

New High School for Wilton

Architectural Design Report

Revision: C

Date: 14.07.25

Prepared for:
NSW Department of Education

July 2025



Acknowledgment of Country



TKD Architects acknowledge the Traditional Custodians of the lands where we work and create, recognising their continuing and unbroken connection to the land, water and sky. We acknowledge that the proposed New High School for Wilton is located on the land of the Dharawal and Gundungurra peoples. We pay our respects to Elders past, present and express our gratitude for their sharing of knowledge and cultures.

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01 Executive Summary

This Architectural Design Report has been prepared to support a Review of Environmental Factors (REF) for the NSW Department of Education (DoE) for the construction and operation of the New High School for Wilton (the activity).

The purpose of the REF is to assess the potential environmental impacts of the activity prescribed by State Environmental Planning Policy (Transport and Infrastructure) 2021 (T&I SEPP) as “development permitted without consent” on land carried out by or on behalf of a public authority under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act). The activity is to be undertaken pursuant to Chapter 3, Part 3.4, Section 3.37A of the T&I SEPP.

This document has been prepared in accordance with the Guidelines for Division 5.1 assessments (the Guidelines) by the Department of Planning, Housing and Infrastructure (DPHI) as well as the Addendum Division 5.1 guidelines for schools. The purpose of this report is to provide an architectural response for the New High School for Wilton in acknowledgement of the SEPP Principles and State Design Review Panel.



02 Greater Site Context

The current street address is 200 Fairway Drive, Wilton, NSW 2571. The site forms part of the southern portion of Lot 1063 in Deposited Plan 1289197 that was previously subdivided by Landcom. The site is approximately 3.79ha hectares in size and is located within the North Wilton Precinct.

As a result of precinct wide rezonings, the surrounding locality is transitioning from a semi-rural residential area to a highly urbanised area with new low to medium density residential development with supporting services. North Wilton is approximately 85km south-west of the Sydney CBD, 30km north-west of Wollongong and 30km southwest of Campbelltown-Macarthur Strategic Centre. The precinct is located on an interchange with the Hume Highway, which connects the Southern Highlands with the Sydney metropolitan region to the northeast and Canberra to the south-west.

The proposed school site does not currently have road access, however Landcom is expected to deliver the road network and surrounding public domain network in accordance with DA/2022/1279/1. Proposed Road 14 located on the eastern boundary of the site will ultimately provide future access to the site. The site contains several patches of remnant native vegetation particularly within the south-western portion of the site.

- Nepean River
- Major Road
- Green Space
- Proposed Lake
- National Park
- Site



- A. New High School for Wilton Site
- B. Wilton Junction Primary School Site
- C. Residential Lots

03 Site Analysis

The greenfield site for the both the primary school and high school education precinct is approximately 7.2 hectares. The southern portion of site for the high school campus is approximately 4.2 hectares. There are existing trees located on the southern end of the site - T177 marked by the Arborist is a significant Scar Tree which will be retained in the project proposal. The trees are currently protected by site fencing.

The site is bound by unconstructed roads. There are projected sub-arterial roads and extensions of Fairway Drive as part of the precinct planning. Across the school site, on the other side of the unconstructed roads, medium density housing framework have been established.

The site is overgrown and not maintained, with the southern end being used for stockpiling by Landcom, who are building the adjacent roads and neighbouring residences. The site will be returned to its natural topography prior to the construction of the high school precinct. The topography falls from South West at RL 172 to North East at RL 168. The ridge is located in close proximity to the existing trees on the southern part of the site. This presents opportunities for landscape terracing and different outdoor learning settings in relation to the new school buildings. The site is long and wide enough to also provide accessible routes across the school campus.

The orientation and shape of the site lends itself to having strong street presence the east of the site, with Road 14 as the school frontage. This strategy is supported by future infrastructure earmarked along Road 14, which includes a kiss and drop and wombat crossings. The future school bus stop for both the primary and high school will be located on the sub-arterial road on the west boundary of the site.



04 Connecting with Country

DESIGN PROCESS

- Site Walk
 - Experience the place.
 - Observe the land, weather, views, outlook.
 - Understand the local context built and natural.
 - Investigate the local native fauna and vegetation.
- Understanding the local and wider environment
 - Discover through images, maps, and investigations, the topography and geology
 - Biodiversity and Landscape. What are the natural characteristics.
- Learn from connected projects
 - Review cultural and heritage analysis.
 - What have connections with First Nations community taught us about the place?
- Cultural understanding
 - First Nations history.
 - First Nations cultural practices.

THE PLACE

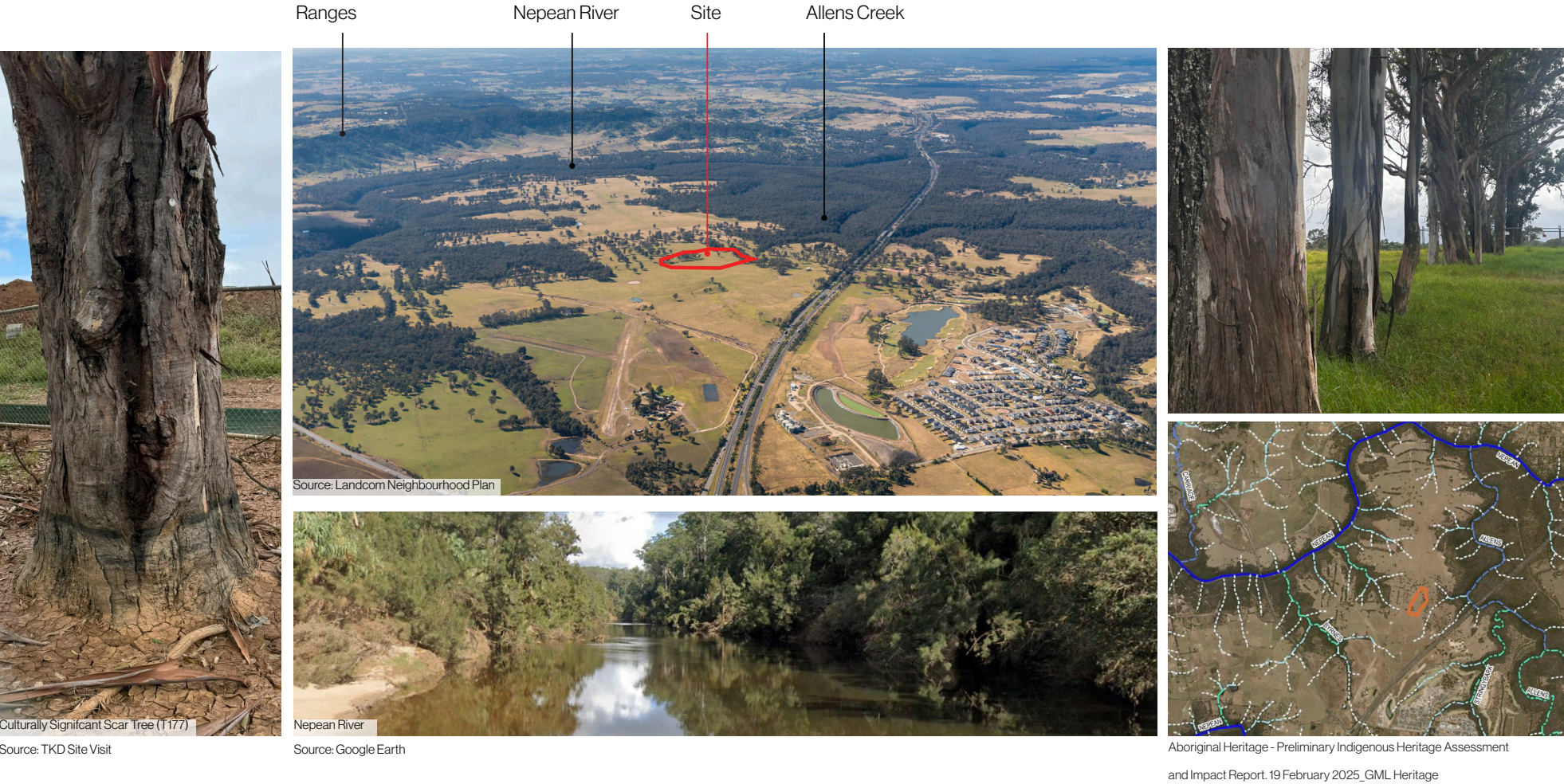
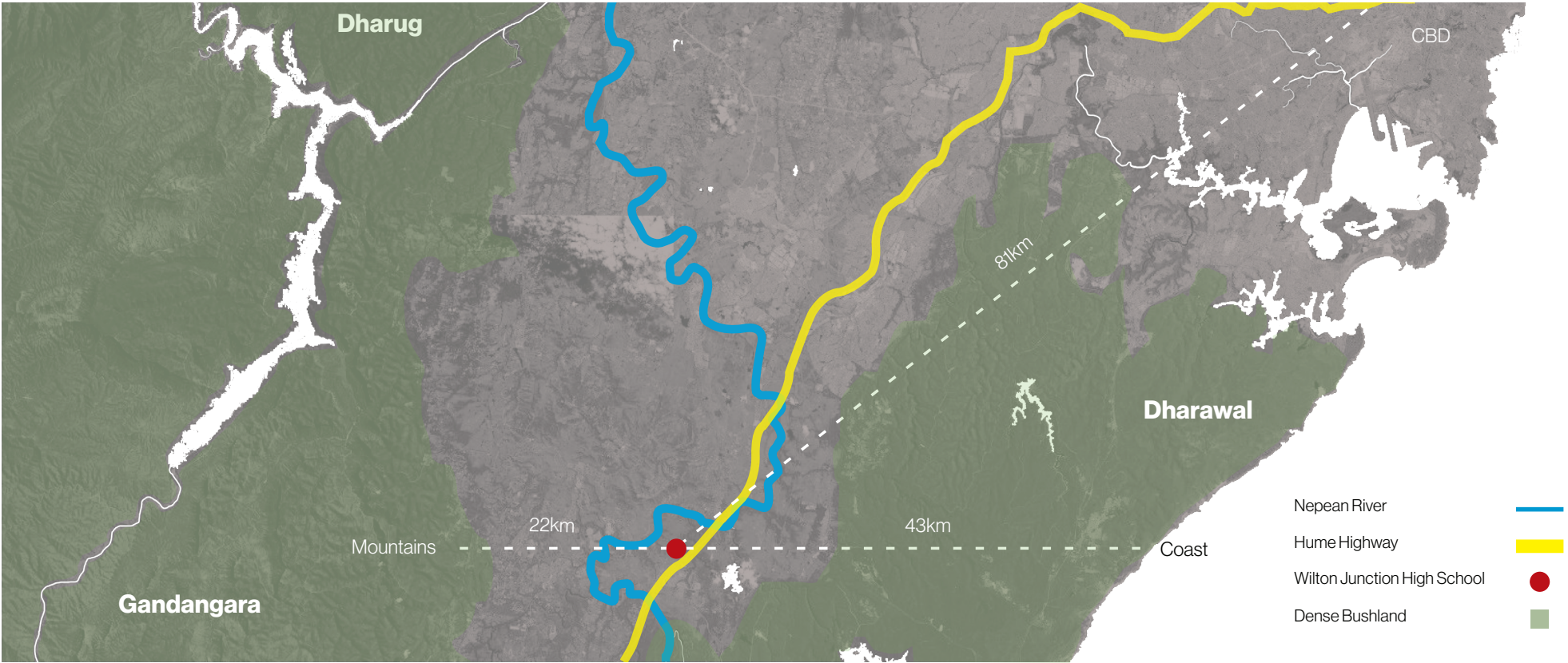
- Ironbark Grey Gum **Open Forest**
- Forest Red Gum grassy woodland on **Cumberland Plain**
- **Native Grasslands**
- **Nearby creeks** and **river** and diverse ecology to be cared for
- Markers in the landscape - **Ranges to the north** with changes in landform and shift in shape create visual interests
- **Maintain views and vistas** to nurture awareness of the topographical landscape
- County shaped by **valleys, rolling hills and steep gorges**. Water runs across the site and feeds adjacent water ways.
- **Caring for water** in the site and the proposed buildings as it flows through into the surroundings

How do these connections and observations inform the Design?

- Respect the landscape and preserve valuable cultural elements.
- Provide opportunities though views, positioning of buildings and connection to landscape for continuous learning and an awareness of the place.
- Educate through Cultural Connections - use of language and visual mediums to express cultural context.

Samantha Rich from Walumarra Studio facilitated the first Connecting with Country consultation with Aunty Glenda Chalker and Edward Burge on the 16th of June 2025. They met with the design team, which included the client, architect and landscape architect on the south end of the high school site, looking towards Razorback Mountains. In this consultation, we listened to their experiences advising Landcom and the primary school, the relationship they have with the Country we are standing on and the animals in the area, particularly the koalas as we are on koala habitat.

This consultation is the start of many Connecting with Country considerations for the New High School for Wilton with discussions of language, signage, views of the Razorback ranges and the Scar Tree. What resonated deeply is Aunty Glenda's words - "We're not in Country. Country is in us"



05 Design Principles

The New High School for Wilton site is located in a new growth area developed by Landcom, bounded by two sub-arterial roads and a local road to the east. Vehicular access to the school site is only possible from the local road.

Currently surrounded by vacant residential lots, the school site will eventually be located in the centre of a residential development. The broader landscape and context is bounded by the Nepean River to the north and west, the Cumberland Plain to the north and west and to the south east, the gorges of the Woronora Plateau. The project is designed to connect with the adjacent Primary School and offer maximum opportunity for inter-operability between the two schools.

The school comprises of 4 buildings (Blocks A, B, C and D) positioned along the eastern boundary facing the residential street (Road 14) with a welcoming main entrance. Outdoor spaces are located to the northwest of the buildings and offer a variety of spaces that allow for a variety active and passive play as well as outdoor learning opportunities. The playing field and sports courts are oriented in a north-south direction, sitting on the crest of the ridge line leading down to the Primary School.

The Hall (Block D) is located at the southern end of the site with good connection to the sports field and adjacent carparking. It connects with the grove of high value trees and the terraced forecourt that is connected to the teaching and learning buildings.

The school has two zones for carparking with the northern carpark providing dedicated parking for support unit drop off and pick up in close proximity to the Support Learning Unit and Administration Unit in Stage 1. This carpark shares driveway access with the Primary School. The southern carpark is located adjacent to the hall providing parking for community use and access after hours.

Design Objective 1 - Connecting with Country

The site is on Dharawal Country within the Wollondilly Shire Council LGA and the Tharawal Local Aboriginal Land Council area. The Primary School that is north of the high school has already engaged with the local First Nations community. Reports and site investigations provide background information as foundations for learning about the place and have identified significant cultural elements to be incorporated and protected in the future development of the site. As the project progresses, site walks that explore the broader topography and landscape to reveal opportunities for learning through Connecting with Country will be developed with community representatives.

On the high school site, a significant scar tree has been identified towards the south. It is important that the tree is retained within the grove of trees and is well considered in the landscape design. There will be continual consultation to ensure that tree is protected and can be educated to the school community.

Design Objective 2 - Activated Street Frontage

The new buildings are generally set back from the boundary by 10m and are arranged in various orientations to create a varied and activated street elevation with deep frontage, generous landscape and opportunity for public domain interface at the entry.

A bus bay is located on the western Sub Arterial Road at the boundary of the High School and Primary School. This provides a secondary entrance to the school and an opportunity for a shared pathway into both schools offering a subtle boundary delineation that acknowledges the interoperability for both schools.

Design Objective 3 - Connections

The main entries into the school are from the eastern road, with a main pedestrian access and two vehicle access points. A secondary pedestrian access point is located adjacent to the northern car park which also allows for deliveries. On the western boundary is a secondary school entrance. The site and its surroundings are currently undergoing extensive transformation as the new network of open space, pedestrian and cycle networks being developed with the residential development.

The topography also supports the linear arrangement of buildings along the Eastern site edge promoting a neighbourhood street frontage. Building placement of the Primary School sets up a linear arrangement that is continued with the High School. This provides uninterrupted open space opportunities and connection between the schools

Views towards the Razorback Mountains can be accessed from elevated floors of the New High School for Wilton. This will strengthen visual connectivity to Country.

Design Objective 4 - Public Realm

School sites can offer some public connection through the use of shared facilities and considered urban design strategies to support community gathering and access to the playing fields. Generous entry points, setbacks to promote activated street frontages and access to facilities are all incorporated in this scheme.

The siting of Block D and entry from the street will be advantageous for the public realm, promoting community gathering and access to the sports field.

Design Objective 5 - Landscape Presence

The landscape design focuses on a variety of outdoor play and recreation spaces. Adjacent to the large sports field are small sports courts, hard paving for pathways and connection and soft infill landscape with endemic flora and fauna. The most significant landscape element is the existing grove of trees including a scar tree which will be protected and surrounded by respectful edges promoting a tangible Connection to Country, becoming a central focal point for the school. Existing trees will be retained for amenity and Connecting with Country. The large site will enable extensive new planting to enhance the existing assets.

The sports field centrally located on the high point provides shared access to the High School and Primary School. Located at the western boundary, this offers a buffer to the sub arterial road and promotes community use out of school hours.

06 SEPP Principles

DESIGN QUALITY PRINCIPLES

The Design Quality Principles within Schedule 8 of the State Environmental Planning Policy (Transport and Infrastructure) are summarised below for reference:

Principle 1 - Responsive to Context

Schools should respond to and enhance the positive qualities of their surroundings. In designing built forms and landscapes, consideration should be given to a Country-centred approach and respond to site conditions such as orientation, topography, natural systems, Aboriginal and European cultural heritage and the impacts of climate change. Landscapes should be integrated into the overall design to improve amenity and to help mitigate negative impacts on the streetscape and neighbouring sites.

Principle 2 - Sustainable, Efficient and Resilient

Good school design combines positive environmental, social and economic outcomes and should align with the principles of caring for Country. Schools should be designed to be durable and resilient in an evolving climate. Schools and their grounds should be designed to minimise the consumption of energy, water and other natural resources and reduce waste.

Principle 3 - Accessible and Inclusive

School buildings and grounds should be welcoming, easy to navigate, accessible and inclusive for people with differing needs and abilities. Schools need to respond to the requirements of children of different ages and developmental stages. By design they can foster a sense of belonging and reflect the cultural diversity of the student body and community. They can also be designed so facilities can be shared with the community and accommodate activities outside school hours.

Principle 4 - Healthy and Safe

Good school design should support wellbeing by creating healthy internal and external environments. The design should ensure safety and security within the school boundaries, while maintaining a welcoming address and accessible environment. School design also needs to consider connections, transport networks, and safe routes for travel to and from school.

Principle 5 - Functional and Comfortable

Schools should have comfortable and engaging spaces that are accessible for a wide range of formal and informal educational and community activities. In designing schools, consideration should be given to the amenity of adjacent development, access to sunlight, natural ventilation, proximity to vegetation and landscape, outlook and visual and acoustic privacy. Schools should include appropriate indoor and outdoor learning and play spaces, access to services and adequate storage.

Principle 6 - Flexible and Adaptable

In designing schools, consideration should be given to future needs and take a long-term approach that is informed by site-wide strategic and spatial planning. Good design for schools should deliver high environmental performance and ease of adaptation, and maximise multi-use facilities. Schools should be adaptable to evolving teaching methods, future growth and changes in climate, and should minimise the environmental impact of the school across its life cycle.

Principle 7 - Visually Appealing

School buildings and their landscape settings should be aesthetically pleasing by achieving good proportions and a balanced composition of built and natural elements. Schools should be designed to respond to and have a positive impact on streetscape amenity and the quality and character of the neighbourhood. The identity and street presence of schools should respond to the existing or desired future character of their locations. The design of schools should reflect the school's civic role and community significance.

07 Principle 1 - Responsive to Context

The proposed activity is for the staged construction and operation of a New High School for Wilton which will accommodate up to 1,000 students and 78 staff.

The new high school includes general and support learning spaces, specialist learning hubs, a library, administrative areas and a staff hub. Core facilities include a canteen, carparks, and sports courts.

Specifically, this proposal includes the following:

Stage 1 includes:

- Construction of a learning hub (Block A).
- Sport field and sports courts.
- Northern car park

Stage 2 includes:

- Construction of learning hubs (Blocks B and C) and a Sports and Performance hub (Block D);
- Southern car park
- Associated site utilities and services including installation of new padmount substation and a new main switchboard.
- Main school pedestrian entrance proposed off Road 14.
- Kiss and drop zone proposed along Road 14.
- Earthworks and tree removal.

Building Setbacks

Block A is set back from the eastern boundary by up to 29 metres. This allows for staff carparking and landscaping opportunities to provide equitable access from the street boundary to the temporary administration entry in Stage 1.

Block B and C are set back from the eastern boundary by up to 10 metres. These buildings are sited further up the existing topography which will still allow equitable access from the street boundary to the permanent administration entry in Stage 2 (Block B), as well as the Support Learning Unit in Stage 2 (Block C). This will also enable appropriate landscape buffer between the school buildings and the surrounding road networks.

Block D is set back from the southern boundary by up to 22 metres. This allows for Stage 2 staff carparking along the boundary.



- A. New High School for Wilton - Stage 1 Building (Block A)
- B. Wilton Junction Primary School
- C. Sports Field - to be shared with Wilton Junction Primary School

- D. Existing trees
- E. Proposed Bus Bay

Principle 1 - Responsive to Context

Building Height

Block A, B and C are three storey buildings with a maximum height of 13.5m from natural ground level. Block D is single storey - double height building to contain an indoor sports court that requires a 7m minimum ceiling clearance.

Visual Impact

The proposed buildings (Block A, B and C) along Road 14 is a linear formation of three storeys. The angled and varied set backs from the street frontage provides depth and rhythm along the length of the school. This allows for varied light so that the appearance of the built form is not shear and solid, but varied and articulated. This is also consistent with the language of the primary school buildings, which visually strengthens the objectives of interconnectivity between the high school and primary school

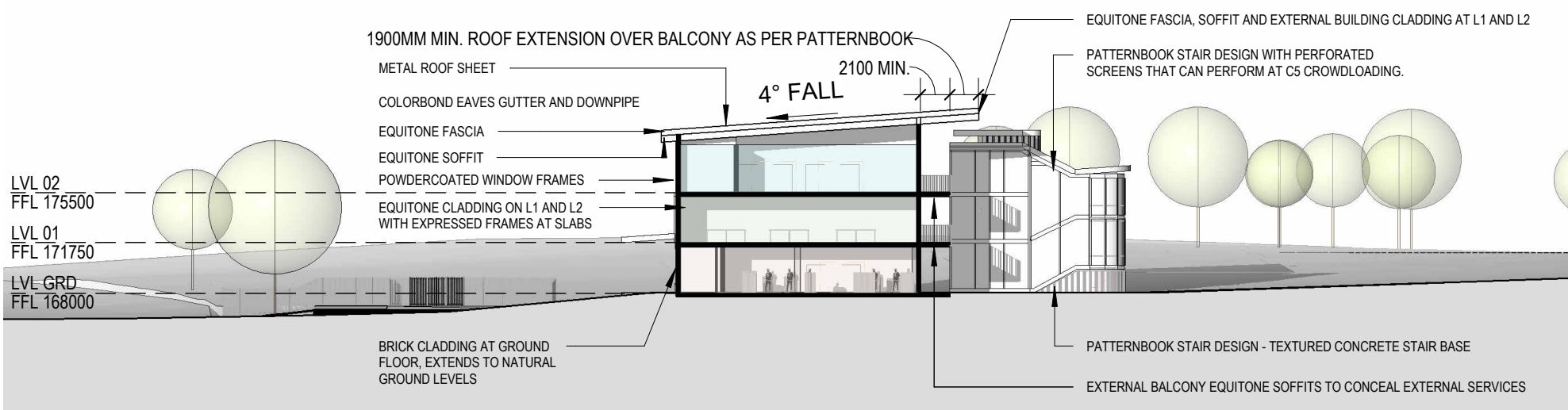
In the foreground of the buildings, this allows opportunity for a landscape buffer at the school entry. In the background, this is further emphasised with the bridge links that connect the buildings lightly, allowing visual connectivity through the buildings to the landscape beyond.

The colour palette for the school facade has been drawn from the natural elements of the area, particularly the scar tree that the project is retaining. The tones for the buildings are strengthened by the different textures, utilising brick at the podium of each of the buildings to provide a grounded presence on the street.

Although Block D is a single storey, double height volume, its siting at the highest point of the site provides visual prominence at the southern boundary and has a strong relationship to the 3 storey buildings on the rest of the high school campus. Requiring large spans and clear ceiling heights for the indoor sports court, the building footprint is simple in form, but the large folder roof provides opportunity for strong architectural character.

Overshadowing

The three storey buildings are sited linearly from North to South with deep set backs from the east boundary. At 9am, the buildings shade the school's landscape courtyard. By 3pm, the buildings overshadow majority of Road 14, and a small portion of the frontage to the residential lots on the east side of Road 14. There are currently no detailed residential plans available for each residence on Road 14 to determine impact of shadow at 3pm.



SHADOW STUDY - 21 JUNE - 9AM



SHADOW STUDY - 21 JUNE - 12PM



SHADOW STUDY - 21 JUNE - 3PM

08 Principle 2 - Sustainable, Efficient and Resilient

The development will be designed to a 5 star Green Star rating with thorough review and calculations by an ESD consultant.

The new buildings will include the following passive design principles:

- Design of facades that respond to the local climate including sun, wind and aspect
- Use of natural ventilation and mixed-mode air conditioning to provide high levels of fresh air with reduced energy input
- High levels of daylight through skylights and windows
- High levels of thermal insulation
- External materials that are robust, durable and low maintenance
- Paints, sealants, adhesives, floor coverings and composite timbers used will be low VOC
- Acoustic separation between different spaces.
- Energy modeling demonstrating a reduction in energy consumption of the proposed building compared to a reference building.
- Facade composition modeling to reduce thermal bridging.
- Energy efficient lighting and smart control systems.
- Energy efficient hot water system
- Metering and monitoring of all services for efficient management
- Water efficient fittings and fixtures
- Rainwater collection and reuse

Further sustainability measures have been included (but is not limited to):

- Building tuning, independent review and commissioning, implementation of Climate Adaption Plan and comprehensive operations manuals submitted during building commissioning.
- Environmental Management plans and systems during construction.
- Mechanical systems designed to minimise pollutants and increase outdoor air inclusion.
- Lighting systems to provide increased comfort, improved uniformity, increased control and reduced glare from lights.
- Blinds, screens and shading devices used to reduce glare to spaces.
- High degree of thermal comfort is provided to occupants in the space, equivalent to 80% of all occupants being satisfied in the space.
- Emissions reductions via prescriptive measures to reduce energy consumption
- Focus on use of sustainable transport including bicycle parking.
- 95% (by cost) of all timber used certified by a forest certification scheme that meets the GBCA's 'Essential' criteria for forest certification; or is from a reused source.
- 90% of waste to be diverted away from landfill during construction for reuse.
- Stormwater systems have been designed to meet reduced pollution and peak discharge targets via OSD tanks and drainage design.
- Lighting systems have been designed to reduce light pollution.

Durable materials throughout the project have been used in conjunction with the Educational Facilities Standards and Guidelines (EFSG) emphasis on minimising maintenance. Facade materials, such as brick and CFC are durable, inert and long lasting while steelwork and balustrades are galvanised to extend their life. Durable, but easily sourced internal materials have been used to allow ease of maintenance from sources near Sydney.



- 1. External Facades** | Low urban heat island impact of external finishes to the new buildings

2. Internal Facades | Prioritising low embodied carbon materials to help reduce solar gain during summer
- 3. Landscape** | Passive shading by retaining mature trees within the internal courtyard and the inclusion of large areas of green space to promote low urban heat island effect

4. Cross Ventilation

09 Principle 3 - Accessible and Inclusive

The proposed design will incorporate Crime Prevention Through Environmental Design (CPTED) to create a safe and secure environment that encourage activity while enabling a greater level of security. The design incorporates the following principles of surveillance, access and space management:

- The school will be located within secure grounds and protected by 2.15m security fencing and access control to entry gates
- A large entry forecourt with open street front visibility
- The school buildings are designed as linear forms with highly visible external circulation balcony and access paths. This enables passive surveillance from within the school grounds by students and staff who will be using the facilities
- Clear sight lines of the building have been maximised and landscaping designed to not obstruct surveillance.
- External lighting will be provided to illuminate external spaces and avoid dark shadows.
- The new school building will be well maintained and will be highly used.

The new building has been sited to ensure equitable access for people with a disability and provide a continuous accessible path of travel, clear wayfinding guidance and the equitable provision of accessible facilities. The new school buildings work will be designed in accordance with the Building Code of Australia (BCA), the relevant Australian Standards (AS 1428, AS 2890.6, AS 1735.12) and the Disability Discrimination Act's obligation of equitable and dignified access.

The main entry will be located along Road 14, which is currently under construction by Landcom. The new buildings will be set at incremental levels to ensure that there is equitable covered access between Blocks A, B and C while following the existing topography. New ramps and stairs will be integrated within the landscape

The set back of Block B and C from the school boundary allows for a generous forecourt entry. New stairs and ramps provide access to the school grounds to create a sense of arrival into the school campus. The new landscape will be designed to provide equitable access across the school campus.

Further consultation is required with SINSW TSG to review safety and security issues for endorsement.

Access provisions that will be considered include:

- Walkways and ramps provided in accordance with AS 1428.2
- Stairs provided in accordance with AS 1428.1, including contrasting slip resistant nosings, tactile ground surface indicators and handrails both sides of stairs
- Minimum clearances provided through doors of 850mm
- Minimum circulation widths and clearances at doors provided in accordance with AS 1428.1
- New doors must have a luminance contrast of 30% provided around doorways in accordance with AS 1428.1
- Visual indicators provided on full height glass windows and doors
- Switches and controls located between 900mm and 1100mm and no closer than 500mm from internal corners
- Accessible toilets and ambulant facilities provided in accordance with AS 1428.1
- Signage in accordance with AS 1428.1



10 Principle 4 - Healthy and Safe

The EFSG requirements for safety and health go beyond the minimum standard required under NCC 2022. The building complies with the following health and safety requirements of the EFSG over and above the NCC:

- Increased height of balustrades to 1300mm.
- Increased gap between columns/downpipes to prevent trapping to min. 75mm.
- Increased daylight transmission to classrooms.
- Increased window sill height to 1m high
- Higher specification of potable water fixtures
- Dedicated student clinic included within administration unit

Over and above these requirements, other key measures have been taken within the design which provide for a safer and healthier environment.

- Full height screening along stair to prevent potential climbing issue on handrails as required by the SINSW Patternbook Design
- Increased lighting and visual comfort via blinds and less reflective surfaces.
- Low VOC paint and adhesives etc to comply with ESD Design principles
- Air conditioned class rooms and offices to provide a healthy environment for students/staff.
- Fencing around the carpark to mitigate potential safety issues for students.

The proposed design will incorporate Crime Prevention Through Environmental Design (CPTED) to create a safe and secure environment that encourage activity while enabling a greater level of security. The design incorporates the following principles of surveillance, access and space management:

- The school will be located within secure grounds and protected by 2.15m security fencing and access control to entry gates
- A large entry forecourt with open street front visibility
- The school buildings are designed as linear forms with highly visible access way and corridors. This enables passive surveillance from within the school grounds by students and staff who will be using the facilities
- Clear sight lines of the building have been maximised and landscaping designed to not obstruct surveillance.
- External lighting will be provided to illuminate external spaces and avoid dark shadows.
- The new school building will be well maintained and will be highly used.

SINSW TSG have been consulted to review safety and security issues for endorsement.

There will be a demarcation of internal fence lines, gates and building façades as the secure lines to separate the Hall and multi-purpose courts from the rest of the school grounds which can offer opportunity for community use, if required. The high school and primary school have been separated by proposed fencing within the site. However, to maximise interoperability between the two schools, there will be landscape design and gates within the fence line for connectivity and linkage.

Vehicular and Pedestrian zones will be delineated by fence lines.

11 Principle 5 - Functional and Comfortable

The 'Neighbourhood Plan No. 1' report prepared by Design + Planning and Landcom notes 4 key design principles for the amenity of North Wilton:

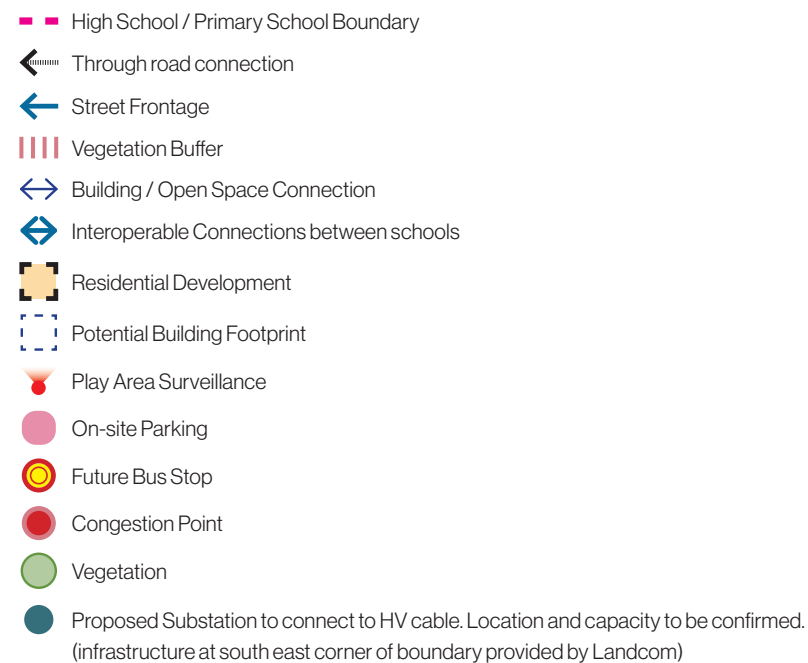
- Residential Densities & Allotment Design
- Open Space
- Movement and Connectivity
- Staging

The early inception of the New High School for Wilton in the precinct presents opportunities to establish strong connections to future infrastructure and facilities proposed in Neighbourhood Plan No. 1 and the projected urban growth.

The siting of the high school in proximity to the primary school along Road 14 promotes strong street presence to the community, particularly the residences currently under construction as part of Landcom Stage 1. The site topography falls from south west to north east. Locating the Hall and COLA on the ridge of the site provides opportunity for gentle terracing towards the playing fields. Further, the landscape design and the retention of existing trees created opportunities for a variety of recreational spaces and seating settings. Locating the Hall and playing fields along the edges of the high school campus also establishes street presence, which encourages out of school hour community use.

Learning spaces, offices and workshop interiors will be designed to provide pleasant and engaging spaces with a varied range of finishes and aesthetics derived from colours from the local natural area. Increased daylight through windows and open balcony circulation aims to increase natural ventilation, visual amenity through natural light and views to the external context in compliance with the EFSG and Greenstar requirements

Ceiling heights in learning and administration spaces are a minimum of 2.7m. This allows for high level windows to maximise daylight ingress and openings to provide constant air flow at high level even if the more accessible windows are closed (depending on weather conditions). The covered walkway to the south provides weather protection along the main circulation spines. Extended roof eaves also provide solar amenity to the windows on the east facades.



1. Future medium density residential development
2. Proposed connecting road to School Entry
3. Existing significant trees to be retained
4. Opportunity for interoperability between Primary and High School through vegetation
5. Wilton Junction Primary School (delivery by others)

12 Principle 6 - Flexible and Adaptable

The SINSW Patternbook provides a framework for modular school that can grow in stages to suite projecting student capacity.

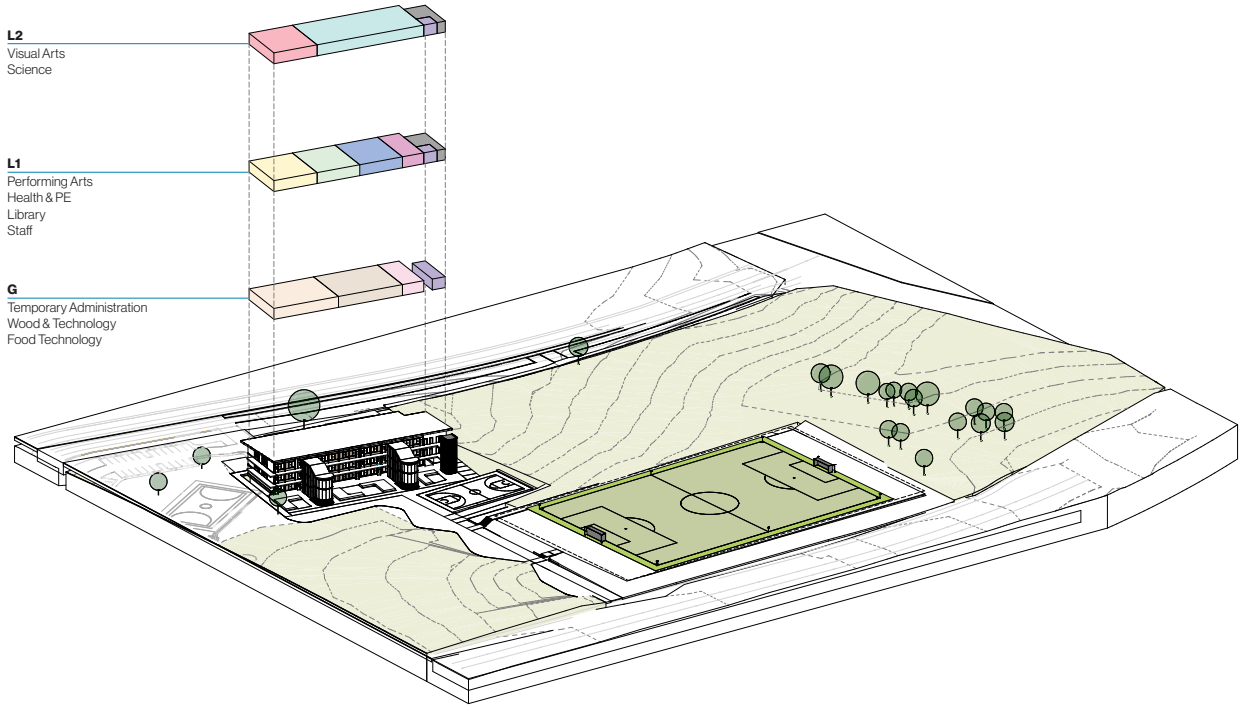
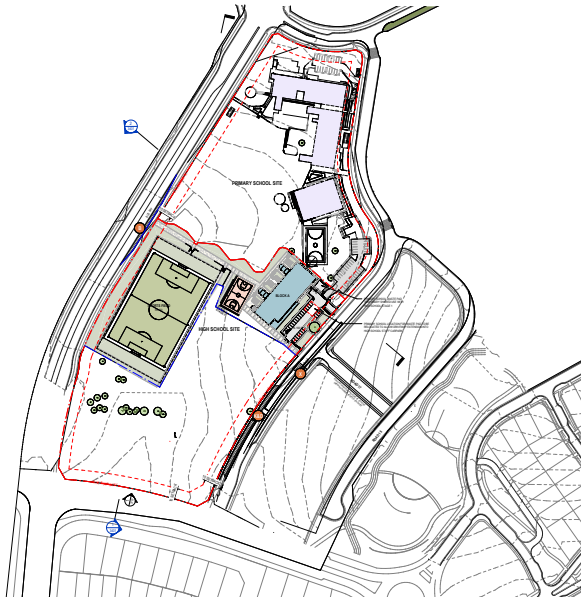
New High School for Wilton will be designed and delivered to accommodate 1000 students as a 'HS1000' school over 2 stages. Stage 1 and Stage 2 will be delivered by Term 1, 2027 and Term 1, 2028 respectively.

The projected population numbers for Stage 1 is approximately 200 students and 23 staff. Although this is considerably less than the smallest school typology in the SINSW Patternbook (HS500), it still needs to provide the core facilities that allow a high school to run their curriculum. This includes Administration, Wood & Metal Workshop, Food & Textiles, Library, Visual Arts, Performing Arts, Health & PE, Science and Amenities.

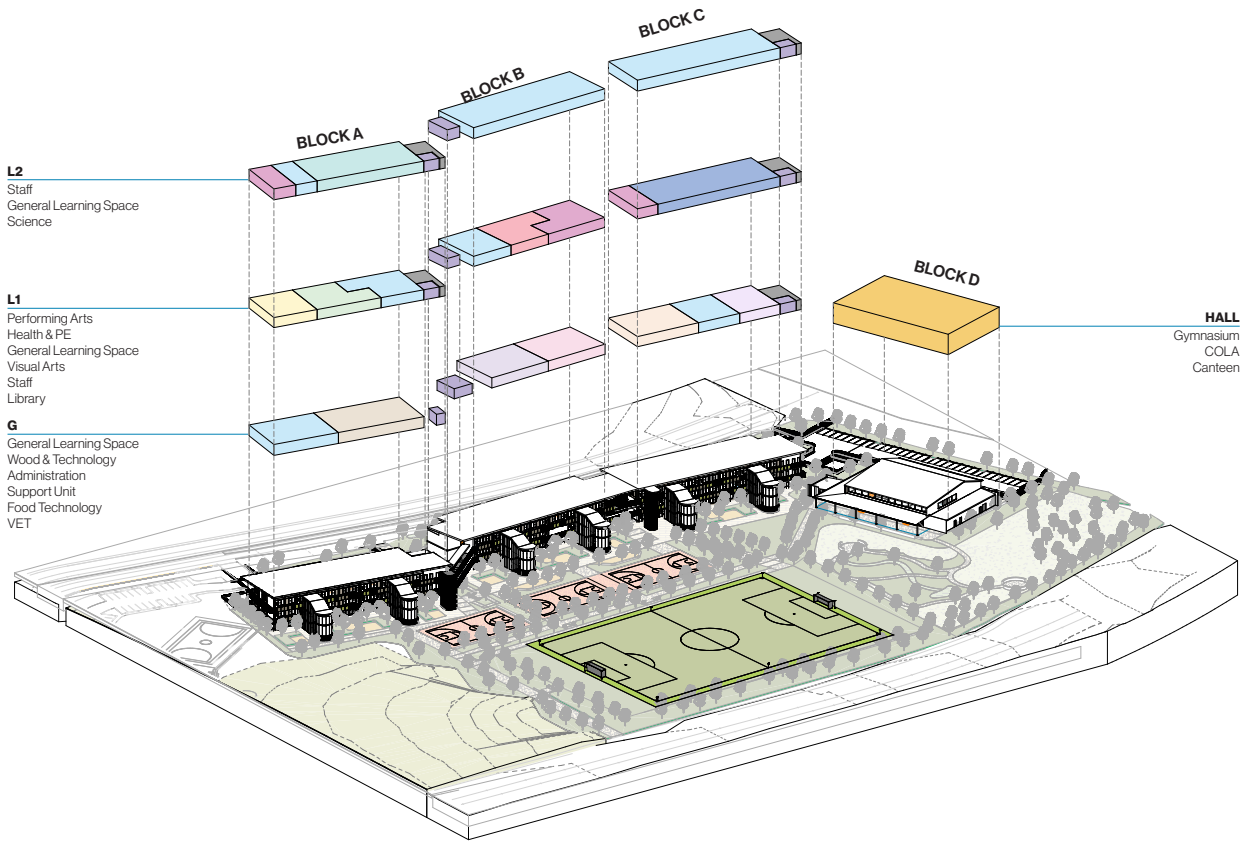
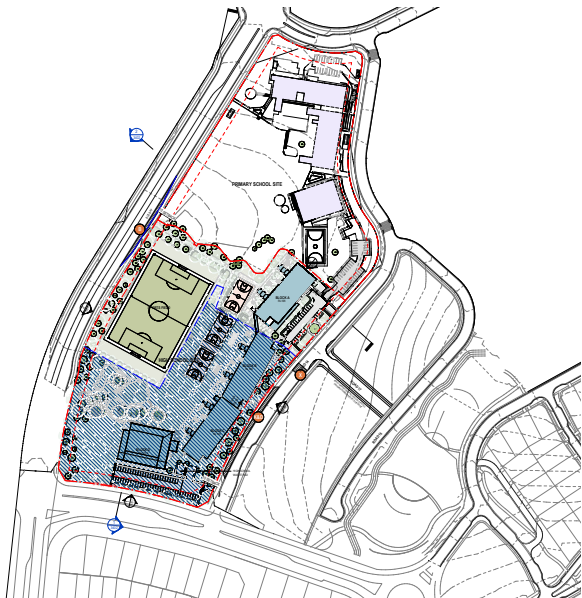
For Stage 1, modified HS500 typologies using 'XS School' and 'S School' learning modules have been strategically used to address the lower student capacity and allow for staged future growth. The placement of the modified learning hubs have been considered to ensure that Stage 2 growth into HS1000 will not result in significant refurbishment or major disruption to the operation of the school.

- General Learning Hub
- Wood & Metal Technology Hub
- Administration Hub
- Staff Hub
- Food & Textiles Hub
- Performing Arts Hub
- Health & PE Hub
- Visual Arts Hub
- Science Hub
- Library Hub
- Sports & Performance Hub
- Amenities
- Services

Stage 1



Stage 2

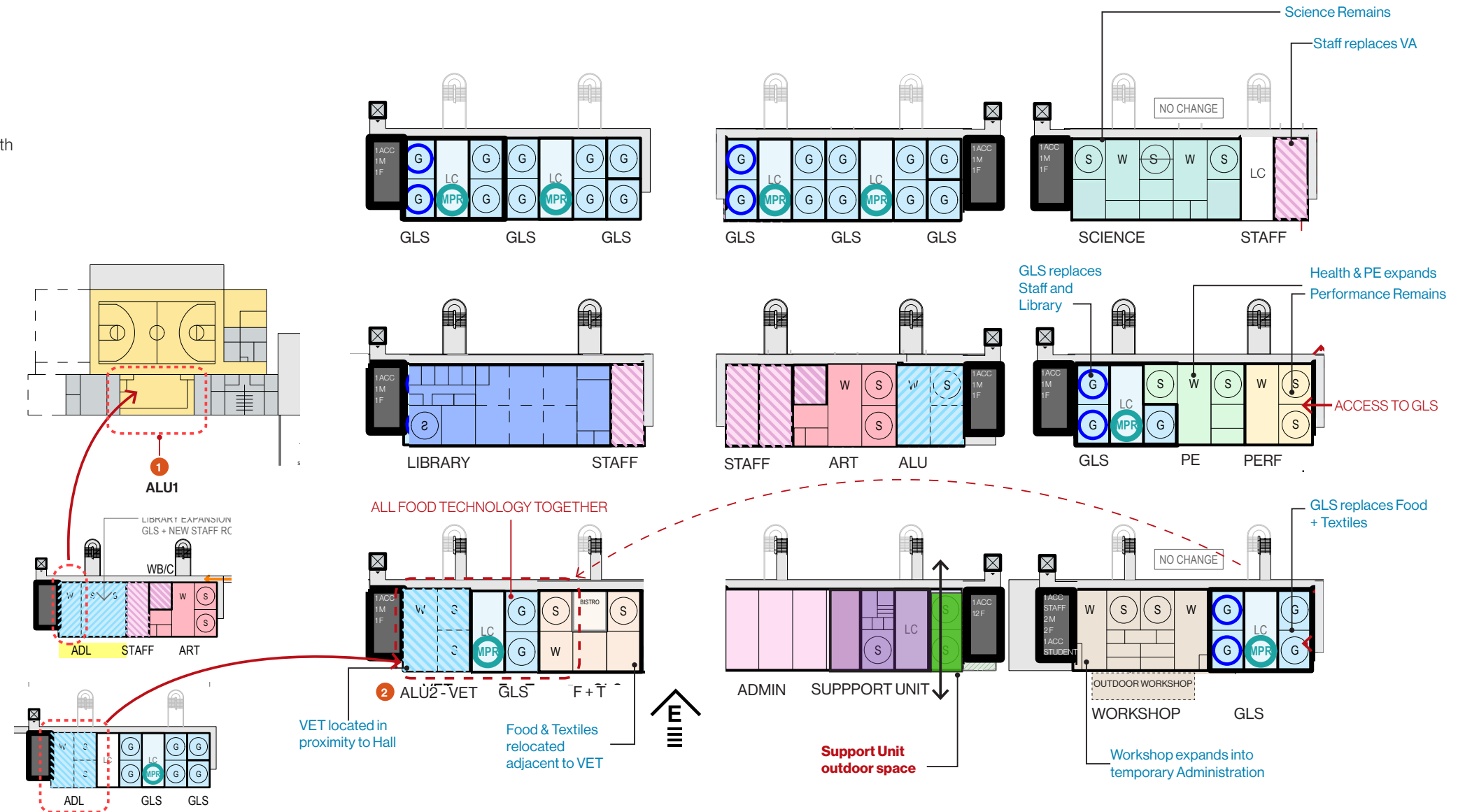


Principle 6 - Flexible and Adaptable

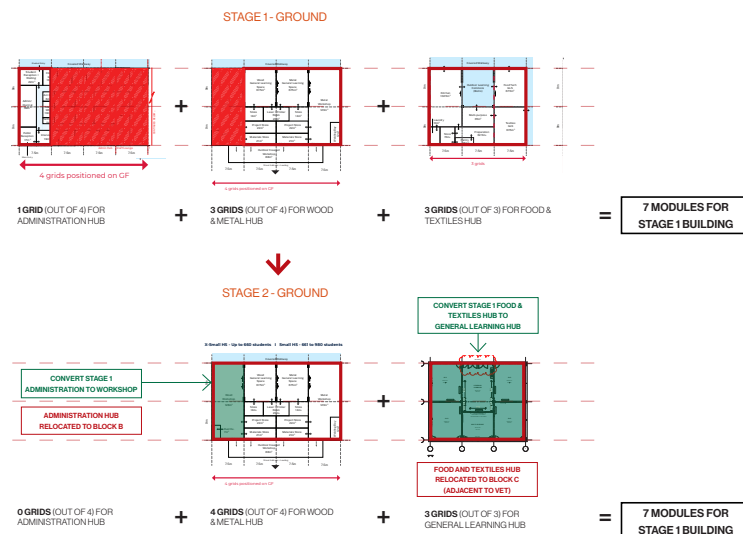
The proposed buildings are based on the Schools Infrastructure NSW standard hub layout concept and the EFSG required areas. Compliance with these standards ensures that the new development is in line with current future focused planning across the public school sector. Rooms are sized appropriately for their current function, while the standardised 7.5x9.0m grid with non-structural walls allows the building to be easily re-planned in future if so required.

The principles for refurbishment between Stage 1 and Stage 2 is to ensure that majority of services and infrastructure can be retained when the learning hub expands to its full capacity.

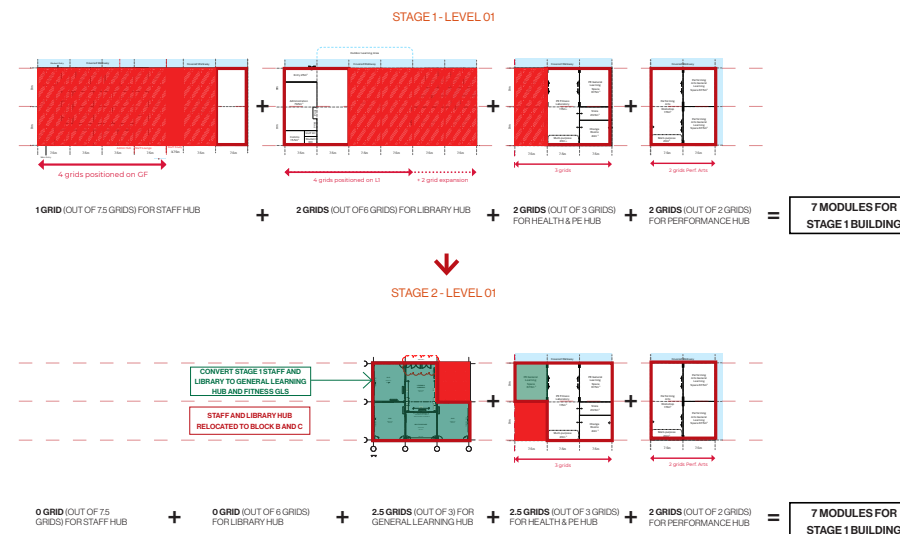
- Refurbishment of temporary administration to metal workshop for the a full sized Wood & Metal Workshop Hub
- Refurbishment of food & textiles hub to General Learning Hub. This will allow co-location of services and infrastructure suitable to these specialist hubs and address stakeholder requirements for kitchen infrastructure to be in close proximity to the Sports & Performance Hub
- Refurbishment of Staff and Library to General Hub to allow for full sized Staff and Library facilities in the Stage 2 buildings and full sized Fitness and Performance Hub in Stage 1
- Refurbishment of Visual Arts Hub to Staff Hub to allow for full sized Visual Arts Hub in the Stage 2 building



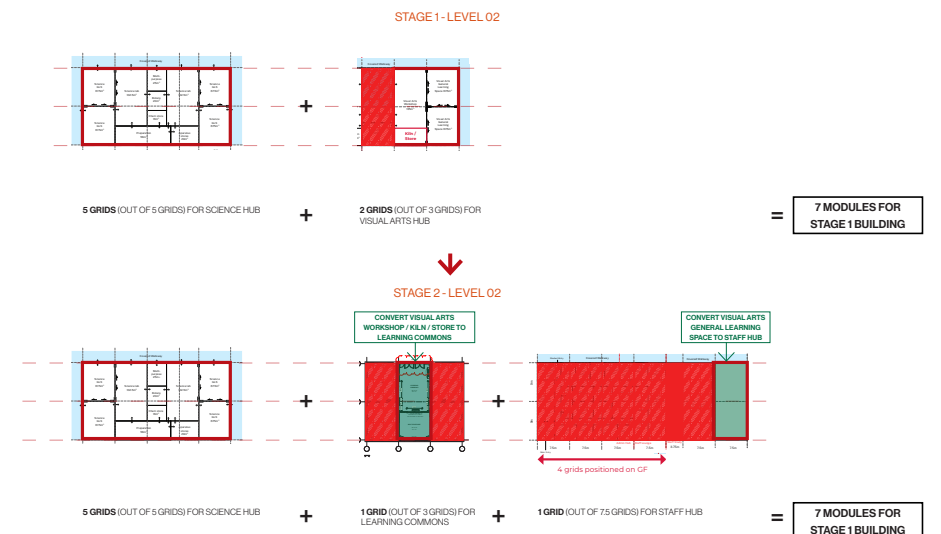
GROUND



LEVEL 01



LEVEL 02



13 Principle 7 - Visually Appealing

Durability

The materials selected for the new building must be durable and not require high maintenance or continual replacement. Thus, there has been a preference for material that have a self or integrated finish to allow for minimal reliance on applied finishes that need to be reapplied in the short to medium term.

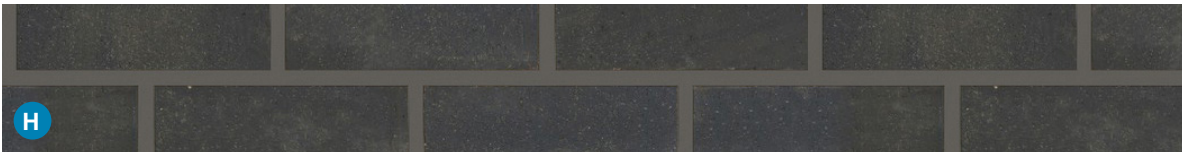
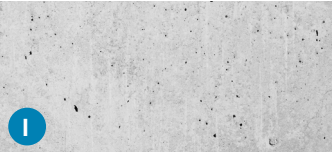
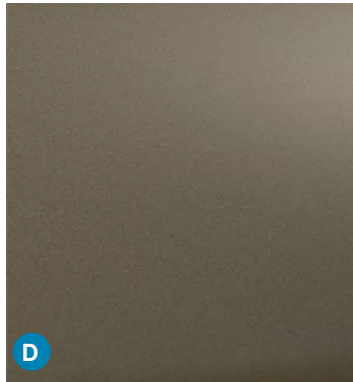
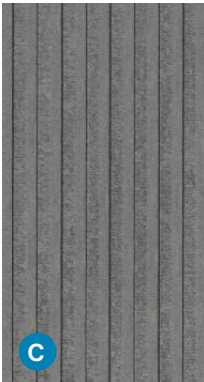
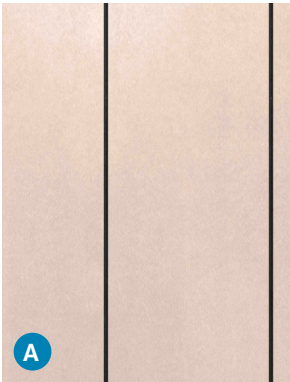
The predominant external materials are brick and a prefinished fibre cement board that has integral colour. The brick podium is robust and responsive to the changing terrain that falls from north west to north east. This provides a base that contrasts with the upper level fibre cement cladding. Using different textures and colours, this becomes the ground for the more playful elements across the linear facade. The colours panels are prefinished and will use a series of natural tones to provide a connection to the surroundings. This material is contemporary and has a wide variety of colours and finishes that will deliver a contemporary approach to the building.

Cost Effectiveness

The proposed materials are all cost effective and do not require considerable expenditure on building enclosure at the expense of the core interior educational spaces. The materials chosen also have a low cost maintenance regime and are all general self finished and do not require ongoing recoating or painting. Use of prefinished fibre cement and neutral coloured bricks provide a suite of materials that have a richness that reflects the culture of the school, yet are cost effective and durable over the long term.

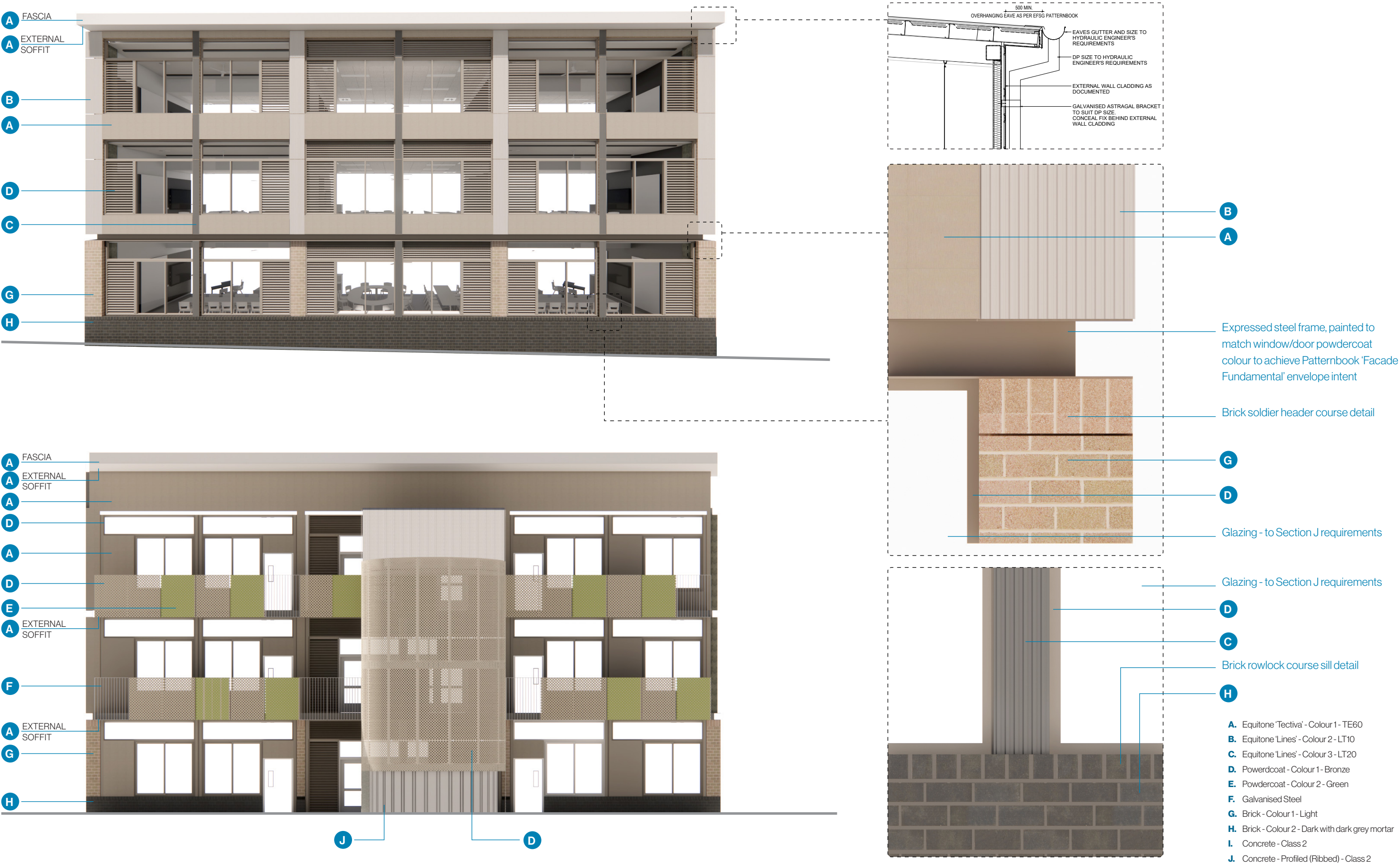
Colour Palette

The colour palette has drawn from the current natural surrounds, particularly the trees and the peeling bark that reveal deep earthy tones beneath the surface. and is mainly muted and softer in tone with a range of darker green and grey neutrals.



- A. Equitone 'Tectiva' - Colour 1 - TE60
- B. Equitone 'Lines' - Colour 2 - LT10
- C. Equitone 'Lines' - Colour 3 - LT20
- D. Powdercoat - Colour 1 - Bronze
- E. Powdercoat - Colour 2 - Green
- F. Galvanised Steel
- G. Brick - Colour 1 - Light
- H. Brick - Colour 2 - Dark with dark grey mortar
- I. Concrete - Class 2
- J. Concrete - Profiled (Ribbed) - Class 2

Principle 7 - Visually Appealing

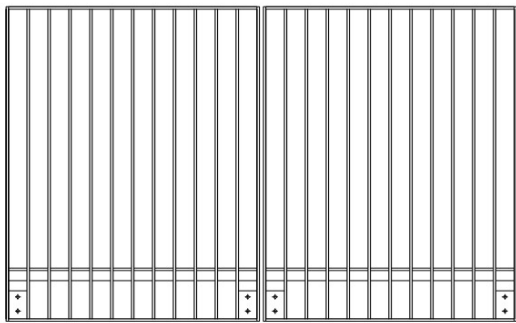


Principle 7 - Visually Appealing

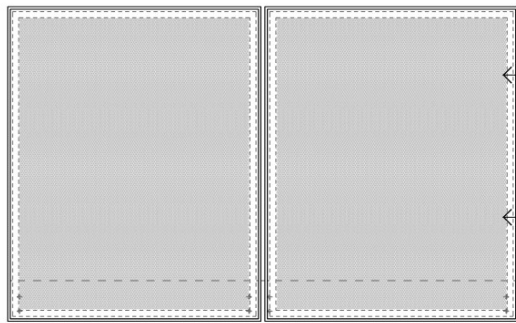
Facade Fundamentals for New High School for Wilton

Item 2.2 Walkway & Balustrade

- 15% linear metres of total project requiring balustrades to be the 'Balustrade - Base Design' - hot dip galvanised steel
- 85% linear metres of total project requiring balustrades to be the 'Balustrade - Perforated Metal Panel' - powdercoated panel



15% Balustrade - Base Design



85% Balustrade - Perforated Metal Panel

Item 2.3 Lift Shaft Finishes

- Textured Concrete

Item 2.5 Circulation Worked Example

- Concrete Stair Base with textured concrete to match lift
- Full height perforated metal stair screen - powdercoated panel



Patternbook Item 2.3
Lift Shaft - Textured Concrete

Patternbook Item 2.5
Powdercoated perforated metal stair screen

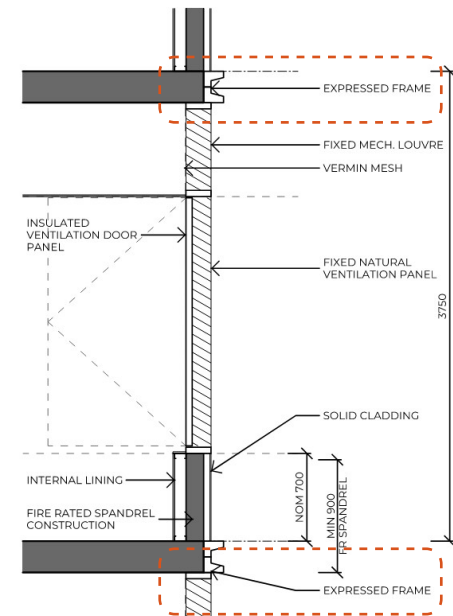
Patternbook Item 2.5
Concrete stair base to match lift (textured concrete)



Include powdercoated perforated screen as balustrade to east and west facades of the 2 linked bridges between Block B and C on all building storeys. Perforated screen to extend and cover slab edge of linked walkway and ramp between Block B and C. Balustrade to extend to perforated screen around stair cores

Item 4.2 Street Facade

- Expressed Frame to building perimeter

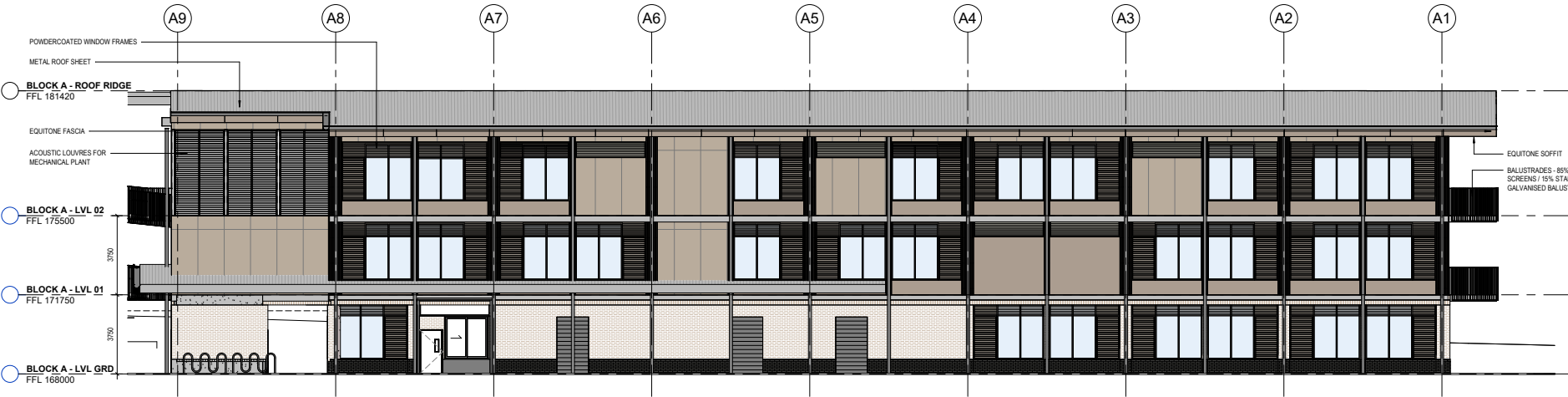


Patternbook Item 4.2
Expressed Frame

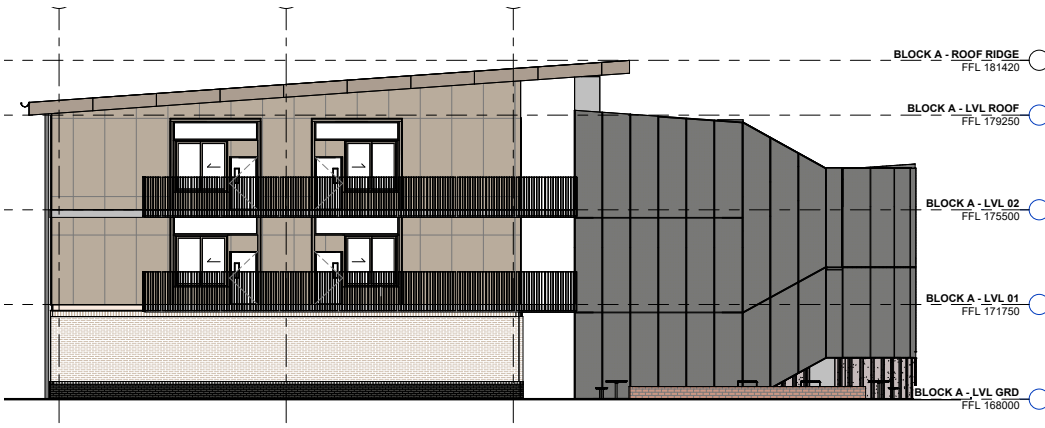


Principle 7 - Visually Appealing

Building Elevations



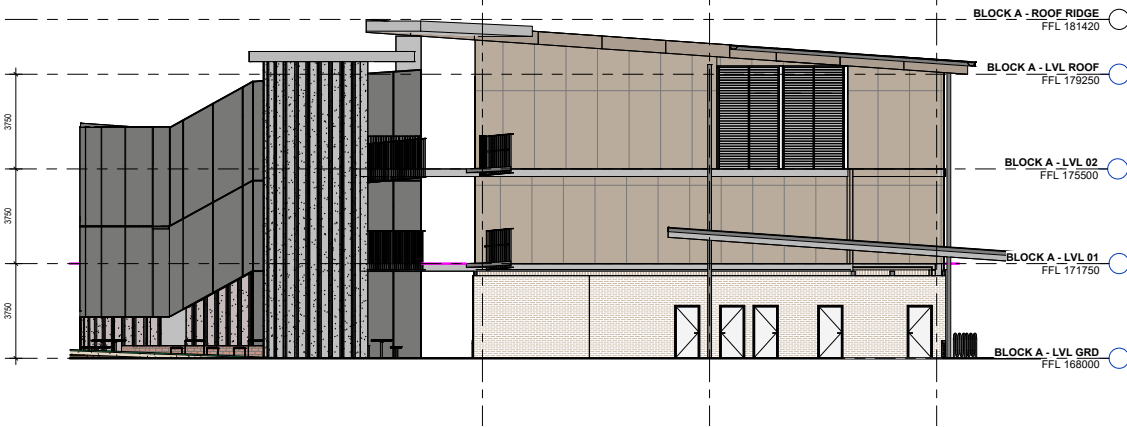
ELEVATION 1 | BLOCK A EAST ELEVATION



ELEVATION 3 | BLOCK A NORTH ELEVATION



ELEVATION 2 | BLOCK A WEST ELEVATION



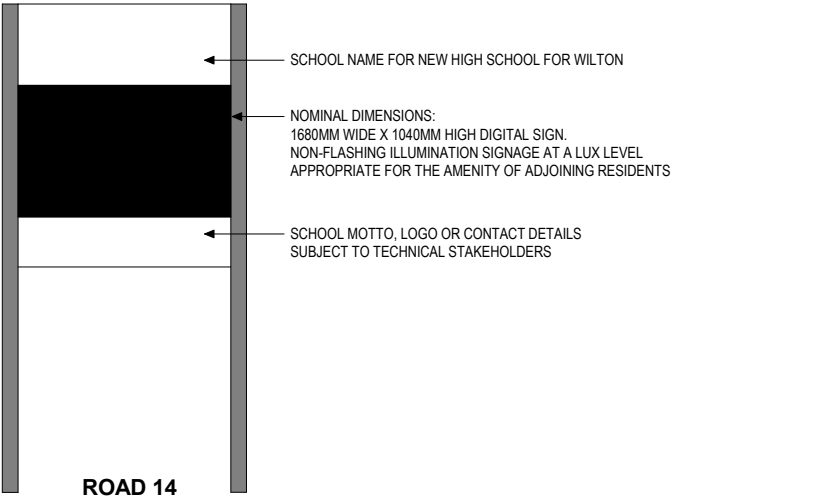
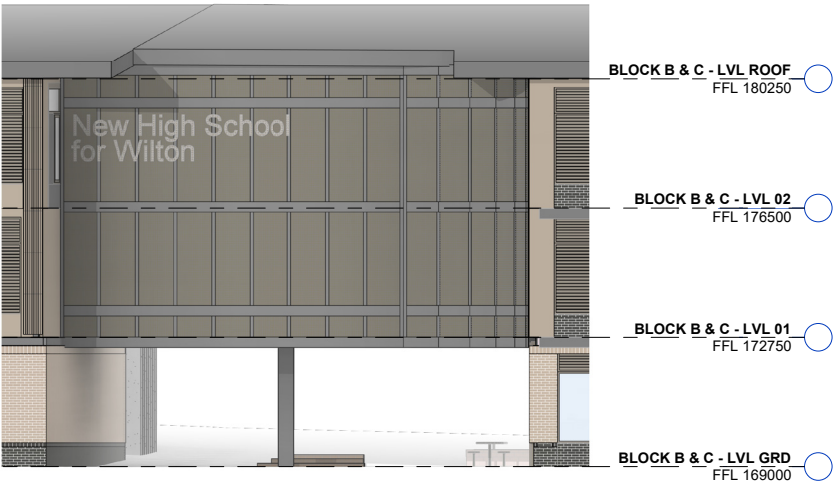
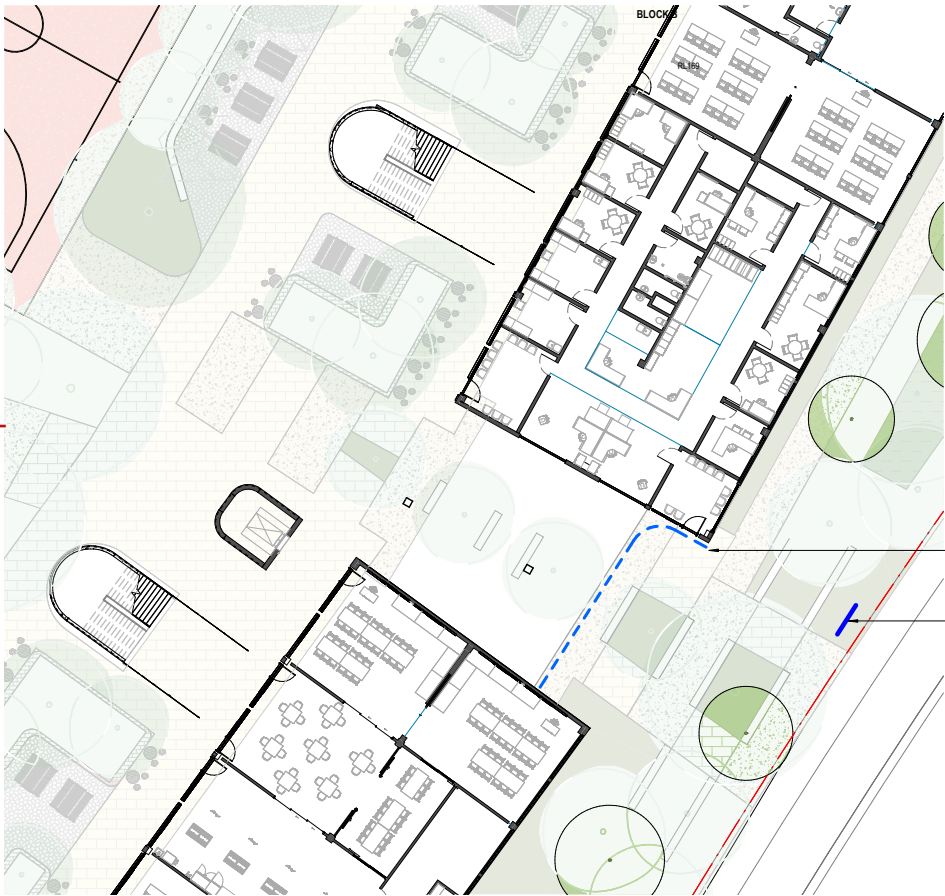
ELEVATION 4 | BLOCK A SOUTH ELEVATION

Principle 7 - Visually Appealing

Main Entry Signage

The main entry for the New High School for Wilton will be located between Blocks B and C. The building links provide opportunity for large format signage with lettering that is visually prominent from the street frontage. This will become a key identifier for the school and could present opportunities for artwork. The materiality and colour of the signage will be compatible with the school colour palette, with considerations of perforated aluminium screens to relate back to the stair design within the school grounds.

There will also be a zone in front of the buildings for School Electronic Signage. This is a key infrastructure for the school to connect with the community, providing a platform for school announcements, key events and milestones.



14 State Design Review Panel

SDRP Comment	Design Response
Consider how Country could inform the built character of the school.	- Location of trees and orientation of buildings to respond with outlook and connection. Location of passive recreation and landscaped seating areas to be responsive to grove of trees. - Buildings have multiple levels and the walkways and links are facing west which provides opportunity for view to mountains and ranges beyond.
Outline the key master planning principles and design moves including responses to the following: - future built context - future street grid - connection to the future local centre - connections to public transport - views to and from the site - entry experience from the east - existing topography	- Concept design to incorporate updated information from Landcom on development context. - Concept design to incorporate updated information from Landcom on proposed new road networks. - Concept design to incorporate updated information from Landcom on development context and proposed transport infrastructure designs. - Concept design to demonstrate elevation treatment and landscape design at street frontage - Concept design to demonstrate elevation treatment and landscape design at street frontage and entry with connections to internal courtyard. Landscape and façade treatment to distinguish entry area and highlight public interface through pavement, material selection/colour and planting. - The existing landform influences the position of the buildings along the street front and the difference between the three main buildings and the hall location. The landscape design will consider the level differences and incorporate various seating, steps and ramps to offer a range of connections from the lower levels up to the hall frontage and sports field adjacent.
Explore rotating the Stage 1 building to be oriented east west to achieve the following: - Define distinct outdoor areas for the primary and high schools which are more sheltered and achieve a greater sense of containment. - Provide a range of external spaces that cater to diverse modes of play including active and passive play or socialising. - Reduce the extent of fencing between the two schools by creating a secure line formed by the Stage 1 building - Improve the energy performance of the Stage 1 building by minimising the extent of the façade exposed to the solar heat load from the west. - Decrease the distance from the bus stop to the school building. - Improve the entry experience from the east by enabling the reorientation of staff parking and creating a better pedestrian connection from the street.	- An east west orientation of Building A is difficult to achieve with the topography. The buildings are currently positioned to follow the contour. A change of 90 degrees would impact levels, encroach on the sports field and create complex connection to adjacent Building B. Furthermore the buildings are aligned along the street front to continue the planning principle established by the Primary School and provide ease of connectivity between the schools to promote the interoperability that is desired for the future operations of both schools for stage 1 and stage 2. - A defined outdoor space at the northern end of the High School could be explored in the concept development through use of shade structures, landscaped terrace and walls. - Landscape design to develop variety of outdoor learning and recreational spaces. Opportunities are at spaces between stairs in front of teaching and learning buildings, upper terraces between sports field and lower areas adjacent to buildings, area around grove of trees and lawn adjacent to entry court. - Secure fence line design and materiality can be developed in Concept phase. A range of fence types, height, garden walls, shade structures can all be incorporated along the north /south zone between the HS and the PS. - The length of the west façade of each building is facing west. The pattern book design dictates that walkways and roof overhang are on the west side. The 2.1 deep walkway provides protection to the façade of each level and the roof overhang at the top level is 4.9m which will provide shade to the top level walkway. The east façade is protected by the eave overhang (500mm) and windows are not impacted by direct sunlight in the morning. - Concept phase will develop landscape design and entry pathways on the eastern side.
Increase the distance between the buildings along the eastern boundary and the multi-purpose courts to create a more meaningful passive outdoor space directly connected to the ground-level spaces in the buildings. Use this space to plant more mature trees to assist with mitigating the heat load on the western facades.	Concept design to incorporate this into the landscape design.
Continue developing the design of level changes across the site, including the following: - Improve the area between buildings, particularly between the school hall and Block C, to provide a more direct and accessible connection between buildings. - Utilise the level changes as opportunities to create interstitial zones for gathering.	- Access path closely linked to building C and the Hall to be included as a covered way. - Landscape to integrate more detailed design of seating and recreation spaces to incorporate level changes.
Move the school hall further north to increase its distance from the carpark and to allow additional tree canopy and shade to the carpark:	Noted and to be incorporated in Concept design.
Consider combining the play fields for both schools to: - provide opportunity to create a diversity of outdoor gathering and play space Provide more detail on selected planting species, ground surface materials, and the extent of permeable surfaces, beyond the provision of sporting zones only - improve accessibility across the site. The location and size of the proposed sports fields create significant constraints on the ability to navigate level changes across the site.	- Noted. Landscape design to accommodate a variety of ramps and terraces for more gentle and equitable access for navigating level changes. - Ensure permeable surfaces are integrated into the material design for the landscape precincts.

State Design Review Panel

SDRP Comment	Design Response
Ensure the levels around the existing trees are retained and protected during construction.	Noted. Landscape design prioritises the grove of trees and a protective zone at the base level is the starting point for subsequent landscape areas and terracing.
Specify the type and extent of fencing on the plans. When possible, use buildings or landscaping features as secure boundaries. This is especially important for fences identified within the site, such as: - along the path from the bus stop that separates the two schools - the shared sports field - the exclusion area in the southwestern part of the site.	Secure fence line design and materiality can be developed in Concept phase. A range of fence types, height, garden walls, shade structures can all be incorporated along the north /south zone between the HS and the PS. This principle can be adopted around the sports field and other fenced areas within the school property
Demonstrate how the design prioritises active transport, such as cycling and walking	Bike parking locations to be demonstrated on plan
Provide additional shade and weather-protected areas that are appropriately sized for the expected	Extensive tree planting is proposed. This is a long term strategy. It is noted that interim systems such as shade structures will be incorporated in the proposal.
Demonstrate how the design of the west-facing facades mitigates solar heat load, considering the predominantly north south orientation of school buildings and that the skillion roofs rise to the west, increasing the extent of facade area exposed to western sun.	Façade is protected due to deep verandah walk ways along the entire west façade. Top level roof overhang of 4.5m provides shade top upper level.
Illustrate how the project will contribute to NSW's Net Zero emissions goal by 2050. Refer to 'NSW, DPIE, Net Zero Plan, Stage 1: 2020-2030' for further information.	Sustainability principles applied to the design and Greenstar to adopt strategies consider the targets.

15 Mitigation Measures - Architecture

Aspect	MM ID	MM Name	Mitigation Measure	Timing
General	GMM3	Australian Standards	All works must comply with the relevant Australian Standards.	Throughout
Visual & Amenity	VAMM1	External Materials	The selection of external colours, materials or finishes of the building(s) should aim to minimise impacts on visual amenity and ensure there is no increase in impacts identified the visual amenity assessment in the REF.	Design
Sustainability	SCMM1	Green Star Building Certification	Green Star Building certification must be obtained demonstrating that the activity achieves a minimum 5 star rating. Evidence of the certification must be provided to the DoE Sustainability Team.	Within 12 months of commencement of Operations

16 RENDERS

Main School Entry



View from the Sports Courts



RENDERS

View from Block C looking at Gymnasium



RENDERS

View from Gymnasium COLA looking North



RENDERS

Aerial View of New High School for Wilton

