is characterised by a mix of cleared land, mature vegetation, and a creek that runs north–south through the property. It lies within a semi-rural setting surrounded by bushland and existing educational and recreational uses. The site is not heritage listed under any local, state or national register, and it is not located within a heritage conservation area.

The site sits immediately adjacent to the Oxford Falls Public School (WLEP2011 Item I116), a locally listed heritage item. The heritage item is located at the Corner of Dreadnought Road and Wakehurst Parkway, Oxford Falls. The building is identified as an inter-war school building, established in 1930. The sites statement of significance is outlined as:

> *"A representative small inter-war school building. Displays high integrity with much original fabric. Historically provides evidence of the extent of development in the inter-war period & was also the last single teacher school in Sydney when it closed."*

Figure 40 Entrance pathway and gate of Oxford Falls Public School.

Source: Urbis 2024

Figure 41 Sandstone wall located at the Oxford Falls Public School.

Source: Urbis 2024

Figure 42 Oxford Falls Public School

Source: Urbis 2024

Figure 43 Oxford Falls Public School

Source: Urbis 2024

6.16.2 Potential Impacts

The assessment outlines that while the subject site itself holds no intrinsic heritage significance, the proposal is in proximity to the adjacent heritage item and has to potential to influence the setting and visual context of Oxford Falls Public School. The HIS provided an assessment of the proposed development, which is outlined to have been designed to respect the visual prominence and historic character of the school. The existing vegetation and boundary fencing will continue to provide a visual buffer to the proposed development, maintaining the heritage listed school's prominence within the streetscape along Dreadnought Road and Wakehurst Parkway. Views to and from the heritage item will remain largely unaffected, with the new facilities appearing as a recessive backdrop in the landscape. The use of muted materials, articulated building forms, and careful site planning has ensured the compatibility of the development with the surrounding natural and cultural context. The increased pedestrianisation of the subject site as well as new public open spaces and new commercial amenities along the ground level will further create opportunities to provide a contemporary and sympathetic setting for the heritage listed school.

Therefore, the HIS concludes that there will be no direct physical or structural impacts which will occur to the Oxford Falls Public School heritage item as a result of the proposed works to construct the sporting facilities. The proposed works do not affect any original fabric or setting of the listed item, and the development will not detract from its historic or aesthetic significance. The proposal also aligns with the objectives of the WLEP 2011 and WDCP 2011, which require new works near heritage items to be designed sensitively to avoid adverse impacts on their significance. The design of the sporting facilities is considered sympathetic to the adjacent Oxford Falls Public School, with negligible impact on its heritage significance. The development will not detract from the visual prominence or historic value of the school and is therefore acceptable from a heritage perspective.

6.17 Social Impact

A Social Impact Assessment (**SIA**) has been undertaken by Urbis (**Appendix AA**) to assess the potential social impacts arising from the proposed Queenwood Sporting Precinct.

6.17.1 Existing environment

A community profile has been prepared to provide an overview of the local and broader social environment likely to experience social impacts as a result of the proposed development.

Based on demographic data from the Australian Bureau of Statistics (2021) Census of Population and Housing and DPHI (2022). Frenchs Forest-Oxford Falls appears to be a family-oriented community within Northern Beaches LGA, characterised by a significant number of families with young children. The area has a relatively young population, with a notable proportion of children and teenagers compared to the broader Northern Beaches and Greater Sydney despite a higher medium age compared to Greater Sydney average. The community is expected to experience 8.0% growth over the next two decades.

Community aspirations for sports and recreation facilities have been identified in Council's Open Space and Outdoor Recreation Strategy, with a notable demand for more indoor recreation spaces to facilitate increasing interest in indoor sports such as pickleball. Traditional sports, including basketball, netball, soccer and tennis, have high-utilisation rates in the LGA, and this is projected to continue.

6.17.2 Potential Impact

An assessment of the social impacts of the proposal has been prepared in accordance with the SIA Guideline (DPHI 2025). The following impacts were identified based on the existing proposal and mitigation measures identified by relevant specialists:

Way of life: Low negative (construction) to negligible (operation):

- Construction may result in temporary increases in traffic, noise, and parking demand on local roads including Dreadnought Road and Oxford Falls Road.

- Operation is expected to have negligible ongoing traffic impacts due to the provision of on-site parking and management of event scheduling.

Health and wellbeing: Medium negative (construction) to high positive (operation):

- Noise and vibration during construction may temporarily affect nearby schools and residences. However, operational noise is expected to comply with guidelines.
- The proposal will improve physical and mental wellbeing outcomes through access to new sporting and recreation facilities for students and the wider community.

Accessibility: Low to medium negative (construction) and medium positive (operation):

- Temporary access restrictions and pedestrian disruptions may occur during construction.
- The proposal will enhance access to high-quality sports facilities, supporting participation in underrepresented sports and community recreation.

Surroundings: Medium negative (construction) to low positive (operation):

- Tree removal will reduce existing vegetation cover (noting current trees are low quality and highly disturbed by the existing use of the site), impacting visual amenity and habitat; however, rehabilitation and landscaping measures will improve long-term character and biodiversity.
- The design incorporates natural screening and soft landscaping to reduce bulk and protect the visual environment.

Livelihood: High positive (construction and operation):

- Construction will generate local employment and procurement opportunities.
- The new facilities will attract economic activity through events and potential shared use by local schools and clubs.

Once operational, the development is expected to deliver **positive long-term social outcomes**, enhancing community wellbeing, accessibility, and participation in sport and recreation across the Northern Beaches.

6.17.3 Mitigation Measures

The following mitigation measures are provided to further manage the potential impacts from the proposal:

- Traffic and Access: Prepare a detailed Construction Traffic and Pedestrian Management Plan prior to works, outlining vehicle routes, on-site parking for workers, and safe pedestrian arrangements. This aligns with the recommendations of the TAIA prepared by JMT Consulting.
- Noise and Vibration: Implement the recommendations of the Noise and Vibration Impact Assessment prepared by JHA, including a Construction Noise and Vibration Management Plan and community notification protocols.
- Communication: Maintain ongoing engagement with residents, local schools, and Council throughout design and construction, with a community register and dedicated liaison officer.
- Environment: Implement erosion and sediment control measures, as noted in the Civil Stormwater Management Report prepared by WSCE and replant native vegetation to enhance the riparian corridor and local habitat.
- Accessibility: Provide temporary pedestrian diversions, if impacts on existing access are required during construction and ensure accessibility for all users, including people with disability.
- Operation: Post-approval, explore partnerships with local sporting clubs and Council and develop an updated Plan of Management for community access as a Condition of Consent prior to occupation.

6.18 Infrastructure Requirements and Utilities

Existing and proposed servicing and utility arrangements for the site are detailed within the Infrastructure Delivery and Management Plan (**Appendix BB**). The availability of utility services including potable water and wastewater, electrical services, telco provisioning and gas services have been assessed, and the findings summarised below:

- There are currently above ground high voltage assets located along the far side of Oxford Falls Road.
- The nearest potable water asset is a 150 mm Ductile Iron Cement (mortar) Lined (DICL) water main owned by Sydney Water, located to the east of the site in Oxford Falls Road.
- There is no natural gas infrastructure available for connection to the site.
- There is currently no sewer infrastructure within the vicinity of the site to enable connection to Sydney Water's network.

The proposed activity seeks to provide suitable infrastructure servicing to the site to meet the proposed demand as demonstrated below:

6.18.1 Electricity

The below summarises the high voltage supply strategy for the site:

- Introduction of a new kiosk-type substation on the southeast corner of the site, tapping off the existing high voltage cabling on the opposite side of Oxford Falls Road.
- Underground cabling across Oxford Falls Road to loop in the proposed substation.
- A temporary builder's supply and main switchboard will likely be established on site during the construction phase, designed and detailed prior to construction.

6.18.2 Communications

The communications services to the site will be delivered in the form of two diverse fibre lead-ins. Both lead-ins will be designed to NBN standards, with the intent being that NBN will be one provider, and the second provider will be a carrier of Queenwood's choosing.

An application to NBN will occur once the site and building plans are developed further and incoming conduit routes are known.

6.18.3 Water

A new connection will be established to this asset to provide supply for both domestic potable water and the site's fire hydrant system.

The proposed infrastructure will be designed to ensure adequate flow and pressure across the development, in compliance with Sydney Water requirements and AS 2419.1 for fire hydrant installations. The system will also incorporate appropriate backflow prevention, isolation valves, and metering in accordance with authority standards and guidelines.

6.18.4 Gas

In alignment with the school's commitment to de-gasification, the proposed development will not incorporate natural gas as part of its building services strategy.

6.18.5 Sewer

The development will utilise an on-site septic tank system to manage wastewater.

The septic system will be designed, sized, and installed in accordance with relevant Sydney Water guidelines and AS/NZS 1547: On-site Domestic Wastewater Management requirements, ensuring safe treatment and

storage of effluent. Wastewater will be collected and stored within the system and removed on a regular basis by licensed vacuum (VA) trucks for disposal at an approved treatment facility.

The proposed servicing arrangements for the site have been assessed to be suitable for the proposed activity and will be designed to the relevant Australian Standards.

6.19 Light Spill Assessment

A Preliminary Light Spill Assessment has been prepared by JHA for the development which includes details of the proposed lighting to the development and assesses the lighting against the relevant Australian Standards AS4282:2023.

The report and plans indicate that there will be some limited light spill along the southern boundary, the park to the west and minor impacts to Dreadnought Road as a result of the outdoor sport field. There will also be some lighting impacts to Oxford Falls Road as a result of the indoor sports hall.

The Obtrusive Light Compliance Report outlines that the proposed development meets the maximum illuminance, Luminous Intensity (**Cd**)at Vertical Planes, Threshold Increments (**TI**) and Upward Waste Light Ratio (**UWLR**) requirements.

The findings of the compliance report are as follows:

- **Illuminance** – Maximum Allowable Value – 10 Lux
  - Obtrusive Light (south) – 2.9 Lux
  - Obtrusive Light (west) – 4 Lux
  - Obtrusive Light (north) – 1.7 Lux
  - Obtrusive Light (Oxford Falls Road) – 1.4 Lux
- **Luminous Intensity** – Maximum Allowable Value - 12500 Cd
  - Obtrusive Light (south) – 7949 Cd
  - Obtrusive Light (west) – 9754 Cd
  - Obtrusive Light (north) – 7811 Cd
  - Obtrusive Light (Oxford Falls Road) – 1040 Cd
- **Threshold Increment** – Maximum Allowable Value – 20%
  - Obtrusive Light TI – 1%
- **UWLR** – Maximum Allowable Value – 2%
  - Calculated UWLR – 0.1%

As outlined in the assessment above, the Light Spill Assessment demonstrates that the proposed light spill of the development is compliant with the relevant Australian Standards and maximum allowable values. Figure 44 below, provides a visual representation of the maximum extent of light spill on the site which will not impact on any surrounding dwelling houses. The majority of the spill in the worst-case scenario will fall within the site, with a limited amount of light spill to the most northern edge of the surrounding properties onto heavily landscaped backyard areas. Therefore, the proposed light spill is considered suitable for the proposed development and within the existing context of Oxford Falls.

Further assessment of light spill has been undertaken by AEP as part of the BDAR (**Appendix O**). Surveys found few mobile nocturnal animals on site due to degraded vegetation and existing noise from surrounding land uses. Light spill will be contained within the site and the Oxford Falls Road reserve, with minimal reach to neighbouring properties to the south and west. As larger areas of intact vegetation exist nearby and most light will remain on site, impacts on local nocturnal fauna are expected to be minimal and unlikely to cause significant long-term effects.

Figure 44 Light Spill Assessment

Source: JHA, 2025

7 Justification of the Project

This section of the report provides a comprehensive evaluation of the project having regard to its economic, environmental and social impacts, including the principles of ecologically sustainable development. It assesses the potential benefits and impacts of the proposed development, considering the interaction between the findings in the detailed assessments and the compliance of the proposal within the relevant controls and policies.

7.1 Project Design

The proposal will result in the development of a state-of-the-art, purpose-built school sporting facilities to service the needs of the staff, students at Queenwood School for Girls as well as the wider community outside of school use. The design and construction of the proposed development has been carefully considered to minimise the potential for any unacceptable adverse environmental impact, including the riparian corridor that runs through the centre of the site which will be suitably rehabilitated. Specifically, the following is noted:

- The proposal meets the project objectives by delivering a state-of-the-art, purpose-built school sporting facilities which will support the current and future needs of the school population and will able to be shared with the wider community outside of school use. This is a high positive social impact.
- The proposed works are supported by an extensive landscape strategy which will result in the removal of exotic species on the site to rehabilitate the existing riparian corridor. Across the site, a 1:1 tree replacement strategy is also proposed which will re-introduce endemic species to replace a lot of existing low quality planting and retain the more significant native remnant forest in the north-eastern corner of the site.
- Provides an efficient and environmentally sustainable facility.

Importantly, the design of the proposal responds to the emerging education and recreation local context, representing a positive urban design outcome for the site whilst sensitively responding to the riparian, flooding and bushfire constraints on the site.

7.2 Strategic Planning Consistency

The proposal is consistent with relevant State and local strategic planning policies. The proposal seeks to provide additional sporting facilities for an existing school that will also be able to be used by the wider community and, by doing so, will support the State government's priorities to provide infrastructure to meet communities' changing needs and Northern Beaches Council's ambitions to strengthen the educational and community offerings within the LGA.

The new school sporting facility will help meet the ever-increasing demand for high-quality physical education. As a result of the proposal, more space will be made available for sports and physical wellbeing, as well as providing additional learning spaces for Queenwood which is currently limited in space to provide these facilities within its Mosman campuses.

7.3 Statutory Planning Consistency

The relevant State and local environmental planning instruments are listed in **Section 4** and assessed in **Appendix B**. The assessment concludes that the proposal complies with the relevant provisions within the relevant instruments as summarised in Table 16 below.

Table 16 Statutory Planning Consistency

Matter	Consistency
Objects of Act – EP& A Act s1.3	The proposed development has been assessed and designed in respect to the relevant objects of the EP&A Act and addressed in **Appendix B.**
Evaluation of development application (s4.15) – EP&A Act s4.40	The proposed development has been evaluated in accordance the relevant matters for consideration under s4.15(1) of the EP&A Act as outlined in **Appendix B.**
Compliance with environmental assessment requirements – EP&A Regulation s.191	This EIS has been all matters identified in the SEARs as outlined in **Appendix A.**
Principles of Ecologically Sustainable Development – EP&A Regulation s.193	
The precautionary principle	The precautionary principle relates to uncertainty around potential environmental impacts and where a threat of serious or irreversible environmental damage exists, lack of scientific certainty should not be a reason for preventing measures to prevent environmental degradation. The development will not result in any threat of serious environmental damage or degradation.
Inter-generational equity	Intergenerational equity: the needs of future generations are considered in decision making and that environmental values are maintained or improved for the benefit of future generations. The proposal seeks to activate an existing residential site to provide state of the art school sporting facilities to meet current and future needs of the school. The community will be able to share these facilities.
Conservation of biological diversity and ecological integrity	The proposal prioritises rehabilitation of the existing riparian corridor on the site and retaining the native remnant forest in the northeastern corner of the site.
Improved valuation, pricing and incentive mechanisms	Improved valuation, pricing and incentive mechanisms: This requires the holistic consideration of environmental resources that may be affected as a result of the development including air, water and the biological realm. It places a high importance on the economic cost to environmental impacts and places a value on waste generation and environmental degradation. The development will not have any unacceptable environmental impacts in relation to biodiversity, water quality or waste management. The effects of the development will be acceptable and managed accordingly by the proposed mitigation measures as required.

7.4 Community Views

As set out in **Section 5**, feedback received during the stakeholder engagement has informed the development of the design of the proposal as well as the preparation of the EIS.

Consultation feedback received during the finalisation and assessment of the application will continue to be considered.

7.5 Environmental Impacts

The proposed development has been assessed considering the potential environmental, economic and social impacts as outlined in the summary table below.

Table 17 Environmental Impact Summary

Matter	Summary
The project minimises impacts on the natural environment	The proposal addresses the principles of ESD in accordance with the requirements at Clause 194 of the Regulations and as outlined below: ▪ The project does not pose any serious threat to the environment, nor any irreversible damage to the environment. As outlined in the BDAR (**Appendix O**), there are no threatened species recorded on the site. Despite the development having impacts on native vegetation, where possible, areas have been excluded from the development footprint to ensure impacts to biodiversity values have been minimised where possible. ▪ The project aims to minimise the unnecessary use of materials and procuring materials with a low carbon footprint where appropriate. ▪ The proposed development will not adversely impact the environment for future users as evident in the assessments of matters relevant to biodiversity, landscaping, water management as appropriate management and mitigation measures have been incorporated. ▪ The development has been designed to ensure biological diversity and ecological value is improved on the site via careful landscape design. Landscape will feature a selection of endemic plantings to promote habitat for insects and native birds, rehabilitate the existing riparian corridor and retain retaining the native remnant forest in the northeastern corner of the site.. ▪ The proposal will incorporate waste minimisation techniques where possible into construction and demolition to prevent materials from being brought onto the site that will eventually become waste. The proposal also includes a series of mitigation measures to ensure waste is limited and monitored throughout the entirety of the project.
The project minimises impacts on the built environment	▪ Visual Impact: As set out in **Section 6.2.4** and the VIA (**Appendix I**), the proposed development is considered to be acceptable in visual impacts terms. Visual impacts has been considered during the design development of the site and will be mitigated through the proposed landscaping and extensive tree planting in the site setbacks. ▪ Light Spill: A Preliminary Light Spill Assessment has been prepared by JHA (**Appendix CC**) which indicate that there will be some light spill to the surrounding residential property, the park to the west and minor impacts to Dreadnought Road as a result of the outdoor sport field. There will also be some lighting impacts to Oxford Falls Road as a result of the indoor sports hall. As noted in **Section 6.19**, the Light Spill Assessment demonstrates that the proposed light spill of the development is compliant with the relevant Australian Standards and maximum allowable values. ▪ Overshadowing: Shadow diagrams have been prepared by TKD as part of the Architectural Plans (**Appendix E**). As noted in **Section 6.2.3**, the proposal will not adversely impact adjacent residences. ▪ Traffic and Parking Impacts: As set out in Transport and Accessibility Impact Assessment (**Section 6.5** and **Appendix N**), the proposal will not result in detrimental traffic impacts on the surrounding residents and road networks.

	Surrounding road networks will continue to operate at an acceptable level in terms of traffic generation. The proposal is considered suitable from a traffic generation perspective. The parking will be provided in an off-street basement arrangement. ▪ Trees and Landscaping: As set out in the Arboricultural Impact Assessment (**Appendix J**) and Landscape Plans (**Appendix G**), the proposal seeks to remove trees across the site to accommodate for the proposed building and outdoor courts. Despite the removal of trees, the proposal has prioritised protecting and rehabilitating the Native Remnant Forest in the northeastern corner of the site as well as rehabilitating the existing riparian corridor that flows through the centre of the site. The proposal seeks to meaningfully revegetate the site where possible include a one to one replacement tree strategy and compliance with the canopy coverage and landscape open space requirements of 30%. ▪ Noise and Vibration: As set out in the Noise and Vibration Impact Assessment (**Appendix P**), the operation of the proposal is anticipated to comply with the required noise levels at surrounding receivers including nearby residential receivers. The proposal is found to have acceptable impacts in relation to noise and vibration, including during operation of the facility. ▪ Materiality: The external materials and finishes to be used complement the surrounding built and natural environment of Oxford Falls.
The project has positive social impacts	▪ The proposed development will provide inclusive school sports and recreation facilities catering to the needs of the students at Queenwood and will able to be shared with the wider community via school sport competition as well by the community outside of school use. ▪ The facility will provide increased opportunities for social engagement, physical activity and improvement in wellbeing/physical fitness for staff and students and the wider community. ▪ The facility will provide increased access and opportunity for participation in indoor and outdoor sports within a welcoming and safe environment. ▪ The proposed development is unlikely to generate any long term negative social impacts.
The project has positive economic impacts	The construction of the proposal represents a significant investment for sporting and recreation facilities within the Northern Beaches LGA. The proposal will also generate 149 construction jobs as well as 20 operational jobs.

The potential impacts can be mitigated, minimised or managed through the measures discussed in detail within **Section 6** and as summarised in **Appendix C** to this EIS.

7.6 Suitability of the Site

The site is considered highly suitable for the proposed development for the following reasons:

- The proposal is consistent with relevant State and local strategic plans.
- The proposal is permissible with consent and consistent with the with the desired future character of the locality, as well as the emerging education and recreation charter of this area. Further, there are no significant environmental constraints that would limit the proposal from being developed at the site.
- The overall form of the proposed new indoor school sport hall has been designed to have the least amount of visual or physical impact whilst meeting the spatial requirements of the proposed use. The design of the proposal responds positively to the site context whilst seeking to deliver high-quality

school sporting facilities, as the layout and design of the proposal provides an appropriate response to environmental overlays on the site and neighbouring land uses and built form.

- Residential amenity and privacy to adjacent properties will be respected through the proposed landscaping, including screen planting along the eastern and southern site boundaries.

7.7 Public Interest

The proposed development is considered in the public interest for the following reasons:

- The proposal is consistent with relevant State and local strategic plans.
- Subject to the various mitigation measures recommended by the specialist consultants as summarised in **Appendix C** of this EIS, the proposal does not have any unreasonable environmental, economic or social impacts on adjoining properties or the public domain.
- The proposal will result in the development of a high-quality educational environment for staff and students that:
  - ensure more students have access to state-of-the-art school sporting facilities and training spaces.
  - enables an excellent sporting programme that supports a fulfilling extra-curricular educational experience.
  - contributes positively to energy efficiency and environmental sustainability. The design has incorporated many ESD features to reduce energy consumption during the life of the proposed development.
  - make a positive contribution to the overall built form of the site, having regard to the existing character of Oxford Falls and sensitivity responds to the environmental constraints of the site, including the riparian corridor and remnant bushland in the north-east corner of the site which it seeks to protect and rehabilitate.
  - . The proposal will also create temporary employment opportunities in manufacturing, construction and construction management during the project's construction phase of works.

Having considered all relevant matters, we conclude that the proposed development is appropriate for the site and approval is recommended, subject to appropriate conditions of consent.

Disclaimer

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