



planning consultants

Environmental Impact Statement

State Significant Development

Greystanes Public School

781 Merrylands Road, Greystanes



Prepared for: NSW Department of Education
March 2018

DECLARATION

ENVIRONMENTAL IMPACT STATEMENT

Applicant Name: Applicant Address: Land to be developed: Proposed development:	New South Wales Department of Education Level 4, 35 Bridge Street, Sydney NSW 2000 Lot 1, DP539019; Lot 1 DP 782352; and Lot 1 DP 76683 Alterations and additions to Greystanes Public School as detailed in Section 4 of this Environmental Impact Statement.
ENVIRONMENTAL IMPACT STATEMENT	This report is an Environmental Impact Statement which addresses all relevant matters required by Section 78A(8A) of the <i>Environmental Planning and Assessment Act 1979</i> and Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i> .
DECLARATION	The undersigned certify that we have prepared the contents of this Environmental Impact Statement and to the best of our knowledge it: - addresses all relevant matters listed under Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>; - contains all available information that is relevant to the environmental assessment of the development to which the EIS relates; and - is not, by its presentation or omission of information, false nor misleading.
PREPARED BY Name: Qualifications: Address: Signature: Date:	Stephen Earp B. Planning (Hons) MPIA 11 Dartford Road, Thornleigh NSW 2120  23 March 2018

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Abbreviations

AADT	annual average daily vehicle trips
AEP	Annual Exceedance Probability
AHIP	Aboriginal Heritage Impact Permit
AIA	aquifer interference approval
AS	Australian Standard
ASS	acid sulfate soils
BCA	Building Code of Australia
CAA	controlled activity approval
CC	construction certificate
CIV	capital investment value
CMP	construction management plan
COLA	covered outdoor learning area
Council	Cumberland Council
CPTED	crime prevention through environmental design
DA	development application
DBYD	Dial Before You Dig
DCP	development control plan
DDA	<i>Disability Discrimination Act 1992 (Cth)</i>
DFP	DFP Planning Pty Limited
DoT	NSW Department of Transport
DP	Deposited Plan
DPE	NSW Department of Planning and Environment
EEC	endangered ecological community
EIS	Environmental Impact Statement
EMP	environmental management plan
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPA	NSW Environmental Protection Authority
EPBC	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
EPI	environmental planning instrument
ESCP	erosion and sedimentation control plan
ESD	ecologically sustainable development
FTE	full time equivalent
GFA	gross floor area
ILP	Indicative Layout Plan
JRPP	Joint Regional Planning Panel
LEP	local environmental plan
LGA	local government area
NDA	net developable area
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NPWS	NSW National Parks and Wildlife Service
OEH	NSW Office of Environment and Heritage
PA	planning agreement
PAD	potential archaeological deposit
PRG	project reference group
RAP	remedial action plan
REP	regional environmental plan
RL	reduced level
RMS	NSW Roads and Maritime Services
RTA	former Roads and Traffic Authority of NSW

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Abbreviations

SEPP	state environmental planning policy
SEARs	Secretary's Environmental Assessment Requirements
SIC	special infrastructure contribution
SIS	species impact statement
SRD SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>
SSD	State Significant Development
TSC Act	<i>Threatened Species Conservation Act 1995</i>
UGNSW	UrbanGrowth NSW
VENM	Virgin Excavated Natural Material
VMP	vegetation management plan
WELS	water efficiency labelling scheme
WM Act	<i>Water Management Act 2000</i>
WSUD	water sensitive urban design

Executive Summary

The NSW Department of Education proposes alterations and additions to Greystanes Public School at 781 Merrylands Road, Greystanes. The Site is located within the Cumberland Local Government Area and has a total area of 29,680m². The surrounding area is under redevelopment for a mixture of retail, commercial, community, mixed use and residential land uses.

The proposed development comprises the following:

- Site preparation works including:
 - Relocation of the existing demountable buildings to the western part of the site for the construction period;
 - Demolition works including demolition of two (2) COLAs, demolition of Blocks G, H and I, removal of 12 car parking spaces, and demolition of associated areas of landscaping, water tanks and pathways;
 - Internal demolition works to Block A to facilitate refurbishment;
 - Removal of 28 trees; and
 - Excavation works to accommodate the new buildings (approximate total of 1,820m³ of excavated material).

- Construction of new facilities including:
 - Construction of a new part two (2) part three (3) storey classroom building comprising two (2) attached structures, a ground level undercroft and twenty-four (24) new permanent classrooms, including:

Ground Level

- Six (6) home-base classrooms with three (3) associated withdrawal rooms, three (3) practical activity areas and two (2) balconies;
- Store room, amenities and space for internal movement;
- Vertical circulation including multiple sets of stairs and a lift;
- Toilet facilities, garden store room, cleaners room and communications room;
- New stairs linking to existing sports court; and
- New covered walkway/ramp linking to existing facilities to the west.

First Floor

- Twelve (12) home-base classrooms with six (6) associated withdrawal rooms, six (6) practical activity areas and two (2) balconies;
- Store room, amenities and space for internal movement, including elevated walkway linking the two buildings; and
- Vertical circulation including multiple sets of stairs and a lift.

Second Floor

- Six (6) home-base classrooms with three (3) associated withdrawal rooms, three (3) practical activity areas and two (2) balconies;
- Store room, amenities and space for internal movement; and
- Vertical circulation including multiple sets of stairs and a lift.
- Construction of a new single storey staff/admin building, including:
 - Separate visitor and student foyers, staff room, offices, sick bay, store rooms, interview rooms, printing room and toilet facilities.
- Construction of a new COLA adjacent to the new administration building;

Executive Summary

- Refurbishment of Block A as a multipurpose space with accessible bathroom facilities; and
- Associated landscaping works, including planting of 19 new trees, construction of new pathways, tiered seating and grassed areas.

The proposal has a capital investment value exceeding \$20 million and therefore must be assessed as State Significant Development, pursuant to *State Environmental Planning Policy (State and Regional Development) 2011*.

This Environmental Impact Statement report 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*. This report provides the NSW Department of Planning and Environment and relevant NSW State Government Agencies with all relevant information necessary to assess the proposed development and for the Minister to determine the DA in accordance with Section 89E of the *Environmental Planning and Assessment Act 1979*.

The project team has carried out consultation with a wide range of stakeholders, including State government departments, local government, community and experts in the design of schools. The advice received throughout the consultation process has been incorporated into the current proposal where possible and reflects a commitment to achieve a quality and objective-driven outcome.

In response to the opportunities and constraints of the Site, the requirements of the Educational Facilities Standards and Guidelines (EFSG) and the design requirements of the NSW Department of Education, the proposal has been designed to meet the current and future education demands for residents of Greystanes. The development will provide expanded, high quality, public education facilities with flexible layout arrangements and durable finishes that will ensure the proposal operates as a long-life, high utility and low-maintenance educational establishment.

The proposed development will involve built form up to three (3) storeys in height, given the natural topography of the Site, a proportion of the proposed development will exceed the maximum building height control under *Holroyd Local Environment Plan* of 9m by up to 3.1m. Assessment of the proposed variation to the building height development standard concludes that the proposal is justified in planning terms and that the requirement to comply with the building height development standard would be unreasonable and unnecessary in the circumstances. Accordingly, the proposed building height variations are considered supportable.

The proposal requires the removal of part of the staff car park, meaning a reduction in the provision of parking spaces from 30 spaces to 18 spaces. This parking supply is supported by sustainable transport alternatives including access to public bus services and bicycle parking facilities. Traffic impacts of the proposal are expected to be negligible.

The proposal achieves acceptable environmental amenity outcomes, including desirable outcomes for biodiversity, acoustic amenity (both internal and external to the Site), stormwater drainage, flooding and waste management. Furthermore, the proposal will incorporate environmentally sustainable development initiatives considered to be best practice within the Australian building industry.

The works proposed under this development application will be subject to the recommendations of specialist reports so as to ensure appropriate geotechnical, contamination and salinity outcomes are achieved.

The proposed works have been designed to, and will be carried out in the interests of the public. The Development Application will meet the project objectives to provide primary school accommodation in a high quality built form which has safe and efficient access for children, teachers, visitors and service personnel.

Accordingly, it is recommended that the Minister for Planning and Environment grant approval to the proposed State Significant Development application as set out in this report.

1 Introduction

1.1 Purpose of this Report

DFP Planning Pty Ltd (DFP) has been commissioned by JDH Architects, acting on instructions from the NSW Department of Education, to prepare an Environmental Impact Statement (EIS) to accompany a development application (DA) to the NSW Department of Planning and Environment (DPE) for the proposed alterations and additions at Greystanes Public School at 781 Merrylands Road, Greystanes (the Site).

The proposed development is for an educational establishment with a Capital Investment Value (CIV) of more than \$20 million and accordingly, is deemed to be State Significant Development (SSD) pursuant to Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (the SRD SEPP).

On 20 October 2017, the Secretary of the DPE issued Secretary's Environmental Assessment Requirements (SEARs), which were then reissued on 22 November 2017 (see **Section 1.4** and **Appendix 1**).

This report has been prepared in accordance with the SEARs, Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (the Regulation) to provide the DPE and relevant NSW State Government Agencies with all relevant information necessary to assess the proposed development and for the Minister to determine the DA in accordance with Section 89E of the EP&A Act.

Pursuant to Section 88 and 89 of the EP&A Act, and Clause 226(1) of the EP&A Regulations the proposed development is a Crown Development. Therefore, the Consent Authority cannot refuse the application without the approval of the Minister, nor can the consent authority impose conditions of consent with the applicant's, or the Minister's, agreement.

1.2 Project Objectives and Summary

Greystanes Public School was established in 1902 and has grown in enrolments to 713 students and 42 staff as the population in the surrounding suburbs has increased. To accommodate the growth in student enrolments in recent years, the School has been required to provide a large number of demountable classrooms.

Forecasting for Greystanes Public School identifies that it will need to support an increase of 184 students (to a total of 897 students) and 8 staff (to a total of 50 staff).

The NSW Department of Education proposes to provide replacement/additional permanent classrooms and improved administration facilities to cater for the increased student population. The proposed development is intended to be completed in 2020.

The Project Objectives are as follows:

- To remove temporary teaching accommodation;
- To provide additional permanent teaching accommodation to meet current and future requirements;
- To provide improved administration facilities;
- To provide high quality built form and open spaces that are adaptable and flexible to cater for future educational needs;
- To provide safe and efficient access for children, teachers, parents, visitors and service personnel.

The Project is detailed in **Section 4** of this EIS report and can be summarised as follows:

- Site preparation works including:
 - Relocate existing demountable buildings for use during construction and relocate water tanks, demolish two (2) COLAs and Blocks G, H and I,

1 Introduction

- remove 12 car parking spaces, demolish associated areas of landscaping, pathways, and internal demolition to Block A;
 - Removal of 28 trees;
 - Excavation works to accommodate new buildings.
- Construction of new facilities, including:
 - New single level staff/ administration building;
 - New COLA;
 - New 2/3 storey educational facility comprising a range of learning spaces and associated facilities;
- Internal alterations to Block A; and
- Associated landscaping works, including planting of 19 new trees along with a range of shrubs, clumping plants and ground covers.

1.3 Analysis of Feasible Alternatives

1.3.1 Option 1 – The Proposal

Option 1 is as detailed within this EIS Report and accompanying documents and is considered to be the best option as it utilises land that is already owned and operated by the NSW Department of Education, will replace temporary learning spaces with permanent learning spaces, and will provide high quality educational facilities to meet the growing demands of the residential population in Greystanes and surrounds without reducing open/play space or resulting in significant adverse environmental impacts.

1.3.2 Option 2 – Alternate Design

Option 2 would entail an alternate design and layout. Design analysis of the Site was informed by a number of factors, including:

- Existing campus layout (and connectivity to these facilities);
- Topography of the Site and the functionality of play areas and facilities at different levels of the Site;
- Boundaries with residential land uses to the north, east and west;
- Primary road frontage to Merrylands Road in the south; and
- The protection of existing open space/play areas.

Once these design parameters were taken into consideration, alternate designs/layouts for the Site are relatively limited given they will need to provide direct connectivity to existing school facilities, promote a functional campus layout, avoid unnecessary impacts on neighbouring properties and promote entry of the Site from Merrylands Road.

Alternate designs/layouts would need to be led by the same project objectives, and achieve the same outcomes (i.e. supply of classrooms and administration facilities to cater for increased student and staff numbers), meaning a significant change in building footprints is required and this in turn impacts the cost-effectiveness of the project.

Alternative designs have been considered as part of the design development stages, leading out of the design analysis phase but ultimately were considered to not efficiently utilise the layout and access connections of the Site, resulting in an inferior urban design and learning outcome to Option 1. Options considered with greater emphasis to the frontage to Merrylands Road were found to have a significant impact on the amenity of surrounding residences.

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1.3.3 Option 3 – Alternate Site

Option 3 would entail accommodating the forecast growth on an alternate Site, or acquiring adjacent or an alternate parcel of land within the catchment for a new primary school. The increased student and staff numbers being catered for in this DA are based on forecasting within regions, precincts and catchments carried out by the Department of Education.

It would not be possible to meet the forecast educational needs of the population within the surrounding catchment if the proposed teaching accommodations were provided on an alternative Site, as the surrounding catchments of Greystanes Public School, Beresford Road Public School, Ringrose Public School, Widemere Public School, Wentworthville Public School, Pendle Hill Public School and Sherwood Grange Public School all cater for different populations with different forecasts.

Therefore, relocating or duplicating school facilities outside of the Greystanes catchment to meet the forecast educational needs of the population within the Greystanes would have adverse impact on the enrolments and performance of those surrounding catchments.

Acquisition of an alternate parcel of land for a new school within the catchment would introduce considerable delays in the delivery of education facilities for the surrounding residents resulting from the acquisition of an alternative Site (if one is available) and increased costs through the sale/purchase process.

The development of an alternative Site in the hope that it would provide a superior outcome to the current design is not warranted as a valid option.

1.4 Response to SEARs

Table 1 provides a summary of where a response to the SEARs (reissued on 22 November 2017) can be found within this EIS report or accompanying documentation.

Table 1 Location of Response to SEARs within this EIS		
Requirement	Response within this Report	Relevant Supporting Documentation
General Requirements The Environmental Impact Statement (EIS) must be prepared in accordance with, and meet the minimum requirements of clauses 6 and 7 of Schedule 2 the Environmental Planning and Assessment Regulation 2000 (the Regulation). Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development.	-	-
Where relevant, the assessment of the key issues below, and any other significant issues identified in the risk assessment, must include: - adequate baseline data; - consideration of potential cumulative impacts due to other development in the vicinity (completed, underway or proposed); and - measures to avoid, minimise and if necessary, offset the predicted impacts, including detailed contingency plans for managing any significant risks to the environment.	Section 8	Appendix 13 and Appendix 14
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.	Section 6.3.1	To be submitted under separate cover.

1 Introduction

Table 1 Location of Response to SEARs within this EIS

Requirement	Response within this Report	Relevant Supporting Documentation
Key Issues The EIS must address the following specific matters: 1. Statutory and Strategic Context – including: Address the statutory provisions contained in all relevant environmental planning instruments, including: • <i>State Environmental Planning Policy (State & Regional Development) 2011;</i> • <i>State Environmental Planning Policy (Infrastructure) 2007;</i> • <i>State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017</i> • <i>State Environmental Planning Policy No.55 – Remediation of Land;</i> • <i>State Environmental Planning Policy No. 64 – Advertising and Signage; and</i> • <i>Holroyd Local Environmental Plan 2013.</i> Permissibility Detail the nature and extent of any prohibitions that apply to the development. Development Standards Identify compliance with the development standards applying to the Site and provide justification for any contravention of the development standards.	Section 6.3	Multiple Appendices
2. Policies Address the relevant planning provisions, goals and strategic planning objectives in the following: • NSW State Priorities; • A Plan for Growing Sydney; • NSW Long Term Transport Master Plan 2012; • Sydney's Cycling Future 2013; • Sydney's Walking Future 2013; • Sydney's Bus Future 2013; • Crime Prevention Through Environmental Design (CPTED) Principles; • Healthy Urban Development Checklist, NSW Health; • Greater Sydney Commission's Draft South West District Plan; and • Holroyd Development Control Plan 2013.	Section 6.4	N/A
3. Operation • Provide details of the existing and proposed school operations, including staff and student numbers (for existing; staff and student numbers with and without demountable classrooms), school hours of operation, and operational details of any 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 and increase in student and staff capacity; and • Where relevant, detail how Greystanes Public School will continue to operation during construction activities, including proposed mitigation measures.		
4. Built Form and Urban Design • Address the height, density, bulk and scale, setbacks of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces. • Address design quality, with specific consideration of the overall Site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials, colours, Crime Prevention Through Environmental Design Principles; • Provide details of any digital signage boards, including size, location and finishes; • Demonstrate in consultation with and to the satisfaction of the Government Architect NSW that design excellence will be achieved in accordance with Schedule 4 Schools – design quality	Section 6.5.1	Appendix 6, Appendix 7, Appendix 10 and Appendix 13

1 Introduction

Table 1 Location of Response to SEARs within this EIS

Requirement	Response within this Report	Relevant Supporting Documentation
principles of <i>State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017</i>. Detail how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.		
5. Environmental Amenity - Detail amenity impacts including solar access, acoustic impacts, visual privacy, view loss, overshadowing and wind impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated. - 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.	Section 6.5.2	Multiple Appendices
6. Transport and Accessibility (Construction and Operation) Include a transport and accessibility impact assessment, which details, but not limited to the following: - accurate details of the current daily and peak hour vehicle, public transport, pedestrian and cycle movement and existing traffic and transport facilities provided on the road network located adjacent to the proposed development; - an assessment of the operation of existing and future transport networks including the bus network and their ability to accommodate the forecast number of trips to and from the 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 public transport, pedestrian and bicycle networks and infrastructure to meet the likely future demand of the proposed development; - the impact of the proposed development on existing and future public transport infrastructure within the vicinity of the Site in consultation with Roads and Maritime Services and Transport for NSW and identify measures to integrate the development with the transport network; - 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 with Merrylands Road at Cumberland Road, Greystanes Road, Bromwich Street, Taylor Street and Kippax Street; - 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 and the provision of facilities to increase the non-car mode share for travel to and from the Site; - 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 upgrading or road improvement works, if required. Traffic modelling is to be undertaken using, but not limited to, SIDRA network modelling for current and future years; - the proposed walking and cycling access arrangements and connections to public transport services; - details of any proposed school bus routes along bus capable roads (i.e. travel lanes of 3.5 m minimum) and infrastructure (bus stops, bus layovers etc.); - the proposed access arrangements, including car and bus pickup/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; - measures to maintain road and personal safety in line with CPTED principles;	Section 6.5.4	Appendix 13

1 Introduction

Table 1 Location of Response to SEARs within this EIS

Requirement	Response within this Report	Relevant Supporting Documentation
- 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 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 existing and proposed development; - details of emergency vehicle access arrangements; - an assessment of road and pedestrian safety adjacent to the proposed development and the details of required road safety measures; - service vehicle access, delivery and loading arrangements and estimated service vehicle movements (including vehicle type and the likely arrival and departure times); - in relation to construction traffic: - 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; - details of on-Site car parking and access arrangements of construction vehicles, construction workers to and from the Site, emergency vehicles and service vehicles; - details of temporary cycling and pedestrian access during construction; - traffic and transport impacts during construction, including cumulative impacts associated with other construction activities, and how these impacts will be mitigated for any associated traffic, pedestrian, cyclists, parking and public transport, including the preparation of a draft Construction Traffic Management Plan to demonstrate the proposed management of the impact. → Relevant Policies and Guidelines: <i>Guide to Traffic Generating Developments (Roads and Maritime Services)</i> <i>EIS Guidelines – Road and Related Facilities (DoPI)</i> <i>Cycling Aspects of Austroads Guides</i> <i>NSW Planning Guidelines for Walking and Cycling</i> <i>Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development</i> <i>Standards Australia AS2890.3 (Bicycle Parking Facilities)</i>		
7. Ecologically Sustainable Development (ESD) - Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000) will be incorporated in the design and ongoing operation phases of the development. - Demonstrate that the development has been assessed against a suitably accredited rating scheme to meet industry best practice. - Include a description of the measures that would be implemented to minimise consumption of resources, water (including water sensitive urban design) and energy.	Section 6.5.5	Appendix 18
8. Social Impacts Include an assessment of the social consequences of the schools' relative location and decanting activities if proposed.	Section 6.5.6	N/A
9. Noise and Vibration	Section 6.5.7	Appendix 14

1 Introduction

Table 1 Location of Response to SEARs within this EIS

Requirement	Response within this Report	Relevant Supporting Documentation
Identify and provide a quantitative assessment of the main noise and vibration generating sources during demolition, Site preparation, bulk excavation, construction and operation, including consideration of any public address system, school bell, use of any school hall for concerts etc. (both during and outside school hours), time restrictions on waste collection services, mechanical services (e.g. air conditioning plan) and the use of any school facilities by the community outside of school hours, and outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land. → Relevant Policies and Guidelines: • <i>NSW Industrial Noise Policy (EPA)</i> • <i>Interim Construction Noise Guideline (DECC)</i> • <i>Assessing Vibration: A Technical Guideline 2006</i> • <i>Development Near Rail Corridors and Busy Roads – Interim Guideline (Department of Planning 2008)</i>		
10. Sediment, Erosion and Dust controls (Construction and Excavation) Detail measures and procedures to minimise and manage the generation and off-Site transmission of sediment, dust and fine particles. → Relevant Policies and Guidelines: • <i>Managing Urban Stormwater – Soils & Construction Volume 1 2004 (Landcom)</i> • <i>Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)</i> • <i>Guidelines for development adjoining land and water managed by DECCW (OEH, 2013)</i>	Section 6.5.8.1	Appendix 12
11. 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. • Undertake a hazardous materials survey of all existing structures and infrastructure prior to any demolition or Site preparation works; • Describe mitigation and management options that will be used to prevent, control, abate or minimise identified environmental impacts associated with the project and to reduce risks to human health and prevent the degradation of the environment; • Include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented. → Relevant Policies and Guidelines: • <i>Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP)</i>	Sections 6.3.4 and 6.6.1	Appendix 5
12. Utilities • Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation requirements of the development for the provision of utilities including staging of infrastructure. • 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.	Section 6.6.2	Appendix 11 and Appendix 19
13. Contributions Address Council's Section 94A Contribution Plan and/or details of any Voluntary Planning Agreement, which may be required to be amended because of the proposed development	Section 6.4.3.1	N/A
14. Drainage • Detail drainage associated with the proposal, including stormwater, drainage infrastructure and water quality impacts on Orphan School Creek. • Detail measures to minimise operational water quality impacts on surface waters and groundwater.	Section 6.5.8	Appendix 11 and Appendix 12

1 Introduction

Table 1 Location of Response to SEARs within this EIS

Requirement	Response within this Report	Relevant Supporting Documentation
→ Relevant Policies and Guidelines: <i>Guidelines for development adjoining land and water managed by DECCW (OEH, 2013)</i>		
15. Flooding - Assess any 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. - Ensure that finished floor levels are set equal to or above the Probable Maximum Flood (PMF)	Section 4.11	Appendix 11
16. 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.	Section 6.5.9	Appendix 21
17. 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.	Section 4.16	Appendix 20
18. Biodiversity Biodiversity impacts related to the proposal and the preparation of a Biodiversity Assessment are to be addressed in accordance with the requirements of the Biodiversity Conservation Act 2016.	Section 7.3.1	Appendix 9
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 (dimensioned and including RLs); - Perspective drawings; - Site Survey Plan, showing existing levels, location and height of existing and adjacent structures / buildings and boundaries; - Site Analysis Plan; - Stormwater Concept Plan; - Sediment and Erosion Control Plan; - Shadow Diagrams; - View Analysis / Photomontages including from public vantage points; - Landscape Plan (identifying any trees to be removed and trees to be retained or transplanted); - Noise and Vibration Impact Assessment Report; - 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; - Geotechnical and Structural Report; - Accessibility Report; - Arborist Report;	Section 4 Section 3.2 Section 4.3 Section 4.8 Section 4.8.2 Section 6.4.2 Section 6.4.1 Section 4.9 Section 6.5.7 Section 6.4.2 Section 6.6.1 and Section 4.7 Section 6.6.3 Section 6.5.3	Appendix 6 and Appendix 7 Appendix 2 Appendix 6 Appendix 12 Appendix 12 Appendix 6 Appendix 6 Appendix 10 Appendix 14 Appendix 20 Appendix 4 and Appendix 15 Appendix 17 Appendix 8

1 Introduction

Table 1 Location of Response to SEARs within this EIS

Requirement	Response within this Report	Relevant Supporting Documentation
- Salinity Investigation Report (if required); - Acid Sulphate Soils Management Plan (if required); and - Schedule of materials and finishes.	Section 6.6.1 Section 6.6.1 Section 4	Appendix 5 N/A Appendix 6 and Appendix 7
Consultation During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with: - Cumberland Council; - Government Architect NSW; - Sydney Water; - Transport for NSW; and - Roads and Maritime Services. Consultation with TfNSW and RMS should commence as soon as practicable to agree the scope of investigation. The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.	Section 5	N/A
Further Consultation after 2 Years If you do not lodge a development application and EIS for the development within two years of the issue date of these SEARs, you must consult further with the Secretary in relation to the preparation of the EIS.	N/A	N/A
References The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified.	See Above	See Above

2 Background

Greystanes Public School¹ started taking enrolments on 20 January 1902 with an initial enrolment of 9 students. The Site, its enrolments and its buildings have grown since that time, required to meet the growing demand for education in the locality. Following additional land acquisition in 1970, additional facilities were constructed and student enrolments grew by 230% over 4 years. Student enrolments achieved a peak of 819 students in 28 classes between 1979 and 1980, however the aging population within the Greystanes locality over the 80's and 90's saw a steady drop in enrolments from this peak.

The population demographic continued to shift throughout the 90's and early 2000's, which saw an increase in student enrolments again. Between 2000 and 2010, Greystanes Public School received a number of Federal Government grants to construct new facilities, including a new covered outdoor learning area (COLA) (2005), fixed play equipment (2006), multipurpose court (2008), COLA and associated covered walkways (2009), and a new school hall (2010).

A comparison of aerial imagery between 1943 and 2016 is provided at **Figure 1**.

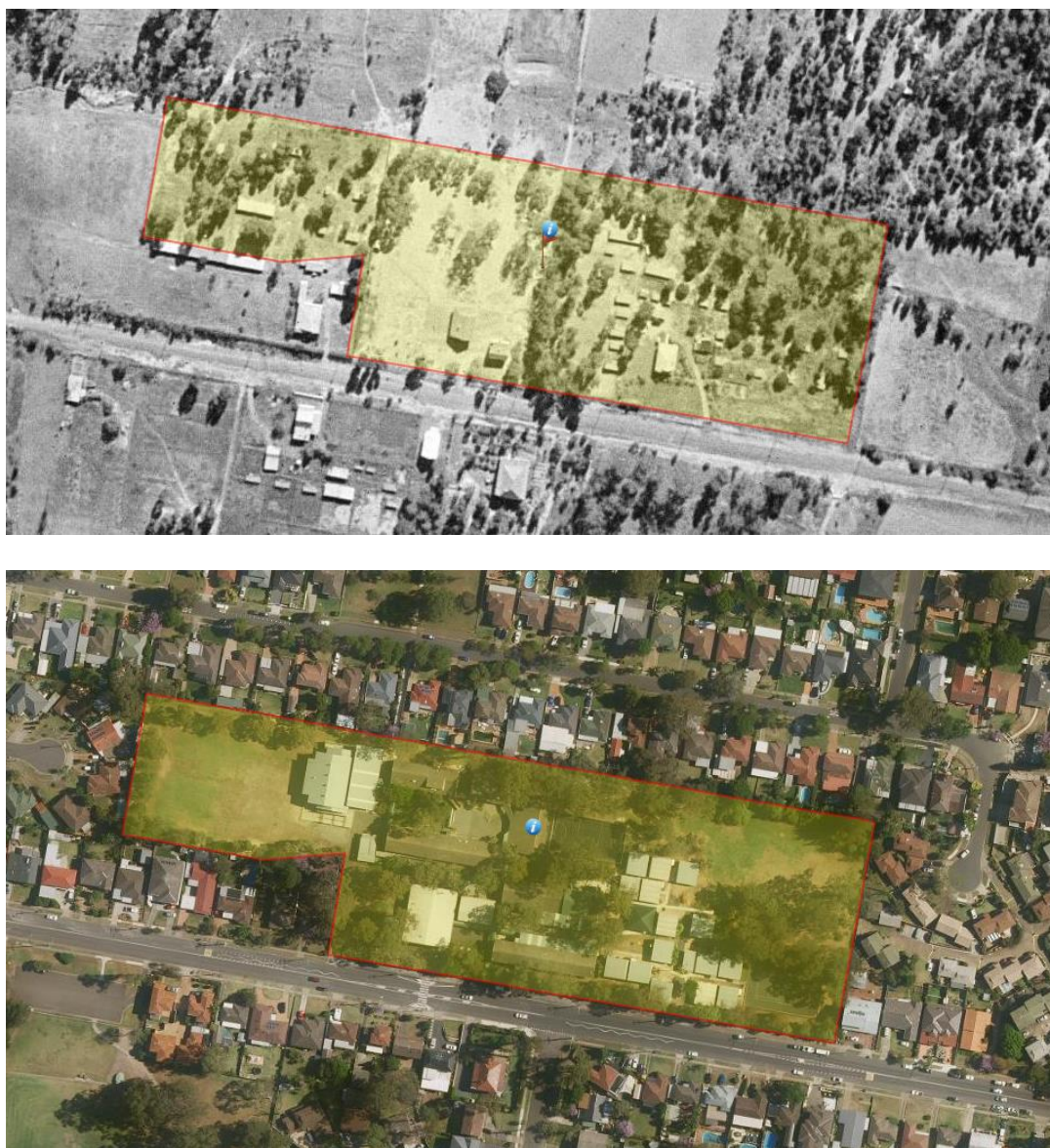


Figure 1 Comparison of aerial imagery between 1943 (top) and 2016 (bottom) (SixMaps)

¹ Refer: <http://www.greystanes-p.schools.nsw.edu.au/school-history>

3 Site Context

3.1 Location

The Site is located approximately 4km west of the Merrylands town centre and Railway Station, within the Cumberland Council (Council) (formerly Holroyd City Council) Local Government Area (LGA) (see **Figure 2**).

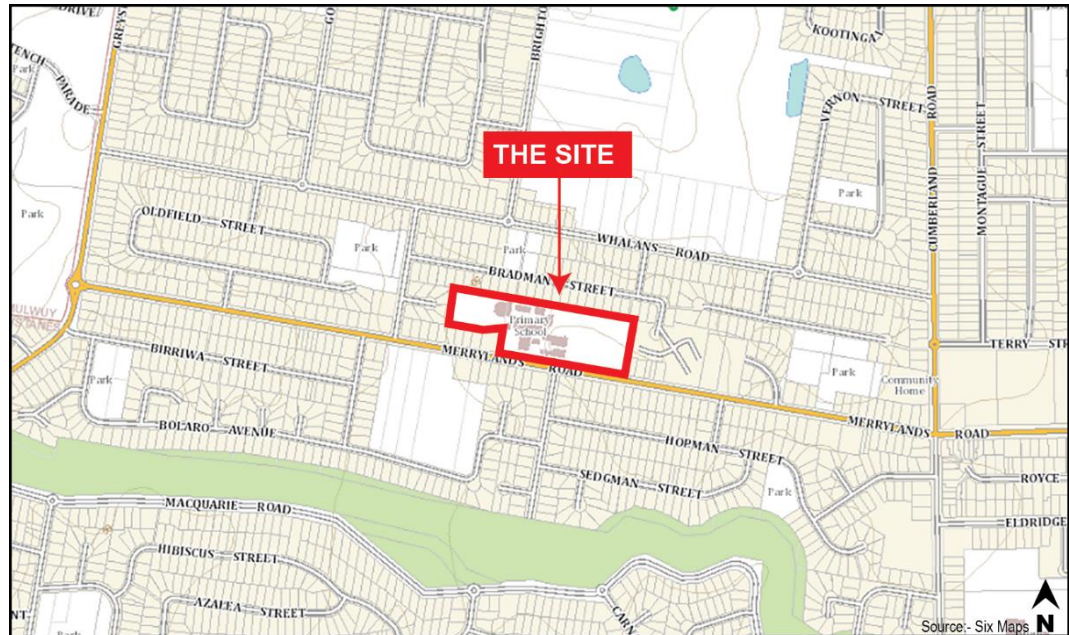


Figure 2 Site Location

3.2 Site Description

The Site is positioned on Merrylands Road (see **Figure 3**), and is known as 781 Merrylands Road, Greystanes NSW 2145. The Site comprises three (3) allotments which are legally described as follows:

- Lot 1 in DP 539019;
- Lot 1 in DP 782352; and
- Lot 1 in DP 76683.

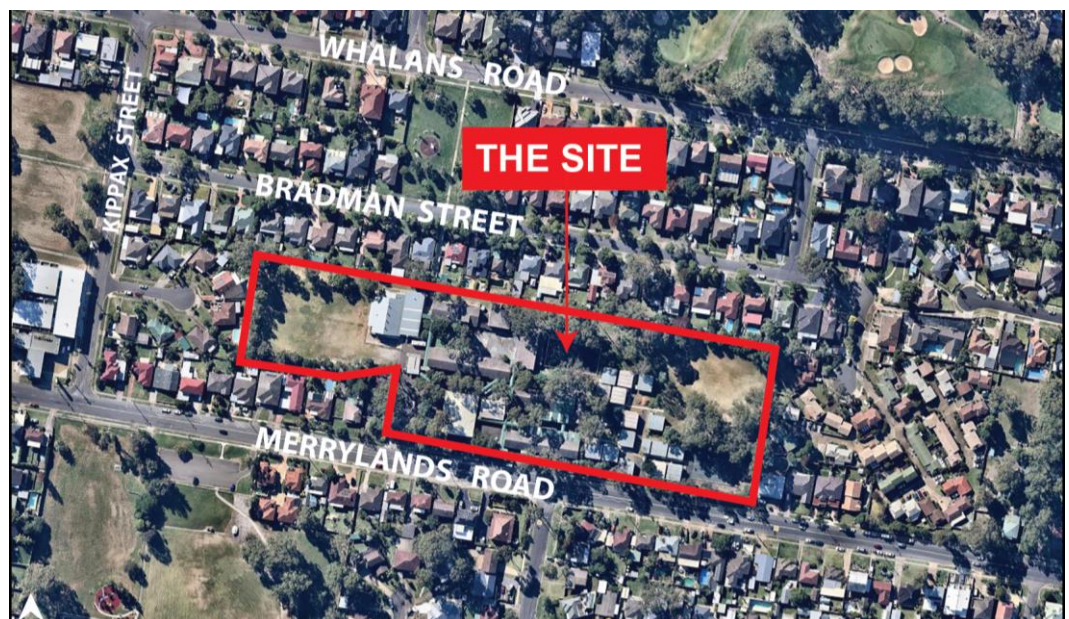


Figure 3 Site Context

3 Site Context

The Site has only one frontage which is to Merrylands Road (231 metres), and is irregular in shape as a result of its historical expansion with the longest dimension of length being approximately 333 metres and a depth of approximately 100 meters. The Site has an area of 2.968ha (29,680m²) – additional topographic detail of the Site is provided in the Survey Plan (**Appendix 2**).

A Geotechnical Investigation of the Site has been prepared by JK Geotechnics (**Appendix 4**) which found the Site the lie within undulating topography with slope ranging from 3° to 5°, comprising cut and fill operations creating an embankment with a fall of up to 20°. The site is underlain by Bringelly Shale of the Wianamatta Group, and the subsurface profile comprises shallow to moderate depths of fill (comprising clayey and/or sandy soils) overlying residual silty clays with weathered shale bedrock at moderate depths.

The main vehicular access point is located along the western boundary of the frontage to Merrylands Road which gives access to a staff and visitor car parking areas comprising a total of 30 car parking spaces. A second vehicular access point (service entry) is located closer to the eastern boundary along the Merrylands Road frontage. This entry has been predominantly used for the delivery of demountable buildings.

A student pedestrian access point is located mid-way along the Merrylands Road frontage, with the main access point slightly west of this. A third pedestrian access runs from Bradman Street to the north of the Site via a 35m long pathway, this pathway also connects through to Whalans Road further north through Bradman Street Park.

The Site contains numerous buildings that have been constructed at various stages over the past Century, including classrooms, administration facilities, performance facilities, multi-purpose hall and recreation facilities (refer **Section 2**). School buildings are generally concentrated in the central area of the Site. Sixteen (16) demountable classroom buildings are located to the east of the main school buildings (erected to accommodate a growing population). Two large grass sports fields are located in the north-eastern and north-western portion of the Site. The Site also comprises two (2) sports courts, one situated in the central portion and the other in the south-eastern corner of the Site.

Photos of the Site are provided in the Photo Sheets at **Appendix 3**.

3.3 Surrounding Development

To the north, east and west the Site adjoins one and two-storey residential development which generally fronts onto Kippax Street and Bradman Street (see **Figures 2 & 3**). Greystanes Sportsground is located on the southern side of Merrylands Road opposite the Site, which includes a parking area with access from Merrylands Road which is used for drop-off and pick-up movements. Cumberland Country Golf Club is located to the north of the Site beyond Walans Road and the Lower Prospect Canal Reserve is located 290m south of the school.

3.4 Surrounding Transport Network

The Site's only direct road frontage is with Merrylands Road, which is a classified regional road. However, informal drop off/ pick up of pupils also occurs to the rear of the Site on Bradman Street, which is accessed via walkways between residential properties. Merrylands Road provides access both east and west of the site including linkage to the M4 Motorway to the north, Parramatta to the north-west and residential areas of Fairfield to the south-west.

The Site is located approximately 4km from Pendle Hill train station. Local bus services connect with the Site providing services to Pemulwuy, Paramatta and Merrylands, and school buses provide an efficient service throughout the surrounding catchment and connecting with Merrylands Train Station (am and pm) and Paramatta Train Station (pm only), with three (3) dedicated bus services in the morning peak and four (4) dedicated buses in the afternoon peak.

3 Site Context

ARUP has provided a detailed analysis of the surrounding transport network within the Traffic and Transport Assessment (**Appendix 13**) including analysis of road classifications, public transport, pedestrian access, staff parking and accessibility. The Assessment identified (from the Bureau of Transport Statistics) that the Greystanes travel zone catchment has a transport mode share that is approximately 77% private vehicle usage and 11% public transport utilisation, resulting from the distance from the railway network to the north (generally travelled by private transport rather than public transport).

The traffic volume data obtained by ARUP for this assessment has provided the following results, used to understand the traffic distribution around the study area:

- 52% of traffic arrives from the west and 48% from the east of the Site;
- Of the traffic from the west, 64% utilises Kippax Street and 34% utilises Taylor Street, while 0% utilises Bromwich Street;
- Of the traffic from the east, 59% utilises Kippax Street, 39% utilises Taylor Street and 2% utilises Bromwich Street.

The Site and surrounds are serviced by a series of public bus services running along Merrylands Road, Kippax Street and Taylor Street. In general, the three main bus services run at least one (1) bus in each direction during the morning peak hours. In addition, up to five (5) dedicated school buses service Greystanes Public School, including services from Merrylands Station and throughout the surrounding suburbs.

4 Project Description

4.1 Project Summary

The proposal involves alterations and additions to the existing school facilities to accommodate an increase of 184 students (to a total of 897 students) and 8 staff (to a total of 50 staff), through the removal of 16 demountable classrooms and construction of 24 new home-base classrooms (net gain of 8 classroom spaces), as well as the construction of new administration facilities and refurbishment of other school facilities.

The proposed development comprises:

- Site preparation works including:
 - Relocation of the existing demountable buildings to the western part of the site for the construction period;
 - Demolition works including demolition of two (2) COLAs, demolition of Blocks G, H and I, removal of 12 car parking spaces, and demolition of associated areas of landscaping, water tanks and pathways;
 - Internal demolition works to Block A to facilitate refurbishment;
 - Removal of 28 trees; and
 - Excavation works to accommodate the new buildings (approximate total of 1,820m³ of excavated material).
- Construction of new facilities including:
 - Construction of a new part two (2) part three (3) storey classroom building comprising two (2) attached structures, a ground level undercroft and twenty-four (24) new permanent classrooms, including:

Ground Level

- Six (6) home-base classrooms with three (3) associated withdrawal rooms, three (3) practical activity areas and two (2) balconies;
- Store room, amenities and space for internal movement;
- Vertical circulation including multiple sets of stairs and a lift;
- Toilet facilities, garden store room, cleaners room and communications room;
- New stairs linking to existing sports court; and
- New covered walkway/ramp linking to existing facilities to the west.

First Floor

- Twelve (12) home-base classrooms with six (6) associated withdrawal rooms, six (6) practical activity areas and two (2) balconies;
- Store room, amenities and space for internal movement, including elevated walkway linking the two buildings; and
- Vertical circulation including multiple sets of stairs and a lift.

Second Floor

- Six (6) home-base classrooms with three (3) associated withdrawal rooms, three (3) practical activity areas and two (2) balconies;
- Store room, amenities and space for internal movement; and
- Vertical circulation including multiple sets of stairs and a lift.
- Construction of a new single storey staff/admin building, including:

4 Project Description

- Separate visitor and student foyers, staff room, offices, sick bay, store rooms, interview rooms, printing room and toilet facilities.
 - Construction of a new COLA adjacent to the new administration building;
- Refurbishment of Block A as a multipurpose space with accessible bathroom facilities; and
- Associated landscaping works, including planting of 19 new trees, construction of new pathways, tiered seating and grassed areas.

The key development statistics of the development are detailed in **Table 2**.

Table 2 Development Statistics	
Site Area	29,680m ²
Existing School GFA (permanent buildings only)	3,789.1m ²
Proposed School GFA (permanent buildings only)	7,351.1m ²
Proposed FSR (Max 0.5:1)	0.25:1
Proposed Car Parking Supply (Existing 30 spaces)	18 spaces
Building Height (Maximum)	Up to 12.7m (+3.7m above height control)
Landscaped Area	16,031.1m ² (54.01%)
Impervious Areas	7,019.9m ² (23.65%)

JDH Architects has prepared a suite of Architectural Plans (**Appendix 6**) and a Design Analysis Report (**Appendix 7**) which detail the works proposed under this application. An extract of the Site Plan is provided at **Figure 4**.

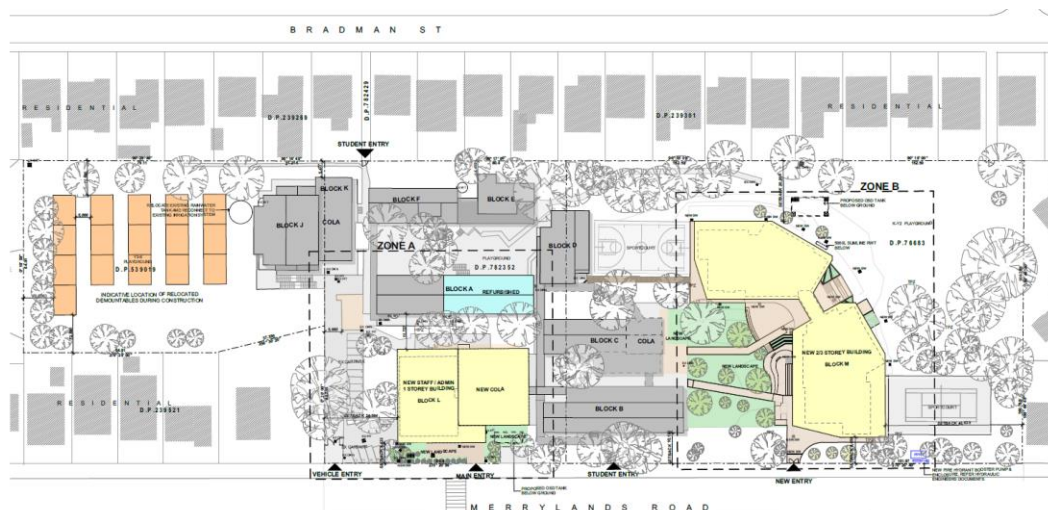


Figure 4 Extract of Site Plan for the proposed development (prepared by JDH Architects)

The following subsections provide a more detailed description of the proposed development.

4.2 Site Preparation

The proposed development will involve the demolition of existing structures including Blocks G, H and I and two COLAs, and the relocation of demountable classrooms all coloured orange in **Figure 5** as well as the internal demolition of Block A to facilitate refurbishment works. Site

4 Project Description

preparation will involve the removal of 28 trees (see Arborist Report at **Appendix 14**) and earthworks to provide for all new building platforms, Site access, open space areas (open and covered), landscaped areas and stormwater drainage features.



Figure 5 Demolition Site plan

4.2.1 Earthworks

The Site falls from the south-east to north-west and therefore the floorplate of the proposed part two, part three-storey classroom building will necessitate some earthworks to prepare the Site. The Architectural Plans (**Appendix 6**) detail the approximate areas of excavation required for the work areas, including:

- Approximately 950m³ of excavation for the new classroom building; and
- Approximately 870m³ of excavation for the new administration building and adjacent COLA.

Accordingly, the preparation of land will involve earthworks (approximate total of 1,820m³ of excavated material), and throughout this period the project will implement soil and erosion sediment control measures as detailed by Jones Nicholson (**Appendix 12**). Details of waste management measures to be adopted during the site preparation/demolition stage of works are set out in the Waste Management Plan (**Appendix 21**).

Environmental Investigation Services has prepared a Preliminary Stage 1/Stage 2 Contamination Assessment (**Appendix 5**), the aims of which were to:

- Provide an appraisal of the past Site use(s) based on a review of historical records;
- Identify potential contamination sources/areas of environmental concern (AEC) and contaminants of potential concern (CoPC);
- Prepare a conceptual Site model (CSM);
- Make a preliminary assessment of the soil contamination conditions and the potential for groundwater contamination within the investigation area(s);
- Assess the risks posed by the contaminants via a Tier 1 risk assessment;
- Assess whether the investigation area(s) is/are suitable or can be made suitable for the proposed development (from a contamination viewpoint).

The Assessment identified various potential sources of contamination/AEC, however the Site inspection did not identify any obvious sources of potential contamination. Elevated concentrations of contaminants above assessment criteria were not identified, and therefore the Assessment concluded that the potential risks associated with the contamination are low. The likelihood of significant and widespread asbestos issues is unlikely to be encountered. Further investigation and/or remediation is not considered to be required, and the Site can be

4 Project Description

made suitable for the proposed development, subject to the implementation of the 'unexpected find protocol' set out in the Assessment.

The Geotechnical Report prepared by JK Geotechnics (**Appendix 4**) identifies the subsurface conditions of the site, with a general profile of shallow to moderate depths of fill overlying residual silty clays with weathered shale bedrock at moderate depths. The Investigation provides commentary/recommendations relating to earthworks, including

- The stripping of the top layer of root affected, deleterious fill, silty or topsoil layers and use for landscaping or removal from the site (as they are not suitable for reuse as engineering fill);
- Remaining fill should be further excavated to the surface of the natural clay;
- Once the subgrade level is reached, proof-rolling is to then be used to improve the near surface compaction/strength of the subsoil and detect any unstable areas;
- Unstable subgrade will be locally excavated down to a sound base; and
- Any fill placed to raise site levels should be engineered fill.

In addition, the Geotechnical Report outlines that earthwork recommendations provided in the report are to be complemented by reference to AS3798. All recommendations of the Geotechnical Report will be incorporated into the earthworks phase of the proposal.

4.2.2 Asbestos Management

The NSW Department of Education has prepared Asbestos Registers and Management Plans for each of their Sites, including Greystanes Public School (**Appendix 22**). The Asbestos Register identifies the presence of asbestos within all buildings and structures on Site, in particular within Block A (internal works only) and Block I (proposed to be demolished).

The Department of Education has also prepared an Asbestos Management Plan (AMP) for NSW Government Schools (November 2015), which was distributed to all NSW Government Schools together with a memorandum to Principals (ref: DN/15/00038). The AMP provides directions for School Principals on issues associated with asbestos management, and procedures for the supply of hygienist services to address asbestos issues identified by contractors or the School. A copy of the AMP (211 pages) can be provided to DPE under separate cover if it is considered relevant to the assessment of this application.

4.2.3 Tree Removal

Naturally Trees has prepared an Arboricultural Impact Assessment (**Appendix 8**) which provides an assessment of all potentially impacted trees on the Site (TreeAZ assessment), which provides an appraisal of the likely impacts arising from the scope of works proposed, and sets out proposals to mitigate any impacts where possible. Trees assessed as potentially important are categorised as "A", and those assessed as less important are categorised as "Z". A trees are potentially important and they dictate design constraints, while Z trees are discounted as a material constraint in the layout design.

The Arboricultural Impact Assessment summarises that a total of 21 Category A trees and 7 Category Z trees will be removed as a result of the proposed development. The Assessment incorporates a detailed Tree Removal Plan.

4.3 Design Analysis

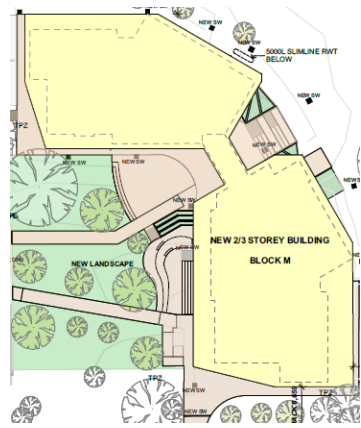
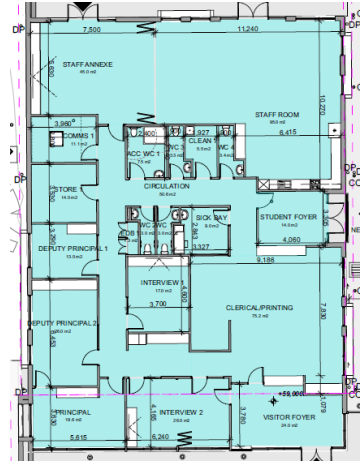
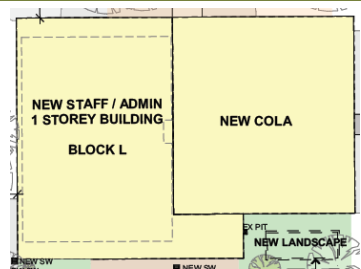
JDH Architects has prepared a Design Analysis Report (**Appendix 7**) which provides an analysis of the Site context, identifies the opportunities and constraints of the Site, and details urban design strategies for the Site. The Design Analysis Report also provides details of the materials and finishes, photomontages and other information that details the design analysis which has informed the final design.

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4.4 New Public School Buildings (Block M and Block L)

The proposed alterations and additions at Greystanes Public School will comprise the construction of a 2/3 storey learning space, a new administration building and a new COLA, as summarised in **Table 3**.

Table 3 Summary of Greystanes Public School Additions

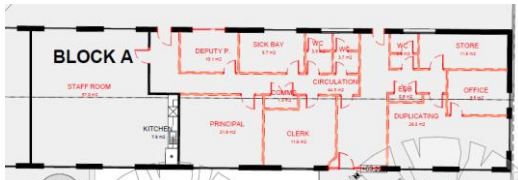
Block	Description	Block Location
New Block M (Class-rooms)	New part 2/3 storey L-shaped building fronting Merrylands Road and comprising home bases, withdrawal rooms, practical activity spaces, storage rooms and WC facilities	
New Block L (Admin)	New single storey building containing administration functions, offices, staff room, interview room and storage facilities.	
COLA	New covered outdoor learning space	

4 Project Description

4.5 Refurbishment of Block A

The proposed development will include the refurbishment of Block A from an administration building into a multi-purpose space for ongoing use by the School.

Table 4 Summary of Block A Refurbishment

Block	Description	Floor Plan Extract
Block A (Existing)	Existing building used as administration building, including offices, staff room and store rooms to be cleared as shown in the adjacent extract:	
Block A (Proposed)	Proposed refurbishment of Block A to retain existing kitchenette, provide new doors and toilet facilities and provide new floor, skirting and wall finishes.	

4.6 Operation of the School – Staff and Students and Hours of Operation

The proposed development will result in a net gain of eight (8) classrooms, which will enable the school to accommodate up to 184 additional students and 8 additional full time equivalent (FTE) staff, providing a total of 897 students and 50 FTE staff.

The proposed hours of operation for Greystanes Public School will remain the same at 7am to 9pm Monday to Friday. The core school hours will be 8:30am to 3pm and core staffing hours will be 8am to 4pm.

In response to the requirements of the SEARs, the proposed development does not itself comprise any school facilities which will change the out-of-hours use or community use of the school grounds. The proposed development will not prevent the School from operating throughout the carrying out of the construction works, as the existing demountable classrooms will be relocated to the western side of the Site (refer discussion at **Section 4.16**).

4.7 Structural Adequacy

Jones Nicholson has prepared a Structural Design Statement (**Appendix 22**) which confirms that the proposed Greystanes Public School development will be designed to comply with relevant provisions of the BCA and relevant Australian Standards, and that the new works will not decrease the performance of any existing structure.

4 Project Description

4.8 Signage

The proposed development will involve the erection of business identification signage on the new administration building at the main pedestrian entrance to the school. The signage will identify the school name “Greystanes Public School” and “Welcome” entry statement (see **Figure 6**), as shown on the Architectural Plans prepared by JDH Architects (**Appendix 6**).

The signage will be constructed from powder-coated aluminium letters attached to the building front, and is proportionate to the façade of the building.

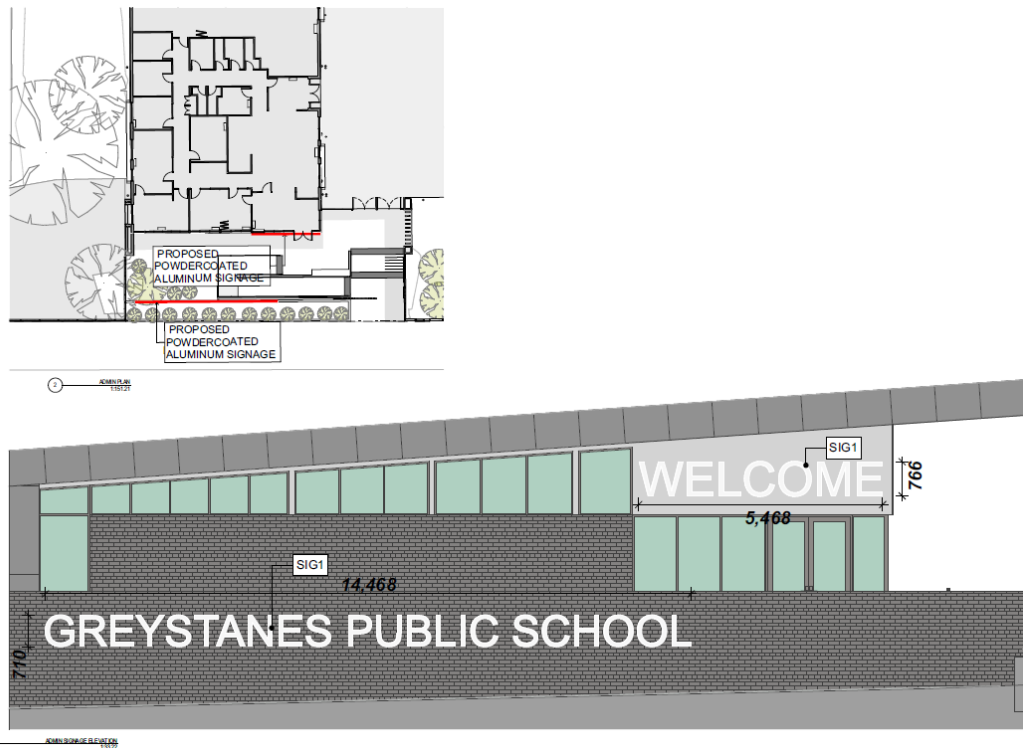


Figure 6 Details of signage on southern elevation of new administration building (JDH Architects)

4.9 Landscaping

The proposal includes extensive landscaping works as detailed in the Landscape Plans prepared by Space Landscape Designs (**Appendix 10**) which can be summarised as follows:

- 19 new trees;
- New shrubs, grasses and ground covers;
- New turfed areas in front of administration building and adjacent to new 2/3 storey learning space;
- Connective pathways; and
- Tiered seating and shade structures throughout the Site.

4.10 Vehicular Access, Car Parking and Waste Servicing

The following access, parking, transport and servicing arrangements are proposed for Greystanes Public School:

- Bus Stop located at the front of the school on Merrylands Road;
- Vehicular access from Merrylands Road at the eastern end of the Site;

4 Project Description

- There are currently 30 staff car parking spaces available, the proposal includes the retention of carpark 1, which contains 17 staff parking spaces but the loss of 12 spaces from carpark 2 to facilitate construction of the new administration building. It is proposed to retain a total of 18 car parking spaces;
- Improvements to pedestrian access to the Site by adding a third pedestrian access from Merrylands Road to improve traffic flow and safety during the pick up and drop off times;
- Unrestricted street parking for visitors and staff is available along Merrylands Road, Bradman Street, Taylor Street and other surrounding streets;

A traffic and parking report has been prepared by ARUP and is included at **Appendix 13**.

4.11 Stormwater Management

Jones Nicholson has prepared a Stormwater Management Report (incorporating integrated water management) (**Appendix 11**). The Report provides consideration of the existing Site conditions, including the potential affectation of flooding as identified in Cumberland Council's Flood Risks Precincts Map. The review identifies *"the north-east corner of the Site to be within the medium flood risk precinct. This low corner of the Site is considered by Council to be part of the floodway area and flow path for the 1% AEP"*. However, the proposed Site for the new classroom building *"is situated well clear of the flood extents, and the proposed ground floor level of 61.44m AJD is approximately 4 metres above the 1% AEP flood level"*. Accordingly, further assessment of the impacts of flooding on the proposal is not warranted.

The existing stormwater drainage system comprises at least three (3) separate piped stormwater networks, serviced by a series of pits and grated drains, in the vicinity of the proposed works.

The proposed stormwater management system has been designed in accordance with Cumberland Council's Stormwater Drainage and OSD Policies, and will utilise existing infrastructure where possible and will retain the existing points of discharge.

The proposed stormwater drainage system has been designed to convey the 1% AEP event to ensure all runoff is directed to the proposed on-site detention (OSD) tanks, which are designed to capture stormwater in two catchments, as follows:

- OSD Catchment 1: New classroom building:
 - Total area: 2,880m²
 - Proposed volume: 90m³
- OSD Catchment 2: New administration building and COLA:
 - Total area: 1,300m²
 - Proposed volume: 41m³

4.11.1 Integrated Water Management

Jones Nicholson detail the following fixtures will incorporate a minimum water efficiency rating of 3A to minimise water usage and reduce energy consumption:

- Amenities;
- Wash basins;
- Sinks within teaching spaces; and
- Teaching staff areas.

4 Project Description

Water sensitive urban design principles have been incorporated into stormwater drainage design and rainwater tanks are proposed to capture clean water runoff from the new school buildings for irrigation of surrounding landscape areas.

The proposal includes the installation of a 5,000L rainwater tank to be used for re-use of rainwater for irrigating mass-planted areas of landscape.

4.11.2 Erosion and Sediment Control Measures

During the construction phase of works, erosion and sediment controls measures will be provided in accordance with the Blue Book, including silt fences, sediment basins and construction exists for vehicles. Jones Nicholson has prepared an Erosion and Sediment Control Plan to detail these measures (**Appendix 12**).

4.12 Waste Management

The Waste Management Plan has been prepared by JDH Architects (**Appendix 21**). It provides details of waste management measures to be adopted during the demolition, construction and operational phases of the proposed development. The management plan also includes operational waste management measures for the Primary School.

4.13 Ecologically Sustainable Development

Jones Nicholson Engineers has prepared an Ecologically Sustainable Development (ESD) Report (**Appendix 18**) which identifies the relevant SEARs requirements and planning regulations (such as the EFSG and EP&A Regulations), as well as the ESD objectives of the proposed development and details all sustainability initiatives, including:

- Building services ;
- Mechanical services;
- Electrical services;
- Hydraulic services;
- Structural design; and
- Civil design.

The ESD Report identifies how the ESD principles will be incorporated into the design and on-going operation of the proposed development, as required under Clause 7(1)(f) of Schedule 2 of the EP&A Regulation 2000. Sustainability initiatives include metering of all energy and water uses, use of natural ventilation (except for communications rooms and critical areas), installation of photo-voltaic arrays to reduce ongoing energy costs, incorporate rainwater reuse for landscaping purposes and the use of high efficiency fixtures and fittings.

The report concludes that the project “*has been designed in accordance with the EFSG, which could potentially contribute to a Green Star Design & As Built v1.2 rating of 4 Stars, which is considered best practice within the Australian building industry*”.

4.14 Electrical Infrastructure

Jones Nicholson Engineers has prepared an electrical infrastructure assessment report (**Appendix 19**), that identifies the existing supply and the upgrades required for a forecast load of 498 Amps (gas heating will be used in the new buildings instead of electric heating) Endeavour Energy has confirmed “*that the requested extra load required for the buildings can be supplied from their low voltage network*”. In addition, a 70Kw solar power generation system will be used for the school.

The proposed development is capable of being adequately serviced with electrical/ telecommunications services.

4 Project Description

4.15 Building Code of Australia

Blackett, Maguire + Goldsmith has prepared a Building Code of Australia (BCA) Capability Statement (**Appendix 16**) which confirms that “*subject to the above measures being undertaken, that compliance with the Performance Requirements of the BCA is readily achievable*”.

Full certification of BCA compliance will be provided prior to the commencement of works.

4.16 Construction Works

The Preliminary Construction Management Plan prepared by Johnstaff (**Appendix 20**) outlines that construction of the works is to be confined to the hours of 7am-7pm Monday-Friday, and 8am-5pm Saturdays, with no works being proposed outside these times unless express permission is obtained from relevant authorities. The construction programme is expected to be 12-18 months with the development being completed by 2020, and will be carried out so as to ensure that the target delivery date is met.

Accordingly, the proposal may require the carrying out of construction works (including transporting/delivery of goods) outside of standard hours. This might involve deliveries or certain construction activities occurring before or after peak periods, or on weekends to avoid traffic or amenity conflicts and to ensure target dates for the various stages of the works are met.

Additional details of management of construction activities are set out in the Preliminary Construction Management Plan, which includes consideration of measures to be implemented to mitigate potential traffic and safety impacts. The assessment carried out in this report includes consideration of potential impacts arising from the carrying out of construction works outside of standard hours.

5 Consultation

5.1 General

In accordance with the commitment of the Department of Education to community engagement, and the SEARs issued by the Department of Planning and Environment, the project team has carried out consultation with the following stakeholders:

- Transport for NSW;
- NSW Roads and Maritime Services;
- Cumberland Council;
- Government Architect NSW;
- Local Member Hugh McDermott;
- Sydney Water;
- Greystanes Public School Project Reference Groups (PRG);
- Community groups and stakeholders.
- Details of the consultation carried out by the project team are set out in the following sections.

Johnstaff has prepared a Community Engagement Report (**Appendix 24**) which summarises all consultation carried out in regard to the proposed works at Greystanes Public School. Details of all consultation are discussed in the following sections.

5.2 Transport for NSW and Roads and Maritime Services

Transport for NSW (TfNSW) and Roads and Maritime Services (RMS) both issued comments for inclusion in the SEARs for the proposed development, and these requirements have been addressed in the body of this EIS.

A joint meeting with the Senior Transport Planner representing both TfNSW and RMS was held in November 2017 to discuss the proposed development and receive feedback on any relevant matters that required consideration prior to finalising the project. The Traffic and Transport Assessment prepared by ARUP (**Appendix 13**) was discussed and it was noted that it adequately addressed the impacts of the school's increased student population on the local traffic and transport networks. Road safety around the school was also discussed, with TfNSW and RMS being satisfied with the recommendations of the Traffic and Transport Assessment in this regard.

5.3 Cumberland Council

A Pre-DA meeting was held with Cumberland Council on 5 July 2017 to discuss proposals for both Greystanes Public School and Merrylands Public School. At that point in time, the then-draft Education SEPP (and associated changes to the CIV thresholds of the State and Regional Development SEPP) were not yet in force and with a CIV of less than \$30 million, the proposal at Greystanes Public School (which has not changed in scope since that time) was going to proceed as Regional Development through Cumberland Council. However the publishing of the Education SEPP on 1 September 2017 resulted in the proposed development at Graystones Public School being classified as State Significance Development, as it had a CIV of more than \$20 million.

Cumberland Council provided Minutes of the Pre-DA meeting (**Appendix 23**) which include comments on both the Greystanes Public School and Merrylands Public School projects. Specific to the Greystanes Public School site, Cumberland Council provided comments relating to flood affectation, stormwater drainage, tree removal, traffic and building height. All matters raised by Council have been addressed in the body of this Report.

5 Consultation

5.4 NSW Government Architect

The project team has carried out consultation with the NSW Government Architect (GA), who provided written feedback on 11 December 2017, including comments regarding the draft Design Quality Statement prepared by JDH Architects.

In response to the feedback provided by the NSW GA, the proposal has been amended to incorporate specific changes to the overall design proposal. The changes have responded primarily to the physical representation of the new buildings to the public domain while considering the overall Site integration with topography.

In particular, the following design responses have been provided in the final Architectural Plans prepared by JDH Architects (**Appendix 6**):

Learning Building:

- The bulk and scale of the learning building has been simplified by removing the parapet/band that wraps both the learning wings together. This included removing the large balcony and roof over the bridge connection and opening up this space to connect to the lower playground. The passive surveillance will be substantially improved as a result;
- Slab edges/balconies that curved have been deleted and incorporated into the larger outdoor learning balconies;
- Main entries into the learning building have been highlighted with a feature facade to direct and guide the users into the learning spaces;
- Revised landscaping without retaining walls and a minimised use of stairs has introduced a subtler connection between the two levels of the wings. No balustrades or handrails will provide a visual break within the playground. This was achieved by incorporating outdoor learning activities and spaces fixed into the landscape. Cut and fill will be reused on site to create this new landscape;
- The approach to all façade window treatments now reflects a language and continuity that will optimize natural ventilation and lighting. With the assistance of external louvres, heat gain will be reduced, and cross ventilation of air will circulate into the central spine;
- Existing undercover walkways will seamlessly connect to the new learning building through the use of accessible wayfinding and new uncover walkways;

Administration Building:

- The initial design of the COLA roof has now been integrated with the admin building, providing an inviting and welcoming entry to the school;
- New signage and entry statement is provided to reflect an identity to the school; and
- New fencing line and gates proposed to soften the change in levels from the street to the new admin building.

The new design concept in elevation is consistent across the administration and learning building. Further, JDH Architects has provided additional design assessment and content in the Design Analysis Report (**Appendix 7**) which addresses the comments provided on the draft Design Quality Statement.

Having regard to the above, it is considered that the proposal has provided an appropriate response to the feedback provided by the NSW GA, including increased design analysis and incorporating design changes into the proposal.

5 Consultation

5.5 Local Member

The Director of Public Schools NSW has undertaken fortnightly briefings and status updates about the project with local member, Hugh McDermott. The local member is supportive of the development and proposed facilities.

5.6 Sydney Water

The project team liaised with Sydney Water to discuss the proposal and ascertain if any further comments/input were required prior the design being made final and the DA being submitted. No further comments or input has been received.

5.7 Project Reference Groups

A PRG was formed for the Greystanes Public School project in December 2016 and has been providing input into the design. The role of the PRG is to endorse all designs and staging plans and assist in communicating the project status to the school and its community. Members of the PRG include:

- Director of Public Schools NSW;
- School representatives including the principal, a parent and/or community representative who represents the interests of the teachers,
- Local community representative;
- Department of Education representative (asset management); and
- The project team.

The PRG has been consulted with extensively throughout the design development process, including initial design workshops and fortnightly meetings which provide the PRG with opportunity to have input on the design of the School. The vision of the PRG is closely tied to the final proposal now submitted for assessment and determination.

5.8 Community Groups and Stakeholders

Consultation with community groups and stakeholder has been undertaken through a variety of platforms:

- Online and printed communication;
- Information booths;
- Facilitated workshops
- Stakeholder meetings; and.

Online and printed communication

Project information was uploaded to the Department of Education Project website on 30 June 2017 and has been updated monthly.

Printed communication has included notifications in the local newspaper and via a letterbox drop to advise the community about information booth sessions and the project webSite, and a project notification in the school newsletter.

Information booth sessions

Johnstaff Management has held six (6) community information booth sessions between 27 July 2017 and 14 December 2017 (i.e. monthly) at Greystanes Branch Library and regular parent information booths at drop off and pick up times at the school.

Feedback received from these information booth sessions has been taken into consideration in the preparation of this EIS, including:

5 Consultation

- Mitigating traffic congestion during construction and at pick up/drop off;
- Managing the relocation of students during construction;
- Providing adequate amenities; and
- Providing adequate space for OOSH care.

Facilitated workshops

Johnstaff and JDH Architects have facilitated workshops with the student representative council (SRC), teachers and an educational design specialist. The SRC participated in a visioning workshop, which facilitated engagement and input into the redevelopment and encouraged students to create their vision for the school. A design workshop and consultation was held with teachers to invite their input and ideas and to more clearly gauge their operational requirements throughout the project.

Four (4) facilitated workshops have been held with an educational design specialist, the architect, Johnstaff and representatives from Greystanes Public School to progress the design of the learning spaces and development of the educational model.

Stakeholder Meetings

Monthly meetings and briefings have been held with the Program Management Office. Ongoing meetings to facilitate the review and input into the design of the project have taken place with the Technical Stakeholders Group, which includes EFSG, ICT, Security, WHS, Future Learning Unit and Demountables Unit. Their feedback has been incorporated into to the design of the project to ensure an outcome that meets the needs of all stakeholders is achieved.

6 Environmental Assessment

6.1 General

This section provides an environmental assessment of the proposed development in respect of relevant State policies and matters for consideration under the EP&A Act.

6.2 Environmental Planning and Assessment Act, 1979

6.2.1 Section 5 - Objects of the EP&A Act

Section 5 of the EP&A Act sets out the Objects of the Act and **Table 5** provides an assessment of the proposed development's consistency with these Objects.

Table 5 Proposed Development's Consistency with the Objects of the EP&A Act

Object of the EP&A Act	Assessment	Consistent
(a) to encourage:		
(i) <i>the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,</i>	The proposal will make use of urban zoned land for the expansion of an educational establishment to service the growing residential population in the locality. It will not result in significant adverse water impacts and will improve the social and economic welfare of the community.	Yes
(ii) <i>the promotion and co-ordination of the orderly and economic use and development of land,</i>	The Site is zoned for urban development and the proposal will result in the orderly and economic development of the land.	Yes
(iii) <i>the protection, provision and co-ordination of communication and utility services,</i>	The proposal will not result in any adverse impact on existing communication or utility services.	Yes
(iv) <i>the provision of land for public purposes,</i>	Whilst not zoned specifically for public purposes, the land will support the proposed expansion of a public educational establishment.	Yes
(v) <i>the provision and co-ordination of community services and facilities, and</i>	The proposed development does not include any community services and facilities as defined by planning legislation although the educational facilities will provide an educational resource available to all members of the community.	Yes
(vi) <i>the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats,</i>	This has been addressed at Section 7.3. The Site has been operating as an educational establishment for 115 years and the remaining fauna has been mapped as being of high biodiversity value. A Biodiversity Development Assessment Report prepared by SLR Consulting (Appendix 9) concludes that the development will require the removal of vegetation that is listed as critically endangered under State and Federal legislation. Residual impacts of the proposal upon vegetation have been addressed using the Biodiversity Assessment Methodology. The Report identifies that the biodiversity offset obligation for the removal of 0.08ha of Cumberland Plain Woodland will require the purchase and retirement of three (3) ecosystem credits, or payment of \$48,315.98 + GST into the Biodiversity Conservation Fund.	Yes

6 Environmental Assessment

Table 5 Proposed Development's Consistency with the Objects of the EP&A Act

Object of the EP&A Act	Assessment	Consistent
(vii) <i>ecologically sustainable development, and</i>	The proposal includes various measures aimed at minimising energy and water consumption and is considered to be consistent with the objectives of ecologically sustainable development (see ESD Report at Appendix 18).	Yes
(viii) <i>the provision and maintenance of affordable housing, and</i>	This object is not applicable to the proposal.	N/A
(b) <i>to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and</i>	The proposed development has been assessed against the various Commonwealth and State statutes and local policies and has involved consultation with relevant levels of government.	Yes
(c) <i>to provide increased opportunity for public involvement and participation in environmental planning and assessment.</i>	The proponent has actively engaged with relevant government agencies and further consultation will be undertaken during the statutory assessment process.	Yes

6.2.2 Section 89 – Determination of Crown Development Applications

The proposed development is submitted by the NSW Department of Education and so is classified as a *Crown development application* under Section 88. Section 89 of the EP&A Act sets out matters to be considered by consent authorities in the determining or imposition of a condition upon a Crown development application.

The NSW Department of Education has provided a letter of commentary prepared by Hunt & Hunt Lawyers (**Appendix 25**) in relation to Part 4 Division 4 of the EP&A Act, and the determination of Crown development applications. This letter is provided in support of this SSD DA to make clear the relevant considerations of the Minister for Planning and Environment in the determination of the Crown development application.

6.2.3 Section 90 – Integrated Development

Pursuant to subsection 90(2), the proposed development is not Integrated Development as the development application is being made by or on behalf of the Crown and does not require an approval under section 57(1) of the *Heritage Act 1977*.

6.3 Planning Controls

The following subsections assess the proposal against the relevant provisions of applicable Environmental Planning Instruments (EPIs), Draft EPIs, Development Control Plans (DCPs), Planning Agreements and matters prescribed by the Regulation in accordance with Section 79C(1)(a) of the EP&A Act.

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

Clause 15 of Schedule 1 of the SRD SEPP identifies development for an educational establishment that has a CIV of more than \$20 million as SSD.

A Capital Investment Value Report has been prepared by Turner & Townsend, which confirms that the proposed development will have a CIV of more than \$20 million and is therefore qualifies as SSD. This Report will be made available to DPE as a separate submission for the purposes of confidentiality.

Clause 11 of the SRD SEPP outlines that DCPs (whether made before or after the commencement of the SEPP) do not apply to SSD.

6 Environmental Assessment

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

Part 4 of the Education SEPP sets out specific development controls for schools. Clause 35(1) sets out provisions which make educational establishments (schools) permissible with consent on land in a prescribed zone. The Site is located within the R2 Low Density Residential Zone under Holroyd Local Environmental Plan 2013, which is a prescribed zone under the Education SEPP. Educational establishments are prohibited within the R2 Zone under Holroyd LEP, however the provisions of Clause 35(1) of the Education SEPP prevail over those of Holroyd LEP and therefore the proposed development is permissible with consent.

Clause 35(6) sets out the following provisions:

- (6) *Before determining a development application for development of a kind referred to in subclause (1), (3) or (5), the consent authority must take into consideration:*
 - (a) *the design quality of the development when evaluated in accordance with the design quality principles set out in Schedule 4, and*
 - (b) *whether the development enables the use of school facilities (including recreational facilities) to be shared with the community.*

In response to Clause 35(6)(a), JDH Architects has prepared a Design Analysis Report (**Appendix 7**) which assesses the proposal against the 7 design quality principles set out in Schedule 4 of the Education SEPP, concluding that the proposed development is consistent with the design quality principles.

In response to Clause 35(6)(b), the proposed development does not identify a specific use of the school (including any part of its Site and any of its facilities) for the physical, social, cultural or intellectual development or welfare of the community (pursuant to Clause 35(5)). This does not, however, preclude the future opportunity to request such a use of the school facilities, were it to form part of a future development application.

Clause 42 of the Education SEPP sets out the following provisions which have been considered in the preparation of this EIS:

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 effect of Clause 42 of the Education SEPP is such that if a development standard under Holroyd Local Environmental Plan 2013 was proposed to be varied, the Development Application would not need to be supported by a Clause 4.6 variation statement. The development proposal involves a variation to the building height development standard under Clause 4.3 of Holroyd Local Environmental Plan 2013, and a detailed assessment is undertaken at **Section 6.5.2** to ensure sufficient consideration is given to the justification behind the proposed building height variations.

Part 7 of the Education SEPP sets out general development controls for traffic-generating development as follows:

- (1) *This clause applies to development for the purpose of an educational establishment:*
 - (a) *that will result in the educational establishment being able to accommodate 50 or more additional students, and*
 - (b) *that involves:*
 - (i) *an enlargement or extension of existing premises, or*
 - (ii) *new premises,**on a Site that has direct vehicular or pedestrian access to any road.*
- (2) *Before determining a development application for development to which this clause applies, the consent authority must:*

6 Environmental Assessment

- (a) give written notice of the application to Roads and Maritime Services (RMS) within 7 days after the application is made, and
- (b) take into consideration the matters referred to in subclause (3).

The proposed development involves alterations and additions to the existing school buildings at Greystanes Public School so as to accommodate 184 additional students. Accordingly, Council must give written notice of the application to RMS and take into consideration the matters set out under Clause 57 of the Education SEPP.

6.3.3 State Environmental Planning Policy (Infrastructure) 2007

Clause 102 of the Infrastructure SEPP relates to the impacts of road noise or vibration on non-road development, and is triggered for land which adjoins a road corridor with an annual average daily traffic (AADT) volume of more than 40,000 vehicles. If triggered, it requires the consent authority to consider the potential effects of road noise or vibration on an educational establishment.

According to the RMS Traffic Volume Map for Greystanes, there are less than 20,000 vehicles per day on Merrylands Road, and even fewer on surrounding roads. Therefore, the traffic volumes of adjacent roads do not trigger Clause 102 of the Infrastructure SEPP.

Notwithstanding, Cundall has prepared a detailed Acoustic Impact Assessment (**Appendix 14**) which includes assessment of the potential for noise intrusion to the school facilities.

6.3.4 State Environmental Planning Policy No.55 – Remediation of Land

SEPP 55 relates to remediation of contaminated land and requires, amongst other things, investigations to be undertaken as part of the development assessment process, to determine whether the subject land is likely to be contaminated and if so, what remediation work is required.

The State Government publication, *Managing Land Contamination: Planning Guidelines* sets out the process for consideration of land contamination. Based on an initial consideration of known historical land uses, the guidelines may require, in certain circumstances, one or more of the following steps:

- A Preliminary Investigation – where contamination is likely to be an issue;
- A Detailed investigation – where a Preliminary Investigation highlights the need for further detailed investigations or where it is known that the land is likely to be contaminated and/or that the proposed use would increase the risk of contamination;
- A Remediation Action Plan (RAP) – to set the objectives and process for remediation;
- Validation and Monitoring – to demonstrate that the objectives of the RAP and any conditions of development consent have been met.

A Preliminary Stage 1/Stage 2 Contamination Assessment been prepared by Environmental Investigation Services (**Appendix 5**) and concludes that:

“the potential risks associated with contamination within the investigation areas are low. Due to the presence of uncontrolled fill, the likelihood of asbestos being present is possible, however the data collected during the investigation suggests that significant and widespread asbestos issues are unlikely to be encountered.

Further investigation and/or remediation is not considered to be required. Overall, EIS are of the opinion that the investigation area(s) can be made suitable for the proposed development, subject to the implementation of the unexpected finds protocol”.

Having regard to the above, the consent authority can be satisfied that the land is suitable for the purposes of a primary school, pursuant to Clause 7 of SEPP 55.

6 Environmental Assessment

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

SEPP 64 applies to all signage that can be displayed with or without development consent and is visible from any public place or public reserve.

The proposal includes one (1) business identification sign comprising the school name and “Welcome” entry statement, located on the southern façade of the new administration block at the main entrance on Merrylands Road, as detailed in the Architectural Plans (**Appendix 6**).

The proposed signs are required to comply with the aims of clause 3(1) of SEPP 64 and the assessment criteria in Schedule 1 to the SEPP. An assessment of the proposed signage against these objectives and assessment criteria is provided in **Table 6**.

Table 6 Assessment under SEPP No. 64 – Advertising and Signage	
Provision	Assessment
Clause 3 – Aims, Objectives	
(a) to ensure that signage (including advertising): (i) is compatible with the desired amenity and visual character of any area, and (ii) provides effective communication in suitable locations, and (iii) is of high quality design and finish, and	The character of the locality in the vicinity of the Site generally consists of low density residential development. The proposed signage identifies the name of the school at the main entrance on the administration building thereby providing effective communication in a suitable location. The signage will be constructed of powder-coated aluminium letters fixed to the exterior of the administration building. The proposed signage will be of a clear and unobtrusive design, providing clear way-finding to the public, and will be compatible with the established residential characteristics of the locality and streetscape of Merrylands Road.
(b) to regulate signage (but not content) under Part 4 of the Act	An assessment of the proposed signage in respect to Part 4 of the EP&A Act, in particular the relevant matters for consideration under Section 79C(1) is provided within this EIS.
(c) to provide time-limited consents for the display of advertisements in transport corridors, and	N/A
(d) to regulate the display of advertisements in transport corridors, and	N/A
(e) to ensure that public benefits may be derived from advertising in and adjacent to transport corridors.	N/A
Schedule 1 Criteria	
Character of the Area	The character of the locality in the vicinity of the Site generally consists of low density residential development. The proposed signage is of a scale which is considered suitable for the length and height of the school entry and the size of the Site, and will not dominate the streetscape. The proposed sign provides clear way-finding to the School for the public. Accordingly, the proposed signage is considered to be consistent with the visual character of the area.
Special Areas	N/A
Views and Vistas	No views or vistas will be adversely affected by the proposed signage.
Streetscape, Setting or Landscape	The proposed sign is of a scale which is considered suitable for the length and height of the building, size of the Site and the expansive frontage to Merrylands Road, and will not dominate the streetscape.
Site and Building	The extent of the signage is reasonable having regard to the scale and street-front distribution on the Site.

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Table 6 Assessment under SEPP No. 64 – Advertising and Signage

Provision	Assessment
	In terms of area, the signage on the administration building is proportionate with the scale of the building. The signage will comprise a very minor fraction of the Site frontage to Merrylands Road.
Associated devices and logos with advertisements and advertising structures	No associated devices are proposed.
Illumination	There will be no illumination of the signage and therefore, no adverse impact on road users or surrounding properties.
Safety	The proposed signage will be constructed of powder-coated aluminium letters fixed to the exterior to the new administration block. There will be no adverse public safety concerns for pedestrians, cyclists or motorists. In addition, the proposed signs will not obscure or interfere with road traffic signs and signals.

6.3.6 Holroyd Local Environmental Plan 2013

The Site is subject to the provisions of Holroyd Local Environmental Plan 2013 (HLEP).

Table 7 provides a summary assessment of the proposed development against the relevant provisions of the HLEP.

Table 7 Assessment against relevant provisions of Holroyd LEP 2013

Provision	Assessment	Consistent
2.2 – Zoning of land	The Site is zoned R2 low density residential. Development for the purposes of an educational establishment is prohibited within the zone under Holroyd LEP. However, Clause 35(1) of the Education SEPP prevails over the LEP to permit development for the purposes of an educational establishment.	Consistent
4.3 – Height of buildings	HLEP identifies a maximum building height for the Site of 9 metres. The proposed development involves works which exceed 9 metres in height. See discussion below about the proposed variation to the building height control at Section 6.5.2	Justified Inconsistency
4.4 – Floor space ratio	The FSR for the Site is 0.5:1. The proposed development will have an FSR of 0.25:1 and is therefore compliant with the LEP	Consistent
4.6 – Exceptions to development standards	Clause 4.6 does not apply to this development pursuant to the provisions of Clause 42 of the Education SEPP. Notwithstanding, discussion about the height variation is included at Section 6.5.2 .	N/A
5.10 – Heritage conservation	The Site is not listed as having heritage value, nor are any buildings in the vicinity of the Site.	N/A
6.1 – Acid sulfate soils	The Site does not contain acid sulfate soils.	N/A
6.2 – Earthworks	A sediment erosion control plan is included at Appendix 12 and a geotechnical report is included at Appendix 4 in respect of considerations relating to earthworks required for the development.	Consistent
6.7 – Stormwater management	A stormwater management report and stormwater plans are included at Appendix 11 and Appendix 12 respectively, which include practicable on-site stormwater detention (OSD) for use with landscaping and avoids impacts of stormwater runoff on adjoining properties.	Consistent

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Table 7 Assessment against relevant provisions of Holroyd LEP 2013

Provision	Assessment	Consistent
6.8 – Salinity	A preliminary salinity report is included at Appendix 5 which provides an assessment of whether the development is likely to have an adverse impact on salinity processes. The report concludes that significantly saline and/or aggressive soil conditions are not expected to be encountered during the development works to a maximum depth of 2m. However, as bulk excavation is required to a depth of 3m, a salinity management plan is recommended prior to the carrying out of the works.	Consistent

6.4 Policies

6.4.1 State Policies

Table 8 provides a summary assessment of the proposed development against the relevant provisions, goals and objectives of relevant State policies.

Table 8 Response to Provisions, Goals and Objectives of State Policies

State Policy	Response
NSW State Priorities: • Creating Jobs • Building Infrastructure • Reducing Domestic Violence • Improving Service Levels in Hospitals • Tackling Childhood Obesity • Improving Education Results • Protecting our Kids • Reducing Youth Homelessness • Driving Public Sector Diversity • Keeping our Environment Clean • Faster Housing Approvals • Improving Government Services	The proposal will: • Create new jobs for construction workers, teachers, support staff and maintenance workers • Create up to 120 jobs will be created throughout construction; • Require up to 8 staff required for the expanding School; • Support new housing infrastructure in the locality; • Provide education to children to help reduce domestic violence now and in the future; • Provide intellectual and physical education to children with the aim of reducing reliance on health services in the future; • Provide physical education programmes to children to encourage active living and reduce obesity; • Provide a balanced education in line with prevailing public education curriculum; • Provide a safe learning environment and education regarding personal protection and welfare; • Provide support to our youth and education to enable them to transition to meaningful employment or high education post school; • Provide employment opportunities for people of all backgrounds, races or religion; • Promote, through educational programmes, protection of our environment; • Provide a high-quality environment to enable a high quality publicly funded education.
A Plan for Growing Sydney • Direction 1.10: Plan for education and health services to meet Sydney's growing needs	• The school is upgrading its existing facilities and expanding them to cater for the educational needs of the growing local population.
NSW Long Term Transport Master Plan 2012	The proposal will support the Actions identified in the NSW Long Term Transport Master Plan by: • Encouraging walking and cycling through its central location and proximity to the residential area; and • Providing for bus facilities to facilitate students being transported to distances where walking and cycling are less likely.
Sydney's Cycling Future 2013	The proposal will ensure the School continues to promote cycling to school, as well as ensuring integration with the precinct-wide cycle and pedestrian footpath network.

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Table 8 Response to Provisions, Goals and Objectives of State Policies

State Policy	Response
Sydney's Walking Future 2013	The proposal will promote walking to school through the Site's location close to residential areas and the increase in pedestrian accessibility, particularly from Bradman Street.
Sydney's Bus Future 2013	The school is well connected to bus facilities to enable students and staff to travel to the Site by public transport in a safe and efficient manner.
Crime Prevention Through Environmental Design (CPTED) Principles	This report provides a CPTED assessment of the proposal at Section 6.5.6.1 .
Healthy Urban Development Checklist, NSW Health	The proposal will be consistent with the relevant aspects of the Healthy Urban Design Checklist as it will: • Make use of land zoned for urban development and not reduce the availability of agricultural land; • Include recreational facilities promoting physical activity; • Promote walking and cycling through provision of appropriate infrastructure within and immediately adjoining the Site; • Promote public transport use through provision of bus laybys and implementation of green travel plan initiatives; • Be on a Site located close to housing and employment thereby reducing trip generation and car dependence; • Include CPTED principles in its design to promote a safe environment for students and visitors to the school; and • Provide equitable access to facilities.
Greater Sydney Draft Central Sydney District Plan	The proposal will be consistent with the relevant aspects of the Greater Sydney Draft Central Sydney District Plan as it will: • Provide innovative educational infrastructure to meet the needs of an expanding and changing community; and • Grow jobs in the education sector.

6.4.2 Holroyd Development Control Plan 2015

It is noted that Clause 11 of the State and Regional Development SEPP excludes the application of Development Control Plans to SSD DAs. Notwithstanding, **Table 9** provides a summary assessment of the proposed development against the provisions of the Holroyd DCP 2015 that may otherwise be deemed relevant.

Table 9 Assessment against Relevant Provisions of Holroyd DCP 2013

Provision	Assessment	Consistent
3. Carparking 3.1 Minimum parking spaces Primary & Secondary Schools require: • 1 space per employee • 1 space per 100 students (for visitor parking) • Pick up/ set down area and bus bay	Greystanes Public School currently has 30 car parking spaces, 12 of these spaces will be removed to construct the new administration building and covered outdoor learning area (COLA). If the school were to accommodate additional parking, it would be at the expense of outdoor play space or buildings. The traffic and parking report (see Appendix 13) identifies a significant amount of available on-street parking, which in conjunction with public transport and carpooling will be sufficient to cater for the volume of car parking required. Further assessment of car parking is provided at Section 6.5.4.	Justified Inconsistency
3.6 Parking for the disabled 2 spaces per 100 visitors	No change to the provision of accessible parking is proposed as part of this development application.	
4. Tree and landscape works 4.1 Preservation of Trees	The proposed development requires the removal of 28 trees, to this end, an arborist report has been prepared (Appendix 8) and a Biodiversity Development Assessment Report (BDAR) has been prepared (Appendix 9) in order to assess the impact	Consistent

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Table 9 Assessment against Relevant Provisions of Holroyd DCP 2013

Provision	Assessment	Consistent
<u>4.2 Development works including existing trees and landscaping</u> - All proposals shall comply with AS4970-2009 protection of trees - Proposal must consider existing trees with medium to high retention values - Protect root zone of medium to high retention value trees - Landscaping shall incorporate ESD principles, meet required soil depths, and incorporate local native species	of the proposal upon vegetation within the Site. The BDAR concludes that the proposal is able to satisfy the Biodiversity Assessment Methodology the purchase of ecosystem credits or payment into the Biodiversity Conservation Fund. The landscape plans at Appendix 10 detail the species (many of which are native to the local area) for proposed new trees, shrubs and ground covers. The landscape plans include details of planting, including 19 new trees. Together, these reports give adequate consideration to the objectives of tree and landscape works within the DCP. It is considered that, on balance, the proposal achieves an acceptable outcome having regard to trees and vegetation within the site.	
5. Biodiversity	Parts of the Site are mapped as biodiversity corridors and as such a BDAR has been prepared (Appendix 9). The proposal includes the removal of trees on Site in order to undertake earthworks necessary for construction of the school buildings and playground areas. The Landscape Plan (see Appendix 10) details the revegetation of native trees and other plants to improve the local biodiversity of the precinct and mitigate the impacts of the required tree removal. Additional assessment of biodiversity impacts is provided at Section 6.5.3 .	Consistent
6.1 Cut and Fill	The Design Analysis Report (Appendix 7) shows that development has been designed to respond to the natural topography of the Site, stepping the storeys of buildings down as the Site levels increased, resulting in reduced cut and fill.	Consistent
6.2 Contamination Management	Matters relating to contamination management are discussed in detail at Section 6.3.4 . The proposal is consistent with the objectives and controls of Chapter 6.2 of the DCP, in particular having regard to the findings of the Preliminary Stage 1/Stage 2 Contamination Investigation (Appendix 5).	Consistent
6.3 Erosion and Sediment Control	Sediment Erosion Control Plans have been prepared by Jones Nicholson (Appendix 12) which details the management plans for the works.	Consistent
6.5 Salinity management	The Site is mapped as having moderate salinity potential in the LEP maps. A preliminary salinity investigation was undertaken (see Appendix 5) and concluded that significantly saline and/or aggressive soil conditions are not likely to be found to a depth of 2m. However, as bulk excavation is required to a depth of 3m, a salinity management plan is recommended.	
7. Stormwater management	Stormwater management report and Stormwater plans have been prepared by Jones Nicholson (Appendix 11 and Appendix 12) which detail the management of stormwater discharge from the Site in accordance with Council's requirements.	Consistent
7.5 Water Sensitive Urban Design (WSUD)	The Stormwater Management Report (Appendix 12) states that WSUD principles have been incorporated into the stormwater drainage design and rainwater tanks will capture clean run off to irrigate the surrounding landscape areas.	Consistent

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Table 9 Assessment against Relevant Provisions of Holroyd DCP 2013

Provision	Assessment	Consistent
9. Managing external road noise and vibration	Traffic volumes on Merrylands Road are <20,000 per day and therefore do not trigger Clause 102 of SEPP Infrastructure, which requires a consent authority to consider traffic noise and vibration.	Consistent
10. Safety and security	A CPTED assessment has been carried out for the proposed development at Section 6.5.6.1 where it is concluded that the proposal will achieve appropriate Site safety, reduce the opportunity for crime and promote community interaction within and surrounding the Site.	Consistent
11. Waste management	JDH Architects has prepared a Waste Management Plan (Appendix 21) which details management of waste during the construction and operational phases.	Consistent
12. Services	Greystanes Public School has access to adequate Site facilities and servicing, as detailed in the Electrical Infrastructure Assessment Report subject to providing a new power substation (Appendix 19).	Consistent

6.4.3 Australian Standard AS2601 – Demolition of Structures

Clause 92 of the EP&A Regulation designates AS 2601-1991: *The Demolition of Structures* as a prescribed matter for consideration in the determination of a development application.

All demolition works will be undertaken in accordance with Australian Standard AS 2601-2001: *The Demolition of Structures*. Further details on demolition practices, identification and management of hazardous substances and recycling of materials can be provided with an application for a construction certificate. This can include a Work Plan and a Hazardous Substances Audit and Management Plan in accordance with AS 2601 and demonstrating compliance with applicable Environmental Protection Agency (EPA) requirements.

6.4.3.1 Contributions - Holroyd Section 94 Contributions Plan

The Holroyd Section 94 Contributions Plan applies to the Site. Section 2.6 of the plan specifies that contributions are applicable to “*all non-residential development within defined centres*”. The Site is located within the R2 -Low Density Residential Zone and not within a Business Zone where the Centres are located. Therefore Section 94 Contributions are not applicable to the proposed development of the Site.

6.5 Likely Impacts of the Development

The following subsections assess the likely impacts of the development in accordance with Section 79C(1)(b) of the EP&A Act.

6.5.1 Built Form and Urban Design

The built form and urban design of the proposal was primarily guided by two principles:

- That new facilities are provided to ensure adequate accommodation is provided for the forecast student numbers, in accordance with the requirements of the Education Facilities Standards and Guidelines (EFSG); and
- That any facilities/accommodations being demolished as part of the project are replaced as part of the same project.

This provides the guiding framework for the extent of floor space that is required, namely the amount of learning space and administration space required in accordance with the EFSG, as well as the requirement to replace outdated or relocated facilities, such as the administration offices (with a new building) and the COLAs (with a new large COLA).

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This translates to 3,874m² of new GFA, with approximately 312m² of existing GFA being demolished, which results in a total GFA increase of 3,562m². JDH Architects has prepared a Design Analysis Report (**Appendix 7**) that addresses the design quality principles for schools set out in the Schedule 4 of the Education SEPP. The Design Analysis Report identifies the urban context of the Site and surrounds, and sets out the Site strategies for proposed built form, including:

- Providing a clear, well defined and inclusive main entry for the school;
- Ensuring that the new administration building serves as a new central 'hub' for school staff;
- Minimising the footprint of new buildings to avoid removing circulation areas, open space areas and a high level of connectivity;
- Increasing the building height in accordance with the natural topography of the land;
- Incorporating passive environmental design elements such as building orientation, sun-shading, natural ventilation, solar energy and thermal mass to reduce the need for mechanical heating and cooling; and
- Addressing the street to provide a positive streetscape that defines the public space of the existing street network.

This has led JDH Architects (in consultation with the PRG) to design a new part two, part three storey classroom building and a new single storey administration building with adjoining COLA. The resultant built form promotes a strong streetscape frontage to Merrylands Road as the focal point for the Site and primary entry for the School. Extracts of photomontages of the proposal prepared by JDH Architects are provided at **Figures 7-9**.



Figure 7 New administration building and COLA fronting Merrylands Road (JDH Architects)

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Figure 8 New 2-3 storey classroom building fronting Merrylands Road (JDH Architects)



Figure 9 New 2-3 storey classroom building demonstrating design with natural topography (JDH Architects)

The new classroom building, new administration building and new COLA will require earthworks to accommodate the desired floor levels and fall of the Site from south (front) to north (rear). In particular, the design responds well to levels around the new classroom building to achieve the breezeway and accessibility between surrounding school facilities and open spaces areas.

The proposed built form promotes a new streetscape frontage to Merrylands Road that is generally in keeping with the bulk of existing buildings on the Site. The 8.9m front setback of the new learning space from Merrylands Road will provide sufficient distance from the public domain, and given the layout of the building and use of balconies and landscaping, it is expected that the proposed classroom building will provide a positive contribution to the Merrylands Road streetscape and presentation of the School in general.

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The new administration building will be set back 7.2m from Merrylands Road, which will also address the streetscape and presentation of the School. Landscaping works (**Appendix 10**) are proposed along the Site frontages, and internally to improve the amenity of the campus.

In terms of privacy, there are privacy louvres along the exterior of the balconies of the ground, first and second floors which provide adequate screening so as to protect the privacy of students, teachers and neighbours. Furthermore, the Architectural Plans prepared by JDH Architects show that the new buildings will result in only minor/partial overshadowing of the footpath along Merrylands Road and will not result in overshadowing of any neighbouring properties.

The overall urban design of the proposal has contributed built form that responds to all stakeholder input and authority requirements in an equitable and affordable arrangement, providing high quality education facilities with distinguishing design treatment and a substantial longevity in terms of life-cycle.

6.5.2 Building height

The Site is subject to a maximum building height of 9m under HLEP 2013. The new classroom building will involve works which exceed the 9m building height control by up to 3.7m (i.e. a height of 12.7m above existing ground level) along the southern portion (rear) of the building (see **Figure 10**).

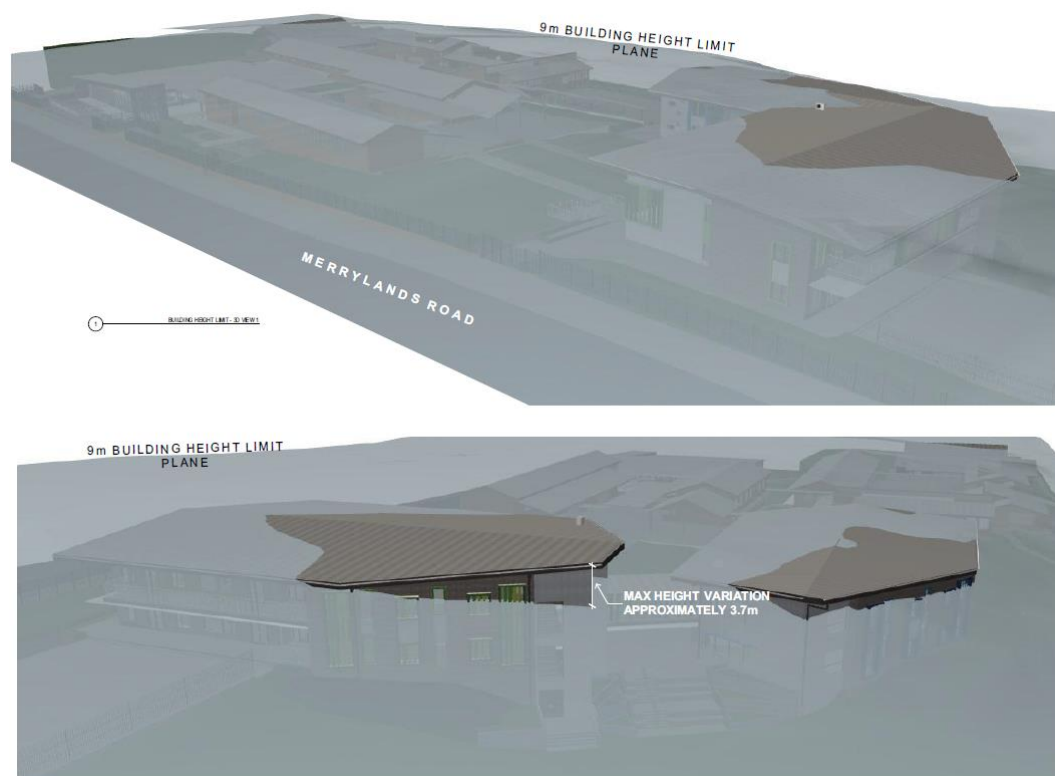


Figure 10 Extract of building height plane diagram (JDH Architects)

The extent of the building height variation is accentuated due to the fall of the Site (as seen in **Figure 9**) and the need to provide a compatible floor level with surrounding development. The breach in the height of buildings limit occurs towards the centre of the Site and away from Merrylands Road or adjoining properties, meaning the height of the built form does not impact the streetscape or neighbouring dwellings.

The only alternative to reduce the height of the classroom building would be to relocate GFA from the top floor to an alternate location within the Site, which would reduce the amount of open space areas and further separate out learning spaces and so was deemed unfeasible.

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Clause 4.3 of HELP 2013 sets out the following objectives for the height of buildings:

- (a) to minimise the visual impact of development and ensure sufficient solar access and privacy for neighbouring properties,*
- (b) to ensure development is consistent with the landform,*
- (c) to provide appropriate scales and intensities of development through height controls.*

The proposed development is consistent with each of these objectives:

- The breach in building height occurs in the middle of the Site and therefore minimises the visual impact for neighbouring properties and does not impact upon their solar access at all;
- The development is consistent with the landform, which is undulating at that part of the Site;
- The development is of an appropriate scale and intensity to provide appropriate classroom facilities to meet the future needs of local families as well as providing appropriate open space areas.

The assessment provided above has shown that the proposed building height variation of the proposed classroom structure is justified in planning terms and that the requirement to comply with the building height development standard would be unreasonable and unnecessary in the circumstances. Accordingly, the proposed building height variations are considered supportable.

6.5.3 Environmental Amenity

The proposed development has been designed with the objective to uphold and improve the environmental amenity of the Site and surrounds as part of the building works and throughout the operation of the school.

During the Carrying Out of Works

With regard to the protection of environmental amenity through construction, appropriate sediment and erosion control measures have been incorporated to ensure that the stormwater runoff and movement of vehicles across and out of the Site does not result in unacceptable sedimentation or dust impacts. Details are provided in the Sediment and Erosion Control Plan prepared by Jones Nicholson Engineers (**Appendix 12**).

The Preliminary Construction Management Plan (PCMP) prepared by Johnstaff (**Appendix 20**) outlines that the head contractor will implement a comprehensive Environmental Management Plan (EMP) to ensure compliance with all relevant statutory requirements and those of the Department of Education prior to commencing any works.

Naturally Trees has prepared an Arboricultural Impact Assessment (AIA) (**Appendix 8**), which provides an assessment of all potentially impacted trees on the Site. The Arborist has used the TreeAZ assessment to identify important and unimportant trees as follows:

TreeAZ is based on a systematic method of assessing whether individual trees are important and how much weight they should be given in management considerations. Simplistically, trees assessed as potentially important are categorised as 'A' and those assessed as less important are categorised as 'Z'

This assessment methodology is considered to be an appropriate approach to the assessment of impacts upon trees, above that of the Safe Useful Life Expectancy (SULE) assessment method. The TreeAZ assessment enables an assessment of the importance of each individual tree against more characteristics than the SULE method would provide.

An overview of the potential impacts of development on those trees being retained as well as identifying those trees being removed is provided at **Figure 11**.

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Impact	Reason	Important trees		Unimportant trees	
		AA	A	Z	ZZ
Retained trees that may be affected through disturbance to TPZs	Removal of existing surfacing/structures/landscaping and/or installation of new surfacing/structures/landscaping	22	1, 2, 3, 4, 7, 17, 19, 21, 26, 28, 29, 30, 31, 33, 34, 36, 37, 45, 46, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 68, 74, 78, 79, 80, 81	8, 16, 18, 20, 27, 38, 61, 73, 75, 76, 77	
Trees to be removed	Construction and/or level variations within TPZ		5, 6, 9, 11, 13, 14, 15, 24, 32, 35, 39, 40, 41, 42, 43, 44, 47, 48, 49, 50, 69	10, 12, 23, 25, 70, 71, 72	

Figure 11 Extract from AIA summarising trees that may be affected by development (Naturally Trees)

The AIA summarises that a total of 21 Category A trees and 7 Category Z trees will be removed as a result of the proposed development. The Assessment incorporates a detailed Tree Removal Plan and recommendations detailing protection measures while the works are being carried out for the trees being retained. In particular, the Assessment summarises that due to the retention of all the significant boundary tree cover, there will be a moderate impact on the wider setting and contribution of trees to local amenity and character.

The findings of the AIA have been assessed as part of the process in identifying and addressing the extent of impacts upon trees within the school Site. However, given that part of the school is mapped as being in a Biodiversity area, a Biodiversity Development Assessment Report (BDAR) has also been prepared (**Appendix 9**).

The BDAR involved a survey of the site and assessment against the Biodiversity Assessment Methodology (BAM). The assessment revealed that the proposed development will require the removal of native vegetation and habitat for several common species of flora and fauna species. The development will also require the removal of vegetation that is listed as critically endangered under both the NSW Biodiversity Conservation Act and the Commonwealth Environment Protection Biodiversity Conservation Act. The BDAR has identified the offset obligation for the removal of 0.08ha of Cumberland Plain Woodland, in accordance with the BAM.

Waste handling and management throughout construction will be carried out in accordance with the Waste Management Plan (**Appendix 21**) which aims to avoid the generation of unnecessary waste, minimise the volume to be collected and recycle, reuse and recover waste which is generated.

The potential impacts of noise during the demolition and construction phases of the development have been considered and addressed in Section 8 of the Acoustic Report (**Appendix 14**). In particular, the report identifies good-practice measures to be adopted on the Site, and establishes applicable noise and vibration criteria as well as steps which can be taken for managing noise impacts from construction works.

During the Operation of the School

With regard to the protection of environmental amenity during the operation of the school, Jones Nicholson Engineers has prepared an ESD Report (**Appendix 18**) which outlines how the proposal has been designed in accordance with the ESD principles of the NSW Government Resource Efficiency Policy, which is to reduce Government's operating costs and lead by example by increasing resource productivity. The ESD Report discusses the various

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sustainability initiatives incorporated into the proposed development, including energy conservation, water conservation and other initiatives.

The Acoustic Assessment Report prepared by Cundall (**Appendix 14**) demonstrates that the proposal will achieve compliance with the noise criteria at Merrylands Road, Bradman Street and residential receptor locations for play time. The report concludes that there should be no adverse impact arising as a result of the operation of new buildings or from the forecast increase in the student population at Greystanes Public School.

The shadow diagrams prepared by JDH Architects (**Appendix 6**) confirm that the proposed built form will not impact the solar access of principal living areas and principal private open space areas of existing or future residential development to the south at the winter solstice.

The Stormwater Management Report prepared by Jones Nicholson Engineers (**Appendix 12**) identifies that the north-eastern corner of the Site is within the medium flood risk precinct and considered to be part of the floodway and flow path for the 1% AEP. An extract of Cumberland Council's Flood map is shown in **Figure 12**.

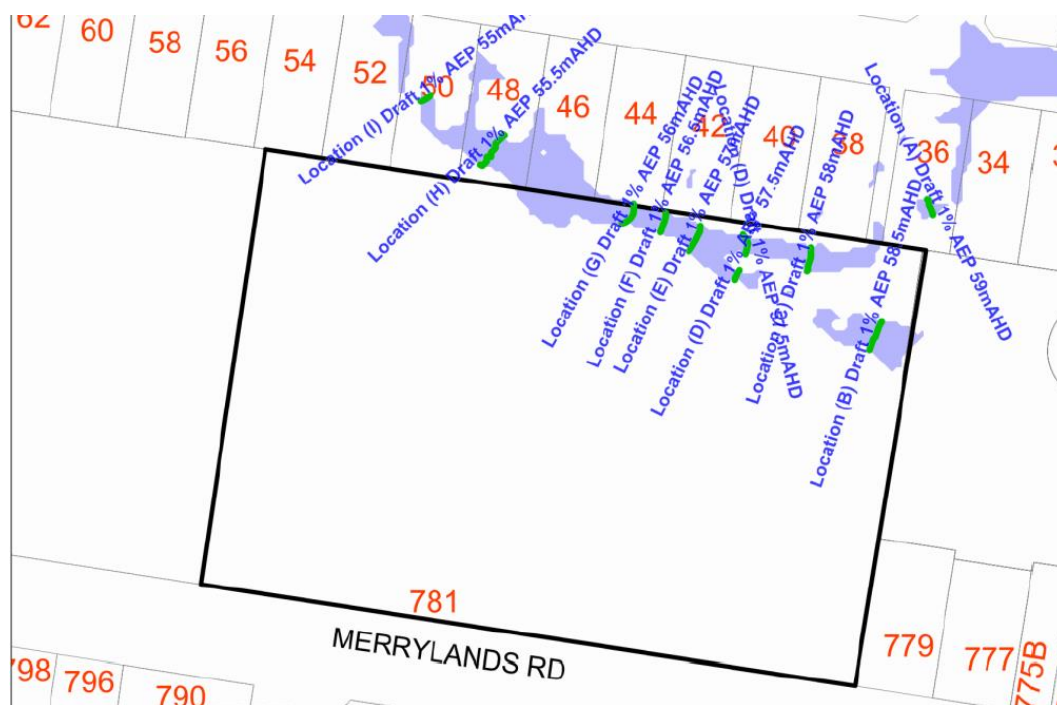


Figure 12 Extract of Cumberland Council's Flood Map (Jones Nicholson)

Topographically, the proposed new building will be located towards the top of a large embankment approximately 4 metres above the 1% AEP. The area identified in **Figure 12** as being a flood risk is at the bottom of that embankment and therefore will not impact the proposed works. All new works will be adequately catered for within the modified stormwater management system designed in accordance with Cumberland Council's Stormwater Drainage and OSD Policies. The proposal includes the installation of two (2) new OSD tanks with sufficient capacity for each detention catchment, and retention of all existing points of discharge.

The privacy of nearby residential properties has been protected through the orientation of rooms away from the road and placement of screening louvers along the exterior of the walkways along the edge of each floor of the classroom building. When considered with the existing and proposed landscaping and the separation distances, the proposal will not result in any undesirable privacy outcomes for the private residences.

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In summary, the proposed development achieves the objective to uphold and improve the environmental amenity of the Site and surrounds through both the construction and operational phases.

6.5.4 Transport and Accessibility

ARUP has prepared a Traffic and Parking Report (**Appendix 13**), which provides an assessment of existing traffic, transport, access and parking conditions, details the proposed upgrades and provides an impact assessment of these proposed changes on traffic, public transport and parking conditions.

In terms of traffic impacts upon the surrounding road network, ARUP has found that the forecast increase in traffic movements resulting from the proposed development can be accommodated along the existing road network and will not result in any reduction in the Level of Service (LoS) to any other intersections along Merrylands Road between Greystanes Road and Cumberland Road (see **Figure 13**).

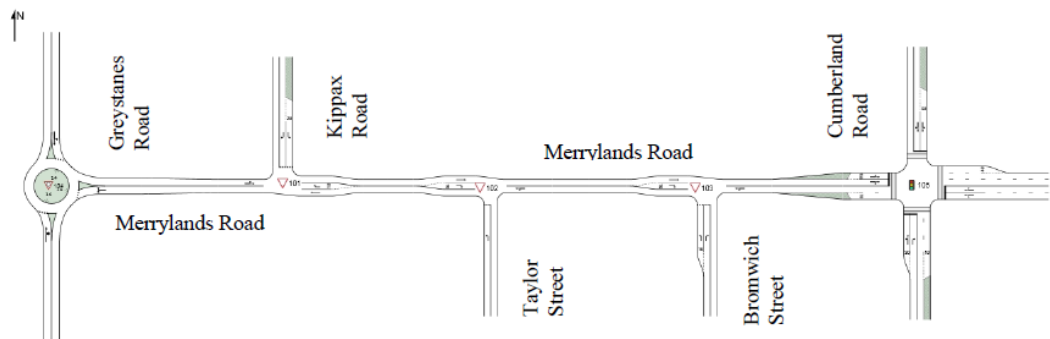


Figure 13 Extract of networked intersections for traffic modelling (ARUP)

In terms of impacts upon the public transport network, ARUP has found that the forecast increase of 184 students at the Site spread across the various modes of transportation would result in 110 additional students travelling by car, 54 additional students walking and 20 additional students utilising the school bus. It is expected that these increases in demand can be accommodated by the public transport network, which currently has additional capacity.

In terms of impacts upon the student drop off/pick up efficiency, ARUP has found that many families use Bradman Street to the rear of the school. There is presently only one pedestrian entry open to the school Site at the western end of Bradman Street. A second pedestrian entry is located further to the east along Bradman Street but it is currently closed off to pedestrians. ARUP propose that reopening the second pedestrian entry from Bradman Street would alleviate the pick-up and drop-off activity on the western access – this will be initiated if needed in the future. A cul-de-sac at the eastern end of Bradman Street can facilitate an efficient U-turn for parents after dropping off or picking up students.

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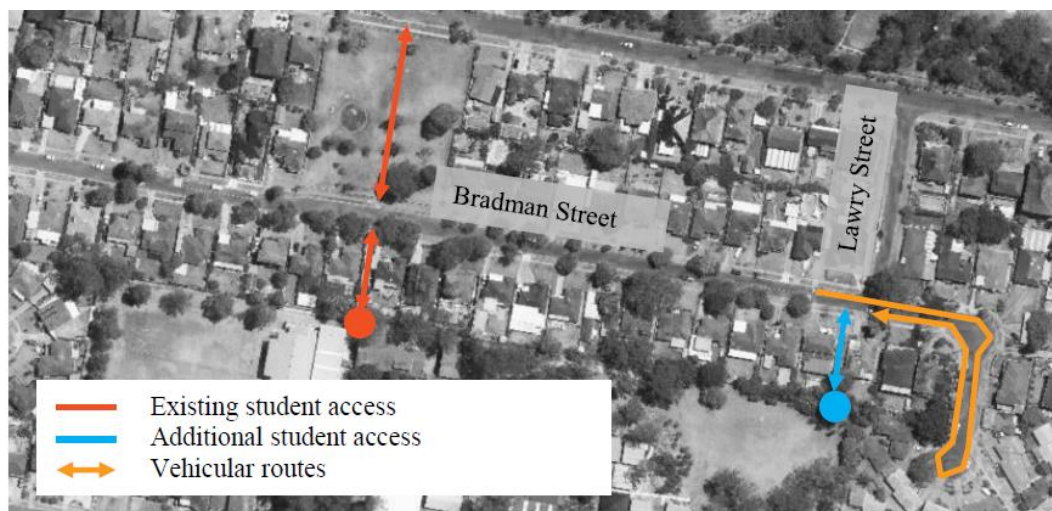


Figure 14 Extract of drop-off and pick-up arrangements, with potential additional future access (ARUP)

In terms of alternative transport methods, the proposed development will continue the existing school support for cycling and walking of students and staff. There are two pedestrian crossings to access the school, one on Merrylands Road and one on Bradman Street. The Merrylands Road crossing is currently managed by a Traffic Controller during the school peaks to ensure children's safety and there are no proposed changes to this arrangement. The crossing on Bradman Street is currently unsupervised.

ARUP has undertaken an assessment of Warrants to establish if there was need for a managed children's crossing on Bradman Street given the forecast increase in student numbers. They found:

Warrants for a children's crossing across Bradman Street, in line with the student entry is strongly recommended to improve safety... If a school crossing is not installed, it is recommended that alternative traffic management devices be installed to reinforce the no stopping zone and ensure good sightlines for pedestrians. These could include:

- *Kerb blisters to narrow the road width to a single traffic lane in each direction. This provides good sightlines and a shorter crossing distance. It also permits the no stopping distance to be reduced.*
- *Install speed humps to ensure slow speeds – although speeds are already slow which means this option will have limited benefit.*

In terms of car parking requirements, Part A Chapter 3.1 of Holroyd DCP 2013 sets out the following car parking requirements for educational establishments:

1 car parking space per full time equivalent staff member, plus 1 car parking space per 100 students

The forecast is for FTE staff of 50 and approximately 894 students. Therefore, Holroyd DCP 2013 requires the following car parking supply:

- 50 FTE staff x 1 = 50 car parking spaces
- 894 students / 100 = 9 car parking spaces
- Total car parking required = 59 car parking spaces

ARUP makes the following observation in their report:

It is viewed that the DCP requirement for staff and visitor parking spaces is excessive. By providing one space per employee, the DCP guidelines assume all staff members own a car and drive to the school every working day. Journey to Work data states that the private vehicle mode share for the area is 77%, suggesting that not all new staff members will drive to the school.

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The school currently has 30 car parking spaces. However, the proposed new administration building and COLA require the removal of one carpark, which will result in the removal of 12 car parking spaces, leaving a total of 18 car parking spaces. The Traffic Report provides an assessment of both current and future transport and accessibility impacts, including the availability of on-street parking in the immediate surrounds. **Figure 15** identifies the availability of unrestricted on-street car parking available.



Figure 15 Extract traffic report, identifying unrestricted on-street car parking proximate to the school (ARUP)

During a parking occupancy survey conducted during school hours, ARUP found that of the available spaces, there were 53 unoccupied spaces on Merrylands Road within one block of the school.

Additional parking cannot be located within the school Site as it would reduce the area of outdoor play space available for students, or require the removal of additional school buildings. On-site car parking will be available for 18 vehicles, and the on-street network has been found to have sufficient capacity to cater for the additional parking spaces that may be required. In addition, there are three bus routes that service the school from Paramatta, Merrylands and Pemulwuy, which provide alternative transport options for staff.

In summary, the traffic and parking assessment found that:

- The local road network currently performs efficiently during school peak periods and the proposed development is expected to have minimal impact on traffic performance;
- Re-opening the eastern gate to Bradman Street opposite Lawry Street will alleviate drop-off and pick-up activity and improve safety on the existing operations of Bradman Street; and
- There is sufficient on-street parking within walking distance of the school entrances to accommodate the forecast car parking requirements.

Therefore, the forecast increase in student numbers at Greystanes Public School is unlikely to significantly impact the existing public transport, parking and road network conditions.

Construction Traffic Management

ARUP has also prepared a Construction Pedestrian and Traffic Management Plan (**Appendix 20**) which details various construction traffic management measures to be implemented during the carrying out of the works so as to ensure sufficient consideration of the safety and amenity of pedestrians and motorists.

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6.5.5 Ecologically Sustainable Development

Jones Nicholson Engineers has prepared an Ecologically Sustainable Development (ESD) Report (**Appendix 18**) which identifies the relevant SEARs requirements and planning regulations (such as the EFSG and EP&A Regulations), as well as the ESD objectives of the proposed development and details all sustainability initiatives, including initiatives relating to:

- Building services;
- Mechanical services;
- Electrical services;
- Hydraulic services;
- Structural design; and
- Civil design.

The ESD Report identifies how the ESD principles will be incorporated into the design and on-going operation of the proposed development, as required under Clause 7(1)(f) of Schedule 2 of the EP&A Regulation 2000. The Report concludes that *“the project could potentially contribute to a Green Star Design & As Built v1.2 rating of 4 Stars, which is considered best practice within the Australian Building Industry.”*

The principles of ESD (as set out under Clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000) are addressed below:

- **The Precautionary Principle:** The proposal does not present any threat of serious or irreversible environmental damage, as detailed within this assessment. In this regard, the precautionary principle does not need to be exercised in regard to the proposed works.
- **Inter-Generational Equity:** The works proposed as part of this DA will ensure that the health, diversity and productivity of the environment are maintained and enhanced to the benefit of future generations, having regard to the ESD initiatives discussed above and environmental outcomes achieved through architectural and engineering design.
- **Conservation of Biological Diversity and Ecological Integrity:** The Site does not present any issues of biological diversity or ecological integrity as the land has been operating as a golf course and therefore is already cleared. The impacts external to the Site (such as noise, shadowing, stormwater) have been assessed and the outcomes determined to be supportable.
- **Improved Valuation, Pricing and Incentive Mechanisms:** All up front and ongoing costs associated with the environmental performance of the proposed development have been considered in the design of the proposal, and are considered reasonable and acceptable.

6.5.6 Social Impact Statement

The proposed development will improve the social wellbeing of the Greystanes community through the provision of expanded, high quality and permanent public educational facilities that are designed to achieve best practice outcomes pursuant to the EFSG, BCA, Australian Standards and other relevant standards and guidelines. The community of Greystanes has grown rapidly and the provision of expanded facilities will add to the social infrastructure of the locality and goes towards addressing the needs of future generations.

The proposal will provide a high quality and highly durable outcome that will assist in meeting the educational needs of the area for the foreseeable future. Accordingly, the proposal will have substantial positive social impacts.

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6.5.6.1 CPTED Assessment

CPTED consists of four (4) universal design principles which are aimed at assessing crime risk and reducing preventable risk before a development is approved. The proposed development has been designed having regard to the CPTED principles, an assessment of which is provided below:

Territorial Re-enforcement

The Site has considerable frontage to the public domain along Merrylands Road, with two existing pedestrian access ways from Merrylands Road and a third proposed in front of the proposed new 2/3 storey learning space. The design of the proposed works will re-enforce the public domain (roadways) and the interior of the Site, particularly focussing on the new main entry to the new administration building. Fencing, landscaping, a striking façade and signage will establish a 'civic' domain, encouraging communal responsibility for the public areas and clearly communicating to people where they should and should not be.

The proposal will retain the established pedestrian and vehicular access points on the Site from both Merrylands Road and Bradman Street (at the rear of the Site), which are all fenced and gated pursuant to current operational requirements. The proposal includes an upgrade to the pedestrian laneway from Bradman Street at the north-eastern portion of the Site, which is currently closed off. Greystanes Public School has its primary vehicular access at the south-western corner of the Site from Merrylands Road.

Surveillance

The principles relating to surveillance relate to spaces in public areas where people can see and interact with others. This is often a deterrent for criminals committing a crime in that place.

The Site already benefits from a high level of natural surveillance from the public domain and from nearby residential development, as well as through the interior of the Site from the continual presence of staff. The construction of the new administration building as well as the new classroom building along the frontage of Merrylands Road will further add to the natural surveillance to and from the public domain and will ensure that the pedestrian crossing, bus stop and main entry has a high degree of natural surveillance before, during and after school hours.

The proposal does not include technical/mechanical surveillance due to the high level of natural surveillance resulting from the use of the Site by 713 students and 42 staff, and student numbers are forecast to increase. Technical surveillance could be employed in the future if considered necessary, however, it has not formed part of the design brief because there are no current security issues which warrant its inclusion into this project.

The presence of a General Assistant through the week also acts as an ongoing form of active surveillance.

Access Control

The key goals of the principle of access control are to restrict, channel and encourage people and vehicles into, out of and around the development. Effective access control can be achieved by using physical and symbolic barriers.

The Site currently utilises permeable physical barriers (i.e. fences and gates) to all access points and boundaries to provide access control without restricting surveillance opportunities. The proposed development will not result in any change to the existing access control measures successfully utilised by the school. Given the success of the existing access controls, additional treatments are not warranted.

Space/Activity Management

CPTED principles promote the adoption of space/activity management strategies as a way to develop and maintain natural community control. The proposed development achieves this

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through the design of buildings orientated to the exterior of the Site and promotion of interior open spaces not accessible or visible from the public domain. The Site will be maintained by a General Attendant which will discourage criminal behaviour. Durable, graffiti resistant materials will be used wherever practicable. External lighting will also be provided to deter the carrying out of anti-social and criminal activities both within and along the boundaries of the Site.

6.5.7 Noise and Vibration

In response to the SEARs requirements, Cundall has prepared an Acoustic Assessment Report (**Appendix 14**) which:

- Identifies the design criteria for the proposed development;
- Reviews the conditions of the existing site;
- Examines the potential for the impact of road noise intrusion;
- Undertakes short and long-term noise surveys to establish average weekday and weekend noise levels;
- Undertakes an assessment of internal acoustic criteria, with relevant recommendations;
- Undertakes an assessment of external plant noise emissions, with relevant recommendations;
- Considers the potential cumulative impacts resulting from an increase in activity noise from the additional students, as well as the new buildings and play areas, with relevant recommendations;
- Considers the potential noise impacts resulting from additional road traffic; and
- Considers the potential noise impacts resulting from construction noise, with relevant recommendations.

The SEARs requires a quantitative assessment of the noise and vibration generating sources resulting from the proposal, including a PA system, school bell, use of the school hall, waste collection, mechanical services and the use of any facilities outside of school hours. The assessment carried out by Cundall has addressed these matters in satisfaction of the SEARs.

In considering maintaining the acoustic amenity for the nearest residential properties and the potential impacts of the carrying out of the proposed development, the Acoustic Report has gathered baseline data on existing noise levels to establish the amenity criterion, finding that there is only slight variation in the noise levels across each daytime, evening and night-time period. The Acoustic Report outlines that the measurement location is considered representative of conditions at the nearest affected residential properties.

The Acoustic Report provides an assessment of internal acoustic criteria, based on the combination of any building services and intrusive external noise levels. The Report concludes that “*daytime noise levels monitored are objectively moderately low, even at the nearest proposed façade.*” The Report references recommended design levels for steady-state internal noise levels within educational buildings (including project-specific noise levels), and provides an assessment against these. Cundall has provided acoustic design recommendations to ensure internal noise criteria are achieved, including the need to provide “*glazing attenuation performance no greater than 17dB to adequately control intrusiveness of road traffic noise*”.

External plant noise emissions are also assessed, generally relating to assisted mechanical exhaust/ventilation and localised items of plant such as toilet extract fans and server room services. The development proposal includes assisted mechanical exhaust/ventilation, but only includes air-conditioning as follows:

- One (1) unit for the Administration Block; and

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- Up to five (5) units for the new Classroom Building.

The potential impacts of the external plant noise have been assessed against the most affected noise sensitive receivers, in this case, adjacent residential properties on Merrylands Road. The assessment provides recommendations for the acoustic design of external plant.

As the proposed development will include an increase in the capacity of students accommodated at the School, the Acoustic Report has also considered the potential increase in student activity noise, including the following noise sources:

- Increase in student numbers;
- Change in activities;
- Relocation of the COLA;
- School bell/announcement system;
- Waste collection services;
- Use of temporary demountable classrooms for the duration of the works;
- Grounds maintenance; and
- Out of house usage (e.g. community use).

The assessment of potential noise impacts resulting from the increase in student activity found that, subject to the implementation of a range of practice measures, it is not anticipated that there will be a significant change to the prevailing acoustic environment due to the proposed development. Cundall finds that additional detailed assessments are not necessary, in this regard.

As a result of the proposed increase in students, the development will result in additional road traffic from both students (parents) and staff. From the Traffic and Transport Assessment, a total of 76 additional vehicular trips are forecast. The Acoustic Report has considered the potential noise impacts of these additional vehicular trips and finds that there will not be any significant change in local traffic noise generation, even if it is assumed all new movements affect one specific location. Therefore, no change to the local amenity will result from the increase in traffic movements.

In regard to noise generated by waste collection, it is not anticipated that the proposed development will result in additional waste collection services, and no changes are proposed to Site access for service vehicles. It is therefore considered that waste collection will not generate a significant noise impact.

In accordance with the SEARs, Cundall has also considered the potential acoustic impacts of construction noise, establishing good-practice measures to be adopted on site during the demolition and construction stages, and considering relevant noise and vibration criteria for these measures.

The Acoustic Report concludes:

Acoustic analysis has been undertaken based upon data from noise surveys at the Site. Acoustic design targets have been determined, based on appropriate standards and guidelines to achieve acceptable noise levels for:

- *Noise break-in to the development and internal noise levels*
- *Noise break-out to the community.”*

The findings of the Acoustic Report have been assessed as sufficient in identifying and addressing the extent of noise impacts and noise performance resulting from the proposed development, for the purposes of this report.

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6.5.8 Stormwater Management

Jones Nicholson Engineers has prepared a Stormwater Management Report (incorporating Integrated Water Management) (**Appendix 11**). The Report provides consideration of the existing site conditions, including the moderate flood affectation of the north-eastern corner of the Site as identified in the Cumberland Council's Flood Risk Precincts Map. As discussed in **Section 6.5.3** of this EIS, the flood affectation of this corner of the Site does not impact the proposed development.

The proposed stormwater management system has been designed in accordance with Cumberland Council's Stormwater Drainage and On-Site Detention (OSD) Policies, and where feasible the proposed systems for the new development utilise existing infrastructure (see Stormwater plans at **Appendix 12**).

Specifically, the piped stormwater drainage system has been designed to convey the 1% AEP event to ensure all runoff is directed to the proposed OSD tanks, which are designed to capture stormwater in two catchments, as follows:

- OSD Catchment 1: New classroom building and surrounds:
 - Total area: 2,880m²
 - Proposed volume: 90m³
- OSD Catchment 2: New administration building, COLA and surrounds:
 - Total area: 1,300m²
 - Proposed volume: 41m³

The proposed stormwater management arrangements are capable of accommodating, storing and appropriately disposing of all stormwater captured on the site to the 1% AEP event. Accordingly, the proposed development will result in a positive outcome for the stormwater management of the Site.

6.5.8.1 Sediment, Erosion and Dust Control

During the construction phase of the works, erosion and sediment controls measures will be provided in accordance with the Blue Book, including silt fences, sediment basins and construction exits for vehicles. Jones Nicholson has prepared an Erosion and Sediment Control Plan to detail these measures (**Appendix 12**).

The Preliminary CMP prepared by Johnstaff (**Appendix 20**) sets out additional considerations for the environment and amenity, including noise and vibration, and dust mitigation measures, details of which will be set out in the EMP prepared by the head contractor.

6.5.9 Waste

A Waste Management Plan has been prepared by JDH Architects (**Appendix 21**) which identifies the likely waste streams to be generated during the construction and operation phases of the development. The Waste Management Plan outlines measures to avoid the generation of unnecessary waste, minimise the volume of waste to be collected, and recycle, reuse and recover waste generated by the proposed works. The Plan includes appropriate servicing arrangements for the Site.

6.6 Suitability of the Site for Development

The following subsections assess the suitability of the Site in accordance with Section 79C(1)(c) of the EP&A Act.

6.6.1 Contamination, Geotechnical, Salinity and Acid Sulfate Soil Investigations

A Preliminary Contamination Assessment (PCA) and Preliminary Salinity Assessment (PSA) has been carried out by Environmental Investigation Services (EIS) (**Appendix 5**). In regard

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to contamination, the investigations “*did not identify any obvious sources of potential contamination...EIS are of the opinion that potential risks associated with contamination within the investigation areas are low. Further investigation and/or remediation is not considered to be required*”.

In regard to salinity on the site, the investigations found that “*slightly to moderately saline soils and mildly to moderately aggressive soil conditions are present*”. The PSA Report makes a recommendation that “*the structural engineer factors the salinity results into the design accordingly and that a salinity management plan is implemented for the works*”.

Both assessments provide recommendations to be implemented during the carrying out of works at the site, and these will be incorporated into the head contractors arrangements.

JK Geotechnics has prepared a Geotechnical Investigation for the subject Site (**Appendix 4**), which details the results of the sub-surface investigations carried out and relevant findings therein. The Report provides comments and recommendations for carrying out the works proposed as part of this application, including design of footings, and matters relevant to the subgrade preparation and engineered fill works.

With respect to acid sulfate soils (ASS), the Site is not located on land identified as under Class 1-5 ASS and is more than 5 kilometres from the nearest land mapped as Class 5 ASS. In addition, the proposed works will not involve the major excavation of land below 2-3m from existing ground level. Given the separation from land identified as comprising ASS and the limited earthworks proposed, an Acid Sulfate Soils Management Plan is not considered necessary.

6.6.2 Utilities/ Infrastructure

6.6.2.1 Infrastructure

The Site has access to suitable water, and sewerage utilities, and will provide for adequate stormwater drainage servicing. Gas services will be extended to the site as part of this development.

The proposal includes a component of rainwater storage and reuse. As detailed in the ESD Report prepared by Jones Nicholson (**Appendix 18**), the development will incorporate practical water conservation systems which contribute to Green Star credit WAT-1.

6.6.2.2 Electrical Infrastructure Assessment

Jones Nicholson has prepared an Electrical Infrastructure Statement for the proposed Greystanes Public School (**Appendix 19**), which identifies the existing supply and the upgrade required for a forecast load of 498 Amps (251 Amps more than the maximum demand for the previous year). Endeavour Energy has confirmed “*that the requested extra load required for the buildings can be supplied from their low voltage network*”.

The new facilities will be linked into the existing telecommunication services provided to the School. The proposed development is capable of being adequately serviced with electrical/ telecommunications services.

6.6.3 Accessibility

An Accessibility Report has been prepared by Morris Golding Accessibility Consultants (**Appendix 17**) which provides a review of all aspects to and within the Site with respect to the Building Code of Australia (BCA), *Disability Discrimination Act 1992 (Cth)* (DDA), Universal Guidelines and relevant Australian Standards.

The Accessibility Report concludes as follows:

In general, the development has accessible paths of travel that are continuous throughout. In line with the report's recommendations, the proposed development has demonstrated an appropriate degree of accessibility. The Development Application drawings indicate that compliance with statutory requirements, pertaining to site access, common area access, accessible parking and accessible sanitary facilities, can be readily achieved.

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The recommendations in this report are to be developed in the ongoing design development and should be confirmed prior to construction certificate stage. As the project proceeds, further review of documentation is strongly recommended to ensure that appropriate access is provided to and throughout the development. Therefore, accessibility to and within the Site is considered to be acceptable at this planning stage of documentation.

6.7 Public Interest

In accordance with Section 79C(1)(e) of the EP&A Act, the proposed development is in the public interest as it:

- Will meet the current and future primary education demands for residents of Greystanes;
- Will provide high quality learning and teaching spaces with flexible layout arrangements and durable finishes ensuring the proposal operates as a long-life, high utility and low maintenance educational establishment;
- Has been designed in accordance with the visions, objectives and expectations of the community, the Department of Education and relevant experts;
- Incorporates appropriate design and urban design analysis to ensure that the best design outcome is achieved for the Site, students and surrounds, including the use of a 2-3 storey built form;
- Is generally consistent with relevant planning controls and legislation;
- Will minimise the potential for environmental amenity impacts and incorporate ESD initiatives through both the construction and operational phases;
- Achieves appropriate environmental performance outcomes in relation to acoustic amenity, stormwater drainage and waste management;
- Will be provided with adequate connection to necessary infrastructure and servicing to ensure the development operates smoothly at full capacity; and
- Is readily able to achieve compliance with the performance requirements of the BCA and the spirit and intent of the DDA.

7 Other Statutory Approvals

7.1 General

The proposed development may require, or may be construed as requiring, several approvals, consents, licences, permits or permissions from various government departments, pursuant to legislation other than the EP&A Act and accordingly, this section provides a brief assessment of relevant other legislation.

7.2 Commonwealth Department of Environment and Energy

7.2.1 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

Part 3 Division 1 Subdivision C of the EPBC Act provides, amongst other things, that a person must not take an action that has, will have or is likely to have a significant impact on:

- a listed threatened species included in the extinct in the wild, critically endangered, endangered or vulnerable categories; or
- a listed threatened ecological community included in the critically endangered or endangered categories;

unless a ‘*controlled action*’ approval has been granted under Part 9 Section 133 of the EPBC Act. The Commonwealth Minister for the Environment and Energy is responsible for the decision on such an approval.

Pursuant to section 45 of the EPBC Act, a bi-lateral agreement has been signed between the Commonwealth Department of Environment and Energy and the NSW Office of Environment and Heritage (OEH) which authorises the OEH to undertake the environmental assessment required pursuant to the EPBC Act and to furnish the Commonwealth Minister with an assessment report which may recommend whether approval should be granted and conditions that may be imposed on any approval. The Commonwealth Minister is responsible for the final decision.

SLR Consulting has prepared a BDAR to assess the potential impacts of the proposed development on biodiversity, in accordance with the BAM. SLR Consulting outlined that the stands of Cumberland Plain Woodland recorded and mapped within the site comply with the definition of the EPBC Act as the listed community *Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest*.

Having regard to the EPBC Act protected matters, the BDAR outlines that “*The subject site is not considered to be important habitat for any other EPBC Act listed species. This is mainly due to a lack of native vegetation and habitat features including those described in Section 3.3*”. Further, the BDAR outlines that “*given the highly degraded nature of the subject site, it is unlikely that the habitats present within the subject site are important to any of the EPBC Act matters listed in BDAR Appendix D*”. Accordingly, no further action or approval is required.

7.3 NSW Department of Planning and Environment (DPE) – Office of Environment and Heritage (OEH)

7.3.1 Biodiversity Conservation Act 2016

Part 7 of the Biodiversity Conservation Act 2016 (BC Act) sets out provisions relevant to biodiversity assessment and approvals under the EP&A Act. Specifically, Clause 7.9 applies to an application for development consent under Part 4 of the EP&A Act for SSD. This includes the proposed development.

Clause 7.9(2) and (3) set out the following requirements:

- (2) *Any such application is to be accompanied by a biodiversity development assessment report 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.*

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(3) The environmental impact statement that accompanies any such application is to include the biodiversity assessment required by the environmental assessment requirements of the Planning Agency Head under the Environmental Planning and Assessment Act 1979.

On 22 November 2017, DPE reissued the SEARs for the proposed development, which included an additional 'Key Issue' No. 18 as follows:

"Biodiversity impacts related to the proposal and the preparation of a Biodiversity Assessment are to be addressed in accordance with the requirements of the Biodiversity Conservation Act 2016"

Pursuant to Clause 7.9 and in compliance with the SEARs requirements, a Biodiversity Development Assessment Report (BDAR) has been included at **Appendix 9**.

SLR Consulting has prepared a BDAR (**Appendix 9**) which provides an assessment of the existing biodiversity values of the site and immediate surrounds (including the presence of threatened flora and fauna species), addresses the legislative requirements for biodiversity (including the BAM and requirements of the BC Act) and provides recommendations/conclusions for the current and future development of the site.

Having regard to the requirements of the BC Act, SLR Consulting has found that the BAM requires a BDAR to be prepared for areas identified on the NSW Biodiversity Values Map, or where an area clearing threshold is exceeded. Greystanes Public School is identified in the Biodiversity Values Map.

The BDAR sets out the assessment methodology, which included a desktop assessment, field assessment, assessment of vegetation mapping, targeted surveys and undertaking Biodiversity Credit Calculations. The existing biodiversity values of the site were established, identifying:

- A total of 87 plant species within the Site, comprising:
 - 38 exotic species;
 - 49 native species;
 - At least eight (8) of the native species appear to have been planted;
- One (1) native plant community was identified within the Site, being Cumberland Plain Woodland, which is classified as:
 - A Critically Endangered Ecological Community (CEEC) under the BC Act; and
 - A CCEC under the EPBC Act;
- One (1) threatened tree species was identified within the Site, being Wallangarra White Gum, which is listed as:
 - An endangered species under the BC Act; and
 - A vulnerable species under the EPBC Act;
- Five (5) exotic plant species were identified within the Site, which are identified as High Threat Exotics (HTEs) according to OEH;
- A total of 11 fauna species were identified during the assessment, comprising:
 - Nine (9) species of birds; and
 - Two (2) species of common reptiles.

The BDAR carried out an impact assessment of the proposal, primarily resulting from tree removal and removal of fauna habitat. The vegetation impact summary identified a total of 0.08ha of Cumberland Plain Woodland CEEC to be removed (0.38ha would be retained). SLR Consulting was unable to fully determine the potential for 'serious and irreversible impact' to

7 Other Statutory Approvals

the Cumberland Plain Woodland CEEC, however outlined that “*given the highly modified nature of the vegetation (i.e. low condition) and the small area proposed to be cleared (i.e. 0.08 hectares), it is unlikely that the direct removal of this vegetation would constitute a serious and irreversible impact as defined by the BC Regulation*”.

SLR Consulting set out avoidance measures and a range of mitigation measures (such as erosion control, dust control, chemical spill management, fauna impact management and weed management) and provides a calculation of offset requirements based on the BAM calculator. The BDAR finds that the proposal requires the purchase of three (3) ecosystem credits, or a payment of \$48,315.98 + GST into the Biodiversity Conservation Fund, to address the proposed impacts on biodiversity.

7.3.2 Heritage Act 1977

The *Heritage Act 1977* contains provisions relating to the protection of items of heritage significance or items of potential significance.

Section 57 relates to items listed in the State Heritage Register or to which an interim heritage order applies and development relating to such items triggers the integrated development provision of the EP&A Act. There are no such items on the Site.

Section 139 of the Act requires that an Excavation Permit is required prior to undertaking any development which involves excavation of land where there is reasonable cause to expect that a relic² will be discovered or disturbed.

Pursuant to Section 89J(1)(c) of the EP&A Act, granting of development consent to a SSD exempts a proponent from the requirement to obtain a Section 139 permit.

The Site does not comprise, and is not located adjacent to any areas that are likely to contain a relic and accordingly, no further assessment of heritage is considered to be warranted.

7.3.3 National Parks and Wildlife Act 1974 (NPW Act)

The NPW Act contains provisions relating to the protection of native terrestrial fauna, flora and Endangered Ecological Communities (EEC) and contains the primary statutory controls relating to Aboriginal heritage in NSW.

Section 90 of the NPW Act requires an Aboriginal Heritage Impact Permit (AHIP) to be granted by OEH for any works likely to impact on an Aboriginal Place or Aboriginal object³.

Pursuant to Section 89J(1)(d) of the EP&A Act, granting of development consent to a SSD exempts a proponent from the requirement to obtain an AHIP.

The SEARs issued for this application have not identified a requirement to undertaken any specific assessment for Aboriginal cultural significance, and given the historical use and development of the site, it is reasonable to consider that a new assessment would not be warranted for the proposed works.

7.4 Department of Primary Industries – NSW Office of Water

7.4.1 Water Management Act 2000 (WM Act)

The object of the WM Act is the “*sustainable and integrated management of the water sources of the State for the benefit of both present and future generations*”.

² **relic** means any deposit, artefact, object or material evidence that:

(a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and
(b) is of State or local heritage significance.

³ **Aboriginal object** means any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

7 Other Statutory Approvals

Part 3 of Chapter 3 of the WM Act relates to Approvals and Section 91(2) requires a 'controlled activity approval' (CAA) for works at a specified location in, on or under 'waterfront land'.

Pursuant to Section 89J(1)(g) of the EP&A Act, granting of development consent to a SSD exempts a proponent from the requirement to obtain a CAA.

Section 91(3) requires an 'aquifer interference approval' (AIA) for an aquifer interference activity⁴. Granting of development consent to a SSD does not exempt a proponent from the requirement to obtain an AIA.

The Geotechnical Investigation report prepared by JK Geotechnics (see **Appendix 4**) indicates that groundwater was not observed during or after completion of auger drilling and that the excavations required for the proposed development are considered unlikely to intersect any aquifer and accordingly, an AIA is not required.

7.5 NSW Department of Transport (DoT) - NSW Roads and Maritime Services (RMS)

7.5.1 Roads Act 1993

Section 138(1) of the *Roads Act 1993* relates to works associated with public roads and provides that a person must not:

- "(a) erect a structure or carry out a work in, on or over a public road, or*
- (b) dig up or disturb the surface of a public road, or*
- (c) remove or interfere with a structure, work or tree on a public road, or*
- (d) pump water into a public road from any land adjoining the road, or*
- (e) connect a road (whether public or private) to a classified road,*
- otherwise than with the consent of the appropriate roads authority."*

The proposed works will not involve any works which require consent under Section 138 of the *Roads Act 1993*. However, should it be determined that such a consent is required, pursuant to Section 89K(1)(f) of the EP&A Act, and should development consent be granted to the proposed SSD, consent under s138 cannot be refused if it is necessary for carrying out of the development and must be substantially consistent with the SSD development consent.

⁴ **aquifer interference activity** means an activity involving any of the following:

- (a) the penetration of an aquifer,*
- (b) the interference with water in an aquifer,*
- (c) the obstruction of the flow of water in an aquifer,*
- (d) the taking of water from an aquifer in the course of carrying out mining, or any other activity prescribed by the regulations,*
- (e) the disposal of water taken from an aquifer as referred to in paragraph (d).*

8 Environmental Risk Assessment

8.1 Risk Assessment

A risk assessment of the potential environmental impacts associated with the proposed development has been undertaken in **Table 10**, using the matrix in **Figure 16** based on likelihood and consequence to identify the level of risk.

			Likelihood					
			1	2	3	4	5	6
			Remote	Highly unlikely	Unlikely	Possible	Likely	Highly likely
Consequence	A	Catastrophic						
	B	Massive					Critical	
	C	Major				High		
	D	Moderate			Medium			
	E	Minor		Low				
	F	Slight						

Figure 16 Environmental Risk Matrix (Source: INPEX)

Table 10 Risk Assessment				
Potential Impact	Level/Scale of impact	Consequence	Likelihood	Risk
Construction Phase				
Spillage of fuel or oils from or for use in Machinery	Limited to small capacity fuel tanks of on-Site machinery	Slight	Possible	Low
Excessive noise or vibration resulting from use of construction machinery	Subject to machinery used, level of impact is limited to school Site and immediate surrounds	Minor	Unlikely	Medium
Increase in construction traffic	Limited to roads immediately surrounding the Site, including Merrylands Road, Bradman Street and nearby intersections.	Minor	Likely	Medium
Safety of the public	Personal injury due to construction practices/materials	Major	Highly Unlikely	Medium
Potential identification of items of archaeological	Disturbance of archaeological artefacts (unexpected finds)	Slight	Unlikely	Low

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Table 10 Risk Assessment				
significance during construction phase				
Potential identification of acid sulfate soils during construction phase	Site is not mapped as subject to acid sulfate soils	Slight	Remote	Low
Potential identification of contaminated materials during construction phase	Preliminary investigations completed, some asbestos identified, but risk of other contaminated materials low. Appropriate recommendations have been provided	Minor	Unlikely	Medium
Potential for reduced air and water quality during construction phase	Movement of vehicles and construction material (particularly at early stages) will stir up and displace earth/dust, potentially impacting surrounding development.	Moderate	Unlikely	Medium
Visual or amenity impacts resulting from new built form	Limited to public domain and surrounding residential development.	Minor	Highly Unlikely	Low
Operational Phase				
Noise - Traffic	Increase in noise due to vehicular traffic	Slight	Likely	Low
Noise – School	Increase in noise due to children's use of outdoor play spaces and/or PA systems	Minor	Likely	Medium
Reduction in solar access	Limited overshadowing of the road reservation	Slight	Likely	Low
Increase in parking demands on local roads during operation phase	Limited to surrounding road network at peak drop off and pick up periods	Minor	Likely	Medium

8.2 Risk Management

A Risk Management Plan has been prepared in respect of any impacts identified above as carrying Moderate, High or Extreme risk. **Table 11** sets out these potential impacts, the level of control/s required and a control strategy for each risk.

Table 11 Risk Management Plan		
Potential Impact	Level of Control	Control Strategy
Construction Phase		
Increase in construction traffic	Engineering controls, Procedures and training	A preliminary CMP, incorporating a Construction Traffic Management Plan, has been prepared (Appendix 20) which details the controls and procedures relevant to the minimising of risk associated with construction traffic movements resulting from the proposed development. These include clear identification of entry/exit crossing and traffic management.
Excessive noise or vibration resulting from use of construction machinery	Isolation Reduction	- Construction Hours to be limited to: - 7am to 7pm Monday to Friday; - 8am to 5pm Saturdays; - No work on Sundays or Public Holidays without permission - Site Access and vehicles routes to avoid (as far as possible) residential receptors; - Construction vehicles to be parked on-Site and workers instructed not to park in surrounding residential streets; and - Use of barriers, enclosures and/or silencers where necessary to meet EPA noise limits.

8 Environmental Risk Assessment

Table 11 Risk Management Plan

Potential Impact	Level of Control	Control Strategy
Potential for reduced water quality during construction phase	Engineering controls, procedures and training	The development will be the subject of sediment and erosion management practices as detailed in the Plans at Appendix 12 , as well as Site preparation works which minimise the disturbance and transport of earth/dust within and outside of the Site, including the use of water trucks, wheel wash bays and other measures as appropriate.
Potential for reduced air quality during construction phase	Elimination Reduction Engineering Controls	1. Construction Hours to be limited to: - 7am to 7pm Monday to Friday; - 8am to 5pm Saturdays; - No work on Sundays or Public Holidays without permission 2. Haulage trucks to be covered; 3. Earthworks to be restricted during high wind periods; 4. Watering down of exposed soils; and 5. Truck shaker grids to be installed at exit points
Safety of the public	Isolation Procedures and Training	1. Site fencing and hoarding to be used. 2. Secure fences/gates to prevent unauthorised Site entry 3. Training of workers responsible for use of heavy machinery/cranes or the like.
Potential identification of contaminated materials	Isolation Procedures and Training	1. Comply with recommendations of PCA report (Appendix 5).
Operational Phase		
Noise - Traffic	Reduction Engineering Controls Procedures and Training	1. All staff and service vehicles to use designated entry/exit points to the Site. 2. Staff and students to be encouraged to use sustainable transport modes 3. All student drop off/pickup activities to be undertaken using the dedicated vehicle and bus laybys.
Noise – Play spaces	Isolation Reduction Procedures and Training	1. Outdoor activities to be undertaken primarily in the designated play spaces oriented away from the southern and eastern frontages. 2. Staff and students to be informed regularly of residential neighbours and advised to keep noise to a minimum. 3. Public announcement systems not to be used outside of core school hours.

8.3 Cumulative impacts

Greystanes is an established suburb with a landscaped, low and medium-density residential urban environment. In this regard, the Site is not experiencing high growth or a change in urban fabric such as the Sydney growth centres and cumulative impacts are therefore appropriately considered in terms of existing surrounding development, rather than development potential for land use zoning and other strategic planning objectives.

Background research carried out in the process of this EIS concludes that the site is not adjacent to, or in the vicinity of any major development approvals which would contribute to an altered environment. All development being carried out in the immediate and surrounding vicinity relates only to low-density residential development and is not of a scale or density which would have an unacceptable cumulative impact on the amenity of the locality.

In particular, the location of the Public School is such that all potential cumulative environmental impacts with other nearby educational establishments (such as vehicle noise, traffic performance, parking, student noise emissions etc.) are mitigated through the separation of each school throughout the locality, such that schools are not condensed to one area but separated and thus impacts are mitigated. In particular the separation of each school via the road network (including main roads such as Jersey Road (A28), Great Western Highway (A44) and the Western Motorway (M4)) lends to a dissipation of cumulative impacts to an acceptable level.

8 Environmental Risk Assessment

Notwithstanding, the construction and operation of Greystanes Public School is considered to be of great social and economic benefit to the region and will have minimal environmental impacts.

9 Conclusion

The NSW Department of Education proposes alterations and additions to Greystanes Public School at 781 Merrylands Road, Greystanes. The proposal has a CIV exceeding \$20 million and therefore must be assessed as SSD, pursuant to the State and Regional Development SEPP.

The NSW Department of Planning and Environment issued the SEARs for the proposed development in October 2017 (reissued 22 November 2017), and the requirements of the SEARs have formed the basis of the design development process as well as the assessment carried out within the body of this EIS Report. A response to all requirements set out in the SEARs has been provided, as referenced at **Section 1.4**.

The project team has carried out consultation with a wide range of stakeholders, including State government departments, local government, community and experts in the design of schools. The advice received throughout the consultation process has been incorporated into the current proposal where possible and reflects a commitment to provide a quality and objective-driven outcome.

The proposed development has been assessed in accordance with the provisions of Section 79C of the EP&A Act 1979 and is generally consistent with the relevant objectives and planning controls, with the exception of building height and parking provision. A justification for these non-compliances has been given and they have been found to be acceptable under the circumstances.

In response to the opportunities and constraints of the Site and the design requirements of the NSW Department of Education, the proposal has been designed to meet the current and future education demands for residents of Greystanes.

In addition, the proposed building works will provide high quality learning and teaching spaces with flexible layout arrangements and durable finishes ensuring the proposal operates as a long-life, high utility and low-maintenance educational establishment.

The proposal achieves acceptable environmental amenity outcomes, including desirable outcomes for biodiversity, acoustic amenity (both internal and external to the Site), stormwater drainage, flooding and waste management. Furthermore, the proposal will incorporate ESD initiatives considered to be best practice within the Australian building industry.

The works proposed under this DA will be subject to the recommendations of specialist reports so as to ensure appropriate geotechnical, contamination and salinity outcomes are achieved.

The proposed works have been designed to be, and will be carried out in the interests of the public. The Development Application will meet the project objectives to provide additional primary school accommodation in a high quality built form which has safe and efficient access for children, teachers, visitors and service personnel.

Accordingly, it is recommended that the Minister for Planning and Environment approve the proposed SSD DA.