

4

Site

4.17

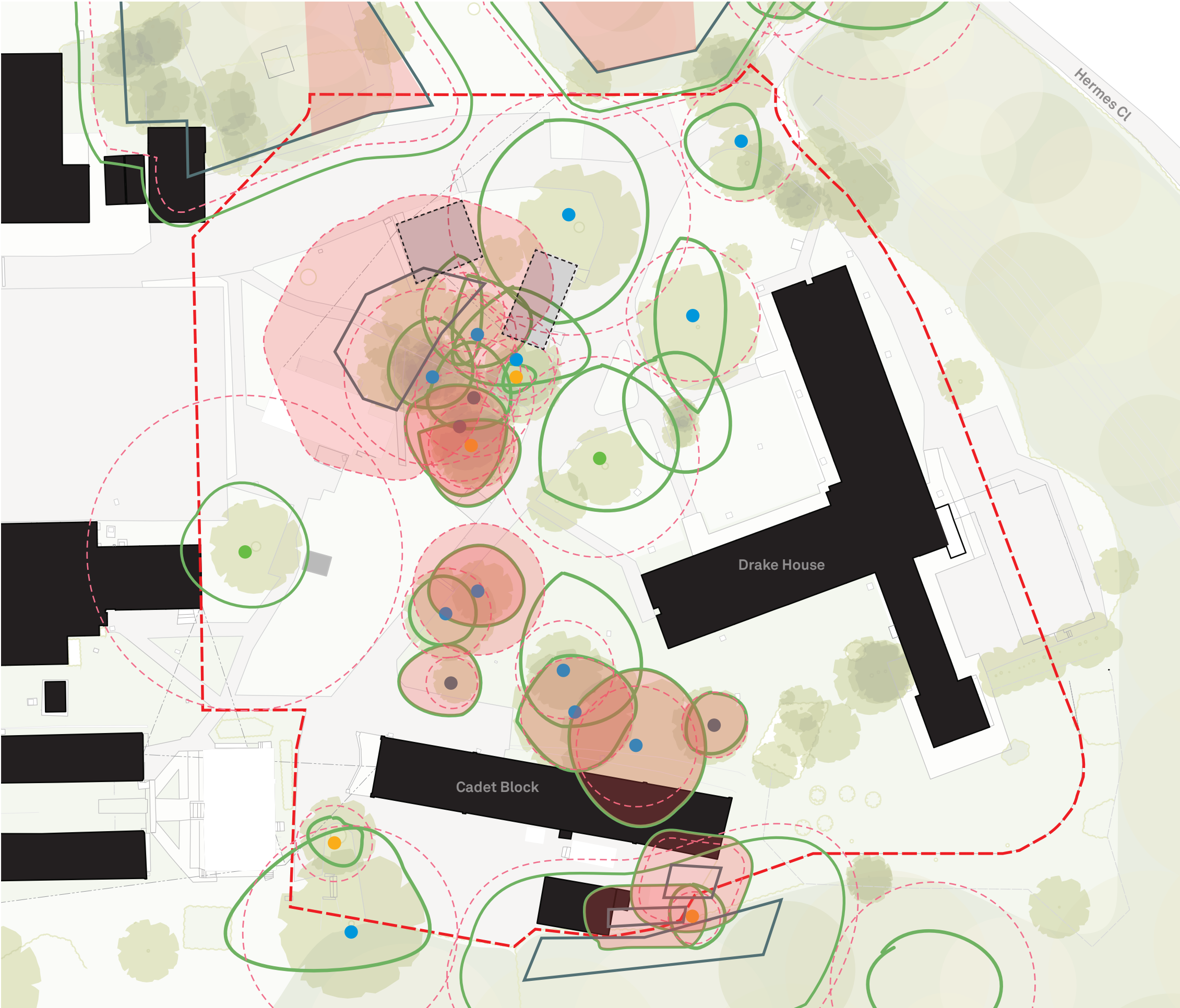
Arboricultural Impact Assessment

In July 2024 WSP undertook an Arboricultural Impact Assessment Report for the study area. As demonstrated in the adjacent diagram, the condition and status of each tree has been assessed, and recommendation for potential tree removal can be seen.

The existing trees poses the greatest challenge with the site. Even with the proposed tree removal, the root protection areas heavily constrain the opportunities of where to build.

An updated Arboricultural Impact Assessment by WSP accompanies this application. Please refer to that document for further details.

- Key:
- Root Protection Area
 - Canopy
 - A - Classification
 - B - Classification
 - C - Classification
 - U - Classification
 - Trees to be removed
 - Buildings to be demolished



4

Site

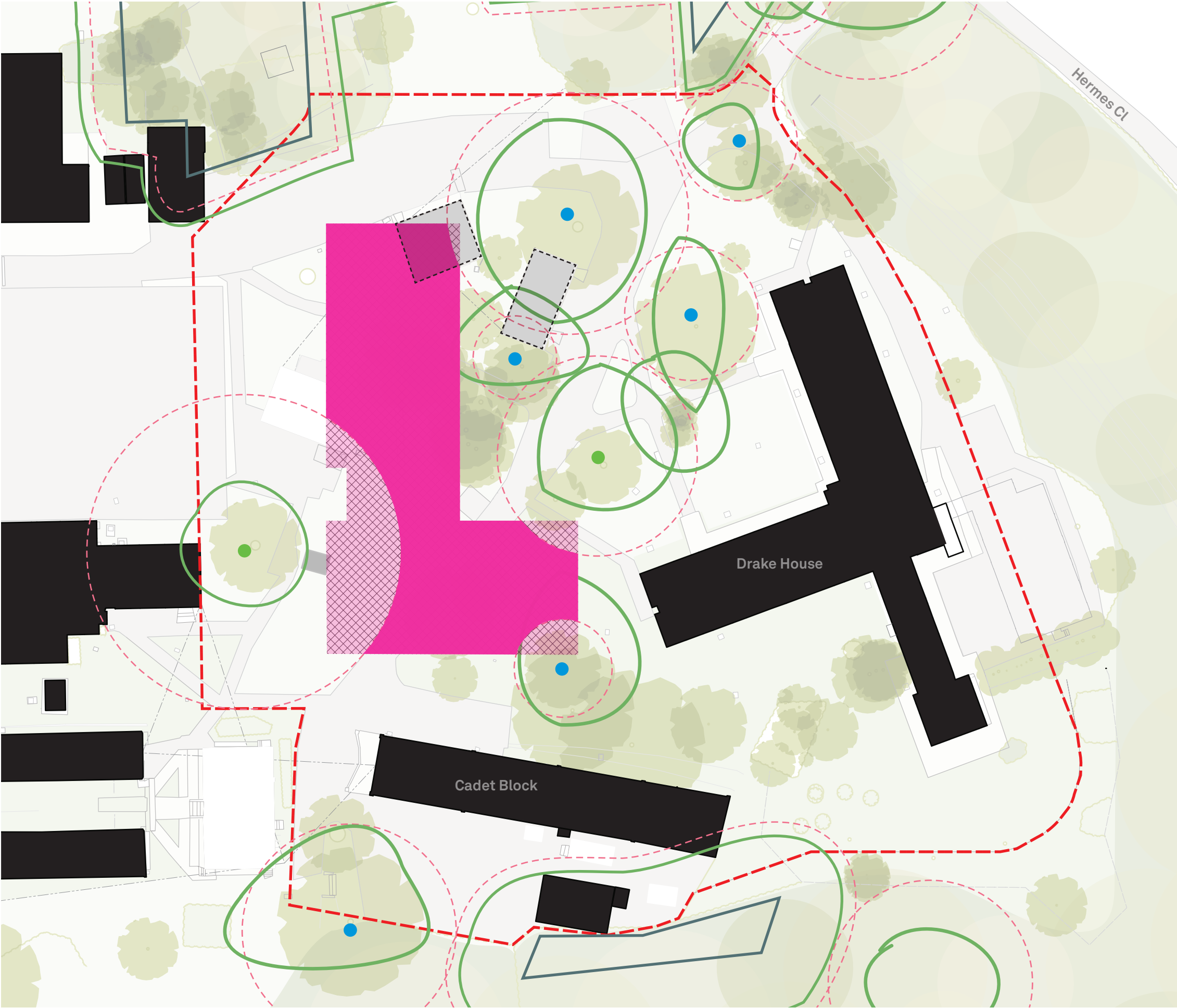
4.17

Arboricultural Impact Assessment

When the proposed trees are removed, the remaining build area can be seen in the adjacent diagram. The solid pink indicating build area not impacting on trees. The hatched area shows where we may build over RPAs, but understanding the limitations and costs in doing so.

All potential building footprints will have to carefully be assessed against these constraints.

- Key:
- Root Protection Area
 - Canopy
 - A - Classification
 - B - Classification
 - C - Classification
 - U - Classification
 - Building footprint Outside RPA
 - Building footprint Inside RPA
 - Buildings to be demolished



5

5.1

Concept
Vision

The site stands as a transition between the listed Jacobean architecture, and the listed grounds and woodland. Can the proposed building become the stepping stone between the 2 characters of the site?

How can the design quality of the architecture, and the calmness of the surrounding nature become embodied in the proposed designs for the new boarding house?

The proposals seek to find a balance between nature and architecture, understanding they both have an equal value in this part of the site.



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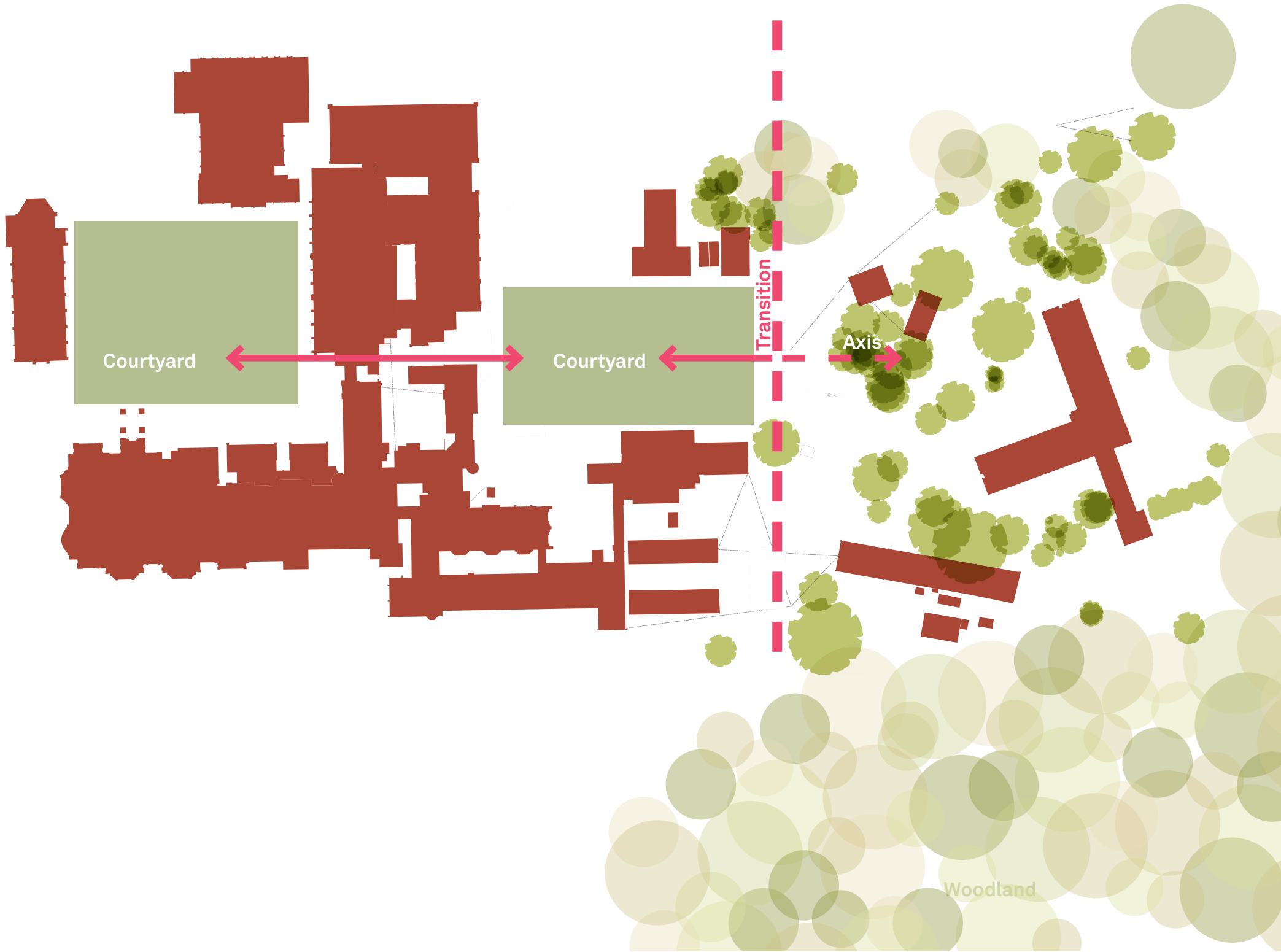
5.2

Concept Masterplan

The study area, and chosen location of the new boarding house, presents an opportunity to realign to both transition from the historic school house to the ancient woodland to the east.

Furthermore, the building may help unify the wider school site, formalising the current back of house service yard, into a new courtyard. Creating a stronger connection of spaces through the school.

The following pages outline the concept steps taken in the location of the building, its relationship to the wider school site, and how its massing provides a simple, elegant building that helps to unify the wider assortment of buildings, and transition between architecture and nature.

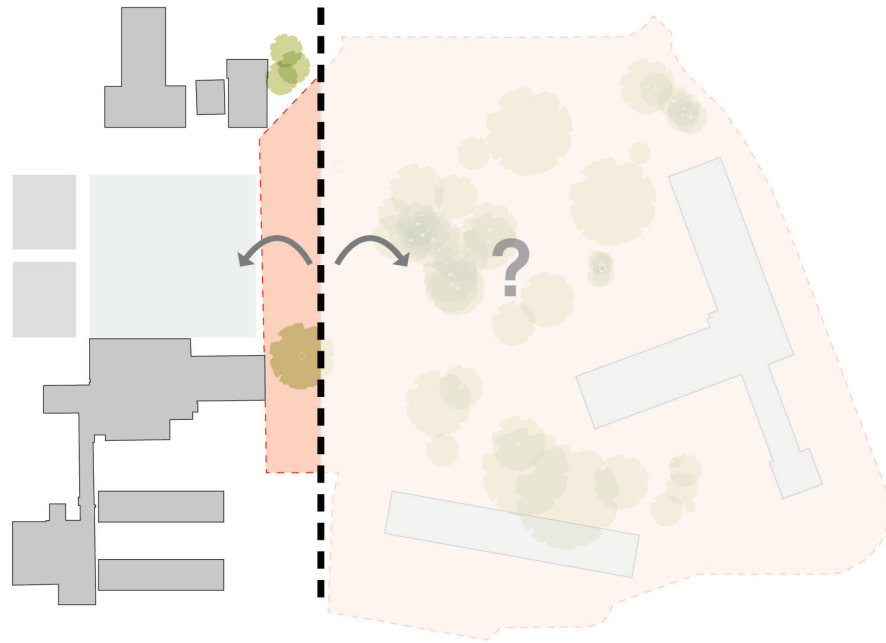


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5.3

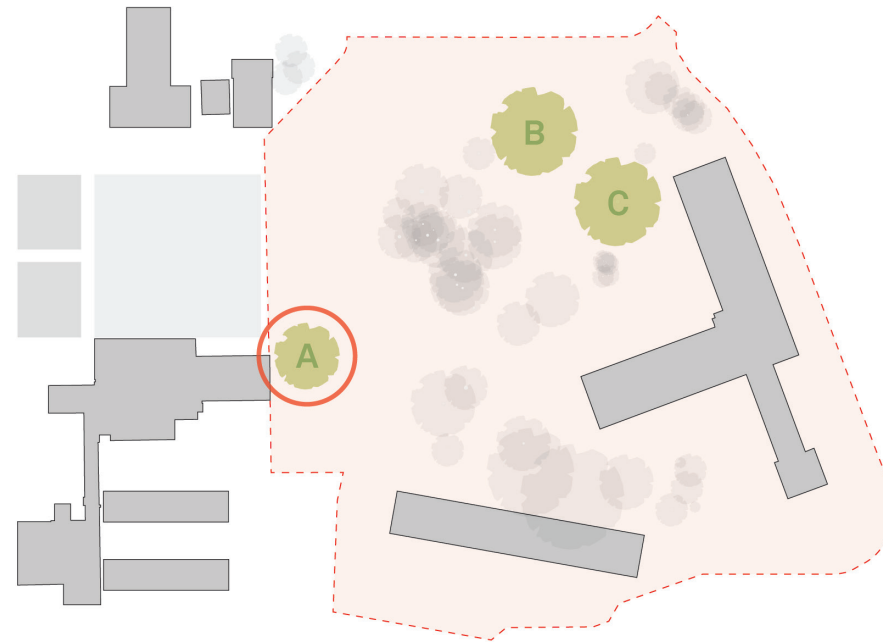
Concept

Form Generation Principles



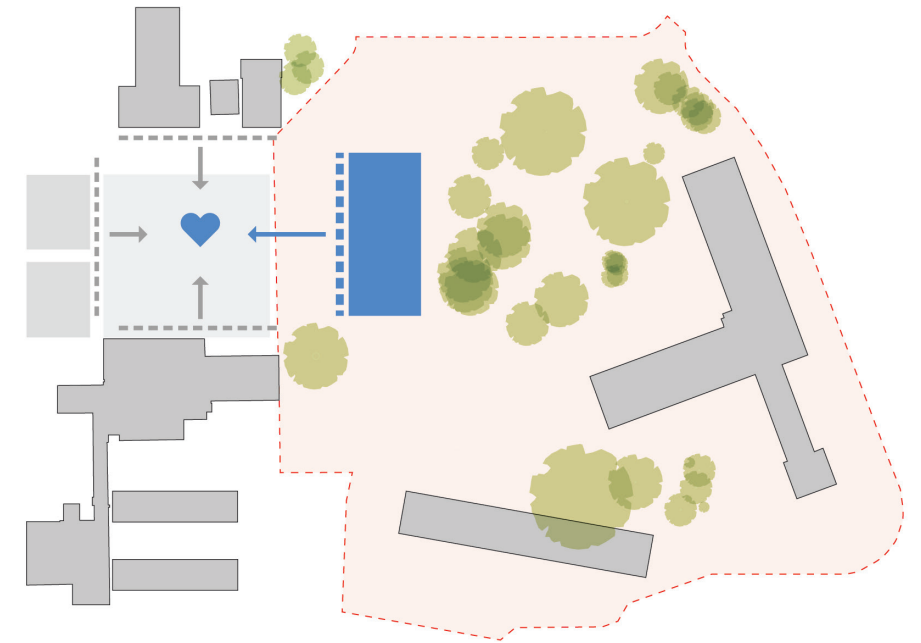
1

A seamless transition from school's existing layout to the new study area



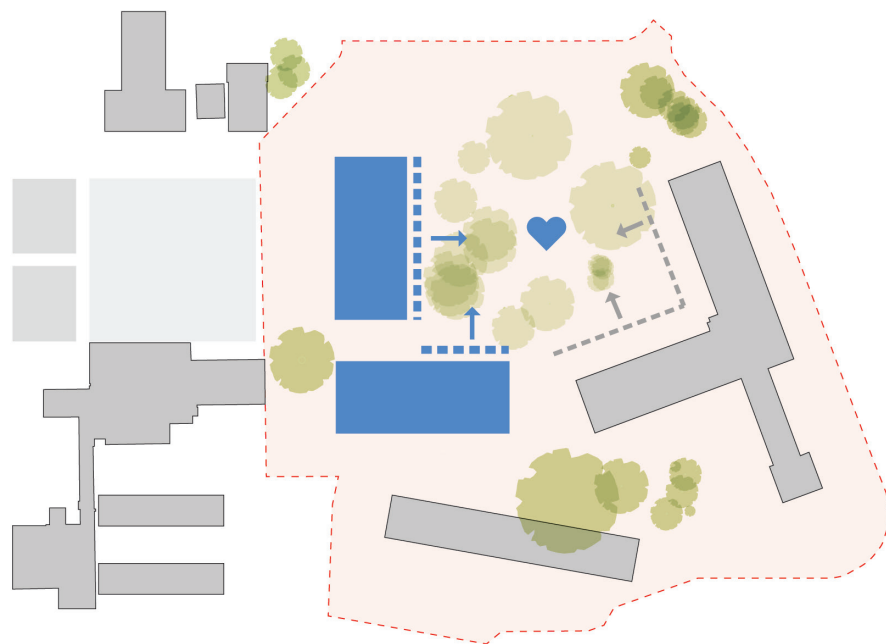
2

A proposal that safeguards the key trees within the study area



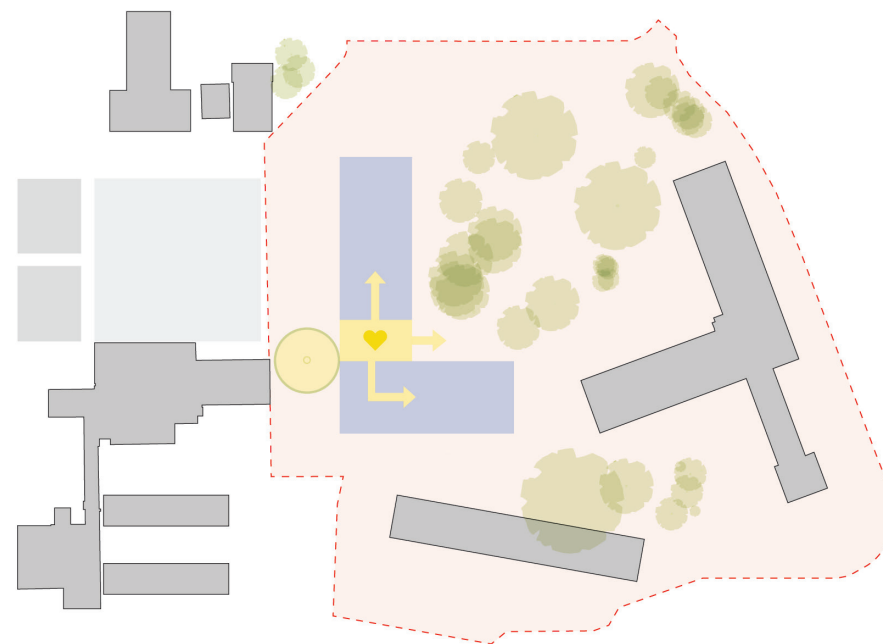
3

Addressing the existing buildings by defining a new courtyard



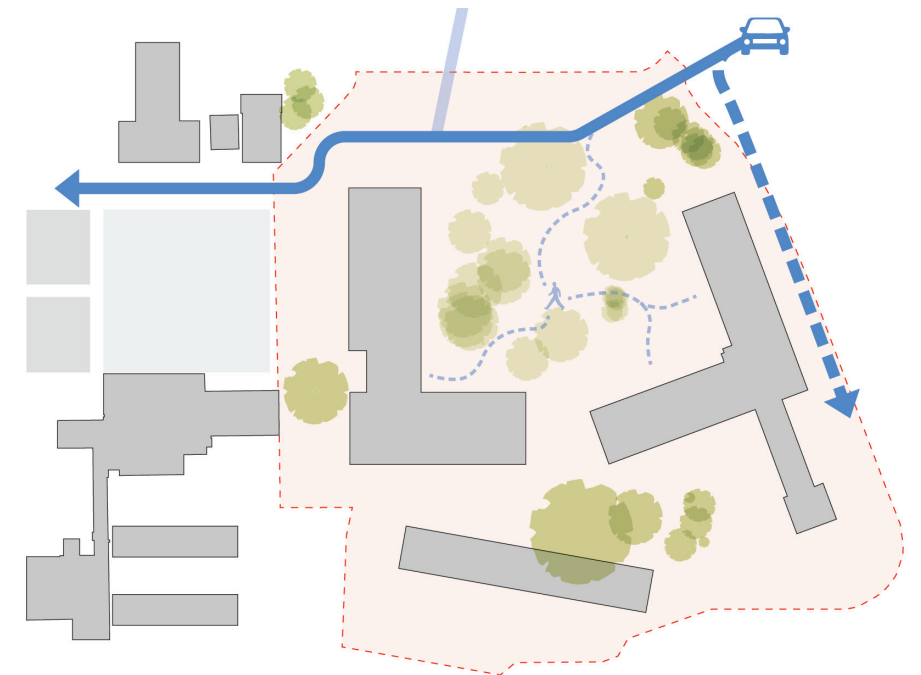
4

Connecting to Drake House, creating a new landscaped garden



5

Hinging on existing student flows. A communal entrance linking both blocks



6

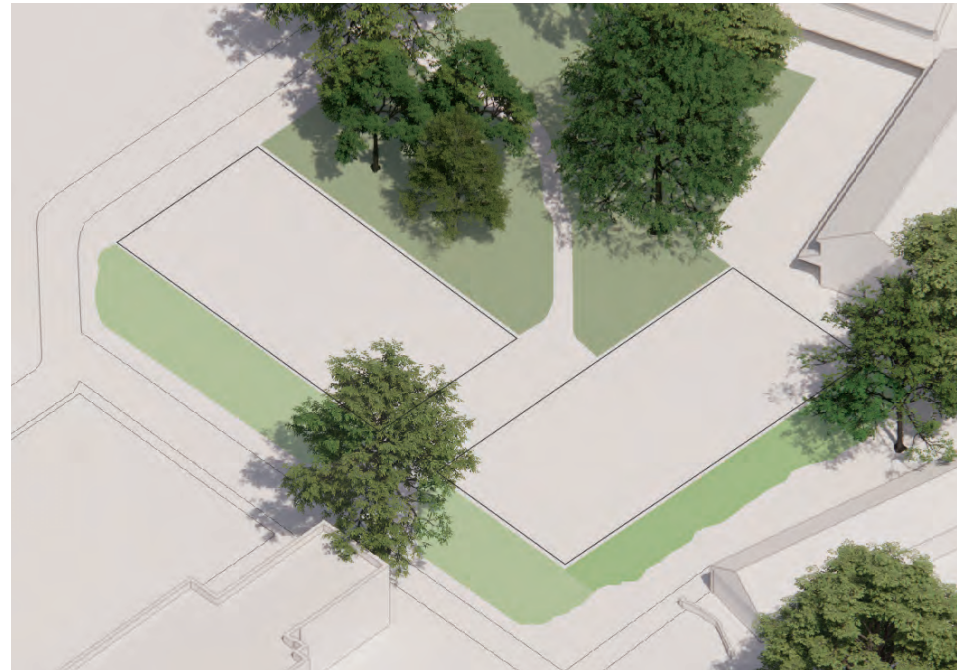
Keeping vehicular access to the peripheries of the development

5 Concept

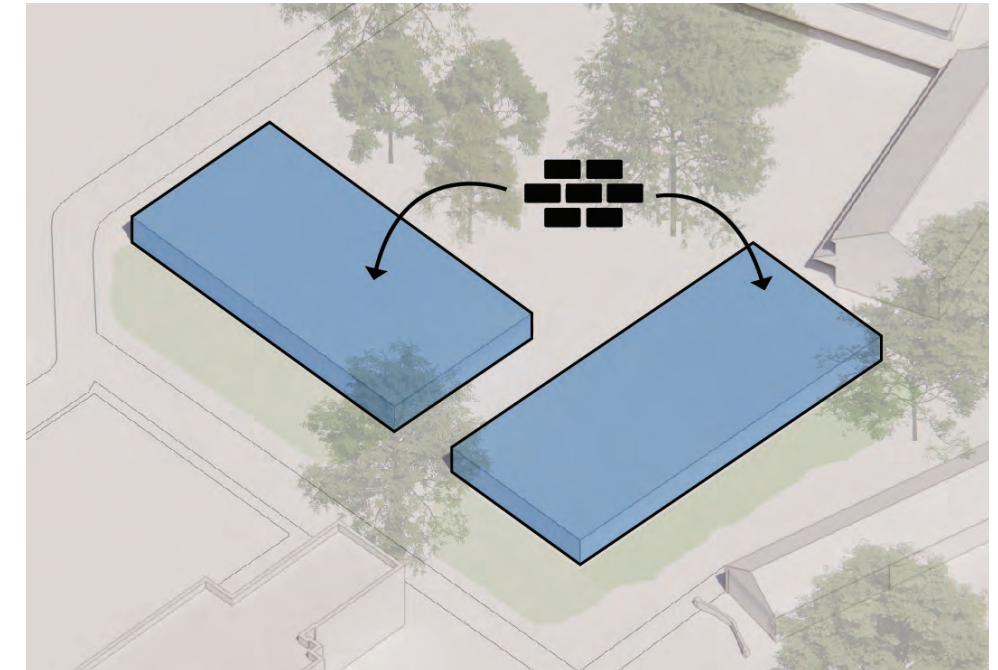
5.3 Form Generation Principles

Taking the preferred footprint, the proposed bulk and mass responds to the low scale of the surrounding buildings of the Grade II* Listed school house. A 2 storey structure helps transition from the formal school, to the natural woodland.

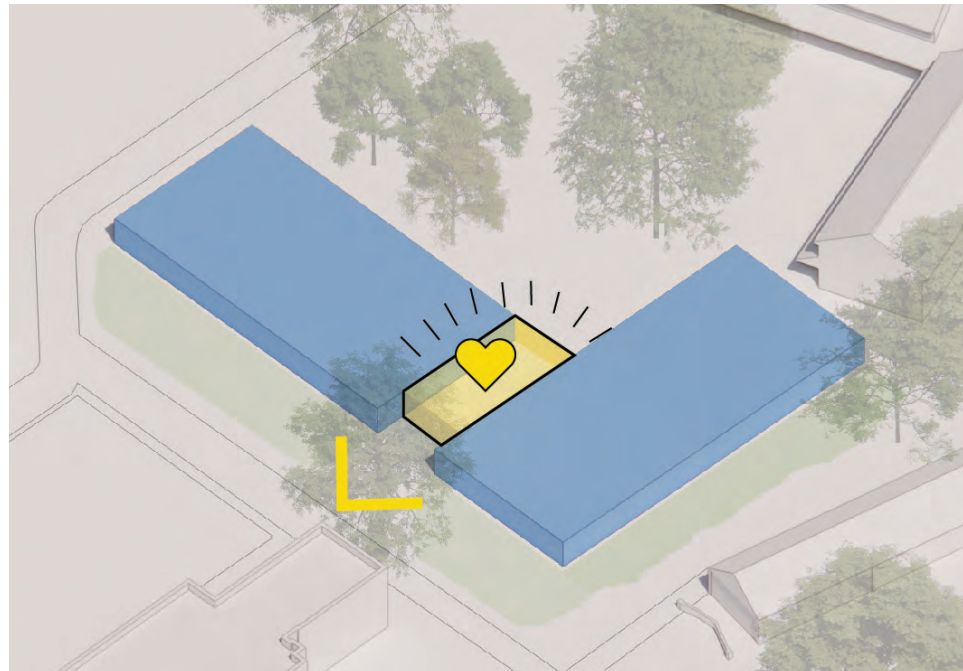
The proposed architecture follows the principles of the neighbouring listed buildings. A strong, grounded masonry base provides the support for a lighter pavilion type structure to the 1st floor. Referencing the approach on the main school house, but with a contemporary take.



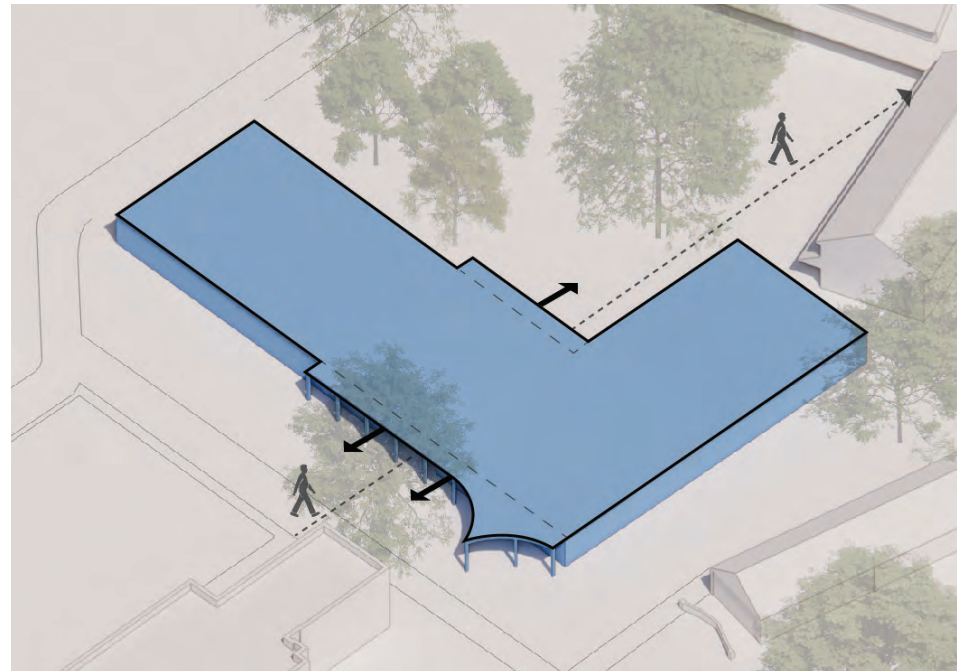
1 Using landscape to provide buffer around the building and private rooms



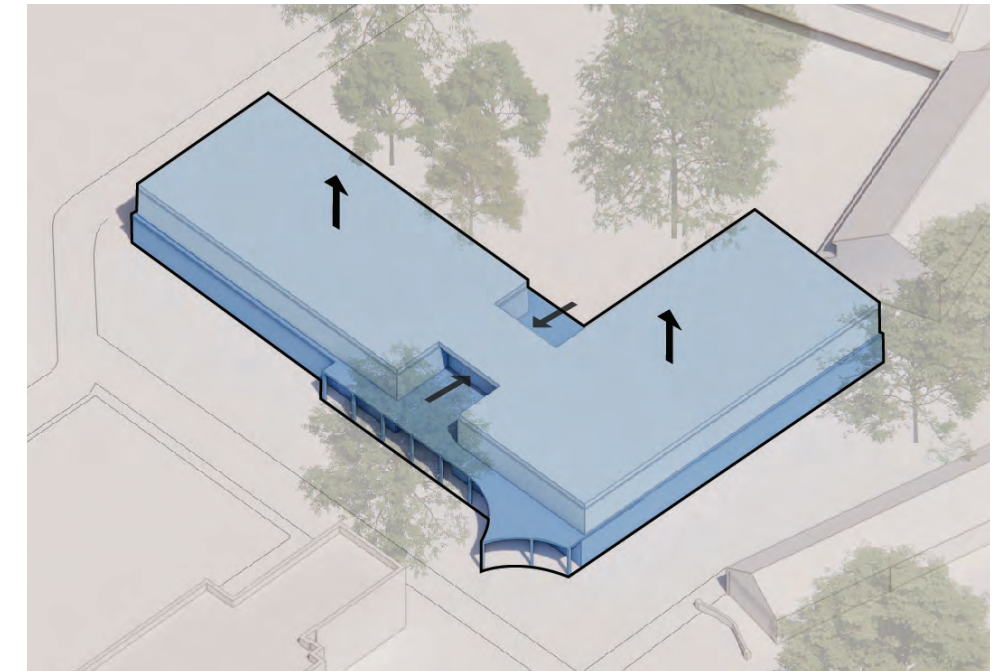
2 A facade design that reflects the masonry used in the existing building



3 Wings connected by a welcoming and inclusive central piazza space



4 Creating a canopy zone to highlight the entrances and connects onto Drake House



5 A mass expression that presents two separate blocks connected with a lighter link

5

5.4

Concept

Masterplan Proposal

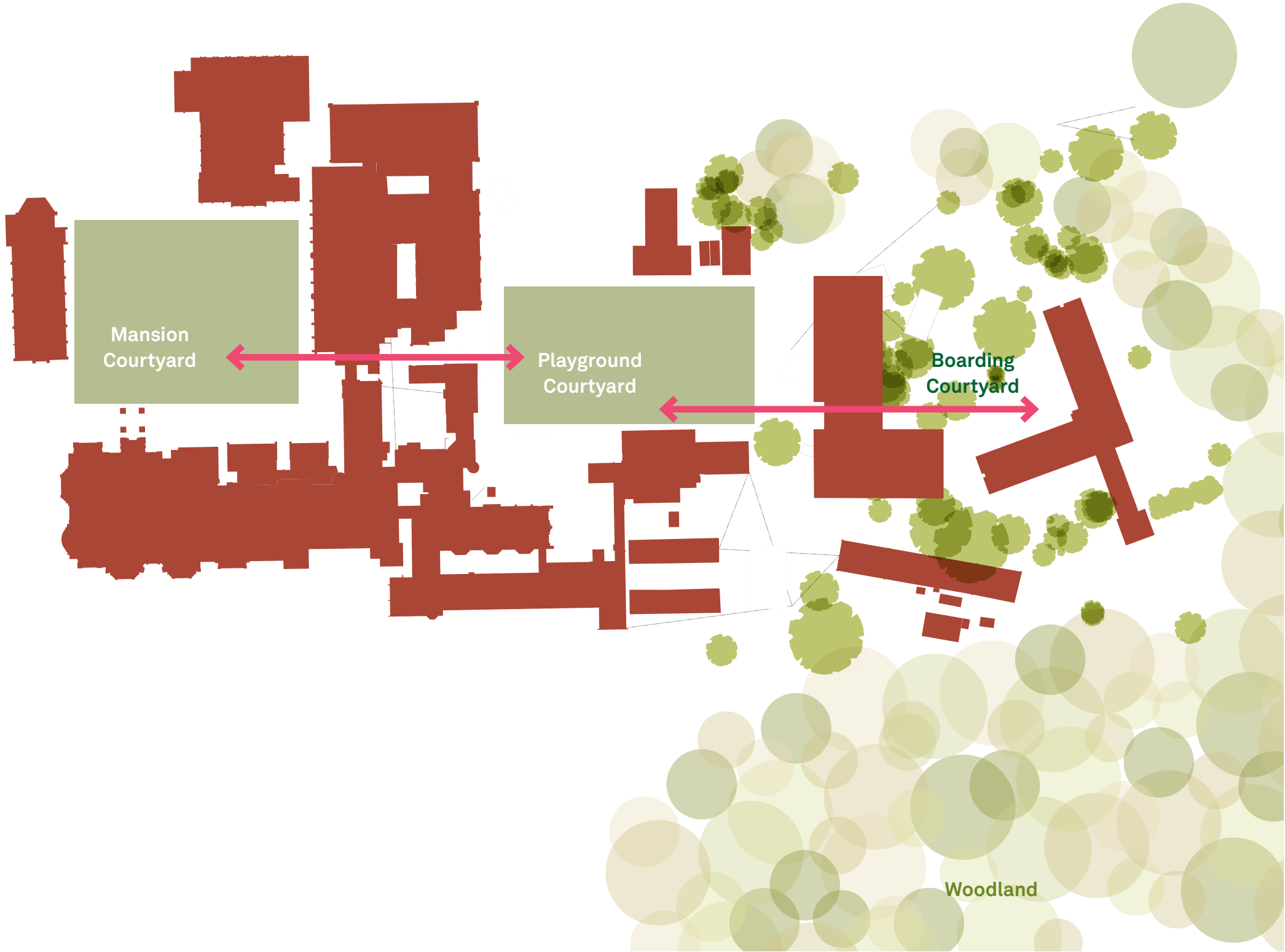
The proposal relates to the character of the estate and completes its east side with a piece that permits to have a gentle transition from the formal architecture to the natural landscape.

Following the site analysis, we interpret the courtyards as a key aspect of the spatial experience that is linked to the historic arrival area. From the Mansion Courtyards a pedestrian route creates an axis to the playground that now extends beyond to the east to a third courtyard between the boarding houses.

Each courtyard has a different character, the first one is most formal and contains the majority of significant heritage architecture.

The second is more informal, used a playground and with a less defined perimeter, which is completed with the west facade of the proposal.

The third courtyard is the most open, including a soft landscape space in its heart, to promote the transition to the woodland. Here architecture and landscape have a n equal weight.



5 Concept

5.5 Footprint

The L shape of the footprint is the response to the internal programme for an efficient layout, promotion of key pedestrian routes on site and alignments that complement the immediate architecture.

To the west the footprint provides a facade that is orthogonal to the playground courtyard, respecting the grid system of the estate.

On this side, the proposed building is anchored to the site with the Atlas Cedar tree that creates a natural attention point. This is the announcement of the building entrance, in the intersection of the two wings of the proposal and creating an axis to the entrance of Drake House from the courtyard.

To the east the L shape creates a gentle courtyard where the trees and soft landscape are prevalent, unlike the more formal courtyards to the west of the site, as this area is more connected to the woodland.

On this part of the site the existing buildings follow different alignments and the proposal's placement creates gentle spaces with the neighbouring blocks, promoting transitional spaces to be enjoyed by the students. Further details on how landscape complements these areas are described later in this report.

Great attention has been given to the distance to neighbouring blocks. The footprint of the scheme has been adjusted to create sufficient space between buildings, reducing its size in comparison to the pre application scheme by one bay on each wing.

The distances to the Cadet block and Drake House relate to the distances of buildings on site of a similar bulk and mass, to achieve a balanced result.



Key:

- Boarding footprint
- ★ Boarding entrance

5 Concept

5.6 Proposed Massing

The proposed building concept nestles itself in to the site. Expanding and unifying with the existing grid of the school. Formalising the eastern edge of a new courtyard. Responding to Drake House, whilst maintaining flexibility for future development. Working with, and celebrating the trees and woodland that surrounds the site.

A clean, simple and elegant 2 storey building provides an understated addition to Reddam House.



6

6.1

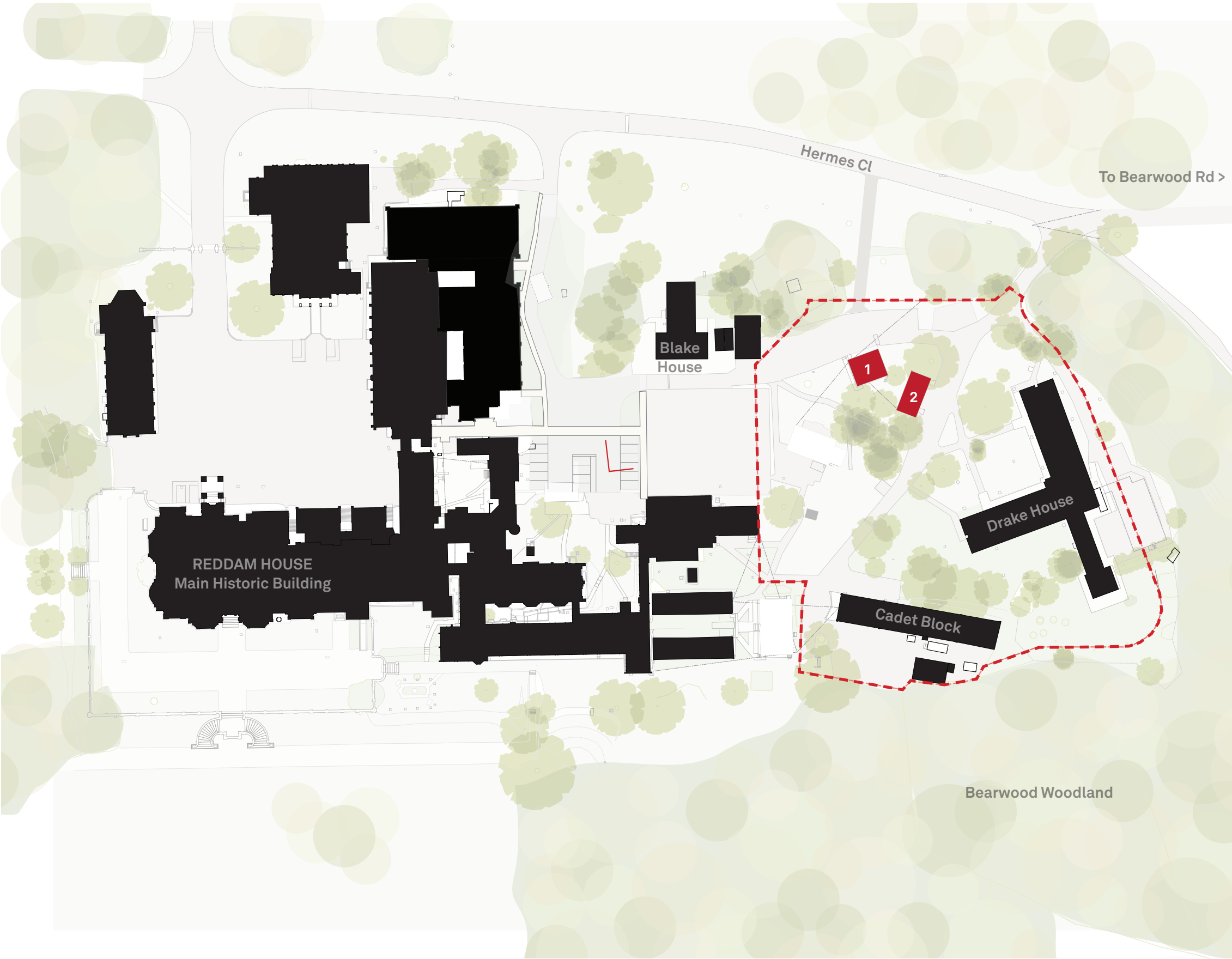
Proposal

Demolition

Two small buildings will need demolishing in the study area, the medical centre and the maintenance block.

Each block presents an approximate footprint of 70m² and a height of circa 2.5m.

Reusing some of the material of the demolition has been considered in the proposals. The brick for construction material to be reused in the new scheme. Also, incorporating the ground floor slab surface on the landscape design for outdoor uses within the courtyard.



Key:

- Study Area
- Proposed Demolition

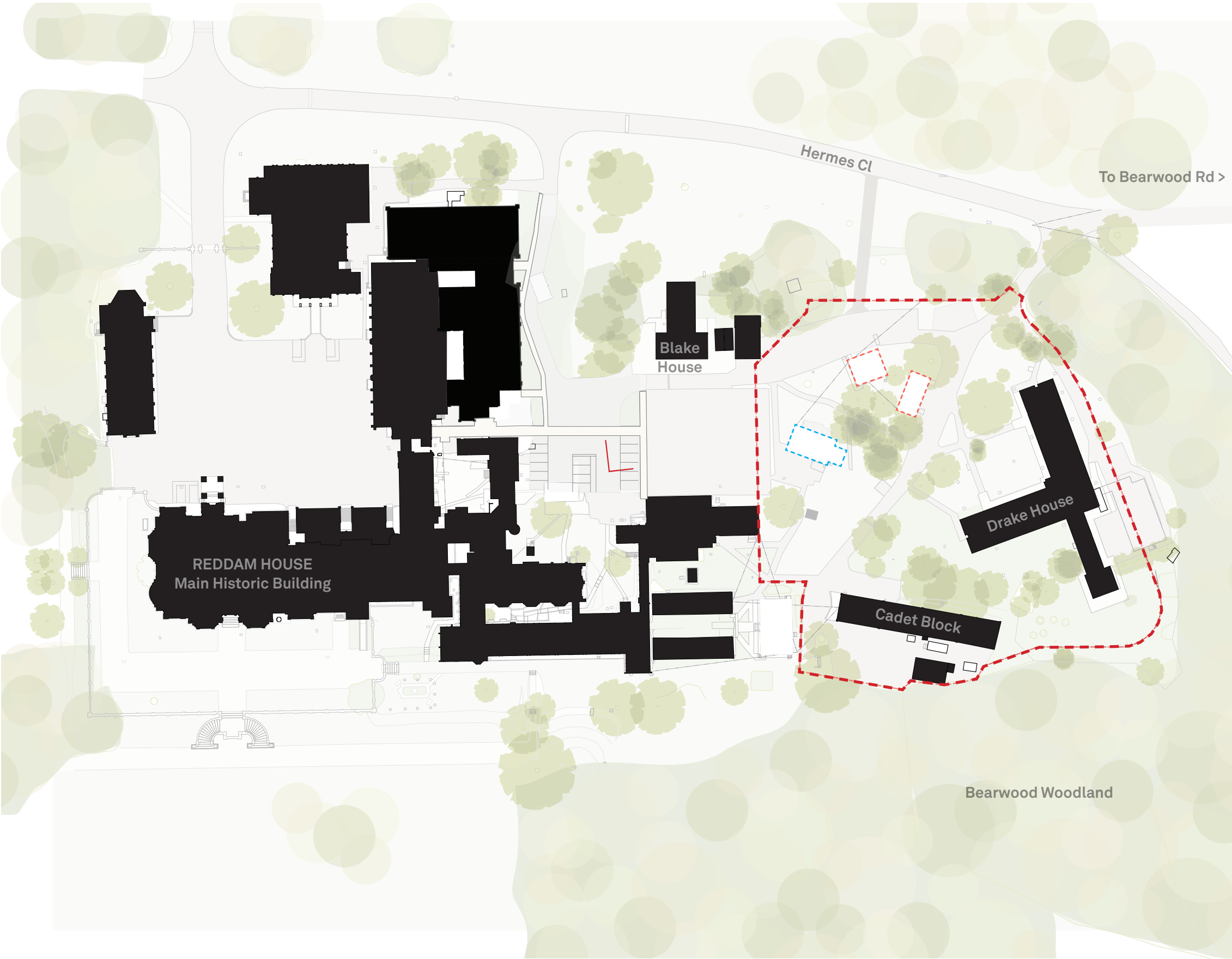
6

6.2

Proposal

Cleared site

The diagram of this page presents the site after demolition.



- Key:
- Study Area
 - Hard Surface after current Application Demolition
 - Hard Surface after Gym Application Demolition

6

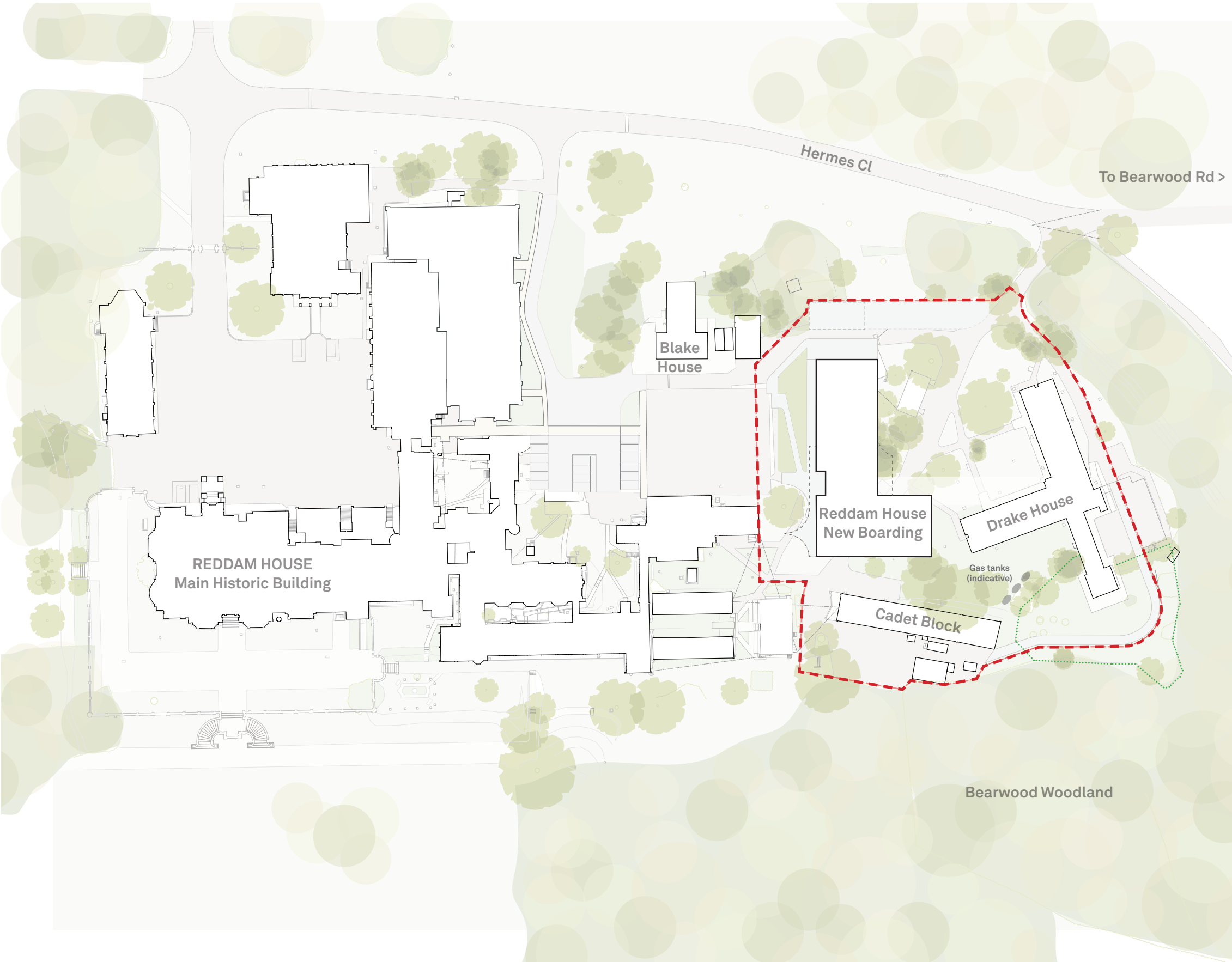
6.3

Proposal

Masterplan Layout

Emerging architectrual and landscape proposals in the study area complete the estate on the east side.

This diagram presents the final layout after Reddam Hosue New Boarding will be complete, including the buildings and landscape interventions.



Key:
-- Site Boundary

6

6.4

Proposal

General Arrangement Layouts

Ground Floor
At the crossing of the two dormitory wings, the piazza receives all visitors and students at the heart of the site.

From the east, the arrival path goes from level 73.50m AOD at the playground courtyard to the current FFL at ground level of 74.50m AOD. This is at the same level as the courtyard space created between new Reddam House and existing Drake House, as well as the FFL of the later.

At Ground floor, the building entrance is celebrated with a canopy that creates a defensible space and offers a zone protected from the rain. To the courtyard side, a canopy cover the common room spill out zone.

The piazza space merges with the common rooms offering a generous socializing space in connection with the exterior. An open staircase provides access from the reception space to the first floor.

Other facilities serve this space, staff offices and back of house zones.

Each wing follows the same logic, a central corridor with a view out and with an array of bedrooms to each side. An enclosed staircase provides a safe escape rout in each block.

The Parent House at Ground Floor is placed at the south west corner of the plan, reachable from the central space and separate from the male or female corridors.

Key:

Site Boundary

Boarding

Back of House

Circulation - Public

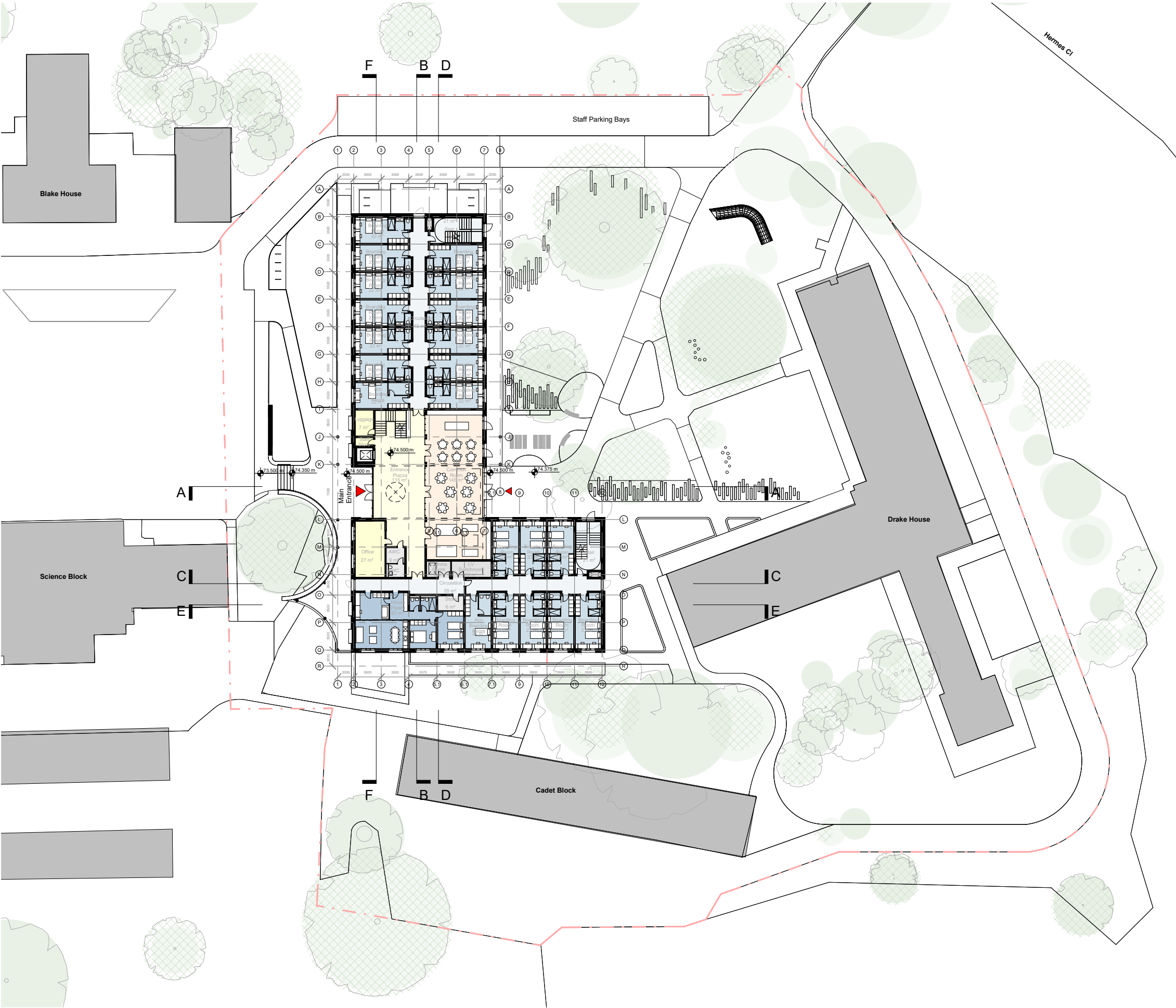
Circulation - Private

Common Spaces

House Parent

Kitchen

Staff



6

6.4

Proposal

General Arrangement Layouts

First Floor
At first floor, the crossing is celebrated with a double height opening, the oculus, to visually connect the central piazza spaces.

The repetition of the bedroom unit governs the upper floor, which is mostly used for dormitories.

An expanding and contracting corridor creates a pause before entering the rooms, setting back the bedroom walls to create additional entrance space in the communal circulation space.

At the end of the corridor of each wing a view out to the immediate context can be enjoyed.

The Parent Houses on this floor is also reachable from the central space, on the north wing in this case.

The communal space at the centre of the plan and over the entrance includes a double height oculus to visually connect this space at first floor with the main access below at ground floor.

The canopy roof is suggested to be a green roof to contribute to the greening factor on site, offer a green outlook from the central break out space and connect with the surrounding landscape. The canopy edge reacts to the immediate landscape trees in its shape.

Key:

Site Boundary

Boarding

Back of House

Circulation - Public

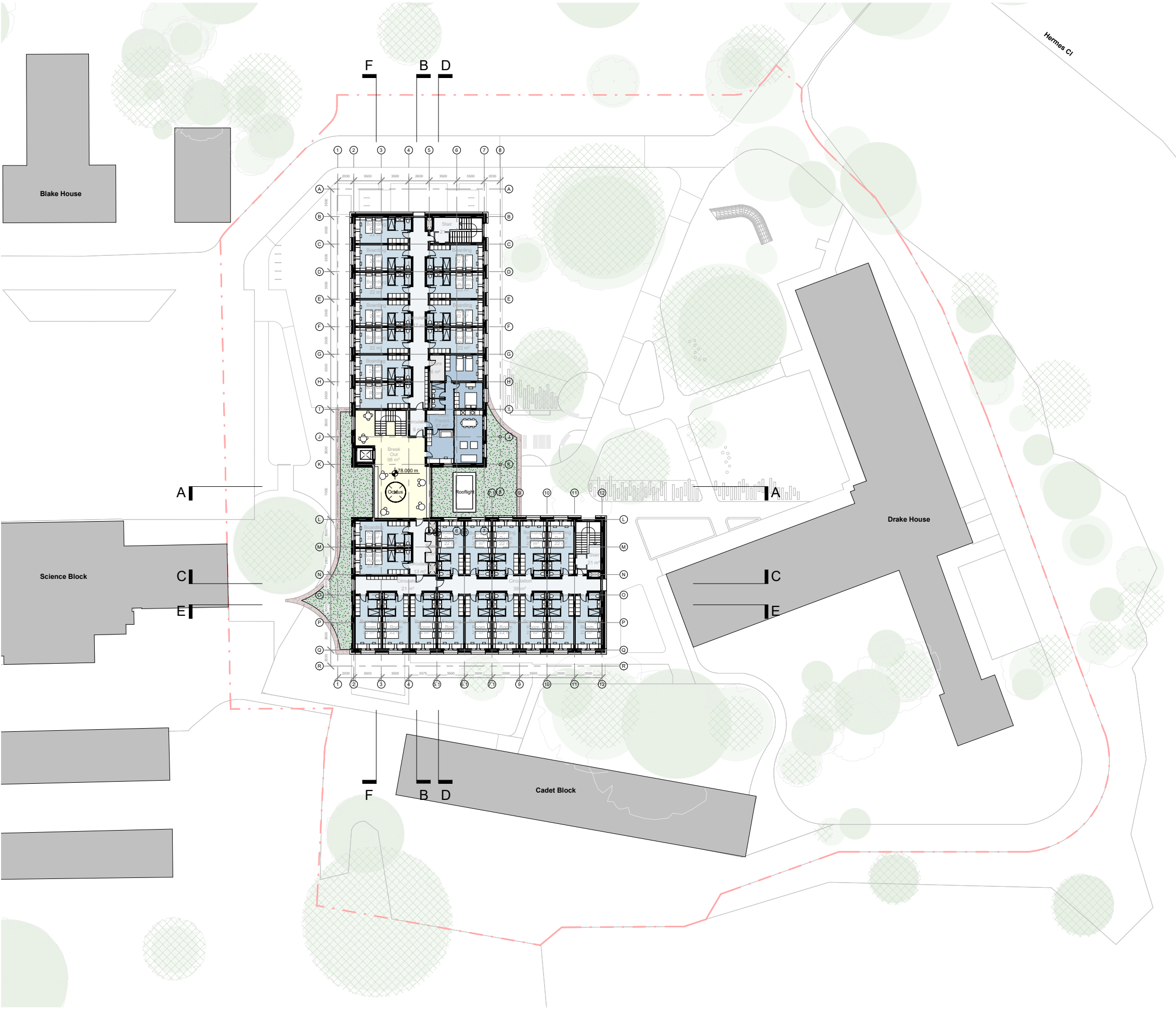
Circulation - Private

Common Spaces

House Parent

Kitchen

Staff



6

6.4

Proposal

General Arrangement Layouts

Roof
Accessible for maintenance only, the building roof includes plant equipment to serve the building and PVs to contribute to the energy strategy.

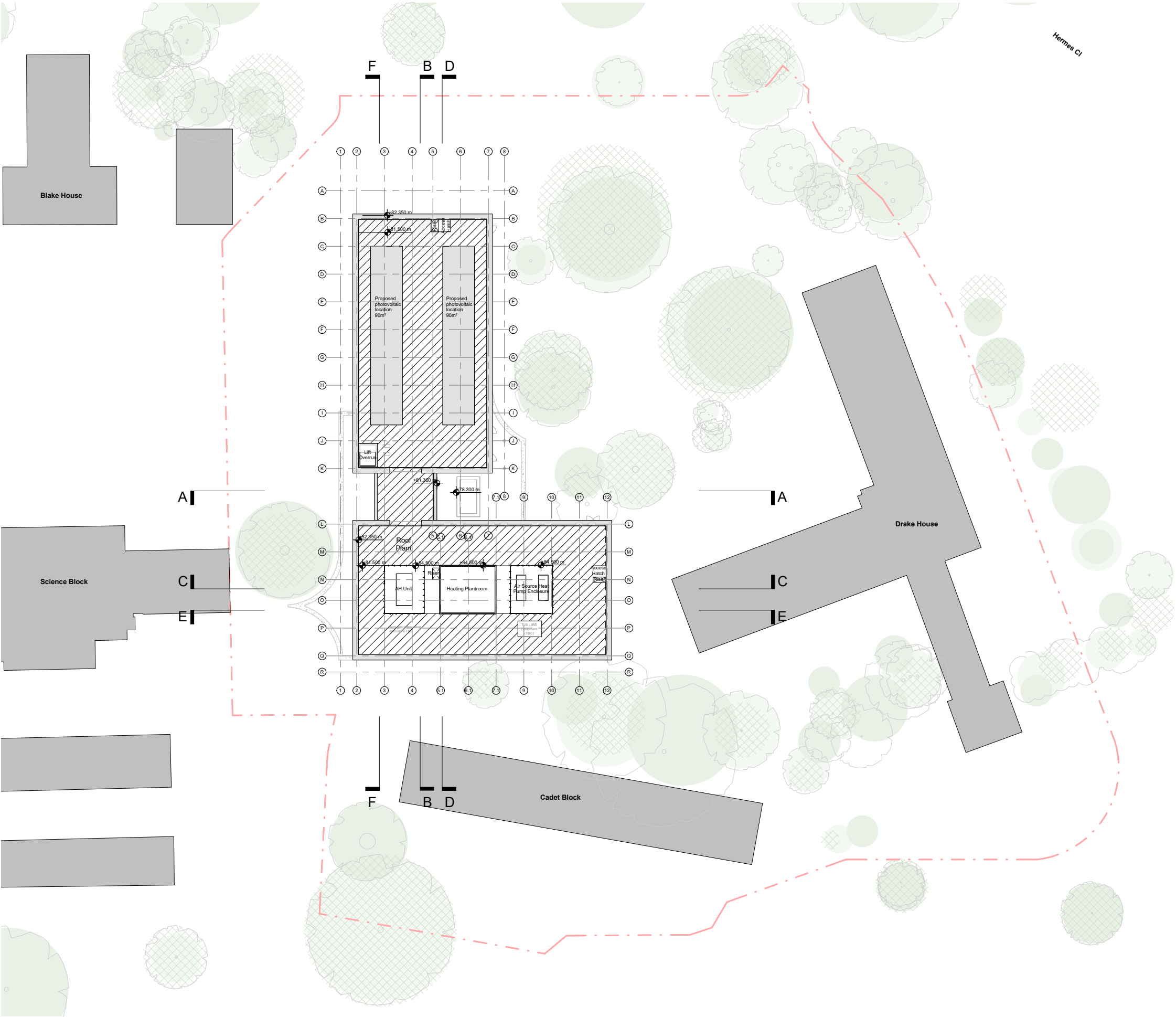
The taller plant equipment sits on the south block, away from the views on the axis of the playground to the west.

A man safe system is provided on the perimeter of the roof for staff safety.

As part of the drainage strategy, a blue roof system is suggested on the roof of the building and also the canopies. Further information on this system can be found in the sustainable drainage system (SUDS) description by the drainage specialist.

Access to the roof is provided via a roof hatch in the staircase.

Key:
- - Site Boundary



6

6.5

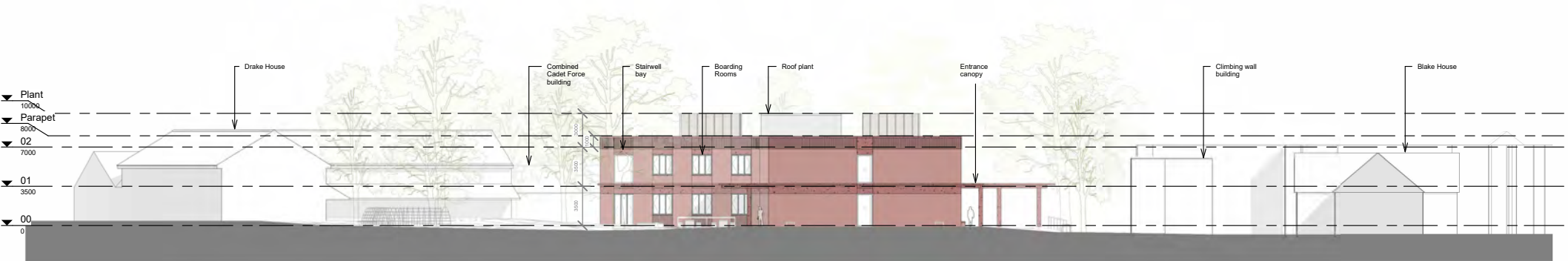
Proposal

General Arrangement Elevations

The proposals look to be in keeping with the context, presenting elevations that are related to the neighbouring building heights and below the tree canopies, to keep a discreet presence.



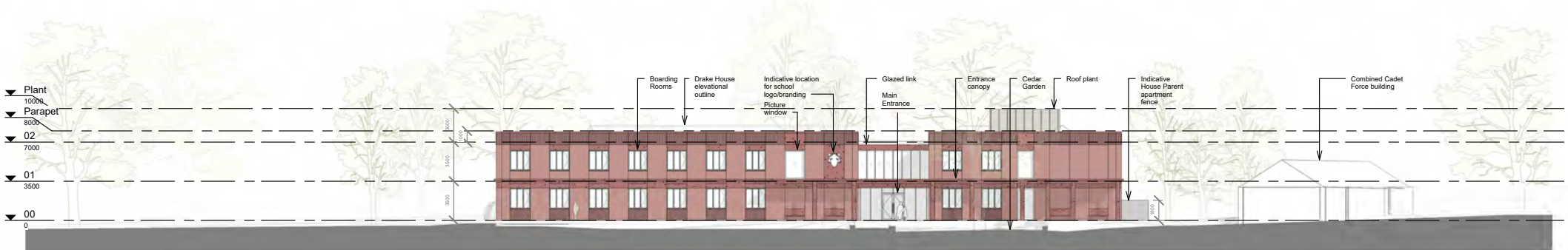
East Elevation



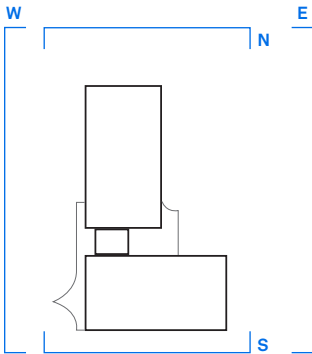
North Elevation



South Elevation



West Elevation

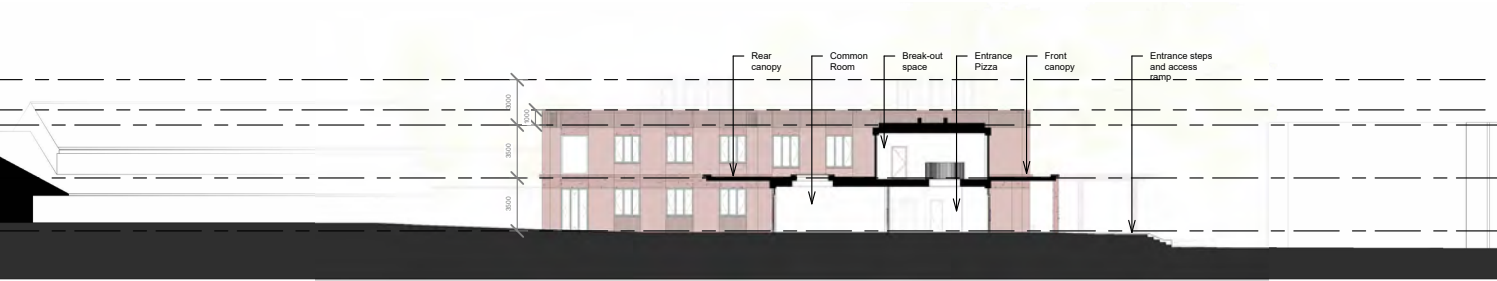


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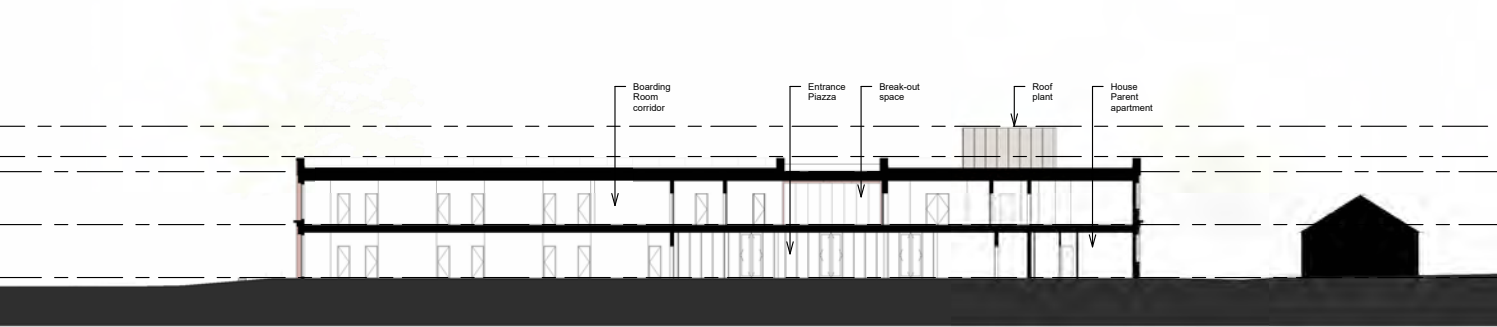
6.6

Proposal
Sections

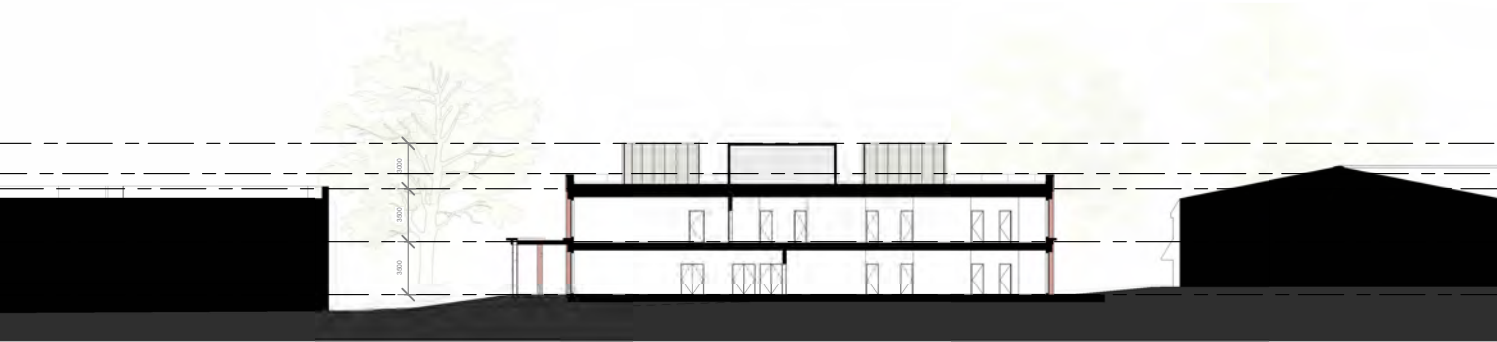
Detailed attention has been given to FFL in relation to the natural terrain levels to stay away from root protection areas and create an agreeable accessible approach to the scheme from the immediate context.



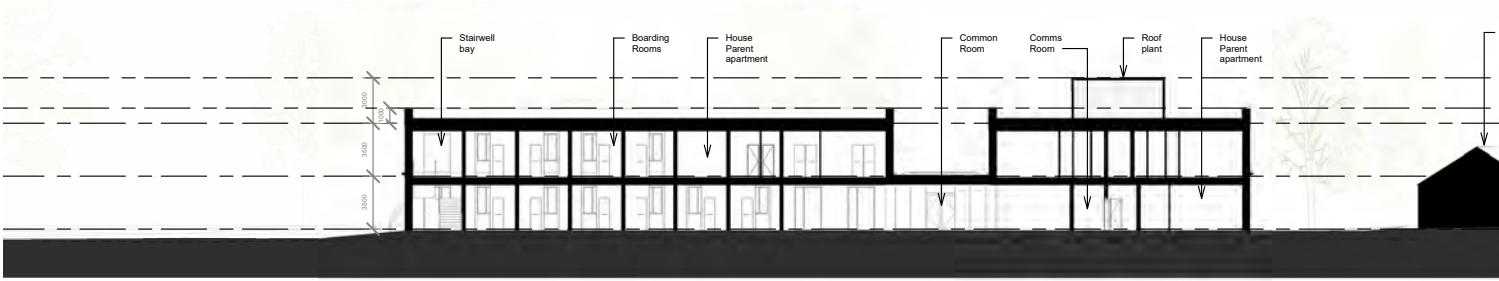
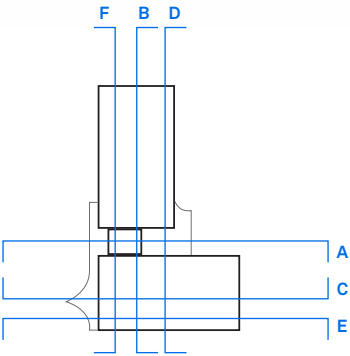
Section A



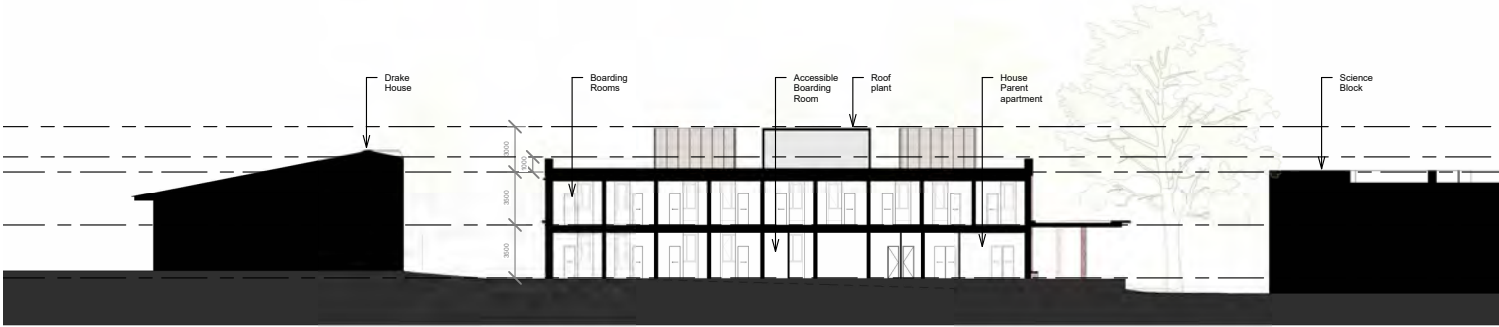
Section B



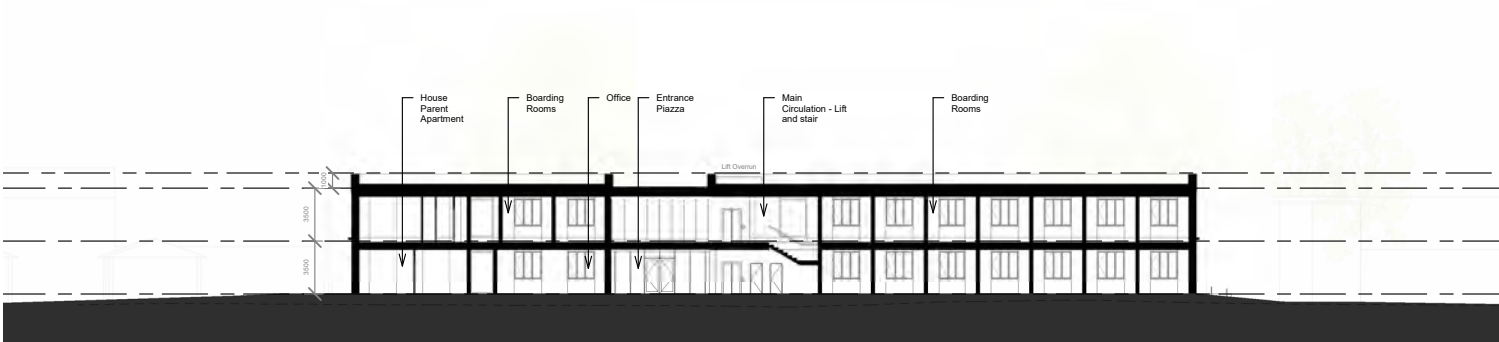
Section C



Section D



Section E



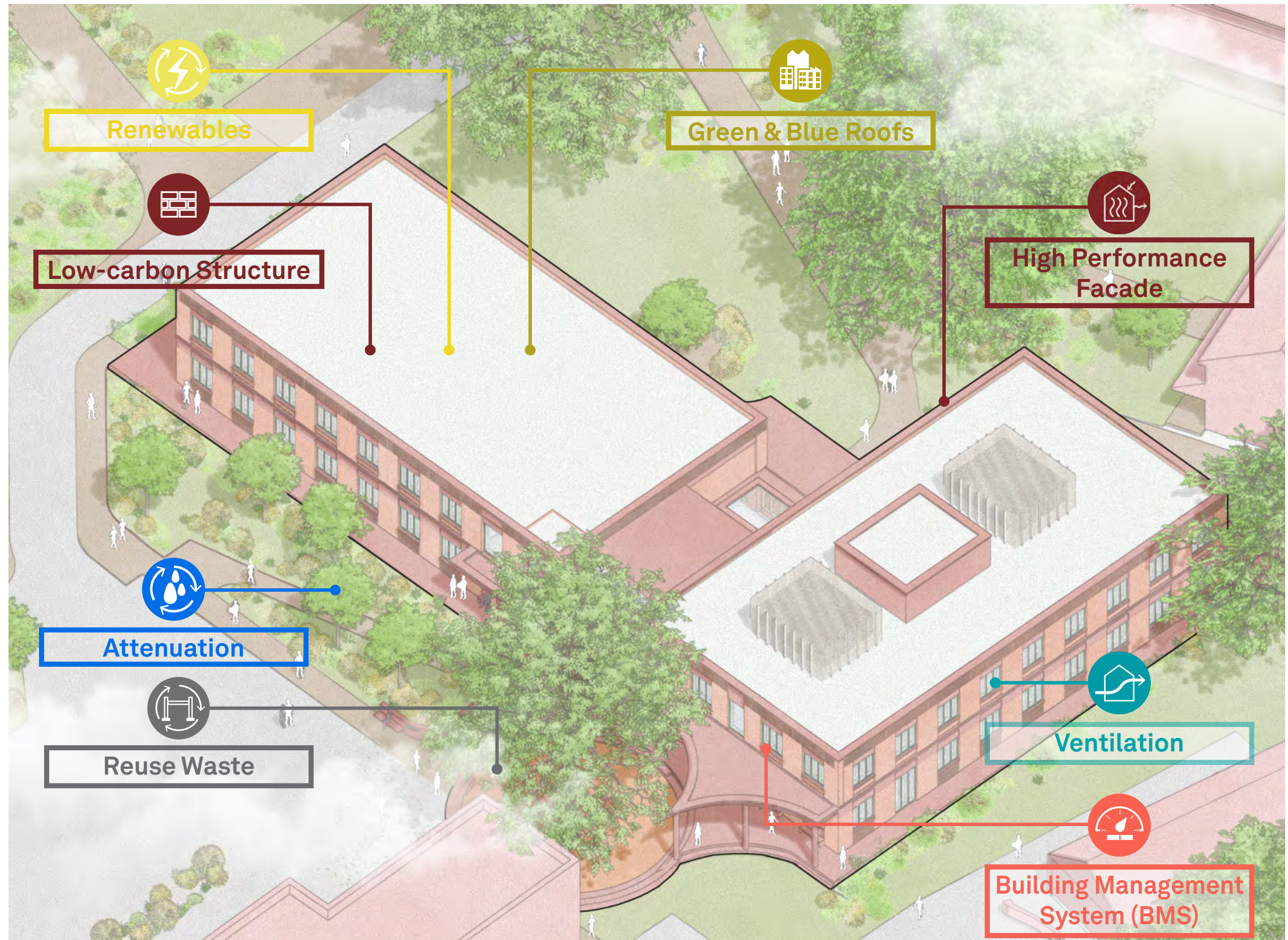
Section F

6 Proposal

6.7 Sustainability

A key component of the project brief is to create an exemplar sustainable building responding to the sites microclimate and conditions. As part of this stage we have highlighted potential opportunities for a holistic approach to the projects sustainability:

- Maximise and reuse of the existing buildings on site. Reducing embodied carbon.
- A 'Low Carbon First' approach to new material choices, everything from the new structure down to wall finishes.
- Adopt passive measures to cooling, heating and ventilation, and create a high performance facade.
- Increase biodiversity and ecology on the site.
- Design for circularity. Maximise reuse of any waste material, and consider future disassembly.
- Create high quality internal spaces that considers the health and wellbeing of its occupants.
- Supplement energy production with renewables.



6

6.8

Proposal

Area Schedule

The adjacent Accommodation and Area Schedule outline the current proposed design.

2171m²

Total Proposed GIA

2285m²

Total Proposed GEA

9547m²

Total Estudy Area Extents

New Boarding				
Space	Users	Quantity	Individual Area	Total Area (m2)
Site				9547
Building footprint				1158
GEA				2285
GIA				2171
NIA				1969
Accommodation				1528 m2 NIA
Boarding				1355
Boarding Room	Students	46	22.23	1023
Accessible Boarding Room	Students	2	22.23	44
Circulation				288
	Students, Staff, Visitors	4	21%	
House Parent				173
House Parent Room	Staff	2	86.50	173
Communal / Breakout				394 m2 NIA
Entrance				213
GF Entrance Piazza	Students, Staff, Visitors	1		115
First floor break out - Oculus	Students, Staff, Visitors	1		98
Common Rooms				145
Common Room GF	Students, Staff, Visitors	1	145.00	145
Staff				36
Luggage	Students, Staff	1		7
Office	Staff	1		27
Staff Store	Staff	1		2
BOH				47 m2 NIA
Visitor AWC	Students, Staff, Visitors	1		9
Store	Staff	3	5.35	16
Plant	Staff	7	Varied	22
Parking				
Staff parking	Staff	2		