



State Significant Development Environmental Impact Statement



Project Archimedes

Wenona School, North Sydney

Submitted to Department of Planning and Environment
On Behalf of Wenona School Limited, North Sydney

July 2015 ■ 14448

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Kate Tudehope

17/07/2015

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17/07/2015

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I	Statement of Heritage Impact <i>NBRS + Partners</i>
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K	Mechanical and Electrical Services Statement <i>Medland Metropolis</i>
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S	Structural Statement <i>Taylor Thomson Whitting</i>
T	Accessibility Report <i>MGAC</i>
U	Arboricultural Impact Report <i>Landscape Matrix Pty Ltd</i>
V	Consultation Summary <i>JBA</i>
W	BCA Compliance Statement <i>Blackett Maguire + Goldsmith</i>
X	Fire Engineering Statement <i>Exova Warrington Fire</i>

Statement of Validity

Development Application Details

Applicant name Wenona School

Applicant address Miller Street, North Sydney

Land to be developed

Address	Legal Description
263 Miller Street	Lot 1 in DP 997232 Lots 16 and 17 in DP 2798
265 Miller Street (including 6 Elliott Street)	SP 21394
255 Miller Street (Miller Street Campus)	Lots A and B in DP 173234 Lots 10, 11, 12 and 13 in DP 979505 Lots 8 and 9 in DP 996381
Existing Footbridge	Lot 2 and Part Lot 3 in DP 1064209
176 Miller Street (Footbridge connection into existing building)	Part Lot 20 in DP 2798

Proposed development Demolition and construction of an educational establishment as described in Section 3.0 of this Environmental Impact Statement

Prepared by

Name Gordon Kirkby

Qualifications Bec Dip URP MPIA

Address Level 7, 77 Berry Street, North Sydney

In respect of State Significant Development - Development Application

Certification

I certify that I have reviewed the content of this EIS and to the best of my knowledge:

it is in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000;

all available information that is relevant to the environmental assessment of the development to which the statement relates; and

the information contained in the statement is neither false nor misleading.

Signature



Name Gordon Kirkby

Date 17/07/2015

Executive Summary

Purpose of this Report

This submission to the Department of Planning and Environment (the Department) comprises an Environmental Impact Statement (EIS) for a Development Application under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). It relates to the redevelopment at Wenona School and involves the creation of new teaching and learning spaces, alterations and additions to existing facilities and associated demolition and landscape works.

The proposed development has a Capital Investment Value (CIV) of approximately \$34,430,000 and is therefore classified as State Significant Development (SSD) pursuant to Schedule 1 of the *State Environmental Planning Policy (State and Regional Development) 2011* (SEPP SRD).

A request for the issue of Secretary's Environmental Assessment Requirements (SEARs) was sought on 2 March 2015. Accordingly, the SEARs were issued on 8 April 2015. This submission is in accordance with the Department's guidelines for SSD applications lodged under Part 4 of the EP&A Act, and addresses the issues raised in the SEARs.

Overview of the Project

The new works will provide 3,804m² of additional gross floor area (GFA) and comprise the following elements:

- Demolition of:
 - the existing childcare centre (former house) at 263 Miller Street;
 - the existing office building at 265 Miller Street; and
 - the existing pedestrian link over Elliott Street.
- Construction of a new 6 storey (3 storeys above Miller Street) education establishment containing:
 - a 25 metre swimming pool;
 - a separate learn to swim pool;
 - teaching spaces and staff areas for STEM; and
 - teaching spaces for PDHPE (sport).
- Minor alterations and additions to the existing Miller Street Campus building at 255 Miller Street, including new connections, change rooms, plant and a new lift;
- Installation of the new substation on the site's Miller Street frontage;
- Construction of a new pedestrian overpass crossing Elliott Street, replacing the existing bridge and providing an improved link into the main campus at 176 Walker Street;
- Landscaping including new tree plantings and terraces, and make-good works to Elliott Street; and
- Removal of eight (8) trees.

The proposed development will not increase student or staff numbers on the campus.

The Site

Wenona School is located in the North Sydney Local Government Area (LGA) on the northern edge of the North Sydney CBD. The site is located approximately 800m north of North Sydney Station.

The school campus extends over a number of sites with the total landholdings being approximately 1.7 hectares. The proposal relates to the school's land at 255 – 265 Miller Street, North Sydney.

Planning Context

Section 6.0 of the EIS considers all applicable legislation in detail. The proposal is consistent with the requirements of all relevant SEPPs. The site is zoned B4 Mixed Use. The proposal is permissible with consent and meets the objectives of the subject zone, however the height and floor space ratio (FSR) standards applicable to the site do not cater for educational uses. As such the proposed development seeks to exceed the 10m height and maximum non-residential FSR of 1:1. Two Clause 4.6 variation requests are provided at Section 6.0 of this EIS. The building form is consistent with the scale of existing buildings in the locality, including existing school buildings.

Environmental Impacts and Mitigation Measures

This EIS provides an assessment of the environmental impacts of the project in accordance with the SEARs and sets out the undertakings made by the school to manage and minimise potential impacts arising from the development.

Conclusion and Justification

The EIS addresses the SEARs, and the proposal provides for the significant upgrade of the school's teaching and learning facilities. The potential impacts of the development are acceptable and are able to be managed. Given the planning merits of the proposal, the proposed development warrants approval by the Minister for Planning and Environment or his delegate.

1.0 Introduction

This Environmental Impact Statement (EIS) is submitted to the Department of Planning and Environment pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in support of an application for State Significant Development (SSD).

Development for educational establishment with a capital investment value of more than \$30 million is identified in Schedule 1 of *State Environmental Planning Policy State and Regional Development) 2011* (SEPP SRD) and is therefore declared to be SSD for the purposes of the EP&A Act.

The EIS has been prepared by JBA on behalf of Wenona School Limited, North Sydney, and is based on the Architectural Drawings provided by Tonkin Zulaikha Greer (see **Appendix A**) and other supporting technical information appended to the report (see Table of Contents).

This EIS has been prepared in accordance with the requirements of Part 4 of the EP&A Act, Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), and the SEARs for the preparation of the EIS, which are included at **Appendix B**. This EIS should be read in conjunction with the supporting information and plans appended to and accompanying this report.

1.1 Overview of Proposed Development

This SSD DA seeks approval for the following development:

- Demolition of:
 - the existing childcare centre (former house) at 263 Miller Street;
 - the existing office building at 265 Miller Street; and
 - the existing pedestrian link over Elliott Street.
- Construction of a new 6 storey (3 storeys above Miller Street) education establishment containing:
 - a 25 metre swimming pool;
 - a separate learn to swim pool;
 - teaching spaces and staff areas for STEM; and
 - teaching spaces for PDHPE (sport).
- Minor alterations and additions to the existing Miller Street Campus building at 255 Miller Street, including new connections, change rooms, plant and a new lift;
- Installation of the new substation on the site's Miller Street frontage;
- Construction of a new pedestrian overpass crossing Elliott Street, replacing the existing bridge and providing an improved link into the main senior campus at 176 Walker Street;
- Landscaping including new tree plantings and terraces, and make-good works to Elliott Street; and
- Removal of eight (8) trees.

1.2 Background to the Development

Established in North Sydney in 1886, Wenona is a non-selective, independent, non-denominational day and boarding school for girls from Kindergarten to Year 12. The school's vibrant learning environment includes a blend of heritage and new spaces. Wenona includes a Junior School, Middle School and Senior College, to cater for age-appropriate learning experiences.

Wenona's Senior School is in need of redevelopment to remove inefficient and out-dated teaching spaces and replace them with modern learning spaces that reflect contemporary models of teaching. The development will provide new learning and teaching facilities for Science, Technology, Engineering and Mathematics (STEM), as well as improved fitness facilities including a new 25 metre swimming pool and learn to swim pool to replace the existing pool on the School's Walker Street site.

The proposed development is the result of a design excellence competition, which was undertaken at the School's discretion. Four leading architecture firms were invited to submit entries to the competition (noting that only three firms submitted entries) with the design by TZG Architects being selected as the winning scheme due to the high architectural quality and its response to the amenity of the adjoining buildings.

It should be noted that the proposed development will not increase student or staff numbers at the school. Rather, Project Archimedes is focused on modernising the school's infrastructure and facilities to bring them in line with contemporary learning and teaching styles, and the replacement of obsolete facilities.

1.3 Objectives of the Development

Wenona School has identified the need to redevelop their existing senior school facilities in order to reduce the usage of inefficient and old teaching spaces, and replace them with modern learning spaces compatible with new models of teaching.

The key objectives of the proposed scheme are to:

- Create a building of outstanding architectural merit that meets the school's aspirational objectives and functional requirements;
- Design a building that articulates Wenona's core priorities and values of providing smaller communities within the school;
- Provide a 'greener' campus both in terms of landscape and ESD; and
- Create an environment that is peaceful, calm and reflective.

1.4 Analysis of Alternatives

Strategic need for the Proposal

As discussed in Section 1.2 the school is in need of redevelopment to remove inefficient and out-dated teaching spaces and replace them with modern learning spaces that reflect contemporary models of teaching.

The new development will enable Wenona to continue to educate and empower young women and deliver world class education in line with the Wenona Vision.

Alternative Options

Three options are available to Wenona in responding to the identified need for the redevelopment of their facilities.

Option 1 - The Proposal

Option 1 involves undertaking the proposed redevelopment as outlined in this SSD DA (as described in Section 3.0). The proposal will ensure that a high quality building is provided on the site that responds to the strategic need identified above.

Option 2 - Do Nothing

Under the 'do nothing' scenario the school would be required to continue using the current out-dated facilities. This would result in a sub-optimal educational, teaching and learning environment, and the continued utilisation of pool facilities which have reached the end of their useable lifespan.

Option 3 – Alternative Designs

Wenona undertook an analysis of the options available in responding to the need for a new facility on site including consideration of the site constraints and the planning regime.

Whilst Wenona could have constructed a building under Complying Development in accordance with *State Environmental Planning Policy (Infrastructure) 2007* (Infrastructure SEPP), it would have resulted in a building with poor design outcomes. Wenona has sought to develop a building of high quality, and has therefore undertaken a full development assessment process.

The proposed development has been the subject of a robust design process aimed at creating a building that meets its functional educational needs and recognises and responds to the context of the school site.

Wenona undertook a design excellence competition in which four leading architecture firms were invited to submit entries. The chosen design reflects outstanding architectural merit which ensures the building will relate and respond to the amenity of the adjoining landowners.

1.5 Secretary's Requirements

In accordance with Section 89G of the EP&A Act, the Secretary of the Department of Planning and Environment issued the requirements for the preparation of the EIS on 8 April 2015. A copy of the Secretary's Environmental Assessment Requirements (SEARs) is included at **Appendix B**.

Table 1 provides a detailed summary of the individual matters listed in the SEARs and identifies where each of these requirements has been addressed in this report and the accompanying technical studies.

Table 1 – Secretary's Requirements

Requirement	Location in Environmental Assessment	
	Report / EIS	Technical Study
General The Environmental Impact Statement (EIS) must meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 the Environmental Planning and Assessment Regulation 2000. 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: <ul style="list-style-type: none"> adequate baseline data; consideration of potential cumulative impacts due to other development in the vicinity; and measures to avoid, minimise and if necessary, offset the predicted impacts, including detailed contingency plans for managing any significant risks to the environment. 	Page i Section 1 Section 7 Section 8	-
The EIS must be accompanied by a report from a qualified quantity surveyor providing: <ul style="list-style-type: none"> 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. 	-	Appendix C

Requirement	Location in Environmental Assessment	
	Report / EIS	Technical Study
Key Issues 1. Statutory and Strategic Context – including: Address the statutory provisions applying to the concept proposal contained in all relevant environmental planning instruments, including: <ul style="list-style-type: none"> State Environmental Planning Policy (State & Regional Development) 2011; State Environmental Planning Policy (Infrastructure) 2007; State Environmental Planning Policy No.55 – Remediation of Land; North Sydney Local Environmental Plan 2013; and North Sydney Development Control Plan 2013 <i>Permissibility</i> Detail the nature and extent of any prohibitions that apply to the development. <i>Development Standards</i> Identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards.	Section 5.1	-
2. Policies Address the relevant planning provisions, goals and strategic planning objectives in the following: <ul style="list-style-type: none"> NSW 2021; A Plan for Growing Sydney; NSW Long Term Transport Master Plan 2012; Sydney's Cycling Future 2013; Sydney's Walking Future 2013; and Healthy Urban Development Checklist, NSW Health. 	Section 5.1	-
3. Built Form and Urban Design <ul style="list-style-type: none"> Address the height, density, bulk and scale, setbacks of the proposal in relation to the school campus and the surrounding development, topography and streetscape. Address design quality, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials, colours and Crime Prevention Through Environmental Design Principles. Detail how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development. 	Section 3.12 Section 5.2 Section 5.14 Section 6	Appendix A Appendix D
4. Environmental Amenity Detail amenity impacts including solar access, acoustic impacts, visual privacy, view loss, overshadowing, lighting impacts and wind impacts. A high level of environmental amenity for immediately adjacent residential land uses must be demonstrated.	Section 5.5	Appendix A Appendix E Appendix F
5. Transport and Accessibility Include a transport and accessibility assessment, which details: <ul style="list-style-type: none"> the existing and proposed pedestrian and cycle movements within the vicinity of the site; an estimate of the total daily and peak hour trips generated by the proposal, including vehicle, public transport, pedestrian and cycle trips; the adequacy of public transport to meet the likely future demand of the proposed development; measures to promote travel choices that support the achievement of State targets, such as a location-specific sustainable travel plan; the daily and peak vehicle movements impact 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 	Section 5.4	Appendix G

Requirement	Location in Environmental Assessment	
<p>works (if required);</p> <ul style="list-style-type: none"> the proposed access arrangements and measures to mitigate any associated traffic impacts and impacts on public transport, pedestrian and cycle networks; proposed car and bicycle parking provision, including consideration of the availability of public transport and the requirements of the relevant parking codes and Australian Standards; service vehicle access, delivery and loading arrangements and estimated service vehicle movements (including vehicle type and the likely arrival and departure times); and Traffic and transport impacts during construction 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. <p>→ <i>Relevant Policies and Guidelines:</i></p> <ul style="list-style-type: none"> Guide to Traffic Generating Developments (Roads and Maritime Services) EIS Guidelines – Road and Related Facilities (DoPI) NSW Planning Guidelines for Walking and Cycling Austrroads Guide to Traffic Management Part 12: Traffic Impacts of Development 		
<p>6. Ecologically Sustainable Development (ESD)</p> <ul style="list-style-type: none"> 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 5.13	Appendix H
<p>7. Heritage</p> <p>The EIS shall include a Heritage Impact Statement that addresses the significance of, and provides an assessment of the impact on the heritage significance of any heritage items on the Wenona School site and in the vicinity, and/or conservation areas and/or potentially archaeologically significant areas, in accordance with the guidelines in the NSW Heritage Manual.</p>	Section 5.3	Appendix I
<p>8. Aboriginal Heritage</p> <p>Where relevant, the EIS shall address Aboriginal Heritage in accordance with the Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation 2005 and Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.</p>	Section 5.3	Appendix I
<p>9. Noise and Vibration</p> <p>Identify and provide a quantitative assessment of the main noise and vibration generating sources during construction and operation. Outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.</p> <p>→ <i>Relevant Policies and Guidelines:</i></p> <ul style="list-style-type: none"> NSW Industrial Noise Policy (EPA) Interim Construction Noise Guideline (DECC) Assessing Vibration: A Technical Guideline 2006 	Section 5.5.2 and Section 5.8.2	Appendix E
<p>10. Contamination</p> <p>Demonstrate that the site is suitable for the proposed use in accordance with SEPP 55.</p> <p>→ <i>Relevant Policies and Guidelines:</i></p> <ul style="list-style-type: none"> Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP) 	Section 5.12	Appendix J

Requirement	Location in Environmental Assessment	
11. Utilities <ul style="list-style-type: none"> Preparation of 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. Preparation of 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 3.10	Appendix K Appendix L Appendix M
12. Contributions Address Council's Section 94 Contribution Plan and/or details of any Voluntary Planning Agreement.	Section 5.15	-
13. Drainage Detail drainage associated with the proposal, including stormwater and drainage infrastructure.	Section 5.7	Appendix M
14. 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 3.12 Section 5.8.4	Appendix N
Plans and Documents	Report	Technical Study
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:		
<ul style="list-style-type: none"> Architectural drawings (dimensioned and including RLs) 		Appendix A
<ul style="list-style-type: none"> Site Survey Plan, showing existing levels, location and height of existing and adjacent structures / buildings and boundaries 		Appendix O
<ul style="list-style-type: none"> Site Analysis Plan 		Appendix A
<ul style="list-style-type: none"> Stormwater Concept Plan 		Appendix M
<ul style="list-style-type: none"> Sediment and Erosion Control Plan 		Appendix M
<ul style="list-style-type: none"> Shadow Diagrams 		Appendix A
<ul style="list-style-type: none"> View Analysis / Photomontages 		Appendix F
<ul style="list-style-type: none"> Landscape Plan (identifying any trees to be removed and trees to be retained or transplanted) 		Appendix P
<ul style="list-style-type: none"> Preliminary Construction Management Plan, inclusive of a Preliminary Construction Traffic Management Plan 		Appendix Q Appendix G
<ul style="list-style-type: none"> Geotechnical and Structural Report 		Appendix R Appendix S
<ul style="list-style-type: none"> Accessibility Report 		Appendix T
<ul style="list-style-type: none"> Arborist Report 		Appendix U
<ul style="list-style-type: none"> Acid Sulphate Soils Management Plan (if required) 		-
<ul style="list-style-type: none"> Schedule of materials and finishes 		Appendix A
Consultation		
<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> North Sydney Council. 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 4	Appendix V

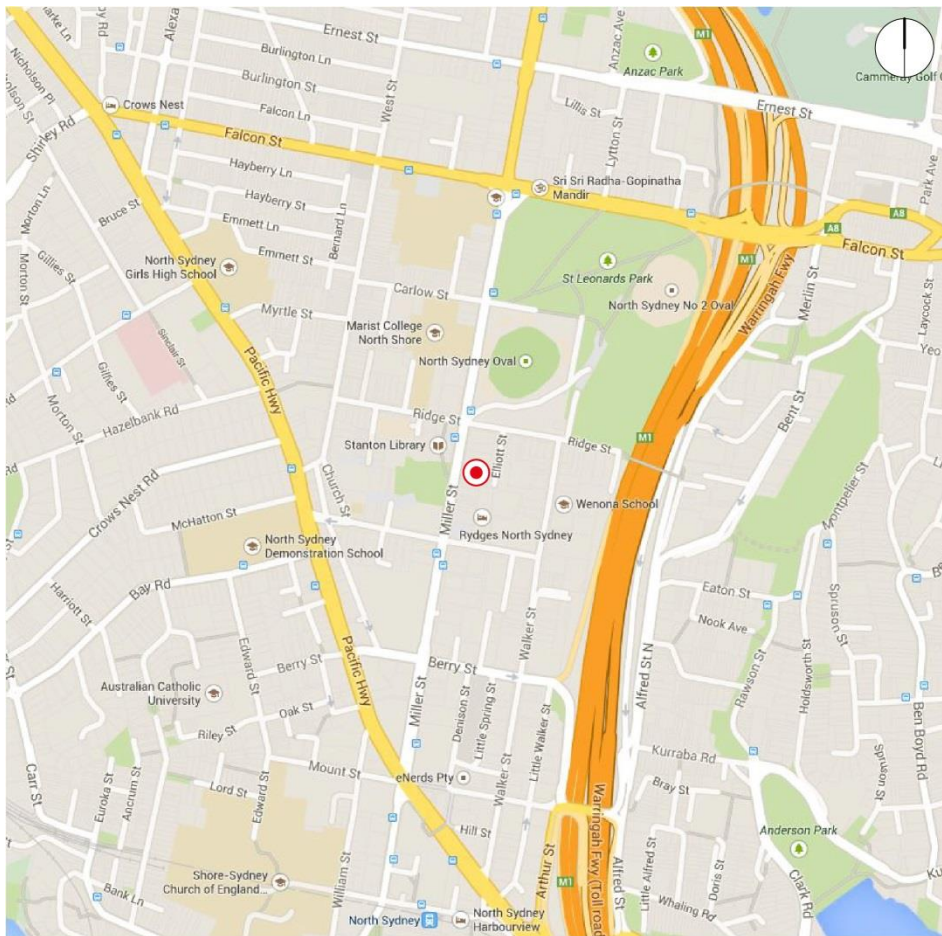
2.0 Site Analysis

2.1 Site Location and Context

Location

Wenona School is located in the North Sydney Local Government Area (LGA) on the northern edge of the North Sydney CBD. The site is located approximately 800m north of North Sydney Station.

The site's locational context is shown at **Figure 1**.



● The Site

Figure 1 – Context Plan
Source: Google Maps

Site Context

The site is located in a mixed use locality and is surrounded by residential, heritage and commercial properties. The school campus extends over a number of sites with the total landholdings being approximately 1.7 hectares as shown in **Figure 2**.

This proposal relates to the school's land at 255 – 265 Miller Street, North Sydney (the site) highlighted in **Figure 2**. As shown in the location plan, the site is bound by Miller Street to the west and Elliott Street to the east. The site is bound by a residential apartment building known as Regency Park to the north, and aged care uses and residential housing adaptively reused for commercial purposes to the south.



Figure 2 – Wenona School campus landholdings (development site identified in blue)

Source: BVN and JBA

2.2 Site Description

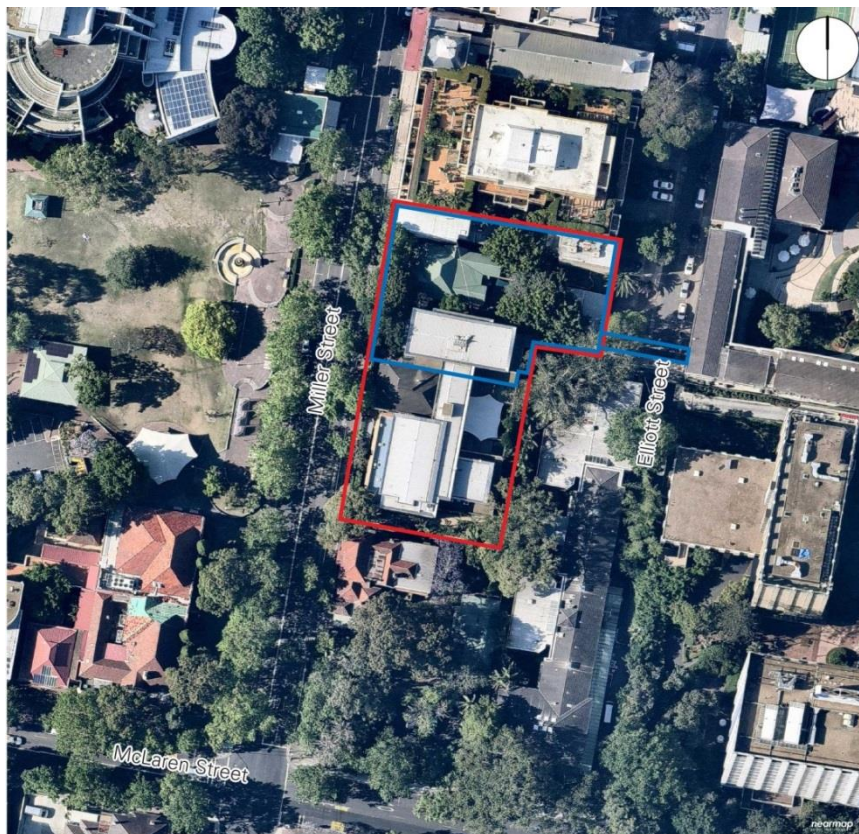
The development site comprises 15 lots. The proposed development does not seek to consolidate these lots. The site's area is 3,337m², and it is generally regular in shape. A legal description of the land is provided in **Table 2**. The land is owned by Wenona School.

It is noted that whilst the development site is collectively referred to as 255 – 265 Miller Street, the works are predominantly located on 263 – 265 Miller Street. The works to the remainder of the site comprise the construction of a substation, a new pedestrian link and minor works to 176 Walker Street to facilitate the new bridge link.

A survey plan is located at **Appendix O**. An aerial photo of the site, which distinguishes between the main development site and the broader project site, is provided at **Figure 3**.

Table 2 – Legal description

Address	Legal Description	Current Use
263 Miller Street	Lot 1 in DP 997232 Lots 16 and 17 in DP 2798	Childcare centre (former house) The childcare centre has capacity for 50 children
265 Miller Street (including 6 Elliott Street)	SP 21394	Former commercial building now used by Wenona School for administrative purposes
255 Miller Street	Lots A and B in DP 173234 Lots 10, 11, 12 and 13 in DP 979505 Lots 8 and 9 in DP 996381	Wenona's existing Miller Street Campus
Existing Footbridge	Lot 2 and Part Lot 3 in DP 1064209	Existing pedestrian bridge over Elliott Street
176 Walker Street (Footbridge connection into existing building)	Part Lot 20 in DP 2798	Existing Walker Street Campus



■ Development Site
■ Broader Project Site

Figure 3 – Aerial Photograph
 Source: Nearmap

2.3 Existing Development

The site is currently occupied by three buildings, referred to as Buildings 1, 2 and 3 on **Figure 2**.

Building 1 is the school's Miller Street Campus which is a multi-storey building of two to three storeys connected by an air bridge over Elliott Street to the Walker Street Campus to the west. Building 1 is a combination of several buildings which have been amalgamated and connected internally over time.

Building 2 is a former residential building which fronts Miller Street. This single storey building is currently being used as a child care facility, with capacity for 50 children.

Building 3 is a three storey building which extends between Miller Street and Elliott Street. This building was previously used for commercial purposes, however is currently used by Wenona School for office, administration and teaching purposes.

Photographs of the existing development on the site are provided at **Figures 4 – 8**.



Figure 4 – The existing Miller Street Campus buildings at 255 Miller Street
Source: JBA



Figure 5 – The existing Miller Street Campus buildings at 255 Miller Street, with the heritage listed building in the centre
Source: JBA



Figure 6 – The existing childcare centre at 263 Miller Street
Source: JBA

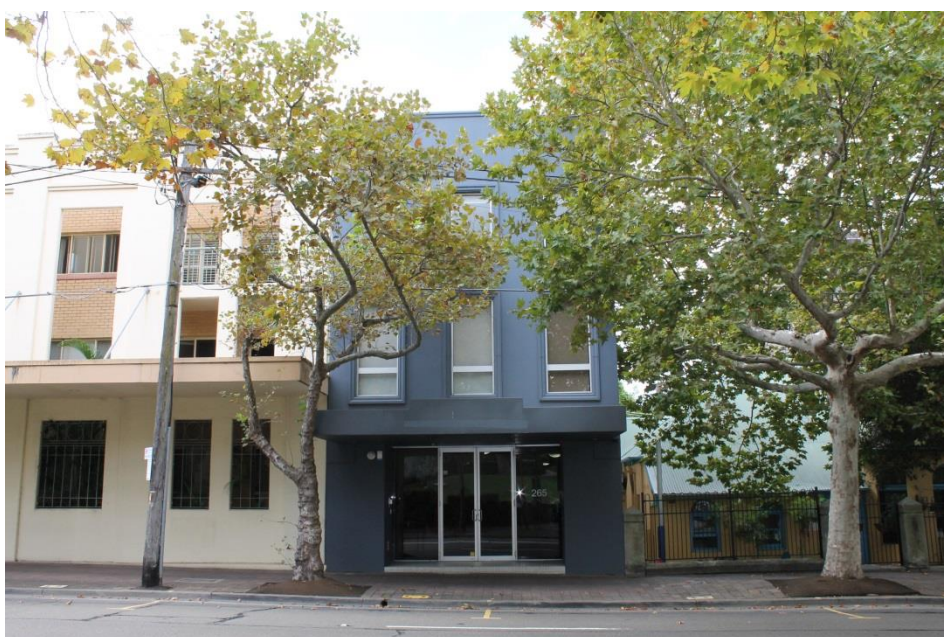


Figure 7 – The existing building at 265 Miller Street (centre)
Source: JBA



Figure 8 – The rear of 265 Miller Street (otherwise known as 6 Elliott Street) the rear of the childcare centre can be seen to the left
Source: JBA

2.3.1 Topography

The site slopes from Miller Street towards Elliott Street, with the highest point at the western site boundary being RL85.04. The lowest part of the site is located at the eastern boundary, at RL78.50.

2.3.2 Soils and Geotechnical Conditions

The Phase 1 Contamination Assessment has confirmed that the site has a low to moderate likelihood of significant contamination. However, if present, any contamination would likely be superficial and would effectively be removed during the proposed basement excavation, and so the site can be made suitable for the proposed development in accordance with *State Environmental Planning Policy 55 – Remediation* (SEPP 55).

With respect to Acid Sulphate Soils, *North Sydney Local Environmental Plan 2013* (North Sydney LEP 2013) does not contain any acid sulphate soils mapping, or provisions relating to acid sulphate soils.

2.3.3 Vegetation

There are 18 planted Australian and exotic trees on or adjoining the site. The Miller Street frontage features a number of established trees and shrubs, as well as garden planting. There are several trees at the rear of the site, including two (2) mature trees at the rear of the childcare centre.

2.3.4 Heritage

Part of the existing building at 255 Miller Street is identified as a local heritage item under North Sydney LEP 2013. The building, which is shown at **Figure 5**, was significantly modified when the site was redeveloped for the school's Miller Street Campus. There are no works proposed to the portion of the building that is subject to the heritage listing.

Further assessment of the site's heritage significance is provided at Section 5.3.

2.3.5 Access and Parking

The school is highly accessible via private and public transport. A number of bus routes link North Sydney with the surrounding area with stops on Miller Street, the Pacific Highway and Falcon Street. The North Sydney Railway Station is located approximately 800 metres to the south and has good pedestrian access and bus links.

There are currently 11 parking spaces provided on the site for staff, with no parking for students or visitors. These spaces are accessed off the site's Elliott Street frontage. There is limited parking located within and outside of the campus, with a total of 70 spaces available within the school and a further 50 spaces offsite.

The site can be accessed via three entry points on Miller Street and two points on Elliott Street. The school does not have a main public entry point off Miller Street.

2.4 Surrounding Development

To the north of the site is a seven storey residential apartment building as shown in **Figure 9**. The building adjoins the northern boundary of Wenona's Building 3 and extends between Miller Street in the west and Elliott Street in the east. There is currently a small, vegetated courtyard at the midpoint of Building 3, which the residential building looks onto.

To the south of the main development site lies the existing portion of Wenona Building 1. This part of the building is between two and three storeys high and is identified as a heritage building under North Sydney LEP 2013, as discussed in Section 5.3. To the south-east of the site lies the UnitingCare aged care facility, which is situated between Elliott Street and McLaren Street (refer to **Figure 10**). The Rydges Hotel, which fronts Walker Street, is also located to the south-east of the site (refer to **Figure 11**).

To the east of the site, on the opposite side of Elliott Street, lies Wenona's Walker Street Campus. There is a pedestrian walkway bridge which links the development site to a late twentieth century building (refer to **Figure 12**).

To the west of the site, on the opposite side of Miller Street, lies Civic Park. The Park is a significant open space for the area and is fronted by the Stanton Library and North Sydney Council Chambers (refer to **Figure 13**).



Figure 9 – The residential apartment to the north, as viewed from Elliott Street
Source: JBA



Figure 10 – The UnitingCare aged care facility
Source: JBA



Figure 11 – The Rydges Hotel, North Sydney
Source: JBA



Figure 12 – Wenona's Walker Street Campus, to the east of the site
Source: JBA



Figure 13 – Civic Park, to the west of the site on the opposite side of Miller Street
Source: JBA

3.0 Description of the Development

This chapter of the report provides a detailed description of the proposed development. Architectural Drawings are included at **Appendix A**.

This application seeks approval for the following development:

- Demolition of:
 - the existing childcare centre (former house) at 263 Miller Street;
 - the existing office building at 265 Miller Street; and
 - the existing pedestrian link over Elliott Street.
- Construction of a new 6 storey (3 storeys above Miller Street) education establishment containing:
 - a 25 metre swimming pool;
 - a separate learn to swim pool;
 - teaching spaces and staff areas for STEM; and
 - teaching spaces for PDHPE (sport).
- Minor alterations and additions to the existing Miller Street Campus building at 255 Miller Street, including new connections, change rooms, plant and a new lift;
- Installation of the new substation on the site's Miller Street frontage;
- Construction of a new pedestrian overpass crossing Elliott Street, replacing the existing bridge and providing an improved link into the main senior campus at 176 Walker Street;
- Landscaping including new tree plantings and terraces, and make-good works to Elliott Street; and
- Removal of eight (8) trees.

The development will provide 3,804m² of additional gross floor area (GFA).

A photomontage of the proposed development is shown at **Figure 14**.



Figure 14 – Photomontage of the proposed development, as viewed from Miller Street
Source: TZG

3.1 Urban Design Principles

The building has been design to be expressive and innovative, in order to create an open and inclusive environment for the senior school community, and to reflect the school's culture. The university-like senior campus will be connected to the existing school buildings, whilst the facilities that will be used by the whole school have been provided with their own access and identity.

The exterior of the building has been carefully modulated to be compatible with the Miller Street 'boulevard' and to engage with Elliott Street. A range of durable, high-quality materials have been selected to be in keeping with the existing buildings in the locality. On both the eastern and western elevations, extensive planting will soften the forms and provide environmental benefit.

3.2 Demolition, Excavation and Staging

Demolition and Excavation

To facilitate the proposed development, the existing childcare centre at 263 Miller Street, and the school administration and classroom building at 265 Miller Street, will be demolished. Minor demolition will also occur within the existing Miller Street Campus building to accommodate the new works, and the existing pedestrian bridge over Elliott Street will be demolished to facilitate the new pedestrian link. Demolition plans are included with the Architectural Drawings at **Appendix A**.

Excavation will be carried out to a maximum depth of 11 metres (RL 73.5m AHD) to accommodate up to four (4) levels below Miller Street. The proposed excavation will minimise the bulk and scale of the building, and any associated impacts on the amenity of neighbouring buildings.

The development site includes a total of 18 trees. The proposed development requires the removal of eight (8) trees. These trees are all identified as being of low or moderate significance.

Staging

Wenona has developed a staging plan for the proposed development. The works will be delivered as a single project, however the works will be staged and sequenced in order to minimise any impacts on the school's operation and neighbours.

The expected duration of construction works is approximately 18 months.

3.3 Numerical Overview

The key numeric information is summarised in **Table 3**.

Whilst there is no maximum FSR applying to the site, there is a maximum non-residential FSR control of 1:1. The proposed development is for a non-residential use, and has a FSR of 2.07:1 when calculated across the whole site, representing a 1.07:1 increase.

It is noted that the majority of the works are to be located on 263 – 265 Miller Street, with a FSR of 2.75:1 when the FSR is calculated on these sites only.

Table 3 – Key development information

Component	Proposal
Site area	3,337m ²
Additional GFA	3,804m ²
FSR	<ul style="list-style-type: none"> 2.07:1 (across all sites) 2.75:1 (when calculated on 263 – 265 Miller Street only)
Maximum Height	<ul style="list-style-type: none"> 13.4m (new building) 14.8m (alterations within site of existing building)

Component	Proposal
Boundary Setbacks <ul style="list-style-type: none"> North South East West 	<ul style="list-style-type: none"> 0-3m New development adjoins remainder of Miller Street Campus 0m - built to street alignment. 0m - built to street alignment.
Car parking and loading	No car parking is proposed on the site. Access is provided for one (1) service vehicle from the site's Elliott Street frontage.

3.4 Alterations and Additions to Existing Building

The proposed alterations and additions to the existing building include the provision of a new entry and reception area off Miller Street, a café hub, storage areas and change rooms, and a lift which will provide access to all levels of the new building. The proposed alterations and additions are limited to the north-eastern corner of the existing building, with no significant changes proposed to the layout, uses and areas within the existing Miller Street Campus building more broadly.

For ease of reference, a consolidated list of works proposed within the existing and new buildings are outlined in **Table 4**, below. The works within the existing Miller Street Campus building are denoted with an asterisk (*)

3.5 Proposed New Building

3.5.1 Building Layout, GFA and Use

Building Layout

The building is organised around a five-level atrium space, with an amphitheatre which acts as a circulation space, as well as a space where the student population can meet and gather. This covered open space is formed and framed by the existing school building, and a series of new circulation and teaching balconies.

On the lowest level of the new building there is a 25 metre swimming pool, a learn-to-swim pool and associated change and storage areas. The two pools are separated to create separate pool environments, however both pools will be accessible from a foyer off Elliott Street.

A new science-teaching hub is located at the Miller Street level. The hub is formed by five laboratories which can be rearranged to reflect different class requirements. Sections of moveable wall and open glass partitioning will allow visual and physical connections between the different spaces.

At ground level, a small Café Hub is located in the existing building adjoining the new main school axis. In conjunction with the new food technology teaching space, this space will provide an opportunity for students to meet and interact.

The new 'Nucleus' Senior Ecosystem provides Years 10, 11 and 12 students with a multifunctional suite of spaces for group and individual study, parent functions, exhibition space, seminar space and evening study. The space has been divided into three separate zones so that the three year groups can use the space concurrently.

GFA by Level and Use

Table 4 outlines the proposed use and additional floor space of each level within the proposed development. As outlined above, no significant changes are proposed to the layout, uses and areas within the existing Miller Street Campus building. The works within the existing Miller Street Campus building are denoted with an asterisk (*)

Table 4 – Additional GFA by level and use for new building

Level	Use	Area (m ²)	
		GFA in New Building	New GFA in existing buildings
Lower Ground 3	<ul style="list-style-type: none"> Plant Storage 	0	
Lower Ground 2	<ul style="list-style-type: none"> Main pool Learn to swim pool Change rooms* Storage* Plant* Lift* 	1,041	468
Lower Ground 2 Mezzanine	<ul style="list-style-type: none"> Pool viewing area Plant Elliott Street entry and foyer* Lift* 	161	39
Lower Ground 1	<ul style="list-style-type: none"> Gym Breakout area PE staff room and offices Lift* Toilets* 	433	63
Ground Floor (Miller Street)	<ul style="list-style-type: none"> Science and STEM learning spaces Miller Street entry and reception* Food technology and café hub* STEM preparation areas* Lift* Toilets* 	614	85
Level 1	<ul style="list-style-type: none"> Staff work spaces Senior ecosystem and amphitheatre Seminar room Staff rooms and workspaces Outdoor terraces Outdoor learning area Lift* Toilets* 	582	77
Level 2	<ul style="list-style-type: none"> Senior ecosystem and amphitheatre Senior ecosystem terrace Green roof Lift* Toilets* 	222	19
GFA in new building	-	3,053m ²	
New GFA in existing buildings		751m ²	
Total		3,804m²	

3.5.2 Building Height

The building has a predominant height of 12 metres, however as outlined in **Table 4**, the maximum height of the new building is 13.4 metres. The maximum height of the proposed lift overrun on the site of the existing Miller Street Campus building is 14.8 metres.

As shown in the elevation drawings at **Appendix A**, the parapet height of the proposed new building is at 11.6 metres at the Miller Street frontage which is less than or consistent with the predominant street wall height of surrounding buildings on Miller and Elliott Streets.

Due to the fall in topography towards the east of the site, the new building has been designed to step down from to the east to follow the existing ground level. At the site's Elliott Street frontage, the building has a maximum height of 11 metres, which is significantly lower than the adjoining residential building to the north.

3.5.3 Building Setbacks

The proposed setbacks have been designed to be consistent with the prevailing street setbacks, and with consideration to the setback controls in North Sydney DCP 2013.

To the north, the building generally matches the setbacks of the adjoining multi-storey residential apartment building. The adjoining building comprises a 3 level podium with a 4 level tower above. The tower form is entirely above the proposed school building. The proposed building is generally consistent with the height of the existing podium at the Miller Street frontage and is 1 storey lower than the existing building's podium at the Elliott Street boundary. The majority of the neighbouring building's podium is built to the site boundary, and presents a blank façade to Wenona's site. Where this occurs, the proposed building has been designed to abut the site boundary.

At the central section of the residential building's podium, a stepped setback is provided as shown at **Figure 15**. This includes a setback of 3.23 metres to the apartment balconies. To align with the balcony, the new building will be set back to a depth of 3 metres, consistent with DCP 2013. This will provide a total separation of 6.23 metres between the balconies and the new building's façade, and a separation of 8.1 metres between the two facades. This setback volume will be acoustically treated to mitigate noise effects from the school, and will be clad in glass with a frit to provide visual privacy for both the residents and the school. In response to issues raised during the consultation process, planting has been incorporated to further assist in minimising any visual impacts.

To the east (Elliott Street) and west (Miller Street) the building has been designed to align with the street. This will ensure consistency with adjoining buildings in the locality, and will define the public realm and strengthen the streetscape.

To the south, the western part of the new building adjoins Wenona's Miller Street Campus, with variable setbacks proposed within the roof form which extends to the lot boundary. The eastern part of this southern site boundary adjoins the UnitingCare aged care facility. The proposed development has also been built to this boundary.

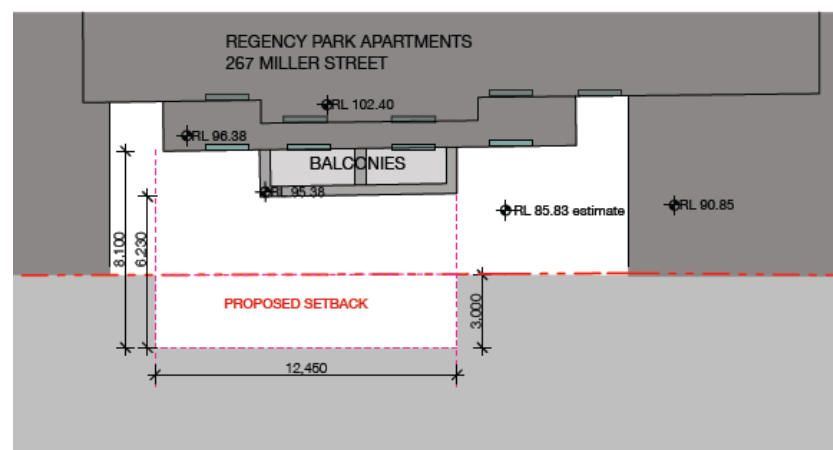


Figure 15 – Existing and proposed setbacks to the adjoining residential building
Source: TZG

3.5.4 External Materials and Finishes

The materials and finishes for the new building have been chosen to complement the existing built form surrounding the site, and to respect the architectural features of the existing heritage building at 255 Miller Street.

As shown on the Finishes Schedule (**Appendix A**) the development will be constructed of brick and concrete, with balcony fronts consisting of timber composite cladding. The northern façade incorporates a fritted glass privacy screen, with the roof comprised of lightweight metal deck sheeting.

3.6 Pedestrian Bridge

A new pedestrian bridge is proposed over Elliott Street to replace the existing bridge link (refer to **Figure 16**). The new bridge is more generous in width, and will be located slightly to the north of the existing bridge alignment. The proposed alignment will provide a continuous extension of the 'Wenona School Spine' from Miller Street, into the Walker Street Campus.

At the centre point of the bridge, between the existing and proposed building, the pedestrian link has a height of 9.7 metres above Elliott Street, and will be enclosed to provide weather protection. At this point, the underside of the bridge is a minimum of 6 metres above Elliott Street.

The bridge continues the architectural language of the proposed building, incorporating timber and glass elements. The roof has been designed to accommodate PV cells.



Figure 16 – The proposed development as viewed from Elliott Street, including the pedestrian bridge
Source: TZG

3.7 Landscaping and Public Domain

Landscaping

Landscape Plans have been prepared by 360 and are included at **Appendix P**. This application includes the following landscape elements:

- New landscaping along the site's Miller Street frontage;
- Landscaped planters at Level 1 within the setback on the northern façade;
- An outdoor learning terraces on the Lower Ground Level;

- An outdoor learning terrace on Level 1 incorporating paving, seating, and landscaped planters; and
- Landscaped planters along the 'Wenona School Spine' and upper level balcony planters (refer to **Figure 17**).



Figure 17 – Artist's impression of the School Spine
Source: TZG

Public Domain

In addition, the proposal includes minor make-good works to the site's Elliott Street frontage. The works are shown at **Appendix P** and **Figure 16** above, and have been designed in accordance with Council's public domain guidelines. The works comprise:

- A new driveway and vehicular cross over to enable access to the loading dock;
- New kerb to replace the existing kerb damaged by the proposed development; and
- A new footpath and turf to meet Council's requirements.

3.8 Pedestrian Access

Currently, there is no defined entry point into the campus from Miller Street. The proposed building will create a new public interface for Wenona School, presenting a modern and visually striking building to the streetscape. The proposed access point at Miller Street will mark the start of the new 'Wenona School Spine' which will link the various parts of the school campus, including the Walker Street Campus via the new pedestrian bridge.

The main entry will be closed at night with a security gate, however will remain open during the day. During the day, access will be controlled via a receptionist desk for visitors, and swipe cards / fobs for students.

3.9 Signage

The scheme incorporates a signage zone on the building's Miller Street frontage, to accommodate a business identification sign adjacent to the 'Wenona School Spine'. Whilst the design of the sign is yet to be resolved, the signage zone has an area of 5 square metres, and it is anticipated that the sign will comply with the Exempt Development standards for Wall Signs outlined in *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

3.10 Vehicular Access and Parking

There will be no increase to student or staff numbers as a result of the proposed development, and so no new or additional parking will be provided. The existing parking on the site is proposed to be removed.

The traffic impacts associated with the proposed development are discussed at Section 5.4.

3.11 Services and Utilities

Electrical and Mechanical Services

As outlined in the Electrical and Mechanical Services Statement prepared by Medland Metropolis (refer to **Appendix M**) the maximum demand for the proposed building will be in the order of 600 Amps per phase. Based on this anticipated load, Ausgrid has advised that a new substation is required to service the proposed development.

The proposed development incorporates a new 500kVA kiosk substation on the site's Miller Street frontage, in the south-west corner of the broader project site (refer to **Figure 18**). Due to the constrained nature of the site and Ausgrid's access and design requirements, this has been identified as the most suitable location for the substation.

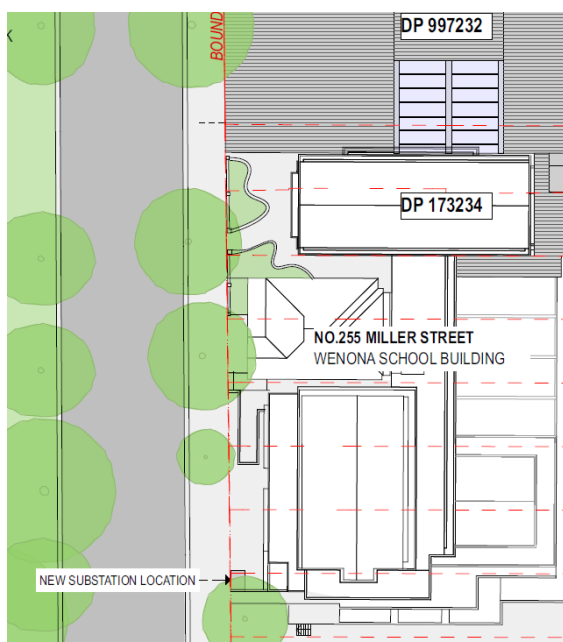


Figure 18 – Location of proposed substation

Source: TZG

The base building's mechanical services will include:

- Reverse cycle heat recovery type specialist pool air conditioning units, dedicated for the main pool and learn to swim areas;
- Mixed mode ventilation and air conditioning to serve occupied zones, including staff, science teaching, eco hub and sports areas;
- Lower ground level pool and building services plant room ventilation;
- Pool deck change room exhaust ventilation;
- Kitchen ventilation to support range hood extraction in the Food Technology enclosure;
- Fume cupboard exhaust ventilation to serve the science hub laboratories; and
- Exhaust ventilation to serve building's amenities and toilet areas.

Medland Metropolis has confirmed that the building's electrical and mechanical services system will be designed in accordance with the relevant Australian Standards, codes and authority requirements.

Hydraulic Services

The proposed Hydraulic Services are detailed in the Hydraulic & Fire Services Development Application Report prepared by Warren Smith & Partners (refer to **Appendix L**). The proposed hydraulic services connections are summarised below.

Sewer drainage will gravitate and connect to the existing Sydney Water 225mm sewer main located in Elliott Street. The sewer drainage system will extend via gravity from fixtures and sanitary plumbing stacks above the Lower Ground 2 Mezzanine Floor. The Lower Ground 2 and Lower Ground 3 floors are below the Elliott Street sewer main invert level and will need to drain to a sewer pump-out pit. This pit will also take required discharges from the swimming pool plant.

A domestic cold water system will extend from the existing 200mm diameter Sydney Water water main in Miller Street. The potable hot water system will also be supplied from the domestic cold water system. The potable hot water plant will consist of natural gas instantaneous hot water units installed on Level 2.

There is an existing natural gas service on the site with the gas meter set currently located in the garden area in front of the Miller Street Campus. The Natural Gas Service will extend from the existing natural gas reticulation service to the new gas appliances.

Fire Services

The proposed Fire Services are detailed in the Hydraulic & Fire Services Development Application Report prepared by Warren Smith & Partners (refer to **Appendix L**). The proposed development will be provided with a dedicated Fire Hydrant Service to satisfy the requirements of the National Construction Code (NCC) and AS 2419. The Fire Hydrant System will be supplied from the 200mm diameter Sydney Water water main in Miller Street. The fire hydrants will be installed within designated fire stairs and within four (4) metres to compartment exits as required under the NCC with supplementary hydrants in the path of egress to ensure coverage

3.12 Water Cycle Management

The Stormwater Management Plan prepared by Taylor Thomson Whitting (**Appendix M**) outlines the proposed stormwater concept design for the proposed development. The proposed stormwater system will be designed in accordance with North Sydney Council's requirements, and will comply with the relevant Australian Standards and accepted engineering practice.

An On Site Detention (OSD) system will be provided as part of the proposed development and designed to ensure compliance with the relevant requirements. Stormwater drainage will gravitate from the base of all downpipes and rainwater outlets to the Council's stormwater infrastructure via the proposed OSD system.

An assessment of the proposed stormwater system is provided at Section 5.7. The Water Sensitive Urban Design (WSUD) measures which have been incorporated into the development are also discussed at Section 5.7.

3.13 Operational Waste Management

A Waste Management Plan has been prepared by GHD to assess waste quantities, storage and management procedures during the demolition, construction and operational phases of the development (refer to **Appendix N**). With respect to operation waste, the WMP concludes that:

- The assessment estimates that approximately 8.3m³ of garbage and 6.7m³ of recyclables will be generated each week during normal term time.

- Cleaners will collect garbage and recyclables at the end of each day and transport them to the main garbage room on the Ground Level.
- A waste and recycling contractor will collect the waste from the storage room.
- The main waste storage room is of adequate size to accommodate commonly used bins, assuming the bins are collected five days per week.
- An overflow waste room has been provided to accommodate extra waste that might be generated from surges in use of facilities in the building.

3.14 Energy Efficiency

The building incorporates Environmentally Sustainable Development (ESD) strategies and principles as defined in Clause 7(4) of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*.

Wenona is committed to a number of long term sustainability outcomes, and has set a number of objectives and targets as part of their own internal Wenona Sustainability Policy. Not only will the building be designed to operate with exceptional environmental performance, but the building itself will be an active space containing a number of features and initiatives that will contribute to the education of students and visitors.

Aecom's Sustainability Development Application Report outlines the ESD initiatives that are being considered, including various energy and water efficiency measures, waste and materials initiatives (refer to **Appendix H**). The particular measures that will be reviewed during the detailed design phase to assess their suitability and viability include the use of:

- Strategies for low energy use, which include:
 - good passive design;
 - energy efficient mechanical equipment;
 - energy efficient lighting; and
 - alternative or renewable energy opportunities
- Water harvesting and re-use;
- Initiatives to enhance environmental quality, health and wellbeing of students;
- Materials selection for low toxicity, low embodied energy and good operational / whole of life performance; and
- Recommendations for physical and curriculum based learning initiatives and topics.

4.0 Consultation

In accordance with the SEARs issued for this project, consultation has, and will continue to be, undertaken with the community and Council.

A summary of the consultation undertaken with Council and the community is provided below. Several consultants have undertaken additional consultation with relevant parties during the preparation of their reports.

4.1 Council

A preliminary meeting was held with Council staff in November 2014. Council acknowledged that the B4 Mixed Use zoning and associated controls were not appropriate for a school use, and agreed that a degree of flexibility is warranted in this instance. In this regard, Council did not raise any significant concerns regarding the proposed height and FSR exceedances, and noted that a parapet height of 12 metres is consistent with the site's Miller Street context.

4.2 Community Consultation

Wenona School engaged JBA to provide communications and stakeholder engagement services for the project. The consultation program facilitated engagement with the local community, neighbours and key stakeholders to present the initial plans and gather feedback. The input received during the initial consultation process has been considered during the preparation of this application. A copy of JBA's Consultation Summary Report is provided at **Appendix V**.

The purpose of the consultation program was to ensure that all stakeholders were informed about the proposal, had the opportunity to provide feedback and ask questions prior to the submission of the SSD DA.

The communications and stakeholder engagement activities included:

- Postcard notification to neighbours and local residents to promote consultation opportunities;
- Stakeholder briefings with the Department, North Sydney Council and the Stanton Precinct Committee;
- Consultation session with the residents of Regency Park Apartments; and
- A community information stall at the North Sydney Market on Miller to enable the wider community to view the plans and provide feedback.

Consultation Outcomes Overview

Wenona and JBA met with key local and State government stakeholders in November 2014 to inform them of plans to submit a SSD DA and seek initial feedback. The key topics discussed included:

- Project outline and the SSD DA process;
- Issues related to zoning, height and floor space controls;
- A review of the preliminary architectural plans; and
- Community consultation opportunities.

A follow up meeting was initiated by Wenona's Principal and Business Manager to meet with North Sydney Council on the 7 May 2015 and provide an update on the progress of the project.

A consultation session was held with residents of Regency Park Apartments on 6 May 2015 to discuss key issues, specifically related to the interface with the proposed

new building and the neighbouring apartment building. The key topics discussed included:

- View impacts and setbacks;
- Height and overshadowing;
- Noise;
- Façade treatments;
- Construction impacts; and
- Traffic and car parking.

A total of 96 people attended the community information stall held on 9 May 2015 at the North Sydney Market on Miller, with approximately 40 people engaging in one-on-one conversations with the project team.

The feedback received during the community consultation process was generally positive, with the majority of people interested in finding out more information about the proposal, and providing general comments on the scheme. The limited comments that were raised have been addressed as follows:

- Planting has been incorporated into the setback void on the building's northern facade, in order to minimise the visual impacts on apartments which look on to the site and improve the amenity of this outlook.
- A Construction and Operational Noise Report has been prepared to ensure that noise impacts associated with the construction and operation of the building are minimised and managed.
- A preliminary Construction Management Plan has been prepared for the site. The preliminary CMP establishes the principles which will govern the construction process, in order to manage any environmental and amenity impacts.
- The roof material will comply with standard reflectivity requirements, which limit reflectivity to 20%. Notwithstanding this, the roof material will be a lighter colour, in order to improve the efficiency of the building and reduce heat loading.

5.0 Environmental Assessment

This Section of the report assesses and responds to the environmental impacts of the proposed DA. It addresses the matters for consideration set out in the SEARs (see Section 1.5).

The Mitigation Measures at Section 8.0 complement the findings of this Section.

5.1 Consistency with Relevant EPIs, Policies and Guidelines

The following legislation, planning instruments and strategies are relevant to the proposed development and have been addressed in **Table 5**:

- *Environmental Planning and Assessment Act 1979* (EP&A Act);
- *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP);
- *State Environmental Planning Policy (Infrastructure) 2007* (SEPP Infrastructure);
- *State Environmental Planning Policy 55 – Remediation* (SEPP 55);
- *North Sydney Local Environmental Plan 2013* (North Sydney LEP 2013);
- *North Sydney Development Control Plan 2013* (North Sydney LEP 2013);
- *North Sydney Section 94 Contributions Plan 2013*;
- *NSW 2021*;
- *A Plan for Growing Sydney*;
- *NSW Long Term Transport Masterplan 2012*;
- *Sydney's Cycling Future 2013*;
- *Sydney's Walking Future 2013*; and
- *Healthy Urban Development Checklist*, NSW Health.

Table 5 – Summary of consistency with relevant Strategies, EPIs, Policies and Guidelines

Instrument/Strategy	Comments
Strategic Plans	
NSW 2021	NSW 2021 is a 10 year plan to rebuild the economy, return quality services, renovate infrastructure, strengthen our local environment and communities and restore accountability to Government. A section of the Plan is devoted to the delivery of education, and a key component of this is improving access to and participation in high quality education, which provides the foundations for long term social and economic success. The proposed development is consistent with NSW 2010, and will improve the facilities provided at Wenona School, and will enable the school to continue to provide high quality secondary education, consistent with modern learning and teaching methods.
A Plan for Growing Sydney	One of the key goals of the Plan is to 'Assist the...Association of Independent Schools of NSW to identify and plan for new school sites throughout Sydney' to meet Sydney's growing needs. North Sydney is also identified as a Strategic Centre. Strategic Centres are identified as areas of intense, mixed economic and social activity that are built around the transport network and feature major public investment in services such as hospitals, education and sports facilities. The proposed development will enhance the provision of education infrastructure in the locality, thereby supporting the actions of A Plan for Growing Sydney.
NSW Long Term Transport Master Plan 2012	The proposed development is consistent with the Master Plan as it supports the provision of education facilities in proximity of existing bus and rail infrastructure. In doing so, and by providing no additional parking, the proposal supports a reduced reliance on private vehicles, assisting in improving the modal split between cars

Instrument/Strategy	Comments																				
	and public transport.																				
Sydney's Cycling Future 2013	The school is supportive of students and staff using bikes as a mode of transport. New bicycle racks are provided at Elliott Street for use by staff and students.																				
Sydney's Walking Future 2013	Whilst the development does not propose any walking infrastructure on the site, the school's location near North Sydney CBD, North Sydney train station and St Leonards Park means that students will continue to have safe walking and cycling access to transport and amenities.																				
Healthy Urban Development Checklist	The proposed development is consistent with the HUD checklist in that it provides recreation facilities within the school campus which promotes and encourages physical activity and exercise.																				
State Legislation																					
EP&A Act	<p>The proposed development is consistent with the objects of the EP&A Act, in particular:</p> <ul style="list-style-type: none"> ▪ it promotes the social welfare of the community; ▪ it allows for the orderly and economic development of land; and ▪ it is development for public purposes and will facilitate the delivery of community services. <p>The proposed development is consistent with Division 4.1 of the EP&A Act, particularly for the following reasons:</p> <ul style="list-style-type: none"> ▪ the development promotes education services and stimulates social welfare of the community; and ▪ the development has been evaluated and assessed against the relevant heads of consideration under Section 79C. 																				
EP&A Regulation	<p>This EIS has addressed the criteria within Clauses 6 and 7 of Schedule 2. Similarly, the EIS has addressed the principles of ecologically sustainable development through the precautionary principle, which assesses the threats of any serious or irreversible environmental damage. These are further addressed at Section 5.13.</p> <p>Clause 7(1)(d)(v) of Schedule 2 is addressed below.</p> <table border="1"> <thead> <tr> <th>Act</th><th>Approval Required</th></tr> </thead> <tbody> <tr> <td colspan="2">Legislation that must be applied consistently</td></tr> <tr> <td><i>Fisheries Management Act 1994</i></td><td>N/A</td></tr> <tr> <td><i>Mine Subsidence Compensation Act 1961</i></td><td>N/A</td></tr> <tr> <td><i>Mining Act 1992</i></td><td>N/A</td></tr> <tr> <td><i>Petroleum (Onshore) Act 1991</i></td><td>N/A</td></tr> <tr> <td><i>Protection of the Environment Operations Act 1997</i></td><td>N/A</td></tr> <tr> <td><i>Roads Act 1993</i></td><td>Yes (refer to Section 5.1.3)</td></tr> <tr> <td><i>Pipelines Act 1967</i></td><td>N/A</td></tr> <tr> <td><i>Protection of the Environment Operations Act 1997</i></td><td>N/A</td></tr> </tbody> </table>	Act	Approval Required	Legislation that must be applied consistently		<i>Fisheries Management Act 1994</i>	N/A	<i>Mine Subsidence Compensation Act 1961</i>	N/A	<i>Mining Act 1992</i>	N/A	<i>Petroleum (Onshore) Act 1991</i>	N/A	<i>Protection of the Environment Operations Act 1997</i>	N/A	<i>Roads Act 1993</i>	Yes (refer to Section 5.1.3)	<i>Pipelines Act 1967</i>	N/A	<i>Protection of the Environment Operations Act 1997</i>	N/A
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SRD SEPP	<p>The aim of the policy is to identify development that is State Significant Development (SSD). Pursuant to the SRD SEPP a project will be SSD if it falls into one of the classes of development listed in Schedule 1 of the SEPP.</p> <p>'Educational establishment (including associated research facilities)' with a CIV of \$30 million or more are identified as SSD and are considered to be development of State significance.</p> <p>The works have a CIV of approximately \$34,430,000, and so qualifies as State Significant Development. A Quantity Surveyor's certificate prepared by MDA Australia confirming the total CIV is included at Appendix C.</p>																				
Infrastructure SEPP	<p>Under Clause 32 of SEPP (Infrastructure) 2007, proposals for new school buildings need to address School Facilities Standards State government publications, including:</p> <ul style="list-style-type: none"> a) <i>School Facilities Standards—Landscape Standard—Version 22</i> (March 2002), b) <i>Schools Facilities Standards—Design Standard</i> (Version 1/09/2006), c) <i>Schools Facilities Standards—Specification Standard</i> (Version 01/11/2008). 																				

Instrument/Strategy	Comments
	<p>These standards provide a guide for the development of new schools, new facilities at existing schools and the refurbishment of existing facilities to ensure the creation of an environment which is conducive to learning whilst being safe and robust in a school environment.</p> <p>These standards were considered in the design and planning of the redevelopment of the site, and the project meets the objectives of the standards.</p> <p>As the development will not accommodate any additional staff or students on the campus, and no additional car parking spaces are proposed, the development does not require referral to the Roads and Maritime Services (RMS) under Schedule 3 of the SEPP.</p>
SEPP 55	<p>SEPP 55 aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. The SEPP specifies when consent is required for remediation of contaminated land.</p> <p>As detailed in Section 5.12 of this report, a Phase 1 Site Contamination Assessment has been prepared by Coffey. The Assessment confirms that the site can be made suitable for the proposed development, consistent with SEPP 55.</p>
Local Planning Instruments and Controls	
North Sydney LEP 2013	Refer to detailed discussion at Section 5.1.2.

5.1.1 North Sydney LEP 2013

North Sydney Local Environmental Plan 2013 (North Sydney LEP 2013) is the applicable local planning instrument for the proposed development and establishes the relevant land uses and other development standards for the site. **Table 6** sets out the proposal's compliance against the relevant provisions.

Table 6 – North Sydney Local Environmental Plan 2013

Control	Compliance
Clause 2.1 - Land Use Zones	The proposed school development is permissible in the B4 Mixed Use zone.
Clause 2.3 – Zone objectives	The proposal is consistent with the zone objectives as it will provide for an educational establishment in an accessible location, and will add to the vibrancy of the mixed use centre.
Clause 4.3 Height of buildings	LEP 2013 sets a maximum height of 10m. The highest point of the new development (the new lift overrun on the site of the existing Miller Street Campus building) is 14.8 metres. See further discussion at Section 6 of this report which includes a request to vary the height development standard in accordance with Clause 4.6 of LEP 2013.
Clause 4.4 Floor Space Ratio	<p>Whilst there is no maximum FSR for the site under LEP 2013, there is a maximum non-residential FSR of 1:1. The proposed development comprises entirely of non-residential floor space, with an FSR of 2.07:1 when measured across the broader development site. However, it is noted that the majority of the works are to be located on 263 – 265 Miller Street, with a FSR of 2.75:1 when the FSR is calculated on these sites only.</p> <p>See further discussion at Section 6 of this report which includes a request to vary the FSR development standard in accordance with Clause 4.6 of LEP 2013.</p>
Clause 5.9 - Preservation of trees or vegetation	The development requires the removal of 8 trees. The trees are not required as native fauna habitat and are required to be removed as they are located within the proposed footprint of the new building. The trees do not contribute to the heritage significance of the site, and are generally of low to moderate retention value. See Section 5.6 for further discussion.
Clause 5.10 Heritage Conservation	Part of the broader development site is a Heritage Item under LEP 2013, however the proposed works are generally separated from the site's heritage item. The heritage assessment undertaken by NBRS + Partners Appendix I) demonstrates that there will be no adverse impact on the heritage buildings on the site as a result of the development. See Section 5.3 for further discussion.
Clause 6.4 Miller Street Setback	The site is outside of the area identified on the North Sydney Centre Map, as such, none of the provisions under Part 6, Division 1 of North

Control	Compliance
	Sydney LEP 2013 apply.

5.1.2 Integrated Development

In accordance with Section 89K of the EP&A Act 1979, the provisions of Section 138 of the *Roads Act 1993* continue to apply to State Significant Development. The development involves the erection of a new pedestrian bridge over a public road, and so requires approval under Section 138(1)(a) of the *Roads Act 1993*.

This application will be referred to North Sydney Council for approval.

5.2 Urban Design and Built Form

Building Configuration and Massing

The proposed building has been designed to be consistent with the Miller Street streetscape, and seeks to continue the street wall along this frontage. The parapet height of 11.6 metres has been designed to align with the height of the masonry podium to the apartment building to the north (refer to **Figure 19**). From this street frontage height, a height plane of 12 metres has been extended over the development site. Whilst the proposal seeks to exceed Council's 10 metre LEP height limit, the proposal is considerably smaller than taller buildings to the north, and is of an appropriate scale in the context of both the Miller and Elliott Street streetscapes.

Within these parameters, the building's facades have been carefully modulated in order to complete the Miller Street boulevard and enliven Elliott Street, with extensive planting proposed to soften the built form and provide environmental and amenity benefits. To the south, at the interface with the existing Wenona Miller Street Campus, the building has been modulated through the use of setback balconies and open terraces.

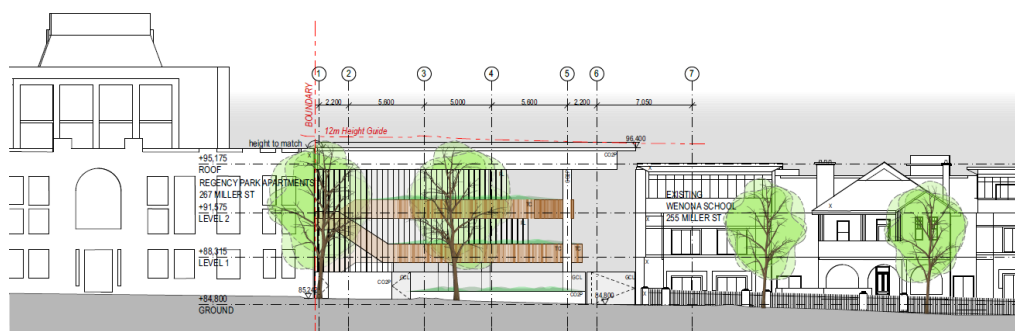


Figure 19 – Proposed Miller Street elevation
Source: TZG

Building Setbacks and Interface with Adjoining Development

As discussed at Section 3.5, the most sensitive interface is to the north, where the proposed development will adjoin the existing residential flat building at 267 Miller Street.

In accordance with North Sydney DCP 2013, buildings containing non-residential activities must be set back a minimum of 3 metres from the property boundary where the adjoining site has balconies or windows to main living areas at the same level.

The apartment building to the north of the site provides balconies along its southern façade, at the interface with the development site. This balcony zone is 8.12 metres long, and set back 3.23 metres from the site boundary. The main living areas of the apartments are located behind the balconies, and the windows either side of the balconies are for bedrooms or kitchens, which are not referenced in North Sydney

Council's DCP provisions. The resulting minimum setback requirements are shown at **Figure 20**. The proposed setbacks are shown at **Figure 21**.

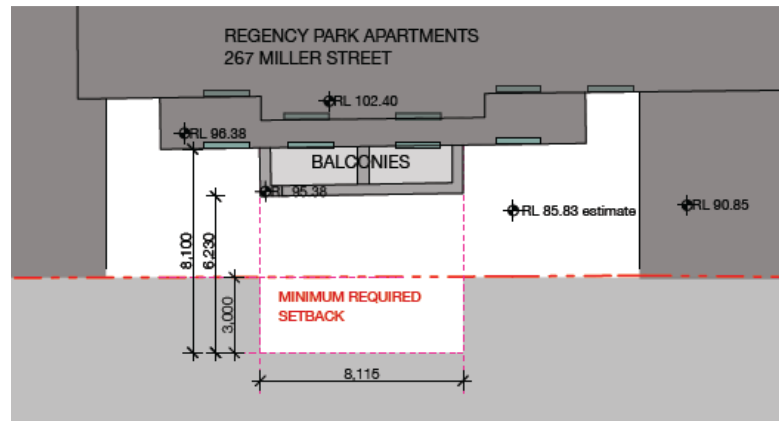


Figure 20 – Minimum setbacks required by North Sydney DCP 2013
Source: TZG

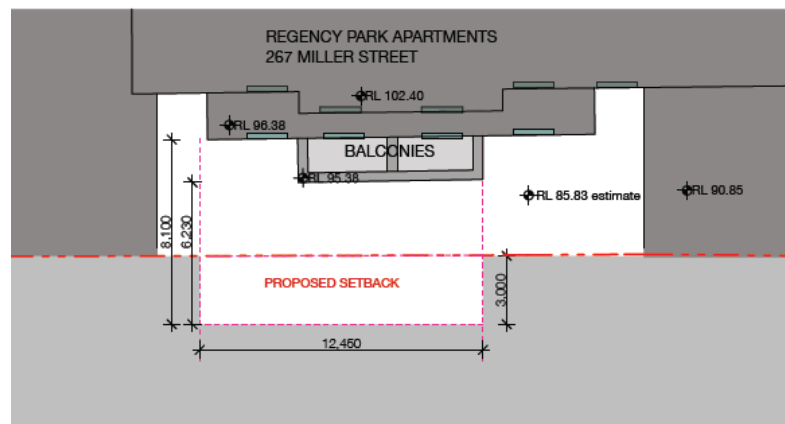


Figure 21 – Proposed setback
Source: TZG

In order to maintain residential amenity, the scheme incorporates a light well which has been setback from the site boundary and adjoining residential apartments. The light well has been setback 3 metres, consistent with the minimum DCP requirement, and will provide for a total separation of 6.23 metres between the new building and the residential balconies. In addition, the light well has been lengthened to 12.45 metres to extend beyond the western alignment of the apartment's balcony zone. This extended setback zone, together with the open light well, will reduce the dominance and perceived mass of the building at this interface. In order to further reduce any adverse amenity impacts, and in consultation with neighbouring residents, planters are proposed at Level 1 of the setback zone in an effort to replicate the green outlook that is currently enjoyed. Similarly, the glazing to the light well will be fritted in order to provide privacy for neighbouring residents, and the school. An indicative view of the proposed light well is provided at **Figure 22**.

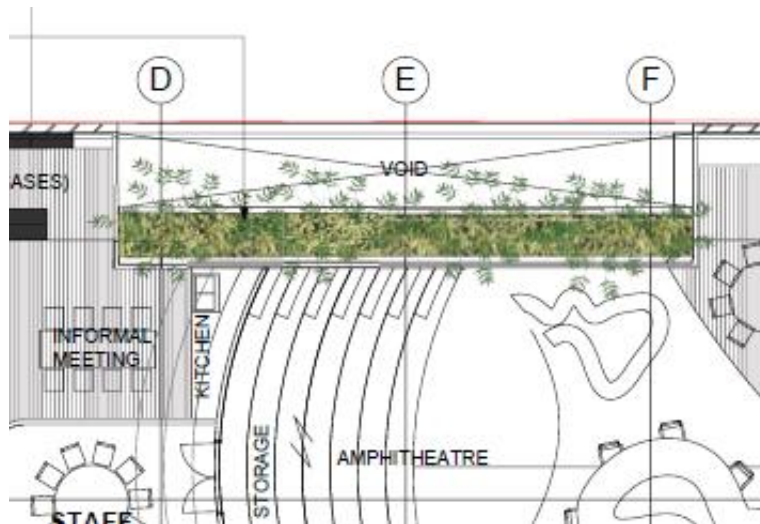


Figure 22 – Proposed plantings within the setback void
Source: 360

5.3 Heritage

European Heritage

A Statement of Heritage Impact has been prepared by NBRS + Partners and is included at **Appendix I**.

Whilst the site of the new building is not identified as a heritage item, the former house at 255 -257 Miller Street is identified as a local heritage item under North Sydney LEP 2013, and is part of the broader project site.

255 – 257 Miller Street comprises a two-storey Federation Arts and Crafts house. The former residence has high quality brickwork and decoration. Its location on Miller Street relates well to similar houses in the vicinity, particularly the Council Chambers and the McLaren Street Group.

The house has an asymmetrical façade with a gable to one side and a hipped, half-round tiled roof. Features of the former residence include shingled gable ends, circular windows, semi-elliptical arches, dichromatic brickwork and leadlight windows. The triple-arch ground floor colonnade has brick decoration to the arches with roughcast render above and a tessellated tile floor.

The assessment concludes that the proposed development will not adversely affect the identified heritage significance of the site. In summary:

- The proposed works are not associated with works to any heritage item. Project Archimedes retains and respects the existing heritage item adjacent to the development site by generally aligning with the height of the heritage item to ensure that it does not dominate.
- The proposed building has been set back from the alignment of the heritage item at 255-257 Miller Street to ensure views to the item are retained. This setback respects the heritage significance of the item in close proximity by allowing the public to view and appreciate their cultural significance as stylistically similar places form the Federation period.
- The proposed contemporary designed building offers a new landmark element within the Miller Street streetscape. This design is the result of a design competition, and has merit in its own right. The proposed Miller Street façade is designed using horizontal bands that express the open balconies and planters within the new school building. This contrasts with the design of the existing heritage items on the

eastern side of Miller Street, and will enable the public to continue to read the solid masonry façades and vertical openings of these heritage items.

Indigenous Heritage

An Aboriginal Heritage Information Management System (AHIMS) search has been undertaken. The search found that there are no recorded items on or near the site. A copy of the search is included at **Appendix I**.

5.4 Parking, Traffic and Loading

Parking and Traffic

Colston Budd Hunt & Kafes (CBHK) has assessed the proposed traffic and parking impacts associated with the proposed development. The Traffic Report is provided at **Appendix G**.

As there will be no increase in student or staff numbers, no increase to traffic or demand for additional car parking is expected. The development will however result in a reduction of 11 on-site car park spaces, which will be replaced (if necessary) with leased spaces within Council's Ridge Street car park.

The assessment of traffic implications concludes that there will be no increase in traffic generation. The closure of the childcare centre at the site will reduce traffic using Elliott Street by 10-15 vehicles per hour during the peak, with further reduction in traffic from the reduction of 11 on-site parking spaces.

The reduction in traffic on Elliott Street will be offset by re-distributed traffic from Walker Street associated from the relocation of the existing pool to the new site. Accordingly, traffic volumes on Elliott Street are expected to remain similar to existing traffic flows while traffic on Walker Street will experience a minor reduction. No traffic impacts are expected on Miller Street.

Construction traffic management is discussed at Section 5.8.

Loading

Wenona School has provided the following details around deliveries for the new facility:

- Science and Tas material delivery (once a term);
- Cleaning and perishable products delivery (once a term) and sanitary units (four times a term);
- Stormwater and sewer pump services (twice a year);
- Function set-up (four times a year);
- Rubbish collection (daily); and
- Pool chemicals and pool servicing (once a month).

With the exception of rubbish removal which will continue to occur on a daily basis from Elliott Street, deliveries will be limited and infrequent. Deliveries will be managed to ensure that they take place outside of school drop-off and pick-up times.

In order to maintain pedestrian safety at the building's Elliott Street entry, deliveries will generally take place on Elliott Street and goods will be trolleyed into the School (truck turning paths have been provided at Figure 2 of **Appendix G**). Bollards will be provided opposite the stairs to the pool foyer to prevent trucks from parking in this access area. On occasions when deliveries need to be made inside the building, the bollards will be removed and pedestrian movements will be managed to avoid any safety impacts. The driveway access has been retained to accommodate these infrequent events.

5.5 Amenity Impacts

5.5.1 Solar Access and Overshadowing

Shadow Diagrams have been prepared by TZG to demonstrate the shadow impacts created by the proposed development (refer to **Appendix A**). The position of the site to the south of the adjoining residential development means that there are no overshadowing impacts on this existing building, and overshadowing impacts will generally fall on to the school's own buildings.

On the Winter Solstice, off-site overshadowing impacts are generally limited to the aged care facility to the south-east of the development site. This particular part of the aged care facility is used as a respite day care centre, and is not permanently inhabited. Further, the UnitingCare site is the subject of a Stage 1 development consent which would ultimately see this building demolished and redeveloped. On the Winter Solstice, there will also be some minor additional overshadowing of the forecourt in front of the Rydges Hotel. Finally, whilst some additional shadows will fall on Miller Street, it will not impact Civic Park to the west.

5.5.2 Acoustic Impacts

Wilkinson Murray has prepared a Construction and Operational Noise Report (refer to **Appendix E**) to assess the potential acoustic impacts on surrounding sensitive receivers, primarily the Regency Apartments at 267 Miller Street and the UnitingCare aged care facility.

Operational noise from school activities will generally be contained within the envelope of the new facility. The new main entrance is located approximately 50 metres from the two receivers and will be well shielded. The outdoor learning area on Level 1 is expected to be used for group learning activities with no amplified speech or music. The terraces will not be used for recreation or outdoor play. Assuming a typical group or class of 20 students talking at normal levels in this area, noise levels at both receivers would be 44dBA or less, and so would be below the daytime criterion of 59dBA.

The closest point to the Regency Apartments will be the glass light well. The light well will be constructed using a minimum of 6.38mm laminated glass, and will either be acoustically sealed or will provide acoustically treated ventilation openings. Based on indicative calculations, all noise from the operation of the pool area, science hub, amphitheatre and senior ecosystem will be no greater than 50dBA. This will meet the required daytime criterion of 59dBA.

Mechanical noise has been assessed against the *NSW Industrial Noise Policy (INP)*. Whilst details of the mechanical plant have not yet been finalised, an initial review based on the indicative location indicates that noise from mechanical services will meet the required criteria at both the adjoining residential building and aged care facility. As the design progresses, there is scope to add further noise controls to manage noise if required.

Construction noise and vibration is addressed separately at Section 5.8.

5.5.3 Visual Privacy

As detailed above, the proposed building has an interface with the existing residential building to the north. As a result, the northern facade of the new building has been carefully considered in consultation with the community, to mitigate any privacy and proximity impacts. The proposal provides:

- A boundary setback of 3 metres where the proposed building fronts the adjoining residential balconies;
- A minimum separation of 8.1 metres between the façade of the new building, and the façade of the neighbouring residential building;

- A fritted glass façade to the light well; and
- Landscaping and planters to soften the appearance of the building, and provide visual privacy.

As a result of these measures, there will be no adverse privacy impacts to the neighbouring property at 267 Miller Street.

5.5.4 View Impacts

A View Impacts Assessment (VIA) has been prepared by Richard Lamb and Associates (refer to **Appendix F**). The VIA assesses the visual impact of the proposed development on the public domain, as well as the potential view impacts on the adjacent Regency Park Apartments, at 267 Miller Street.

With respect to the public domain, the VIA concludes that other than the presentation of the street walls to the site's Elliott and Miller Street frontages, the development will be of minimal visibility in the local public domain. An assessment of the proposed development on views from the Regency Park Apartments is provided below.

Relationship to the Regency Park Apartments

The Regency Park Apartment building has three levels that could be affected by the proposed development. These levels have windows, balconies and (on the lowest living level) courtyards, some of which face south across the side boundary towards Wenona School. The building appears to be essentially symmetrical in plan above the car parking level, meaning that most of the apartments face in directions other than to the south and would not be affected by the proposal. Notwithstanding this, those apartments on the south and south-east of the building have some potential to be affected. However, because the proposed development is stepped with the slope of the site (whereas the floor plates of residential levels in the Regency Park Apartments are not), the potential for there to be view impacts varies with the location of the individual apartments. The south and south-east facing apartments that have the potential to be impacted by the development currently benefit from borrowed views across the side boundary toward Wenona School and partly over existing structures. In these views, in particular from Ground Level and Level 1, the foreground is almost entirely composed of the canopies of trees, to the extent there is no significant access to views beyond.

Orientation of Views

Disregarding the existing vegetation canopy, the views that are potentially available from the Regency Park Apartments toward the south are contained by tall buildings to the south-east such as the Rydges Hotel, the SAP building, buildings south of McLaren Street and the upper parts of other taller buildings toward the North Sydney CBD. The upper levels have a slightly wider potential angle of view.

The foreground of views from the Regency Park Apartments from living Levels 1 and 2 are composed almost entirely of the canopies of vegetation within the school and on land between the school and McLaren Street. From living Level 3, the views are less impacted by existing vegetation, with apartments toward the west (Miller Street) end of the building less affected. The views that are not screened by vegetation are predominantly of buildings in McLaren Street, with glimpses of other, taller buildings behind and in some cases above.

In general, the existing school buildings that are intended to be replaced by the proposed development are screened by the vegetation canopy.

View Loss to the Private Domain

The VIA details the process that was undertaken to assess the likely impacts of the proposed development on views from apartments in Regency Park, and provides an assessment against the principles established by Senior Commissioner Roseth of the Land and Environment Court of NSW in the judgement in *Tenacity Consulting v Warringah [2004] NSWLEC 140 - Principles of view sharing: the impact on neighbours which provided a planning principle concerning view loss*. The assessment also

considers the planning principles in *Pafburn v North Sydney Council [2005] NSWLEC 444 (Pafburn)*, which have recently been amended in *Davies v Penrith City Council [2013] NSWLEC 1141 (Davies)*.

Application of the Four-Step View Sharing Principles in *Tenacity*

- **Step 1:** The view to be affected.

The view that is to be affected is described above and at Part 4 of the VIA, and varies slightly according to the angle of view, location of the apartment and the level in Regency Park from which it is experienced.

Roseth SC in *Tenacity* points out that water views are valued more highly than land views, as are whole views and those containing iconic features. The views lost do not include water, land-water interfaces, whole views or scenic items. What would be lost would primarily be a foreground composed of vegetation canopy, a screened view of buildings and a sense of space beyond and behind it.

- **Step 2:** The part of the property from which views are obtained.

All of the views that were assessed are obtained from areas which were considered as important by the owners, whether dining, lounge or bedroom areas. Kitchens, living rooms and outdoor recreation spaces are however considered the most significant in *Tenacity* and are to be given the greatest weight in assessing view sharing. That is, they are locations from which it is reasonable to expect view sharing. *Tenacity* points out that the view loss should be assessed from the whole dwelling and not only in relation to the view to be affected. In the context of the Regency Park building, which has several apartments orientated in various ways to the view, it is reasonable to interpret this principle as meaning that the overall effect of the proposal on the view should be considered, rather than concentrating only on the view from a part of the most affected apartment.

- **Step 3:** The extent of the impact.

The proposed development will result in views being lost from the primary living areas of some of the affected dwellings. What will be lost is not a scenic element in the view in *Tenacity* terms, but is one that alters the scenic character and spatial definition of the view (a view of vegetation and/or sky replaced by a building closer to the viewer). Considered in isolation, the extent of the view loss could be considered to be moderate to severe, using the qualitative ratings recommended in *Tenacity*. While the view loss may be considered to be moderate to severe in some individual apartments if considered in isolation, when considered in relation to the controls that apply to the site, and the desired future character of the area, the extent of view loss is considered acceptable. Richard Lamb and Associates conclude that the views lost do not pass the test of being a significant part of the viewing experience from the dwellings which should not be taken away for the benefit of the applicants. Further, the view represents a pleasant outlook, but is not a scenic item.

- **Step 4:** The reasonableness of the proposal

In considering whether a proposal is reasonable in regard to view sharing, a development that complies with all planning controls would be considered more reasonable than one that breaches them, if an impact on view arises directly as a result of the non-compliance.

To assist in determining whether the non-compliance with the controls in itself causes view loss, a series of 3D models and photomontages have been prepared to determine the impact of the proposed exceedance of the height controls.

Richard Lamb and Associates conclude that both a 10 metre building and a 12 metre building would cause additional view loss. Whilst the additional height above the 10 metre control causes more loss of view, what is lost would not be considered scenic to the extent that it is reasonable to expect it to be retained. The VIA concludes that while there is view loss, the loss is reasonable in the circumstances.

Consideration of the Planning Principles in *Davies*

Richard Lamb and Associates conclude that the proposed development is consistent with the planning principles established in *Davies*. In summary:

- When considered in relation to the planning controls that apply to the locality and the site, the impact on views will be minor.
- The proposal is reasonable, notwithstanding there is some view loss. There is a minor impact on views arising from the proposed building, as detailed above.
- The dwellings affected are vulnerable to view loss impacts, as they have access to views over the existing site, and are of a kind that would not be permitted today. The views are also experienced over the side boundary of the site, reducing the significance of the impact. In addition, the site is subject to controls which anticipate that views up to Level 2 of the Regency Park Apartments would not be expected to be protected.
- The impact in the current application does not arise out of a bad design decision but rather out of a response to a combination of constraints and in recognition of the existing planning regime.
- The application can be justified as reasonable, when the desired character intended to be created by the planning controls for the locality are taken into account.

Conclusion

The analysis of the likely effects on views shows that the proposed development would cause some view loss to some apartments on Level 2 and below of the Regency Park Apartments.

The VIA concludes that the views lost are more appropriately defined as an outlook rather than a view. What is lost is not scenic, iconic or culturally significant. Further, no water, land-water interface, whole or iconic items are lost.

Considering that the views affected are across the side boundary, and are from lower levels where it is not reasonable to expect view sharing, Richard Lamb and Associates consider that the proposal is reasonable in regards to view impacts.

5.5.5 Lighting Impacts

The primary source of light spill from the building will come from the light well on the northern facade. Whilst the school and pool may sometimes be used outside of normal hours, it will not operate late at night, and so any adverse impacts on adjoining residents would be limited.

5.5.6 Wind Impacts

As the proposed development is a similar height to adjacent buildings, and the structure is relatively open, there are unlikely to be any additional pedestrian level impacts compared to those currently experienced along Miller and Elliott Streets. Similarly, the proposed building is unlikely to have any adverse impacts on the surrounding buildings due to wind flows.

The 'Wenona School Spine' that connects Miller Street, Elliott Street and the remainder of the school may experience elevated wind speeds due to channelling, however these are unlikely to result in uncomfortable conditions for students and pedestrians walking through the site.

Whilst there is potential for some wind impacts on the open terrace areas of the building without appropriate mitigation, the plans indicate landscaping, solid balustrades and other obstructions that would reduce any wind impacts.

5.6 Tree Removal and Ecological Impacts

An Arboricultural Impact Report has been prepared by Landscape Matrix to assess the impact of the proposed development on the 18 trees on the site (refer to **Appendix U**). The report assesses the potential impact of the proposal on the subject trees, as well as providing recommendations and tree protection measures to ensure the long-term preservation of the trees being retained. The location of the trees on the site is shown at Appendix B of the Arboricultural Impact Report.

Tree Significance

The 18 trees assessed include a variety of planted Australian and exotic trees and shrubs.

Of the 18 trees on the site, one (1) tree, a *Syzygium paniculatum* (Brush Cherry, Magenta Lilly Pilly) is listed as an endangered species of the NSW *Threatened Species Conservation Act 1995* and nationally vulnerable under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

However, the assessment identifies this particular Cherry Brush as a planted specimen and not remnant vegetation. Accordingly, any impact on the tree would not be considered a significant impact on the threatened species when applying the relevant test under Section 5A of the EP&A Act.

Tree Removal

A total of eight (8) trees are to be removed as part of the development. These include:

- Three (3) identified as having low retention value; and
- Five (5) identified as having medium retention value.

The majority of these trees fall within the footprint of main building and their removal will facilitate construction of the proposed development.

Of the eight (8) trees proposed to be removed, none are considered to be of high landscape significance. In addition, it is noted that replacement tree plantings are proposed in the new landscape areas. Given these factors, it is considered the proposed tree removal is acceptable.

Mitigation Measures

In addition to the provision of replacement plantings, the report proposes a number of recommendations to protect the eight (8) trees that are to be retained within the construction areas.

The Report puts forward a combination of tree protection measures, including fencing and ground protection, which will be provided in accordance with AS4970-2009. These measures are reflected in the Mitigation Measures at Section 8.0.

5.7 Stormwater Management

A Stormwater Management Plan has been prepared by Taylor Thomson Whitting which outlines the stormwater management and water sensitive urban design concept for the site. The report is provided at **Appendix M** and the findings are summarised below.

Stormwater

Council has advised that the permissible site discharge (PSD) is to be limited to 20l/s, up to and including the 100-year ARI storm event. The Stormwater Management Plan details the OSD tank system. The proposed system connects to Council's kerb system in Miller Street, and the PSD has been limited to the maximum allowable flow of 20l/s.

Water Sensitive Urban Design

The WSUD measures that have been employed on the site are outlined in Taylor Thomson Whitting's report. The proposed development includes an OSD tank, and a rainwater re-use scheme. With these WSUD measures in place, the post-development water quality will be better than the pre-development scenario.

5.8 Construction Impacts

5.8.1 Construction Hours and Duration

The proposed hours of construction are:

- Monday to Friday: 7:00am to 6:00pm;
- Saturday: 8:00am to 5:00pm; and
- No work on Sundays and NSW public holidays.

It is noted that the proposed hours for Saturdays are outside the EPA's standard hours for construction, however these extended hours will enable the construction noise and vibration generating activities to be carried out in a more efficient manner, thereby shortening the overall construction period.

The expected duration of construction works is approximately 18 months, comprising the following estimated timeframes for each phase:

- Demolition – 8 weeks;
- Earthworks – 14 weeks;
- Construction – 26 weeks;
- Fit out – 20 weeks; and
- External works – 4 weeks.

5.8.2 Construction Noise and Vibration

The Construction Noise and Vibration Report prepared by Wilkinson Murray addresses construction noise and vibration, and the potential impacts of construction on surrounding sensitive receivers (refer to **Appendix E**).

Construction Noise

The report sets out the construction noise criteria as prescribed by the *Interim Construction Noise Guidelines 2009* for both the standard construction hours, and the works to be undertaken outside of the standard construction hours. Based on typical construction practices and equipment used, it is anticipated that the principal source of noise emissions will be during the demolition and ground excavation phases.

During the demolition and excavation phases, Wilkinson Murray has found that exceedances of up to 25dBA (during the week) and 30dBA (on Saturdays) could be experienced at 267 Miller Street, during standard construction hours. If no noise mitigation measures are implemented, receivers at 267 Miller Street would exceed the 75dBA 'highly affected' management level. This magnitude of exceedance is consistent with similar sites where residences overlook the development in such close proximity. Greater exceedances are predicted on Saturdays, due to the more stringent noise management levels during the extended hours of operation. It is noted that all predicted noise levels at 267 Miller Street are above the 'highly noise affected' noise objective.

In order to mitigate these impacts, reasonable and feasible noise management measures will need to be adopted. These measures should be determined in detail when a contractor has been engaged on the project, and construction techniques have been better defined. With appropriate planning, it is feasible that the levels predicted could be reduced by 15dBA, meaning that no receiver would exceed the 'highly affected' management level.

The following mitigation measures could be adopted to reduce construction noise impacts:

- Selection of the quietest feasible construction equipment;
- Localised treatment such as barriers, shrouds and the like around fixed plant such as pumps, generators and concrete pumps;
- Provision of respite periods; and
- Carrying out trial testing of vibration levels where equipment identified as having the potential to exceed the human comfort criteria is used.

In addition, a Community Management Plan will be implemented to ensure that the local community is aware of anticipated changes to noise and vibration emissions prior to the works being undertaken. The plan will also explain the complaint procedures and response mechanisms.

Vibration

Wilkinson Murray has set vibration criteria for building damage and human comfort. The potential for vibration will be greatest when site preparation and excavation works are taking place. The proposed development requires significant excavation (including rock breaking) in close proximity to neighbouring properties.

Any use of medium rock breakers should be carefully managed at distances closer than 20 metres from the residential building. Alternative use of small rock breakers would result in less potential for any impact at surrounding residences.

It is recommended that trial testing of vibration levels be conducted where identified equipment having the potential to exceed the human comfort criteria is proposed.

With respect to building damage, the structural damage vibration criteria for residential and heritage buildings is significantly higher than the human comfort criteria. The predicted vibration levels are within the human comfort criteria under most circumstances. The exception will be when excavating close to the northern boundary, when alternative excavation measures, such as rock saw attachments on excavators and ripping (conventional ripping or eccentric ripping excavator attachments) are recommended.

5.8.3 Air and Water Quality

Air Quality

The Preliminary Construction Management Plan has been prepared by APP (refer to **Appendix Q**) and contains a series of mitigation measures that will be adopted to ensure that the construction process does not result in any unacceptable amenity impacts, including adverse air quality impacts. The contractor will implement a Dust Management Plan that will provide the following details:

- Identify potential sources of dust;
- Specify appropriate dust control criteria for the works;
- Describe the measures and actions that would be implemented to minimise the generation of dust on the construction site;
- Ensure that all dust is contained within the construction site and that surrounding residents are not disadvantaged; and
- Describe what procedures would be followed to ensure compliance.

Water Quality

An Erosion and Sediment Control Plan has been prepared by Taylor Thomson Whitting (refer to **Appendix M**) which outlines the erosion and sediment control measures that will be employed.

During construction, erosion and sediment control measures will be put in place to prevent or ensure any site stormwater run-off is cleaned prior to discharge. The plan details the proposed geotextile filter pits, sediment fences and sediment traps that will be installed on the site during construction. These erosion and sediment control devices will be cleaned out after storm events and adjusted to suit construction progress.

In addition, dust suppression, construction vehicle inspections and cleaning measures will be put in place.

5.8.4 Construction Waste Management

A Waste Management Plan has been prepared by GHD to assess waste quantities, storage and management procedures during the demolition, construction and operational phases of the development (refer to **Appendix N**). With respect to demolition and construction waste, the WMP concludes that:

- Approximately 1.7 tonnes, or 940m³, of waste will be generated during demolition, mainly comprising bricks and tiles.
- Approximately 22,000 tonnes and 11,000m³ of waste will be generated during construction, mainly comprising soil. Soil will need to be tested to enable it to be classified for reuse and disposal.
- A Project Manager and Site Supervisor will be responsible for separating waste types on site.
- Waste types will be collected by a licenced waste contractor and transported to licenced processing facilities, possible Kimbriki Resource Recovery Centre, or licenced disposal sites, possibly Artarmon Transfer Station.

5.8.5 Construction Traffic

The Traffic Report prepared by Colston Budd Hunt & Kafes (CBHK) establishes the principles for the management of construction traffic which will be implemented during the construction phase (refer to **Appendix G**). The construction traffic measures seek to:

- Provide a convenient and appropriate environment for students and pedestrians;
- Minimise effects on pedestrian movements and amenity, both within the school grounds and adjacent to Elliott Street;
- Provide appropriate safety fencing around the perimeter of the site compound, with overhead protection where required;
- Separate construction traffic from general school traffic;
- Manage and control vehicular movements to and from the site;
- Maintain on-street parking in Elliott Street, Ridge Street and Miller Street in the vicinity of the site;
- Maintain traffic capacity at intersections in the vicinity of the site;
- Maintain access to existing residential and commercial developments in the vicinity of the site;
- Accommodate construction vehicles on the site; and
- Ensure that construction vehicles do not stop or park on-street along Elliott Street, Ridge Street and Miller Street or within residential streets in the vicinity of the site;

Further, in accordance with School's policy, no on-site parking will be provided for construction workers. Workers will be encouraged to use public transport, or make their own arrangements to park in legally available on-street parking.

These strategies are included in the Mitigation Measures at Section 8.0.

5.8.6 Complaints Handling

As outlined in the preliminary Construction Management Plan (CMP) prepared by APP (refer to **Appendix Q**) a Complaint Handling Procedure will form part of the project communications plan to be developed by the Contractor in conjunction with Wenona. A complaints contact number will be displayed at the construction site entrances. A contact officer will also be appointed by the Contractor to register, address and respond to any complaints.

5.9 BCA and Fire Safety

BCA

A BCA Compliance Statement has been prepared by Blackett Maguire + Goldsmith (refer to **Appendix W**). The report assesses the proposed development against the provisions of the BCA, and makes a series of recommendations to ensure compliance with the relevant controls. The Statement concludes that the proposed development can readily comply with the necessary requirements of the BCA, without undue modification to the design or appearance of the proposed buildings.

Fire Safety

A Fire Engineering Statement has been prepared by Exova Warrington Fire to assess the proposed development against the fire safety provisions of the BCA (refer to **Appendix X**). It is proposed to achieve BCA compliance for fire safety through a combination of prescriptive-based and performance-based design, with alternative solutions forming the basis of a fire engineering analysis. These include exit travel distances, distances between alternative exits and openings in external walls of different fire compartments.

It is considered that the matters identified that are likely to form part of the fire safety engineering alternative solutions can be addressed, enabling the proposed development to readily achieve compliance with the relevant fire safety-related provisions of the BCA.

5.10 Accessibility

An Accessibility Report prepared by Morris-Godding Consulting is included at **Appendix T**. The report reviews the proposed development to ensure that ingress and egress, paths of travel, circulation areas, recreation facilities and amenities comply with the relevant statutory guidelines.

The report makes recommendations regarding the building fit-out design that will not impact the design or appearance of the proposed development, and that are capable of being made during the Construction Certificate stage.

The report concludes that the development can achieve accessible and continuous paths of travel throughout, and that the development is capable of achieving compliance with the relevant statutory requirements pertaining to site access, common area access, and accessible sanitary facilities.

5.11 Structural Adequacy

Taylor Thomson Whitting has prepared a Structural Design Statement for the proposed development (refer to **Appendix S**). The structure will comprise a prestress concrete frame, and will include transfer portals across the pools, and the two upper levels will hang from the roof beams to minimise the depth of the upper two floors.

The new pedestrian bridge will be constructed of precast concrete. The bridge is supported at each end only with no intermediate supports, allowing for a clear unobstructed span across Elliott Street.

The Statement confirms that the structural design will be in accordance with the latest revision of all relevant Australian Design Standards, Codes and other statutory requirements. As a minimum requirement, the design shall be based on, but not limited to:

- *AS 3600 – 2009 Concrete Structures;*
- *AS 1400 – 1998 Steel Structures.*
- *AS / NZS1170.0 – 2002 General Principles;*
- *AS / NZS1170.1 – 2002 Permanent, Imposed and Other Actions;*
- *AS / NZS1170.2 – 2002 Wind Actions;*
- *AS 1170.4 – 2007 Earthquake Actions in Australia; and*
- *AS4678 – Earth-retaining Structures.*

5.12 Soils, Geotechnical and Groundwater

Coffey has prepared a Preliminary Site Contamination Assessment to assess the potential for contamination on the site. Coffey has also undertaken a Geotechnical Investigation which builds on the findings of the original geotechnical assessment carried out by ACOR Consultants Pty Ltd for the redevelopment of the adjoining Miller Street Campus. These reports are provided at **Appendix J** and **Appendix R** respectively, and are summarised below.

The recommendations from these reports have been included in the Mitigation Measures at Section 8.0.

5.12.1 Contamination

The Preliminary Site Contamination Assessment has investigated historical uses on the site to determine whether any contaminating uses may have occurred. The report concludes that:

- 263 Miller Street was used for residential purposes owned by private individuals until 1945. It was then owned by various funeral operators, and most recently operated as a child care centre. The main building appears to have been built prior to 1943.
- 265 Miller Street was owned by private individuals presumably for residential purposes until 1974. It appears the property has since been used for commercial purposes until 1984 when it was redeveloped to its current form. The building has most recently been used as a school administration office.
- No evidence of significant contaminating activities / features was identified during the desktop review, pending the Workcover Dangerous Goods search results.
- No fuel or chemical storage was observed on the site.

Based on the review of available records, the following Areas of Environmental Concern (AEC) have been identified at the site:

- Potential weathering of hazardous building materials in surface soils;
- Potential presence of contaminated fill to level ground; and
- Potential spillages of embalming chemicals in funeral home operations.

Coffey considers the above AECs generally have a low to moderate likelihood of significant contamination presence that could make the site unsuitable for the proposed land use. Any contamination associated with the above AECs, if present, would likely

be superficial and would effectively be removed during the proposed basement excavation. Therefore, Coffey considers that the site can be made suitable for the proposed development in accordance with SEPP55 (DUAP, 1998) subject to appropriate classification and removal of materials to be excavated for the construction of the basement.

5.12.2 Geotechnical

The Sydney 1:100,000 Geological Sheet indicates that the site is underlain by Hawkesbury Sandstone. The subsurface conditions encountered during the fieldwork investigation encountered Hawkesbury Sandstone, overlain by a mantle of filling and residual soil.

Based on the results of the site investigations, the report provides general advice on the geotechnical aspects of the proposed civil and structural design. These recommendations relate to earthworks, excavation, impacts on adjacent structures, vibrations and earthquake design.

5.12.3 Acid Sulphate

North Sydney LEP 2013 does not contain any acid sulphate soils mapping, or provisions relating to acid sulphate soils. Coffey has confirmed that the site is located in an area where acid sulphate soils are not known to occur.

5.12.4 Groundwater

Groundwater was not able to be measured during the investigation as water was used as drilling fluid while coring the rock. However, groundwater seepages were observed in the north-western and south-western corners of the basement. Bedrock seepage in sandstone typically occurs along sub-horizontal bedding planes and sub-vertical joints, as well as at the base of fill and the soil / rock interface.

Coffey anticipates that any seepage into open excavations will be able to be controlled by pumping from sumps.

5.13 Environmentally Sustainable Development

A Sustainability Report has been prepared by AECOM, and is included in **Appendix H**. ESD principles will be incorporated into the design, construction and ongoing operation phases of the development. Whilst the development will be designed to achieve an equivalent 5 star Green Star Education v1 rating, no formal certification will be sought. Rather, the rating tool has been used to determine and implement appropriate and feasible ESD initiatives so that the design aligns with the Green Star target, best practices and Wenona's own Sustainability Policy.

The report sets out sustainability performance indicators for the project, including:

- Limiting carbon emissions when operational;
- Reducing embodied carbon footprint during construction and refurbishment;
- Encouraging water reductions and recycling where possible;
- Providing construction and operational waste reduction; and
- Facilitating social and wider community health and wellbeing.

The sustainability initiatives that could be adopted to achieve these performance indicators are detailed in AECOM's Report, and will be finalised during detailed design.

The environmental performance of the development has also been assessed against Clause 7(4) of Schedule 2 of the EP&A Regulations. The proposed development is consistent with the five accepted principles of ESD, as described below.

Precautionary Principle

If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

The proposal is supported by environmental studies and technical reports which conclude that there are no environmental constraints that would preclude the development of the site, subject to appropriate management during the design, construction and operational stages. It is considered that through adherence to the Mitigation Measures outlined in Section 8.0, the proposal will not result in negative environmental impacts.

Integration Principle

The integration principle states that decision-making processes should effectively integrate both long-term and short-term economic, environmental and social considerations. The design of the building has been developed to integrate the short and long-term effects of economic, environmental and social considerations in the provision of teaching and educational facilities at the school.

Intergenerational Equity

The principle of intergenerational equity holds that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations. The proposal has been developed to directly benefit current and future generations in that it contributes to the provision of education services for the community without causing significant impact to the environment.

Biological Diversity

Under the biodiversity principle, the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.

The development site does not contain any threatened or vulnerable species, populations, communities or significant habitats. The construction and ongoing operation of the facility will be managed in accordance with the Mitigation Measures, ensuring no significant indirect impacts on the surrounding environment.

Valuation and Pricing of Environmental Resources

Under this principle, improved valuation, pricing and incentive mechanisms as well as environmental factors should be included in the valuation of assets and services.

The cost of infrastructure and other design measures to ensure an appropriate level of environmental performance has been incorporated into the cost of development. In addition, the level of waste will be appropriately managed during the construction and the operation of the development. These measures have also been incorporated into the cost of development.

5.14 Crime Prevention Through Environmental Design

The scheme implements the principles of Crime Prevention Through Environmental Design (CPTED), as identified in the Department of Planning guideline titled *Crime Prevention and the Assessment of Development Applications (2001)* as follows:

Principle 1 – Natural Surveillance

As noted in *Crime Prevention and the Assessment of Development Applications*, good surveillance means that people can see what others are doing. People feel safe in public areas when they can easily see and interact with others. Would-be offenders are often deterred from committing crime in areas with high levels of surveillance.

In accordance with this principle, the proposed development provides surveillance. The provision of non-residential uses along Miller and Elliott Streets will provide active surveillance, generating a degree of activity that will enable people to casually observe what others are doing. This will encourage a perceived sense of security for people in the street, and will deter potential offenders.

Further, the provision of windows and terraces which overlook the public domain will promote the reality and / or perception that the streets, and main building entry, are under casual surveillance. This acts as a way of creating the perception of risk in the minds of potential perpetrators.

Principle 2 - Access Control

Access controls use physical and symbolic barriers to attract, channel or restrict the movement of pedestrians. As noted in *Crime Prevention and the Assessment of Development Applications*, effective access controls make it clear where people are permitted to go or not go, and makes it difficult for potential offenders to reach and victimise people and damage property. Illegible boundary markers provide excuses for being in restricted areas.

Gates, fences and planting will delineate between the public and private domain. Whilst the new 'Wenona School Spine' will remain open during the day, access will be controlled via a reception desk for visitors and swipe card access for students. The link will be closed at night to prevent unauthorised access. This main entry point into the building is located in an area which will be subject to high user traffic, as well as surveillance from passing pedestrians and vehicles. This will ensure that people entering and exiting the school can be clearly seen from public open spaces and adjoining buildings.

Principle 3 – Territorial Reinforcement

Territorial reinforcement refers to the clear identification of public spaces, and the creation of a sense of community ownership over such spaces. As noted in the *Crime Prevention and the Assessment of Development Applications* people feel comfortable in, and are more likely to visit, places which feel owned and cared for. Well used places also reduce opportunities for crime and increase risk to criminals. Boundary fencing and landscaping will differentiate public and private areas. Whilst the building's main entry point will remain open during the day, access control measures will be put in place, and the provision of fencing and gates will clearly define where the private space begins.

Principle 4 – Space Management

Space management refers to providing attractive, well maintained and well used spaces. As noted in *Crime Prevention and the Assessment of Development Applications*, space management strategies include site cleanliness, rapid repair of vandalism and graffiti and the removal of damaged physical elements.

Durable and high-quality materials are proposed which will ensure that minimal maintenance is required for the proposed development. The continued maintenance of the building and its grounds will ensure that it does not become degraded and will ensure that vandalism of the property is strongly discouraged.

5.15 Development Contributions

The relevant contributions plan for the site is the *North Sydney Section 94 Contributions Plan 2013*.

Whilst the Plan does not contain a list of uses which are automatically excluded from the payment of contributions, it states that (our emphasis):

*Contributions will be levied on **additional residential development and additional commercial development (includes space to be used for hotels - including residential component- medical centres, refreshment***

rooms, restricted premises, shops, showrooms and take-away food shops) within North Sydney in accordance with this Plan.

Whilst this list of uses is not exhaustive, educational establishments do not fit within the definition of commercial development, with educational establishments being a separately defined use. Based on the above, JBA is of the view that the plan only relates to residential and commercial development.

This view is supported by recent development applications for educational establishments in the North Sydney LGA. It is noted that that Monte Sant' Angelo Mercy College did not pay contributions under their recent JRPP approved DA. Similarly, the Department of Planning's assessment report for Sydney Church of England Grammar School's Part 3A Application states that (our emphasis):

*North Sydney Section 94 Contributions Plan 2003 applies to all land within the North Sydney LGA. The proposed concept plan and stage 1 project application is for the extension of Shore school campus onto the Graythwaite site. **Educational establishments are not levied under North Sydney Section 94 Contributions Plan 2003, and consequently the proposal is not subject to any developer contributions.***

Whilst Council's contributions plan changed in 2013, it is understood that the amendments only sought to extend the timeframe to which the plan applies and to reflect changes made to the development contributions system since the *North Sydney Section 94 Contributions Plan 2003* came into effect in 2004. Notably, the amendments to the Contributions Plan do not affect contributions rates or the amount of contributions that will be levied on relevant development consents.

Irrespective of the above, a dispensation is considered appropriate as the proposed development comprises upgrades, alterations and additions to an existing facility and will not result in an increase in the number of students or staff on the site. As a result, the proposal will not place any additional demand on public services or facilities. The school provides its own sport and open space facilities within its campus, and the development further enhances the provision of sporting facilities on the site. As the development will not put any additional demand on Council's infrastructure, it is considered reasonable that a dispensation be considered.

5.16 Site Suitability

The site is suitable for the proposed development in that it is already used for a school, with a built form not dissimilar to surrounding development.

The development will not increase the number of students, staff or visitors to the site, and so there will be no additional impacts on the surrounding neighbourhood as a result of the use of the site.

The site is in close proximity to transport infrastructure, shops and other services, and the built form is in keeping with the existing surrounding development, and the future direction of the built form of North Sydney.

The development is suitable for the site as the development:

- Is permissible in the zone;
- Involves the construction of a high quality building with architectural design that enhances the streetscape;
- Improves the functionality and accessibility of the site; and
- Considers and minimises impacts on the surrounding locality.

5.17 Public Interest

The proposed redevelopment of the school is in the public interest as it:

- Is of a high architectural standard, and the built form is compatible with the site's surrounding buildings;
- Will improve the presentation of the site to Miller and Elliott Streets;
- Provides a high level of disabled access; and
- Retains and respects the site's heritage significant building whilst developing new facilities which are in-keeping with the heritage built form.

6.0 Request to Vary Development Standard

Clause 4.6 of LEP 2013 allows the consent authority to grant consent for development even though the development contravenes a development standard imposed by LEP 2013. The clause aims to provide an appropriate degree of flexibility in applying certain development standards to achieve better outcomes for and from development.

This application seeks to vary two development standards – height and floor space ratio (FSR).

6.1 Height

6.1.1 Development Standard to be Varied

The first development standard that is sought to be varied as part of this application is Clause 4.3 of LEP 2013, relating to *height of buildings*. Under North Sydney LEP 2013 the site is afforded a maximum height of 10 metres.

As outlined in Section 3 and shown in the plans at **Appendix A**, the proposed new building has a predominant height of 12 metres, however there is a maximum height of 13.4 metres where roof elements project above this height plane, as the site slopes towards Elliott Street. The lift overrun for the new lift on the site of the existing Miller Street campus building has a maximum height of 14.8 metres.

6.1.2 Justification for Contravention of the Development Standard

Compliance with the development standard is unreasonable or unnecessary in the circumstances of the case

In the decision of *Wehbe v Pittwater Council* [2007] NSW LEC 827, Chief Justice Preston expressed the view that there are five different ways in which strict compliance with a development standard might be shown as unreasonable or unnecessary. Of particular relevance in this instance is the first means, that a development standard might be shown as unreasonable or unnecessary if *'the objectives of the standard are achieved notwithstanding non-compliance with the standard'*.

The objectives of the development standard are:

- a) *to promote development that conforms to and reflects natural landforms, by stepping development on sloping land to follow the natural gradient,*
- b) *to promote the retention and, if appropriate, sharing of existing views,*
- c) *to maintain solar access to existing dwellings, public reserves and streets, and to promote solar access for future development,*
- d) *to maintain privacy for residents of existing dwellings and to promote privacy for residents of new buildings,*
- e) *to ensure compatibility between development, particularly at zone boundaries,*
- f) *to encourage an appropriate scale and density of development that is in accordance with, and promotes the character of, an area.*

Table 7 demonstrates that the proposed variation to the height standard will still result in a development that achieves the objectives of the height of buildings development standard.

Table 7 – Assessment against building height objectives

Objective	Proposal
g) to promote development that conforms to and reflects natural landforms, by stepping development on sloping land to follow the natural gradient	The proposed building will step down with the topography from Miller Street in the west to Elliott Street such that the building height of the new building will be 13.4 metres above the existing ground level and will follow the natural gradient.
h) to promote the retention and, if appropriate, sharing of existing views,	The increase in building height over the development standard will have minimal impact on views from adjoining properties when compared to a compliant (10 metres) building. While the outlook from a number of units on lower floors on the southern side of the adjoining residential flat building will be impacted, this will occur with a 10 metre building and also with a Complying Development scheme. To ameliorate these impacts, the proposed building has been set back from the residential flat building to protect outlook and amenity.
i) to maintain solar access to existing dwellings, public reserves and streets, and to promote solar access for future development,	The proposed development will not overshadow any existing dwellings, public reserves or streets, nor compromise solar access for future development. The adjoining residential flat building is to the north of the site and will not be affected in this regard.
j) to maintain privacy for residents of existing dwellings and to promote privacy for residents of new buildings,	The proposed development will maintain privacy for residents of existing dwellings through appropriate setback and screening measures incorporated into the building's design. The proposed building is an educational establishment and will therefore not house any residents.
k) to ensure compatibility between development, particularly at zone boundaries,	The proposed new building has a parapet height of 11.6 metres, and a maximum height of 13.4 metres. The variation in building height will provide a building that is more compatible with adjoining buildings on Miller Street which have a comparable parapet height.
l) to encourage an appropriate scale and density of development that is in accordance with, and promotes the character of, an area	The proposed building is of a scale and density of development that is consistent with the character of the area.

Given the consistency with the objectives of the development standard, strict compliance with the height standard by this development is considered unreasonable and unnecessary in this instance.

Further, when considering whether a development standard is appropriate and / or necessary, one must take into account the nature of the proposed variation, the site context, and the design of the proposed development. Each of these matters is discussed below.

Nature of the Variation

Whilst the building has a predominant height of 12 metres, the proposed maximum height of the new building is 13.4 metres (to the top of the uppermost building plant and roof form), being 3.4 m above the maximum LEP height limit.

The proposed additions on the site of the existing Miller Street campus building (to accommodate a lift overrun and access link) has a maximum height of 14.8 metres, being 4.2 metres above the maximum height LEP limit. This is within the height of the existing chemistry building on the School's Miller Street Campus.

Site Context

Site context is a key consideration when determining the appropriateness and necessity of a development standard. Importantly, the height of the tallest element of the proposed development is no higher than the existing chemistry building on the School's Miller Street Campus.

As outlined in Section 2, the site is surrounded by a variety of residential uses and non-residential uses, and is located at the northern fringe of the North Sydney CBD. Even

with the additional height proposed, the development will continue to be consistent with the site's context and the scale of development in the locality.

Design of the Building

The proposed development has been the subject of a robust design process aimed at creating a building that meets its functional educational needs and recognises and responds to the context of the school site.

The design of the new building has given consideration to the Miller Street streetscape, and has been designed to align with the 12 metre parapet height of existing buildings. The 14.8 metre lift overrun on the existing Miller Street campus site is located 34 metres from the Miller Street frontage, and is within the height of the existing building when viewed from the public domain. The lift overrun will not be a prominent feature from the public domain.

There are sufficient environmental planning grounds to justify contravening the development standard

The proposed variation, and the subsequent increase in height, is considered acceptable and reasonable. The additional height will not result in any significant adverse impacts for the following reasons:

- The proposed new building will have a height of 13.4 metres which is less than or consistent with the predominant building height of surrounding buildings in Miller and Elliott Streets. The maximum building height will be the same as the school's chemistry building, which forms part of the Wenona Miller Street Campus. To the north, the adjoining residential flat building is 26 metres in height with a street parapet of 11-12 metres. The new building will step down from west to east to follow the existing ground level.
- Under Clause 31A of *State Environmental Planning Policy (Infrastructure) 2007*, the building height standard for Complying Development for an educational establishment is 12 metres. Therefore Wenona School could submit a Complying Development Certificate for a 12 metre high building without the need for a development application, where that building also complied with specified setbacks, solar access and noise standards.
- The proposed building is the result of a design excellence competition undertaken by Wenona School. The stated objectives of the design competition were:
 - To create a building of outstanding architectural merit that meets aspirational objectives and functional requirements; and
 - To design a building that articulates Wenona's core priorities and values being: a focus on smaller communities within the school, greening up the campus in terms of landscape and ESD and generating an environment that is peaceful, calm and reflective.

Four leading architecture firms were invited to submit entries to the competition with the design by TZG Architects being selected as the winning design.

Notwithstanding that Wenona School could have designed a 12 metre high Complying Development scheme; the school undertook the design excellence process to ensure that the building was of high architectural quality and would relate and respond to the amenity of the adjoining land owners, particularly the residential flat building to the north.

- The proposed development will not overshadow any existing dwellings, public reserves or streets, nor compromise solar access for future development. The adjoining residential flat building is to the north of the site and will not be affected in this regard.
- The increase in building height over the development standard will have minimal impact on views from adjoining properties when compared to a compliant (10 metres) building. While the outlook from a number of units on lower floors on the southern side of the adjoining residential flat building will be impacted, this will occur

with a 10 metre building and also with a complying development. To ameliorate these impacts, the proposed building has been set back from the residential flat building to protect.

- Notwithstanding the proposed variation to the building height standard, the objectives of that standard in Clause 4.3 of North Sydney LEP 2013 are still met by the proposed scheme. The proposed building's compliance with the LEP Building Height objectives is demonstrated in **Table 7**.

Secretary's Concurrence

The following Section provides a response to those matters sets out in Clause 4.6(5) of the LEP which must be considered by the Secretary in deciding whether to grant concurrence:

Whether contravention of the development standard raises any matter of significance for State or regional environmental planning

The proposed departure from the development standard does not raise any significant matter of significance for State or regional environmental planning.

The proposed building, as well as the additions to the existing school building, will strengthen the educational offering of Wenona School which is a significant provider of secondary education in North Sydney and the Lower North Shore. The Draft Inner North Subregional Strategy identifies North Sydney as part of 'Global Sydney' which encompasses Central Sydney and North Sydney. A key driver of these areas is their role as education precincts. The Draft Subregional Strategy specifically identifies Wenona School as being part of a cluster of education establishments that contribute to North Sydney's Global City Status.

The public benefit of maintaining the development standard

There is no public benefit in maintaining the development standard in this instance. Specifically, there will be no adverse impacts as a result of the variation to the development standard and the overall development provides a positive contribution to the North Sydney CBD.

Reducing the height would be to the detriment of the development, significantly altering key design features of the proposal such as reducing floor to ceiling heights or minimising the number of levels, in turn hindering the delivery of a high quality and substantial educational facility.

Any other matters required to be taken into consideration by the Director-General before granting concurrence

The proposal will deliver significant education benefits that will help reinforce and strengthen North Sydney's role as an education centre and a key part of 'Global Sydney', in this context, the nature of the variation is considered to be acceptable.

Summary

This section demonstrates that the consent authority can be satisfied that although the proposal exceeds the height of buildings standard, the development will deliver a built form that is consistent with the objectives of the zoning and development standards for the site. Compliance with the standard is unreasonable and unnecessary given the following circumstances:

- The development, as proposed, is consistent with the objectives of the height of buildings development standard under LEP 2013;
- The development is of a scale that is not out of context with other buildings in the development site or surrounding development;
- The increase in height will not be perceptible from Miller Street; and
- The built form will enable the school to meet the modern education needs and provide flexible and adaptable learning spaces.

Compliance with the height of buildings standard is therefore unnecessary and unreasonable in the circumstances of the case and should not be reason to preclude the consent authority from approving the proposed development.

6.2 Floor Space Ratio

6.2.1 Development Standard to be Varied

The second development standard that is sought to be varied as part of this application is Clause 4.4A of LEP 2013, relating to *non-residential floor space ratio ranges*. Under North Sydney LEP 2013 the site has a maximum non-residential floor space ratio (FSR) of 1:1.

As outlined in Section 3 and shown in the plans at **Appendix A**, the proposed development seeks a maximum non-residential floor space of 2.07:1 (when measured across the whole development site, including the existing Miller Street Campus).

6.2.2 Justification for Contravention of the Development Standard

Compliance with the development standard is unreasonable or unnecessary in the circumstances of the case

In the decision of *Wehbe v Pittwater Council* [2007] NSW LEC 827, Chief Justice Preston expressed the view that there are five different ways in which strict compliance with a development standard might be shown as unreasonable or unnecessary. Of particular relevance in this instance is the first means, that a development standard might be shown as unreasonable or unnecessary if *'the objectives of the standard are achieved notwithstanding non-compliance with the standard'*.

The objectives of the development standard are:

- a) *to provide for development with continuous and active street frontages on certain land in Zone B1 Neighbourhood Centre, Zone B4 Mixed Use and Zone SP2 Infrastructure,*
- b) *to encourage an appropriate mix of residential and non-residential uses,*
- c) *to provide a level of flexibility in the mix of land uses to cater for market demands,*
- d) *to ensure that a suitable level of non-residential floor space is provided to reflect the hierarchy of commercial centres.*

Table 8 demonstrates that the proposed variation to the non-residential floor space ratio ranges standard will still result in a development that achieves the objectives of the height of buildings development standard.

Further, it is noted that North Sydney Council is currently processing a LEP amendment to remove the maximum non-residential floor space ratio requirement over land subject to Clause 4.4A, to improve the flexibility of the existing planning controls, especially in the *B4 Mixed Use* zone.

Table 8 – North Sydney LEP Clause 4.4A – Non-Residential FSR Objectives

Objective	Proposal
e) to provide for development with continuous and active street frontages on certain land in Zone B1 Neighbourhood Centre, Zone B4 Mixed Use and Zone SP2 Infrastructure,	The proposed development will provide for non-residential uses at both Miller and Elliott Streets which will be activated through being the main entry points for students and visitors into the facility.
f) to encourage an appropriate mix of residential and non-residential uses,	It would be unreasonable to apply this objective to the development as Wenona School is an educational establishment and a strictly non-residential use.

Objective	Proposal
g) to provide a level of flexibility in the mix of land uses to cater for market demands,	It would be unreasonable to apply this objective to the development as Wenona School is an educational establishment and a strictly non-residential use.
h) to ensure that a suitable level of non-residential floor space is provided to reflect the hierarchy of commercial centres	The proposed development will be non-residential. The proposed development will re-enforce North Sydney's role as commercial centre through strengthening its role as an education centre.

Given the consistency with the relevant objectives of the development standard, strict compliance with the non-residential floor space ratio standard by this development is considered unreasonable and unnecessary in this instance.

Further, when considering whether a development standard is appropriate and / or necessary, one must take into account the nature of the proposed variation, the site context, and the design of the proposed development. Each of these matters is discussed below.

Nature of the Variation

Whilst there is no maximum FSR applying to the site, there is a maximum non-residential FSR control of 1:1. The proposed development is for a non-residential use, and has a FSR of 2.07:1, representing a 1.07:1 increase.

It is noted that the majority of the works are to be located on 263 – 265 Miller Street and 6 Elliott Street, with a FSR of 2.75:1 when the FSR is calculated on these sites only.

Site Context

Site context is a key consideration when determining the appropriateness and necessity of a development standard. Importantly, the building is of a scale that is consistent with surrounding buildings, both on and off the school campus.

As outlined in Section 2, the site is surrounded by a variety of residential uses and non-residential uses, and is located at the northern fringe of the North Sydney CBD. Even with the additional non-residential floor space proposed, the development will continue to be consistent with the site's context and the scale of development in the locality.

Design of the Building

The proposed development has been the subject of a robust design process aimed at creating a building that meets its functional educational needs and recognises and responds to the context of the school site.

The design of the new building has given consideration to the Miller Street streetscape, and has been designed to align with the scale of existing buildings in the locality.

There are sufficient environmental planning grounds to justify contravening the development standard

The following arguments would be used to justify a variation to the Non-residential FSR Range standard under Clause 4.4A of North Sydney LEP 2013:

- This section of Wenona School (the Miller Street Campus) is zoned B4 Mixed Use under North Sydney LEP 2013. The school's main Walker Street Campus is zoned SP2 Education Establishment within which there is no FSR or non-residential FSR standard, recognising the special use of the school, and that residential development is not an appropriate land use.
- The development site and the proposed development will be integral parts of the overall Wenona School Campus. There is no scope for residential development and it would not be an appropriate land use within the school campus. Therefore the non-residential FSR standard is unreasonable and unnecessary to apply to the

development as the development will meet the B4 zone objective of providing active uses at the street level, however cannot accommodate residential development.

- There is no overall FSR control that applies to the site under Clause 4.4 of the LEP, only the non-residential FSR range (0.5:1 to 1:1) under Clause 4.4A. Therefore, a building with the FSR proposed could be accommodated on the site if it was a mixed use development. Further, Council is now seeking to remove this maximum non-residential requirement to increase flexibility in the B4 zone.
- However, the full FSR potential within the building envelope proposed cannot be achieved under the current standard as Wenona cannot include a residential component of the development. It would be unreasonable therefore to apply the standard to this development. An alternate development scheme on the site that complied with the development standard (i.e. an FSR of 1:1) would constitute under-development of the site and, in the context of the North Sydney CBD, not be an efficient use of the land.
- Under Clause 31A of *State Environmental Planning Policy (Infrastructure) 2007*, there is no FSR standard for Complying Development for an educational establishment. Therefore Wenona School could submit a Complying Development Certificate for a 12 metre high building that exceeds the non-residential FSR standard in North Sydney LEP 2013 without the need for a development application, where that building also complied with specified setbacks, solar access and noise standards.
- Notwithstanding the proposed variation to the non-residential FSR range development standard, the objectives of the standard in Clause 4.4A of North Sydney LEP 2013 are still met with the proposed scheme as demonstrated in **Table 8**.

Secretary's Concurrence

The following Section provides a response to those matters sets out in Clause 4.6(5) of the LEP which must be considered by the Secretary in deciding whether to grant concurrence:

Whether contravention of the development standard raises any matter of significance for State or regional environmental planning

The proposed departure from the development standard does not raise any matter of significance for State or regional environmental planning.

The proposed building, as well as the additions to the existing school building, will strengthen the educational offering of Wenona School which is a significant provider of secondary education in North Sydney and the Lower North Shore. The Draft Inner North Subregional Strategy identifies North Sydney as part of 'Global Sydney' which encompasses Central Sydney and North Sydney. A key driver of these areas is their role as education precincts. The Draft Subregional Strategy specifically identifies Wenona School as being part of a cluster of education establishments that contribute to North Sydney's Global City Status.

The public benefit of maintaining the development standard

There is no public benefit in maintaining the development standard in this instance. Specifically, there will be no adverse impacts as a result of the variation to the development standard and the overall development provides a positive contribution to the North Sydney CBD.

Limiting the development's FSR to the range prescribed for non-residential development under Clause 4.4A of the LEP would make the proposed development unviable and prevent Wenona School from strengthening and modernising its educational offering.

Any other matters required to be taken into consideration by the Director-General before granting concurrence

The proposal will deliver significant education benefits that will help reinforce and strengthen North Sydney's role as an education centre and a key part of 'Global Sydney', in this context, the nature of the variation is considered to be acceptable.

Summary

This section demonstrates that Council can be satisfied that although the proposal exceeds the FSR standard, the development will deliver a built form that is consistent with the objectives of the zoning and development standards for the site. Compliance with the standard is unreasonable and unnecessary given the following circumstances:

- The development as proposed is consistent with the objectives of the non-residential floor space ratio ranges standard under LEP 2013;
- The development is of a scale that is not out of context with other buildings in the development site or surrounding development;
- The increased density will not be perceptible from the public domain; and
- The built form will enable the school to meet the modern education needs and provide flexible and adaptable learning spaces.

Compliance with the non-residential floor space ratio standard is therefore unnecessary and unreasonable in the circumstances of the case and should not be reason to preclude the consent authority from approving the proposed development.

7.0 Environmental Risk Assessment

The Environmental Risk Assessment (ERA) establishes a residual risk by reviewing the significance of environmental impacts and the ability to manage those impacts. The ERA for Project Archimedes has been adapted from Australian Standard AS4369.1999 Risk Management and Environmental Risk Tools.

The Risk Assessment Matrix at **Figure 23** illustrates how the residual environmental impacts of a proposal are assigned. The sum of the values assigned provides an indicative ranking of potential residual impacts after the mitigation measures are implemented as follows:

- The significance of impact is assigned a value between 1 and 5 based on:
 - the receiving environment;
 - the level of understanding of the type and extent of impacts; and
 - the likely community response to the environmental consequence of the project.
- The manageability of environmental impact is assigned a value between 1 and 5 based on:
 - the complexity of mitigation measures;
 - the known level of performance of the safeguards proposed; and
 - the opportunity for adaptive management.

The sum of the values assigned provides an indicative ranking of potential residual impacts after the mitigation measures are implemented.

Significance of impact	Manageability of impact				
	5 Complex	4 Substantial	3 Elementary	2 Standard	1 Simple
1 – Low	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)	2 (Low)
2 – Minor	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)
3 – Moderate	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)
4 – High	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)
5 – Extreme	10 (High)	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)

Figure 23 – Risk Assessment Matrix

In accordance with the SEARs, the ERA addresses the following significant risk issues:

- The adequacy of baseline data;
- The potential cumulative impacts arising from other developments in the vicinity of the Site; and
- Measures to avoid, minimise, offset the predicted impacts where necessary involving the preparation of detailed contingency plans for managing any significant risk to the environment.

Table 9 presents the ERA for this project.

Table 9 – Environmental Risk Assessment

Item	Phase	Potential Environmental Impact	Proposed Mitigation Measures and / or Comment	Significance of Impact	Manageability of Impact	Residual Impact
Key: C - Construction O - Operation						
Noise and Vibration	C + O	<ul style="list-style-type: none"> ▪ Increase in noise and vibration levels during construction activities ▪ Increase in noise levels during the operation of the school building 	<ul style="list-style-type: none"> ▪ Implementation of Construction Noise and Vibration Measures which considers the construction methodology and details specific mitigation measures in accordance with the DECCW Interim Construction Noise Guideline. ▪ Appropriate mitigation measures to be implemented to ensure vibration levels will not compromise human comfort or result in building damage. ▪ Appropriate sound minimisation measures to be incorporated within the plant and mechanical areas. 	C = 3 O = 1	C = 2 O = 2	C = 5 (low/medium) O = 3 (low)
Traffic and Parking	C + O	<ul style="list-style-type: none"> ▪ Increase in construction traffic on local roads ▪ Increase in traffic and parking on local roads during operation 	<ul style="list-style-type: none"> ▪ No additional staff or students will be accommodated by the proposed development, and so no additional parking is proposed. ▪ A Construction Traffic Management Plan has been prepared detailing measures to minimise any adverse impacts arising from construction traffic. 	C = 3 O = 2	C = 3 O = 1	C = 6 (medium) O = 3 (low)
Heritage	O	<ul style="list-style-type: none"> ▪ Potential to impact on the site's heritage significance. ▪ Potential for vibration to impact the structural integrity of the site's heritage item. 	<ul style="list-style-type: none"> ▪ The new works have been designed to have a negligible impact on the site's heritage item. ▪ The works are sufficiently separated from the heritage structure to avoid any potential vibration impacts during construction. 	O = 1	O = 1	2 (low)
Visual and Built Form	O	<ul style="list-style-type: none"> ▪ Visual impact of the development when viewed from the public domain. ▪ Visual impact of the development when viewed from 267 Miller Street. 	<ul style="list-style-type: none"> ▪ The building has been sited and incorporates design mechanisms to reduce height and bulk, within the context of functional requirements and the constraints of the site. ▪ Measures have been incorporated to reduce the visual impact of the development when viewed from 267 Miller Street. ▪ Further changes could significantly compromise the function of the building and the achievement of service delivery objectives. 	O = 3	O = 2	5 (low/medium)
Amenity of Adjoining Properties	C + O	<ul style="list-style-type: none"> ▪ Potential privacy impacts on adjoining properties. 	<ul style="list-style-type: none"> ▪ The building has been designed to limit privacy and overlooking of the adjoining property. 	C = 4 O = 4	C = 2 O = 1	C = 6 (medium) O = 4 (low/medium)

Item	Phase	Potential Environmental Impact	Proposed Mitigation Measures and / or Comment	Significance of Impact	Manageability of Impact	Residual Impact
		<ul style="list-style-type: none"> Potential overshadowing of adjoining properties. 	<ul style="list-style-type: none"> The location of the building, to the south of the neighbouring property, ensures no adverse overshadowing impact. 			
Air and Water Quality	C	<ul style="list-style-type: none"> Potential for reduced air and water quality during construction 	<ul style="list-style-type: none"> A detailed Construction Environmental Management Plan will be developed once a contractor has been appointed to implement measures to ensure that air and water quality are maintained. 	C = 2	C = 2	4 (low/medium)

8.0 Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed works are detailed in **Table 10** below. These measures have been derived from the previous assessment in Section 5.0 and those detailed in appended consultants' reports.

Table 10 – Mitigation Measures

Mitigation Measures
<p>Traffic and Access During Construction</p> <p>Construction traffic will be managed in accordance with the Construction Traffic Management Plan prepared by Colston Budd Hunt & Kafes Pty Ltd and dated July 2015.</p>
<p>Construction Impacts</p> <p>A Construction Environmental Management Plan (CEMP) will be prepared by the appointed contractor prior to the commencement of works. The CEMP will establish site management principles generally in accordance with the preliminary Construction Management Plan prepared by APP dated March 2015.</p>
<p>Contamination</p> <p>The recommendations of the Phase 1 Contamination Assessment undertaken by Coffey and dated April 2015 will be implemented prior to, and during construction.</p>
<p>Geotechnical Conditions</p> <p>The recommendations of the Geotechnical Investigation undertaken by Coffey and dated April 2015 will be implemented prior to, and during construction.</p>
<p>Environmentally Sustainable Development</p> <p>The development will be designed to achieve an equivalent 5 star Green Star Education V1 rating, in accordance with the Sustainability Development Application Report prepared by AECOM dated April 2015. Initiatives will be finalised during detailed design.</p>
<p>Noise and Vibration</p> <p>Measures to mitigate operation and construction noise and vibration will be implemented in accordance with the recommendations of Construction Noise and Vibration Assessment prepared by Wilkinson Murray and dated July 2015.</p>
<p>Tree Removal</p> <p>Trees to be retained will be protected in accordance with the recommendations of the Arboricultural Impact Report prepared by Landscape Matrix and dated April 2015.</p>

9.0 Conclusion and Justification

This EIS has been prepared to consider the environmental, social and economic impacts of the proposed development at Wenona School. The EIS has addressed the issues outlined in the SEARs (**Appendix B**) and accords with Schedule 2 of the EP&A Regulation with regards to consideration of relevant environmental planning instruments, built form, social and environmental impacts including traffic, noise, construction impacts and stormwater.

It is considered the project warrants approval for the following reasons:

- The assessment of this proposal has demonstrated that the development will not generate any environmental impacts that cannot be appropriately managed, and is generally consistent with the relevant planning controls for the site, with the exception of FSR and height. As detailed in Section 6, it is considered unreasonable and unnecessary that the height and FSR standards be applied to the site.
- The development will improve the functionality of the existing school. The area and shape of the site allows for the provision of new teaching and education facilities that meet the special design requirements for the proposed uses, whilst not resulting in any significant adverse impacts on surrounding uses.
- The proposal is consistent with the principles of ecological sustainable development as defined by Schedule 2(7)(4) of the EP&A Regulation 2000.
- The proposal will not result in any additional students or staff on the site, and so will have no impact on traffic generation or parking.
- The development will not have a significant impact on the quantity of general waste generated by the school.
- The provision of a new and modern teaching and education facility will further support and strengthen the services and facilities provided at the school.

Given the planning merits described above, it is requested that the Minister approve the application.