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John Palmer Public School

Environmental Impact Statement

Prepared for
NSW Department of Education

Date
13 October 2021

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Revision history

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A	8/10/2021	Draft for SINSW review
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Statement of veracity

Project details	
Project name	Upgrades to John Palmer Public School (JPPS)
Application number	SSD-23330227
Address	85 The Ponds Boulevard, The Ponds NSW 2769 (Lot 1 DP 1131340)
Applicant details	
Applicant name	NSW Department of Education
Applicant address	105 Phillip Street, Parramatta NSW 2150
Details of person by whom this EIS was prepared	
Name and professional qualifications	**Boris Santana** Senior Planner *Bachelor of Planning (Honours), University of New South Wales* **Jasmine Bautista** Student Planner
Address	Architectus Australia Pty Ltd Level 18 MLC Centre, 25 Martin Place Sydney NSW 2000
Declaration by registered planner	
Name	Jane Fielding
Organisation registered with	Planning Institute of Australia
Declaration	The undersigned declares that this EIS: – has been prepared in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000; – contains all available information relevant to the environmental assessment of the development, activity or infrastructure to which the EIS relates; – does not contain information that is false or misleading; – addresses the Planning Secretary's environmental assessment requirements 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	13 October 2021

Summary

Proposed development

The proposed development comprises upgrades to the existing John Palmer Public School (JPPS). The proposed upgrades include the formalisation of learning spaces in a new three (3) storey building that will replace twenty (20) existing demountable classrooms on site.

The proposed development will also provide eight (8) new learning spaces, an additional support learning unit, upgraded administration and staff facilities, a new purpose-built library, upgrades and additions to the existing School Hall building, and ancillary utility infrastructure and landscaping works.

Refer to **Section 3** for a detailed description of the proposed development.

Feasible alternatives

JPPS belongs to The Ponds Primary School Catchment Group which is projected to experience capacity shortfall of 479 students by 2036, underpinned by the strong population forecasted in the Central City District. Demand growth is significantly concentrated in the JPPS live-in catchment.

Numerous options were developed to address the service need at JPPS. Analyses of several planning options eventually led to the adoption of the current design, which accommodates the current School Infrastructure NSW (SINSW) planning grid and has several advantages, including improved landscaping and open space provision, and spatial alignment within the streetscape.

The site is suitable for the proposed use and would allow for the continued operation and expansion of an existing school that would provide for projected local population growth. The proposed alterations and additions provide additional teaching spaces, upgraded and enlarged core education facilities and improved street presence and access into the school.

For further detail, refer to **Section 2.6**.

Consultation

As required by the Secretary's Environmental Assessment Requirements (SEARs), the project team has undertaken extensive consultation with relevant state and local Government authorities, agencies and other stakeholders, as well as consultation with the local community. The issues discussed and matters raised during this consultation have been addressed as part of the proposal. An overview of these consultation processes and outcomes is included at **Section 5** of this Environmental Impact Statement (EIS) and the Consultation Report at **Appendix M**.

Planning Framework and Assessment

The proposed development is classified as SSD on the basis that it satisfies the requirements of clause 15(2) of Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP), being "Development that has a capital investment value of more than $20 million for the purpose of alterations or additions to an existing school.".

The proposed development has been assessed against the SEARs issued for the project at **Appendix A** and the applicable planning framework at **Appendix B**.

Statutory and Strategic Planning Context

The proposed development has been assessed against relevant strategic policies and planning controls and is found to be generally consistent with these, as detailed within **Section 2** and **4** of this EIS. Additionally, the proposal satisfies the SEARs as demonstrated in **Appendix A**.

Assessment Summary

There are no known site conditions which would prevent the development including geotechnical conditions, contamination, flooding, biodiversity, Aboriginal cultural heritage, or other. The site is well serviced by existing public transport connections and will also benefit from further enhancements planned within the locality, such as the raised pedestrian crossing and walkway to Jetty Street entrance.

A comprehensive assessment of impacts has determined that the proposed development will not result in any unacceptable environmental impacts during the operation of the proposed development, either to surrounding properties or the public domain.

The key issues identified by the Department of Planning, Industry and Environment (DPIE) include traffic and transport. The proposal results in the loss of 2 car parking spaces at the site, reducing the existing 37 spaces to 35 spaces. Community consultation undertaken as part of the Social Impact Assessment raised concern with the ability of the development to service increased staff demand for parking. This matter is considered in the EIS.

The EIS also considers the additional demand to upgrade existing facilities such as the student drop-off/pick-up areas, to support staff and students; although, analyses have shown that there is capacity on-street to accommodate this demand.

Notwithstanding, the EIS notes that new students and staff will only create additional demand for existing facilities if existing modal travel patterns remain the same. In the case of JPPS, there is potential for a greater uptake of active travel modes. A School Transport Plan (STP) has been prepared and develops strategies to encourage a greater uptake in cycling and walking modes, noting the relatively new cycling infrastructure in the locality.

New strategies include the provision of additional bicycle/scooter parking for students as well as new bicycle parking and end of trip facilities for staff. Improvements to pedestrian linkages (i.e., new raised crossing and entry to the school on Jetty Street) are proposed in combination with a dedicated Travel Coordinator role.

Given the above, with these interventions, it is considered that the proposal can achieve a modal shift to more active modes of travel for the current and future school population, thereby alleviating any additional demand for both student pick-up/drop-off and staff parking and improving the surrounding traffic and transport network.

During construction, there may be impacts to surrounds if the works are not properly managed to mitigate its impacts. In this regard, subject to the various mitigation measures recommended at **Appendix C**, it is considered that the proposal will not result in any unreasonable traffic, heritage, or noise impacts.

1. Introduction

1.1 Applicant's details

Details of the Applicant are provided below:

- Applicant: NSW Department of Education
- Applicant Address: 105 Phillip Street, Parramatta NSW 2150
- ABN: 40 300 173 822

1.2 The site

The site is John Palmer Public School, which is located at 85 The Ponds Boulevard, The Ponds NSW 2769. The site is legally described as Lot 1 in Deposited Plan 1131340. It is owned by the Minister of Education and Youth. The site has a total area of 29,900 sqm.

JPPS was established via a Public Private Partnership (PPP) in 2007. The school is part of a suite of schools delivered under the NSW Government's 'New Schools II' PPP program. Axiom Education No.2 Pty Ltd, a private consortium, financed, designed, and constructed the school. It provides ongoing cleaning, maintenance and security services.

Refer to **Section 2** for further detail relating to the site and its surrounding context.

1.3 Project objectives

The objectives for the proposed development include:

- Deliver new permanent, high quality, multipurpose and flexible spaces for students and staff to learn, connect, and collaborate. New teaching and learning spaces increase the student capacity at JPPS and eliminate the need for the existing demountables on site.
- Demonstrate the value of staff by delivering greater and enhanced administration and staff spaces and facilities that promote collaborative practices.
- Design outdoor spaces for learning and active and passive play.
- Maximise greenspace and shade through new landscaping and tree planting, to support students, particularly during summer/warmer months. Landscaping works will also increase the urban tree canopy cover on site, providing environmental benefits like mitigating heat island effect and absorbing carbon dioxide emissions.
- Provide a gathering space of sufficient size to accommodate the school community to join celebrations and ceremonies.

1.4 Description of the project

The proposed development comprises upgrades to the existing JPPS. The key element of the proposal is the formalisation of learning spaces in a new three (3) storey building that will replace twenty (20) existing demountable classrooms on site.

The proposed development will also provide eight (8) new learning spaces, an additional support learning unit, upgraded administration and staff facilities, a new purpose-built library, upgrades and additions to the existing School Hall building, and ancillary utility infrastructure and landscaping works.

The application seeks approval for the following development:

- Construction of a new three (3) storey building facing The Ponds Boulevard which will accommodate twenty-nine (29) Permanent Learning Spaces;
- Construction of a one (1) storey new library building;
- Relocation of the existing service access to staff car park off The Ponds Boulevard, including alterations to the existing car park to accommodate service vehicles;

- One-storey extension to and refurbishment of existing School Hall building. The School Hall extension will accommodate 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 one (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.

The proposed site plan at **Figure 1** and 3D view at **Figure 2** illustrate the scope and siting of the works outlined above**.** For further detail, refer to the Architectural Plans at **Appendix H** and the Architectural Design Statement at **Appendix I**.

Figure 1 Proposed Site Plan at RL 58.75
Source: PTW Architects

Figure 2 3D View - South west axonometric
Source: PTW Architects

The proposed upgrades to JPPS seek to improve the quality of educational outcomes for current students and cater for the future growth demands of the school precinct. The upgrade will increase capacity from 943 students to 1,012 students.

1.5 Relevant application history

Blacktown City Council has provided details regarding the relevant application history for the site. Refer to **Table 1**. There are no applications listed for the site on the Major Projects Planning Portal.

Table 1 Relevant application history

Relevant Application	Date Consent Granted	Description
DA-06-2607 Construction of Primary School	24 April 2007	JPPS was established via a PPP in 2007 following development consent issued by Blacktown Council on 24 April 2007 for the "Construction of a Primary School Accommodating a Maximum of 630 Students (K-6) and 30 Staff members, including associated staff classrooms, hall, canteen, library, administration block, outdoor assembly court, outdoor play area, car park and bus bay".
DA-13-2227 Installation of 6 Temporary Demountable Classrooms	24 February 2014	Following the establishment of the school, Blacktown City Council has issued another development consent on 24 February 2014 for the "Installation of 6 temporary demountable classrooms, concrete path and covered walkways to the demountables with steel structure framing and colorbond roofing and services connection", taking the total quantity of demountables on the site up to 19.

1.6 Project background

Although JPPS was originally built to cater for approximately 630 students (within 24 permanent learning spaces), rapid increases in demand over time have resulted in additional students being accommodated in 20 temporary learning spaces. The school currently operates at a capacity of approximately 943 students.

In its current form, approximately 55% of students are accommodated in demountables. Many of the core facilities also do not meet the Educational Facilities Standards and Guidelines (EFSG) requirements for the current student population. These deficiencies

create overcrowding issues at the school which serve to diminish the educational outcomes of existing students.

Moreover, The Ponds Primary School Catchment Group is projected to experience capacity shortfall of 479 students by 2036. Demand growth is significantly concentrated in the JPPS live-in catchment, which anticipates an excess demand of 435 students by 2036.

The proposed upgrade will replace the 20 demountables on site with future focused permanent learning spaces and expand teaching capacity with the addition of 8 new permanent learning spaces. Moreover, the development involves upgrades to core facilities to EFSG Core 35 standards.

This intervention will allow more students within the live-in catchment to travel to the school through more sustainable modes of transport, such as walking and cycling, while simultaneously encouraging a more active lifestyle. It also provides the facilities that will enhance teaching experiences at the school.

A long list of options were developed to address the service need at JPPS. Through a series of analyses, it is considered that the current development option that forms the basis of this SSDA best addresses the primary drivers of the service need within the funding envelope.

1.7 Related development

Consent is required under Section 138 of the Roads Act 1993 for the following works under the scope of this SSD application:

- A new raised zebra crossing near the school on Jetty Street and new walkway to Jetty Street school entrance
- The removal of a redundant driveway and reinstating the footpath due to the relocation of the existing service area to the car park.

1.8 Restrictions and covenants on the site

The subject site is subject to the following affectations ()

1. Easement for Padmount Substation 2.75 wide that burdens this lot and benefits Integral Energy Australia (this is shown as 1 on the Deposited Plan).
2. Restriction on the Use of Land that burdens this lot and benefits Integral Energy Australia (this is shown as 2 on the Deposited Plan). The restriction on use prohibits the erection of or retention of a building within the restriction site unless it is suitably fire rated.

   It should be noted that the proposed development does not result in the encroachment of any building into this area of restriction.

Refer to **Appendix G** for a copy of both the Deposited Plan and 88B Instrument for the subject site.

1.9 Project team

The Project team is set out below:

Table 2 Project Team

Discipline	Consultant
Applicant	NSW Department of Education
Quantity Surveyor	Rider Levett Bucknall (RLB)
Surveyor	C.M.S. Surveyors Pty Ltd
Architect	PTW Architects
Landscape Architect	McIntosh & Phelps
Urban Planner	Architectus Australia Pty Ltd
Aboriginal Cultural Heritage Consultant	Tocomwall Pty Ltd
Traffic Consultant	Taylor Thomson Whitting (TTW)

Contamination Consultant	Douglas Partners
Geotechnical Engineer	Douglas Partners
Arboricultural Consultant	Eco Logical Australia Pty Ltd
Civil Engineer	enstruct group
Biodiversity Consultant	Kleinfelder
ESD Consultant	AECOM Australia Pty Ltd
Accessibility Consultant	Philip Chun
BCA Consultant	Philip Chun
Structural Engineer	enstruct group
Acoustic Consultant	AECOM Australia Pty Ltd
Waste Management Consultant	EcCell Environmental Management
Building Services Infrastructure Engineer	AECOM Australia Pty Ltd
Construction Management Consultant	Jacobs Group (Australia)
Social Impact Consultant	Elton Consulting as part of WSP Group
Consultation Consultant	School Infrastructure NSW
Lighting Consultant	AECOM Australia Pty Ltd

1.10 Estimated capital investment value (CIV)

The proposed development has an estimated CIV greater than $20 million. A detailed cost estimate has been prepared by Rider Levett Bucknall and is provided at **Appendix F**.

2. Strategic Context

2.1 Justification for the project

The Central City district is projected to experience an increase of 32,350 in children aged four years and younger living by 2036, with 32 per cent of this population group living in the Blacktown Local Government Area (LGA).

Locally, The Ponds School Catchment Group (SCG) is experiencing school infrastructure pressures and this trend is forecast to continue due to significant levels of new housing in the North West Growth Centre (NWGC), and urban renewal occurring in the vicinity of Tallawong, Schofields, Riverstone, Quakers Hill and Vineyard stations.

There is forecast to be a combined shortfall of 479 student spaces across The Ponds Primary SCG by 2036. This shortfall is predominately concentrated in the John Palmer Public School live-in catchment (435 out of the 479 shortfall in student spaces).

The upgrade of JPPS to accommodate up to 1,012 students will help to address part of this shortfall in combination with planned interventions at other schools within The Ponds SCG.

Moreover, there are current deficiencies in the school facilities to support educational outcomes of existing students. The school was originally built to cater for approximately 630 students (with 24 permanent learning spaces). However, with rapid increases in demand over time, additional students are accommodated in temporary learning spaces.

In its current form, approximately 55% students are accommodated in demountables. Many of the core facilities also do not meet the EFSG requirements for the current student population. These deficiencies create overcrowding issues at the school which serve to diminish the educational outcomes of existing students.

In this regard, the project will address current capacity constraints and functional inadequacies at JPPS. It will also deliver education benefits to the JPPS student cohort, improve outcomes for the community and provide economic stimulus in an area that is experiencing significant population growth because of other developments, such as the NWGC.

2.2 Regional and local land use planning context

This Section provides an overview of the site's broader and immediate contexts.

State Context

The proposed development is aligned with many of the strategic directions of relevant state policies, as shown in **Table 3**.

Table 3 State Planning Policies

Strategic Planning policy	Response
NSW State Priorities	NSW State Priorities are fourteen (14) priorities unveiled by the NSW Premier, in a commitment to making a significant difference to enhance the quality of life for the people of NSW. Relevant State priorities are: – Bumping up education result for children; – Increasing the number of Aboriginal young people reaching their learning potential; – Greener public spaces; – Greening our city; – Government made easy; and – World class public service.

	The proposed development seeks to deliver upgrades to an existing public primary school to increase educational capacity in north western Sydney. Additionally, it will contribute to an increase in jobs and education, strengthening the local economy.
NSW State Infrastructure Strategy 2018-2038: Building Momentum	NSW State Infrastructure Strategy 2018-2038, released by Infrastructure NSW in February 2018, is a 20-year strategy that outlines the NSW Government's major long-term infrastructure plans across all key sectors – transport, energy, water, health, education, justice, social housing, culture, sport and tourism. The Strategy notes that enrolments in government and non-government schools are expected to increase by about 25 per cent over the next 20 years, with more than 80 per cent of the growth occurring in Sydney. The proposed development seeks to deliver upgrades to an existing public primary school with modern learning environments to increase educational capacity in the school catchment area.
Future Transport Strategy 2056	The Future Transport Strategy 2056 provides a framework for delivery of integrated and modern transport systems. The plan acknowledges the vital role transport plays in the land use, tourism, and economic development of towns and cities. The Future Transport Strategy 2056 addresses Transport's role in moving towards sustainability by achieving reductions in emissions. The proposed development supports more environmentally sustainable travel as it proposed new bicycle parking for staff and students, and end-of-trip facilities for staff. Additionally, the proposed development enhances active travel such as walking, shown through new pedestrian facilities including zebra crossings, a new pedestrian access point, and an accessible ramp.

Metropolitan Context

The Greater Sydney Region Plan – A Metropolis of Three Cities, was released by the Greater Sydney Commission in March 2018 and is the NSW Government's 40-year vision (to 2056) and establishes a 20-year plan of Greater Sydney. The Plan applies to the Greater Sydney Region and sets the planning framework for the five districts which make up the region.

The Central City District covers the Blacktown, Cumberland, Parramatta, and The Hills LGAs. The Central City District Plan was released by the Greater Sydney Commission in March 2018. It is a guide for implementing the Greater Sydney Region Plan, A Metropolis of Three Cities, at a district level and is a bridge between regional and local planning.

The Blacktown Local Strategic Planning Statement (LSPS) 2020 sets out a 20-year vision for the future of Blacktown City as it grows and changes. The LSPS sets out planning priorities that are consistent with the Central City District Plan. The site forms part of the Riverstone Precinct, which is one of the four precincts making up Blacktown LGA.

Table 4 demonstrates how the proposal successfully addresses the key planning directions and planning priorities outlined in each strategic policy document.

Table 4 Metropolitan Planning Policies

Greater Sydney Region Plan	Central Sydney District Plan	Blacktown Local Planning Priorities	Response
D1: A city supported by Infrastructure – Infrastructure supporting new developments	**C1** – Planning for a city supported by infrastructure	**LPP1**: Planning for a city supported by infrastructure	The proposed development will support The Ponds community with improved educational infrastructure.
D2: A collaborative city – Working together to grow a Greater Sydney	**C2 –** Working through collaboration	**LPP2:** Collaborating, partnering and engaging to implement the LSPS	Extensive collaboration has been undertaken by the project team, to produce good outcomes for the design and function of JPPS. Collaboration with government, agencies and the community have also assured that the proposed works undertaken will respond to the communities changing needs.
D3: A city for people – Celebrating diversity and putting people at the heart of planning	**C3 –** Providing services and social infrastructure to meet peoples changing needs	**LPP3**: Providing services and social infrastructure to meet people's changing needs	The NSW Department of Education has estimated an extra 89,360 students will need to be accommodated at schools in the Central City District by 2036, including an increase of 32,350 in children aged four years and younger. It is forecasted that approximately 32 per cent of this population group living in the Blacktown LGA. The JPPS upgrades will assist in meeting the growing education needs of the District.
	C4 – Fostering healthy, creative, culturally rich and socially connected communities	**LPP4:** Respecting heritage and fostering healthy, creative, culturally rich and socially connected communities	JPPS will deliver new learning spaces where students and teachers can learn together and from each other. As such, the proposed development will support healthy, creative, culturally rich and socially connected communities. In addition, new pedestrian, cycling and end-of-trip facilities are proposed, supporting people to become active and healthy.
D6: A well connected city – Developing a more accessible and walkable city	**C9 –** Delivering integrated land use and transport planning and a 30-minute city	**LPP7:** Delivering integrated land use and transport planning and a 30-minute city	The proposed development supports the 30-minute city concept through providing educational services and jobs to The Ponds community. The proposed increased student capacity will ensure that there is greater

Greater Sydney Region Plan	Central Sydney District Plan	Blacktown Local Planning Priorities	Response
			opportunity for students in The Ponds SCG to access primary school education close to home and within the Central River City.
D7: Jobs and skills for the city – Creating the conditions for a stronger economy	**C10 –** Growing and investing in health and education precincts	N/A	It is crucial that the proposed works are undertaken to enhance and upgrade educational facilities to provide quality education.
D8: A city in its landscape – Valuing green spaces and landscape	**C16 –** Increasing urban tree canopy cover and delivering Green Grid connections	**LPP14:** Increasing urban tree canopy cover and Green Grid connections	The proposal will increase the overall tree canopy coverage of the site from 8.7% to 26.8%.
	C17 – Delivering high quality open space	**LPP15:** Delivering high quality open space	The proposed development seeks to retain existing outdoor play space and enhance these spaces via landscaping interventions.

Built and Natural Environment Context

The proposed development has been assessed and found to be generally consistent with several state-wide planning policies and guidelines for better places, well designed schools, healthy communities, and greener spaces. **Table 5** demonstrates how the proposal successfully addresses these policies.

Table 5 Relevant state-wide planning policies and guidelines

Strategic Planning Policy	Response
Better Placed: An integrated design policy of the built environment of New South Wales	Better Placed is an integrated design policy for the built environment of NSW. It seeks to capture our collective aspiration and expectations for the places where we work, live and play. The proposed development aligns with the objectives for good design. The seven principles of Better Placed have shaped and guided the proposed development. Consultation with the Government Architect is further explained in **Section 4** of this EIS. Refer to the Architectural Design Statement at **Appendix G** for further detail of how the proposed development aligns with Better Placed.
Design Guide for Schools – GANSW	The GANSW Better Places: Design Guide for Schools provides guidance on how to meet the Education SEPP Design Quality Principles. The Design Guide identifies 7 principles from the SEPP to be considered during the design of the school. The proposed development aligns with these principles as discussed in the Architectural Design Statement at **Appendix G**.
Healthy Urban Development Checklist	The Healthy Urban Development Checklist prepared by NSW Health assess the built environment factors that impact on health. As NSW undergoes significant population growth over the next 20-30 years, it is imperative that the proposal is well

Strategic Planning Policy	Response
	designed to reduce health risks and improve health conditions, to support this growth. The proposal promotes the checklist's 11 themes through the design and function of the site. The Proposal supports the themes of the Checklist. The Proposal aims to improve the amenity and wellbeing of students and staff, through improved landscape (at **Appendices H** and **I**), architectural design statement (at **Appendices G**) and incorporated CPTED principles (at **Section 6.5**). In addition, new pedestrian, cycling and end-of-trip facilities are proposed to be provided on site, enhancing the health of students, staff and the environment.
Draft Greener Places Design Guide GANSW 2020	The Draft Greener Places policy provides information on how to design, plan and implement green infrastructure in urban areas throughout NSW. The play space provision will increase from 10,324 sqm to 10,775 sqm as a result of the proposed development. The tree canopy target for Greater Sydney in the Draft Greener Places Policy is 40% by 2056, with indicative place-based targets of 15% in the CBD, 25% in medium to high density areas and 20% in low density areas. The tree canopy on the site is currently 8.7% and would increase to 26.8% with the proposed works. The proposed tree canopy is considered to be consistent with the targets set in the Guide. Refer to discussion in **Section 6.5** of this EIS for further discussion.

Immediate Context

The site is located in the urban release area of The Ponds, which forms part of the Blacktown LGA.

It is located within the Riverstone Precinct *(Blacktown Council, LSPS)*. The Riverstone Precinct is bounded to the south by the M7 Motorway, to the west by Eastern Creek and to the east and north by boundaries with the Hawkesbury and The Hills LGAs.

New housing is being developed in new communities in the NWGA, and urban renewal at Tallawong, Schofields, Riverstone, Quakers Hill and Vineyard stations will accommodate a diversity of housing types.

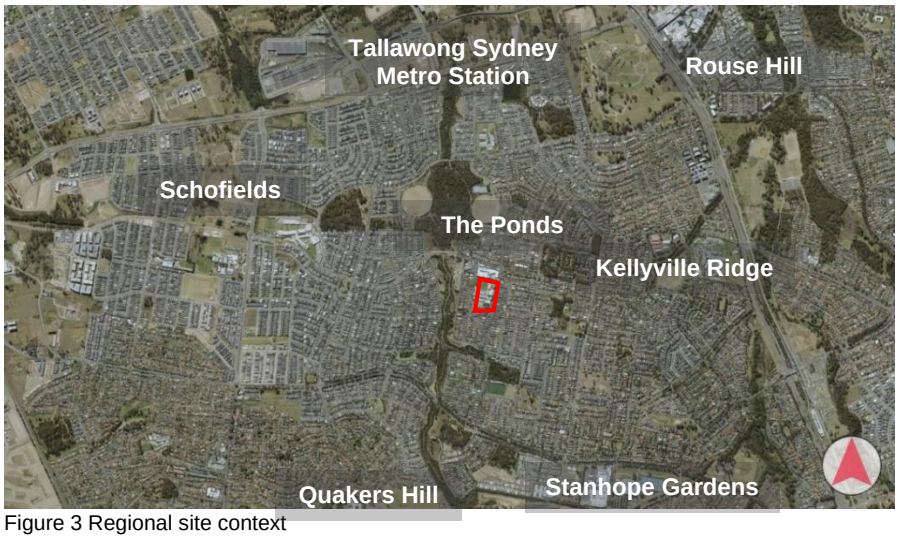

Figure 3 Regional site context
The site is outlined in red.
Source: Metro Map with Architectus edits

The site and its immediate surrounds are largely developed. To the north of the site is the Ponds Shopping Centre. Beyond this, are single and two-storey detached residential dwellings. To the north east is The Ponds Community Hub.

East of the site are single and two storey detached dwellings along The Ponds Boulevard. South of the site are 2 storey detached residential dwellings along Jetty Street.

West of the site are single and two storey detached residential dwellings along Pebble Crescent. Beyond this is the closest surface water receptor to the site, Second Ponds Creek (approximately 270m west), and open green space, namely Plaza Park.

Figure 4 Immediate site context
Source: PTW Architects (2021)

Figure 5 The Ponds Boulevarde, looking north from intersection with Jetty Street
Source: Architectus (2021)

Education Context

The school is part of The Ponds Primary SCG which encompasses the suburbs of The Ponds, Kellyville Ridge, Stanhope Gardens, Parklea and Glenwood. The SCG comprises the following four schools:

- JPPS;
- Riverbank Public School;
- Kellyville Ridge Public School; and
- Parklea Public School

There are also two private schools within the SCG – St Joseph's Primary School and John XXIII Catholic Primary School.

Furthermore, a new school ('Alex Avenue Schofield Public School') is currently under construction in the north-western end of the SCG, bordering the Schofields Primary SCG. This is located approximately 2.8km from JPPS.

Refer to **Figure 6** below for the extent of The Ponds SCG and the catchment for JPPS within the SCG.

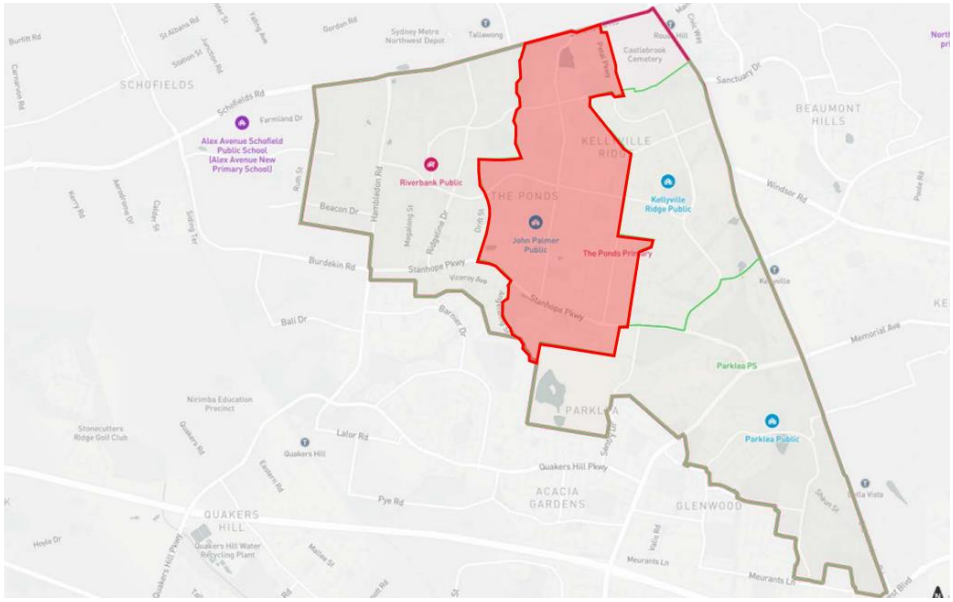

Figure 6 The Ponds SCG
JPPS school catchment is shown in red
Source: SINSW (2020)

2.3 Site and surrounding context

Existing development

JPPS is a co-educational public school and includes the following existing buildings and facilities:

- Six (6) existing buildings comprising:
    - Building A: single storey main administration and staff building;
    - Building B: single storey multi-purpose hall;
    - Building D: single storey main library building;
    - Building E, F and G: single storey buildings consisting of 16 general learning and special learning classrooms;
- Twenty (20) single-storey demountable buildings comprising general learning classrooms.
- At-grade carpark providing for 37 car parking spaces accessed from The Ponds Boulevard.
- 86 bicycle parking spaces and 60 spaces for scooter.
- Outdoor spaces comprising:
    - Covered Outdoor Learning Area (COLA) to the north-east of the site;
    - Large outdoor play space to the west of the COLA building;
    - Outdoor hard surface games courts directly south of the COLA building; and
    - Smaller outdoor play area to the south-west of the site.

Refer to **Figure 7** for aerial view showing existing elements of the school site **Figure 8** and to **Figure 13** for photographs of the site.

Figure 7 Existing JPPS site (site marked in red dashed line)
Source: PTW Architects (2021)

Figure 8 View of the interface between school site and The Ponds Shopping Centre (facing west from The Ponds Boulevard)
Source: Architectus (2021)

Figure 9 Vehicular access point to staff car park at The Ponds Boulevard
Source: Architectus (2021)

Figure 10 View of the COLA, outdoor hardstand play area and hall building (facing north)
Source: Architectus (2021)

Figure 11 View of typical bicycle and scooter parking racks and existing library building
Source: Architectus (2021)

Figure 12 View of service area and proposed location of the new building
Source: Architectus (2021)

Figure 13 View of the indented bus bay (facing south on The Ponds Boulevard)
Source: Architectus (2021)

Access

JPPS is currently serviced by two existing student access gates, including:

1. The main pedestrian access of JPPS is located at the eastern side of the site on the Ponds Boulevard; and
2. There is also a pedestrian access into JPPS through Pebble Crescent to the west of the site.

Primary vehicle access to the site is provided on the Ponds Boulevard near the intersection of Jetty Street.

A secondary vehicle access to the school is provided via The Ponds Boulevard providing service and emergency vehicle access to the school's loading and waste storage area.

Figure 14 Transport Access Points at JPPS
Source: TTW

The school currently operates with two kiss and ride zones along Pebble Crescent near the accessway, which allow parents to pick up and drop off their children in front of the school. The overall length of these zones is around 120 metres.

Topography

The site topography generally slopes down to the north-west at gradients estimated to be less than 3° with the maximum elevation at about RL 59.7 (m AHD) in the south-east corner and the minimum elevation at about RL 58.1 (m AHD) in the north-west corner.

The site grades north west and south west down from a crest which runs through the middle of the site, parallel to Jetty Street. The land is approximately RL 58.00m along The Ponds Boulevard and approximately RL 55.00m along Pebble Crescent.

Refer to the Detailed Site Survey at **Appendix D**.

Vegetation and ecology

Within JPPS there are 148 established trees located predominantly around the perimeter and at the south-eastern portion of the site. No trees are identified with high retention value. Refer to the Arboricultural Impact Assessment prepared by Eco Logical Australia Pty Ltd at **Appendix S**.

A Biodiversity Development Assessment Report (BDAR) was prepared by Keinfelder to assess the significance of vegetation at the site and is provided at **Appendix R**. The BDAR indicates that the site is comprised of 0.39ha of planted native/exotic vegetation, and 1.32ha of exotic grassland (managed). No threatened species or ecological communities were identified on site.

Refer to **Figure 15** for a map showing existing vegetation on site.

Figure 15 Vegetation mapping of the site
Source: Kleinfelder

Acid sulfate soils

The NSW Acid Sulfate Soils Manual 1998 published by the Acid Sulfate Soils Management Advisory Committee (ASSMAC) indicates that acid sulfate soils (ASS) (and potential acid sulfate soils – PASS) normally occur in alluvial or estuarine soils below RL 5 m AHD although occasionally are encountered up to RL 12 m AHD. Given that the site soils are at site elevations above RL 50 m AHD, it is considered unlikely that ASS is present on-site.

The DSI undertaken by Douglas Partners at **Appendix Q** states that it is unlikely any ASS is present on site. As such, it is therefore concluded that there are no adverse impacts to ASS.

Salinity

The Department of Infrastructure, Planning and Natural Resources (DIPNR) "Map of Salinity Potential in Western Sydney 2002" suggests that the site is in an area of "moderate salinity potential" with a higher potential in the lower elevations area in close proximity to the Second Ponds Creek system.

Flooding

The Section 10.7 (2) & (5) Planning Certificate issued for Lot 2 DP 1174641 (Ref. 2021301652) at **Appendix E,** dated 10 March 2021, identifies that the lot is not subject to flood development controls. Therefore, the proposal does not need to include design solutions to mitigate flood risk.

2.4 Transport context

The site has three existing street frontages, including Pebble Crescent to the west, Jetty Street to the south and The Ponds Boulevard to the east.

The Ponds Boulevard is a local street running north-south along the eastern boundary of the school, which provides the main access for people walking, cycling, or driving to the School. There is a single travel lane in each direction with various parking restrictions on both sides. The general speed limit along The Ponds Boulevard is 50 km/hr, however, is also located within a 40 km/hr School Zone.

Pebble Crescent and Jetty Street are local streets adjacent to the school. There is a single travel lane in each direction, with a speed limit of 50 km/hr with signage for 40 km/hr School Zone. Parking is available in the kerbside lanes on both sides of Pebble Crescent and Jetty Street. Riverbank Drive is a local road which connect JPPS to the surrounding road network.

Bus

JPPS is accessible by bus services, with a public bus stop provided at the school's primary frontage to The Ponds Boulevard and another provided opposite The Ponds Boulevard. This bus stop services public bus route 731. Refer to **Figure 16.**

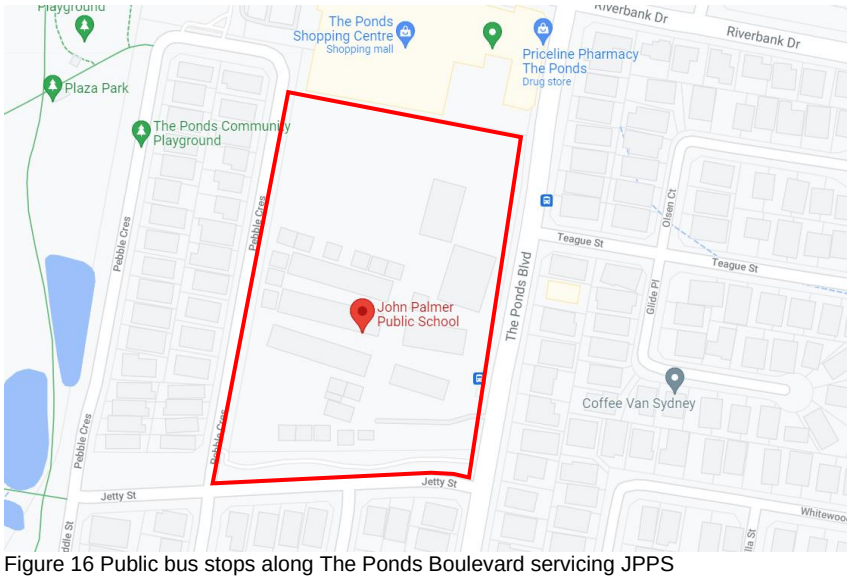

Figure 16 Public bus stops along The Ponds Boulevard servicing JPPS
The indicative site location is outlined in red.
Source: Google Maps with Architectus edits

Furthermore, two other bus services 734 and 752 service the existing school catchment boundary. Public bus route 734 stops at the public bus stop provided at the school's frontage to The Ponds Boulevard, meanwhile the closest bus stop for public bus route 752 is at Greenview Parade after Watercress Street.

All local routes are shown in **Figure 17** in the context of the school and the existing catchment boundary.

Figure 17 Local bus routes servicing JPPS
The site location is shown with a red star.
Source: Greater Western Sydney Bus Network Map (Transport for NSW) (2021)

Train

JPPS is located within 4.5 kilometres from Schofield and Quakers Hill Train Stations, which is an hour walk. Schofield and Quakers Hill Train Stations can be reached via bus route 734 and 752 respectively.

Sydney Metro Services

The closest Sydney Metro station is Tallawong Metro Station, which is located north of the subject site, within 2.4km. Rouse Hill Metro Station is located north-west of the site within 3km. Kellyville station is located to the east of the site within 3km.

Walking

The local area is well serviced by pedestrian facilities for people walking to the site. Local roads, including The Ponds Boulevard and Pebble Crescent are equipped with pedestrian zebra crossings. There are also pedestrian refuge islands on Jetty Street and The Ponds Boulevard.

All the local roads nearby JPPS provide concrete footpaths on both sides of the road. Furthermore, there is a pedestrian traffic signal at the intersection of The Ponds Boulevard and Riverbank Drive on the northeast side of the site.

Cycling

The site is well serviced by local cycling routes as shown in **Figure 18**.

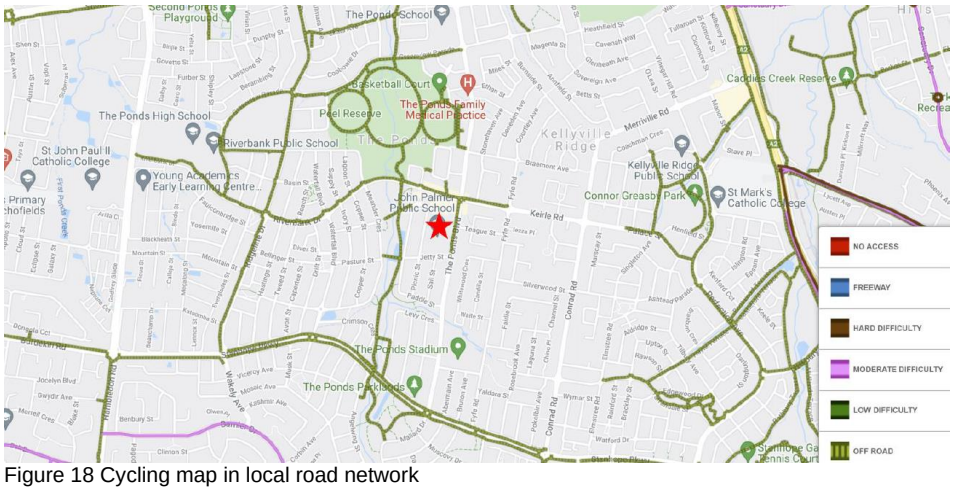

Figure 18 Cycling map in local road network
The site location is shown with a red star.
Source: Cycleway Finder

According the Blacktown Bike Plan, cycling paths will be improved by some proposed routes in the site precinct, which are mostly along The Ponds Boulevard.

2.5 First Nations Context

Traditional Owners and Custodians of the land and water in The Ponds and Kellyville Ridge are the Dharug people. The ACHAR (**Appendix L** in this EIS) determined it is likely the traditional lands of the Bediagal Clan. The catchment area is located on the Cumberland Plain which holds a rich archaeological record of past Aboriginal occupation.

Although the consultant (Tocomwall) has confirmed no Aboriginal objects, sites or places were located within the development footprint, Tocomwall has consulted with Registered Aboriginal Parties, Land Councils and Aboriginal Community Members during the development of the design to interpret Aboriginal cultural heritage significance into the development.

2.6 Agreements

The site is not subject of any voluntary planning agreements and negotiated agreements with any landowners.

2.7 Analysis of feasible alternatives

Interventions at other schools

Although excess demand can be catered for by other schools within The Ponds SCG, this will require planned interventions such as other schools forecasted to operate close to capacity, and modification to catchment boundaries.

However, it is noted that by shifting catchment boundaries, students may live in a catchment to a school that is not accessible. By matching supply locations (schools) more closely with projected demand, students can more easily travel to school through more sustainable modes of transport, such as walking and cycling.

In the case of JPPS, upgrades that seek to increase capacity will help to cater for student demand within the current catchment boundaries, reducing the extent for which planned interventions and shifting of catchment boundaries will be required by 2036 to cater for growth in The Ponds SCG.

Development options at the site

A Final Business Case has been prepared to consider and assess several options for investing and upgrading JPPS. Seven (7) options were developed to address the service need at JPPS; four (4) of these options (Options A, B, C and D) progressed to design and masterplanning for detailed consideration and costing. Refer to **Table 6**.

Table 6 Master plan options
Source: SINSW – Final Business Case for JPPS

Option	Scope	Analysis
Option A 	– Replace 20 demountables with 20 Permanent Learning Spaces – Upgrade core facilities to Core 35 – Retain 2 support learning spaces – Operate at 828 student capacity	Option A was not selected because it did not represent an increase in student capacity.

Option	Scope	Analysis
Option B 	– Upgrade core facilities to Core 35 – Add 10 new Permanent Learning Spaces – Add 2 special programs rooms – Add 3 support learning spaces – Operate at 1,058 student capacity	Option B was not selected because it departs from EFSG requirements, poses operational risk to students and staff at JPPS due to undersized core facilities i.e., the student population would be larger than the design of the core facilities. In addition, the capital costs to implement the works exceeded the capital funding allocation.
Option C 	– Replace all 20 demountables with 20 Permanent Learning Spaces – Upgrade core facilities to Core 35+ – Add 17 Permanent Learning Spaces – Add 3 special programs rooms – Add 3 support learning spaces – Operate at 1,219 student capacity	Option C was not selected because the capital costs to implement the works exceeds the funding allocation.
Option D 	– Remove all 20 demountables with 20 Permanent Learning Spaces – Upgrade core facilities to Core 35 – Add 8 Permanent Learning Spaces – Add 2 special programs rooms – Add 1 support learning spaces – Operate at 1,012 student capacity	Option D was selected because it provides for the most optimal learning and play environment for students at JPPS. Option D also aligns with the EFSG Core 35 standards, which reduce risks related to OH&S. It is noted that Option D best addressed the primary drivers of the service need at JPPS within the capital funding.

A mix of interventions were explored in the shortlisted options, including the replacement of demountables/temporary learning spaces, the addition of learning spaces to increase student capacity, upgrades to core facilities, catchment boundary changes, and the addition of support learning spaces.

Option D was selected as the preferred option and was recommended for funding. However, this option was soon revised to utilise the new SINSW planning grid. This led to a revised masterplan Option 6A (refer to **Figure 19**).

Figure 19 Masterplan Option 6A site plan
Source: PTW Architects

Consequently, to accommodate the SINSW planning grid, the new building has been relocated to the north east of the site. The primary reason for changing the new building's location to the north western boundary of the site was to respond to planning concerns and play space impacts at the south western boundary of the site. Furthermore, it was considered that Option 6A has the added advantages of:

- **Landscape and Open space** - It allows for open spaces for students of different age groups and more opportunities for dense and mature tree plantings, particularly the retention of the south-western corner playground which is currently heavily used by students.
- **Built form and Design** - Spatial alignment with the shopping centre which is of similar scale to the proposed three storey building.
- **Community Focused Learning** - New library located centrally in the school footprint. Its location adjacent to the new school hall provides for a community focused space that also infills existing hardstand area, further preserving open space area for children as well as reducing the size and scale of the new building.
- **Consolidated car and service areas -** Improvement to pedestrian walkways as parking and service areas are consolidated thereby reducing the number of driveways along The Ponds Boulevard.

2.8 Consequences of not carrying out the development

The consequence of not carrying out the development will be lack of educational infrastructure to support the existing and future community of The Ponds SCG. It will also force students to travel to schools which are further away and risks DoE not meeting its legislative requirements. It also fails to encourage an uptake in more sustainable modes of transport, such as walking and cycling, while simultaneously encouraging a more active lifestyle.

3. Project Description

3.1 Project overview

An overview of the main elements of the project is provided below.

Table 7 Numerical overview

Component	Existing	Proposed development
Site area	29,900m^2	29,900m^2
Permanent Learning Spaces	16	44
Temporary Learning Spaces	20	Nil
Support unit classes	Nil	1
Maximum building height	6.6m – existing hall	14.45m – new building 6.6m – new library
Maximum building height (RL)	65.39 – existing hall	RL 73.20m – new building RL 65.35m – new library
Gross floor area (GFA)	3,082.25m^2	3,698.53m^2
Car parking spaces	37 car spaces (including 1 non-compliant accessible space)	35 car spaces (including 2 accessible space)
Student bike parking	86	106 (+20)
Student scooter parking	60	70-80 (+10 to 20)
Staff bike parking	0	8 (+8)
End of trip facilities	Nil	1 unisex shower toilet 1 unisex access shower toilet 10 quarter lockers
Trees	148 trees	299 trees
Urban tree canopy cover	2,582m^2 (8.7% of the site)	7,986m^2 (26.8% of the site)
Play space	10,324m^2 (34.6% of site)	10,7750m^2 (36% of site)
Play space per student	10.9m^2 per student based on 943 students	10.6m^2 per student based on 1,012 students
Construction hours	N/A	Monday to Friday: 7am to 6pm Saturday: 8am to 1pm Sundays or Public Holidays: no work
Construction jobs	N/A	132
Staff	56	59 (+3)
Student capacity	943	1,012

For further detail, refer to the Architectural Plans at **Appendix H** and the Architectural Design Statement at **Appendix I**.

3.2 Project description

The application seeks approval for the following development:

- Construction of a new three (3) storey building facing The Ponds Boulevard which will accommodate twenty-nine (29) Permanent Learning Spaces;
- Construction of a one (1) storey new library building;
- Relocation of the existing service access to staff car park off The Ponds Boulevard, including alterations to the existing car park to accommodate service vehicles;
- One-storey extension to and refurbishment of existing School Hall building. The School Hall extension will accommodate 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 one (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.

3.3 Project area

The proposed development seeks to replace existing demountables on the site with a new 3 storey building within the north-eastern portion of the site, which is bordered to the north by the existing shopping centre, to the east by The Ponds Boulevard and the south by the existing COLA.

The new build will encroach into the location of the existing service area. Accordingly, this area will be relocated to the existing staff car park in the south-eastern corner of the site, which will be newly linemarked to ensure that the existing non-compliant carparking will become complaint with current Australian Standards. Relocating the waste area will also reduce the number of vehicles entering the site.

The development also comprises upgrades around the existing hall to create a community learning focus. The existing hall will be extended southwards to provide for a new single storey addition, with the new one-storey library constructed directly west of the hall building within an area of hardstand.

All other works are internal refurbishments except for minor additions to Building A to accommodate end of trip facilities. As with all other external building works, these works will require alterations to existing underground utilities and tree removal.

Following the removal of demountable buildings at the completion of these works, the development will increase the space allocated to existing play areas to the north-west and south-west portion of the site, providing for large, consolidated play areas for students.

Refer to the proposed land and play space diagram at Figure 20. For further detail, refer to the Architectural Design Statement at **Appendix I**.

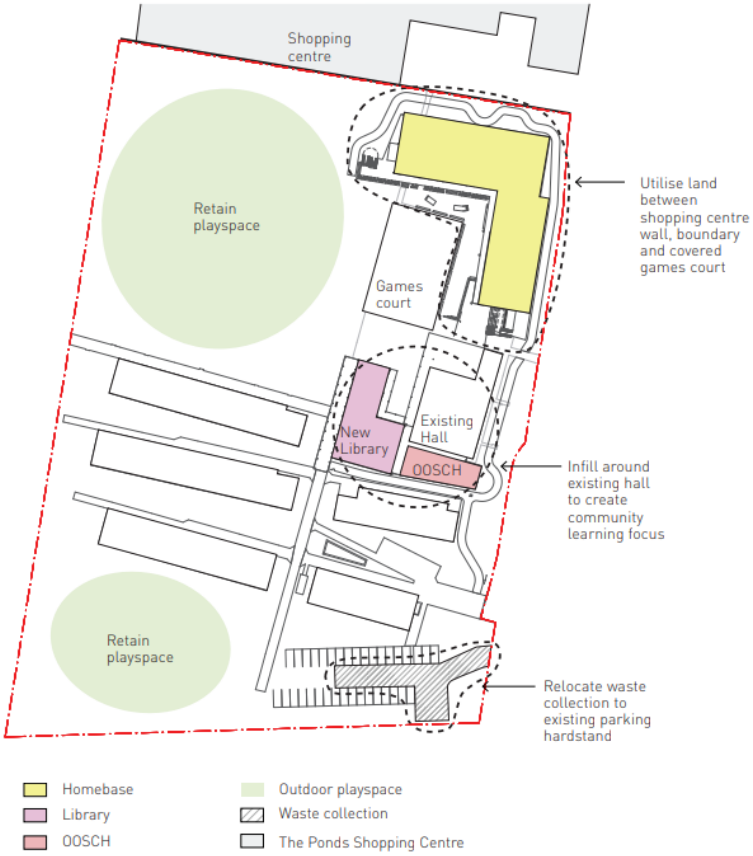

Figure 20 Land and Play space diagram
Source: PTW Architects

Regard has also been given to the design of interstitial spaces. Refer to the relevant diagram at **Figure 21** for site plan.

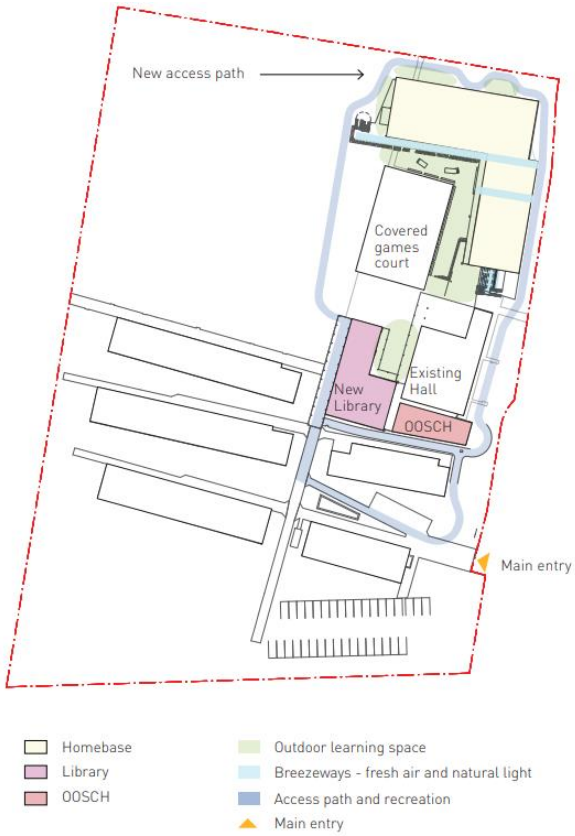

Figure 21 Connections and outdoor learning spaces
Source: PTW Architects

New and diverse outdoor learning spaces will be provided around the new development. A walkway around the perimeter of the new building, hall and library will connect to existing covered walkways, providing unified pedestrian links within the school.

3.4 Physical layout and design

The detailed design can be separated into three main components, being the new homebase building, the community learning area, and refurbished facilities. These components are discussed in further detail below.

<u>New homebase building</u>

- Construction of a new three (3) storey building located in the north western corner of the site, oriented to The Ponds Boulevard which will accommodate twenty-nine (29) Permanent Learning Spaces and new staff facilities. This development will replace all existing demountable classrooms and provide an additional 8 learning spaces.

Figure 22 Ground Floor Plan of the New Homebase Building
Source: PTW Architects (2021)

The built form of the new building is L-shaped perimeter block, which presents a strong urban street wall to The Ponds Boulevard (east of the site). The new building surrounds the existing games court to create a series of spaces that can be used for outdoor learning and informal student and staff interactions.

Refer to **Figure 23** below for a view from the new Homebase building, showing steppingstone bleachers and slides from the first floor.

Figure 23 3D Rendered image of COLA underneath new Homebase building facing south-west
Source: PTW Architects (2021)

- The building is carefully designed to ameliorate any noise from the existing games courts on site. This is reflected in the design of the balconies on the upper floors as they face away from the street. Refer to **Figure 24** for 3D render.

Figure 24 3D Rendered image of new Homebase building facing north-east from the COLA
Source: PTW Architects (2021)

- The maximum building height for the proposed development is RL 73.20m (approximately 14.45m). The height of the eaves is RL 70.05 (approximately 11.3m). Refer to **Figure 25** showing the relationship between the new building and residences opposite the Ponds Boulevard. The roof form of the new building is a simple pitched roof that helps with natural lighting and ventilation on the top floor.

Figure 25 Section depicting the relationship between the new building and residences opposite The Ponds Boulevard
Source: PTW Architects (2021)

- The building has been setback approximately 8 metres from the northern property boundary and approximately 5 metres from The Ponds Boulevard to retain existing trees within these areas which are an established element in the landscape and provide screening.
- Due to requirements of utility providers, some services will be located adjacent to the new building within setback to The Ponds Boulevard, including water and gas meters and a new air conditioner (AC) condenser plant enclosure. It is noted that some utility services infrastructure are also located on the western side of the building and at the northern boundary of the site. Refer to **Figure 26**.

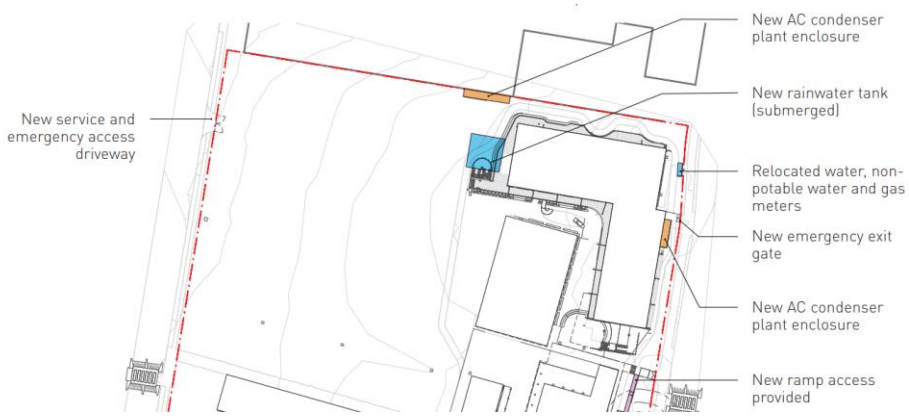

Figure 26 Service plan showing new services around the Homebase building
Source: PTW Architects (2021)

Community learning

- The development consists of a one storey extension to and refurbishment of the existing hall. These works will enable the relocation of certain activities to the extension, including Outside of School Hours Care (OSHC) facilities, thereby increasing the useable space within the hall. Adjacent to the hall, a new one storey library will be built within an existing hardstand area at the site. Refer to **Figure 27** for site plan.

Figure 27 Site Plan for Hall and Library works
Source: PTW Architects (2021)

- These spaces are designed so that the library and refurbished hall open to one another, creating connected breakout spaces for student and staff interactions. Refer to **Figure 28** below for view between the library and hall facing north towards the COLA and new 3 storey building beyond.

  It is noted that 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.

Figure 28 Site Plan for Hall and Library works
Source: PTW Architects (2021)

- The new one (1) storey library and the proposed extension to and refurbishment of existing school hall have a maximum building height of RL 65.35m (approximately 6.6m). Due to the site's sloping topography, the library and school hall are lower in height than the adjacent dwellings within the low-density residential zone. **Figure 29** illustrates the relationship between these elements.

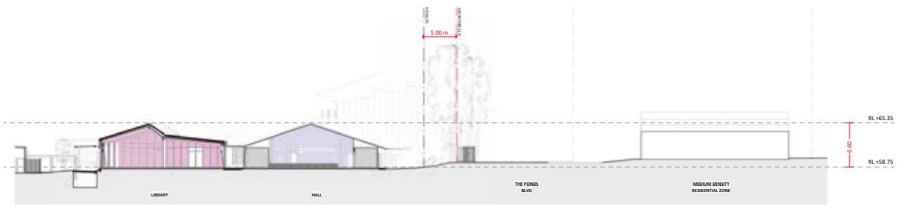

Figure 29 Section depicting the relationship between the new library and hall extension with residences opposite The Ponds Boulevard
Source: PTW Architects (2021)

Repurposed facilities

- Building Block D will be re-purposed from an existing library to special program spaces and administration. No additions are proposed to this existing building. It is noted that the special program spaces are required to be in close proximity to the library; hence, their position on site. Additionally, the new special program spaces will address the current inadequate supply of such spaces at JPPS. Refer to **Figure 30** for site plan of the works.

Figure 30 Site Plan for Building D works
Source: PTW Architects (2021)

- Building F will be partially refurbished to provide one (1) new support unit adjacent to existing early intervention with two learning spaces currently on-site within Building F. Refer to **Figure 31** for site plan of the works.

Figure 31 Site Plan for Building F works
Source: PTW Architects (2021)

- Alterations and additions are proposed to Building A to provide new end of trip facilities including showers and lockers for staff at the school. Furthermore, the existing shipping container used for storage will be removed and purpose-built fire hydrant plant room will be constructed in this location. Refer to **Figure 32** for site plan of the works.

Figure 32 Site Plan for Building A works
Source: PTW Architects (2021)

3.5 External materials and finishes

The external materials shown at **Figure 33** have been selected to create a play of light and shadow across the building façade, as well as for robustness and conformance with EFSG requirements.

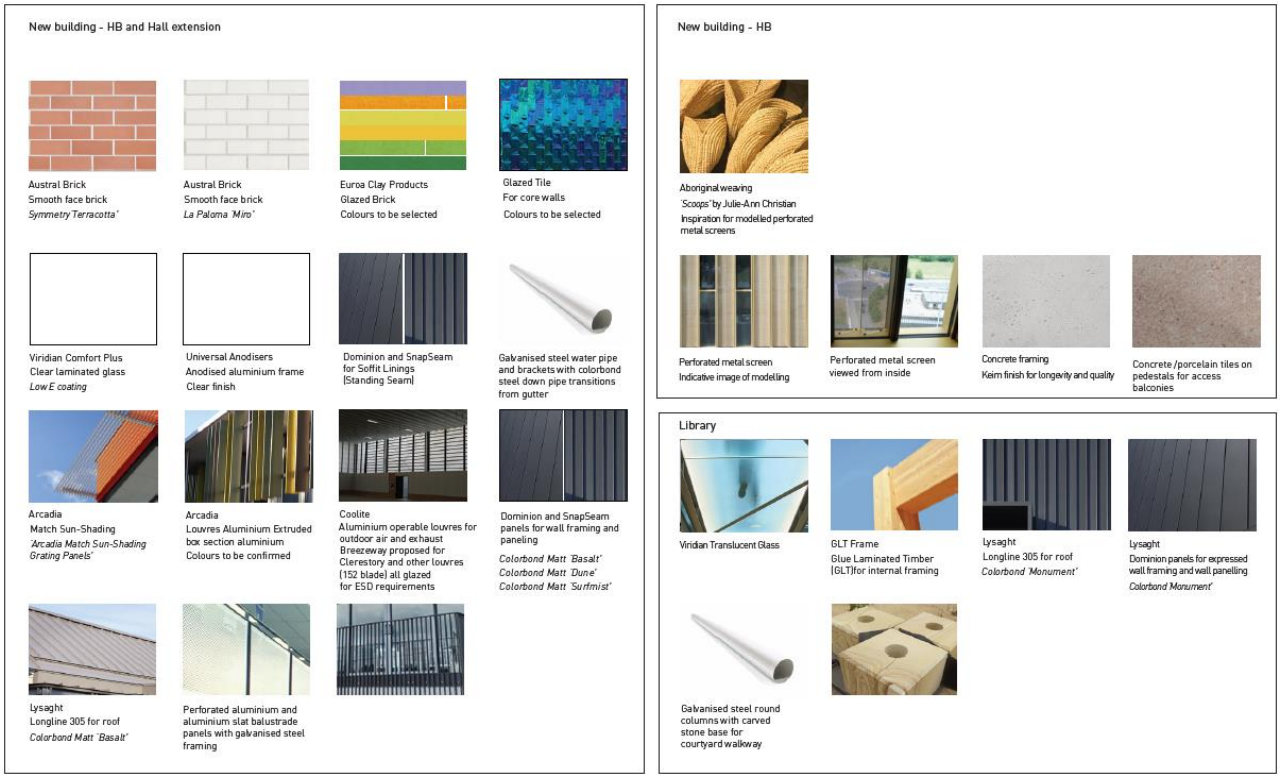

Figure 33 External materials board for the proposed development
Source: PTW Architects

External materials and finishes as it relates to the new building and community learning buildings is discussed below:

<u>New homebase building</u>

- Terracotta coloured brick was selected because it reflects the colour and texture of existing brickwork at JPPS. The lowest storey of the new building uses the terracotta coloured brick as it reflects the existing one-storey buildings at the school, a white/cream brick is proposed for the upper levels reflecting the rendered

and painted façades of much of the surrounding development. Refer to elevations at **Figure 34**.

Figure 34 Elevation of the New building from The Pond Boulevard
Source: PTW Architects (2021)

- Perforated aluminium is proposed to be used to screen the external stairs. In consultation with the Aboriginal Heritage Consultant, the modelling of the perforated metal screens is predicated on traditions of weaving of the Darug people. The pattern and colour are to be further developed in consultation with the relevant stakeholders to strengthen a connection with the Darug people.

  Refer to for 3D render of the proposed perforated aluminium concept at **Figure 35**.

Figure 35 3D Render of the external stairs at the south-eastern end of the new building looking north-east from The Ponds Boulevard
Source: PTW Architects (2021)

Furthermore, it is proposed that bas-relief motifs be incorporated in the blades columns of the south-eastern stair which are visually prominent along The Ponds Boulevard.

<u>Community learning buildings</u>

- 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, translucent glazed panels line the outside face of the main learning space of the library. Refer to the northern elevation of the library and hall building at **Figure 36**.

Figure 36 Northern elevation of library and hall
Source: PTW Architects (2021)

3.6 Tree planting, landscaping and open space

Trees

As identified in the Arboricultural Impact Assessment Report prepared by Eco Logical Australia at **Appendix S**, the total Canopy Cover of the site is estimated at 8.7% of the site (2,582 sqm). A total of thirty-six (36) trees are proposed to be removed as part of the proposed development. Refer to **Figure 37** for the location of the proposed tree removal.

Table 8 Trees and tree canopy

	Trees	Tree canopy (sqm)	Tree canopy (%)
Total existing trees	148	2,582 sqm	8.7%
Existing low retention value trees	85	752 sqm	3%
Existing medium retention value trees	73	2,030s sqm	7%
Existing high retention value trees	0	0	0
Total trees retained	104	2,108 sqm	7%
Total trees removed	36	422 sqm	2%
Proposed tree planting	195	5,404 sqm	18.1%
Total trees after proposed development	299	7,986 sqm	26.8%

Figure 37 Arboricultural Impact Assessment
Source: Eco Logical

Landscaping

The proposed tree canopy cover as part of landscaping works is 26.8% (7,986 sqm). The tree planting is mainly proposed along the property boundaries of the site, around buildings, and surrounding active play areas to provide shading, visual privacy to adjacent properties, and overall visual amenity.

Refer to an extract of the landscape plan at **Figure 38**.

Figure 38 Landscape Plan of the proposed development illustrated supplementary proposed planting
Source: PTW Architects

Of note, a native landscape drainage swale is proposed along the Pebble Crescent Boundary. This area is located at the lower levels of the school site and is proposed to consist of buffer tree planting with dense native groundcover planting to capture, slow and filter stormwater run-off from site.

The species selected include species endemic to the Cumberland Plain Woodland in order to further strengthen the ecological ties with the existing natural environment.

Indigenous edible plant species have been incorporated into the palette to enhance connection with country.

Tree species of new plantings can be found within the Landscape Plans and a Landscape Design Statement which have been prepared by McIntosh & Phelps at **Appendix J** and **Appendix K**, respectively.

Open Space/ Play space

The proposed development seeks to increase the existing play space at JPPS from 10,324m^2 (34.6% of the site area) to 10,775m^2 (36% of the site area) play area. This would allow for 10.6m^2 per student based on 1012 students (currently 10.9m^2 per student at a capacity of 943 students), delivered across a series of open spaces within the site.

Play areas within the north-western and south-western corner site, with additional tree plantings. However, the landscape design also proposes several improvements by providing interstitial spaces on site. Refer to the location and distribution of these spaces within the extract of the landscape plan at **Figure 40**.

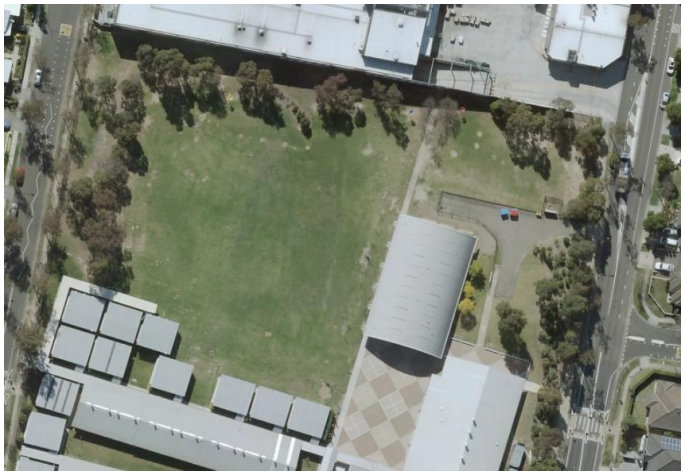

Figure 39 Existing landscaping at JPPS
This aerial image shows that the proposed development clearly seeks to introduce additional trees at the existing oval, around existing and proposed buildings, and to the west, north and east perimeter of the site.
Source: Metromap (2021)

Figure 40 Landscape Plan showing improvements to play spaces
Source: PTW Architects

The proposed development includes a series of improvements to make areas more functional as play space, create a variety of inviting and positive play experiences, and improve the aesthetic quality and connection to country at the school, as follows:

- Provide outdoor learning zones directly connected to the new homebase building to allow flexible learning for whole of class and smaller groups.
- External active play zone is to be provided between the existing COLA and new homebase building. A new ground surface will be provided to connect to the stepped retaining elements.
- New ground surface treatment of the COLA building and between the library and the hall to reflect local stories in the form of colour and graphics.
- Access walkway loop around the perimeter of the new buildings providing connections with existing school and areas of open space.
- Art wall to be provided along the shopping centre wall located along the northern property boundary of the school site to reflect local stories in the form of colour and graphics.

Landscape Plans and a Landscape Design Statement have been prepared by McIntosh & Phelps at **Appendix J** and **Appendix K**, respectively.

3.7 Transport, parking, and access

The proposed development seeks to deliver the following transport strategy:

- New pedestrian entry to Jetty Street.
- New raised zebra crossing on Jetty Street and walkway to new Jetty Street entrance (s138 consent required under the Roads Act 1993 – refer **Figure 41** below).
- New accessible ramp to the existing northern access at The Ponds Boulevard.

The existing pedestrian refuge further to the west is proposed to be retained. Refer to **Figure 41** for pedestrian works.

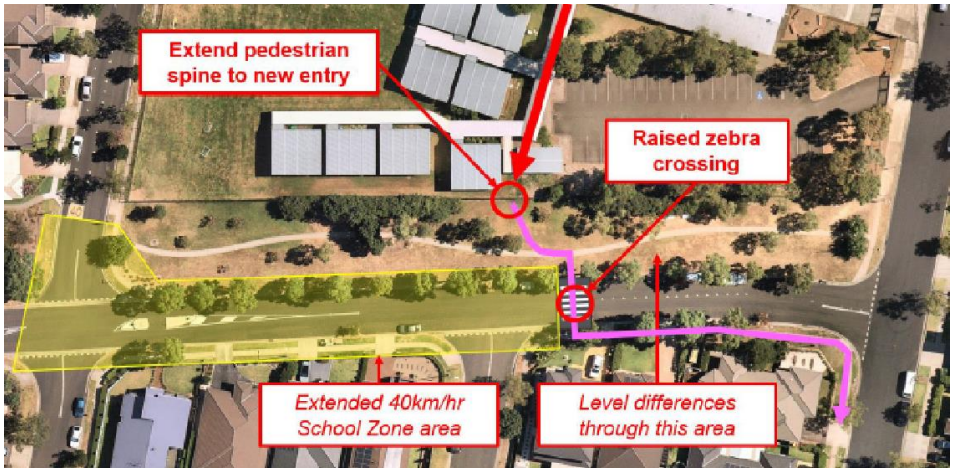

Figure 41 Proposed pedestrian works
Note, the new raised zebra crossing is subject to detailed design and requires consent under Section 138 of the Roads Act 1993.
Source: TTW

Cyclists

New bicycle and scooter storage for students will be provided at the new entrance on Jetty Street and adjacent to Building A; as follows:

- 10 x bike rails for 20 x bikes (up from 86 existing), near the new entry.
- Rack for 10-20 scooters (up from 60 existing), near the new entry.
- New bicycle storage and end-of-trip facilities for staff comprising of a unisex shower toilet, unisex access shower toilet, and 10 quarter lockers.

- 4 x bike rails for 8 x bikes for staff, to be located near the staff area and end-of-trip facilities.

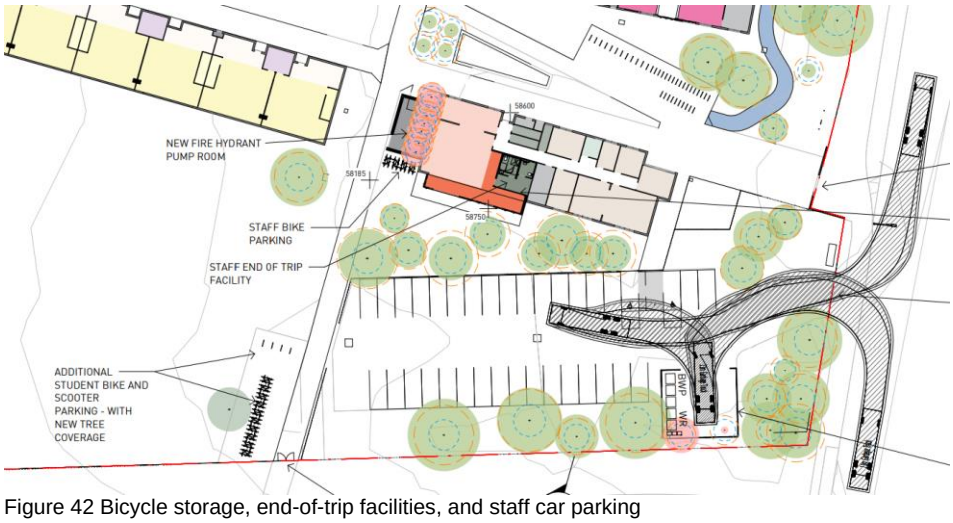

Figure 42 Bicycle storage, end-of-trip facilities, and staff car parking
Source: PTW Architects (2021)

Car park

The existing car park will be modified to cater for the relocated service area which is designed to cater for a medium rigid vehicle. This will reduce the capacity of the car park from the existing 37 car spaces (which includes 1 non-compliant accessible space) to 35 car spaces (including 2 accessible spaces). All car parking is for staff. Refer to **Figure 42** for the proposed car parking layout.

3.8 Services

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 north western stair of new building (partially submerged)
- New air-conditioning plant enclosures in various locations around the site
- Emergency exit gate in existing fence on the Ponds Boulevard
- New service and emergency access driveway and gates at north west corner of the site

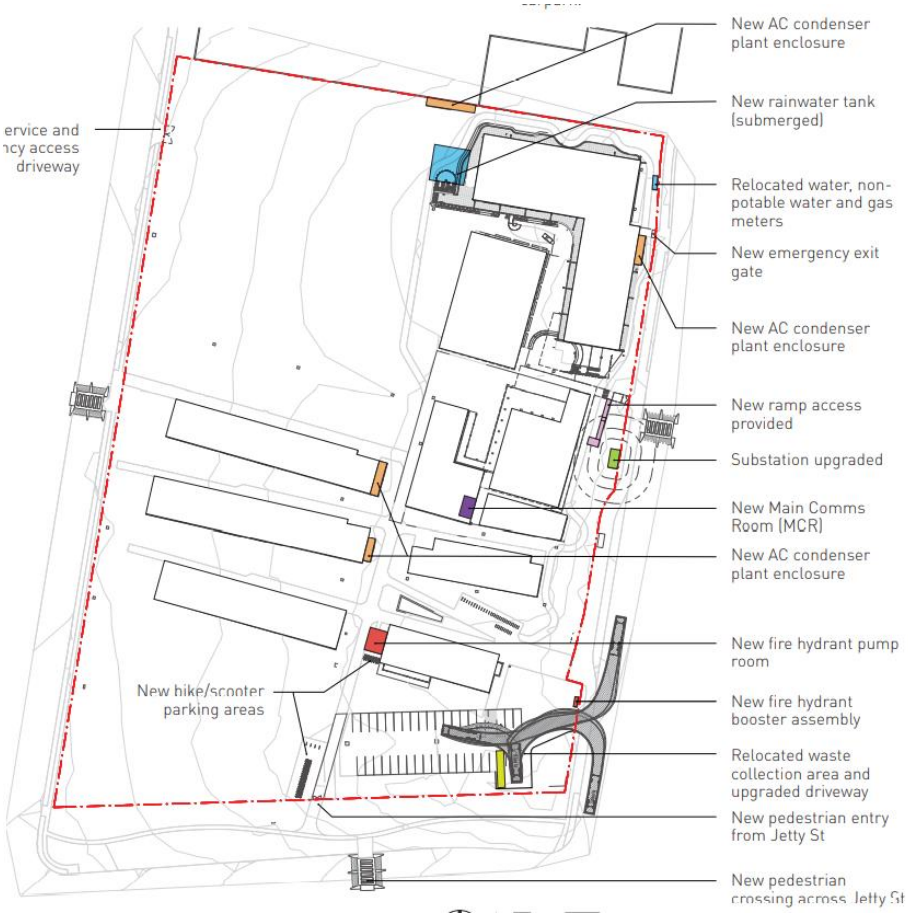

Figure 43 New and upgrades services to facilitate the school upgrades
Source: PTW Architects (2021)

3.9 Uses and activities

The proposed development will largely retain the existing operation except for an increase in student enrolment capacity. Implication of the proposed development on existing elements of the school operation is discussed below.

Hours of operation

The proposed hours of operation for JPPS during the school term is not anticipated to change from the current operational school hours.

Currently, the operational school hours are from 9am to 3pm.

Out of school hours care

JPPS has a current lease agreement with Northwest Community Childcare for before and after school care at the site as well as vacation care.

Operation during the school term is from Monday to Friday at the following hours:

- Morning session from 6:30am to 8:30am
- Afternoon session from 3:00pm to 6:30pm
- Staff development days 7:00am to 6:30pm

The maximum number of children at the site for all forms of care is 165 at any one time. Care is undertaken in Building B (Hall) and COLA.

OSHC will continue to operate as per its existing arrangement with the school. No changes are proposed in relation to operation times and numbers; although, there will be changes to the buildings it can access. The proposed development seeks to provide new dedicated additional spaces as part of the hall extension for OSCH including a kitchen area.

Community use of school facilities

The school has some community use of facilities in the form of a soccer academy and music tuition. It is understood that the school also hosts basketball games on Fridays as part of the Primary Schools Sports Association. There are no changes proposed to community use of school facilities. However, the development will provide for improved facilities for use of the school community, including:

- Library;
- School hall;
- Special learning unit; and
- OSHC.

Refer to **Figure 44** for a diagram showing the area of the school dedicated to wider community use and which school facilities fall within that area.

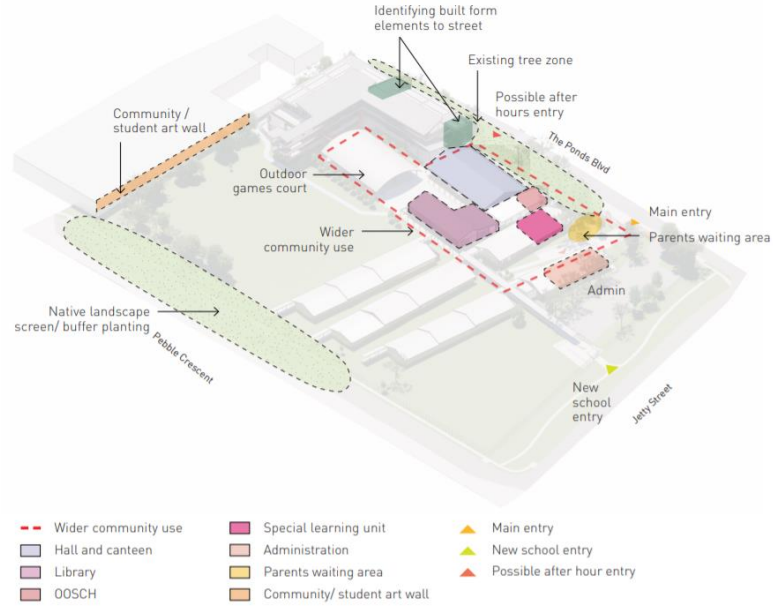

Figure 44 Community use of school facilities at JPPS
Source: PTW Architects

3.10 Construction duration, staging and hours

Construction duration

The indicative duration for the proposed construction works will be approximately 27 months.

Construction staging

The overall project will be constructed in sequential stages. The stages are defined in **Table 9**.

Table 9 Construction staging

Stage	Construction works
Stage 1 (approximately 6 months)	– Relocate existing fire services during the school holidays – Carpark and waste pad works during the School Holidays – Earthworks and substructure to the new 3 storey building including the installation of piled foundations for new building and for proposed tower crane (or alternative). – Earthworks and substructure to the single storey library and hall extension.

Stage	Construction works
Stage 2 (approximately 18 months)	– Construction of new 3 storey building – Construction of new single storey Library and Hall extension – Refurbishment of Blocks D and F – Public domain works – Landscaping
Stage 2 -first handover	– Operational handover of Library and Hall (remove hoarding during school holidays) and associated play/space and landscaping
Stage 2 – second handover	– Operational handover of new 3 storey building, refurbished Block D, Block A extension, Block F Support unit, and associated play space/landscaping.
Stage 3 (12 weeks)	– Removal of existing demountables and make good

Construction Hours

The hours of construction are:

- Monday to Friday – 7am to 6pm;
- Saturday – 8am to 1pm; and
- No work on Sundays or Public Holidays.

A variation to these hours may be required for out of hours work or where there are special circumstances e.g., for oversized deliveries or works which may need to be carried out. It is noted that a separate application will be made by the Contractor to seek approval for any out of hours work.

4. Statutory context

4.1 Power to grant approval

Section 4.36 of the EP&A Act provides that the Minister, or a State Environmental Planning Policy may declare development to be State Significant Development.

Clause 15(2) of Schedule 1 of the *State Environmental Planning Policy (State and Regional Development) 2011* (SEPP SRD) specifies alterations or additions to an existing school with a CIV of more than $20 million is to be assessed as State Significant Development.

The proposed development involves alterations and addition to the existing JPPS, and has a CIV of more than $20 million; hence, it qualifies for SSD and the Minister for Planning and Public Spaces is the consent authority.

4.2 Permissibility

The site is zoned SP2 Infrastructure for the purpose of 'Educational Establishment' under the Blacktown LEP 2015. Educational establishments are permitted with consent in this zone under the Blacktown LEP 2015. The SP2 zone is also a prescribed zone under Part 4 of the Education SEPP. Refer to **Figure 45** for zoning map.

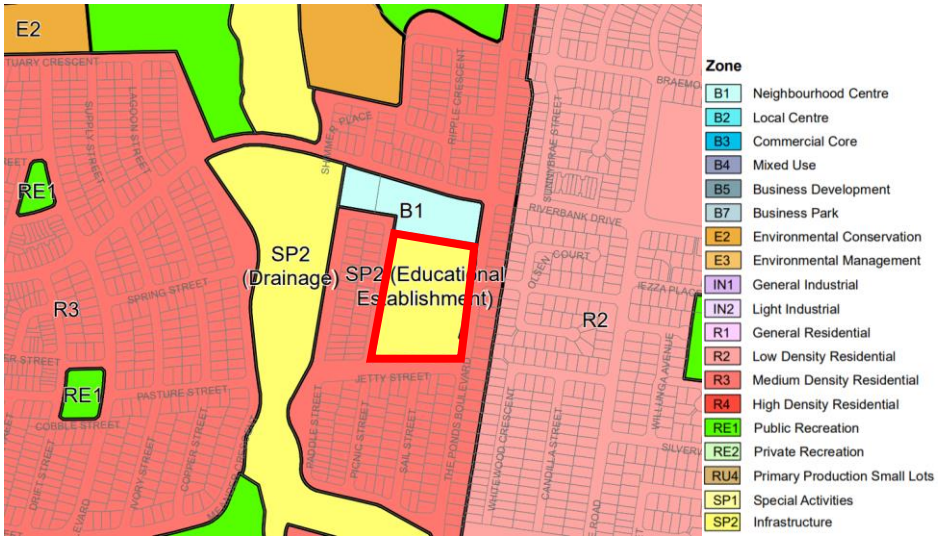

Figure 45 Land Zoning Map
The site it outlined in red
Source: Blacktown LEP 2015 Land Zoning Map Sheet LZN_012 with Architectus edits

4.3 Other Approvals

The provisions of section 4.42 of the EP&A Act 1979 lists approvals under other legislation that must be applied consistently for the proposal.

Separate consent under the Roads Act 1993 will be required in order for the proposed development to occur, including the provision of a new raised zebra crossing on Jetty Street and walkway to new Jetty Street school entrance, and the removal of a redundant driveway and reinstating the footpath due to the relocation of the existing service area to the car park.

4.4 Pre-conditions

<u>State Environmental Planning Policy No 55 – Remediation of Land</u>

Pursuant to Clause 7 of the 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. This is addressed in **Section 6.12** of the EIS.

4.5 Mandatory matters for consideration

A detailed assessment of the proposed development against the mandatory matters for consideration is provided in **Appendix B**.

5. Community engagement

5.1 Consultation overview

A Community Consultation Report has been prepared by SINSW summarising the engagement undertaken for the proposed development. Refer to **Appendix M**.

In accordance with the SEARs issued for the project, consultation was undertaken with relevant public authorities, Council, and the community, including:

- Blacktown City Council;
- Transport for NSW (TfNSW);
- Local Aboriginal Land Council; and
- Government Architect NSW.

Engagement of government agencies and the community will continue throughout the public exhibition of the EIS.

5.2 Blacktown City Council

Blacktown City Council was consulted to discuss matters relating to the proposed development on the following occasions:

- 22 July 2021 – as part of the Transport Working Group;
- 16 August 2021 – as part of the Transport Working Group;
- 19 August 2021 – to discuss the request for on-site detention tank, overshadowing impacts, location of air conditioning condensers, and potential noise impacts;
- 19 August 2021 – as part of the Transport Working Group as part of WSP Group;
- 20 August 2021 – social impact assessment interview with the social impact consultant for the proposed development i.e. Elton Consulting;
- 26 August 2021 – to discuss the outcomes from the meeting with Council held on 19 August 2021; and
- 8 September 2021 – project update.
- 16 September 2021 – final Transport Working Group.

The feedback topics and project development outcomes from meetings with Blacktown City Council are detailed in **Table 10**. Note, the feedback topics and project development outcomes from Transport Working Group meetings are discussed in **Table 11**.

Table 10 Blacktown City Council consultation

Feedback topics	Project development outcomes
Meeting held on 19 August 2021	
– On site Detention (OSD) tank requirement clarification. – New 3-storey building shadow casting on adjacent residential buildings. – Location of AC condensers along The Ponds Blvd frontage may be unsightly (subject to the scale of the proposed plant). – Noise pollution to the street generated by classrooms and mechanical plant.	– Blacktown Council confirmed an OSD tank is not required at meeting on 26 August 2021. – Architect conducted an assessment and confirmed that shadow is cast over the road (The Ponds Blvd) but not the adjacent residential buildings (Blacktown Council accepted this) – Architect and services engineer specified plant size and acoustic louvre concealment (and noise mitigation). Landscape architect noted the extent of

Feedback topics	Project development outcomes
	– landscaping along The Ponds Blvd frontage to conceal condenser units to the maximum extent possible. Blacktown Council accepted this. – Acoustic engineer onboarded to assess noise and vibration. Architect confirmed state-of-the-art acoustic louvres are specified to mitigate mechanical plant noise generated and 10mm laminated glass specified for classrooms to mitigate classroom noise.
Meeting held on 26 August 2021	
– On site Detention (OSD) tank requirement clarification. – Clarify requirement for additional substation.	– Blacktown Council confirmed an OSD tank is not required. – Project team noted consultation with Endeavour Energy confirming a second substation is not required.
Meeting held on 8 September 2021	
– Landscaping design development. – Noise impact of mechanical condensers on adjacent residential buildings. – New building shadow casting on adjacent residential buildings	– Landscape architect confirmed the scarcity of trees in the North-East corner of site is to facilitate natural lighting and ventilation to the new building. – 300mm deep acoustic louvres specified for mechanical condensers to mitigate noise transmission. – Architect conducted a worst-case scenario shadow casting analysis to confirm that the shadow cast by the new building reached The Ponds Blvd but not the adjacent residential buildings. Blacktown Council satisfied with this response.

5.3 Transport for NSW

Consultation with TfNSW is nominated as a requirement of the SEARs. Extensive consultation has been undertaken with TfNSW as part of the Transport Working Group.

The Transport Working Group was assembled for the project to discuss transport related issues and concerns relating to the proposed development. The group included project team and client representatives, TfNSW and Blacktown City Council. The Transport Working Group met on three (3) occasions on 22 July 2021, 19 August 2021, and 16 September 2021.

Refer to an overview of issues raised and responses in **Table 11**.

Table 11 TfNSW consultation as part of Transport Working Group meetings

Feedback topics	Outcomes / Response
Meeting held on 22 July 2021	
– Safety risk of pedestrian path across the carpark and loading bay driveway of the adjacent shopping centre.	– Project to provide a dedicated Travel Coordinator role (funded by the project for 12 months and Transport for NSW thereafter.

Feedback topics	Outcomes / Response
– Inaccurate traffic count data during COVID.	– Project to provide a school specific Active Transport access guide for users. – Traffic engineer leveraged Scats data and survey responses from social impact consultant survey (confirmed acceptable by Blacktown Council).
Meeting held on 19 August 2021	
– New raised zebra crossing proximity to existing road intersection. – Provisions for staff bike parking.	– New raised zebra crossing relocated further West along Jetty St. – Staff bike parking provided adjacent to Block A.
Meeting held on 16 September 2021	
– New raised zebra crossing revised location Blacktown Council preference to locate the zebra crossing more 'mid-block' to avoid the need to cross Sail St. – Traffic modelling	– New raised zebra crossing relocated to the East of Sail St. – Traffic modelling presented by traffic consultant. Nil comments from Blacktown Council and Transport for NSW.

5.4 Local Aboriginal Land Council

An ACHAR has been prepared for the proposed development at **Appendix L**. The assessment process was undertaken in accordance with the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011), the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010) and the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010).

Consultation with the Local Aboriginal Land Council and Registered Aboriginal Party stakeholders (RAPs) was conducted in May-September 2021.

For further detail, refer to **Section 6.14** below and **Appendix L**.

5.5 Government Architect NSW / State Design Review Panel

School Infrastructure NSW and PTW architects consulted with the Government Architect NSW Office (**GANSW**) on one (1) occasion on the 15 September 2021.

A full schedule of State Design Review Panel (SDRP) feedback and the architect's response is provided in the Architectural Design Statement at **Appendix I.**

5.6 Community consultation

Community engagement and feedback has been integral to the proposed development.

Consultation was undertaken with the JPPS school community to hear their concerns about JPPS, as part of the *John Palmer Public School Education Rationale*. Refer to **Table 12** for a summary of the key concerns and challenges that resulted from consultation process.

Table 12 Current Challenges at JPPS

Current challenges	Description
Above capacity of spaces	The high number of extra-curricular activities means that all available space is in constant use, or programs are limited due to availability of larger spaces such as the hall.
Administration and Staff Space	Admin and staff space are inadequate for the size of the staff. There is a lack of private meeting space for parent meetings or teacher collaboration areas.

Current challenges	Description
	The staffroom facilities have been identified as a WHS concern and are not large enough to support the size of the staff or the varying nature of work activities.
Playground space and shade	The current provision of play space does not allow for the variety of active and passive play desired by students. In addition, the lack of shade limits the activities and uses during Summer/warmer months.
Whole school gathering	The size of the hall currently limits the ability for the school to gather as a whole and to include community in celebrations and ceremonies. It is one of the only large spaces where multiple classes can gather and is in high demand.
Lack of flexibility	The on-site demountables limit the range of learning and teaching activities and strategies desired by staff. Inability to connect learning spaces does not allow for collaborative practice of teachers or between students. Use of space for wet-weather and extra-curricular activities is also limited by the inability to reconfigure spaces.

A Project Reference Group (PRG) was also established for the project, which comprises school principals, Parent and Citizen (P&C) representatives, and project team members. The PRG provides an opportunity to receive feedback on critical design elements and the overall project direction. PRG meetings commenced on 22 June 2021 and have occurred on three (3) occasions to date.

In addition, other community stakeholder groups include:

- School Operations and Performance (School Ops): representatives from School Operations and Performance, including Director/s Education Leadership, principal, and teacher representatives; and
- School and local community members.

The Community Consultation Report prepared by SINSW outlines the key themes and community views that have emerged from community engagement undertaken as part of the PRG. Refer to **Appendix M** for further detail.

It is noted that since June 2019, there have been no enquiries direct to SINSW about the proposed upgrades to JPPS.

Community engagement for social impact assessment

A Social Impact Assessment (SIA) has been prepared for the proposed development by Elton Consulting, and is appended at **Appendix N**. Stakeholder engagement is an important aspect of SIA.

The engagement plan prepared for this SIA intended to communicate with the community and provide opportunities for feedback. Engagement methods included:

- One on one interviews with:
    - Department of Education/SINSW;
    - JPPS Principal;
    - JPPS Parent representative;
    - The Ponds Shopping Centre;
    - Social planning staff from Blacktown City Council; and
    - Northwest Community Childcare – operator of the OSHC service at JPPS.

- A community flyer, including a link to the online survey, was distributed in the local community by SINSW and within the school networks by the School's principal. Consultation period was from 21 August 2021 to 6 August 2021.

  During the survey, one on one interviews were proposed to community members including immediate residents, students, teachers or parents. Participants were identified on a voluntary basis during the survey. One interview was conducted with a school community member.

A total of 115 responses were received during consultation period. Over 65% of respondents had one or more dependents attending JPPS and 23% were staff. The remainder included students at the school, residents of The Ponds and Kellyville Ridge suburbs.

Key findings are summarised in the SIA around in the following sections: the current situation at the school, potential positive impacts of the project, potential negative impacts of the project and ideas provided during engagement to maximise the benefits and minimise the concerns of the project.

Findings of engagement have been used to develop enhancement and mitigation measures to maximise benefits and mitigate negative social impacts, respectively. Refer to the SIA appended at **Appendix N**.

5.7 Engagement to be carried out

Continued engagement will take place with stakeholders and communities during the statutory public exhibition stage of the SSD application, as well as during future stages of the planning and development process.

The stakeholder list below summarises who will be consulted if the project is approved during the design and construction phase via ongoing face to face meetings, communications collateral and digital engagement methods.

- Local members;
- Government agencies and peak bodies;
- Local Aboriginal Community;
- Blacktown Council;
- School community;
- Potential joint use partners;
- Community and advocacy groups;
- Local community.
- Future parents within the catchment area
- Nearby public schools in the catchment area;
- Adjoining affected landowners and businesses;
- Project Reference Group; and
- Executive Steering Committee.

For more information communications and engagement activities that will be carried out to inform, consult and engage with these stakeholders during the implementation of the project at major milestones, please refer to **Appendix M.**

6. Assessment of impacts

6.1 Design quality and built form

The proposed development has been carefully designed in response to surrounding built form context and locality.

The new building is an L-shaped perimeter block, with a strong urban street wall to The Ponds Boulevard (east of the site). The building has been setback 5 metres from The Ponds Boulevard, to retain existing trees within these areas which provide screening. It is noted that additional trees are proposed within this setback to strengthen landscaping screening. The urban street wall is further relieved by a central vertical circulation core which breaks up the form of the building.

The maximum building height for the proposed development is RL 73.20m (approximately 14.45m above existing ground level). The height of the eaves is RL 70.05 (approximately 11.3m above existing ground level), equating to approximately 3/4 storeys. The simple pitched roof form helps with natural lighting and ventilation on the top floor and responds to pitched roof forms of existing residences along The Ponds Boulevard.

Furthermore, the height of the proposed new building has been derived from the following considerations:

- The Ponds Boulevard slopes from east to west. As such, ground floor at the location of new building is lower than the ground floor of residences opposite the school on The Ponds Boulevard. Due to this difference in topography, the height difference between the residences and the new school building is less pronounced. Refer to **Figures 46, 47 & 48** below.
- The Ponds Shopping Centre is adjacent the new building to the north. The Ponds Shopping Centre is a commercial/community use subject to a maximum building height of 12m under the BLEP 2015. The pitched roof form of the new building is the main element that exceeds this height.
- The new 3 storey building achieves a physical separation from the existing residences opposite The Ponds Boulevard of 30-33 metres. This separation minimises the potential for overshadowing and privacy impacts.

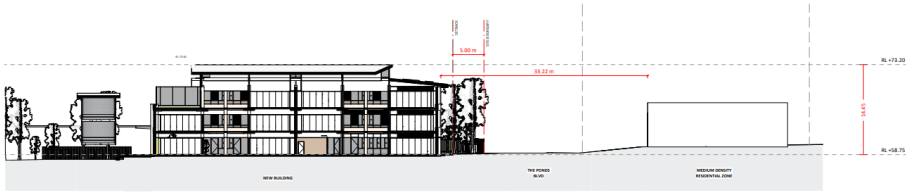

Figure 46 Section through Ponds Boulevard – Northern Wing
Source: PTW Architects

Figure 47 Section through Ponds Boulevard – Southern Wing
Source: PTW Architects

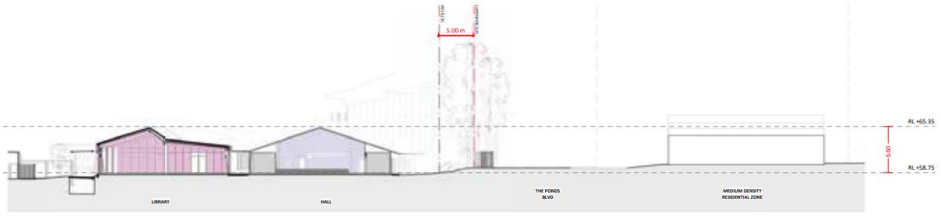

Figure 48 Section through Ponds Boulevard and the Library
Source: PTW Architects

Furthermore, the proposal has been designed such that it is consistent with the design principles in Schedule 4 of the Education SEPP (Refer to **Appendix B** of the EIS). Given the above, its distance is considered that the design and spatial organisation of the building as well as distance from neighboring residences opposite The Ponds Boulevard ensures that the development does not have adverse impact on the surrounding development and is visually compatible with its surrounds.

Refer to the Architectural Design Statement prepared by PTW Architects at **Appendix I** for further discussion of design quality and built form, including scale and relationship of the building to context, as well as **Section 3.3 and 3.4** of the EIS.

6.2 Environmental amenity

Solar Access and Overshadowing

The siting and form of the proposed development has been designed to provide maximum solar access to existing and proposed school buildings and areas of open space across the site. In addition, the proposed new building has been designed to facilitate maximum solar access and natural light within classrooms.

Moreover, by virtue of the orientation of the site and the physical separation afforded by a combination of the setbacks to and the width of The Ponds Boulevard, the proposal will not result in any overshadowing impacts to nearby residential properties during 9am to 3pm during the winter solstice, as detailed within the solar access study at **Appendix H**.

Overall, it is considered that the proposal is satisfactory from both a solar access and overshadowing perspective.

Privacy

The closest residential dwellings are those adjacent JPPS along The Ponds Boulevard to the east, Jetty Street to the south, and Pebble Crescent to the west.

The proposed development is appropriate in terms of visual privacy as the school is sufficiently separated to adjacent developments to minimise any instances of overlooking. In addition, the school is well landscaped to all its street frontages, which provides a degree of screening to adjacent properties. Refer to **Figure 49.**

Figure 49 Perspective of new building along The Ponds Boulevard
Source: PTW Architects

Wind Impacts

Given the proposed low-scale built form of the new 3 building, it is not anticipated to cause any unreasonable wind impacts on adjacent open spaces in the school. Hence, it is considered that adjacent open spaces will maintain suitable comfort levels for standing and sitting.

Light spill

A Lighting Statement has been prepared by AECOM at **Appendix V**. External lighting has been designed with consideration of lighting spillage to adjacent properties and sensitive receivers.

All outdoor lighting will comply with AS/NZS4282:2019 Control of the obtrusive effects of outdoor lighting. As such, the proposed development is not anticipated to result in any significant light spill impacts, which is anticipated to be a condition of consent.

Safety and Security

A Crime Prevention through Environmental Design (CPTED) Assessment has been included in the Architectural Design Statement prepared by PTW Architects and is attached at **Appendix I**. The Architectural Design statement outlines the design elements and CPTED principles included in this proposal that will deter unsocial and criminal behaviour from the site.

Refer to **Table 13** which highlights the consistency of the proposed development with CPTED principles.

Table 13 CPTED principles

Principle	Proposed development
Natural Access Control	The existing campus is surrounded by a high palisade fence.
Natural surveillance	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.
Territorial reinforcement	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.

Principle	Proposed development
	On the east, the path is landscaped along The Ponds Avenue 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.
Maintenance	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.

6.3 Visual Impact

A visual impact assessment of the proposed development has been undertaken by PTW Architects and is included in the Architectural Design Report at **Appendix V**. Views for assessment have been identified from key vantage points. Key vantage points identified include:

- Viewpoint 1: The Ponds Boulevard from the southeast; and
- Viewpoint 2: The Ponds Boulevard from the northeast.

View Analysis

The following section assesses the visual impact of the proposed development from each of the selected viewpoints. The analysis by Architectus includes a description of the view from each viewpoint and a discussion of the potential visual impacts of the proposed upgrades on that view. PTW Architects have generated the views.

Figure 50 View looking from The Ponds Boulevard
Source: PTW Architects

As shown in **Figure 50**, the proposed development will be visible from these viewpoints. The visuals show the existing two storey residential developments with pitched roofs opposite The Ponds Boulevard. The proposed development is a three-storey development with pitched roofs.

Given the building separation offered by The Ponds Boulevard and the moderate height differential, the proposed new building marks a natural transition in height that one would

expect adjacent to low residential density development. This is apparent in the greater prescribed building heights for the existing commercial development to the north. The visual impact from these viewpoints is deemed of moderate impact.

In addition, existing and proposed vegetation within the front setback will have a mitigating effect to soften the appearance of the proposed development. Hence, the visual impact from these viewpoints is deemed appropriate, and not out of character for the built context of the locality.

6.4 Play space

The provision of adequate play space and open space at school is essential to the physical and mental wellbeing of students, and of benefit to the environment, and the local community. Recognising the importance of play space, NSW Department of Education EFSG provide that a minimum of 10m^2 usable onsite play space per student be provided at each school.

Currently, 10.9m^2 per student is provided for 943 students and will be 10.6m^2 per student (1012 students). This aligns with the NSW Department of Education guidelines. The proposed development will improve the quality of play space per student.

6.5 Trees and landscaping

The Draft Greener Places Design Guide sets an overall target for the Greater Sydney Region of 40% tree canopy cover by 2056, with indicative place-based targets of 15% in the CBD, 25% in medium to high density areas and 20% in low density areas.

In the case of JPPS, the site is located on a site that is bordered to the north by commercial zoned land and medium density residential zoned land to the east, west and south of the site. Hence, a tree canopy target in the range of 25% to 40% is considered suitable for the site.

An Arboricultural Impact Assessment was prepared by Eco Logical Australia (**Appendix Q**) for the proposed development. A total of 148 trees were assessed as part of the site and all were deemed to be of low and medium retention value and none of high retention value. This equates to a tree canopy of 8.7% of the site area (2,582sqm).

A total of 36 trees (14 medium retention value trees and 22 low retention value trees) are identified for removal to accommodate the proposed development. The Arboricultural Impact Assessment also includes a Tree Protection Plan for the remaining trees to be retained as part of the proposed development, to ensure their longevity during construction works and operation.

Notwithstanding, it is noted that the proposed development will provide new landscaping, delivering 189 new trees, resulting in a total tree canopy of 7,986m^2 of urban tree canopy cover (resulting in 26.8% of the site area). The proposed development substantially increases the existing amount of tree canopy cover at the site to an extent that is considered suitable for its urban conditions.

The species selected include species endemic to the Cumberland Plain Woodland. seventy-three (73) new trees to be planted are species endemic to Cumberland Plain Woodland, in accordance with the Blacktown Development Control Plan 2015.

Considering there are no high retention value trees being removed, adequate landscaping is being provided, and tree protection measures are to be implemented, it is deemed that the proposed development has appropriately managed any significant impacts to existing trees while enhancing existing canopy cover.

Refer to the Landscape Plans and a Landscape Design Statement have been prepared by McIntosh & Phelps at **Appendix H** and **Appendix I**, respectively.

6.6 Ecologically sustainable development

An ESD Report has been prepared by AECOM Australia Pty Ltd for the proposed development, at **Appendix T**.

The development proposes ESD initiatives and sustainability measures, including:

- passive cooling and heating design principles to reduce the school's reliance on artificial lighting and heating, ventilation and air conditioning systems, including external shading, operable windows and clerestory windows.
- artificial lighting will optimise energy efficiency through LED type lighting, use of timed or sensor feedback functionality.
- heating, ventilation and air conditioning will have timed or sensor feedback functionality for energy conservation. Selection of energy efficient appliances and equipment
- responsible procurement of products, materials and services reduce resource consumption by encouraging the selection of lower-impact materials, as well as reduction and recycling of generated waste.
- implementation of 99.5kW solar photovoltaics (PV) system on the roof of the new 3 storey building (this is estimated to reduce energy to 55.2% of a building without PV).
- adopting efficient hydraulic services to assist water efficient design, including, but not limited to rainwater reuse via a 50Kl rainwater tank which services toilets, water efficient appliances and recycled water supply to toilets where demand is not met by rainwater tanks (this is estimated to achieve a 78% reduction in potable water).

The ESD report details how the ESD principles would be addressed in the development. The proposed development is seeking to achieve a 5-Star Green Star rating, through formal certification with the Green Building Council of Australia, as required by EFSG.

In addition, the ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) have been incorporated into the proposed development, as outlined in **Table 14**.

Table 14 ESD principles and proposed development response

ESD Principles	Response
Precautionary principle	The proposed development will be designed to avoid damage to the environment, through efficient fixtures, and rainwater harvesting which reduces use of freshwater use. This project will minimise the effect on climate change with avoidance of fossil fuels such as gas and reduced reliance on grid electricity with the use of PV, high performing façade, and efficient services. A climate change adaptation and operations resilience plan will be developed to assess the risk of potential impacts of climate change and potential shocks and stresses to the project. Any high or important risks identified will be mitigated in design.
Intergenerational equity	The project will use low ozone depletion potential refrigerants, waste management strategies, sustainable materials, and employ low carbon materials to limit further damage to the health, diversity and productivity of the environment for future generations.
Conservation of biological diversity and ecological integrity	This project will consider the local biological diversity and integrity of the site by retaining as much of the existing flora and fauna habitats at the site and provide for planting of native tree species to offset any removal due to the project. Refer to the Landscape Plans and Landscape Design Report at **Appendix J** and **Appendix K**, respectively.

ESD Principles	Response
Improved valuation, pricing and incentive mechanisms	Whole of life costs will be evaluated in accordance with the best outcome for the user. This costing exercise of services and assets includes the planning, design, construction and acquisition, operation, maintenance, renewal and rehabilitation, depreciation and cost of finance, and replacement or disposal. Onsite waste is to be diverted from landfill and a waste management plan is to be developed to address operational waste.

Overall, the proposal is consistent with ESD principles and the proposed suite of sustainability initiatives would encourage ESD, in accordance with the objects of the EP&A Act.

6.7 Traffic, transport and accessibility

A Transport and Accessibility Impact Assessment (TAIA) has been prepared by TTW and is appended at **Appendix O**. The TAIA assesses the traffic and transport impacts and design elements of the proposed development.

School catchment analysis

Analysis of the catchment coverage within walking and cycling catchment has been undertaken. These are roughly equivalent to the 5-minute,10-minute, 15-minute and 30-minute walking catchment and a 5-minute and 10-minute cycling catchment. The results of the analysis are provided in **Figure 51**.

Walking Distance (m)	Number of current students	Portion of current students (%)	Cumulative #	Cumulative %
0 – 400m (5-min walk)	131	14%	131	14%
400 – 800m (10-min walk)	229	24%	360	38%
800 – 1200m (15-min walk)	366	39%	726	77%
1200 – 2400m (10-min cycle)	199	21%	925	98%
> 2400	23	2%	948	100%
Total	**948**	**100%**		

Figure 51 School catchment and walking catchment student coverage
Source: TTW

Due to lockdowns and travel changes associated with COVID-19, a questionnaire was not distributed to staff and students for completion and no detail on-site travel mode data has been collected. As an alternative, JPPS provided information regarding the travel habits of the students and staff of the school.

According to the School's responses, most of the students are dropped off and picked up in Pebble Crescent. A small number of them use active transport and less than 10 students ride buses to the campus. The travel mode of the JPPS's staff is almost exclusively private vehicle. Modal split for students and staff is shown in **Figure 52** and **Figure 53,** respectively.

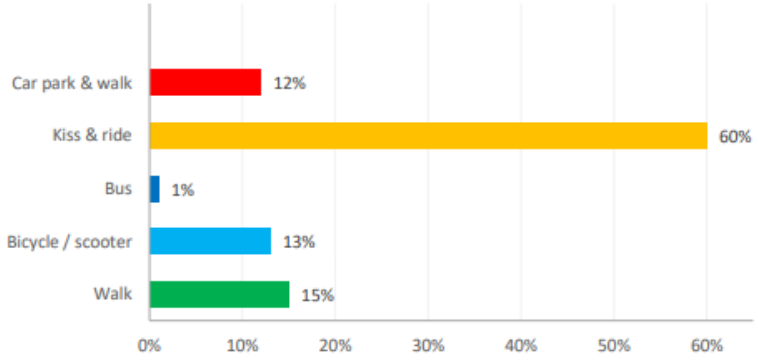

Figure 52 Student travel modes
Source: TTW

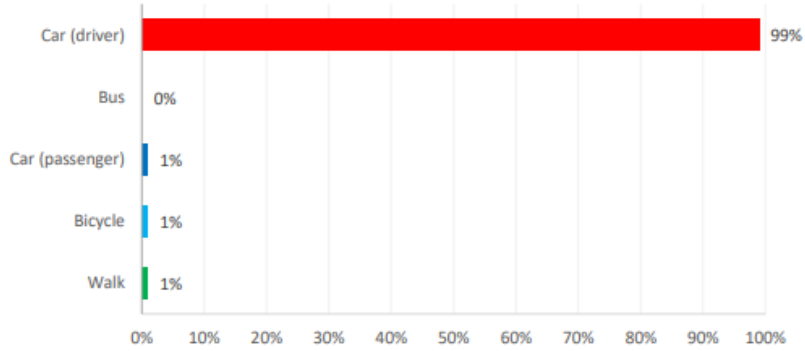

Figure 53 Staff travel modes
Source: TTW

Existing Traffic Conditions

To analyse the existing traffic conditions around the site, the intersection of The Ponds Boulevard and Riverbank Drive has been modelled.

To this end, the intersection movement counts were extracted from Sydney Coordinated Adaptive Traffic System (SCATS) data as a traffic survey is not possible since COVID-19 lockdown restrictions have affected traffic demands.

According to the SCATS data, AM peak hour is between 8 am and 9 am, which is compatible with the school start time; however, the PM peak hour of the intersection starts after school hours.

The TAIA considers two PM peak hours for modelling the intersection to investigate JPPS development impact on the intersection traffic operation.

Traffic modelling of the existing conditions has been undertaken to accurately determine and demonstrate the current performance of the road network nearby JPPS. The summary results of the intersection modelling are shown in **Figure 54**.

Intersection	Period	Degree of Saturation	Average Delay (sec)	95% Back of Queue (m)	Level of Service
The Ponds Boulevard & Riverbank Drive	AM	0.881	50.2	160.2	D
	PM	0.890	45.9	98.7	D
	School PM	0.871	41.5	77.9	C

Figure 54 SIDRA modelling results at the intersection of The Ponds Boulevard and Riverbank Drive
Source: TTW

Existing parking Conditions

The off-street staff car parking has 37 car parking spaces, including one accessible space (which is non-compliant to current design standards), and is located in the southeast of the campus with access from The Ponds Boulevard.

Historical aerial imagery available from Nearmap has been assessed to determine the long-term trends in occupancy, including comparing school days and non-school days.

Based on the historical data, the car park occupancy on school days is fairly steady, and some informal parking occurs on a rare basis beyond the marked capacity of 37 spaces. The average occupancy is comfortably accommodated within the marked capacity.

On-street parking in the vicinity of the site is generally unrestricted and is used by some staff for parking. Similarly to the off-street parking, on-street parking in the vicinity of the site has been reviewed to assess long-term usage trends.

The extent and description of on-street zones used for the detailed analysis is shown below in Figure 55.

Figure 55 On-street and off-street parking areas for analysis
Source: TTW

The analysis shows that there is generally good availability of parking in the vicinity of the site and within the assessed zones.

Noting the overall capacity in the assessed zones of 187 spaces, there is an average occupancy rate of around 34%, or a maximum rate of 47%, suggesting that on-street parking usage could increase by approximately double within the fixed capacity.

Traffic Impacts

The student capacity is proposed to increase to 1,012 students, which is an increase of approximately 7.3% from current student population. As a result of this growth, the anticipated staffing allowance would increase from approximately 56 staff to 59 staff, or an increase of approximately 5.4%.

Accordingly, the anticipated increases in travel demands can be estimated as shown in **Figure 56**. Modal splits are based on the existing travel habits as estimated and advised by JPPS.

	Students				Staff			
Travel Mode	Mode Split	Existing Volumes	Forecast Volumes	Growth	Mode Split	Existing Volumes	Forecast Volumes	Growth
Walk	15%	141	152	10	<1%	1[4]	1	0
Bicycle	8%	75	81	6	<1%	1[4]	1	0
Scooter	5%	47	51	3	0%	0	0	0
Bus	<1%	5[5]	5	0	0%	0	0	0
Drop-off & pick-up	60%	566	607	41	<1%	1[4]	1	0
Park & walk	12%	113	121	8	0%	0	0	0
Car (driver)	-	-	-	-	99%	55	58	3
Total	100%	943	1,012	69	100%	56	59	3

Figure 56 Travel mode forecasts – overall travel demands
Source: TTW

As detailed in **Figure 56**, a growth of approximately 3 additional vehicles (0 students and 3 staff) could be expected to generate parking demand. Additionally, approximately 41 additional drop-off and pick-up users (41 students and 0 staff) could be expected, or approximately 30 vehicles at a rate of 1.5 students per vehicle.

For the purposes of traffic modelling of future conditions (with planning horizons of 5 and 10 years, through to 2026 and 2031 respectively), a background growth rate of 1.5% per annum is applied to external traffic.

With the addition of the development traffic as described above, the results of the traffic modelling at The Ponds Boulevard and Riverbank Drive are shown in **Figure 57** and **Figure 58**.

Intersection	Period	Degree of Saturation	Average Delay (sec)	95% Back of Queue (m)	Level of Service
The Ponds Boulevard & Riverbank Drive	AM	0.920	62.8	229.4	E
	PM	0.907	52.9	117.7	D
	School PM	0.861	45.1	95.4	D

Intersection	Period	Degree of Saturation	Average Delay (sec)	95% Back of Queue (m)	Level of Service
The Ponds Boulevard & Riverbank Drive	AM	0.990	77.7	274.3	F
	PM	0.967	65.5	155.9	E
	School PM	0.911	52.4	121.3	D

Figure 57 SIDRA modelling results for 2026 (top) and 2031 (bottom) without development
Source: TTW

Intersection	Period	Degree of Saturation	Average Delay (sec)	95% Back of Queue (m)	Level of Service
The Ponds Boulevard & Riverbank Drive	AM	0.950	65.8	238.8	E
	PM	0.907	52.9	117.7	D
	School PM	0.915	46.5	94.8	D

Intersection	Period	Degree of Saturation	Average Delay (sec)	95% Back of Queue (m)	Level of Service
The Ponds Boulevard & Riverbank Drive	AM	0.987	81.3	287.0	F
	PM	0.967	65.5	155.9	E
	School PM	0.905	55.5	127.2	D

Figure 58 SIDRA modelling results for 2026 (top) and 2031 (bottom) with development
Source: TTW

The modelling of background traffic growth through to 2026 and 2031 demonstrates that there is an expected deterioration of traffic conditions over time, and that the worsening of traffic as a result of the development is negligible compared to the results of background growth.

Therefore, the traffic impacts as a direct result of the proposed development are considered negligible and acceptable in the context of the local network. Notwithstanding this, the School Transport Plan (STP) seeks to change this modal split to reduce car-based travel and achieve a shift towards active and public transport modes.

Car Parking

Blacktown DCP 2015 notes the following recommended rates for provision of parking at primary and secondary schools:

- 1 space per staff member; plus
- 1 space per 100 students; plus
- 1 space for delivery vehicles, drop-off area and buses as appropriate.

Based on the capacity of 1,012 students and an estimated 59 staff, the total car parking demand for staff at the Blacktown DCP 2015 rates would be 59 spaces and an additional 10 spaces for visitors due to the new school capacity. A total of 69 spaces would be required.

On completion of the proposed works, the development is proposed to accommodate 35 (including 2 accessible spaces) on-site staff car parking spaces (a loss of two car parking spaces from existing 37 spaces) plus a waste collection and loading zone within the car park. This would be equivalent to a rate of 0.6 spaces per staff member, which is lower than the Blacktown DCP 2015 rate.

Notwithstanding, the increase in size of the development relative to existing conditions is minimal (+7% of students, +5% of staff) and will result in low levels of additional traffic generation and car parking demand. As the type of development is for a school, it is critical to increase the amount of available on-site open play space and reduced levels of on-site car parking assist in achieving this.

In this case, given the significant levels of available capacity in the surrounding street network, this additional demand could be accommodated and would not create unreasonable impacts to local residents. The usage of on-street parking by residents is currently low (as shown by non-school day occupancy of on-street parking).

The school also only operates during school hours, with staff generally arriving from around 8am and departing by around 4pm, meaning that all on-street parking remains available for residents and their visitors outside these hours and during weekends and school holidays

Notwithstanding this, the STP seeks to change this mode split to reduce car-based travel for staff and achieve a shift towards active transport modes, thereby reducing parking demand otherwise generated by the increase in staff.

School Transport Plan

A preliminary School Transport Plan (STP) has been prepared and included as part of the TAIA. The STP seeks to change this mode split to reduce car-based travel and achieve a shift towards active and public transport modes. Targets are provided in the **Figure 59**.

Travel Mode	Existing Mode Split	Mode Split Target	Volume Change	Existing Mode Split	Mode Split Target	Volume Change
Walk	15%	25%	+101	<1%	3%	+1
Bicycle	8%	11%	+25	<1%	7%	+3
Scooter	5%	8%	+29	0%	0%	-
Bus	<1%	2%	+20	0%	5%	+3
Drop-off & pick-up	60%	50%	-101	<1%	0%	-1
Park & walk	12%	5%	-71	0%	0%	-
Car (driver)	-	-	-	99%	85%	-8
Total	100%	100%	-	100%	100%	-

Figure 59 Travel mode forecasts – mode share targets
Source: TTW

These mode share targets are considered reasonable and achievable as:

- Approximately 77% of the student catchment population is within a 1,200-metre walking distance of the site.
- On-site bike storage for up to 11% of students is to be provided plus 8% scooter provision for students.
- Bike storage for staff (4 rails) could accommodate 1 bike per rail (4 bikes) to achieve a 7% uptake or 2 bikes per rail (8 bikes) to achieve a 14% mode share. End of trip facilities for staff are also to be provided, which can accommodate staff cycling, walking, or catching public transport.
- A reduction in car driver mode share (for staff) can also be achieved through staff car-pooling. While it is acknowledged that this is not a practical solution for all users, it is likely to be viable for a number of staff at any given time and will be encouraged.

Additionally, through the provision of new infrastructure such as the Jetty Street zebra crossing, new Jetty Street pedestrian entry, communications and transport programs under the STP, it is anticipated that the usage of private vehicle as a travel mode would reduce in the future.

In this regard, achieving a modal shift as shown in the table above would have the effect of offsetting the growth rates for private vehicle usage, including drop-off/pick-up that would otherwise be generated by the additional student population based on the current, unimproved modal split.

Pedestrian Infrastructure Upgrade

A growth of approximately 11 additional pedestrians (11 students and 0 staff) could be expected because of the development.

In general, this growth in pedestrian activity is considered negligible and would create no significant change to the local pedestrian network. The additional students walking to/from school may generate some volume of additional parents, however this would also be negligible across the network.

Notwithstanding this, the proposed transport infrastructure for the site includes a new raised zebra crossing at Jetty Street, between Sail Street and The Ponds Boulevard, in the vicinity of the new pedestrian entry on the Jetty Street frontage. In this case, the development meets the reduced warrant for sites used predominantly by children. No changes are proposed to the existing pedestrian refuge.

Furthermore, the addition of the new zebra crossing, in combination with the new Jetty Street pedestrian entry, provides an alternative route for pedestrians travelling to/from the south of the school catchment, avoiding the driveway to the staff car park. This provides an added incentive for a greater uptake in active modes of travel.

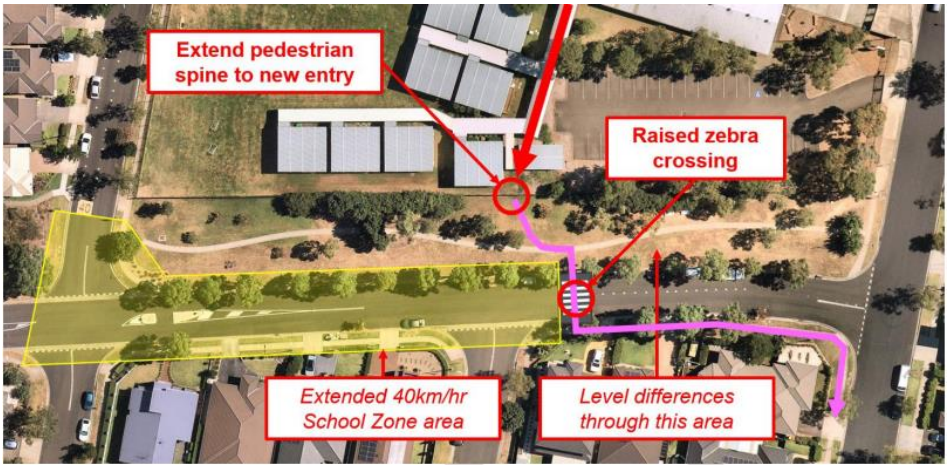

Figure 60 Proposed pedestrian works
Source: TTW

It is noted that the final design and installation of the raised zebra crossing would be subject to approval by Council's Local Traffic Committee.

A public domain plan has been prepared which provides details of the proposed works that require consent pursuant to Section 138 under the Roads Act, such as the raised zebra crossing.

This plan can be found within the architectural drawing set at **Appendix H** and will be the basis for any future application made under Section 138 of the Roads Act.

Service and Loading

The requirements for service and loading will be no higher than the existing conditions but will be relocated to the new service area in the staff car park.

The service vehicle area can accommodate vehicles up to and including Medium Rigid Vehicles (MRVs), which can enter and exit the site in a forward direction.

The new service vehicle area could accommodate access for vehicles up to a 12.5m Heavy Rigid Vehicle while the car park is empty.

Refer to swept path analysis in the TAIA.

Construction Traffic

A Preliminary Construction Traffic and Pedestrian Management Plan (CTPMP) has been incorporated into the TAIA prepared by TTW. It discusses the management of construction vehicles and activities, and an investigation of the local traffic and safety conditions throughout the construction process.

- **Access** - it was determined that Pebble Crescent was the best access overall and construction staging is based on this access. The draft access plan (developed by Jacobs) is shown in **Figure 61** for Stage 1 construction works, however this expected to be consistent in regard to traffic and access throughout the construction period:

Figure 61 Preliminary construction site access plan
Source: TTW

The construction vehicle access points to the site would be secured by manned traffic control to ensure no unauthorised or unsafe access is permitted for vehicles or pedestrians and that potential for conflicts between construction traffic and general traffic/pedestrians is minimised.

- **Construction vehicle routes** - The nearest state roads are Schofields Road to the north and Sunnyholt Road to the south.

  To access the site from Schofields Road, the following vehicle routes would likely be utilised:

  - Schofields Road > The Ponds Boulevard > Jetty Street > Pebble Crescent

  To access the site from Sunnyholt Road, the following vehicle routes would likely be utilised:

  - Sunnyholt Road > Stanhope Parkway > The Ponds Boulevard > Jetty Street > Pebble Crescent

    Departing vehicles would use identical routes to and from the site

- **Parking** - Due to the spatial constraints within the site, it is expected that some on-site parking may be available for construction workers however this may not accommodate individual spaces for all workers. The following mitigation measures are recommended to ensure impacts to local residential streets are limited:

  - Workers recommended and reminded to carpool where possible;
  - Preferred parking locations which would not occupy residential frontages (such as frontages to Second Ponds Creek and Plaza Park) should be advised to workers, to reduce impacts to residents for those workers that do choose to drive;
  - No workers to park within 100 metres of the School boundary (to ensure parking availability and to reduce impact to drop-off and pick-up periods);
  - Workers recommended to park away from the Pebble Crescent kiss & ride area, to avoid additional congestion.
  - Workers must follow all on-street regulatory signage including drop-off and pick-up zones around the schools.

- **Vehicle Management** - Vehicle volumes for a development of this scale are likely to be on the order of no more than 10-20 vehicles per day (equivalent to 2-4 vehicles per hour), subject to confirmation by an appointed contractor. At these volumes, the local road network could easily accommodate the proposed standard construction vehicle movements subject to appropriate management.

A detailed CTPMP will be prepared by the builder with consideration of all final design selections. This preliminary CTPMP is intended to provide a framework within which a

future CTPMP can be developed and implemented, and to demonstrate the potential operation of the construction site.

6.8 Biodiversity

A Biodiversity Development Assessment Report (BDAR) was prepared by Kleinfelder Australia Pty Ltd and is appended at **Appendix R**.

An approximate total of 0.20 ha of exotic grassland (managed) and 0.10 ha of planted native/exotic vegetation (36 trees) are proposed to be removed from the site. This vegetation provides potential foraging habitat for three threatened fauna species; however, the habitat is not considered to be important to the long-term viability of populations of any of these species in the locality.

The proposed development is highly unlikely to have significant impacts upon defined biodiversity values, as the area to be modified is very small, and comprises isolated native planted vegetation or exotic grassland (managed). Any local populations of these species which may exist are likely to continue to persist. In addition, no threatened species or ecological communities were identified as being vulnerable to Serious and Irreversible Impacts (SAIIs) within the site.

Potential direct and indirect impacts associated with the proposed development would be avoided and/or minimised through the implementation of mitigation and management measures outlined in Section 5.2.3 of **Appendix R**.

6.9 Noise and vibration

A Noise and Vibration Impact Assessment (NVIA) has been prepared by AECOM at **Appendix U**. The NVIA considers noise impacts to surrounds during both construction and operation of the proposed development.

Method

The NVIA identifies the following sites in **Figure 62** to be the surrounding receivers most likely impacted by the proposed development.

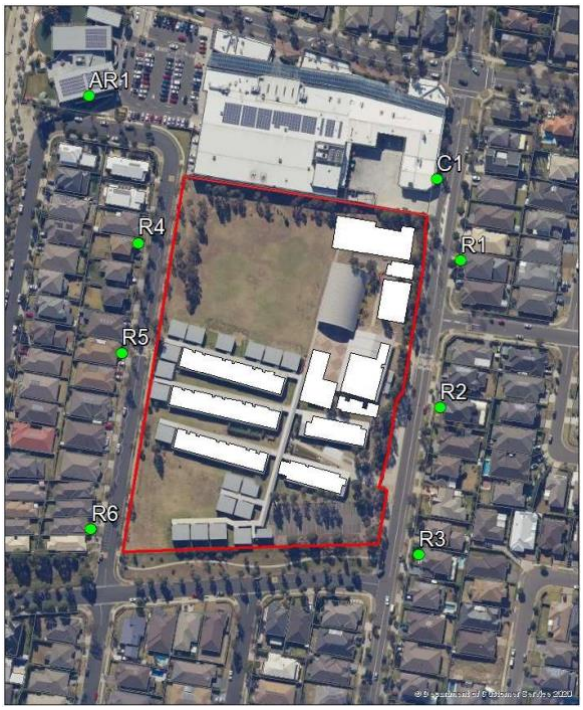

Figure 62 Assessment receiver locations
Source: AECOM

Due to the COVID-19 lockdown occurring in Sydney, the amount of road traffic, school activities and pedestrian traffic which would normally contribute to the local noise environment are currently absent to a large extent. Given this, it was not considered

reasonable to conduct noise monitoring in order to establish ambient noise levels, as they would not be considered indicative of 'normal' activity in the area.

As a result, the following methods were considered in order to establish reasonable background noise levels for the purpose of determining construction and operational noise criteria:

- Recommended minimum background noise levels presented in the EPA's Noise Policy for Industry;
- Estimated average background noise levels as presented in AS1055.2-1997 Acoustics – Description and measurement of environmental noise Part 2: Application to specific situations; and
- Noise and vibration impact assessments completed for any other developments in the vicinity of the schools which may include recent ambient background noise measurements.

From review of these three methods, it is deemed that the recommended minimum rating background levels (RBL) identified in the NEPA's Noise Policy for Industry's (NPfI) would be too conservative for the surrounding noise environment for the site; these minimum RBLs would be more typical of a rural environment.

AECOM conducted ambient background noise measurements for a recent DA at Riverbank Public School in The Ponds; monitoring at Riverbank Public School found that measured noise levels are like the estimated RBLs taken from AS1055.2-1997. Measured noise levels at Riverbank Public School are 1 dB(A) higher in the daytime and 2 dB(A) higher in the evening compared to AS1055.2-1997. Therefore, RBLs taken from AS1055.2-1997 have been selected as an appropriately conservative measure.

After establishing background noise levels, noise emission criteria for both construction and operation were determined and likely noise emissions from the proposed development modelled to discern its impact, having regard to the applicable criteria.

Operational Noise and Vibration

After establishing background noise levels, noise emission criteria for both construction and operation were determined and likely noise emissions from the proposed development modelled to discern its impact, having regard to the applicable criteria.

Table 15 Assessment against relevant operational noise and vibration policies and guidelines

Application	**Comment**
NSW EPA Noise Policy for Industry (NPI)	
The NPI has been applied in consideration of the following matters: – Detail project noise trigger levels for the project – Assess noise levels from the operation of major plant items. Operational noise contours for building services noise emission are presented in Appendix C of the Noise and Vibration Impact Assessment at **Appendix S.** – Noise emission assessment from the use of outdoor areas for the purpose of OOSHC. Operational noise contours for OOSHC are presented in Appendix C of the Noise and Vibration Impact Assessment at **Appendix S**	Except for exceedance in operation of hall in the evening at R2 for high noise level activities (category 1), the proposed development meets the required project noise levels – subject to: – Internally lined ductwork comprising minimum 0.5 metres straight duct to be applied to each outdoor condenser unit discharge. Internal lining to be minimum 50 mm thick. – Noise barriers of 2m height surrounding outdoor condenser units located on the Northeast, and eastern property boundary servicing Building N North and Building N South. Where solid noise barriers are not possible due to air flow requirements, the barrier may be formed by acoustic louvres with an insertion loss equivalent to that shown in Table 24 of

Application	Comment
– Noise emission assessment from the use of the hall for high noise level activities (category 1 scenario) and low noise level activities (category 2 scenario) as refurbishments result in larger openings along the western face of the hall building.	the Noise and Vibration Impact Assessment at **Appendix S**. – A maximum of 165 OOSCH students located in the asphalt and COLA during the daytime period only (6:30am to 6pm). – Northern and western hangar door of the hall is to be closed during the evening for low noise level activities (i.e., indoor sports, OSHC, school assemblies) – Northern and western hangar door of the hall is to be closed during the day and evening for high noise level activities (i.e., live and/or amplified music, school concerts, school dances/discos, community use). Although not mandatory to apply the NPI to the use of the school hall, an assessment of high noise level activities (category 1) has revealed a slight exceedance of 4 dB(A) at R2 in the evening. For the evening period this exceedance is marginal given both the level of exceedance and the likely frequency of events with internal noise levels of 85 d(B)A. As there are no changes proposed to the eastern façade of the existing hall, it is unlikely that there would be a significant change in impact from the existing use of the Hall at R2. Furthermore, it should be noted that the scenarios modelled are based on existing activities at the school hall. The assessment has been undertaken to ensure that hall refurbishments do not result in any additional noise impact to current operations.
NSW EPA Road Noise Policy (RNP)	
The RNP has been applied in consideration of the following matters: – Road traffic noise assessment criteria for existing residences affected by additional traffic To assess noise impacts from additional traffic generated by the project, an initial screening test is undertaken to determine if existing road traffic noise levels would increase by more than 2 dB(A). Where the predicted noise increase is 2 dB(A) or less, then no further assessment is required.	The increase in traffic to the site because of the increase in student and staff numbers is expected to be less than 1 dB, which is considered insignificant. Therefore, the traffic impact on access roads from the project would be acceptable.
Development near rail corridors and busy roads – Interim guideline	

Application	Comment
Have been applied in consideration of the following matters: – Provides maximum noise levels for classrooms.	Meets the maximum noise levels – subject to: – Minimum acoustic performance as provided in Section 7.7 of the Noise and Vibration Impact Assessment at **Appendix S**, for glazed elements, ventilation louvres and opaque elements at the eastern façade of the proposed classroom building.

It is noted that the NPfI is not applicable to noise emission from the use of outdoor play areas and sports fields and therefore compliance with these criteria is not mandatory.

Notwithstanding, the proposed increase of 943 students to 1,012 students results in a predicted increase of less than 1 dB(A) from existing capacity to the proposed new capacity, which is imperceptible and is therefore considered acceptable.

In relation to the school bell/public address system, these selections have yet been made; therefore, it is not possible to undertake a detailed assessment of the public address and school bell noise emissions. Recommendations have been provided to minimise the impact of external noise emissions associated with the public address and school bell systems of the proposed development to the nearest sensitive receivers. Refer to Section 7.5 of the Noise and Vibration Impact Assessment at **Appendix S.**

Construction Noise and Vibration

In addition to operational noise, the following noise standards and guidelines have been applied to determine relevant noise criteria for construction activities associated with the development and measure its impact to the sensitive receivers:

Table 16 Assessment against relevant construction noise and vibration policies and guidelines

Application	Comment
NSW EPA Interim Construction Noise Guideline	
Have been applied in consideration of the following matters: – Establish noise management levels for construction activities. – Preliminary assessment potential noise emissions likely to be generated during construction of the development – based on a worst case scenario of all equipment operating concurrently. – Construction noise contours are presented in Appendix B of the Noise and Vibration Impact Assessment at **Appendix S**.	It should be noted that the most affected residences are located along The Ponds Boulevard for with worst case construction scenarios. No receivers are anticipated to be highly noise affected (i.e., exceed an LAeq,15min of 75 dB(A)). It is recommended that a construction noise and vibration management plan (CNVMP) be prepared in accordance with Section 6. The CNVMP is to incorporate a complaint handling procedure as Section 6.1 of the Noise and Vibration Impact Assessment at **Appendix S**.
NSW EPA Road Noise Policy	
The RNP has been applied in consideration of the following matters: – Road traffic noise assessment criteria for existing residences affected by additional traffic during construction.	Based on the peak number of truck movements per day that typically occur at similar development, the peak number of trucks visiting the site per day would be 20 trucks resulting in 40 vehicle movements. Given the volumes of existing traffic, construction traffic would have a negligible

Application	Comment
	impact and will continue to meet the RNP criteria for surrounding residences.
Construction Noise and Vibration Strategy	
The Strategy has been applied consideration of the following matters: – Establish minimum working distances for vibration intensive plant such as a plate compactor.	If these minimum working distances are complied with no adverse impacts from vibration intensive works are likely in terms of human response or structural damage. Standards/guidelines used for assessing construction vibration is provided below: – Structural damage criteria for heritage items have been taken from DIN 4150, whilst criteria for commercial/residential items have been taken from BS 7385. – Human comfort criteria are taken from NSW EPA guideline *Assessing Vibration: A Technical Guideline (AVTG)*

Accordingly, it is considered that the acoustic impacts associated with the construction of the proposed development can be mitigated, subject to implementation of the recommendations of the of the NVIA at **Appendix U**.

6.10 Ground and water conditions

A Geotechnical Investigation Report has been prepared for the proposed development by Douglas Partners Pty Ltd, at **Appendix P**.

Reference to the Penrith 1:100 000 scale Geological Series Sheet indicates that the site is underlain by Ashfield Shale of Triassic Age. Ashfield Shale typically comprises dark grey to black shale, siltstone and laminite which weathers to a residual clay profile of medium to high plasticity.

Intrusive sub-surface investigations were carried out and testing to determine sub-surface conditions and make recommendations for construction methodology for the proposed building.

The results of field work indicate that the site is underlain by topsoil or fill (up to about 1.3 m depth) overlying residual clay soils then weathered rock. The clays on site are typically reactive and of medium or medium plasticity for the new building in the north-west corner of the site or high plasticity for proposed buildings in the southern side of the site.

Groundwater seepage is expected at the soil/rock interface and along bedding planes and joints within the rock. Groundwater levels could change with variations in climatic conditions. Based on the local topography, groundwater is anticipated to flow downslope to the west towards Second Ponds Creek.

Douglas Partners Pty Ltd have confirmed in the DSI at **Appendix Q** that groundwater investigations are not considered to be required at this time, given the absence of any indicators of significant soil contamination at the site.

The report then makes recommendations for construction methodologies for the proposed building based on testing, relating to site preparation and earthworks, excavation support, foundations, floor slabs, seismic design, pavements, site maintenance, drainage, and salinity. Refer to the report for details.

In relation to salinity, the site ranges from non-saline to moderately saline with near-surface soils (within 0.5 m of the existing ground surface) generally non-saline. In

addition, shallow soils ranged from non-sodic to highly sodic. As a result, the report outlines management strategies for the development.

6.11 Stormwater and Flooding

A Civil Report has been prepared by AECOM at **Appendix W**. This Report considers matters pertaining to stormwater management, flooding and erosion and sediment control.

Stormwater

Stormwater Management

The existing buildings are drained via downpipes that connect to stormwater lines which discharge to existing kerb inlet pits at Pebble Crescent. There are no existing detention systems on the current school. Surface pits collect stormwater overland flow in impervious areas. Grassed areas direct stormwater away from buildings on the site.

In general, all new roof stormwater will be collected in roof gutters and downpipes to in-ground piped system will connect into existing pipe system. Surface stormwater will be collected in pits. The in-ground piped drainage system will be designed to convey, at least, the 5% Annual Exceedance Probability (AEP) flows.

As per the Blacktown City Council Engineering Guide for Development, the Public School is in an On-Site Detention (OSD) Exempt area. Council's Engineers have confirmed that the site does not require OSD.

Notwithstanding this, modelling suggests that the existing system will be able to accommodate the additional stormwater flows from connections. Where pipe capacity is exceeded or there are system fails, stormwater up to the 1% AEP will be conveyed as overland flow in accordance with NSW Floodplain Management Manual (2005).

A 50kL rainwater tank will be installed to collect roof water from the buildings. Overflow from the rainwater tank will be directed to the in-ground stormwater system.

Water Quality

The school site is located in a water quality precinct in accordance with Part J of Blacktown City Council's DCP 2015.

However, to reduce dependence on Council's system, the development will provide water quality treatment in line with Blacktown City Council's Stormwater Management requirements in Part J of BDCP 2012. The site stormwater will pass through in-ground pollution control devices to achieve the required water quality targets.

It is expected that the devices will include litter screens in all stormwater pits, trash screen in water quality treatment chamber and stormwater filter cartridges to remove remaining pollutants (i.e., nitrogen and phosphorus contaminants) prior to entering the existing stormwater system.

Furthermore, to limit water quality impacts during construction stages, this Civil Report addresses matters concerning sediment, erosion, and dust control during demolition and construction activities.

Flooding risk

As per the Blacktown City Council Engineering Guide for Development 2005 and the Section 10.7(2) & (5) Planning Certificate, the site is not identified as flood prone. The closest flooding extent in the 1% AEP flood event is located approximately 1km to the north west of the site. Due to not being in a flood affected area and not being in proximity to tidal affected or perennial water courses, the site will not be impacted due to climate change.

Furthermore, due to the slope of the site land with a crest through the middle of the site falling to either side, north and south, to adjacent streets and properties, there does not appear to be a risk associated with overland flow paths from upstream catchments traversing the site. The overland flow paths around the building will cater for an increase in rainfall intensity due to climate change.

6.12 Contamination and remediation

Douglas Partners has prepared a Detailed Site Investigation (DSI) of contamination for the proposed development, and this can be found at **Appendix Q**.

Douglas Partners undertook a desktop study for the larger school site which comprised of a site walkover, review of historical aerial photographs, review of EPA records, historical title deeds search, and appraisal of local geology and hydrogeology.

A review of site history indicated that the land was predominantly used for grazing up until late 1970. From late 1970 to early 1973 the land use was not known. In early 1973 the land was marked for future development and from mid-2006 it was used for educational purposes. Prior to development for educational use, the previous known land uses were considered to have low or limited potential for contamination impact.

Following the desktop study, Douglas Partners carried out an intrusive investigation to assess possible contamination including testing of the soils. A minimum of thirteen sampling points for the development was undertaken, consistent with the minimum sampling points for development footprint recommended by NSW EPA *Contaminated sites, sampling Design Guidelines (NSW EPA, 1995).*

The investigation and screening levels applied in the current investigation comprise levels adopted for a generic residential land use scenario.

Analytical results were all within the site assessment criteria except for one sample. There was a marginal exceedance of the benzopyrene at Bore 205 and copper at Borehole 214. However, the exceedances of these contaminants are not considered to be statistically significant. In this regard, the DSI concludes that the potential for contamination constraints at the site is relatively low.

However, as with any site, there is always the potential that concealed structures and / or contaminated materials may be present at the site, and this should be considered during bulk earthworks for the proposed development. In this case, an Unexpected Finds Protocol will need to be established for use during earthworks, to ensure that due process is carried out in the event of a possible contaminated find.

Subject to the implementation of these recommendations, it is considered that the site can be made suitable for the proposed development.

6.13 Waste management

A Construction Waste Management Plan (**CWMP**) and Operational Waste Management Plan (**OWMP**) has been prepared by EcCell Environmental Management and is attached at **Appendix Y** and **Z,** respectively. Both plans outline provisions that will inform operational and construction waste management measures required on site once planning approval is sought.

Construction waste

The CWMP provides an informed framework to maximise resource recovery and minimise waste during the construction process, primarily through recycling of building materials.

The CWMP identifies management strategies and those responsible for ensuring the strategies are followed. The CWMP estimates waste and recycling volumes during the demolition, excavation, and construction stage. All waste will be removed by a licensed waste contractor when bins are full.

A waste and recycling will be stored in bins on site. This waste storage will also be accessible for waste collection vehicles. Recycling will be comingled on-site for separation off-site. Materials for reuse will be stockpiled separately and will be removed at the completion of the construction stage if not used.

The builder will be responsible for implementing the CWMP. The waste contractor will be tasked with the separation of recycling of materials off-site. Waste audits are to be carried out by the builder to ensure that the procedures are effective and carried out effectively by personnel.

Hazardous Waste

The CWMP also outlines management procedures for different waste stream such as Hazardous Waste Materials.

Regarding the risk of hazardous building materials, it should be noted that all buildings to be removed and demolished were installed at the site post-2006. Therefore, it is unlikely that these buildings will contain hazardous building materials. Notwithstanding, if required, a hazardous material survey can be undertaken prior to commencement of works.

It is also anticipated that the consent authority will impose conditions of consent to ensure that proper handling of any hazardous materials uncovered during construction:

- Construction Waste Management Plan to address the removal of hazardous materials and disposal at an approved waste facility in accordance with the requirements of the relevant legislation, codes, standards and guidelines, prior to the commencement of any building works;
- Applicant to consult with SafeWork NSW concerning the handling of any asbestos waste that may be encountered during construction. Also, compliance with the POEO Regulation 2014 with reference to Part 7 'Transportation and management of asbestos waste'.

Operational waste

The OWMP provides an informed framework to maximise resource recovery and minimise waste during the operation of the school.

To manage operational waste on site, the followings waste streams and bin quantities for the upgraded school are proposed for twice weekly collection:

- Organics bin: 1 x 240L Bins
- Comingled recyclables bins: 1 x 1100L Bin
- Plastics recycling bin: 1 x 1100L Bins
- Paper and cardboard recycling bin: 1 x 1100L Bin
- General waste bins: 2 x 1100L Bin
- Return & Earn bin: 1 x 240L Bin

A sealed area is proposed in the existing car park for storage and collection of the applicable waste streams. The waste storage area is sized (approximately 100sqm) to accommodate all bins or containers . The bins will be suitably screened from public view using materials such as walls, fencing, natural shrubs, or a hedge row

Medium Rigid Vehicles (MRVs) will collect the bins from the Waste storage area. Ideal waste collection times will be between 6am and 7:30am.

6.14 Aboriginal cultural heritage

An ACHAR has been prepared by Tocomwall Pty Ltd in response to the SEARs and is appended at **Appendix L**.

The Archaeological investigations carried out in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010 (DECCW) has determined that there are no Aboriginal objects, sites, PAD or Places within the study area, and that the soils in the study area have been significantly disturbed as a result of historical land clearing and agriculture, and from urban development including the construction of the school.

Consultation has been undertaken in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010. One registered Aboriginal party (RAP) has expressed cultural values for the locality. These values are intangible values expressed for the area and do not relate to a specific object or site. A request was made by the RAP to undertake further investigation in the form of excavations, however the archaeological investigations conducted for the study area indicate that the site no longer retains the original soil profiles and sediments. The site survey and the results of

geotechnical investigations indicate that the soils of the subject area are now comprised of fill and the original soils and sediments that were potentially culturally baring are lost.

However, there may be an opportunity to capture the intangible values expressed for the study area and locality as part of the Connecting with Country process being undertaken for the project. A Connecting with Country (CwC) process has been undertaken by Tocomwall which comprised of additional consultation with registered Aboriginal parties.

As a result, the proposal will incorporate Aboriginal cultural references in the design, including colours and motifs in perforated metal screens, an amphitheatre adjacent to the entry of the new building to accommodate a whole class outdoors, a student art wall and native landscaping, including edible plants.

6.15 Social Impact

A Social Impact Assessment (SIA) has been prepared for the proposed development by Elton Consulting, and is appended at **Appendix N**. This report identifies and analyses the potential social impacts of the development and includes a social impact management plan to mitigate any social impacts. The methodology is consistent with the requirements of the DPIE's SIA Guideline (2021).

The SIA identifies several positive social impacts were identified during the assessment including:

- The upgrade will provide more learning spaces and allow children from the JPPS catchment to attend their local school.
- There will be increased size of facilities for OOSHC/vacation care services;
- The provision of a new support unit will also address special needs to better support children and their families– however a shortfall may remain;
- A lift will be provided, and the project has the ability to comply with all relevant accessibility requirements;
- Increased and safer infrastructure to encourage walking and cycling with associated health and wellbeing and increased concentration benefits;
- More learning opportunities for children through the removal of demountables and creation of permanent spaces, as well as possible benefits of removal of demountables on students' and teachers' wellbeing;
- Improved amenities and work conditions for staff including outside of school hours staff;
- The school community is generally excited about changes to learning spaces and methods. New flexible learning opportunities will benefit children's social, emotional and physical wellbeing, autonomy and engagement levels, and respond to teachers' suggestions expressed during consultation;
- A thermally efficient design will ensure that learning and teaching in future spaces will remain comfortable;
- Some intangible values exist that should be explored, recognised and integrated in the design. The design incorporates measures to Connect with Country and there is an ongoing engagement process;
- The overall provision of open space will increase and continue to be consistent requirements, ensuring sufficient outdoor space for student. More play opportunities will create a more fun and creative environment and benefit children's health and wellbeing.

Increased natural shade in outdoor /play areas will also increase comfort in area where temperatures can be high. More covered outdoor learning areas will increase educational opportunities The SIA also identifies negative social impacts, including:

- No change to kiss and ride facilities will not address existing concerns. This is an issue for the school community, particularly parents, which is expected to be

mitigated by increased active modes, resulting in a negligible impact on traffic conditions as per TTW's advice.

- Noise levels on the school community during construction have not been assessed. It is likely this will affect the school community within the school site during school hours as well as out of school hours (OSHC, extracurricular activities). There are concerns particularly from parents about effects of sound on learning. An additional assessment should be conducted as part of detailed design to describe how these can be mitigated.
- There will be temporary noise impacts on nearby residential properties particularly those on The Ponds Boulevard, during construction, which can be mitigated. It is noted that while these social risks identified within the 'high' category (pre-mitigation measures), there were no social risks identified in the 'very high' category. The SIA provides a social impact management plan outlining enhancement and mitigation measures to maximise benefits and mitigate negative social impacts. Some mitigation measures are also discussed in **Appendix C** of this EIS.

Overall, the proposed development is likely to result in a positive social impact to the locality. The JPPS is a well-loved element of school infrastructure in the local area, and there is considerable excitement in the school community about the project. Subject to the implementation of standard and project-specific mitigation measures, such negative social impacts will be effectively curtailed.

6.16 Infrastructure requirements and utilities

A Building Services Infrastructure Report has been prepared by AECOM Australia Pty Ltd and is attached at **Appendix AB.** The Report focuses on water, sewer, gas, electricity, telecommunications, fire protection, and mechanical services for the site and outlines any upgrades and augmentation strategies required to serve the proposed development.

6.17 Structural

A Structural SSDA Report has been prepared for the proposed development by enstruct group. Refer to this report at **Appendix X**.

Footings

Piles will need to be socketed into the siltstone a minimum depth of 2 to 3 metres to ensure they are beyond the zone of influence of the adjacent building at The Ponds Shopping Centre site. Strip footings and waffle slabs will be required for the library and hall extension.

Gravity Load Resisting Systems

Suspended structure on ground is expected to be the appropriate structural system due to high shrink/swell movements. Post tensioned concrete band beams and one way post tensioned slabs are the preferred structural solution for suspended floor plates.

Vertical Structure

It is expected that all columns for the primary building structure will be constructed from reinforced concrete. The library structure is intended to be timber and will primarily use glulam columns. The hall extension will consist of steel columns.

Roof Structure

The roof structure to the building generally is proposed to be lightweight steelwork. The steelwork will be designed as appropriate for the loading on the roof (i.e. PV Cells). It is recommended that the PV cells are flush mounted to reduce the applied wind loads.

Lateral Loading Resisting Systems

The structure is required to withstand wind and earthquake loads through the lateral force resisting system. Lateral system achieved via reinforced concrete shear walls at the stair and lift locations

6.18 Economic impacts

The economic impacts of the proposed development are positive, given jobs will be created (+132 construction jobs and additional three (3) operational school staff jobs). The construction works with CIV of greater than $20 million will stimulate the economy. Government infrastructure works are particularly important in this COVID-19 environment to generate jobs and stimulate the economy.

6.19 Cumulative impacts

The Blacktown City Council Development Application Tracker and Department of Planning, Industry and Environment's Major Projects website do not identify any underway or proposed developments in the immediate vicinity of JPPS at the time of writing. In addition, the proposed development is situated in an area that has been largely urbanised and low scale residential area. As such, it is not anticipated that there will be any significant cumulative impacts.

It is noted that further details about nearby construction works will be confirmed in a final CTPMP, which is required to be prepared as a condition of consent.

6.20 Site suitability

There are no known site conditions which would prevent the development including geotechnical conditions, contamination, flooding, biodiversity, historical archaeological constraints, and/or Aboriginal cultural heritage. Any environmental impacts are not significant and can be adequately addressed.

While existing trees will be impacted, their removal will be compensated by proposed tree planting to increase the trees on site and tree canopy cover from 8.7% to 26.8%.

There is sufficient land within the site to be able to provide for a generous provision of play space per students and met recommended standards. The proposed development will deliver 10.6sqm of play space per student (based on 1,012 student enrolments).

The impacts on surroundings during construction and operation are not significant and can be adequately ameliorated.

The site has been long used as a school, and the proposed development will ensure its longevity as a school is maintained, whilst providing improved facilities to ease capacity pressure and continuing to support students with their primary education. The proposed built form of the new building responds strongly to the residential character of the area, through building setbacks and scale, landscaping, and its use of compatible materials and finishes.

The site is therefore considered suitable for the proposed development.

6.21 Public Interest

The proposed development will deliver a significant public benefit as it represents an upgrading important public school infrastructure, to meet the local demand for educational facilities. It will result in greater access to quality education.

The environmental, social, and economic impacts of the proposed development have been evaluated above. This assessment finds that the impacts of the proposed development will provide significant benefits to the public. Any adverse impacts have been mitigated with measures already incorporated into the design of the development or can be incorporated into the construction and operation of the development through the implementation of the proposed mitigation measures detailed in **Appendix C** of this EIS.

On balance, accounting for site suitability, environmental impacts and key benefits detailed further above, the proposed development is in the public interest.

7. Project justification

JPPS was established in 2007 following development consent issued by Blacktown City Council on 24 April 2007. It is in The Ponds SCG which lies within the Blacktown City Council Local Government Area (LGA), forming part of the Central City District.

Although the school was originally built to cater for approximately 630 students (with 24 permanent learning spaces), with rapid increases in demand over time, has resulted in additional students being accommodated in temporary learning spaces.

In its current form, approximately 55% of existing student population is accommodated in demountables. Many of the core facilities also do not meet the EFSG requirements for the current student population. Coupled with additional student demand forecasted in the region, these deficiencies create overcrowding issues at the school which serve to diminish the educational outcomes for both existing and future students.

Numerous master plan options were developed to address the service need at JPPS. Analyses of several planning options eventually led to the adoption of the current design, which accommodates the SI NSW planning grid and has several advantages, including improved construction staging, improved landscaping and open space provision, spatial alignment within streetscape.

The site is relatively free of many constraints, including, flooding, biodiversity, historical archaeological constraints, and/or Aboriginal cultural heritage. Whilst some of the existing trees will be impacted, their removal does not impact any biodiversity values on the site and will be compensated by proposed tree planting which will increase tree canopy cover on the site from 8.7% to 26.8%. New tree plantings will also enhance existing habitats for flora and fauna in the locality.

New buildings have been located on relatively underutilised areas of the site, helping to maximise open space area for use as student play areas and outdoor learning. This has been balanced with the need to ensure new buildings are compatible with the local character. Any concern regarding bulk and scale is alleviated on consideration of spatial separation from the two storey dwellings opposite the site (which also avoids overshadowing and privacy impacts), the lower level of the site due to the natural contours, pitched roof forms, and the screening provided by mature tree species.

The proposal also rationalises existing vehicular spaces at the site. In its current form, car parking and service areas of the school are separated on the site, failing to minimise the amount of space dedicated for vehicular purposes. The proposal consolidates these spaces, helping to unlock valuable space on the school site.

Notwithstanding this improvement, the proposal results in the loss of 2 car parking spaces at the site, reducing the existing 37 spaces to 35 spaces. Community consultation undertaken as part of the SIA raised concern with the ability of the development to service increased staff demand for parking. This matter was considered in the TAIA developed by TTW for the proposal.

The TAIA considers several matters concerned with the additional demand on existing facilities created by both staff but also demand from students on existing facilities, particularly student drop-off/pick-up areas. Similar concerns were raised by the community on how these areas would accommodate new student demand, although analyses have shown that there is capacity on-street to accommodate this demand.

Notwithstanding, the TAIA notes that new students and staff will only create additional demand for existing facilities if existing modal travel patterns remain the same. In the case of JPPS, there is potential for a greater uptake of active travel modes. A STP has been prepared and develops strategies to encourage a greater uptake in cycling and walking modes, noting the relatively new cycling infrastructure in the locality.

New strategies include the provision of additional bicycle/scooter parking for students as well as new bicycle parking and end of trip facilities for staff. Improvements to pedestrian

linkages (i.e., new Jetty Street raise crossing and entry way) are also proposed in combination with a STC role.

Given the above, with these interventions, it is considered that the proposal can achieve a modal shift to more active modes of travel for the current and future school population, thereby alleviating any additional demand for both student pick-up/drop-off and staff parking and improving the surrounding traffic and transport network.

Potential impacts to surrounding residences because of noise and construction activities have also been considered by the project team. It is considered that any adverse impacts of the proposal can be appropriately mitigated through measures, which have been summarised in **Appendix C** of this EIS. This will mainly entail the preparation and implementation of management plans.

Having regard to the above, the carrying out of the project is justified for the following reasons:

- The current school has inadequate core facilities that do not meet required standards. The development will provide permanent and state of the art teaching facilities for students and staff that meet current standards and best practice requirements.
- It will increase student capacity at the school, allowing children living in the JPPS catchment to attend the school and ease pressures on other primary schools in the local area.
- It will provide improved and coherent landscaping, greater play space, tree numbers, tree canopy, and shade cover for students. The proposed landscaping will provide urban amenity for users of the space and make a positive contribution to the local character.
- The proposed development will support the health and wellbeing of students at JPPS by integrating new pedestrian and cycling facilities as part of the proposed transport strategy. These interventions will also serve to reduce demand on modes of travel that rely on private vehicle, improving the surrounding road network.
- It will deliver additional support learning spaces to provide greater disability support.
- The proposed development is compatible with the local character. The proposal would not result in adverse amenity impacts on surrounding residents through overshadowing and visual privacy.
- The proposed landscaping strategy involves net increase in the number of trees across the site which would provide additional tree canopy to the site and shading of outdoor play spaces.
- The new building will be designed to provide a 5-star Green Star Building rating, improving environmental performance of the school.
- It will generate 132 construction and non-construction Full Time Equivalent jobs during construction phase, and 3 additional teaching related positions during operational phase. Hence, these jobs, together with the value of the project, will stimulate the economy.

Given the above it is considered that the SSD Application has merit and can be supported by the Department of Planning, Industry and Environment and the Minister for Planning and Public Spaces.