



**GROUP USA**

Architecture  
Interior Design  
Landscape Architecture  
Urban Design  
Graphic Design

# ALEX AVENUE PUBLIC SCHOOL

Urban Design Report

Department of Education. — February 2019



# AIMS & OBJECTIVES

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This Urban Design Report has been prepared by GroupGSA as delivery Head Design Consultant (HDC2) that includes information and images prepared by Hayball (HDC1) on behalf of the Department of Education (DoE).

Hayball has previously prepared the Concept Design Report, for which this Report is based, on behalf of the DoE which formed part of the business case. This Urban Design Report is a record of the design evolution of the preferred option previously submitted in the Concept Design Report, and addresses

Site Analysis, design excellence parameters outlines in the Secretary's Environmental Assessment Requirements for the submission for a State Significant Development Application.

This report has been prepared in collaboration with:

TSA – Project Managers

GroupGSA - Architect

URBIS - Planners

GroupGSA - Landscape Architects

## List of abbreviations

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- DoE** Department of Education
- EFSG** Educational Facilities Standards and Guidelines TSG - Technical Stakeholders Group
- PMO** Project Management Office
- ICT** Information and Communications Technologies WHS - Work Health and Safety
- FM** Facilities Management
- AMU** Asset Management Unit
- HDC** Head Design Consultant
- PRG** Project Reference Group
- COLA** Covered Outdoor Learning Area
- BCA** Building Code of Australia
- AS** Australian Standards
- DDA** Disability Discrimination Act

Issue	Title	Date	Prepared	Checked
1	SSD Submission	25.01.19	JD	MP
2	SSD Submission	01.02.19	JD	MP
3	SSD Submission	04.03.19	JD	MP
4				
5				
6				
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8				

# INTRODUCTION

The philosophy of our team is firmly based on this understanding of the fundamental importance of education. Our practice offers unrivaled education knowledge and expertise.

At GroupGSA, we are motivated to design these spaces – from early learning centres and schools to tertiary institutions and specialised training facilities - because we are passionate about the power of education and knowledge.

GroupGSA has worked continuously in the education sector with recent projects seen as industry leading and including the latest pedagogical practices. We are at the forefront of the latest sector knowledge and current industry trends.

Our team understand the challenges inherent to learning organisations in this era of change, in which people seek personal yet inclusive spaces, communities expect more from institutions, and learning styles and needs continue to evolve.

We understand that to embrace these challenges takes an education partner who is experienced, diverse, reliable and passionate.

Shown is a selection of recently completed GroupGSA work in the education sector.



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# 1.1 PROJECT DESIGN STATEMENT

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## **We are committed to designing a future focused school that is learner centric and meets the requirements of Alex Avenue Public School.**

The design is a result of a collaborative process with the school, the DoE and interdisciplinary reviews.

An engagement with the school and its educators was undertaken through:

- Education Workshops with Dr Julia Atkin
- Mini design workshops
- Virtual tour of a future focused school including: live walking tour via Skype, interactive and in depth exchange between educators of the future focused school and educators of Alex Avenue Public School
- Precedent studies
- Fortnightly PRG

Collaboration also occurred with :

- The PRG including the Director of Schools, the School Principal, educators, P&C representative and Asset Management Unit representative
- DoE Technical Stakeholders Groups
- DoE Program Control Group
- Quantity Surveyor

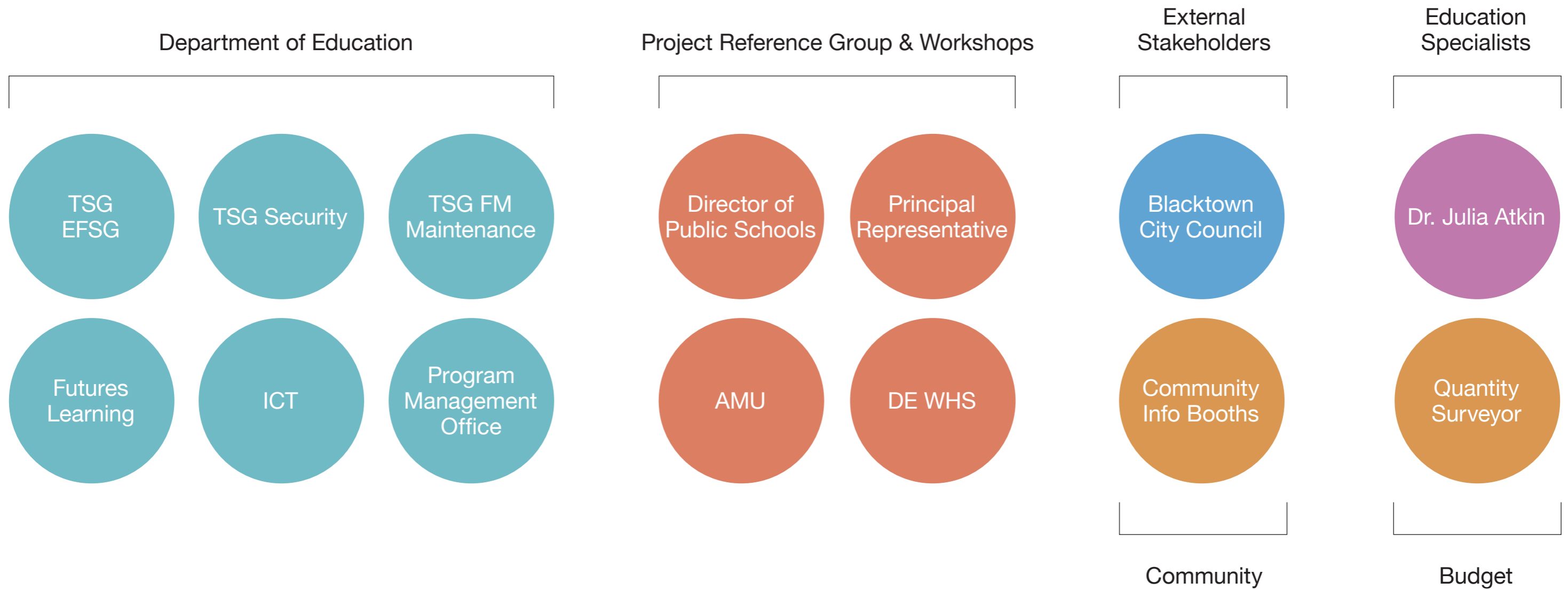
In addition to the above stakeholder workshops, we also conduct regular internal design workshops were undertaken throughout the process to ensure the most learner centric design was delivered. This included the following internal reviews:

- Learning space design reviews with Dr Julia Atkin
- Interior design
- Outdoor learning space
- Quality management – Safety in Design



## 1.2 A COLLABORATIVE DESIGN PROCESS

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# 2.1 LOCAL CONTEXT - SITE PLAN

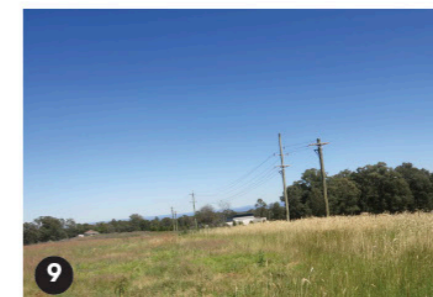
- Address – Farmland Drive, Schofields, NSW
- Total Site Area – 20,000 sqm
- Local Government Area – Blacktown City Council
- Existing Site – The site for the new Alex Avenue Public School is situated between Schofields Rd, Alex Avenue and Railway Parade in Schofields within Blacktown City Council. The proposed site is located on a 2 hectare greenfield block of land, currently zoned as SP2 Infrastructure Zone. The proposed site is surrounded by low and medium density residential areas. There is a large recreation park and sport oval proposed to the east of the school site and a large commercial/ mixed use precinct further south of the site. Schofields Train Station is located around 1km south of the site.
- Planning Controls – State Environmental Planning Policy (Infrastructure) 2007, Blacktown Development Control Plan 2015 (BDCP), State Environmental Planning Policy (Sydney Region Growth Centres) 2006
- Closest bus stop is located within a walking distance of 1.3km east and train station is located west of the site within 1km walking distance.



- LEGEND:**
- Parkland
  - Authority/Government
  - Community Facilities
  - Schools
  - Commercial
  - Highways
  - Bus Stops and train station

## 2.2 LOCAL CONTEXT - EXISTING CONDITIONS

1. View looking west from Famland Drive
2. View looking east from Famland Drive
3. View looking south from Famland Drive
4. View looking east from north-west site corner
5. View from within the site looking south towards the tree canopies
6. View from within the site looking east
7. View from within the site looking south towards the tree canopies
8. View looking east from north-west site corner
9. View from within the site looking west
10. View from within the site looking south
11. View from the west site boundary looking north-east



## 2.3 SITE CONTEXT, LANDSCAPE AND SITE ACCESS

The master plan proposals respond to a number of opportunities which the site provides. These include; the opportunity to create a connection to the public oval and recreational fields from the school site, an interconnected built fabric to the natural landscape of the southern boundary of the site and an opportunity to create a prominent street address at the corner of the site. Two pedestrian entries are proposed from Famland Drive and Pelican Road.



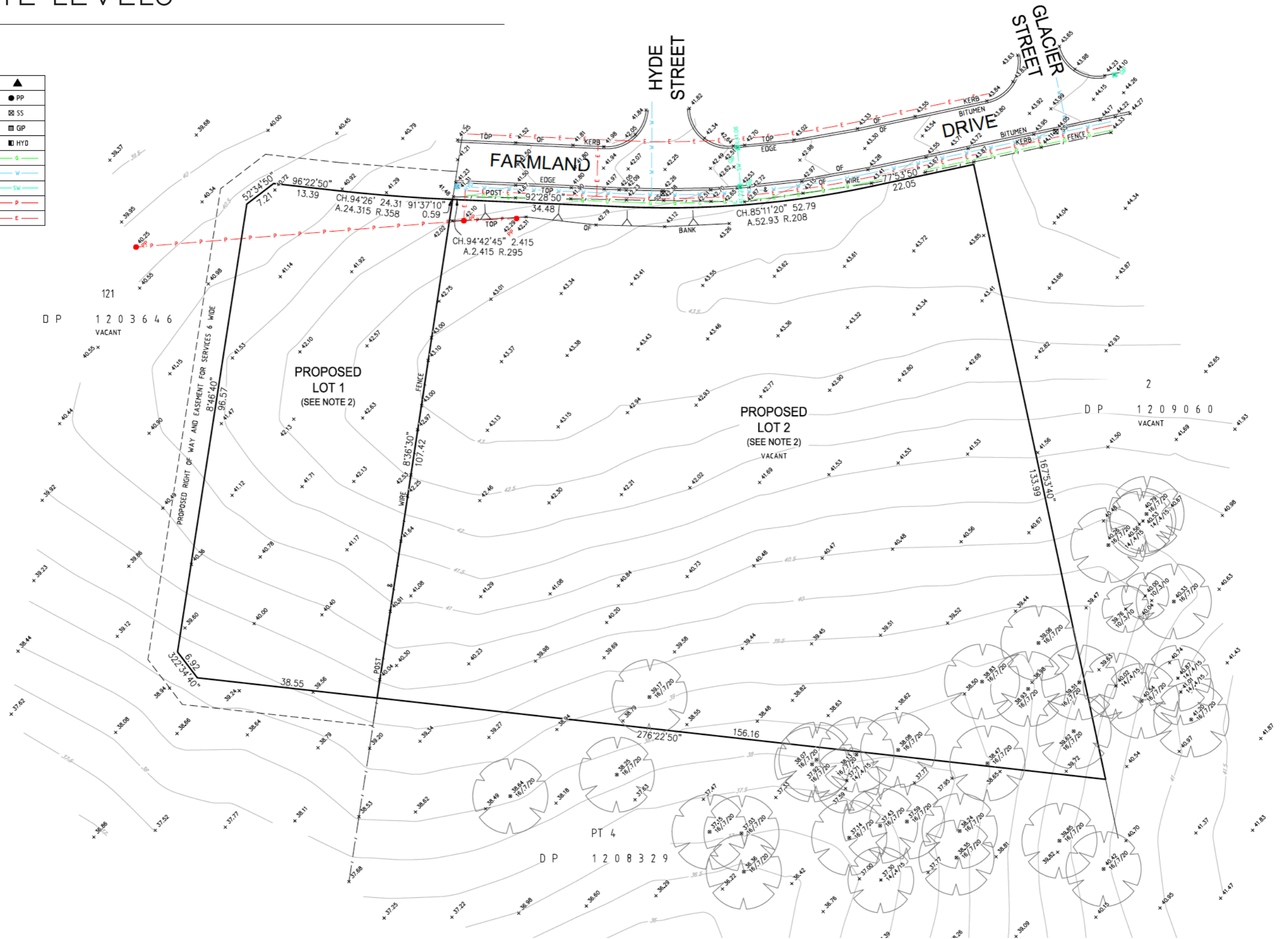
- LEGEND:**
- Site Boundary
  - Pedestrian & Shared Circulation
  - Vehicle Circulation
  - Potential Linkage to Future Recreational Park / Sports Field
  - Existing Bus Stops
  - Proposed Site Entrances
  - Existing Trees & Vegetation
  - Outlook



# 2.4 SITE LEVELS

LEGEND

BENCH MARK	▲
POWER POLE	● PP
STREET SIGN	⊠ SS
GRATED INLET PIT	⊠ GIP
HYDRANT	■ HYD
GAS (DBYD)	— G
WATER (DBYD)	— W
STORMWATER (DBYD)	— SW
ELECTRICITY (OVERHEAD)	— P
ELECTRICITY (UGROUND) (DBYD)	— E



# 3.1 MASTERPLAN ASSESSMENT

As part of the 'Master-planning Phase' 3 masterplan options were presented for consideration by the Project Reference Group and Client Stakeholders. The three design options were assessed based on the established project specific Education Principles and Design Principles which were developed with the Project Reference Group. The 3 proposed masterplan layouts are charted and scored against the matrix of principles in order to achieve the best design outcomes for the school as per their 'project vision'. This also ensures the final design embodies the first principles which we have established together with the school.

As part of this process, it was established that 'Option C' provides the most opportunities for the school and is most in-line with the school's vision for their future community. Some of the key elements of 'Option C' which scored highest in relation to the school's vision included;

- Consideration of the future changes to the surrounding context (due to the unknown time-frame for the construction of Pelican Road)
- 'Enhanced Learning' and 'Interconnected Landscape' through shared community use of outdoor spaces
- Enhanced 'Welcome to the Community' through joint-use opportunities of facilities
- Reduced 'Environmental Impact' and 'Value' due to spatial efficiency due resulting from shared use of car-parking
- Based on this assessment, 'Option C' masterplan was selected to proceed into the Schematic Design phase.

Criteria	Option A	Option B	Option C
<b>Welcoming to the Community</b> <ul style="list-style-type: none"> <li>- Create an urban welcome mat and inviting experience into the school campus.</li> <li>- Provide multi-function spaces that can also welcome and facilitate better community use.</li> <li>- Create safe, inclusive spaces for all types of students that promote wellbeing.</li> </ul>	✓✓	✓	✓✓✓
<b>Enhanced Learning</b> <ul style="list-style-type: none"> <li>- Provide learning settings that support and enhance a full range of teaching activities from individual, to one to one, to small group, to larger group learning.</li> <li>- Provide spaces that support disciplinary and interdisciplinary learning.</li> <li>- Provide bespoke defined specialist learning spaces readily accessible from the general learning spaces</li> <li>- Provide a level of acoustic separation that suits the intended learning setting.</li> <li>- Create seamlessly interconnected spaces that promote indoor and outdoor learning on a range of scales.</li> <li>- Provide enhanced amenity to all new learning spaces in terms of light, air and visual permeability.</li> <li>- Re-imagine traditional learning spaces such as libraries as contemporary learning spaces for collaboration and engagement.</li> <li>- Provide opportunities for community engagement to enhance learning outcomes</li> </ul>	✓✓	✓✓	✓✓✓
<b>Interconnected Landscape</b> <ul style="list-style-type: none"> <li>- Enhance site wide interconnection and equitable access.</li> <li>- Create specialist precincts across the campus such as indigenous edible gardens and community kitchen garden.</li> <li>- Create weather protected outdoor rooms which incorporate defined learning functions.</li> <li>- Create opportunities for shared community use of landscape and sports courts</li> </ul>	✓✓	✓	✓✓✓
<b>Support + Better intergrate Staff</b> <ul style="list-style-type: none"> <li>- Create a centrally located staff hub to facilitate cross cultural learning and a sense of belonging.</li> <li>- Create a leadership centre where professional learning and data monitoring can occur.</li> <li>- Provide facilities that enable teachers and support staff to collaboratively plan and research, supporting innovative learning.</li> <li>- Provide a range of spaces that also include both open plan and more cellular space for more sensitive activities.</li> <li>- Provide teacher resource trolleys and defined usable collaboration spaces collocated with the learning environments.</li> </ul>	✓	✓	✓✓✓
<b>Growth</b> <ul style="list-style-type: none"> <li>- Facilitate predicted growth into the future.</li> <li>- Create a masterplan which is adaptable to future changes of the surrounding context.</li> </ul>	✓✓	✓✓	✓✓
<b>Environment</b> <ul style="list-style-type: none"> <li>- Encourage sustainable transport wherever possible.</li> <li>- Utilize construction methodologies that have a reduced carbon footprint.</li> <li>- Recycle, reuse, reduce wherever possible.</li> <li>- Minimal acoustic impact to the surrounding residences.</li> <li>- Minimise traffic impacts</li> </ul> <p>The building works should act as a teacher and contribute to learning outcomes. Key strategies include:</p> <ul style="list-style-type: none"> <li>- Place any ESD systems in highly visible locations so that they can be interpreted.</li> <li>- Specify built fabrics that change, weather and age gracefully.</li> <li>- Investigate tectonic building approaches so that the way the building has been made can be clearly understood and explained.</li> </ul>	✓✓	✓✓	✓✓✓
<b>Value</b> <ul style="list-style-type: none"> <li>- Opportunities for shared use of council facilities.</li> <li>- Spatial efficiency</li> </ul>	✓✓	✓✓	✓✓✓
<b>Total</b>	<b>13</b>	<b>11</b>	<b>20</b>

# 3.2 MASTERPLAN OPTIONS



**Option A**

**OPPORTUNITIES**

- Location of the Core Facilities creates street presence on the future Pelican Road.

**CONSTRAINTS**

- Construction timing for Pelican Road is unknown. This provides uncertainty in regards to the operation of the school entry location in the first few years of the school operating.
- Vehicle access to the School Hall is required for delivery vehicles, refuse collection and accessible car parking for visitors. Prior to Pelican Road being constructed, vehicle access into the school hall will require an additional service road being constructed alongside Pelican Road.
- The removed location of the hall and administration blocks from the public oval constrains any shared use opportunities as well as passive surveillance between the public spaces and school site.
- The location of the main learning building and learning courtyard along Farmland Drive may pose acoustic concerns given the proximity to low density residential housing.
- Locating the main school entry on a potentially busy road 'Pelican Road' creates safety concerns for pedestrians



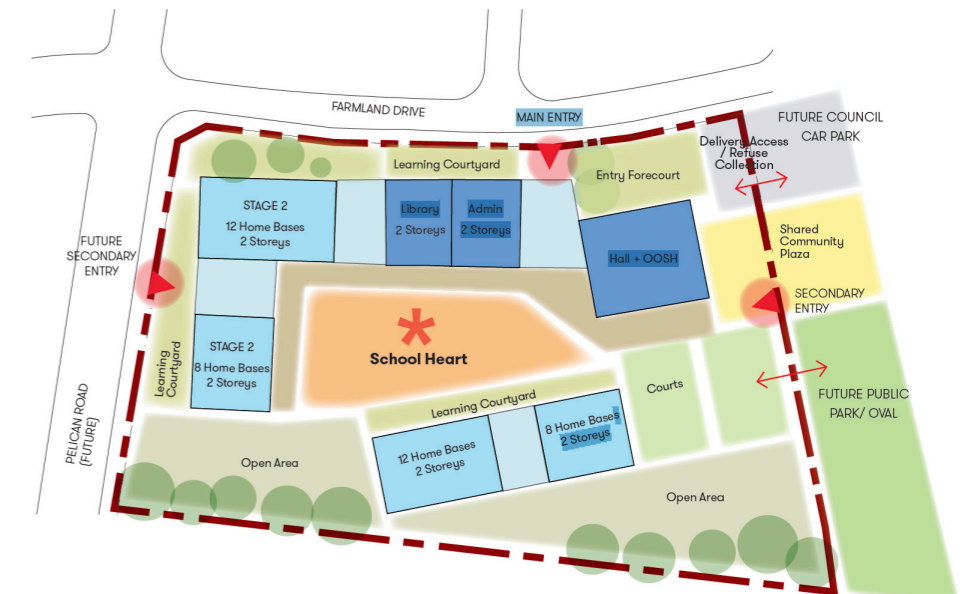
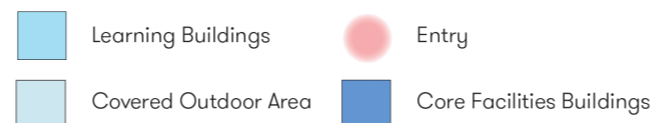
**Option B**

**OPPORTUNITIES**

- Location of the Core Facilities creates street presence on the future Pelican Road.

**CONSTRAINTS**

- Construction timing for Pelican Road is unknown. This provides uncertainty in regards to the operation of the school entry location in the first few years of the school operating.
- Vehicle access to the School Hall is required for delivery vehicles, refuse collection and accessible car parking for visitors. This creates a vehicle zone on the prominent corner of Pelican Road and Farmland Drive.
- The removed location of the hall and administration blocks from the public oval constrains any shared use opportunities as well as passive surveillance between the public spaces and school site.
- The location of the basketball courts alongside Farmland Drive may pose acoustic concerns given the proximity to low density residential housing.
- Locating the main school entry on a potentially busy road 'Pelican Road' creates safety concerns for pedestrians.



**Option C (Preferred Option)**

**OPPORTUNITIES**

- Provide two entry points- one on Farmland drive and a secondary entry on the future Pelican Road.
- Locating the Core Facilities adjacent to the public park and oval creates a community presence and welcoming entry for the school hall.
- Create shared-use opportunities between the council assets and the school, including; shared use of the school hall after hours, the school basketball courts, the council oval and the council car park.
- Opportunity to create a shared community 'plaza' between the school hall and the council park/ oval.
- Opportunity to create an integrated 'community sports precinct' on the eastern boundary of the site which includes the school sports hall, school basketball courts, council oval, council change-rooms and amenities, shared car park between all facilities.
- Spatial efficiencies are created due to the shared use arrangement of the council car parking location which also provides drop-off/ pick up locations and access for delivery vehicles and refuse collection.
- Proximity of the shared-use carpark to the staff and administration building is desirable in regards to way-finding for visitors and convenience for staff

**CONSTRAINTS**

- Location of the main school entry is removed from the future Pelican Road (which is closest to the train station).

# 3.3 SITE LAYOUT DIAGRAM

## Concept Masterplan

- New build 2 storey Learning spaces comprising:
  - + 40 Home Bases
  - + Core 35 Facilities, including: Library, Staff Hub, Administration and School Hall
- Site works and landscaping

## Proposed Learning Spaces

Future focused learning spaces that support:

- Direct explicit teaching
- Project and problem based learning
- Quiet reading and reflection
- Performance & presentation

## Proposed Outdoor Learning Courtyards and School Gathering

Provide opportunities for:

- Indoor / Outdoor Learning
- Active & Passive play
- Meeting, Gathering and Performance



- LEGEND:**
- Campus entry
  - Proposed pedestrian movement
  - Interconnected external area
  - Main entry
  - Soft surface / outdoor play
  - Shared plaza
  - Shared car parking
  - Proposed covered area
  - New Build
  - Vertical circulation node
  - Internal/external connection
  - Community connection

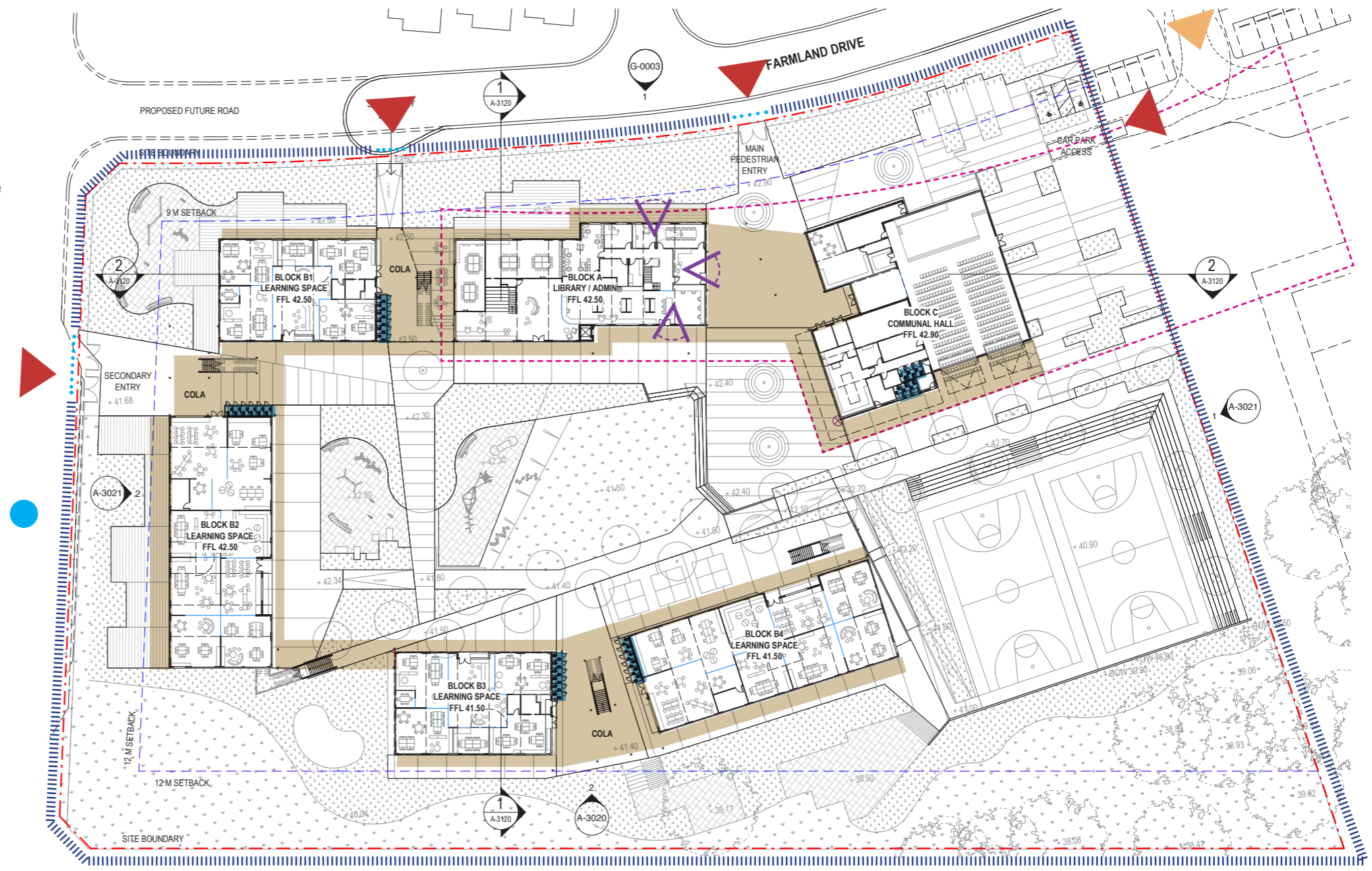
# 3.4 COMMUNITY USE & INTEGRATION



## Community Use Considerations

- Connection to the adjacent sporting facilities and future community centre
- Opportunity for shared use of the School Hall and the basketball courts for use by the community
- Access to the existing portion of Farmland Drive
- Opportunity for a public 'forecourt' outside of the school hall for public gatherings
- Carparking located at corner adjacent to the public park for future shared use opportunities
- A enclosed 'school heart' providing a communal gathering space for the school and a sense of community
- Opportunity for outdoor classes by providing covered outdoor learning areas.

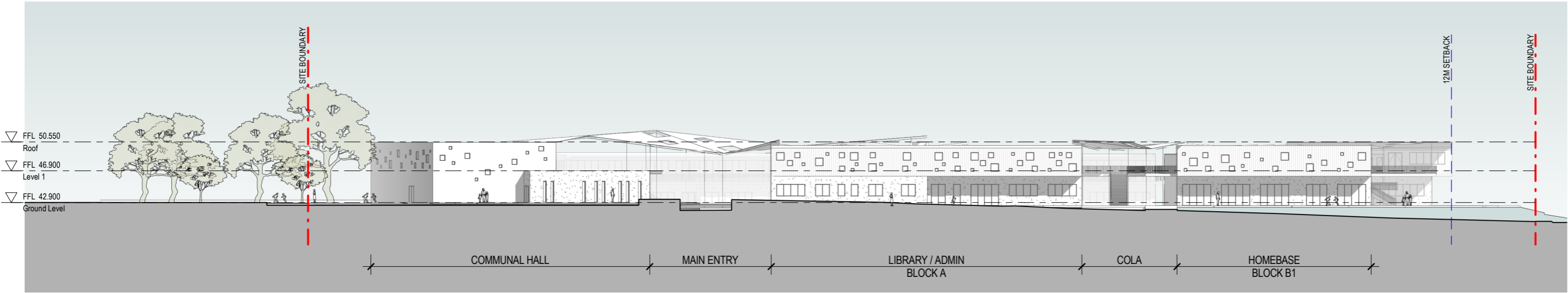
1. School Hall and Library to be shared with the community for adult education or holiday school program
2. Games Court usage after hours
3. Shared 'plaza' between the school and public sporting
4. Potential Shared Carparking Use between the Community and the School



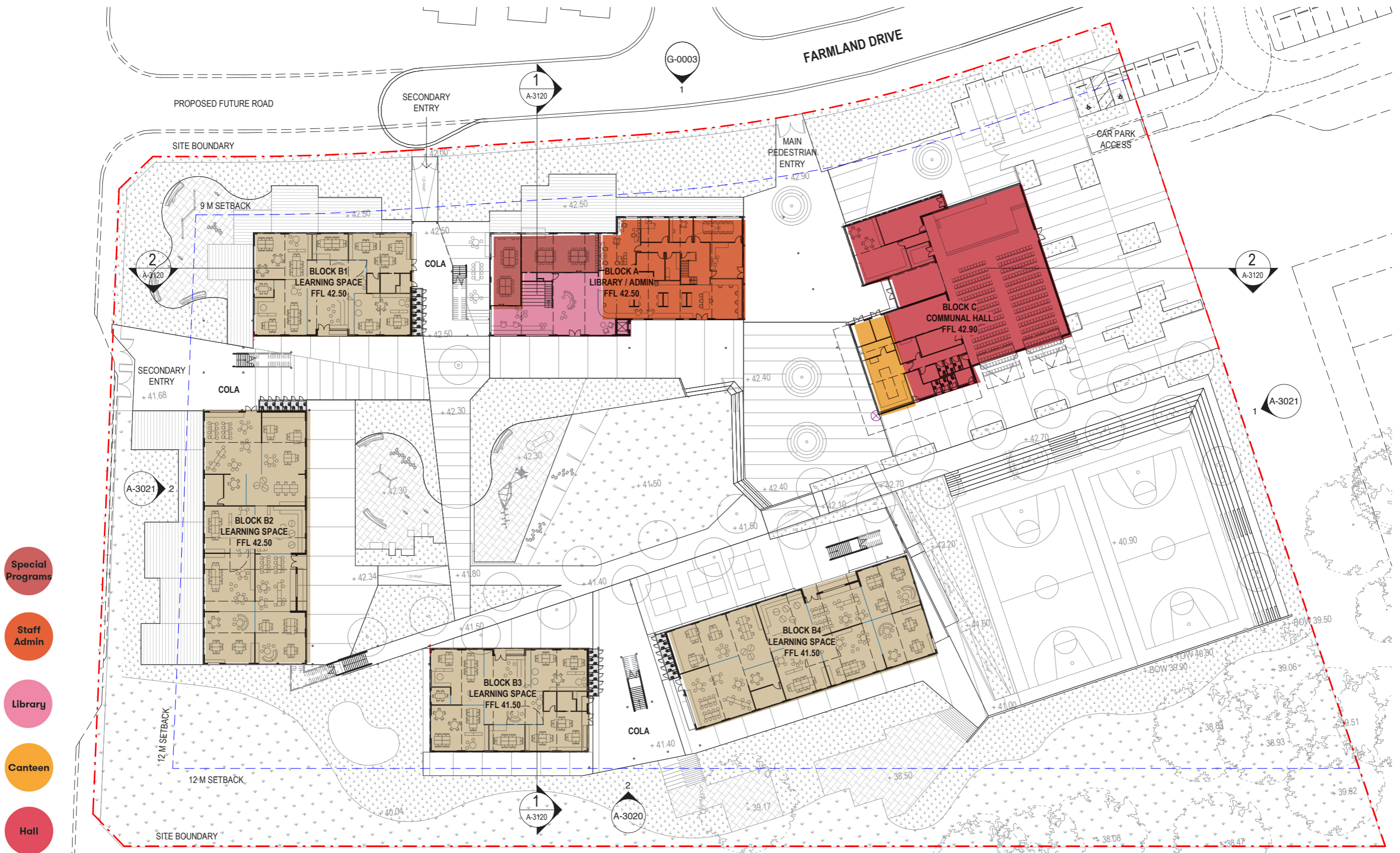
**LEGEND:**

- Boundary Fence
- Pedestrian Gate
- Shared School Facilities at Street Frontage for Easy Access
- Covered Area
- Distributed WC for Easy Access
- Pedestrian Entry
- Vehicle Entry
- Passive Surveillance
- Future Bus Stop

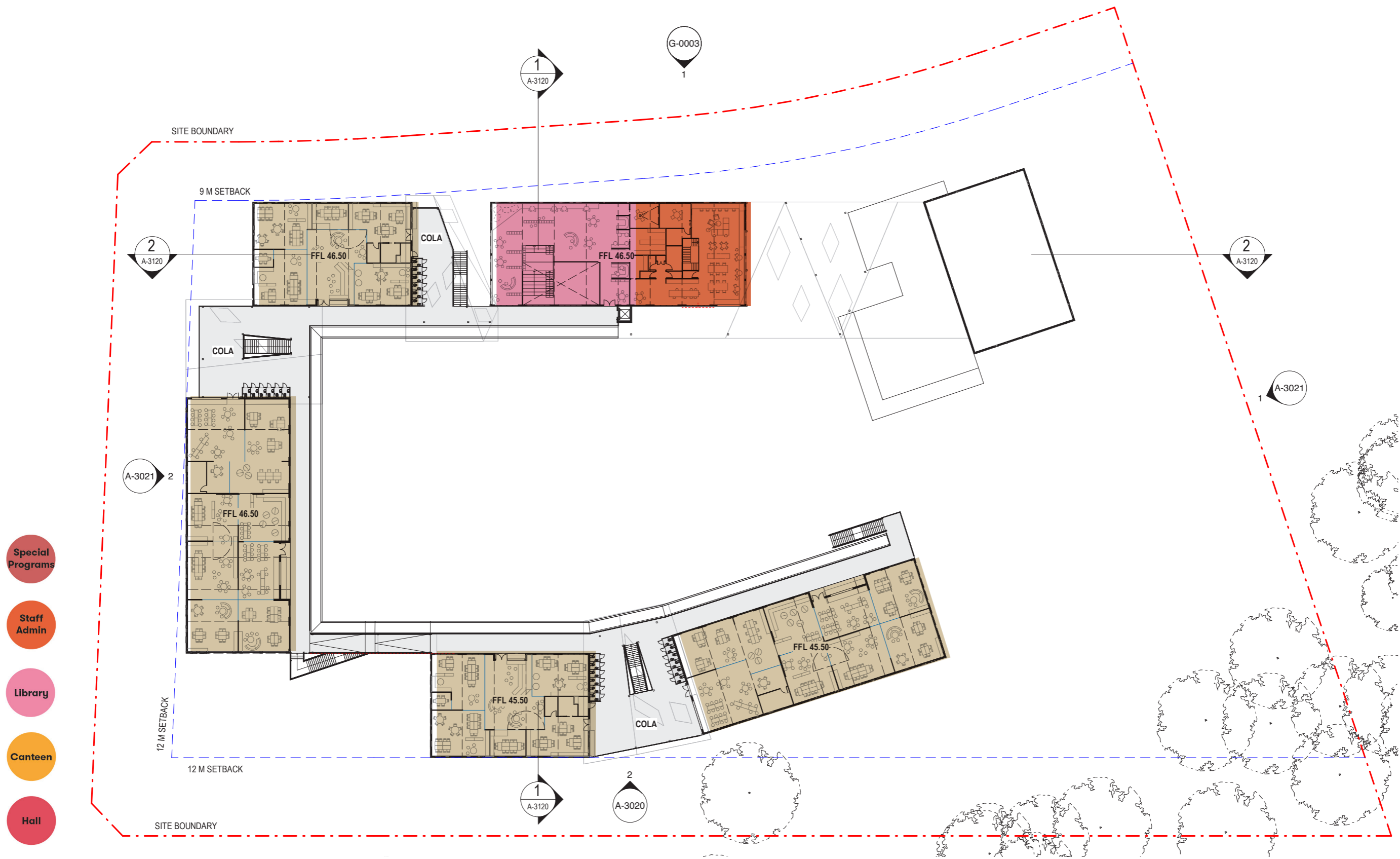
# 3.5 STREET ELEVATION



# 3.6 SITE LAYOUT AND SCOPE - GROUND



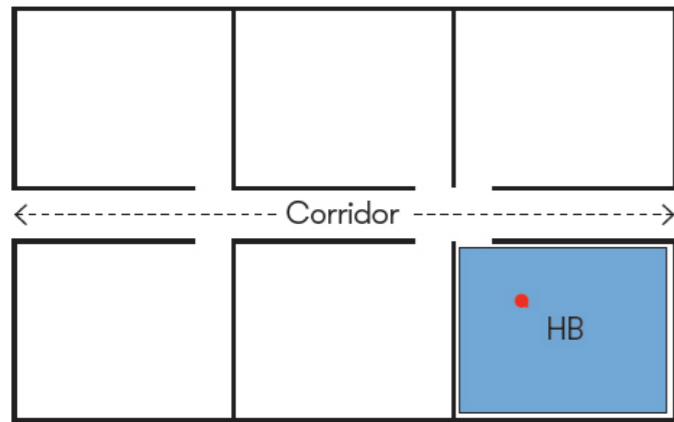
# 3.6 SITE LAYOUT AND SCOPE - LEVEL 1



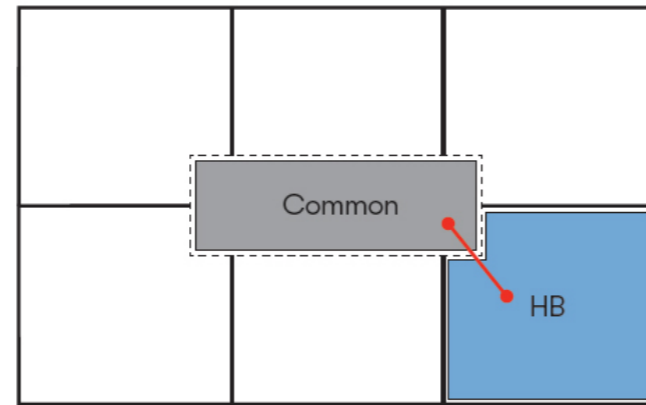
- Special Programs
- Staff Admin
- Library
- Canteen
- Hall

# 3.7 LEARNING DESIGN EVOLUTION

Traditional Teaching & Learning



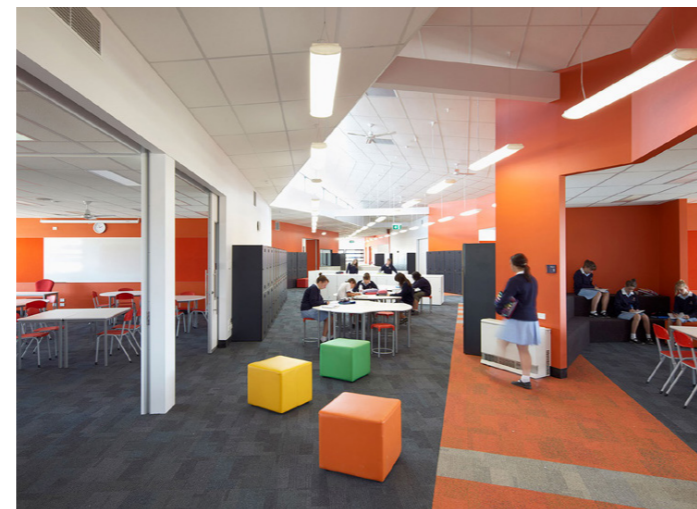
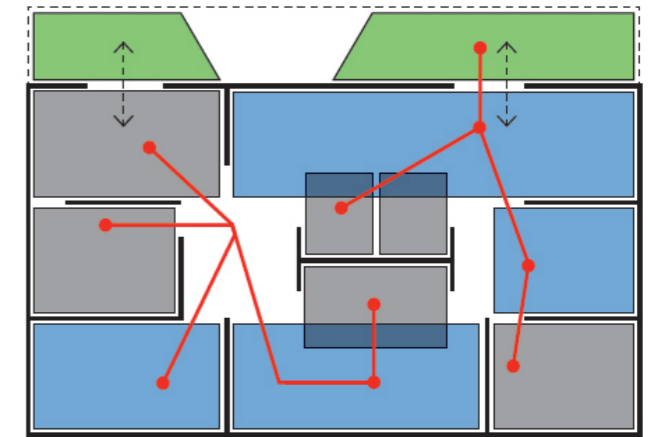
Traditional Learning & Shared Collaborative Common



Open Plan Learning



Collaborative Learning



# 3.8 OVERVIEW OF LEARNING SETTINGS

## NSW EFSG General Education Principles

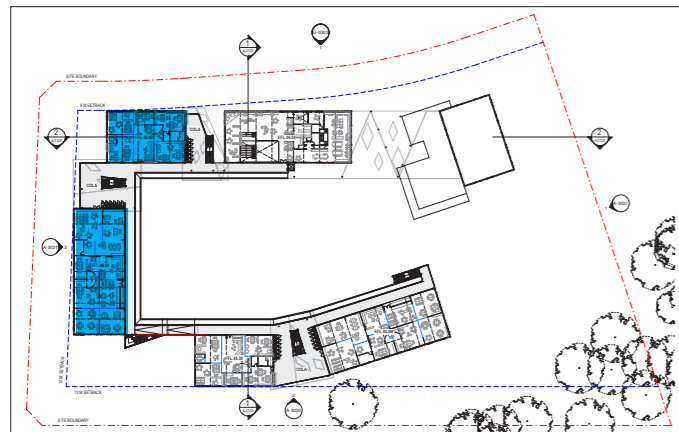
### Education Principle 4:

Provide contemporary, sustainable learning environments that:

- Promote learning for students and teachers through collaboration, social interaction and active investigation.
- Encourage learner self-management and self-direction.
- Support a full range of teaching strategies from direct explicit instruction to facilitation of inquiry and authentic project and problem based learning.
- Facilitate learning and connection anywhere, anytime by providing seamless access to ICT and integration of learning resources throughout the learning spaces.
- Be integrated into, and maximise the use of the natural environment.
- Enable aspects of the buildings, building design and outdoor spaces to be learning tools in themselves - for example, learning from the ecologically sustainable features of the design and associated energy management systems.
- Are age and stage appropriate

### Education Principle 5:

Embed the potential for reconfigurability, both in the present for multi-purpose use and over time for changing needs.

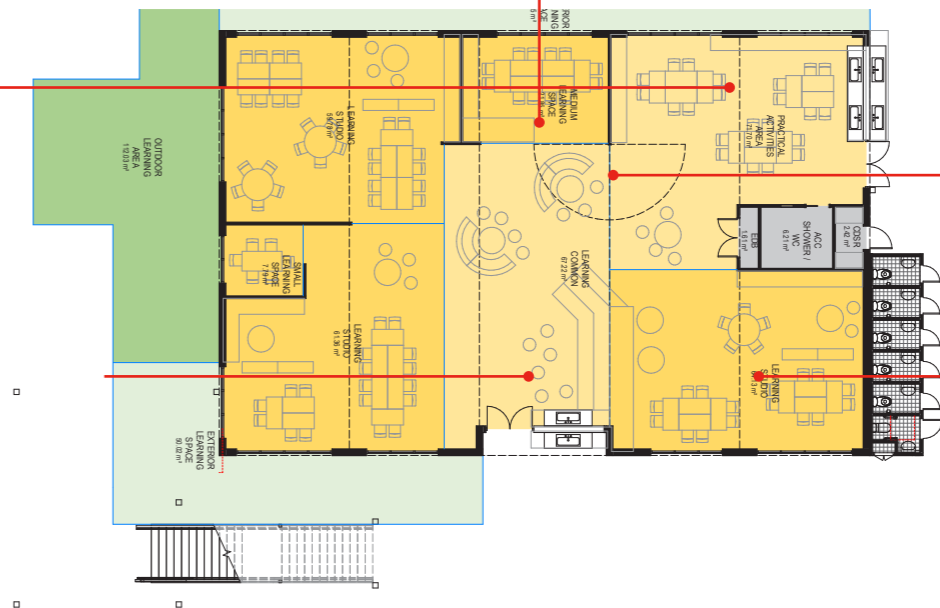


Explore/investigate/create  
Fabricate/construct  
Explicit teaching  
Indoor/outdoor connection  
[Practical activities area]

Large gathering  
Presentation

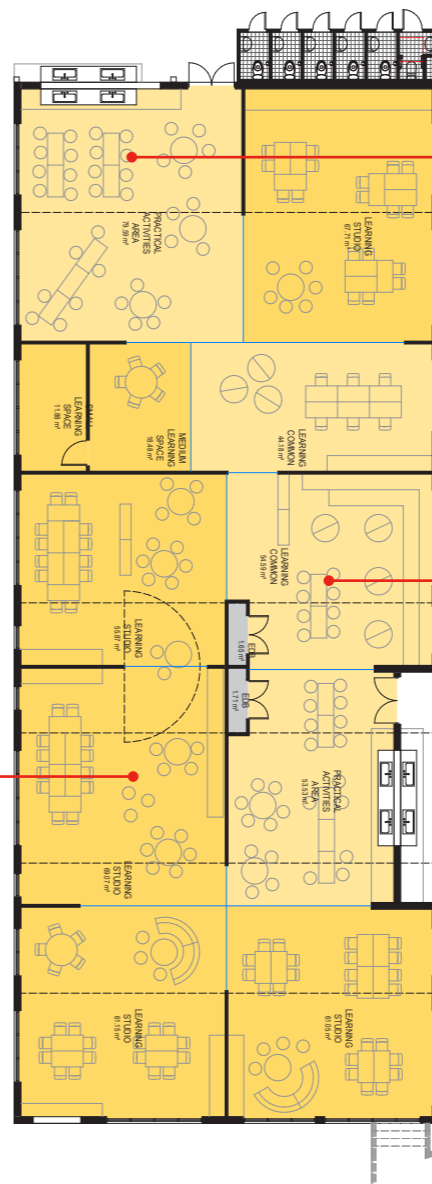
Independent study  
Quiet learning

Medium Learning Space



Collaborative area  
Adaptable group sizes

Learning studio  
Adaptable space  
Dialogue/discuss/read/tell stories  
Display/share/exchange  
Explicit teaching



Learning studio  
Adaptable space  
Dialogue/discuss/read/tell stories  
Display/share/exchange  
Explicit teaching

Large gathering  
Presentation  
Indoor/outdoor connection  
Launch space  
Active space

# 3.9 LEARNING SPACES

A future focused learning space commitment that truly support the development of teacher collaboration, student collaboration, self-direction and self-management. The design allows learners to engage and discover. This is achieved by providing spaces that are:

### 1. Purposeful

- Purposefully designed spaces that meet specific learning needs such as:
  - + size: large/ medium/ small group, independent learning
  - + types of activities: practical activities, presentation, performance, group collaboration, independent studies, project based learning
- Purposeful spaces that support easy and ready movement between different learning activities and settings, so that valuable learning time is spent learning, not constantly setting up spaces.

### 2. Adaptable

- Easily adapted to create various settings
- To support different learning behaviour
- Adaptable spaces that are not only future focused, but also future proof for any change in pedagogical needs

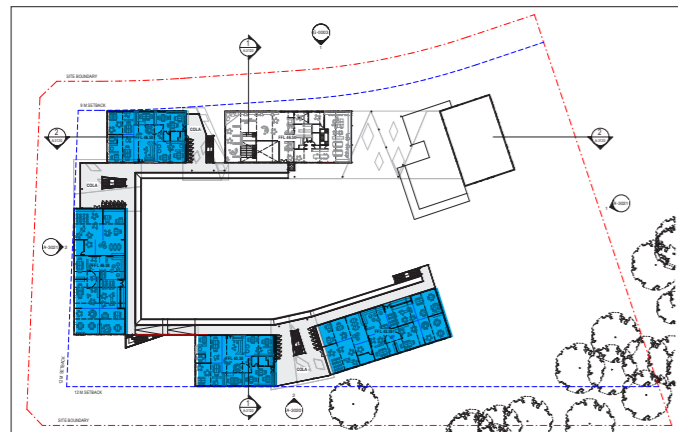
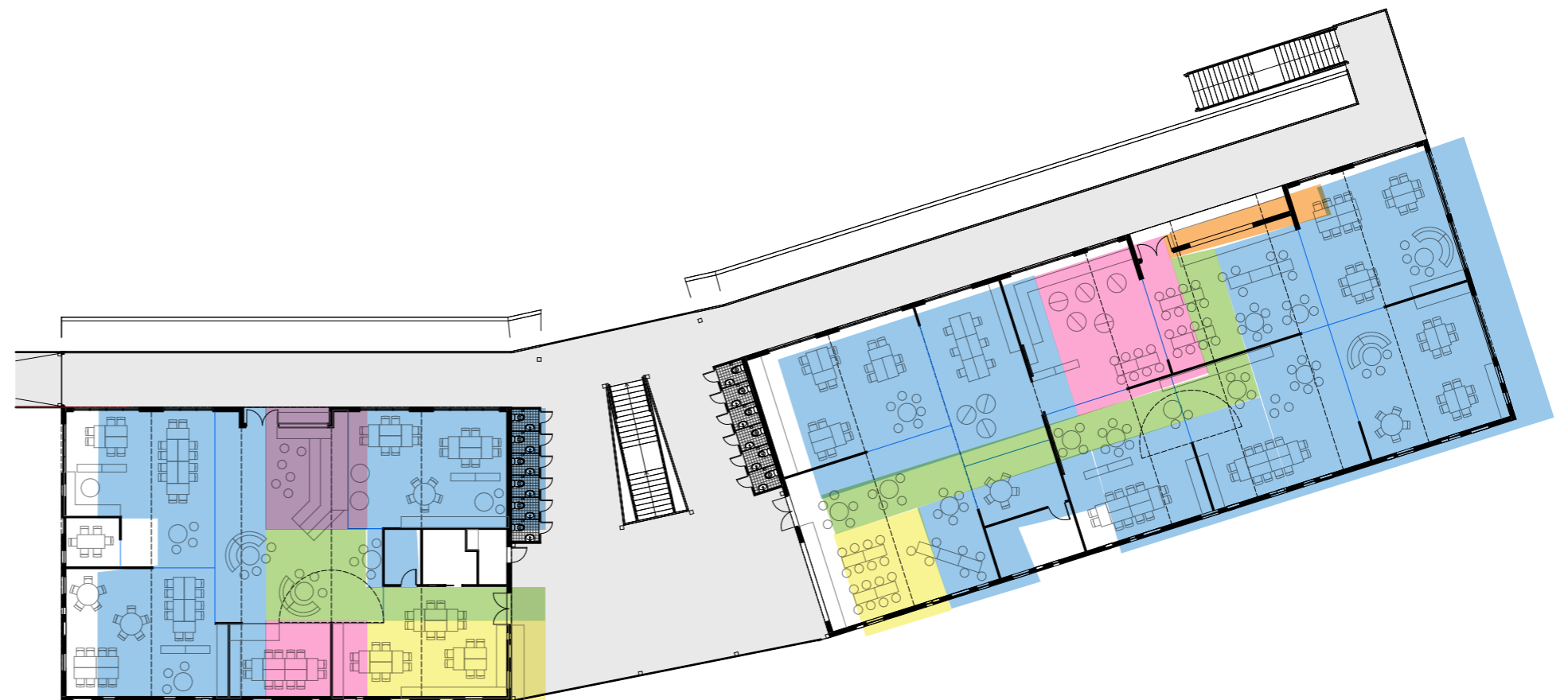
### 3. Seamless and easy to use

- Smart design that is easy to use by all, including educators and learners
- Simple, uncomplicated systems that allow fast conversion of space, & design which facilitates team teaching, collaborative learning, project based learning and other pedagogical needs

To ensure optimal design of learning settings that is suitable for the school's needs, there will be continued research and development of furniture setting options in the next phase during Schematic Design in the PMO flow chart. The furniture setting options will be developed through a collaborative process with the school.

Each learning hub is supported by a kit of parts consisting:

- Shared Common
- Large Learning Space
- Outdoor Learning
- Presentation / Performance Space
- Project Activities Area
- Medium Nooks
- Small Nooks



# 3.9 LEARNING SPACES



1. Small Groupings



2. Investigation Spaces



3. Large Groupings



4. Transitional Learning Spaces



5. Adaptable Learning Spaces



6. Medium Groupings

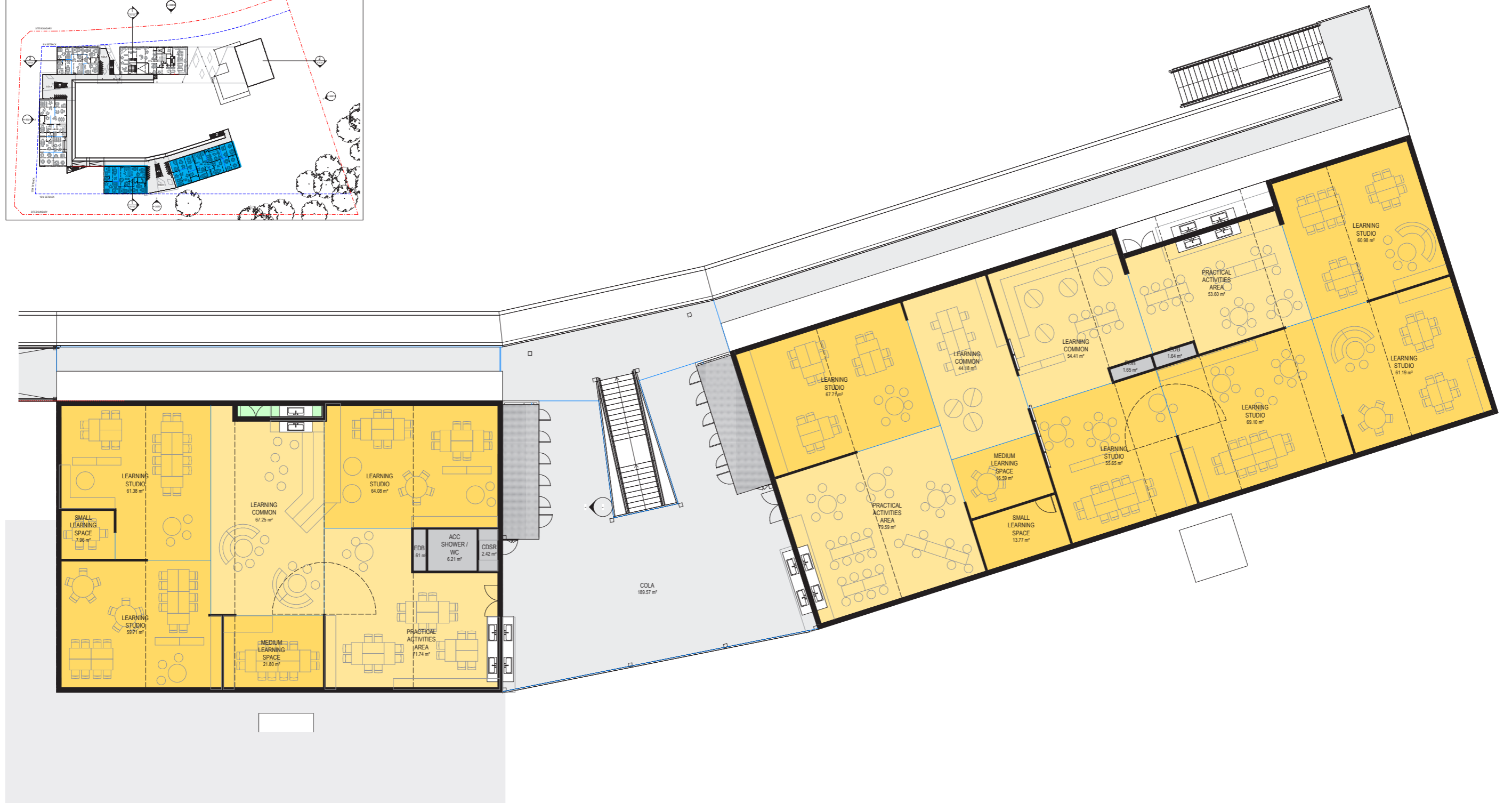
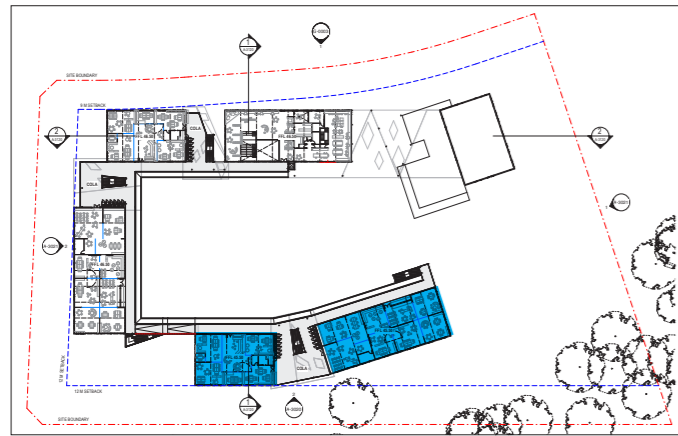


7. Technology/Media Development



4. Adaptable Learning Studio

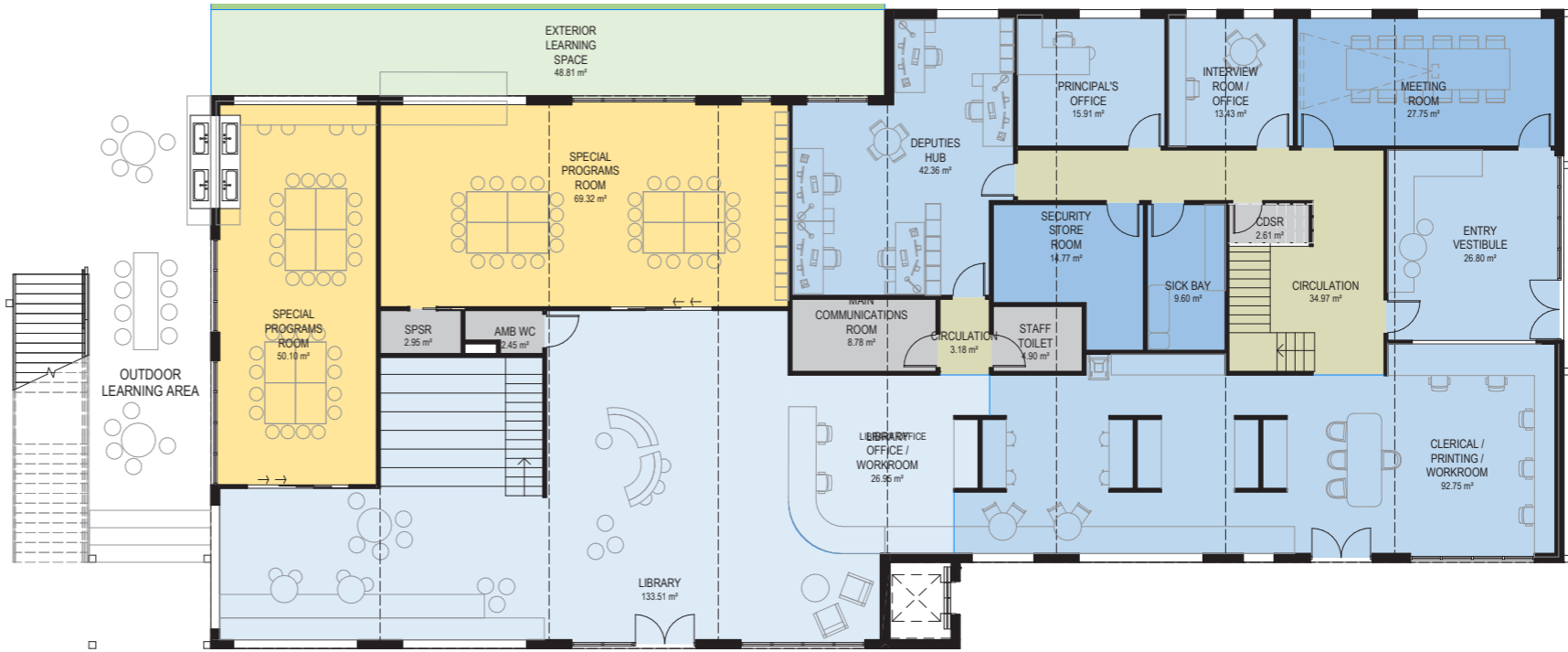
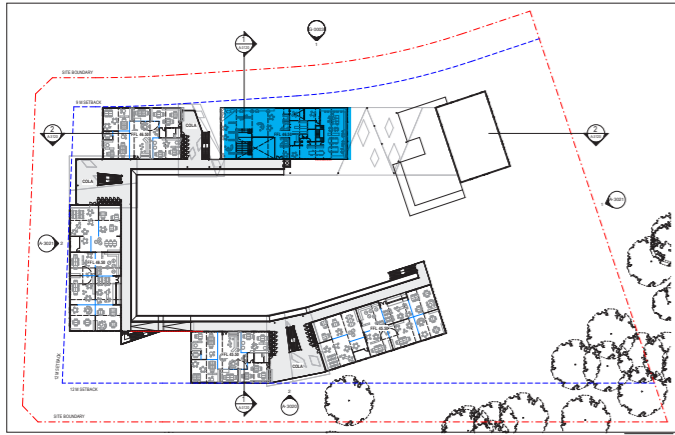
# 3.10 LEARNING HUB - 6 HOMEBASE & 4 HOMEBASES



# 3.11 ADMIN/LIBRARY - GROUND LEVEL

The core facilities, including a school hall, library, administration and staff hub for the new school community is core 35.

A new administration and staff hub has been proposed as a core 35 standard. The school library and special programs facilities have been integrated into the same building to enhance collaboration and maximise flexibility of the core facilities.



# 3.11 ADMIN/LIBRARY - LEVEL 1

