



Planning &
Environment

**STATE SIGNIFICANT DEVELOPMENT
ASSESSMENT REPORT:
Arthur Philip High School and Parramatta
Public School
(SSD 7237)**



Environmental Assessment Report
Section 89H of the *Environmental Planning and
Assessment Act 1979*

December 2016

ABBREVIATIONS

Applicant	Department of Education
APHS	Arthur Philip High School
ARI	Average Recurrence Interval
CIV	Capital Investment Value
Consent	Development Consent
Council	City of Parramatta Council
DCJ	Design Competition Jury
Department	Department of Planning and Environment
DSI Report	Detailed Site Investigation Report
ESD	Ecologically Sustainable Development
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPI	Environmental Planning Instrument
FSR	Floor Space Ratio
GFA	Gross Floor Area
ICNG	Interim Construction Noise Guideline
INP	Industrial Noise Policy
LEP	<i>Parramatta Local Environmental Plan 2011</i>
Minister	Minister for Planning
OEH	Office of Environment and Heritage
OGA	Office of the Government Architect
PMF	Probable Maximum Flood
PLR	Parramatta Light Rail
PPS	Parramatta Public School
RAP	Remedial Action Plan
RMS	Roads and Maritime Services
RtS	Response to Submissions
SEARs	Secretary's Environmental Assessment Requirements
Secretary	Secretary of the Department of Planning and Environment
SEPP	State Environmental Planning Policy
SRD SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>
SSD	State Significant Development

Cover Photograph: Illustrative aerial photomontage north-eastern view (*Source: Grimshaw*)

© Crown copyright 2016
Published December 2016
NSW Department of Planning and Environment
www.planning.nsw.gov.au

Disclaimer:

While every reasonable effort has been made to ensure that this document is correct at the time of publication, the State of New South Wales, its agents and employees, disclaim any and all liability to any person in respect of anything or the consequences of anything done or omitted to be done in reliance upon the whole or any part of this document.

EXECUTIVE SUMMARY

This report is an assessment of a State significant development (SSD) application lodged by the Department of Education (the applicant) seeking approval for the redevelopment of Arthur Philip High School and Parramatta Public School (SSD 7237) at 80-100 and 175 Macquarie Street, Parramatta into a new 17 storey high school, new four storey primary school and ancillary recreational sporting infrastructure and landscaping.

The proposal has a capital investment value (CIV) in excess of \$100 million and would generate 40 additional operational jobs and 100 construction jobs. The proposal will also provide for approximately an additional 600 secondary (2,000 in total) and 250 primary (1,000 in total) school student enrolments.

The proposal is SSD under clause 15 of Schedule 1 to the *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP), as it is development for the purpose of an *educational establishment* with a CIV of more than \$30 million. Therefore, the Minister for Planning is the consent authority.

The site is zoned B3 Commercial Core under the *Parramatta Local Environmental Plan 2011* (PLEP) and the development of an *educational establishment* is permissible with consent.

The proposal was exhibited for 30 days from 19 May 2016 until 17 June 2016. The Department of Planning and Environment (the Department) received a total of 14 submissions during the exhibition of the application, consisting of 11 submissions from public authorities, including the City of Parramatta Council, two submissions from organisations and one submission from the general public. No objections were raised in any submissions received. The matters raised included concerns about the departure from the design competition winning entry, transport and access arrangements, heritage impacts and archaeological investigations, social impacts, insufficient open space provisions, the assessment of noise impacts and site contamination.

The applicant provided a Response to Submissions (RtS), which included additional information and a response to the key issues raised in submissions. The applicant's RtS also proposed a number of minor amendments to site landscaping and fencing, building setbacks and façade materiality, and a minor 290 mm increase to the maximum building height of Arthur Philip High School to accommodate solar photovoltaic cells.

The Department has assessed the merits of the proposal and determined the key issues to be: built form and urban design; heritage; traffic, transport and parking; and social impacts. The Department is satisfied that the impacts of the proposal have been addressed in the Environmental Impact Statement and RtS, and can be adequately managed through the recommended conditions.

The Department considers the proposal is consistent with the objects of the *Environment Planning and Assessment Act 1979* (including ecologically sustainable development), State priorities, *A Plan for Growing Sydney*, and Greater Sydney Commission's draft *West Central District Plan*. The Department is satisfied the subject site is suitable for the proposed educational establishment and would provide significant improvements to the accessibility and quality of public educational resources. The Department therefore considers the development would be in the public interest and recommends that the SSD be approved, subject to conditions.

TABLE OF CONTENTS

1.	BACKGROUND AND PROPOSED DEVELOPMENT	1
1.1	Background	1
1.2	Site Description	1
1.3	Project Description	3
1.4	Project Need and Justification	6
2.	STATUTORY AND STRATEGIC CONTEXT	6
2.1.	SEPP (State and Regional Development) 2011	6
2.2.	Delegated Authority	7
2.3.	Zoning and Permissibility	7
2.4.	Environmental Planning Instruments	7
2.5.	Objects of the EP&A Act	7
2.6.	Ecologically Sustainable Development	7
2.7.	Environmental Planning and Assessment Regulation 2000	8
2.8.	Strategic Context	8
2.9.	Secretary's Environmental Assessment Requirements	8
3.	EXHIBITION CONSULTATION AND SUBMISSIONS	9
3.1.	Exhibition	9
3.2.	Public Authority Consultation and Submissions	9
3.3.	Public Submissions	11
3.4.	Applicant's Response to Submissions	11
4.	ASSESSMENT	13
4.1.	Section 79C Evaluation	13
4.2.	Key Issues	14
4.2.1.	Built form and urban design	14
4.2.2.	Heritage	29
4.2.3.	Traffic, Transport and Parking Impacts	33
4.2.4.	Social Impacts	41
4.2.5.	Other Matters	42
5.	CONCLUSION	47
6.	RECOMMENDATION	48
APPENDIX A	RELEVANT SUPPORTING INFORMATION	
APPENDIX B	CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENT(S) AND DCP(S)	
APPENDIX C	GLOSSARY	
APPENDIX D	RECOMMENDED CONDITIONS OF CONSENT	

1. BACKGROUND AND PROPOSED DEVELOPMENT

1.1 Background

The Department of Education (the applicant) proposes to redevelop the existing Arthur Phillip High School (APHS) and Parramatta Public School (PPS) campuses. This will involve the demolition of the majority of existing buildings and structures, retention of existing heritage items and the construction of a new 17 storey 'vertical' school and two to three storey sports complex for APHS, and new four storey U-shaped building for PPS. The existing schools occupy sites opposite one another on Macquarie Street.

The proposed new APHS, at 80-100 Macquarie Street, will cater for approximately 600 additional secondary school students (2,000 in total) and 28 new staff (108 in total) and includes the retention of the existing heritage significant Convict Barracks Wall. The proposed new PPS, at 175 Macquarie Street, will cater for approximately 250 additional primary school students (1,000 in total) and 12 new staff (67 in total) and includes the retention of the heritage significant Infant School and Arthur Phillip High School buildings. Open space and recreation areas, staff car parking and student drop-off and pick-up facilities are also proposed.

The proposed redevelopment is anticipated to occur between 2017 and 2019, with existing students being relocated in a staged manner to vacant school sites. PPS students are proposed to relocate to the Old Kings School from July 2017 for one and a half years during the construction of the primary school. APHS students are proposed to relocate to Rowland Hassall School from term one, 2017 for the two year high school construction period. Both redeveloped schools are proposed to open term one, 2019.

The submitted proposal is a product of an invited competitive design competition that was held in 2015 by the Department of Education in accordance with the requirements of *Parramatta Local Environmental Plan 2011* (PLEP). The Design Competition Jury (DCJ) selected the Grimshaw/BVN scheme as the winning entry, subject to recommendations regarding further design refinement.

1.2 Site Description

The APHS site is located on the northern side of Macquarie Street and has an area of approximately 1.2 hectares (ha), and is legally described as Lots 62, 63, 63A, 64, 65, DP 758829 and Lot 413, DP 820541.

The PPS site is located on the southern side of Macquarie Street and has an area of approximately 1.78 ha, and is legally described as Lot 27A, DP 449406, Lots 23, 24, 25, 26, DP 7809, Lot 414, DP 820542, Lots 1, 2, 3, DP 115296.

The site is located within the Parramatta local government area (LGA) and is positioned on the eastern edge of Parramatta's City Centre, approximately 100 metres north-east of the Parramatta Transport Interchange.

The APHS site currently contains playing fields, a gymnasium and several demountable buildings and is occupied by the existing APHS. The PPS site is occupied by both APHS and PPS and contains a number of school buildings, including the heritage significant buildings, hard court recreation areas and on-site car parking.

The project location is shown in **Figures 1 and 2**

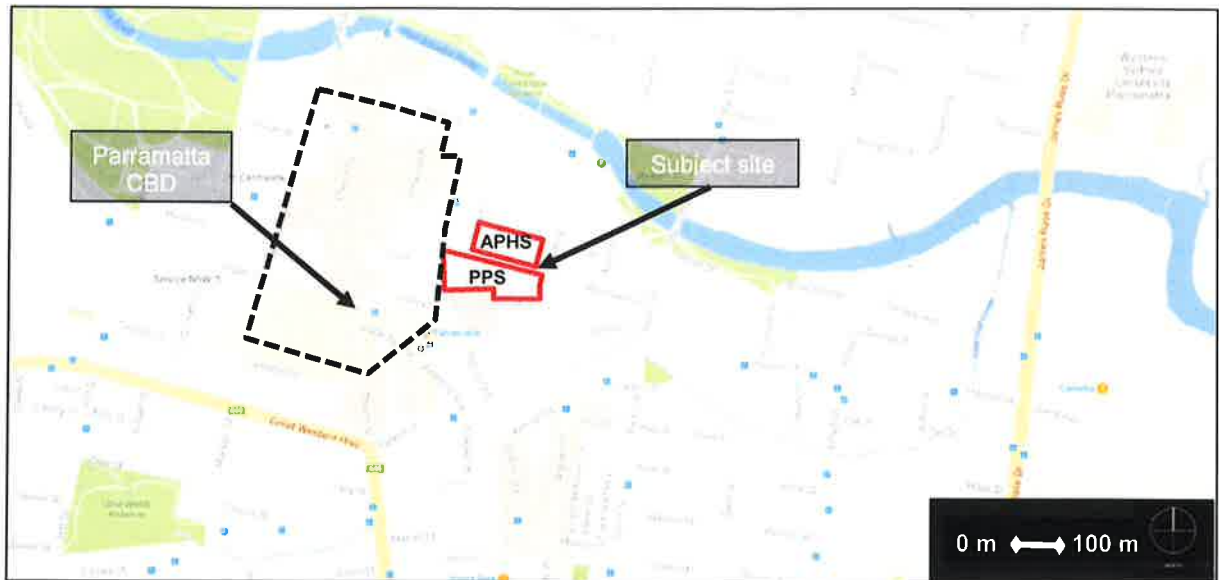


Figure 1: Project Location (source: www.nearmap.com)



Figure 2: Existing site layout (source: www.nearmap.com)

The locality is characterised by a mix of land uses, including commercial development and a range of mixed used and residential developments, varying in height from two storeys to 20 storeys. Parramatta's central business district is located approximately 250 metres west of the development site, via Macquarie Street.

Immediately adjacent the APHS site at 116 Macquarie Street, a planning proposal was recently approved by the Minister for Planning, permitting mixed used (rezoned B4 under PLEP) up to 136 metres in height.

In addition to the buildings listed as heritage items, the APHS site also contains the heritage significant Convict Barracks Wall. Both sites are also surrounded by a number of other heritage items, including the commonwealth listed Lancer Barracks Precinct, the locally listed 1st and 15th Royal NSW Lancer Museum collection, state and locally listed Wanders Cottages and State and locally listed Perth House and Stables and Moreton Bay fig tree.

1.3 Project Description

Table 1 provides a summary of the proposal's key components and features (as amended by the RtS) and **Figures 3 to 6** and **24** depict the proposed layout of both schools.

Table 1: Key Development Components

Development Summary	
	<p>Overall, the redevelopment consists of:</p> <ul style="list-style-type: none"> • demolition of existing buildings and construction of a 17 storey high school, two to three storey sports/movement complex and ancillary infrastructure and services for the APHS; • demolition of all existing buildings (except existing heritage school buildings) and construction of a four storey public school building and associated conservation and reuse of existing heritage listed buildings, ancillary recreation, infrastructure and services for the PPS; and • accommodation of (a total of) 2,000 secondary and 1,000 primary school students.
Arthur Phillip High School (80-100 Macquarie Street)	
	<ul style="list-style-type: none"> • demolition works, including tree removal; • construction of a new 17 storey (68.29 metre) 'vertical school'; • construction of a two to three storey sports/movement complex, comprising a café retail space fronting Barrack Lane (open to the public); • construction of a private 'L' shaped service lane between Macquarie Street and Barrack Lane, providing disabled access, 30 staff car parking spaces and loading facilities; • construction of two games courts along Macquarie Street; and • landscaping.
Parramatta Public School (175 Macquarie Street)	
	<ul style="list-style-type: none"> • demolition works, including tree removal; • construction of a new four storey (21.85 metre) U-shaped building, comprising shared community spaces at ground level and terraced landscaped roof; • fitout of heritage buildings for school administration uses, gallery, museum, and exhibition space uses for the school and community; • construction of three games courts along Macquarie Street; • retention of the drop-off/pick-up spaces in Little Street and provision of an additional eight parking spaces; and • landscaping.
General	
Site Landscaping and Public Domain	<ul style="list-style-type: none"> • 2.7 hectares of open space, comprising: <ul style="list-style-type: none"> • 14,442 sqm of APHS open space; • 8,000 sqm of PPS open space; and • 4,600 sqm of shared open space on the western end of the PPS site that will including two open turf areas and two APHS multi-purpose courts; • 360 mm high x 1500 mm wide planted edge and 2.1 m perimeter fencing, increasing to 2.4 m around sports courts; and • removal of 74 trees.
Site Area	APHS – 1.78 ha

	PPS – 1.2 ha
Gross Floor Area (GFA)	APHS – 24,521 sqm PPS – 6,785 sqm
Maximum Height	APHS – 68.29 m (17 storeys) PPS – 29 m (four storeys)
Students and Staff	APHS <ul style="list-style-type: none"> 2,000 secondary school students (approximately 600 additional students); and 108 staff (28 additional staff) PPS <ul style="list-style-type: none"> 1,000 primary school students (approximately 250 additional students); and 67 staff (12 additional staff)
Car Parking Spaces	APHS – 30 on-site spaces PPS – 8 additional off-site Little Street spaces (pick-up/drop-off during school start and finish times)
Construction Program	APHS <ul style="list-style-type: none"> two year construction period between 2017 and 2019; high school students relocated to Rowland Hassall School from term one, 2017; operational from term one, 2019. PPS <ul style="list-style-type: none"> one and a half year construction period between 2017 and 2019; primary school students relocated to Old Kings School from July, 2017; operational from term one, 2019.
Capital Investment Value	Over \$100 million
Jobs	40 new operational and 100 construction jobs

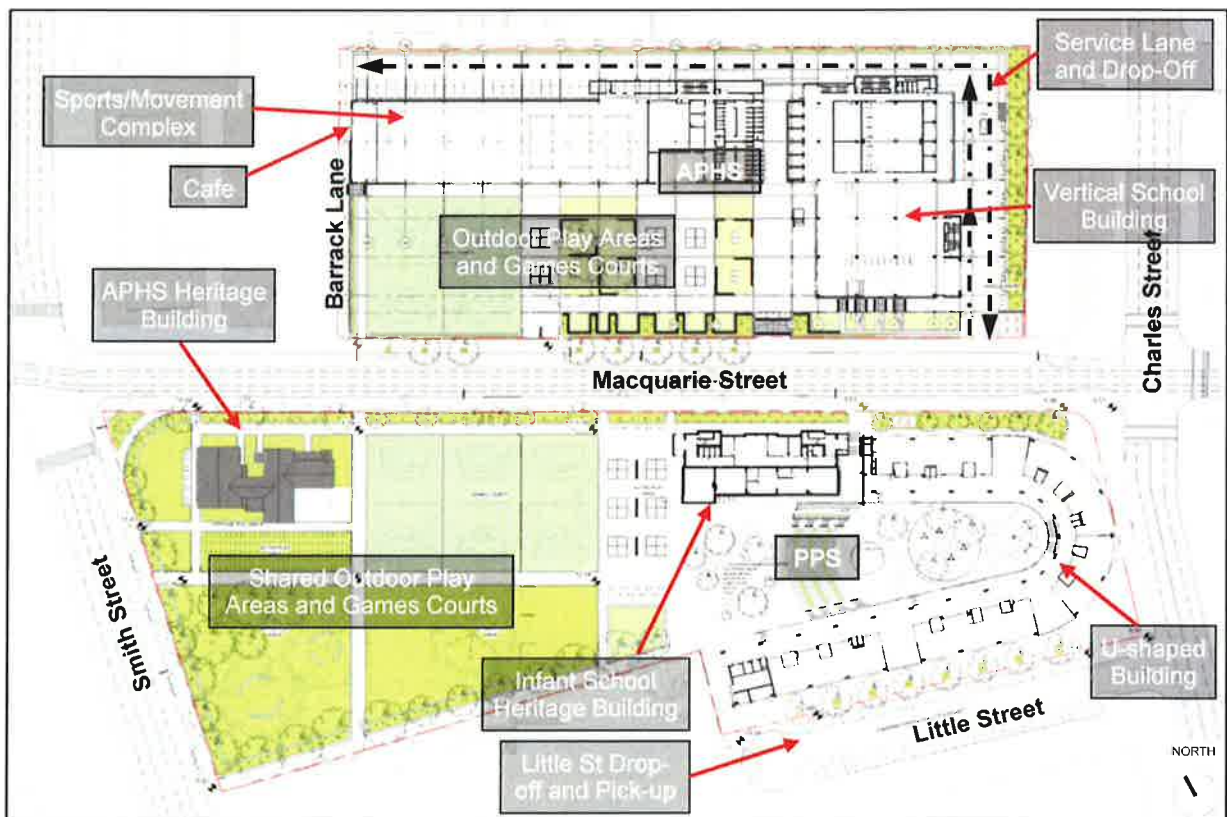


Figure 3: Proposed site layout (source: Applicant)



Figure 4: Project site layout (north-eastern aerial view) (source: Applicant)

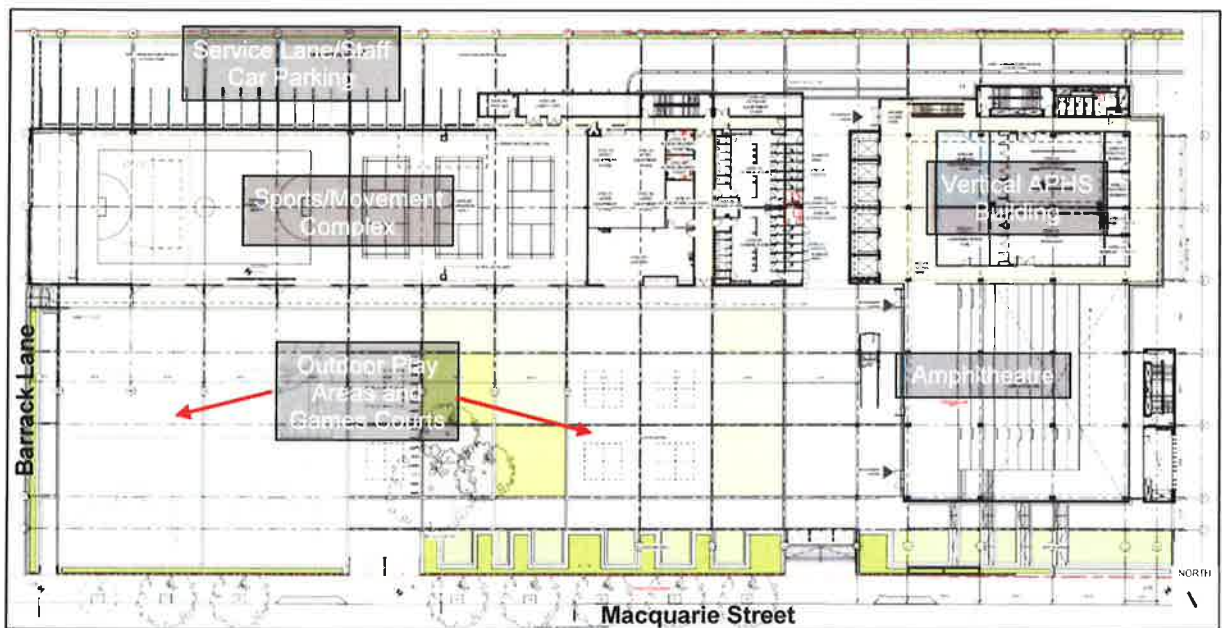


Figure 5: APHS Project site layout (Ground Floor Plan) (source: Applicant)

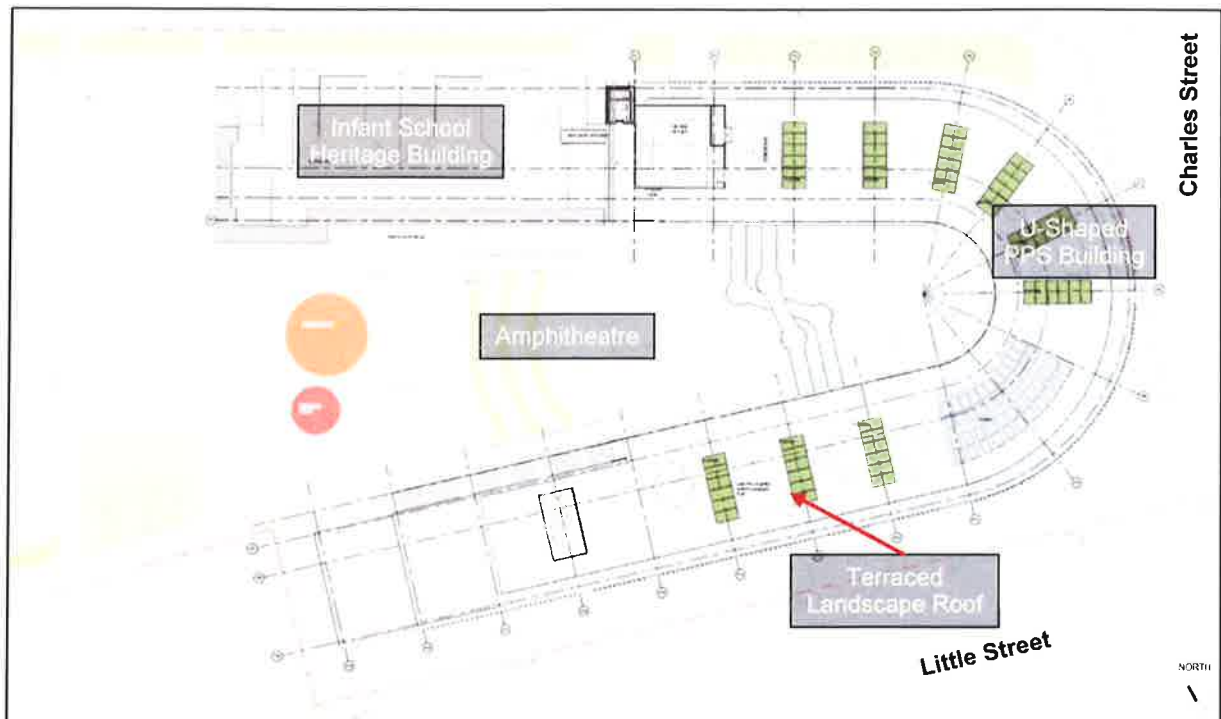


Figure 6: PPS Project site layout (Roof Plan) (source: Applicant)

1.4 Project Need and Justification

The applicant states the existing APHS and PPS are both currently operating well above capacity, at 139 per cent and 143 per cent respectively, and argues a strategic need exists to redevelop both school campuses to address the immediate and projected future student capacity demands. The applicant also states the proposed redevelopment of both campuses would facilitate the provision of new and improved educational facilities and teaching spaces.

The applicant notes education is a key area of focus for the NSW Government and State Infrastructure Strategy and that the proposed redevelopment of APHS and PPS represent the first investment from the Government's \$1 billion *Rebuilding NSW Schools* fund.

The proposal aligns strongly with *Premiers Priorities* and *A Plan for Growing Sydney* in providing new schools to meet the growing needs of Parramatta, as Sydney's second central business district (CBD), and making provision for improved resources, teaching and educational outcomes for students.

The tower scale of the APHS proposal is consistent with surrounding development in the Parramatta city centre and the development was subject to a design competition process to ensure a high quality architectural design response is achieved, continuing the revitalisation of the Parramatta CBD.

2. STATUTORY AND STRATEGIC CONTEXT

2.1. SEPP (State and Regional Development) 2011

The proposal is classified as State significant development because it is development for the purpose of an *educational establishment*, with a Capital Investment Value (CIV) in excess of \$30 million in accordance with Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP). Therefore the Minister for Planning is the consent authority.

2.2. Delegated Authority

In accordance with the Minister's delegation dated 16 February 2015, the Executive Director, Priority Projects Assessments can determine the subject application as the City of Parramatta (Council) has not objected to the proposal, no political disclosure statement has been made and less than 25 public submissions have been received objecting to the proposal.

2.3. Zoning and Permissibility

The site is zoned B3 Commercial Core under the PLEP. The proposed development is permissible with consent. The Department of Planning and Environment (the Department) also considers the proposal to be consistent with the zone objectives as follows:

- the proposal will provide 100 full time construction and 40 operational jobs in a highly accessible inner city location;
- the proposed increase in student enrolment capacities and the site's CBD location will help encourage increased public transport patronage and reduce the use of the private vehicle;
- the design of the proposal makes provision for public pedestrian through-site linkages that promote improved connections to the Parramatta city centre;
- the proposal will retain and reuse the existing heritage items on-site for both school and community purposes; and
- the design of the proposal orientates the redevelopment to Macquarie Street and proposes two pedestrian crossings, which support the safe movement of students between campuses and promote the activation of the street frontages.

2.4. Environmental Planning Instruments

The Department's consideration of relevant Environmental Planning Instruments (EPIs) (including State Environmental Planning Policy (SEPP)) is provided in **Appendix B**. The proposal is consistent with the relevant requirements of the following EPIs:

- SRD SEPP;
- State Environmental Planning Policy No.55 – Remediation of Land (SEPP 55);
- State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP); and
- PLEP.

2.5. Objects of the EP&A Act

Decisions made under the *Environmental Planning and Assessment Act 1979* must have regard to the objects of the EP&A Act, as set out in section 5 of the Act (see glossary at **Appendix C**). The proposal complies with the objects of the EP&A Act as it represents the coordinated redevelopment and economic use of the existing public land for the purpose of renewing APHS and PPS to deliver improved teaching and education outcomes for current and future students. The proposal will also provide for new shared facilities open to the community.

2.6. Ecologically Sustainable Development

The EP&A Act adopts the definition of Ecologically Sustainable Development (ESD) found in the *Protection of the Environment Administration Act 1991* (see glossary at **Appendix C**). Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- (a) *the precautionary principle,*
- (b) *inter-generational equity,*
- (c) *conservation of biological diversity and ecological integrity,*
- (d) *improved valuation, pricing and incentive mechanisms.*

The Department has considered the project in relation to the ESD principles. The Precautionary and Inter-generational Equity Principles have been applied in the decision making process via a

thorough and rigorous assessment of the environmental impacts of the project. The proposal is considered to be consistent with ESD principles as described in Section 7.7 of the applicant's Environmental Impact Statement (EIS) and Appendix 21 of its Response to Submissions (RtS), which has been prepared in accordance with the requirements of Schedule 2 of the *Environmental Planning Assessment Regulation 2000* (EP&A Regulation).

The proposal is located on a previously developed and disturbed site. It would not result in the loss of any threatened or vulnerable species, populations, communities or significant habitats. However, the redevelopment would result in the loss of 74 trees. The proposal includes a mixture of native and exotic tree planting to offset this loss, embellishing new landscaped open space areas and along Macquarie Street and the new APHS service lane. The site is not subject to bushfires, though is marginally impacted by the probable maximum flood (PMF) level and 100 year average recurrence interval (ARI) flood level. Notwithstanding, the proposal has been designed with finished floor levels above the flood planning level to ensure any potential impacts are minimised.

The applicant has also identified that ESD initiatives have been incorporated into the design, including energy efficient passive design to maximum indoor environmental quality, strategies to minimise water and embodied energy consumption, transport strategies to promote sustainable measures and reduce vehicular emissions, and to target 4 star Green Star Education v1 tool rating.

The Department has considered the development in relation to the ESD principles and is satisfied that the proposed sustainability initiatives would encourage ESD, in accordance with the objects of the EP&A Act.

2.7. Environmental Planning and Assessment Regulation 2000

Subject to any other references to compliance with the EP&A Regulation cited in this report, the requirements for Notification (Part 6, Division 6) and Fees (Part 15, Division 1AA) have been complied with.

2.8. Strategic Context

The Department considers that the proposal is appropriate for the site given:

- it is consistent with *Premiers Priorities* to improve education results through the provision of new and improved teaching and education facilities;
- it is consistent with *A Plan for Growing Sydney*, as it proposes new school facilities to meet the growing needs of Sydney and supports the growth of Parramatta as Sydney's second CBD;
- it is consistent with the *State Infrastructure Strategy Update 2014*, as it proposes:
 - a large school in an urbanised area on an existing public land minimising land acquisition;
 - facilities to support the growth in demand for primary and secondary student enrolments for Parramatta and Western Sydney; and
 - a school design to accommodate infrastructure and facilities sharing with communities.
- is consistent with the vision outlined in the Greater Sydney Commission's draft *West Central District Plan* (currently on exhibition), as it will provide much needed school infrastructure conveniently located near existing public transport services and opportunities to co-share facilities with the local community; and
- it would provide direct investment in the region of \$123 million, which would support 100 construction jobs and 40 new operational jobs.

2.9. Secretary's Environmental Assessment Requirements

The EIS is compliant with the Secretary's Environmental Assessment Requirements and is sufficient to enable an adequate consideration and assessment of the proposal for determination purposes.

3. EXHIBITION CONSULTATION AND SUBMISSIONS

3.1. Exhibition

In accordance with section 89F of the EP&A Act and clause 83 of the EP&A Regulation, the application and accompanying information was made publicly available for at least 30 days following the date of first publication. The Department publicly exhibited it from 19 May 2016 until 17 June 2016 (30 days):

- on the Department's website; and
- at the Department's Information Centre and City of Parramatta offices.

The Department also advertised the public exhibition in the Sydney Morning Herald, The Daily Telegraph and the Parramatta Advertiser on 18 May 2016. The Department notified adjoining landholders, and relevant State and local government authorities in writing.

The Department received a total of 14 submissions during the exhibition of the application - 11 submissions from public authorities, including Council, two submissions from organisations and one from the general public. A summary of the issues raised in the public authority submissions is provided in the following section.

3.2. Public Authority Consultation and Submissions

No public authority objected to the proposal, however, Council, Transport for NSW (TfNSW), the Environment Protection Authority (EPA) and the Heritage Division of the Office of Environment and Heritage (Heritage Office) provided comments for consideration in the Department's assessment of the application. A summary of the issues raised is provided below.

Council raised no objections to the proposal and provided the following comments for consideration:

- the proposed should be reported back to the Design Competition Jury to ensure consistency with the winning scheme;
- Council is disappointed that Lane 19, as described in Parramatta Development Control Plan (PDCP) and Parramatta City Centre Lanes Strategy (PCCLS), has not been incorporated into the design of the proposal and requests the design be amended to transform the private access way into a publicly accessible lane;
- recommended wind impact mitigation measures have not been incorporated into the design of the proposal;
- insufficient fencing details have been provided;
- the social impact assessment provides limited information and does not address a number of potential social implications and should be revised to address:
 - details of student/teacher relocations during demolition and construction;
 - operational arrangements of proposed shared community facilities;
 - social impacts caused by the design of the site;
 - the school's interaction with Council and use of its facilities;
 - how the significant increase in student numbers will interact with, and impact on, existing and future public facilities, local businesses, and public spaces;
 - use of the Little Street drop-off/pick-up to facilitate interaction between parents and guardians; and
 - recreation and open space considerations;
- there are likely to be insufficient space requirements for the 3,000 students play and physical activity needs, and further details should be provided on likely use and demand for existing public open space facilities;
- road upgrades to Little Street to accommodate a pedestrian refuge island should be installed to facilitate improved pedestrian movements across the street; and
- detailed design plans of development fronting Barrack Lane should be provided to enable Council to finalise its Barrack Lane upgrade design.

The **Commonwealth Department of Defence** (as adjoining landowners) provided the following comments for consideration:

- concern is raised the proposal may cause damage to heritage significant buildings located at Lancer Barracks and requests a dilapidation report be prepared;
- requests an assessment of proposed underground drilling/construction be undertaken to ensure the proposal will not impact on the structural integrity or heritage values of any Department of Defence buildings at Lancer Barracks; and
- requests overshadowing of the proposed 17 storey APHS building be appropriately assessed and considered to ensure it does not impact on the Lancer Barracks Precinct.

Heritage Office provided the following comments and recommendations for consideration:

- vibration monitoring should be carried out on all heritage items in the vicinity of proposed demolition and construction works and cease vibration generating activities that cause harm and implement alternate work methods;
- protect significant building fabric and elements from potential damage during works;
- archaeological testing should be undertaken across areas of proposed harm to inform the detailed design of the development; and
- an interpretation strategy should be prepared and include details of the archaeological investigations and how the results will be incorporated into the completed development.

EPA provided the following comments for consideration:

- further detailed assessment of potential site and ground water contamination should be undertaken following demolition of existing buildings;
- a Site Auditor should be engaged to prepare a Section A Site Audit Statement prior to construction works commencing to determine the suitability of the site;
- information and details should be obtained regarding the potential presence of decommissioned boilers;
- concerns are raised regarding the Noise and Vibration Planning Report and the applicant should provide a worst case quantitative assessment of background noise level in accordance with the *Industrial Noise Policy* (INP) and quantitative assessment of construction and operational noise impacts of the proposal on sensitive receivers; and
- the applicant should be required to identify the nature and scope of any clinical waste likely to be generated during the operation of the new schools and measures to handle, store, transport and dispose of those wastes.

The EPA also recommended a number of standard conditions of consent for the Department's consideration relating to construction and operational noise impacts and management, waste management, erosion and sediment control and dust control.

TfNSW raised no objections to the proposal and provided the following comments for consideration:

- Macquarie Street has been identified as a Parramatta Light Rail (PLR) route option that would likely impact on-street parking and the proposed APHS vehicle access and requests the applicant consult with TfNSW to ensure the PLR can be integrated;
- a detailed pedestrian route assessment should be undertaken to assess key routes to the schools and identify measures that would maintain or improve safety; and
- the Transport Assessment report should be updated to assess staff trip generation and car mode share based on Journey to Work Data, and the drop-off demand assessment should be updated to consider the existing alternative drop-off locations.

TfNSW also recommended a number of conditions of consent including that a final Green Travel Plan (GTP) be prepared, measures to encourage active transport trips be provided, and a swept path analysis be undertaken for service vehicles and buses. It also recommended that a Construction Traffic Management Plan (CTMP) be prepared for the development.

Roads and Maritime Services (RMS) advised it raises no objections to the proposal.

Office of Environment and Heritage (OEH) advised it raises no objections to the proposal.

Sydney Water raised no objection to the proposal and recommended standard conditions of consent regarding the arrangements for utilities.

Sydney Trains advised it raises no objections to the proposal.

NSW Police Force (NSW Police) raised no objections to the proposal, though raised concerns regarding the proposed augmentation to on-street parking spaces in Little Street for the expansion of the existing pick-up/drop-off facility.

Endeavour Energy raised no objections to the proposal and provided comments and recommendations for consideration relating to the requirements for electricity augmentation and supply, vegetation management, public safety and implementation of measures to manage unexpected exposure of asbestos containing materials in Endeavour Energy's existing underground assets.

The Department has fully considered the issues raised in submissions in its assessment of the development.

3.3. Public Submissions

The Department received two submissions from organisations (being Dyldam Development and a property management company known as 93 George Street Pty Ltd) and one public submission. While no objections to the proposal were raised, a summary of the key issues detailed in the submissions is provided in **Table 2**.

Table 2: Summary of Public Issues

Issue	Key Concern
Construction noise	Construction noise be assessed and enforced during works in accordance with current regulations.
Dilapidation	A dilapidation report be completed for properties adjoining APHS to the north prior to demolition and construction works.
Vandalism	The increase in pedestrian activity surrounding Lancer Barracks from the proposal and Western Sydney University nearby may lead to potential vandalism of the heritage items.
East-West Lane	Opportunity exists to create an east-west link through the site via the proposed access lane that would connect Union/Charles Street and Robin Thomas Reserve to the east and provide improved connections to the redeveloping city centre.

3.4. Applicant's Response to Submissions

The applicant provided a Response to Submissions (RtS) report that responded to the issues raised in submissions, and included additional information and justification regarding: the design competition outcome; heritage impacts; social impacts; amenity impacts; site contamination; the design, use and access arrangements of the proposed APHS service lane; public domain; open space; and perimeter site fencing.

The applicant's RtS also proposed a number of minor amendments to the proposal, including:

- boundary setback amendments to APHS and PPS;
- minor increase to the APHS building height, from 68 m to 68.34 m to accommodate photovoltaic cells;
- amendments to the external façade materials of both APHS and PPS to better match the character of retained heritage items;
- amendment to the APHS interior stair position and of outdoor learning spaces;

- internal amendments to PPS to relocate the lift core slightly north, reduce the number of sky bridges from three to two and to replace the perforated metal balustrade with a vertical palisade design to increase visual permeability;
- increase to the perimeter fencing height from 1.8 m to 2.1 m;
- provision of additional entry points to increase site permeability; and
- amendments to the landscape design.

The RtS was made publicly available on the Department's website and was also referred to Council, TfNSW, EPA and the Heritage Office for review. A summary is provided below. No public submissions were received regarding the responses provided and proposed changes outlined in the RtS.

Council advised it had outstanding concerns and provided the following RtS comments for consideration:

- the public domain design is inward-facing and is not considered an appropriate response for the central city location;
- the applicant should redesign boundary fencing to both school sites as an architectural feature;
- the applicant should redesign the entire Barrack Lane interface to deliver a fine-grain, engaging built form and landscape design appropriate to the high volume of pedestrians in this area;
- concern is raised with the missed opportunity to provide public access to the new lane at the rear of the APHS site to better integrate the site with the surrounding area and consideration should be given to providing properties to the north with ancillary or service access to their buildings; and
- the installation of a pedestrian refuge to cross Little Street at Cross Street is still required in accordance with Council's original comments.

The **EPA** raised no objections and provided the following RtS comments for consideration:

- the assessment of the site by an accredited site auditor is supported by the EPA;
- a Section B site audit statement be issued prior to any construction works to confirm the remedial action plan is appropriate;
- a Section A site audit statement be issued to confirm the remedial methods are appropriate for the proposed land use;
- where the recommended remediation methodology involves covering the layer, the applicant be required to
 - install a subsurface marking layer to highlight the presence of asbestos contaminated material;
 - prepare a long term environmental management plan (EMP); and
 - notify Council of the existence of the EMP;
- the applicant prepare a hazardous materials register;
- asbestos and polychlorinated biphenyl capacitors should be removed and their removal validated prior to commencement of demolition work;
- where site re-contouring is proposed, the applicant must ensure that further test pit investigations below 0.5 metres below ground level are undertaken and appropriate earthworks and landscaping controls are developed in consultation with the site auditor;
- the applicant should investigate potential groundwater contamination;
- a detailed unexpected finds protocol is to be developed by the applicant that considers finds associated with the former defence use of the land;
- the applicant should undertake background noise monitoring at the most potentially affected locations in accordance with the INP; and
- installed mechanical plant and equipment should not exceed the INP design objectives or emit tones or other annoying characteristics.

The **Heritage Office** reviewed the applicant's response on matters concerning archaeological heritage and provided the following comments on the RtS for consideration:

- it is understood the development will be proceeded by archaeological excavation as proposed in the supporting historical archaeological research design (ARD);
- the ARD has not adequately justified the argument that no structure was located on land within Quadrant 4 and verification be provided to better clarify the likelihood of an earlier structure at this location;
- quadrant specific research questions are recommended to more clearly identify and address valid questions that could be addressed through archaeological investigation of the site;
- it is recommended section 9.3.1 of the ARD be refined to better address valid questions raised earlier in the ARD; and
- ground penetrating radar should not be considered in lieu of detailed archaeological excavation of the site.

TfNSW raised no objections to the proposal, advising it would continue to work with the applicant to ensure the proposal is integrated with a possible future light rail along Macquarie, and recommended conditions requiring the preparation of an access management plan, green travel plan (GTP) and CTMP.

3.5. RtS Addendum

In response to comments made by Council and agency's on the applicant's RtS, an addendum response was provided by the applicant, including updated detailed site investigation reports for the APHS and PPS sites, and a new remedial action plan.

The applicant also provided further justification for not including the public pathway connecting Little Street to Smith Street through the PPS site, as originally endorsed as part of the competition winning entry scheme, citing high security concerns for children. It also noted the occurrence of a number of incidents in the past 12 months in and around the subject site and that not providing the public pathway through the primary school would ensure a safer environment is provided.

The Department has fully considered the applicant's response to issues raised in submissions in its assessment of the development as detailed in **Section 4** of this report.

4. ASSESSMENT

4.1. Section 79C Evaluation

Table 3 identifies the matters for consideration under section 79C (see glossary at **Appendix C**) that apply to State significant development, in accordance with section 89H of the EP&A Act. The table represents a summary for which additional information and consideration is provided for in **Section 4** (Key and Other Issues) and relevant appendices or other sections of this report and the EIS, referenced in the table.

The EIS has been prepared by the applicant to consider these matters and those required to be considered in the SEARs and in accordance with the requirements of section 78(8A) of the EP&A Act and Schedule 2 of the EP&A Regulation.

Table 3: Section 79C(1) Matters for Consideration

Section 79C(1) Evaluation	Consideration
(a)(i) any environmental planning instrument	Consideration of relevant EPIs has been undertaken in Appendix B . The proposal satisfactorily complies with these EPI's.
(a)(ii) any proposed instrument	Not applicable.
(a)(iii) any development control plan	Refer to Appendix B .*

(a)(iia) any planning agreement	Not applicable.
(a)(iv) the regulations	The development application satisfactorily meets the relevant requirements of the EP&A Regulation, including the procedures relating to development applications (Part 6 of the EP&A Regulations), public participation procedures for SSD's and schedule 2 of the EP&A Regulation relating to environmental impact statements. Refer to discussion at Section 2.7 .
(a)(v) any coastal zone management plan	Not applicable.
(b) the likely impacts of that development	The Department's assessment has given appropriate consideration to the likely impacts of the proposal and is satisfied they can be appropriately mitigated or conditioned (refer to Section 4.2).
(c) the suitability of the site for the development	The site currently contains existing educational establishments and is considered suitable for the proposed high-density redevelopment given its inner city location (refer to Section 2.8).
(d) any submissions	Consideration has been given to the submissions received during the exhibition in Section 3 of this report. Key issues raised in submissions have been considered further in Section 4.2 of this report.
(e) the public interest	The proposal is in the public interest as it would provide increased student enrolment capacity, improve educational and teaching facilities and provide improved learning outcomes for students (refer to Section 4.2.3).
Biodiversity values exempt if: (a) On biodiversity certified land (b) Biobanking Statement exists	Not applicable.

* Under clause 11 of the SRD SEPP, development control plans do not apply to state significant development. Notwithstanding, consideration has been given to relevant Development Control Plans at **Appendix B**.

4.2. Key Issues

The Department has considered the EIS, the issues raised in submissions and the applicant's response to these issues in its assessment of the application. The Department considers the key issues to be:

- built form and urban design;
- heritage;
- traffic, transport and parking impacts; and
- social impacts.

4.2.1. Built form and urban design

Bulk and Scale and Materials and Finishes

General

The proposal comprises the demolition of the majority of existing structures from both school sites, retention of two existing heritage significant school buildings (located on the PPS site), construction of a new 17 storey high school building and associated two storey movement/sports complex (sports complex) on the northern APHS site and construction of a new four storey primary school building on the southern PPS site. The design and layout of the new school buildings serves to deliver modern, contemporary education spaces that provide a more efficient use of space, with the proposed siting and arrangement of built form preserving and consolidating the existing open space of the site.

The sites are subject to varying floor space ratio (FSR) and building height controls under PLEP (as detailed in **Figures 7 and 8**), with the ability for a further 15 per cent FSR and building height bonus available for developments that exhibit design excellence. **Table 4**

details the proposed FSR and building heights against the PLEP development standards and 15 per cent bonus.



Figure 7: PLEP FSR Control Map

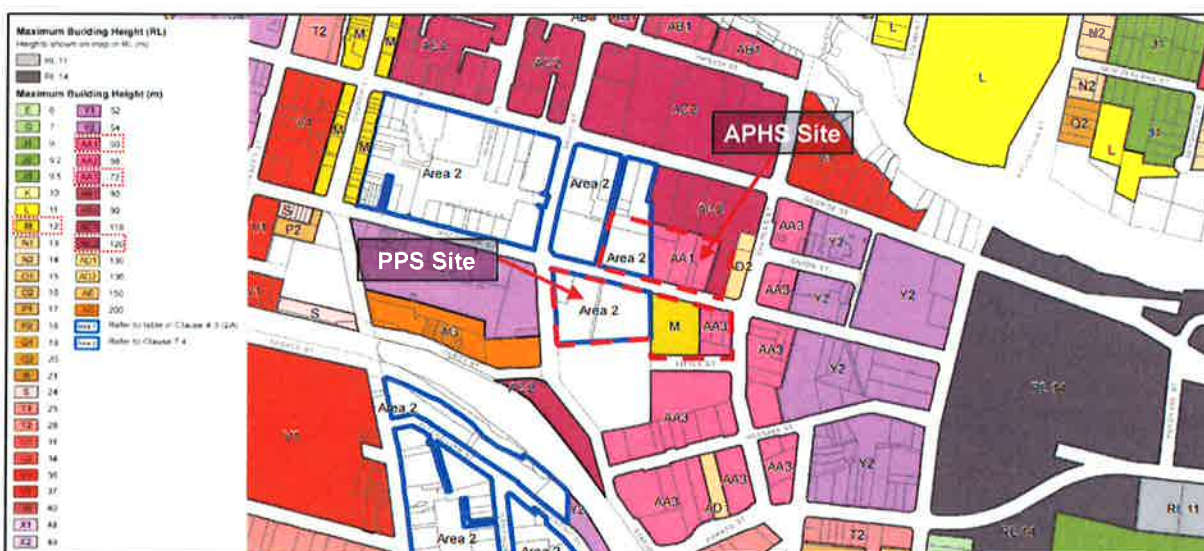


Figure 8: PLEP Height Control Map

Table 4: PLEP Building Height and FSR Development Controls

School Site	Building Height			FSR		
	Control	15 % Bonus	Proposed	Control	15 % Bonus	Proposed
APHS	AC2: 120 m	138 m	73.54 m	AE1: 10:1	11.5:1	0.24:1
	AA1: 60 m	69 m	68.34	AA1: 6:1	6.9:1	1.76:1
	Area 2: PDCP sun access plan	N/A	7.92 m – 11.13 m			
PPS	AA3: 72 m	82.8 m	16.2 m	AA1: 6:1	6.9:1	1.24:1
	M: 12 m	13.8 m	18.76 m	T1: 2:1	2.3:1	0.22:1

No objection was raised by Council during the exhibition to the proposed bulk and scale of new development proposed on either the APHS or PPS sites. However, the Department of Defence raised some concern over the resultant overshadowing of the Lancer Barracks Precinct, adjacent to the south of the PPS site.

APHS Site

The proposed APHS has a total gross floor area (GFA) of 24,521 sqm and will comprise a 17 storey (68.34 metres to the roof and 71.54 metres to the top of the building flues) tower building and two to three storey movement/sports complex (sports complex), ranging in height between 7.92 metres to 11.13 metres (see **Figure 9**). The proposed height of the APHS buildings have been designed to comply with, and take advantage of, the 15 per cent height bonus for proposals that demonstrate design excellence, complying with the 69 m (area 'AA1' in **Figure 8**) and 138 m (area 'AC2' in **Figure 8**) controls.

The proposed 0.24:1 and 1.76:1 floor space ratios (FSR) also comply with the relevant 6:1 (area 'AA1' in **Figure 7**) and 10:1 (area 'AE1' in **Figure 7**) FSR controls applicable across the APHS site, without even taking into consideration the 15 per cent bonus available.

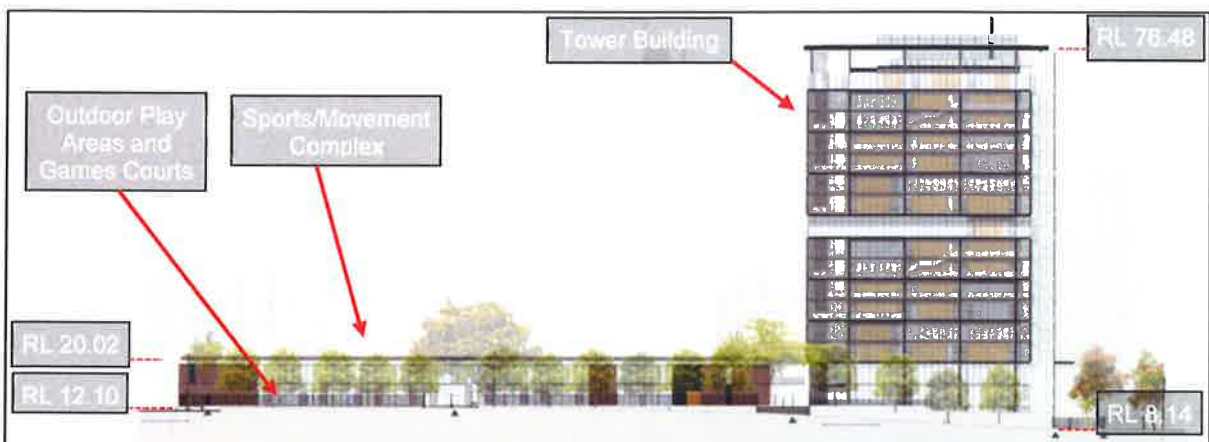


Figure 9: APHS Macquarie Street (Southern) Elevation (source: Applicant)

The proposed tower building is sited in the eastern corner of the site, setback six metres from its Macquarie Street frontage, while the proposed service lane provides a setback of 18 metres and eight metres to the eastern and northern boundaries respectively. The tower building is intended to comprise six double height 'homebase' flexible teaching space areas, with three single height levels interspersed between, for science, technology, engineering arts and maths.

The proposed rectangular shaped sports complex is designed as a single level large volume indoor sports hall and comprises a two storey element (contained within the same height) at its eastern end for storage, change rooms, a canteen and staff lounge and amenities. At its western elevation to Barrack Lane, the sports complex would be read as a three storey building (see **Figure 10**) due to the proposed small café use fronting the laneway and have an approximate maximum building height of 11.13 metres. The sports complex is sited along the northern half of the APHS site, adjacent to the rear service lane, and setback eight metres from the northern boundary and approximately 39 metres from its Macquarie Street frontage. A nil setback is proposed to its western Barrack Lane boundary, with a commercial café proposed at the lower ground level to better activate the lane, the operation and fitout of which is recommended to be subject to a separate development application.

The height and form of the proposed APHS tower building is generally consistent with the surrounding built form and future development envisaged within the Parramatta Square and its proposed bulk and scale would sit comfortably within the existing and future character of the locality. The Department notes a planning proposal for the site immediately adjacent to the east at 116 Macquarie Street was recently approved permitting future mixed-use development up to 136 m.

The height of the proposed sport complex would not result in any significant departures from the character of existing development on-site or commercial development immediately adjacent that ranges in height from approximately two storeys to 12 storeys. In this regard, the Department notes its height and siting would be generally consistent with the existing gymnasium building that is proposed to be demolished.



Figure 10: APHS Barrack Lane (Western) Elevation (source: Applicant)

The APHS building external façade materials and finishes are comprised of a series of powder coated aluminium screened louvre facades that enclose the perimeter breezeways and outdoor learning terraces and in-situ vertical concrete cores containing fire stairs, toilets, plant and risers. Internal coloured balustrades are proposed to be installed to circulation areas and stairs, with teaching spaces proposed to be clad with curtain wall glazing, laminated glass louvres and solid insulated timber panels.

Federation red bricks are proposed to be used in the design of the sports complex, particularly at the ends of the building and associated retaining walls that would ensure it integrates with the materiality of the existing heritage significant buildings opposite on the PPS site. The southern elevation has been designed as a fully flexible system to allow the hall to completely open up, through the use of glazed style lifting garage doors, and connect to adjoining outdoor courts.

PPS Site

The PPS site is predominantly subject to a 2:1 FSR control (area 'T1' in **Figure 7**), while a small section of the eastern end of the site is subject to a 6:1 FSR control (area 'AA1' in **Figure 7**). Development proposed on the PPS site will result in FSR's of 0.22:1 and 1.24:1 respectively in the T1 and AA1 zones, which satisfactorily comply with the development standard.

The proposed PPS comprises a four storey 'U-shaped' primary school building with a varying maximum building height of 16.2 metres to the roof level at its eastern, Charles Street elevation (or 18.06 metres to the top of the rooftop balustrade) and 14.02 metres at its northern, Macquarie Street elevation (or 15.88 metres to the top of the rooftop balustrade and 18.76 metres to the top of the lift overrun) (see **Figures 11 to 13**).

The proposed building height at the eastern end of the site adjacent to Charles Street satisfactorily complies with the maximum 82.8 metres (area 'AA3' in **Figure 8**) building height control, however the proposal exceeds the maximum 13.8 metre building height control in the centre of the site (area 'M' in **Figure 8**) by approximately 4.96 m (top of the lift overrun).

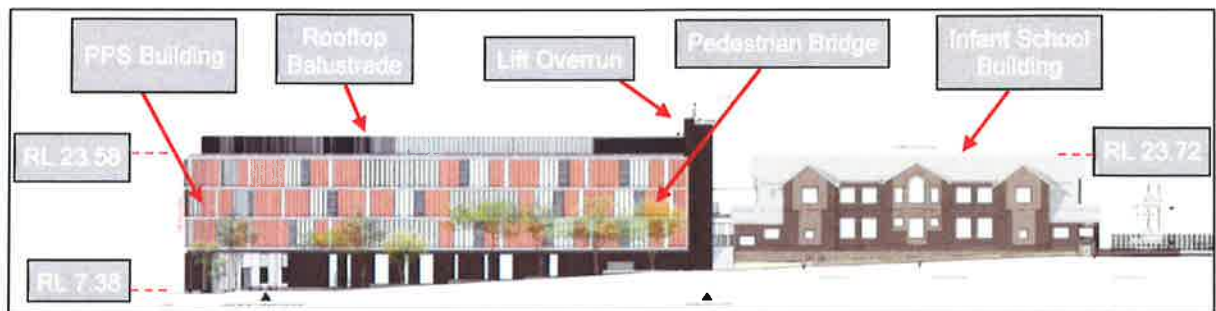


Figure 11: PPS Macquarie Street (Northern) Elevation (source: Applicant)



Figure 12: PPS Internal Northern Elevation (source: Applicant)



Figure 13: PPS/APHS Charles Street (Eastern) Elevation (source: Applicant)

In justifying the non-compliance, the applicant has noted that the non-compliant building elements include only a small portion of the roof balustrade, lift overrun and associated flue and argues that:

- the majority of the U-shaped PPS building complies with the maximum height control;
- the intrusions are minor and ancillary building elements to facilitate the operation of the building, particularly the trafficable green rooftop;
- the non-compliance will not impact on the amenity of its surrounds;
- the proposal is consistent with the objectives of the height standard and zone objectives;
- the design of the building was subject to a design excellence process; and

- there would be no public benefit in maintaining strict compliance with the maximum building height.

The Department acknowledges that while a section of the proposed PPS exceeds the relevant building height development standard under PLEP, clause 4.6 of PLEP operates to preclude development standards which restrict infrastructure development (e.g. educational establishments) undertaken by a Crown Authority.

In this instance, the merit of the proposal should be taken into account in assessing whether the built form is appropriate for the site. The Department has carefully considered the height, bulk and scale of the new PPS development and concludes that the proposed building height non-compliance is minor in the context of the overall proposal, will not give rise to any adverse amenity or environmental impacts and compliance with the building height standard is not considered necessary under the circumstances.

The new PPS building is sited at the eastern end of the site and setback six metres to Little Street on part of its southern boundary and six metres to Macquarie Street on its northern boundary, consistent with the adjacent Infant School Building. A five metre setback to western boundary with Lancer Barracks is proposed, while a nil setback to the property boundary is proposed on Charles Street. The PPS building is intended to comprise three learning levels, with ancillary communal spaces located at the rooftop and ground level, including a community space/hall, canteen and other community/shared learning spaces.

No external works are proposed to the existing two storey Infant School Building, except for the provision of a new elevated, covered pedestrian bridge linking the upper level to level two of the new PPS building. Internally, the Infant School Building is proposed to be revitalised to provide for the staff lounge and amenities and administration.

The PPS building external façade materials and finishes of the upper floor levels comprises of concrete masonry cladding panels vertically arranged and separated by glazing and fixed laminated glass louvres, which is set atop a brick cavity wall base of the ground level at the eastern Charles Street end of the site. Internally, perforated metal screens, referencing the APHS building, and metal balustrades are proposed to circulation areas, while the ground floor and hub area is proposed to promote its flexible space design through the use of large lifting garage-style glazed doors.

The Department concludes that the proposed PPS materiality is satisfactory, promoting the new modern education establishment to the surrounding public domain, while the providing a physical link to the materiality of the heritage significant Infant School Building through the proposed ground level brick cavity wall base.

Overshadowing

The design and layout of development on the APHS and PPS sites seeks to maximise open space and recreational area, and minimise overshadowing impacts on surrounding areas, including the heritage significant Lancer Barracks. In response to the Department of Defence's comments regarding the overshadowing of Lancer Barracks, the applicant advised in its RtS that the proposal would only generate minor additional overshadowing to Lancer Barracks until approximately 11 am during mid-winter.

The Department acknowledges the proposal will cast additional shadows across the Lancer Barracks Precinct during the early morning until shortly after approximately 10 am (winter solstice APHS shadowing shown blue and PPS shadowing shown green in **Figures 14 to 18**). After this period, no additional impacts are generated by the proposal and would satisfactorily comply with Council's Sun Access Plane controls.

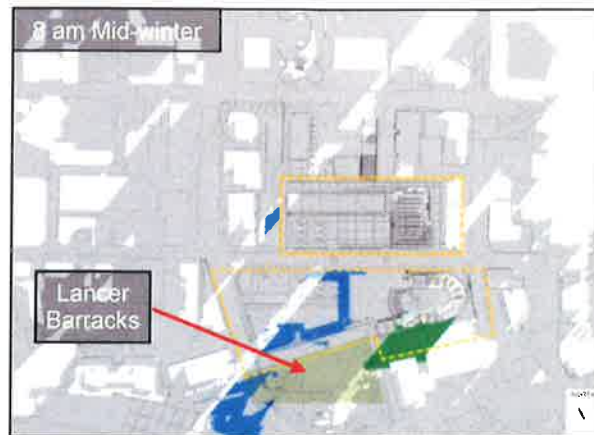


Figure 14: 8 am Shadow Diagram



Figure 15: 10 am Shadow Diagram

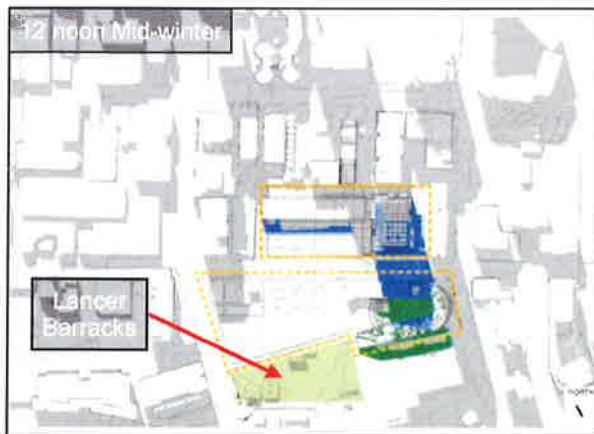


Figure 16: 12 noon Shadow Diagram

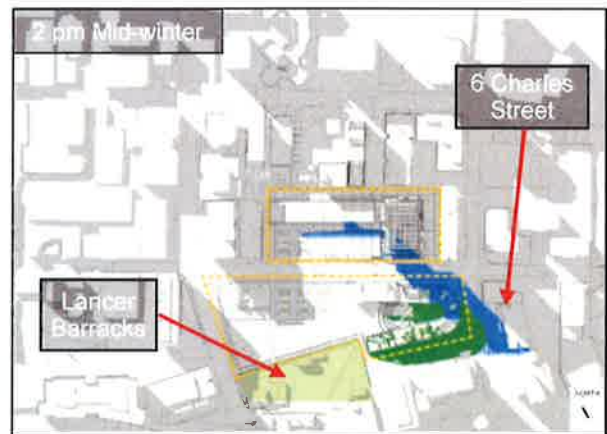


Figure 17: 2 pm Shadow Diagram

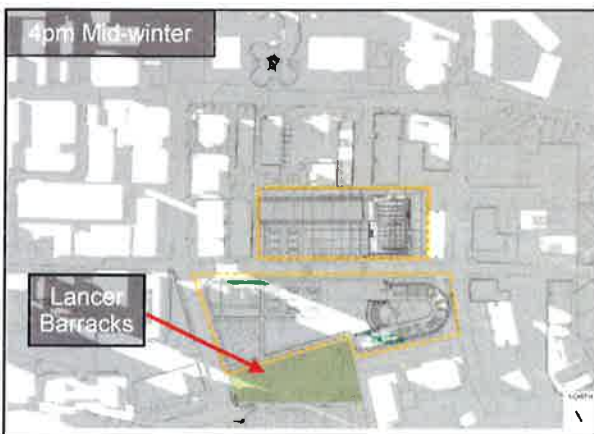


Figure 18: 4 pm Shadow Diagram

Overshadowing generated by the PPS proposal is limited to a small section on the eastern boundary of the heritage precinct for no greater than two hours from 8 am during the winter solstice. The minor section of the PPS building that exceeds the building height development standard of PLEP would have a negligible contribution to overshadowing on the adjoining Lancer Barracks Precinct.

The APHS tower building would also cast additional overshadowing onto the western façade of the existing residential flat building at 6 Charles Street from approximately 2 pm. However, it is noted that after this period, the proposal would not contribute any additional overshadowing to that already generated by the existing built environment.

Conclusion

The bulk and scale of the proposal responds to the functionality requirements of the educational establishments and to maximise the provision for increased student enrolments within the constrained inner city site. The proposed siting and massing of the built form will ensure the future buildings integrate with their surrounds and limit any potential adverse impacts.

The Department notes that minimal amenity impacts would be generated by overshadowing and supports the proposed bulk and scale of the proposal. The minor height control exceedances of the proposed PPS building would not result in any adverse impacts on the existing built environment and is satisfactorily integrated into the overall building form that will positively contribute to streetscape through the provision of good quality design.

Design Excellence

In accordance with PLEP, consent must not be granted unless the consent authority is satisfied the proposal exhibits design excellence and an architectural design competition is held for development that will be higher than 55 metres above the existing ground level or has a CIV greater than \$100 million. Further, development within the Parramatta City Centre that is the winner of a competitive design process, and that satisfactorily demonstrates design excellence, may be eligible for a building height and floor space ratio bonus that exceeds the respective maximums by up to 15 per cent.

The proposal was subject to a competitive design process and the winning scheme was further refined and submitted to the Department as part of the subject SSD application.

In response to the public exhibition of the application, Council and the Office of the Government Architect (OGA) advised that the proposal should be reported back to the Design Competition Jury (DCJ) by the applicant to ensure consistency with the winning scheme as originally viewed by the DCJ. In response, the applicant presented back to the DCJ during the preparation of its RtS. The DCJ provided the following comments on the submitted application:

- the public domain and landscape design requires further development to include options for folded walls, fencing setback with hedge planting to remove the 'fortress' feel;
- the perimeter fencing is not supported and there is no design rationale for the proposed blank brick walls and 2.1 metre high fencing and the open space will be unavailable for community use outside of school hours;
- the extent of perimeter fencing should be reduced, with the western end of the PPS site and Macquarie Street frontages remain unfenced;
- the deletion of the public access path to Parramatta Square is not supported;
- additional windows and openings must be provided in the western elevation of the Sports Complex to improve the conditions and activation of Barrack Lane;
- a more direct alignment between the entrances from APHS site to the shared open space at the western end of the PPS site should be provided;
- the elimination of the glazing from the western façade of the APHS tower building lifts is not supported as it diminishes the strength of the original design proposal and is considered a significant departure from the competition winning entry.

In response to the DCJ's comments, the applicant provided an addendum response to its RtS that outlined additional justification of the perimeter site fencing design, site accessibility, materials and finishes and proposed refinements to the design, as follows:

- the fencing line will be set back to the inside of the planter to soften its appearance onto the public domain and all two metre high brick walls will be reconfigured and redesigned;
- the Barrack Lane public domain can be further activated through the proposed fencing design refinements, including setting back the fence line and introducing new planting;
- multiple entrances are proposed around the perimeter of the school boundary to ensure maximum permeability during school hours and school security requirements;

- a PPS way-finding strategy will be incorporated to ensure clear and legible access is provided to the proposed community hall;
- the revised lift core design is proposed in lieu of glazing as originally presented in response to fire engineering requirements and for cost savings; and
- the publicly accessible through-site link from Little Street to Smith Street was removed from the final design in response to high security concerns.

Further advice was sought from the OGA by the Department on the applicant's addendum response and the following comments were provided:

- the findings of the DCJ on the submitted design scheme are supported by the OGA, acknowledging that the DCJ was broadly in support of the proposal;
- as the DCJ still has concerns with the public domain, a follow-up presentation to the DCJ should be undertaken by the applicant that addresses its key concerns relating to landscape design, site fencing, access paths, street activation and entry points;
- further materials and façades details should be provided as per the applicant's response; and
- the DCJ should be retained as a Design Integrity Panel (DIP) for the life of the project to ensure key design elements are retained.

In considering whether the proposal exhibits design excellence, the Department has considered the following matters in **Table 5** in accordance with clause 7.10 of PLEP:

Table 5: Clause 7.10 (4) PLEP Design Excellence Matters for Consideration

Clause 7.10 (4) PLEP Criteria	Department Comment/Assessment
a) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,	The modern and contemporary design of the proposal incorporates a high standard of architectural design and materials selection. It is noted that the DCJ are generally supportive of the proposed design and the materiality of each school building.
b) whether the form and external appearance of the proposed development will improve the quality and amenity of the public domain,	The proposed form and external appearance of each building make use of appropriate materials to enable visual connections between the public domain and the use and function of the schools. The location of outdoor recreational spaces adjacent to Macquarie Street and Smith Street will also appropriately activate these locations. In addition, the Department has recommended a condition requiring the applicant re-present the final design and materials of the perimeter fencing back to the DCJ to ensure the interface of the proposal with the public domain exhibits design excellence.
c) whether the proposed development detrimentally impacts on view corridors,	No view corridors will be impacted on by the proposal.
d) how the proposed development addresses the following matters:	The proposal is sited on existing <i>educational establishment</i> sites and makes use of existing public land for the purpose of improving and expanding existing educational infrastructure.
(i) the suitability of the land for development,	The proposal is consistent with the existing land use. Its inner city location will provide satisfactorily address the needs of the growing City of Parramatta.
(ii) the existing and proposed uses and use mix,	
(iii) any heritage and archaeological issues and streetscape constraints or opportunities,	The subject sites contain items of heritage significance which are proposed to be retained and enhanced under the proposal. Particularly, the enhancement of the existing Infant School building and Arthur Philip High School building will have a positive contribution to the Macquarie Street streetscape.
(iv) the location of any tower proposed, having regard to the need to achieve an acceptable relationship	The proposed siting of the APHS tower building satisfactorily responds to the existing scale and form of its surroundings and will sit comfortably within the

with other towers (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form,	existing built environment. The proposal is also sited adjacent to 116 Macquarie Street, which has recently had a planning proposal approved over its site that permits development up to 136 metres in height.
(v) the bulk, massing and modulation of buildings,	The proposed bulk and scale of the proposal is generally consistent with the existing built environment. Further to (iv) above, the scale and mass of the proposed PPS building is considered to positively respect the existing Infant School building and integrate its form and function into the school's redevelopment.
(vi) street frontage heights,	The proposed street frontage heights of new development along the southern elevation of Macquarie Street are consistent with the heights of existing heritage significant buildings on the PPS site.
(vii) environmental impacts, such as sustainable design, overshadowing and solar access, visual and acoustic privacy, noise, wind and reflectivity,	The proposal has been design to satisfactorily minimise any potential adverse environmental impacts.
(viii) the achievement of the principles of ecologically sustainable development,	ESD has been satisfactorily incorporated into the design of the proposal.
(ix) pedestrian, cycle, vehicular and service access and circulation requirements, including the permeability of any pedestrian network,	The proposal has been designed with minimal on-site car parking, seeking to promote alternate sustainable travel modes due to the site's accessible inner city location. The landscape and public domain design of the proposal also incorporates a number of points of entry to maximise pedestrian permeability through the schools.
(x) the impact on, and any proposed improvements to, the public domain,	The proposal would not have any detrimental impacts on the public domain. The proposed works along Barrack Lane, including the proposed café, seek to maximise the integration of the school into this envisaged shared pedestrian zone.
(xi) the impact on any special character area,	The proposal will not impact on any special character area.
(xii) achieving appropriate interfaces at ground level between the building and the public domain,	Satisfactory and legible entry points are proposed within the design, including multiple access points from all site frontages. The Department also recommends further refinement of the public domain interface design be undertaken in consultation with the DCJ/DIP.
(xiii) excellence and integration of landscape design.	The proposed landscape design has been satisfactorily integrated into the redevelopment, with outdoor passive and active recreational areas located to maximise their use and functionality.

It is acknowledged that the proposed layout of both schools responds to specific enrolment demands and security requirements and that accommodating multiple publicly accessible linkages through the site is not desirable or feasible. Having regard to the applicant's account of recent security incidences in or around the school and heightened security considerations adjacent to the NSW Police Force Headquarters, the Department is satisfied that the benefits of providing a through-site link to improve accessibility between Little Street and Smith Street does not outweigh the requirement to ensure that existing and future students are provided with the safest educational environment. Accordingly, the Department is generally satisfied that the proposal exhibits design excellence, without the through-site link, and also notes the DCJ's overall support for the proposal and the building designs.

Notwithstanding, the Department is still of the opinion that further refinements to the detailed design can be accommodated to ensure greater integrity of the design competition winning scheme is maintained, and therefore recommends a condition requiring the following:

"Prior to the commencement of above ground works, the applicant shall present to the satisfaction of the Design Competition Jury (DCJ)/Design Integrity Panel (DIP), design modifications to the development that address the following:

- a) a revised perimeter fencing and landscape design that demonstrates:
 - i) provision of seating, planting and folded edges to Macquarie Street and Barrack Lane;*
 - ii) the fence line setback inside the landscape planter; and*
 - iii) greater accessibility and permeability that promotes use outside of school operating hours, particularly the western shared open space on the PPS site, located west of the existing Infant School Building and between the Macquarie Street frontage and Lancer Barracks boundary;**
- b) further refinement to the design of the Barrack Lane elevation to ensure the laneway's public domain is appropriately activated; and*
- c) further details relating to the final materials and façade treatment, particularly the treatment of the western façade of the APHS tower building lifts.*

Evidence of the DCJ/DIP's agreement to the proposed design modification shall be submitted to the satisfaction of the Secretary prior to the commencement of above ground works."

Having regard to the above, and the further detailed analysis provided in subsequent sections of this report and recommended conditions, the Department has given consideration to the design of the proposal and is satisfied the proposal exhibits design excellence and would ensure that a high standard of architectural design is delivered for the new schools.

Landscape and Public Domain

Landscaping

The proposed landscaped design for both schools seeks to revitalise existing open space areas to develop new highly flexible spaces that create outdoor passive learning environments integrated with traditional outdoor recreational open space. Landscape planting across each site is proposed to comprise of predominantly native trees with a mixture of native and exotic understorey planting, selected for their low maintenance and hardiness (see **Figures 19 to 21**). The proposal also seeks to address current on-site open space shortages that sees both schools heavily reliant on existing off-site open space facilities, including Council's Robin Reserve and the adjacent Lancer Barracks.

A total of 14 existing trees will be retained, including seven significant trees that would be incorporated into the proposed landscape design for the schools. Due to the proposed siting and predicted impacts associated with the construction of the development, a total of 74 trees (72 on-site and 2 off-site) are proposed to be removed, including five significant trees (see **Figure 22**).

No objections or concerns were raised by Council, agencies or the public regarding the proposed landscape design or associated proposed tree removal, however Council raised concerns with the ratio of open space areas to envisaged student enrolment numbers and historical issues surrounding the school's reliance on Council's recreational assets.

The APHS site open space and landscaped areas are predominantly located along the Macquarie Street frontage of the site, forward of the proposed sports complex, and consist of: two fenced sports courts; a central artificial turfed lawn area; a row of small canopy trees creating shaded spaces; and open paved areas catering for ball games and small gatherings. Screen planting is also proposed along the eastern and northern boundaries.

The PPS site open space and landscaped areas would be sited behind proposed built form fronting Macquarie Street and comprise of a sunken courtyard space at the eastern end of the site, created by the proposed U-shaped PPS building, and open recreational turf areas and sports court. Play opportunities integrated into the landscape design include slides, climbing areas and nature play elements (i.e. large boulders, mounds and timber beams) that are accompanied by a variety of low maintenance plantings and trees for shade. The easterly level change into the proposed courtyard space is transitioned via a proposed amphitheatre, designed with large concrete steps with artificial turf landings.

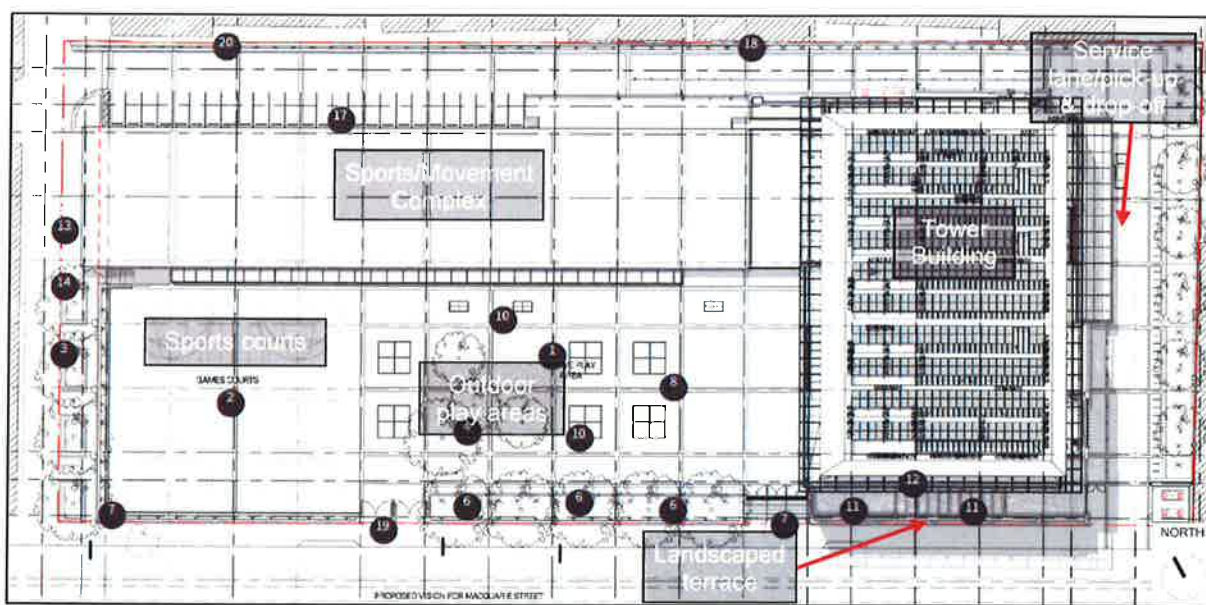


Figure 19: APHS Landscape Plan (source: Applicant)

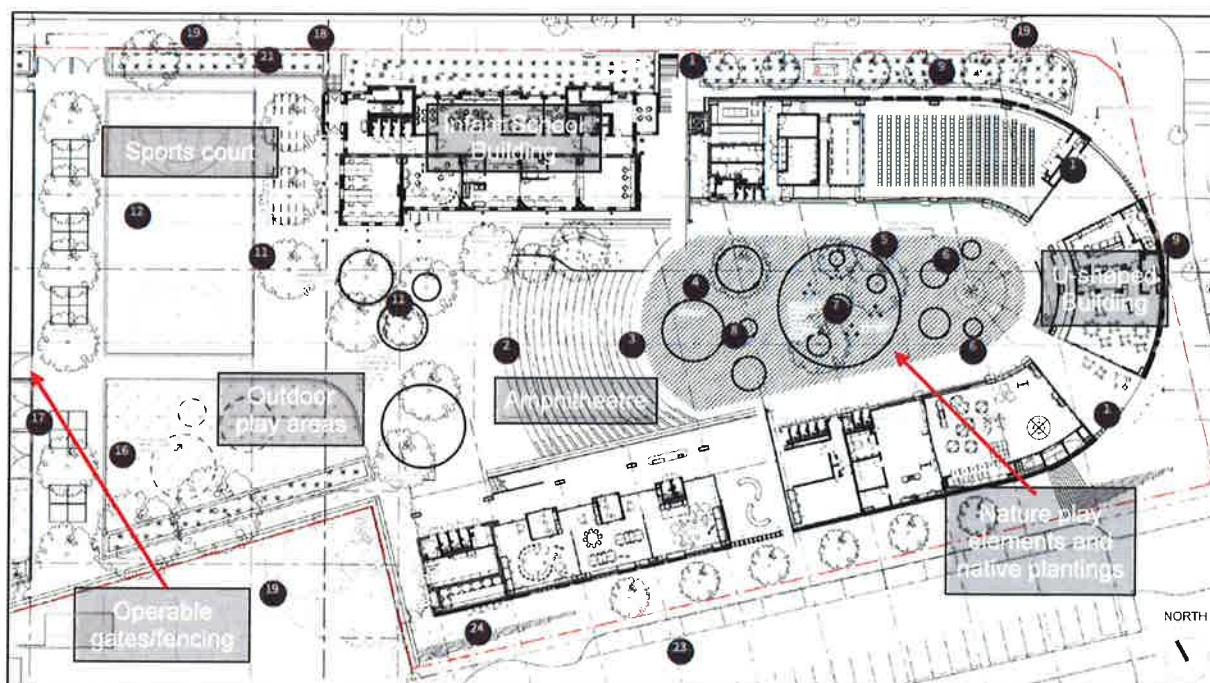


Figure 20: PPS Landscape Plan (source: Applicant)

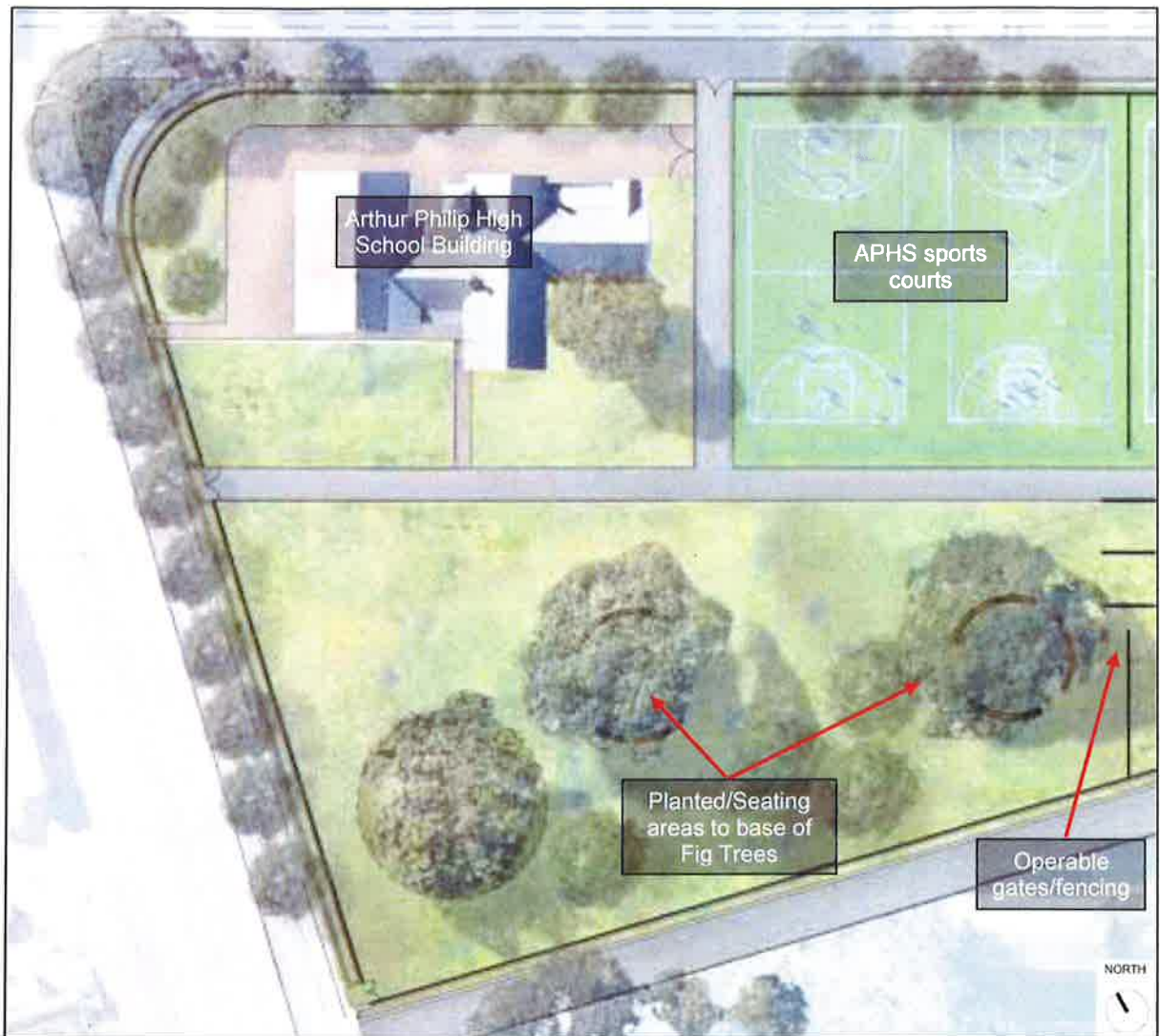


Figure 21: Shared Space Landscape Plan (source: Applicant)



Figure 22: APHS and PPS Tree Retention/Removal Plan (green – retained, red – removed)
(source: Applicant)

A trafficable rooftop has also been integrated into the design of the PPS building, offering additional social and learning spaces, with landscaping to this area proposed as raised planter beds for the cultivation of vegetables and small fruit trees and bench seating.

The large shared open space area at the western end of the PPS site is proposed to include two fenced sports courts for APHS use, planted areas with associated seating at the base of retained fig trees and new landscaping and shade trees. The shared open space area is proposed to be access controlled from the adjacent PPS via palisade fencing and gates.

Responding to Council's concerns that the proposed open space provisions won't satisfactorily cater for the demands of the future student population, the applicant's updated Social Impact Assessment (SIA) submitted with its RtS indicates that the design of the proposal, particularly the tower building, will generate more than double the open space currently available to existing students across both schools, with the PPS currently having no on-site open space or community facilities.

The applicant's SIA states that the requirement and demand for the formal use of Council's existing facilities will likely remain for sports such as football. Notwithstanding, the applicant notes that in return, the proposed redevelopment would substantially increase on-site facilities capable of community use, including the proposed external sports courts and outdoor recreational space, ground level communal hall and amphitheatre space on the PPS site and the APHS sports complex and commercial kitchen facilities.

The Department acknowledges that the proposed tree removals will have a moderate impact on the streetscape and character of the school sites, particularly the proposed removal of two existing Jacaranda trees from the corner of Charles Street and Macquarie Street. Notwithstanding, a number of existing highly significant trees are proposed for retention within the landscape design that will positively contribute to the design of the schools and their

presentation to the adjoining public domain. Further, the demolition of significant portions of existing built form and the opening up of the western end of the PPS site and APHS site's Macquarie Street frontage will create a greater sense of openness and visually connect these proposed landscaped areas with the surrounding public domain. Importantly, the proposed landscape designs will significantly improve the order and planning of existing outdoor open space areas and provide both improved recreational environments and outdoor learning spaces.

The proposal will also increase on-site open space to that currently provided to students, particularly for the PPS, which currently has limited facilities. The redevelopment will include multi-purpose facilities, including the PPS ground floor communal hall, APHS sports complex, refurbished heritage school buildings, and school kitchen and food preparation facilities, that are proposed to be offered for future community use, adult education programs and markets

The Department considers the provision and availability of such facilities in a highly accessible CBD location would have significant benefits for the growing Parramatta residential population. In this respect, the Department recommends the applicant develop a comprehensive community event management plan (CEMP) in consultation with Council and community stakeholders that addresses the use and management of each school's facilities by Council and/or community groups and the use of off-site recreational facilities by students.

Public Domain

Multiple entry points are proposed to be integrated into the design of each school site. Large landscaped curved splay areas are also proposed on the PPS site at both the Charles Street and Smith Street intersections with Macquarie Street. The proposed public domain interface of the APHS and PPS sites to Macquarie Street and Smith Street (where no built form is proposed) is proposed to comprise a setback planted fence line, in places incorporating elevated red brick planters, with 2.1 metre high security fencing and 3.6 metre high fencing to external sports courts (see **Figure 23**).

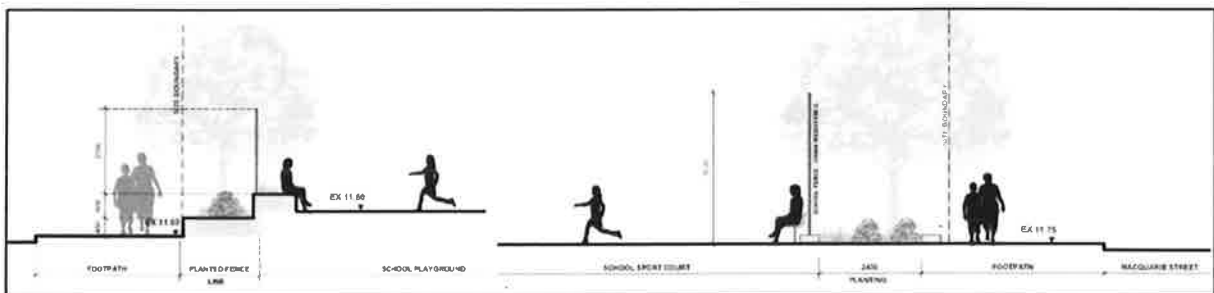


Figure 23: Cross Section of Perimeter Fencing Design with Planter (source: Applicant)

Council raised concerns with the perceived 'inward design' of the proposal, particularly the fencing design along site boundaries that creates a more private feel, and that the applicant continues to resist the proposition of public access via a new shared lane at the rear of the APHS site in accordance with Council's Lanes Strategy. Concern was also raised by the DCJ and the OGA regarding the public domain interface of the proposal, particularly the fencing design, which requires further refinement to provide a more open and accessible campus environment. The Department of Defence (adjoining land owner) and a member of the public also recommended CPTED principles be implemented to minimise opportunities for criminal activity at the Lancer Barracks Precinct.

In its RtS, the applicant provided an updated CPTED statement that outlines how the proposal will incorporate measures of the four key principles (i.e. natural surveillance, access control, territorial reinforcement, and space management) into the design of both schools, as follows:

- the proposed demolition of buildings along the southern boundary with the Lancer Barracks Precinct and active play areas will significantly improve natural passive surveillance between each site;

- the proposed site boundary landscaping and fencing its proposed to clearly define respective boundaries and entry controlled through legible and designated points;
- the proposed open space areas, landscaped design, and the highly visible building facades promote high levels of natural passive surveillance across each site and act as a deterrent to anti-social behaviour; and
- implementation of the Department of Education's maintenance regime to ensure long term building and site upkeep.

The applicant's RtS further notes that the proposed fencing design has been heavily informed by Department of Education's guidelines, which aim to ensure appropriate security is provided to students. The applicant also provided updated perimeter fencing designs (see **Figure 23**) that proposes to set back the fence line further within the site to accommodate additional landscaping to soften the boundary interface of each school with the adjacent public domain. The RtS also notes that the proposed new service lane at the rear of the APHS site would not be publicly accessible, though its layout would be generally consistent with Council's strategy.

The Department also notes that the applicant intends on further refining the perimeter fencing design of the proposal to improve its interface with the public domain, including setting the fencing line back into the site to provide greater opportunities for landscaping along the site frontages and seating. As detailed previously in this report, the Department is recommending the imposition of a condition of consent requiring the applicant to present a refined perimeter fencing and landscape design to the satisfaction of the DCJ/DIP to ensure a more open and inviting design interface is achieved.

Subject to recommended conditions regarding design refinement, the Department considers the proposed public domain interface to be acceptable, positively contributing to the existing streetscape while also ensuring adequate security measures are maintained for student and staff of both schools.

4.2.2. Heritage

The site was previously undeveloped until approximately 1818, when it was developed for a range of convict and military uses; the Convict Barracks, Convict Lumber Yard, Lancer Barracks (military barracks). Following the demolition of the Convict Barracks and Convict Lumber Yard on the APHS site, it was later developed as a military hospital in 1840, and subsequently converted to an erysipelas hospital in 1851 and asylum for the aged in 1884.

In the same period, up until approximately 1863, the PPS site continued to be used as part of the military barracks, until when land surrounding the existing barracks was converted for education uses, which saw the construction of the original Arthur Philip High School building in 1875 and Infant School building in 1923, both of State heritage significance.

A number of heritage items of local and state significance occupy the site and it is also considered an archaeological site that potentially contains relics of local and state significance. Other local, state and commonwealth listed heritage items are located in proximity to the site, including Lancer Barracks Precinct (located immediately adjacent to the south), Warders Cottages (located immediately adjacent to the north) and Convict Drain (located north of the site) (see **Figure 24** and **Table 6**).



Figure 24: Demolition Plan (detailing heritage item locations) (source: Applicant)

Table 6: Site Heritage Listings

Site	Heritage Item	Significance	Register
Arthur Philip High School	Convict Barracks Wall	Local	PLEP, Item No.1717
		State	Regional Environmental Plan No.28 Parramatta, Item No.357
	Potential Archaeological Site	Local	Regional Environmental Plan No.28 Parramatta, Item No.357
Parramatta Public School	Arthur Philip High School building (1875)	Local	PLEP, Item No.1720
		State	Department of Education's Section 170 Register, Item No. 4640016
	Infant School building (1923)	State	Department of Education's Section 170 Register, Item No. 4640337

Redevelopment of the APHS site proposes to conserve the heritage significant Convict Barracks Wall along its northern boundary. The redevelopment of the PPS site proposes the refurbishment of the existing heritage significant Infant School building for education and associated admin uses, and the Arthur Philip High School building for both educational use and possible community uses in accordance with the Department of Education's *Community use of School Facilities Guidelines*, with non-contributory additions proposed to be removed. An elevated pedestrian walkway is also proposed between Level 2 of the proposed PPS building and Level 1 of the refurbished Infant School building.

European Heritage

The applicant's Heritage Impact Statement (HIS) describes the existing Infant School and Arthur Philip School buildings as having high degrees of integrity, with later non-contributory external building additions and internal works capable of being reversed. The existing sandstone block Convict Barracks Wall is described as being in variable condition, with sections either missing or having been repaired/replaced using concrete mortar and a contrasting brick capping added to the top.

No objections were raised to the removal of non-contributory external building additions, the removal of internal intrusive elements or the proposed connection of the new PPS building with the existing Infant School building. The Department of Defence raised concerns that construction works may have the potential to damage heritage significant buildings at the Lancer Barracks Precinct adjacent and the Heritage Office requested that vibration monitoring be undertaken during demolition and construction works.

The proposed height of the new APHS tower building and PPS building will have some impact on the setting of existing heritage items. However, the Department considers the proposed building heights and scale to be consistent with existing and planned mixed use commercial development within the surrounding Parramatta CBD.

Further, the removal of non-contributory building elements and additions from the Infant School building and Arthur Philip High School building will have a positive impact on the immediate setting of these items, as well as the adjacent Lancer Barracks Precinct, and improve views to and from and the appreciation of these items. The heritage significance of the existing on-site items would be further enhanced through the proposed removal of intrusive internal elements and their continued use for educational and community uses.

Development proposed on the APHS site will also be setback a minimum eight metres to the northern boundary and Convict Barracks Wall and will ensure the wall is retained and conserved along its full length.

Further to the above, the Department notes that the Heritage Office and the Department of Defence did raise concerns about the potential for proposed demolition and construction works to cause damage to adjacent off-site items (i.e. Lancer Barracks Precinct and Warders Cottages).

In its RtS, the applicant concurred with the recommended Heritage Office and Department of Defence conditions being imposed as mitigation measures to ensure that heritage significant buildings on and off-site would be protected during demolition and construction works. The Department notes the recommended agency conditions require the preparation of dilapidation surveys of heritage significant buildings, to undertake vibration monitoring during demolition and construction works, and for significant building fabric to be protected.

The Department also notes that the applicant's HIS provided a number of recommendations regarding the proposed adaptation and refurbishment of the existing on-site items of heritage significance which are considered appropriate. The HIS recommendations address: future adaptive uses; restoration works to internal building elements and the removal of non-contributory internal and external elements; connection of new services; and interpretation requirements.

The Department is satisfied the recommended mitigation measures will ensure existing heritage items are protected during demolition and construction works and also considers the recommendations provided in the applicant's HIS appropriate to minimise potential impacts on the items of heritage significance, including the fabric of existing items.

The Department's assessment has also concluded the proposal is unlikely to have any adverse impacts on existing built heritage on the site or adjacent, and notes the proposal will result in an improved visual setting and appreciation of existing heritage items, both on-site and off-site, and retain their significance through their revitalisation and continued use for educational and community purposes.

Archaeological Heritage

The applicant's Historical Archaeological Assessment (HAA) assesses the potential for on-site archaeological remains, though notes that no physical investigations were undertaken during

the preparation of the HAA. Notwithstanding, the HAA advises that the site's complex history provides a moderate to high potential for the presence of local and state significant relics, particularly those associated with the early barracks and lumber yards, and Lancer Barracks, and that any discoveries would provide a valuable contribution to the understanding of many aspects of the site not part of official records.

The HAA also notes periodic redevelopment of the site since the first quarter of the nineteenth century would have resulted in disturbances and/or the removal of archaeological remains.

To mitigate any potential impacts from the exposure archaeological remains during the redevelopment of the site, the applicant's HAA recommended a number of mitigation measures, including:

- a program of test excavations to inform the depth, extent, nature and integrity of any potential remains and inform the requirement for further excavations, where necessary following demolition works, to record any substantial and/or significant historical remains;
- detailed investigations of exposed relics by applying established archaeological methodologies outlined in an Archaeological Research Design (ARD); and
- test excavations and detailed recordings to be presented in an excavation report to inform future heritage management and interpretation measures.

The Heritage Office commented that the HAA conclusions on the potential for archaeological remains had not been verified through archaeological testing and investigations and the location of detailed design elements could be better informed if this was undertaken. To address these concerns, the Heritage Office recommended a number of conditions requiring:

- archaeological testing to be undertaken in accordance with an ARD;
- significant and substantially intact archaeology be managed and avoided in the design;
- submission of a final excavation report within 12 months of the completion of archaeological works; and
- preparation and implementation of a heritage interpretation plan.

The applicant's RtS advises that the requirement for the existing schools to have continued their operations during the preparation of the EIS and preliminary site investigations restricted invasive on-site test excavations from being undertaken. Notwithstanding, non-invasive (radar technology) test investigations are proposed in site areas absent of buildings and structures to better inform the detailed design phase. The applicant's ARD also informs future testing and specifies the requirements for excavations, with a final excavation report and heritage interpretation plan proposed to be prepared to report and interpret on any items of significance discovered.

Further comments provided by the Heritage Office on the applicant's RtS noted it understood the constraints identified and that the redevelopment would be proceeded by archaeological excavations and investigations as outlined in the applicant's ARD. It further commended that the ARD presented sound research and relevant comparative analysis to inform future on-site investigations, though noted ground penetrating radar should not be considered in lieu of detailed excavation of the site and requested revisions to some research questions to clearly identify and address valid questions that could be addressed through archaeological investigation of the site.

The Department has reviewed the Heritage Office's comments and applicant's response and is satisfied that the methodology for non-invasive testing and archaeological excavations and testing, in accordance with its ARD (updated in accordance with the Heritage Office's comments), will ensure potential impacts from the proposal are minimised and that any relics discovered during works are appropriately salvaged and managed. Accordingly, the Department recommends a condition requiring the ARD be updated in consultation with the Heritage Office, to ensure research questions are appropriately researched and clearly defined.

Aboriginal Heritage

The applicant's Integrated Aboriginal Cultural Heritage and Archaeological Assessment Report (ACHAAR) has assessed the Aboriginal heritage values of the site, taking into consideration both the scientific and Aboriginal community perspectives. The ACHAAR notes the site and its surrounds hold high social, historic and aesthetic values for Aboriginal communities, particularly Darug Aboriginal People, due to its importance within the Cumberland Plan area and historical Parramatta landscape.

An Aboriginal heritage site/place Potential Archaeological Deposit (PAD) is identified within the site, including another 39 surrounding the site. The site is also said to be located above the highly significant Parramatta Sand Sheet (sandy river terrace geomorphological feature), an ancient Aboriginal landscape that has yielded Aboriginal archaeological deposits and contributed to the pre-colonial understanding of Aboriginal occupation of Parramatta and demonstrates the site's potential for the discovery of additional deposits of significance.

Based on the likelihood of discoveries, predictive archaeological modelling was undertaken by the applicant to rank the potential for types of Aboriginal sites/places that may occur within the site, including: stone artefact concentrations and isolated stone artefacts (high likelihood); historical Aboriginal objects (moderate likelihood); marine life shell middens (low likelihood); and burial sites (low likelihood). In addition, 21 Registered Aboriginal Parties (RAPs) were identified during Aboriginal community consultation, who commented on the strong cultural and social connections the Darug Aboriginal People have with the Parramatta area and the significance of the aesthetic values of the area, which was occupied by their ancestors and retained many of its natural features.

The Department notes that no objections or comments were made with respect to potential impact on Aboriginal archaeology during the exhibition of the proposal. In particular, OEH commented that it supported the recommendations outlined within the applicant's ACHAAR. In this respect, the management and mitigation measures proposed to minimise potential impacts associated with construction activities include:

- an avoidance and conservation approach, whereby open space and playing fields (as opposed to buildings) would be co-located over identified archaeological sites and/or conservation initiatives to interpret archaeology in situ between building foundations;
- a program of test excavations, informed through the preparation of an ARD and undertaken in conjunction with historical archaeological testing to assist in identifying and recording the nature and extent of any Aboriginal archaeological deposits;
- ongoing Aboriginal community consultation following test excavations to identify and refine social and aesthetic values;
- salvage of substantial intact Aboriginal archaeological deposits discovered during the test excavation phase prior to development, where in situ conservation is not possible; and
- opportunities to implement educational and interpretive outcomes on-site of any Aboriginal archaeological deposits in consultation with RAPs and the applicant.

The Department acknowledges the applicant's recommended Aboriginal archaeology management and mitigation measures and the benefits these would have in reducing potential impacts on Aboriginal archaeology. The Department also notes the potential discovery of deposits would provide a positive contribution to the understanding of Aboriginal occupation of the Parramatta area. Accordingly, the Department recommends that the ACHAAR recommendations be included as conditions of consent to ensure this occurs.

4.2.3. Traffic, Transport and Parking Impacts

The site is primarily serviced by Macquarie Street, which bisects the northern APHS site and southern PPS site. The surrounding local road network comprises Smith Street, George Street and Charles Street that provide vehicle movements through the Parramatta CBD. Macquarie Street and George Street also perform important roles within the regional road network,

providing one-way western and eastern connections to the CBD periphery that link to nearby regional and state roads, Great Western Highway and James Ruse Drive (see **Figure 1**).

Existing student drop-off and pick-up is accommodated during school start and finish times within on-street parking on Macquarie Street (nine spaces limited to 15 minutes) and Little Street (33 spaces limited to five minutes), the latter of which is accessed from Charles Street that primarily services PPS. Outside of these times, on-street parking immediately adjacent to the site and nearby typically reverts back to short-stay two and four hour ticketed parking (see **Figure 25**).



Figure 25: Existing on-street parking restrictions (source: Applicant)

The site is highly accessible by public transport and is located approximately 350 to 400 metres by foot to the north-east of the Parramatta Interchange. Parramatta Interchange provides ready access to numerous regular train services to the west, east towards Sydney CBD and north shore and south towards Fairfield. Access to a wide range of bus services is also provided at the Parramatta Interchange, including the Transitway, that connect to key surrounding centres including Epping, Bankstown, Liverpool and Rouse Hill.

Construction Traffic

The applicant's RtS included a CTMP, though its Transport Assessment (TA), as updated in the RtS, and notes a final CTMP will be prepared prior to the commencement of construction activities once full contractor details are known to ensure the safest management and mitigation measures are implemented.

The CTMP submitted with the applicant's RtS outlines that between both schools, construction is predicted to occur over a two year period, consisting of six months of demolition and excavation works, 12 months of construction works, and finally a further six months for the fit-out of the school buildings.

It is anticipated that construction traffic would mainly comprise of private worker vehicles, heavy articulated and rigid vehicles, with different vehicles likely accessing the development sites at the same time. It is also possible that the use of mobile cranes will be required, though this would be subject to separate road closure applications with the RMS and Council.

It is not proposed to accommodate construction vehicle parking on-site due to work zones and internal circulation route requirements. The applicant's CTMP notes that due to poor accessibility to on-street parking due to unfavourable metered parking restrictions, it was

highly likely that construction workers would make use of existing public transport and that where they did drive to the site, they typically carpooled.

The Department is satisfied with this approach and notes that typically on-site parking for construction workers is not provided and that the site's high public transport accessibility can satisfactorily service the transport needs for future construction workers. Where construction workers choose to drive, potential on-street parking impacts would not be too dissimilar to that generated by existing school staff who are not capable of securing a parking space on either the APHS or PPS sites.

Construction vehicle routes (see **Figure 26**) are expected to be restricted to the State and regional road network. While movements along local streets are typically prohibited, the applicant has proposed the use of local streets immediately adjacent to the site for access.

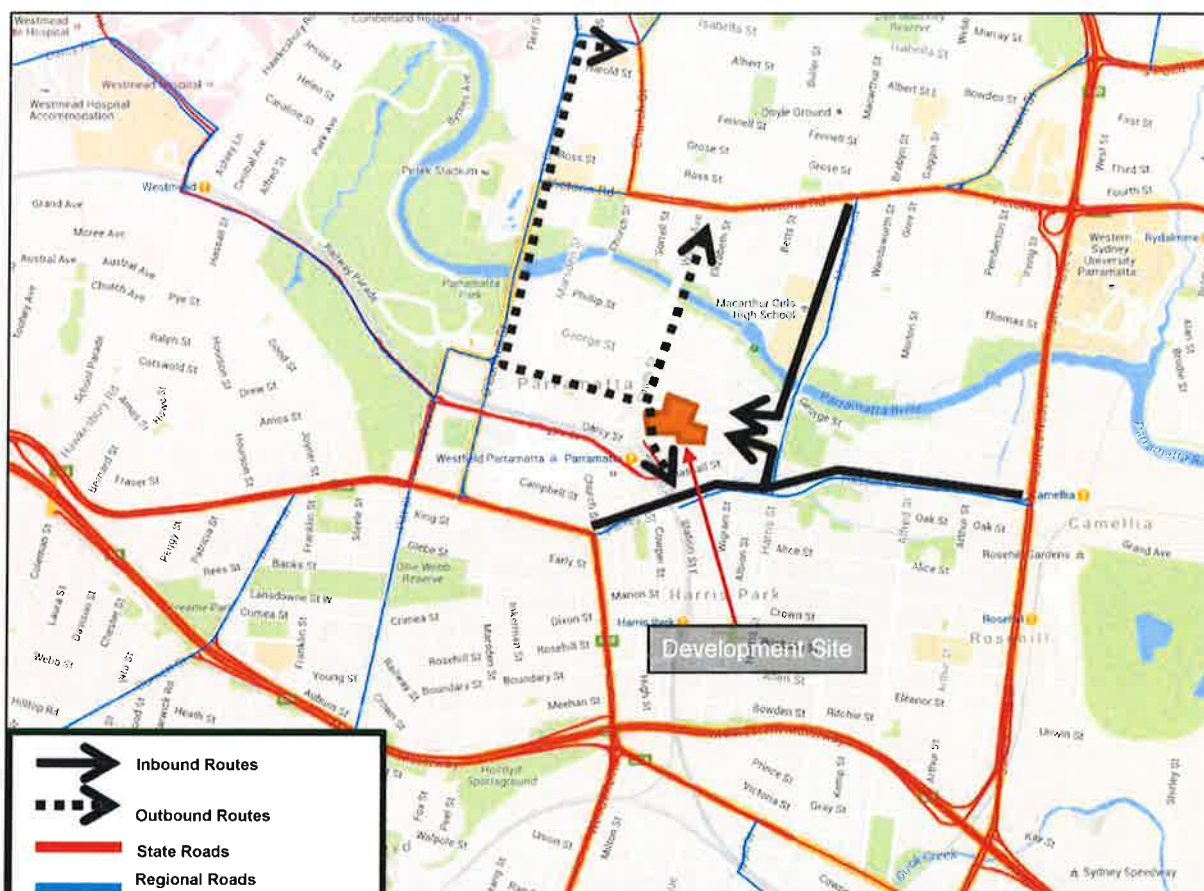


Figure 26: Construction vehicle routes (source: Applicant)

The CTMP notes that construction vehicle movements are anticipated to generate approximately 100 vehicles per day, particularly during the demolition phases and concrete pours. However, it notes these movements would typically occur outside of the commuter peak periods and would be less than the amount of vehicle movements generated during the operation of the future schools. The Department is satisfied that construction vehicle movements can be satisfactorily accommodated within the existing road network.

With the exception of the first six months during which PPS remains open, both the APHS and PPS would not be operational and would therefore generate no traffic. While it is noted that more than one construction vehicle may be present on-site at any time, spreading out the estimated 100 construction vehicle trips across the standard construction day (i.e. 11 hours) generates approximately nine movements per hour and could be satisfactorily accommodated within the existing road network.

There is also potential for the construction of the proposal to occur at the same time as other developments in the Parramatta CBD, potentially generating cumulative construction traffic impacts on the surrounding road network. However, having regard to the predicted low construction traffic movements and limited operational traffic movements attributed to the schools during their redevelopment, the Department considers that the cumulative impact of construction vehicle movements associated with the proposal would not generate an unreasonable level of impact on the existing state and regional road networks. The Department has also recommended a condition requiring the applicant prepare and implement a final CTMP for the life of the development to ensure management and mitigation measures are appropriately tailored for the proposal.

Traffic Generation

Vehicle Movements

The applicant's TA details that surrounding local roads carry approximately 600 to 700 vehicles per hour in each direction during peak hours. It also outlines that traffic generation associated with the proposal would not exponentially increase in line with the increased enrolment capacities at both schools, wherein traffic generated by the APHS will remain relatively unchanged as approximately only 55 of the existing 1,600 students are dropped off during the AM peak period, demonstrating minimal use of private vehicles for high school student drop-offs.

It also notes that any student drop-off and pick-ups would likely be undertaken as part of a combined journey to/from work and be therefore unlikely to contribute to additional vehicle trips on the local road network. The applicant also details no high school students, except persons with disabilities, will be permitted to be dropped off or picked up from within or around the site.

Traffic generated by the proposed new PPS would be limited to use of the existing time restricted five minute parking within Little Street, which functions as an AM/PM drop-off and pick-up facility. The TA envisages an additional 39 vehicles during the peak hour would be generated by the proposed 21 per cent student population increase, generating a total of 181 peak period vehicle trips, with a short peak AM occupancy period of 68 vehicles during a 10 minute period within the proposed expanded 41 space pick-up/drop-off facility.

The applicant's TA also advises that the proposed reduction of existing on-site staff car parking from 116 spaces to 30 formal spaces across both schools would result in a decrease in staff vehicle movements, while at the same time encouraging a transport mode shift to more sustainable modes due to the limited availability of parking on-site and immediately adjacent and the associated costs of off-site parking within paid parking stations.

The Department notes that no objections were raised regarding traffic impacts from Council or transport agencies, though Council noted queues occasionally develop for vehicles turning left into Little Street from Charles Street due to high volumes of pedestrians crossing Little Street. Council also recommended conditions requiring:

- the installation of a pedestrian refuge island to facilitate crossing of Little Street at Charles Street and designed to accommodate a full pedestrian crossing, when required at a later date;
- left-in/left-out turning restrictions for vehicles entering and exiting Little Street; and
- peak hour 'No Parking' restrictions be installed on Charles Street on the northbound approach to Little Street.

The applicant's updated TA responded that 'no right turn' signage to control Little Street vehicle turning restrictions was preferred to minimise operational impacts for NSW Police vehicles. It also advised the installation of peak hour parking restrictions on Charles Street would be undertaken in consultation with the NSW Police, and that a pedestrian refuge facility to cross Little Street at Charles Street was not required at this stage due to limited numbers of both pedestrians and vehicles revealed during recent traffic counts.

The applicant's RtS TA also provided details of a draft GTP that outlines measures to ensure alternative travel modes are promoted, including the implementation of staggered start and finish times, car pooling and the encouragement of active transport through the provision of staff and student bicycle parking and associated end-of-trip facilities.

TfNSW's comments on the applicant's draft GTP recommended that it be refined to include reference to a program of measures that would: increase active transport use; encourage public transport use; reduce single occupancy vehicle trips; reduce the need to travel; and promotion. It also noted specific actions needed to be identified to support the assumed travel patterns and objectives and that monitoring and annual reporting be included to measure the effectiveness of the measures implemented. The Department considers TfNSW recommendations are appropriate when taking into account the applicant's proposed reduction of on-site car parking spaces and the heavy reliance on a transport mode shift away from the use of private vehicles for journeys to work.

The Department acknowledges that specific details are not understood at this stage regarding the potential extent of community uses proposed at the APHS and PPS. The applicant has indicated a willingness to make the schools social infrastructure available for community use and would be conducted in accordance with the Department of Education's *Community Use of School Facilities Guidelines*. Community use of the school's social infrastructure is unlikely to significantly impact on the existing road network, however, potential exists for isolated peak traffic impacts incidences associated with the use of facilities with a larger capacity (i.e. APHS sports complex and PPS communal hall).

It is appropriate, therefore, that the applicant also includes measures to support and promote the use of sustainable travel modes associated with community uses outside of normal school hours. Accordingly, the Department recommends the applicant prepare and implement a CEMP for large events that demonstrates measures to promote and support sustainable transport modes. The Department has also recommended conditions requiring the applicant prepare an operational transport and access management plan (OTAMP) to ensure the operation of the schools at all times do not result in unacceptable traffic impacts.

The predicted 39 PPS additional vehicle movements generated by an expanded Little Street pick-up/drop-off facility are minor in consideration of the wider road network and are not predicated to have an adverse traffic impact when distributed across the wider traffic network. The Department also notes queuing associated with the predicated 10 minute pick-up/drop-off facility peak occupancy period of approximately 68 vehicles (at approximately 8.55 am) would clear quickly and that no further queuing was expected before or after this period. The applicant's TA also states appropriate traffic management measures would be required to ensure no adverse queuing occurs on surrounding streets.

The Department is of the opinion the conditions recommended by Council are appropriate in providing greater management of vehicles utilising the proposed expanded pick-up/drop-off facilities, including the installation of a pedestrian refuge island in Little Street to facilitate safer pedestrian movements. It is also considered, restricting vehicles from turning right from Charles Street into Little Street would provide intersection operational improvements at the juncture of Charles and Little Street.

The Department is satisfied that the proposed expansion of the Little Street pick-up/drop-off parking facility, implementation of appropriate traffic management measures and sustainable transport initiatives through the applicant's GTP will ensure potential traffic impacts on the local road network are minimised. The Department also notes that the predicted 10 minute peak period is short term and unlikely to contribute to any congestion on the local road network outside of this small window and a staff transport mode change from the private vehicle to more sustainable measures is appropriate, noting the proposal's highly accessible CBD location.

Pedestrian Movements

Numerous pedestrian access points to the schools are provided around their respective street frontages. The applicant's TA also advises that the alignment of key entry points along the Macquarie Street frontages of both school sites has been designed to accommodate the potential for future pedestrian (zebra) crossings to facilitate improved connectivity between the two sites.

However, the applicant acknowledges that zebra crossings are typically not permitted along light rail routes, having regard to the potential use of Macquarie Street for the future Parramatta Light Rail. It is noted that TfNSW have requested continued consultation with the applicant in this regard to ensure any future possible light rail is appropriately integrated into the development.

TfNSW also raised no objections, though recommended a detailed pedestrian route assessment be undertaken that assesses routes taken and the capacity of footpaths and intersections. It also recommended a condition requiring an access management plan be prepared to manage the safety of students around the school sites and their movements to and from the schools.

The pedestrian route assessment, presented in the applicant's RtS TA, indicated that existing intersections and footpath widths were satisfactory and had sufficient storage capacity to accommodate the demand generated by the proposal. The pedestrian route assessment concluded that the proposal would have minimal impact on the performance of intersection pedestrian storage and flows between and that there was no immediate requirement for upgrades.

The Department is satisfied that the existing footpath and associated road network surrounding the school sites is sufficient to accommodate both schools. To ensure student movements to and from the school sites are undertaken in a safe manner, the Department has also recommended that access management measures be integrated in the required OTAMP.

Parking

Car Parking

The proposed redevelopment of the schools will provide a total of 30 on-site car parking spaces, which are proposed to be located in the service lane at the rear of the new sports complex on the APHS site, adjacent to the northern boundary of the site (see **Figure 27**). This represents a reduction in on-site parking of 86 formal and informal parking spaces across both school sites. Student and staff bicycle parking spaces and associated end-of-trip facilities (i.e. showers and lockers) are also proposed at both schools to meet the targeted 4 star Green Star rating.

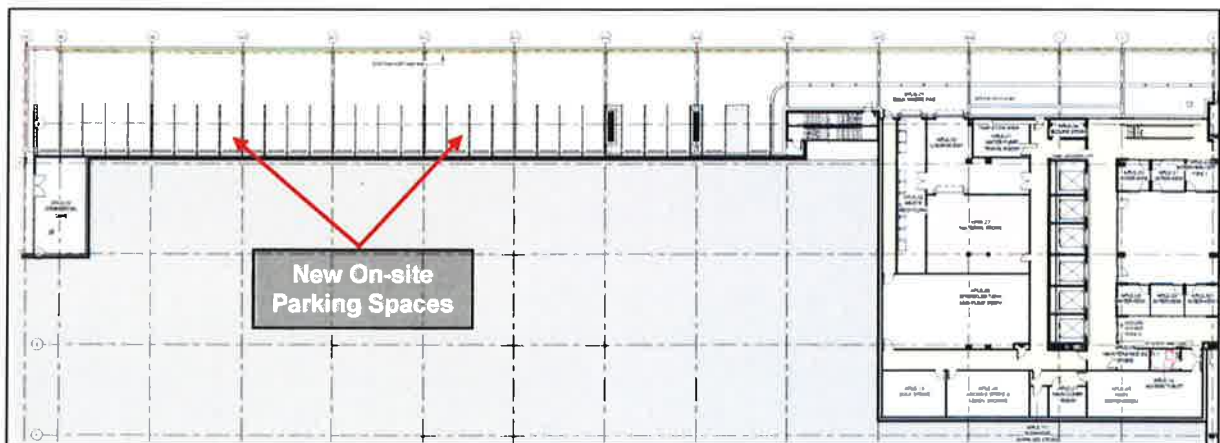


Figure 27: Proposed on-site parking spaces (source: Applicant)

No objections were raised from Council or agencies regarding the proposed amount of on-site parking, however, the Department requested further justification from the applicant for the proposed parking reduction in the absence of a detailed analysis of staff journey to work patterns.

In the RtS the applicant states that it is not appropriate to assume the private vehicle mode share would increase in line with the additional staff generated by the proposal, noting the limited availability of on-site car parking would encourage staff to choose other, more sustainable methods of transport to and from work. It also noted that the limited off-site long-term car parking surrounding the schools and existing costs of paid parking stations would discourage staff from driving to work.

The applicant states it is likely staff who normally drive to work would catch public transport or use active transport modes (i.e. walking and cycling), and that such a transport mode shift was achievable given the site's highly accessible CBD location and existing public transport connections. This is to be further encouraged through the implementation of the applicant's draft GTP, which proposes appropriate measures to support the use of public transport and active transport modes. Accordingly, the Department recommends a condition to ensure the applicant's GTP is implemented for the life of the development.

Up to 70 per cent of existing PPS students reside in Parramatta, with the remaining 30 per cent from suburbs such as Harris Park, Granville and Guildford. APHS students primarily reside in Parramatta and surrounding suburbs including Auburn, Merrylands and Granville. The Department notes these locations are regularly serviced by existing train services that pass through the highly accessible Parramatta Interchange.

For students residing in Parramatta, the existing regional cycle network and pedestrian footpaths surrounding the site are assessed as having sufficient capacity to accommodate the expected increase in bicycle and pedestrian movements anticipated by the proposal. Further, the proposed development will also include secure bicycle parking facilities for staff (19 spaces for APHS and 8 spaces for PPS) and students (102 spaces for APHS and 86 spaces for PPS) and will provide access to showers and end-of-trip facilities.

The Department also notes a detailed assessment of parking impacts associated with the potential community use of each school's social infrastructure outside of normal school operating hours has not been undertaken. The demand generated by these uses is not be expected to be significant or comparable to traditional school operations, though it is acknowledged that the inner city location of the school offers excellent access to regular public transport services that can adequately cater for the demand generated.

The Department has considered the applicant's response and raises no objections to the reduced amount of on-site car parking proposed and supports the applicant's commitment to implement a GTP to encourage sustainable modes of transport. The site is well serviced by regular public transport infrastructure that provides access for the majority of the current, and projected, student population catchment, while proposed on-site end-of-trip facilities and infrastructure will support and encourage active transport modes.

Drop-off/Pick-up

The existing Little Street five minute short-stay parking functions as an AM and PM drop-off and pick-up facility for the existing PSS. The applicant proposes to expand the existing rear-to-kerb parking within Little Street by eight spaces (see **Figure 28**) and seeks to have the existing AM and PM five minute short-stay signposting expanded to cover the proposed additional parking spaces to cater for the increase in demand generated by increased student enrolments.

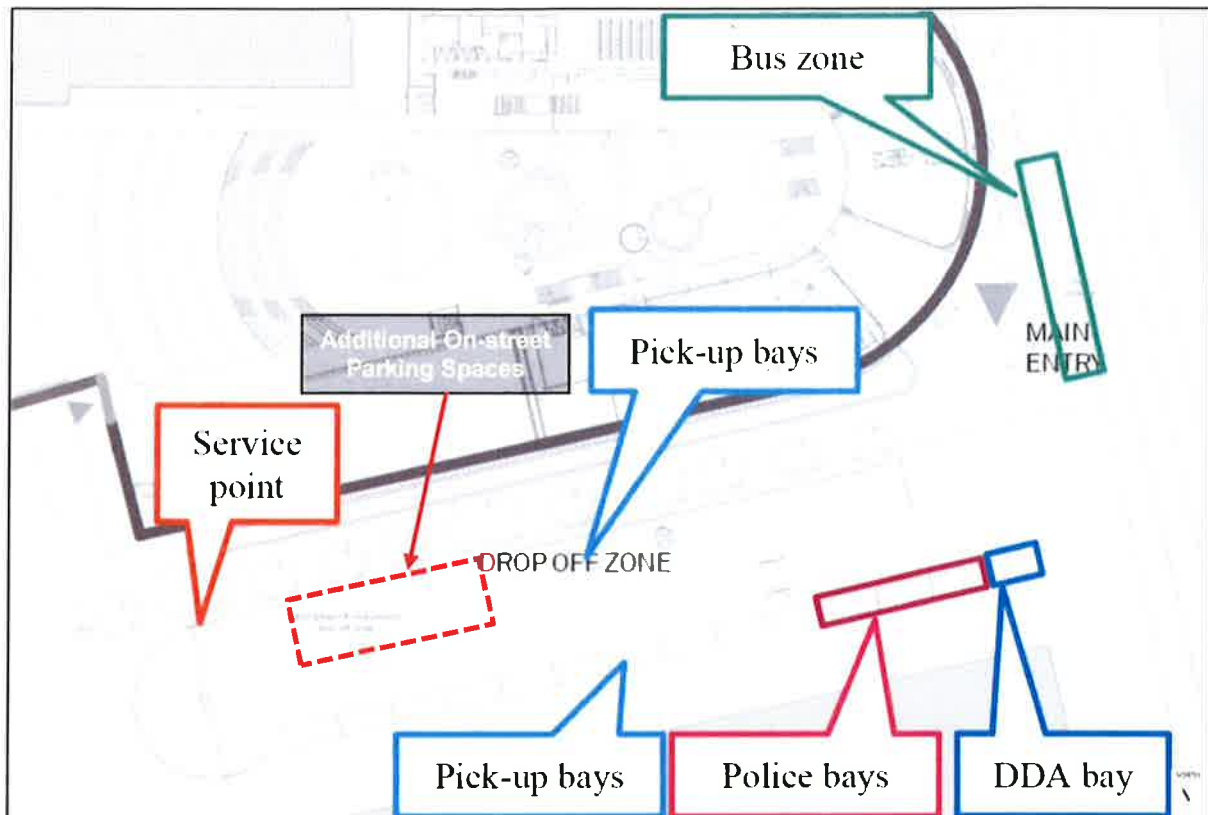


Figure 28: Proposed on-street parking arrangement (source: Applicant)

During the Department's assessment of the proposal, the NSW Police, whose state headquarters are sited opposite the PPS site on the corner of Charles Street and Little Street, advised that it had concerns with the proposed expansion of parking within the street for pick-up and drop-off functions due to potential security concerns and their own plans to consolidate all of its on-street parking in Little Street. It also had an issue with the apparent switch to the location of rear-to-kerb parking arrangements from the northern side of Little Street to the southern side in front of NSW Police building.

It is also noted that the pick-up/drop-off facility is signposted such that it only functions in this manner during school pick-up and drop-off times, meaning that the expanded parking in the street would benefit the general public and NSW Police outside of these times where it would become available to other vehicles. In this regard, the Department raises no objections to the proposed expansion of the parking provisions within Little Street to accommodate an expanded pick-up/drop-off facility.

To ensure the operational arrangements of the proposed expanded pick-up/drop-off facility are satisfactory and do not adversely impact on NSW Police operations, the Department has recommended the imposition of a condition requiring the final design and layout of Little Street parking, and any required operational management, to be undertaken in consultation with Council and the NSW Police.

Future Parramatta Light Rail

Macquarie Street has been identified by the NSW Government as a potential alignment for part of the future Parramatta Light Rail route. The proposal does not seek approval to modify existing conditions along Macquarie Street, however the development has been designed to accommodate the future removal of the existing mid-block signalised crossing on Macquarie Street and its replacement with two future zebra crossings that align with key entry points into each school site's Macquarie Street frontage. However, the applicant notes that zebra

crossings are generally not accepted for light rail routes and therefore the existing mid-block signalised crossing may need to be retained.

TfNSW advised that it generally supported the proposal, but noted further consultation would be necessary to ensure that it is integrated with a possible future light rail corridor. Further comments provided by TfNSW on the applicant's submitted RtS noted that the proposal alignment of the light rail along Macquarie Street may have implications on the proposed access arrangements for AFHS and has requested that a condition be imposed to ensure ongoing consultation between the applicant and relevant stakeholders.

Accordingly, the Department recommends a condition requiring the applicant undertake ongoing consultation with TfNSW to ensure that a potential future light rail network is appropriately integrated into the development.

4.2.4. Social Impacts

Existing community activities are currently undertaken primarily at PPS, including music lessons before and after school, community dance and language classes on Saturdays, before and after school care, while some Parramatta College classes are undertaken during weekday evenings at APHS.

The redevelopment of the APHS and PPS proposes improved education and recreation facilities that will provide improved opportunities for the use of each school's infrastructure for community use.

Council initially raised concerns that the original SIA submitted with the EIS was not prepared by a suitably qualified person, identifying a number of deficiencies in the report. Accordingly, the applicant provided a new SIA with its RtS, prepared by a suitably qualified social planning consultancy, that assesses the potential positive and negative social impacts associated with the proposal, provides recommended mitigation measures and directly responds to Council's concerns.

The SIA concludes that, in addition to addressing the student enrolment demand and provision of new educational infrastructure, the proposed redevelopment of both schools would increase the provision of facilities capable of community use, fostering school community cohesion. This would include making available outdoor recreational infrastructure, the PPS communal hall and amphitheatre space, the APHS sports complex and commercial kitchen facilities.

However, specific details of the proposed community uses are not yet known, though the applicant has committed to making the schools available in accordance with the Department of Education's *Community use of School Facilities Guidelines*, where activities do not impact on existing school operations, teaching and learning.

The Department notes that no further concerns were raised by Council regarding the new SIA submitted with the RtS. It is also noted that the SIA identifies the possibility for greater positive social impact through a collaborative approach between Council and the applicant to facilitate strategies that enhance community benefits.

It is acknowledged that APHS students are proposed to be relocated to Rowland Hassall School from term one 2017 for the entire two year construction period. This will ensure no high school students are exposed to any potential construction impacts. The relocation of PPS students to the Old Kings School, however, will not occur until after July 2017, exposing existing primary school students to approximately five months of construction activities.

The applicant projects that site preparation and demolition activities on the APHS site will be complete by March 2017, exposing PPS students to approximately one month of envisaged noise levels generated by construction activities. As assessed in greater detail in **Section 4.2.5**, predicted construction noise levels were assessed as exceeding noise management levels, though existing PPS students were unlikely to be 'highly noise affected' (i.e. noise level above 75 dB(A)). The applicant has also indicated that as construction progresses, noise generated was expected to reduce. The applicant also proposes to prepare construction noise and vibration management plan (CNVMP) to appropriately manage construction noise and vibration impacts. The Department has recommended a condition to ensure this occurs.

While the proposed relocation of the students may also have a negative impact, the Department notes the applicant has committed to the preparation and implementation of a relocation plan that keeps students and parents informed and to focus on the wellbeing of students. The negative impacts associated with the relocation, while greater for some (i.e. finishing year 5/6 and year 12/11 classes), are considered to be outweighed by the significant positive benefits associated with the redevelopment of the APHS and PPS that will deliver state of the art education facilities.

The Department acknowledges the applicant is committed to implementation of appropriate measures to ensure all students and parents are kept informed of the redevelopment process and to ensure the wellbeing of all students is maintained. The applicant's SIA also advises that the capacity requirements for the temporary relocation of primary school and high school students will be satisfactorily accommodated at the Old Kings School and Rowland Hassall School respectively.

The Department considers the potential social benefits associated with the proposed redevelopment of APHS and PPS are significant and would provide long lasting benefits for the growing residential Parramatta population. PPS students are expected to be exposed to short term construction noise impacts associated with the redevelopment of the APHS, but can be appropriately managed through the preparation and implementation of a CNVMP. A condition is also recommended requiring the applicant prepare a CEMP, in consultation with Council, to ensure appropriate measures are implemented to support the community use of school infrastructure.

4.3. Other Matters

Environmental and Residential Amenity Impacts

The proposal was accompanied by a noise and vibration planning report (acoustic report) that assesses potential construction and operational noise and vibration impacts on nearby sensitive land receivers, including existing residential and commercial receivers (see **Figure 29**).

The EPA's raised concerns with the applicant's acoustic report, recommending the applicant provide a worst case quantitative assessment of background noise level in accordance with the INP at the most potentially affected locations and to ensure mechanical plant and equipment installed does not exceed the INP design objectives or emit tones or other annoying characteristics.

In response to the EPA's concerns, the applicant's acoustic report advises noise monitoring locations were selected as:

- they represented noise levels at receivers less exposed to road traffic noise (location two) and those more exposed (location one) (see **Figure 29**);
- noise monitoring undertaken during the school term represented a more accurate background noise level of existing school operations and was consistent with the INP; and

- concerns were raised about security of noise logger and interference and inaccurate noise level recordings if monitoring were undertaken immediately adjacent to the boundary of residential properties.

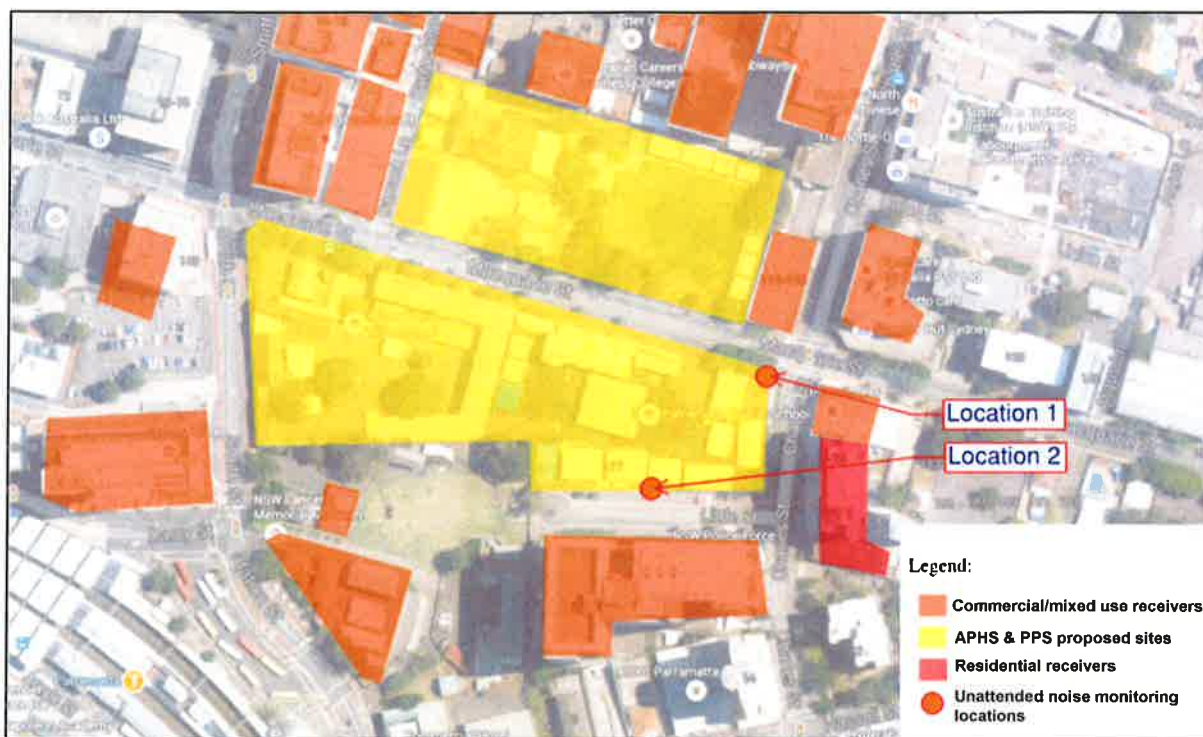


Figure 29: Sensitive Receiver/Noise Monitoring Locations (source: Applicant)

Background noise monitoring undertaken established rating background levels (RBL (dB(A) L_{90})) in accordance with the INP, the results of which are present in **Table 7**.

Table 7: Rating Background Noise Level

Proposal		Day (7 am – 6 pm)	Evening (6 pm – 10 pm)	Night (10 pm – 7 am)
Location One	L_{Aeq} dB(A)	57	50	46
Location Two	L_{A90} dB(A)	52	48	46

Construction Noise and Vibration Impacts

The EPA's Interim Construction Noise Guideline (ICNG) outlines the process of establishing construction noise management levels for surrounding sensitive receivers. Based on the established background noise levels and ICNG recommended day time noise management levels, construction noise and vibration management levels for residential receivers and commercial premises have been established for construction activities, which are outlined in **Table 8**.

Table 8: Construction Noise Management Levels (L_{Aeq} (15 min))

Sensitive Receiver Day (7 am – 6 pm)	Location One	Location Two
Residential	67 (Background + 10 dB)	62 (Background + 10 dB)
Commercial	70 (external noise level)*	70 (external noise level)*

* = 10dB(A) difference between external and internal noise

Construction noise associated with the redevelopment of the APHS and PPS school was likely to be generated by typical construction plant, including dozers, piling rig activities, concrete pump/mixer, crane operations, excavator operations, on-site diesel generator and hand tools, with sound pressure levels ranging between 60 dB L_{Aeq} and 80 dB L_{Aeq} .

(measured at 10 metres from the source). Based on the envisaged noise levels generated by construction activities, predicted noise levels were assessed as exceeding noise management levels and sensitive receivers would be 'noise affected', though were unlikely to be 'highly noise affected', i.e. noise level above 75 dB(A).

The applicant's acoustic report states that as construction progresses, noise generated was expected to reduce in conjunction with the greater use of precast concrete elements. In addition, the applicant proposes to prepare a CNVMP that addresses the appropriate management of construction noise and vibration impacts.

The Department has recommended a condition to this effect and also recommends standard conditions be imposed requiring all construction activities to be undertaken during standards construction hours, comply with noise and vibration criteria to ensure no adverse impacts to existing buildings or structures is generated by demolition and construction activities.

Operational Noise Impacts

The operation of each school is likely to result in potential noise impacts generated from general school operations, operation of mechanic plant and potentially from out-of-hours school and community activities, i.e. use of the APHS sport complex and PPS community hall. Based on the established background noise levels and ambient noise levels, project specific noise levels were established (refer to **Table 9**), which are the most stringent of the intrusive and urban amenity criteria for adjoining sensitive receivers in accordance with the INP.

Table 9: Project Specific Operational Noise Management Levels L_{eq} dB(A)

Sensitive Receiver	Time of day	Recommended acceptable Noise Level dB(A) L_{eq}
Commercial (Location One)	All times	65
Residential (Location Two)	Day	57
	Evening	53
	Night	50

The acoustic report advises building mechanical plant required for heating and cooling is required to be designed and attenuated such that noise generated it does not compromise the teaching environment. Notwithstanding, the acoustic report advises further assessment of mechanical plant would be undertaken when selected, but would be appropriately noise controlled and acoustically treated to ensure compliance with the INP.

The proposed schools also are not expected to hold large events for external community groups and therefore noise generated, other than typical day-to-day school operations, was not expected to be significant. Further, the design of the schools will also include measures to ensure noise generated from typical school operations does result in adverse amenity impacts, with the use of rubber flooring and carpets proposed to limit the transfer of noise between floors.

The Department also recommends conditions requiring the applicant prepare an operational management plan for the schools and specific management plans for large events/community uses (i.e. attended by greater than 100 persons) to ensure that the operation of the school at all times is appropriately managed to minimise any potential impacts.

It is acknowledged that the existing schools are located within a highly urbanised inner city environment and considers the noise generated from the proposal during its construction and operation can be managed to comply with the relevant criteria. The Department has recommended conditions requiring the applicant identify the required mitigation measures to attenuate the mechanical plant noise prior to commencement of works to ensure that it complies with relevant noise criteria. The Department has also recommended conditions requiring the applicant undertake a noise monitoring program of the mechanical plant within 60 days of the commencement of use of both schools to verify that the measured noise levels of the mechanical plant do not exceed the established noise criteria.

Contamination

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55) is the primary environmental planning instrument guiding the remediation of contaminated land in NSW. SEPP 55 requires a consent authority to consider whether the land is contaminated, and if so, whether the land will be remediated before the land is used for the intended purpose.

The proposal was supported by detailed site investigation (DSI) reports prepared for both the APHS and PPS sites. The DSI reports were prepared following a review of the site's land use history, a site walkover and on-site fieldwork that included collection of soil samples from a total of 55 soil samples (30 from the PPS site and 25 from the APHS site) in accordance with the EPA's Sampling Design Guidelines.

The EPA's review of the proposal acknowledged the applicant's proposal to engage an accredited site auditor and preparation of a site audit statement, which it supported. The EPA also advised the site audit statement should be prepared for the whole development site and be provided to determine the site's suitability for the proposal. It also recommended a number of conditions requiring:

- the applicant prepare and implement an unexpected finds protocol;
- the applicant prepare a hazardous materials register and that asbestos and polychlorinated biphenyl capacitors are removed and validated prior to demolition work;
- the applicant be required to satisfy the requirements of the *Protection of the Environment Operations (Waste) Regulation 2014*;
- the applicant be required to consult with SafeWork NSW concerning the handling of any asbestos that may be encountered; and
- the applicant investigate potential groundwater contamination following the demolition of existing buildings and structures from the sites.

The applicant also identified deficiencies in the initial detailed investigations undertaken during the preparation of the EIS and the limitations the existing school operations and presence of associated school buildings and structures placed on completing detailed investigations. Accordingly, the applicant undertook further detailed site investigations of the APHS and PPS sites as part of its addendum RtS site contamination response.

The addendum DIS reports outlined additional detailed investigations and analysis was undertaken of samples collected from an additional 38 borehole sampling locations, targeting asbestos containing materials (ACMs) and chemical contaminants including lead, benzo(a)pyrene (BaP), total recoverable hydrocarbons (TRH), monocyclic aromatic hydrocarbons (BTEX), polychlorinated biphenyls (PCB), polycyclic aromatic hydrocarbons (PAH), organochlorine pesticides (OCP), organophosphorus pesticides (OPP), volatile organic compounds (VOC), poly-fluoroalkyl substances (PFAS) phenols and asbestos.

Key findings of the APHS site DSI reports concluded that:

- the site was used for various activities, including agricultural, residential, convict barracks and lumber yard, military barracks, hospital/asylum prior to being used education purposes from approximately 1940 onwards;
- the recorded concentrations of metals, BTEX, OCP, OPP, PCB, phenols, PFAS and asbestos from soil samples were below the SAC;
- the recorded concentrations of PAH and TRH from soil samples exceeded the SAC, though were not considered to pose an unacceptable risk given the reported concentrations were likely attributed to small bitumen fragments;
- ACM was previously contained on-site beneath concrete capping, has been identified within existing buildings and at the ground surface and in site soils;
- results of groundwater investigations were not considered to indicate a potential risk to future site users; and

- the site can be made suitable for the proposed primary school development provided the identified areas of concern are appropriately remediated.

Key findings of the PPS site DSI reports concluded that:

- the eastern portion of the site has been used for education purposes from approximately 1925 onwards and the western portion of the site (shared open space) has been used for education purposes from approximately 1880 onwards;
- asbestos has been identified in site buildings;
- fragments of asphalt and brick were recorded in topsoil across the site;
- asbestos fragments exceeding the health screening levels for bonded asbestos were identified in samples taking from the site;
- the recorded concentrations of TRH, BTEX, OCP, OPP, PCB, phenols and all metals from soil samples were below the SAC, with the exception of lead in borehole 19;
- the recorded concentrations of BaP from soil samples exceeded the SAC in three samples analysed, but was not considered to pose an unacceptable risk given its reported concentration was likely attributed to small surficial fragments of bitumen;
- results of groundwater investigations were not considered to indicate a potential risk to future site users; and
- the site can be made suitable for the proposed primary school development provided the identified areas of concern are appropriately remediated.

Accordingly, the applicant submitted a remedial action plan (updated in its RtS addendum submission), supported by site auditor's advice, proposing to remediate site through a combination of:

- excavation and off-site disposal of soils containing detectable quantities of friable asbestos;
- on-site containment of soils containing bonded asbestos and preparation of a legally enforceable environmental management plan;
- excavation and off-site disposal of chemical contaminated soils that are considered to be a potential risk to human health; and
- preparation of an construction environmental management plan and unexpected finds protocol to ensure that construction workers are aware of their responsibilities.

The Department acknowledges the contaminants of concern, identified through the DSI reports undertaken, are capable of being remediated to ensure the existing sites can continue to be used for their education use. Accordingly, the Department is satisfied that the investigations undertaken by the applicant satisfactorily demonstrate that the site can be made suitable for the proposal in accordance with clause 7 of SEPP 55.

The Department also considers the recommended conditions proposed by the EPA are satisfactory in ensuring the site is appropriately remediated and validated for the proposed use. The Department also recommends conditions requiring the applicant prepare an unexpected finds protocol and a register of hazardous materials to ensure that appropriate measures are in place to protect construction workers prior to the commencement of demolition and remediation works.

Public interest

The proposal is considered to be in the public interest as it would provide significantly improved educational infrastructure for the City of Parramatta, and address growing demands for additional school enrolments, providing approximately additional 250 primary and 600 secondary school positions. The proposal also addresses State priorities in the following manner:

- it is consistent with *Premiers Priorities* to improve education results through the provision of new and improved teaching and education facilities;
- it is consistent with *A Plan for Growing Sydney*, as it proposes new school facilities and enrolment capacity to meet the growing needs of Sydney and supports the growth of Parramatta as Sydney's second CBD;

- it is consistent with the *State Infrastructure Strategy Update 2014*, as it proposes:
 - a large school in an urbanised area on an existing public land minimising land acquisition;
 - facilities to support the growth in demand for primary and secondary student enrolments for Parramatta and Western Sydney;
 - a school design to accommodate infrastructure and facilities sharing with communities; and
- it is consistent with the vision outlined in the Greater Sydney Commission's draft *West Central District Plan* (currently on exhibition), as it will provide school infrastructure located near existing public transport services and provides opportunities to co-share facilities with the local community; and
- it would provide direct investment in the region of \$123 million, which would support 100 construction jobs and 40 new operational jobs.

5. CONCLUSION

The Department has reviewed the EIS and considered advice from the public authorities, including Council. Issues raised in the submissions have been considered and all environmental issues associated with the proposal have been thoroughly addressed.

The Department's assessment concludes the proposal's built form is acceptable as it won't result in significant adverse environmental or amenity impacts and would be generally consistent with the scale and form of existing retained development retained on-site and the surrounding mixed use and commercial development. The design of the buildings also demonstrate that design excellence has been achieved and that appropriate measures have been incorporated into the designs to ensure they satisfactorily integrate with their immediate surrounds and minimise any potential impacts.

The Department is also of the opinion that the implementation of appropriate measures by the applicant to maintain student wellbeing and keep them informed and the delivery of new state-of-the-art education facilities will satisfactorily address the identified short term social impacts associated with the relocation of existing students to temporary nearby schools.

The application is consistent with the objects of the EP&A Act (including ecologically sustainable development), State priorities and *A Plan for Growing Sydney*. The Department is also satisfied the proposal would provide significant public benefits through the provision of new and expanded additional education and community facilities within the highly accessible city centre that positively contributes to the surrounding public domain. The proposal would also generate approximately 100 new construction and 40 new operational jobs.

The Department is satisfied that the proposal has satisfactorily responded to the issues raised and recommends the SSD application for the proposed redevelopment of Arthur Philip High School and Parramatta Public School be approved, subject to recommended conditions. The Department's recommended conditions of consent would ensure the construction and operational of both School would not result in adverse environmental impacts on the surrounding environment.

6. RECOMMENDATION

In accordance with section 89E of the *Environmental Planning and Assessment Act 1979*, it is recommended the Minister for Planning:

- (a) **consider** all relevant matters prescribed under section 79C of the EP&A Act, as contained in the findings and recommendations of this assessment report and appended documentation;
- (b) **grant consent** to the State significant development applications for the redevelopment of Arthur Philip High School and Parramatta Public School, subject to conditions of consent set out in the attached instruments at **Appendix D**;
- (c) **sign** the attached development consents at **Appendix D**.

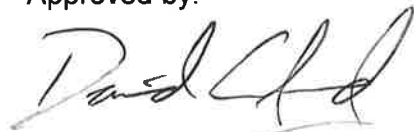
Prepared by: Peter McManus, Specialist Planning Officer

Endorsed by:

Handwritten signature of David Gibson in black ink, with the date 6/12/16 written below it.

David Gibson
A/Director
Social & Other Infrastructure Assessments

Approved by:

Handwritten signature of David Gainsford in black ink.

David Gainsford
Executive Director
Priority Projects Assessments

15/12/16

APPENDIX A RELEVANT SUPPORTING INFORMATION

The following supporting documents and supporting information to this assessment report can be found on the Department of Planning's website as follows.

1. Environmental Assessment
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7237
2. Government and Agency Submissions
http://majorprojects.planning.nsw.gov.au/?action=list_submissions&job_id=7237&title=ELS%20-%20Website%20Submissions&type=6
3. Public Submissions
http://majorprojects.planning.nsw.gov.au/?action=list_submissions&job_id=7237&title=ELS%20-%20Website%20Submissions&type=2
4. Applicant's Response to Submissions
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7237

APPENDIX B CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENT(S) AND DCP(S)

State Environmental Planning Policy (State and Regional Development) 2011

The aims of this SEPP are to identify State significant development and State significant infrastructure and confer the necessary functions to joint regional planning panels to determine development applications.

The proposal is for SSD in accordance with section 89C of the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it is development for the purpose of an educational establishment with a capital investment value (CIV) in excess of \$30 million, under clause 15 (educational establishments) of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011*.

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)

SEPP 55 aims to provide a state wide approach to the remediation of contaminated land. In particular, SEPP 55 aims to promote the remediation of contaminated land to reduce the risk of harm to human health and the environment by specifying under what circumstances consent is required, specifying certain considerations for consent to carry out remediation work and requiring that remediation works undertaken meet certain standards.

The proposal was supported by a number of detailed site investigation (DSI) reports that covered both school sites, which were prepared following a review of the site's land use history, a site walkover and on-site fieldwork that included collection of soil samples from a total of 55 soil samples (30 from the PPS site and 25 from the APHS site) in accordance with the EPA's Sampling Design Guidelines.

The applicant also identified deficiencies in the initial detailed investigations undertaken during the preparation of the EIS and the limitations the existing school operations and presence of associated school buildings and structures placed on completing detailed investigations. Accordingly, the applicant undertook further detailed site investigations of the APHS and PPS sites as part of its addendum RtS site contamination response, which outlined additional detailed investigations and analysis was undertaken of samples collected from an additional 38 borehole sampling locations

Potential areas of environmental concern (AEC's) were identified from the site's former agricultural uses, potential for hazardous materials in the footprints of former structures, existing buildings containing asbestos materials, suspected asbestos fragments on the ground surface and known fill material. Site investigations undertaken targeted asbestos containing materials (ACMs) and chemical contaminants including lead, benzo(a)pyrene (BaP), total recoverable hydrocarbons (TRH), monocyclic aromatic hydrocarbons (BTEX), polychlorinated biphenyls (PCB), polycyclic aromatic hydrocarbons (PAH), organochlorine pesticides (OCP), organophosphorus pesticides (OPP), volatile organic compounds (VOC), poly-fluoroalkyl substances (PFAS) phenols and asbestos.

Results from soil samples revealed contaminant concentrations were typically below the adopted site assessment criteria (SAC) and laboratory limit of reporting for potential contaminants, with the exception of samples detected to comprise asbestos containing materials (ACMs) and chemical contaminants.

The applicant advises, however, that the extent and expected quantities of the contaminants in the soils impacted by the chemical contaminants are relatively limited and that these contaminants typically require remedial action involving their removal or consolidation and isolation.

A remedial action plan (RAP) submitted by the applicant and supported by site auditor's advice, proposes to remediate site through a combination of:

- excavation and off-site disposal of soils containing detectable quantities of friable asbestos;
- on-site containment of soils containing bonded asbestos and preparation of a legally enforceable environmental management plan;
- excavation and off-site disposal of chemical contaminated soils that are considered to be a potential risk to human health; and
- preparation of an construction environmental management plan and unexpected finds protocol to ensure that construction workers are aware of their responsibilities.

The EPA's review of the proposal acknowledged the applicant's proposed sequence of events and supported the engagement of an accredited site auditor and preparation of a site audit statement. It also advised the site audit statement should be prepared for the whole development site be provided to determine the site's suitability for the proposal and recommended a number of conditions to ensure further investigations were undertaken to address information gaps and that appropriate measures were put in place to minimise impacts from unexpected finds.

The Department is satisfied that, in accordance with clause 7 of the SEPP 55, the investigations undertaken of the site demonstrate that the site can be made suitable for the continued use for the intended educational purpose upon remediation of the site. The Department has recommended conditions of consent requiring a site validation report and site audit statement be prepared by an EPA accredited site auditor upon completion of the remediation works.

State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP)

The aim of the Infrastructure SEPP is to facilitate the effective state wide delivery of infrastructure by providing greater flexibility in the location of infrastructure and service facilities, allowing the development of surplus government land, identifying relevant environmental assessment categories for development and relevant matters to be considered and providing for consultation with relevant public authorities.

Schedule 3 of the Infrastructure SEPP requires traffic generating development to be referred to the RMS. The proposal was referred to the RMS who raised no objection to the development.

Clause 32 of the Infrastructure SEPP requires the consent authority to take into consideration the relevant *School Facilities Standards* publications prior to determining an application subject the school landscaping, design and specification standards. The applicant's RtS advises that the *School Facilities Standards* has been replaced by the 'Educational Facilities Standards and Guidelines', which the proposal has been designed to comply with.

The Department is satisfied that through the design competition process and the applicant's review of the detailed design of both the APHS and PPS, the requirements and technical details outlined in the Department of Education's Educational Facilities Standards and Guidelines have been complied with.

Parramatta Local Environmental Plan 2011 (PLEP)

The development is consistent with the aim of the special uses zone in the PLEP to support the development of land for health service purposes. Consideration of the relevant clauses of the PLEP is provided in **Table 1**.

Table 1: Consideration of PLEP 2011

PLEP	Criteria	Department Comment/Assessment
Clause 2.3	Zone objectives	<p>The proposal satisfies the B3 Commercial Core zone objectives as it will:</p> <ul style="list-style-type: none"> • provide educational and community services for the local and wider community; • increase employment opportunities at a highly accessible location with access to public transport; • strengthen the role of Parramatta City Centre by revitalising the existing school sites on the periphery of the precinct; • improve pedestrian connections from Charles Street, through the site to Smith Street (Parramatta City Centre); • protect the unique on-site heritage built form; and • promote accessible city blocks through the proposed activation of the APHS Barrack Lane interface.
Clause 4.3	Building height	<p><u>APHS</u></p> <p>The proposed 69 m tower building height complies with the 60 m and 120 m height controls applicable to the site, when taking into consideration the additional 15 % bonus (69 m and 138 m) permitted for proposals that demonstrate design excellence.</p> <p>The proposed 9.36 m height of the movement complex building complies with the 60 m height control and applicable sun access plane control.</p> <p><u>PPS</u></p> <p>The maximum building height of the proposed PPS varies between 15.54 m to 19.37 m above natural ground level. The maximum building height generally complies with the varying height controls across the site, with the exception of the maximum 12 m building height limit (13.8 m, when taking into consideration the addition 15 % (1.8 m) bonus) central to the site, which the proposal exceeds by up to 4.46 m and 5.57 m to the top of the lift overrun and flue, respectively.</p> <p>A request to exceed the height standard was submitted by the applicant, which outlines the non-compliant building elements include only a small portion of the roof balustrade and the lift overrun and associated flue, which are setback 20.5 m from Macquarie Street. The applicant argues:</p> <ul style="list-style-type: none"> • the majority of the U-shaped PPS building complies with the maximum height control; • the intrusions are minor and ancillary building elements to facilitate the operation of the building; • the non-compliance will not impact on the amenity of its surrounds; • the proposal is consistent with the objectives of the height standard and zone objectives; • the design of the building was subject to a design excellence process; and • there would be no public benefit in maintaining strict compliance with the maximum building height. <p>Further consideration of the request to vary the height standard is provided in Section 4.2.1 of this report. The Department's assessment concludes that the proposed building height non-compliance is minor in the context of the overall proposal, the non-compliance will not give rise to any adverse amenity or environmental impacts and compliance with the building height standard is not considered necessary under the circumstances.</p>

Clause 4.4	Floor space ratio (FSR)	<p><u>APHS</u></p> <p>The APHS site is predominantly subject to a 6:1 FSR control (AA1 zone), while a small section of the eastern end of the site is subject to a 10:1 FSR control (AE1 zone).</p> <p>FSR's of 0.24:1 and 1.76:1 are proposed respectively in the AA1 and AE1 zones, satisfactorily complying with the development standard.</p> <p><u>PPS</u></p> <p>The PPS site predominantly subject to a 2:1 FSR control (T1 zone), while a small section of the eastern end of the site is subject to a 6:1 FSR control (AA1 zone).</p> <p>FSR's of 0.22:1 and 1.24:1 are proposed respectively in the T1 and AA1 zones, satisfactorily complying with the development standard.</p>
Clause 5.9	Preservation of trees or vegetation	<p>Approval is sought for the removal of 74 trees across the site. The necessity for tree removal has resulted from the proposed site layout, building footprints, environmental/landscape significance of existing vegetation and their condition and size.</p> <p>Up to 12 significant trees were identified site, with seven proposed for retention and incorporation into the landscape design. Five significant trees are proposed for removal due to their location to building footprints and condition. Whilst approximately two thirds of existing trees/vegetation is proposed for removal, including five significant trees, the existing biodiversity values and amenity of the site and its surrounds would not be adversely impacted on. The Department also notes that no existing trees or vegetation is identified as a heritage item or forming part of an existing item, nor is the site located within a heritage conservation area.</p> <p>The Department has concluded that the proposed vegetation and tree removal is satisfactory in the context of the proposal. The Department also notes that replacement planting and landscaping is proposed in new open space and recreational areas that would positively offset the proposed vegetation loss. Outdoor learning spaces are proposed to be landscaped with new shade trees, while larger recreational play spaces would be provided to maximise play opportunities.</p>
Clause 5.10	Heritage conservation	<p>The site contains a number of existing local and state significant heritage items and archaeological sites (as outlined in Section 4.2.2 of this report).</p> <p>The proposal involves minor works to the Infant School building to accommodate the new PPS, while the demolition of existing education building surrounding the existing heritage significant Arthur Philip High School building will visually open up the item, improving its prominence within the site and appreciation. The proposed new APHS is setback from the northern boundary location of the heritage significant Convict Barrack Wall, enabling its retention in entirety, and its conservation and historical interpretation.</p> <p>The Department has concluded that the proposal will enhance the significance of the existing heritage items and archaeological sites and ensure that the environmental heritage of Parramatta is conserved and protected.</p>
Clause 6.1	Acid sulfate soils	<p>The site is classified as class 5, which reflects a relatively low risk, and development consent is only required for works within 500 m of the other land classified with a higher risk level and where the water table is likely to be lowered one metre below AHD on the adjacent land. The site is located within 500 m of class 1, 2 and 4 acid sulfate</p>

		<p>soils, however, no deep excavations are proposed.</p> <p>The proposal is supported by a Detailed Site Investigation Report, which comprised a review of existing soil conditions, having regard to the <i>Acid Sulfate Soils Manual</i>, which concluded that an acid sulfate soils management plan was not required.</p> <p>The Department is satisfied that the proposal is unlikely to disturb, expose or drain acid sulfate soils and cause environmental damage and does not require an acid sulfate soils management plan.</p>
Clause 6.3	Flood planning	<p>The site is impacted by the 1 in 100 year ARI flood level, particularly on the eastern edge of the site. Accordingly, the proposal has been designed with minimum 500 mm freeboard finished floor levels above the flood planning level to ensure any potential impacts are minimised, with evacuation routes available to the southwest across the planning fields on the PPS site, should it be necessary.</p> <p>The Department's assessment has concluded that the proposal has been satisfactorily designed to accommodate the existing site flooding conditions and will ensure that no additional adverse impacts are generated.</p>
Clause 6.12	Design excellence	A design competition was conducted in accordance with the Design Excellence Guidelines.
Clause 7.2	Parramatta City Centre – FSR	Individually, the APHS and PPS sites are greater than 1,800 sqm in size, and therefore the prescribed FSR controls apply (as per cl.4.4 of PLEP).
Clause 7.4	Parramatta City Centre – Sun access	The proposal will not impact on Parramatta Square or Jubilee Park and would result in minor additional over shadowing impacts to the Lancer Barracks site adjacent to the south. Further consideration of solar access is provided in Section 4.2.5 of this report.
Clause 7.10	Parramatta City Centre – Design excellence	A design competition was conducted in accordance with the Design Excellence Guidelines.

Development Control Plans

It is noted that clause 11 of the SRD SEPP provides that development control plans do not apply to SSD. Notwithstanding, The Department has given consideration to Parramatta Development Control Plan (PDCP), where relevant, in **Table 2**.

Table 2: Consideration of PDCP

DCP Provisions	Department's Assessment
<p>2.4.1 Views and Vistas</p> <ul style="list-style-type: none"> • Preserve and enhance district views • To encourage view sharing • To ensure highly visible sites are designed in scale with the City's setting 	<p>The Department's assessment has concluded that the scale and design of the proposal would preserve existing district views to surrounding landmarks and sites of historical significance and would be in keeping with the scale of the redeveloping city centre.</p>
<p>2.4.2.1 Flooding</p> <ul style="list-style-type: none"> • To ensure applicants are aware of potential flood hazards and associated risks and liability • To manage flood liable land in an economically, environmentally and socially sustainable manner • To ensure developments are designed with reliable access and minimise flood risk 	<p>As outlined in Table 1, the site is partially impacted by the 1 in 100 year ARI flood level and the proposal has been designed to accommodate finished floor levels with a minimum 500 mm freeboard above the flood planning level.</p> <p>The stormwater design has been designed to cater for a 1 in 20 year ARI and will incorporate a pit and pipe system, rainwater tank and on-site detention system, with overland flow paths provided on-site to cater for larger events. No fill is proposed within areas of the site that is partially impacted by the 1 in 100 year ARI and the proposed site layout and</p>

<ul style="list-style-type: none"> To ensure the development does not expose existing development to increased flood risks To ensure the building design addresses flood hazards and does not result in adverse impacts To minimise the risk to life by ensuring appropriate access to flood affected areas To minimise damage to property To incorporate ESD principles 	<p>stormwater design will also ensure no additional off-site flooding impacts are generated by the development.</p> <p>The Suitable evacuation routes and access is available should this be necessary. The Department's assessment has concluded that the proposal has been satisfactorily designed to accommodate the existing site flooding conditions and will ensure that no additional adverse impacts are generated.</p>
<p>2.4.3.1 Sedimentation</p> <ul style="list-style-type: none"> To ensure effective sediment site controls such that the development does not contribute to sedimentation or waterways and drainage systems or windblown soil loss To ensure the development does not result in environmental damage of waterways and bushland in the city 	<p>The applicant has prepared a concept erosion and sediment control plan in accordance with the NSW Department of Housing's <i>Managing Urban Stormwater – Soils and Construction (Blue Book)</i> to ensure no adverse environmental impacts on downstream waterways are created during construction activities.</p> <p>The Department is satisfied with the applicant's proposed soil and sediment erosion control measures and has recommended a condition of consent to ensure best practice measures are implemented throughout the construction of the proposal.</p>
<p>2.4.5 Air Quality</p> <ul style="list-style-type: none"> To protect air quality and enhance environmental amenity 	<p>The applicant's construction management plan outlines measures proposed to protect surrounding sensitive receivers from air and dust impacts during construction. The Department's assessment has concluded that the measures proposed will ensure the effective management of any potential air quality impacts.</p> <p>The Department notes that the operation of the proposal is not anticipated to give rise to any adverse air quality impacts.</p>
<p>2.4.8 Public Domain</p> <ul style="list-style-type: none"> To enhance the quality of the public domain To ensure it is attractive, safe, interesting, comfortable, legible and accessible To ensure development adjacent complements the landscape character, public use and enjoyment of that land 	<p>The proposed demolition of existing buildings on the PPS site will open up the western end of the site and improve the visual connection of existing heritage items with the surrounding public domain and adjoining Parramatta City Centre.</p> <p>The Department is satisfied that the redevelopment of the site will provide an improved outcome for the surrounding public domain.</p>
<p>3.3.6.1 Stormwater Drainage</p> <ul style="list-style-type: none"> Design to meet WELS Scheme targets Prepare a Site Stormwater Management Plan (SSMP) incorporating water sensitive urban design measures 	<p>The stormwater design has been designed to cater for a 1 in 20 year ARI and will incorporate a pit and pipe system, rainwater tank and on-site detention system, with overland flow paths provided on-site to cater for larger events. No fill is proposed within areas of the site that is partially impacted by the 1 in 100 year ARI and the proposed site layout and stormwater design will also ensure no additional off-site flooding impacts are generated by the development.</p>
<p>3.3.6.2 Water Efficiency</p> <ul style="list-style-type: none"> Minimise water use within open space areas, including improved soils, passive irrigation and integrated vegetated stormwater treatment system 	<p>Water efficiency measures, such as high efficient water fixtures and rainwater harvesting, are proposed to ensure water use across the site is minimised.</p> <p>In addition, the stormwater design proposes a range of on-site detention measures to manage stormwater runoff and improve its quality prior to its release and interception at the receiving body.</p>

<p>3.3.7 Waste Management</p> <ul style="list-style-type: none"> Minimise and appropriately store and manage waste during demolition works To encourage a building design that will minimise waste generation over the lifetime of the building To ensure waste disposal is managed appropriately and efficiently To ensure waste storage facilities are located appropriately and don't impact negatively on the streetscape To ensure that waste can be effectively collected and managed 	<p>The application was accompanied by a construction management plan and waste management plan that provides details of proposed measures to appropriately and efficiently manage waste generated during the construction and operation of the schools.</p> <p>Construction waste is proposed to be temporarily stored on-site in bins or stockpiles and subsequently disposed of by the developer.</p> <p>Operational waste will be stored on-site in designated waste stores, with access to the proposed PPS store provided from Little Street, while the proposed internal access way will provide access to the APHS waste store.</p>
<p>3.5.2 Archaeology</p> <ul style="list-style-type: none"> Obtain necessary permits if required 	<p>The applicant's archaeological assessment of European and Aboriginal cultural heritage identifies the site as having moderate to high archaeological potential. Satisfactory arrangements are proposed including undertaking test excavations in accordance with a historical archaeological research design.</p>
<p>3.6.1 Sustainable Transport</p> <ul style="list-style-type: none"> To support the reduction of car trips and encourage the use of sustainable transport To ensure adequate off-street parking is provided to serve the development 	<p>The redevelopment of the existing schools will result in a reduction of on-site car parking, which the applicant advises is designed to discourage the use of private vehicles and encourage sustainable and alternative modes of transport.</p> <p>The Department notes that the site is well serviced by public transport and is located in close proximity to the Parramatta Transport Interchange with good pedestrian accessibility. Further, the proposal seeks to include on-site end-of-trip facilities to facilitate and encourage alternate transport modes (i.e. cycling and walking).</p> <p>The Department is satisfied that the proposal has been designed to encourage sustainable transport measures. The Department also proposes to impose a condition of consent requiring the preparation and implementation of a Green Travel Plan to ensure sustainable transport measures are appropriately communicated and implemented for the life of the development. Further consideration of this matter is provided in Section 4.2.3 of this report.</p>
<p>4.3.3.1 Building Form</p> <ul style="list-style-type: none"> Development must comply with street alignment and front setbacks specified in Figure 4.3.3.1.1 (i.e. 0 m) Development must comply with street height and upper level setbacks specified in Figures 4.3.3.1.3 and 4.3.3.1.6 (i.e. 4 storeys/14 m and 6 m) Min. zero lot setback to existing laneway or 3 m to centre line Min. 12 m rear setback and 6 m side setback for buildings greater than 54 m in height Max. wind criteria for new buildings must not exceed 16m/sec 	<p><u>APHS</u></p> <p>A 6 m and 39 m front setback from Macquarie Street to the respective tower and movement complex elements of the APHS is proposed. The APHS building is also proposed to be setback 19.5 m from the eastern side boundary and 9 m from the northern rear boundary.</p> <p>While these setbacks won't all comply with the PDGP requirements, the Department notes that the site layout has been designed to maximise open space and recreational area, minimise any potential overshadowing impacts on the heritage significant Lancer Barracks Precinct and importantly, maximise the provision of student enrolment places within a constrained CBD site.</p> <p>The proposed 6 m building setback would also ensure the tower built form complies with the minimum street frontage</p>

	<p>height and setback guidelines for the City South area, albeit with a podium element. Further, the 19.5 m side setback provides a satisfactory building separation to any potential future built form on the adjacent site and demonstrates only a minor non-compliance with the 12 m rear setback control. The Department considers the setbacks to be satisfactory, noting that the proposed APHS building would not generate any adverse amenity impacts on the existing built environment to the north and provides satisfactory relief to existing items of heritage significance to the north.</p> <p><u>PPS</u></p> <p>Proposed new built form is to be setback 6 m from Macquarie and Little Streets, and 1 m to Charles Street. While the proposal has not been designed to the property boundary (i.e. 0 m setback), the Department notes that the proposal has been designed to align with and be consistent with the setback of the adjoining heritage significant Infant School Building.</p> <p>The Department notes that the height of the proposed PPS complies with the maximum four storey maximum street height controls and recommended strategic landscaping and perforated metal screening will satisfactorily minimise potential wind impacts to the assembly, outdoor garden and rooftop garden areas.</p>
<p>4.3.3.3 Public Domain and Pedestrian Amenity</p> <ul style="list-style-type: none"> • Development should provide a new arcade/through site link and shared service lane • Active street frontages are required on primary and secondary street frontages of each building front • Development should provide a continuous awning along the APHS site frontage 	<p>The proposal has been designed having regard to the need to provide both a functional and secure teaching and learning environment that offers many opportunities for community integration.</p> <p>Active street frontages will be promoted through the visual connection between the public domain and open space/recreational areas that front large portions of both the APHS and PPS sites. Further, the proposed open palisade fencing design will ensure visibility and connection between the school grounds and adjacent public domain is promoted.</p> <p>The Department considers the proposed active uses fronting each site and the proposed café use within the Barrack Lane frontage will ensure the public domain and pedestrian amenity is maximised.</p>
<p>4.3.3.4 Views and View Corridors</p> <ul style="list-style-type: none"> • Historic views are to be protected and buildings should be designed to maximise and frame views 	<p>The view analysis provided by the applicant in its RtS satisfactorily demonstrates that the proposal, particularly the proposed APHS tower building, will not impact on any heritage significant views or view corridors.</p>
<p>4.3.3.5 Access and Parking</p> <ul style="list-style-type: none"> • No additional vehicle entry points permitted along Macquarie Street • Main building entry points should be clearly visible from primary street frontages • Development should provide barrier free pedestrian access and be designed to comply with the relevant AS for disabled persons 	<p>No additional vehicle entry points are proposed along Macquarie Street. All existing entry points along the PPS site Macquarie Street frontage will be decommissioned, while an existing entry point on the northern APHS site is proposed to be relocated east, adjacent to its eastern boundary to make provision for the proposed service lane and pick-up/drop-off facility.</p> <p>Main building entry points, including provisions for disabled persons, are provided from Macquarie Street (APHS and PPS buildings) and Charles Street (PPS building), and have been designed to ensure clear visible linkages are provided from these access points.</p>

<p>4.3.3.6 Environmental Management</p> <ul style="list-style-type: none"> • Developments to incorporate planting in accessible outdoor spaces and consideration given to green walls where appropriate • Developments encourage to include a green roof component of the roof space • Use of building water harvesting systems to reduce non-potable water demand 	<p>The proposal includes large areas of outdoor recreation and green open spaces that are proposed to be landscaped to maximise amenity and usability. Further, the proposed PPS building will include a trafficable green roof, expanding usable open green space.</p> <p>The proposal also includes measures to maximise water harvesting, with rooftop rainwater harvesting and rainwater tanks proposed to enable non-potable reuse.</p>
<p>5.3 Places of Public Worship and Educational Establishments</p> <ul style="list-style-type: none"> • To limit and manage the impacts of educational establishments on the amenity of residential areas • To ensure they have a scale and intensity suitable to the site and neighbourhood character • To minimise noise levels from educational establishment that may impact on neighbouring properties • To ensure adequate open space areas for passive and active recreation is provided • To ensure pedestrian safety is maintained and protected • To ensure surrounding road network and intersections continue to operate effectively • To minimise the impact of parking on the local streets • To provide certainty around ongoing management practices 	<p>Refer to Section 4.2 of this report.</p>
<p>5.5 Signage</p> <ul style="list-style-type: none"> • Signs are to be sited and designed so that they do not adversely impact on the amenity of the streetscape and the surrounding locality • Signs are to be compatible with the design, scale and architectural character of the building or site 	<p>No signage is proposed as part of the application.</p>

APPENDIX C GLOSSARY

Ecologically Sustainable Development can be achieved through the implementation of:

- (a) *the precautionary principle - namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:*
 - (i) *careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*
 - (ii) *an assessment of the risk-weighted consequences of various options,*
- (b) *inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,*
- (c) *conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,*
- (d) *improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:*
 - (i) *polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,*
 - (ii) *the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,*
 - (iii) *environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.(Cl.7(4) Schedule 2 of the Regulation)*

Objects of the Act

- (a) *to encourage:*
 - (i) *the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*
 - (ii) *the promotion and co-ordination of the orderly and economic use and development of land,*
 - (iii) *the protection, provision and co-ordination of communication and utility services,*
 - (iv) *the provision of land for public purposes,*
 - (v) *the provision and co-ordination of community services and facilities, and*
 - (vi) *the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*
 - (vii) *ecologically sustainable development, and*
 - (viii) *the provision and maintenance of affordable housing, and*
- (b) *to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and*
- (c) *to provide increased opportunity for public involvement and participation in environmental planning and assessment.*

Section 79C Evaluation

(1) Matters for consideration—general

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:

- (a) *the provisions of:*

- (i) any environmental planning instrument, and
- (ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and
- (iii) any development control plan, and
- (iiia) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F, and
- (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and
- (v) any coastal zone management plan (within the meaning of the Coastal Protection Act 1979),
that apply to the land to which the development application relates,
- (b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,
- (c) the suitability of the site for the development,
- (d) any submissions made in accordance with this Act or the regulations,
- (e) the public interest.

Note. See section 75P(2)(a) for circumstances in which determination of development application to be generally consistent with approved concept plan for a project under Part 3A.

Note. The consent authority is not required to take into consideration the likely impact of the development on biodiversity values if:

- (a) the development is to be carried out on biodiversity certified land (within the meaning of Part 7AA of the Threatened Species Conservation Act 1995), or
 - (b) a biobanking statement has been issued in respect of the development under Part 7A of the Threatened Species Conservation Act 1995.
-

APPENDIX D RECOMMENDED CONDITIONS OF CONSENT
