

DESIGN VERIFICATION STATEMENT

Reference: **Better Schools – A design guide for schools in NSW**

Catherine McAuley Catholic College 507 Medowie Road & 2 Kingfisher Close Medowie NSW 2318



Figure 01 - Perspective illustrating proposed Senior College Entry
(Architect's concept impression only)

**12 APRIL 2018
REVISION B**

Project Overview

Project Name: Catherine McAuley Catholic College

Project Address: 507 Medowie Road & 2 Kingfisher Close, Medowie NSW

Architect's Name: Jon Webber

Registration No. NSW ARB No 6830

Description of the Project:

The project is the development of a new Catholic College at Medowie which includes a seven stream high school, three stream primary school, early learning centre and Chapel. A statement from the Catholic Schools Office, Director's Office is contained in Appendix 1 outlining the community consultation process which has been undertaken in the development of this project.

Design process undertaken:

Webber Architects secured this project via a Design Competition run by the Catholic Schools Office. Four architects were invited to prepare a design for a seven stream high school on the site at 507 Medowie Road. The focus of the brief was the high school however consideration was to be given to the inclusion of a two stream primary school, place of worship and early learning centre at some future date.

Each Architect presented their design on Friday 14th October 2016 to a panel of stakeholders who assessed the designs against a number of selection criteria. This feedback was then reviewed by a 6 person Project Evaluation Committee, who made a recommendation to the Bishop. The Bishop then signed off on the recommendation and Webber Architects were appointed to the project. Webber Architects competition presentation panels can be found in Appendix 2.

Following appointment to the project Webber Architects have been involved in a number of stakeholder meetings and Project Implementation Committee meetings which have involved an iterative and collaborative process of reviewing the competition master plan, obtaining feedback, developing additional or alternate ideas, then meeting again and repeating the process.

Key design considerations:

The original brief for the Competition was a well considered document which outlined functional requirements for the school as well as providing an ideological and pedagogical starting point. Included within the brief were the following requirements:

- *The Catholic Schools Office, (Diocese of Maitland – Newcastle, is committed to a vision in which current and future Catholic school needs are energetically met*
- *The new secondary school should be a bold statement from the Diocese, expressing its commitment to the stewardship of the environment and the promotion of Catholic education in our region. It should be built to reflect the adaptability and development of enabling technologies and be both highly functional and environmentally responsive."*
- *The design must also be thoroughly adaptable so as to allow for the changing needs of the school over time.*
- *The school will be a place where: Learning is the core of the vision and purpose of the school; Learning should be student – focused; Learning spaces should be supportive of the curriculum, flexible, productive and rich in technological capacity; Learning spaces should not be limited to internal "classrooms" as integrated external teaching spaces are equally as important.*

Response to Education SEPP Design Quality Principles

1. Context, built form and landscape

The site is a large Greenfield site in Medowie which has a largely flat cleared area surrounded by constraints such as Koala Habitat, SEPP 14 wetlands, Endangered Ecological Communities, flood and bushfire prone land and an electrical easement located across the frontage of the site.

To the north of the site are large lot housing subdivisions, the Pacific Dunes Golf Course is located opposite on Medowie Road and there is an electrical substation located on the north east corner of the site.

The college has been situated in the cleared area of the site endeavouring to leave a 50m buffer to the ecology, limiting clearing requirements in order to create the required bushfire asset protection zone.

The existing streetscape consists mainly of widely spaced single and two storey residential properties and the College aims to fit in with this context limiting development to single and two storey forms.

An Aboriginal Heritage study is currently underway and a statement on the progress of this is contained in the EIS. In addition to this study the Catholic Schools Office has met with the Woromi Local Aboriginal Land Council to discuss the project and obtain their input. Additional consultation meetings are planned such that a collaborative approach to the integration of Aboriginal Heritage into the landscape, materials and colour palette can be taken. The Catholic Schools Office has reported that the Woromi Local Aboriginal Land Council are very receptive to this approach and thankful they have been included early in the design process.

Webber Architects sketches as included in this statement and the drawing package forming part of the EIS as follows:
Location Analysis Plan, Site Analysis Plan, Site Plan & Part Site Plans

Reports:
Ecology, Aboriginal Heritage, Historic Heritage, Bushfire, Landscape, Materials & Colour Palette Approach.

2. Sustainable, efficient and durable

The size of the College incorporating Primary School, High School, Early Learning Centre and Chapel is large and hence is broken down into a number of separate built forms to respond to the local climate. Attempts have been made to orient individual 'pods' toward north, incorporate substantial areas of glazing to enable cross ventilation and provide an aspect toward the ecology to the west, which is intended to form an integral part of the learning pedagogy of the College.

Materials to be used include precast concrete panels on walls facing circulation spaces for durability, lightweight cladding to breakdown the forms, large scale roof sheeting for economy of structure and batten screens providing shading. A landscape plan has been prepared incorporating Water Sensitive Urban Design principles.

Webber Architects sketches as included in this statement and the drawing package forming part of the EIS as follows:
Site Plan & Part Site Plans

Reports:
Landscape Plan & Report
Materials & Colour Palette Approach

3. Accessible and inclusive

An electrical easement runs the full frontage of the site and limits the potential use of this zone. The large number of car parks required for the site means this easement is a natural location for these. The entry to the College and the streetscape is of great importance and efforts have been made to create an identifiable pedestrian circulation path from Medowie Road drawing people into the site. There is a desire to avoid the use of fencing along the street front and the car park creates a natural security buffer, providing clear lines of sight to the road. Secure lines have been incorporated behind the line of the building pods, with the play areas and socialisation spaces located away from the street frontage.

There are a diverse range of spaces encompassing one person nooks, spaces for small collaborative work, large project group work or whole group discussions and the ability to open learning areas up to each other to enable combined discussions with a number of groups together. These spaces can be used for learning, play and socialisation, and are located across the whole of the site in each of the stages of learning from Early Learning, Primary School, High School and Community use.

The master plan for the site contains a number of spaces which are envisaged for Community use; the Chapel is to become the Parish church utilised for mass, weddings, funerals; both the Primary School and High School halls can be utilised by the community after hours; the Sporting fields are available for Community Use on

Saturday mornings and the High School Canteen is located adjacent the Hospitality learning area hence can be utilised for functions associated with Community Use after hours.

The majority of the buildings on the site are single storey, hence conducive to accessibility requirements. Some of the high school is situated over two levels and includes a single accessible path of travel through the entry, around behind the tiered seating area of the Covered Outdoor Learning Area and up onto a covered walkway linking the first floor pods. There are also two lifts incorporated into the master plan.

Webber Architects Drawings:
Site Plan & Part Site Plans

Reports:
BCA and Accessibility Reports

4. Health and Safety

The bulk of the College has been broken down into individual 'pods' which enable separation of facades to optimise access to daylight, with glazed areas a combination of fixed and operable elements to enable ventilation and fresh air intake.

Vehicles have been limited to the frontage of the site, or perimeter where queuing lengths are required for drop off / pick up times, with clear pedestrian circulation zones through these into the College.

Each of the Early Learning Centre, Primary School and High School incorporate covered outdoor play spaces and learning areas and individual learning pods are linked via covered walkways.

The administration spaces for the Primary School and High School are located at the front of the site providing passive surveillance opportunities across the car park and street frontage.

Facilities designated for Community Use after hours are located at the front of the site and incorporate toilets and facilities to be self sufficient.

Toilet facilities are spread across the site, with visibility into hand washing areas enabling safe use by different age groups and genders.

Webber Architects sketches as included in this statement and the drawing package forming part of the EIS as follows:
Site Plan & Part Site Plans

Reports:
Crime Risk Assessment Report

5. Amenity

The site's location provides an ideal setting to incorporate the natural environment into learning and play. The learning pods are sited in circular forms giving a number of these an outlook to the Endangered Ecological Communities to the west. Individual learning pods are separated optimising access to sunlight and natural ventilation where possible.

Learning pods have breakout spaces either within, adjacent or between them. The Primary School Learning pods have a Common Learning area linking the individual learning spaces and this adjoins an outdoor learning space. High School learning pods either have an 'internal' breakout space or an external breakout space between pods. Both the Primary School and High School have large covered outdoor areas intended as learning tools in themselves. There is a diversity of learning spaces as outlined in item '3. Accessible and inclusive' above, which facilitate informal and formal uses and cater for a range of learning styles and group sizes.

Buffer planting across the front of the site has been incorporated where possible, however the large requirement for car parking which has been located in the electricity easement limits the amount able to be incorporated.

The site is large and has enabled the incorporation of a wide variety of outdoor playground spaces including: the highly regulated and controlled Early Learning Centre spaces; Primary School and High School play spaces include hardstand areas, formal basketball/netball courts, football fields and informal play and gathering spaces. The approach taken to height and scale is outlined in item '1. Context, built form and landscape.'

The College is setback from the roadway and an Acoustic report has been prepared to further address acoustic requirements.

Webber Architects sketches as included in this statement and the drawing package forming part of the EIS as follows:
Site Plan & Part Site Plans

Reports:
Acoustic

6. Whole of life, flexible and adaptive	
<p>The design of both the Primary School and High School learning pods are such that there is flexibility in the spatial arrangements - from small one person nooks, spaces for small collaborative work, large project group work or whole group discussions and the ability to open learning areas up to each other to enable combined discussions with a number of groups together accommodating demographic and pedagogical change.</p> <p>The site has been master planned for an Early Learning Centre, 3 stream Primary School, 7 stream High School and Chapel; which is planned to be built over the next 10 years. Although it is not envisaged that further expansion would be needed in addition to this, there is still potential on site if required.</p> <p>Investigations have been carried out in regards to ecology, flooding, bushfire, aboriginal heritage, historic heritage, social impact, contamination, noise and traffic generation and the site master plan responds to these investigations. These reports have been submitted with the EIS.</p> <p>Facilities designated for Community Use after hours include the Primary and High School halls, Chapel, High School Canteen and Cafe and the sporting fields which can be utilised on weekends.</p>	
<p>Webber Architects sketches as included in this statement and the drawing package forming part of the EIS as follows: Site Plan & Part Site Plans</p>	<p>Reports Ecology, Aboriginal Heritage, Historic Heritage, Bushfire, Social Impact, Acoustic, Traffic, Contamination</p>
7. Aesthetics	
<p>The master plan of the College has been developed in consultation with the Catholic Schools Office, the Project Implementation Committee (members include: CSO, Diocese of MN, parent representatives, Parish representatives) and a large sub consultant team. The design aims to engage the people on the site (learners, educators & community) in the natural ecology surrounding the site and the built forms introduced to the site. The built forms are broken down into pods and arranged to provide external spaces of varying size and aspect. The landscape design undertaken by Moir Landscape Architecture sets out a variety of external spaces providing diverse learning opportunities for students of differing ages and interests.</p> <p>As noted under item '3. Accessible and inclusive' there are a large number of car parks required for the site and the easement along the street frontage is a natural location for these. Engagement of pedestrians along this street frontage is also important and efforts have been made to create pedestrian circulation paths from Medowie Road drawing people into the main entry points for the College – the Primary & High School administration buildings and the Chapel; with landscaping integrated into these spaces as much as possible.</p> <p>The mass and scale of the built form is kept to pods of one or two storeys only to respond to the surrounding low scale context.</p> <p>As outlined in item '3. Accessible and inclusive' there is a desire to avoid the use of fencing along the street front hence none is planned with secure lines to be incorporated behind the line of the building pods.</p>	
<p>Webber Architects sketches as included in this statement and the drawing package forming part of the EIS as follows: Webber Architects Site Plan & Part Site Plans</p>	<p>Report Landscape</p>



Figure 02 - Perspective illustrating proposed 2 storey Senior College classroom pod
(Architect's concept impression only)



Figure 03 - Perspective illustrating proposed Senior College Walkway link
(Architect's concept impression only)



Figure 04 - Perspective illustrating proposed Junior College Entry
(Architect's concept impression only)



Figure 05 - Perspective illustrating proposed Junior College classroom pod
(Architect's concept impression only)



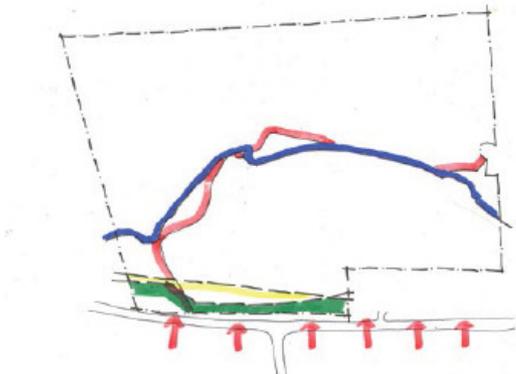
Figure 06 - Perspective illustrating proposed Early Learning Centre
(Architect's concept impression only)



Figure 07 - Perspective illustrating proposed Chapel
(Architect's concept impression only)

SITE STRATEGY

1. EXISTING SITE CONSTRAINTS



2. EXISTING SITE OPPORTUNITIES

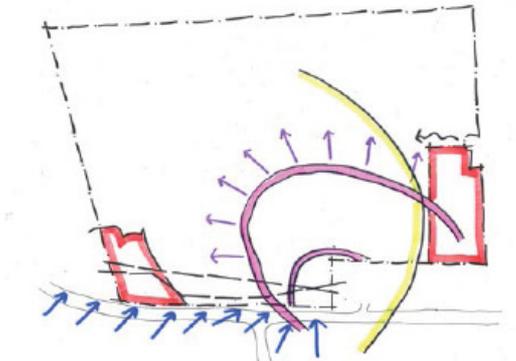
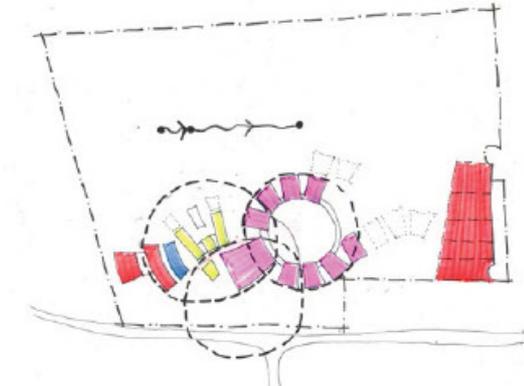


Figure 08 - Original Competition Concept Sketches 1 & 2

3. SITE MASTERPLAN



4. PEDESTRIAN CIRCULATION

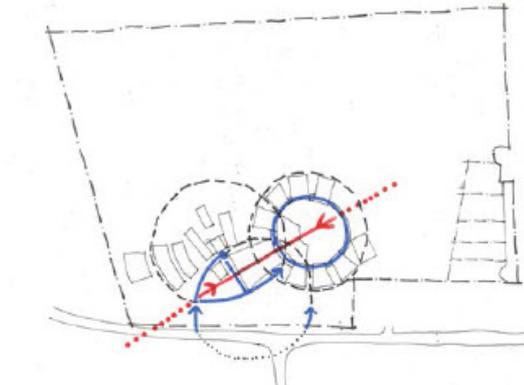
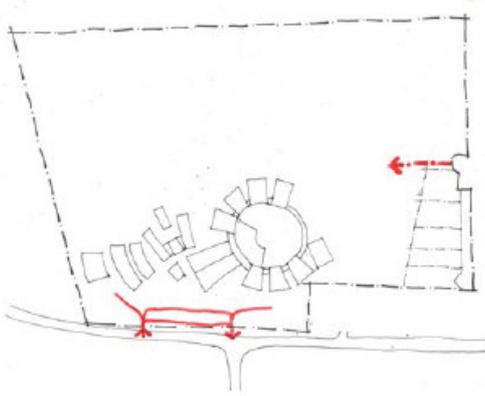
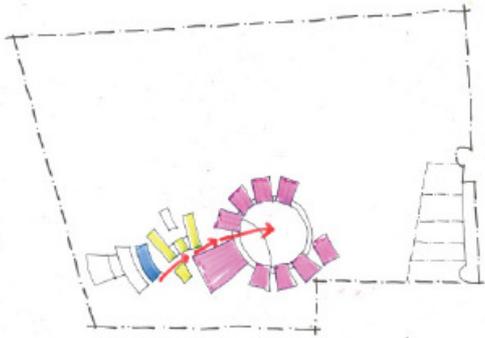


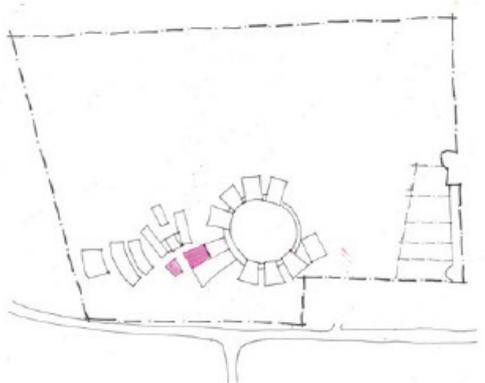
Figure 09 - Original Competition Concept Sketches 3 & 4



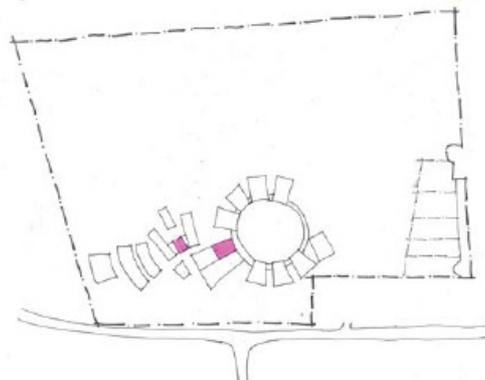
5. VEHICULAR CIRCULATION



6. SITE TRANSITION



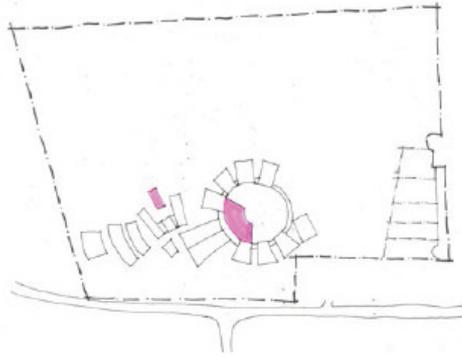
7. ADMINISTRATION BUILDINGS



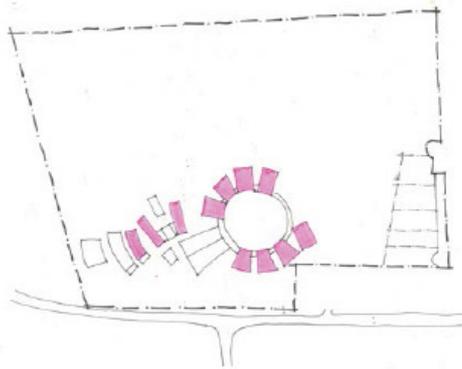
8. LIBRARY HUBS

Figure 10 - Original Competition Concept Sketches 5 & 6

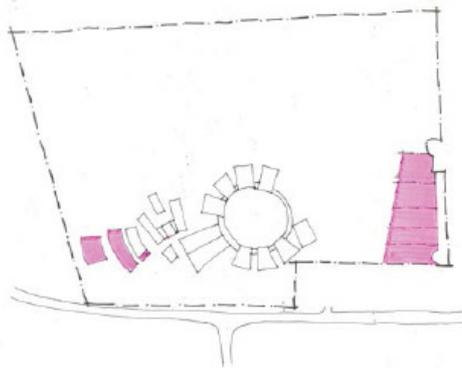
Figure 11 - Original Competition Concept Sketches 7 & 8



9. COLA BUILDINGS



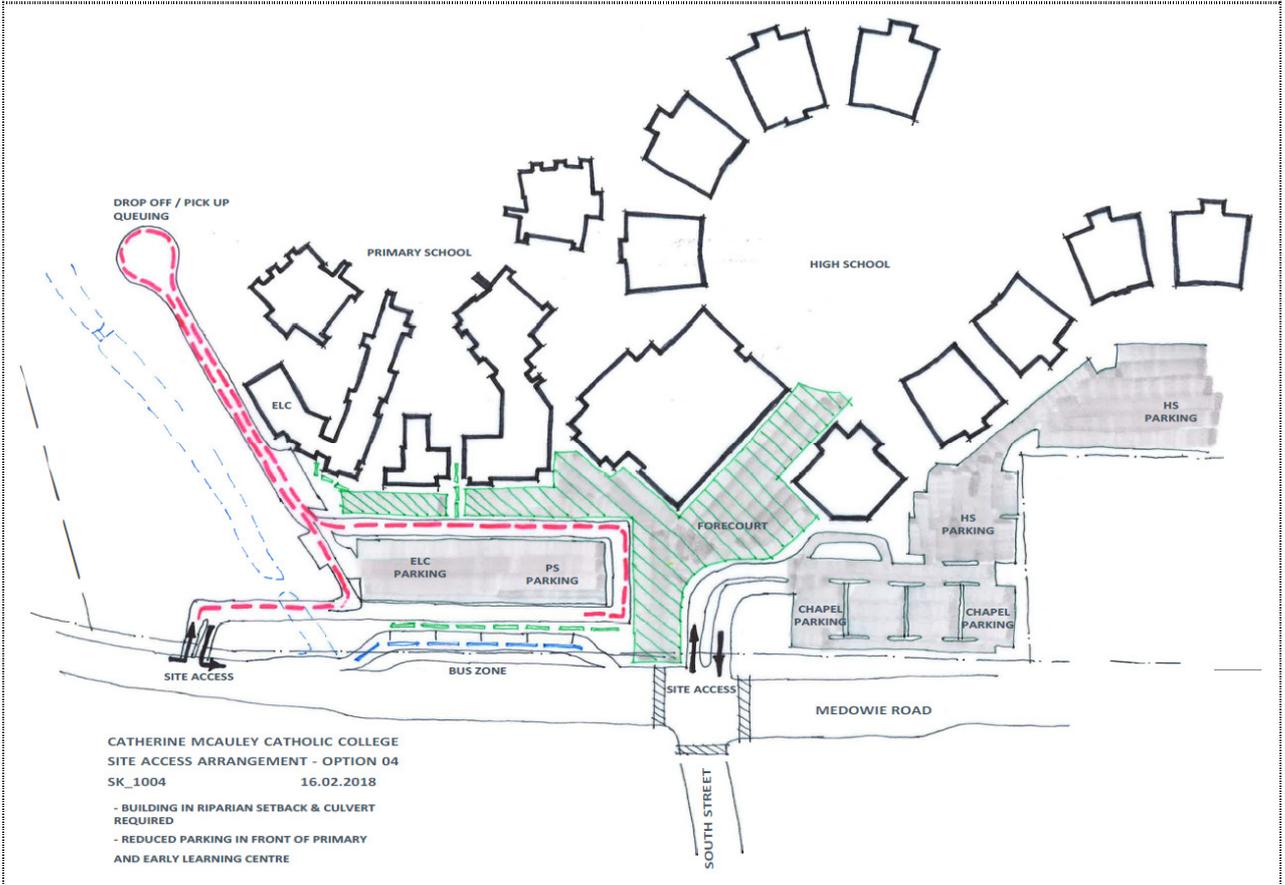
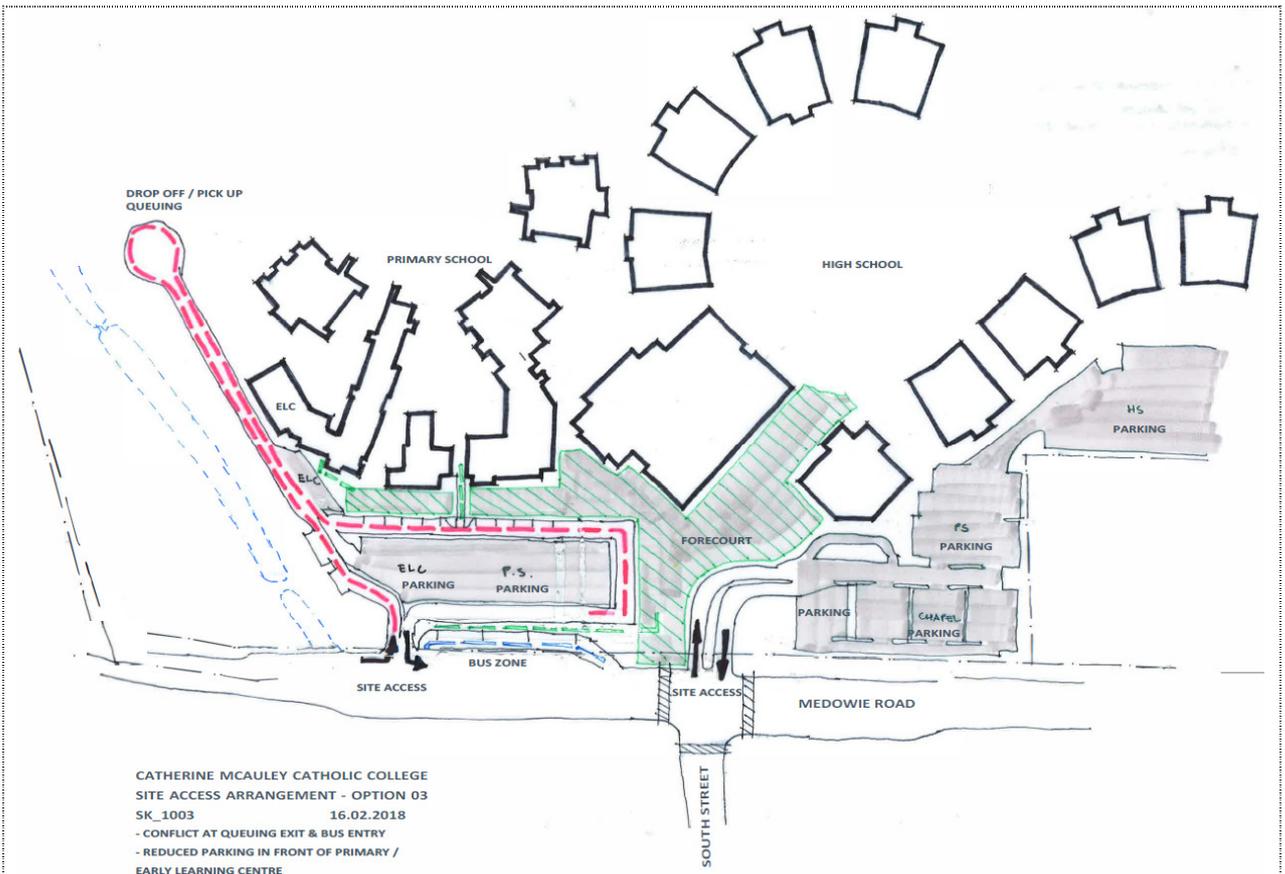
10. LEARNING CENTRES

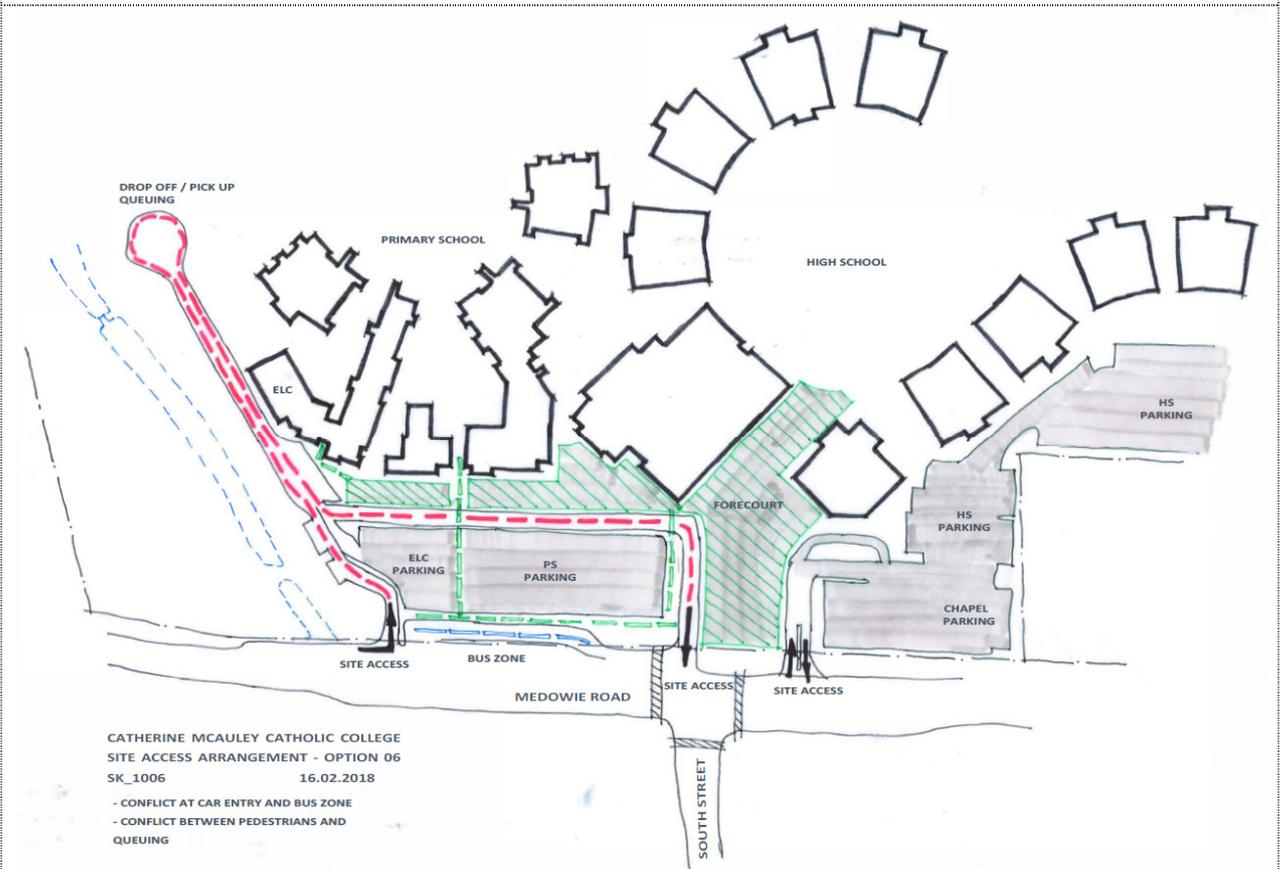
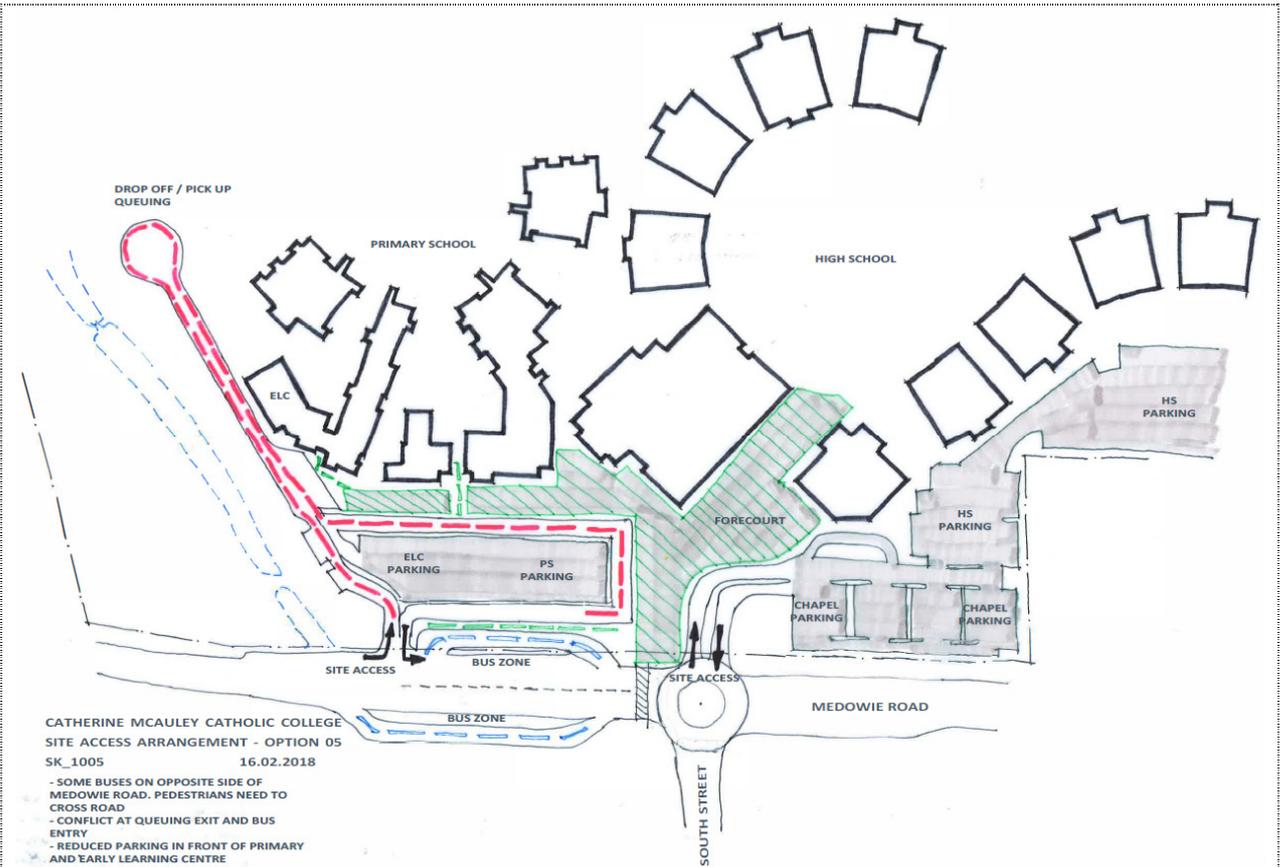


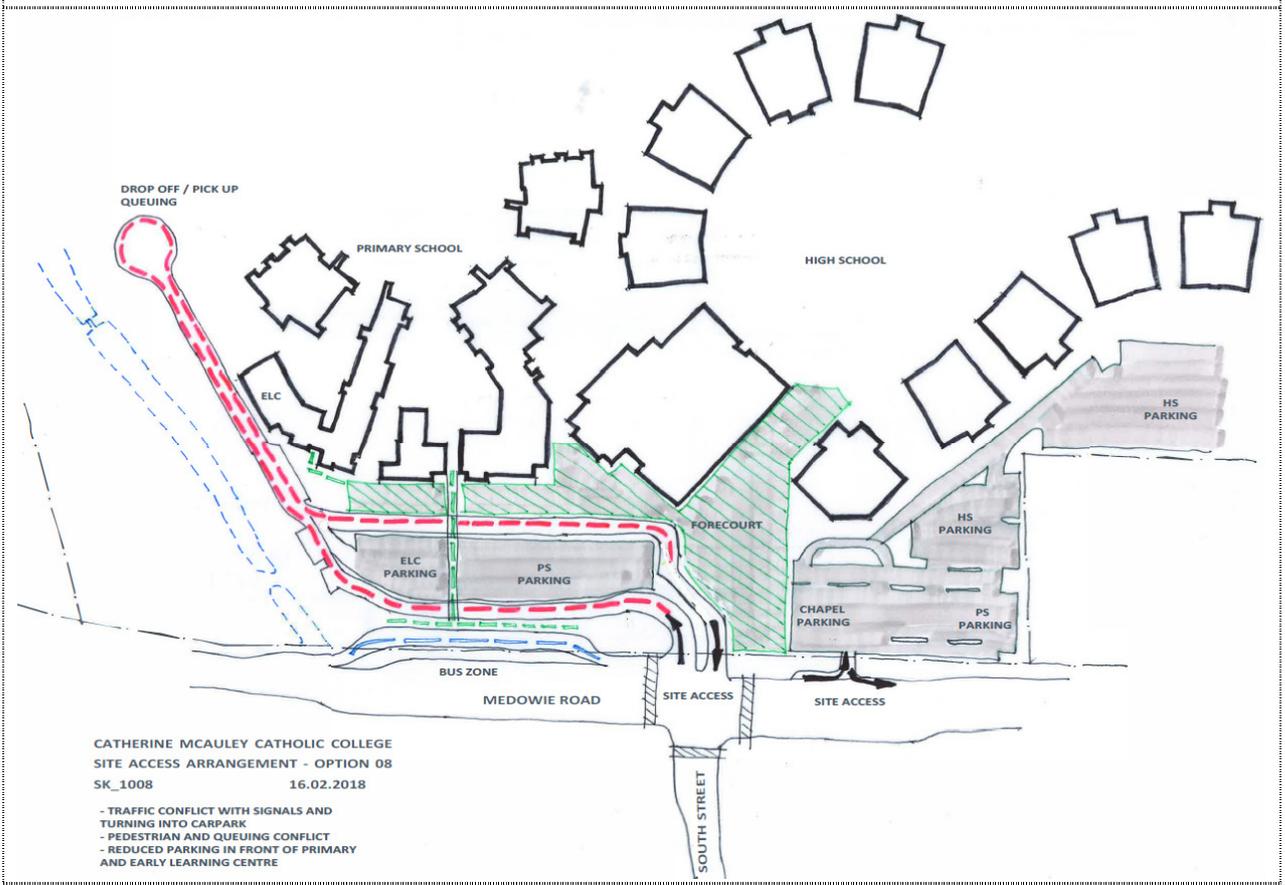
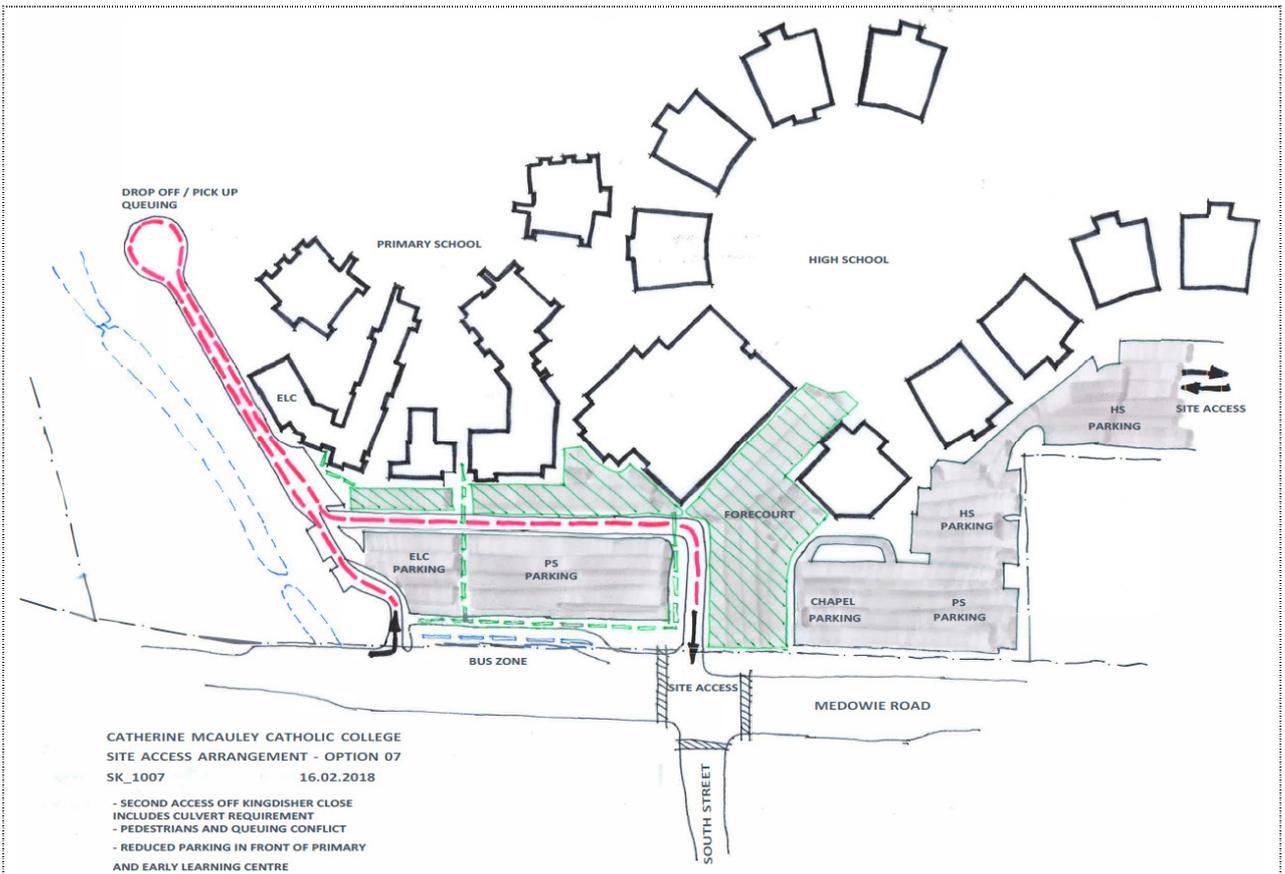
11. CAFE + COMPLEMENTARY USES

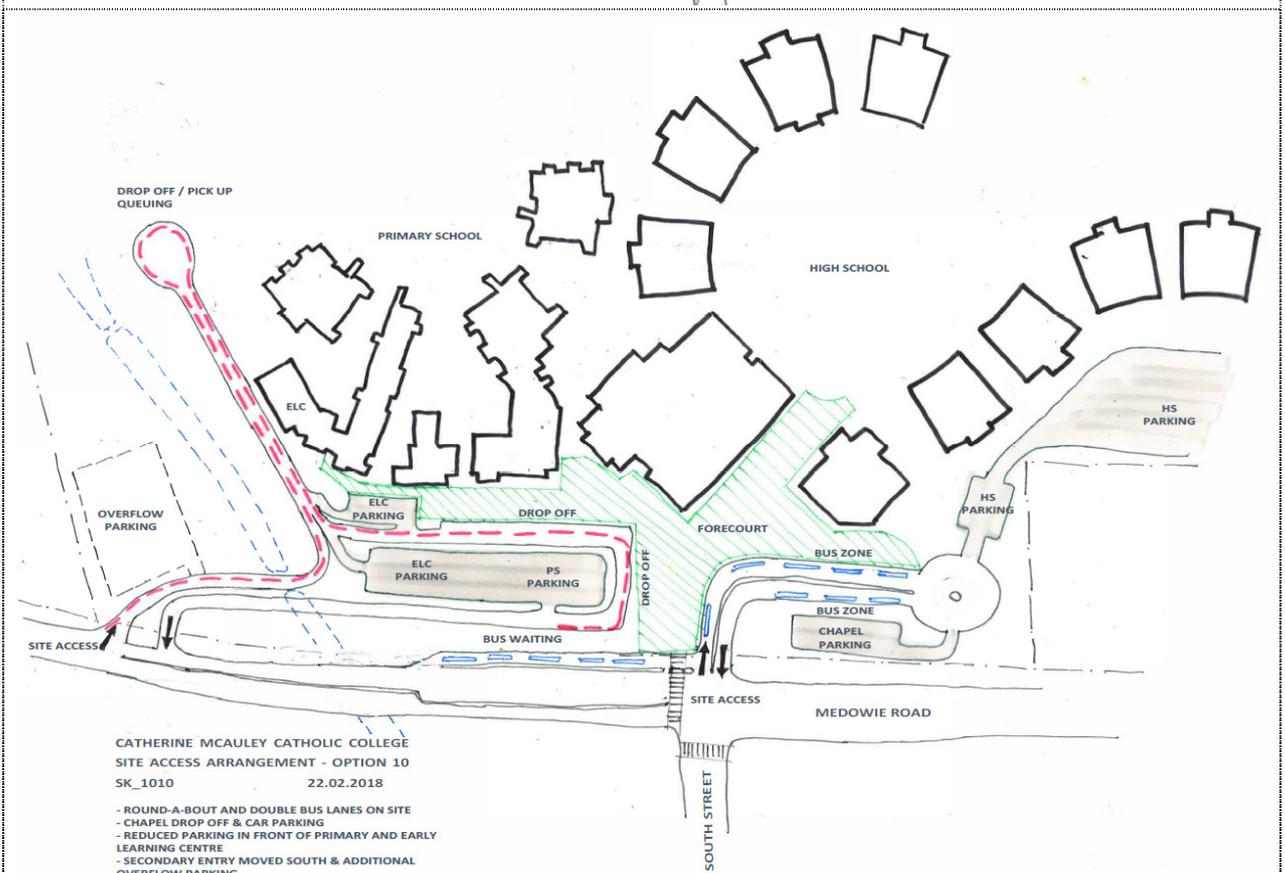
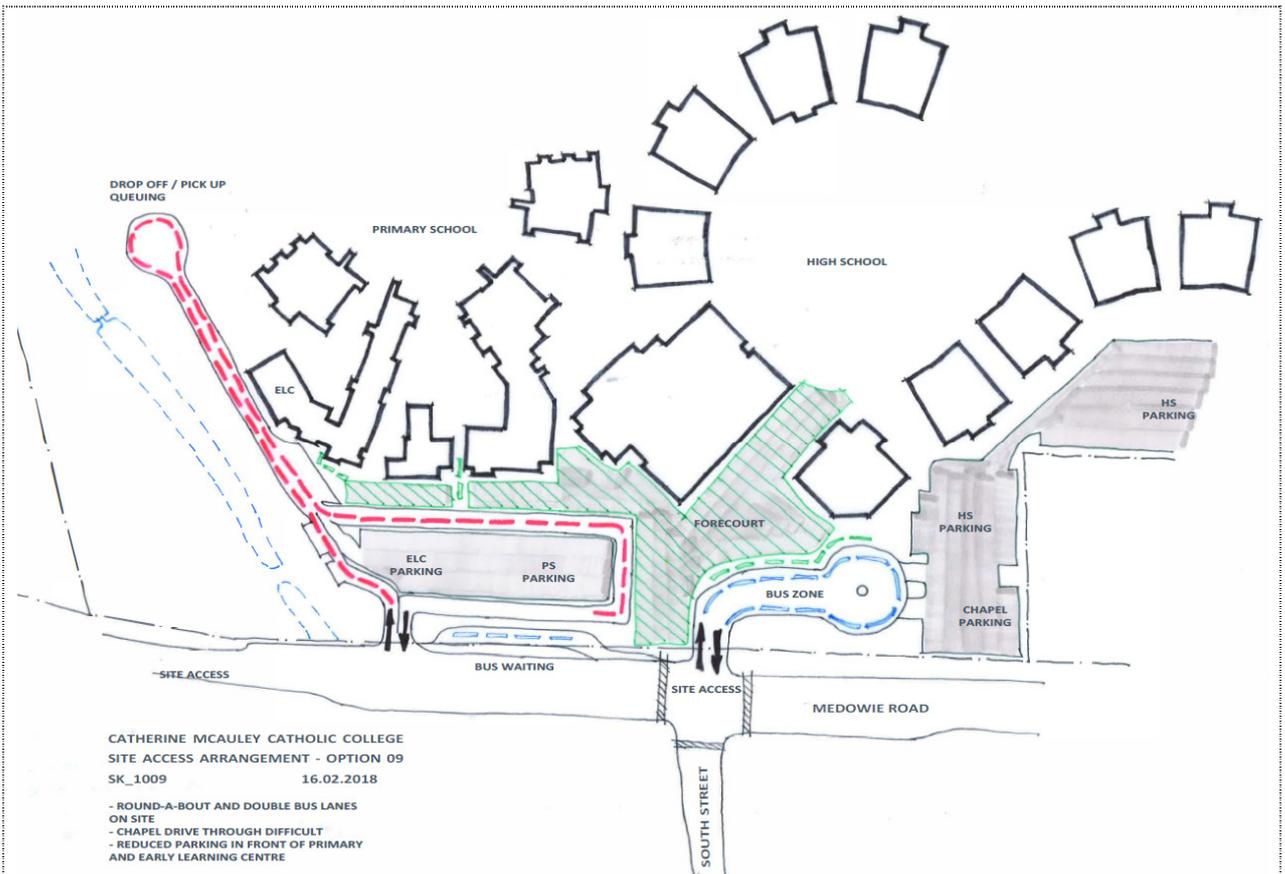
Figure 12 - Original Competition Concept Sketches 9, 10 & 11

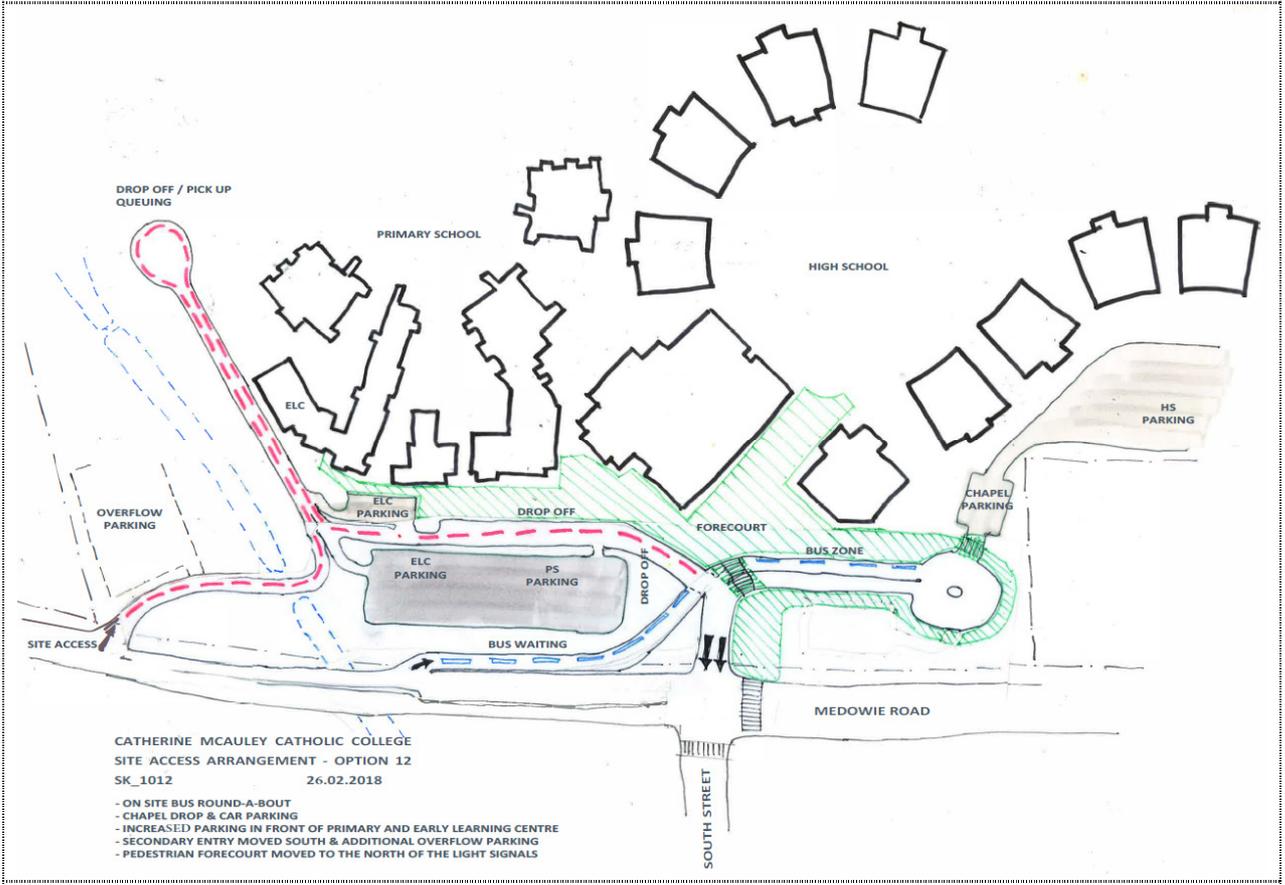
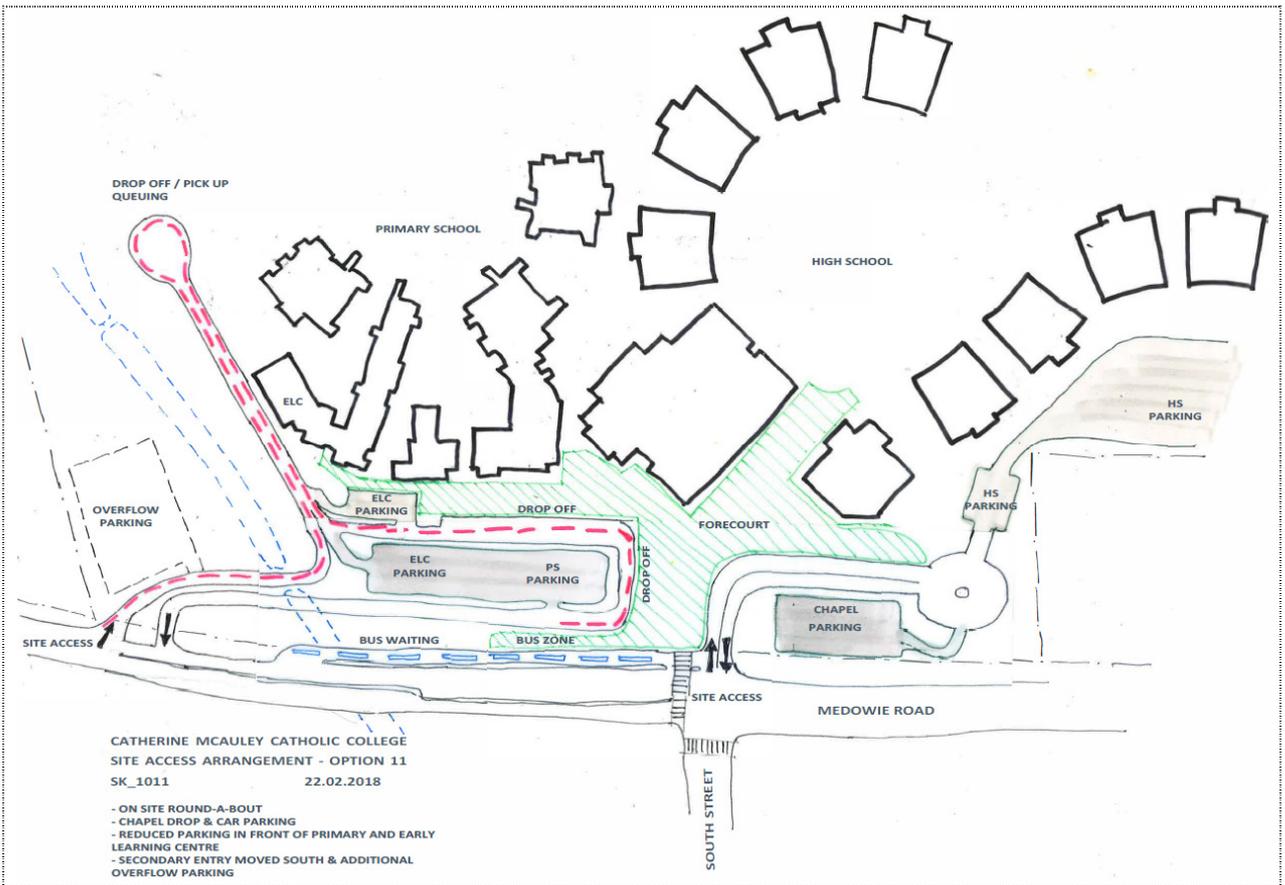












- **Figure 13 - Overall site planning options considered**

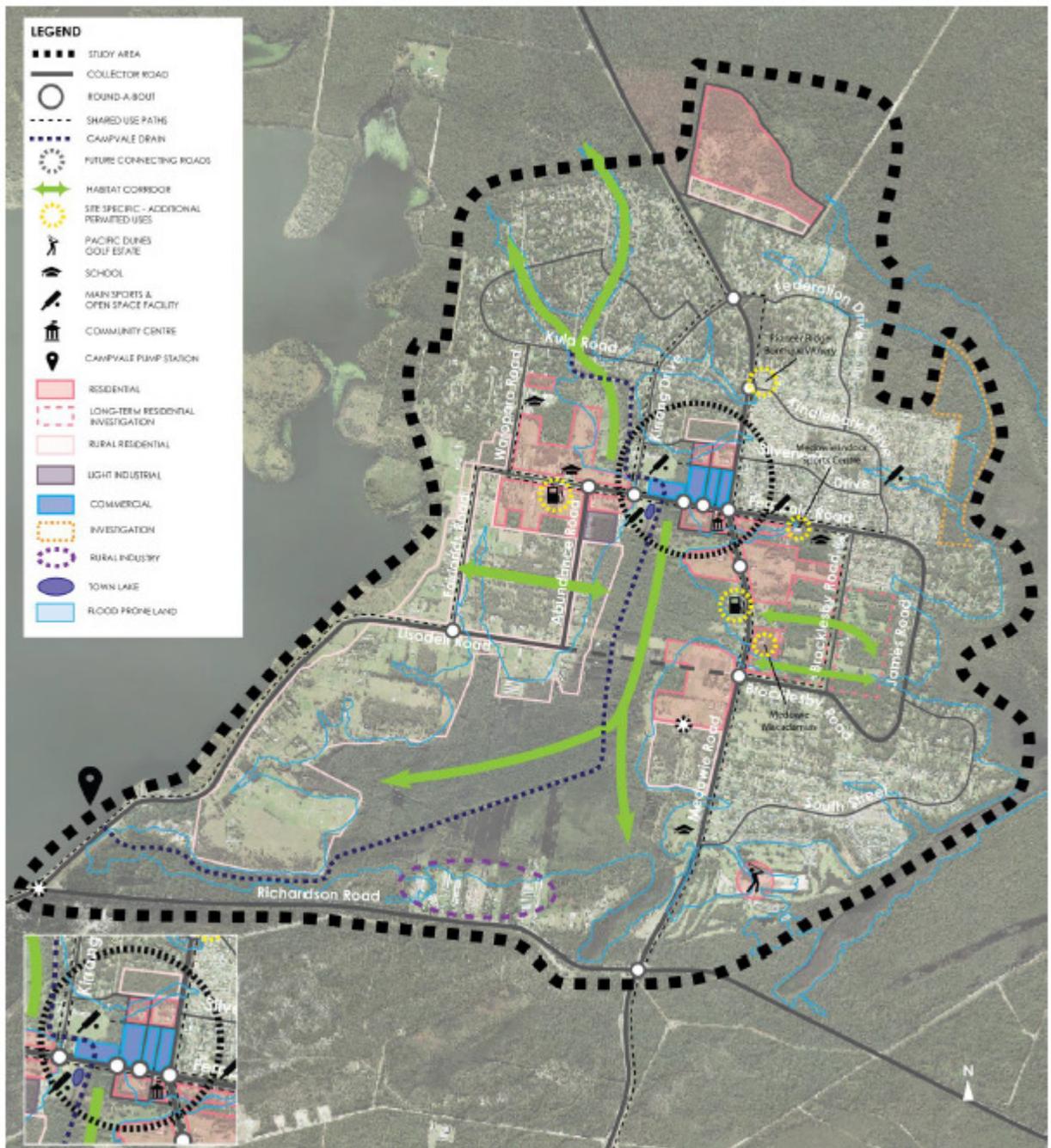


Figure 14: Strategy Map. Reference Medowie Planning Strategy Dated 13 December 2016

The Strategy Map in the Medowie Planning Strategy above shows the subject site as being identified for a school; the surrounding context including the Medowie town centre, existing and proposed residential areas, existing habitat corridors, Campvale Drain and flood prone areas, community use places and the limited shared use paths in the area.

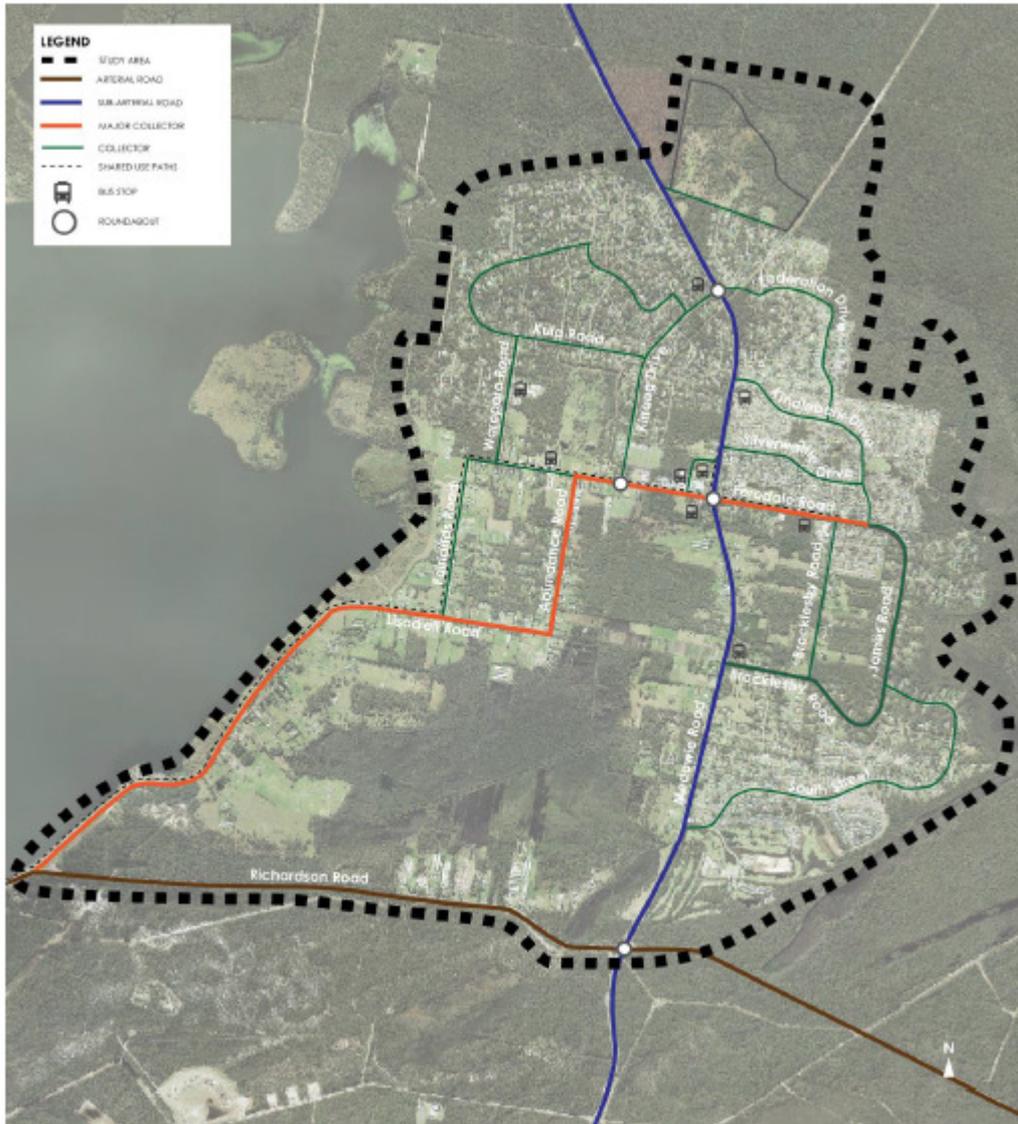


Figure 15: Existing Traffic and Transport. Reference Medowie Planning Strategy Dated 13 December 2016

The Existing Traffic and Transport map above from the Medowie Planning Strategy shows the road network in the area, shared use paths and bus stops surrounding the subject site.

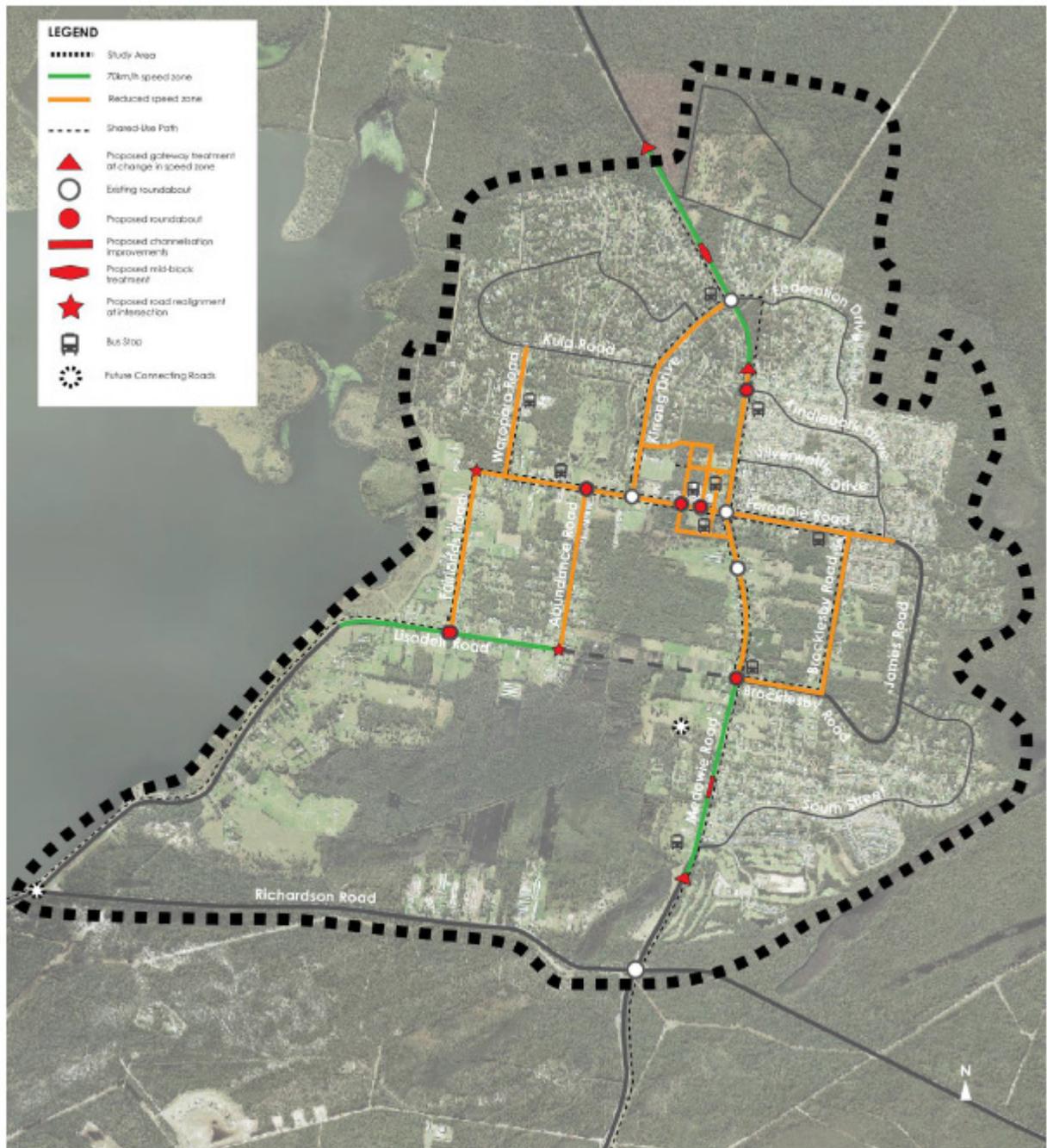


Figure 16: Future Traffic and Transport. Reference Medowie Planning Strategy Dated 13 December 2016

The Future Traffic and Transport map above from the Medowie Planning Strategy shows the proposed reduced speed zones in the Medowie Town Centre and near the subject site, illustrates proposed additional bus stops (including at the subject site) and additional shared use paths.

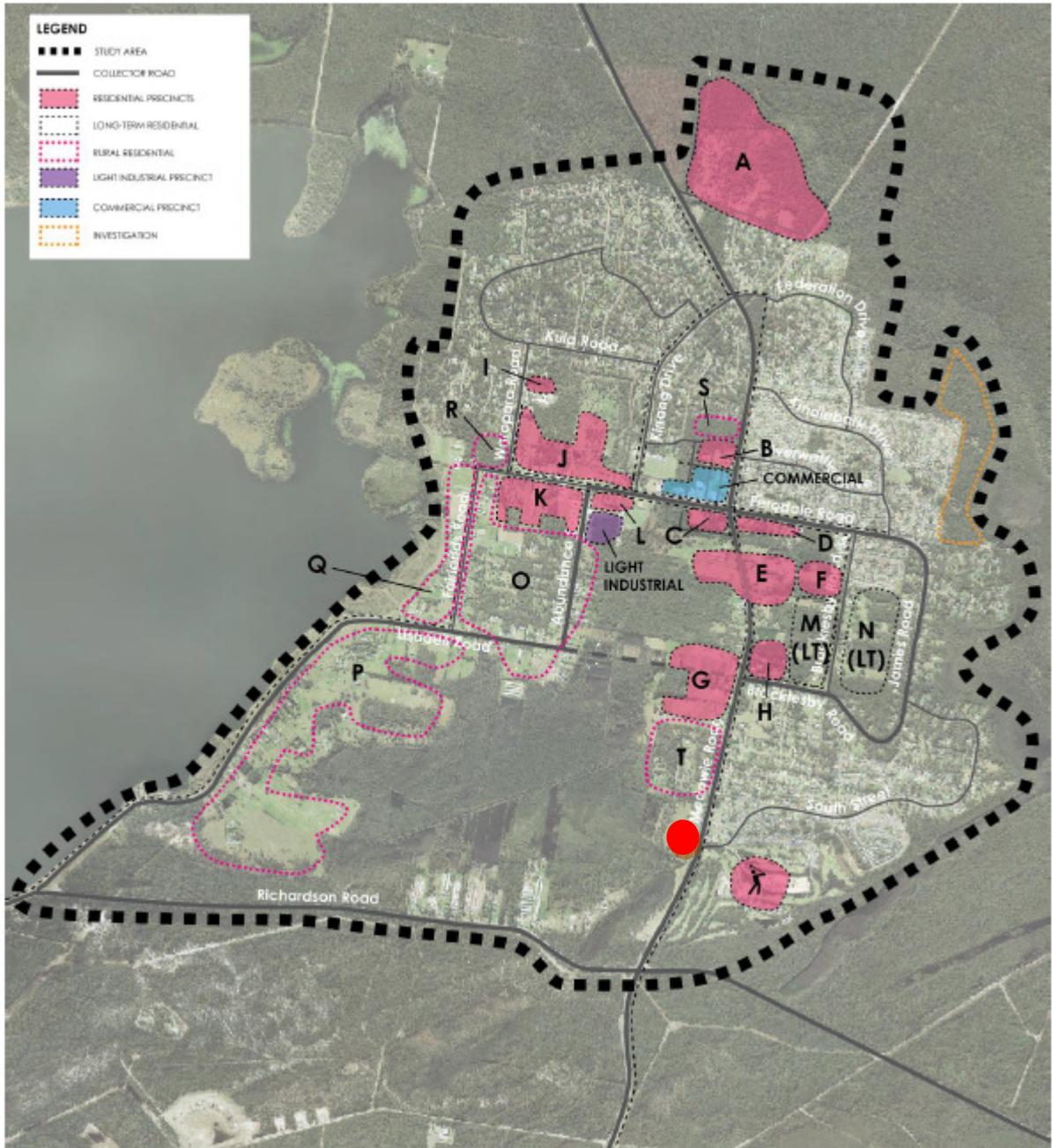


Figure 17: Planning Precincts. Reference Medowie Planning Strategy Dated 13 December 2016

The Planning Precincts map above from the Medowie Planning Strategy shows the varied precincts in the vicinity of the subject site (red dot) including existing and proposed residential areas, rural residential, light industrial and commercial areas, as well as investigation areas.

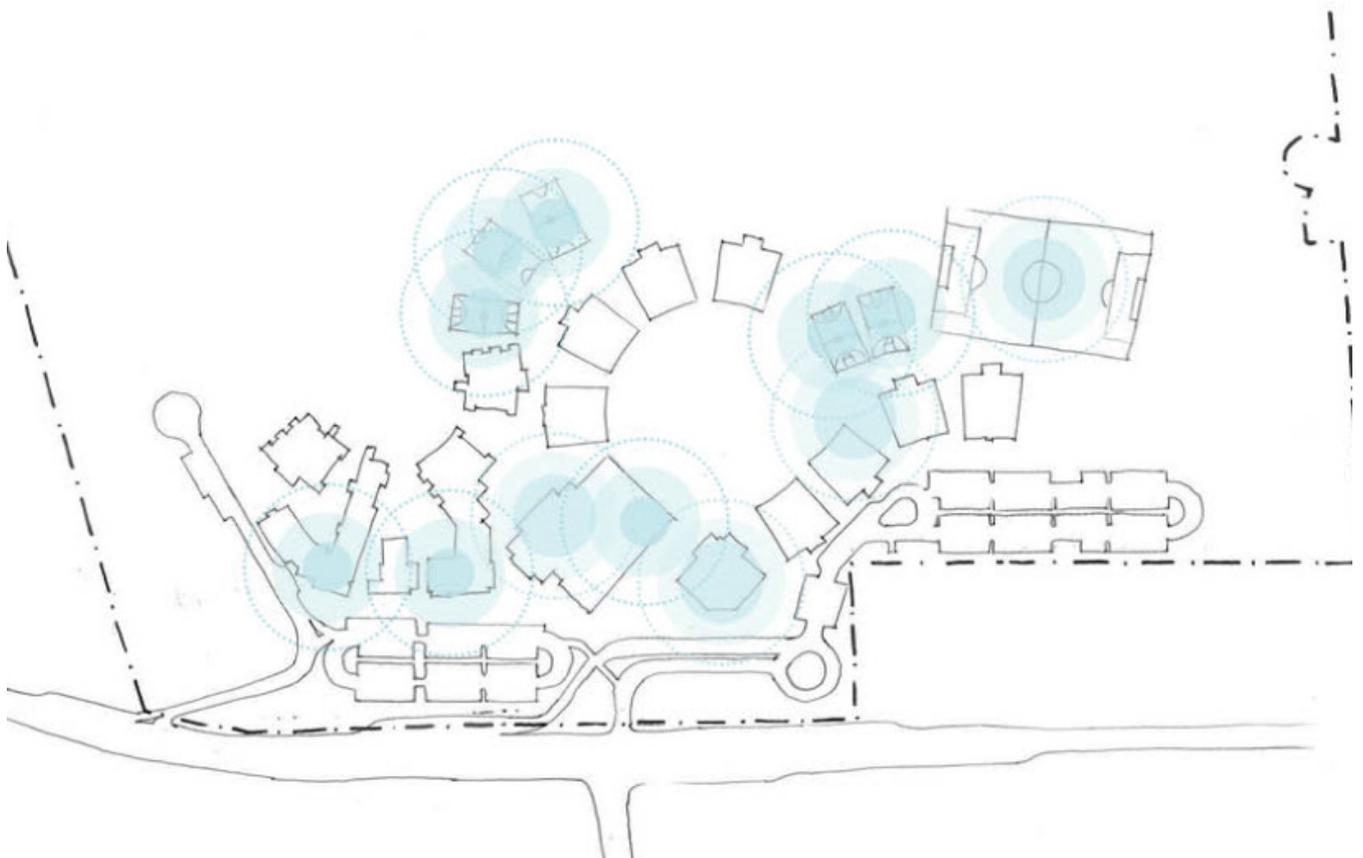


Figure 18: Site diagram illustrating afterhours and community uses.

Indicated in the above figure are the facilities on site which are designated for Community Use after hours. The built form of these are located on the frontage of the site for ease of access and also enable a secure line to be established behind the building line to prevent unwanted access into the site. These facilities include the Primary and High School halls, Chapel, High School Canteen and Cafe and the Early Learning Centre which has operating hours which extended beyond that of the school. The sporting fields and court located toward the rear of the site would be made available for use on Saturday mornings.



Figure 19: Relationship to bushland setting & natural environment

The figure above illustrates visual links through the College to the bushland setting on the western side of the site. Visual links between buildings are created by the circular set out of the site and also enable views from within the majority of the blocks to the ecology to the west. It is envisaged that there will be learning opportunities created by this link to the ecology with the Catholic Schools Office indicating the intention to integrate this in their pedagogical approach.

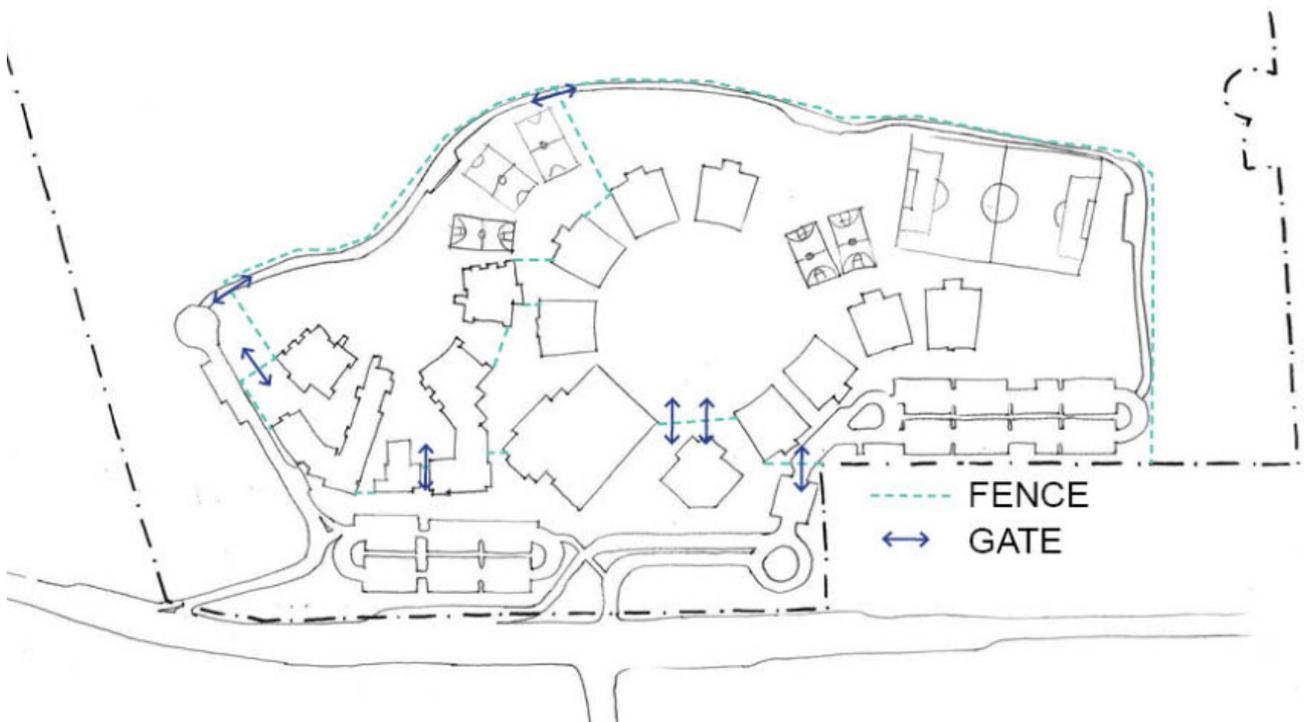


Figure 20: 'Secure' line behind building frontage and fences to perimeter

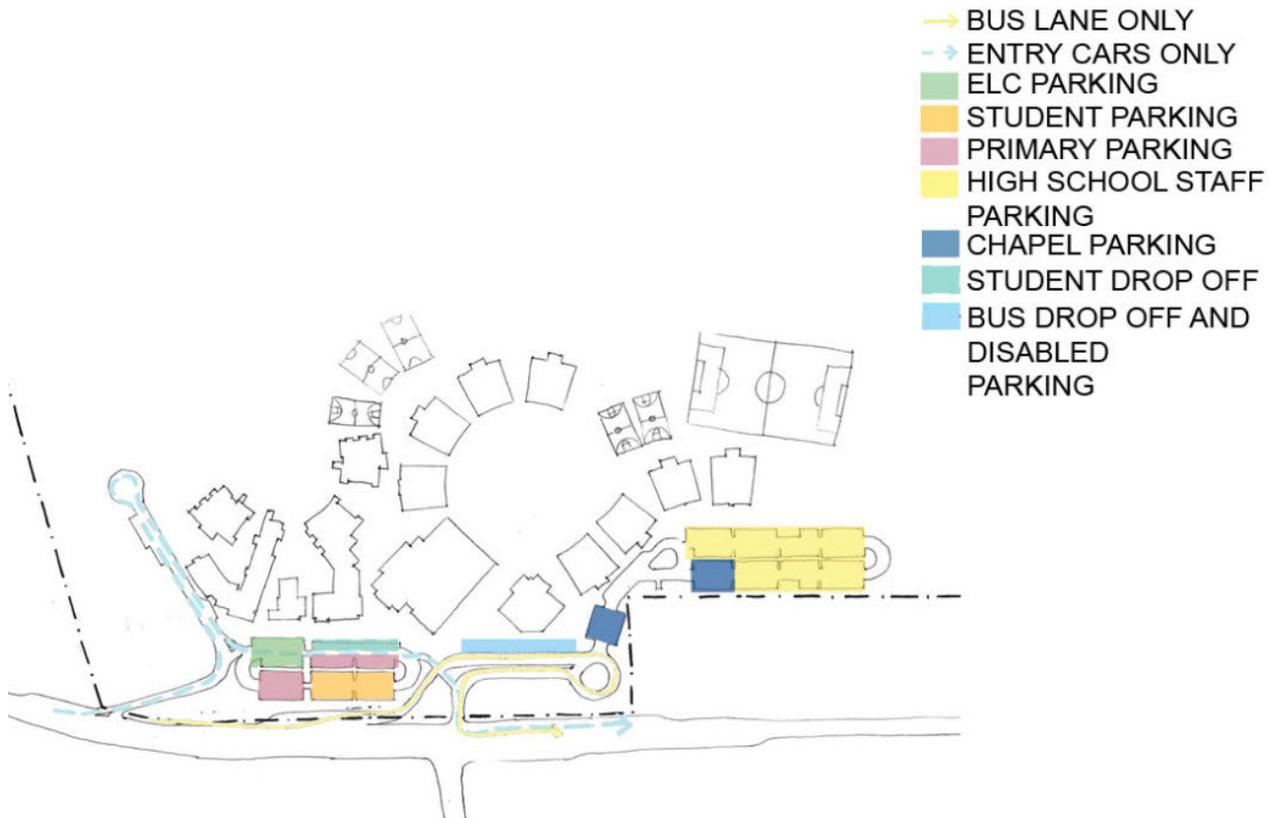


Figure 21: Site Vehicular site access and parking arrangement

The figure above illustrates the vehicular access points to the site, vehicular circulation to the periphery of the site and the various locations for car parking on the site divided into the various uses.

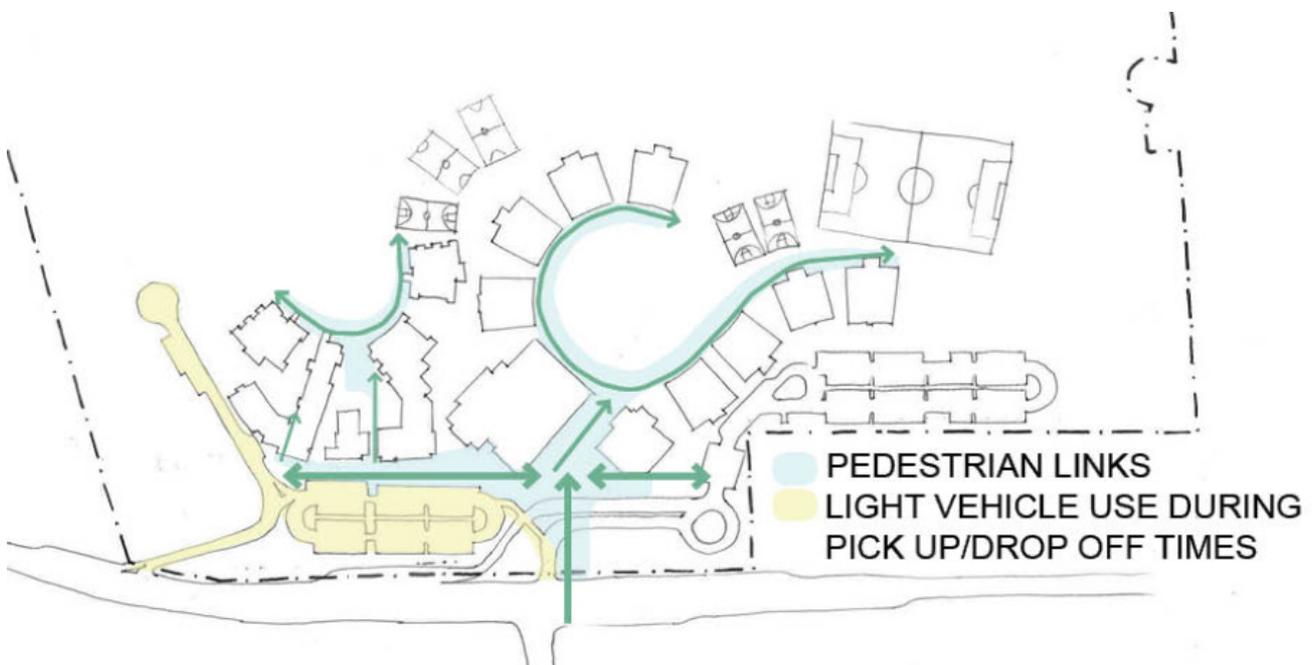


Figure 22: Pedestrian Site Access Diagram

The figure above illustrates the main pedestrian access paths in and around the site. Illustrating how the pedestrian paths have been kept separate from the vehicular paths.

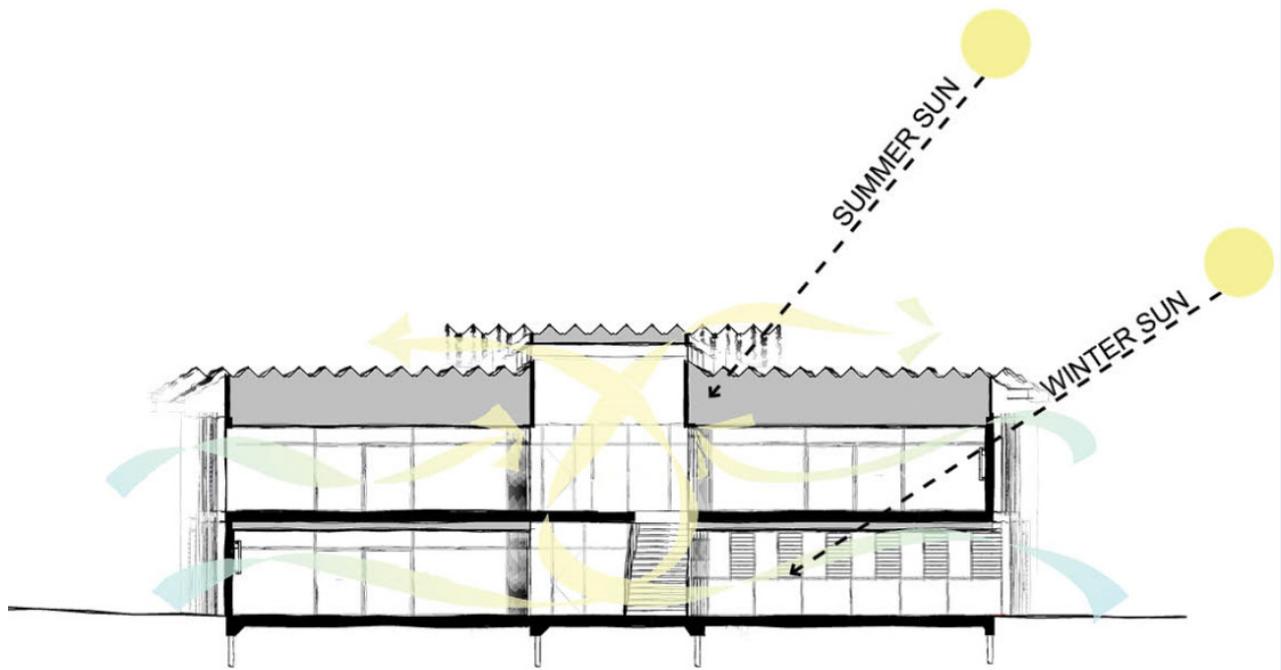


Figure 23: Typical High School Block Ventilation strategies and solar access

The design of the high school blocks incorporate operable windows at low and high level to encourage natural ventilation, roof overhangs and window awnings to block summer sun, while encouraging winter solar access. Other sustainability initiatives which are to be incorporated into the detailed design include rainwater reuse, solar panels and building monitoring systems which will form part of the pedagogical approach.

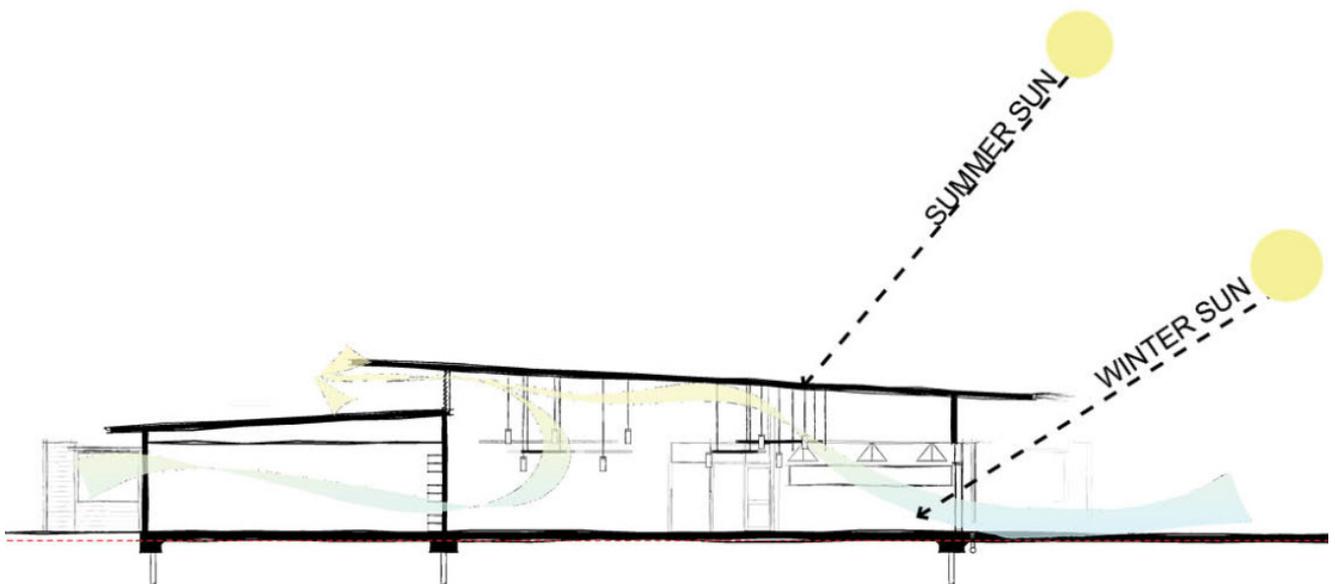


Figure 24: Typical Primary School Block Ventilation strategies and solar access.

The design of the primary school classrooms incorporate operable windows at low and high levels to encourage natural ventilation, roof overhangs, window awnings and operable louvre blades to block summer sun, while encouraging winter solar access. Other sustainability initiatives which are to be incorporated into the detailed design include rainwater reuse, solar panels and building monitoring systems which will form part of the pedagogical approach.

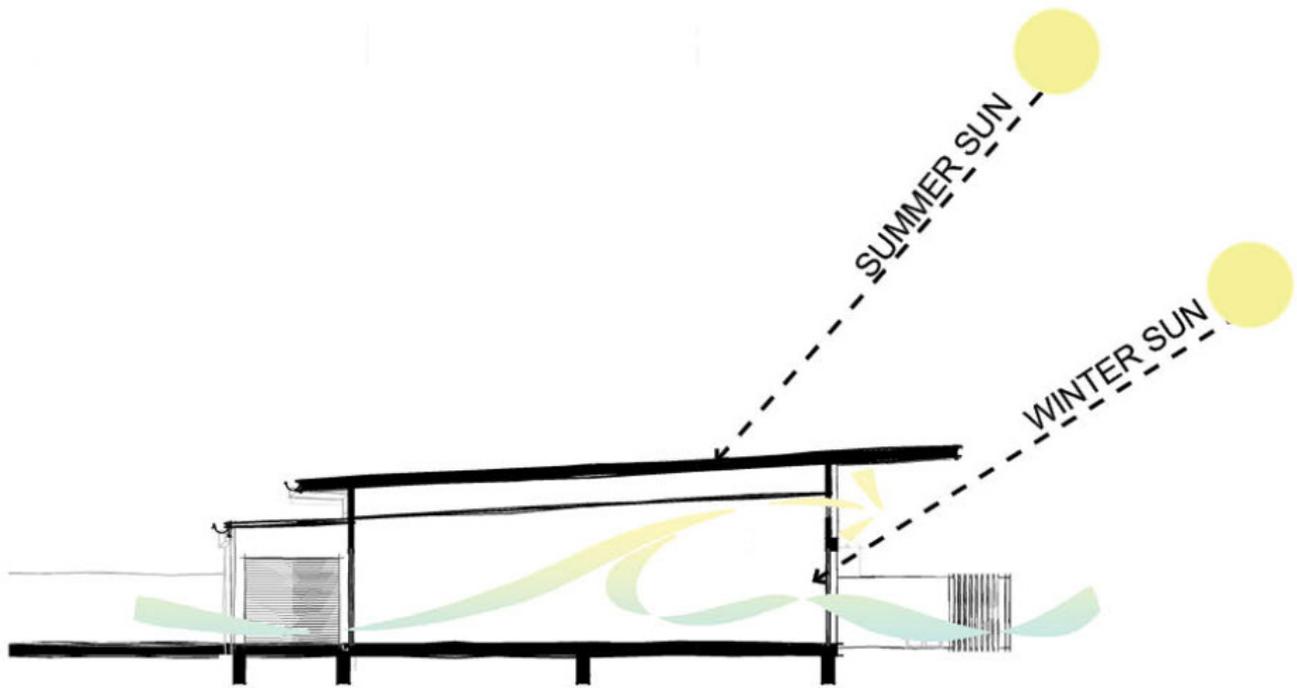


Figure 25: Early Learning Classroom Ventilation strategies and solar access.

The design of the Early Learning Centre incorporates a linear & narrow building form which promotes excellent cross flow ventilation and natural light. The use of building orientation, breezeways, large roof/verandah overhangs and high & low level louvre windows assists passive design principles. Raked ceiling forms within play spaces improve the internal environment, promote the stack ventilation effect and the suspended ceilings provide a void to assist in the thermal performance of the roof structure. Roof overhangs shade not only glazed areas but large wall expanses. Rainwater reuse, energy efficient plant, lighting & water fixtures will be incorporated in the detail design of the project. Sheltered and screened outdoor breakout areas are anticipated to be located directly off internal playspaces to increase building occupant amenity.

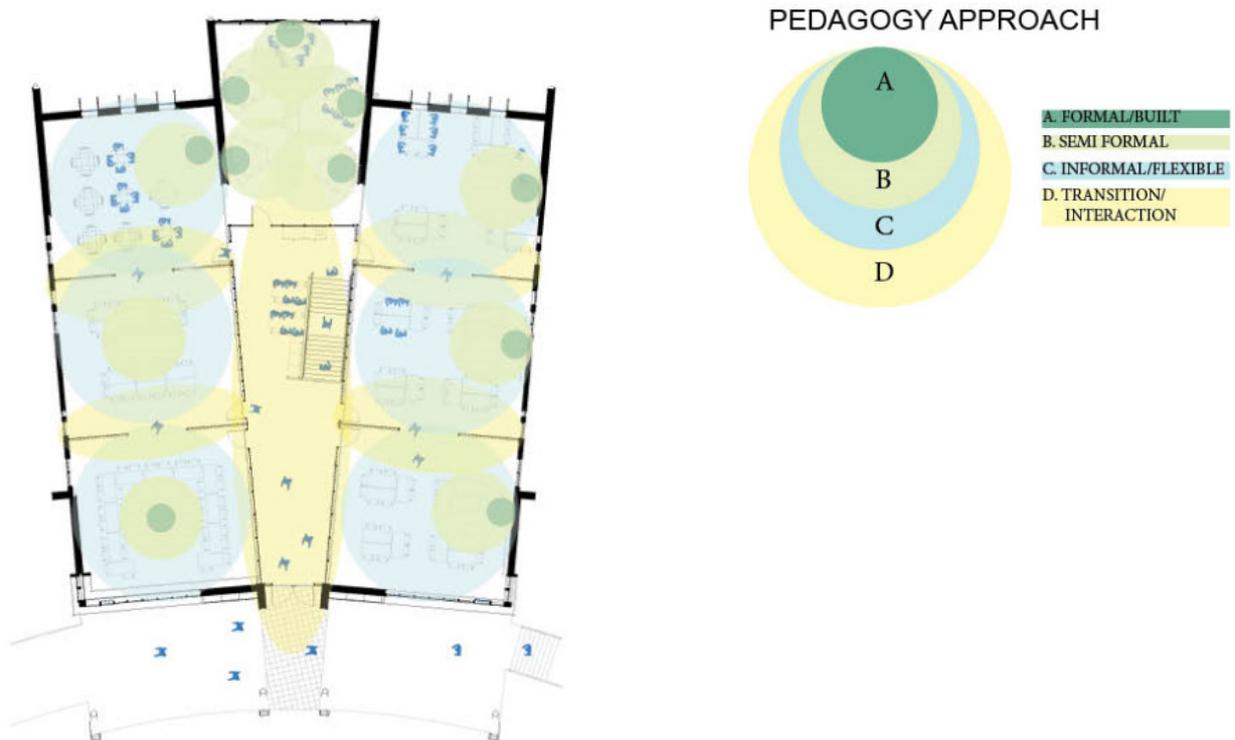


Figure 26: Typical High School Block Flexible Use Layout

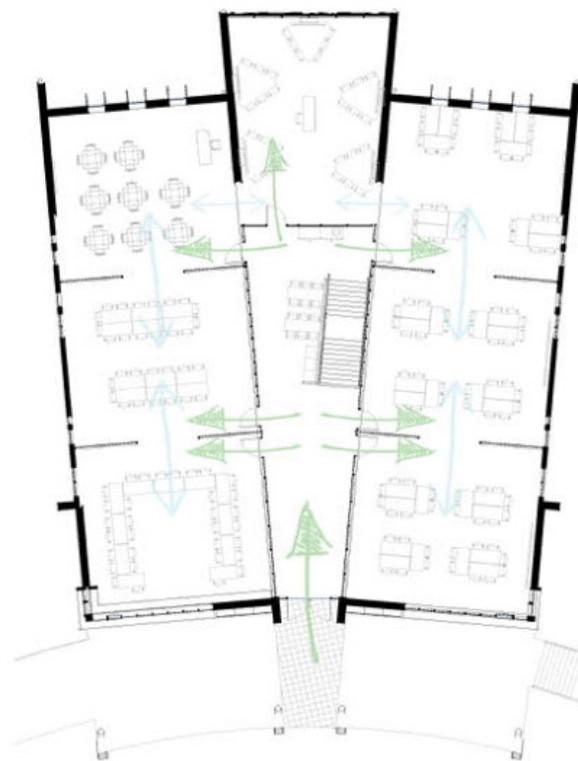


Figure 27: Typical High School Block Access & Operability Diagram

Figures 26 & 27 above illustrate the planned layout of a typical High School Block which is flexible in its usage providing spaces for the individual, small group work, large group work or opening up a number of classrooms together enabling team learning.

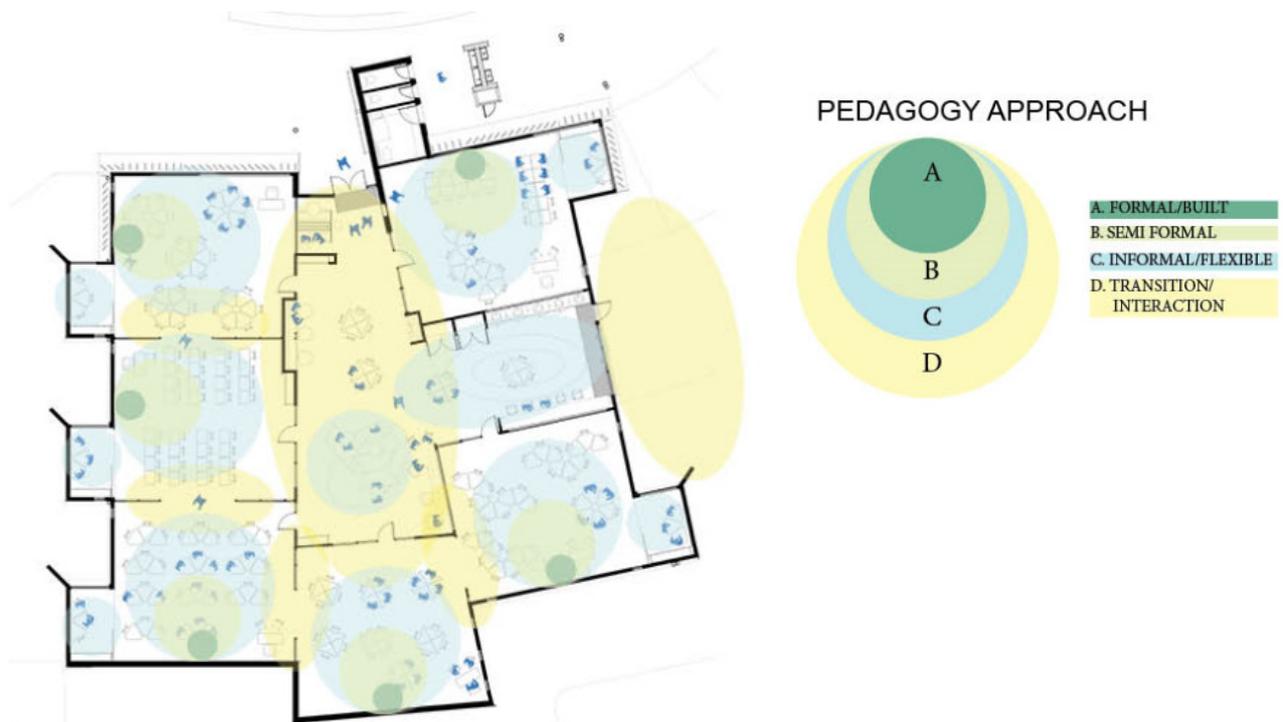


Figure 28: Typical Primary School Block Flexible Use Layout



Figure 29: Typical Primary School Block Access & Operability Diagram

Figures 28 & 29 above illustrate the planned layout of a typical Primary School Block which is flexible in its usage providing spaces for the individual, small group work, large group work or opening up a number of classrooms together enabling team learning.

Catherine McAuley Catholic College, Medowie

Community Consultation and Engagement

The case for the development of the school and the shape it is taking has arisen due to local community consultation. In late 2014-2015 the Catholic Schools Office of the Diocese of Maitland-Newcastle undertook a major study into the future provision of secondary schooling within the Catholic sector. This engaged every family, student and staff member in the Diocese including them in a direct survey as well as inviting individual submissions and holding public meetings in every region of the Diocese. The study was undertaken on behalf of the Diocese by an external consultant adding an arms-length approach to conclusions reached.

The study created a series of 12 recommendations for the future provision of Catholic schooling in the Diocese. One overwhelming decision that arose from the community was the desirability of a secondary Catholic school in the Port Stephens area. In the Diocese there is no Catholic secondary school between Newcastle and Taree on the coastal corridor. The survey results from parents strongly sought a secondary school in this significant population. The public meeting held in Nelson Bay was the largest and most vocal of all regional meetings held and reinforced the survey data in strongly recommending a new secondary school. It was also evident from public responses that an additional primary school in the Port region would be most welcome. Currently three Catholic primary schools serve this extensive region and that are on the perimeters of the region at Bulahdelah, Raymond Terrace and Nelson Bay. The desirability of a Catholic Primary School more centrally located received strong support. Hence, the recommendation to initially develop a secondary school arose from very clear and strong community support in this study.

In developing the planning for the school a Project Implementation Committee was established in 2015 and has met over the last two years and will continue to meet in 2017-2018. A particular emphasis for the composition of this committee was the inclusion of four parents who come from Catholic primary schools at Nelson Bay, Raymond Terrace and Bulahdelah. They bring the voice of parents in Catholic primary schools and the wider community in helping shape all aspects of planning for the College. The implementation committee is the core planning group for the College and every dimension of planning is driven by this group. The four parents have been outstanding parent and community representatives in bringing the community voice to the table. They have particularly shaped the nature of the school as a community hub serving a very widespread set of regions; they have been the drivers of the desirability of establishing not only secondary schooling but the future planning of primary schooling.



They formed a key part of the panel for the selection of the preferred architect for the project and their voice has been as significant as any in the input provided to Webber architects as the planning has been developed through 2016.

To this point the focus has been on the planning for the secondary school. In 2018 and 2019 planning takes on a far more explicit nature in developing the myriad of components that shape a secondary school. For example, decisions will be made on the school's visual identity (colours, crest and motto), uniform, transport, Enrolment Policy, marketing and promotion of the school, appointment of the Foundation Principal (mid-2018) and the induction and orientation of Year 7 students in 2019 to commence in 2020. Apart from the two meetings per term that will be held in 2018 and 2019, there will be community meetings held in each semester of these two years to provide another layer of community input into the micro-planning for the school's commencement. Further, this year will see a social media presence created that will develop a further avenue of community input.

With the Principal commencing operations in January 2019, a key focus for the Principal will be direct parent and community engagement throughout the course of 2019.

Catherine McAuley College came into reality based on strong community voice. The nature and shape of the College is being very much shaped by this same voice.



Gerard Mowbray

ASSISTANT DIRECTOR - SECONDARY SCHOOLS PROJECTS

12 FEBRUARY 2018



MEDOWIE CATHOLIC COLLEGE

SITE STRATEGY

1. EXISTING SITE CONSTRAINTS

2. EXISTING SITE OPPORTUNITIES

3. SITE MASTERPLAN

4. PEDESTRIAN CIRCULATION

5. VEHICULAR CIRCULATION

6. SITE TRANSITION

7. ADMINISTRATION BUILDINGS

8. LIBRARY HUBS

9. COLA BUILDINGS

10. LEARNING CENTRES

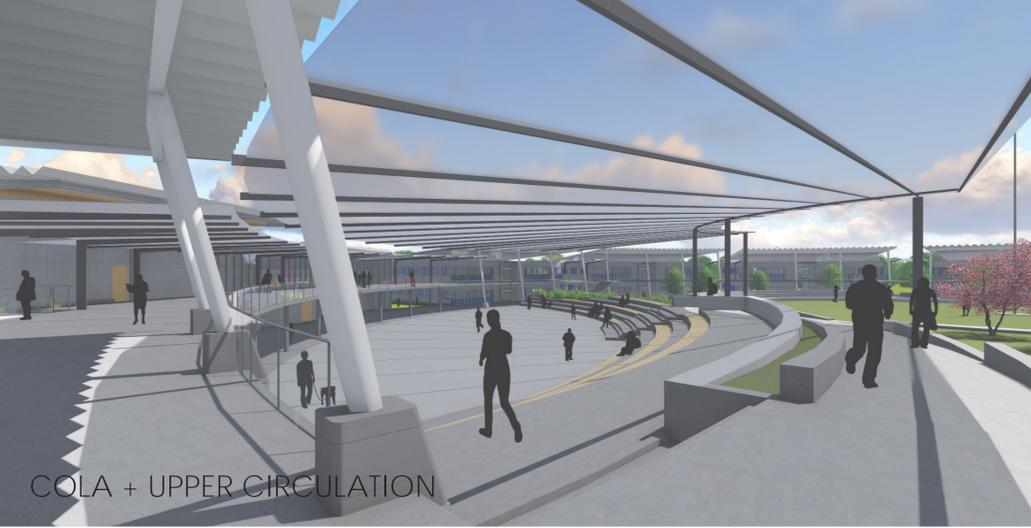
11. CAFE + COMPLEMENTARY USES





GROUND FLOOR PLAN 1:500





COLA + UPPER CIRCULATION



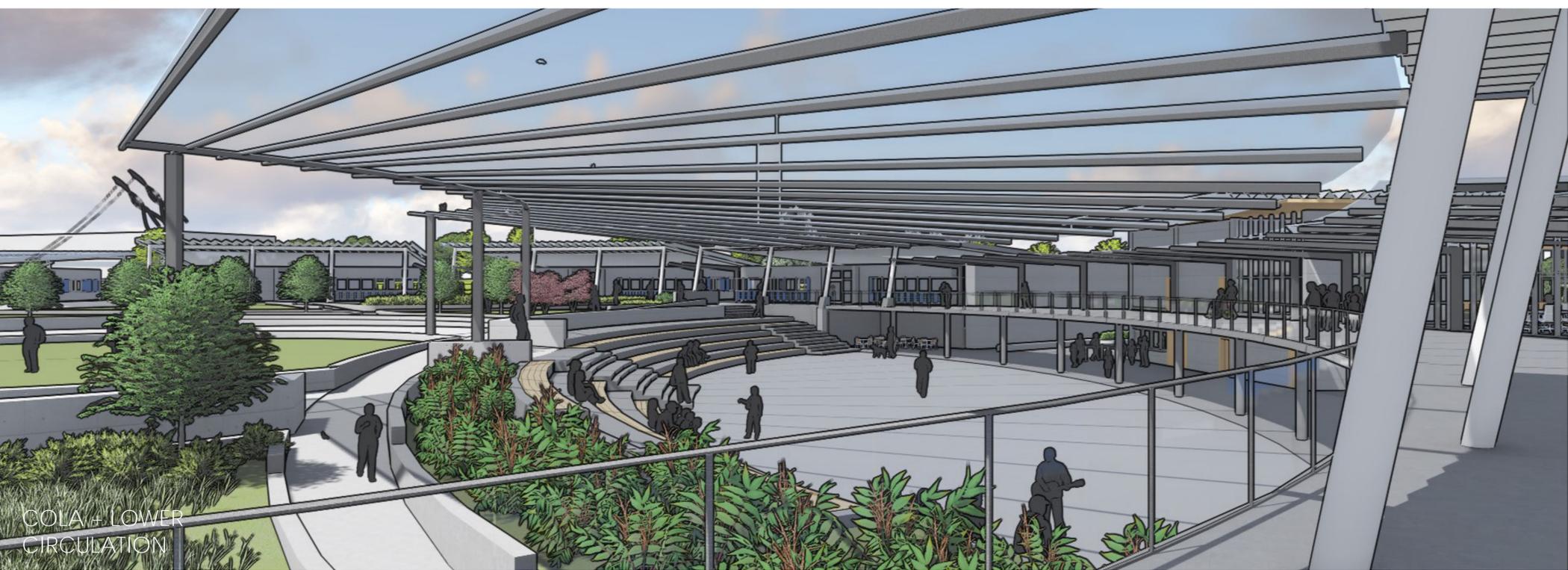
TAS LEARNING CENTRE + BREAKOUT



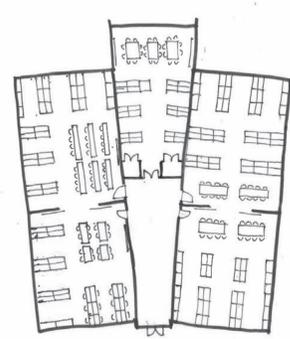
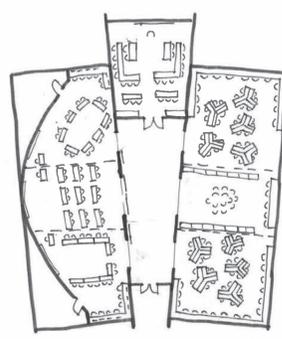
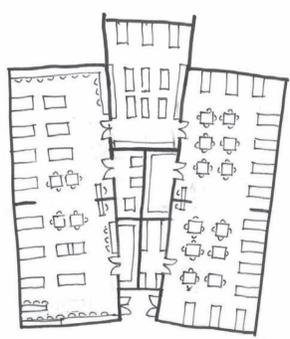
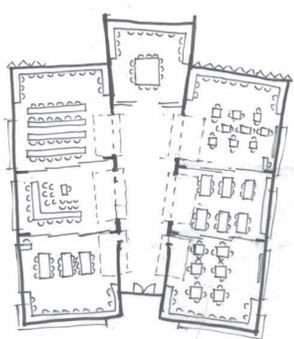
GRIA LEARNING CENTRE + BREAKOUT



AERIAL SITE VIEW



COLA + LOWER CIRCULATION



LEARNING CONFIGURATIONS

