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NSW GOVERNMENT Education
School Infrastructure

ARCHITECTURAL DESIGN REPORT

PENDLE HILLHIGH SCHOOL

For Schools Infrastructure NSW

7068TO01 | 4th May 2021

Document Quality Control

Project:	Pendle Hill High School
Client:	School Infrastructure NSW
Project No:	7068 TO 01

This document has been prepared by:

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Quality Assurance

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Revision History

Issue	Date	Revision Details/Status	Prepared by:	Approved by:
A	31.03.21	Test of Adequacy Submission	JW	JFK
A1	09.04.21	Test of Adequacy Submission - Revised	JW	JFK
A2	30.04.21	Test of Adequacy Submission - Revised	JW	JFK
B	04.05.21	SSDA Submission	JW	JFK

CURRENT ISSUE: B

Document Quality Control

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SEARs Response Table

SEAR's Requirement	SEARs	Response / Report Reference
General Requirements		
	A detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development	Section 4 – Site Analysis and Architectural Drawings (ACD-1003)
	Plans, elevations and sections of the proposed development	Refer to Architectural Drawings
	Cladding, window and floor details, including materials	Section 7 – Design Statement
	A site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process)	Refer to Architectural Drawings – ACD-1002
	Plans and details of any advertising/business identification signs to be installed, including size, location and finishes	Refer to Architectural Drawings – ACD-1008
	Any staging of the development	Section 9 – Construction Management and Continued Operation
Key Issues		
3. Built Form and Urban Design	The height, density, bulk and scale, setbacks and interface of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces, including legibility from the bus stops along Binalong, Burrabogee and Ballendella Road and the site, and the inclusion of a pedestrian link connecting Binalong Road, Knox Road and Cornock Avenue and the site.	Section 8.1 – Context, Built Form and Landscape; and Section 8.3.1 – Pedestrian Link
	Design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colours.	Section 7 – Design Statement and Section 8.1 - Context, Built Form and Landscape
	How good environmental amenity would be provided, including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility.	Section 8.2 – Sustainable, Efficient and Durable (Environmental Amenity) and Section 8.4 – Health and Safety
	How design quality will be achieved in accordance with Schedule 4 Schools – design quality principles of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and the GANSW Design Guide for Schools (GANSW, 2018).	Section 8 – Response to Design Quality Principles
	How services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.	Section 10 – Services Integration
	A detailed site and context analysis to justify the proposed site planning and design approach including massing options and preferred strategy for future development.	Section 6 – Long Term Masterplan and Section 7 – Design Statement
	Details of any digital signage boards, including size, location and finishes.	Refer to Architectural Drawings – ACD-1008

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	A visual impact assessment that identifies any potential impacts on the surrounding built environment and landscape including views to and from the site and any adjoining heritage items. Note: Further guidance is provided in the City of Parramatta Council advice attached to the SEARs	Section 9 – Visual Impact Statement and Views Analysis
	How Crime Prevention through Environmental Design (CPTED) principles are to be integrated into development.	Section 12 - Crime Prevention Through Environmental Design Principals (CPTED)
5. Environmental Amenity	Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing, wind impacts and acoustic impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated.	Section 7 – Design Statement and Section 8.1 - Context, Built Form and Landscape
	Shadow diagrams	Refer to Architectural Drawings – ACD-H-9003
	A view analysis of the site from key vantage points and streetscape locations and public domain including photomontages or perspectives showing the proposed and likely future development.	Section 9 – Visual Impact Statement and Views Analysis
	Details of any proposed use of the school outside of school hours (including weekends) and measures to mitigate any identified amenity impacts on the immediate locality.	Section 8.3 – Accessible and Inclusive
	Details of the nature and extent of the intensification of use associated with the proposed development, particularly in relation to the proposed increase in staff and student numbers and detail measures to manage and mitigate the impacts	Section 8.3 – Accessible and Inclusive
	An analysis of proposed lighting that identifies measures to reduce spill into the surrounding sensitive receivers.	Section 10 – Services Integration
13. Staging	Assess impacts of staging where it is proposed and detail how construction works, remediation works and operations would be managed to ensure public safety and amenity on and surrounding the site.	Section 9 – Construction Management and Continued Operation
Plans and Documents		
	Design report to demonstrate how design quality would be achieved in accordance with the above Key Issues including:	n/a
	Architectural design statement	Section 7 – Design Statement
	Diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal	Section 5 – Design Objectives
	Detailed site and context analysis	Section 4 – Site Analysis and Architectural Drawings (ACD-1003)
	Analysis of options considered to justify the proposed site planning and design approach	Section 6 – Long Term Masterplan
	summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice	Appendix A – State Design Review Panel – Response to Advice

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1 Introduction

This report forms part of a State Significant Design Application for proposed new facilities at Pendle Hill High School. In this report we will outline a brief project description including site analysis and suitability, construction staging and the continued operation of the school and the design response particularly in relation to the Design Guide for Schools.

1.1 Project Description

Pendle Hill High School is an existing secondary school established in 1965.

School Infrastructure NSW (SINSW) and the Department of Education (DOE) engaged Architectus to develop a long-term masterplan for the re-development of the site. The resulting masterplan aims to increase the capacity of the school to 2000 students over the course of a number of stages, of which this is the first.

Following the completion of the masterplan and concept design phases Fulton Trotter Architects were engaged to develop the details of this project – which forms the scope of work covered by this development application.

This project will increase the capacity of the school 1320 students and will involve the construction of the following –

- Construction of a new three-storey courtyard building on Binalong Road comprising two (2) three-storey wings under a connected roof which will accommodate a library, staff unit, lecture theatre, multimedia and senior learning spaces, administration unit and student amenities;
- External transport infrastructure upgrade works;
- New covered walkways and upgraded landscaping; and
- New hard stand areas for bicycle parking.

Existing Site – Central Courtyard

© Fulton Trotter Architects

2 Existing Site

Pendle Hill High School is located within the Western Sydney region and sits centrally in the suburb of Toongabbie. The school is a part of the Toongabbie Learning Community and shares a range of programmes with 8 partner primary schools in the region.

The existing facilities are located on a 6.65 hectare site and sit within a picturesque landscaped setting – surrounding by play space and a number of well-established indigenous trees.

The site features multiple site entry points. The main site entrance is via Cornock Avenue to the West and secondary pedestrian entrance points are provided from Knox Street (to the South) and Binalong Road (to the East).

The school was established in 1965 and constructed over a number of stages. The existing buildings were designed by Michael Dysart and the Government Architect's office based on the 'doughnut-plan' building format that was prevalent at the time. The buildings are an example of progressive mid-century design – featuring facades of pre-cast concrete, metal wall cladding and light-coloured brickwork masonry.

The existing buildings are grouped around a central courtyard space that facilitates the majority of the site circulation and informal gathering spaces, with the place space located to the perimeter of the site – creating a buffer to the surrounding residential areas and streets.

Aerial Photograph – Existing Site - Image source: Google maps

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3 Need for Development and Site Suitability

School Infrastructure NSW and the Department of Education has identified a need for future capacity within the secondary schools in the wider Pendle Hill region.

Further to this, it has also been determined that the Pendle Hill High School site includes sufficient site area that would facilitate development to increase the capacity on the site.

As a result, it has been determined that a development on the site is appropriate in order to –

- Increase the overall capacity of secondary schools within the region in order to cater for future population requirements; and
- Improve the facilities available to the school and community; the street presence and the overall connection of the school to the local community.

Existing Site – Building E

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4 Site Analysis

At the commencement of the project a detailed site analysis was undertaken by Architectus. This highlighted the following key elements that would need to be taken into consideration in developing the site –

- **Pedestrian Movement and Site Entries**

  The current pedestrian entry points to the site are distributed to a number of points around the site. This means that there is not currently a clear, legible site entry point.

  Further to this, within the site pedestrian circulation is centred around the central courtyard space. This reinforces the importance of the courtyard format to the overall site.

Image prepared by Architectus

- **Vehicular Movement – Buses and Cars**

  The current site configuration brings the majority of the vehicular traffic – for car parking and pick up and drop off – into Cornock Avenue. This creates congestion because Cornock Avenue is a cul-de-sac.

  Bus pick up and drop off is currently facilitated along the Binalong Road frontage.

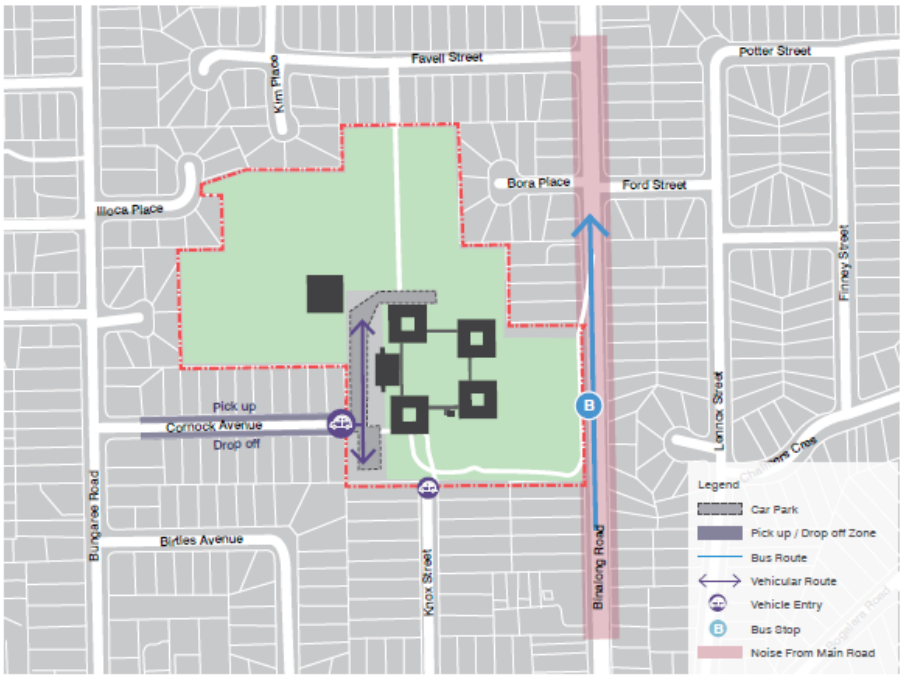

Image prepared by Architectus

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- **Street Presence**

The current main street address is located at the end of Cornock Avenue. This means that the presence of the school on the streetscape is limited – as seen in the existing view to the right.

Further to this, the most prominent street frontage for the site is to Binalong Road. However, the school is set back along this frontage with the existing trees and raised play spaces forming the majority of the school's presence to this street.

This means that the school doesn't have a good presence within the streetscape. This limits the visibility of the school and its connectivity into the wider community.

Existing Streetscape – Cornock Avenue

Existing Streetscape – Binalong Road

- **Planning Constraints – Land Use**

An analysis of the Parramatta LEP 2011 identified the following planning constraints –

- **Land use**
  The subject site is in a zone R2 Low Density Residential. Across the Bungaree Road there is a RE1 Public Recreation Zone. There are also some RE1 Public Recreation Zones located near site to the North, West, South and East. Across the Burrabogee Road, there is a SP1 Place of Public Worship (Special Activities Zone).

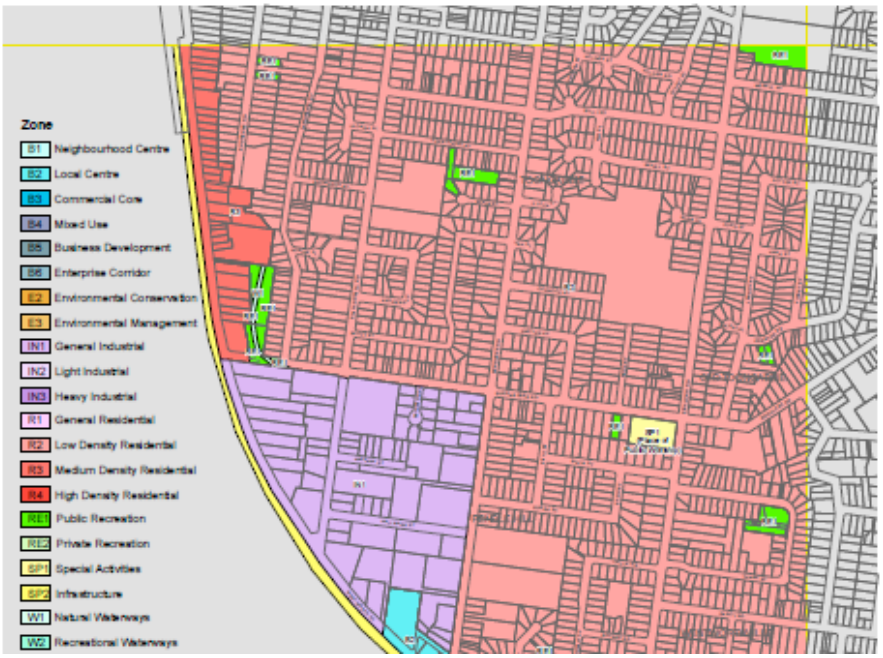

Image prepared by Architectus

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- **Open Space / Play Space**

  The school features a number of outdoor play areas, games courts and informal play areas. The current open space conditions can be summarised as follows –

  - Total Outdoor Space: 62,260m^2 (57.6m2 / student)
  - Total Play Space: 39,500m^2 (36.5m2 / student)
  - Covered Outdoor Space: 320 m^2
  - COLA / Assembly: 1047 m2
  - Vehicular circulation / Car parking: 2500 m^2

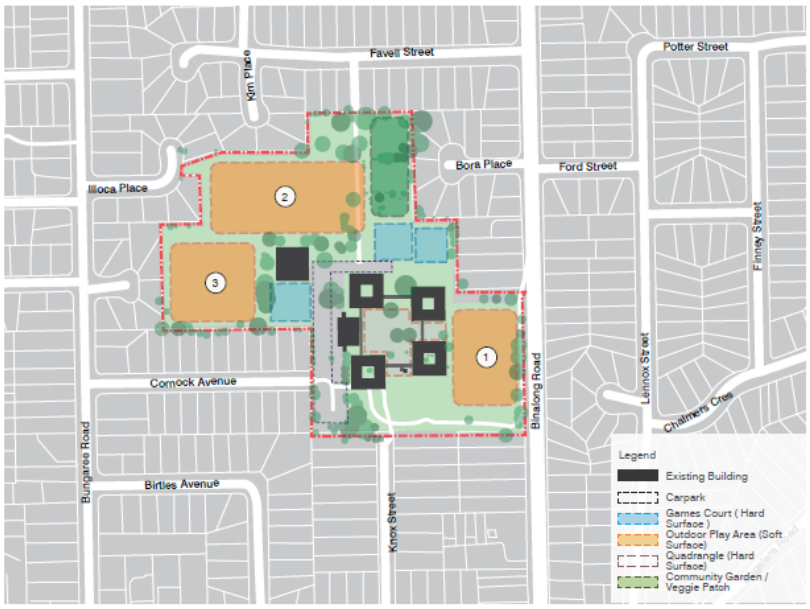

Image prepared by Architectus

- **Existing Facilities**

  The existing buildings on the site are one and two storey structures that are based on the 'doughnut-plan' building format that was designed by Michael Dysart and the Government Architect's office in the mid-century period. They are an example of progressive mid-century design – featuring facades of pre-cast concrete, metal wall cladding and light-coloured brickwork masonry.

  An analysis of the existing buildings highlighted the following issues to be addressed in this development –

  - The insular planning of the existing buildings creates a limited visual presence in the streetscape and limited connectivity to the wider community
  - The planning of the existing buildings no longer supports the requirements of modern pedagogy and limit the flexibility of the teaching and learning and learning that can be delivered in the facilities
  - The areas provided within the existing buildings are undersized compared to current area requirements for the school. This includes a need for additional teaching spaces and staff spaces.
  - The existing facilities don't provide the level of security and site management currently required by SINSW
  - The planning of the existing buildings limits the ability to expand them to accommodate the required additional population on the site

Existing Site – Building D

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5 Design Objectives

Following the above site analysis and through the initial consultation process with the school the following design objectives were established for the project -

- **New Street Address and Improved Street Presence**
  The development should create a new street address to Binalong Road and create an improved street presence for the school.

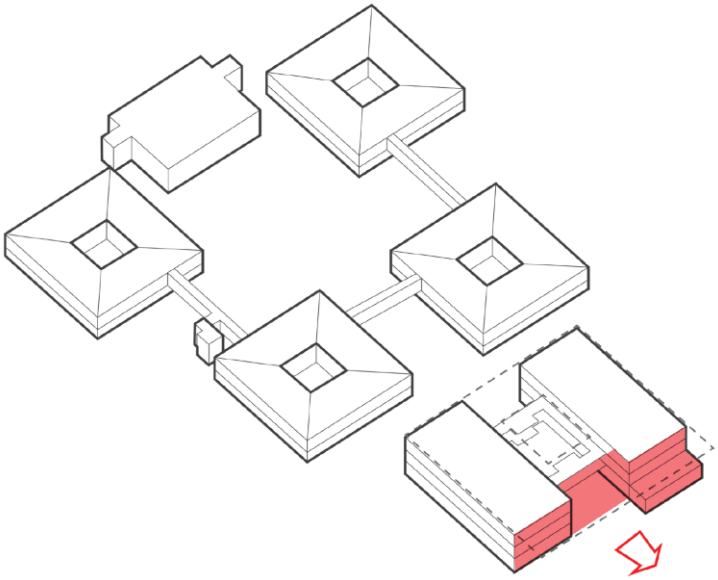

Image prepared by Architectus

- **Site Connectivity**
  The new facilities should create a strong level of connection into the existing campus – in particular the central courtyard space that forms the heart of the school.

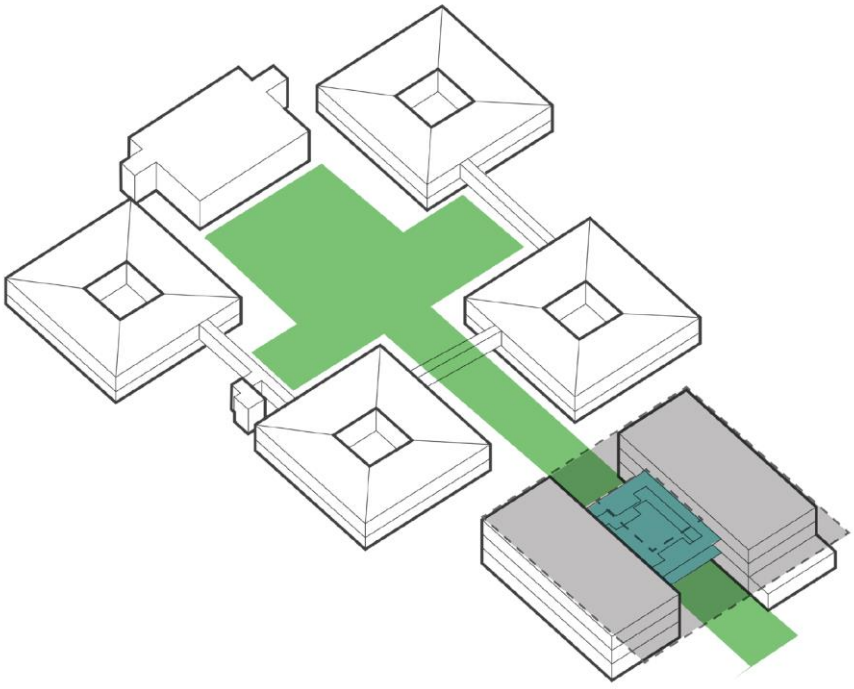

Image prepared by Architectus

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- **Learning Neighbourhoods**
  The planning should create 'Learning Neighbourhoods' within the school that create groupings of teaching spaces that facilitate the school's modern pedagogical requirements.

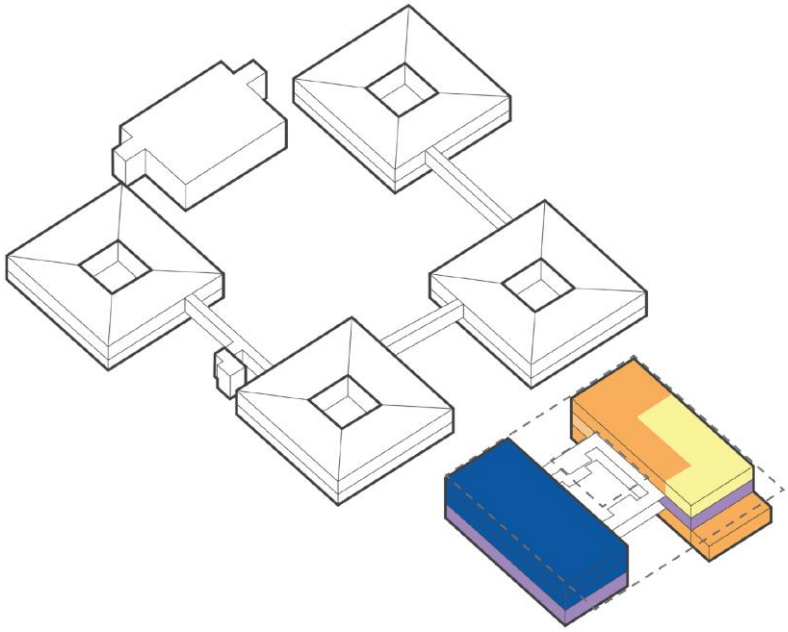

Image prepared by Architectus

- **Reinterpreted Courtyard Typology**
  The new building should reference and build-upon the existing courtyard, or 'doughnut' planning typology used elsewhere on the site, but should reinterpret the courtyard spaced to facilitate good connectivity to external spaces from within the new buildings as well as good connectivity through the courtyard into the rest of the site.

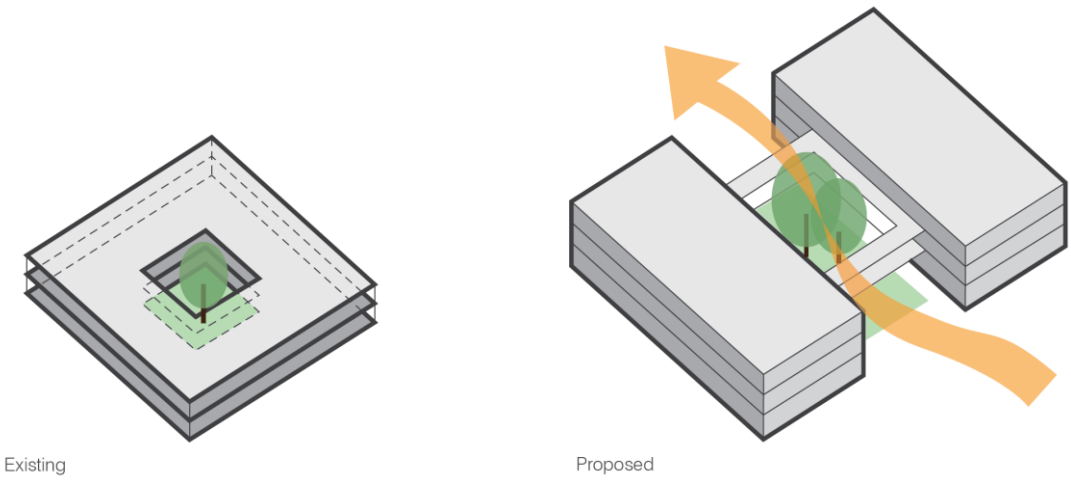

Image prepared by Architectus

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6 Long-Term Masterplan

As part of the design process a number of masterplanning options were developed. These options were analysed and considered in consultation with school operations and executive management, project governance and Expert Review Group and SDRP as required by SINSW, INSW and DPIE governance processes, to identify the preferred option for concept to be developed.

All options sought to meet all relevant educational design principles, retain the School's full-size sports field off Illoca Place and provide a new street presence and identity for the school, whilst achieving the required staff and student capacity on the site.

The options considered are shown below -

- **Option 1**

  This option included:

  - 2-storey and 3-storey buildings on Binalong Road
  - One 2-storey building on the site of a basketball court adjacent to the existing hall

Option 1 – Stage 1

Option 1 – Stage 2

Images prepared by Architectus

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- **Option 2**

  This option included:

  - 2-storey and 3-storey buildings on Binalong Road
  - 2-storey building adjacent to Knox Street entry
  - 2-storey building on the site of a basketball court adjacent to the hall

Option 2 – Stage 1

Option 2 – Stage 2

Images prepared by Architectus

- **Option 3**

  This option included:

  - 2-storey and 3-storey buildings on Binalong Road
  - 2-storey building with the existing quadrangle of the school
  - 2-storey building on the site of a basketball court adjacent to the hall

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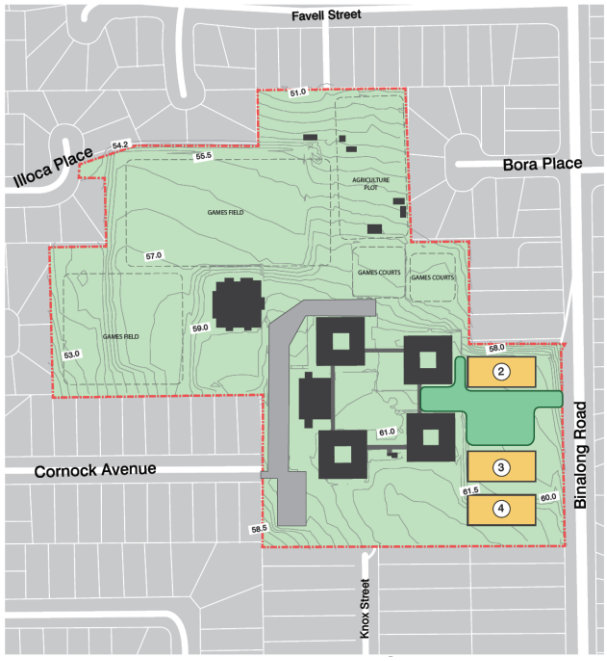
Option 3 – Stage 1



Option 3 – Stage 2

Images prepared by Architectus

Following an analysis of these masterplanning options the final proposed masterplan was selected. The proposed masterplan is shown below.

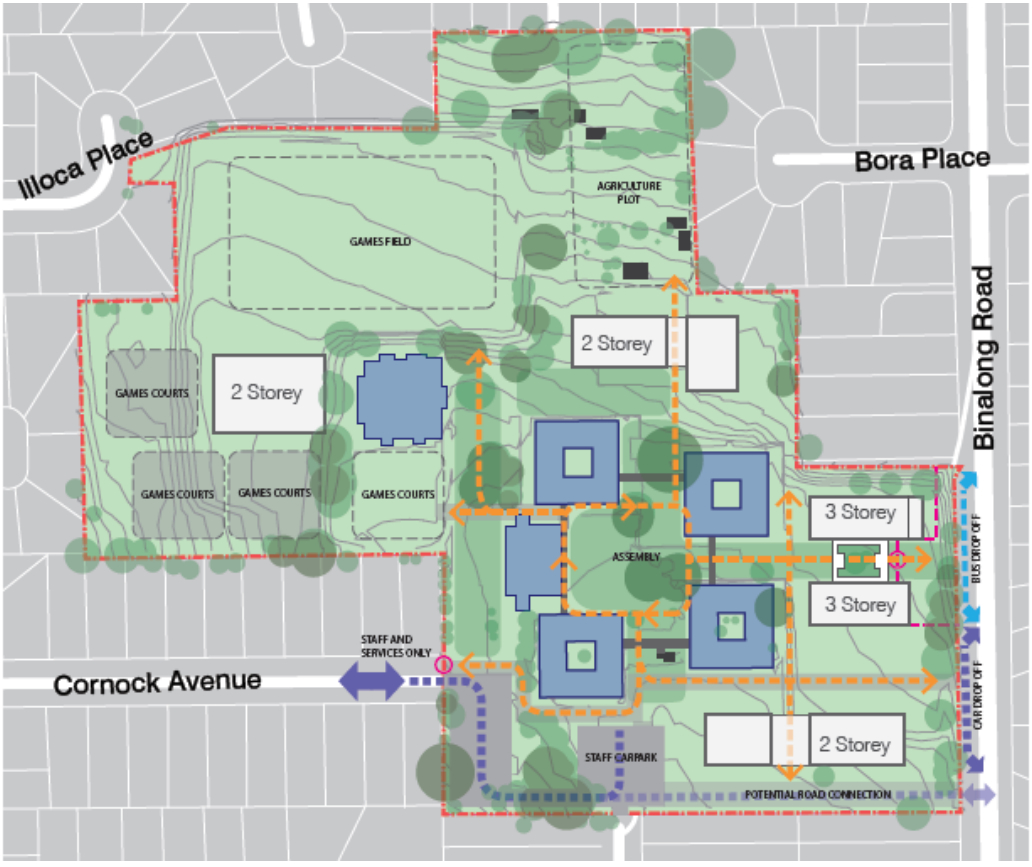


Image prepared by Architectus

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The endorsed masterplan was preferred on the following basis:

- Options 2 and 3 were not supportive of the courtyard structure of the existing site
- Option 2 resulted in mature landscaping being removed from the Binalong Road streetscape
- Option 3 resulted in the placement of a proposed building in the existing central courtyard, was too disruptive to the existing pedestrian movements on the site, and removed a key social space from the site
- The preferred option achieves the following outcomes:
    - creates a strong new street presence and street address to Binalong Road
    - enables good connectivity from the new street address into the existing centre of the school
    - improves community engagement and connectivity
    - responds well to the existing courtyard planning on the site – connecting well into the existing central courtyard on the site.
    - retains an element of landscaping and play space to the Binalong Road streetscape.
    - supports the development of learning neighbourhoods around the school

This proposal represents the development of the first component of this long-term masterplan. The general extent of these works is highlighted below in orange. Future stages of the proposed development will be subject to separate development applications.

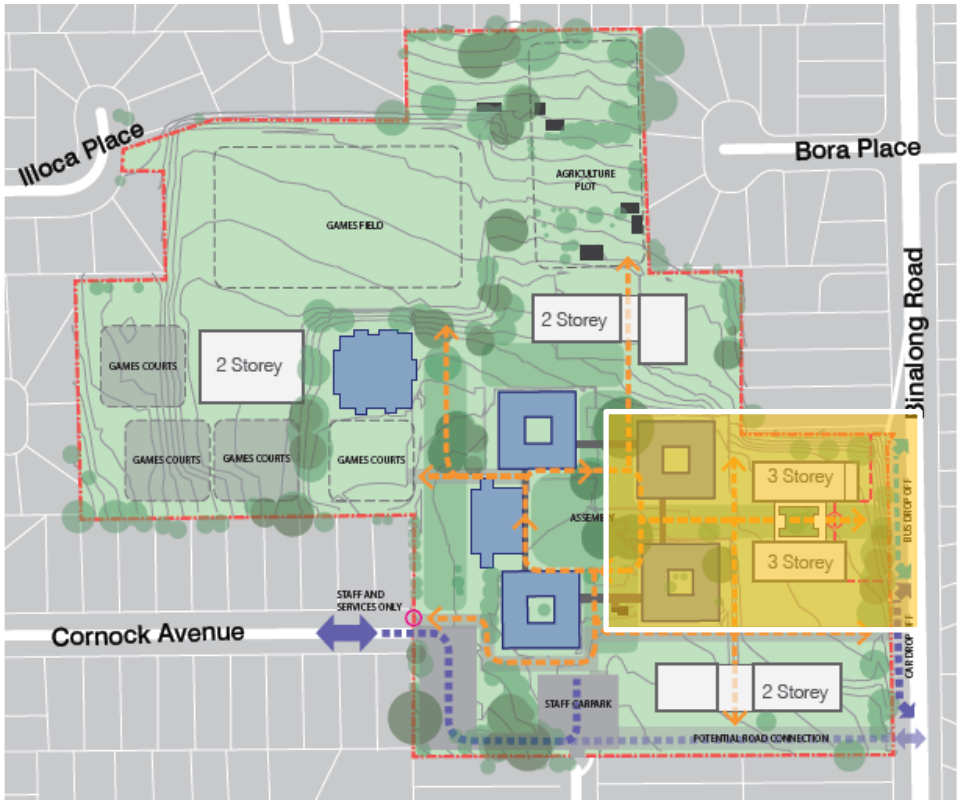

Image prepared by Architectus

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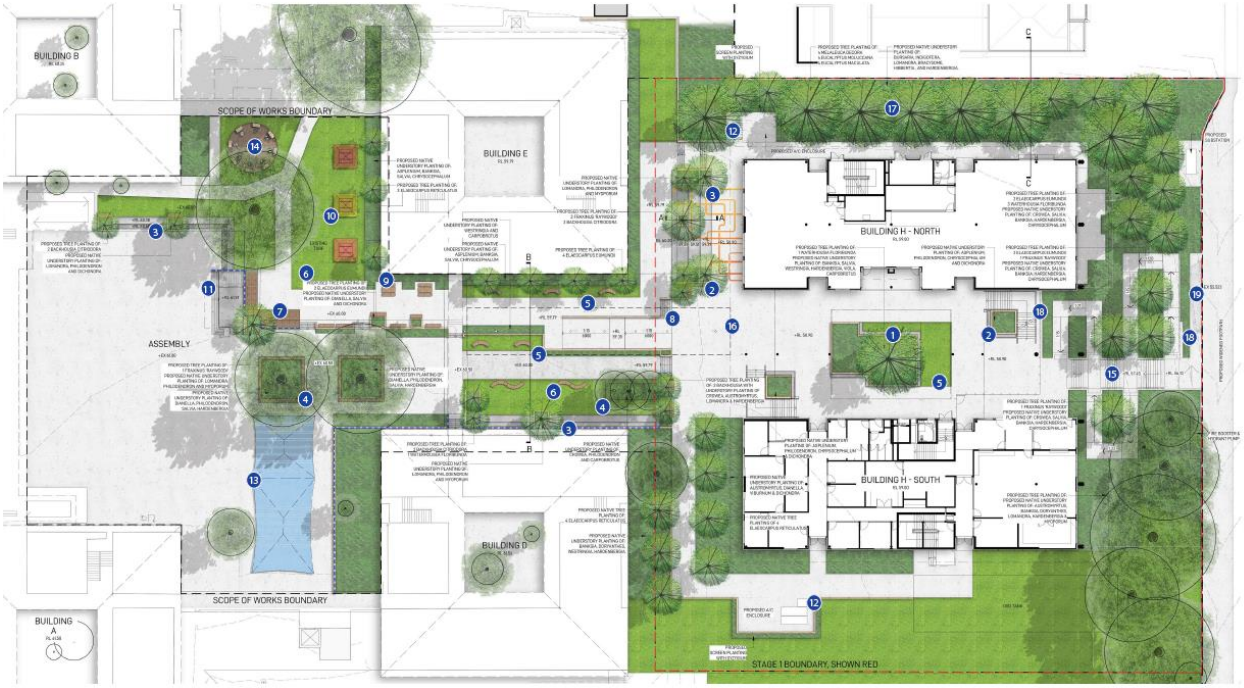
7 Design Statement

The proposed development involves the creating of a new building (known as Building H) to the East of the site – located between the existing facilities and Binalong Road.



Proposed Landscape Plan - Image prepared by Ground Ink

This siting allows the new building to create a new site entry to Binalong Road that connects directly into the new buildings via a generous central stair and a series of ramps. The new site Administration facilities are located in the Ground Floor of the new facilities so that they form a point of security at the entrance to the site. Fencing is provided to the entry forecourt area that facilitates the provision of a line of security during school operating hours while still allowing for an open and welcoming entry point to Binalong Road.

Binalong Street Entry – Perspective

© Fulton Trotter Architects

The building itself is structured as two wings located either side (to the North and South) of a central, landscaped courtyard. This configuration represents a reinterpretation of the existing 'doughnut' planning of the existing buildings on the site. The new courtyard is created as an open-ended space that allows for pedestrian connectivity from the new site entry through the new building into the existing heart of the school – the central courtyard space.

Full detailed plans for the proposed facilities are provided in the **Architectural Drawings**.

A single roof plane stretches across the courtyard and both wings of the building providing shelter and protection for the outdoor spaces. A void is created in the centre of the roof to facilitate the provision of landscaping in the courtyard and to provide natural light into the centre of the space creating a functional and practical external gathering space in the heart of the building.

Central Courtyard Space – Perspective - Image prepared by Ground Ink

As with the existing courtyard spaces in the existing buildings, the new central courtyard space includes landscaped elements that allows for the proposed new facilities to have a strong and direct connection to the outdoor spaces. This is facilitated with general external linkages with expanded areas to create outdoor learning areas.

The landscaping and external areas create a series of functional spaces along the central spine of the site that facilitate the pedestrian connections into the centre of the site (including the provision of a covered walkway link) as well as creating a variety of spaces to facilitate outdoor teaching and learning in a variety of modes.

The proposed development allows for the following external areas across the site:

- Total Outdoor Space: 62,260m2 (57.6m2 / student)
- Total Play Space: 37,235m2 (28.2m2 / student)

This provides sufficient space to support the proposed population of 1,320 students.

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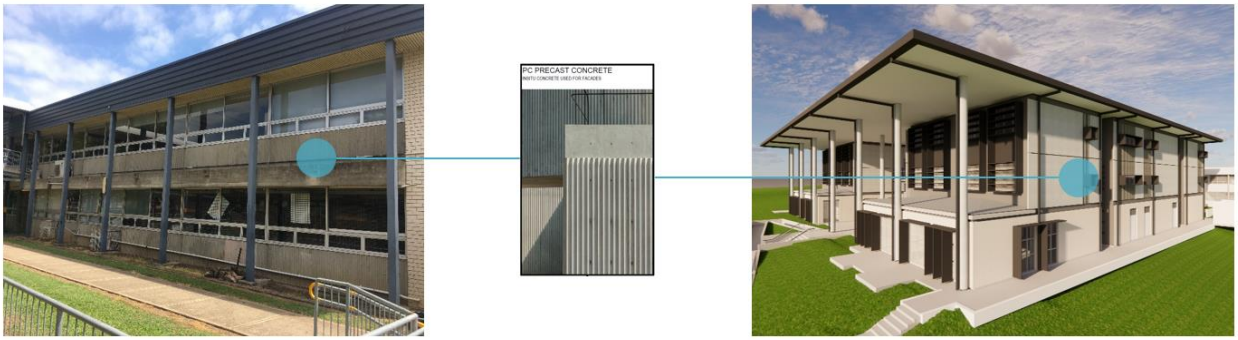
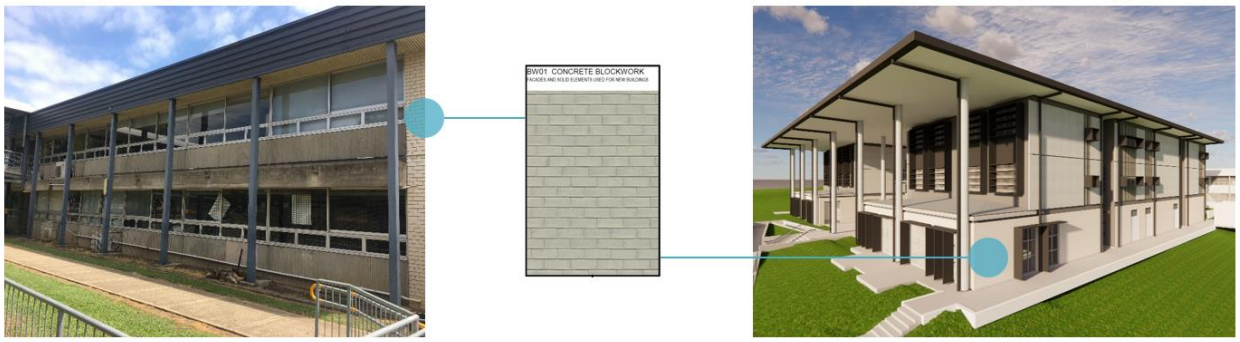
7.1 Materiality

Architecturally, the new building takes its cues from the existing buildings on the site. As discussed above, this has informed the overall form and planning of the building – around the central courtyard space. Further to this, the proposed cladding also references the existing buildings through the use of pre-cast concrete panels as blades to the North and South faces of each wing as well as light-coloured masonry to the base of the building. The materials are applied to the new building to create a contemporary outcome that references its historical connections and sits comfortably within the overall built fabric of the site.





7.2 Window Strategy

The windows have been created within the elevations to reflect the articulation of the façade. Vertical strips of framed windows are provided in the East and West facades within the pre-finished CFC cladding façade. On the North and South facades horizontal windows have been provided that are proportioned to sit evenly within the pre-cast concrete panels on these facades.

Further details about the placement and sizing of windows can be found on the **Architectural Drawings**.

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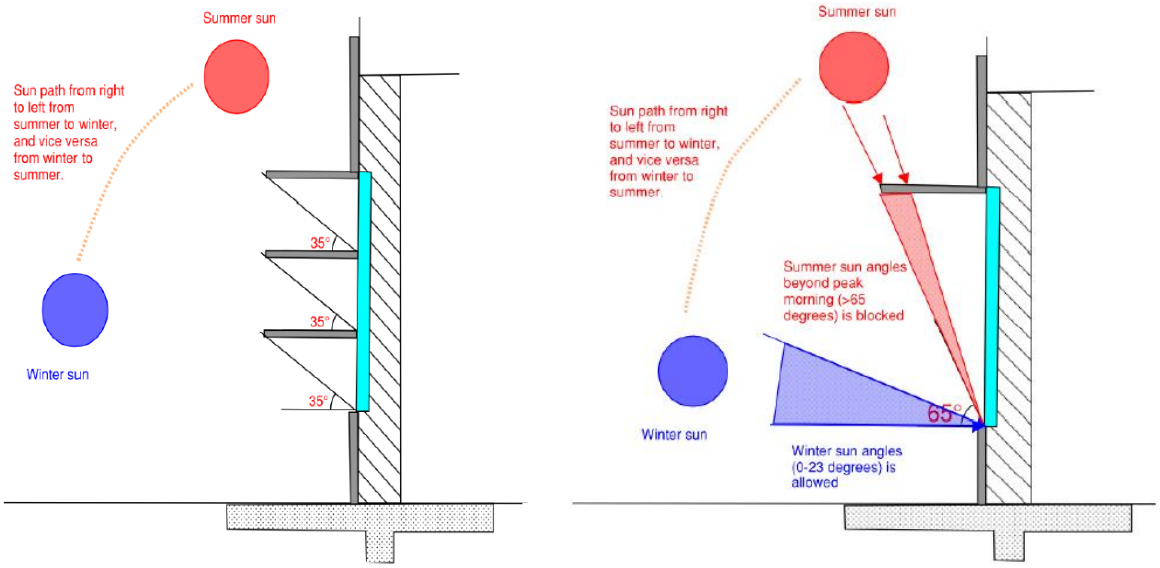
Aluminium sunshades are provided to the windows as required. This allows the sunshades to block out the hot summer sun, while allowing the winter sun to penetrate the building – provide passive warming to the spaces. The placement of windows and sunshades has been informed by the ESD strategy and developed in consultation with the ESD consultant.



Window Shading Strategy - Image prepared by Aurecon

7.3 Connection to Country

A strategy has been developed to facilitate the development of an appropriate response to country within the development. It is proposed that this will involve the creation of the following elements within the development –

- A yarning circle
- A mural / interpretive signage detailing the connection to country
- Incorporation of significant indigenous planting species and bush medicine species within the landscaping.

It is proposed that the final details of how the response to country is achieved within these elements will be developed in consultation with local land council and members of the local indigenous community through the consultation process that has been developed by Tocomwall.

Proposed Landscape Plan - Image prepared by Ground Ink

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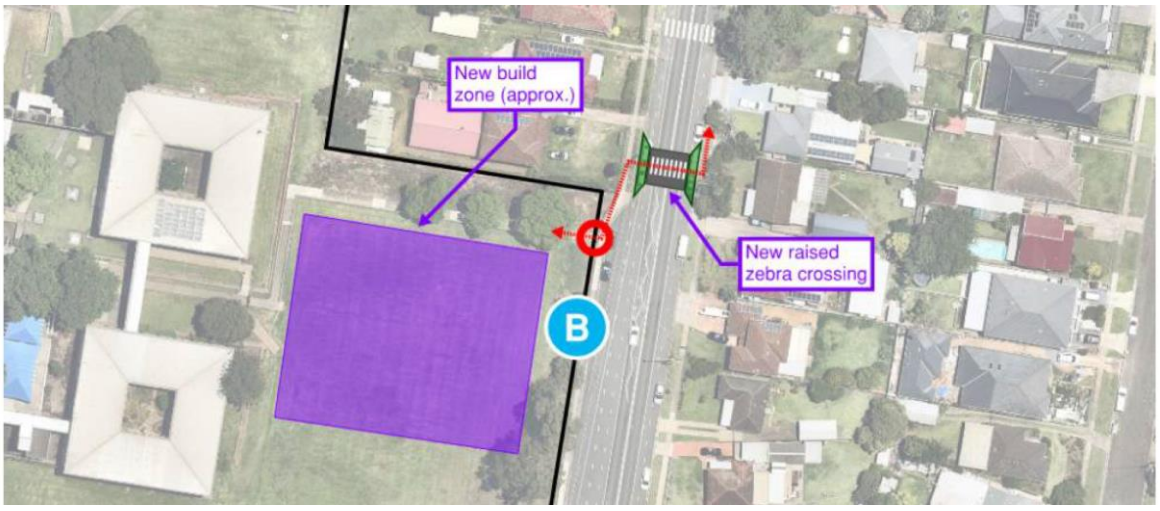
7.4 Traffic Management

A traffic management plan has been developed for the site following a consultation process that involved the creation of a Precinct Traffic Working group. The group included SINSW, City of Parramatta Council, Transport for NSW and TTW (the traffic engineers for the project. This working group has reviewed the traffic management systems for the site on a wider scale.

The traffic management plan is investigating the following initiatives –

- The creation of distributed kiss and drop areas within a number of the streets surrounding the sites in order to disperse the vehicular traffic at peak times
- Maintaining the bus drop off area along Binalong Road
- Widening of the existing footpath to Binalong Road for the width of the school frontage to facilitate pedestrian traffic from the bus drop off areas
- Modifications to the surrounding road network to create a number of raised pedestrian crossing areas to ensure pedestrian access to the site can be achieved safely
- The provision of additional bicycle parking spaces and end of trip facilities on the site

Full details of the proposed traffic management measures are provided in the **Traffic Impact Assessment prepared by TTW.**



Traffic Management Measures – Binalong Road North - Image prepared by TTW

- **Bicycle and Scooter Parking Provision**
  Bicycle and scooter storage areas are proposed to be provided with a capacity of 130 spaces, which would allow for an overall cyclist mode split of approximately 10% of students.

  The final location and configuration (including selection of storage products such as bike rails) will be finalised prior to construction and will be in accordance with Australian Standard AS2890.3. The final configuration of 130 spaces would include portions of bicycle and scooter parking, and would also include a portion of staff bicycle parking in a secure lockable zone. The remainder of parking for students is anticipated to be standard bike rails with students providing their own locks or security devices.

  As children aged 16 years and under are legally permitted to cycle on pedestrian footpaths, pedestrian upgrades around the site will also benefit student cyclists.

- **End-of-Trip Facilities**
  End-of-trip facilities are proposed to be provided for staff in the form of 1 shower with a change area, plus provision of 10 lockers for personal storage.

  The final location and configuration of the end-of-trip facilities will be finalised prior to construction.

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8 Response to Design Quality Principles

Below is a summary of how the proposed scheme responds to the Design Quality Principles outlined in the State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 -

8.1 Context, Built Form and Landscape

As mentioned above, one of the key goals for the project is to create a new street address and increased street presence. As a result, the building has been located to the Binalong Road frontage. Further to this, the building has been situated to the Northern end of the Binalong Road frontage in order to create a high level of connectivity from Binalong Road through the new central courtyard space in Building H to the existing central courtyard space of the school. These factors have determined the proposed location for the new building and places the building in a place of prominence on the site.

The scale of the building form has been established as 3 storeys as determined by the long-term masterplan (discussed in Section 6 above). This form is required in order to support functional spatial relationships required to support the teaching and learning of the school as well as to limit the area of site occupied by building, thereby maximising the potential play space.

The site is bounded on most sides by predominantly low-density, single or double storey residential housing (as shown in the images below)

Adjoining Properties - 60 – 64 Binalong Road – South of the Site (Image source: Google maps)

Adjoining Properties - 85 – 91 Binalong Road – Opposite the Site (Image source: Google maps)

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Adjoining Properties - 82 – 88 Binalong Road – South of the Site (Image source: Google maps)

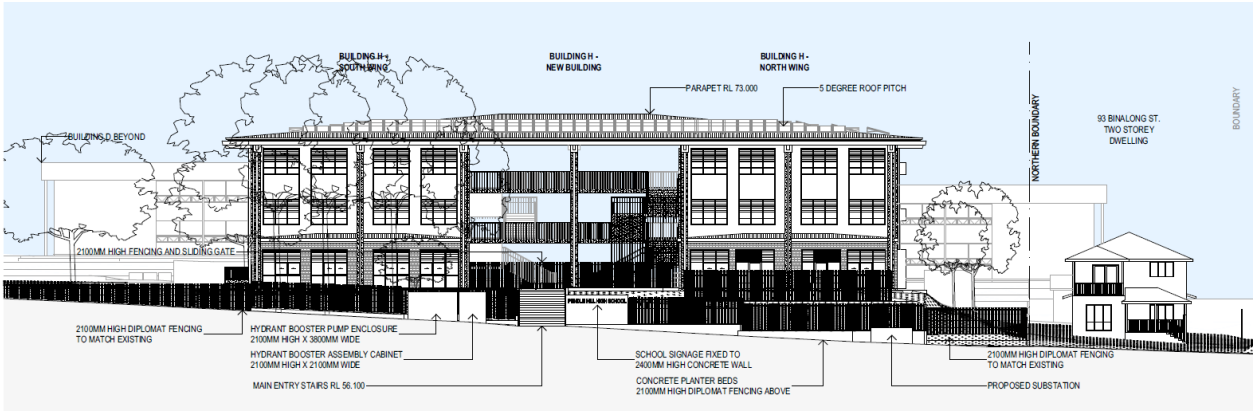
Within the site, the existing buildings are of a larger scale than the surrounding residential buildings and are also mostly two storeys tall (as shown in the images below)

Existing Buildings – View from Binalong Road

The impact of the mass and scale of the proposed buildings has been considered in the following ways -

- **Setbacks**
  The building is located with generous setbacks from both Binalong Road (15,850mm) and the adjacent Northern boundary of the site (10,210mm).

- **Streetscape and Public Open Space**
  The prominence of the proposed building on the site creates a clear and legible entrance point to the site for the public.



Streetscape Elevation – Binalong Road

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This is reinforced by the creating of a generous main entrance stair connecting to Binalong Road as well as ramped access to the street. A widening of the public footpath across the length of Binalong Road, as well as a further increased widening at the entry gate and stair, creates a welcoming and open public entry to the site.

New Main Site Entry – Perspective View (prepared by Ground Ink)

- **Central Courtyard**
  As discussed above, the proposed new central courtyard and circulation spine provides a re-interpretation of the courtyards in the 'doughnut' buildings on the site. However, it also creates a series of interstitial spaces, paths and covered walkways that improve the connectivity of the whole site from the street. This means that the central courtyard and circulation spine forms a focal point for the site. The space also provides opportunities for communication of the site's connection with country and the wider community.

Central Circulation Spine – Perspective View (prepared by Ground Ink)

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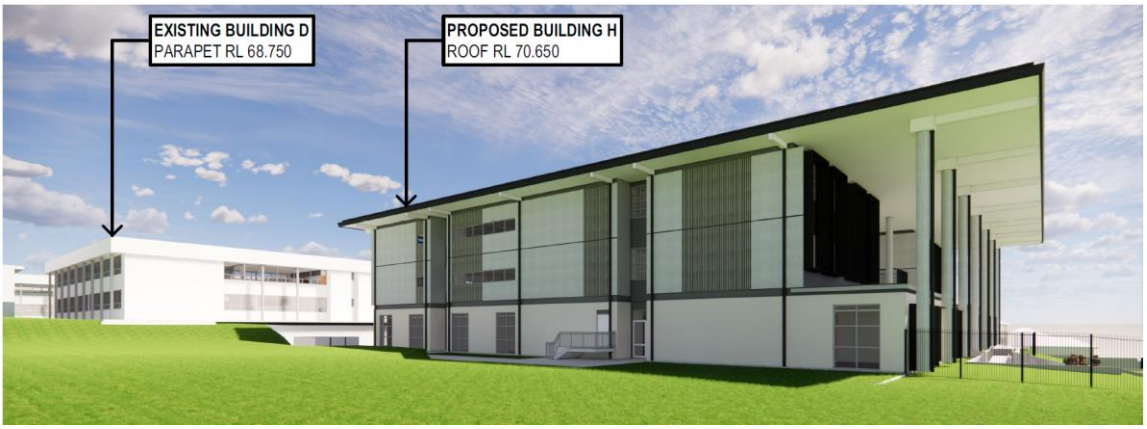
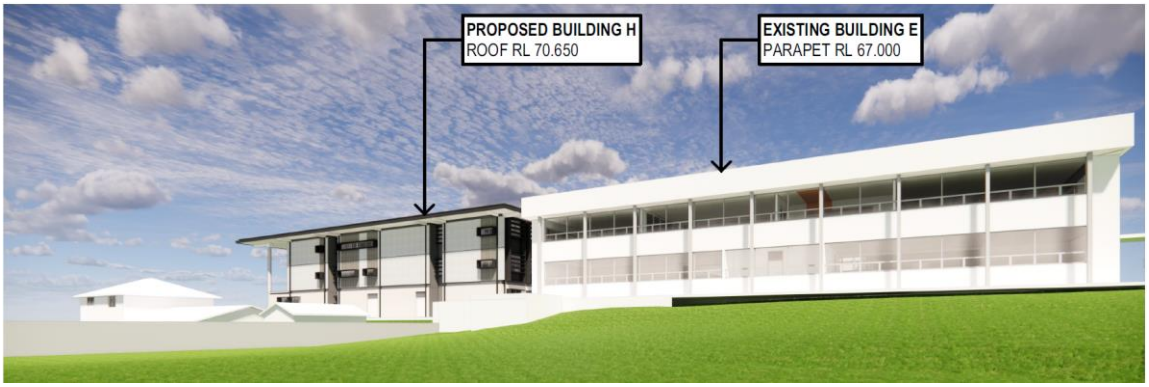
- **Relationship to Existing Built Form**
  As mentioned previously the existing building forms on the site are 2 storeys tall. While the proposed building form is 3 storeys tall it is set at a lower level on the site than both of the adjacent buildings – Building D and Building E. This allows the proposed building form to sit comfortably within the context of the existing built form. This is demonstrated by the images below –

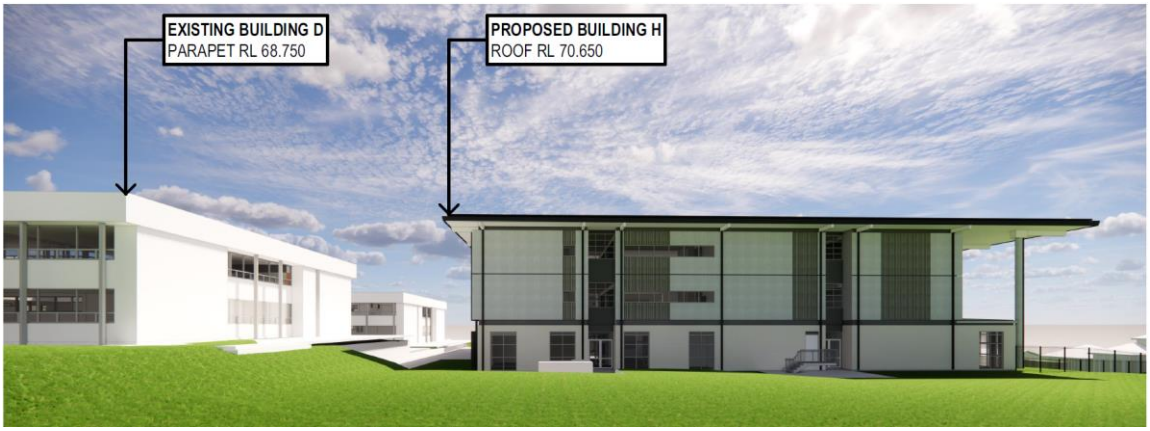


Southern View of Building D and Proposed Building



Northern View of Building E and Proposed Building

Further to this, the building is set away from the existing buildings by approximately 14.7m. This minimises the impact of the proposed building on the amenity and functionality of the existing buildings and also creates functional and usable spaces external spaces between the buildings.



Southern View of Connection between Building D and Proposed Building

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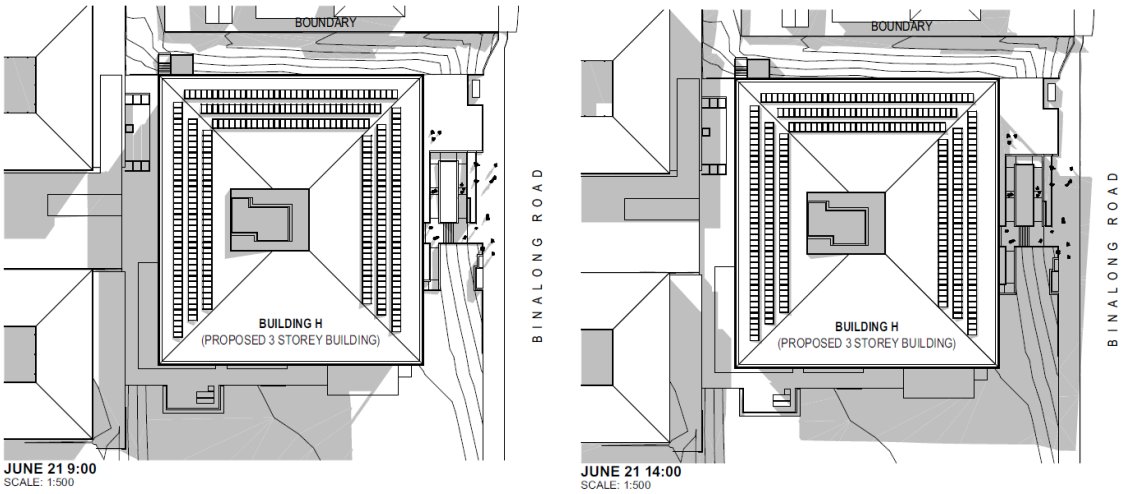
- **Landscaping**
  As discussed below, the existing mature vegetation on the street as well as the proposed new landscaping integrate the proposed new development into the streetscape while also creating a marker for the new site entry. A highly vegetated landscaping buffer is also provided to the Northern boundary of the site within the 10m setback to the building.

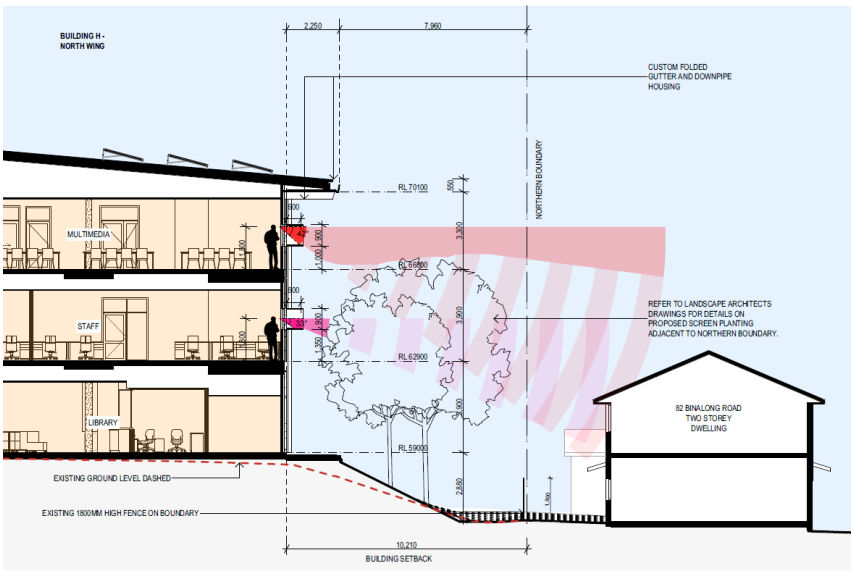
  The overall landscaping strategy is documented separately in the **Landscape Design Report prepared by Ground Ink.**

- **Overshadowing**
  The siting of the proposed building – to the Northern end of the Binalong Road frontage – reduces the solar impact of the development on neighbouring properties. As demonstrated by the sun shading diagrams (below) the proposed development provides no overshadowing of the neighbouring properties and minimal impact on the existing buildings on the site.



Sunshading Studies – June 21st

- **Visual Privacy**
  The location of the windows to the Northern face of the building has been reviewed and appropriate fixed screening members have been provided around the windows to limit views into the neighbouring properties to the North. This removes any potential views into the ground floor of 82 Binalong Road. Further to this, landscape buffer will also be provided to the Northern boundary line creating a visual buffer to further limit any views into the neighbouring properties. This strategy is demonstrated by the diagram shown below.



Neighbouring Property Interface Study

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8.2 Sustainable, Efficient, Durable (Environmental Amenity)

The project has been designed to achieve a 5 Star Green Star rating. The environmental performance of the development has been considered in the following ways -

- **Siting and Orientation**
  The buildings have been largely orientated to face North/South rather than East/West – allowing them to avoid thermal heat gains from the Western and Eastern sun.

- **Natural Light and Sun Shading**
  Large windows are provided to the teaching spaces and staff areas. All windows have been provided with sun shading that blocks the summer sun while allowing the winter sun to passively warm the spaces. Generous overhangs are also created to all sides of the buildings to reduce the thermal heat gain on the building.

- **Natural Ventilation**
  Large openable windows are provided to all classroom and staff spaces to allow for a good amount of natural ventilation to the spaces. This means that, while air conditioning is to be provided as part of this development, natural ventilation can be maximised in order to reduce the reliance on artificial cooling.

- **Solar Electricity**
  Allowance has been made for the inclusion of a 99kW PV array to the roof of the proposed new building (Building H) to generate electricity to offset the demands for the site.

- **Energy Efficient Fixtures and Equipment**
  Equipment and fixtures will be selected to minimise their energy use and wastage. This will include efficient water fixtures, energy efficient light fixtures (LED) with motion sensors and zoned switching. The project also features an energy efficient air conditioning system that features a mixed mode ventilation system to limit Co2 levels in indoor spaces.

- **Rainwater Harvesting**
  A rainwater tank is included to capture and recycle rain water from the roof for the use of irrigation of landscaping and the flushing of toilets.

- **Durability and Maintenance**
  For the most part unfinished, highly durable materials have been selected in order to minimise the ongoing maintenance required on the site and to ensure the longevity of the buildings. This includes the use of unfinished face blockwork and pre-cast concrete panels as well pre-finished metal roof sheeting and soffit linings.

- **Landscaping**
  As discussed above, the development has been planned to minimise the disruption to the existing landscaping. In addition to this the landscaping has been designed to include the provision of additional landscaping, trees and deep soil planting areas to offset the impact of the building.

Aurecon has been engaged as the ESD consultant for the project. Further details of all ESD initiatives can be found in the **Environmentally Sustainable Development Report prepared by Aurecon.**

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8.3 Accessible and Inclusive

As discussed above, the planning of Building H has been positioned to create a new site entry and street presence to Binalong Road. The siting of the building improves the connection of the school to the surrounding community and increasing the accessibility of the site.

The creation of this new entry will also increase circulation into the site from Binalong Road, thereby alleviating vehicular movement to the surrounding streets – particularly the cul-de-sac streets – Cornock Avenue and Knox St. This will also improve the overall accessibility of the site.

The planning of the building itself is also built around a reinterpretation of the courtyard typology of the existing buildings. This creates a central courtyard that provides direct accessibility into the new facilities while also creating a central circulation spine - increasing accessibility and wayfinding from Binalong Road into the existing central courtyard of the site. This gesture improves accessibility to all areas of the site through the provision of –

- New ramps providing an accessible path of travel from Binalong Road
- A new lift that provides access to all levels of the proposed new building (Building H)
- New ramps, paths and a covered walkway that provides all weather access between the new building and the existing buildings – connecting into the existing accessible paths of travel around the site.

It is not proposed that the new facilities will be used for shared public use at this time. However, the planning of the facility has been created in order to allow for additional fencing and lines of security to be added to facilitate shared public use of the spaces if required in the future.

As a result, while the proposed development allows for an increase in the population on site to 1320 students, the primary use of the sign is not changed. The potential impact of the increased population on the site is mitigated by the traffic management measures as outlined in the **Traffic Impact Assessment prepared by TTW.**

8.3.1 Pedestrian Link

Consideration was given to the inclusion of a pedestrian link through the site providing a connection from Binalong Avenue to Knox Street and Cornock Avenue. However, it was felt that the inclusion of this pedestrian link would trigger a number of security requirements on this site.

The primary use of school grounds is to provide safe outdoor learning and play areas for students. To facilitate this the Department of Education provides security fencing, access controls and other complementary strategies to ensure:

- Outdoor learning areas and play spaces are free from rubbish, fire remnants, drug and alcohol paraphernalia and are in a suitable a safe condition for use by staff and students.
- Students and staff can use the areas safely during school operating hours (6 am – 6 pm school days). Staff and students should be able to use outdoor areas without the risk of unauthorised visitors entering the school and disrupting activities.
- Staff using the school after hours for rehearsals, meetings, preparation can do so without the risk of encountering intruders.
- Legitimate community users (including OOSH and Vacation Care where child safety is paramount) who enter into a community use agreement with the school to use facilities such as courts, gyms, meeting rooms can do safely and secure the grounds while on site.
- All visitors enter the school grounds through a designated entrance and provide details such as name, organisation, who they are visiting and Working with Children Checks at school Admin.

- **Open Space and Natural Resources**

SINSW School Security Unit supports the community use arrangements currently implemented by the Department and individual schools. These include Share Our Space, whereby the community can access school grounds and facilities in a safe manner during school holidays, and agreements with individual community organisations for use of the school facilities. These programs always allow for the grounds to be

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secured after use. In particular the Share Our Space Program operates between 8:30 am and 4:30 pm during the school holidays with the school gates locked outside of these hours.

The School Security Unit often recommends design features such as internal fencing to ensure community users don't have access to facilities/buildings and additional gates/entrances so that legitimate community users are not required to pass through other areas of the school to access playing fields or halls.

Outside the hours designated for the operation of these approved community use programs the school grounds should be always be secured and not open for use by the public.

- **Urban Design**

The School Security Unit does not support a pedestrian thoroughfare on school grounds for the following reasons:

Only authorised visitors should be able to enter school grounds via designated entrances and be required to sign in and complete any necessary Working with Children checks.
A pedestrian thoroughfare would enable members of the public to access outdoor learning areas without going through these procedures, which is an unacceptable risk to staff and students.
A pedestrian thoroughfare may also provide access to persons who may be agitated over an incident at the school or who are affected by drugs or alcohol. This again poses a risk to staff, students and authorised visitors.
The School Security Unit is also concerned that if able to access the school grounds after hours, members of the public may engage in illegal activities such as arson or vandalism which, in addition to damaging facilities, could lead to rubbish, fire remnants and drug paraphernalia being left on the site. Staff, cleaners and legitimate community users would also be at risk if working back after hours or using the school facilities at night.

However, the option of a 3m wide pedestrian footpath along the residential boundary, which is fenced off from the rest of the school grounds with security fencing, may be explored. The School Security Unit has concerns that this would result in a significant reduction in outdoor learning/play space for students. Long, narrow thoroughfares of this design are also unattractive and risky propositions for pedestrians, especially at night. They can also become access points for people to enter residential properties illegally due to poor security and surveillance.

Consideration should also be given to impacts on neighbouring residential property at 16 Knox Street.

8.4 Health and Safety

Health and Safety issues are addressed on the site in a number of ways –

- **Quality of Internal Space**
  As discussed above, the buildings have been designed to allow for all habitable spaces to have good levels of natural ventilation and natural light. This will ensure that the internal areas (the teaching spaces in particular) provide a good level of amenity to the students who will use them.

- **Child Safety**
  The site and the buildings have been designed, in keeping with the Department of Education's requirements, in order to allow the students to be safe and protected while in the school. This includes designing the spaces to allow for a good level of supervision of the students at all times – whether in or out of the classroom. This also includes providing a clear and solid line of protection around the site that can be closed and monitored during school hours.

- **Play Space and Covered Play Space**
  As discussed previously, the development maintains the generous amount of play space provided on the site and creates new covered walkway roofs to allow all weather access between the new facilities and the existing buildings surrounding the central courtyard.

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- **Natural Ventilation**
  Large openable windows are provided to both sides of the new buildings to allow for a good amount of natural ventilation to the spaces. This means that, while air conditioning is to be provided as part of this development, natural ventilation can be maximised in order to reduce the reliance on artificial cooling.

- **Safe Pedestrian / Bike Access**
  The creation of the new entry to the site provides a clear delineation between pedestrian movement and vehicular movement on the site. The site also provides safe areas for bikes to access the site. Bicycle parking is also provided on the site.

- **CPTED**
  The CPTED principals have been considered and implemented into the development. This is discussed further in Section 10 below.

8.5 Amenity

As discussed in the above sections, the project creates a high level of amenity on the site by –

- Creating spaces with a strong connection to external spaces by orienting the new facilities around the central external courtyard space
- Creating internal spaces with good access to natural ventilation and natural light.
- Maintaining the amount of outdoor play space available to students on the site.
- Increasing the tree canopy coverage on the site
- Creating a series of external spaces that support the needs of the students – including large informal gathering spaces, a formal tiered teaching space as well as more intimate small group spaces.

Courtyard West of Building E – Perspective View (prepared by Ground Ink)

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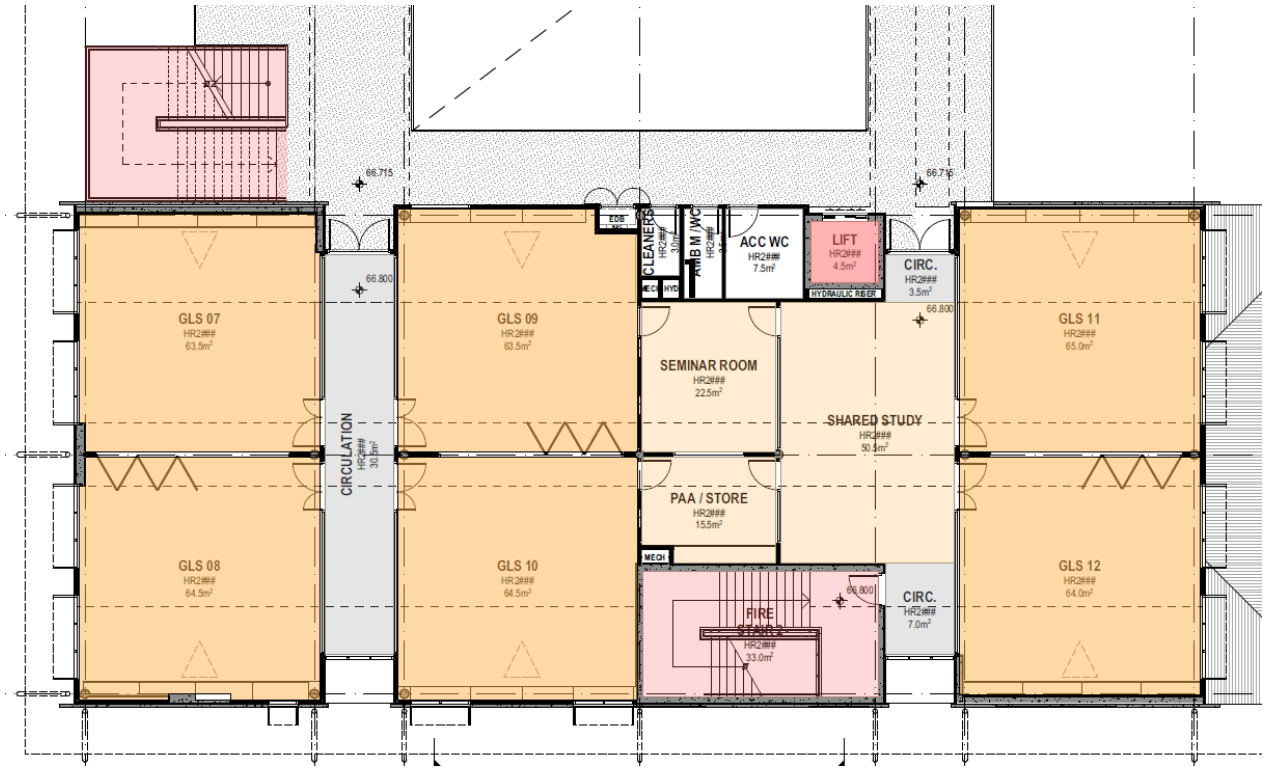
8.6 Whole of Life, Flexible and Adaptive

The Whole of Life approach has been considered in this development in the following ways –

- The planning of the proposed building has been developed as part of a long-term masterplan that re-activates and reinvigorates the site – extending the functional lifespan of the existing facilities.
- Ensuring that structural elements and columns are kept to the perimeter of the spaces where possible to allow for future re-configuration and adjustment of the spaces without needing large amounts of structural work.
- Internal spaces have been designed to be flexible and adaptable – particularly in the teaching spaces. The planning allows for the teaching spaces to be easily left open or closed up as required to suit the needs of the students and the teachers using them. They provide a variety of education needs and teaching styles.



Floor Plan – Building H South Wing – Level 2

- Materials have been chosen to require a minimum of ongoing maintenance. They are durable and hard wearing to ensure that they age well, without needing replacement or re-finishing on a regular basis.

8.7 Aesthetics

As discussed above, the architectural expression of the proposed new building takes cues from the existing built form on the site to create a new building that sits comfortably within the existing building fabric.

This is achieved through the creation of the central courtyard within the building that reinterprets the courtyard / donut format of the original buildings on the site. While also creating a thoroughfare that provides a strong level of connectivity into the existing buildings and central courtyard space.

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Further to this, the materiality of the proposed building references the existing building fabric through the use of pre-cast concrete panels (in both a smooth texture and corrugated texture), cream-coloured masonry and dark coloured trims.

The combination of these gestures creates a modern interpretation of the existing site architecture that sits comfortably on the site, while also reinvigorating the overall appearance and street presence of the school within the streetscape.

Binalong Road South - Perspective

Binalong Road North - Perspective

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9 Visual Impact Assessment and View Analysis

The impact of the proposed development on the surrounding areas.

Below is an analysis of these key views –

- **View 1 – Binalong Road North – From Ford Street**
  The topography of the land on Binalong Road falls to the North of the site. Therefore, this view looks up the hill towards the site. The upper part of the roof of the building in this area will be visible above the existing mature trees along Binalong Road.

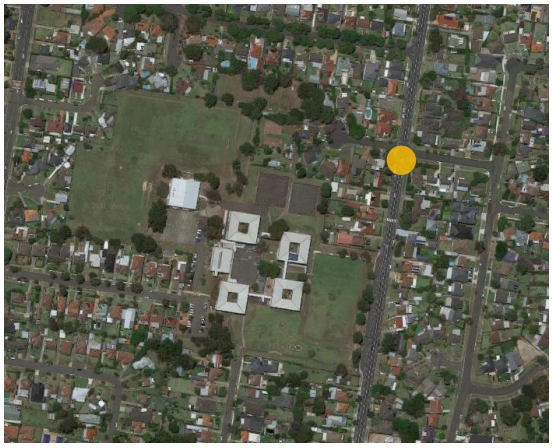

Image Location – Image Source: Google Maps

Existing View – Binalong Road from Ford St

View from Binalong Road from Ford St – Extent of Building Noted

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- **View 2 – Binalong Road South**
  The topography of the land on Binalong Road rises up to the South of the site. As a result, this view looks down towards the building. The building is visible through the existing mature trees along the boundary of the site.

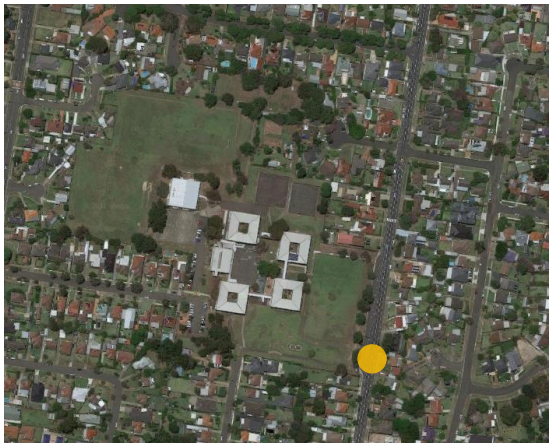

Image Location – Image Source: Google Maps

Existing View – Binalong Road South

View from Binalong Road South – Extent of Building Noted

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- **View 3 – Knox Street Entrance**
  The topography of the site at the entrance from Knox Street is slightly elevated from the proposed building platform. From this view the proposed building is located behind the existing buildings and is therefore partially obscured by existing Building D.

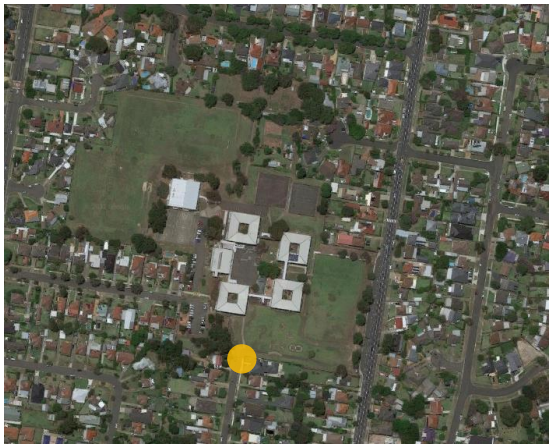

Image Location – Image Source: Google Maps

Existing View – Knox Street Entrance

View from Knox Street Entrance – Extent of Building Noted

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- **View 4 – Cornock Avenue Entrance**
  The existing site levels at the entrance from Cornock Avenue are slightly lower than the existing buildings and the proposed building platform. From this location the proposed building is located behind the existing buildings on the site. As a result of the topography of the site and the distance from the proposed development, the proposed building will not be visible from this view point.

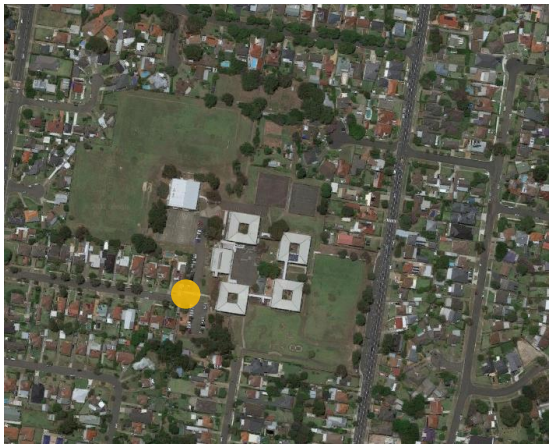

Image Location – Image Source: Google Maps

Existing View from Cornock Avenue Entrance

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- **View 5 – End of Kim Place**
  The existing site levels fall away from the existing buildings down to the North. This means that the view from the back of the site at Kim Place looks up the hill towards the existing buildings. The proposed building is located behind the existing buildings from this view. Based on this configuration the proposed development will only be partially visible above the existing buildings and will have a minimal impact on this view point.

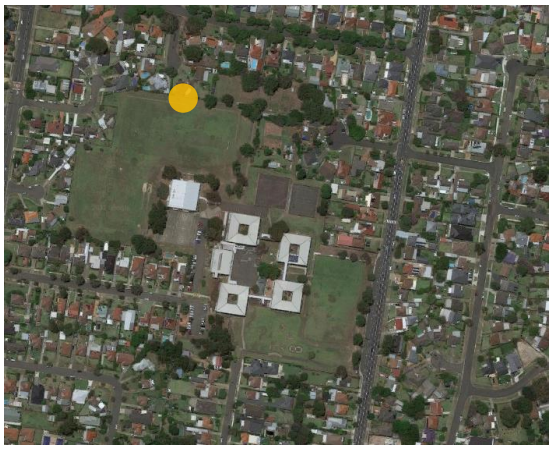

Image Location – Image Source: Google Maps

Existing View from Kim Place

- **View 6 – Corner of Chalmers Crescent and Lennox Street**
  The topography of the suburb to the East falls away from Binalong Road. As a result, the view from the corner of Chalmers Crescent and Lennox Street – about 1 block away from the site – is located lower than the existing site. As a result, the proposed development is not visible from this location because it is blocked by the existing residences along Lennox Street.

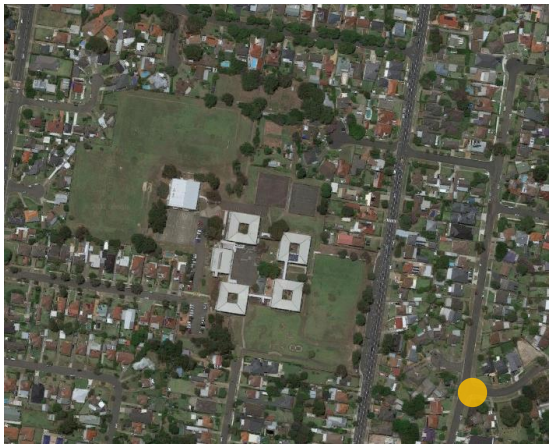

Image Location – Image Source: Google Maps

Existing View from Corner of Chalmers Crescent and Lennox

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10 Services Integration

The provision of services to the site and proposed building have been considered and integrated into the overall design outcome. A summary of the services management is outlined below –

- **Rainwater and Stormwater Management**
  The rainwater from the roof of the new building is partially collected into rainwater tanks – located in the plant area to the South of the new building. The harvested rainwater is collected for use in flushing toilets and watering of gardens. An on-site detention tank is also provided as part of the overall stormwater management system. This is provided underground to the south of the site proposed building as is integrated into the landscaping of the play spaces in this area.

- **Electrical Services**
  A new electrical substation is provided as part of this project to service the overall site. It is located along the Binalong Road frontage to the Northern end of the site. It has been located in order to allow a landscaped buffer between the substation and the neighbouring property to the North (82 Binalong Road) in order to minimse the impact of the new substation on that property.

  A new main switchboard for the site is also provided – integrated into the Northern wing of the Ground Floor of the new building. From here the electrical services are reticulated around the new building and into the existing site.

  A 99Kw PV solar array is also provided to the roof of the proposed new building.

- **Mechanical Services and Air Conditioning**
  Air conditioning is provided to all areas of the proposed new building. This is provided as a centralised VRV system with plant areas located in the landscaping on the ground floor to the North-West and South-West of the proposed building. These plant areas are contained within acoustically treated walls and a landscaping buffer in order to minimise their visual and acoustic impact on the development and the neighbouring properties.

- **Lighting Design**
  External lighting will be provided to facilitate wayfinding and safe access to the site. This will be managed through wall lighting and bollard lighting that will minimise light spill to neighbouring properties. The operation of these lights will be managed through a timer system and will be limited to suit the school's operational requirements. External lighting will only be required after normal operational hours (typically 0700-1900) in the event the school is hosting a Community Event. There are no additional sporting facilities proposed as part of the development and therefore there will be no floodlight or spotlighting required as part of the development. Internal lighting will be automated by motion sensors and will only be required after normal operational hours (typically 0700-1900) in the event the school is hosting a Community Event. Further details are provided in the Lighting Design Statement in by Aurecon.

- **Waste Management**
  The existing waste management procedures on the site will be maintained as part of this development. This includes distributed bins and waste collection areas around the site. These are regularly collected into a central waste storage area (located to the West of Building B). Collection and removal of waste is then maintained via Cornock Avenue.

- **Loading Zones and Deliveries**
  Larger deliveries to the site will be facilitated through the existing vehicular entrance from Cornock Avenue using the school's existing management procedures. However, it is proposed that a loading zone is also created on Binalong Road for use only outside of the peak pick-up and drop-off times. This will allow access for deliveries through the new main site entrance into the new administration facilities.

Further details of the proposed services arrangements can be found with various reports included in this submission.

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11 Construction Management and Continued Operation

11.1 Construction Management

The proposed works are to be constructed in one stage. Due to the siting of the proposed works, it is possible to construct the project in one stage without impacting on the existing operations of the school.

Further details of this proposed construction process are outlined in the **Preliminary Construction and Environment Management Plan prepared by TSA.**

11.2 Site Access, Vehicle Circulation and Parking

As the bulk of the proposed works is to the East of the existing buildings in all options, the builder's compound is to be a self-contained area to the Binalong Road frontage and will operate independently of the operations of the school. In order to achieve this, site access is provided from Binalong Road.

The main site access, vehicular access and staff carparking will remain functional throughout the construction period and will be accessed from Cornock Avenue.

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12 Crime Prevention Through Envrionmental Design Principals (CPTED)

Below is an outline of how the proposal addresses the four principals outlined in the Guidelines to minimise the opportunity for crime.

12.1 Surveillance

The proposed development allows for all circulation areas – particularly the main entrance points to the site – to be open, accessible and clearly visible from both inside the site and from the street. The entrance points are appropriately fenced to allow them to be closed off when they are not in use and are landscaped in a way that avoids creating hidden areas. They are also appropriately lit to allow for a safe level of surveillance and supervision during periods of out-of-hours use.

Within the site, the play spaces and student spaces created as part of this project have been designed to allow for good passive and active supervision at all times – particularly during the school's operating hours.

12.2 Access Control

The new main site entrance that is created as part of this work is designed to allow for a free flow of students and parents at pick up and drop off time. However, during school operating hours the entrance is closed off and visitors are directed to the Administration Reception area to ensure that they are checked and signed-in before they are given access to the school.

As a requirement of School Infrastructure NSW, the new facilities have also been designed in order to allow for them to be easily locked-down to protect the students in the case of a security incident.

Binalong Street Entry – Perspective

12.3 Territorial reinforcement

A security fence is maintained around the full perimeter of the site to ensure that it can be contained and access restricted out of hours. During school operations (as discussed above) the entrance arrangements have been designed to ensure a clear demarcation between public areas and private school spaces. Wayfinding signage and visual cues will also be incorporated to reinforce this.

12.4 Space Management

The site will be maintained on a regular basis and repairs will be undertaken promptly when required. The school employs a member of staff that is responsible for maintenance and repairs. They will be responsible for the day-to-day upkeep and management of the facilities once they are occupied.

Further to this, the Department of Education has a number of programs in place for the ongoing maintenance of their facilities and this development would fall under this program.

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13 Consultation

13.1 Design Consultation

Fulton Trotter Architects and Architectus have undertaken a detailed consultation process with the school, the various stakeholders within School Infrastructure NSW, the City of Parramatta Council and the wider community as part of planning each phase of this development.

Details of this consultation is outlined in the Consultation Report attached to this submission.

13.2 Indigenous Cultural Heritage Consultation

As required as part of the SEARS for this project a detailed Aboriginal Cultural Heritage Consultation process has been undertaken. This was facilitated by Tocomwall. Full details of this consultation process and the outcomes are included in the Aboriginal Cultural Heritage Consultation Report included in this submission.

Further to this, Tocomwall has developed a framework for ongoing consultation in order to develop a detailed and considered response to country as the project details are finalised.

13.3 State Design Review Panel

The project has undertaken two reviews with the Government Architect through the State Design Review Panel process. This has involved the following –

- State Design Review Panel – Pre-Briefing / Masterplan Review – March 2020 (conducted with Architectus)
- State Design Review Panel – Next State Design Review – 3rd March 2021 (conducted with Fulton Trotter Architects)

Following the Initial Project Review by the State Design Review Panel a letter of advice was received from the Government Architect (dated March 2021). This letter outlined the advice and comments provided during the Initial Project Review.

We have reviewed and considered the issues raised in this letter and the Initial Project Review. A summary of the issues outlined in the letter as well as our proposed response to each item is included in this report in **Appendix A – State Design Review Panel - Response to Advice Schedule.**

Southern Façade

13.4 Precinct Traffic Working Group

A working group was developed with SINSW, Transport for NSW and the City of Parramatta Council to develop a wholistic approach to the traffic management around the site. The outcomes of this working group are outlined in the **Traffic Impact Assessment prepared by TTW.**

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Appendix A – State Design Review Panel – Response to Advice

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PENDLE HILL HIGH SCHOOL
State Design Review Panel – Response to Advice Schedule

Item No.	SDRP Advice	Response
1- General Comments		
1a	The following aspects of the masterplan approach were supported: • The landscape and built form strategy, including retention of existing trees and arrangement of built form to respond to site contours, views and climate • The student gathering spaces are well considered • The presented architecture is appropriately scaled to the site and existing buildings	These comments are noted.
2 – Connecting With Country (CwC)		
2a	Consultation with Traditional Custodians should include both the Deerubin local land council and the Darugh people to develop a whole-of-site response which could include healing Country and learning from Country as project strategies. The following areas should be explored to inform the CwC response:	The project seeks to incorporate CwC into the built form and landscaping. The realisation of design strategies into learning outcomes will be implemented through three key mechanisms: 1. Engaging with Traditional Custodians in the design of built form and landscaping 2. Ongoing compliance with NSW Department of Education Aboriginal Education Policy 3. Ongoing implementation of the Australian Curriculum SINSW has engaged an Aboriginal cultural heritage consultancy (Tocomwall) to lead consultation to inform the design of built form and landscaping such that it creates immersive cultural environments that support the Aboriginal & Torres Strait Islander History and Cultures Cross Curriculum Priority learning objectives and enables the Department Aboriginal Education Policy. The consultancy is a majority Aboriginal owned Supply Nation Certified company and the project team are all members of the Aboriginal Community. They have a deep understanding of the intrinsic values connected to the environment and will engage in a culturally appropriate manner, sensitive to the Aboriginal community needs and aspirations. While a number of specific design solutions are outlined below, these are suggested responses that are currently included in the project. The appropriateness and details of these responses are to be reviewed through the ongoing consultation process discussed above.

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Item No.	SDRP Advice	Response
2b	• Healing of Country: Repair of the site through the incorporation of native and endemic plant species	The landscaping planting palette has been revised to include a focus on native and endemic species with only a small number of exotic species in select locations. Further to this, it is proposed that trees of significance to the local indigenous culture and connection to country will be incorporated in a place of significance and prominence. Signage and artwork will be provided regarding the significance of these species so that the plants will act as an ongoing educational tool for the school community.
2c	• Relationship of the built form and landscape to key significant views	It is proposed that the consultation process will highlight any significant views or aspect that relate to the site and the area. If any views are present, the landscape will be reviewed to provide a location that directs the user's attention towards these views. Further to this, if appropriate, the location of windows within the building itself will be modified in order to frame any views and make them a focal point of the internal spaces.
2d	• Incorporation of spaces where Cultural practices can be taught and given continuity, including cultural land management	A number of outdoor teaching and gathering spaces are provided in the landscaping – including the tiered seating space to the West of the Northern wing of Building H and the yarning circle to the West of Building E. It is proposed that these will include signage and artwork to make them spaces that can focus on the teaching of cultural practices and traditions. The details of how these spaces are created and finished will be determined through the consultation process outlined above. Further to this, we note that learning from country is a part of the requirements of the Department of Education's policy and the Australian Curriculum. The spaces created (as discussed above) will seek to facilitate and support these learning from country requirements. Additional details about the Department of Education 's Aboriginal Education Policy and the requirements of the Australian Curriculum are outlined at the end of this document.
2e	• Place names and language	Wayfinding signage and room identifier signage will be provided to all parts of the new facilities. The details of this proposed signage will be reviewed as part of the proposed consultation process to determine how key spaces and rooms can be named and identified in order to create a connection to country.
2f	• Use of local materials and colours in the architecture and landscape design	While an initial interior finishes and materials palette is being developed as part of this phase of the project. The details of this package will be reviewed as part of the consultation process. Where possible, colours and imagery of significance to the local indigenous groups will be incorporated into the schemes.
2g	• Ensuring the inclusion of a yarning circle and bush medicine garden can be integrated into the pedagogy of the school.	A location has been nominated in the scheme for a yarning circle – to the left of Building E. It is also intended that bush medicine gardens will be incorporated into the garden beds around the central circulation axis between Building H and the existing central courtyard on the site. As discussed above, the location of these spaces and the final details of how they are created will be resolved through the proposed consultation process.

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Item No.	SDRP Advice	Response
3 – Masterplan and Landscape		
3a	As articulated by the design team, the new school is a unique opportunity to embrace the potential of indoor / outdoor learning and further harness the special qualities of the site, and improve the character of its spaces, landscape and architecture.	These comments are noted. Specific details are discussed below.
3b	• Ensure landscaped and outdoor spaces are considered in their relationship to and as an extension of internal spaces	The functionality of the outdoor spaces created within the landscaping has been considered in order to maximise the connectivity between the internal spaces and the landscaped areas. The key examples of this are outlined below - - The central courtyard space in Building H includes a direct connection to the Library entry area on the Ground Floor (in the Northern wing). - The large tree provided in this area also provides a connection to the outdoor learning spaces on the verandah areas in the courtyard space on Level 1 and Level 2 - The tiered seating area to the West of Library area in the Northern wing of Building H features tiered seating areas as well as a number of shade trees. This area connects directly into the main library space to allow the functions of the library to spill over into this external space. - Similarly, the terrace area to the East of the Library area in the Northern wing of Building H features a direct connection into the main Library area – functioning as an outdoor learning space and overflow area.
3c	• the entry stair and ramp configuration create a significant vertical separation between the school and its primary public entry point. Consider alternative solutions, for example, incorporating a public plaza at street level with stairs and a lift at the building edge.	In response to this advice this issue has been considered further to explore whether it is possible to reduce the requirement for vertical separation between the street and the building as well as reducing the visual impact of the stairs and ramps on the street. The following issues have been investigated – **1. Aggregating the Access Ramps to the North** It was explored whether it was possible to relocate the proposed ramps to one side of the entrance stairs (the Northern side) in order to reduce the visual impact of the ramps when viewed from Binalong Rd. This would allow the area to the South of the new entry stairs to include more significant landscaping around the existing trees. However, the impact of this would be that the area to the North of the stairs would significantly reduce the generous garden beds provided between the ramps. This would increase the visual impact of the ramps in this area – presenting a larger expanse of concrete, handrails and retaining walls to the street frontage.

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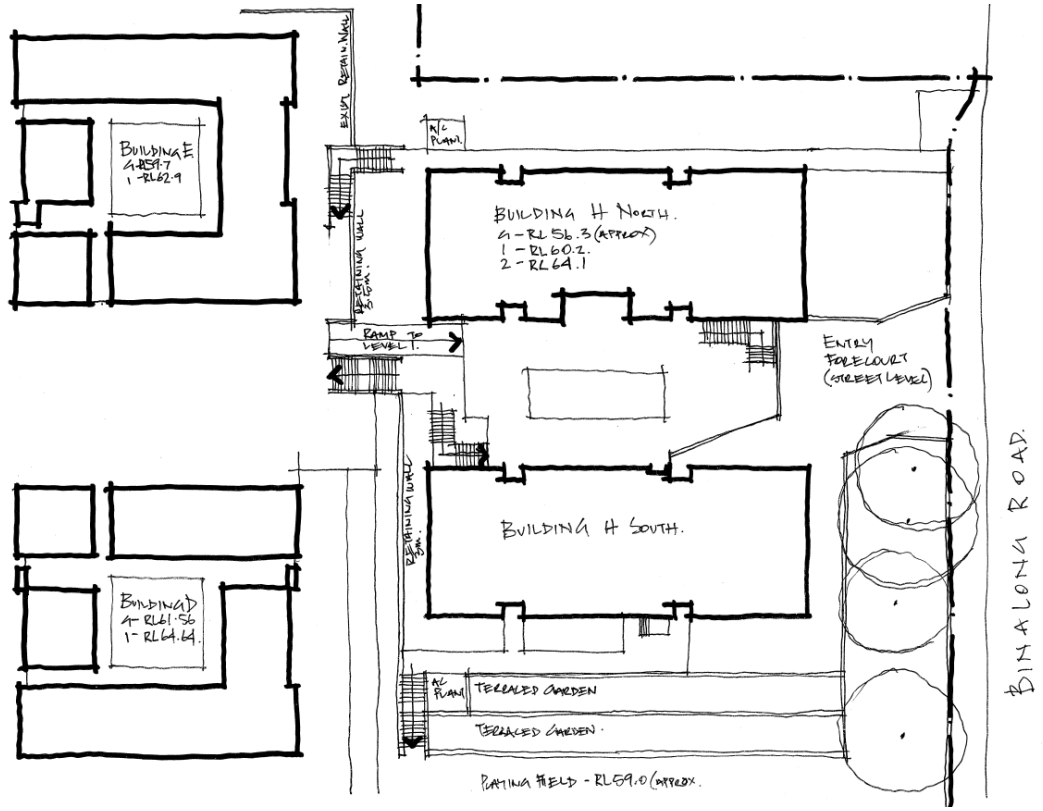
Item No.	SDRP Advice	Response
		Further to this, this revised arrangement of ramps would also necessitate the removal of the proposed terrace area adjacent to the Northern wing of Building H. This space functions as an outdoor learning space connected into the Library. Removing this space would impact on the functionality and amenity of the library areas. For these reasons, this modification to the design was not considered appropriate. **2. Public Entry Plaza / Lowering the Building to Street Level** The option of lowering the level of the ground floor of Building H to the street level of Binalong Road was explored. This is demonstrated by the sketches shown below.  **Indicative Planning Sketch**

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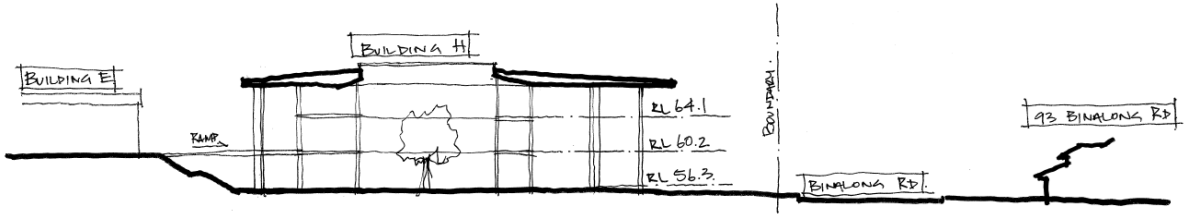
Item No.	SDRP Advice	Response
		This option would significantly improve the accessibility and connectivity of the site from the street – providing a level entry courtyard and pedestrian paths into the central courtyard and into the Library and Administration Buildings.  **Indicative Site Section Sketch** However, these revised levels would require significant earthworks to the area of Building H. This would add cost to the project and significantly changing the existing topography of the site. It would also introduce large retaining walls around the building. This would reduce the amount of natural light in the central courtyard space – reducing the overall amenity of the space. Further to this, the revised levels would also disconnect the proposed facilities from the remainder of the existing school buildings. Most importantly, it would place the Library and Administration Buildings a full storey below the existing buildings and existing main central courtyard. This would have a detrimental impact on the functional connections For these reasons, this modification to the design was not considered appropriate. **3. Public Entry Plaza / Relocate Lift and Extend to Street Level** The option of extending only the lift to the street level was explored. This would require the location of the lift to be moved so that it can extend down to the street level. This would provide accessible access to the building without the need for the current ramping system. However, in this option the overall Ground Floor of the building would not be lowered, therefore stairs would still be required to facilitate pedestrian access from the street level into the remainder of the site. This would create a forecourt off Binalong Road. This forecourt would access a lift and foyer. However, the remainder of the reception and Administration spaces could not be relocated down to the street level due to the relationships required to other spaces. Therefore, this would create a disconnection between the foyer and the remainder of the spaces.

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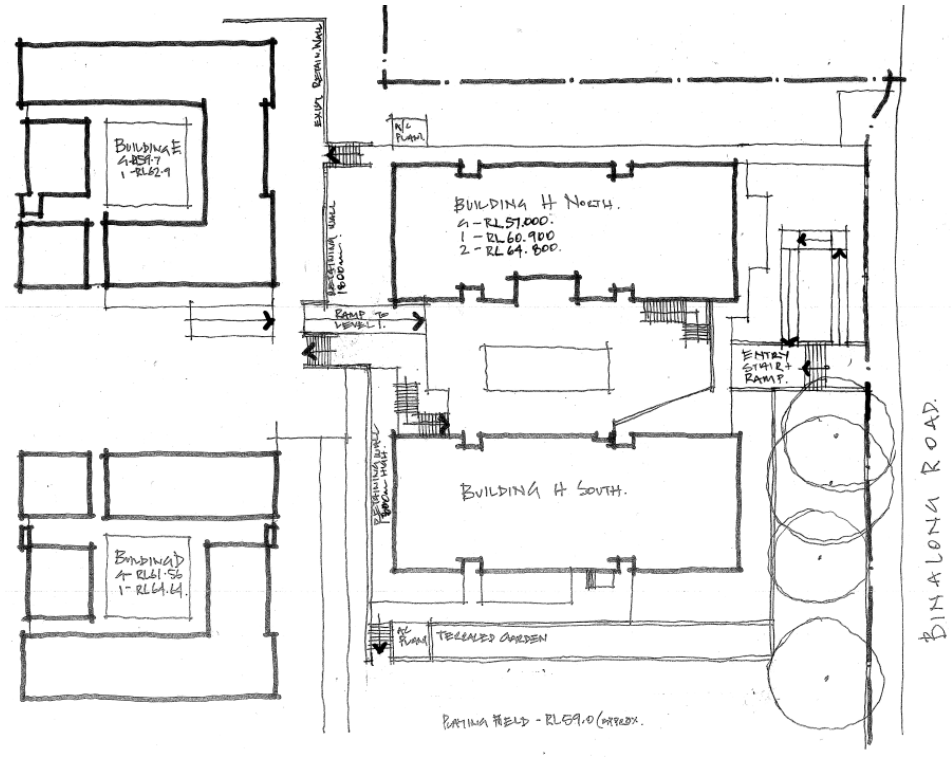
Item No.	SDRP Advice	Response
		It was felt that the creation of the forecourt access to the lift and foyer in this option would require significant level changes (in walls or garden beds) between the entry forecourt and the rest of the building. These walls would need to be carefully managed to avoid unsupervised areas that could pose a safety risk. Further to this, because the stairs could not be removed in this option, it was felt that it wouldn't greatly improve the visual appearance of the entry from the street. For these reasons, this modification to the design was not considered appropriate. **4. Reducing Entry Stairs and Ramps / Partially Lowering the Building Levels** The option of partially lowering the level of the Ground Floor of Building H in order to reduce the amount of stairs and ramps to Binalong Road was explored. This is demonstrated in the sketches below.  **Indicative Planning Sketch**

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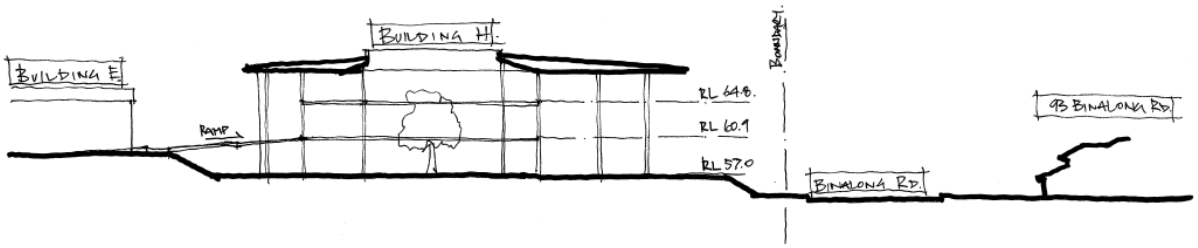
Item No.	SDRP Advice	Response
		This option would improve the accessibility and connectivity from the street by halving the height of the stairs required as well as the length of ramps required. This would also allow the ramps to be located only to the North of the stair (as discussed in Item 1 above).  **Indicative Site Section Sketch** However, as with Option 2, this would increase the amount of earthworks required on the site. It would also create an increased physical disconnection between the proposed new facilities (particularly the Library and Administration) and the remainder of the school. It was felt that the perceived benefit of this option on the street connectivity was not significant enough to justify the impact on the operations of the school by creating a disconnect between the new building and the existing facilities. For this reason, this modification to the design was not considered appropriate. Following the investigations and options analysis outlined above it was felt that the building levels needed to be retained as per the current design and the provision of stairs and ramps to Binalong Road should be retained. However, the configuration of the stairs and ramps has been revised and reconfigured in order to allow for an improved forecourt to Binalong Road. We believe that the revised ramp configuration improves the presentation to the street in the following ways – • An increased footpath widening area is provided to facilitate pedestrian circulation into the site. • Additional space is provided at street level around the gate and signage provided in order to allow for an increased level of landscaping to be provided in the area – minimising the visibility of fencing and footpaths on the street. • The entrance stair is broken into three runs of stairs – making it a gentler ascent and minimising the visual impact on the street. • The configuration of the ramps is more in keeping with the rectilinear planning of the remainder of the site.

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Item No.	SDRP Advice	Response
3d	• Relocate (if possible) the substation away from the urban edge or mitigate its impact to the adjacent residences	In response to this advice the location of the substation has been reviewed and has been relocated further away from the boundary to the neighbouring property along Binalong Road. This has required a reconfiguration of the other pieces of services infrastructure in the area – most notably the fire booster assembly which has been relocated to the South of the entry stair. The option of relocating the substation to the South of the entry stair was explored. However, in order to comply with distance limitations between the substation and the main switchboard (which is to be within Building H) the substation would have sat under the existing mature trees along the Binalong Road frontage. This location would have required the removal of at least one of these trees. For this reason, this alternative location wasn't considered acceptable.
3e	• Carefully consider the different entry points and their experiences, understanding the site has different 'front doors'	The multiple entry points to the site have been considered as part of the overall traffic management plan and the green travel plan. Pedestrian and bicycle access is maintained to all the entrances and modifications to the road network is proposed to facilitate safe access to these points. Staff and Service access will be available from the Cornock Avenue entry. All other access, including the majority of public access, will be maintained from Binalong Road through the new main site entry. Signage will be provided at each of the gates to direct traffic to the appropriate entrance and a new gate to the Cornock Avenue carpark entrance will restrict public access – providing clarity over how the public is to access the site. Further to this, the school will maintain a number of management policies to maintain clarity around how the site is accessed.
3f	• The location of mechanical services, including A/C units, within the landscape requires further careful consideration	The location of mechanical plant and other key pieces of services plant has been considered in some detail with the consultant team. As a result, they have been located to the Western end of the building in enclosure areas to the North and South of the building. These plant areas will include all pieces of major services plant including A/C condenser units, rainwater tanks and pumps. These plant areas have been located so they can be screened acoustically by the enclosure walls and screened visually by landscaping in the surrounding area. This allows the plant areas to be easy to access and also visually unobtrusive to the internal spaces. Please note that the option of locating these plant areas on the roof of the building was explored. However, SINSW doesn't allow for plant room areas to be located on the roof of a building because of the complications that this creates in relation to ongoing servicing of the building. As a result, the plant areas were relocated from the roof to the ground floor – as per the current design.
3g	• The extent, size and treatment of the planter walls requires further development to ensure their scale and massing is appropriate to the needs	The location and height of retaining walls have been reviewed and reduced where possible. We note that the SINSW requirement for this project is that any steps in the landscaping greater than 300mm require fall protection in the form of fencing or balustrades.

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	and requirements of the school.	As a result, retaining walls have been reduced where it is possible without impacting on the functionality of the landscape spaces. Where this is not possible, fences will be provided to provide fall protection. These will be incorporated into the planting to make them as unobtrusive as possible.
3h	• Provide information on the extent of landscaping to the area of the site south of the proposed new buildings	The extent of landscaping to the South of the proposed building (Building H) will extend to the edge of the proposed OSD tank in this area. South of this point the existing turfing to the playing field will be retained. Localised landscaping will also be provided to the bicycle parking areas to the South of the site.
3i	• Confirm the extent of shade to be provided via tree canopy cover, noting the State Government target of 40%	Given the size of the existing site and the extent of works impacted by this current stage of the long-term masterplan it is difficult to achieve the target of 40% tree canopy coverage across the whole site. The proposed design provides a tree canopy coverage of 24.9% of the area of site impacted by the current project. Further details of this are outlined on the Landscape Design Report.
3j	• Consider whether the first floor terraces facing Binalong St can be incorporated into the project as outdoor learning spaces or student break-out spaces	In response to this advice we have explored the possibility of providing roof terraces to locations where the ground floor extends past level 1 along the Binalong Road frontage. This occurs on the Southern wing above the Administration areas (outside of the teaching spaces) and on the Northern wing above the Library areas (outside the staff spaces). It was felt that a roof terrace to the Northern Wing would create an overlooking and visual privacy issue to the neighbouring property to the North (82 Binalong Road). Further to this, introducing these outdoor spaces would mean that additional stairs or verandah access would be required to provide a safe fire egress path from these spaces. For these reasons, this modification to the design was not considered appropriate.
3k	• Provide further information to demonstrate how ESD targets are being incorporated into the project and the amenity of internal spaces.	The ESD strategy is in line with EFSG sustainable design guidelines and NSW Government and and Paramatta planning requirements. The sustainable design outcomes will also be validated through achieving a 5 Star Green Star Design & As Built v1.3 rating which represents Australian Best practice in sustainable design and construction. The design includes measures to promote efficient use of resource as well as creating comfortable spaces for students and staff Some key sustainability concepts and associated design initiatives are outlined below: ▪ **Energy:** Passive shading to windows to limit excessive solar heat gain in summer and promote passive cooling in winter. Overall Building Fabric performance to exceed minimum section J 2019 performance, LED lighting

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Item No.	SDRP Advice	Response
		with motion sensors throughout, mixed-mode strategy to limit use of air conditioning when conditions allow, 99kW rooftop PV array ▪ **Water:** rainwater captured from roof for use in landscape irrigation and flushing. Efficient fixture design to conserve indoor water use and drought tolerant/native plant species in landscape areas to limit irrigation requirements. ▪ **IEQ:** increase outdoor air/ Mixed mode ventilation to limit Co2 in indoor spaces. Quality daylight areas for student amenity. ▪ **Transport:** Bike parking provided for students as well as showers/lockers. ▪ **Materials:** To be selected in line with best practice sustainability requirements such as low/zero VOC/formaldehyde, best practice environmental impact e.g. certifier Timber and VOCs. Waste storage area will be provided to ensure adequate storage and separation of waste streams and promote reduced reliance on landfill. For further information refer to the Aurecon Sustainability Report.

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Learning from Country – Education Policy and Curriculum Details

As discussed in Item 2d (above), the following outlines the details of the policy and curriculum requirements relating to learning from country.

Aboriginal Education Policy

The Policy defines the Department's commitments in its schools and was first developed in response to the Report of the Review of Aboriginal Education 2004, in collaboration with Aboriginal communities and key partners.

The responsibility for enacting the Aboriginal Education Policy rests with all Departmental staff and is intended to underpin and inform planning, teaching practice and approaches to educational leadership in all educational settings.

The School is currently implementing the Policy through the following initiatives and it is expected that the project will provide further opportunities to enhance the outcome of these initiatives:

- Establishing, building and strengthening relationships with the Local Aboriginal Education Consultative Group, Aboriginal people and communities
- Providing, in partnership with Aboriginal people and communities, education which promotes quality teaching, is engaging, and is culturally appropriate and relevant
- Aspiring that Aboriginal and Torres Strait Islander students will match or better the outcomes of the broader student population
- Implementing key strategies in the area of Aboriginal Education for all students
- Implementing key strategies to support Aboriginal and Torres Strait Islander students
- Providing Aboriginal students with personalised learning plans with learning progress monitored by the Learning Support Team
- Focussing on raising staff awareness of effective pedagogy in relation to Aboriginal Education
- Leading observance of Reconciliation Week and NAIDOC week
- Providing a strong Aboriginal perspective in Harmony Day activities and supporting student involvement in local reconciliation activities

The Australian Curriculum

The Australian Curriculum is designed to help all young Australians to become successful learners, confident and creative individuals, and active and informed citizens. Presented as a developmental sequence of learning from Foundation - Year 10, the Australian Curriculum describes to teachers, parents, students and others in the wider community what is to be taught and the quality of learning expected of young people as they progress through school.

The three-dimensional design of the Foundation – Year 10 Australian Curriculum recognises the importance of disciplinary knowledge, skills and understanding alongside general capabilities and cross-curriculum priorities.

Disciplinary knowledge, skills and understanding are described in the eight learning areas of the Australian Curriculum: English, Mathematics, Science, Health and Physical Education, Humanities and Social Sciences, The Arts, Technologies and Languages. The latter four learning areas have been written to include multiple subjects, reflecting custom and practice in the discipline. In each learning area or subject, content descriptions specify what young people will learn, and achievement standards describe the depth of understanding and the sophistication of knowledge and skill expected of students at the end of each year level or band of years.

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Cross-curriculum priority – Aboriginal & Torres Strait Islander History & Culture

Cross-curriculum priorities are only addressed through learning areas and do not constitute curriculum on their own, as they do not exist outside of learning areas. Instead, the priorities are identified wherever they are developed or have been applied in content descriptions. They are also identified where they offer opportunities to add depth and richness to student learning in content elaborations. They will have a strong but varying presence depending on their relevance to the learning area.

Aboriginal & Torres Strait Islander History and Cultures is one of the three cross curriculum priorities in the Australian Curriculum.

Whilst the Australian Curriculum sets consistent national standards to improve learning outcomes for all young Australians, ACARA acknowledges the gap in learning outcomes between Aboriginal and Torres Strait Islander students and their non-Indigenous peers. It recognises the need for the Australian Curriculum to provide every opportunity possible to 'close the gap'.

Therefore, the Australian Curriculum is working towards addressing two distinct needs in Aboriginal and Torres Strait Islander education:

- that Aboriginal and Torres Strait Islander students are able to see themselves, their identities and their cultures reflected in the curriculum of each of the learning areas, can fully participate in the curriculum and can build their self-esteem
- that the Aboriginal and Torres Strait Islander Histories and Cultures cross-curriculum priority is designed for all students to engage in reconciliation, respect and recognition of the world's oldest continuous living cultures.

The Aboriginal and Torres Strait Islander Histories and Cultures priority provides opportunities for all students to deepen their knowledge of Australia by engaging with the world's oldest continuous living cultures. Through the Australian Curriculum, students will understand that contemporary Aboriginal and Torres Strait Islander communities are strong, resilient, rich and diverse.

The Aboriginal and Torres Strait Islander Histories and Cultures priority uses a conceptual framework to provide a context for learning. The framework comprises the underlying elements of Identity and Living Communities and the key concepts of Country/Place, Culture and People. Aboriginal and Torres Strait Islander Identities are represented as central to the priority and are approached through knowledge and understanding of the interconnected elements of Country/Place, Culture and People. The development of knowledge about Aboriginal and Torres Strait Islander Peoples' law, languages, dialects and literacies is approached through the exploration of Cultures. These relationships are linked to the deep knowledge traditions and holistic world views of Aboriginal communities and/or Torres Strait Islander communities.

Students will understand that Identities and Cultures have been, and are, a source of strength and resilience for Aboriginal Peoples and Torres Strait Islander Peoples against the historic and contemporary impacts of colonisation.

- Key concepts
    - The first key concept of the organising ideas highlights the special connection to Country/Place by Aboriginal and Torres Strait Islander Peoples and celebrates the unique belief systems that connect people physically and spiritually to Country/Place.
    - The second concept examines the diversity of Aboriginal and Torres Strait Islander Peoples' culture through language, ways of life and experiences as expressed through historical, social and political lenses. It gives students opportunities to gain a deeper understanding of Aboriginal and Torres Strait Islander Peoples' ways of being, knowing, thinking and doing.
    - The third concept addresses the diversity of Aboriginal and Torres Strait Islander societies. It examines kinship structures and the significant contributions of Aboriginal and Torres Strait Islander Peoples on a local, national and global scale.

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