



GLEDSDOOD HILLS
PRIMARY SCHOOL

Design Analysis Report

Prepared for



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Design Statement - Draft SEPP Educational Establishments and Child Care Facilities 2017

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B	27/07/18	Amended - SSD Approval Submission	SR/ML	AMC

1 INTRODUCTION

The Gledswood Hills Public School site is located on Hermitage Way, Gledswood Hills. The site is a greenfield site flanked by newly formed roads to the West and East, with open space adjoining the Northern boundary.

The school is designed to meet the growth in the South West Sydney area. The new Gledswood Hills Public School will accommodate up to 1000 students on completion. The teaching spaces will be technology rich and create a dynamic learning environment.

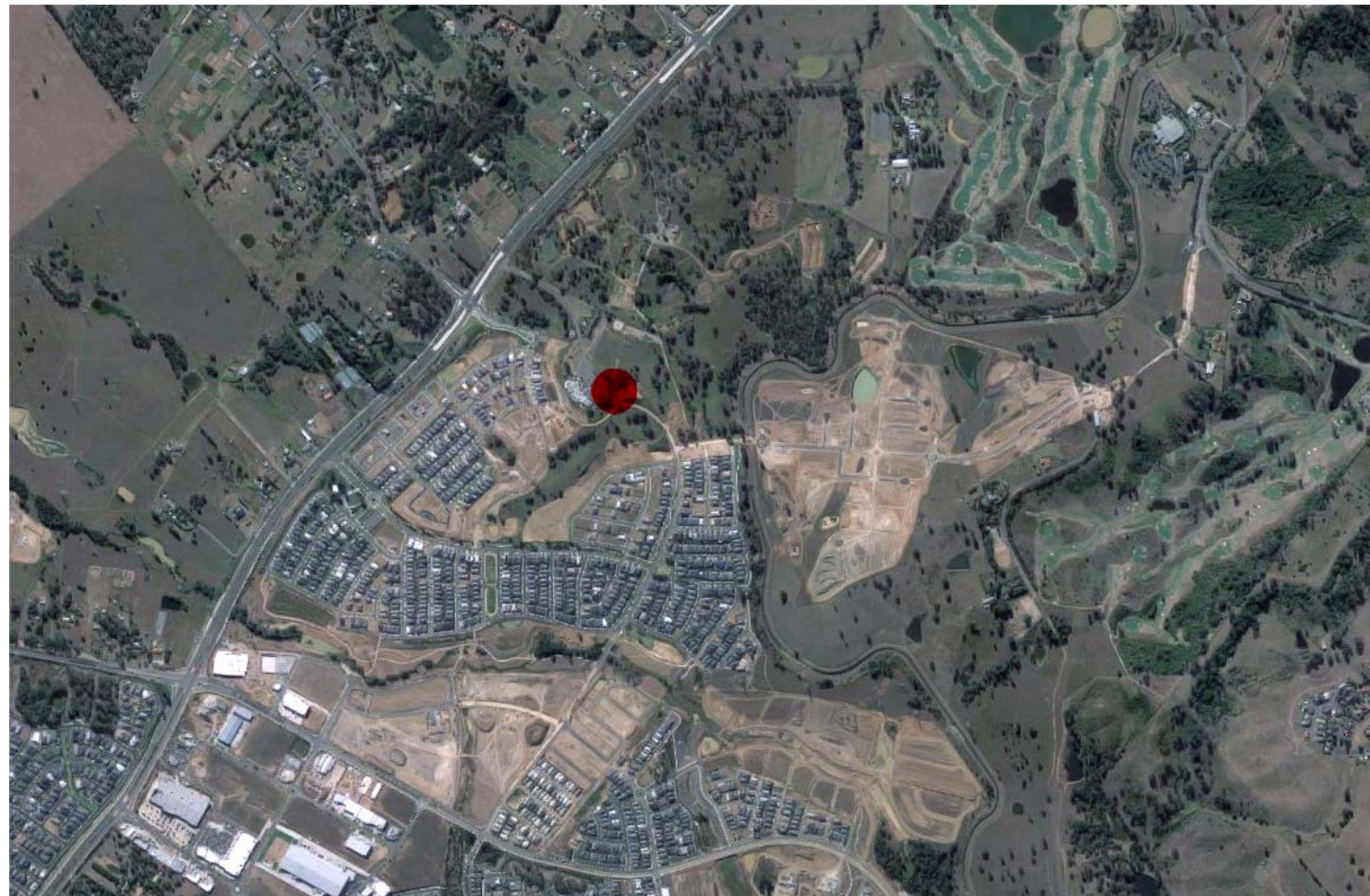
The concept design report reflects the workshop carried out with the PRG to develop the education principles, spatial requirements and masterplans.



Gledswood Hills Site



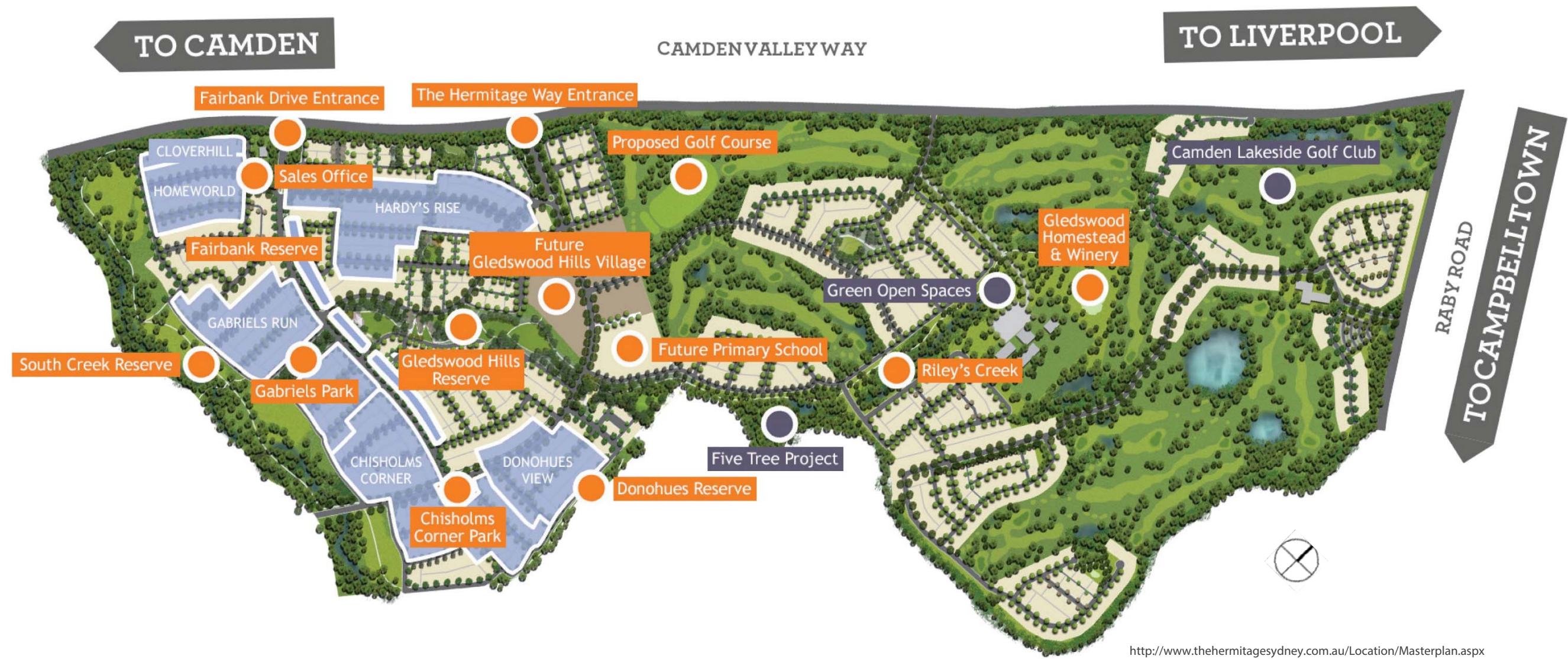
View of the site from the South-East Corner



Satellite Image of South-West Sydney

2 THE HERMITAGE MASTERPLAN

The school site is located within the Hermitage Masterplan



3 CONTEXT ANALYSIS

The site for the Gledswood Hills Public School is located within a new and rapidly expanding suburb, Gledswood Hills.

The site is bounded by three roads, Hermitage Way being one and is situated between two open spaces to the North and East. The site is also adjacent to the future town centre.

Gledswood Hills forms part of the Turner Road Precinct within the South West Priority Growth Area.



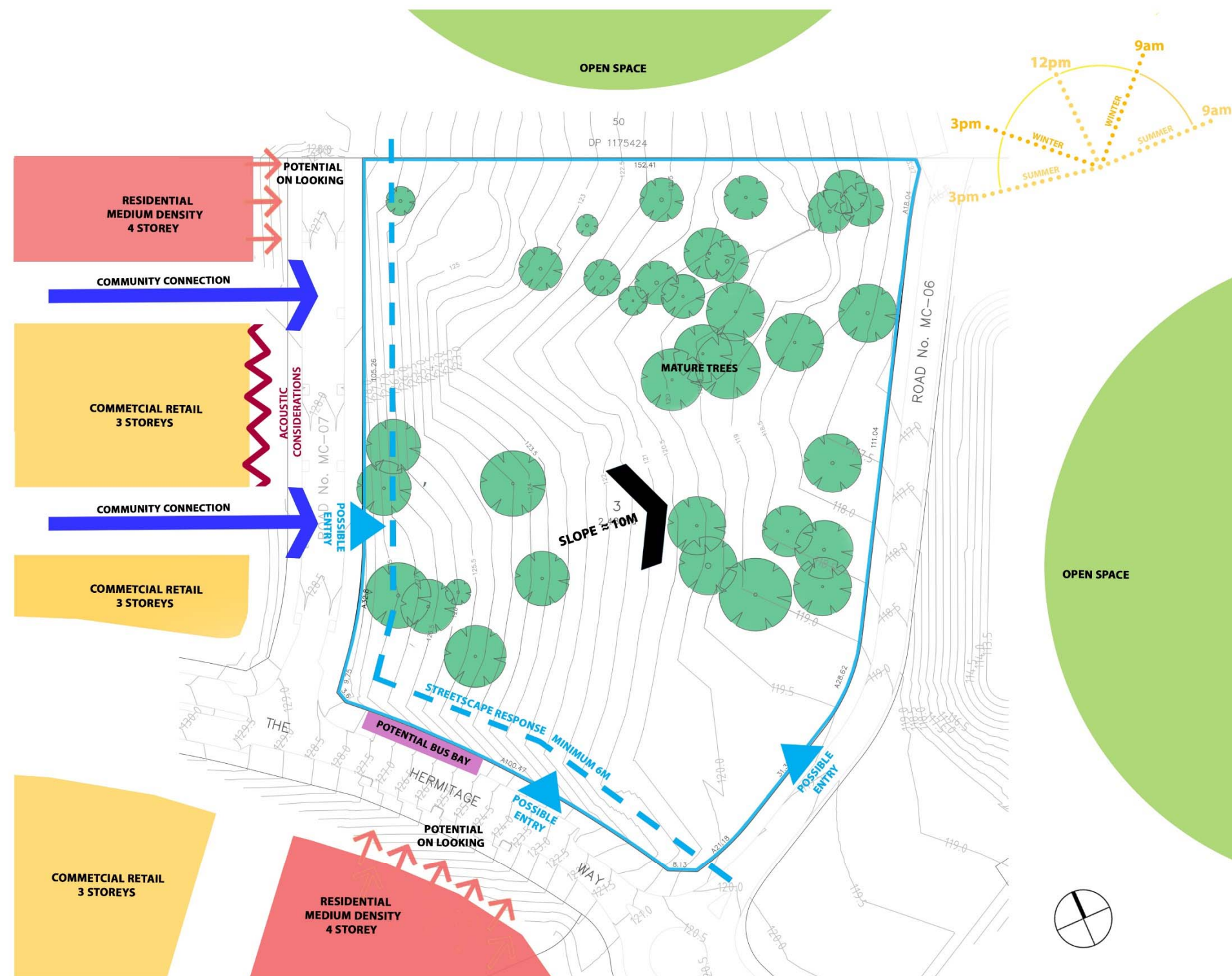
4 SITE ANALYSIS, OPPORTUNITIES AND CHALLENGES

OPPORTUNITIES

- Slope of the site
- Connection to the town centre
- Key street frontages to create a cohesive streetscape

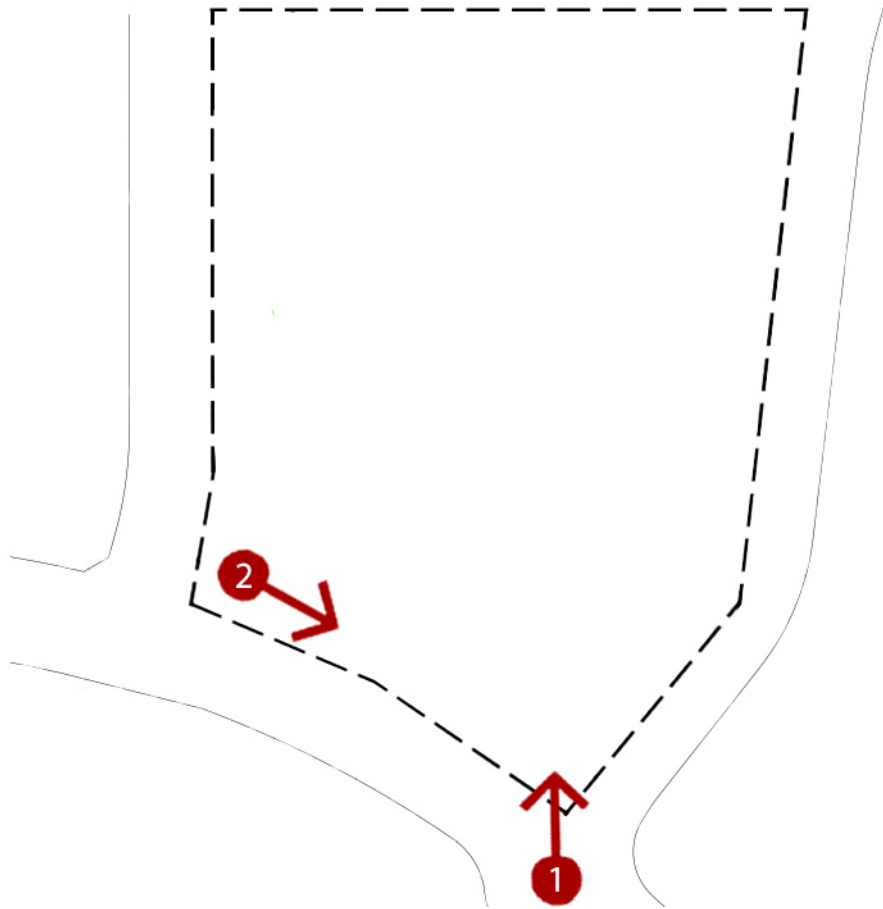
CHALLENGES

- Slope of the site
- Trees



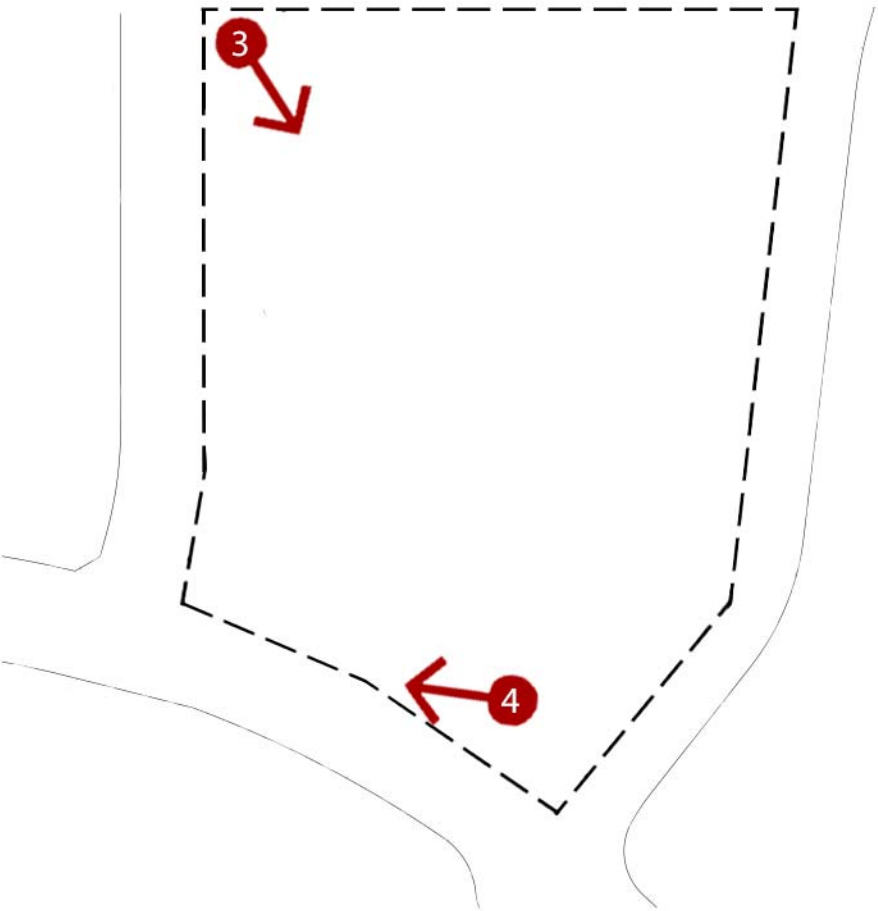
5 SITE IMAGES

- 1 View of the site from the South-East Corner
- 2 View of the South-East Corner from the South-West Corner

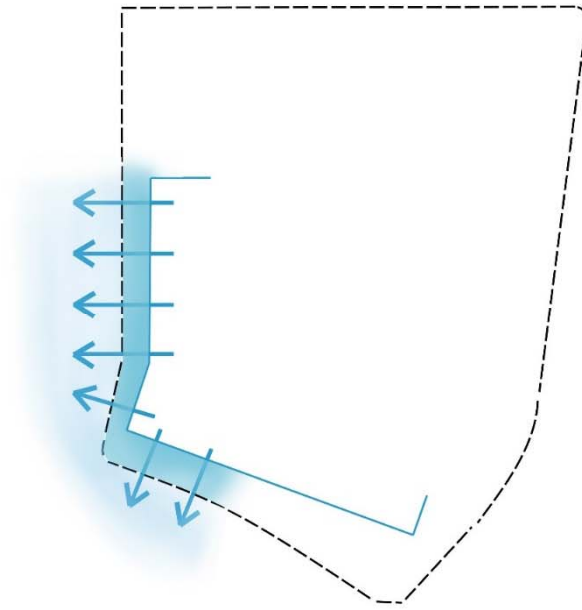


5 SITE IMAGES

- 3 View from the North-West Corner of the site
- 4 View from the Southern boundary of the site

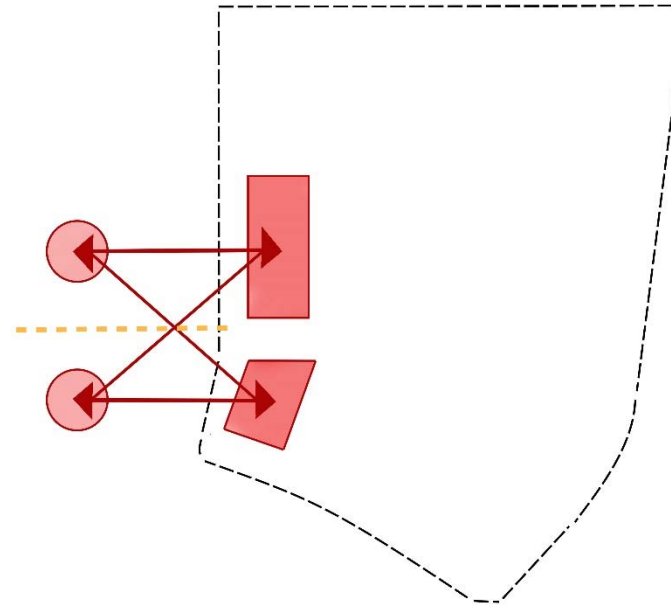


6 SITE STRATEGIES



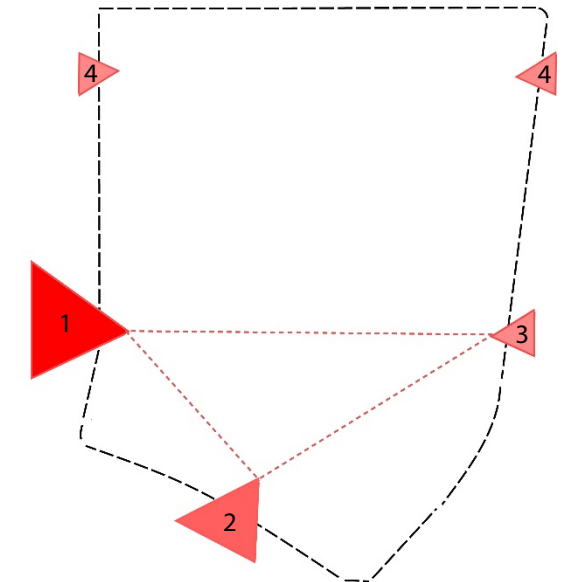
Streetscape

Address the street to provide a positive streetscape that defines the public space of the existing street network



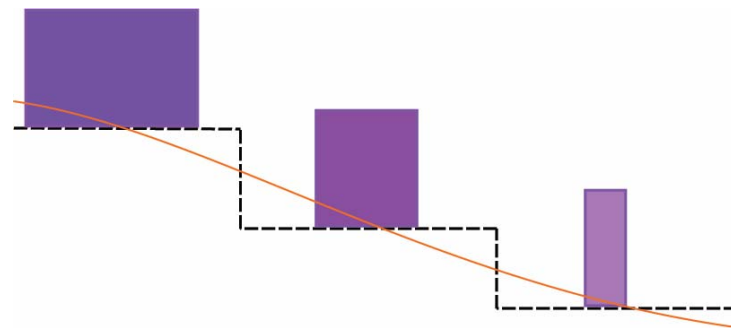
Connections

Address the connections of site
Organise public functions of the school to address the town centre and community functions



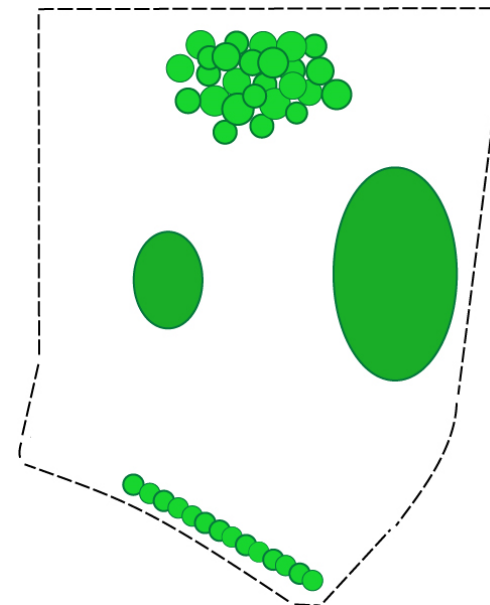
Entry

- 1 Clear main entry
- 2 Access from school bus bay
- 3 Parent drop off
- 4 Car parking entry



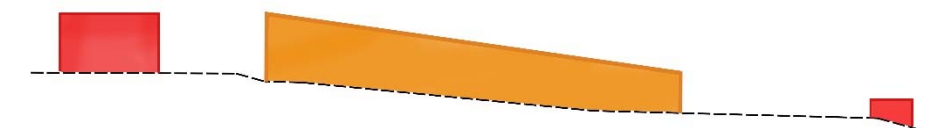
Topography

Utilise topography to terrace building form and external space



Open Space

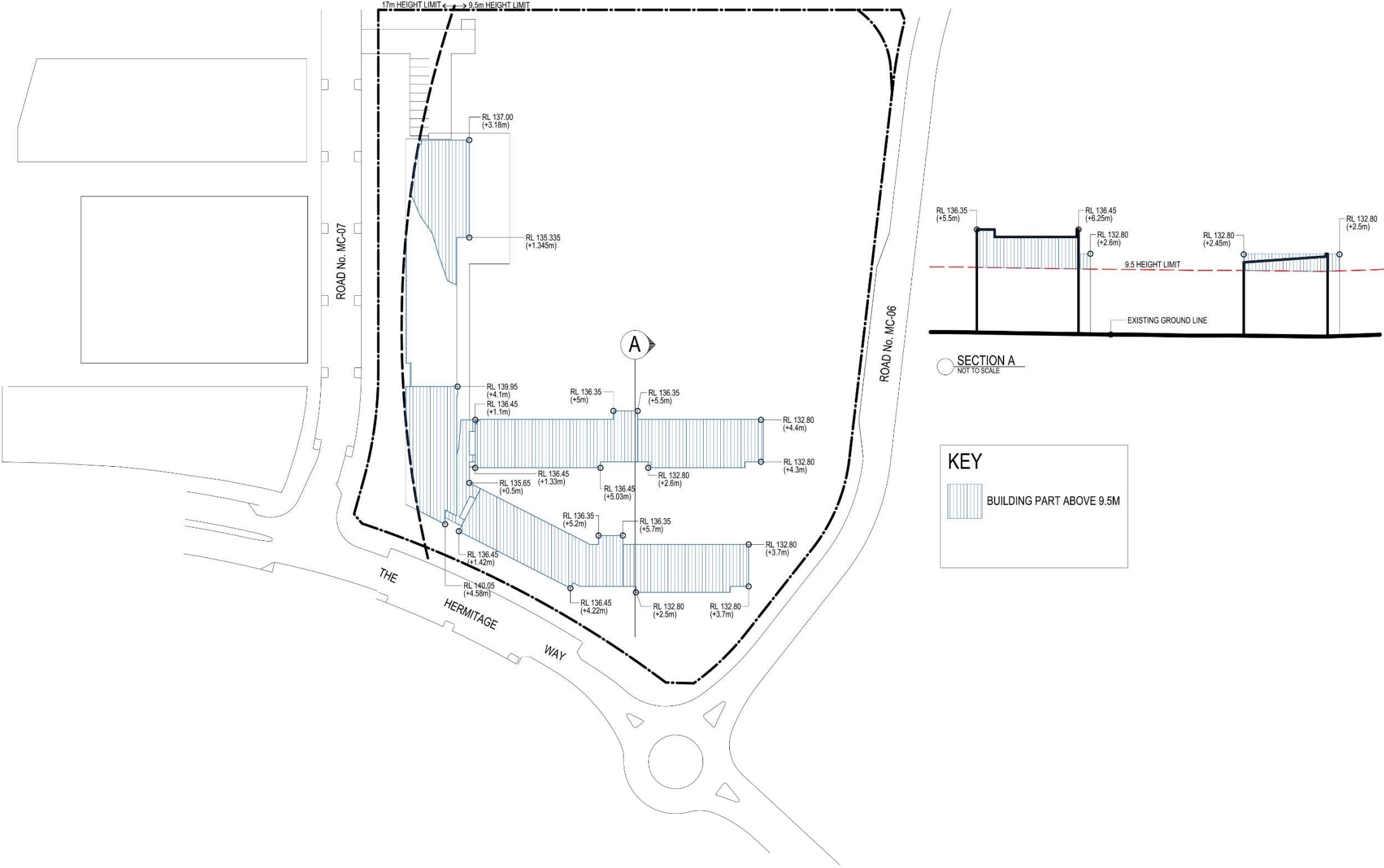
Provide a variety of open spaces for teaching and play
Use landscaping to define edges
Reinforce existing native landscape



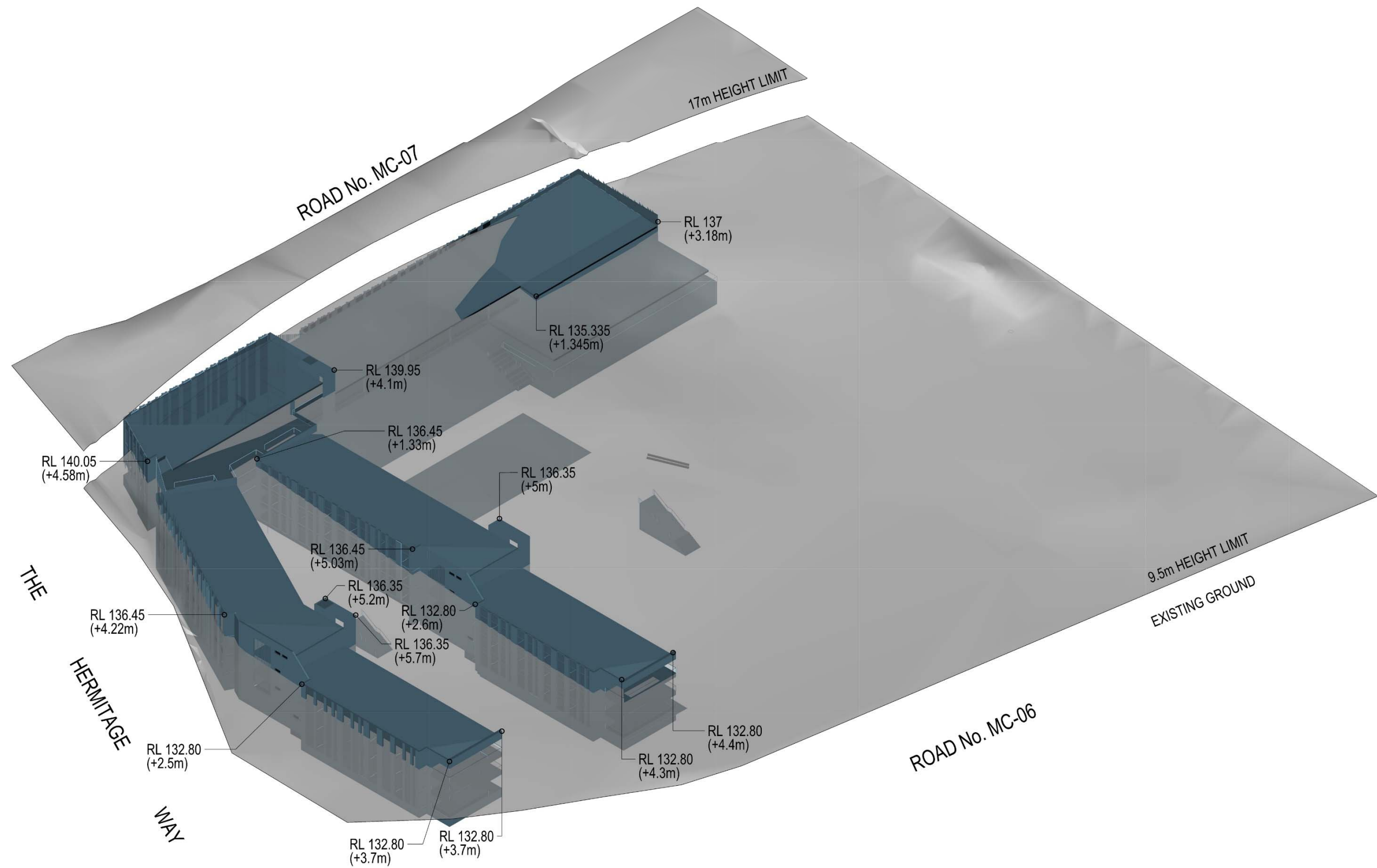
Scale

Increase scale to address town centre and community hub
Reduce scale at eastern edge to transition to open space and residential area

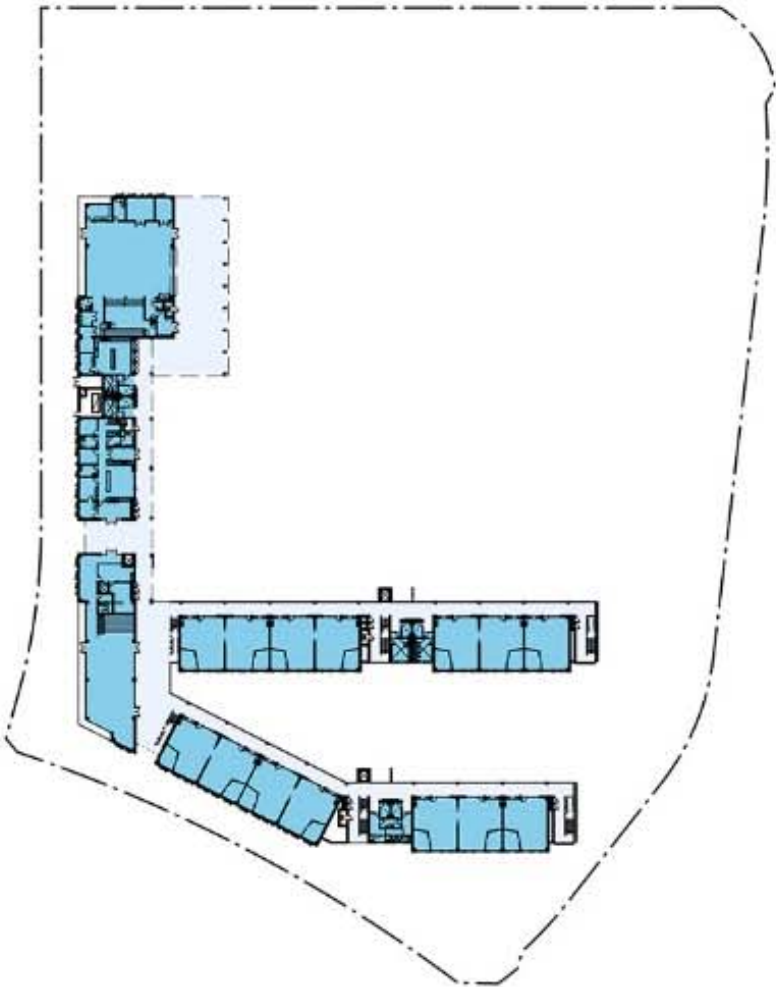
7 HEIGHT ANALYSIS



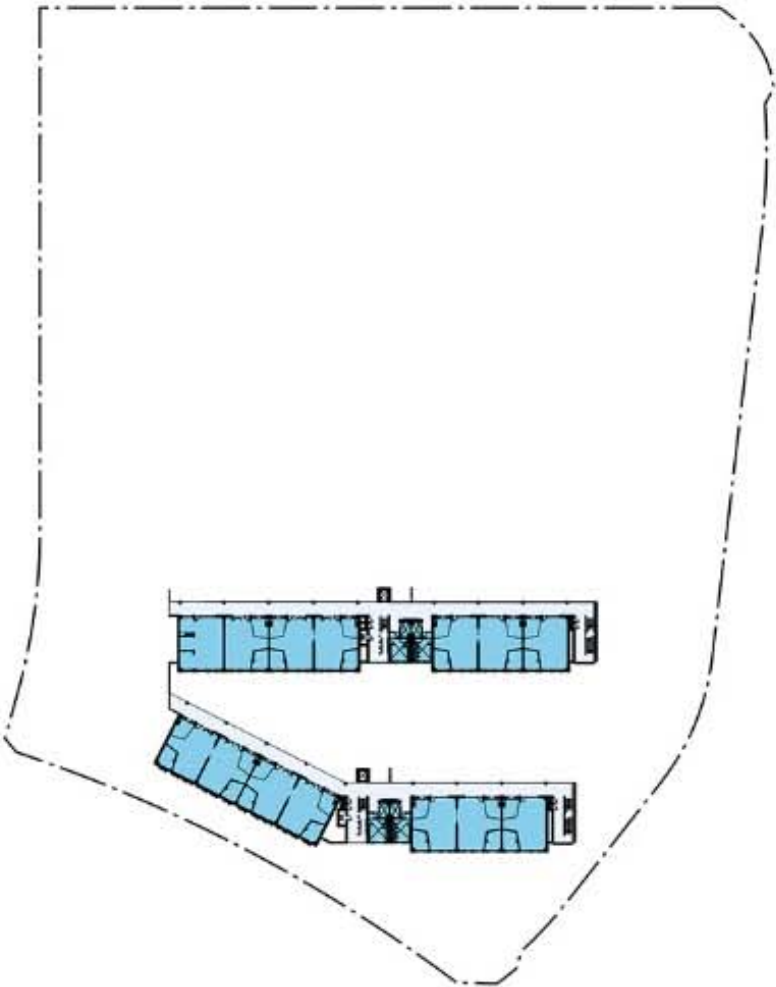
7 HEIGHT ANALYSIS



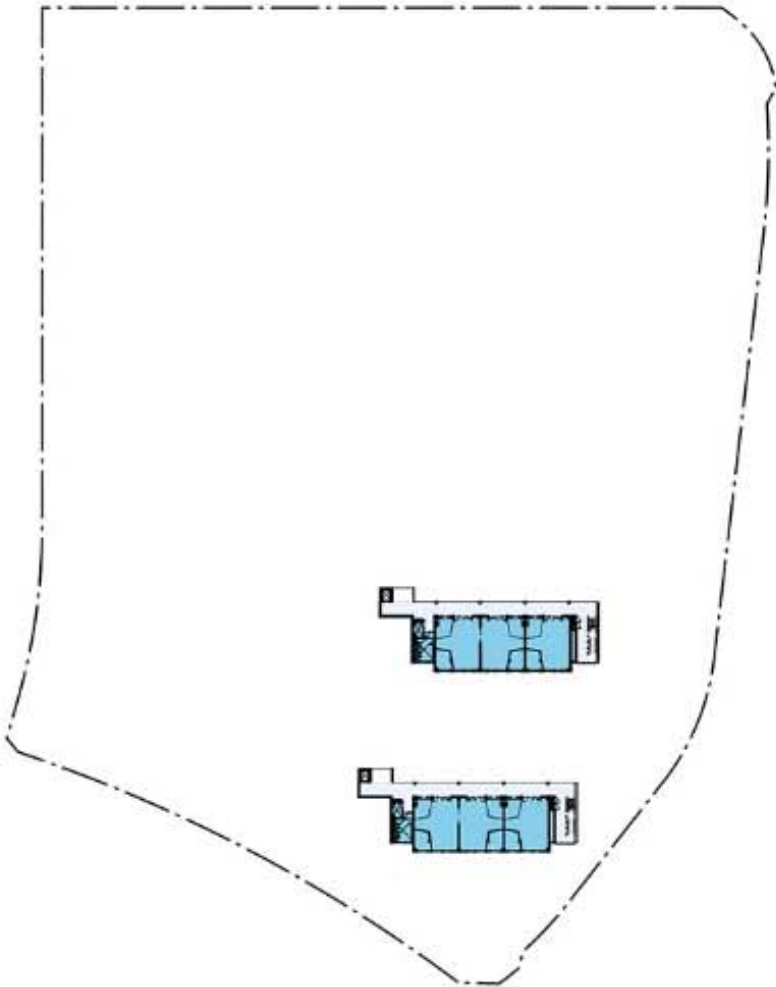
8 AREA CALCULATIONS



FIRST FLOOR GFA



GROUND GFA

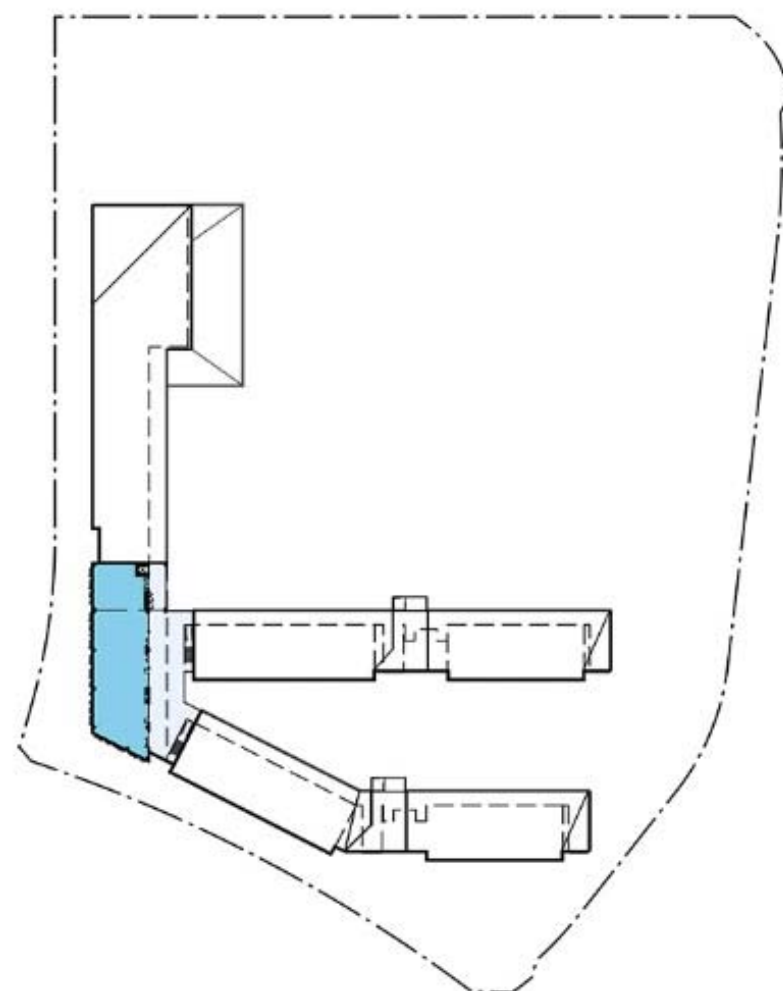


LOWER GROUND GFA

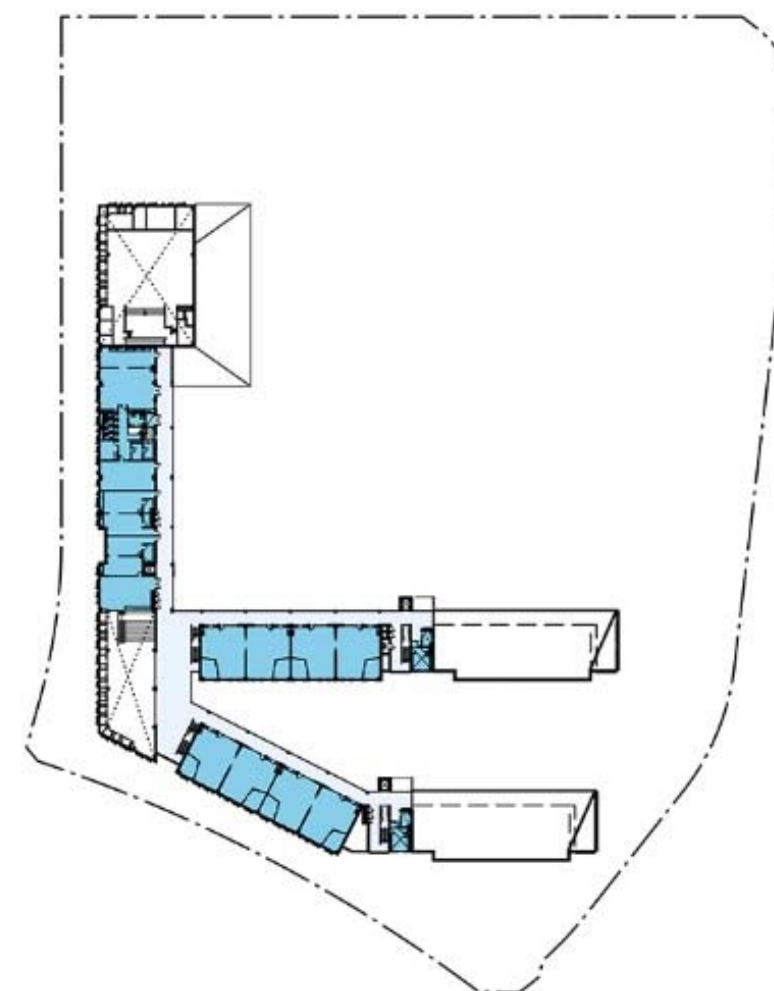
GFA CALCULATIONS

GFA NEW WORKS		EXISTING GFA	
LOWER GROUND FLOOR	636.48 m²	EXISTING PRIMARY SCHOOL	0m²
GROUND FLOOR	1,466.22 m²	PROPOSED GFA	
FIRST FLOOR	2,655.68 m²	PROPOSED NEW WORK	6,533.02 m²
SECOND FLOOR	1,379.44 m²	TOTAL GFA	
THIRD FLOOR	395.20 m²	NEW & EXISTING	6,533.02 m²
TOTAL	6,533.02 m²		

8 AREA CALCULATIONS



THIRD FLOOR GFA

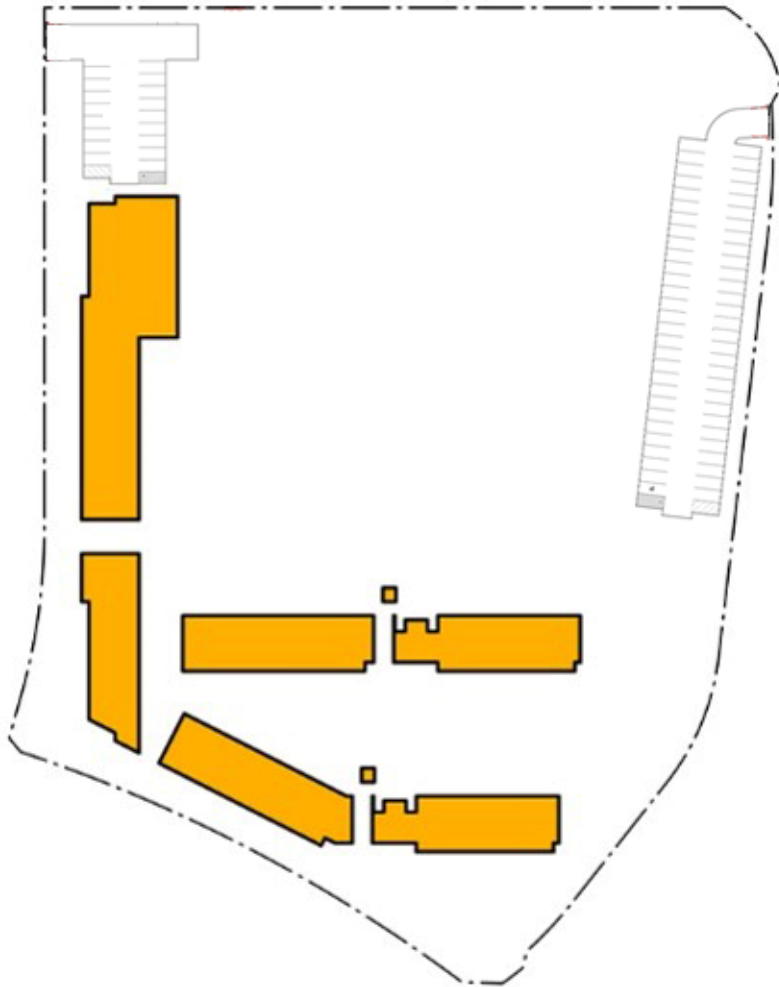


SECOND FLOOR GFA

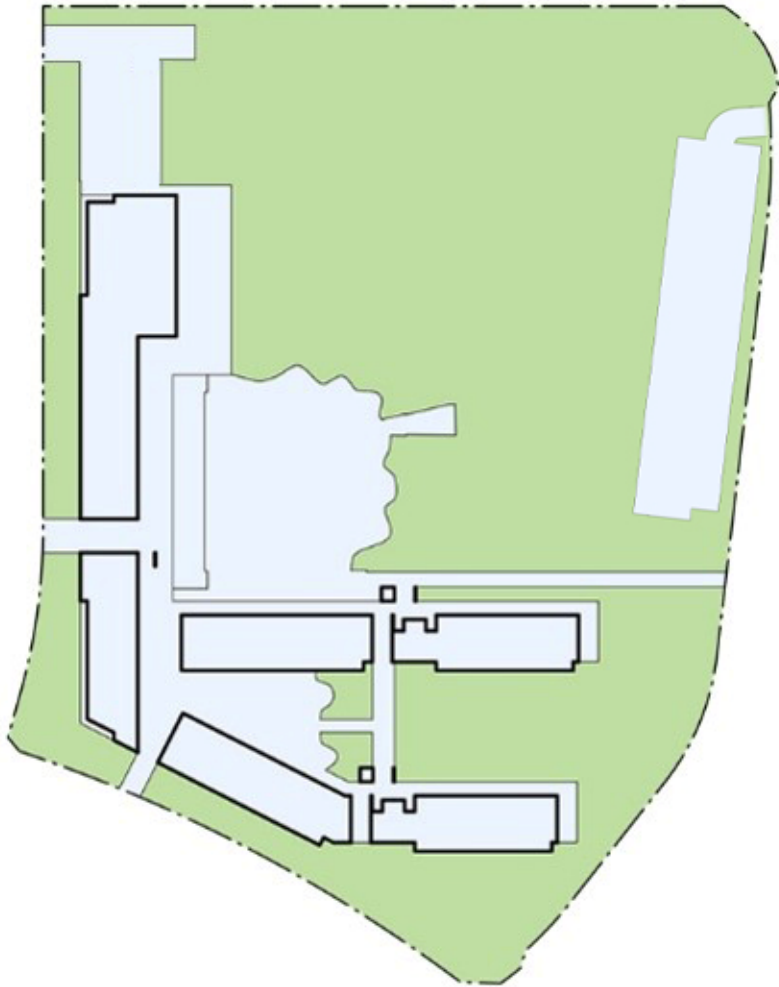
GFA CALCULATIONS

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SECOND FLOOR	1,379.44 m ²	TOTAL GFA	
THIRD FLOOR	395.20 m ²	NEW & EXISTING	6,533.02 m ²
TOTAL	6,533.02 m²		

8 AREA CALCULATIONS



SITE COVERAGE



PROPOSED LANDSCAPING

SITE DATA

SITE COVERAGE		
SITE AREA	24,850.00 m²	
EXISTING SITE COVERAGE	0m²	0%
NEW WORKS SITE COVERAGE	4,935.65 m²	19.8%
TOTAL PROPOSED SITE COVERAGE	4,935.65 m²	19.8%

LANDSCAPING EXISTING		
SITE AREA	24,850.00 m²	
EXISTING NON PERMEABLE AREAS	0 m²	0%
EXISTING SOFT LANDSCAPE	24,850.00 m²	100%

LANDSCAPING PROPOSED		
SITE AREA	24,850.00 m²	
PROPOSED NON PERMEABLE AREAS	10,200.5 m²	41.10%
PROPOSED SOFT LANDSCAPE	14,649.5 m²	58.90%

9 3D VISUALISATIONS



9 3D VISUALISATIONS



Maximum building height of town centre is currently 17m

9 3D VISUALISATIONS



10 STREETScape



Road No. MC-07



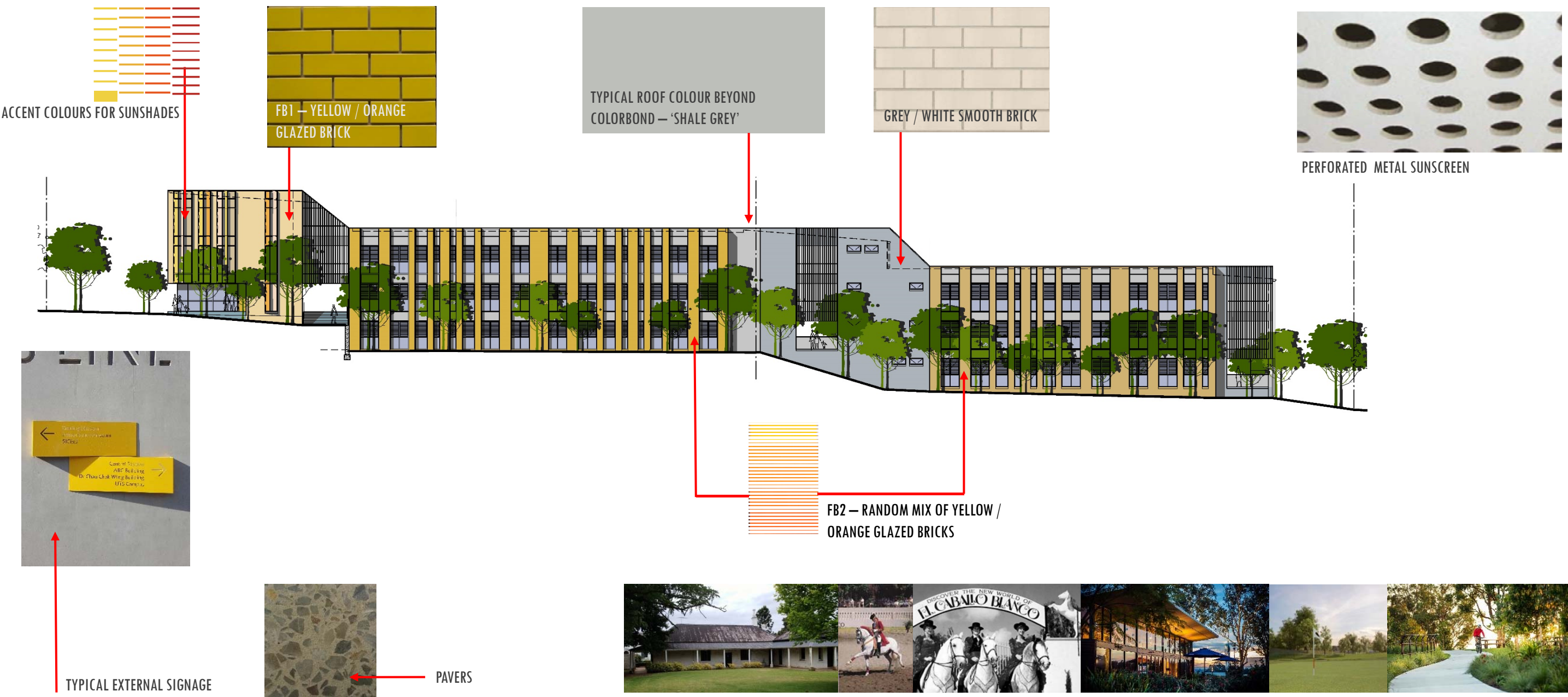
The Hermitage Way



Road No. MC-06

11 MATERIALS AND FINISHES

GLEDSDWOOD HILLS + typical external finishes



11 MATERIALS AND FINISHES

GLEDSDWOOD HILLS + typical detail finishes



YELLOW ACCENTS



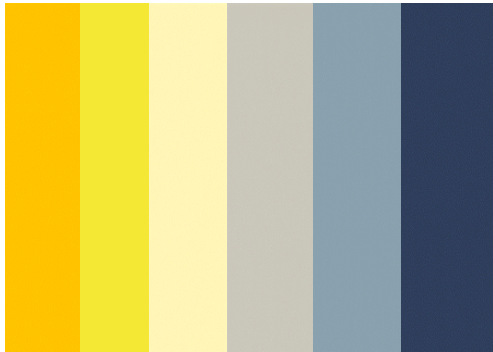
PERFORATED ACOUSTIC
PLASTERBOARD



CEILECTOR - NATURAL



ACCENT FABRIC



ACCENT PAINT + LAMINATES



12 DESIGN STATEMENT – Draft SEPP Educational Establishments and Child Care Facilities 2017

Principle 1—context, built form and landscape

Schools should be designed to respond to and enhance the positive qualities of their setting, landscape and heritage. The design and spatial organisation of buildings and the spaces between them should be informed by site conditions such as topography, orientation and climate. Landscape should be integrated into the design of school developments to enhance on-site amenity, contribute to the streetscape and mitigate negative impacts on neighbouring sites.

The design for the Gledswood Hills Public School is based on information drawn from the site analysis and urban design principles that ensure the project is suited to its context and provides a positive streetscape response. The main buildings are designed to front both Hermitage Way and MC07 to create a street edge building with clearly defined entry points. This urban design element creates a positive streetscape. The sloping site has been utilised to create the building layout. The buildings have been stepped down the slope to take advantage of the terrain and this has the benefit of creating tiered outdoor seating at the changes of level. The buildings maximise their northern orientation and utilise appropriate sun shading to control solar gain. The main guiding principle for the landscape design is to provide a variety of external spaces that respond to the buildings, topography and orientation. The design report that forms part of this submission outlines these ideas in more detail.

Principle 2—sustainable, efficient and durable

Good design combines positive environmental, social and economic outcomes. Schools and school buildings should be designed to minimise the consumption of energy, water and natural resources and reduce waste and encourage recycling. Schools should be designed to be durable, resilient and adaptable, enabling them to evolve over time to meet future requirements.

Gledswood Hills Public School is designed around the principles of environmentally sustainable development. The building orientation, sun shading and passive thermal design elements are the first step to creating a sustainable building. This is further enhanced by the inclusion of a rainwater tank to be used for irrigation and toilet flushing, solar power and the selection of long lasting, low maintenance materials. The structural system for the building is a concrete frame. The benefit of this system is that the internal walls are non-loading bearing allowing for reconfiguration in the future if deemed necessary. The ESD report that forms part of this submission outlines these ideas in more detail including energy conservation, water conservation and other sustainability initiatives.

12 DESIGN STATEMENT – Draft SEPP Educational Establishments and Child Care Facilities 2017

Principle 3—accessible and inclusive

School buildings and their grounds should provide good wayfinding and be welcoming, accessible and inclusive to people with differing needs and capabilities. Note. Wayfinding refers to information systems that guide people through a physical environment and enhance their understanding and experience of the space. Schools should actively seek opportunities for their facilities to be shared with the community and cater for activities outside of school hours.

The site has been designed to provide an accessible ground plane with the main premise such that the number of stair only access points is reduced. The buildings are all served by ramps and/or lifts which create equitable access for all users. The site layout is clear and simple, promoting easy and direct circulation. This will be enhanced by clear wayfinding signage. The layout of the functions that can be used by the community have been designed so as to facilitate secure after hours use. The hall can be used by community groups (pursuant to Clause 29(4) of the Draft SEPP). The library is located in the street edge building to allow easy access by the community.

Principle 4—health and safety

Good school development optimises health, safety and security within its boundaries and the surrounding public domain, and balances this with the need to create a welcoming and accessible environment.

The Gledswood Hills Public School design ensures that natural light, ventilation & acoustics are used to create healthy and safe learning and teaching environments. The school site is to be fenced at the boundary of the three street frontages and the northern boundary to the open space. The School has a main entry on MC07 that is clearly identified. There are multiple secondary entry and exit points that are needed to manage the large student numbers on the site. These points are secure and are open at the start and end of the day only. They lock during school hours to ensure that all visitors and students enter and leave via the main entry via during school hours.

Principle 5—amenity

Schools should provide pleasant and engaging spaces that are accessible for a wide range of educational, informal and community activities, while also considering the amenity of adjacent development and the local neighbourhood.

Schools should include appropriate, efficient stage and age appropriate indoor and outdoor learning and play spaces, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage and service areas.

The layout of the school campus is designed around the principles developed through workshops with our education consultant Spacelogic and the Project Reference Group. The principle is to provide a variety of teaching and learning spaces that have access to natural light and ventilation and have good room acoustics. Each learning area has a combination of a floor area, presentation area, practical activity area and a withdrawal space. The home bases can be opened to each other in pairs to enable team teaching. This is complemented by a range of informal and outdoor learning spaces. The layout of the school provides a perimeter street edge building that encloses the main outdoor activities. This has the benefit of protecting the amenity of the local neighbourhood and the safety of the students.

Principle 6—whole of life, flexible and adaptive

School design should consider future needs and take a whole-of-life-cycle approach underpinned by site-wide strategic and spatial planning. Good design for schools should deliver high environmental performance, ease of adaptation and maximise multi-use facilities.

The design of the site is based on the urban design and sustainability principles described in the points above. The key factors that ensure a building can be used well into the future are: Long lasting, low maintenance materials to ensure its use stand up to the impacts associated with school buildings, framed construction that allows the internal walls to be reconfigured in the future to adapt to future learning requirements and finally, providing a variety of learning spaces that have good amenity for the uses, teachers, students & community. The Gledswood Hills Public School design is founded on these principles.

Principle 7—aesthetics

School buildings and their landscape setting should be aesthetically pleasing by achieving a built form that has good proportions and a balanced composition of elements. Schools should respond to positive elements from the site and surrounding neighbourhood and have a positive impact on the quality and character of a neighbourhood. The built form should respond to the existing or desired future context, particularly, positive elements from the site and surrounding neighbourhood, and have a positive impact on the quality and sense of identity of the neighbourhood

The Gledswood Hills Public School is designed to provide an articulated and dynamic built form. The buildings each have a robust masonry external skin with an articulated façade that combines screens and sunshading blades. The dynamic nature of the form is further enhanced by the coloured blades along the street facades. The idea of movement is expressed in the facades and the presentation to the street changes as the viewer's position changes. This idea, combined with the passive environmental principles described above, produces an aesthetic that is both dynamic and responsive to climate and context. The volume of the buildings increases as it moves to the West towards the town centre. This massing is a positive urban design strategy that focuses towards the town centre and responds to the future town centre's scale. This approach has been developed in consultation with the developer of the suburb. The form of the building has a strong street presence that will provide a sense of identity for the neighbourhood.