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CREATIVEPLANNINGSOLUTIONS

Environmental Impact Statement

Redevelopment of Kyeemagh Public School

PREPARED FOR

NSW DEPARTMENT OF EDUCATION

JANUARY 2018

Disclaimer:

In preparing this document, Creative Planning Solutions has relied upon information and documents provided by the Client or prepared by other Consultants within their various areas of expertise.

Creative Planning Solutions is unable and does not accept responsibility for any errors or omissions in any of the material provided by other parties

Signed Declaration

This Environmental Impact Statement (EIS) has been prepared in accordance with Schedule 2 of the *Environmental Planning and Assessment Regulation 2000.*

Applicant Details	
Applicant:	New South Wales Department of Education
Address:	105 Philip Street, Parramatta NSW 2150
Land to be developed:	Lot 1 DP 120095 & Lot 1 DP 335734 Corner of Jacobson Avenue, Beehag Street and Tancred Avenue, Kyeemagh NSW 2216
Proposed development:	Redevelopment of Kyeemagh Public School – Proposed Kyeemagh Public School

We, the undersigned, certify that the contents of the Environmental Impact Statement to the best of our knowledge, has been prepared as follows:

- In accordance with the requirements of the Environmental Planning and Assessment Regulations 2000; and State Environmental Planning Policy (State and Regional Development) 2011;
- The statement contains all available information that is relevant to the environmental assessment of the proposed development; and
- To the best of our knowledge the information contained in this report is neither false nor misleading.

Prepared By		
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1.0 Executive Summary

This Environmental Impact Statement (EIS) has been prepared by Creative Planning Solutions Pty Ltd on behalf of the NSW Department of Education (DoE) for the redevelopment of Kyeemagh Public School located on the corner of Jacobson Avenue & Beehag Street, Kyeemagh NSW 2216.

Pursuant to clause 15(2) of Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011, the development will be categorised as State Significant Development as the capital investment value exceeds $20 million and effectively seeks the creation of a new school.

This EIS has been prepared in accordance with the Secretary's Environmental Assessment Requirements issued by the NSW Department of Planning and Environment, Part 4 of the *Environmental Planning and Assessment Act 1979*, and Schedule 2 of the *Environmental Planning and Assessment Regulations 2000*.

The staged redevelopment of Kyeemagh Public School comprises the demolition of all existing structures on site and the construction of new school facilities to accommodate an increase in student numbers from the current 42 students to 500 students. Further capacity is available within the proposed scheme to increase student numbers to 600 if required in the future. The school was recently reclassified from K-2 to K-6, and the expansion of the school will correlate with this reclassification. The staged redevelopment will comprise the following:

- Demolition of all existing structures on-site (excluding the North Brighton Preschool);
- Construction of multiple buildings to a maximum height of two storeys which will contain:
    - Homebases;
    - Practical learning spaces;
    - Group work spaces;
    - Library;
    - Administrative spaces for teachers and staff; and,
    - New school hall.
- Outdoor play spaces including a games court and Covered Outdoor Learning Space (COLA);
- New landscaping works comprising hard paving, grassed areas, and planting.
- Removal of 20 trees to accommodate the development, with the provision of 24 replacement plantings.
- A twenty space car park accessible from Beehag Street;
- Ancillary site infrastructure and facilities inclusive of underground water storage and absorption trench; and,
- Building identification signage and one digital advertisement.
- Upgrades to vehicular crossing to staff carpark.

Consultation with a number of external bodies including Bayside Council, relevant utility providers, NSW Roads and Maritime Services, and Sydney Airport Corporation Limited among others, was undertaken throughout the design process. Advice received from these bodies has been incorporated into the proposal. Concurrence has been provided from Sydney Airport Corporation Limited.

The design has been formulated by DWP: Design World Partnership (DWP) in collaboration with specialist consultants, and in conjunction with feedback received from two separate State Design Review Panel meetings conducted by the NSW Government Architect's Office.

Any environmental risks associated with the project are able to be mitigated, consistent with the recommendations of these specialist reports. Advice from the project stormwater engineer and the project acoustic engineer have necessitated that the proposed two storey building exceed the height limit prescribed within the *Rockdale Local Environmental Plan 2011*. Clause 42 of *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* allows development consent to be granted for the purpose of a school despite any proposed contravention of a development standard. Reasons why the departure from the standard should be supported are provided within the statement.

The redevelopment of the school is aimed at addressing the future demand for student enrolments in the area, and the new school will incorporate future focused teaching spaces with excellent internal amenity. The proposal incorporates best practice in public building design, is of a high standard of aesthetic finish and afforded the flexibility to accommodate the community use of school facilities outside of ordinary school operating hours.

Accordingly, it is recommended that the Minister for Planning and Environment grant approval to the proposed State Significant Development application.

2.0 Introduction

2.1 Objectives and Overview of Proposed Development

The Department of Education (DoE) have sought to redevelop the Kyeemagh Public School, located at the corner of Jacobson Avenue & Beehag Street, Kyeemagh NSW 2216.

The proposed development comprises demolition of all existing structures and construction of new school facilities. The proposal also involves an increase in student numbers from 42 to 500 students, with the potential to increase to 600 students in the future. It should be noted that the school was reclassified towards the end of 2018, to expand the capacity of the existing school from K-2 to K-6.

Pursuant to clause 15(2) of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011*, the development will be categorised as State Significant Development (SSD) as the capital investment value exceeds $20 million. The estimated Capital Investment Value of the project is $27,429,408.

The primary objectives of the development are outlined below.

- Address the future demand for student enrolments in the area and construct a new school with a capacity of 22 new future focused teaching spaces, and 2 special programs, to accommodate up to 500 students, with a potential to increase to 600.
- Provide classrooms and learning spaces that will enable students to extend their learning capabilities.
- Achieve an aesthetically pleasing building form that will contribute to the architecture and urban landscape of Kyeemagh and creates a hub and identity for the local community, including spaces where they can meet and hold events.
- Replace and upgrade temporary and permanent inefficient facilities with a modern and sustainable alternative incorporating best practice in design.
- Enable the stimulation of regional labour markets and investment during the construction phase of the project and facilitate increase economic activities at adjacent commercial centres.

2.2 Background to the Development

The Kyeemagh Public School is within the Kogarah Primary Cluster, which sits within both the Metropolitan Central and Metropolitan South districts.

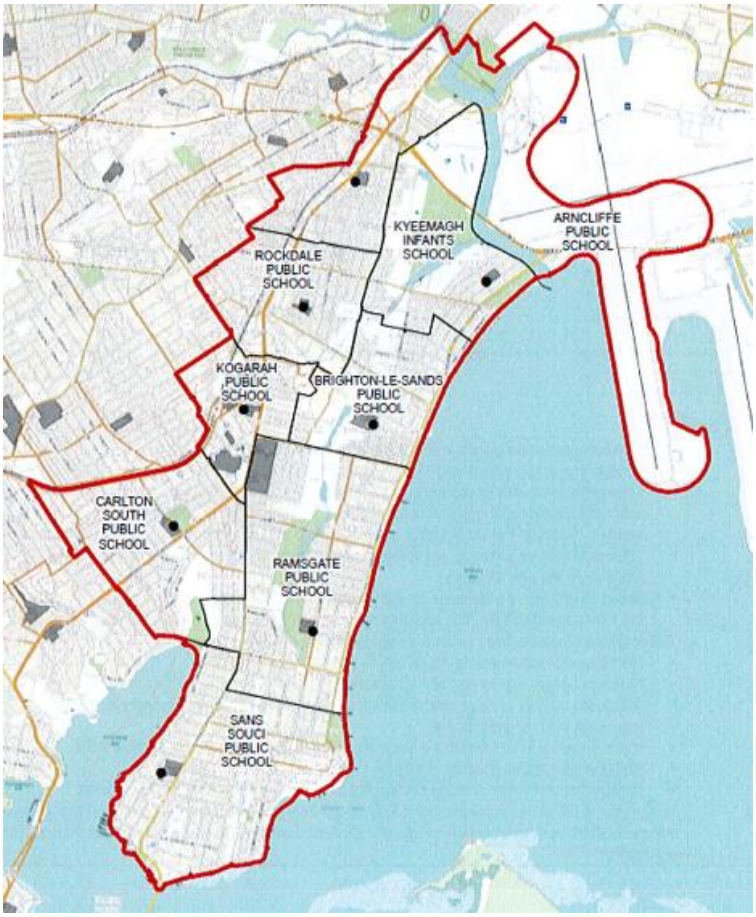

Figure 1 - Kogarah Primary Cluster shown outlined in red.
Source: DoE

The local region was identified within the project scoping document, as needing to accommodate a growing population, particularly along the Sydenham to Bankstown rail corridor and in the two strategic centres — Hurstville and Kogarah. The district was identified to have 204,000 more people by 2036, including 30% more 5-19 year olds.

Further, the variety and density of activities in centres within liveable communities will make the subregion a desirable place to live, work and visit. The district will have 325,000 more people by 2036, including 41% more 5-19 year olds.

The Kogarah Primary Cluster falls within the Bayside and Georges River Local Government Areas (LGA) and includes:

- Arncliffe Public School
- Brighton-Le-Sands Public School
- Carlton South Public School
- Kogarah Public School
- Kyeemagh Public School
- Ramsgate Public School
- Rockdale Public School

- Sans Souci Public School

Kogarah is an area with major urban development precincts, additional new housing and projected population growth that is generating increased numbers of primary school age children and demand for teaching space and facilities to at least 2031.

The projections are for an increase of approximately 2,750 Government primary school students to give a total of 6,550 students in 2031. Most of the growth is in the Arncliffe Public School intake zone (+1,580) and the Rockdale Public School intake zone (+622).

There are currently 31 demountable classrooms equating to 17% of teaching spaces across the Kogarah primary school cluster. The available school facilities are highly utilised.

Needs Analysis	
Key Drivers for the Project	• Significant projected growth in enrolments in the cluster. • Need to provide an additional 106 classrooms in the cluster by 2031. • Kyeemagh PS shares a catchment with Brighton-Le-Sands PS and Arncliffe PS and this project will relieve enrolment pressure at these schools. This in turn will allow the Department to adjust catchment boundaries between Rockdale PS and Brighton-Le-Sands PS to manage the projected growth at Rockdale.
Population and Enrolment Changes	• There is significant projected enrolment growth in the cohort of primary schools in the Kogarah primary school cluster over the next 15 years. • Based on enrolment projections for the Government primary schools in this cluster, a total of 6,550 students have to be accommodated by 2031 requiring an increase of 106 teaching spaces (classrooms),
Case for Change	The asset planning objectives within the Kogarah primary cluster are to: • meet future projected enrolment growth to 2031 • have a maximum school size of 1,000 students • reduce the number of demountables to a maximum of 15% of primary school classrooms • reduce the maintenance liability • improve the Facilities Condition Index from an average index of 3.65% to below 2.0% • meet the educational planning principles • achieve the best value for money to support the achievement of education outcomes
Additional Details (if required)	This project requires the reclassification of the school from a K-2 school to a K-6 school. This process has been completed, with support from the Executive Director, Director Public Schools, School Principal and the school community.

Table 1 - Needs Analysis associated with proposed school development

2.3 Analysis of Alternatives

The alternatives that were contemplated prior to the initiation of the development include the "do nothing" approach, the proposed development, and the expansion of other primary schools in the area. Each of these options are discussed below.

Option 1 - Do Nothing Option

The Base Case is the minimum DoE is legislated to provide, which would involve the provision of demountable accommodation.

The main driver of this project (reclassification and redevelopment of Kyeemagh Public School) is the projected enrolment growth at Arncliffe Public School. To meet this growth through demountables, they will need to be placed at Arncliffe Public School and Kyeemagh Public School, and Kyeemagh Public School will need to be reclassified from an infants school to a primary school (note that this reclassification has already taken place).

To provide some limited additional capacity on the Arncliffe Public School site, the Department's regional conference centre can be converted to four classrooms.

Qualitative advantages and disadvantages for Option 1	
Advantages	**Disadvantages**
• Lower capital costs • Little disruption to students to install the demountables	• Overcrowding at both school sites • Loss of play space for students • Poor design • School core facilities do not meet EFSG • Long-term demountable classrooms on site • Regional conference centre will be lost • Significant disruption to students • Most schools in the area are projecting significant growth so a large number of temporary teaching spaces would be needed • Long term demountables at schools may not meet community expectations • Unable to provide contemporary learning environments (e.g. collaborative learning, flexible spaces) • Unhappy students, staff, parents at Arncliffe Public School as it grows, with demountables occupying valuable and limited play space • Kyeemagh PS community disenfranchised as school grows but no permanent accommodation provided

Table 2 - Qualitative advantages and disadvantages for Option 1

Option 2 - Reclassification and redevelopment - Kyeemagh Public School

Redevelopment of Kyeemagh Public School, including provision of:

- 22 home bases
- 2 special programs rooms
- 21 core administration, staff facilities, library, communal hall, covered outdoor learning area (COLA), canteen and student services
- Games court, free play area and landscaping

Qualitative advantages and disadvantages for Option 2	
Advantages	**Disadvantages**
• Takes enrolment pressure off Arncliffe Public School Addresses part of the projected enrolment growth in the cluster (18%) • Provides appropriate core facilities and future focussed learning spaces (meets EFSG) • Creates an inspiring educational facility • Meets community expectations • Makes good use of the well located, flat site • Does not disrupt many students to redevelop the site - only 61 students.	• Higher capital costs

Table 3 - Qualitative advantages and disadvantages for Option 2

Option 3 — Upgrade of Brighton-Le-Sands Public School and Arncliffe Public School

Upgrade of Brighton-Le-Sands Public School to a 1,000 student school, including:

- Construction of 30 home bases (12 new home bases, replacement of 10 demountable classrooms and 8 MDR classrooms (4 buildings)
- Expanded core facilities to meet 35 core EFSG.

Upgrade of Arncliffe Public School to provide an additional 161 student spaces:

- Refurbishment of ground floor of Building G to provide 3 additional classrooms (used as a Regional conference centre)
- Installation of a 2-storey, 4-classroom block
- Extend hall
- Provide additional student services.

Qualitative advantages and disadvantages for Option 3	
Advantages	**Disadvantages**
• Two schools are upgraded • School core facilities meet EFSG • Replacement of 10 long term demountables • Arncliffe Public School has appropriate number of student toilets • All classes will be in permanent accommodation • School will be able to continue to operate in existing spaces during construction	• Regional conference centre will be lost • Kyeemagh PS community unhappy that school is not redeveloped as a K-6 school • Kyeemagh PS remains an underutilised site • Brighton-Le-Sands Public School is located away from the main enrolment growth, which is occurring in the Arncliffe Public School and Kyeemagh PS catchment • Disrupts more students than Option 2

Table 4 - Qualitative advantages and disadvantages for Option 3

Selected Option

The disadvantages associated with Option 2, which is the subject of this EIS, are primarily limited to the higher capital cost associated with this option. Given this option is otherwise preferable, this option has been pursued by the DoE.

2.4 Secretary's Requirements

A written application was made to obtain the Secretary's Environmental Assessment Requirements (SEARs). The SEARS are used to inform this EIS. The SEARs were issued on 29 June 2018 and they are provided within **Appendix A**. Details of how the SEARs have been addressed within the EIS and its appendices, are detailed within the table below.

Secretary's Environmental Assessment Requirements (SEARs)	Reference in Report	Reference in Appendices
General Requirements		
The EIS must be accompanied by a report from a qualified quantity surveyor providing: • A detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the *Environmental Planning and Assessment Regulation 2000*) of the proposal, including details of all assumptions and components from which the CIV calculation is derived; • An estimate of the jobs that will be created by the future development during the construction and operational phases of the development; and • Certification that the information provided is accurate at the date of preparation.	4.13	Appendix B
1. Statutory and Strategic Context		
Address the statutory provisions contained in all relevant environmental planning instruments, including:		
• *Biodiversity Conservation Act 2016;*	8.2	Appendix W, Appendix DD
• *State Environmental Planning Policy (State & Regional Development) 2011;*	6.4.1	-

Secretary's Environmental Assessment Requirements (SEARs)	Reference in Report	Reference in Appendices
• *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017;*	6.4.2	-
• *State Environmental Planning Policy No. 64 – Advertising and Signage;*	6.4.3	-
• *State Environmental Planning Policy No.55 – Remediation of Land;*	6.4.4	Appendix F, Appendix G, Appendix H, Appendix I, Appendix AA
• *Draft State Environmental Planning Policy (Remediation of Land);*	6.5.1	Appendix F, Appendix G, Appendix H, Appendix I, Appendix AA
• *Draft State Environmental Planning Policy (Environment); and*	6.5.2	
• *Rockdale Local Environmental Plan 2011.*	6.4.9	
Permissibility Detail the nature and extent of any prohibitions that apply to the development.	6.4.9	
Development Standards Identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards.	6.4.9	
2. Policies		
Address the relevant planning provisions, goals and strategic planning objectives in the following:		
• NSW State Priorities	6.6.1	
• The Greater Sydney Regional Plan, A Metropolis of three cities;	6.6.2	
• Future Transport Strategy 2056;	6.6.3	
• State Infrastructure Strategy 2018 – 2038 Building the Momentum;	6.6.4	
• Sydney's Cycling Future 2013;	6.6.5	
• Sydney's Walking Future 2013;	6.6.6	
• Sydney's Bus Future 2013;	6.6.7	
• Better Placed; An integrated design policy for the built environment of New South Wales, GANSW 2017;	6.6.8	
• Crime Prevention Through Environmental Design (CPTED) Principles;	7.10	
• Healthy Urban Development Checklist, NSW Health;	6.6.9	
• Greater Sydney Commission's Eastern City District Plan; and	6.6.10	
• Rockdale Development Control Plan 2011.	6.6.12	
3. Operation		
• Provide details of the existing and proposed school operations, including staff and student numbers, school hours of operation, and operational details of any	4.14, 4.15	

Secretary's Environmental Assessment Requirements (SEARs)	Reference in Report	Reference in Appendices
proposed before/after school care services and/or community use of school facilities		
• Provide a detailed justification of suitability of the site to accommodate the proposal.	2.3, 9.0	
• Provide details of how the existing infant school will continue to operate during construction activities of the new primary school.	4.7	
4. Built Form and Urban Design		
• Address the height, density, bulk and scale, setbacks and interface of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces.	4.0 & 7.1	Appendix N
• Address design quality, with specific consideration of the overall site layout, streetscape and public domain upgrades, open spaces, façade, rooftop, massing, setbacks, building articulation, materials, colours and Crime Prevention Through Environmental Design Principles.	4.0 & 7.1	Appendix N
• Provide details of any digital signage boards, including size, location and finishes.	6.4.3	Appendix C
• Provide a design report that includes diagrams, illustrations and drawings to clarify the design intent of the proposal and which clearly demonstrates how design quality will be achieved in accordance with Schedule 4 Schools – Design Quality Principles of *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* and in response to advice provided by SDRP.	4.0 & 7.1	Appendix N
• Detail how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.	4.9	Appendix C,
• Provide detailed site and context analysis to justify the proposed site planning and design approach.	3.0	Appendix C, Appendix N
• Provide a detailed site-wide landscape strategy.	4.4 & 7.6	Appendix GG
• Provide a visual impact assessment that identifies any potential impacts on the surrounding built environment and any adjoining heritage items.	7.1 & 7.14	Appendix N
5. Environmental Amenity		
• Assess amenity impacts on the surrounding locality, including solar access, visual privacy, overshadowing and acoustic impacts.	7.7	Appendix N
• View analysis to the site from key vantage points and streetscape locations (photomontages or perspectives should be provided showing the building envelope and likely future development).	7.7	Appendix N
• Lighting strategy and detail measures to reduce spill into the surrounding sensitive receivers.	7.18	Appendix L
• Identify any proposed use of the school outside of school hours (including weekends) and assess any resultant amenity impacts on the immediate locality and proposed mitigation measures.	4.15 & 7.16	Appendix L, Appendix EE
• Detailed outline of the nature and extent of the intensification of use associated with the increased floor space, particularly in relation to the proposed increase in staff and student numbers.	4.6	Appendix N
• Detail any proposed use of the school grounds out of school hours (including weekends) and any resultant amenity impacts on the immediate locality and proposed mitigation measures.	4.15 & 7.16	Appendix L, Appendix EE

Secretary's Environmental Assessment Requirements (SEARs)	Reference in Report	Reference in Appendices
6. Staging		
Provide details regarding the staging of the proposed development (if any).	4.7	Appendix C
7. Transport and Accessibility		
Include a transport and accessibility impact assessment, which details, but is not limited to the following:		
• accurate details of the current daily and peak hour vehicle, existing and future public transport networks and pedestrian and cycle movement provided on the road network located adjacent to the proposed development;		
• details of estimated total daily and peak hour trips generated by the proposal, including vehicle, public transport, pedestrian and bicycle trips based on surveys of the existing and similar schools within the local area;		
• the adequacy of existing public transport or any future public transport infrastructure within the vicinity of the site, pedestrian and bicycle networks and associated infrastructure to meet the likely future demand of the proposed development;		
• measures to integrate the development with the existing/future public transport network;		
• the impact of trips generated by the development on nearby intersections, with consideration of the cumulative impacts from other approved developments in the vicinity, and the need/associated funding for, and details of, upgrades or road improvement works, if required (Traffic modelling is to be undertaken using SIDRA network modelling for current and future years);		
• the identification of infrastructure required to ameliorate any impacts on traffic efficiency and road safety impacts associated with the proposed development, including details on improvements required to affected intersections, additional school bus routes along bus capable roads (i.e. minimum 3.5 m wide travel lanes), additional bus stops or bus bays;	7.3	Appendix E
• investigate the need for additional / upgraded safe pedestrian access routes across Bestic Street;		
• road safety assessments of likely pedestrian routes to / from the school within the school catchment;		
• assessment of the travel needs for teachers and students on each mode of transport and associated parking / pick-up and set down areas;		
• a traffic and parking management plan demonstrating safe and orderly movement of vehicles to/from the school;		
• details of travel demand management measures to minimise the impact on general traffic and bus operations, including details of a location specific sustainable travel plan (Green Travel Plan and specific Workplace travel plan) and the provision of facilities to increase the non-car mode share for travel to and from the site;		
• the proposed walking and cycling access arrangements and connections to public transport services;		
• the proposed access arrangements, including car and bus pick-up/drop-off facilities, and measures to mitigate any associated traffic impacts and impacts on public transport, pedestrian and bicycle networks, including pedestrian crossings and refuges and speed control devices and zones;		

Secretary's Environmental Assessment Requirements (SEARs)	Reference in Report	Reference in Appendices
• proposed bicycle parking provision, including end of trip facilities, in secure, convenient, accessible areas close to main entries incorporating lighting and passive surveillance;		
• proposed number of on-site car parking spaces for teaching staff and visitors and corresponding compliance with existing parking codes and justification for the level of car parking provided on-site;		
• an assessment of the cumulative on-street parking impacts of cars and bus pick-up/drop-off, staff parking and any other parking demands associated with the development. The assessment must consider the impacts of any mandatory parking restrictions associated with proposed pedestrian safety facilities (such as pedestrian crossing, school crossing or similar);		
• an assessment of road and pedestrian safety adjacent to the proposed development and the details of required road safety measures and personal safety in line with CPTED;		
• emergency vehicle access, service vehicle access, delivery and loading arrangements and estimated service vehicle movements (including vehicle type and the likely arrival and departure times);		
• the preparation of a preliminary Construction Traffic and Pedestrian Management Plan to demonstrate the proposed management of the impact in relation to construction traffic addressing the following: ○ assessment of cumulative impacts associated with other construction activities (if any); ○ an assessment of road safety at key intersection and locations subject to heavy vehicle construction traffic movements and high pedestrian activity; ○ details of construction program detailing the anticipated construction duration and highlighting significant and milestone stages and events during the construction process; ○ details of anticipated peak hour and daily construction vehicle movements to and from the site;	7.3	Appendix E
○ details of on-site car parking and access arrangements of construction vehicles, construction workers to and from the site, emergency vehicles and service vehicle; and ○ details of temporary cycling and pedestrian access during construction.		
Relevant Policies and Guidelines		
• *Guide to Traffic Generating Developments (Roads and Maritime Services)*		
• *EIS Guidelines – Road and Related Facilities (DoPI)*		
• *Cycling Aspects of Austroads Guides*		
• *NSW Planning Guidelines for Walking and Cycling*		
• *Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development*		
• *Standards Australia AS2890.3 (Bicycle Parking Facilities)*		
• *Healthy Urban Development Checklist, NSW Health*		
• *Development Near Rail Corridors and Busy Roads – Interim Guideline (Department of Planning 2008)*		
• *Roads and Maritime Services Technical Directions*		

Secretary's Environmental Assessment Requirements (SEARs)	Reference in Report	Reference in Appendices
8. Ecologically Sustainable Development (ESD)		
• Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) will be incorporated in the design and ongoing operation phases of the development.	7.12	Appendix O
• Include preliminary consideration of building performance and mitigation of climate change, including consideration of Green Star Performance.		
• Include a description of the measures that would be implemented to minimise consumption of resources, water (including water sensitive urban design) and energy.		
• Provide a statement regarding how the design of the future development is responsive to the CSIRO projected impacts of climate change. Specifically: o hotter days and more frequent heatwave events; o extended drought periods; o more extreme rainfall events; o gustier wind conditions; and o how these will inform material selection and social equity aspects (respite/shelter areas).		
9. Social Impacts		
• Include an assessment of the social consequences of the schools' relative location and decanting activities if proposed.	7.13	
• Provide details on accessibility and inclusiveness of the proposal for people of differing needs and capabilities.		
• Identify and describe how facilities are to be shared with the community outside of school hours.		
10. Aboriginal Heritage		
• Identify and describe the Aboriginal cultural heritage values that exist across the whole area that would be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH 2010), and guided by the *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011)*.	7.14	Appendix M
• Consultation with Aboriginal people must be undertaken and documented in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW)*. The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the ACHAR.		
• Impacts on Aboriginal cultural heritage values are to be assessed and documented in the ACHAR. The ACHAR must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.		

Secretary's Environmental Assessment Requirements (SEARs)	Reference in Report	Reference in Appendices
11. Noise and Vibration		
• Identify and provide a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation, construction. Outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.	7.16	Appendix EE
• Identify and assess operational noise, including consideration of any public-address system, school bell, mechanical services (e.g. air conditioning plant), use of any school hall for concerts etc. (both during and outside school hours) and any out of hours community use of school facilities, and outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.	7.16	Appendix EE
• Assess potential noise impacts from airport operations and outline measures to minimise and mitigate any potential impacts.	7.5	Appendix EE
Relevant Policies and Guidelines: • *NSW Noise Policy for Industry 2017 (EPA)* • *Interim Construction Noise Guideline (DECC)* • *Assessing Vibration: A Technical Guideline 2006* • *Development Near Rail Corridors and Busy Roads – Interim Guideline (Department of Planning 2008).*		Appendix EE
12. Contamination		
• Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with SEPP 55.	6.4.4 & 7.9	Appendix F, Appendix G, Appendix H, Appendix I, Appendix AA
• Undertake a hazardous materials survey of all existing structures and infrastructure prior to any demolition or site preparation works.		Appendix F
Relevant Policies and Guidelines: • *Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP)*		Appendix F, Appendix G, Appendix H, Appendix I, Appendix AA
13. Utilities		
• Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation and easement requirements of the development for the provision of utilities including staging of infrastructure.	7.2	Appendix J, Appendix K
• Prepare an Integrated Water Management Plan detailing any proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design.	7.8	Appendix BB
14. Contributions		
Address Council's "Section 94/94A Contribution Plan" and/or details of any Voluntary Planning Agreement, which may be required to be amended because of the proposed development.	7.19	

Secretary's Environmental Assessment Requirements (SEARs)	Reference in Report	Reference in Appendices
15. Drainage		
• Detail measures to minimise operational water quality impacts on surface waters and groundwater.	7.8	Appendix Q, Appendix BB
• Provide stormwater plans detailing the proposed methods of drainage without impacting on the downstream properties.		Appendix Q
Relevant Polices and Guidelines: • Guidelines for development adjoining land and water managed by DECCW (OEH, 2013)		Appendix Q, Appendix BB
16. Flooding		
Identify flood risk on-site (detailing the most recent flood studies for the project area) and consideration of any relevant provisions of the NSW Floodplain Development Manual (2005), including the potential effects of climate change, sea level rise and an increase in rainfall intensity. If there is a material flood risk, include design solutions for mitigation.	7.8	Appendix P
17. Hazards and Risks		
• Undertake a risk assessment in accordance with *Hazardous Industry Planning Advisory Paper No 6 – Hazard Analysis* demonstrating the development complies with relevant quantitative and qualitative risk criteria in *Hazardous Industry Planning Advisory Paper No 10 – Land Use Safety Planning*. • The risk assessment must include, but not be limited to, evaluation of the potential risk exposure from the existing dangerous goods fuel and gas pipelines near the proposed development. Relevant Policies and Guidelines: • *Hazardous Industry Planning Advisory Papers No 3 – Risk Assessment*	7.15	Appendix R
18. Biodiversity Assessment		
Identify and address the requirements of the *Biodiversity Conservation Act 2016* relevant to the State Significant Development Application.	8.2	Appendix W, Appendix DD
• Where a Biodiversity Development Assessment Report is not required, engage a suitably qualified person to assess and document the flora and fauna impacts related to the proposal.		Appendix W
• If the site is within an area to which a Biodiversity Certification Order has been issued, evidence of this Order is to be provided.		Appendix W, Appendix DD
• Where the land is subject to a Biodiversity Certification Order, evidence of this Order and the terms is to be provided.		
Note: The Biodiversity Conservation Act 2016 requires that State Significant Development Applications be accompanied by a Biodiversity Development Assessment Report unless otherwise prescribed.		
Detail measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles. Relevant Policies and Guidelines: • *Managing Urban Stormwater – Soils & Construction Volume 1 2004 (Landcom)*		

Secretary's Environmental Assessment Requirements (SEARs)	Reference in Report	Reference in Appendices
• *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)* • *Guidelines for development adjoining land and water managed by DECCW (OEH, 2013)*		
19. Sediment, Erosion and Dust Control		
Detail measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles. Relevant Policies and Guidelines: • *Managing Urban Stormwater – Soils & Construction Volume 1 2004 (Landcom)* • *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)* • *Guidelines for development adjoining land and water managed by DECCW (OEH, 2013)*	7.11	Appendix S
20. Waste		
Identify, quantify and classify the likely waste streams to be generated during construction and operation and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site.	7.17	Appendix CC
21. Construction Hours		
Identify proposed construction hours and provide details of the instances where it is expected that works will be required to be carried out outside the standard construction hours.	4.7	Appendix X
Plans and Documents		
The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environmental Planning and Assessment Regulation 2000. Provide these as part of the EIS rather than as separate documents.		

In addition, the EIS must include the following:
• Architectural drawings including but not limited to the following requirements:
  ○ dimensioned including RLs;
  ○ plans, sections and elevation of the proposal at no less than 1:200 showing furniture layouts and program; and
		Appendix C

○ site and context plans that demonstrate built form character, open space network, active transport linkages with existing, proposed and potential footpaths and bicycle paths and public transport links; and ○ detailed annotated wall sections at 1:20 scale that demonstrate typical cladding, window and floor details, including materials and general construction quality.		
• Artist impressions/architectural renders of the proposal;		Appendix C
• Site Survey Plan, showing existing levels, location and height of existing and adjacent structures / buildings and boundaries;		Appendix D
• Site Plans and operations statement demonstrating the after-hours and community use strategy;		Appendix C
• Site Analysis Plan		Appendix C
• Site and context plans that demonstrate active transport strategies and linkages with existing, proposed and potential footpaths and bicycle paths;		Appendix C

Secretary's Environmental Assessment Requirements (SEARs)	Reference in Report	Reference in Appendices
• Sustainability report including outline of sustainability targets and; demonstrated expression of these in design approach;		Appendix O
• A summary record of any consultation with the school community;	5.7 & 5.10	Appendix V
• A report tabling how the project responds to and upholds the Design Guide for Schools and the design principles as per Schedule 4 of the Education SEPP;		Appendix N
• Site plan demonstrating Masterplan principles for future development and expansion;		Appendix C
• Stormwater Concept Plan and Stormwater Management Plan;	7.8	Appendix Q, Appendix BB
• Flood report prepared in accordance with Bayside Council's Flood Risk Management Policy;	7.8	Appendix P
• Sediment and Erosion Control Plan;	7.11	Appendix C
• Shadow Diagrams;	7.7	Appendix C
• View Analysis / Photomontages, including those from public vantage points;	7.7	Appendix C
• An integrated landscape plan that includes identifying any trees to be removed and trees to be retained or transplanted, detail of all new planting, shade structures, materials and finishes proposed;	4.4	Appendix GG
• Preliminary Construction Management Plan, inclusive of a Preliminary Construction Traffic Management Plan detailing vehicle routes, number of trucks, hours of operation, access arrangements and traffic control measures;	7.11	Appendix X
• Geotechnical and Structural Report;	7.9	Appendix I
• Accessibility Report;	7.13	Appendix T
• Arborist Report;	6.4.5 & 7.6	Appendix Y
• Schedule of materials and finishes including a physical material sample board (no larger than A3) with correct proportional representation of materials;		Appendix C
• Acoustic Report;	7.5 & 7.16	Appendix EE
• Waste Management Plan;	7.17	Appendix CC
• Fire Safety Measures Schedule;		Appendix U
• Acid Sulphate Soil management plan (if required); and	6.4.9 & 7.9	Appendix Z
• Green Travel Plan.	7.3	Appendix E
Consultation		
During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, special interest groups including local Aboriginal land councils and registered Aboriginal stakeholders, and affected landowners. You must consult with:		
• Bayside Council;	5.2	
• Government Architect NSW (through the NSW State Design Review Panel process) (GANSW);	5.3	
• Transport for NSW (TfNSW)	5.4	
• Roads and Maritime Services (RMS)	5.5	

Table 5 - Secretary's Environmental Assessment Requirements

3.0 Site Analysis

3.1 Site Location

Kyeemagh Public School is located at the corner of Jacobson Avenue and Beehag Street, with a street address known as 30A Jacobson Avenue, Kyeemagh. The school is located within the suburb of Kyeemagh, within the Bayside Local Government Area (LGA).

The site is located approximately 9.7km to the south of the Sydney CBD, and less than 500m from the south-western edge of Sydney Kingsford-Smith Airport. The site is a short distance from a number of watercourses, with Muddy Creek located approximately 340m to the west, Cooks River located 200m to the north and Botany Bay located approximately 250m to the east.

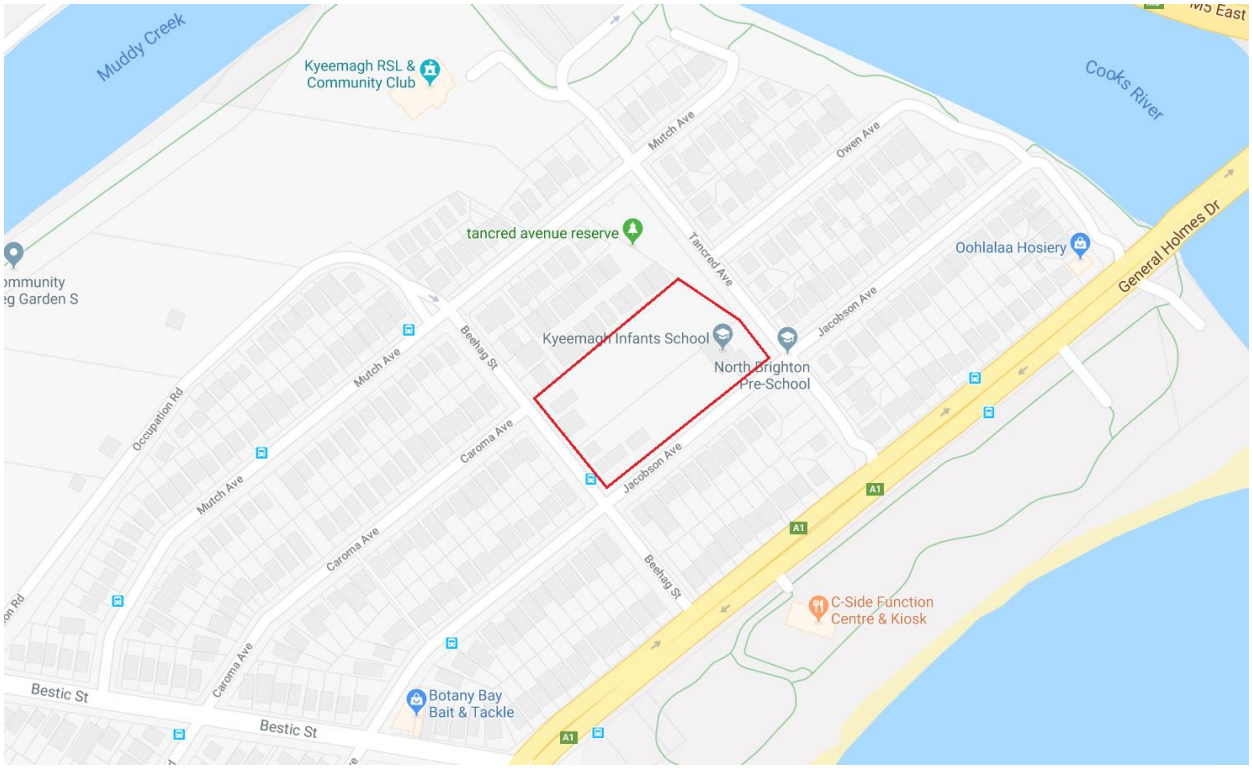

Figure 2 - Cadastral image indicating approximate location of subject allotment.
Source: maps.google.com.au

Figure 3 - Aerial photograph image of subject site.
Source: maps.six.nsw.gov.au/

3.2 Land Ownership

The site, including the adjoining childcare centre, is owned by the NSW Department of Education (DOE). The existing childcare centre is leased by Bayside Council from the DOE, and Council in turn leases the centre to a private operator.

3.3 Site Description

The subject site is situated across two allotments which are legally known as Lot 1 DP 120095 and Lot 1 DP 335734 (Figure 4). Lot 1 DP 120095 is located within the northwestern side of the allotment and has a total area of 7,600m^2, whereas Lot 1 DP 335734 is located within the southeastern side of the allotment, fronting Jacobson Avenue, and has a total area of 5,729m^2.

Figure 4 - Aerial photograph image of subject site illustrating the two allotments.
Source: maps.six.nsw.gov.au/

The site is generally rectangular in shape, with the exception of the northern corner of the site, which is intersected by a triangular portion of Tancred Avenue Reserve. The area of the site is 13,329m^2; however, part of the site is used for a childcare centre, North Brighton Preschool, which is located on the site, but is divided from the school by fencing. The net area of the school, excluding the childcare centre, is approximately 10,827m^2.

The school is provided with a primary street frontage to Jacobson Avenue of 156.66m and a secondary street frontage to Beehag Street of 87.16m, with a further street frontage of 36.575m to Tancred Avenue that is occupied by the childcare centre. The rear boundary extends along adjoining residential allotments for 140.72m whilst the boundary connecting the rear boundary with the Tancred Avenue boundary, and along Tancred Avenue Reserve, measures 53.955m.

Vehicular access is currently provided to the site from Beehag Street in the form of two crossovers and a driveway from Beehag Street, and a wide crossover from Tancred Avenue is available for the childcare centre. The staff carpark located at the western corner of the site is accessed via one of the vehicular crossings on Beehag Street, and is unsealed and unmarked. The carpark is bound on three sides by a metal palisade fence, with the south-eastern side adjoining a school demountable building.

The other vehicular crossing on Beehag Street is located in the centre of that frontage and provides access to the central asphalt playground. This driveway is for the exclusive use of service vehicles. The Tancred Avenue crossing provides access to the childcare centre carpark. This carpark is unfenced, enabling a continuous fence line to be provided for the childcare centre, from the edge of the play areas of the childcare centre, through to the fencing separating the site from the Tancred Avenue Reserve.

Pedestrian access to the site is provided via the Beehag Street frontage, adjacent to the service vehicle entry. An additional pedestrian access to the school is also available from Jacobson Avenue. Pedestrian access is also available to the childcare centre, from entry points on Jacobson Avenue and Tancred Avenue.

The school currently comprises of six classroom and office buildings, as well as one maintenance building, all located within the vicinity of the southern and western corners of the site. One of the existing buildings, being the building adjacent to the staff carpark, is a demountable building. A central asphalt area is provided between the buildings towards the southern corner of the site, and the asphalt also continues to each building to provide sealed pedestrian access.

There are 40 trees located within the site, with the majority of them being either adjacent to the street frontages, or located within tree clusters at the centre of the site and at the northern corner of the site, within the boundaries of the childcare centre. The two school frontages are provided with continuous rows of street trees, with the more mature species found on the Beehag Street frontage. Street trees within the Tancred Avenue frontage are concentrated in the area adjacent to the Tancred Avenue Reserve. A community garden is located to the northeast of the demountable building.

The site contains a large open turfed area situated between the public school buildings and the childcare centre buildings. This turfed area is used for school activities, but is a surplus play area above the necessary area provided within the vicinity of the school buildings. The turfed area is proportionally very large for a school of its size and is largely without any trees or built structures. A small play gazebo and play area are situated within the turfed area, approximately within the centre of the site.

Refer to below for images of the existing site conditions.

Figure 5 - Perspective of the existing school car park and demountable
Source: CPS, April 2018

Figure 6 - Easterly perspective of the existing school from Beehag Street
Source: CPS, April 2018

Figure 7 - Northerly perspective from the entrance on Beehag Street
Source: CPS, January 2019

Figure 8 - Easterly perspective towards the pedestrian entrance on Beehag Street
Source: CPS, January 2019

Figure 9 - Northerly perspective from the pedestrian crossing on Beehag Street
Source: CPS, April 2018

Figure 10 - Northerly perspective from the pedestrian entrance on Beehag Street.
Source: CPS, April 2018

Figure 11 - Perspective of the existing school oval and turfed area playground
Source: CPS, January 2019

3.4 Surrounding Development

The site is located within an established residential area comprising predominantly one to two storey dwelling houses and some medium density residential development in the form of multi dwelling housing.

The rear northwestern boundary of the site is shared with nine (9) one storey dwellings contained within a medium density housing development addressed as 49B Mutch Avenue, accessed from Mutch Avenue to the northeast. The rear northwestern boundary also adjoins a single two-storey dwelling house which fronts Beehag Street. All dwellings located adjacent to the northwest boundary shared with the existing school car park and oval are separated and delineated from the subject site by a garden bed and 1.8m high fence.

As indicated earlier, the northeastern boundary is shared with Tancred Avenue Reserve which is a well vegetated park that provides a visual break between the site and Tancred Avenue. Located on the opposite side of the street frontages are approximately 17 residential allotments containing exclusively one storey dwelling houses.

As noted earlier, the subject site also includes North Brighton Preschool, where it is located towards the corner of Tancred Avenue and Jacobson Avenue. The approximately 2,502m^2 area comprises one (1) main building, a garden shed and two (2) covered play areas.

Images of surrounding development are provided within the figures below.

Figure 12 - Adjoining dwelling house and multi dwelling housing development to the rear of the site beyond the car park
Source: CPS, January 2019

Figure 13 - Tancred Avenue Reserve viewed from Tancred Avenue
Source: CPS, January 2019

Figure 14 - Surrounding residential development on Jacobson Avenue
Source: CPS, January 2019

Figure 15 - Surrounding residential development on Jacobson Avenue
Source: CPS, October 2018

Figure 16 - Surrounding residential development on Beehag Street
Source: CPS, January 2019

Figure 17 - Surrounding residential development on Caroma Avenue
Source: CPS, January 2019

Figure 18 - North Brighton Preschool viewed from Jacobson Avenue
Source: CPS, October 2018

Figure 19 - North Brighton Preschool
Source: CPS, January 2019

The suburb of Kyeemagh is decidedly of a low-density residential character. The suburb is a relatively small suburb which is bound by Muddy Creek to the west, the Cooks River to the north, Botany Bay to the East and is generally bound by Bestic Street to the south; however, the suburb also includes all properties located on the southern side of Bestic Street, opposite the remainder of the suburb. Bestic Street provides continuous vehicular access through to Rockdale, which is a major regional centre amongst surrounding suburbs and located approximately 2.2km from the subject site. Rockdale contains the Bayside Council administration building and library, as well as Rockdale Railway Station, and a commercial strip concentrated on the Princes Highway, which continues to the north to provide access to the Sydney CBD via St Peters and Newtown. Banksia Railway Station is the train station nearest to the subject site, approximately 1.9km to the west of the site. Rockdale and Banskia stations sit on the Eastern Suburbs and Illawarra train line, which provides access to the Sydney CBD, on a similar route to the Princes Highway.

The eastern edge of the Kyeemagh low-density residential area is bound by General Holmes Drive, which is located approximately 300m to the east of the subject site. General Holmes Drive provides access to Sydney Airport and the Sydney CBD via Southern Cross Drive and the Eastern Distributor on the eastern side of Sydney Airport. The Kyeemagh low-density residential area, north of Bestic Street contains no through roads or signalised intersections, despite all local roads being well connected to either Bestic Street to the south or General Holmes Drive to the east. As a consequence, this area receives very low traffic flows. The northern end of Kyeemagh, at the confluence of Muddy Creek and the Cooks River, contains several community and non-residential facilities, including Kyeemagh RSL, Kyeemagh Boat Ramp reserve and the St George Randwick Hockey Club fields.

The western third of Kyeemagh, north of Bestic Street, contains the Kyeemagh Market Gardens. This site, along with the nearby Arncliffe Market Gardens, on West Botany Street, and the Toomevara Lane Chinese Market Garden, in Kogarah, are important historic sites associated with the Chinese community. Each of these sites are listed as heritage items of State significance.

Local shopping and entertainment opportunities in the area are focussed within Rockdale, Brighton-Le-Sands and Kogarah. Kogarah also contains St George Hospital. Given the location of Sydney Airport to the north, the student population of the school is provided within Kyeemagh or from areas further to the south or west.

A public bus stop is currently located on Beehag Street, immediately in front of the school, towards the Jacobson Avenue intersection. This bus stop is serviced by the 479 bus, which connects Kyeemagh to Rockdale and Brighton-Le-Sands. The majority of other nearby bus stops relate to this service; however, there is also a bus stop located on General Holmes Drive, to the north of its intersection with Beehag Street. This service travels between Sans Souci and Redfern, via Mascot and Kensington.

4.0 Description of Development

4.1 Demolition and Tree Removal

The proposal seeks the demolition of all existing primary school buildings on site (the North Brighton Preschool buildings, fronting Tancred Avenue, are not affected by the development). The demolition of the existing buildings will be staged in accordance with the Staging Plan (refer to Figure 25).

Of the forty (40) trees located on site, twenty (20) are to be removed whilst twenty (20) are to be retained. Thirteen (13) of the trees to be retained will require protection measures. One (1) tree located within the Council verge is proposed to be removed to make way for an upgraded vehicular crossing on Beehag Street. Proposed removals have been selected due to either their respective state of decline or their position which is incompatible the design of the development. Refer to the Arboricultural Impact Assessment within **Appendix Y**.

4.2 Proposed New Buildings and Structures

The proposed development features two distinct buildings. One building is located towards the corner of Jacobson Avenue and Beehag Street that primarily comprises of the administration centre, a covered outdoor learning area (COLA) and school hall. The second, larger building, is two storeys in height, and is located across the northeastern half of the site. This building is known as the learning building and contains the majority of the teaching spaces.

The main entry to the school is provided from the centre of the frontage to Jacobson Avenue, being the south-eastern frontage. The main entry is to be highlighted by a feature roof canopy. Refer to the image below.

Figure 20 - Rendered image showing the main school entry from Jacobson Avenue
Source: DWP

The administration building will accommodate administration functions within the school. The building features a reception area oriented towards the school pedestrian entry, which sits forward of the open plan office space within the centre of the building. Offices, utilities, and a sick bay surround the majority of the remainder of the central area, with the canteen situated within the western corner of the building, adjacent to five individual toilets.

The canteen counter faces towards a roofed covered outdoor learning area (COLA), which enables students sheltered access to the canteen facilities. This area sits atop two 30,000L underground water storage tanks. On the south-western side of the COLA is the main school hall, with two entry doors provided towards the COLA, and one to the north-west. The hall is provided with generous ceiling heights and is surrounded by utility areas to the south-east and south-west.

The COLA is also accessible from a community entry from Jacobson Avenue, which enables efficient access to the hall for school functions. The hall, COLA and administration building sit underneath a continuous multi-form roof.

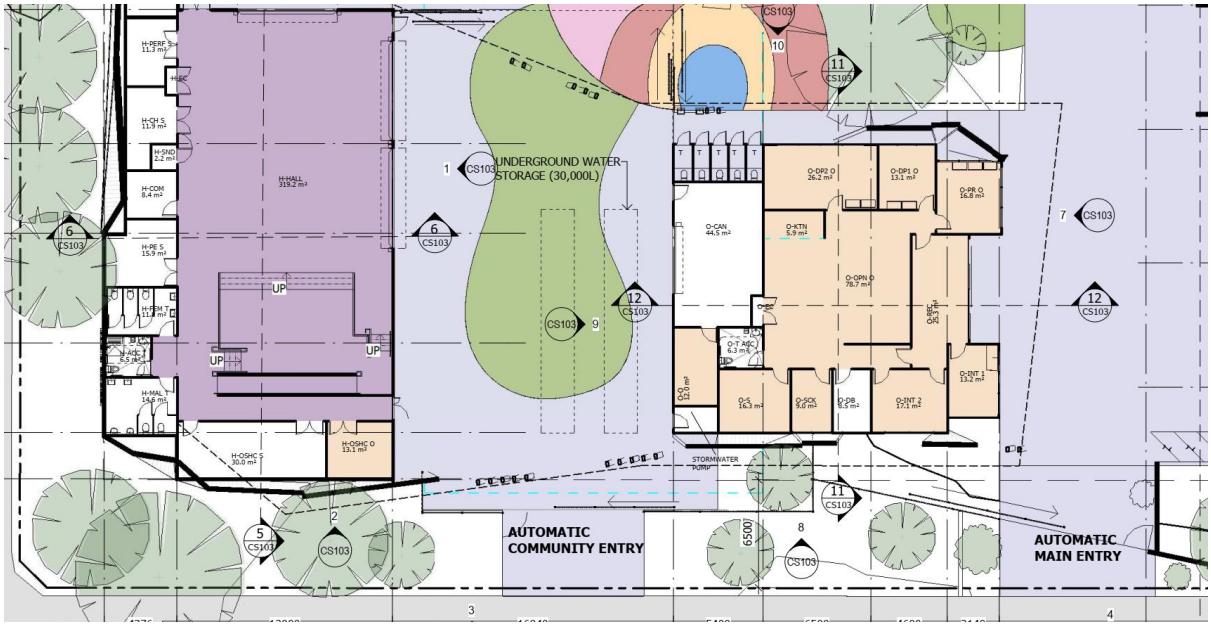

Figure 21 - Floor plan extract showing the single storey buildings in the southern corner of the building, with the two entries from Jacobson Avenue
Source: DWP

To the north-east of the main pedestrian entry is the front wing of the two-storey learning building. The learning building is designed to incorporate future-focused learning strategies to provide a learning-centred approach to education. The ground floor of the front wing features a central principal activity area (PAA) with two attached group learning areas on each of the southwest and northeast sides of the PAA. Two special programs rooms associated with the library are located in the eastern corner and a staff room in the northern corner. A landscaped courtyard is provided within each of the two wings of the learning building.

The first floor is predominately occupied by homebases (classrooms), with six distinct homebase areas, two PAAs, and six small group learning areas. The perimeter of the first floor is largely surrounded by outdoor circulation space and decking, with access available between the two floors from an outdoor stairwell at the southeastern edge of the building. A presentation room is to be

situated on the southwestern edge of the building. This building also contains a central first floor outdoor deck area, which will be constructed to enable potential conversion into a homebase in the future.

The learning building continues further along the northeast edge of the school grounds, with two separate, but associated wings of the building, located behind the front portion of the learning building. The northwestern wing of the learning building is located towards the northern corner of the school, and a library and a utilities and amenities building located centrally between the two separate wings.

The internal ground floor and first floor areas of the rear wing of the learning building are identical to the first floor within the front wing. However, the rear wing does feature more continuous first floor perimeter outdoor circulation areas than that provided to the front wing, with the rear walkway area connecting to both sides, and providing an external staircase which connects the two floors.

Future homebases are also accounted for within the floorplates of the rear wings, and it is expected that any future increase in the student population to 600 students, would require the utilisation of the spaces reserved for the future homebases.

The library in the centre of the two wings of the learning building is two storeys, with a void occupying almost all of the first floor area. The ground floor contains office and storage areas, at its northeastern end, with the remainder of the floor space occupied by library floor area. The first floor area, aside from the void, is entirely occupied by the library.

The utilities and amenities building is located to the northeast of the library building and is two storeys in height. This building features toilets, utility rooms and a staff room at first floor oriented towards the library building. Drinking fountains are located opposite the toilets towards the northeast of this building.

In addition to the two external stairwells at either end of the buildings, a larger central stairwell is also located on the southwestern edge of the building, immediately adjacent to the library. A lift is located within the library building, providing equitable access between the two floors. The lift is accessed from the central portion of the outdoor circulation area, providing short travel distances between the lift and all four of the two-storey buildings.

Figure 22 - 3D Cutaway render of the two storey buildings on the northeastern end of the school
Source: DWP

A BCA Design Assessment Report (**Appendix U**), prepared by Design Confidence, accompanies the report, which identifies the extent to which the design complies with the relevant prescriptive provisions of the *Building Code of Australia*.

4.3 Play Areas

The western corner of the school contains the largest outdoor play area within the school. A multi-purpose games court is located towards the south-west boundary, which is directly accessible from both the hall and the COLA. The court adjoins an open play area which is also bound by the administration building, the library, the rear wing of the learning building and the school car park. Utilities are located between the games court and the Beehag Street frontage.

Figure 23 Axonometric projection showing the entire school viewed from the west, with the carpark and principal outdoor play area in the foreground.
Source: DWP

The other primary outdoor play area is located at the north-western end of the site, adjacent to the future community garden and the existing child care centre. All play areas across the site are shown highlighted within the image below.

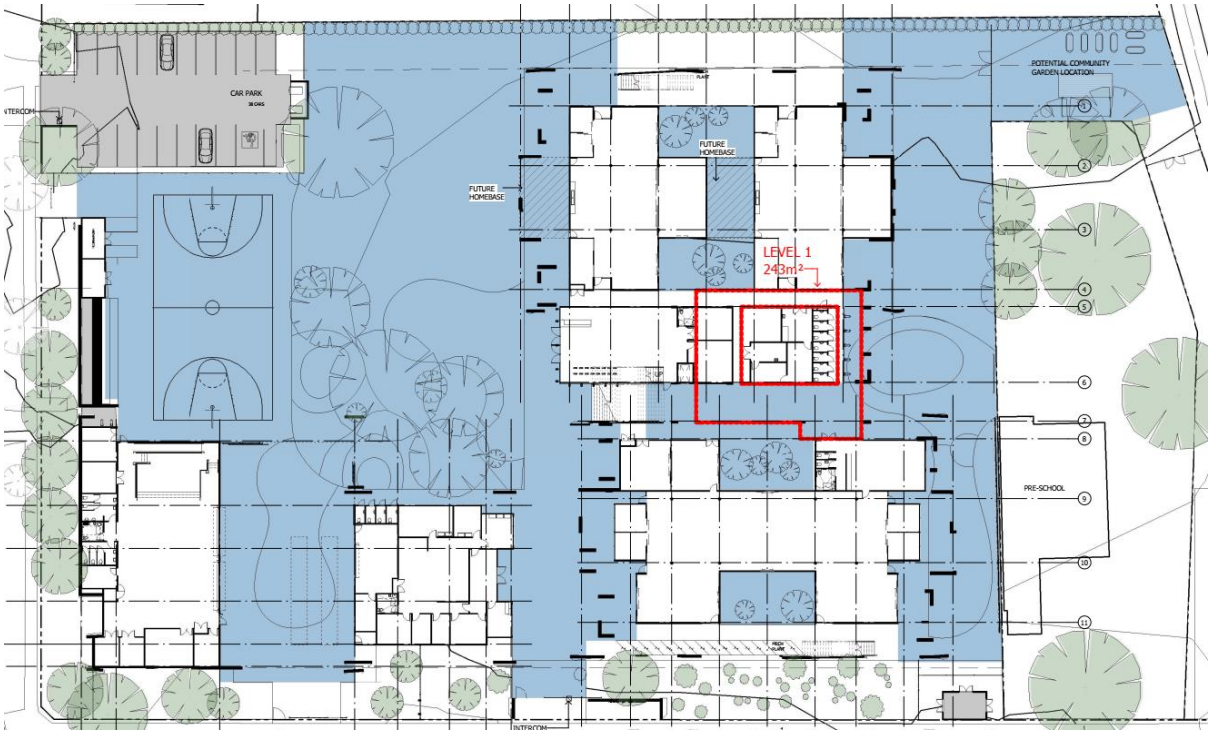

Figure 24 - Indicative layout of school play areas
Source: DWP

The separation of the play area allows for flexibility in the operation of the school. For example, this layout would allow for 300 students to play within the primary play area, and 200 to play within the north-western play area, whilst maintaining compliance with the 10m^2 play space per student play space requirement prescribed by the Educational Facilities Standards and Guidelines (EFSG). Such a split would enable older students to play within the larger area, and infants to play within the smaller area, as may be desired during school operation.

4.4 Fencing and Landscaping

To minimise the visual obtrusiveness of fencing, the 'security line' of the new school is intended to incorporate as many buildings as possible. Where it is unavoidable, a 2100mm palisade security fence will be installed around the perimeter of the school. Perimeter fencing of 300mm wide planting will surround the perimeter of the site, to further soften the appearance of the fencing.

The proposed school expansion will require the removal of 20 trees. However, 17 new on-site evergreen plantings and 7 new street trees are proposed at the site frontages.

Landscaping has been employed to provide visual screening of the development. For example, native shrubs capable of growing to a height of up to 4m are to be located between the car park and the adjoining resident at No.6 Beehag Street, with lower planting provided further to the north-east. Where possible, landscaping is provided to improve site presentation, including at the entry to the carpark where new plantings are to be provided to denote the entry.

An expanded community garden, containing vegetables, herbs and fruit, is to be provided towards Tancred Avenue Reserve. Unlike the existing community garden, it is anticipated that the new community garden will be publicly accessible.

4.5 Vehicular, Pedestrian Access and Parking

The carpark is accessed from the north-west end of the Beehag Street frontage, in a similar location to the existing unsealed carpark. The carpark contains space for 20 vehicles, including one accessible space and waste storage areas. Entry to the carpark will be controlled by an automatic gate, preventing unauthorised entry. An intercom is to be provided on the outside of the gate, to enable access to visitors when necessary. The vehicular crossing in the centre of the Beehag Street frontage will no longer be required.

The main pedestrian access is via the feature canopy in the centre of the Jacobson Avenue frontage. A community entry is located off Jacobson Avenue, adjacent to the COLA. A new pedestrian access is also to be provided via Tancred Avenue, which passes the community garden.

4.6 Numerical Overview

The key numeric development information is summarised in the table below:

Key Development Information	
COMPONENT	**PROPOSAL**
Site Area (inclusive of Childcare centre)	13,329m^2
Lot 1 DP 335734	5,729m^2
Lot 1 DP120095	7,600m^2
Building Height	
Administration Building / Hall	8.50m
Home Base / Library Building	9.85m
Floor Space Ratio	0.35:1 (3,785m^2 / 10,827m^2)
Boundary Setbacks	
Jacobson Avenue	6.5m
Beehag Street	5.0m
Tancred Avenue	40.0m
Rear Boundary	6.0m
(Potential) Student Capacity	(600) 500
(Potential) Home Bases	(25) 22
Practical Learning Spaces	7
Car Park Capacity	20 spaces inc. 1 accessible space.
Bicycle Parking	32 bicycle spaces
Kiss and Drop Spaces	10 spaces

Table 6 - Numerical Overview of Development

4.7 Construction Staging

The proposed redevelopment of the school will be undertaken across three distinct construction stages. The staging arrangement is intended to minimise the interruption to the operations of the school, by maintaining continuous access to classrooms, outdoor play areas and administrative functions at each stage of construction.

Whilst the proposed development is under assessment, early landscape worked are intended to be carried out at the site. These early works will encompass a footpath from Tancred Avenue Reserve and a new community garden in the northern corner of the school. It is important that these works are carried out prior to construction, as the existing school community garden will be affected by the proposed works. The landscape works will provide a new access point to the school from Tancred Avenue, which will become feasible as a consequence of the expansion of the school towards the east. These works will not be impacted upon by the stages of the proposed works.

The early landscaped works will be carried out in accordance with the requirements for exempt development, contained within clause 17, clause 18 and clause 38 of the ESEPP.

Each construction stage that is subject to the proposed development is described below:

Stage 1 will include the construction of the 2-storey learning buildings on the north-east side of the building. These buildings are to be situated on land which is almost exclusively occupied by turf, with only a sparse selection of structures located within this part of the site. The small trees, play area and gazebo will each be removed as part of Stage 1. The play space will be maintained in a similar area to that provided to the existing school.

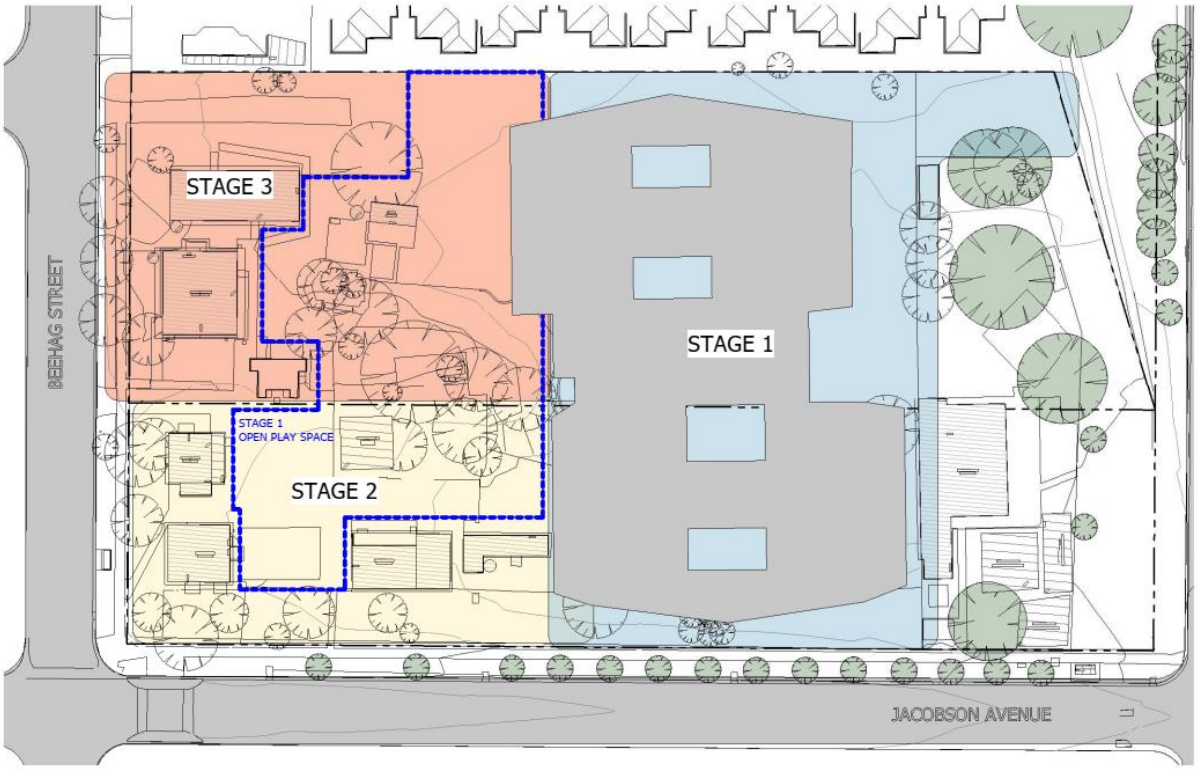

Figure 25 - Staging Plan showing the buildings and play space to be provided as part of Stage 1.
Source: DWP

All new classrooms will be completed during Stage 1, which will enable all classes to be relocated to the new buildings constructed within Stage 1. Stage 2 will then require the demolition of the existing buildings at the southern corner of the site, in order to facilitate the construction of the administration building and hall. The existing play area will be reduced in size but will be supplemented by an additional play space to the north of the buildings constructed within Stage 1.

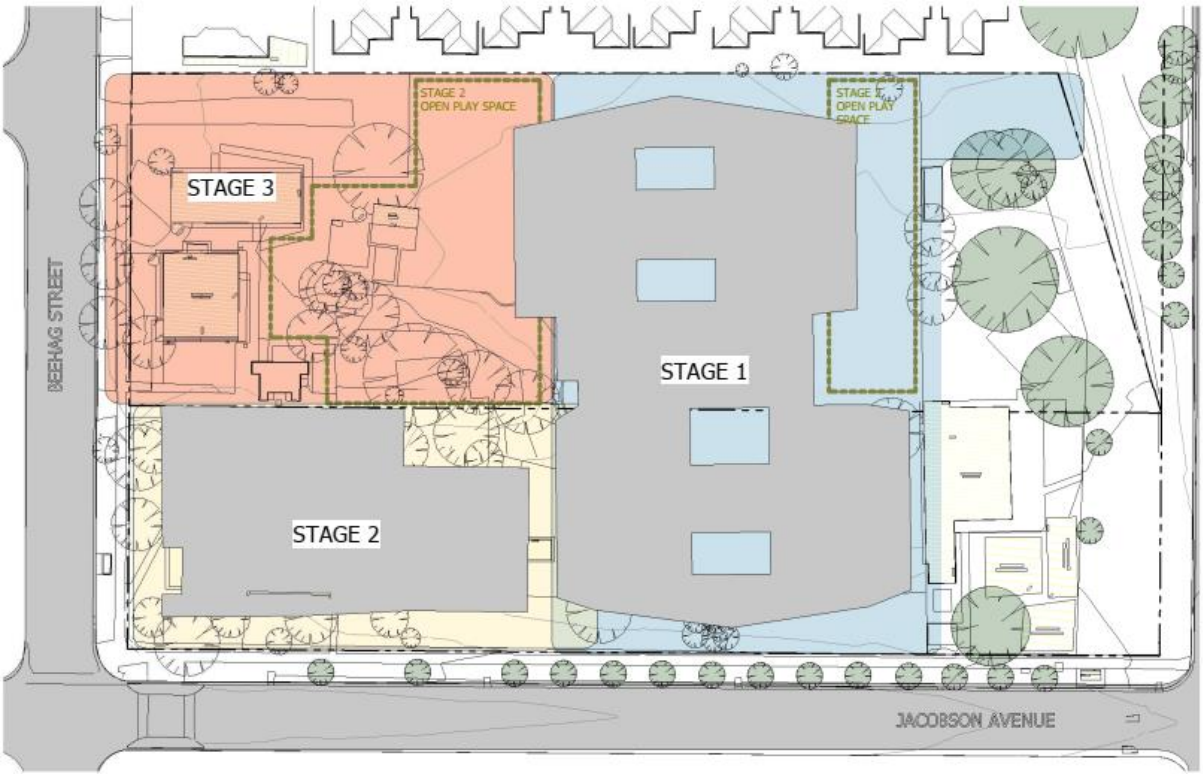

Figure 26 - Staging Plan showing the buildings and play space to be provided as part of Stage 2.
Source: DWP

Stage 3 will require the demolition of all remaining existing buildings, including the existing administration building, which will be vacated as staff are relocated to the new administration building. The car park and games court and the western side of the existing play area will be completed as part of this stage. This will reduce the size of the open play area that is available on the south-west side of the Stage 1 buildings. However, additional play space will become available underneath the roof of the Stage 2 building, in the covered outdoor learning area (COLA) located between the administration building and the hall. The play space on the northern side will remain available during Stage 3.

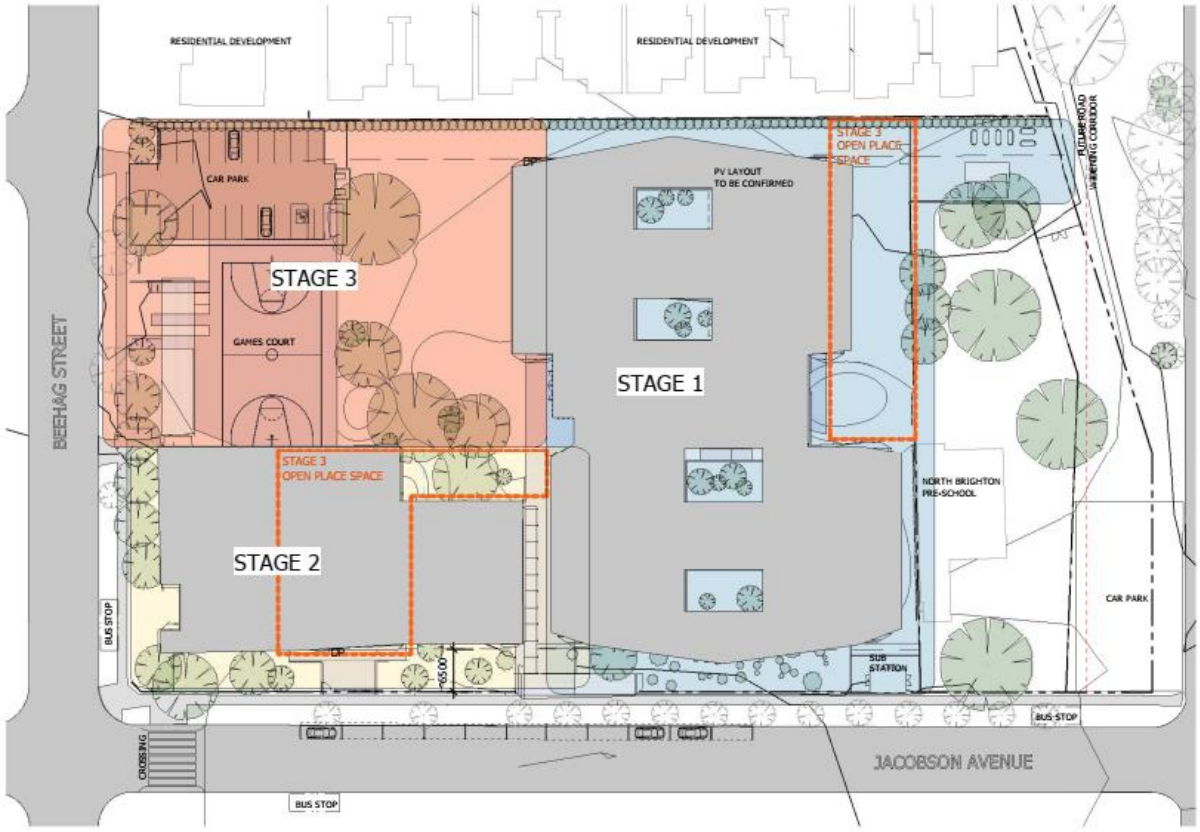

Figure 27 Staging Plan showing the buildings and play space to be provided as part of Stage 3.
Source: DWP

It would be expected that Stage 3 will have the shortest duration of the three stages, which will minimise the time during which the principal play area will be compromised by construction works. It should be noted that 10m^2 of play space per student will be maintained throughout each construction stage, in accordance with the EFSG requirements.

4.8 Construction and Operational Jobs

Throughout the duration of the works, it is expected that the project will generate approximately 78 construction-related jobs (refer to Capital Investment Value Estimate within **Appendix B**). Construction hours will be carried out from 7am – 5pm Monday to Saturday as per Preliminary Construction Management Plan (**Appendix X**).

The school currently requires 5 teaching staff (4 x full-time, 1 x part time), 4 administration staff (2x full-time, 2 x part-time). Once expanded to accommodate 500 students, the school will require approximately 22 teaching staff (19 x full-time, 3 x part time) and 6 administration staff (3 x full-time, 3 x part-time). The proposal would therefore increase the number of operational staff by 15 x full time and 2 x part-time positions.

4.9 Services and Utilities

The proposal will require augmentation of existing services in order to accommodate the increased student and staff population. Section 7.2 of this EIS indicates the specific requirements for new utilities to be provided to the site, and these have been accounted for within the design of the proposal.

Service rooms are primarily accommodated either between the hall and Beehag Street or within the services building to the north-east of the library. The utilities adjacent to the hall are located so as to create a built security line to that street, therefore avoiding the need for visually obtrusive fencing. Roof top plant is required above the library and a 9.85m high parapet is proposed surrounding the rooftop plant in order to screen it from view. This area represents the tallest element of the proposal.

4.10 Stormwater Drainage

The proposal will require a significant increase in the impervious area of the site, with the learning building sitting on an area currently containing predominately permeable turf. The stormwater system involves the collection of all roof rainwater, which is piped directly into the underground rainwater tanks, to be located underneath the courtyards adjacent to the school canteen. Hardstand areas, such as the carpark and basketball court, are to be drained to an underground absorption tank, located underneath the primary play area.

4.11 Operational Waste Management

A Waste Management Plan has been prepared by Turner & Townsend Thinc (**Appendix CC**) which describes the waste management requirements and practices to be adopted for the duration of works under the Kyeemagh Public School scheme.

Refer to Section 7.17 of this EIS and the Waste Management Plan for further detail.

4.12 Energy Efficiency

An ESD Report has been prepared by Erbas (**Appendix O**) that describes how the principles of ecological sustainable development, as defined by clause 7(4) of the *Environmental Planning and Assessment Regulation 2000*, will be incorporated in the design, as well as within ongoing phases of the development.

The report details a number of initiatives relating to energy efficiency that are to be implemented in the project including the provision of photovoltaic systems, energy recovery ventilators, LED lighting, and occupancy detection switches amongst other actions proposed to achieve this goal.

A number of management strategies will be implemented included a full tuning process of all building systems every twelve (12) months, the engagement of an Independent Commissioning Agent to oversee, advise, monitor, and verify the commissioning of the nominated building systems, and the production of a Building User's Guide to provide advice as to how to optimise the building's environmental performance in its day to day operation.

Refer to further discussion of the specific measures employed, within Section 7.12 of the EIS and the ESD Report prepared by Erbas.

4.13 Capital Investment Value

The Capital Investment Value (CIV) of the Development is $27,429,408 as identified within the Quantity Surveyor's Capital Investment Value Estimate within **Appendix B**. The Capital Investment Value has been calculated consistent with the requirements of clause 3 of the *Environmental Planning and Assessment Regulation 2000*, and the Cost Breakdown Summary, also within **Appendix B**, contains details of components which are included within the CIV calculation.

4.14 School Operation

Details of the operation of the school are spelled out within the table below:

Description	Days of the week	Hours	Remarks
School opening and closing times	*Mon – Fri*	*Students* *8.40 am – 3.10 pm* *General opening hrs 7.00 am – approx. 5.00 pm*	*Several School gates/access points. OOSCH closes access gate at 6.00 pm*
Out of hours School Care during term (OOSCH)	*Mon – Fri*	*7.00 am – 6.00 pm*	*External operator – lease agreement* *Approx 2 – 10 students average*
Out of hours School Care during holiday breaks	*Mon – Fri*	*7.30 am – 6.00 pm*	*External operator – lease agreement* *Approx 2 – 10 students average*
Class times and breaks during the day	*Mon - Fri*	*Morning break: 11 – 11.30 am* *Lunch: 1 – 1.45 pm*	--
Deliveries (Supplies)	*Varies*	*Varies*	*Deliveries for supplies etc. vary currently. This may be reviewed as the school population increases.*
Maintenance to school grounds	*Mon - Fri*	*6 am – 7.30 am*	*General Assistant mows the lawn, general maintenance* *Maintenance contractors also provide maintenance services as required*
Cleaner	*Mon – Fri*	*5 am – 7 am* *3.30 pm – 4.30 pm*	*Only 1 cleaner; this may increase for future school*

Table 7 - School Operational Details

4.15 Community Use of School Facilities

The design of the school enables the prominent southern corner of the site to be used for the purpose of community activities. The area includes the school hall and canteen and is able to be fenced off separately from the remainder of the school to minimise security risks associated with after hours use.

The expanded community garden, provided towards Tancred Avenue Reserve will also be public accessible and for general community use, and new footpaths are to be provided as part of the early

landscaped works to provide a direct connection between Tancred Avenue, Tancred Reserve and the new community garden.

The table below provides a summary of preliminary opportunities for the community use of school facilities.

Description	Days of the week	Hours	Activity/Group Name	Remarks
School Hall community access *(Future activities)*	*TBA*	*TBA*	*Church Community Gathering* *Karate groups* *Dance groups* *School plays etc*	*The school currently does not have a dedicated hall. The activities, schedules, and community access times will be decided when the hall is built. Kyeemagh Public School is committed to ensuring the hall will be available for community use.*
Activities that take place outside of school hours	*Mon and Tues*	*4pm–5.30pm*	*Greek School*	*Activities currently held in the library*
	Thurs	*3pm – 5pm*	*Piano Lessons*	*Activities currently held in the library*
	TBA	*TBA*	*Japanese Language lessons and calligraphy*	*TBA*
	OOSCH	*As above*	--	*Children can access outdoor areas*
	Future Game court activities	*TBA*	--	*No weekend access, future school holiday activities TBA*
	Varies	*TBA*	*Community Garden to be accessed by the general community*	*When constructed and operational this will be open to all within the community*

Table 8 - Community use of school facilities

5.0 Consultation

5.1 General

Consultation with external parties has been undertaken since the inception of the project and will continue as the assessment of the development application progresses. The consultation process has been employed to inform and seek feedback from key stakeholders and the local community. All feedback received during the consultation process has been carefully considered and integrated into the proposal where appropriate.

In accordance with the SEARs issued by the Department of Planning and Environment, consultation has been carried out with the following organisations:

- Bayside Council;
- NSW Government Architect;
- Transport for NSW; and,
- Roads and Maritime Services.

In addition to the above, the following groups have also been involved with continuing consultation:

- Utility Providers;
- Project Reference Groups;
- APA Group;
- Sydney Airport Corporation Limited;
- Local Aboriginal Groups;
- Community Groups.

Further discussion is contained within the remainder of this section.

5.2 Bayside Council

Initial consultation was undertaken with Bayside Council on 25th May 2018 between members of the project team and three Council staff. DWP presented the previous scheme to Council then led those attending the meeting through the site. A number of queries were raised by Council staff and have been summarised in the table below:

Queries from Council	Response
What 'green strategies' have been incorporated into the proposal?	DWP informed Council of the different passive methods that have been incorporated into the design and the use of technologies such as photovoltaics.
Will there be any tree removal proposed within the Council verge?	It was confirmed that no tree removal was expected from within the Council verge at the time of the meeting. However, final plans indicate that one (1) tree will be required for removal within the Council verge. It is noted that it was not possible to preserve this tree due to the need to upgrade the existing crossover that will service the upgraded car park. In response, seven (7) native trees are proposed within the Council verge, ensuring a net benefit of trees on Council property.
What type of vegetation will be utilised as part of the landscaping?	DWP confirmed that the proposal is intending to use local species to comply with Council requirements.
Where will the out of school hours care be located?	The location of the out of school hours care has been indicated on the current plans in conjunction with its relationship to the nearest boundary.
Will the community have access to the hall after hours?	DWP advised Council that the intention is for the department to allow community access after-hours. Security lines have been incorporated into the design to cater for partial opening of the site.
What are the security methods?	It was confirmed that a combination of building walls and security fences are to be used as security methods.
What is the intended maximum height of the school?	DWP stated at the time that the maximum building height proposed was below 8.50m. It is noted that the current design exceeds this height at 9.85m. Refer to Section 6.4.9 of this EIS for discussion relating to the height non-compliance.

Table 9 Bayside Council consultation

Subsequent discussions were had with Council via email in May of 2018 regarding the recommended parking allowance for the subject site in which a Senior Development Engineer at Council suggested that comparable schools be studied for guidance. In response, the Traffic Impact Assessment (**Appendix E**) has undertaken a review of parking arrangements at Rockdale Public School and Brighton-Le-Sands Public School to inform the number proposed at the subject site.

Following advice received from Ausgrid in relation to the requirements for a new padmount substation (see Section 5.6 of this EIS), JHA Consulting Engineers, on behalf of the proponent, notified Bayside Council of the proposed location of the substation. On 15 January 2019, Council indicated that "the only concerns Council has with this project is that the trenching does not impact on the existing stormwater pipeline in Jacobson Avenue and also the street trees". The padmount substation is depicted within the plans accompanying the Arboricultural Impact Assessment (**Appendix Y**), and it is therefore not anticipated that the substation would interfere with the street trees in this location.

5.3 Government Architect NSW

A preliminary design review session was held with the NSW Government Architect's Office on 17 May 2018. The design review session was comprised of representatives from the NSW State Design Review Panel, Department of Planning and Environment, Bayside Council, and members of the project team.

The panel was generally supportive of the design objectives and conceptual framework that was presented, however, a number of recommendations were made by panel relating to the following issues:

- The orientation and arrangement of buildings on the site;
- The presentation of the buildings to the street;
- Internal and external circulation strategies;
- Availability of natural light and ventilation of spaces;
- Acoustic performance; and,
- Provision for future expansion.

The recommendations of the panel were considered and implemented in the proceeding design. A subsequent design review session was held with the panel on 12 December 2018. The panel commended the changes that were made to the earlier design. However, the panel also recommended further resolution of the street elevations, in order to create a better relationship with the street. Changes were made to the final design to incorporate these recommendations.

5.4 Transport for NSW

Transport for NSW and the bus operator for the area, Transit Systems, were contacted between 9th November 2018 and 15th November 2018 and confirmed that current public and school buses that service the site have sufficient capacity to cater for the additional student population. Furthermore, it is noted that the growth from the existing 42 students to 500 students will occur gradually over the next decade, allowing for additional services or modifications to existing services to be appropriately investigated if required.

5.5 NSW Roads and Maritime Services

NSW Roads and Maritime Services (RMS) were contacted for comment via phone and email on 16th January 2019 regarding the north-eastern portion of the subject site zoned as SP2 – Local Road Widening and the possible impacts on the proposal and surrounding area.

A response was received by RMS' Land & Development Manager on 18th January 2019 confirming that the land is within a broad area currently under investigation for the F6 Corridor and is affected by a County Road Reservation. However, the proponent was not made aware of any specific plans currently in place for the land.

5.6 Utility Providers

A Dial Before You Dig (DBYD) request was submitted on 17th November 2017 to investigate the presence of existing utilities such as power and telecommunications. The following utilities with interests / assets in the vicinity of were notified in this process:

- APA Group;
- Ausgrid;
- Jemena Gas South;
- Nextgen;
- Optus and/or Uecomm;
- PIPE Networks;
- Sydney Water; and,
- Telstra.

Ausgrid responded on 12th July 2017, indicating that a new substation will be required; this has been indicated on the final plans with the substation located adjacent to the Jacobson Avenue frontage. As noted within the Utilities Report, consultation will continue with Ausgrid regarding the final electricity supply arrangements. JHA Consulting Engineers notified Bayside Council of the proposed substation location as indicated within Section 5.2 of this EIS.

Discussions with APA Group have been detailed in Section 5.8 below.

5.7 Project Reference Groups

To facilitate the success of the project in a collaborative and consultative manner, fortnightly Project Reference Group (PRG) meetings were held prior to the preparation of the final design (and will continue after lodgement). The purpose of these meetings is to provide feedback and local knowledge to the project team and act as a communication channel through which to feed information between the wider School community and Project Team.

The PRG also contributed to and endorses the project design.

Core members of the PRG are:

Director Educational Leadership – Dept of Education, Program Director SINSW, Principal, Project Manager, Head Design Consultant, Asset Management Unit (AMU) Representative, Parent Representative, and sometimes a community representative.

Keys issues discussed at the PRG meetings are:

- Safety and Risk, Program, Client/School/DoE/other Stakeholder Matters, Design, Decanting, Contractor, Media and Communications.

The key outcomes for the Kyeemagh Public School Project during the Functional and Concept Design Phases were:

- Change of name from Kyeemagh Infant School to Kyeemagh Public School;

- Allowing out of hours community access for the community garden through relocation and ease of access; and,
- Setting the learning space building away from the rear boundary allowing for better alignment between the play areas of the school and the childcare centre.

Minutes of the PRG meetings are provided within **Appendix V**.

5.8 APA Pipeline

The Moomba to Sydney Ethane Pipeline was identified as a potential external source of risk to school occupants within the Risk Assessment prepared by Arriscar Pty Ltd. The pipeline is located approximately 500m to the north-east of the subject site.

A consultation meeting with the pipeline operator, APA Group, was attended on 30th October 2018 by the members of the project design team and Arriscar Pty Ltd. APA Group provided the relevant information for the pipeline, from which the risk to the proposed development from the pipeline was assessed utilising the risk criteria in *HIPAP No. 10 – Land Use Safety Planning*. It was identified that the risk level is extremely low, and is significantly below that of the relevant Department of Planning & Environment criteria.

5.9 Sydney Airport Corporation Limited

Phone discussions were initially held with Sydney Airport Corporation Limited (SACL) on 15th May 2018 regarding the proposal. A verbal description of the proposal was presented and SACL's Airfield Design Manager stated that there was unlikely to be any concerns and that concurrence would be provided as part of the assessment process.

A follow- up email was sent to SACL on 11th of January 2019 with floor plans and elevations of the proposed development attached, and SACL provided concurrence to the proposal on 23 January 2019 (refer to **Appendix HH**).

5.10 Community Consultation

An initial community consultation meeting was held on 13th December 2017 with subsequent meetings on 18th December 2017 and 14th March 2018. The meetings were attended by members of DWP (project architect), Turner & Townsend Thinc (project manager), members of the school community, and community organisations such as the Greek Orthodox Community of NSW.

A range of topics were discussed between members such as and how to deal with the operational change from K-2 to K-6, including desired classroom typologies to assist in the formation of the design.

Preliminary concept plans were presented at the meeting held 14th March 2018 and were met with a number of comments / queries including the following:

- It was recommended that the students WCs be relocated to the south, closer to the open play areas with greater visibility;
- The administration office should only comprise a single reception point, given there was there is no need to separate students and the general public;

- Clarification was sought regarding the required campus security / fencing locations; and,
- Confirmation was requested regarding whether there will be any proposed external uses for the hall.

A number of the recommendations were implemented in the final design including the location of the toilets and a single reception point whilst further information was provided to the community regarding security arrangements and external uses of the hall. These matters are discussed throughout this EIS.

5.11 Aboriginal Consultation

An Aboriginal Cultural Heritage Assessment was completed by AMBS Ecology & Heritage which included consultation with the relevant Aboriginal organisations and / or persons. The consultation was undertaken in accordance with the Office of Environment and Heritage's *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*.

The following organisations and / or persons were contacted on 5th October 2018, requesting any expressions of interest to be registered by the 19th October 2018:

- Native Title Services Corporation;
- Greater Sydney Local Land Services;
- Office of the Registrar, Aboriginal Land Rights Act;
- National Native Title Tribunal;
- Bayside Council;
- Metropolitan Local Aboriginal Land Council; and,
- Office of Environment and Heritage.

A public newspaper notice was made on the 8th October 2018 requesting any expressions of interest to be lodged by the 22nd October 2018.

The Office of Environment and Heritage responded by recommending a number of organisations and persons as potential stakeholders; they were subsequently contacted by letter or email on 23rd October 2018 to register their interest by 6th November 2018. The following organisations confirmed that they wished to be involved in the project:

- Darug Aboriginal Cultural Heritage Assessments;
- Darug Land Observations;
- Tocomwall;
- Mirrimaja Group of Stakeholders;
- Wailwan Aboriginal Group;
- Gulaga;
- Barking Owl Aboriginal Corporation; and,
- Metropolitan Local Aboriginal Land Council.

An information package was sent to the abovementioned organisation about the project, including the proposed heritage assessment methodology along with an invitation to provide any relevant cultural information on 12th November 2018 with responses due 10th December 2018.

All of the above parties with the exception of Mirrimaja Group of Stakeholders responded confirming their support for the proposed assessment methodology. Furthermore, Darug Land Observations stated that in the event that artefacts are recovered, they should be buried on country. One representative each from Wailwan Aboriginal Group and Barking Owl Aboriginal Corporation requested to participate in the archaeological survey. Mirrimaja Group of Stakeholders had originally organised to participate in the survey, however their representatives were not available on the day that the survey took place.

6.0 Environmental Assessment

6.1 General

This section of the EIS details pertinent legislation and environmental planning instruments that affect the proposed development. This includes an environmental assessment of the relevant matters outlined within the SEARS, as well as any other relevant legislation and instruments.

6.2 Environmental Planning and Assessment Act, 1979

6.2.1 Section 1.3 - Objects of the EP&A Act

The objects of the Act are broadly outlined within Section 1.3. The provision of a new school would generally be expected to be consistent with the following selected objects:

(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,

(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,

(c) to promote the orderly and economic use and development of land,

(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,

(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),

(g) to promote good design and amenity of the built environment,

(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,

The provision of a new school in an area with an acknowledged expected shortfall in student places would be particularly consistent with objects (a) and (c). The EIS outlines measures to be employed to ensure the development is consistent with other particular objects of the Act, including objects (e), (f), (g) and (h).

6.2.2 Division 4.6 – Crown Development

This division outlines procedures for the determination of development applications lodged by or on behalf of the Crown (which includes the Department of Education). Council or a regional panel cannot refuse a Crown development application or impose a condition not agreed to by the Crown authority, except with the approval of the Minister. As the application is for SSD, the proposal will be determined by a delegate of the Minister, and Division 4.6 therefore has limited operation in relation to this development.

6.2.3 Section 4.12 – Development Requiring Consent

Section 4.12(8) indicates that a development application for State significant development is to be accompanied by an environmental impact statement prepared by or on behalf of the applicant in the form prescribed by the *Environmental Planning and Assessment Regulation 2000*. This document is prepared in response to that requirement – see below.

6.3 Environmental Planning and Assessment Regulation 2000

Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* provides the requirements for the preparation of environmental impact statement This EIS has been prepared in accordance with the procedural and documentation requirements of this schedule.

The relevant approvals required to be obtained are outlined within Section 8 of this EIS and the principles of ecological sustainable development have been discussed within Section 7.12 of this EIS. A signed declaration is provided within this EIS to indicate that the EIS is consistent with these requirements.

6.4 Environmental Planning Instruments

6.4.1 State Environmental Planning Policy (State and Regional Development) 2011

The *State Environmental Planning Policy (State and Regional Development) 2011* ("the SRD SEPP") applies to the state and the aims of the policy are to nominates certain types of development as either State significant, State significant infrastructure or regionally significant.

The proposed development is declared to be State significant development (SSD) pursuant to Clause 15 of Schedule 1 of the SRD SEPP, which is reproduced below:

15 Educational establishments

(1) Development for the purpose of a new school (regardless of the capital investment value).

(2) Development that has a capital investment value of more than $20 million for the purpose of alterations or additions to an existing school.

(3) Development for the purpose of a tertiary institution (within the meaning of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017), including associated research facilities, that has a capital investment value of more than $30 million.

The proposal involves alterations and additions to an existing school with a Capital Investment Value (CIV) greater than $20 million as outlined within **Appendix B**, and will effectively also establish a new school premises on site. Therefore, the development is captured by the first two criterion within clause 15 of Schedule 1.

Clause 11 of the SRD SEPP prescribes that development control plans (whether made before or after the commencement of this Policy) do not apply to SSD.

6.4.2 State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

Provisions applicable to schools are located in Division 3, Part 4 of the *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* (ESEPP). The provisions within this policy prevail over any competing provisions within the *Rockdale Local Environmental Plan 2011* (RLEP 2011). Relevant provisions are outlined below.

Development permitted with consent (Clause 35(1))

Development for the purpose of a school may be carried out by any persons with consent in a prescribed zone (which includes the R2 Low Density Residential Zone and the SP2 Infrastructure Zone that apply to the site).

Design Quality Principles (Clause 35(6) and Schedule 4)

The ESEPP contains seven (7) design quality principles that the consent authority must consider before determining a development application. The purpose of these provisions is to improve the design quality of schools and ensure the development appropriately responds to the character of the area, surrounding built form and landscape setting, whilst also providing a high level of amenity for users of the site.

The design quality principles have been carefully evaluated in the formation of the design, and the design quality principles are addressed within the Design Report (**Appendix N**).

Shared Use of School Facilities (Clause 35(6))

To deliver the best use of educational infrastructure, the ESEPP seeks to encourage the shared use of school facilities for community purposes. It contains provisions that stipulate that any part of a school site and any school facilities may be used for the physical, social, cultural, or intellectual development or welfare of the community (whether or not it is a commercial use of the establishment).

Section 4.15 of this EIS describes the opportunities for shared spaces that have been identified within the development proposal.

Application of Development Standards to SSD (Clause 42)

The SEPP provides flexibility to SSD by allowing development consent to be granted even if it contravenes a development standard contained in another environmental planning instrument (EPI) (i.e. the height and FSR provisions within the RLEP 2011).

The proposal seeks a departure from the height of buildings development standard, and the development may be approved despite the contravention of the standard. Further consideration of the appropriateness of the non-compliance is discussed within Section 6.4.9 of the EIS.

Traffic Impacts (Clause 57)

Traffic impacts, demand for parking and road safety in the traffic network surrounding schools are key concerns arising as part of any redevelopment. The application will be referred to the Roads and Maritimes Services (RMS) for specialist input, as it will result in 50 or more additional students and is on a site that has direct vehicular or pedestrian access to any road.

Clause 57(3) prescribes that the consent authority must take into consideration:

(a) any submission that RMS provides in response to that notice within 21 days after the notice was given (unless, before the 21 days have passed, RMS advises that it will not be making a submission), and

(b) the accessibility of the site concerned, including:

(i) the efficiency of movement of people and freight to and from the site and the extent of multi-purpose trips, and

(ii) the potential to minimise the need for travel by car, and

(c) any potential traffic safety, road congestion or parking implications of the development.

The Traffic Impact Assessment (**Appendix E**) provides a thorough analysis that is sufficient so as to enable the RMS and the Department of Planning and Environment to consider the matters described within Clause 57(3).

6.4.3 State Environmental Planning Policy No.64 – Advertising and Signage

The proposal seeks consent for a 'building identification sign', being a wall sign at the main entry to the school, as well as a digital message board, which is defined as an 'advertisement' or specifically a 'freestanding advertisement'. These signs will replace existing signage at the school and the proposed signs are shown within the images below:

Figure 28 - Building identification sign adjacent to the main entry to the school
Source: DWP

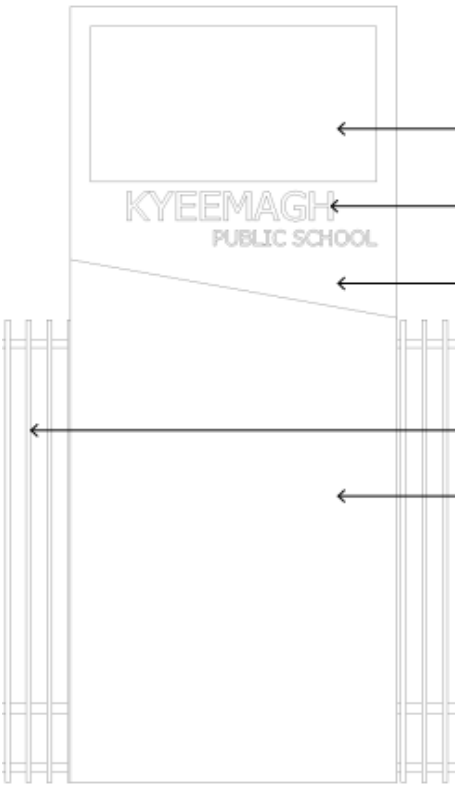

Figure 29 - Extract of Digital Signage Elevation
Source: DWP

The definitions of each of the signs are listed below:

business identification sign *(as defined within clause 4 of SEPP 64) means a sign:*

(a) that indicates:

(i) the name of the person, and

(ii) the business carried on by the person at the premises or place at which the sign is displayed

(b) that may include the address of the premises or place and a logo or other symbol that identifies the business, but that does not include any advertising relating to a person who does not carry on business at the premises or place

advertisement *(as defined within clause 1.4 of the EPAA Act) means a sign, notice, device or representation in the nature of an advertisement visible from any public place or public reserve or from any navigable water.*

Both signs are located adjacent to the main entry. This location, particular with respect to the digital signage, enables parents, carers and students to easily identify school messages as part of ordinary drop of and pick up. The sign will include a LED screen that will display all important information for the community and stand 4m high to allow it to be readily visible, but not out of scale to the building behind it. As well as the screen, the sign will include sheet metal and off form concrete so it can tie back into the overall school's aesthetics.

Clause 23 of SEPP 64 indicates that consent may be granted to freestanding advertisements only if the advertising structure on which the advertisement is displayed does not protrude above the dominant skyline, including any buildings, structures or tree canopies, when viewed from ground level within a visual catchment of 1 kilometre. The digital advertisement complies with this requirement.

Schedule 1 of SEPP 64 provides assessment criteria for the provision of new signage, and the proposed signage is considered against these criteria within the table below:

State Environmental Planning Policy No 64—Advertising and Signage Schedule 1 Assessment Criteria		
Provisions	**Proposed**	**Complies**
1 Character of the area		
Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?	The signage will enable members of the public to identify the school, and although signage is not common within the surrounding residential area, school identification signage is not unusual within residential areas, and therefore is compatible with the character of a residential area.	Yes
Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?	There is no particular theme for outdoor advertising in the area or locality, and the proposal does not seek to provide any advertising.	Yes
2 Special Area		
Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	The signs are not located in environmentally sensitive areas, natural or other conservation areas, open space areas, waterways, rural landscapes.	Yes
3 Views and Vistas		
Does the proposal obscure or compromise important views?	The proposed signs are minor in size and will not obscure or compromise any important views.	Yes
Does the proposal dominate the skyline and reduce the quality of vistas?	The proposed signage is of an appropriate scale and location which will not dominate the skyline	Yes
Does the proposal respect the viewing rights of other advertisers?	The proposed signage will not obscure any future signage.	Yes
4 Streetscape, setting or landscape		
Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?	The scale, proportion and form of the proposed signage is appropriate given the size of the proposed buildings.	Yes
Does the proposal contribute to the visual interest of the streetscape, setting or landscape?	The proposed signage is of a satisfactory quality design and finish that will not negatively impact the streetscape amenity of the locality.	Yes

Does the proposal reduce clutter by rationalising and simplifying existing advertising?	The proposed signage is of a size and scale that is compatible with the subject building and does not result in signage clutter.	Yes
Does the proposal screen unsightliness?	The signage is located at the primary entry and adds visual interest to the development.	Yes
Does the proposal protrude above buildings, structures or tree canopies in the area or locality?	No signage will protrude above the awnings, tree canopies, etc.	Yes
Does the proposal require ongoing vegetation management?	The signage is provided with sufficient clearance from nearby vegetation, such that vegetation management will not be required.	Yes
5 Site and building		
Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?	The scale, proportion and form of the signage is appropriate given the size of the school.	Yes
Does the proposal respect important features of the site or building, or both?	The signage has been designed to be consistent with the built form and to that of the school.	Yes
Does the proposal show innovation and imagination in its relationship to the site or building, or both?	The entry signage appropriately relates to the building facades.	Yes
6 Associated devices and logos with advertisements and advertising structures		
Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	No logos are depicted on the proposed signage.	Yes
7 Illumination		
Would illumination result in unacceptable glare?	The proposed digital sign will not create glare and will comply with *AS 4282-1997*.	Yes
Would illumination affect safety for pedestrians, vehicles or aircraft?	The proposed signage will not affect the safety of pedestrians, vehicle or aircraft as the illuminated signage. Message sequencing is able to be controlled to minimise distractions to motorists.	Yes
Would illumination detract from the amenity of any residence or other form of accommodation?	The digital signage will be located a minimum of 25m from the nearest residential accommodation on the opposite side of Jacobson Avenue, and would not be expected to impact on neighbourhood amenity.	Yes
Can the intensity of the illumination be adjusted, if necessary?	Yes, the digital signage will include an LED screen, and the brightness/intensity of the illumination can be adjusted if required.	Yes
Is the illumination subject to a curfew?	If required, the digital signage can be turned off during ordinary sleep hours.	Yes
8 Safety		

Would the proposal reduce the safety for any public road?	The signage is not considered to have any adverse impact upon the safety of any public road.	Yes
Would the proposal reduce the safety for pedestrians or bicyclists?	The signage is not considered to have any adverse impact upon the safety of any bicyclists	Yes
Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?	The signage is not considered to have any adverse impact upon the safety of any pedestrians.	Yes

Table 10 - SEPP 64 assessment criteria

6.4.4 State Environmental Planning Policy No 55 – Remediation of Land

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55) applies to the proposed development. Clause 7 requires a consent authority to consider the contamination status of the land and be satisfied that the land is, or will be made, suitable for the purpose for which the development is proposed to be carried out.

A Detailed Site Investigation has been prepared by Cardno (**Appendix H**), which concludes that based on the site history and results of the intrusive investigation, that there are three potential sources of impacts at the site, being:

- Contamination as a consequence of uncontrolled fill material;
- Contamination as a consequence of demolition of buildings containing hazardous building materials and soil impacts as a consequence of residual demolition waste; and,
- Presence of soil contamination as a consequence of historical spills and leaks.

The Detailed Site Investigation (**Appendix H**) indicates that a Remediation Action Plan is required and the Remediation Action Plan (**Appendix AA**), prepared by Cardno, outlines the intended remediation methods for the site. Refer to Section 7.9 of this EIS for further information.

6.4.5 State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017

The *State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017* (Vegetation SEPP) provides for the removal of vegetation in non-rural areas and matters for consideration in the assessment of vegetation removal. In accordance with Clause 5 of the SEPP, the site is classified as a non-rural area, as it is affected by the R2 zone.

An arborist report accompanies the EIS, in order to provide an assessment of trees that are proposed for removal, as well as an assessment of the impacts on vegetation that is proposed to be retained. It is intended that new landscaping and plantings will be provided across the site. Refer to Section 7.6 of this EIS for further information.

6.4.6 State Environmental Planning Policy (Coastal Management) 2018

The policy commenced on 3 April 2018 and had the effect of repealing SEPP 14, SEPP 26, and SEPP 71. Although the subject site is surrounded by coastal locales, it is not specifically affected by this policy as indicated within the map below.

Figure 30 - Coastal Management SEPP Map Extract
Source: http://webmap.environment.nsw.gov.au

6.4.7 State Environmental Planning Policy (Infrastructure) 2007

Clause 100 of this policy relates to development on a proposed classified road. This clause requires concurrence from the chief executive officer of the RMS, for any development on land reserved for the purposes of a classified road. As indicated elsewhere within this EIS, the land fronting Tancred Avenue within the SP2 Infrastructure is so zoned for the purposes of a future classified road. This land, along with the entirety of Tancred Avenue and land further to the west within existing parkland, is reserved for investigation into the F6 corridor. However, at this stage there are no known plans for the redevelopment of this land for the purpose of a classified road.

The proposed development does not affect the land that is within the SP2 Infrastructure zone, and as such, concurrence from the RMS is not required on this matter.

6.4.8 Greater Metropolitan Regional Environmental Plan No 2—Georges River Catchment

This policy applies to some of the land contained within the former Rockdale local government area. However, the catchment map indicated below, demonstrates that the area of the former Rockdale local government area that is affected by the policy is restricted to its southern end, excluding Kyeemagh. The policy therefore does not apply to the development.

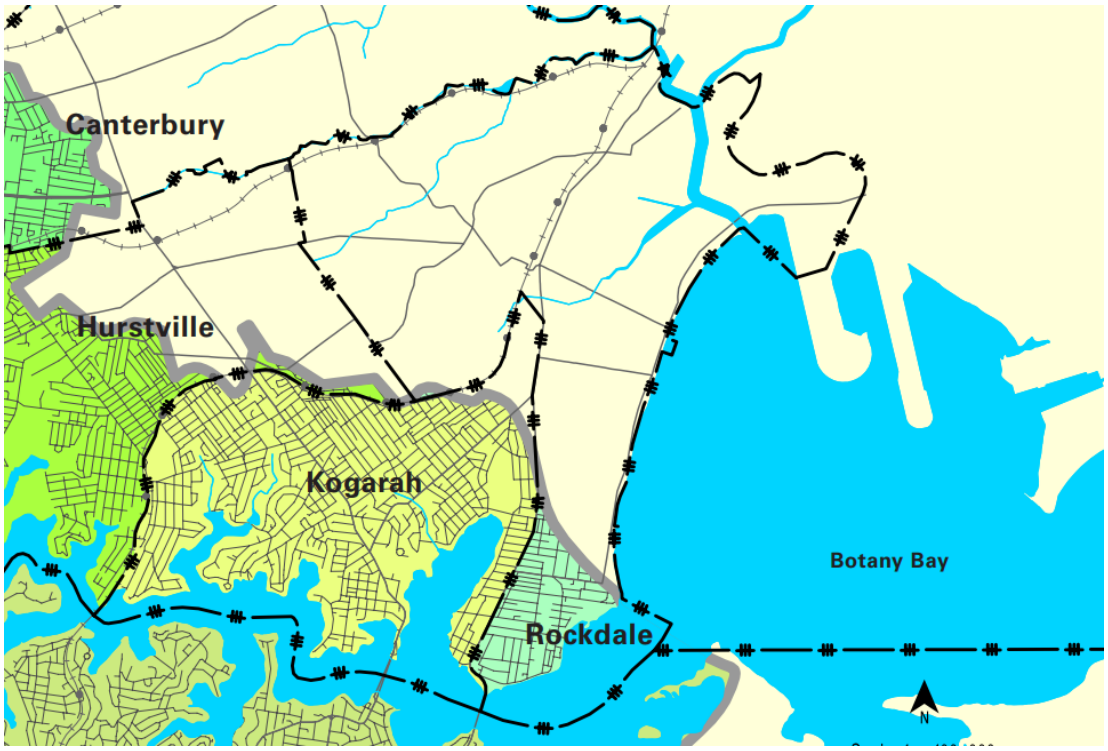

Figure 31 - Georges River Catchment Map Extract
Source: www.planning.nsw.gov.au

6.4.9 Rockdale Local Environmental Plan 2011

The *Rockdale Local Environmental Plan 2011* (RLEP 2011) applies to the site. Relevant provisions are detailed below.

Zoning

The subject site is affected by a split zoning and is zoned R2 Low Density Residential in part and SP2 Infrastructure (Classified Road) in part under the RLEP 2011 as indicated within the image below.

Figure 32- RLEP 2011 Zoning Map Extract
Source: www.planningportal.nsw.gov.au

The land within the SP2 Infrastructure is zoned for the purposes of a classified road. Further discussion is provided below.

Zone Objectives and Land Use Table

Educational Establishments are a permissible land use pursuant to the Land Use Table to the R2 Low Density Residential zone. Furthermore, as indicated earlier and pursuant to Clause 33 and Clause 35 of the ESEPP, schools may be carried out within the R2 Low Density Residential Zone. The objectives to the R2 zone are reproduced below:

- *To provide for the housing needs of the community within a low density residential environment.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*
- *To ensure that land uses are carried out in a context and setting that minimises any impact on the character and amenity of the area.*

It is noted that Educational Establishments are not a permitted land use within the SP2 zone; however, no part of the development is proposed over the SP2 land. Further discussion on the portion of land zoned SP2 and reserved for the purpose of road widening, is provided below.

Land Reservation – Road Widening

The part of the site that is zoned SP2 Infrastructure (Classified Road) is identified for acquisition (i.e. the north-eastern portion of the site along Tancred Avenue). Development consent must not be granted to any development on land to which this clause applies other than development for the purpose of a public road. This land, along with the entirety of Tancred Avenue and land further to the

west within existing parkland, is reserved for investigation into the F6 corridor. However, at this stage there are no known plans for the redevelopment of this land for the purpose of a classified road.

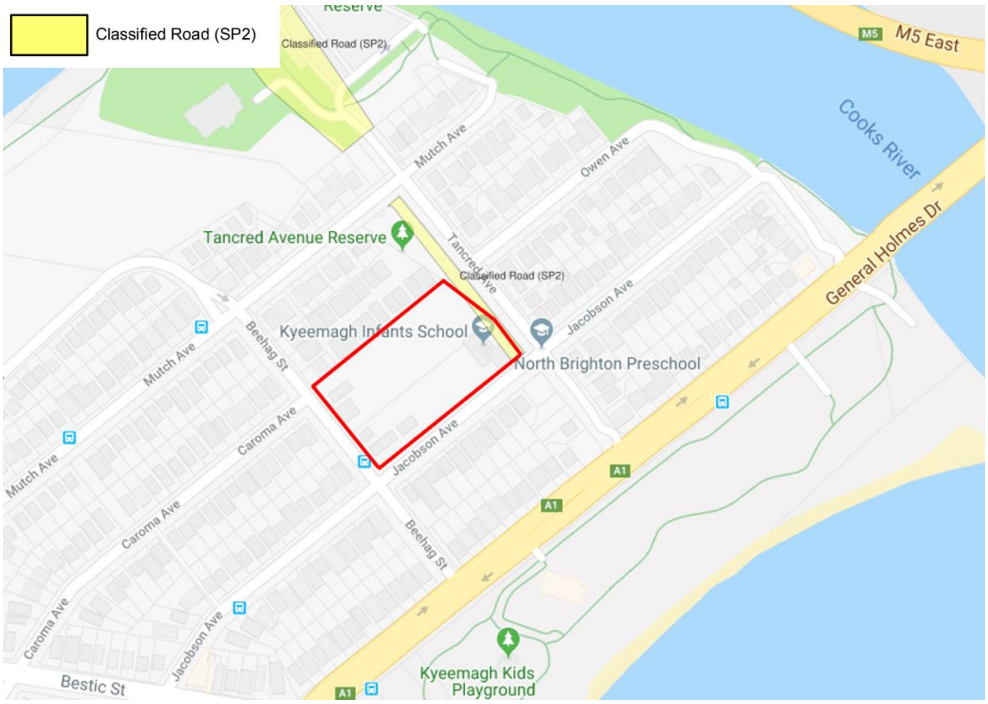

Figure 33 - RLEP 2011 Land Reservation Acquisition Map Extract
Source: www.planningportal.nsw.gov.au

Clause 5.1 of the RLEP identifies that the Roads and Maritime Services is the relevant State authority that will eventually acquire the land zoned SP2.

However, the proposal does not relate to land affected by this zoning.

Heritage

Clause 5.10 aims to conserve environmental heritage, including European heritage, Aboriginal heritage, and archaeological sites.

The site is not heritage listed, nor is it within a heritage conservation area. There are no heritage items located within the immediate vicinity of the property; however, there are several items located a relatively short distance from the property, as described below:

Item No.	Name and Address	Significance	Distance from subject site
I201	Kyeemagh Market Gardens, 2A, 2B, 2D and 2E Occupation Road, Kyeemagh	State	120m to the northwest
I168	Cook Park - General Holmes Drive / The Grand Parade, Kyeemagh / Brighton-Le-Sands / Ramsgate Beach / Monterey / Dolls Point / Sans Souci, Sandringham	Local	130m to the southeast
I235	Southern and Western Suburbs Ocean Outfall Sewer (SWSOOS), aqueduct - 18 and 20 Arncliffe Street, Wolli Creek	Local	390m to the northeast
I93	Arncliffe Market Gardens	State	900m to the west

Table 11 - Heritage items in the vicinity of the site

The significance of the above heritage items is largely associated with their particularly uses, more so than it is for any aesthetic aspect of the items. Irrespective, the proposal buildings will fall outside of the visual catchment of each of the items, given that buildings of a consistent two storey height are located between the subject site and the listed items, and that the topography of the site and surrounds is relatively flat.

Aboriginal heritage is considered as within Section 7.14 of this EIS.

<u>Development standards - floor space ratio (FSR) and building height</u>

Floor Space Ratio

In accordance with clause 4.4 of the RLEP2011, the maximum floor space ratio permitted for the site is 0.5:1, as identified below. The proposed development provides a gross floor area of approximately 3,785m^2. The site area, less the area occupied by the childcare centre, is approximately 10,827m^2. The proposed FSR over this part of the site would be approximately 0.35:1.

Note that given the childcare centre is a relatively small single storey building, the FSR on the portion of the site containing the childcare centre, and therefore the FSR across the entire site, would not exceed 0.5:1. An estimate of the existing floor area of the child care is therefore not necessary to determine overall compliance with the FSR development standard.

Figure 34 - RLEP 2011 Maximum Floor Space Ratio Map Extract
Source: www.planningportal.nsw.gov.au

Building Height

In accordance with clause 4.3 of the RLEP2011, the maximum building height permitted for the site is 8.5m, as identified below. The proposed development reaches a maximum building height of 9.85m where the parapet roof located on the library reaches a height of RL 13.750 above the existing ground level at RL 3.900. This results in a non-compliance of 1.35m or 15.88%. Height non-compliances are also recorded on both of the home base buildings (i.e. each part of the learning building) with the northernmost building recording a height of 9.05m (RL 12.954 – existing ground RL 3.900) whilst the southernmost building reaches a height of 9.35m (RL 15.954 – existing ground RL 3.600), representing variations of 6.47% and 10% respectively.

Figure 35 - RLEP 2011 Maximum Building Height Map Extract
Source: www.planningportal.nsw.gov.au

As noted above, the maximum building height limit is 8.5m, however clause 42 the ESEPP allows development consent to be granted for the purpose of a school despite any proposed contravention of a development standard. Clause 42 is reproduced below:

> ***42 State significant development for the purpose of schools—application of development standards in environmental planning instruments***
>
> *Development consent may be granted for development for the purpose of a school that is State significant development even though the development would contravene a development standard imposed by this or any other environmental planning instrument under which the consent is granted.*

The underlying site constraints which have influenced the overall height of the building are outlined below:

- The building floor levels have been set at the proposed levels in order to protect the buildings from water ingress from surface flows during large storm events (up to ARI=100 years) and other occurrences when the capacity of the in-ground pits and pipes system are exceeded (e.g. due to full or partial blockage of the system). For the two-storey classroom/learning buildings and the library building, this would require a minimum floor level of RL 4.65 (i.e. minimum of 0.3m above the maximum height of the 1:100 overland flow level of RL 4.35).
- Due to its location within the 25 to 30 ANEF Contours, a thicker roof slab and ultimately taller structure is required to appropriately mitigate noise from overhead aircraft;
- The parapet located on the roof of the library has been incorporated to hinder views to the mechanical plant located atop. Furthermore, thick sound installation is required to be installed due to the mechanical plant which results in further increases in the building height. Should the parapet be removed, the visual amenity of the rooftop of the building will be compromised.

Although this development can be approved despite the height non-compliance, reasons why the building height non-compliance is considered to be minor and non-consequential in nature are outlined as follows:

- The proposed development will not significantly alter the character of the surrounding streets. The streetscape of Beehag Street, Jacobson Avenue, and Tancred Avenue will remain low density residential and with the school building being read as an exception within the streetscape, rather than as precedent for future departures to the height. This is not an uncommon outcome for public or civic buildings provided on large allotments, particularly where the development sits alone on the portion of Jacobson Avenue located between Beehag Street and Tancred Avenue.
- The tallest part of the proposed development, being the parapet roof, is situated within the centre of the site, over 40m from the nearest road boundary and 35m from the nearest residential development. Accordingly, the non-compliances will have a negligible impact upon overshadowing and visual amenity to the surrounding area;

- Design measures have been employed to respond to the height, bulk and scale of the three (3) buildings within the visual catchment. For instance, the roofs taper downwards from their highest points whilst a number of breaks in the building walls in conjunction with central courtyards are included, reducing the visual bulk and scale of the structures;
- It is more appropriate that qualitative design measures, rather than quantitative measures, such as building height, are used to consider the appropriateness of a development proposal within a school. The EIS has demonstrated that the proposal is consistent with the relevant qualitative measures, being the Design Quality Principles contained within Schedule 4 of the ESEPP, and the Educational Facilities Standards & Guidelines developed by the NSW Department of Education;
- It is evident that the underlying objective or purpose of the building height development standard is not relevant to the development and therefore compliance is unnecessary. The numerical standards are more appropriately strictly applied within smaller residential lots where the buildings are likely to be situated closer to side boundaries and are more likely to generate impacts on neighbourhood amenity or noticeable variations to the streetscape;
- Significant landscaping and tree planting will be provided within the immediate surrounds of the development. The tree cover proposed is also distinctive within the locality, and assists in minimising any perceived bulk associated with the development in providing a structure that has an improved overall presentation.

For the reasons above, the proposed height non-compliance is able to be supported.

Airspace operations

Clause 6.4 of the RLEP requires consideration of whether the development will penetrate the Limitations or Operations Surface. Reference should be made to the discussion with Section 7.4 of this EIS.

Aircraft noise

The majority of the site is situated between the 25 ANEF and 30 ANEF contours and as such educational uses are conditionally acceptable. The southern corner of the site is intersected by the 25 ANEF contour, and a small portion of the site is therefore located between the 20 ANEF and 25 ANEF contours, as indicated within the image below.

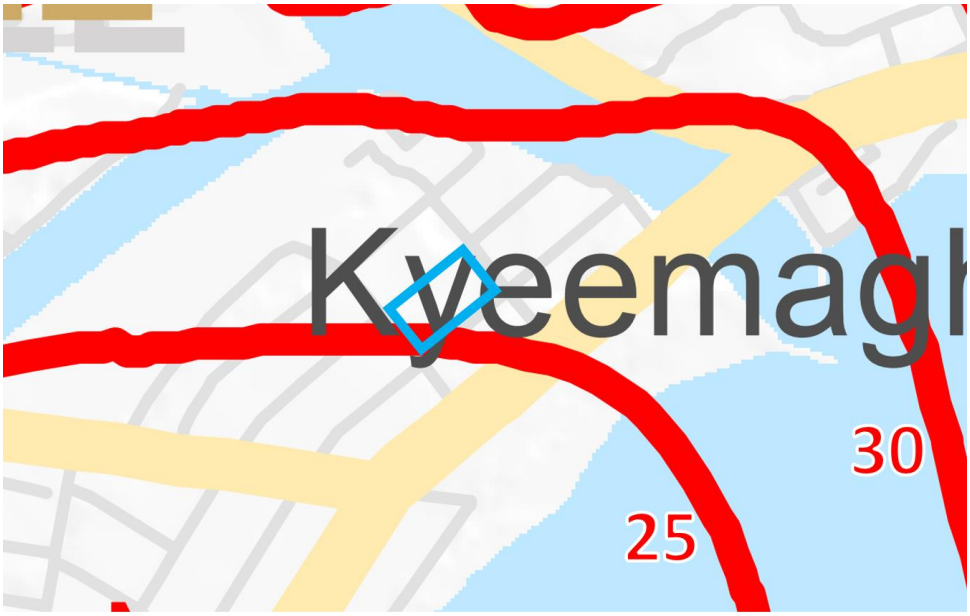

Figure 36 - ANEF 2033 Map Extract with the subject site indicated in blue.
Source: SLR Consulting Australia Pty Ltd

The proposal is accompanied by an Acoustic Assessment and it is intended that the development will incorporate noise control features as outlined within the report. Reference should be made to Section 7.5 of this EIS.

Acid sulfate soils

The subject land is affected by Acid Sulfate Soils (ASS) and is nominated as Class 4 on the ASS Map. In accordance with clause 6.1 of the RLEP2011, any works more than 2 metres below the natural ground surface or by which the water table is likely to be lowered more than 2 metres below the natural ground surface will require an Acid Sulfate Soils Management Plan (ASSMP).

The proposed development will comprise piling works for building foundations, whilst the underground water tanks and filtration systems will also require excavation below ground level. Furthermore, the Detailed Site Investigation prepared by Cardno (**Appendix H**) located potential acid sulfate soils located below ground level, which if distributed have the potential to generate acid.

Accordingly, an ASSMP prepared by Cardno accompanies this application, detailing a range of methods to appropriately manage the presence of Acid Sulfate Soils across the site during demolition, construction, and the continued operation of the site. Specific examples presented in in the ASSMP include avoidance strategies, minimisation of disturbance, and excavation inspection. A number of contingency protocols are also proposed including soil treatment.

Figure 37 – RLEP 2011 Acid Sulfate Soils Extract
Source: www.planningportal.nsw.gov.au

Biodiversity and wetlands

The land is not identified on the biodiversity and/or wetlands maps contained within RLEP 2011.

Essential services

Before granting development consent, a consent authority must be satisfied that the following services are either already available, or that adequate arrangements have been made to make them available when required:

(a) the supply of water,

(b) the supply of electricity,

(c) the disposal and management of sewage,

(d) stormwater drainage or on-site conservation,

(e) suitable road access.

Further information is provided within Section 7.2 of this EIS.

6.5 Draft Planning Instruments

6.5.1 Remediation of Land SEPP

This policy was exhibited by the Department of Planning and Environment between 25 January 2018 and 12 April 2018. The Explanation of Intended Effect which was exhibited with the draft policy explains that the purpose of the new policy is to repeal SEPP 55 and replace it with the new policy, which establishes a modern approach to the management of contaminated land.

Clause 7 is the pertinent clause of SEPP 55, which relates to the consideration of development applications. In relation to such considerations, the new policy will incorporate information currently contained within the *Managing Land Contamination: Planning Guidelines* – a related policy document - into the instrument itself. However, it is not expected that the draft policy will influence any conclusions made within the consideration of SEPP 55.

6.5.2 Draft SEPP (Environment)

This policy was exhibited by the Department of Planning and Environment between 11 November 2016 and 21 January 2017, and the Explanation of Intended Effect was then placed on exhibition from 31 October 2017 until 31 January 2018. It is intended that the policy would repeal and replace a number of former regional environmental planning instruments (now deemed SEPPs), including *Greater Sydney Regional Environmental Plan No. 2 – Georges River Catchment*, which applies to some land within the former Rockdale local government area. However, as indicated within Section 6.4.6 of this EIS, the policy that is currently in force does not apply to Kyeemagh, and therefore the draft policy is not relevant to the development.

6.6 Policy Documents

6.6.1 NSW State Priorities

The Premier's Priorities 2018 is a policy document that presents thirty key 'State Priorities' to help guide economic growth, infrastructure provision, whilst protecting those that are vulnerable within the community. The proposed development has been identified as supporting the following State Priorities:

Creating Jobs

New temporary and permanent jobs will be created for construction works, teachers, support staff, and maintenance workers amongst others.

Delivering Infrastructure

The upgrade of the school from the existing grade capacity of K-2 to K-6 will deliver much needed public education infrastructure to support the growing population within the locality.

Improving Education Results

The significant improvement in the facilities and opportunities offered at the school will assist in providing a suitable environment to enable a high quality public funded education.

6.6.2 Greater Sydney Region Plan - A Metropolis of Three Cities

The Greater Sydney Region Plan seeks to meet the needs of a growing and changing population, and the plan is built on the vision of three cities where most residents live within 30 minutes of their jobs, education and health facilities, services and great places. The 30-minute city aspiration is intended to guide decision making on locations for new schools and other infrastructure investments. The proposed increased capacity of the existing school is consistent with the core vision of the policy.

6.6.3 Future Transport Strategy 2056

The Future Transport Strategy 2056 outlines six state-wide outcomes to aid in the provision of transport infrastructure spending, policy development, and service provision.

The proposed redevelopment of the Kyeemagh Public School aligns with the outcomes of the policy through the encouragement of active transport such as walking and cycling with the provision of bicycle parking and other amenities in conjunction with existing infrastructure in the surrounding area. Furthermore, the use of public transport is encouraged through the provision of bus facilities that will enable students to be transported over longer distances where walking and cycling are less likely to be pursued.

6.6.4 State Infrastructure Strategy 2018 – 2038 Building the Momentum

The State Infrastructure Strategy 2018-2038 is developed by Infrastructure New South Wales and sets out infrastructure needs and priorities over the proceeding 20 years. The strategy provides six strategic directions for infrastructure in NSW including:

1. Continuously improve the integration of land and infrastructure planning so that population growth does not erode the amenity and character of our suburbs, towns and communities.
2. Plan, prioritise and deliver an infrastructure program that represents the best possible investment and use of public funds.
3. Optimise the management, performance and use of the State's assets to strengthen the management of infrastructure assets.
4. Ensure NSW's existing and future infrastructure is resilient to natural hazards and human-related threats by embedding consideration of risk and resilience into all projects.
5. Improve state-wide connectivity and realise the benefits of technology, ensuring that NSW becomes a leader in the adoption and use of digital technology.
6. Drive high quality consumer-centric services and expand innovative service delivery models in infrastructure sectors by being innovative in buying services and delivering new assets.

The strategy contains 122 recommendations across NSW's key infrastructure sectors of transport, energy, water, health, education, justice, social housing, culture, sport and tourism. The strategic objective in the Strategy relating to education is:

> *Deliver infrastructure to keep pace with student numbers, and provide modern, digitally-enabled learning environments for all students*

The proposed development appropriately responds to this strategic objective as the redevelopment will allow for a significant increase in student numbers whilst providing upgraded facilities that will improve students' learning environment.

6.6.5 Sydney's Cycling Future 2013

Sydney's Cycling Future 2013 aims to improve cycling infrastructure throughout metropolitan Sydney and encourage cycling as a viable mode of transportation.

The proposed development includes the provision of bicycle racks that will be made available for both students and employees. The subject site is surrounded by local streets, providing safe places for students to cycle to and from school. Off-road cycling routes are also located within close proximity to the site along Muddy Creek, Cooks River, and the Brighton-Le-Sands Foreshore, allowing for increased bicycle transport by employees and parents.

Accordingly, the proposal is identified as supporting the aims of the policy.

6.6.6 Sydney's Walking Future 2013

The NSW Government's objective is to encourage Sydney's community to walk, making actions more convenient, safer and better connected. Due to the location of the development within a largely residential area with low traffic flows, the redevelopment of the site will encourage families, students and employees to access the school via walking.

The proposal will promote walking to school due to the residential location of the site and the provision of pedestrian crossing facilities.

6.6.7 Sydney's Bus Future 2013

Sydney's Bus Future is the NSW Government's long term plan to redesign Sydney's bus network to meet customer needs now and into the future.

The proposal provides for bus facilities that will enable students to embark and disembark in a safe and efficient manner. School buses services will work in conjunction with walking and cycling infrastructure to reach students that are located at distances that make walking and cycling unfeasible.

6.6.8 Better Placed - An Integrated Design Policy for the Built Environment of New South Wales

'Better Placed - An Integrated Design Policy for the Built Environment of New South Wales' was developed by the Government Architect New South Wales and seeks to facilitate the creation of architecture, public places, and environments that we want to inhabit now and in the future.

The proposed building and landscapes works achieve the design principles discussed throughout this policy as detailed in the Design Report (**Appendix N**).

6.6.9 Healthy Urban Development Checklist

The Healthy Urban Development Checklist was developed by New South Wales Health to facilitate relationships between the State of New South Wales, urban planning professionals, and developers in order to promote a healthy urban environment. The proposal satisfies a range of items in the checklist, including:

- Encouraging incidental physical activity;
- Creating opportunities for walking, cycling and other forms of active transport;
- Promoting access to usable and quality outdoor spaces and recreational facilities;
- Availability of public transport services;
- Reducing car dependency and encouraging active transport;
- Locating jobs close to housing and commuting options;
- Promoting access to green space and natural areas;
- Providing access to a range of facilities to attract and support a diverse population;
- Responding to community needs and current gaps in facilities;
- Creating an environment that encourages social interaction and connection among people; and,
- Creating equitable access to resources by students and families.

Accordingly, the proposed development is considered to appropriately respond to the recommendations and guidance presented in the checklist.

6.6.10 Greater Sydney Commission Eastern City Central District Plan

The Eastern City District Plan prepared by the Greater Sydney Commission proposes a 20-year vision for the Eastern City District, which includes Bayside LGA. It has been developed by the Greater Sydney Commission in consultation with State agencies and the community and with technical input from councils.

The Eastern City District Plan has identified a growing number of school aged children in the next 20 years, particularly within the Bayside LGA. The proposal achieves the objectives of providing adequate educational facilities for the growing school-aged population.

The provision of future educational needs is very important within the Eastern City District Plan, which identifies Bayside LGA as having one of the largest increases in school aged children in the region. Based on the projected changes in the primary and secondary aged population, without the provision of significant additional classrooms by 2036, there will be substantial shortfalls in education provision.

Available primary school places are limited across the district and a large number rely on demountable classrooms to supply teaching spaces.

Through the proposed provision of an upgraded school in Kyeemagh, the ability to accommodate for the projected growth in school aged children in Bayside LGA will improve, helping to prevent education shortfalls in the future. In this regard this school is designed to relieve pressure and the associated requirement for demountable classrooms from nearby schools.

6.6.11 Rockdale City Council Community Strategic Plan 2013-2025

The plan was adopted on 17 April 2013 and is the community plan of the former Rockdale City Council, which is intended to identify the aspirations of the community and establish a framework with partners to shape the City and deliver community outcomes.

Objective 3.1 Our City offers a diverse range of education and lifelong learning opportunities. The provision of services and facilities for the varying needs of the Bayside Council's diverse population at all the different stages of their life is an important theme throughout the Plan. The upgrade to Kyeemagh Public School is consistent with the strategic aims of the Plan and will accommodate the needs of a rapidly growing school aged population.

6.6.12 Rockdale Development Control Plan 2012

In accordance with Clause 11(a) of the SRD SEPP, development control plans do not apply to SSD. Moreover, Clause 35(9) of the ECDC SEPP also states that any provision of a development control plan that specifies a requirement, standard or control in relation to for the purposes of a school is of no effect.

Notwithstanding this, the general provisions of the Rockdale Development Control Plan 2011 (RDCP 2011) were to be consulted in the formulation of the design of the proposal in order to ensure consistency with surrounding development. These provisions are listed in the table below. Note that there are no provisions within RDCP 2011 that relate specifically to educational establishments.

Rockdale Development Control Plan 2011	
DCP Section	**Comment**
4.1.3 Water Management	Stormwater matters are discussed within Section 4.10 and Section 7.8.
4.1.4 Soil Management	The proposed development will involve earthworks associated with footings for the new buildings, which will result in the disturbance of soil and dust. In this regard, the Preliminary Construction Management Plan **(Appendix X)** and the Sedimentation and Erosion Control Plan **(Appendix S)** provide the intended methods for mitigating the adverse impacts associated with this disturbance.
4.1.7 Tree Preservation	Tree preservation matters are largely considered within Section 6.4.5 in relation to *State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017*.
4.2 Streetscape and Site Context	The overall site massing and planning allows for efficient use of the site and contributes to the integration of the new school into the existing streetscape and urban context. Importantly, the height non-compliance, whilst being unusual in the locality, is not expected to create adverse impacts within the streetscape, as detailed within Section 6.4.9.

Rockdale Development Control Plan 2011	
4.3 Landscape Planning and Design - 4.3.1 Open Space and Landscape Design	Landscape planning is discussed within Section 4.4 and Section 7.6.
4.4 Sustainable Building Design	Sustainable building design measures are discussed within Section 7.12 of this EIS.
4.5.2 Social Equity – Equitable Access	Accessibility matters are discussed within Section 7.13 of this EIS.
4.6 Car Parking, Access and Movement	The proposed development provides for 20 parking spaces, one of which is accessible, and 32 bicycle spaces. There are no specific parking rates for educational establishments within RDCP 2011 and reference should be made to Section 7.3 in considering the proposed parking provision.
4.7 Site Facilities	Utilities, including air conditioning units, TV antenna and the like are be situated so as not to be visually intrusive in the streetscape, and to avoid amenity impacts on adjoining properties. Waste management is discussed within Section 4.11 and Section 7.17.

Table 12 - Summary of relevant provision of Rockdale DCP 2011

7.0 Potential Impacts Associated with the Development

7.1 Design Quality

The design has been formulated by DWP: Design World Partnership (DWP) in consultation with the Department of Education. DWP have prepared a Design Report (**Appendix N**) which identifies the guiding design strategy for the development, and this is summarised as follows:

- The use of folded origami as an inspirational building form to encourage student creativity and the dynamic articulation of ideas.
- The use of tatami patterns within internal spaces, creating a sequence of open spaces, courtyards, and cross visual communication throughout the school to facilitate passive monitoring and supervision.
- Providing adequately lit spaces to energise the learning mental state of students. The courtyards as an architectural device liberate the activity spaces from the limitations of a single source of external lighting and allow the various daylight angles and intensities to bounce and diffuse into the classrooms. Each space receives external lighting from at least two different directions.
- The creation of clustered learning spaces to increase the efficiency and flexibility of the internal areas, and to avoid imparting an imposing edifice impression.
- The provision of autonomous access and functionality to the primary community interface at the corner of the site, with these spaces able to operate independently outside of school hours.
- The creation of a library as a focal point within the school.

The report indicates that the basis for the design approach to site planning involved the following principles;

- Consolidate the learning spaces into a singular block, in order to optimise access and circulation and to allow the potential for cross-year group collaboration. Given the existing site constraints, this implied designing a two storey building on the site. In order to maximise the solar orientation and minimise the visual impact on the existing streetscape, the Northeast part of the site was favoured. The selected orientation of the building block also allowed for the presentation of minimal bulk to Jacobson Avenue.
- Setting the learning space building away from the rear boundary allows for the creation of an open play zone between the building and the rear of the adjoining childcare centre. This creates an opportunity to connect with the childcare centre and potentially integrate their activities with the new school. The childcare centre currently operates as a feeder facility for the existing school and regular joint activities are currently undertaken. This zone also allows for a dedicated junior play area to be developed separate from the senior play areas. Casual surveillance is possible from the new learning spaces allowing for supervision during play times.
- The new school hall is located on the South-West corner of the site, allowing maximum visibility to the community, and creating a strong visual identity for the new school. It allows for ease of access for out of hours activities and simpler segregation of the remainder of the school grounds.

- The administration office and canteen are located centrally between the learning space building and the school hall, immediately adjacent to the main school entry from Jacobson Avenue. The new kiss-and-drop zone is also adjacent to the main entry and logically located on Jacobson Avenue given that the Avenue's width will allow both the zone and a separate traffic lane. This also accommodates the existing bus stop and pedestrian crossing in these areas.
- The COLA roof, typically an isolated un-related large structure on most school grounds, is able to be incorporated into the architecture of the school hall and the administration block, lessening its perceived bulk and overall impact. The COLA area also doubles as an assembly area and spill space for the hall.
- The carpark and games court zones are positioned on the south and western boundaries to minimise their impact on adjacent residences, and in the case of the parking area, creating a buffer to the townhouses on the western boundary.

7.2 Infrastructure and Servicing

Essential services are currently available to the existing school, and augmentation of some existing services will be required. The following reports have been prepared to establish the utilities that are able to be provided to the proposed school:

- Environmental Impact Statement Report – Utilities (hydraulic services and gas), prepared by Erbas (**Appendix J**).
- Electrical and Communication Services Report, prepared by JHA Consulting Engineers (**Appendix K**).

The table below details the utility providers and the outlines augmentation requirements associated with the development.

Utility	Service Provider	Existing Infrastructure	Augmentation Required
Sewer	Sydney Water	Sewer main located adjacent to the northern boundary, with two connections to the main within Jacobson Avenue.	No, new connections to be constructed in accordance with AS3500.2 and NSW Code of Practice.
Potable Water	Sydney Water	Water meter located within the boundary fence along Jacobson Avenue.	Yes, to be upsized to a single 100mm feed in order to accommodate hydrant protection. To be included within Section 73 application. Further hydrants, as well hydrant booster also required.
Electricity	Ausgrid	Aerial supply at the intersection of Beehag Street and Jacobson Avenue.	Yes, dedicated padmount substation with a minimum 500 KVA transformer, to be connected to HV connection at Tancred Avenue Existing school switchboard to be placed.

Utility	Service Provider	Existing Infrastructure	Augmentation Required
Telecommunications	Telstra	Copper cables from pit at the intersection of Beehag Street and Jacobson Avenue; conduit on Jacobson Avenue.	Further information required prior to construction.
High speed broadband	NBN	Not currently available.	To be provided by service provider in the near future.
Gas	Jemena	None	No

Table 13 - Requirements for provision of utilities

7.3 Traffic and Parking

The existing school is located within a low density residential area with relatively low traffic flows, and relatively unconstrained off-street parking. It is anticipated that the increase in the size of the school will necessarily result in increased traffic flows and an increased demand for parking. The application has been accompanied by a Traffic and Parking Assessment Report (**Appendix E**), prepared by Cardno, to consider how the school is able to accommodate parking on site, and whether appropriate amelioration measures are required to ensure that the proposal will not unduly interfere with the residential amenity of the locality.

The report indicates that the on-site parking provision complies with what could be expected to be required by Council (through reference to parking rates within the Botany Bay Development Control Plan 2013), and through a comparison with other schools in the area. The 19 parking spaces provided are expected to be sufficient. The proposal also provides 32 bicycle parking spaces in a central and highly visible location, and there are opportunities to expand this bicycle parking area as the school population grows. The report indicates that a specific emergency vehicular parking area is not required given the availability of parking in the locality, and the space available within the proposed car park.

The report indicates that although the development will provide a significant increase in vehicular movements within the locality, the development will not affect the performance of the surrounding road network. Existing operational deficiencies along Bestic Street, particularly in the AM period, are an existing issue which are largely a consequence of traffic from the east, and the majority of the school catchment is expected to come from the west.

To mitigate some of the existing traffic queuing issues, the report recommends further investigation into low cost solutions such as “do not queue across intersection” signage and linemarking (as has been previously done at Jacobson Avenue / Bestic Street intersection); however, this will be subject to Local Traffic Committee approval. This matter can be investigated by Council at any stage given the issue is identified under current conditions.

The new school and grounds will be fully accessible to all students, in accordance with DOE policies. The new school is designed to take advantage of the multiple street frontages that apply to the site, including the frontage to Tancred Avenue Reserve, which adjoins Tancred Avenue. Multiple pedestrian entry points will be provided to the grounds to allow filtered access from all surrounding areas. Section 6.5 of the report provides an assessment of the safety of pedestrian walking routes and indicates that the existing pedestrian environment is appropriate to safely accommodate the expected pedestrian traffic. Pedestrian access to the school will be controlled appropriately, with the design intentionally accounting for varying levels of access that are required during school hours, during out of hours use, and when the school is not being used, as indicated within the image below.

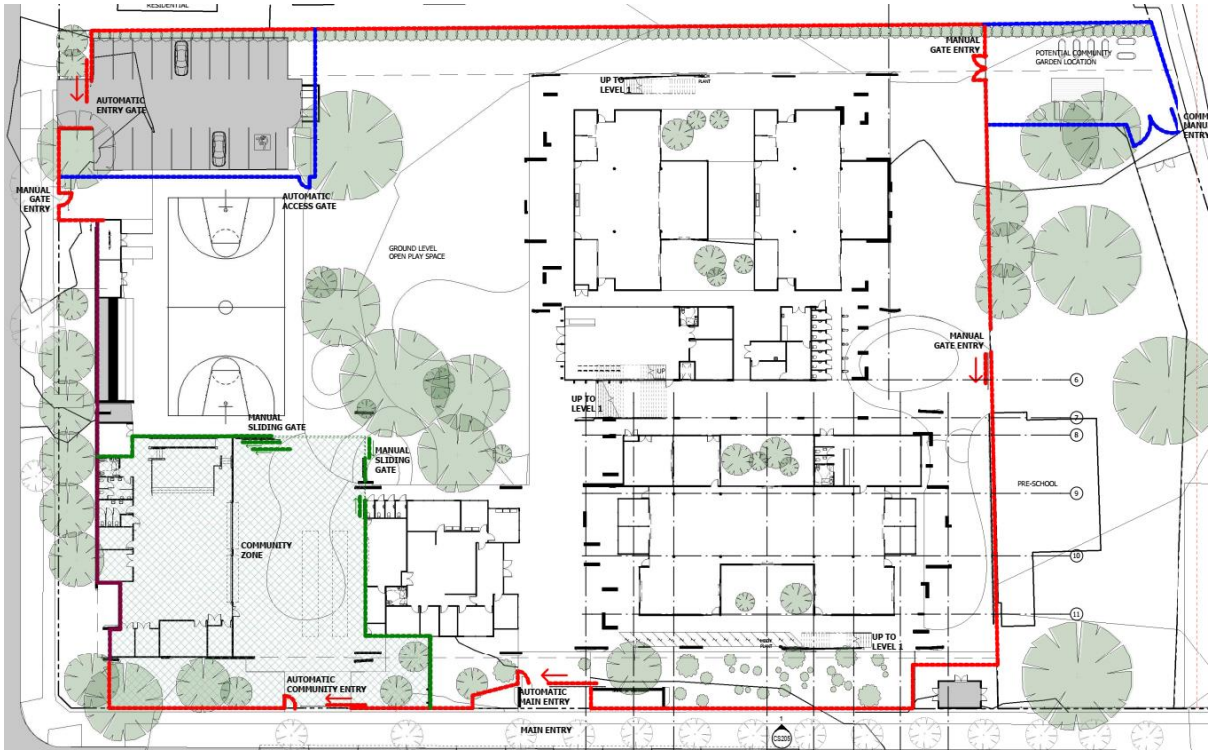

Figure 38 - The primary boundary shown in red and maroon, the secondary boundary in blue, and the out of hours boundary in green Assessment Matrix
Source: DWP

To promote sustainable transport behaviour, an indicative Green and Workplace Travel Plan has been included within Section 7.7 of the report, and it is expected that this can be suitably refined in accordance with any conditions of consent that may be imposed on the development. The Construction Traffic and Parking Management Plan is contained within Section 8 of this report, and this has partly informed the Preliminary Construction Management Plan (**Appendix X**).

7.4 Sydney Airport Operations

The proposal will require concurrence from SACL, given the development is affected by the 25 feet height limit pursuant to the *Civil Aviation Buildings Control Regulations 1988*. In addition, the site is affected by various surface limits associated with the operations of Sydney Airport. Reference should be made to Section 8.4 and Section 5.9 of this EIS.

7.5 Aircraft Noise

The proposed development has been supported by a Noise Impact Assessment, prepared by SLR Consulting Australia Pty Ltd. The report considers acoustic impacts on the proposed development with regard to the existing acoustic environment of the locality, as well as acoustic impacts on surrounding properties that may be generated by the school itself.

With regard to external noise sources, the subject site is located a short distance from Sydney Airport and is predominantly affected by the 25 to 30 ANEF contours, with the ANEF 25 contour intersecting

the southern corner of the site. Table 2.1 of *AS 2021:2015 Acoustics—Aircraft noise intrusion—Building siting and construction* indicates that educational uses that are affected by this constraint are unacceptable. However, clause 2.3 of AS 2021:2015 identifies that development may be considered if it is within the community interest. Given that an existing school is provided on the site, that the existing school buildings do not adequately ameliorate aircraft noise intrusion, and the identified future demand for public school places in the area, it would be expected that the development is within the community interest.

Thus, the acoustic report indicates that the development would be conditionally acceptable. Note that development for school purposes within the southern portion of the site - affected by the 20 to 25 ANEF contours - would be conditionally acceptable in accordance with Table 2.1.

The acoustic report has provided an investigation of design measures that are required to minimise noise exposure within classrooms and other critical learning areas. The acoustic report provides specific recommendations for material selection and construction methods for external walls, roofs, glazed areas and doors. These measures would be the conditions by which the development would be acceptable. Notably, particularly thick roof materials are required to mitigate aircraft noise impacts, and this has contributed to the height non-compliance discussed within Section 6.4.9 of this EIS.

7.6 Landscaping

The site currently contains a large open grassed area, with surrounding perimeter trees. Although the proposal seeks to increase the overall built form across the site, it is intended that the landscaped character will be maintained to the site as much as is practicably possible.

An Arboricultural Impact Assessment **(Appendix Y)** has been prepared by Redgum International to accompany the application. The report has identified 40 trees within the site, with 20 trees recommended for removal and 20 recommended for retention. All trees to be retained are to be protected during construction, with 13 of the trees to be retained, requiring specific tree protection measures given potential impacts that may arise during construction.

A detailed landscape scheme has been prepared in association with the architectural design and the landscape package, prepared by Ray Fuggle and Associated Landscape Architects **(Appendix GG),** seeks to provide 24 new plantings, with seven (7) of these within the street reserve. Where possible, landscaping has been employed to provide visual screening of the development. For example, native shrubs capable of growing to a height of up to 4m are to be located between the car park and the adjoining residence at No.6 Beehag Street, with lower planting provided further to the north-east. Where possible, landscaping is provided to improve site presentation, including at the entry to the carpark where new plantings are to be provided to denote the entry.

It should also be noted that the community garden that is currently located on site is to be relocated to the northern end of the site, prior to the commencement of works – refer to Section 4.7 of this EIS for further information.

7.7 Solar Amenity, Overshadowing, Privacy and Views

Information is provided within the architectural package to demonstrate how the proposed increased in the capacity of the school can be accommodated with minimal impact on environmental amenity. The new school buildings will be provided with an exceptionally high level of internal solar access, with the layout of the floorplates – including the internal garden courtyards – enabling each space to receive external lighting from at least two different directions

Figure 39 - Example of daylight penetration into the learning building.
Source: DWP

The provision of solar access to the internal areas is central to the design philosophy of the proposal, and a Daylight Penetration Analysis, contained within the Design Report **(Appendix N)** has been prepared to demonstrate the excellent solar access that is provided, with the learning spaces comfortably exceeding the minimum 300 lux level required by the EFSG.

Overshadowing

The school is ideally located at the southern corner the subject urban block, to be able to ensure new development does not create undue overshadowing to neighbouring properties or to sensitive areas within the school.

Shadow diagrams prepared for 9am, 12pm and 3pm at the winter solstice, accompany the application to indicate the overshadowing that will be created by the proposal. The 9am shadow diagram shown below, indicates that overshadowing from the learning building will fall within the primary open play area, with some overshadowing also evident to Beehag Street.

Figure 40 - Shadow Diagram showing at 9am at the winter solstice
Source: DWP

The 12pm shadow diagram shows that both play areas would be expected to receive excellent midwinter solar access during lunchtime periods, with shadows primarily cast on to public roads, and some minimal shadows on to other buildings within the school. It should be noted the tallest element of the development, the mechanical plant housing atop the roof of the learning building, does not cast shadows beyond the shadows cast by the parapet.

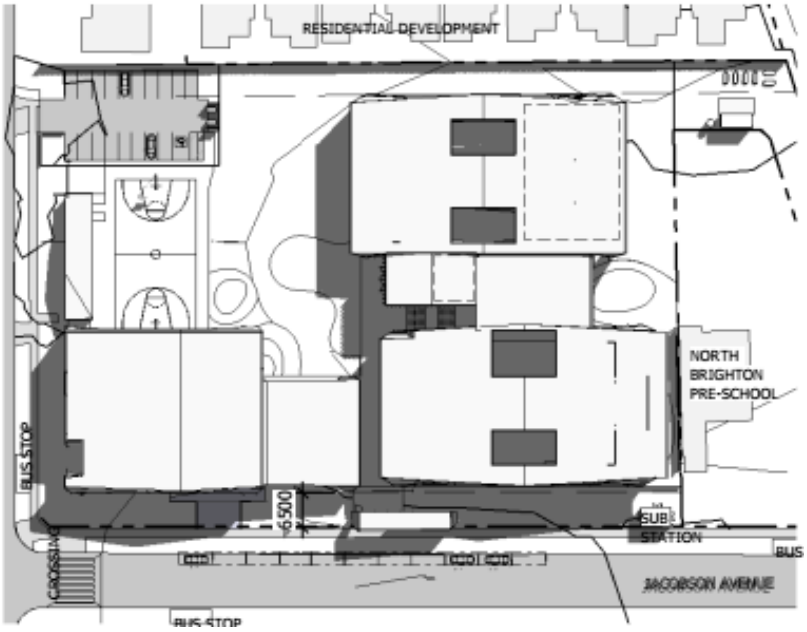

Figure 41 - Shadow Diagram showing at 12pm at the winter solstice
Source: DWP

The 3pm shadow diagram indicates that the geometry of the site ensures that excellent solar access will continue to be maintained throughout midwinter afternoons to the play areas of the school. Shadows cast by the north-west boundary fencing would not create any noteworthy impact on these play areas are other sensitive parts of the school.

The 3pm shadow diagram shows the most pronounced overshadowing impacts associated with the parapets which exceed the RLEP 2011 height limit. These impacts are mostly apparent on the opposite side of Jacobson Avenue, where shadows will extend marginally further into the nature strip than would be expected of a compliant development.

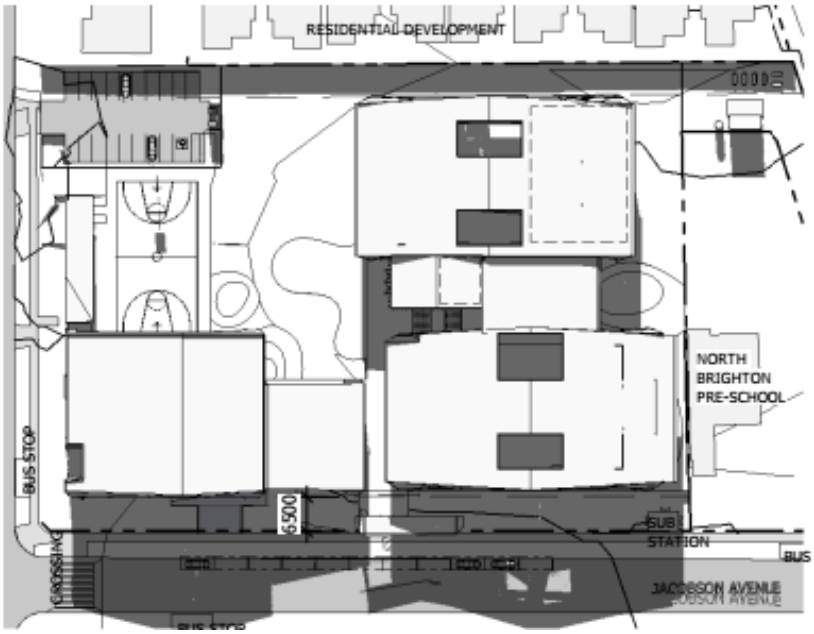

Figure 42 - Shadow Diagram showing at 3pm at the winter solstice
Source: DWP

Privacy

With two street frontages, as well as a park and existing child care centre adjoining the site, there is limited potential for privacy impacts originating from the proposed development. However, the proposal does introduce a two storey building to the site, which will be located in an area that is currently occupied by open turfed area.

The most obvious potential for privacy impacts is along the north-west boundary within the multi dwelling housing development at 49B Mutch Avenue. The overall masterplan minimises the impact of the built form along this edge, and aligns the general classrooms perpendicular to the dwellings to avoiding direct sight lines into these dwellings. The building envelope along the northern edge further reinforces visual and acoustic privacy by introducing layers of screening and circulation., as shown within the image below.

Figure 43 - Extract from the northwest elevation plan
Source: DWP

The north-west façade of the learning building is setback 6m from the boundary shared with these dwellings, which exceeds the rear setbacks currently provided to these dwellings (approximately 4m), and in combination with the screening, is sufficient to mitigate any potential privacy impacts.

Views

Although views towards watercourses and the Sydney CBD are found throughout the locality, there are no such views available within the vicinity of the site, and no views that would be affected by the proposal. The subject site and surrounding locality are characterised by an especially flat topography, and therefore there are no distant views available within or from the locality.

Note that other environmental amenity matters are discussed elsewhere within this EIS, for instance, acoustic impacts are considered within Section 7.16, and landscaping is considered within Section 7.6.

7.8 Stormwater Management and Flooding

The Stormwater Management Plan (**Appendix BB**) and Stormwater Concept Plan (**Appendix Q**), prepared by Cardno, have been prepared to accompany the application. The Stormwater Management Plan details how stormwater will be managed and disposed of on site and the Stormwater Concept Plan depicts this information diagrammatically. The proposed stormwater system has been prepared in accordance with the requirements of Bayside Council's Technical Specification - Stormwater Management.

The stormwater system involves the collection of all roof rainwater, which is piped directly into two 30,000L underground rainwater tanks, to be located underneath the courtyards adjacent to the school canteen. Hardstand areas, such as the carpark and basketball court, are to be drained to an underground absorption tank, located underneath the primary play area. Absorption pits are preferred in this part of Sydney, as the underlying natural subsurface area is characterised by sandy soils that are conducive to absorption.

The stormwater report also outlines water sensitive urban design measures that will be incorporated into the development, in order to reduce the environmental impacts of the increase in the impervious area of the site.

The stormwater report identifies that the building floor levels must be increased above natural ground level in order to protect the buildings from water ingress from surface flows during large storm events (up to ARI=100 years) and other occurrences when the capacity of the in-ground pits and pipes system would be exceeded (e.g. due to full or partial blockage of the system). This will influence the height non-compliance as discussed within Section 6.4.9.

With respect to potential flooding, and although the site is located amongst a number of waterways, available flood mapping indicates that the site is not known to be flood affected. The maps to RLEP 2011 indicate that the site is not affected by clause 6.6 of the RLEP 2011 – refer to the image below.

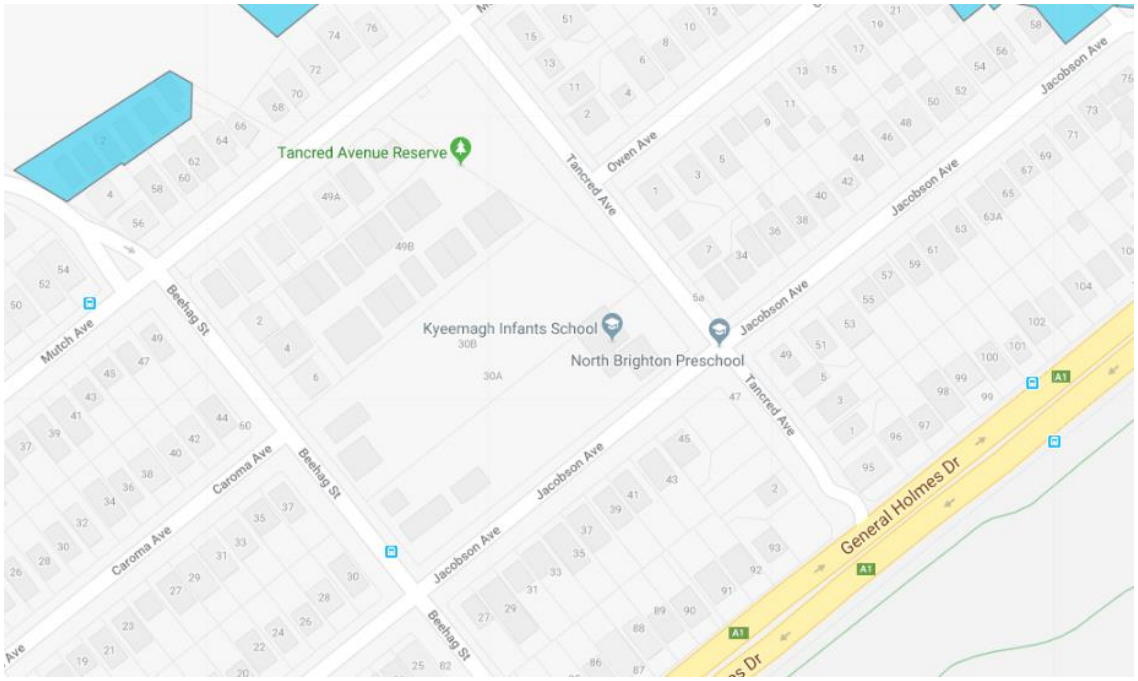

Figure 44 - RLEP 2011 Flooding Map Extract
Source: planningportal.nsw.gov.au

In addition, Cardno have prepared a letter, dated 31 October 2018 (**Appendix P**) to indicate that the site is not identified as affected by flood mapping associated with the Cooks River Flood Study prepared by Parsons Brinkerhoff for Sydney Water, October 2008 (project reference 2114299N). Further, Bayside Council does not have an endorsed policy on climate change or sea level rises, and there is no information available to indicate that the site may be flood affected.

7.9 Contamination and Geotechnical

As indicated in the discussion relating to SEPP 55, initial geotechnical and contamination investigations were undertaken across the site.

A geotechnical report has been prepared by Cardno (**Appendix I**), and geotechnical fieldworks used to inform the report including the drilling of five (5) investigatory boreholes, between four (4) and fifteen (15) metres in depth, as well as the installation of two (2) groundwater monitoring wells. Collections of soil samples were extracted from the boreholes, and elsewhere across the site, for interpretation as described within the report. The report provides recommendations on construction methodology, having regard to the geotechnical character of the site, and the relationship with neighbouring properties.

The report also identified that groundwater was encountered during the field works at a depth of 3.8m – 3.9m below surface level. There is a chance that groundwater may be encountered as part of the excavation for deep footings. The geotechnical report provides recommendations which account difficulties associated with construction below the water table.

A Detailed Site Investigation (DSI) (**Appendix H**) was undertaken by Cardno to assess the soil and groundwater at the site with regards to potential contamination and acid sulfate soils (ASS). The potential risks from groundwater taken at the site was identified as being of low and acceptable risk. 'Chemicals of potential concern' identified were generally below the adopted criteria with the exception of copper within one of the monitoring wells.

The investigation uncovered asbestos in the soil surface at two locations and within shallow fill material. The risk level associated with the discovery is considered low as the material uncovered was bonded fibre cement material in fair condition with no further other materials encountered at soil surface. It was noted that the soils will require remediation, management, or a further risk assessment as a result.

The DSI concluded that a Remediation Action Plan (**Appendix AA**), Acid Sulfate Soils Management Plan (ASSMP) (**Appendix Z**), and Asbestos Management Plan will be required.

In addition to the DSI, a Hazardous Materials and Risk Assessment (**Appendix F**) was prepared by Parsons Brinckerhoff in November 2016 which confirmed that the North Brighton Preschool building contained asbestos in some of the building materials. None were discovered within any of the structures that are located within the scope of the redevelopment. Furthermore, an Asbestos Remediation Clearance Certificate (**Appendix G**) was provided by Parsons Brinckerhoff in July of 2014 confirming the removal of asbestos materials within the grass play area, adjacent to the play area of North Brighton Preschool.

The ASSMP was provided by Cardno on 16th January 2019 which details a range of methods to appropriately manage the presence of acid sulfate soils across the site during demolition, construction, and the continued operation of the site. Specific examples presented in in the ASSMP include avoidance strategies, minimisation of disturbance, and excavation inspection whilst a number of contingency protocols are also proposed including methods of soil treatment.

The Remediation Action Plan (**Appendix AA**), prepared by Cardno, provides for two potential remediation options. Remediation Strategy 1 would involve the complete removal of all contaminated materials from the site, whereas Remediation Strategy 2 would involve the capping asbestos within the site. Each option is sufficient to be able to render the site suitable for the proposed land use as a primary school. The preferred remediation pathway will be able to be identified once the works are due to commence.

7.10 Safety and Security

The employment of the principles of Crime Prevention Through Environmental Design (CPTED) in the design of the school are imperative to ensure that the design of the school is not conducive to the perpetration of crime.

CPTED describes the use of environmental design to deter criminal and anti-social behaviour. CPTED strategies are founded on the notion of being able to influence the decision making of potential offenders, by increasing the perception and likelihood that crime may be witnessed, challenged or detected, and that criminals may be identified, or fail to escape crime scenes effectively.

CPTED uses design and place management principles to influence the cost-benefit appraisal of crime opportunities associated with given locations, such that potential perpetrators may rationalise that the benefit of offending is outweighed by the cost (real or perceived). CPTED also seeks to influence the behaviour of legitimate users of a space, such that their frequent use of the space discourages its use by potential offenders, and prevents legitimate users from becoming victims of crime.

The NSW Police specify that CPTED seeks to create environmental and social conditions that:

- Maximise risk to offenders (increasing the likelihood of detection, challenge and apprehension);
- Maximise the effort required to commit crime (increasing the time, energy and resources required to commit crime);
- Minimise the actual and perceived benefits of crime (removing, minimising or concealing crime attractors and rewards); and
- Minimise excuse making opportunities (removing conditions that encourage/facilitate rationalisation of inappropriate behaviour).

The four core principles of CPTED are surveillance, access control, territorial re-enforcement, and space management. Each principle is discussed below:

Access Control

The design of the development provides a clear indication to any observer or passer-by about the nature of the use at the site. This reduces the capacity for potential offenders to make excuses about their reason for their presence and their actions. Individual spaces are clearly defined within the proposed development, with fencing, landscaping, and (future) wayfinding signage clearly demarcating space within the site. Each individual site entry point is clearly defined by a break within the otherwise continuous perimeter landscaping. Site access points are clearly delineated through wider paving areas that are provided only to school entry points. There are limited opportunities for loitering at the site boundaries, as the large trees and gardens located throughout the site boundary indicate that those areas are not ordinary locations to gather – especially outside of drop off and pick up times - when compared with the discernible presence of the individual entry points.

Various security lines are provided to the school as per the plan shown within Figure 38 within Section 7.3 of this EIS. The plans indicate that ordinary access to the building is controlled by a combination of buildings and fences, and that the design intentionally accounts for varying levels of access that are required during school hours, during out of hours use, and when the school is not being used, as indicated within Figure 38. It should be noted that all gates providing pedestrian or vehicular access to the site will only be open from 8:30am – 9:00am and 3:00pm – 3:30pm, on school days. They will only be opened at other times during the day through an intercom system. Separate arrangements will be in place for the shared used of community facilities.

Surveillance

The proposed development provides glazed facades that provide direct lines of sight to play areas and circulation areas. Furthermore, the perimeter first floor outdoor circulation areas increase the perception of passive surveillance to adjoining spaces.

As the buildings are oriented toward surrounding streets, the proposal also allows for passive surveillance to the front setback areas of neighbouring properties within the development itself, and on other properties located opposite the surrounding streets. This will facilitate natural incidental monitoring to surrounding areas and increase the potential risk to offenders of being detected or challenged if committing a crime in this locality.

To avoid opportunities for concealment, the proposed development provides consistent and linear building setbacks which enable sightlines to be maintained from opposite ends of the site. This is particularly the case within potentially isolated areas, such as the setback area between the learning building and the north-west boundary, where generous spacing and continuous building setbacks, ensure that the sightlines are maintained from Beehag Street through to the community gardens, providing minimal opportunities for concealment. Landscaping is also selected to minimise opportunities for concealment, with existing and proposed canopy trees being evenly spaces so as to enable sightlines underneath, and minimise concealment from unexpectedly hidden or overshadowed areas.

The proposed development is free from concealed or obscured spaces; facades are provided with design articulation, but with an absence of redundant and hidden spaces. The bicycle parking area, a common target for theft, is located at the site frontage in plain view of school buildings and the public domain. Low landscaping is proposed to areas of infrequent use, such as forward of the entry school signage. Taller landscaping is reserved for street frontages and play areas, and are sufficiently spaced so as to enable view lines to be maintained between and beneath each tree. Trees are to be maintained to ensure that low level branches are removed to minimise opportunities for concealment.

With respect to lighting, permanent lighting is to be installed to site entry points. Internal building lighting, while being dimmed during the evening, will be controlled by occupancy motion switches, and external lighting will remain on during the evening to prevent vandalism and trespassing (note that the impact of this lighting will be controlled as discussed with Section 7.18). Light fittings and fixtures should require minimal maintenance, be able to withstand the elements and be vandal resistant. If required, ground level lighting can be installed to areas where lighting might otherwise be interfered with, or where there is potential for light spill.

The maintenance schedule for the building will incorporate the monitoring of the effectiveness of lighting within the development to ensure lights are operational, maintaining required lux levels and not becoming obstructed by landscaping. All lighting is to meet the minimum Australia and New Zealand Standards, particularly *AS/NZ 1158 Lighting for roads and public spaces*, which can be used to guide lighting standards for the surrounding streets, and throughout the development.

Territorial Reinforcement

Throughout the development, the proposal provides for high quality spaces that are clearly defined and logically arranged to provide visual cues to their purpose and their overall size. The use of hard paving for circulation areas throughout the development, contrasts with the use of turf and soft fall rubber elsewhere within the development to provides a clear delineation between areas that function for circulation purposes and areas that may be expected to be occupied for longer periods of time. In general, seating is restricted to play areas, in order to encourage longer visitation only to these spaces, and to enable these spaces to be used by all students, regardless of whether they are participating in active or passive recreation.

Toilet areas and drinking fountains are well provided in areas with good surveillance, but the surrounding design features are selected to emphasis the sole purpose of these areas; the layout of the areas surrounding the toilets - where potential victims may be vulnerable to isolation - is not conducive to congregation.

Overall the design maximises student flow paths in and around the buildings and provides legible access path and routes throughout.

Space Management

The school is an overtly civic development, providing a concentration of community facilities not otherwise found within Kyeemagh. The future community gardens will be accessible at all times to the public and the community zone at the southern end of the school will provide a recognisable focal point for community events. The design will foster a sense of community ownership amongst the school population and the local community.

Rapid repair of any incidents of vandalism and graffiti will be employed to prevent the appearance of neglect and discourage further such activities. All graffiti will be removed promptly following a graffiti incident, and any major vandalism will be remedied as promptly as possible. The selection of construction materials and landscaping are suitable for low-resource maintenance; however, a regular maintenance schedule will be prepared to ensure that vegetation is trimmed and kept tidy, with unhealthy vegetation replaced as required. A maintenance schedule should also be prepared for painting, repairs, inspection of plumbing and electrical equipment, and for general cleaning.

Finally, although not proposed as part of this application, directional signage will eventually be provided throughout the school, prior to the commencement of the operation of the school, in order to provide users with information on entry and egress points, and details on where to seek assistance. Directional signage for pedestrians is exempt development pursuant to clause 38 of the ESEPP.

7.11 Impacts of Construction

Construction impacts, such as noise, dust, vibration and temporary traffic management impacts are likely to create a concern for nearby residents.

A Preliminary Construction Management Plan (PCMP) (**Appendix X**), has been prepared by Turner & Townsend Thinc to outline procedures to be implemented to minimise the impacts of construction. This PCMP has been informed by various other documents included within the application package, including the Acoustic Report (**Appendix EE**), Construction and Traffic Parking Management Plan (contained within Section 8 of the Traffic Impact Assessment (**Appendix E**)), and the erosion and sediment control plan (discussed below).

A sedimentation and erosion control plan has been prepared by Cardno (**Appendix S**) which provides a diagrammatic depiction of indicative measures to be installed at the site. Any changes to the final layout of the erosion and sediment control devices are to be undertaken in accordance with the *Guidelines of Landcom Managing Urban Stormwater Manual 2004* ("the Blue Book"). Moreover, should the stripped area at any stage exceed 2,500m^2, sedimentation pond including berms cut-off trenches and the like are to be installed in accordance with the requirements of the Blue Book.

7.12 Ecologically Sustainable Development

An ESD Report has been prepared by Erbas (**Appendix O**) in order to detail how the principles of ecological sustainable development (ESD), as defined by clause 7(4) of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*, will be incorporated in the design and ongoing phases of the development. These principles are reproduced below:

(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.

The report includes:

- Initiatives that would minimise the consumption of resources, water and energy.
- Demonstration of assessment against a suitable accredited rating scheme to meet industry best practice.

Examples of sustainability features provided for the proposal are detailed within the table below:

Component	ESD Design Response
Energy Consumption	• Provision of motion sensors throughout to switch off the lights after period of no occupancy detection. • Lighting shall generally be LED luminaires. • Habitable spaces will be naturally ventilated and naturally lit where possible. • CO2 monitoring in air conditioning systems to be utilised to match outside air to occupant density. • Exhaust fans to be electronically interlocked to air conditioners and/or lighting and/or building management system to prevent energy wastage after hours. • Provision of photovoltaic systems where possible on the roof form for the generation of renewable energy. • Minimum standards relating to building materials, glazing, and HVAC systems will be exceeded by 15%. • Energy Recovery Ventilators will be incorporated to pre-treat or pre-condition incoming fresh outside air by recovering energy from the outgoing exhaust air which can reduce the outside air load by up to 75%.
Transport	• Bicycle facilities including staff showers and lockers should be incorporated to encourage bike use and minimise car use, reducing carbon pollution.
Water Consumption	• All bathroom fixtures (toilet pans, urinals, hand basin taps and showers) will meet minimum Water Efficiency Labelling and Standards (WELS). • Low flush and automatic urinals will be adopted to reduce water use. • Basin taps and urinals to be equal to or more than 4 Star Water Efficiency Labelling and Standards WELS. • Showers to be equal to or more than 3 Star WELS. • Toilets to be equal to or more than 4 Star WELS. • Rainwater collection and reuse.
Resource Conservation	• 90% of PVC products used in the project shall meet the *Best Practice Guidelines for PVC in the Built Environment*. • 95% of timber used in building and construction will be from a reused source or certified by a forest certification scheme. • 95% of the building's steel (by mass) will be sourced from a responsible steel maker whilst at least 60% of the fabricated structural steelwork will be supplied by a steel fabricator / contractor accredited to the Environmental Sustainability Charter.
Waste Minimisation	• A significant amount of construction waste going to landfill will be diverted.
Management	• Introduction of a tuning service every twelve (12) months inclusive of monthly monitoring of all building systems, quarterly review and reporting of the outcomes so ensure efficient use of infrastructure. • An Independent Commissioning Agent will be engaged to advise and oversee the commissioning of the nominated building services. • A Building Users' Guide will be provided to educate users of the building's energy and environmental strategy, energy, water and waste targets and benchmarks, descriptions of basic functions of the building services, transport facilities, amongst other relevant information.

Table 14 - Sustainability features of the development

7.13 Social Impacts

The social impacts of appropriately located educational facilities are broadly considered to be positive. The existing school is ideally located amongst a predominately residential area, providing an essential local service that is convenient and easily identifiable within the local area.

The proposal will provide modern and advanced learning spaces, which are expected to enable the school to become a 'school of choice' for many local parents. The increased capacity of the school will provide further opportunities for a high standard of local public education to the local community. A strong local community school not only provides direct impacts in relation to the convenience of local services, but also enables increased community interaction and familiarity for both students and parents, and promotes a growth in overall social capital.

Through the proposed provision of an upgraded school in Kyeemagh, the ability to accommodate for the projected growth in school aged children in Bayside LGA will improve, helping to prevent identified education shortfalls in the future. In this regard this school is designed to relieve pressure and the associated requirement for demountable classrooms from nearby schools.

The development is located within a largely residential area with low traffic flows, in close proximity to cycling routes, and with existing capacity within current bus services. Therefore, the site is ideally located to accommodate a proposed expansion and to promote alternative modes of transport to car travel amongst students and parents.

Other general anticipated social impacts include:

- The provision of increased student places amongst a residential area with a rapidly growing population.
- The creation of flexible learning spaces to promote social interaction amongst pupils, and improved opportunities for public use outside of school hours.
- Employment of local tradespeople during construction, and the creation of permanent teacher, clerical and maintenance positions;
- The school will provide new facilities that are able to be used by local community groups and the wider population of the area discussed within Section 4.15 of this EIS.

For the most part, any anticipated negative social impacts are generally those that indirectly relate to physical impacts, such as traffic, parking, built form, etc. These matters are individually discussed elsewhere throughout this EIS. There will be no need for any decanting as part of the construction process, as the development is staged so as to avoid any temporary relocations - refer to Section 4.7 of this EIS.

With respect to inclusive access, an Access Design Assessment Report has been prepared by Design Confidence (**Appendix T**) which identifies the extent to which the proposal meets the accessibility provisions of the Building Code of Australia. It is expected that the new school will be designed to maximise inclusiveness for impaired students, teachers and parents, and that the modernisation of the school facilities at the site will be to the benefit of those so impaired. Further reference should be made to the aforementioned report.

Finally, social impacts associated with crime prevention (i.e. CPTED) are considered within Section 7.10 of this EIS.

7.14 Heritage

Aboriginal

An Aboriginal Cultural Heritage Assessment (**Appendix M**) has been completed by AMBS Ecology and Heritage in order to determine whether there are any Aboriginal cultural heritage values that would be affected by the development. The report indicates that archaeological field surveys identified that there were no Aboriginal objects, sites or areas with potential to retain subsurface archaeological deposits within the study area. Further, no Aboriginal cultural issues or sensitivities associated with the study area were identified by the registered Aboriginal parties consulted with during this assessment (refer to 5.11).

The report concludes with three recommendations, which largely indicate that no further heritage assessment is required. However, the final recommendation requires that, in the unlikely event that an Aboriginal object should become exposed, disturbance of the surrounding area should cease until written consent to proceed is received from the Cultural Heritage Division of the Office of Environment and Heritage (OEH).

Community consultation associated with this report is outlined within Section 5.10 of this EIS.

European

The subject site is within the vicinity of a number of heritage items of local and state significance as indicated within Section 6.4.9 of this EIS. However, the proposal does not require any works to these items, and therefore the *Heritage Act 1977* does not require any further consideration. The development will be of sufficient distance from these items to be of any potential impact to these items.

7.15 Hazards and Risk

A Risk Assessment (**Appendix R**), undertaken by Arriscar Pty Limited was prepared to consider the risks of hazards associated with the proposed development. This included a consideration of risk assessment for the proposed development in accordance with *Hazardous Industry Planning Advisory Paper (HIPAP) No. 6*, as well as an assessment of risks from existing potentially hazardous facilities and operations near the proposed development in accordance with HIPAP No. 10.

The Moomba to Sydney Ethane Pipeline was the only identified credible external source of risk to school occupants. Arriscar and DWP attended an initial consultation meeting with the pipeline operator (APA Group) on 30 October 2018. APA Group subsequently provided the relevant data for the pipeline to inform the Risk Assessment. The pipeline location and relevant risk criterion threshold locations are shown respectively in the images below.

Figure 45 - Images showing the approximate location of the APA pipeline (left) and the locations at which the relevant risk criterion thresholds would be exceeded (right)
Source: Arriscar Pty Limited

The report demonstrates that the relevant risk criterion thresholds would be not be exceeded in the location of the school. The report otherwise demonstrates that there are no identified hazards which would preclude the proposed development.

Note that in an email dated 19 July 2018, Doris Yau of the Department of Planning and Environment, confirmed that aside from the Moomba to Sydney Ethane Pipeline, the proposed development does not fall into the notification area of any other fuel or gas pipeline. Refer to **Appendix FF**.

7.16 Noise and Vibration

An acoustic report has been prepared by SLR Consulting Australia Pty Ltd to consider noise impacts, including the impacts to neighbouring properties associated with noise emanating from the proposed school, as well as the impact of external noise sources on the future school occupants. Noise intrusion from external factors is likely to be limited to noise emanating from Kingsford Smith Airport, a short distance from the site. This is discussed within Section 7.5 of this EIS.

The primary noise impacts from the school itself are likely to be the noise impacts from construction and the noise impacts from outdoor play areas.

In relation to construction noise, the report finds that:

- The most affected receivers are likely to be the residences to the north of the project in NCA03. The worst-case noise levels are predicted during the 'Construction' scenario, where relatively high exceedances of the daytime NML are predicted due to piling works at the boundary of the site. It is however noted that the highest impacts would only be apparent during noise intensive activities and the duration of the highest impacts would likely be relatively short.
- The nearest receivers to the north are likely to be Highly Noise Affected at times during some of the highest noise impact works.
- For most construction activities, it is expected that the construction noise levels would frequently be lower than predicted at the most exposed receivers, as the noise levels presented in this report are based on a realistic worst-case assessment.

The acoustic report provides examples of best practice noise mitigation and control, and recommends that vibration management mitigation measures and noise monitoring procedures be determined prior to the commencement of works. The submitted Preliminary Construction Management Plan (**Appendix X**) indicates that these measures will be determined depending on the equipment to be used during works, and neighbouring residents will be kept informed of the progress of construction works.

Likely sources of operational noise impacts are identified within Section 5 of the Acoustic Report as being the following:

- Noise impacts from standard operations (i.e. noise from outdoor play areas during school hours).
- Noise impacts from OOSH indoor operations (i.e. noise from out-of-school-hours events located within the new multi-purpose hall).
- Noise impacts from mechanical plant and school related equipment (i.e. school bells and public address (PA) systems).

The acoustic report recommends that a 2.1m acoustic screen be provided to the north-west property boundary, which will be sufficient to minimise the impacts to sensitive single storey residential receivers. The report acknowledges that there will be a single residual exceedance to the upper level of the two storey dwelling located at 6 Beehag Street, adjacent to the school carpark. An acoustic wall of approximately 5m in height would be required to mitigate the exceedance to the upper level of this property. However, the report reasonably discounts this option given that the impact to daylight and outlook from this property, and the fact that the noise impacts are limited to school play times only, being relatively short periods in the middle of the day. It should also be noted that such a structure, would create unreasonable visual impacts from the public domain and from within the school. As an alternative, native shrubs capable of growing to a height of up to 4m are to be located between the car park and the affected property. Refer to Section 7.6 of this EIS for further detail.

7.17 Waste

A Waste Management Plan has been prepared by Turner & Townsend Thinc (**Appendix CC**) which describes the waste management requirements and practices to be adopted for the duration of works under the Kyeemagh Public School scheme. The Waste Management Plan outlines the wider context for waste management on the site, as well as discussing any requirements specific to the site. It is intended to be a 'living document' to be updated as required.

7.18 Lighting

A Lighting Control Strategy Report has been prepared by JHA Services (**Appendix L**), which outlines how lighting will be controlled within the new school facilities in order to reduce spill into the surrounding sensitive receivers. The report is provided to demonstrate the measures to be employed to ensure lighting creates minimal disturbances within the locality, through utilising automated internal lighting systems, and external lighting designed to comply with relevant Australian Standards.

7.19 Contributions

There are four development contributions plans in force within the former City of Rockdale, with two of these being location-specific and not applicable on the subject land. The broad contributions plans that apply are the *Rockdale Section 94 Contributions Plan 2004* and the *Rockdale Section 94A Development Contributions Plan 2008*. The plans were prepared in accordance with the former Section 94 and Section 94A (respectively) of the EPAA Act (now Section 7.11 and 7.12).

7.19.1 Rockdale Section 94 Contributions Plan 2004

The *Rockdale Section 94 Contributions Plan 2004* applies primarily to residential development, in particular development that results in an increased the number of dwellings. Clause 2.11.2 indicates that the plan applies only to residential development within the Wolli Creek Redevelopment Area, or within development that are deficient in on-site car parking and are located within, or in the vicinity of, the Bexley, Bexley North, Brighton-Le-Sands, Kingsgrove and Rockdale town centres. The plan is therefore not applicable to the development.

7.19.2 Rockdale Section 94A Contributions Plan 2008

The *Rockdale Section 94 Contributions Plan 2008* relates to some development that is not captured by the *Rockdale Section 94 Contributions Plan 2004*. Clause 3.8.2 indicates that the plan applies to retail, commercial and industrial developments, and clause 3.9.2 indicates that the "child-care, libraries and other community or education facilities" are exempted from levies that would otherwise be payable under the plan.

Therefore, no contributions are payable as a consequence of the proposed development. It should also be noted that Planning Circular D6, dated 21 September 1995 and titled *Crown development Applications and Conditions of Consent* generally indicates that contributions are not appropriate for public infrastructure projects and that they "are not likely to require the provision of public services and amenities in the same way as developments undertaken with a commercial objective".

8.0 Other Statutory Approvals

8.1 General

Whilst a range of legislation is relevant to the proposed development as spelled out within this EIS and its appendices, this Section of the EIS considers only legislation under which separate approvals are required to be obtained before the development may be lawfully carried out, consistent with the requirements for content for environmental impact statements, prescribed by clause 7(1)(d)(v) of *Environmental Planning and Assessment Regulation 2000*.

8.2 Biodiversity Conservation Act 2016

The general purpose of the *Biodiversity Conservation Act 2016* ("the BC Act") is described within Section 1.3 of that Act, being to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development.

Section 7.9 of the BC Act indicates that applications for SSD are to be accompanied by a biodiversity development assessment report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values.

A Flora and Fauna Assessment, prepared by AMBS Ecology & Heritage Pty Ltd (**Appendix W**) has been prepared to accompany the development application as well as the BDAR waiver request. The report is based on field assessment and research on the likely biodiversity values within the site, and indicates that there are unlikely to be any significant biodiversity impacts, such that the BDAR waiver request is warranted. The report addresses each of the requirements within Section 1.5 of the *Biodiversity Conservation Act 2016*, as well as the factors within clause 1.4, and the prescribed biodiversity impacts listed within clause 6.1 the *Biodiversity Conservation Regulation 2017*.

Consequently, a BDAR waiver request has been submitted to NSW Department of Planning and Environment (DPE) – Office of Environment and Heritage (OEH) (**Appendix DD**).

8.3 Roads Act 1993

The proposed car park will partly rely on vehicular access from the existing vehicle crossing at the northern end of the Beehag Street frontage. However, as part of the redevelopment of the carpark, the crossing will be partially relocated and widened. Concurrence from Bayside Council will be required, pursuant to S138(1) of the *Roads Act 1993*, as Bayside Council is the roads authority for Beehag Street.

8.4 Approvals Relating to Airspace Operations

8.4.1 Civil Aviation (Buildings Control) Regulations 1988

Pursuant to Clause 3 of the Commonwealth *Civil Aviation (Buildings Control) Regulations 1988*, the construction of buildings above 25 feet (7.62 metres) in height is subject to approval from Sydney

Airport Corporation Limited (SACL), under delegation from the Civil Aviation Safety Authority (CASA). The design of the new buildings will be formulated in cooperation with SACL.

Schedule 5 of the *Civil Aviation Buildings Control Regulations 1988* indicates the areas to which the 7.62 metre height limit applies, and the relevant image is reproduced below.

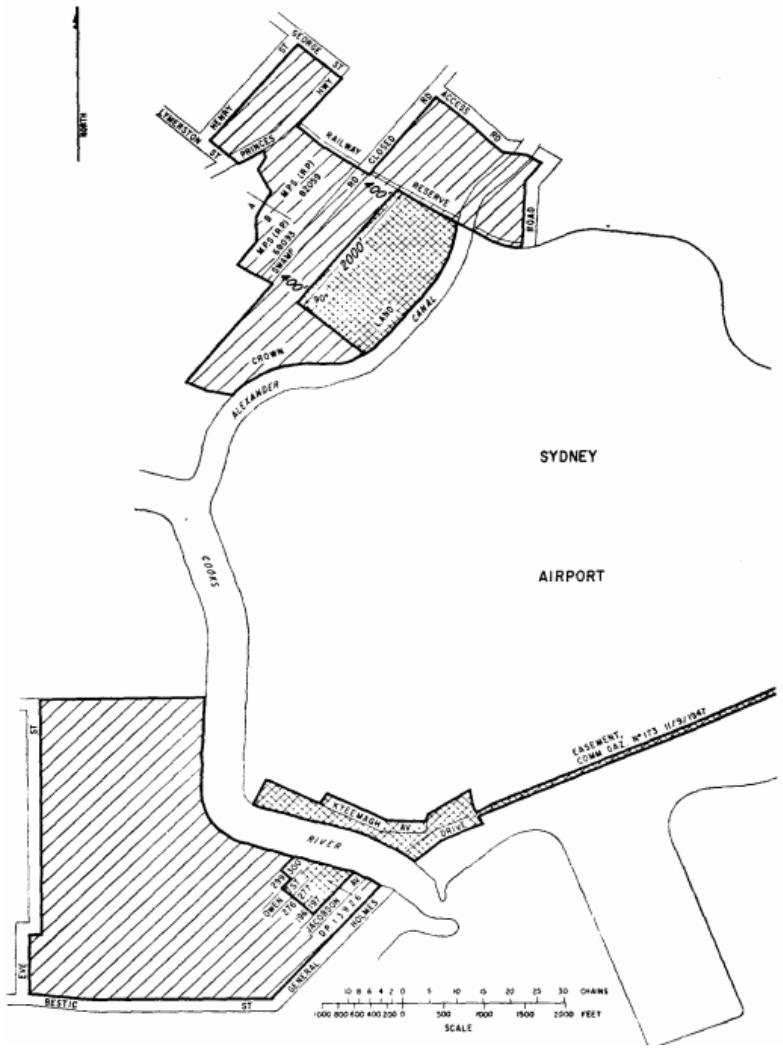

Figure 46 - Extract from Schedule 5 of the *Civil Aviation Buildings Control Regulations 1988*, showing the area hatched area surrounding the site on the bottom left of the image.
Source: austlii.edu.au

Consequently, the proposal will require concurrence from Sydney Airport Corporation Limited (SACL), given the height is affected by the 25 feet height limit pursuant to the Commonwealth *Civil Aviation Buildings Control Regulations 1988*. However, consultation with SACL confirmed that this is unlikely to create any issues for SACL, given the prevalence of surrounding buildings over the 25 feet (7.62m) height limit that applies to the site. SACL provided concurrence to the proposal on 23 January 2019 (refer to Appendix HH).

8.4.2 Airports (Protection of Airspace) Regulations 1996

Pursuant to the Commonwealth *Airports Act 1996*, the site is affected by the prescribed airspace associated with Sydney Airport. The prescribed airspace includes an area in which the interests of the safety, efficiency or regularity of existing or future air transport operations into or out of an airport for the airspace are to be protected.

The prescribed airspace to Sydney Airport is affected by a variety of 'surfaces', which each limit the height of buildings. Any proposal which seeks a height above the surface limits will require the issue of a controlled activity approval from the Civil Aviation Safety Authority, pursuant to Section 182 of the *Airports Act 1996*.

The lowest surface limits that affect the site are the Obstacle Limitation Service (OLS) and the Procedures for Air Navigation services – Aircraft Operations Surfaces (PANS-OPS). The OLS for the site is 51.00 AHD, and the PANS-OPS is between 50.00 AHD and 60.00 AHD. The existing ground levels at the site are in the vicinity of 4.00 AHD, and therefore the lower surface limits would not be breached for any building under approximately 45m in height. The height of the proposal will be comfortably within the applicable surface limits.

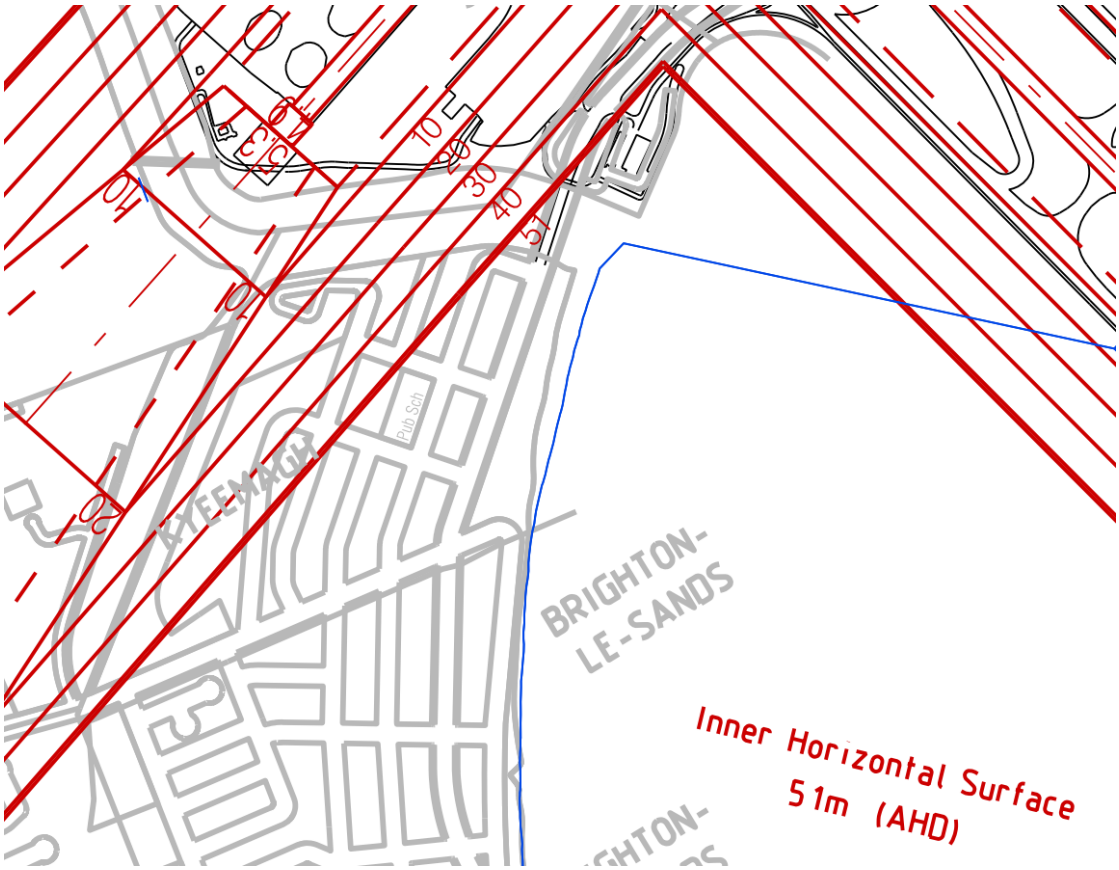

Figure 47 - Extract from Obstacle Limitation Surface Map within the subject site shown marked as "Pub Sch"
Source: sydneyairport.com.au

Note that Clause 6.4 of the RLEP 2011, requires consultation with CASA for any development which penetrates that the OLS or the PANS-OPS.

8.4.3 National Airports Safeguarding Framework (NASF)

SACL have confirmed that the National Airports Safeguarding Framework (NASF) guidelines, relating to wind turbulence, would affect buildings in the location that are over approximately 18m tall (i.e. total height, rather than measured to AHD). The development would therefore be unaffected by these guidelines.

9.0 Environmental Risk Assessment and Mitigation

An Environmental Risk Assessment (ERA) establishes matters where there may be a risk of potential environmental impacts as a consequence of the proposed development. *AS4369.1999 Risk Management and Environmental Risk Tools* provides a methodology for undertaking an ERA, which includes the following qualitive risk analysis matrix.

Likelihood	Consequence				
	Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
A (almost certain)	H	H	E	E	E
B (likely)	M	H	H	E	E
C (moderate)	L	M	H	E	E
D (unlikely)	L	L	M	H	E
E (rare)	L	L	M	H	H

Figure 48 Risk Assessment Matrix
Source: AS4369.1999

The legend for the risk assessment matrix is provided below:

E: extreme risk; immediate action required

H: high risk; senior management attention needed

M: moderate risk; management responsibility must be specified

L: low risk; manage by routine procedures

The table below lists the potential environmental risks and the associated mitigation measures.

Environmental Risk Factor	Potential Impact	Risk	Mitigation Measure
Design Quality	Potential to interfere with the urban character of the locality and on views or outlook from neighbouring properties or the public domain.	Medium	The school is designed to relate sensitively to the existing character within the street, accounting for potential amenity impacts. The school is designed to intentionally create a strong visual identity and in that sense, the architecture of the school differs somewhat from the existing residential buildings. However, the spacing, landscaping, and roof design are designed to be compatible with the character of the area. Refer to Design Report (**Appendix N**).
	Impacts associated with the overall height of the building exceeding the maximum height permitted in the locality.	Low	The selected height of the proposed building accounts for the streetscape matters described above. Further discussion is provided within Section 6.4.9.
Infrastructure and Servicing	Impacts on capacity of local infrastructure to accommodate the development.	Low	Existing services are to be augmented as described within Section 7.2.
	Availability of services to the development.	Low	Necessary existing services are currently already available to the site. NBN is to be provided in the near future.
Traffic and Parking	Increase in construction traffic on surrounding roads.	Low	A Construction Traffic and Parking Management Plan is contained within the Traffic and Parking Assessment Report, and this has partly informed the Preliminary Construction Management Plan (**Appendix X**).
	Increased queuing at surrounding intersections.	Moderate	The Traffic and Parking Assessment Report concludes that existing queuing to the east will not be unduly exacerbated by the development, with the majority of school-related traffic originating from the west.
	Reduction in the availability of on-street parking on surrounding roads during operation.	Low	A new carpark is provided within the school and it is not expected that the development would create undue impacts on the availability of on-street parking.
	Impacts on pedestrian safety.	High	An assessment of the safety of pedestrian walking routes has been conducted within the Traffic and Parking Assessment Report and this indicates that the existing pedestrian environment is appropriate to safely accommodate the expected pedestrian traffic.
	Impacts on opportunities for sustainable transport.	Low	A Green and Workplace Travel Plan is contained within the Traffic and Parking Assessment Report to encourage sustainable transport choices.
Sydney Airport Operations	Interference with Sydney Airport Operations.	High	The maximum level of the building, whilst penetrating the maximum height limit contained within the *Commonwealth Civil Aviation Buildings Control Regulations 1988*, will sit to a height that is commensurate with surrounding buildings, and would therefore not be expected to interfere with airport operations.
Aircraft Noise	Noise impacts on quality of education experience.	Moderate	The acoustic report contained within **Appendix EE** outlines measures to be incorporated within the design to reduce internal noise to an acceptable level.
Landscaping**Error! Bookmark not defined.**	Removal of existing on site and street vegetation.	Moderate	Where possible, replacement trees are provided throughout the development.
	Potential for trees to be damaged during the construction process.	Moderate	Tree protection measures are to be installed as per recommendation.

Environmental Risk Factor	Potential Impact	Risk	Mitigation Measure
	Potential changes to landscape character and landscaped amenity.	Low	Additionally, plantings are proposed to compensate for any changes to landscaping.
Solar Amenity, Overshadowing, Privacy and Views	Potential for privacy impacts to residential properties adjoining to the north-west.	Moderate	Suitable setbacks and screening are provided to prevent privacy impacts to residents located towards the north-west.
	Potential overshadowing of school play areas.	Moderate	The siting of the buildings optimises solar access to play areas.
	Daylight access associated affecting the quality of education spaces.	Moderate	Excellent solar access is provided throughout the learning building.
Stormwater Management and Flooding**Error! Bookmark not defined.**	Impacts of stormwater inundation and/or flooding on school operation.	High	The Stormwater Management Plan **(Appendix BB)** has provided recommended floor levels to avoid any risk associated with inundation from overland flow.
	Additional strain on the capacity of the local stormwater system.	Low	The Stormwater Management Plan **(Appendix BB) and** Stormwater Concept Plan (**Appendix Q**) has provided details of on-site detention and absorption tanks, which will minimise the additional strain on the stormwater system.
Contamination and Geotechnical**Error! Bookmark not defined.**	Harm associated with contaminants currently located on site.	High	A remediation action plan (**Appendix AA)** has been provided to outline how contaminants are able to be removed from the site.
	Structural integrity of building affected by geotechnical or chemical hazards.	High	Geotechnical constraints have been accounted for within the design. Refer to **Appendix I**.
Safety and Security**Error! Bookmark not defined.**	Opportunities for crime associated with the design and operation of the development, either directly or indirectly.	High	An assessment of the CPTED principles discusses the design initiatives included to minimise the opportunities for the perpetration of crime and to deter potential offenders.
Impacts of Construction**Error! Bookmark not defined.**	Impacts on neighbourhood amenity associated with construction process.	Moderate	Measures for managing construction impacts are outlined within the Preliminary Construction Management Plan (**Appendix X**).
	Soil erosion and soil pollution within the public domain.	Moderate	A sedimentation and erosion control plan has been prepared to address potential impacts (**Appendix S**).
Ecologically Sustainable Development**Error! Bookmark not defined.**	Consumption of resources associated with the new school, both during construction and operation.	Moderate	Modern sustainability practices are to incorporated within the design of the building, to minimise the exploitation of resources during construction and operation, as outlined within Section 7.12.
Social Impacts**Error! Bookmark not defined.**	Impact on quality of education	High	The social impacts of the proposal are broadly positive as discussed within Section 7.13.
	Provision of access for those with special needs.	Moderate	An access report (**Appendix T**) has been submitted confirming that access will be available to those with special needs.

Environmental Risk Factor	Potential Impact	Risk	Mitigation Measure
Heritage**Error! Bookmark not defined.**	Discovery of items of archaeological significance during construction.	Low	Procedures outline within the Aboriginal Cultural Heritage Assessment are to be followed in the event any archaeological items discovered on site.
Hazards and Risk**Error! Bookmark not defined.**	Risks associated with the APA pipeline running through Sydney Airport.	Extreme	A Risk Assessment (**Appendix R**) was conducted to confirm that - although the potential consequence of a major accident evident places this impact within the extreme risk category, the likelihood of such an event is sufficiently low so as to manage that risk
Noise and Vibration**Error! Bookmark not defined.**	Noise and vibration disturbance during construction activities.	Moderate	Construction noise will require management from the contractors as outlined within the Acoustic Report (**Appendix EE**) and Preliminary Construction Management Plan (**Appendix X**).
	Disturbance to neighbourhood amenity during regular and out-of-hours operation.	Low	Acoustic fencing is to be provided to the north-western boundary to minimise impacts on the adjacent residences. It will not be possible to completely ameliorate noise impacts to the first floor of No.6 Beehag Street, given that a visually obtrusive structure will be required. However, native shrubs capable of growing to a height of up to 4m are to be located between the car park and the affected property.
Waste**Error! Bookmark not defined.**	Removal of construction waste and ongoing waste arrangements for the operation of the school.	Moderate	A Waste Management Plan has been prepared to demonstrate how was can be organised and disposed/recycled, with minimal interference on amenity or safety.
Lighting	Sleep disturbance associated with lighting within the development.	Moderate	New lighting will be designed to reduce spill into the surrounding sensitive receivers, in accordance with relevant Australian Standards.
	Energy consumption associated with school lighting.	Low	Lighting to be controlled by automated systems, in order to assist in reducing energy consumption.

Table 15 - Environmental risk assessment and mitigation measures

10.0 Conclusion

The NSW Department of Education proposes the redevelopment of Kyeemagh Public School at 30A Jacobson Avenue, Kyeemagh, which will see the capacity increase from the existing 42 students to 500, in association with the recent reclassification of the school from K-2 to K-6. The development will see the demolition of the existing facilities and construction of new school facilities comprising twenty-two (22) home bases, a library, administration building, and hall amongst other facilities.

This EIS has appropriately responded to the issues outlined in the SEARS (**Appendix A**) and is in accordance with the requirements specified within Schedule 2 of the Environmental Planning and Assessment Regulation 2000. It has been demonstrated throughout this EIS that the project is supportable with consideration of the relevant environmental planning instruments, built form, social, and environmental outcomes, and relevant policy documents.

Specifically, the proposal is considered to warrant approval for the following:

- The project provides for much needed investment in educational facilities in a locality which is experiencing sustained growth in its population of school aged children;
- The proposal has been developed in accordance with relevant state and regional planning policies and is consistent with the desired outcomes of these documents;
- The proposal has generally been prepared in accordance with the *Rockdale Local Environmental Plan 2011* and other relevant Council policies; and,
- The development achieves positive built form outcomes that enhance the visual amenity of the site whilst respecting the predominantly low-density residential nature of the surrounding area;
- The project provides for a significantly improved landscaped setting with a multitude of new trees, shrubs, and ground covers; and,
- The proposal will not have any adverse effects on the surrounding area with regards to noise, traffic, privacy, overshadowing nor other amenity issues.

With regard to the above, it is considered that the proposed Kyeemagh Public School redevelopment has merit and is in the public interest. Accordingly, is recommended that the Minister approve this application.