

Architectural Design Statement

John Palmer Public School

Prepared for:

NSW Department of Education

School Infrastructure NSW



PTW Architects

Level 11, 88 Phillip St
Sydney NSW 2000
Australia

Telephone +61 2 9232 5877

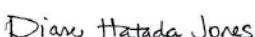
ABN: 23 000 454 624

Nominated Architects
S Parsons Architect No. 6098
D Jones Architect No. 4778

Report Register

This report register documents the development and issue of the report entitled John Palmer Public School Architectural Design Statement.

The report has been reviewed and approved for issue.

Project Director & Reviewer	Diane Jones
Issue No.	A.2
Signature	

Position	Executive Director PTW Architects
----------	--------------------------------------

Date	08.10.21
------	----------

Copyright

Historical sources and reference material used in the preparation of this report are acknowledged and referenced at the end of each section and/or in figure captions. Reasonable effort has been made to identify, contact, acknowledge and obtain permission to use material from the relevant copyright owners.

Unless otherwise specified or agreed, copyright in this report vests in PTW Architects and in the owners of any pre-existing historic source or reference material.

Moral Rights

Except to the extent otherwise expressly stated, each author of this work asserts his or her moral rights in the work.

Right to Use

The content of this work is confidential and the client must not disclose it to any third party without the prior written consent of PTW.

Defined Terms

In this document:

"intellectual property rights" includes any patent, registered design, trademark or name, copyright or other projected right.

"moral rights" has the same meaning as in Part IX of the Copyright Act 1968 (Commonwealth).

ISSUED	REVISION	DESCRIPTION	ISSUED BY
21.09.21	A.1	For Review	DJ
08.10.21	A.2	For Review	DJ

We would like to pay our respects and acknowledge the traditional custodians of the land the Dharug people and also pay respect to Elders past, present and future.

CONTENTS

1	INTRODUCTION	5
2	THE PROPOSAL	5
3	SEARS REQUIREMENTS	6
4	PROJECT SUMMARY	9
4.1	Design Excellence Guides	10
5	MASTERPLAN OPTIONS	13
5.1	Existing site conditions	14
6	CONTEXT OF THE GREATER AREA	16
6.1	The Ponds Primary School Community Group	16
6.2	Community / Demographic Challenges	18
6.3	External / Mixed Use / Community Use Opportunity	20
6.4	Accessibility Considerations	21
6.5	Site Analysis	23
6.5.1	Levels and Contours	24
6.5.2	Significant Trees and Open Space	25
6.5.3	Sun path Analysis and Seasonal Winds	26
6.5.4	Built form analysis	27
7	GUIDING AND KEY DESIGN PRINCIPLES	28
7.1	Education Rationale	28
7.2	Design Principles	30
8	ARCHITECTURAL CONCEPT	34
8.1	Block and Stack	35
8.2	Services and Infrastructure Requirements	36
8.3	Public Domain and Community	37
8.4	Access, Security and Circulation Strategy	38
8.5	Play Space	40
8.6	Building Envelope	42
8.7	Proposed Materials	44
8.8	Visualisations	46
8.9	Environmental Sustainability Design (ESD)	50
9	CONSULTATION	52
9.1	State Design Review Panel	52
9.2	Connection with Country	54
9.3	Blacktown City Council - visual impact and overshadowing	56

1 INTRODUCTION

This Architectural Design Statement accompanies an Environmental Impact Statement (EIS) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) in support of a State Significant Development Application (SSD - 23330227).

The development is for upgrading works comprising alterations and additions to John Palmer Public School at 85 The Ponds Boulevard, The Ponds. The site is legally described as Lot 1 DP 1131340.

The site is roughly rectangular in shape, with a total area of 29,830m² and street frontages to Pebble Crescent to the west, Jetty Street to the south and The Ponds Boulevard to the east. The Ponds Shopping Centre adjoins the northern property boundary of the school.

This report addresses the relevant Secretary's Environmental Assessment Requirements (SEARs), specifically:

2. Built Form and Urban Design

2 THE PROPOSAL

The proposed development seeks to upgrade John Palmer Public School. The upgrade consists of the following alterations and additions:

- Construction of a new three storey building facing The Ponds Boulevard which will accommodate 29 Permanent Learning Spaces and 1 new staff room;
- Construction of a one storey new library building;
- Relocation of service access to staff car park off The Ponds Boulevard, including alterations to the existing car park to accommodate service vehicle;
- One-storey extension to and refurbishment of existing School Hall building. The School Hall extension will accommodate ancillary spaces for Out of Hours School Care;
- Building Block D will be re-purposed from an existing library to special program spaces and administration;
- Refurbishment of Building F to provide 1 new support unit;
- Minor additions and internal refurbishments to Building A;
- Removal of all 20 existing demountable classroom buildings once alterations and additions have been completed; and
- Ancillary works to support the alterations and additions including landscaping and service provision.

3 SEARS REQUIREMENTS

2. Built Form and Urban Design

Address:

The height, density, bulk and scale, setbacks and interface of the development in relation to the surrounding development, topography, streetscape and any public open spaces.	6 CONTEXT OF THE GREATER AREA	16
	6.1 The Ponds Primary School Community Group	16
	6.2 Community / Demographic Challenges	18
	6.3 External / Mixed Use / Community Use Opportunity	20
	6.4 Accessibility Considerations	21
	6.5 Site Analysis	23
	6.5.1 Levels and Contours	24
	6.5.2 Significant Trees and Open Space	25
	6.5.3 Sunpath Analysis and Seasonal Winds	26
	6.5.4 Built form analysis	27
	8 ARCHITECTURAL CONCEPT	34
	8.1 Block and Stack	35
	8.2 Services and Infrastructure Requirements	36
	8.3 Public Domain and Community	37
	8.4 Access, Security and Circulation Strategy	38
	8.5 Play Space	40
	8.6 Building Envelope	42
	8.7 Proposed Materials	44
	8.8 Visualisations	46
	8.9 Environmental Sustainability Design (ESD)	50
Design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colour palette.	6 CONTEXT OF THE GREATER AREA	16
	6.1 The Ponds Primary School Community Group	16
	6.2 Community / Demographic Challenges	18
	6.3 External / Mixed Use / Community Use Opportunity	20
	6.4 Accessibility Considerations	21
	6.5 Site Analysis	23
	6.5.1 Levels and Contours	24
	6.5.2 Significant Trees and Open Space	25
	6.5.3 Sun path Analysis and Seasonal Winds	26
	6.5.4 Built form analysis	27
	7 GUIDING AND KEY DESIGN PRINCIPLES	28
	7.1 Education Rationale	28
	7.2 Design Principles	30
	8 ARCHITECTURAL CONCEPT	34
	8.1 Block and Stack	35
	8.2 Services and Infrastructure Requirements	36
	8.3 Public Domain and Community	37
	8.4 Access, Security and Circulation Strategy	38
	8.5 Play Space	40
	8.6 Building Envelope	42
	8.7 Proposed Materials	44
	8.8 Visualisations	46
	8.9 Environmental Sustainability Design (ESD)	50
How Crime Prevention through Environmental Design (CPTED) principles are to be integrated into development.	8 ARCHITECTURAL CONCEPT	34
	8.4 Access, Security and Circulation Strategy	38
How good environmental amenity would be provided, including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility.	8 ARCHITECTURAL CONCEPT	34
	8.9 Environmental Sustainability Design (ESD)	50
How design quality will be achieved in accordance with Schedule 4 Schools – design quality principles of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and the GANSW Design Guide for Schools (GANSW, 2018).	4 PROJECT SUMMARY	9
	4.1 Design Excellence Guides	10

How services, including but not limited to waste management, loading zones and mechanical plant are integrated into the design of the development	8 ARCHITECTURAL CONCEPT	34
	8.2 Services and Infrastructure Requirements	36
Provide:		
A detailed site and context analysis to justify the proposed planning site planning and design approach including massing options and preferred strategy for future development.	6 CONTEXT OF THE GREATER AREA	16
	6.1 The Ponds Primary School Community Group	16
	6.2 Community / Demographic Challenges	18
	6.3 External / Mixed Use / Community Use Opportunity	20
	6.4 Accessibility Considerations	21
	6.5 Site Analysis	23
	6.5.1 Levels and Contours	24
	6.5.2 Significant Trees and Open Space	25
	6.5.3 Sun path Analysis and Seasonal Winds	26
	6.5.4 Built form analysis	27
A visual impact assessment that identifies any potential impacts on the surrounding built environment and landscape including views to and from the site and any adjoining heritage items.	8 ARCHITECTURAL CONCEPT	34
	8.8 Visualisations	46
	9 CONSULTATION	52
	9.3 Blacktown City Council - visual impact and overshadowing	56
4. Environmental Amenity		
Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing, wind impacts and acoustic impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated.	6 CONTEXT OF THE GREATER AREA	16
	6.1 The Ponds Primary School Community Group	16
	6.2 Community / Demographic Challenges	18
	6.3 External / Mixed Use / Community Use Opportunity	20
	6.4 Accessibility Considerations	21
	6.5 Site Analysis	23
	6.5.1 Levels and Contours	24
	6.5.2 Significant Trees and Open Space	25
	6.5.3 Sun path Analysis and Seasonal Winds	26
	6.5.4 Built form analysis	27
	8 ARCHITECTURAL CONCEPT	34
	8.1 Block and Stack	35
	8.2 Services and Infrastructure Requirements	36
	8.3 Public Domain and Community	37
	8.4 Access, Security and Circulation Strategy	38
	8.5 Play Space	40
	8.6 Building Envelope	42
	8.7 Proposed Materials	44
	8.8 Visualisations	46
	8.9 Environmental Sustainability Design (ESD)	50
	9 CONSULTATION	52
	9.1 State Design Review Panel	52
	9.2 Connection with Country	54
	9.3 Blacktown City Council - visual impact and overshadowing	56
Provide:		
Shadow diagrams,	9 CONSULTATION	52
	9.3 Blacktown City Council - visual impact and overshadowing	56
A view analysis, where relevant, of the site from key vantage points and streetscape locations and public domain including photomontages or perspectives showing the proposed and likely future development.	8 ARCHITECTURAL CONCEPT	34
	8.8 Visualisations	46

**Design report to demonstrate how design quality would be achieved
in accordance with the above Key Issues including:**

• Architectural design statement.	4 PROJECT SUMMARY	9
• Diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal.	6 CONTEXT OF THE GREATER AREA	16
	6.1 The Ponds Primary School Community Group	16
	6.2 Community / Demographic Challenges	18
	6.3 External / Mixed Use / Community Use Opportunity	20
	6.4 Accessibility Considerations	21
	6.5 Site Analysis	23
	6.5.1 Levels and Contours	24
	6.5.2 Significant Trees and Open Space	25
	6.5.3 Sun path Analysis and Seasonal Winds	26
	6.5.4 Built form analysis	27
• Detailed site and context analysis.	6 CONTEXT OF THE GREATER AREA	16
	6.1 The Ponds Primary School Community Group	16
	6.2 Community / Demographic Challenges	18
	6.3 External / Mixed Use / Community Use Opportunity	20
	6.4 Accessibility Considerations	21
	6.5 Site Analysis	23
	6.5.1 Levels and Contours	24
	6.5.2 Significant Trees and Open Space	25
	6.5.3 Sun path Analysis and Seasonal Winds	26
	6.5.4 Built form analysis	27
• Analysis of options considered to justify the proposed site planning and design approach.	5 MASTERPLAN OPTIONS	13
	5.1 Existing site conditions	14
• Summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice.	9 CONSULTATION	52
	9.1 State Design Review Panel	52
• Summary report of consultation with the community and response to any feedback provided.	9 CONSULTATION	52
	9.2 Connection with Country	52
	9.3 Blacktown City Council - visual impact and overshadowing	56

4 PROJECT SUMMARY

Context

The school sits within the relatively new suburb, The Ponds which has a well landscaped public domain. The northern edge of the site is bordered by The Ponds Shopping Centre with a permitted height of 12m. On the other three edges of the site there are one to two storey houses with a height cap of 9m. Therefore, the new three storey building is located adjacent to the shopping centre wall and forms a L-shape around the covered games court.

Public Realm

The siting of the new building adjacent to the shopping centre will help to minimize the visual impact of the new building. In addition, the relocation of the existing large hardstand and waste collection area (required to locate the new building) to a more compact arrangement associated with the existing staff carpark in the southeastern part of the site will improve the street presentation.

An access path will extend along the eastern boundary to link the main school entry to the new building and afford the opportunity to improve the landscaping along The Ponds Boulevard.

The built form

The built form utilizes the School Infrastructure NSW (SINSW) planning grid in the E_W wing and a single-sided modification of the grid in the N-S wing. The 'knuckle' of the two wings contains the lift, enclosed stair, comms room, cleaners room and student and staff amenities with breezeway connections. The access balconies face the games court and at ground level, there are external learning areas in the spaces between. At the western end of the E_W wing, there is a roof terrace as an upper level outdoor learning area.

While the planning grid is quite rigid, the design works to use the connecting circulation areas such as the main entry forecourt and the edges of the access areas for childrens' enjoyment and fun – amphitheatre, stepping stones and slides.

Connections

The landscape design has been developed in concert with the Connection with Country consultation to provide a sense of historic and cultural continuity to this relatively new suburb and school.

The new library is positioned adjacent to the extended hall so that an external learning space is formed, and can be used by the community with ready access from the main entry. Similarly, the special programs rooms are located close by to extend the potential for shared uses.

A large proportion of students walk, cycle and ride a scooter to school. The proposed design includes a new (secondary) pedestrian entry from Jetty Street and associated bike and scooter racks.

The school has a large OOSCH with 150 students (licensed for 165 students). The proposed project provides new facilities for the OOSCH.

Sustainability

The project will target a 5 star Green Star rating.

Design Excellence Guides

- GANSW Design Guide for Schools & Environmental Manual
- Education SEPP
- Better Placed
- Greener Places - Refer to Landscape Report
- Designing with Country - Refer to p 50 - 9. 2 Connection with Country

4. 1 Design Excellence Guides

Design Guide for Schools	
GANSW 2018	
Education SEPP Design Quality Principles	
1. Context, built form and landscape - context - cultural/historic continuum Schools should be designed to respond to and enhance the positive qualities of their setting, landscape and heritage, including Aboriginal cultural heritage. The design and spatial organisation of buildings and the spaces between them should be informed by site conditions such as topography, orientation and climate. Landscape should be integrated into the design of school developments to enhance on-site amenity, contribute to the streetscape and mitigate negative impacts on neighbouring sites.	6 CONTEXT OF THE GREATER AREA 16 6.1 The Ponds Primary School Community Group 16 6.2 Community / Demographic Challenges 18 6.3 External / Mixed Use / Community Use Opportunity 20 6.4 Accessibility Considerations 21 6.5 Site Analysis 23 6.5.1 Levels and Contours 24 6.5.2 Significant Trees and Open Space 25 6.5.3 Sun path Analysis and Seasonal Winds 26 6.5.4 Built form analysis 27
2. Sustainable, efficient and durable Good design combines positive environmental, social and economic outcomes. Schools and school buildings should be designed to minimise the consumption of energy, water and natural resources and reduce waste and encourage recycling. Schools should be designed to be durable, resilient and adaptable, enabling them to evolve over time to meet future requirements.	8 ARCHITECTURAL CONCEPT 34 8.2 Services and Infrastructure Requirements 36 8.6 Proposed Materials 41 8.7 Visualisations 44 8.8 Environmental Sustainability Design (ESD) 48
3. Accessible and inclusive - Good wayfinding School buildings and their grounds should provide good wayfinding and be welcoming, accessible and inclusive to people with differing needs and capabilities. (Note: Wayfinding refers to information systems that guide people through a physical environment and enhance their understanding and experience of the space.) Schools should actively seek opportunities for their facilities to be shared with the community and cater for activities outside of school hours.	8 ARCHITECTURAL CONCEPT 34 8.3 Public Domain and Community 37 8.4 Access, Security and Circulation Strategy 38
4. Health and Safety Good school development optimises health, safety and security within its boundaries and the surrounding public domain, and balances this with the need to create a welcoming and accessible environment.	6 CONTEXT OF THE GREATER AREA 16 6.1 The Ponds Primary School Community Group 16 6.2 Community / Demographic Challenges 18 6.3 External / Mixed Use / Community Use Opportunity 20 6.4 Accessibility Considerations 21 8 ARCHITECTURAL CONCEPT 34 8.3 Public Domain and Community 37 8.4 Access, Security and Circulation Strategy 38

5. Amenity Schools should provide pleasant and engaging spaces that are accessible for a wide range of educational, informal and community activities, while also considering the amenity of adjacent development and the local neighbourhood. Schools located near busy roads or near rail corridors should incorporate appropriate noise mitigation measures to ensure a high level of amenity for occupants. Schools should include appropriate, efficient, stage and age appropriate indoor and outdoor learning and play spaces, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage and service areas.	6 CONTEXT OF THE GREATER AREA 16 6. 1 The Ponds Primary School Community Group 16 6. 2 Community / Demographic Challenges 18 6. 3 External / Mixed Use / Community Use Opportunity 20 6. 4 Accessibility Considerations 21 6. 5 Site Analysis 23 6.5.1 Levels and Contours 24 6.5.2 Significant Trees and Open Space 25 6.5.3 Sun path Analysis and Seasonal Winds 26 6.5.4 Built form analysis 27 7 GUIDING AND KEY DESIGN PRINCIPLES 28 7. 1 Education Rationale 28 7. 2 Design Principles 30 8 ARCHITECTURAL CONCEPT 34 8. 1 Block and Stack 35 8. 2 Services and Infrastructure Requirements 36 8. 3 Public Domain and Community 37 8. 4 Access, Security and Circulation Strategy 38 8. 5 Building Envelope 39 8. 6 Proposed Materials 41 8. 7 Visualisations 44 8. 8 Environmental Sustainability Design (ESD) 48
6. Whole of life, flexible and adaptive School design should consider future needs and take a whole-of-life-cycle approach underpinned by site with strategic and spatial planning. Good design for schools should deliver high environmental performance, ease of adaptation and maximise multi-use facilities.	7 GUIDING AND KEY DESIGN PRINCIPLES 28 7. 1 Education Rationale 28 7. 2 Design Principles 30 8 ARCHITECTURAL CONCEPT 34 8. 1 Block and Stack 35 8. 2 Services and Infrastructure Requirements 36 8. 3 Public Domain and Community 37 8. 4 Access, Security and Circulation Strategy 38 8. 5 Building Envelope 39 8. 6 Proposed Materials 41 8. 7 Visualisations 44 8. 8 Environmental Sustainability Design (ESD) 48
7. Aesthetics School buildings and their landscape setting should be aesthetically pleasing by achieving a built form that has good proportions and a balanced composition of elements. Schools should respond to positive elements from the site and surrounding neighbourhood and have a positive impact on the quality and character of a neighbourhood. The built form should respond to the existing or desired future context, particularly, positive elements from the site and surrounding neighbourhood, and have a positive impact on the quality and sense of identity of the neighbourhood.	7 GUIDING AND KEY DESIGN PRINCIPLES 28 7. 1 Education Rationale 28 7. 2 Design Principles 30 8 ARCHITECTURAL CONCEPT 34 8. 5 Building Envelope 39 8. 6 Proposed Materials 41 8. 7 Visualisations 44

Environmental Design in Schools Manual	
Passive design - sun - wind - materials - external shading - sky lights	Refer to Building Elevations in drawings DA-AR-N201 and DA-AR-N202 and Section 8.9 Environmental Sustainability Design of this report and separate ESD report by AECOM
Roof ventilators	Roof ventilators not used - clerestory windows provided
Passive cooling and heating – cross ventilation	ESD Report (separate document by AECOM)
Noisy and quiet spaces	Ability to open up and close down learning spaces and to utilise outdoor learning spaces. Refer to Section 7 - Guiding and Key Design Principles and Floor plans DA-AR-N103, DA-AR-N113 and DA-AR-N123
Careful use of resources	Revision of masterplan - resite to part of campus that was underutilised; used for waste collection and configured in a way that restricted the use of the area north of hardstand for freeplay
Control heat gain – orientation, external sun shading, natural shading, blinds	External facade shading which varies according to orientation. Operable louvre systems provided to optimise light and cross ventilation.
Encourage physical activity	Walking track and slides in playing areas
Learn outdoors	Outdoor learning areas on all levels of new building in addition to learning courtyard at entry to the new building and courtyard between the new library and existing hall.
Share environmental knowledge	Implementation of waste collection/recycling strategies in learning areas. Refer to waste management strategy.
Share community assets	Shared use of facilities. Community student art wall. Refer to Section 8.3 Public Domain and Community of this report
Plant trees	Landscape drawings and report (separate)
Active travel	Additional bike and scooter parking for students and staff; new pedestrian entry from Jetty Street
Building materials from sustainable sources	Glulam timber frame for library
Bring nature and building together	Outdoor learning areas and enhanced landscape zones at boundary.
Life cycle design	ESD Report (separate)
Solar panels	Refer to Roof Plan - DA-AR-N133
Water – efficient and water sensitive design	Refer to Hydraulic Report. New rainwater tank. Refer to Section 8.2 Services and Infrastructure Diagram and Civil and Hydraulic services reports.
Adequate daylight	ESD Report (separate)
Improve energy efficiency	ESD Report (separate)
Encourage physical activity	Walking/running track; slides; retain open playing areas
Better Placed	
GANSW May 2017	
A well designed built environment is defined as: - Healthy - Responsive - Integrated - Equitable - Resilient	See above and refer to design principles diagrams in Section 7 - Guiding and Key Design Principles of this report.

5 MASTERPLAN OPTIONS

The Final Business Case (FBC) of October 2020 states that four masterplan options progressed to design and masterplanning for detailed consideration and costing, of which Option D was selected as the preferred option and was recommended for funding.

On commencement of Phase 2 and our commission, PTW was advised that the new building should utilise the new SINSW planning grid.

Consultation with the SINSW Project Director for Phase 2 onwards, the EFSG representative and the JPPS Principal in April 2021 led to a revised masterplan Option 6A which was developed based on the FBC targets. This masterplan locates the building in the north east of the site in order to accommodate the SINSW planning grid and the educational objectives set out in the Education Rationale which was undertaken for the FBC.



Figure 1. Final Business Case option D

Option 6A:

- replace the existing 20 TLS (dismountables) with permanent learning spaces (PLS)
- add 8 new fit-for-purpose (FFP) learning spaces
- add 2 special programs rooms
- Core 35 core facilities including extended community hall, new library and expanded staff and administration areas
- provide an additional support learning space to meet support student demand
- preserve the main playground areas in the northwestern and southwestern corners of the site, given that the school already has two separate play and lunch recess times.

Option 6A was endorsed by SINSW on 9 May 2021.



Figure 2. Masterplan option 6A site plan

5. 1 Existing site conditions



Figure 3. View towards main entry of JPPS with bicycle parking racks in between existing building D and building A



Figure 4. View of paved outdoor area in front of existing hall-building B



Figure 5. View of covered seating area and outdoor play area



Figure 6. View of the parents' waiting area near the school's pedestrian entry



Figure 7. View of covered walkway



Figure 8. View of the existing signage at the school's pedestrian entry.

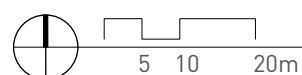
Source: Google Maps - accessed 16/09/2021



- Site boundary
- N Figure number reference on adjacent page

Figure 9. Aerial photo showing existing JPPS

Source: Nearmap - accessed 23/04/2021



JPPS aerial photo

1:1000 @A4

6 CONTEXT OF THE GREATER AREA

6. 1 The Ponds Primary School Community Group

The Ponds Primary School Community Group (SCG) is well connected to the public transport system with a range of sustainable transport options currently available to students across the SCG. The main transport systems include public buses, school buses and cars.

All schools are serviced by the NSW School Bus network, managed by TfNSW. The Sydney Metro Northwest also services the SCG, however the metro stations are between 20 and 30 minutes walk from the schools.

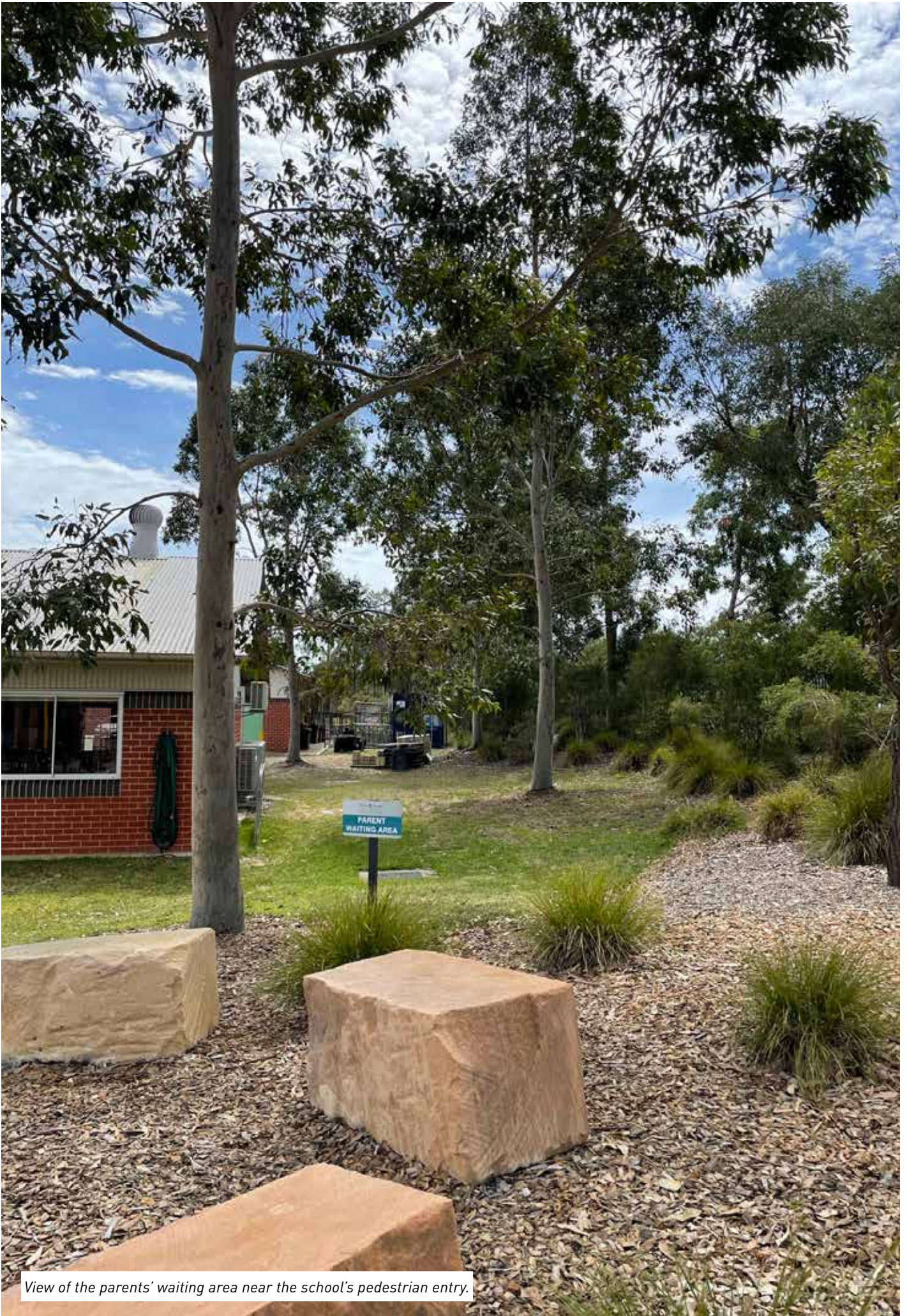


Figure 10. Context map highlighting the John Palmer Public School and its surroundings

- Surrounding green space
- Potentially useable green space
- Road names
- Bus route
- Bus stop

Source: Pedavoli Architects, John Palmer Public School Masterplan Report.





View of the parents' waiting area near the school's pedestrian entry.

6. 2 Community / Demographic Challenges

The Blacktown City Council LGA is a culturally diverse community. 47% of residents in the Central City District are from over 20 different countries including India, China, the Philippines, South Korea and New Zealand. As a result, 50% of the district's population speak more than 200 non-English languages in their homes. Additionally, the Blacktown LGA has been declared a refugee welcome zone by making a commitment in spirit to welcome refugees into communities and celebrate their diverse cultures.

Schools play a key role in realising community outcomes through the provision of shared civic amenities including ovals, gyms, and halls. These spaces enable the delivery of important services to the community while improving and promoting wellbeing and personal and educational development. They foster community outcomes, including connectedness, inclusion and civic pride.

The Department of Education (DoE) encourages members of the community and education groups to use school facilities when available. Community use of school facilities provides benefits to both schools and communities through:

- enhancing co-operation and strengthening the partnership between the school and the community
- providing additional extra-curricular learning opportunities
- providing opportunities for the community to become better informed about and participate in the school's operations and activities
- more effective and optimal use of school facilities
- providing opportunities for the community to play a positive role in school security through out-of-hours use of the school facilities
- increased revenue for schools to use on improvements to premises and school resources.

There are two specific opportunities for community involvement in The Ponds Primary SCG – community language classes and out of school hours care (OOSHC).

Community language classes

The Ponds Primary SCG population consists of very diverse cultural groups, however, none of the schools within the SCG have Intensive English Centres.

Parklea PS is the only school that offers English as an Additional Language/Dialect (EAL/D) support program. It is offered to students who are from a Language Other than English Background (LBOTE).

Out of school hours care (OOSHC)

John Palmer Public School currently houses the Northwest Community Childcare that provides student care services before and after school hours. Apart from these hours, the school also extends their services through the vacation periods.

With about 150 students, (licensed for 165) this is a very large OOSHC.

Data source: Final Business Case, John Palmer Public School - Upgrade, October 2020, Version 3.0



Figure 11. Site map of John Palmer Public School illustrating the community facilities around it.

- | | | |
|--|---|--|
|  Site access - vehicular |  The Ponds Shopping Centre |  The Ponds Community Hub |
|  Site access - pedestrian |  Low rise residences |  The Ponds shopping centre vehicular access |
|  Site Boundary |  Second Ponds Creek | |

Source: The Transport Planning Partnership, John Palmer Public School Rapid Transport Assessment, 13 October 2020



Site Map
1:2000 @A4

6.3 External / Mixed Use / Community Use Opportunity

The following is an excerpt from the **John Palmer Public School Education Rationale** by Hayley Russell from Innovative Learning Environments 9 June 2019 and reflects findings from an 'exploration workshop and focus groups'.

John Palmer PS operates a range of enrichment/extra-curricular activities that are highly valued by the community. These activities operate during lunch breaks, before and after school in available classrooms, special programs rooms and the hall.

The school has some community use of facilities in the form of a soccer academy and music tuition. Students have community connections with the local Nursing Home and The Ponds School.

Out of School Hours Care (OOSHC) currently has 134 enrolments with a waitlist of 100. The Library, Hall and two Year 4 classrooms are currently used to support the OOSHC operations.

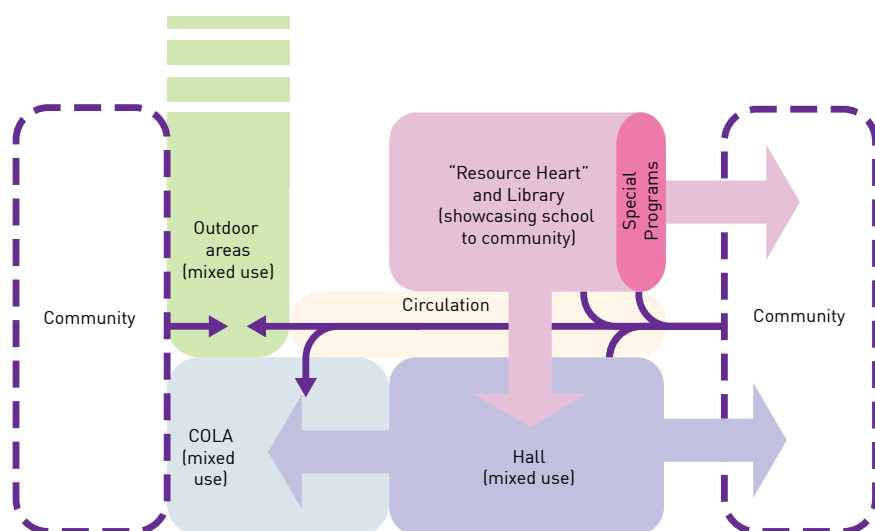


Figure 12. Functional Relationships diagram external / mixed use / community use opportunities

Source: Adapted from EFSG functional relationships and Education Rationale findings.

6. 4 Accessibility Considerations

Access

John Palmer PS has two main street frontages, and a third street frontage separated by a narrow park and footpath. The primary entrance is on The Ponds Boulevard with a secondary pedestrian entry from Pebble Crescent.

There is a wide strip of landscaped open space between Jetty Street and John Palmer PS. This area is zoned R3 (Medium density residential).

Data source: SINSW, Project Scoping & Background Information Document John Palmer Public School, Trim Reference No: DOC18/1168658

On site staff parking is located at the south eastern corner of the site. Time limited street parking lines the surrounding residential streets. There is a bus bay at the main entrance to the school and 'kiss and ride' facilities along Pebble Crescent.

Note that the school community believes that a new entry pathway should be located on Jetty Street.

Data source: Innovative Learning Environments. John Palmer Public School Education Rationale. 9 June 2019 (see Appendix C) and PRG 10 June 2021.



Figure 13. View of the pedestrian entry to the school looking towards The Ponds Boulevard

Source: PTW



Figure 14. View of the existing staff entry and carpark accessed from The Ponds Boulevard

Source: Google Maps Export. Accessed 18 May 2021

Equity

The DoE Disability Strategy states that there is a 4% annual growth rate in the number of students receiving targeted individual support (moderate to high levels of adjustment to their learning), across NSW.

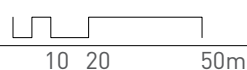
The school does not currently have an identified support unit, however has an Early Intervention preschool with 2 classes on-site. Early Intervention preschools provide positions for children from three years to school entry-age with a confirmed disability. Students generally attend for 3 hour sessions, two or three days a week with classes ranging from five to eight children.



Figure 15. Site map of John Palmer Public School illustrating the site access points and facilities

- | | | |
|--|---|--|
|  Site access - vehicular |  Bicycle/ scooter parking racks |  The Ponds Shopping centre vehicular access |
|  Site access - pedestrian |  Student Drop off/ pick up zones |  Support learning unit access |
|  Site Boundary |  Bus zones | |

Source: The Transport Planning Partnership, John Palmer Public School Rapid Transport Assessment, 13 October 2020



Site Map
1:2000 @A4

6. 5 Site Analysis

The following diagrams of this section illustrate the following physical aspects of the site:

- Levels and contours
- Significant trees and open space
- Sun path analysis and seasonal winds
- Built form analysis

6.5.1 Levels and Contours

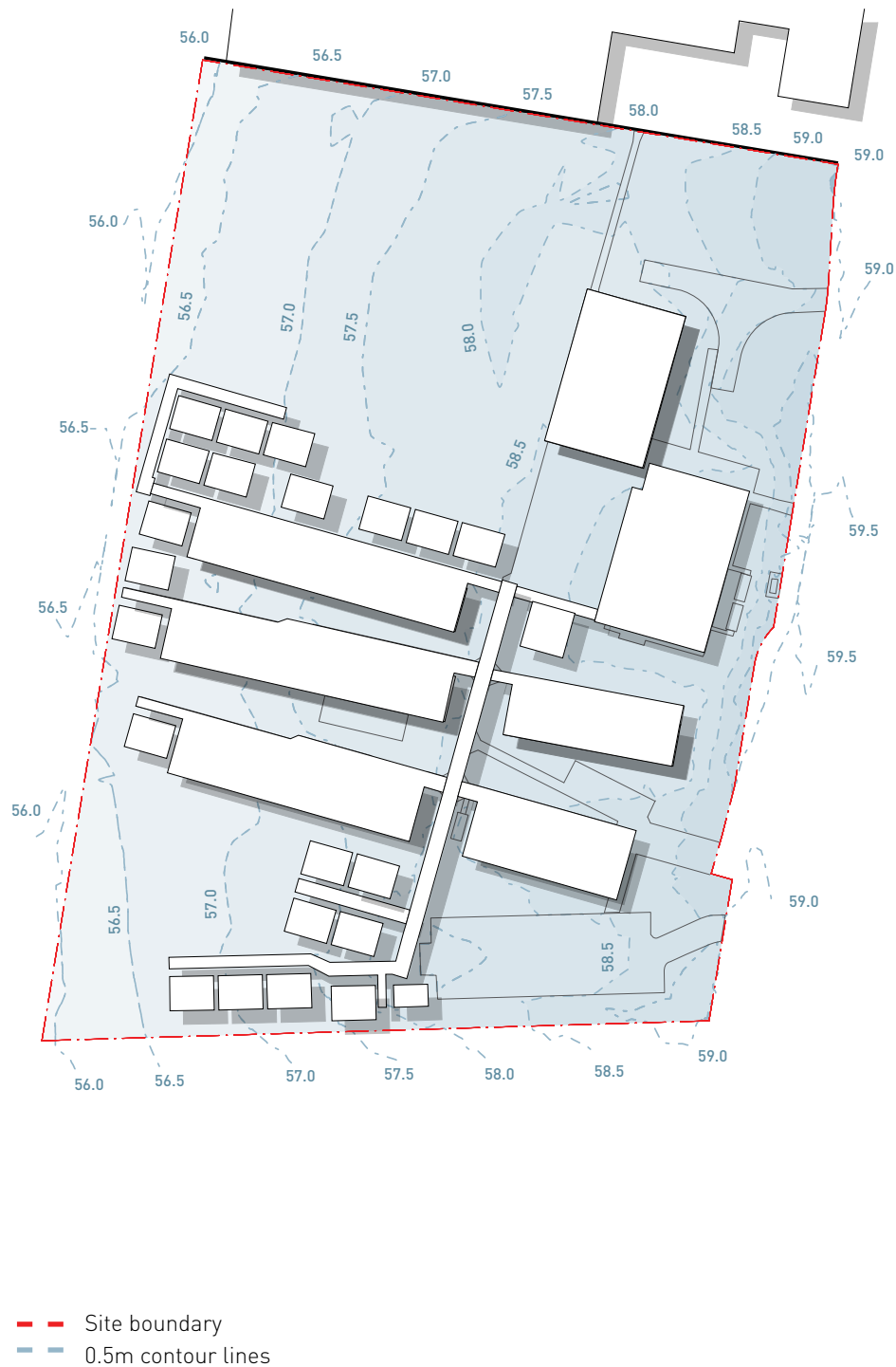


Figure 16. Plan showing the site contours.

6.5.2 Significant Trees and Open Space



Figure 17. Plan illustrating the site significant trees and open space.

6.5.3 Sunpath Analysis and Seasonal Winds

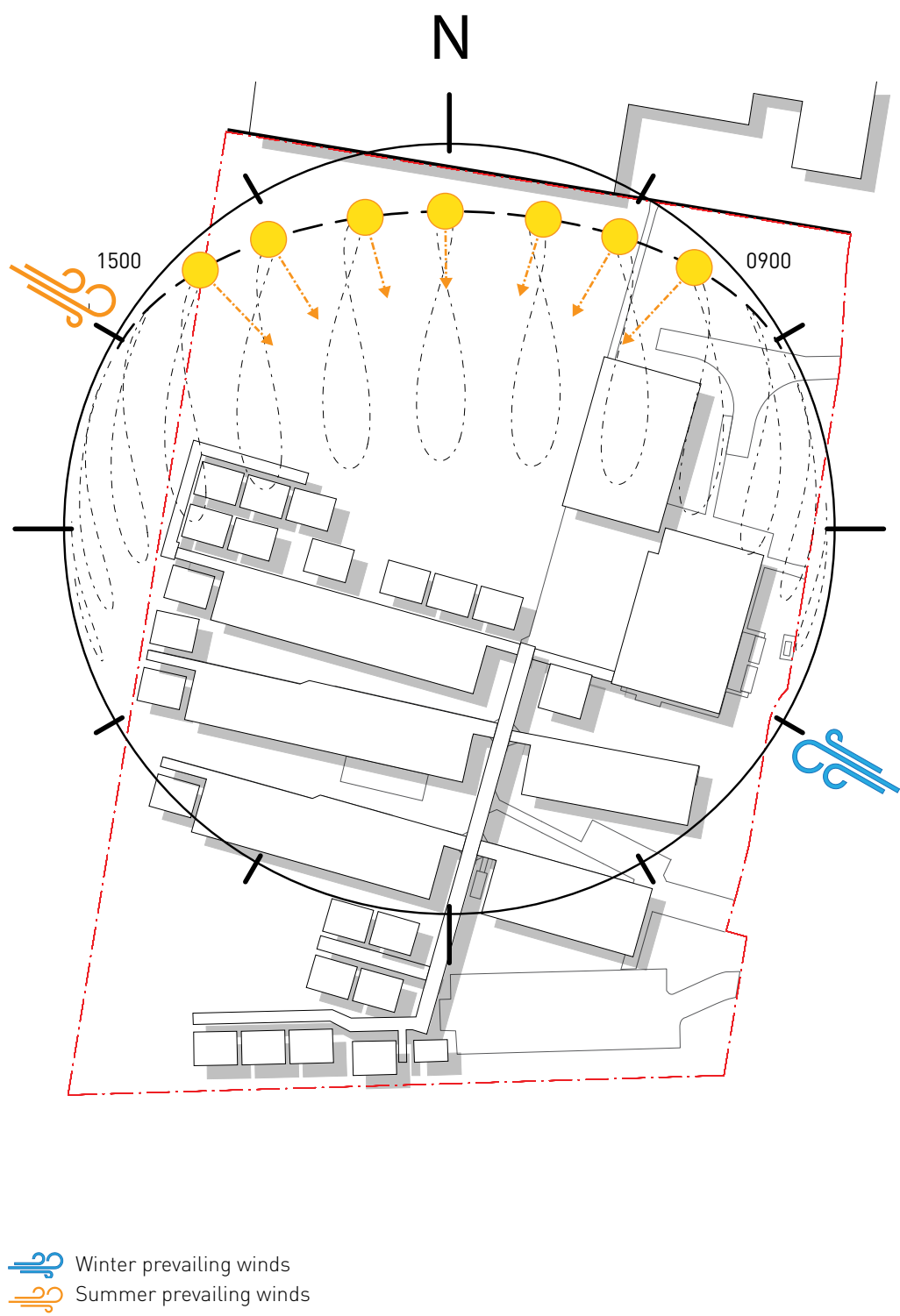
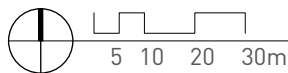


Figure 18. Plan illustrating the sun path from 9am to 3pm on 21 June 2021 and the seasonal prevailing winds

Source: RMY Australia Representative Meteorological Year Climate Files, accessed 16 September 2021



6.5.4 Built form analysis



Figure 19. Plan illustrating the built form of existing site and surrounds

7 GUIDING AND KEY DESIGN PRINCIPLES

7.1 Education Rationale

The following is an excerpt from the **John Palmer Public School Education Rationale** by Hayley Russell from Innovative Learning Environments 9 June 2019 and reflects findings from an 'exploration workshop and focus groups'.

- *Stage groups are clustered together in neighbourhoods to enable co-teaching and foster collaborative teams*
- *Learning spaces are connected allowing students from different classes to connect and collaborate*
- *Learners have access to breakout spaces that maintain visual connection to main learning space, e.g. circulation space as learning space*
- *Focal points are mobile within the hub enabling explicit learning to be flexible*
- *Outdoor learning is accessible to all hubs with adequate facilities and tech infrastructure*
- *Universal design is applied to all learning spaces and facilities to enable the seamless integration of students and staff with additional physical and learning needs*
- *The Library should enable multiple activities to be taking place at any given time through the use of operable walls, breakout spaces and nooks*
- *Storage allows for easy to access resources relevant to the purpose, e.g. art supplies, science equipment and student works-in-progress.*

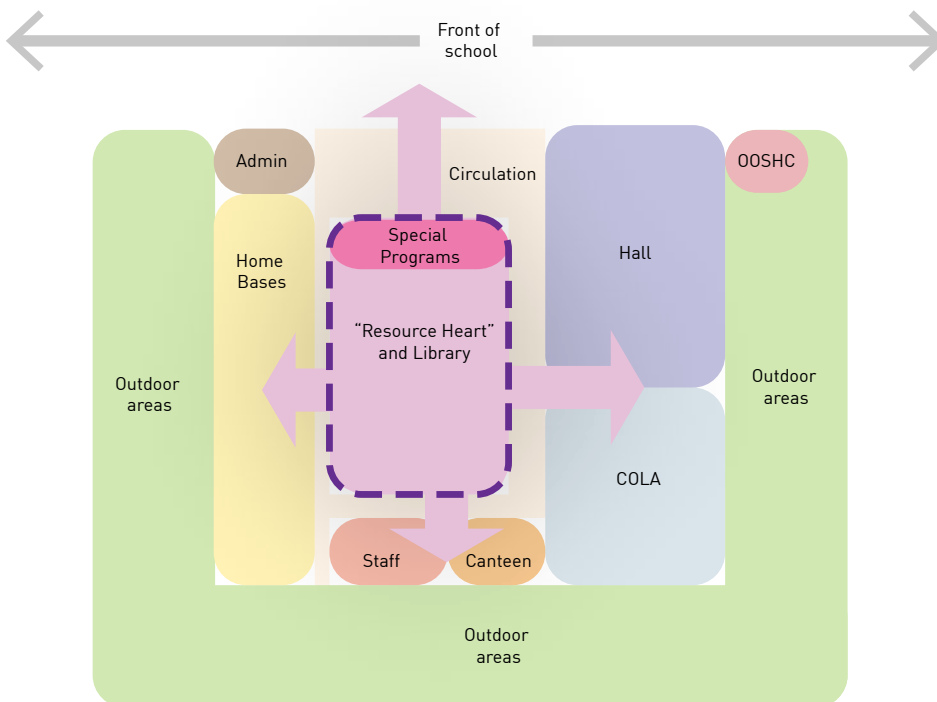


Figure 20. Functional Relationships diagram of key facilities for JPPS

Source: Adapted from EFSG functional relationships.

The overall preference was for a combined typology. A combined typology provides:

- flexible connection to each homebase (operable walls)
- combined allocation of Practical Activities Areas (PAA) that is share within the hub
- combined withdrawal allocations to enable varied spaces for groups of different sizes and varied use, e.g. guided learning space, passive/quiet space
- combined storage allocation to increase efficiency of resources, however provision of some storage for personal items.

The flexible connection between homebases would enable co-teaching opportunities which would support learning and teaching of students, as well as enabling professional learning for teachers. This flexibility would also allow teachers to operate individually with their classes.

Circulation space that can be used as breakout learning space and could accommodate large groups was seen as an opportunity within this typology. Common discussion was around a shared resource centre within each hub that could provide access to technology, storage of school resources and areas for learning support teams to work with identified students from across the hub. Comments also identified the opportunity for gathering multiple classes of students in tiered seating within hubs.

It was agreed by all focus group participants that shared PAA provided a more efficient solution and would enable greater use for Art, Science and project based learning. Kindergarten teachers still felt the need to be able to access PAA space for use as a rotation station during Literacy and Numeracy sessions.

Cross reference - Better Placed Design Guide For Schools May 2018 and Better Placed Environmental Design In Schools October 2018.

Further, the SWG (May to June 2021) noted their aspiration for new built and landscaped spaces to encourage play, fun and adventure.

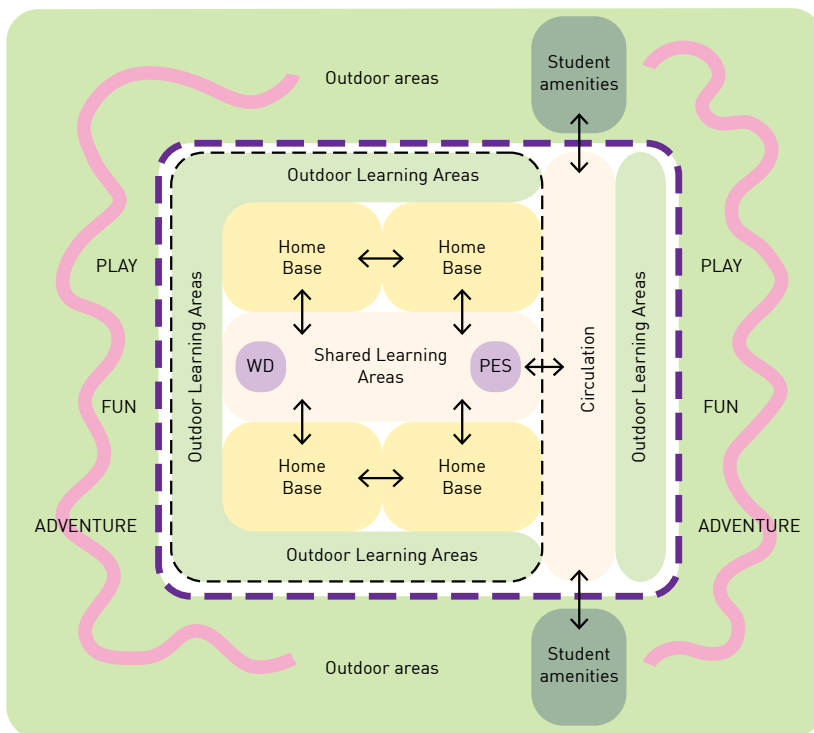
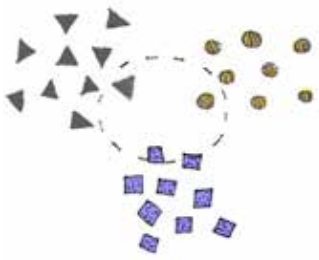


Figure 21. Functional Relationships diagram of learning facilities for JPPS

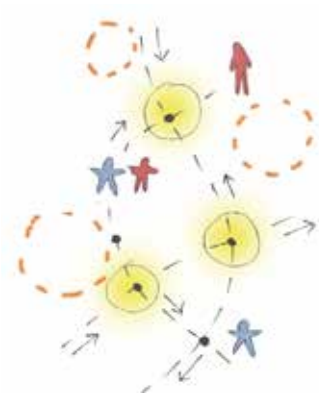
Source: Adapted from EFSG functional relationships and Education Rationale findings.

7. 2 Design Principles

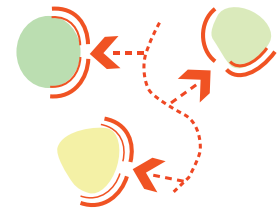
The Historic Continuum



Cooperation and Competition

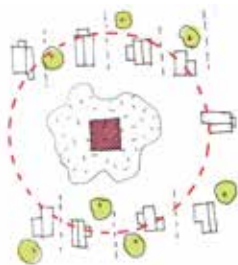


Use Resources Wisely



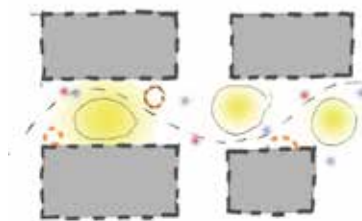
Community and Learning

Exchange between past, present and future culture and ideas



Cooperation and Competition

Collaborative Learning



Reconfigurability into Future

Adaptable spaces for the whole community



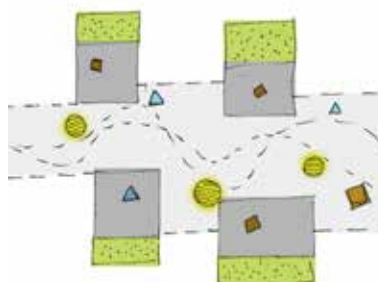
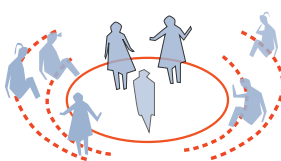
Inherent Continuum of the Environment

Playing as Learning

Open Learning Space
Stimulus + curiosity

Playing as Learning

Open Learning Space
Stimulus + curiosity



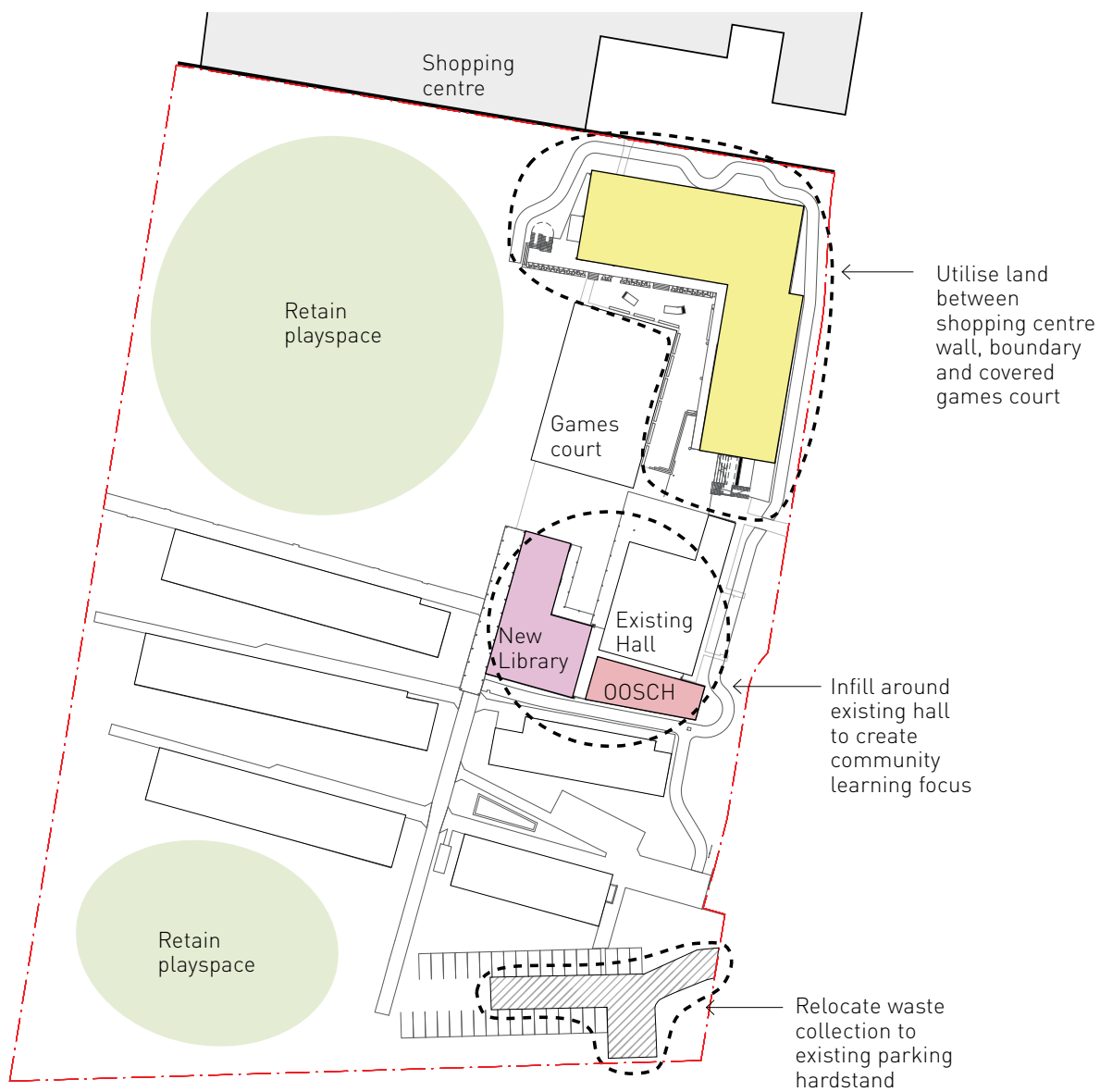
Legacy and Positivity for the future

Choice and Differentiation

Variety of Learning

Choice and Differentiation

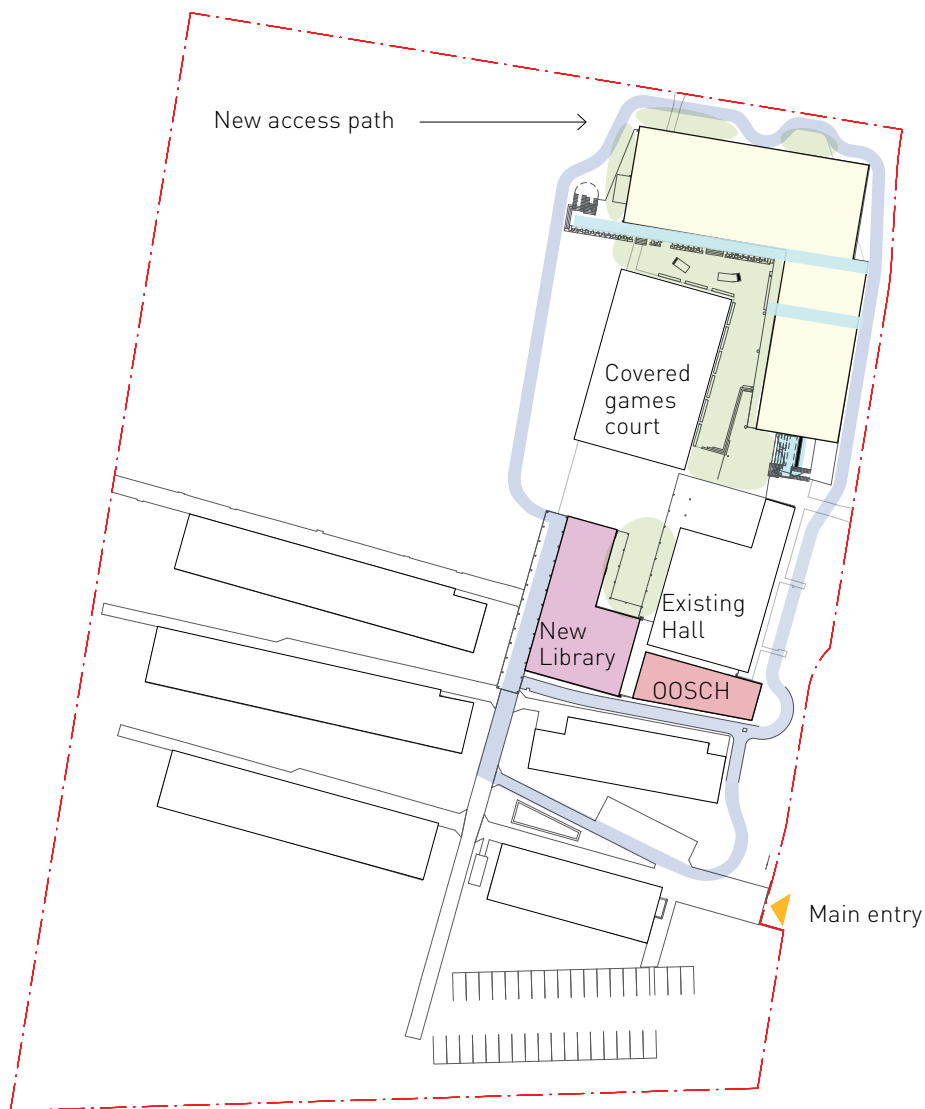
Variety of Learning



- | | |
|---|---|
| Homebase | Outdoor playspace |
| Library | Waste collection |
| OOSCH | The Ponds Shopping Centre |

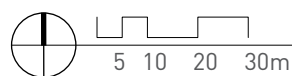
Figure 22. Using resources wisely - land and playspace



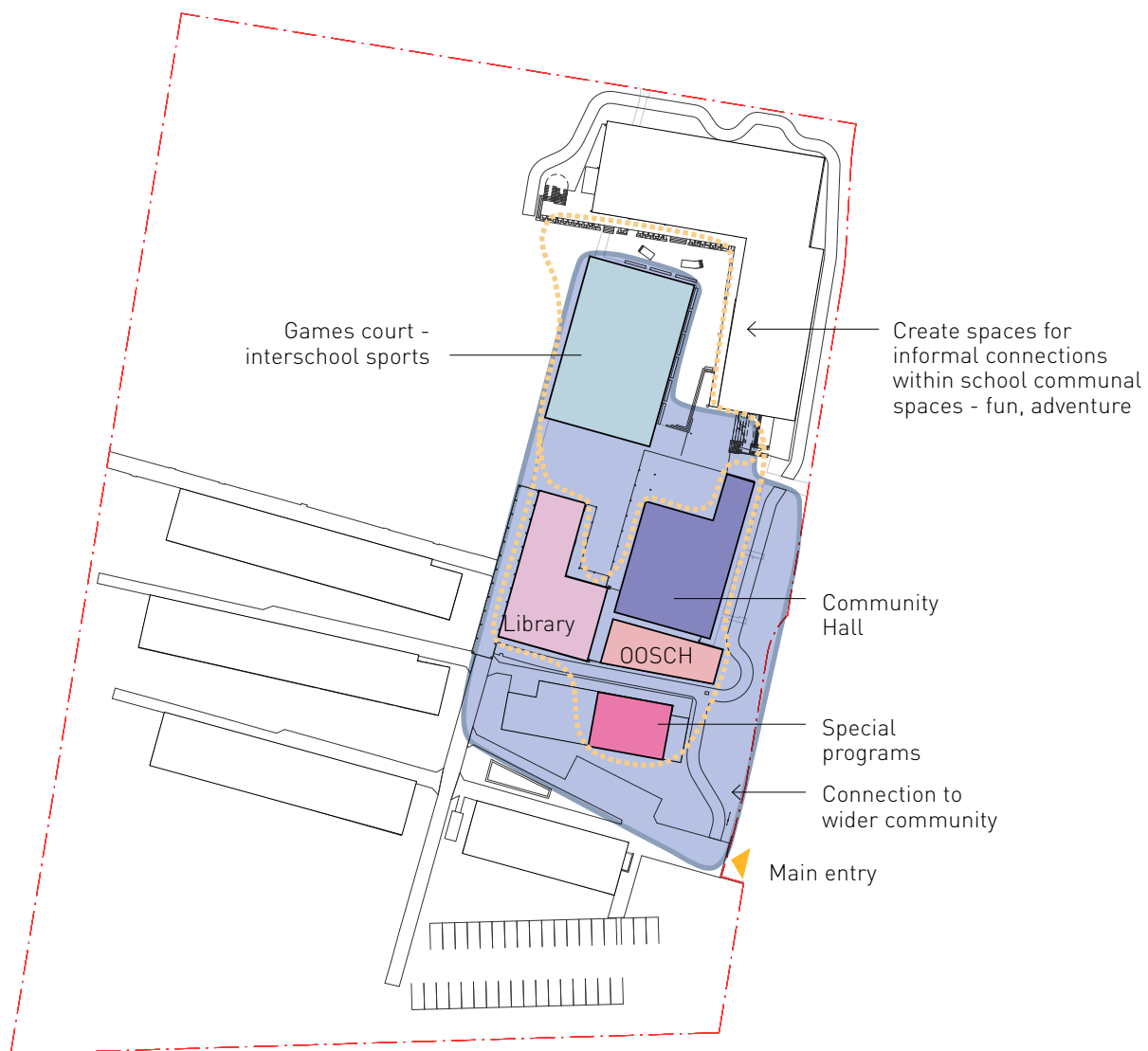


- | | |
|--|---|
| Homebase | Outdoor learning space |
| Library | Breezeways - fresh air and natural light |
| OOSCH | Access path and recreation |
| | Main entry |

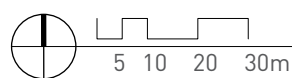
Figure 23. Connection to biological processes - interstitial spaces used for outdoor learning and recreation



1:1500 @A4



- | | |
|--|--|
|  Games court |  Games court |
|  Library |  Library |
|  Community Hall |  Informal connections |
|  OOSCH |  Main entry |



1:1500 @A4

Figure 24. Community connections

8 ARCHITECTURAL CONCEPT

The design for the new building for John Palmer Public School configures the SINSW mandated SINSW planning grid as a L-shape around the existing games court to create a series of interstitial spaces that can be used for outdoor learning and informal student and staff interactions.

Giving a sense of fun and adventure is an important aspiration of the school community. Therefore, the entry forecourt is defined to the east by a small stepped amphitheatre and can incorporate an 'outdoor' projection screen and projector.



Figure 25. Yellow Train School - outdoor space and amphitheatre

Source: https://divisare.com/projects/367574-biome-environmental-vivek-muthuramalingam-yellow-train-school?utm_campaign=journal&utm_content=image-project-id-367574&utm_medium=email&utm_source=journal-id-173 - accessed 05/07/2021



Figure 26. St Philip's Christian College Cessnock - indoor slide

Source: <https://www.cessnockadvertiser.com.au/story/3814402/sliding-into-future-learning/> - accessed 05/07/2021

The edges of the access balcony to the ground floor are conceived as bleacher seating and slides from the first floor and the ground floor platform encourage children to be active and adventurous.

The SINSW planning grid has been created by SINSW to support flexible learning and collaboration. In addition to the standard double-loaded module of four classrooms and a central, combined circulation and activities zone, this design utilises a one-sided or linear version of the module in the north-south wing. This is so the building will sit within the boundary setback (and its existing trees) and the existing covered games court.

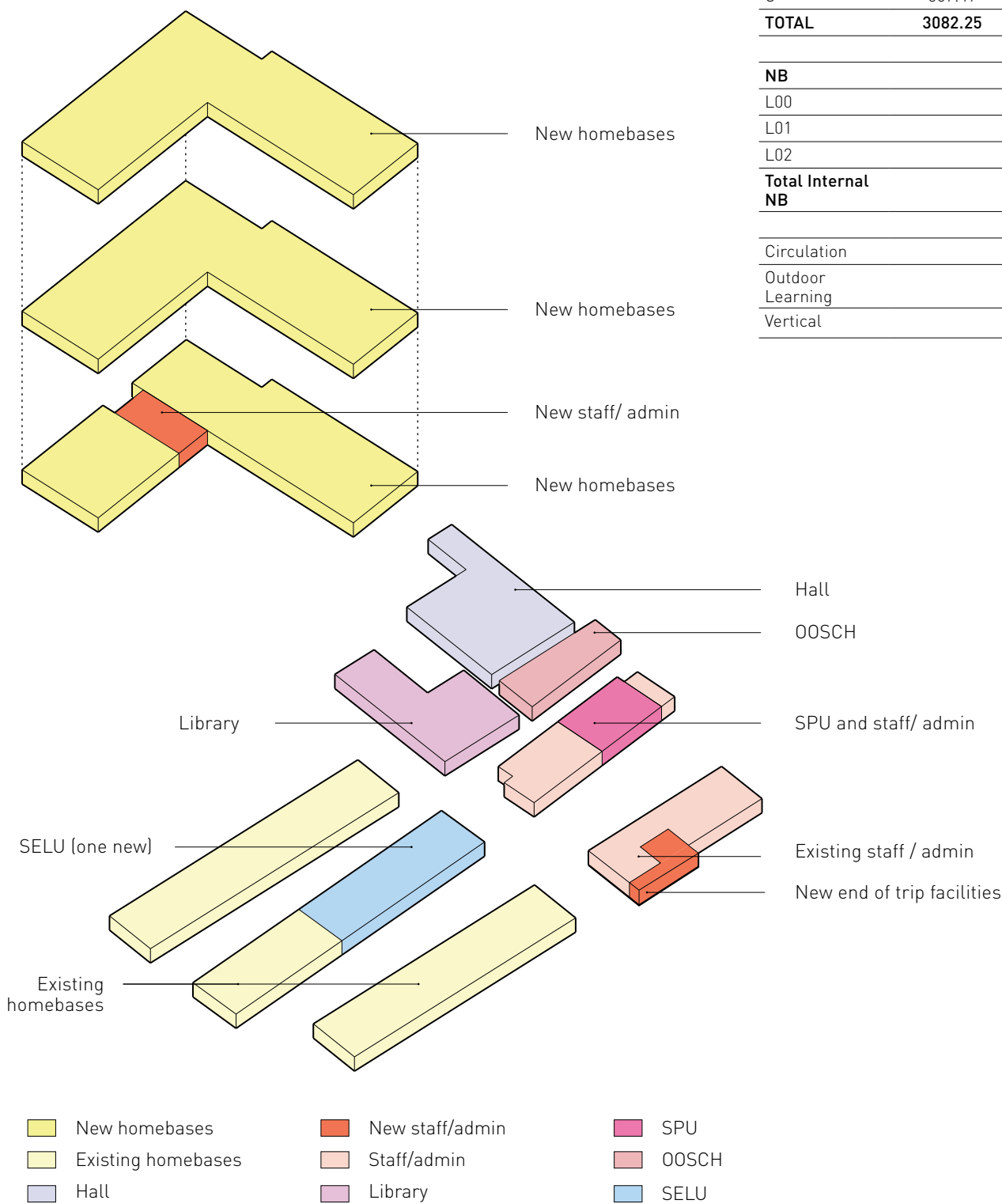


Figure 27. Cranbrook Junior School - children playing on stepping area

Source: <https://tzannes.com.au/projects/cranbrook-junior-school/> - accessed 05/07/2021

8. 1 Block and Stack

The block and stack strategy for the project is illustrated by the following axonometric diagram.



BUILDING NO	EXISTING GFA m2	NEW GFA m2
A	346.95	375.7
B	505.3	1092.96
D	367.91	367.97
E	631.58	631.58
F	663.02	663.02
G	567.49	567.49
TOTAL	3082.25	3698.53
NB		
L00		113.98
L01		1195.05
L02		1062.5
Total Internal NB		3391.53
Circulation		848.84
Outdoor Learning		666.65
Vertical		162.95

Figure 28. Block and stack concept diagram

8. 2 Services and Infrastructure Requirements

The major services requirements for the redevelopment of the school campus include:

- Upgrade of existing substation on The Ponds Boulevard
- New fire hydrant pump room at western external end of Building A
- New main comms room (MCR) in new library
- New rainwater tank adjacent to northwestern stair of new building (submerged)
- New air-conditioning plant enclosures in various locations around the site

The new infrastructure consists of:

- New service and emergency access driveway and gates at north west corner of the site
- This design provides a new pedestrian entry from Jetty Street and a service driveway from Pebble Crescent.
- Emergency exit gate in existing fence on the Ponds Boulevard
- New ramp (accessible) access from the Ponds Boulevard for deliveries to the canteen
- Relocated and upgraded waste collection area (including reconfiguration of vehicular driveway).
- Additional racks for student bikes and scooters are located close to the new Jetty Street entrance while staff bike parking racks and end-of-trip facilities are incorporated near the existing staff carpark.



8. 3 Public Domain and Community

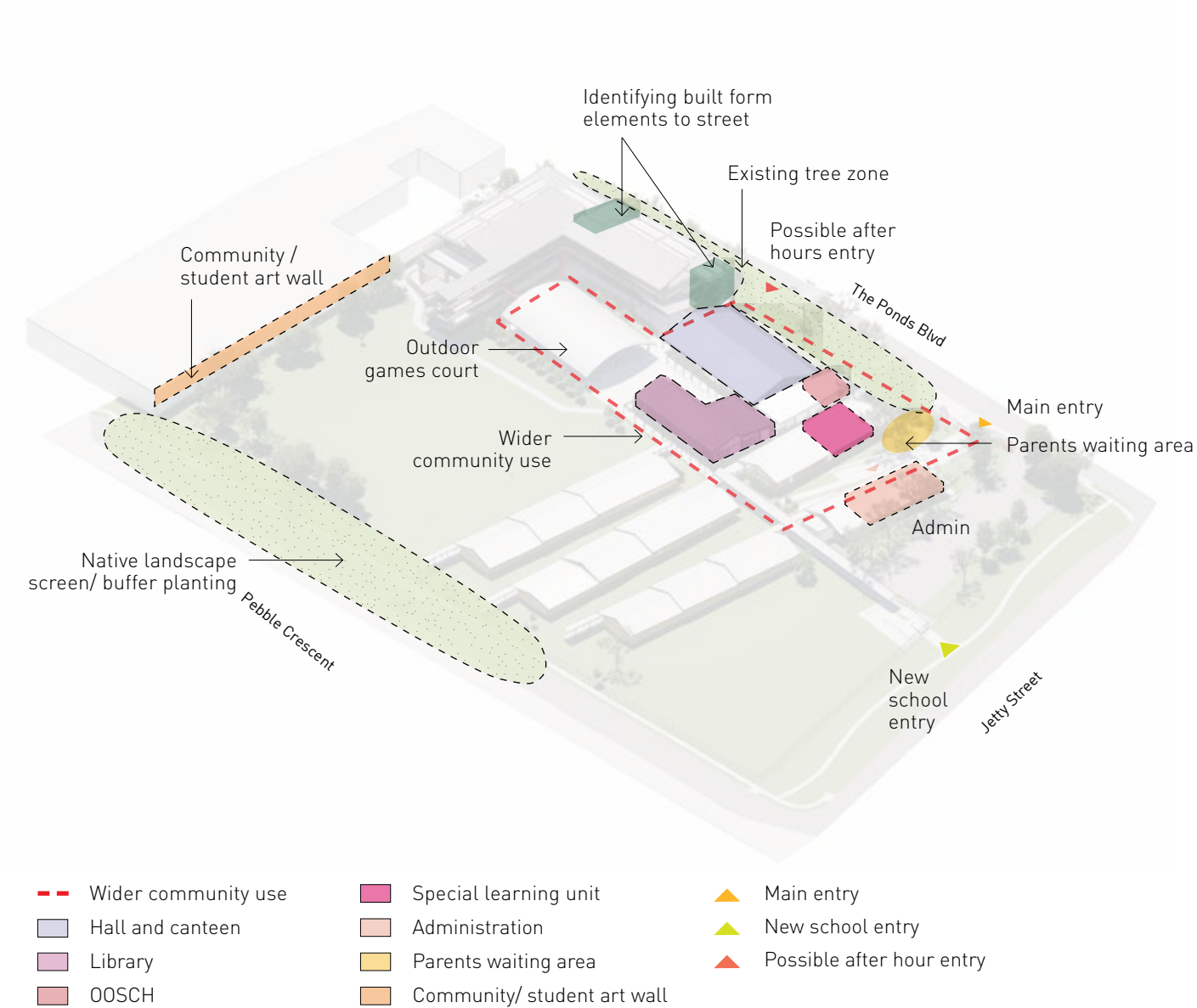


Figure 30. Public domain contribution and community links

8. 4 Access, Security and Circulation Strategy

The site is bounded by a secure fence. The proposed design meets the principles of Crime Prevention Through Environmental Design (CPTED) through the provision of active edges to the new buildings, plus the insertion of a new access path which circumnavigates the new interventions to the campus and links back to the existing main entry.

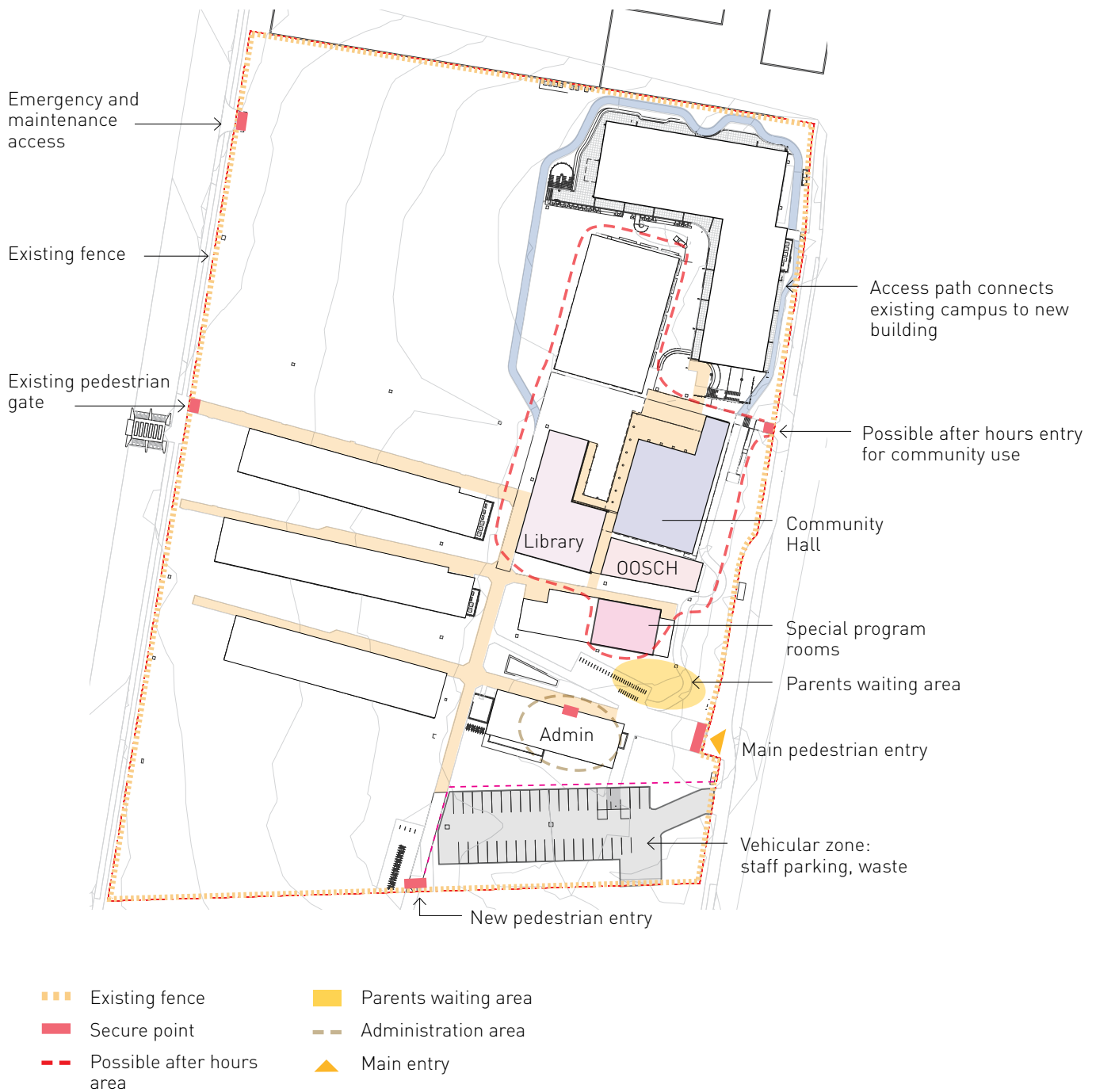
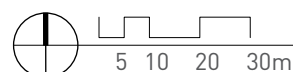


Figure 31. Site access, security and circulation



1:1500 @A4

CPTED – Safer by Design

The four key CPTED strategies and the response to those strategies are outlined below.

Natural Surveillance

As noted above, the proposed layout and location of the new building provides natural surveillance both outwards to the street and inwards to the campus. In addition, there will be technical surveillance through CCTV.

Natural Access Control

The existing campus is surrounded by a high palisade fence.

Maintenance Space/Activity Management

The school operations allow for controlled entry and exist of students, parents and visitors. There is a designated parent waiting area near the main pedestrian gates from The Ponds Boulevard.

The CPTED strategies benefit schools by:

- Creating a warm and welcoming environment
- Fostering a sense of physical and social order
- Creating a sense of ownership by students
- Sending positive messages to students
- Minimising opportunities for out-of-sight activities
- Managing access to all school areas.

Territorial Re-enforcement

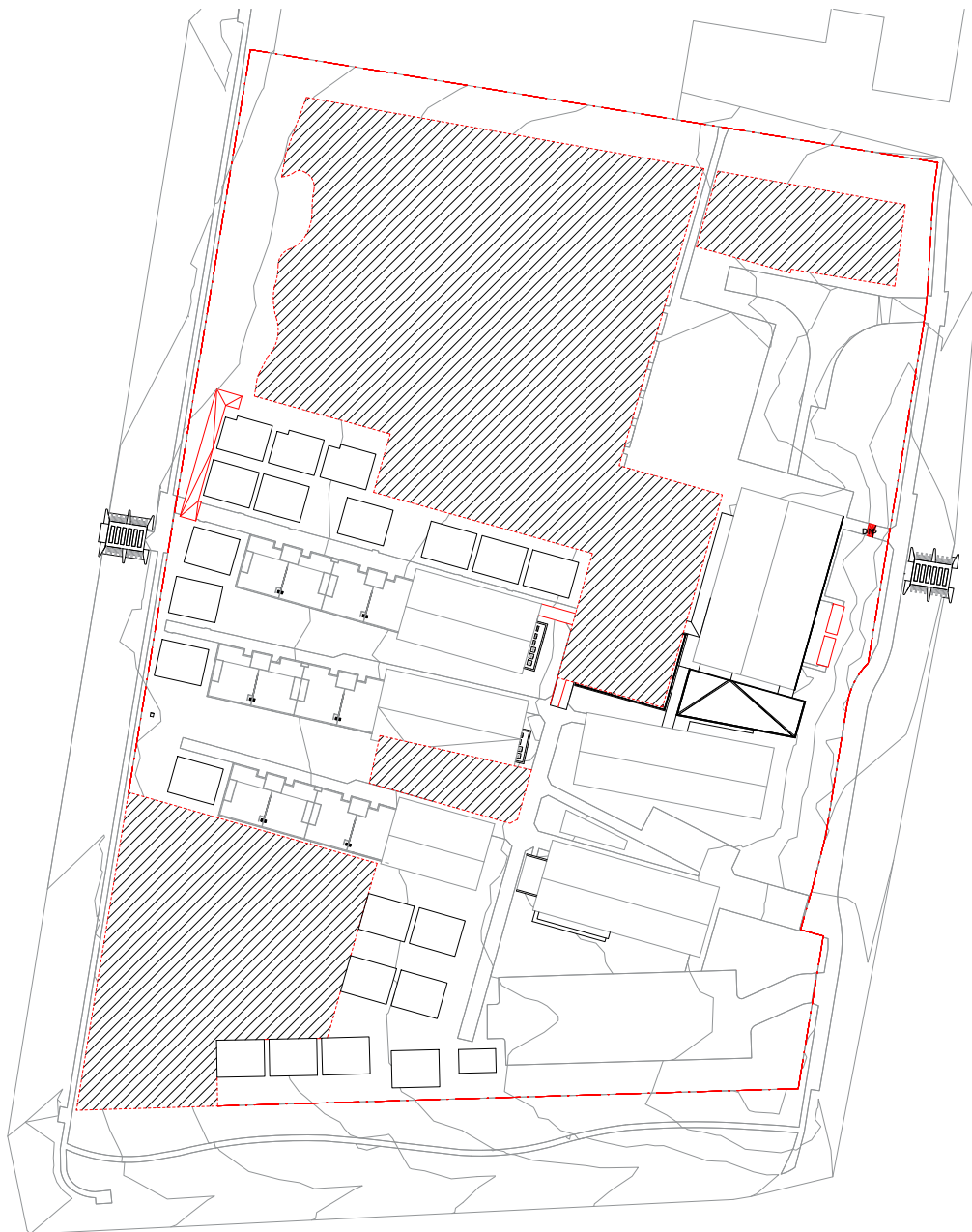
The L-shaped form of the new building embraces the existing games court and is clearly connected to the existing campus through a sequence of courtyards. Students can move from the entry courtyard/amphitheatre of the new building to the new learning courtyard between the refurbished hall and new library, and then to the new main entry forecourt.

An access path for walking and running encircles the new building and links back to the existing main school entry.

On the east, the path is landscaped along The Ponds Boulevard edge and borders the outdoor learning spaces of the adjacent classrooms.

The sequence of spaces and the emblematic encircling path creates a sense of belonging for the school community. By improving the existing non-description presentation to The Ponds Boulevard, the school identity within the wider community is enhanced.

8. 5 Play Space



Existing Play space is approx 10324m²
10.94m²/student @ 943 students

Existing Play space is approx 34.6 % of site

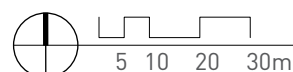


Figure 32. Existing play space

1:1500 @A4



Proposed Play space is approx 10775m²
 10.6m²/student @ 1012 students

Proposed Play space is approx 36% of
 site

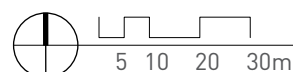


Figure 33. Proposed Play space

1:1500 @A4

8. 6 Building Envelope

The elevations set out below and in the visualisations which follow (in section 5.7), reflect the rhythm of spaces within the new building to provide natural light and airflow to the internal spaces.

While the lowest storey uses the terracotta coloured brick that reflects the existing one-storey buildings on the school campus, a white/cream brick is proposed for the upper levels reflecting the rendered and painted façades of much of the surrounding development.

The new one-storey library pavilion, which has a laminated timber framework in contrast to the concrete framework of the three-storey building, is treated quite differently. So that the timber framework is discernible, glazed panels line the outside face of the main learning space of the library and are shaded by large diameter perforated metal screens, incorporating a pattern to be designed by an artists as part of the Connection to Country strategy .

Glazed overhead folding panel doors open the new library and the western wall of the refurbished hall to the learning courtyard located between these two buildings.

The building sits adjacent to the Ponds Shopping Centre and carpark which is to the north of the site. The new 3 storey building is setback 5m from the east boundary (The Ponds Boulevard) and 8m from the north boundary. This gives a separation of 30m from the houses on the opposite side of Ponds Boulevard. and has a maximum roof height of under 14.45m. The highest points are set back from the street elevation.

As set out in *Section 9.3 Blacktown City Council - visual impact and overshadowing* of this report, the new building does not overshadow neighbouring properties and has negligible adverse visual impact on the surrounding residences and commercial buildings



Figure 34. New building - east elevation

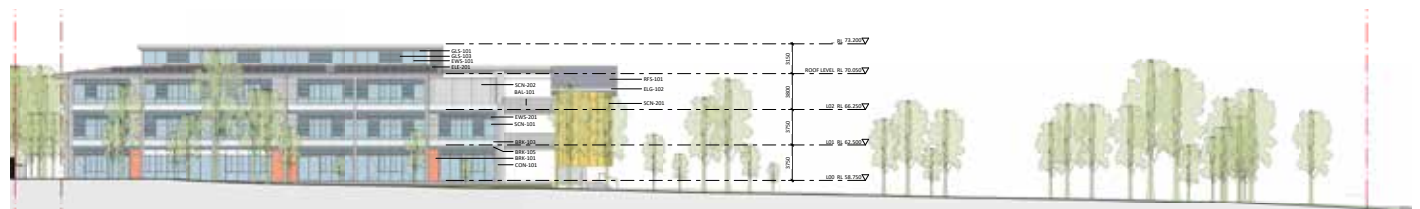


Figure 36. New building - north elevation

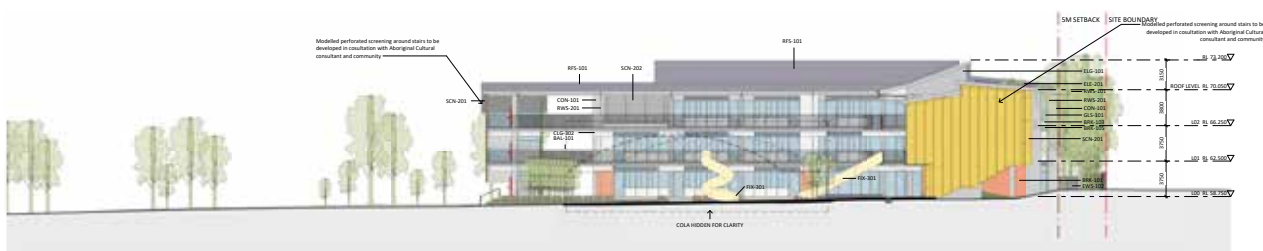


Figure 35. New building - south elevation



Figure 37. New building - west elevation





Figure 38. Library and Hall - north elevation

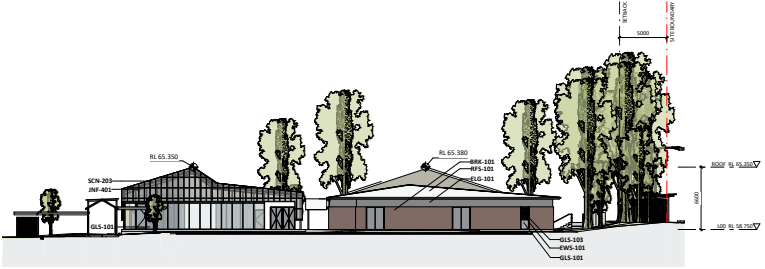


Figure 39. Library and Hall - south elevation



Figure 40. Library and Hall - east elevation

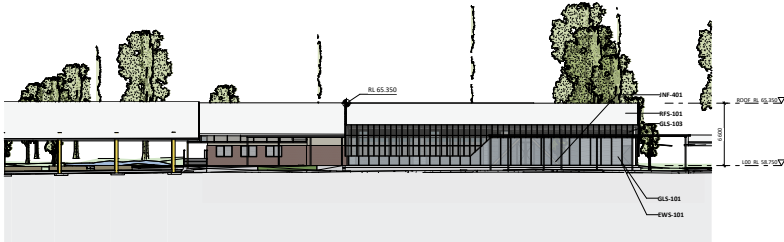
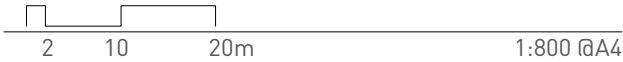


Figure 41. Library and Hall - west elevation



8. 7 Proposed Materials

The external materials illustrated on figure 40 (Sheet AR-0501) have been selected to create a play of light and shadow across the facade, as well as for robustness and conformance with EFSG.

The terracotta coloured brick reflects the colour and texture of the existing brickwork. The pattern and colour of the modelled perforated aluminium for the screens to the external stairs will be further developed in consultation with the Aboriginal Cultural consultant and school community to reflect the weaving tradition of the Darug people:

Objects created allow for self-satisfactory social acceptance, and social support. Culturally, weaving practices surround the teaching of children at a very small age. The knowledge of weaving is witnessed by the small child that becomes a stable environment....

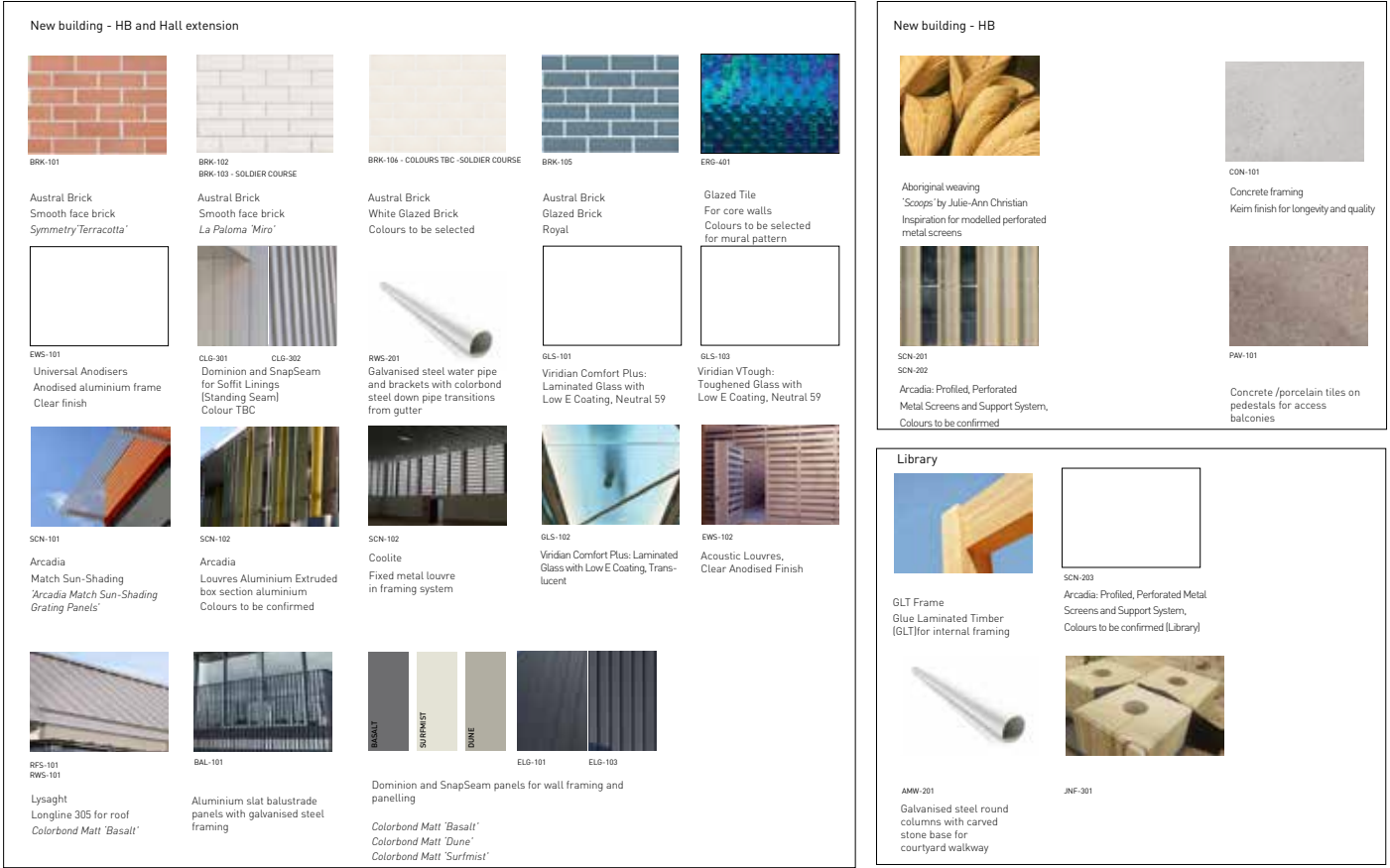
Julie-Ann Christian, Scoops, "Vessels of love: Darug weaving that connects generations, community and country", Garland Magazine, 27 February 2020

Colours of the screens and the panels of glazed brick and tiles (to the central core at the building knuckle) will be selected in consultation with the school community.



Figure 42. Scoops by Julie-Ann Christian

Source: <https://garlandmag.com/article/vessels-of-love/> - accessed 02/07/2021



8. 8 Visualisations



Figure 44. South west axonometric

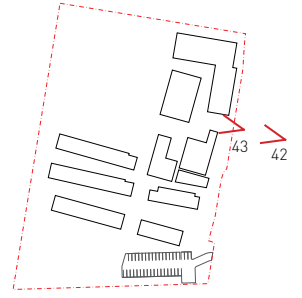


Figure 45. View from The Ponds Boulevard



Figure 46. View of the southeastern corner of the new building

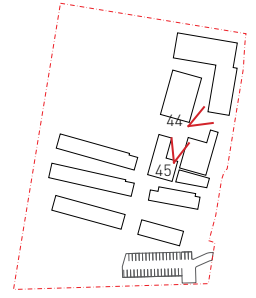


Figure 47. View from the existing COLA



Figure 48. View between the library and the hall

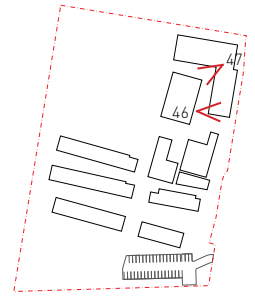


Figure 49. Entrance of the new hombases' building



Figure 50. View from the ground floor of the new hombases' building, showing stepping stone bleachers and slides

8. 9 Environmental Sustainability Design (ESD)

The following is an excerpt from the **JPPS Sustainable Development Plan** by AECOM dated 30 July 2021.

ESD design principles as defined in Clause 7 (4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 have been incorporated into the holistic design of JPPS including:

- *The precautionary principle*
- *Inter-generational equity*
- *Conservation of biological diversity and ecological integrity*
- *Improved valuation, pricing and incentive mechanisms*
- *Minimisation of consumption of resources, water (including water sensitive urban design) and energy*

ESFG Sustainability Targets - Energy Conservation

The project is targeting a 5 star Green Star rating. As such, the building will target a modelled energy reduction of between 20-40 better than minimum compliance under the National Construction Code (NCC) 2019. In accordance with the NSW Government Resource Efficiency Policy, the building must be designed such that energy consumption is predicted to be at least 10% lower than minimum compliance with the NCC requirements. This will be exceeded under the current Green Star targets.

It is proposed that the 5 Star Green Star Buildings pathway will be followed.

Green Star Sustainable Design Initiatives

The project is targeting a 5 star Green Star rating, as per the Educational Facilities Standards and Guidelines. Green Star Design and As built is due to be phased out by the 17th December 2021 and is to be replaced by Green Star Buildings.

AECOM have developed two pathways for consideration subject to EFSG and SINSW approval:

- *5 Star Green Star v1.3 Design and As Built (minimum 60 Points)*
- *5 Star Green Star Buildings (minimum 35 points + minimum expectations)*

The minimum expectations of the 5 Star Green Star Buildings pathways are:

- showers and lockers for changing
- acoustic comfort
- daylight
 - maximise daylight to spaces that prioritize learning
 - regularly occupied spaces in reasonable proximity to glazed façades, windows or skylights (20% of areas to be provided with high levels of daylight)
- outdoor air 50% higher than minimum required by AS 1668.2:2012 and CO₂ levels less than 800ppm
- waste streaming.

The key architectural design requirements are set by SINSW, and which are addressed by this design are:

- Building location and orientation for optimum solar access and passive design, natural ventilation, etc.
- Protection / regeneration of natural habitats and vegetation on and adjacent to site
- Retention / removal of built form for passive design (particularly daylighting and natural ventilation)
- Joint / community use of site and facilities
- Tapping into reticulated recycled water networks or precinct infrastructure
- Incorporation of crime prevention through environmental design (CPTED)
- Mitigation of urban heat island effect and provision of landscaped shaded outdoor space
- Consultation with Aboriginal communities to incorporate celebration of local Aboriginal cultures into school design.

Source: SINSW. Sustainable Development Practice Note. Version 1.0. 30 April 2021

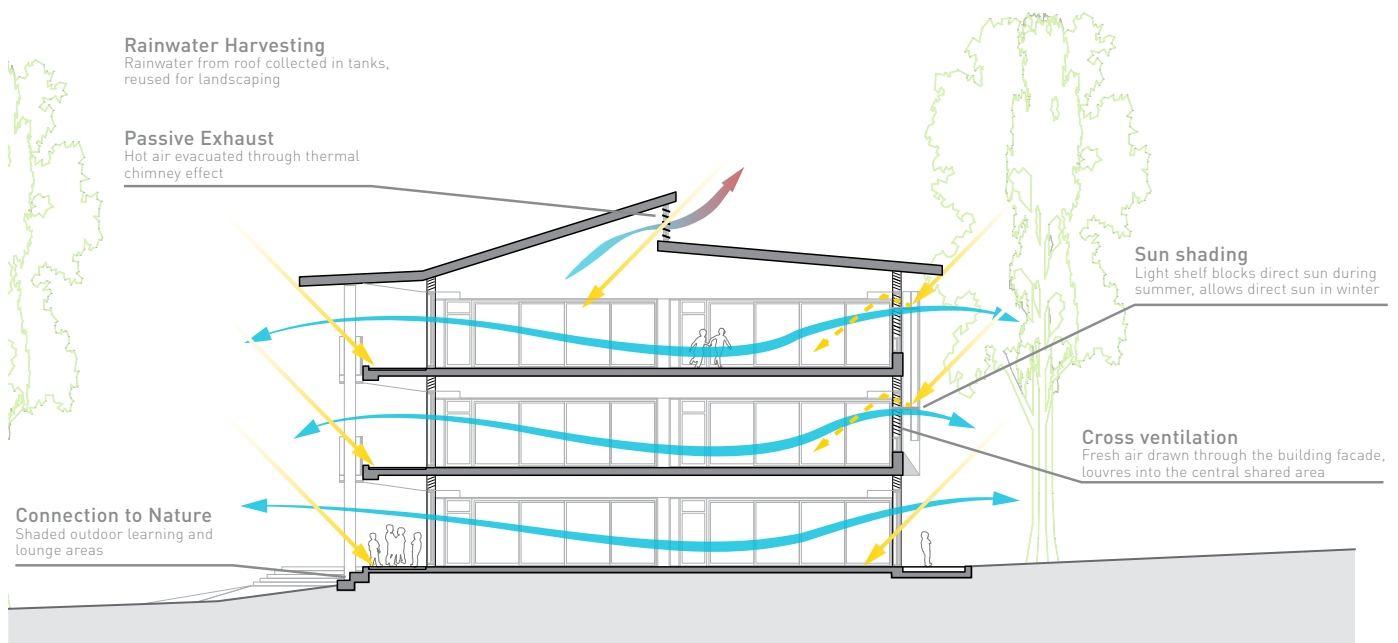


Figure 51. Passive design principles of new homebases building

9 CONSULTATION

9.1 State Design Review Panel

The concept design was presented to the State Design Review Panel (SDRP) on 15 September 2021.

Many of the comments in relation to sustainability, future community sharing of facilities and passive design are embedded in this design. The reservations in relation to the lack of diversity offered by the SINSW planning grid are beyond the ability of the project team address.

SDRP Advice - First Review following SDRP 15 September 2021 (received 23 September 2021):

The following elements of the design strategy are supported:

- The general principles and massing of the proposed masterplan, including the location and orientation of the new building on the northeastern corner of the site, and the placement of the new library.
- Retaining the existing parts of the campus that are highly functional.
- The principles of the proposed landscape strategy.
- The western stair which creates an important visual connection between the new building and playgrounds.
- Use of clerestory windows to improve daylight amenity to teaching spaces.
- The inclusion of playful elements such as the slides.
- Creating a native landscape screen/buffer around the western and northern edges of the site.
- Proposed material selections including perforated metal screening, coloured brick, timber structure and façade cladding for the library.

The major issues raised were:

Connecting with Country

1.illustrate how the project will bring together architecture, landscape, and their scale, detail, colour and environmental narratives around water. This should also incorporate pedagogical ideas of care and sustainability into the school.
2. The inclusion of a narrative illustrating the journey of water should be informed by Traditional Custodians and clearly articulated and illustrated within the landscape design.

Circulation and movement

3. Reconsider the width of circulation spaces in the new buildings so they can better support student learning and movement.
4. Provide better amenity and support for active transport with particular regards for the development of walking and active transport connections to Second Pond Creek. Provide evidence of connections to existing cycle and walking routes, sufficient and accessible parking for bicycles, and appropriate sized entrances
5. The running track is supported, but reconsider the location of the track to avoid interference with normal circulation routes

and size of outdoor play spaces for students. Consider the materiality of the track so that spaces can function as outdoor learning areas as well as running areas.

6. Ensure the size and scale of the new entrance on the southern edge of the new building is appropriate to its prominence and potential as a major access point.

7. Education is important to the local community, and The Ponds needs more social and community amenity. Ensure facilities such as the hall, playing fields and library will be accessible to the community in the long-term.

Site strategy and landscape

8. The principles that underlie the landscape strategy need to be applied more rigorously across the whole site. Specifically:

- i. Expand the number and quality of child-scaled learning spaces across the site.
 - ii. Work with a narrative from Connecting with Country consultation to improve and articulate the experience of the landscape.
9. Retain the maximum number of existing trees on the site, with particular regard for mature trees along The Ponds Blvd.
.... [create] an undulating edge with spaces for seating and play.
11. Consider the selective use of non-native deciduous trees in appropriate locations to ensure sunlight into classrooms during winter and protection during summer.

12. Consider alternative planting strategies other than direct seeding to ensure the success of the planting scheme.

Architecture

13. Review the appropriateness of adhering strictly to the SINSW planning grid for this project. Demonstrate how appropriate environmental amenity and pedagogical goals will be achieved within the proposed modules.
14. Classrooms with minimal or no natural light are not supported. Demonstrate how this condition will be resolved.
15. The location of A/C units and other services along the principal street frontage are not supported. Relocate ...
16. Review the amenity of the gathering space on the southern edge of the new building for appropriate scale, accommodation of student numbers and weather protection.
17. Demonstrate sunshading is appropriate to orientation.
18. Demonstrate internal and external learning spaces will be safe and comfortable for students in both hot and cold conditions, and take into account predicted climatic changes.
19. Illustrate learning settings within the proposed modular spaces.

Sustainability and Climate Change

20. Aiming for a net-zero building is highly encouraged to reach NSW's Net Zero emissions goal by 2050. Refer to 'NSW, DPIE, Net Zero Plan, Stage 1: 2020-2030' for further information.

21. Achieving a 5-Star Green building rating is supported, but considering other tangible impacts is required, including:

- i. Provide metrics to demonstrate how sustainability initiatives will be achieved, for example estimated energy consumption vs on-site renewable generation.
- ii. Material performance in terms of off-gassing / use of chemicals to ensure safety for children and staff.
- iii. Adaptation to climate change in both the landscape (dry, heat, cold) and spaces for students and staff.

The following amendments were made to the design in response to the SDRP comments:

- The air conditioning condenser units which were located against the north eastern wall of the building have been relocated to sit against the shopping centre wall to the north. This allows glazing to be introduced into the learning space with direct access to an outdoor learning space.
- The geometry at the access balcony “knuckle” has been expanded and curved to provide a more generous path of travel.
- The configuration of the southern stair has been amended to provide an outdoor learning area for the middle level, (noting that the ground floor spaces have direct access to outdoor learning areas and there is a large roof terrace on the western end of the top floor).
- Further, the amphitheatre of the entry courtyard has been amended to give both a shaded area and a sunny area in mid-winter. We note that the winter winds come from the southeast; those in spring and autumn come from the west. These areas will be sheltered from these winds.
- The sunshading configuration the north and east façades have been simplified to better reflect the specific needs of these façades.



Figure 52. View from the Ponds after removing condenser bank against the new building



Figure 53. View of the updated amphitheatre at the entry courtyard for the new building

9. 2 Connection with Country

Following the formal consultation undertaken by the specialist consultancy Tocomwall, a virtual workshop was held with representatives of the school community (students, parents and teachers) on 9 September 2021.

The main ideas raised were:

- Footprints with promises written in them on how students will care for Country. Pavers or paint around the new building.
- Artwork representing the meeting places around the school to be put on the ground or wall.
- Welcome to Country mural as you walk into school.
- Indigenous symbols or language (Dharug) incorporated into design. e.g.. Dharug word for canteen/oval.
- Totem representations of Dharug totems on poles around new building/gardens.
- Sensory garden with Indigenous plants.
- Learning excursions to the Second Ponds Creek

The design responds accordingly:

- The landscape design responds to the school community's emotional attachment to Second Ponds Creek and will incorporate indigenous edible plants in its design
- The calls for colour and motifs will be reflected in the perforated metal screens which sheath the external stairs while motifs will be specified for the graphics for the glass decals and films
- The modelling of the perforated metal screens recall the traditions of weaving of the Dhurag people
- It is proposed that bas - relief motifs be incorporated in the blades columns of the southeastern stair which are visually prominent along The Ponds Boulevard
- As noted above, the amphitheatre of the main entry of the new building has been expanded to more clearly indicate a circle and to provide a space large enough to hold a whole class outdoors, both in the sun and in the shade
- Exhibition of artefacts (may be contemporary) to be provided in the new library

At a meeting with Tocomwall on 12 October 2021, it was agreed that the design provides a sound framework for the development of these concepts during the documentation and construction process.



Aboriginal weaving
 'Scoops' by Julie-Ann Christian
 Inspiration for modelled perforated metal screens
 Figure 54.



Explore and reflect local stories in the form of colour and graphics
 Figure 55.

9. 3 Blacktown City Council - visual impact and overshadowing

A meeting was held on 7 September 2021 with Blacktown City Council (specifically with Council's Architect) to examine the visual impact of the new three storey building along The Ponds Boulevard. As illustrated by the following drawings, the proposed building will not adversely affect the urban setting of The Ponds Boulevard.

The overshadowing drawings show limited effect on the private open space of the surrounding residential property.

The Council, however, noted that it is critical that the setbacks be well landscaped to shield the new services infrastructure required.

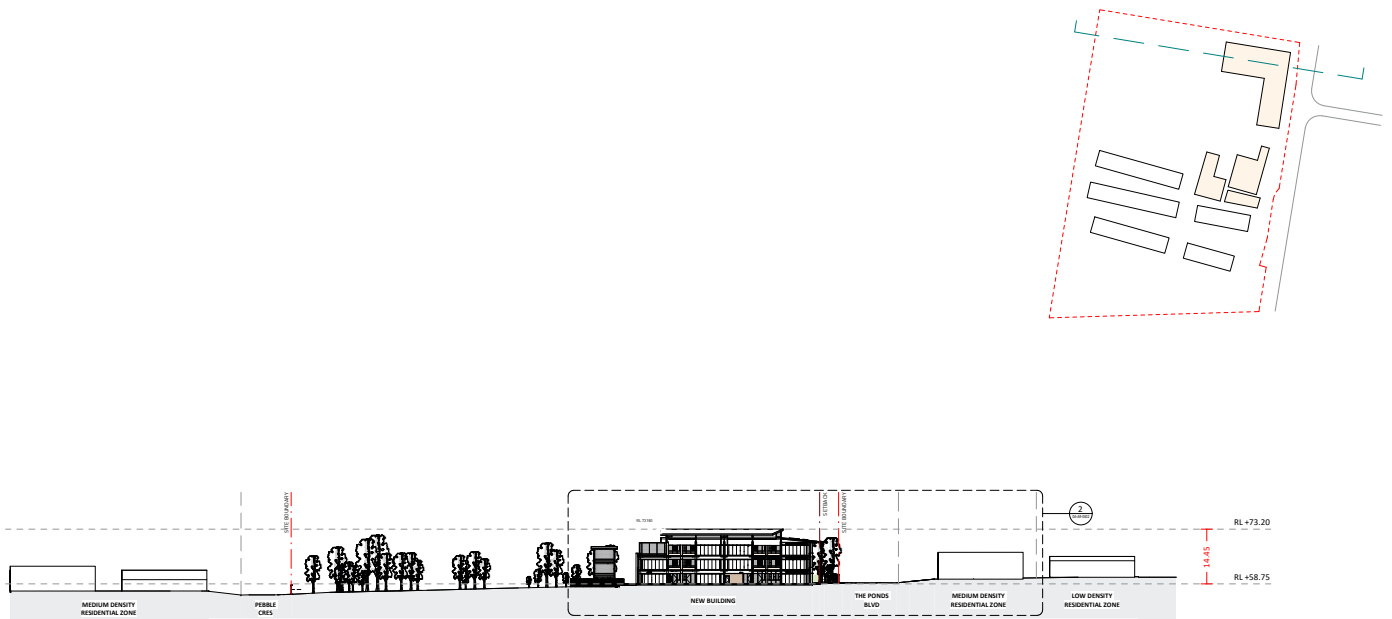


Figure 56. Site section across the Northern block of the new building

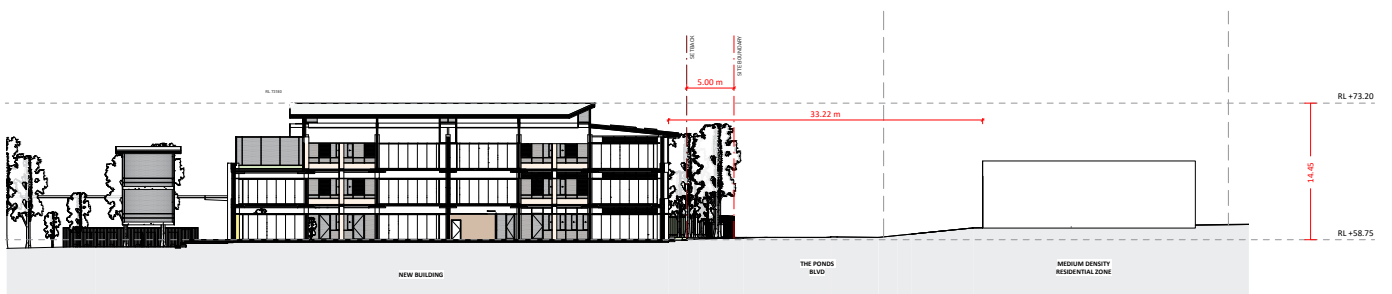


Figure 57. Section depicting the relationship between the new building and the adjoining residences



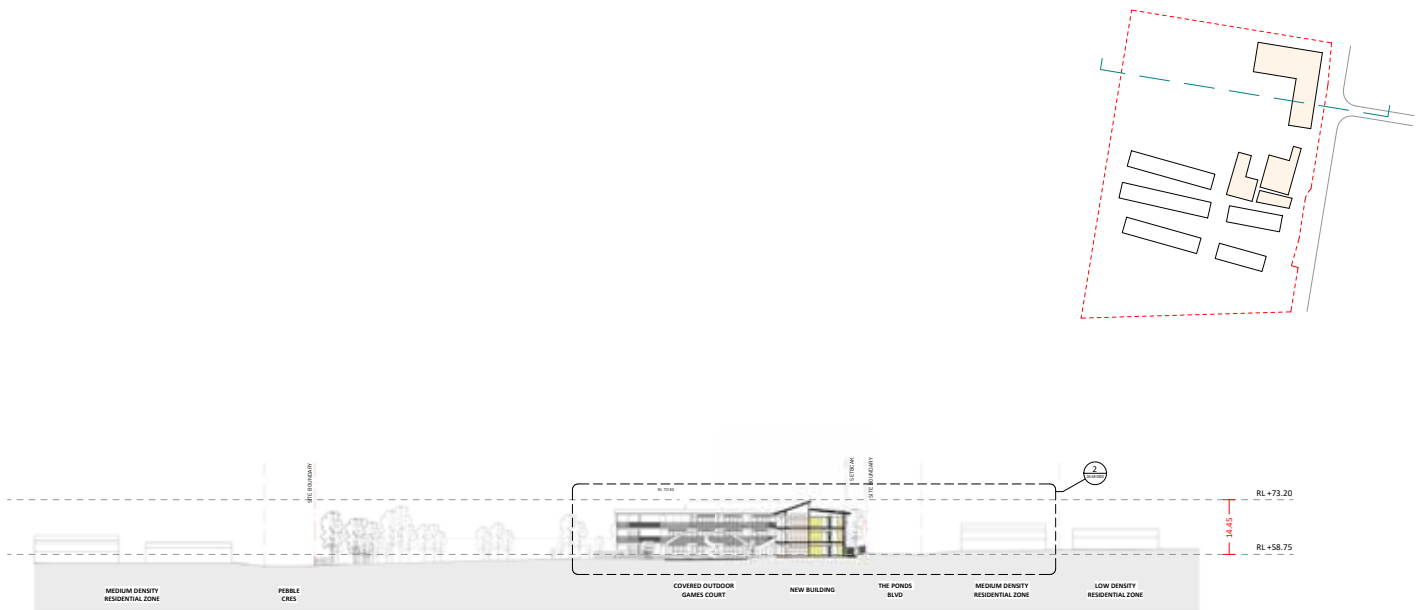


Figure 58. Site section across the Southern block of the new building



10 20 40m

Site Section

1:2000 @ A4

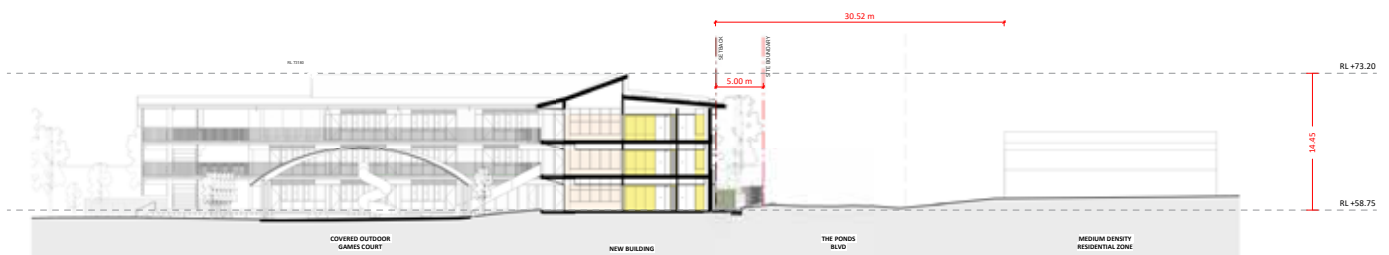


Figure 59. Section depicting the relationship between the new building and the adjoining residences



2 10 20m

Site Section

1:800 @ A4

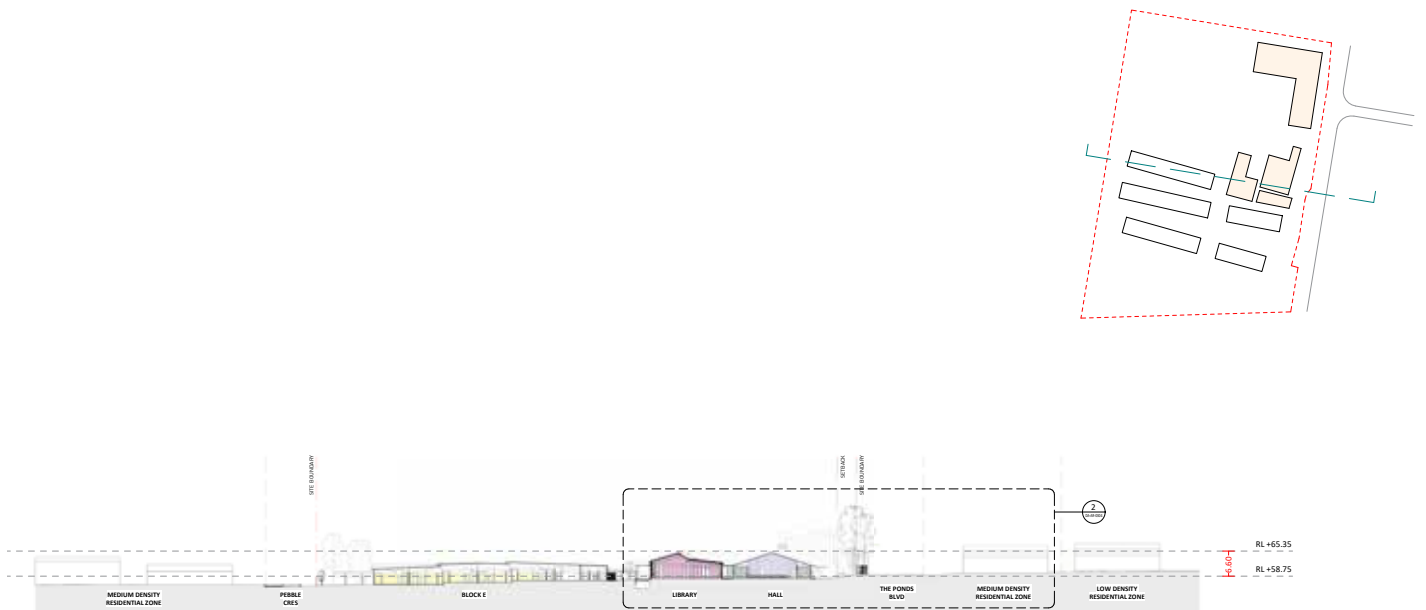


Figure 60. Site section across the Library and the Hall

Site Section
1:2000 @ A4

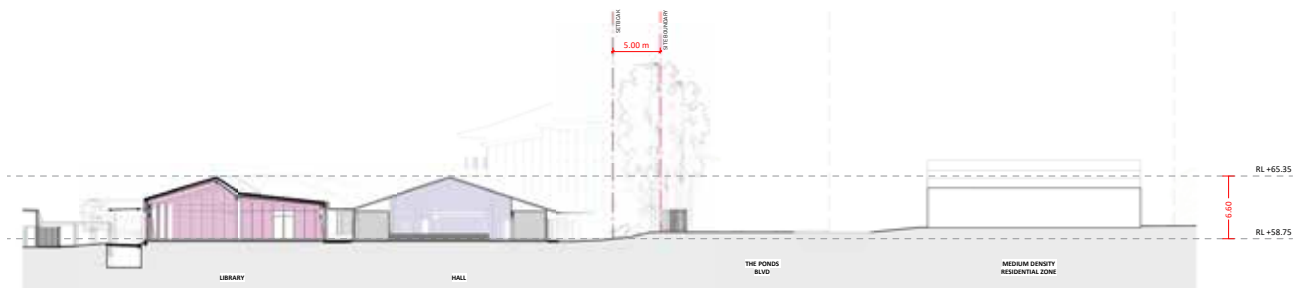


Figure 61. Section depicting the relationship between the Library, Hall and the adjoining residences

Site Section
1:800 @ A4

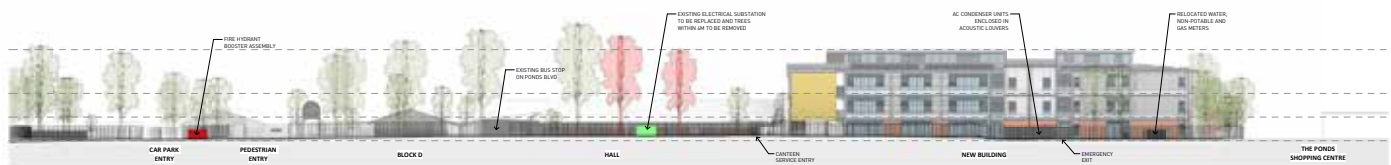


Figure 62. Elevation of the school from The Ponds Boulevard





1_VIEW LOOKING NORTH FROM THE PONDS BLVD



2_VIEW LOOKING SOUTH FROM THE PONDS BLVD

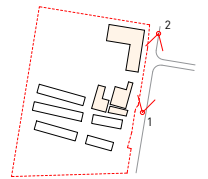


Figure 63. View along The Ponds Boulevard

Winter Solstice (21 June 2021)

Shadows at 9 AM

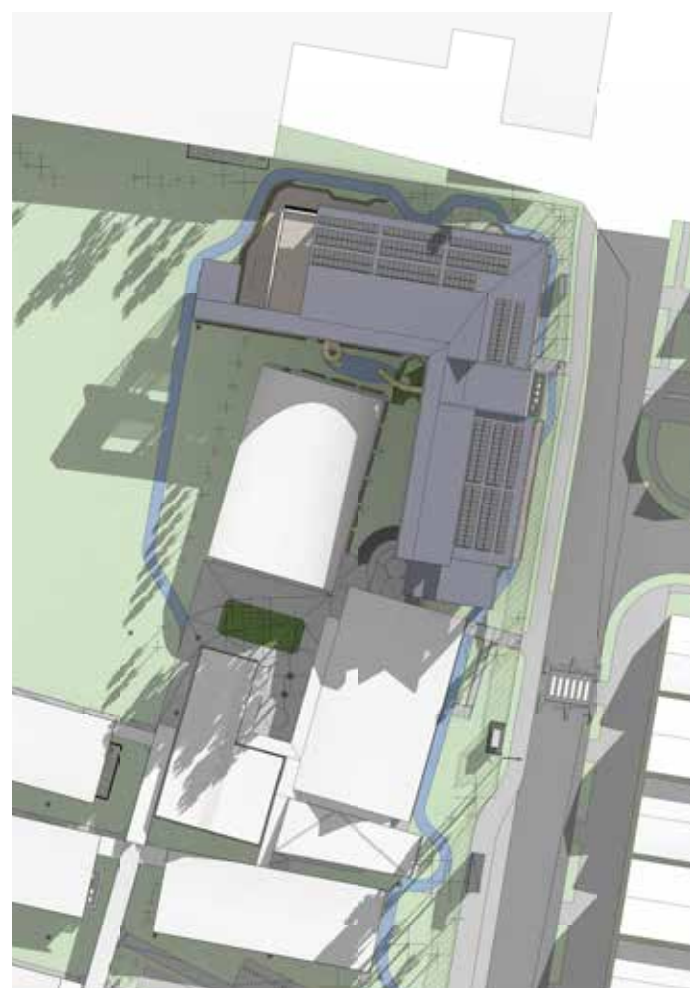


Figure 64. Site plan extract depicting the existing shadows at 9 am

Figure 65. Site plan extract depicting the shadows of the proposed development at 9 am

Shadows at 10 AM



Figure 66. Site plan extract depicting the existing shadows at 10 am

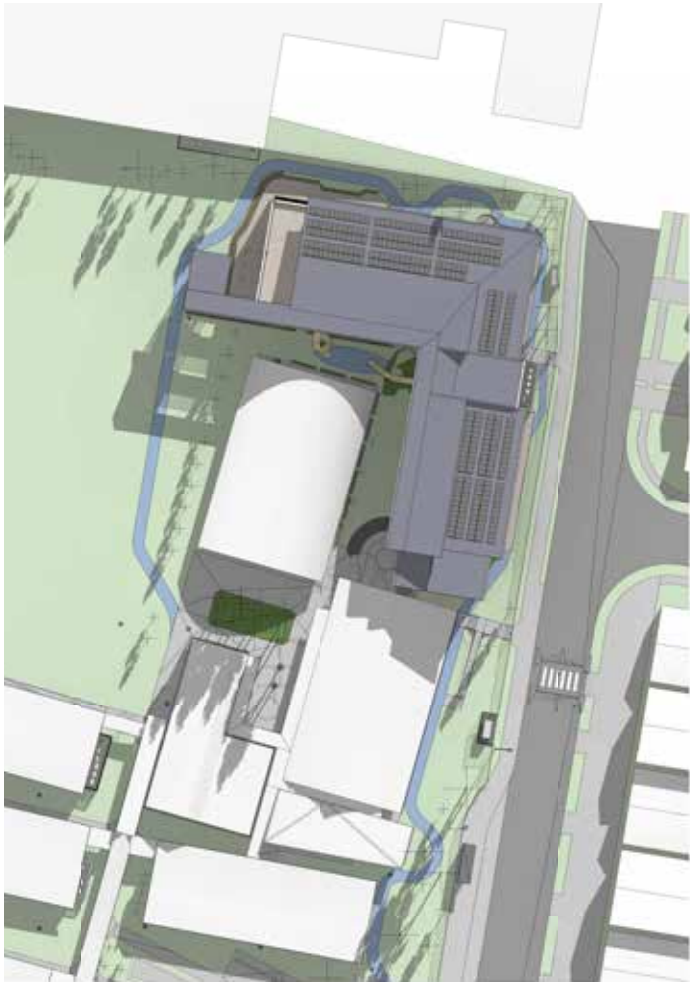


Figure 67. Site plan extract depicting the shadows of the proposed development at 10 am

Shadows at 11AM



Figure 68. Site plan extract depicting the existing shadows at 11 am

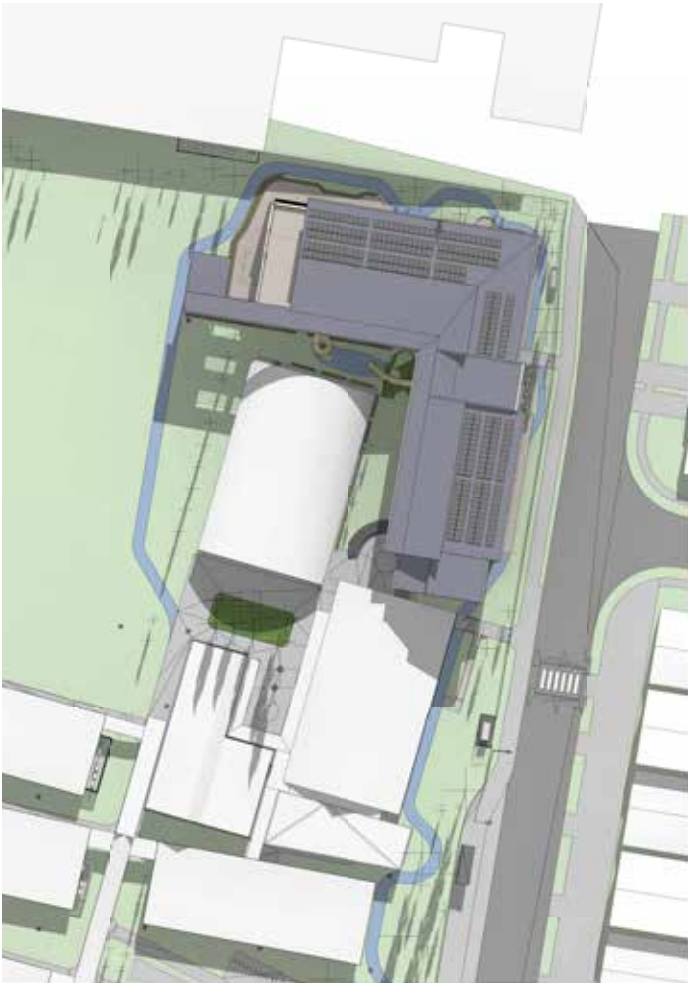


Figure 69. Site plan extract depicting the shadows of the proposed development at 11 am

Shadows at 12 Noon

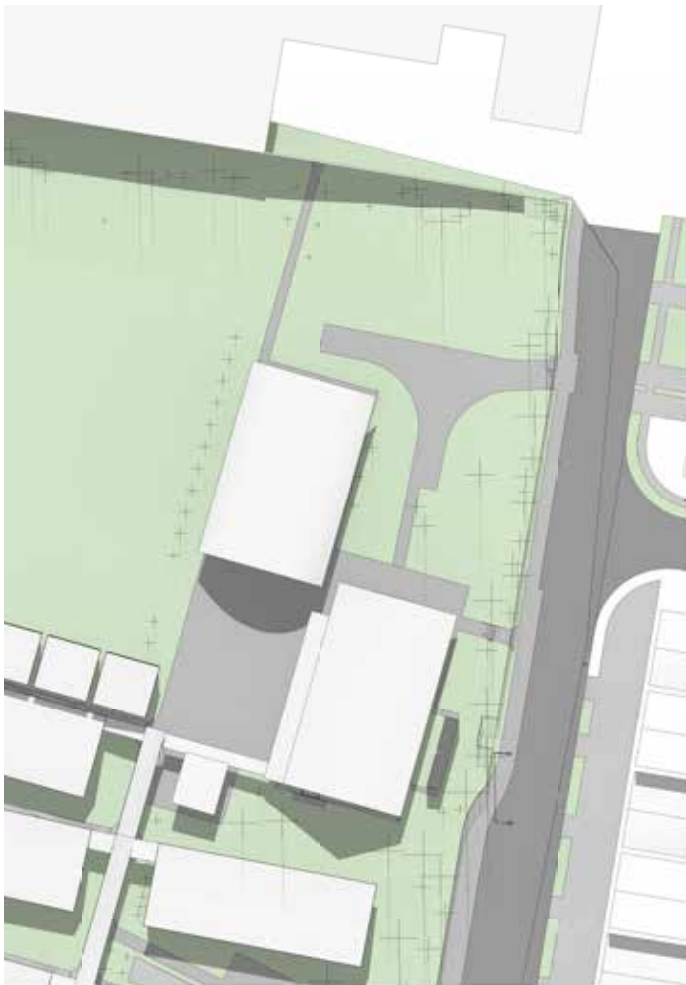


Figure 70. Site plan extract depicting the existing shadows at 12 pm

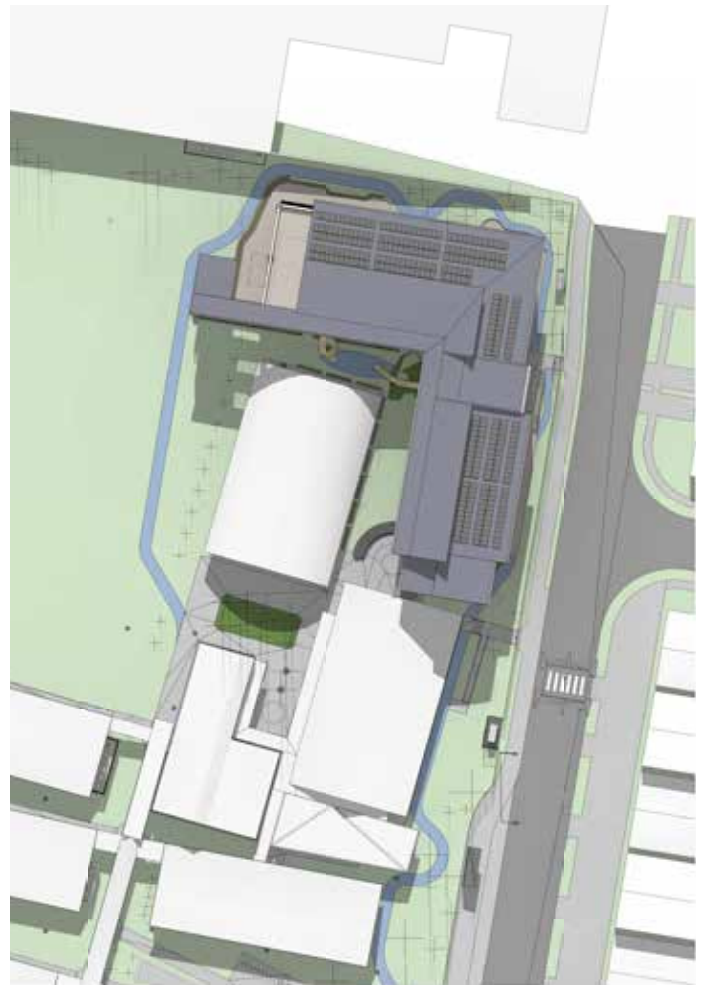
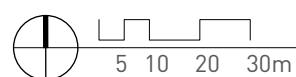


Figure 71. Site plan extract depicting the shadows of the proposed development at 12 pm



Shadow Diagrams

1:1500 @A4

Shadows at 1 PM



Figure 72. Site plan extract depicting the existing shadows at 1 pm

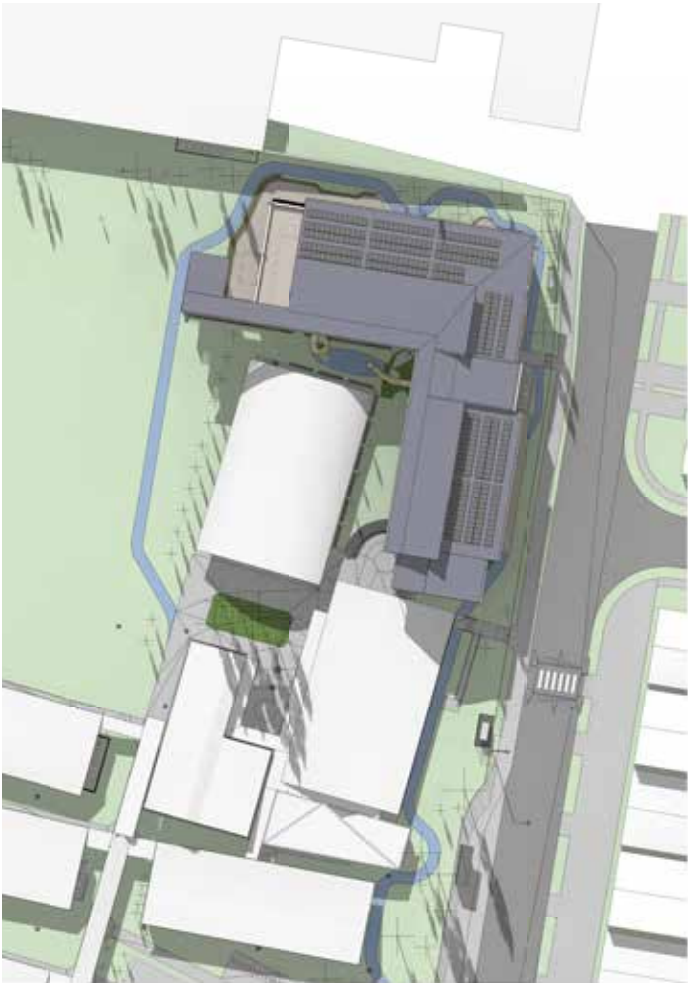


Figure 73. Site plan extract depicting the shadows of the proposed development at 1 pm

Shadows at 2 PM

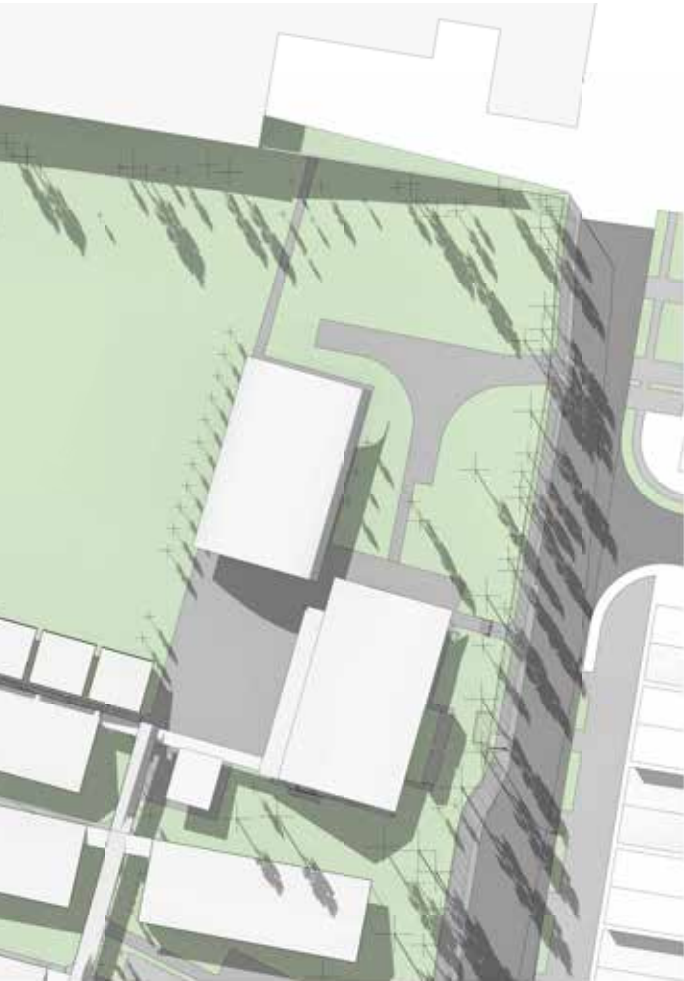


Figure 74. Site plan extract depicting the existing shadows at 2 pm

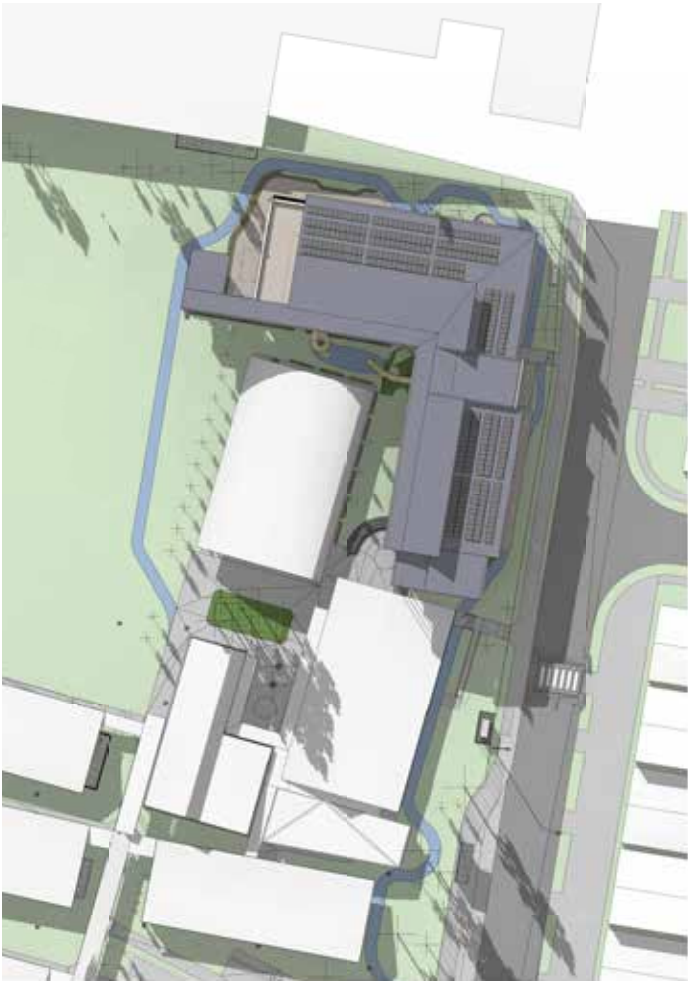


Figure 75. Site plan extract depicting the shadows of the proposed development at 2 pm

Shadows at 3 PM

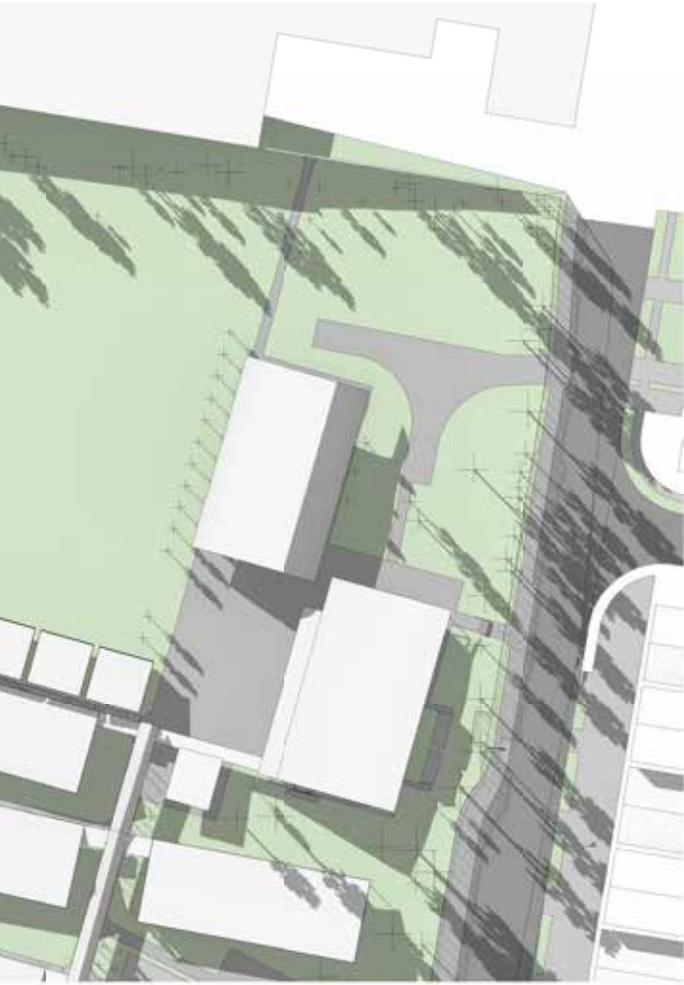


Figure 76. Site plan extract depicting the existing shadows at 3 pm

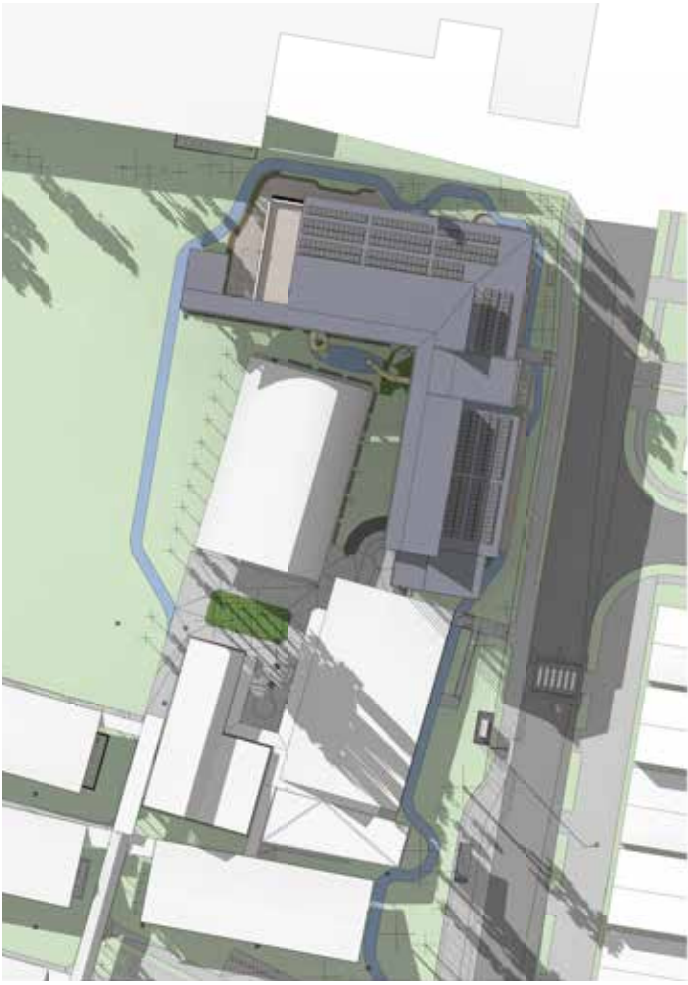


Figure 77. Site plan extract depicting the shadows of the proposed development at 3 pm