

Héronsbridge ALN

Design & Access Statement

Status - S4

Revision - P03

HLM
Architects



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01 Introduction

This section provides an overview of the proposed development and the existing school, establishing the context and background for the scheme.

01: Introduction

Project Introduction

Héronsbridge School is an existing Additional Learning Needs (ALN) school in Bridgend, South Wales, catering for pupils from nursery age through to post-16 with a wide range of additional learning needs, including a dedicated Centre for Autism.

The school currently occupies the former Bridgend School for the Blind on Ewenny Road. Originally constructed in 1929, the building became Heronsbridge Special School in 1996. However, the existing facilities are no longer considered fit for purpose for modern ALN education, with a new purpose-built school proposed approximately one mile away at Island Farm.

The new development will provide a state-of-the-art learning environment for 300 pupils, alongside on-site residential provision, which will be addressed within a separate report.

AtkinsRéalis originally developed the outline design and produced the Stage 2 report. This document outlines the subsequent progression of the design following the appointment of Kier and their appointed design team to deliver the scheme through to completion.

Guide to the document:

The following Design and Access Statement is summarised into four key sections, as follows:

- 01: Introduction
- 02: Site Location & Analysis
- 03: Inherited Design & Development
- 04: School Design
- 05: Interior Design
- 05: Residential Design
- 06: Landscape Design
- 08: Public Consultation
- 09: Environmental Sustainability
- 10: Access Statement



01: Introduction

Existing Heronsbridge School

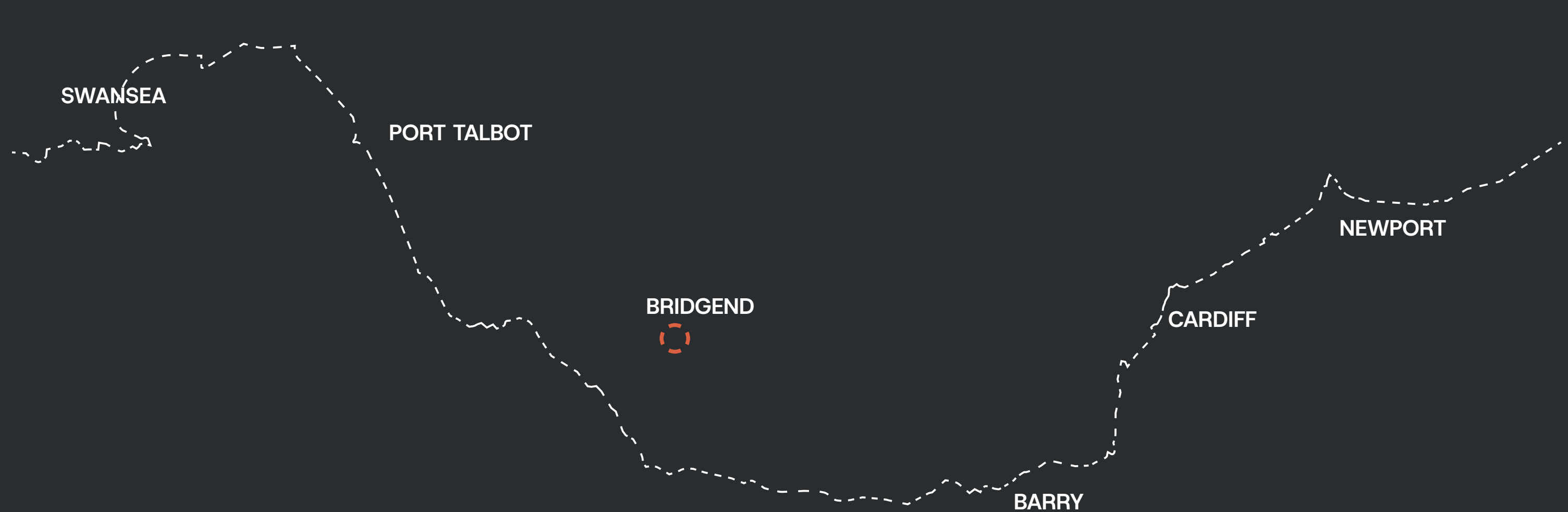
Heronsbridge is a prominent Special Educational Needs and Disabilities (SEND) school in Bridgend.

While currently housed in a Grade II listed 1930s building, originally the Glamorgan County Council School for the Blind, the existing infrastructure presents challenges for modern specialised care.

The new campus at Island Farm will replicate the school’s successful core programs while offering vastly improved facilities for students with Autism, Profound and Multiple Learning Difficulties (PMLD), and Severe Learning Disabilities (SLD).

The architectural language of the new development draws inspiration from the heritage of the original school, creating a familiar yet state-of-the-art environment designed specifically for students to learn, play, and develop.





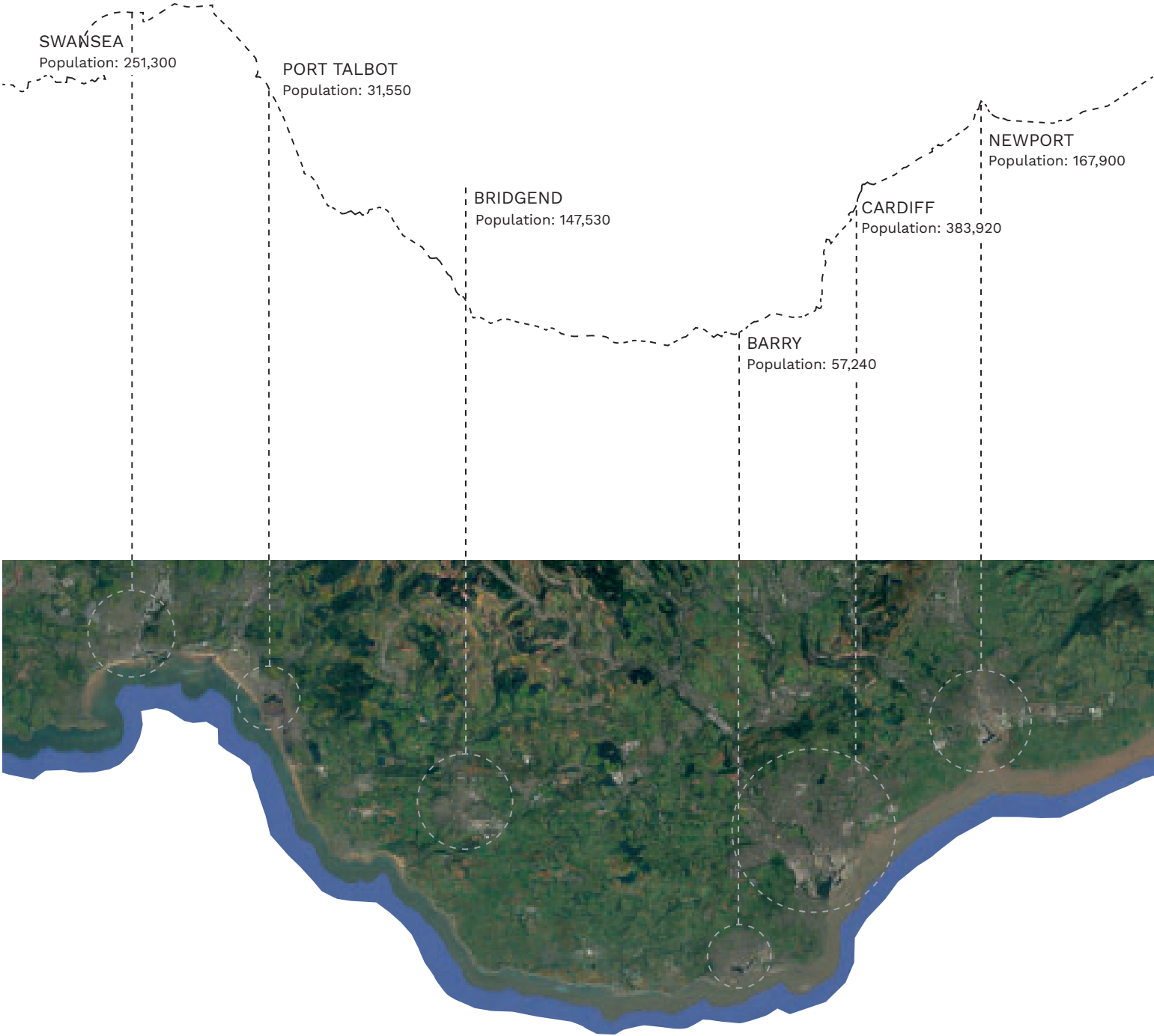
02 Site Location & Analysis

This section examines the site's context, historical development, and key analytical findings, providing a comprehensive understanding of the opportunities and constraints that inform the proposal.

02: Site Location & Analysis

Connection

Héronsbridge School is strategically located between the major South Wales cities of Cardiff and Swansea. Positioned in Bridgend, the school lies roughly 20 miles (32 km) west of Cardiff and about 20 miles (32 km) east of Swansea, making it almost midway between the two urban centres. This central location allows relatively easy access via the M4 motorway, which runs along the South Wales corridor, connecting the school to a wide range of educational, cultural, and support services in both cities. As a result, Heronsbridge School benefits from being in a quieter, more suburban setting while still maintaining strong links to the larger metropolitan areas nearby.



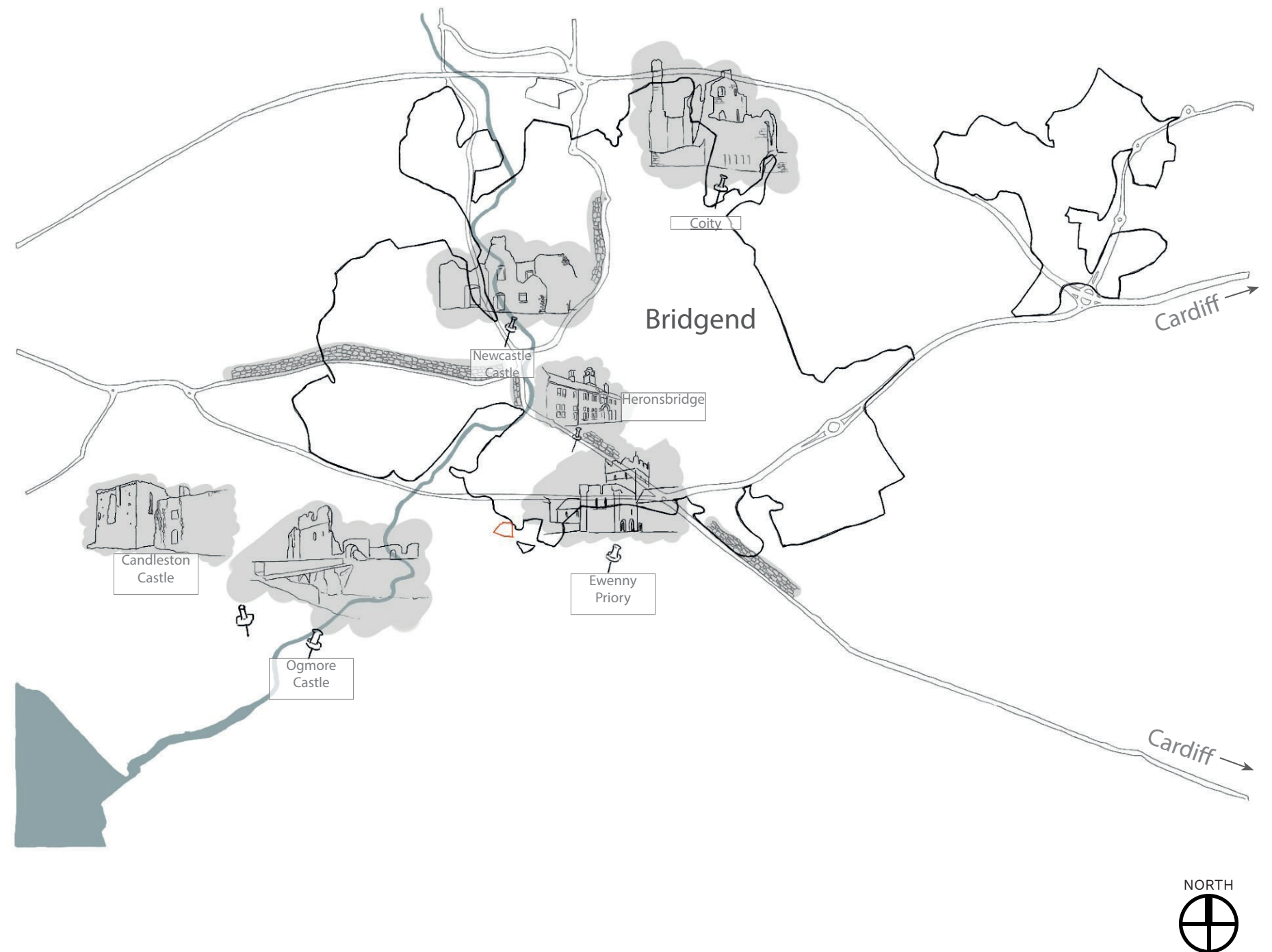
02: Site Location & Analysis

Locality

Bridgend is rich in history, which greatly contributes to the town's character. The area is known for its castle ruins. It is home to four castles: Coity Castle to the north, Ogmore and Candleston Castle to the south, and Newcastle Castle at the centre.

To the south lies Ewenny Priory, while immediately next to the site are the remains of Island Farm, a former Second World War prisoner-of-war camp.

All of these structures are Grade I or II listed, and together with the stone walls that weave through Bridgend, they create a distinctive and historically layered character for the town.



02: Site Location & Analysis

Site

Situated approximately one mile from the existing Heronsbridge School, the site occupies a sustainable greenfield location south of Bridgend town centre. It is strategically positioned on the southern fringe of the Bridgend settlement boundary, bordering the open countryside of the Vale of Glamorgan.

-  Existing School
-  New Site
-  Bridgend Boundary



02: Site Location & Analysis

Historical Context

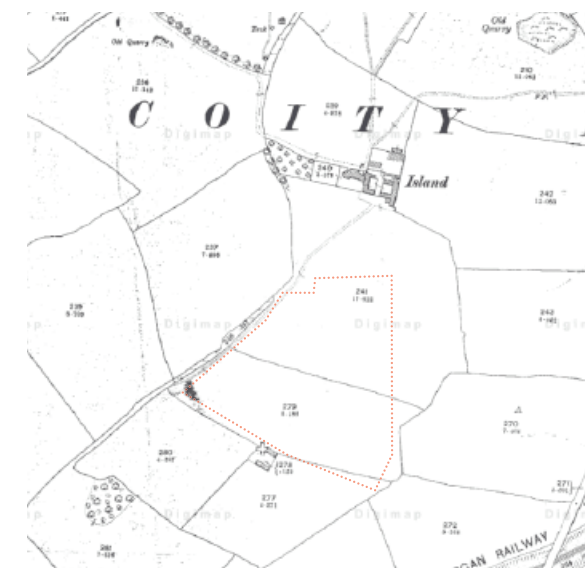
Bridgend has a rich history, with the Island Farm site showing evidence of development dating back to Roman times, including a Roman road that once ran through the site.

Historic maps from the 1890s to 2015 illustrate the gradual evolution of the area. While surrounding development has increased over time, the site itself has remained largely undeveloped, retaining boundaries similar to those seen today.

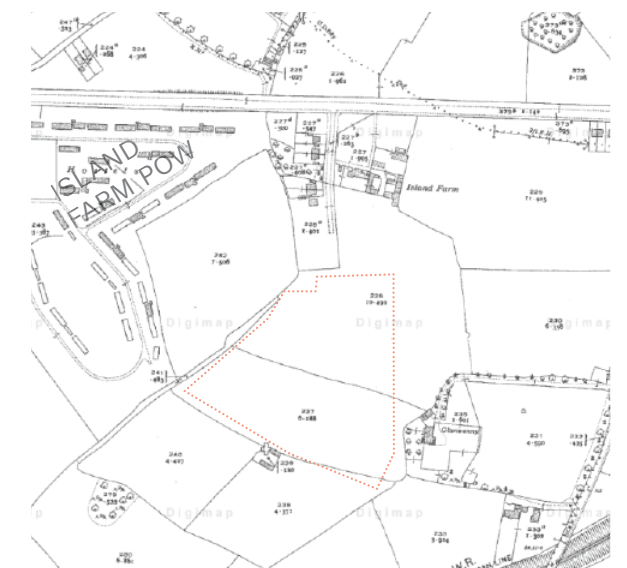
Maps from the 1940s and 1970s show the former Island Farm prisoner of war camp, used during the Second World War. Hut 9 still remains on site as a reminder of this history. Since the 1940s, development around the site has steadily grown, including the introduction of the A48 corridor from the 1970s onwards.



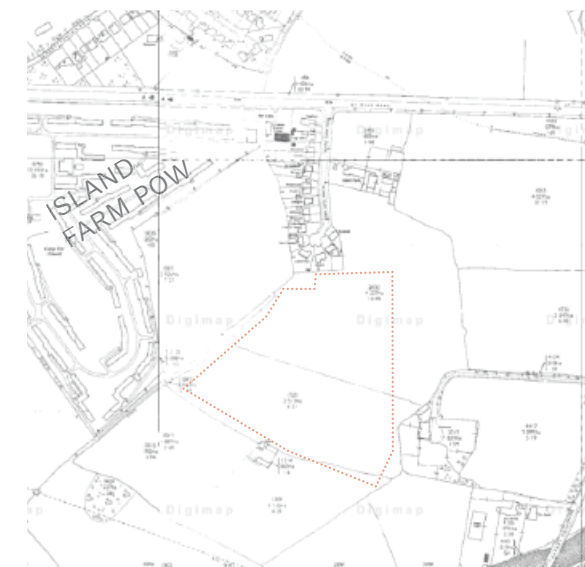
Map showing a section of the Via Julia Maritima, the Roman road that once connected Cardiff and Neath. The route is understood to run directly through the site, although there is currently no confirmed information as to whether any remains have been excavated.



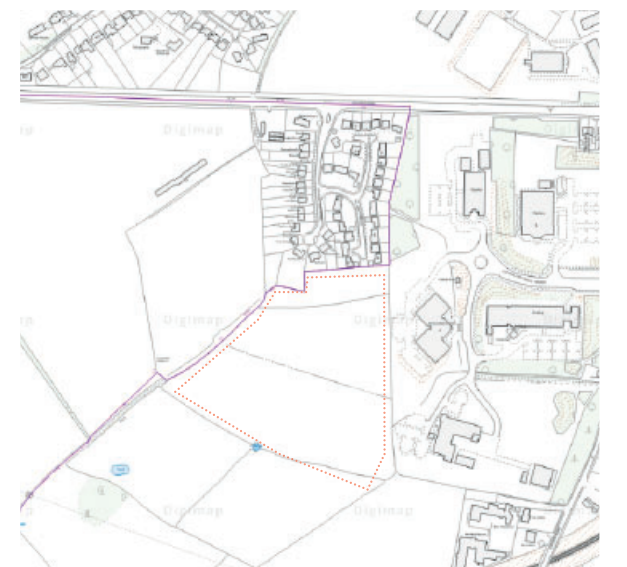
1890s



1940s



1970s



2015

02: Site Location & Analysis

Site Context

Focusing on the immediate site context these views show the residential interface to the north and the streetscape along Technology Drive.



Street View 1 : Island Farm Road



Street View 2 : Island Farm Close



Street View 3 : Innovation Centre, Technology Drive

02: Site Location & Analysis

Wider Masterplan

Commissioned by HD Limited, the Island Farm Masterplan was produced by Roberts Limbrick Architects in 2020. Spanning 51 hectares, the framework establishes a strategic vision for the site, notably identifying the new location for Heronsbridge School. The masterplan integrates key leisure and residential components, including the Bridgend Tennis Centre, which secured planning approval in 2022, while the proposed residential development to the south remains subject to a future planning application.



- Tennis Centre: 2.69 ha
- Community Hub: 0.18 ha
- Special needs school: 4.07 ha
- Primary school: 1.42 ha
- Residential: 18.33 ha
@ 35dph - 641 units
@ 40 dph - 733 units
- Remaining blue / green infrastructure,
ecological enhancement, nature
conservation, heritage and public
open space
24.31 ha

Above: Island Farm Proposed Masterplan 2020 (Roberts Limbrick Architects)

02: Site Location & Analysis

Site Boundary

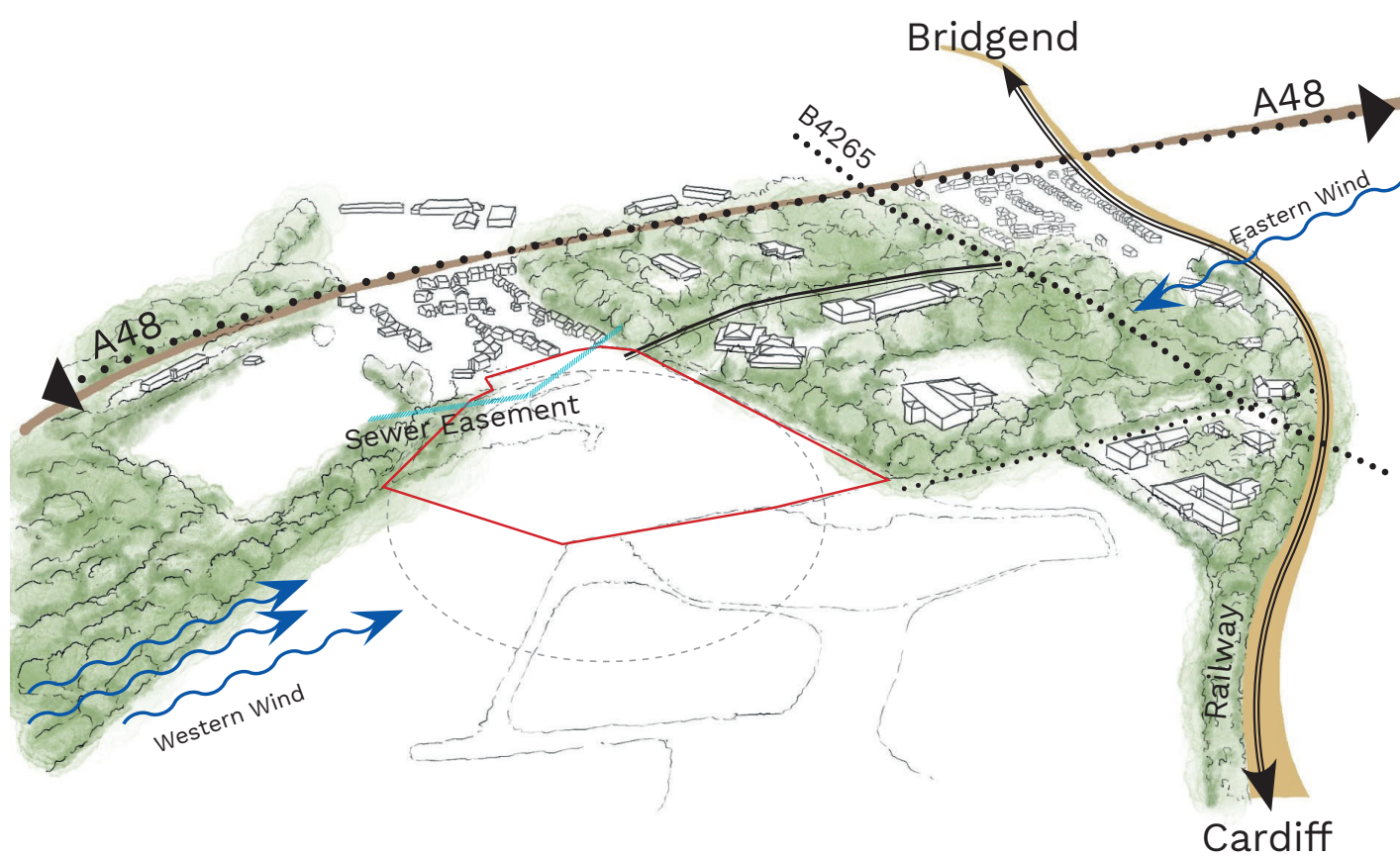
Situated to the south of Bridgend town centre, the site is bordered by residential developments to the north and a business park and innovation centre to the east. The southern and western boundaries open onto undeveloped greenfield land, with the location benefiting from excellent connectivity via the A48 bypass.



02: Site Location & Analysis

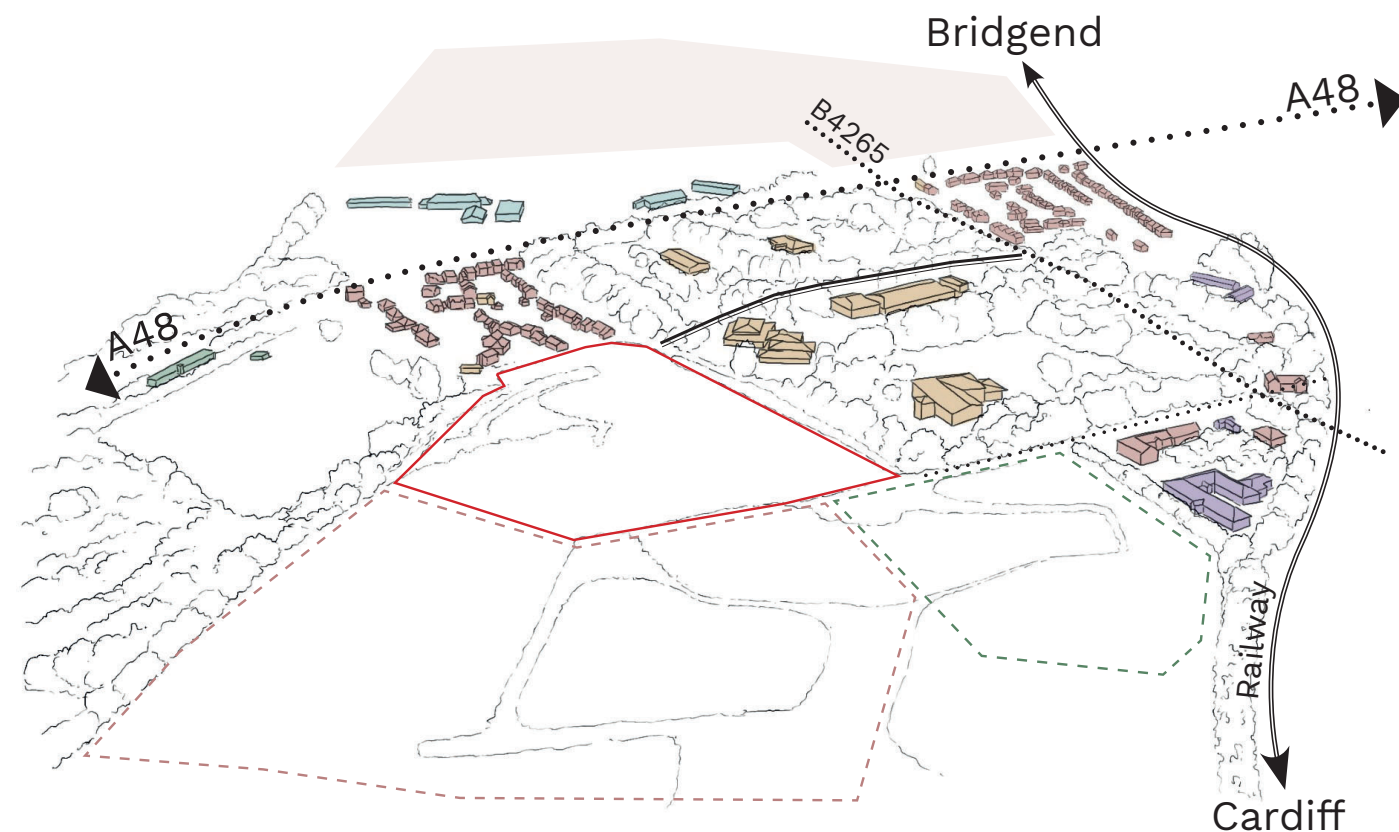
Site Analysis

- Residential
- Education
- Care Home
- Business
- Historical Building
- Planned residential development
- Planned tennis centre



Environmental

The site is well connected, with the A48 to the north and the B4265 to the east, from which smaller access roads lead directly to the site. A railway line linking Bridgend and Cardiff runs alongside the boundary, enhancing regional connectivity. The currently open fields to the south offer potential for solar gain but also expose the site to prevailing westerly winds off the coast.



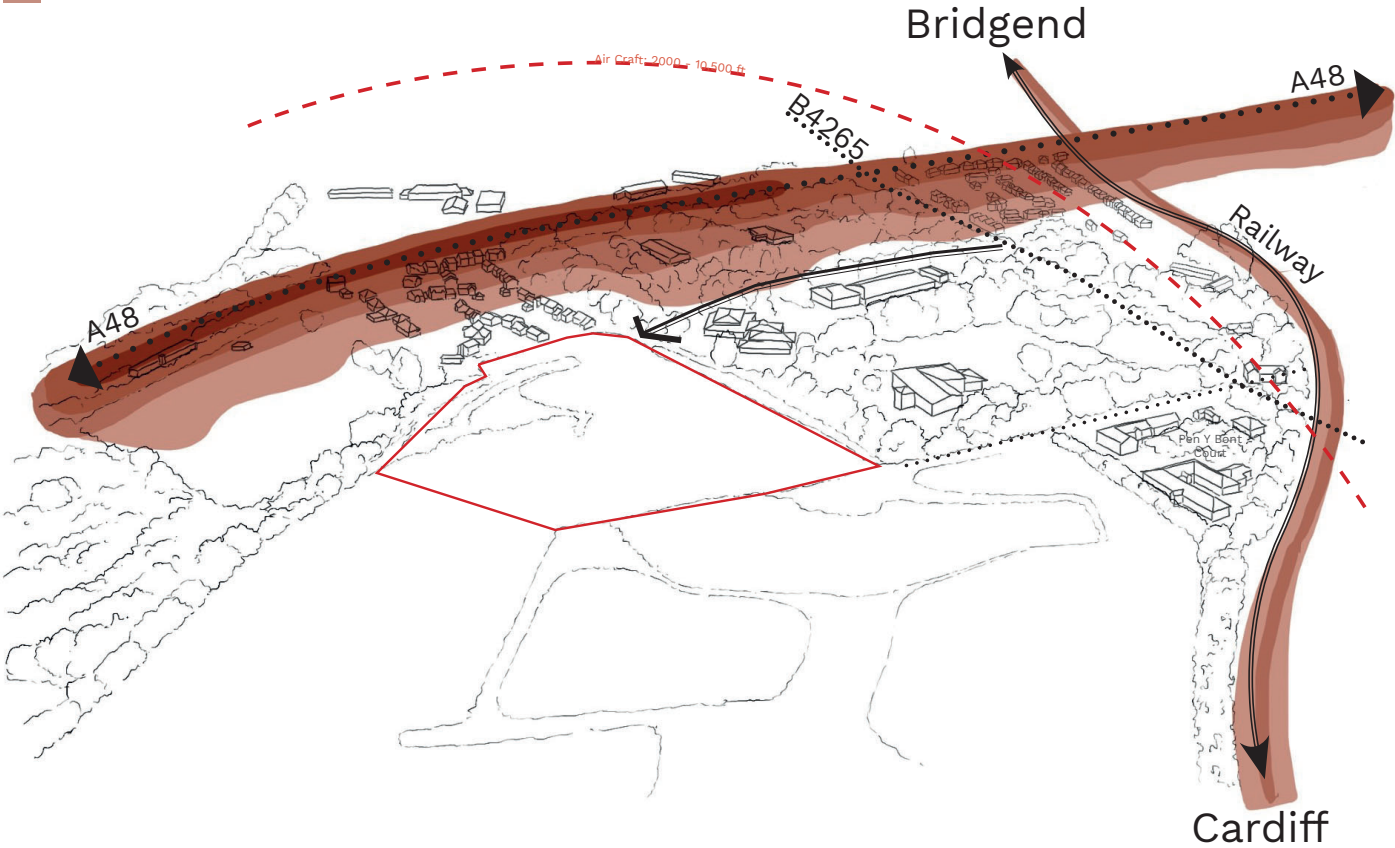
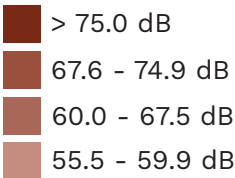
Land Use

The site is currently vacant, bordered by two small residential areas to the north, a business park to the east, a planned residential development and tennis centre to the south, and the remains of Island Farm a former prisoner of war camp to the west.

02: Site Location & Analysis

Site Analysis

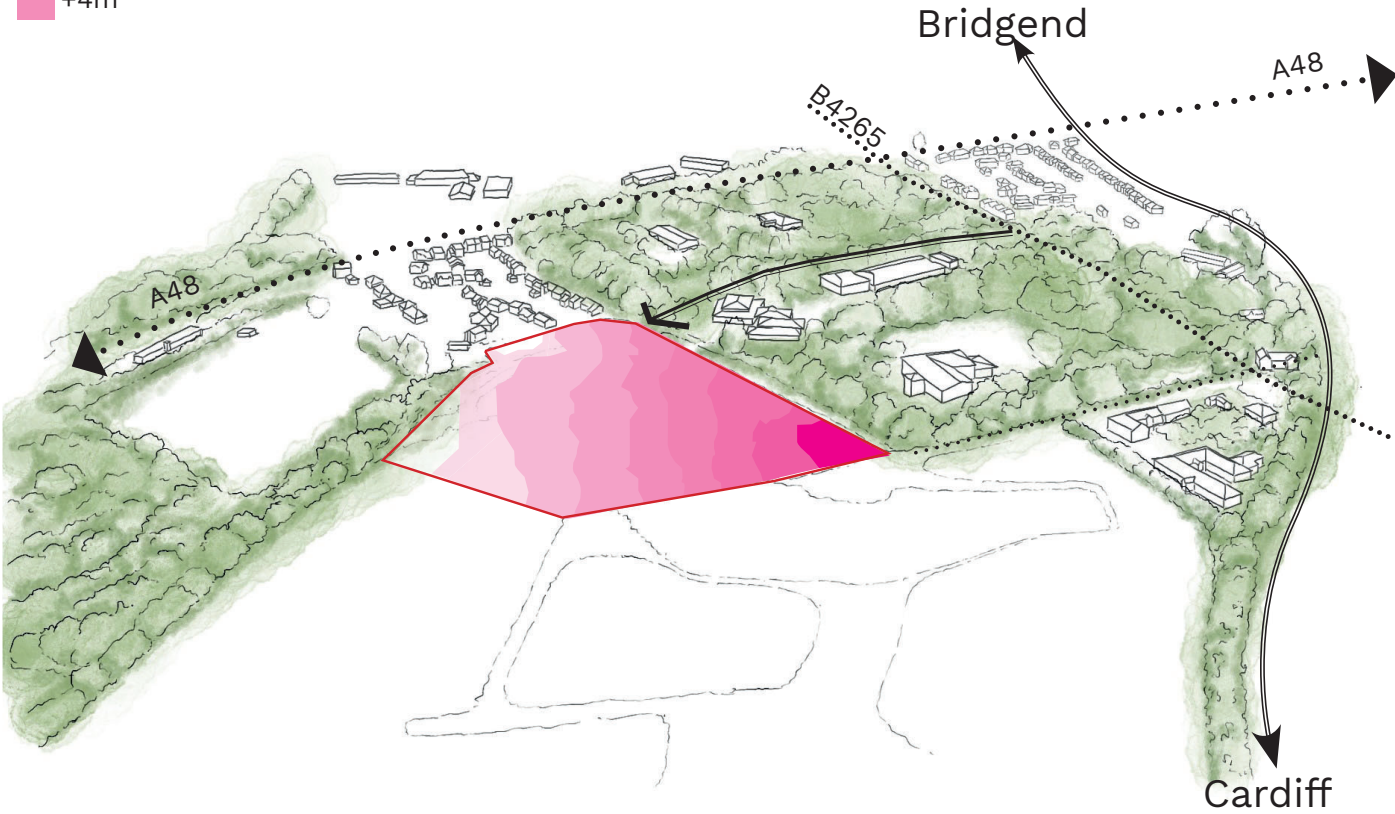
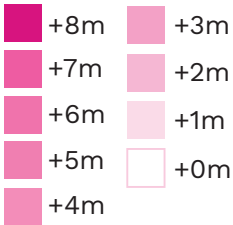
Noise Pollution



Noise

The site experiences minimal noise disturbance from its surroundings. The primary potential sources of noise are the nearby railway line, the A48, and possible aircraft flight paths overhead. However, even in these cases, noise levels are expected to remain low.

Detailed noise surveys and acoustic analysis are ongoing and will be incorporated at the next stage.



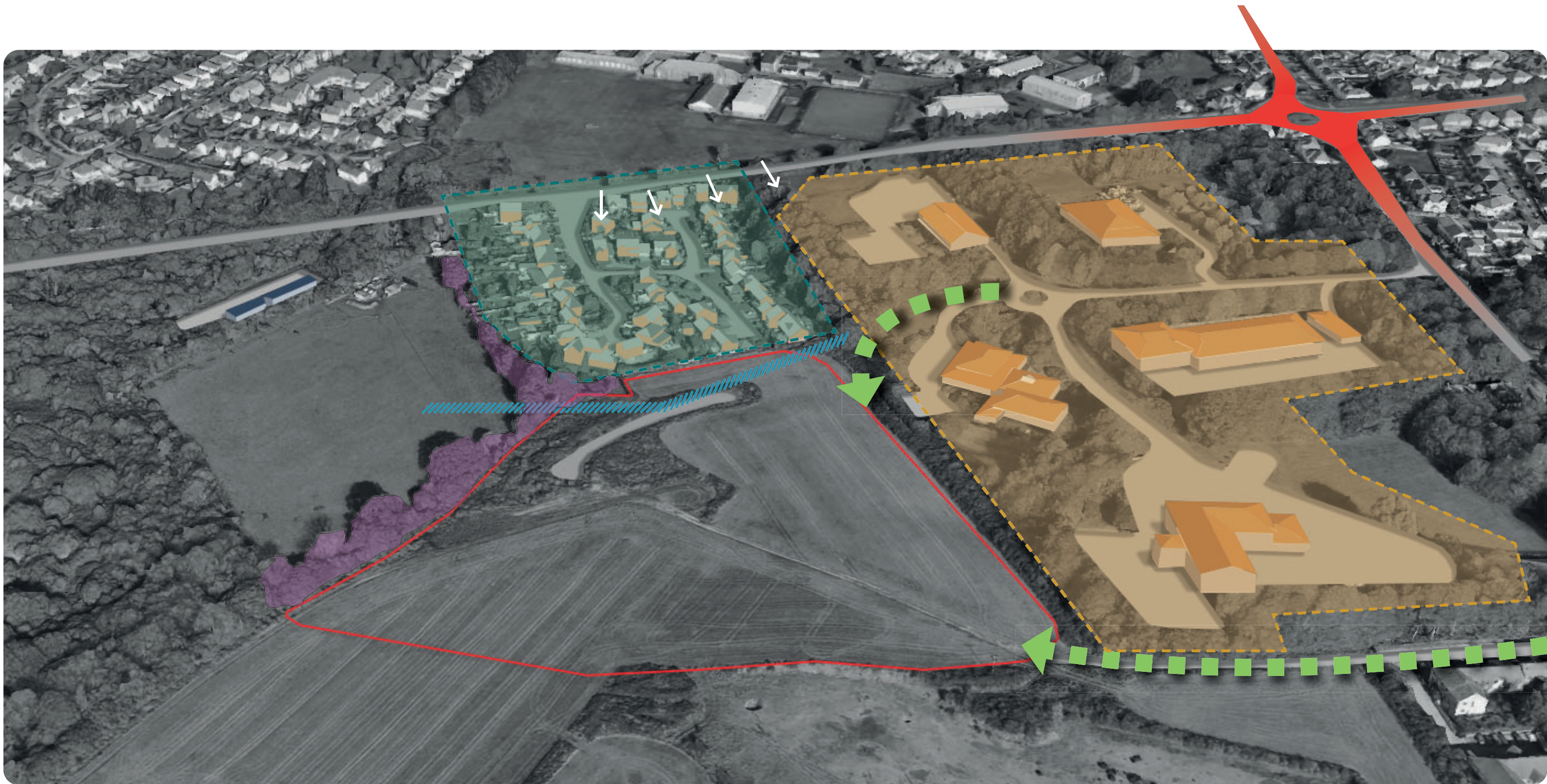
Topography

The site presents a challenge due to its varying topography, with a level change of approximately 8 metres from one end to the other.

02: Site Location & Analysis

Opportunities & Constraints

- Potential for site entrance
- Sewer Easement
- Site Boundary
- Traffic Congestion
- Disruption to Residence
- Tree Retention
- Technology Park
- Existing Residential



02: Site Location & Analysis

Tree Constraints Plan

The site is largely devoid of trees and established landscaping requiring retention, reflecting its previous use as agricultural farmland and earlier clearance. However, the western boundary contains established trees and hedgerows, and their associated root protection zones will be carefully preserved and protected as part of the proposed development.

Key : Tree Protection Methods	
	Temporary Tree Protective Fencing (Not to be altered without prior approval from the Local Planning Authority)
	Construction Exclusion Zone (No access, storage of any building material or equipment at any time for the entire construction period)
	Cut and lay overgrown boundary hedgerow
	Permanent Ground protection - NO DIG - 3D Cellweb

Please Note:
Arboricultural Method Statement:
MUST be followed in sequence, include site supervision by an Arboriculturist where specified and adhered to at all times. Details can be found in Section 6 of this report. Noncompliance with this method statement may result in planning enforcement action or prosecution.



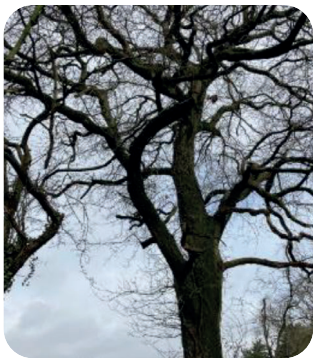
02: Site Location & Analysis

Ecology

AECOM was instructed to undertake a Preliminary Ecological Appraisal (PEA) and a Building Research Establishment Environmental Assessment in 2023. The majority of the site was found to have limited ecological significance; however, three trees along the western boundary were identified as having potential bat roosting features. As a result, the western tree line is to be retained and protected to preserve the existing bat corridor.



Bat Tree 1

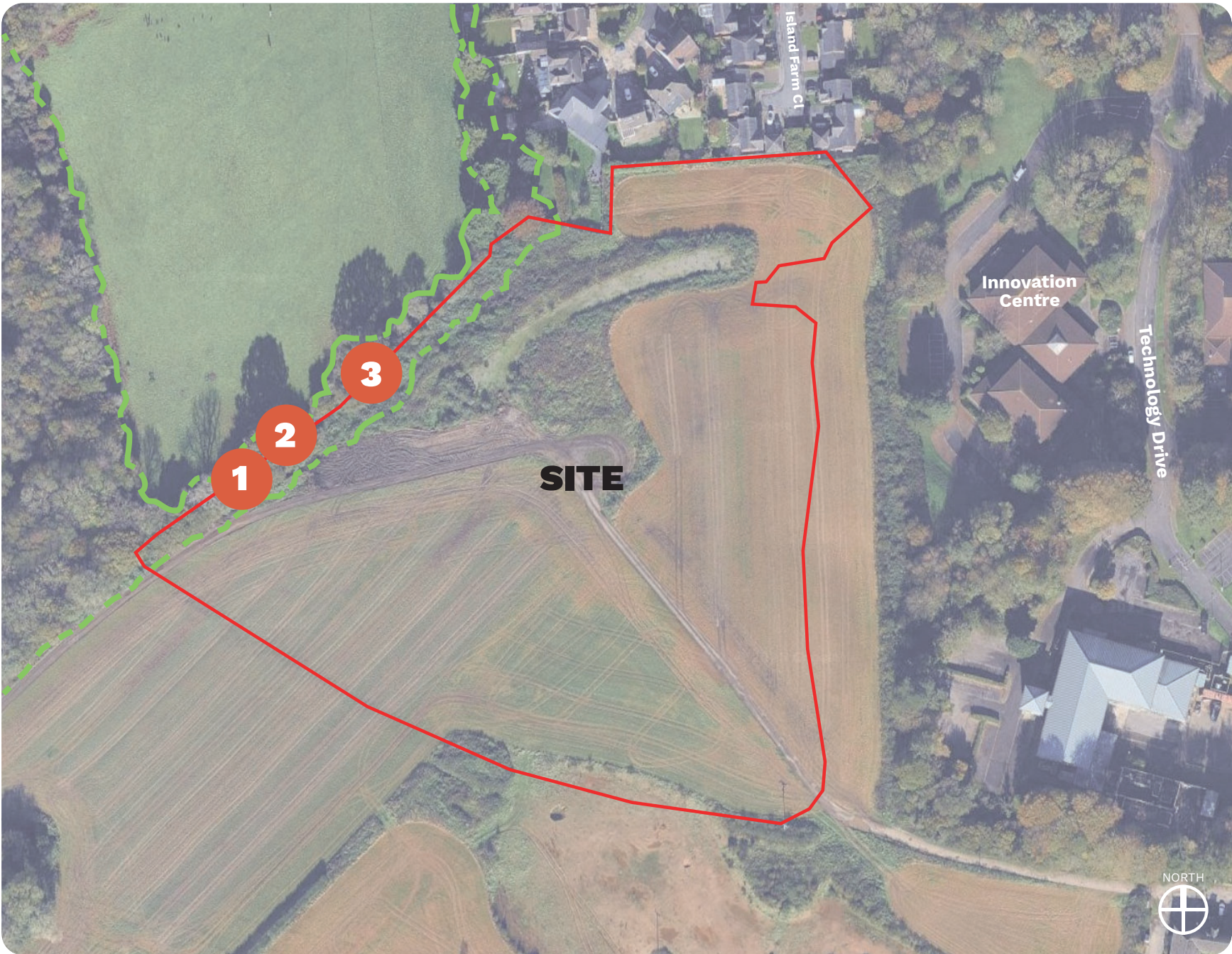


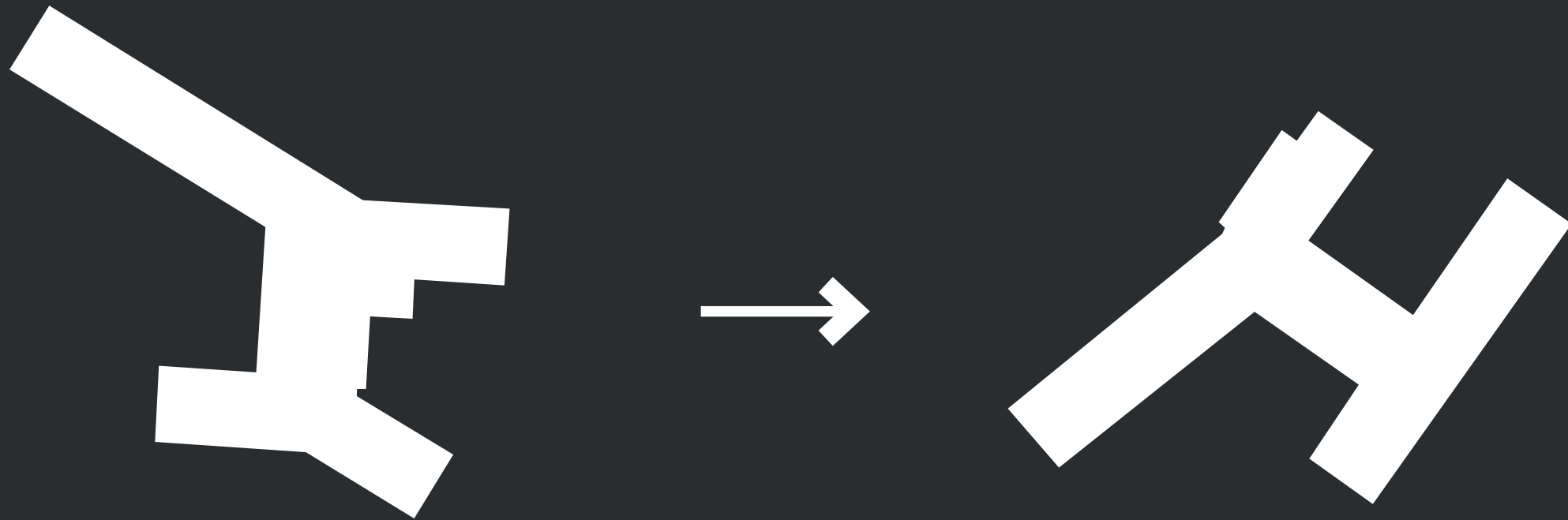
Bat Tree 2



Bat Tree 3

Above: Images from AECOM Preliminary Ecological Appraisal 2023





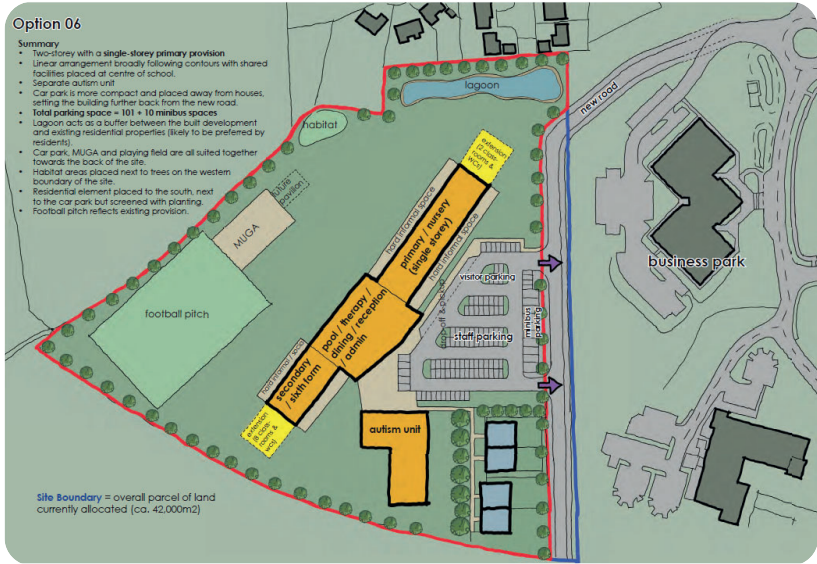
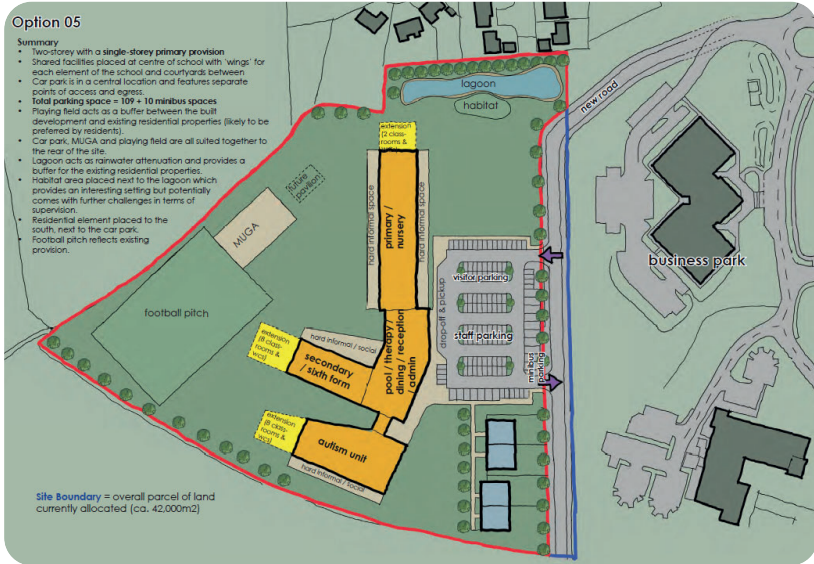
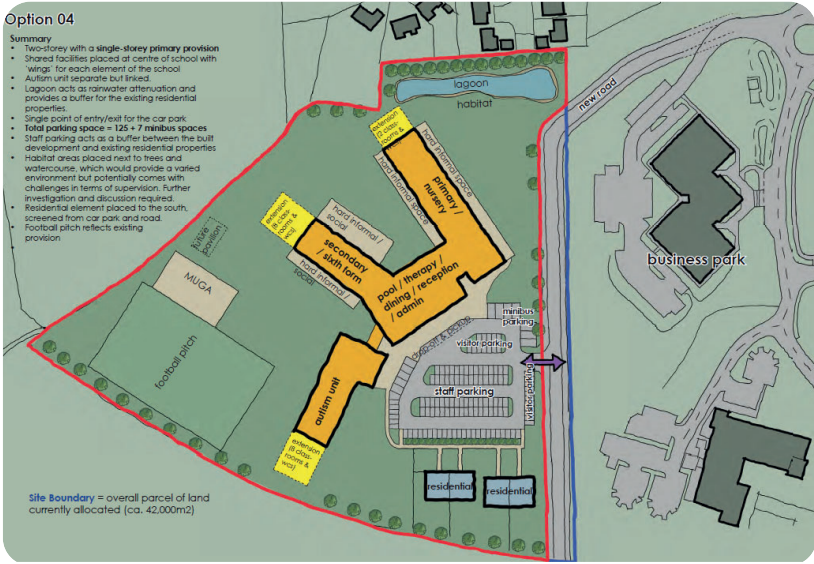
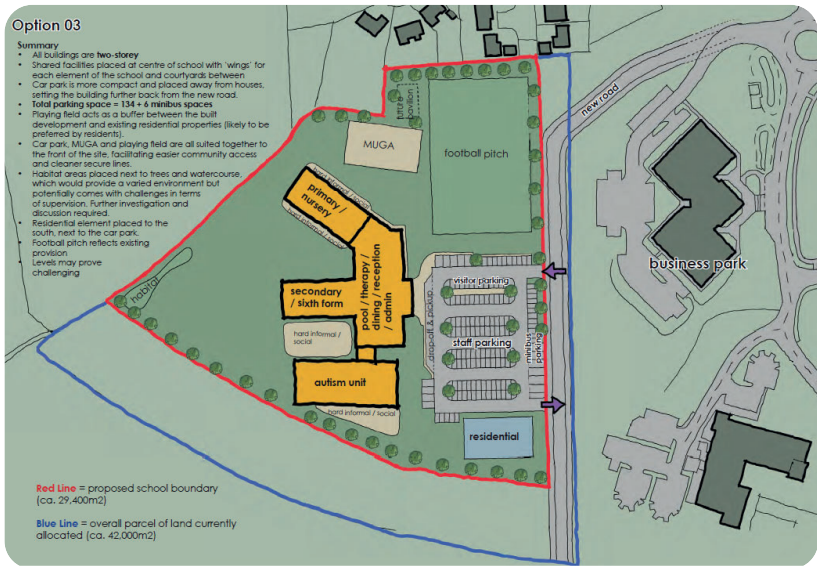
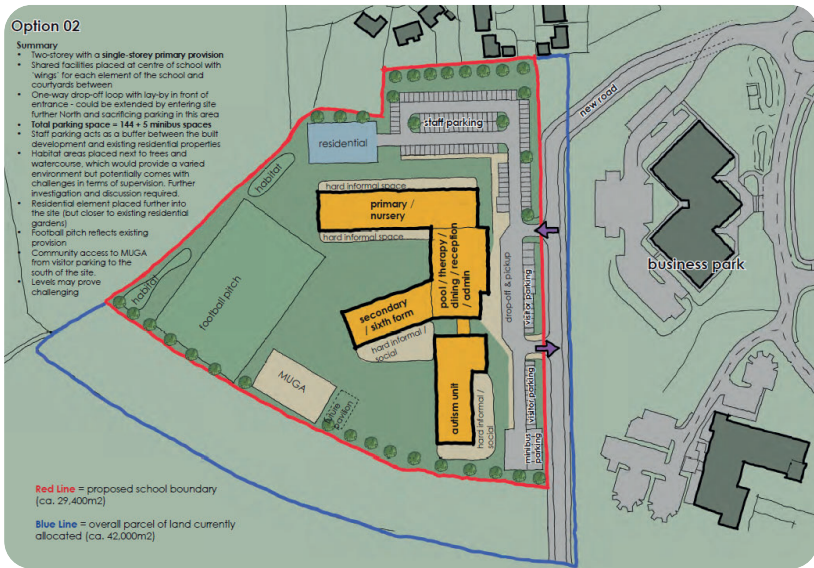
03 Inherited Design & Development

This section presents the previous designs for the site, outlining how and why the scheme has evolved.

03: Inherited Design & Development

Initial Design

Roberts Limbrick Architects were commissioned to undertake a feasibility study for the proposal in April 2021. The following options are taken from their report and provided the basis for Atkins' subsequent Stage 2 design development.



03: Inherited Design & Development

Initial Design – Preferred Option

The site layout prepared by Roberts Limbrick Architects presents a number of challenges and constraints. The location of the pitches is restricted by the existing sewer easement, limiting flexibility within the overall masterplan. The drop-off area is undersized and may struggle to accommodate peak-time traffic safely and efficiently. The MUGA is positioned at the lowest point of the site, creating potential concerns around drainage and usability during periods of heavy rainfall. In addition, the school building does not respond effectively to the natural topography of the site, resulting in inefficient level changes and a less coherent relationship with the landscape. The scheme also currently provides insufficient parking provision, while the complex building footprint reduces efficiency and increases circulation requirements. Further space is also required to appropriately accommodate servicing and back-of-house functions.

- 1 Pitches can't go over sewer easement.
- 2 Drop-off too small.
- 3 MUGA at lowest point of site.
- 4 School doesn't work with site topography.
- 5 Not enough parking.
- 6 Complex footprint.
- 7 More space needed for services



Above: Images from Roberts Limbrick Architects

03: Inherited Design & Development

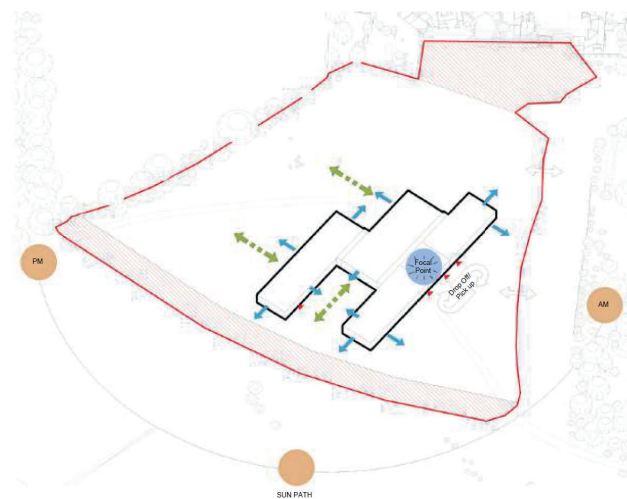
Atkins Typology Testing

Following the initial site plan prepared by Roberts Limbrick, Atkins undertook a range of typology studies for the site. Through this process, a variation of the 'Finger Block One' arrangement was identified as the preferred option, as illustrated in the diagrams extracted from their Stage 2 report.

'Superblock'



'Pavilions'



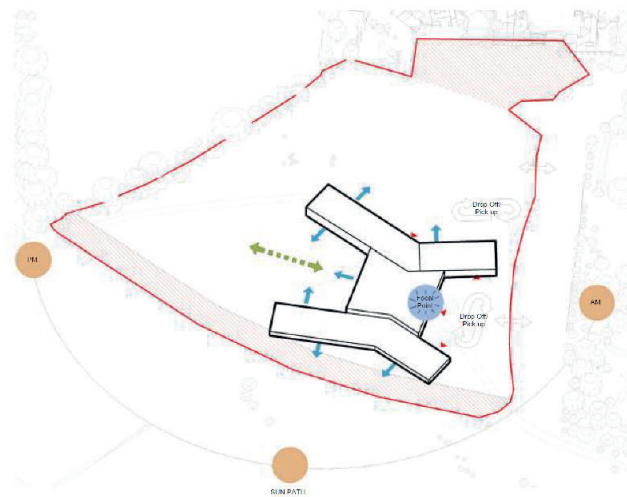
'Courtyard'



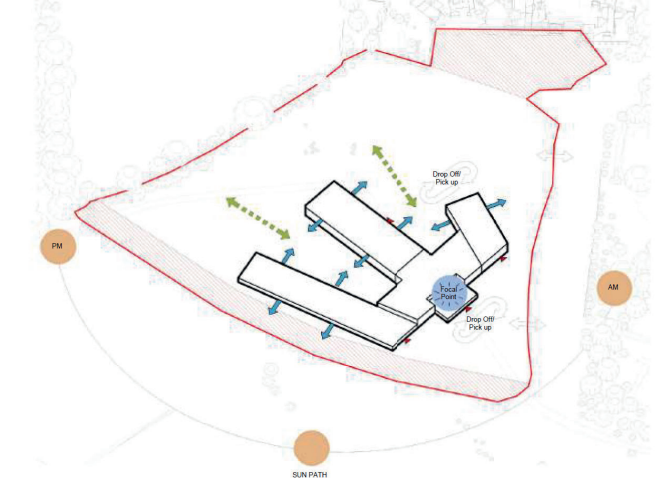
'Courtyard/Fingerblock Hybrid'



'Fingerblock One'



'Fingerblock Two'



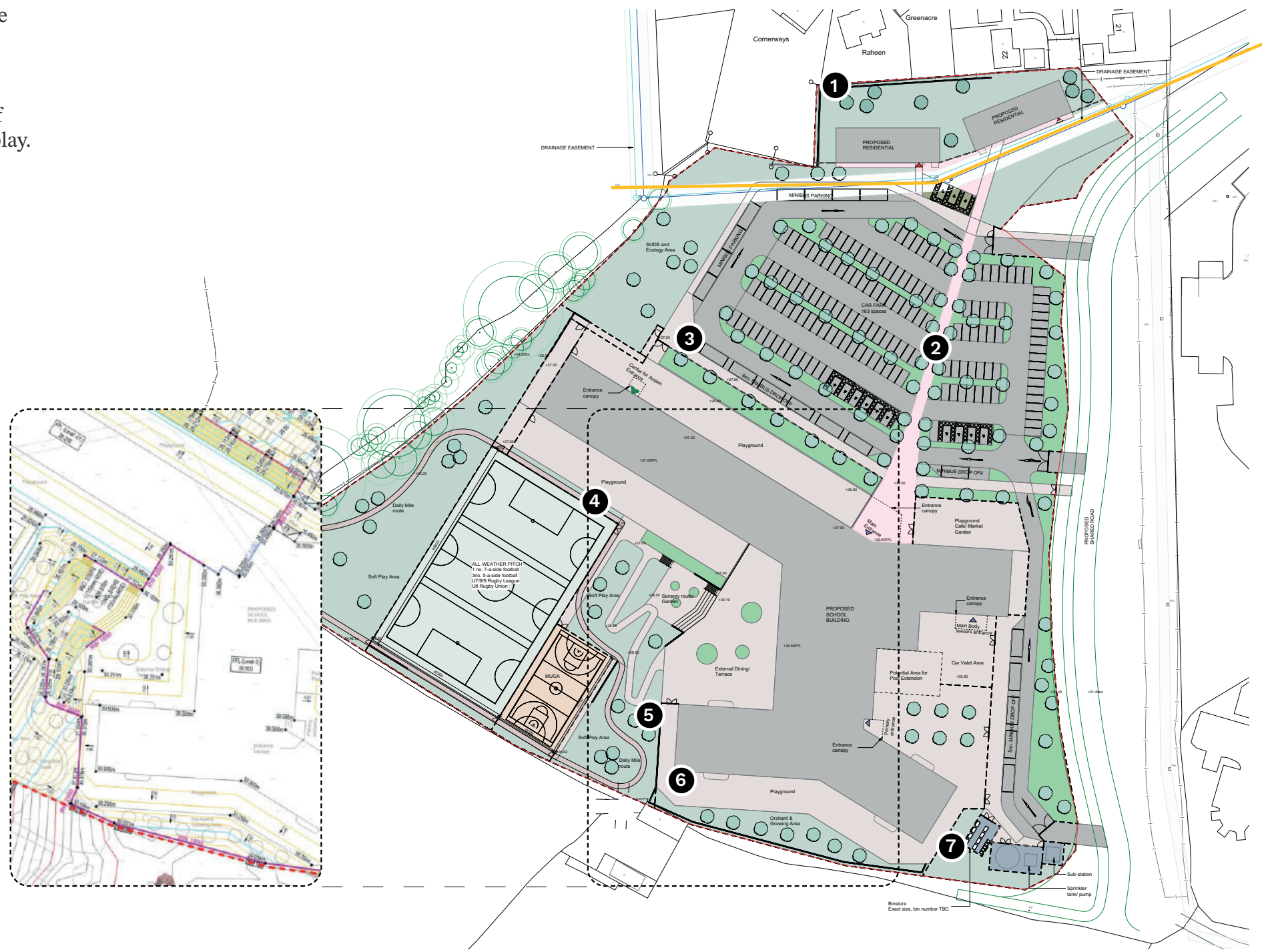
03: Inherited Design & Development

Atkins Stage 2 Plan

One of the principal issues with the inherited design was the extent and scale of the proposed retaining walls. Ranging from 1.8m to 4.2m in height, these structures introduce significant health and safety concerns within an ALN school environment, increasing the risk of falls and potential injury to both pupils and staff. Their prominence across the site also reduces the amount of usable external space, limiting opportunities for safe and inclusive outdoor play.

Furthermore, the reliance on extensive retaining walls adds complexity to the construction process, requiring deep excavations, working at height, and substantial temporary works. This approach also creates long-term maintenance liabilities and contributes to an inefficient cut-and-fill strategy, further impacting the overall viability and sustainability of the scheme.

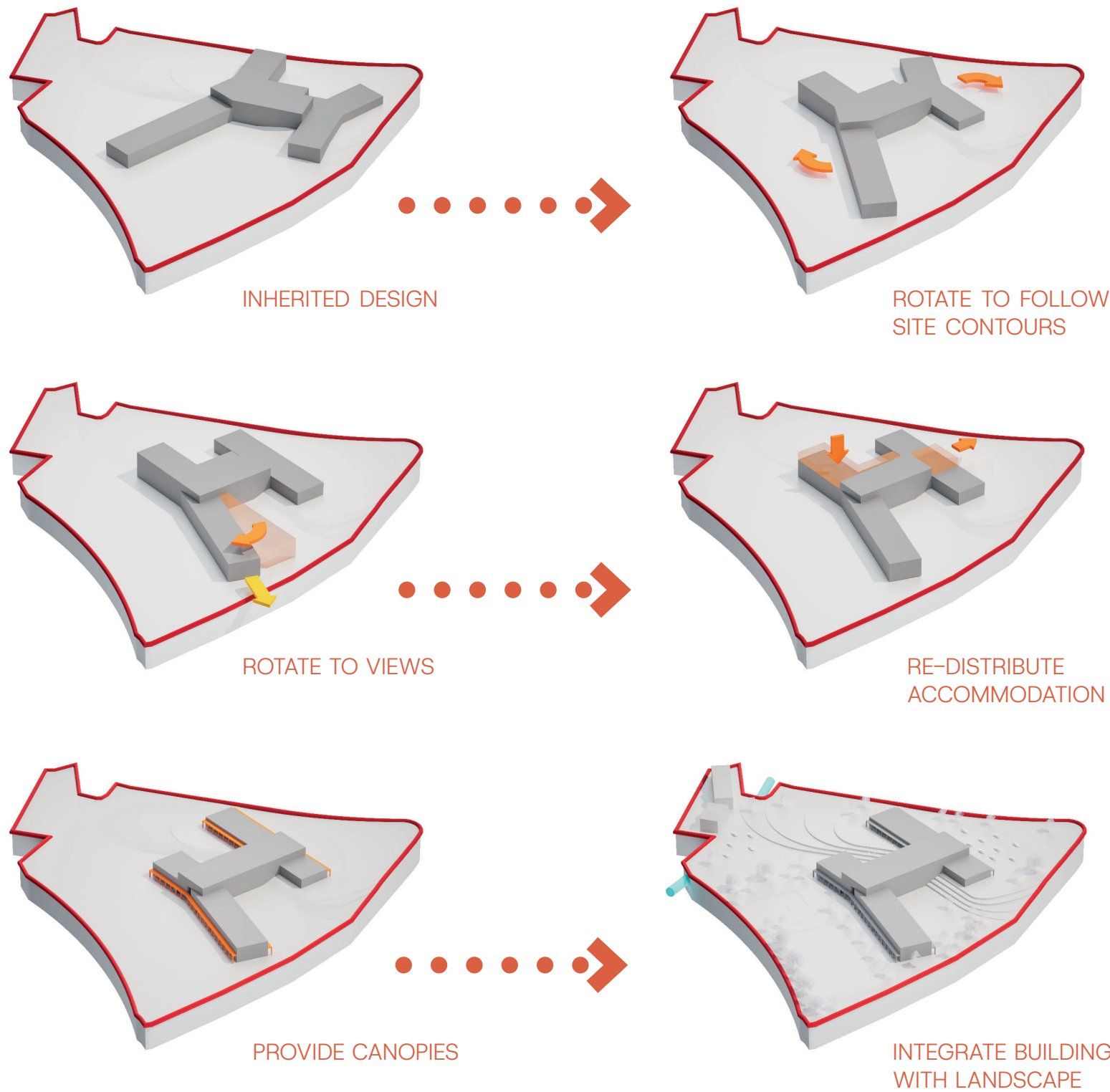
- 1 Proximity of existing residential
- 2 Vehicle and pedestrian access overlaps
- 3 Drop off spread out around the building. Would be better in one place
- 4 Spans across contours
- 5 Extensive requirements for retaining walls
- 6 Building very close to site boundaries
- 7 More space needed for services



03: Inherited Design & Development

Key Moves

The following diagrams illustrate the key design moves undertaken by the design team in the development of the Atkins scheme. The building arrangement was rotated to follow the natural contours of the site, helping to minimise cut and fill requirements and reduce the need for retaining walls. The design was further optimised by straightening the building wings to create a more efficient and legible layout. The southern wing was then rotated to open up the southern courtyard and maximise views towards the Bristol Channel. The building envelope was refined and accommodation redistributed to improve efficiency and spatial relationships across the school. Finally, the entrance sequence was strengthened through the definition of key arrival points and the introduction of canopy elements to provide shelter, legibility and a stronger sense of identity.

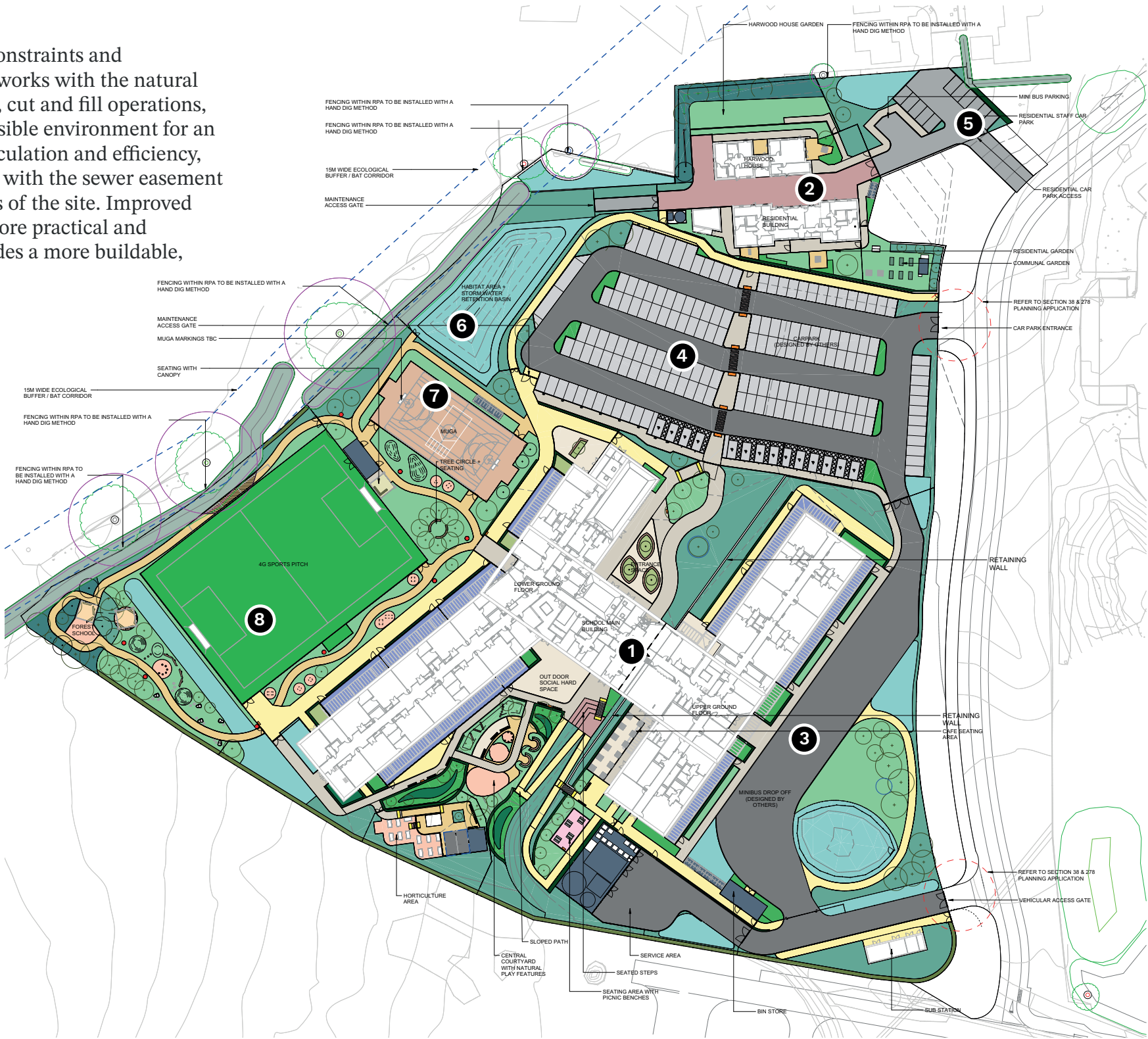


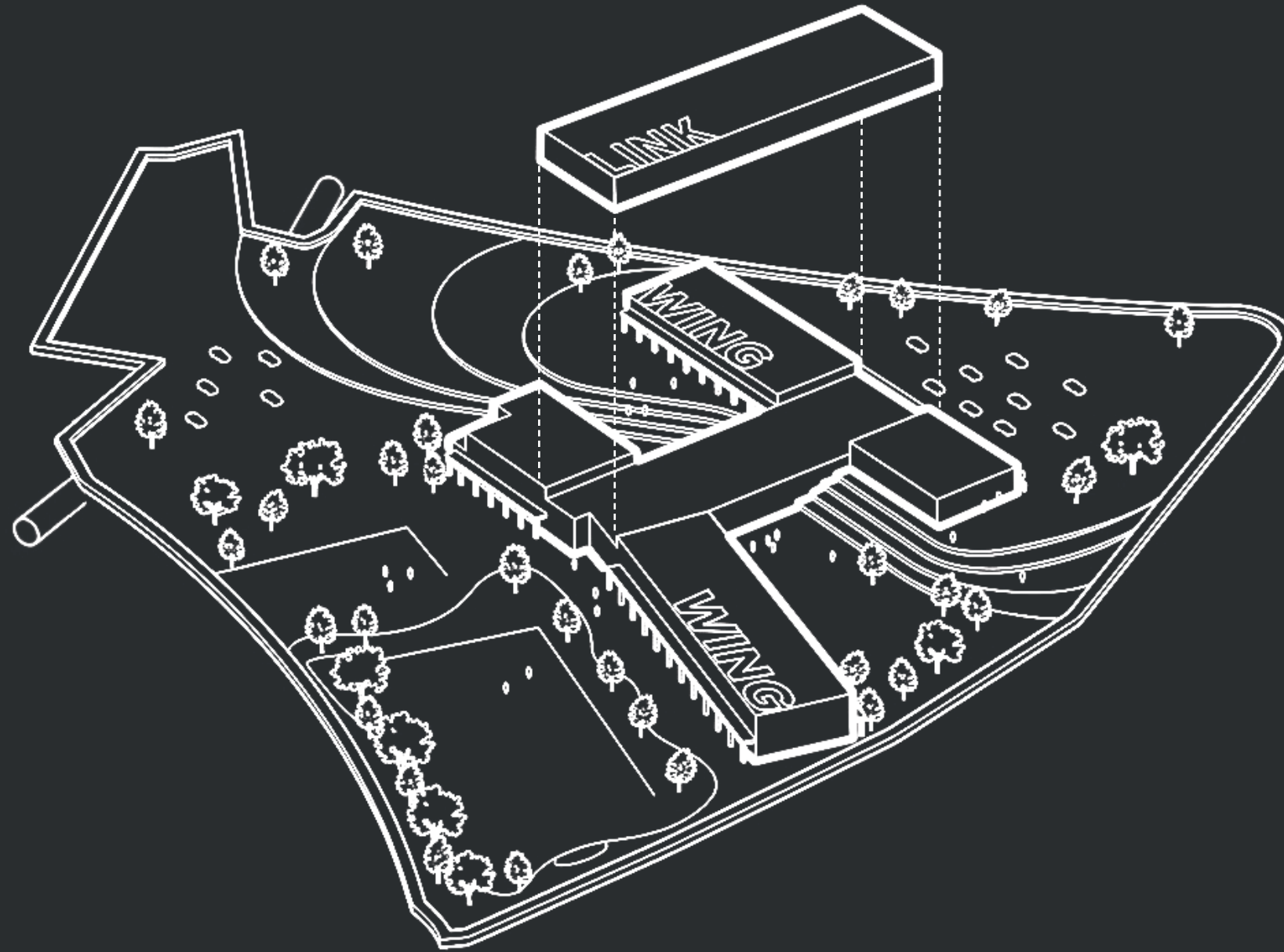
03: Inherited Design & Development

Proposed Site Plan

The updated scheme responds more effectively to the site constraints and operational requirements of the school. The revised layout works with the natural topography, reducing the need for extensive retaining walls, cut and fill operations, and complex level changes, creating a safer and more accessible environment for an ALN school. The simplified building footprint improves circulation and efficiency, while the repositioning of external spaces resolves conflicts with the sewer easement and avoids locating active play areas within the lowest parts of the site. Improved parking, servicing and arrival arrangements also create a more practical and functional masterplan. Overall, the updated proposal provides a more buildable, sustainable and landscape-responsive solution.

- 1 School
- 2 Residential
- 3 Drop Off
- 4 School Car Park
- 5 Residential Car Park
- 6 Storm Water Retention Basin
- 7 MUGA
- 8 4G Sports Pitch





04 School Design

This section outlines the evolution of the school design, from initial area requirements through to spatial planning and massing.

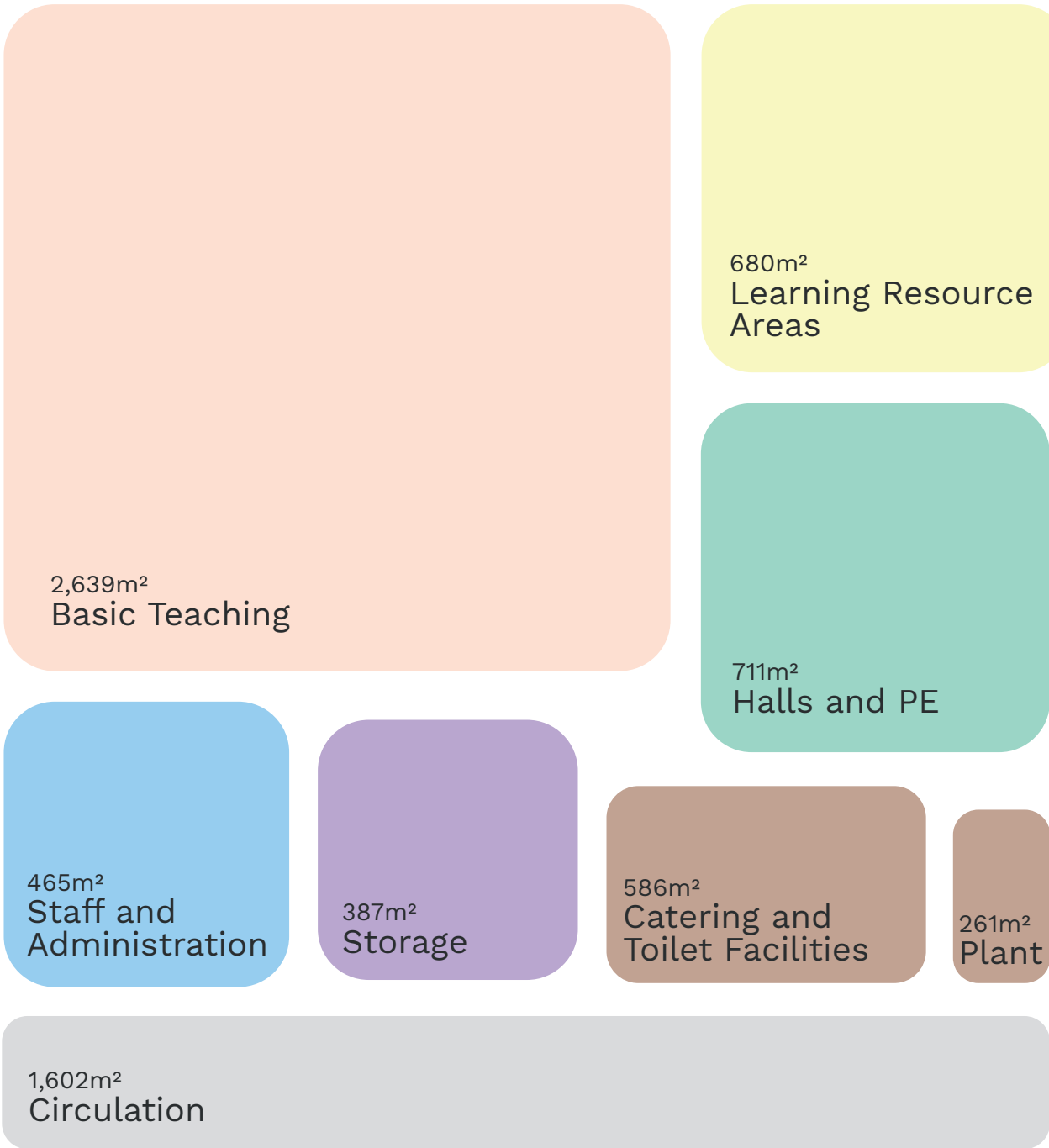
It demonstrates how the proposal is rooted in its context, explaining the key decisions that have shaped its form and the rationale behind its development.

04: School Design

Area Schedule Summary

HLM undertook a comprehensive analysis of both the proposed HLM design and the Atkins scheme, benchmarking each against the Area Guidelines for Schools in Wales.

Since Stage 2, the design team have carried out a full review of the SoA in line with the Welsh Area Guidelines. This has been supported by ongoing consultation with the school, enabling the design to be refined and the Gross Internal Floor Area (GIFA) reduced to better align with the project’s financial constraints.

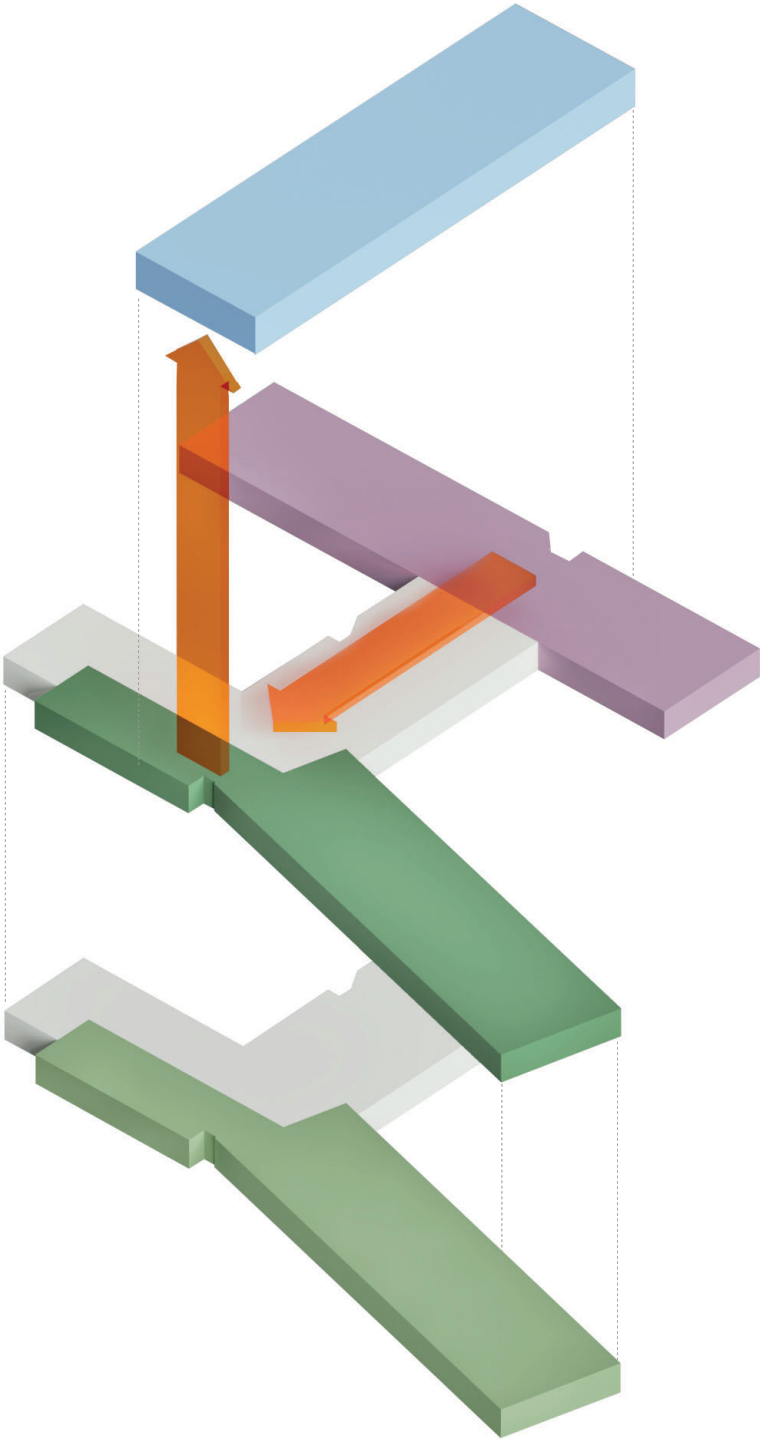


04: School Design

Concepts

The form of the building allows the different cohorts of the school to have their own ‘wing’. This diagram depicts how a student who might spend the whole of their educational years at this school moves through the different cohorts around the building. This transition runs from Nursery to Leavers whereas the centre for Autism has its own independent wing on the lower ground floor.

- Centre for Autism
- Primary
- Secondary
- Leavers

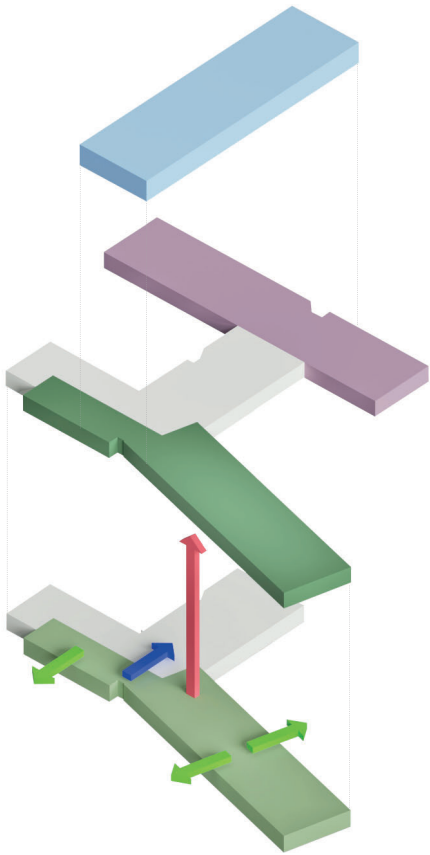


04: School Design

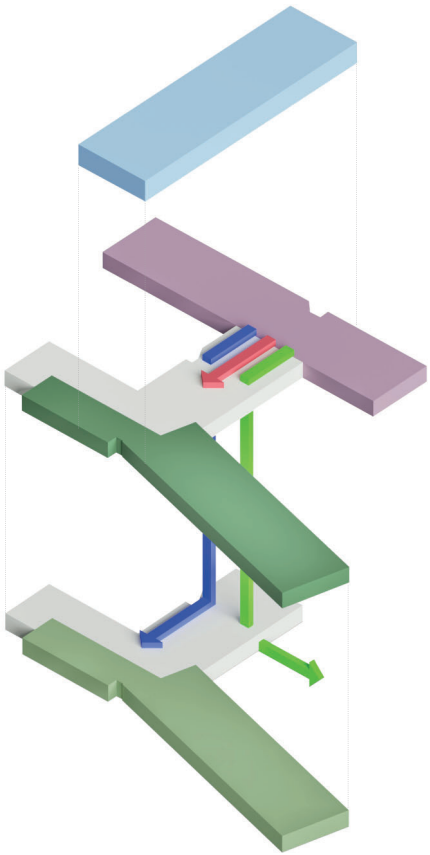
A Day In The Life Of A Student

The layout has been shaped by how students and staff will use the school. Different age cohorts are accommodated in dedicated areas across the various wings, while the central link provides shared spaces for all, including the main halls and dining areas. These diagrams show how students move through the building, accessing dining, pool and outdoor amenities.

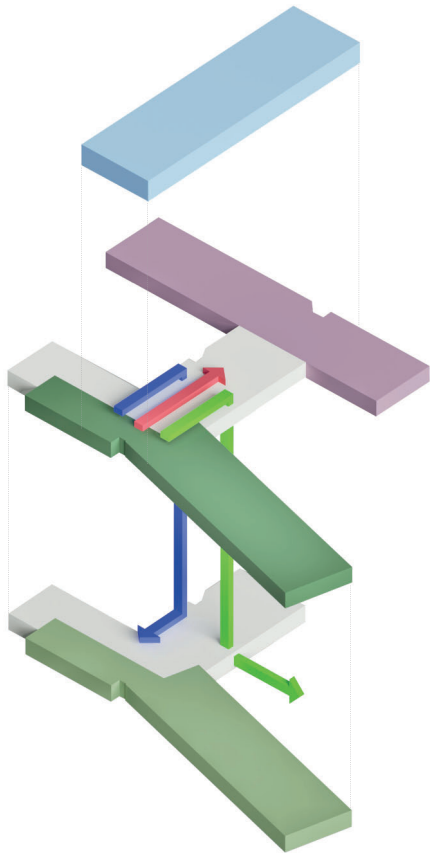
- Centre for Autism
- Primary
- Secondary
- Leavers
- Dining
- Pool Access
- Outdoor Access



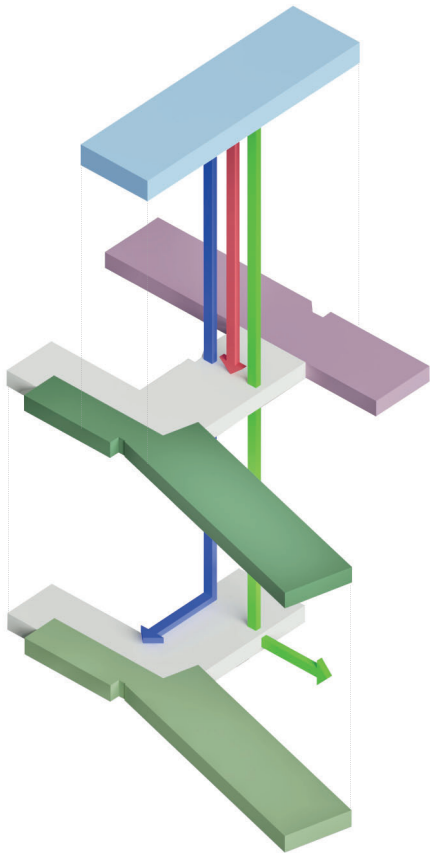
Centre for Autism



Primary



Secondary

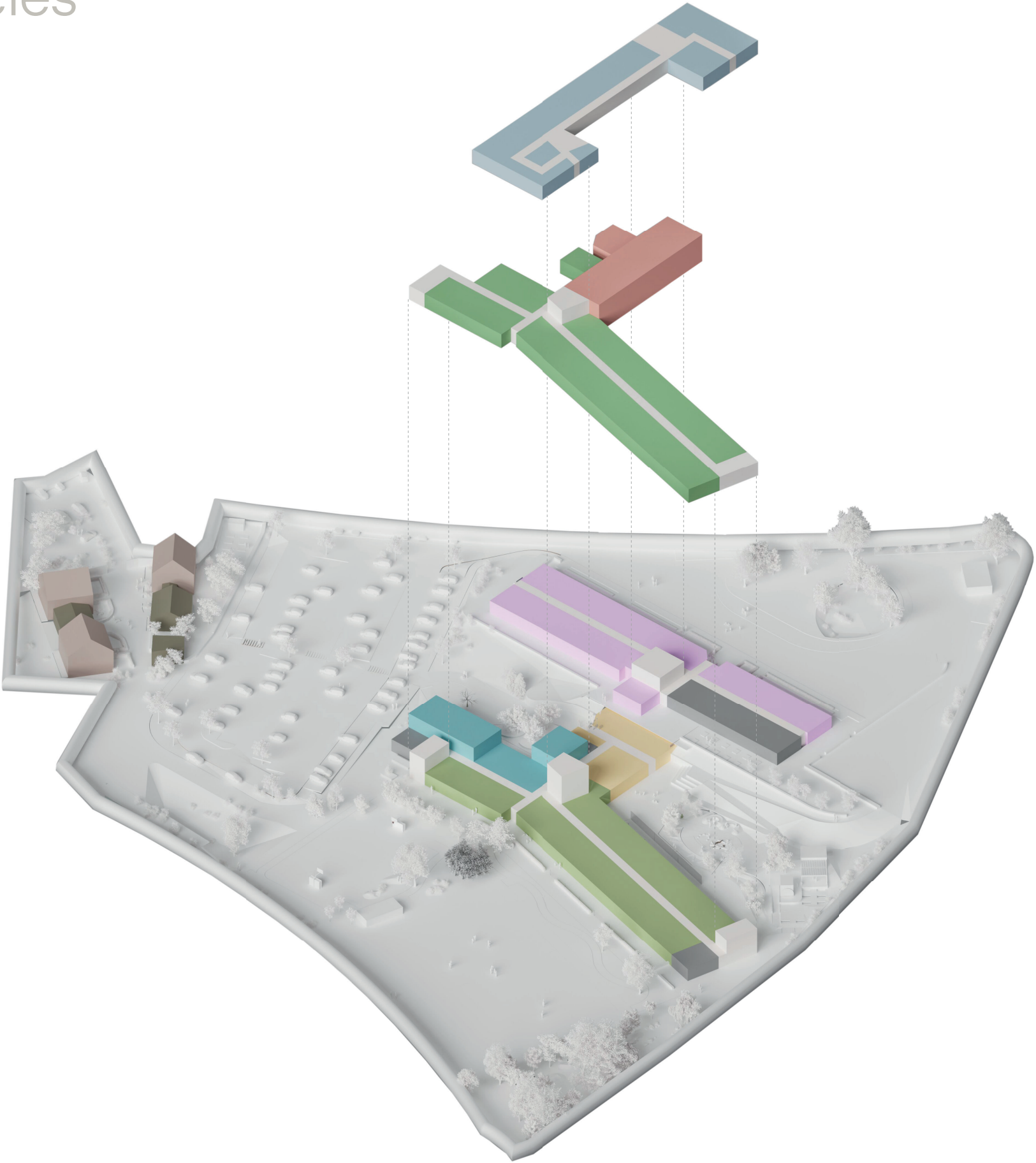


Leavers

04: School Design

Building Adjacencies

Shared spaces and administrative functions are positioned at, or close to, the central heart of the building, creating a clear and cohesive hub. From this core, dedicated wings extend to accommodate the different cohorts. The layout ensures that all areas of the building are easily accessible, with clear and efficient horizontal and vertical circulation throughout.



- Centre for Autism
- Pools
- Admin
- Primary
- Plant / BoH
- Secondary
- Halls & Cafe
- Leavers



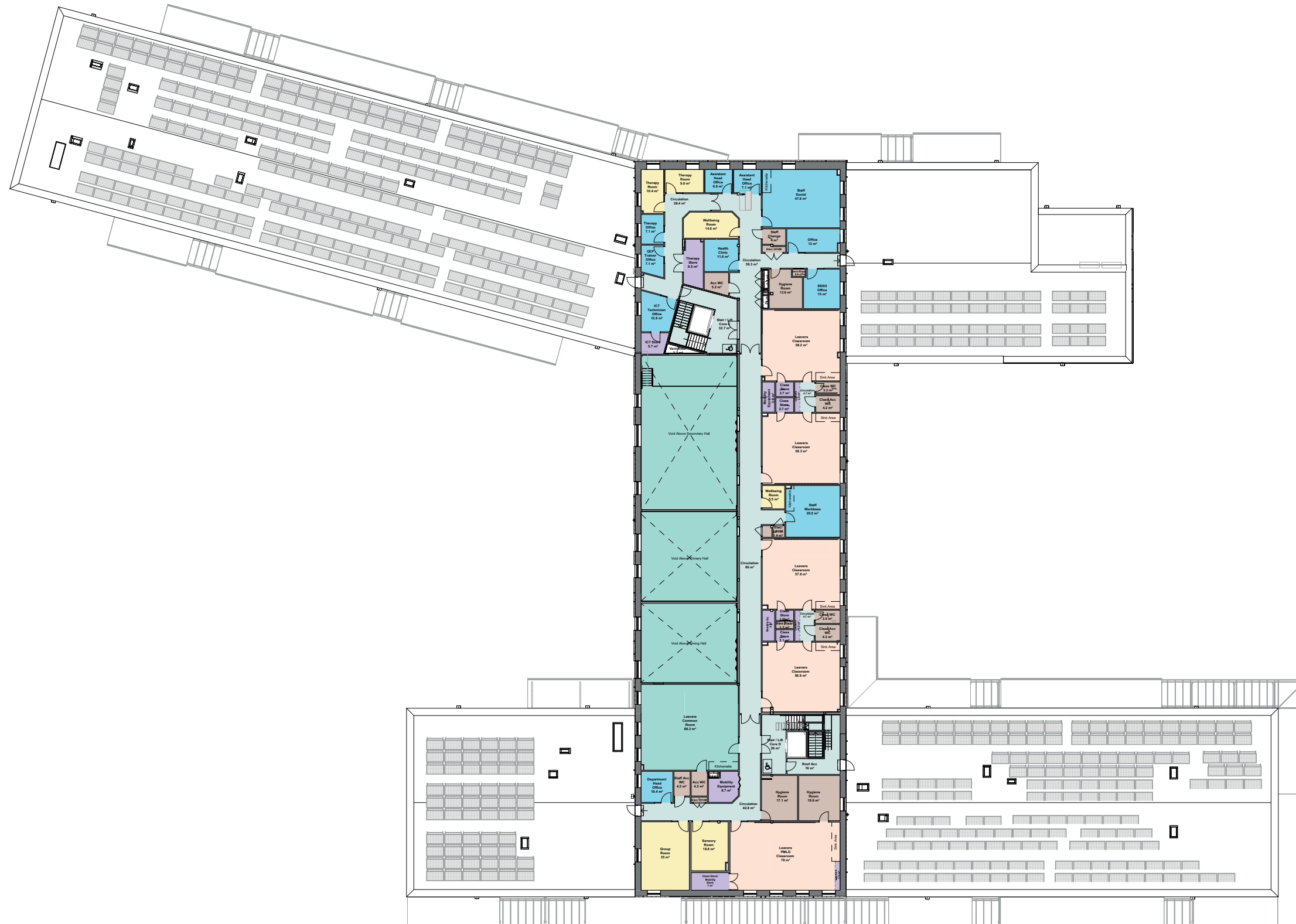
04: School Design

Ground Floor Plan



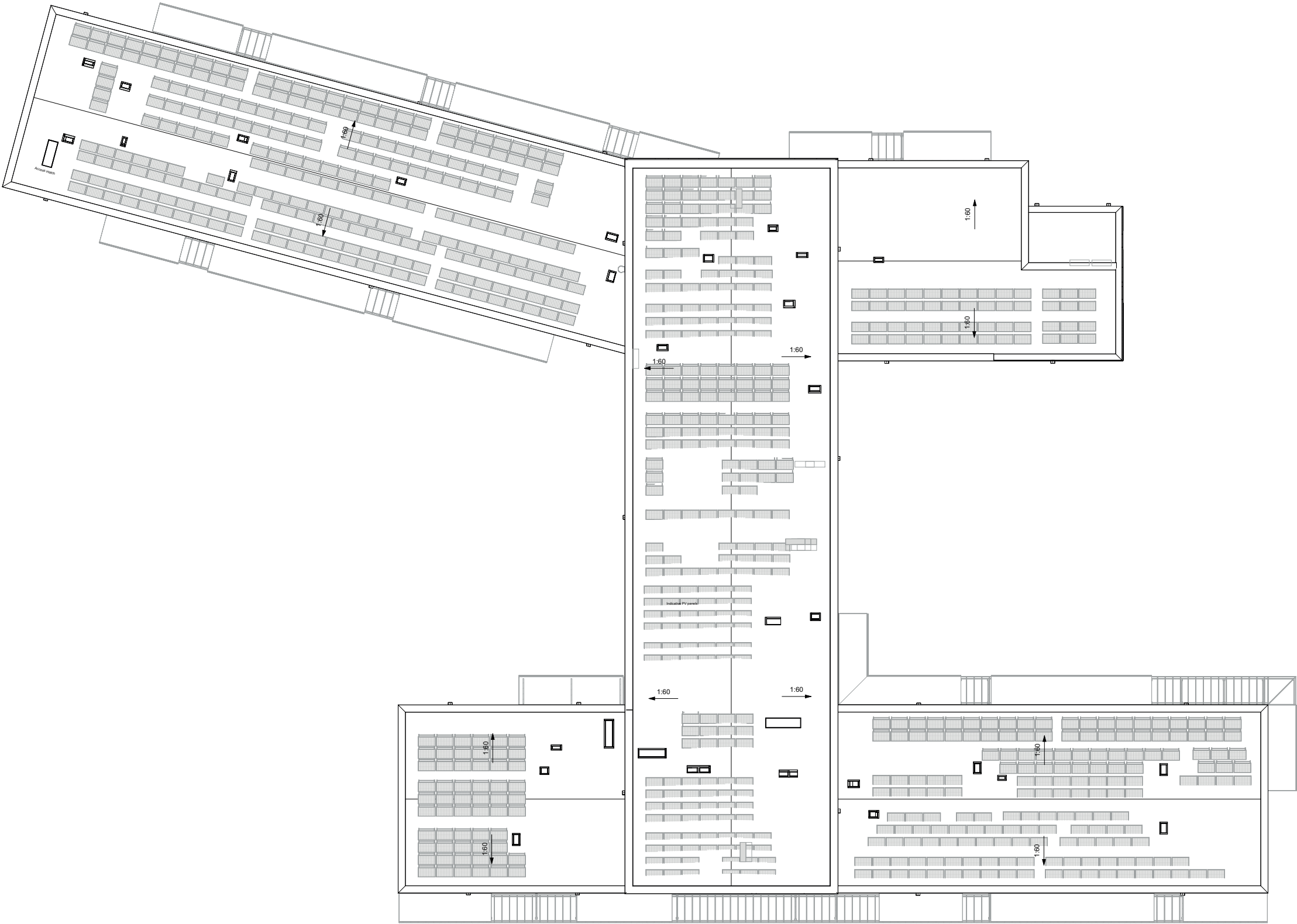
04: School Design

First Floor Plan



04: School Design

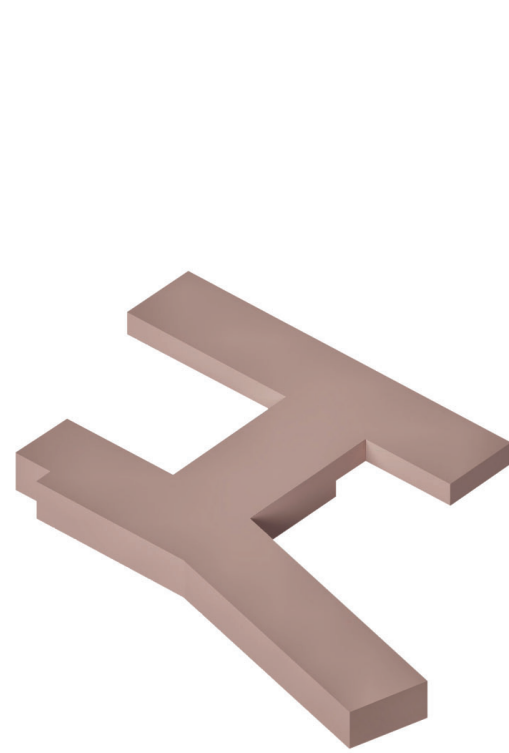
Roof Plan



04: School Design

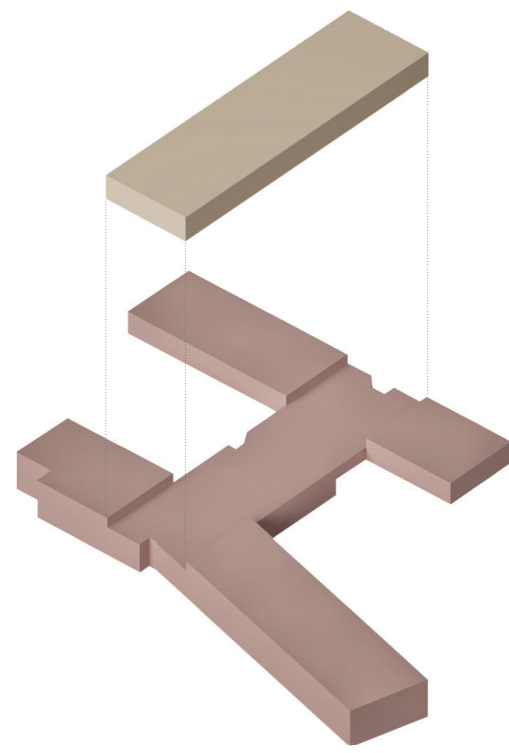
Massing Development

Following consultation with the school regarding the initial adjacencies, we were able to further develop and refine the building’s massing. Our aim was to simplify the overall form to achieve a more cost-effective solution. A two-mass strategy emerged as the most logical approach: a solid base volume complemented by a lighter linking element above. This approach breaks down the scale of the building while creating a clearer, more efficient architectural expression.



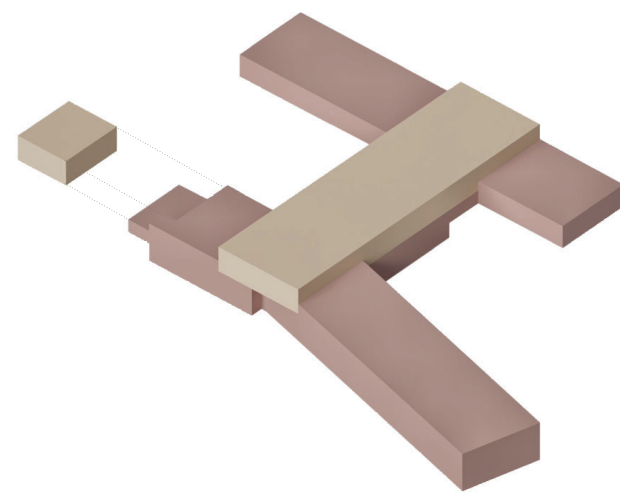
Brick Base

A solid base is proposed to create a durable and resilient building footprint, well-suited to withstand heavy use and high-impact conditions.



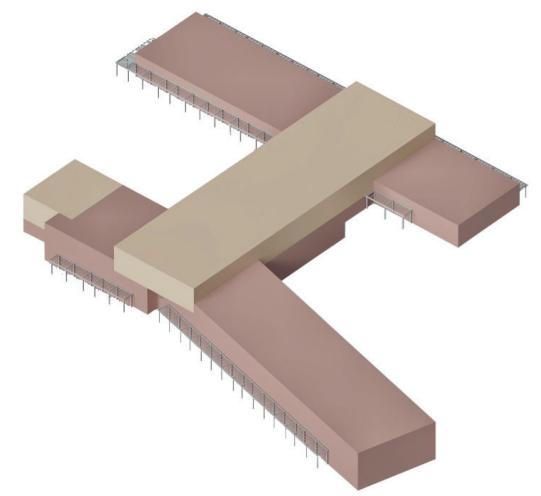
Clad Link

A lightweight clad link will reduce the perceived scale of the building and help soften its overall presence.



Pool Highlight

An additional clad element will further reduce the perceived scale while also helping to emphasise the pool.



Canopies

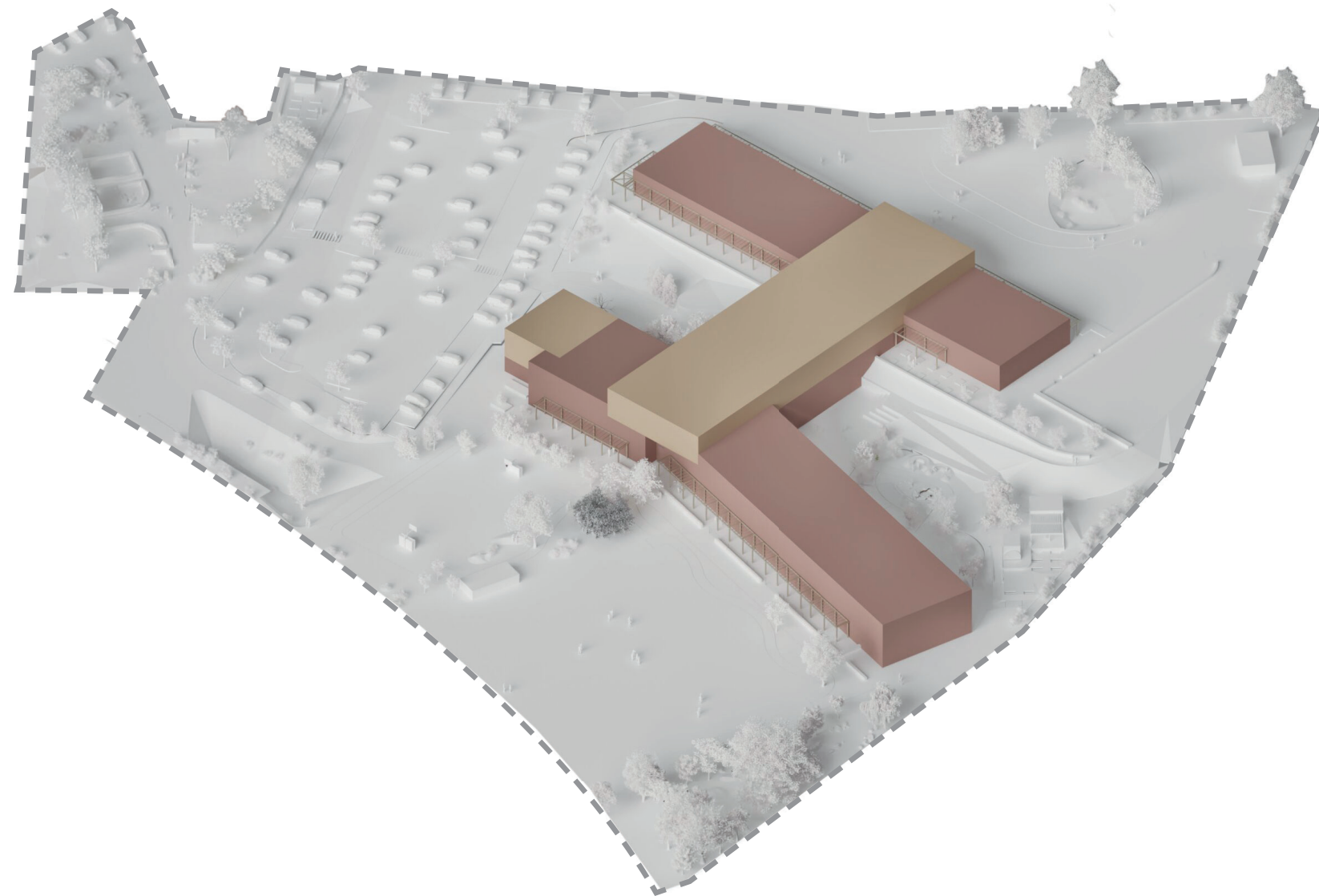
Canopies will be coordinated with the building massing, providing sheltered spaces for outdoor learning and play.

04: School Design

Proposed Massing

As outlined, the overall massing has been informed by how students and staff move through the school, with practical adjacencies supporting efficient circulation. It has also been carefully shaped in response to the site's topography, minimising cut and fill.

The massing is articulated as two clearly defined elements: a solid base and a lighter upper volume. The base anchors the building to the ground, while the lightweight top softens its overall form.



04: School Design

Existing Heronsbridge Analysis



Above: Heronsbridge School

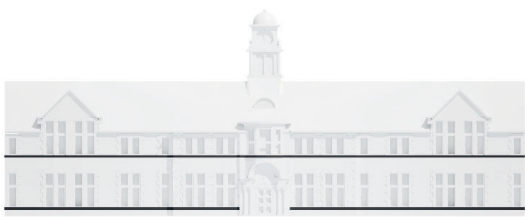
Once the spatial planning and overall massing were established, the design team turned to context and history to inform the building’s architectural expression at a more detailed level. This began with an in-depth analysis of the existing Heronsbridge School.

Carrying forward a selection of familiar architectural elements will support a smoother transition for pupils into the new environment, while also celebrating the site’s heritage.

While not all features are appropriate or necessary to retain, a carefully curated selection can provide a strong link between the old and new.



Three Part Division



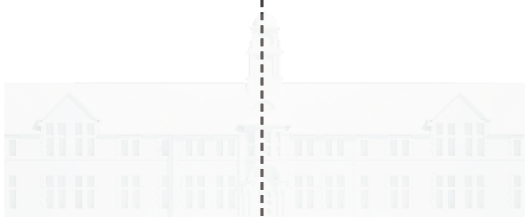
Stringing



Paired Windows



Single Windows



Symmetrical



Eaves



Quioning



Recessed Entrance



Focal Point



Surrounds



Solid



Window Heights



Window Spacing



Vertically Aligned

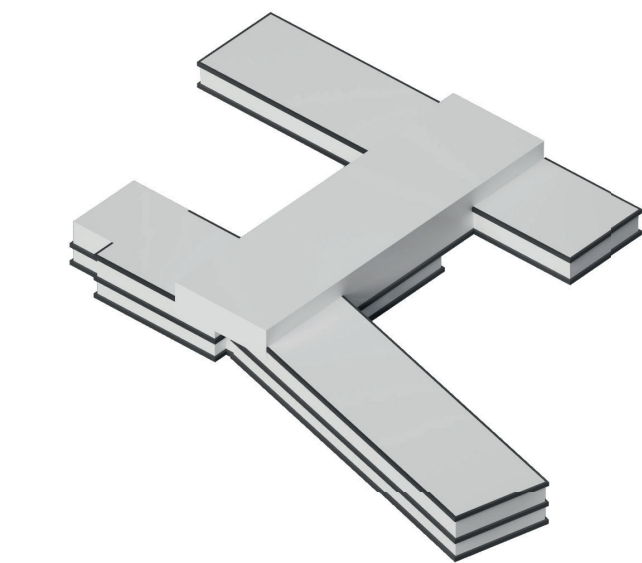


Projections

04: School Design

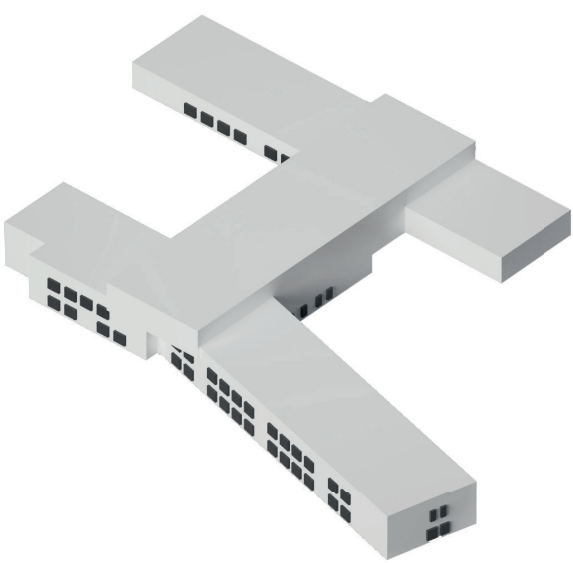
Facade Rules

Analysis of the existing school informed a set of façade principles for the new building. A small number of key rules establish a subtle reference to the original school, while remaining flexible enough to suit a contemporary form and layout.



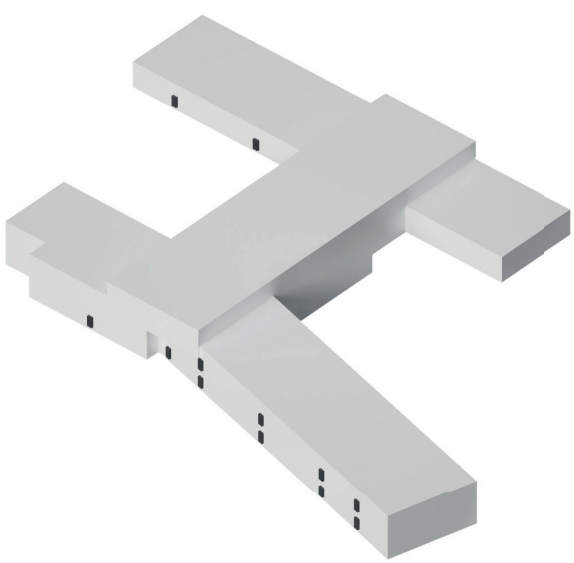
Stringing

Stringing on the original school refers to the horizontal stone courses that run across the façade. This can be reinterpreted through the use of brick soldier coursing.



Paired

Large-format paired windows are rhythmically spaced across the façade. The proposal responds by pairing classroom windows and maximising opening sizes.

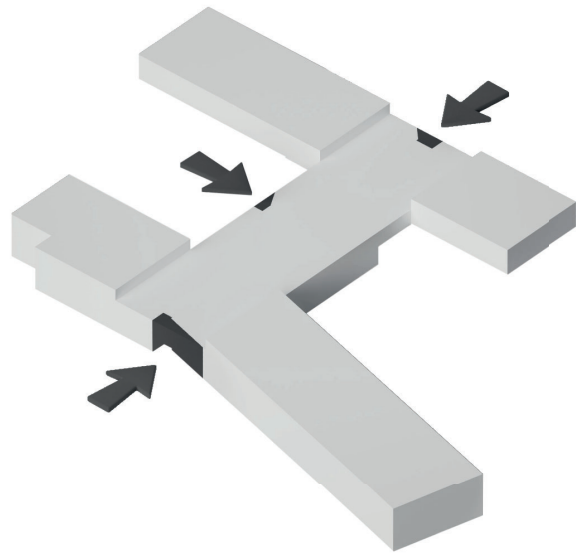


Single

Single windows interrupt the rhythm, introducing visual interest and helping to break down the façade. They are proposed for smaller group rooms and office spaces.

04: School Design

Facade Rules



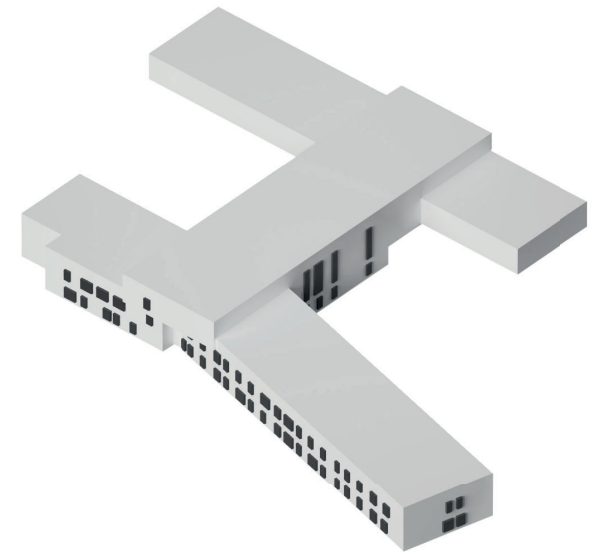
Recessed Entrances

In Baroque architecture, entrances are often treated as strong architectural moments rather than simple points of access. Recessing the entrances in the proposal will help to emphasise arrival and reinforce their presence within the façade.



Surrounds

Windows are framed with decorative stone surrounds. A modern interpretation of this is proposed through soldier coursing above windows and subtle brick detailing panels, strategically placed across the façade.



Aligned

Openings are consistently aligned to create an ordered façade. The proposal maintains this sense of order through the deliberate alignment of windows.

04: School Design

Material Study – Existing School

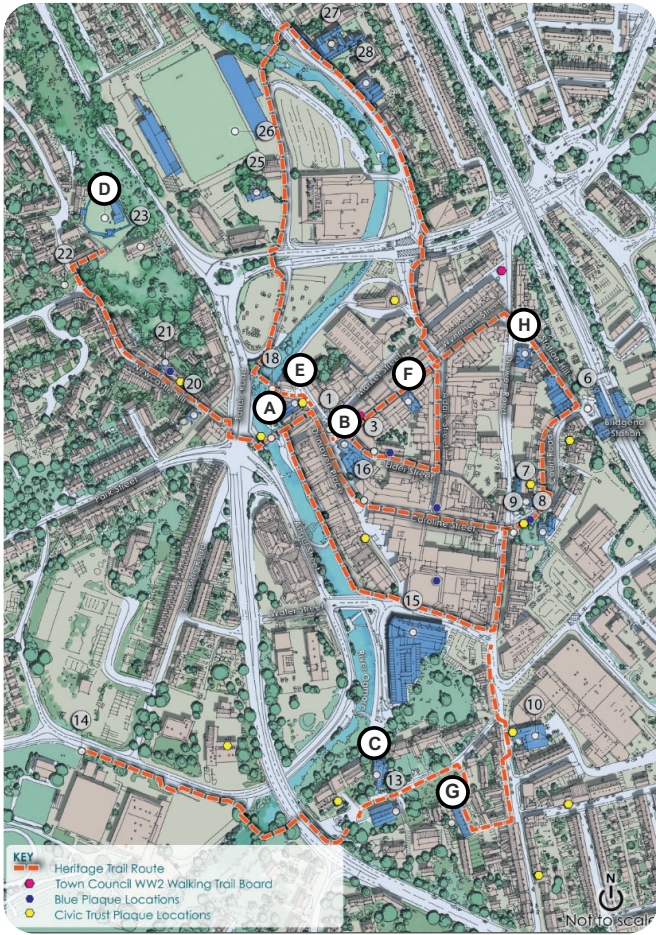
Building on the concept of linking the new school to the existing campus, an analysis of the materials used at Heronsbridge was undertaken to inform a coherent and sensitive palette.



04: School Design

Material Study – Heritage Trail

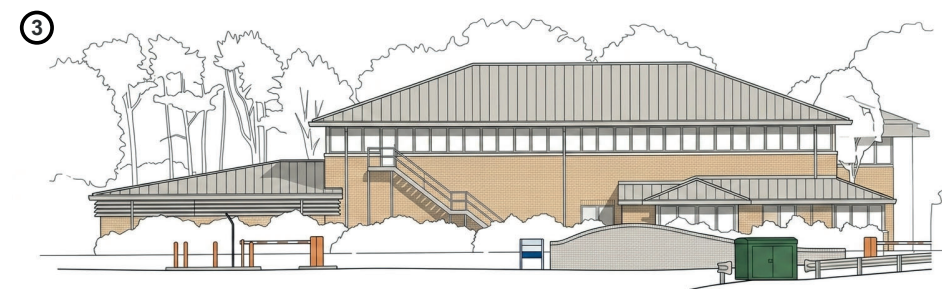
The map below is the Bridgend heritage trail map from Visit Bridgend. A selection of buildings has been reviewed, highlighting the town’s consistent use of light pastel tones, red brick, and stone. The overall palette is subdued rather than bold, with similar sandstone tones evident at Heronsbridge School and a strong presence of historic stonework throughout the town.



04: School Design

Material Study – Immediate Context

A study of the local architectural character and material palette was conducted, focusing on the residential developments to the north and the commercial area to the west. Red and buff brick are the primary building materials found within this immediate context, though several residential properties also feature rendered finishes.



04: School Design

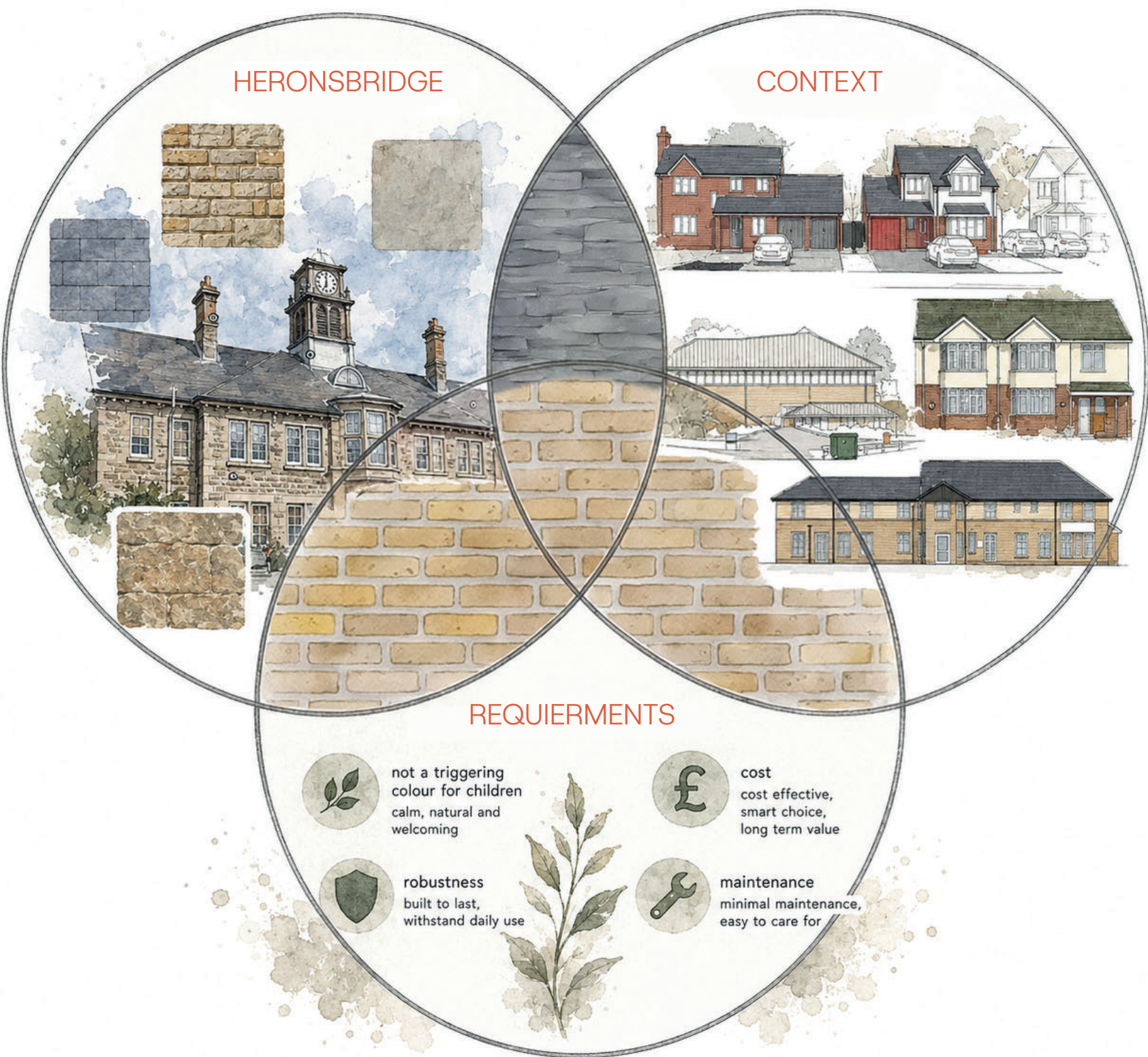
Material Palette

The material palette has been developed through a detailed analysis of Heronsbridge School, its immediate context, and the specific operational requirements of the proposed new school building. An assessment of the existing school and the surrounding residential environment identified stone, red brick, and buff brick as the predominant external materials within the area.

In response to these contextual influences, a multi-tonal buff brick has been selected as the primary facing material. While red brick is present within the local vernacular, its strong visual character can be overly dominant and may contribute to sensory overstimulation for children with autism. The chosen buff brick establishes a sympathetic relationship with both the existing school buildings and the surrounding residential setting, creating a balanced, cohesive, and contextually appropriate architectural expression.

The lower circle illustrates the operational and environmental considerations that further informed the material strategy. A key design objective was to create a calm, welcoming, and non-overstimulating environment, which discouraged the use of overly bright colours or visually aggressive materials. Considerations of cost, durability, and long-term maintenance also supported the selection of brick, which provides a robust, economical, and low-maintenance solution.

The proposed high-level cladding complements this material palette. A slate-grey finish has been selected to reflect the existing slate-grey roof of Heronsbridge School, helping to unify the overall composition and strengthen the visual connection between the new and existing buildings.

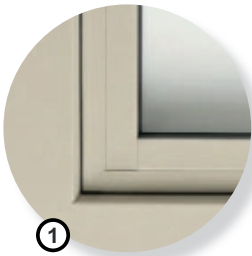
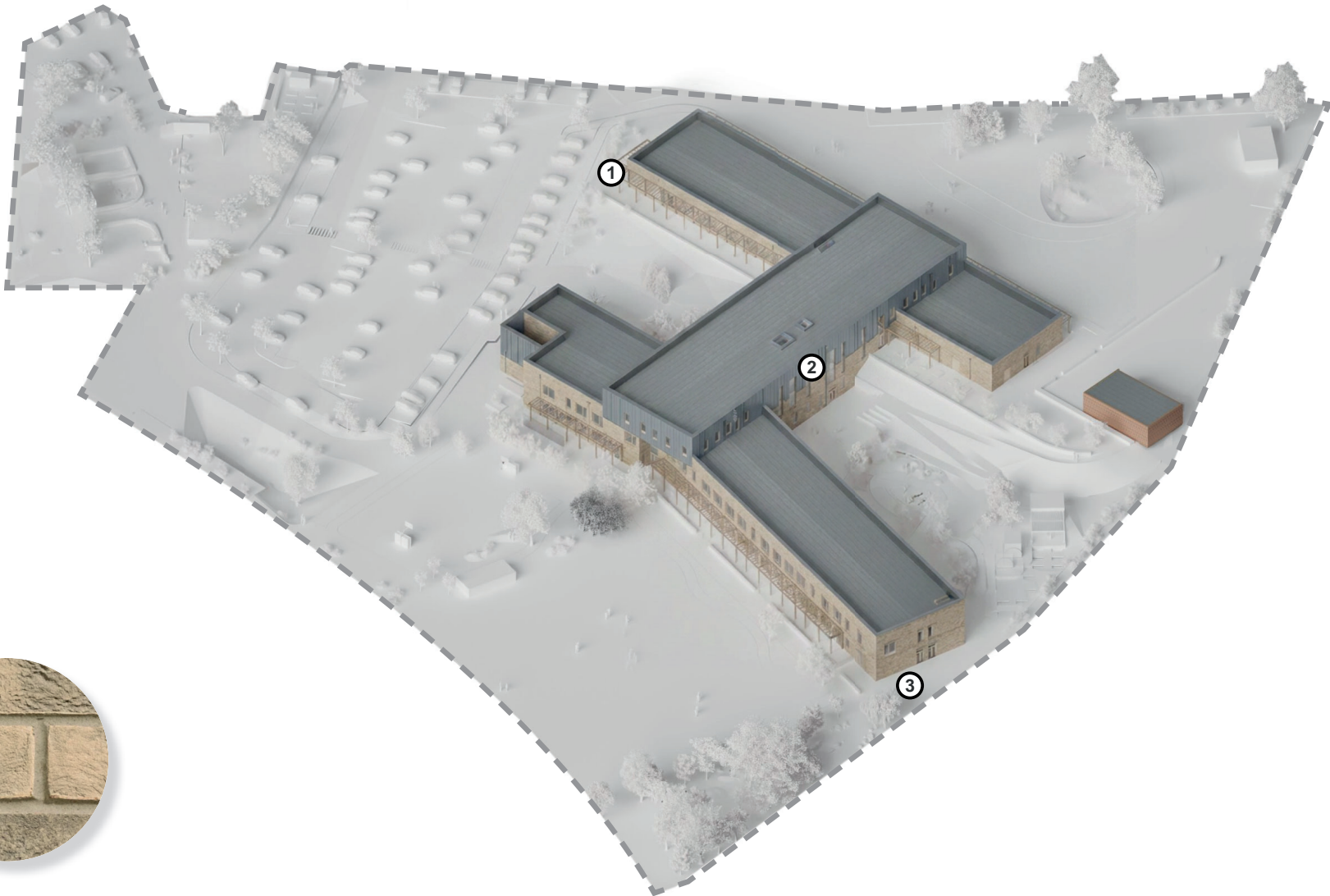


04: School Design

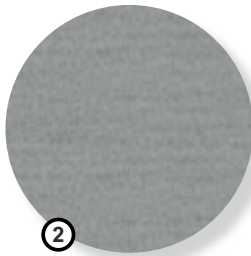
Proposed Materials

The selection of appropriate materials began with an analysis of the context, including the existing school and surrounding developments. This informed a range of material options derived from these findings.

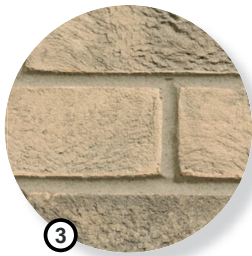
The strong architectural gesture of two interlocking masses is reinforced through the use of a two-material approach. Each element is expressed in a complementary but distinct material, carefully chosen to suit its function and character.



STONE METALWORK



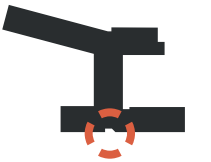
GREY CLADDING



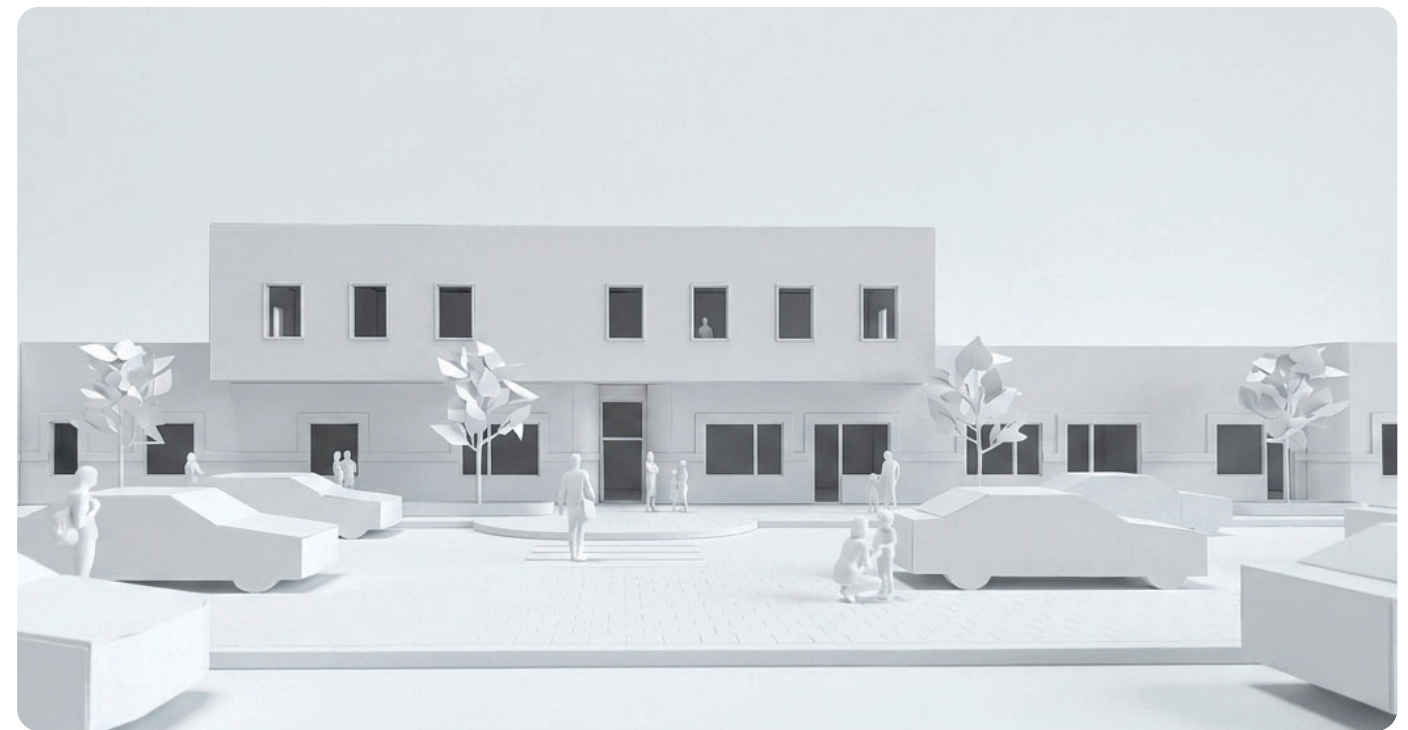
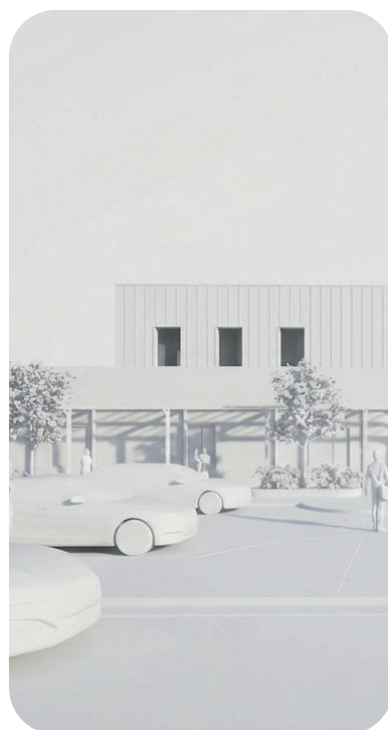
MULTI BUFF BRICK

04: School Design

Facade Development – Drop Off Entrance



The intersection of the two masses on the east façade, above the drop-off entrance, was a key design consideration. Understanding how the solid base, lightweight upper portion, and canopy work together was essential in developing a refined scheme that avoids unnecessary complexity or visual clutter. These images illustrate our exploration of different design options.

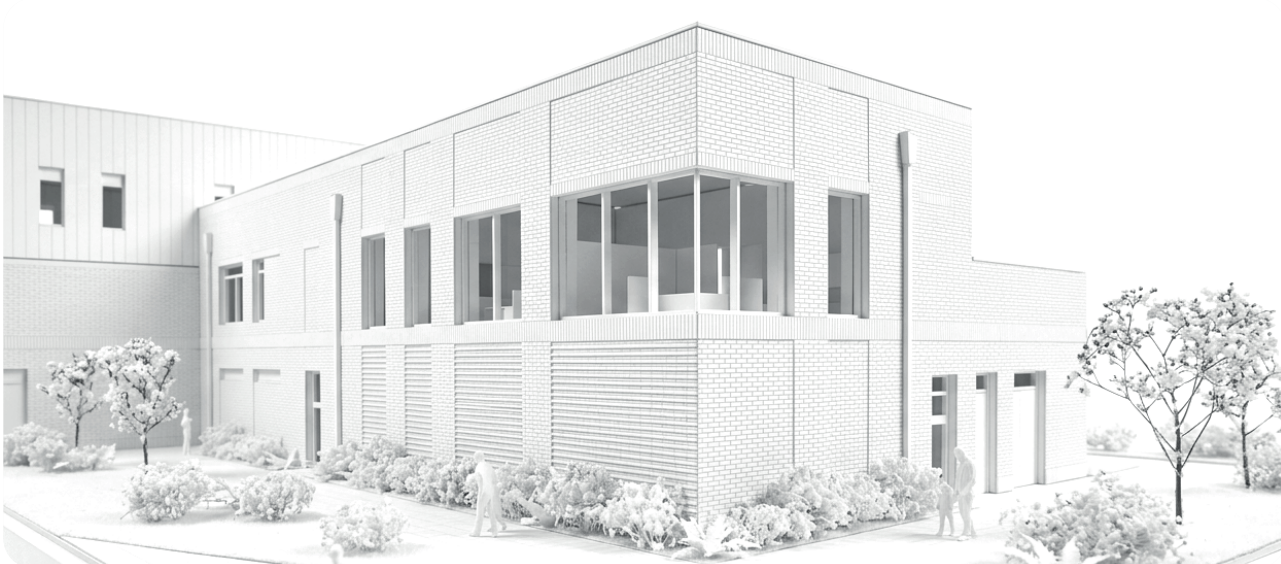
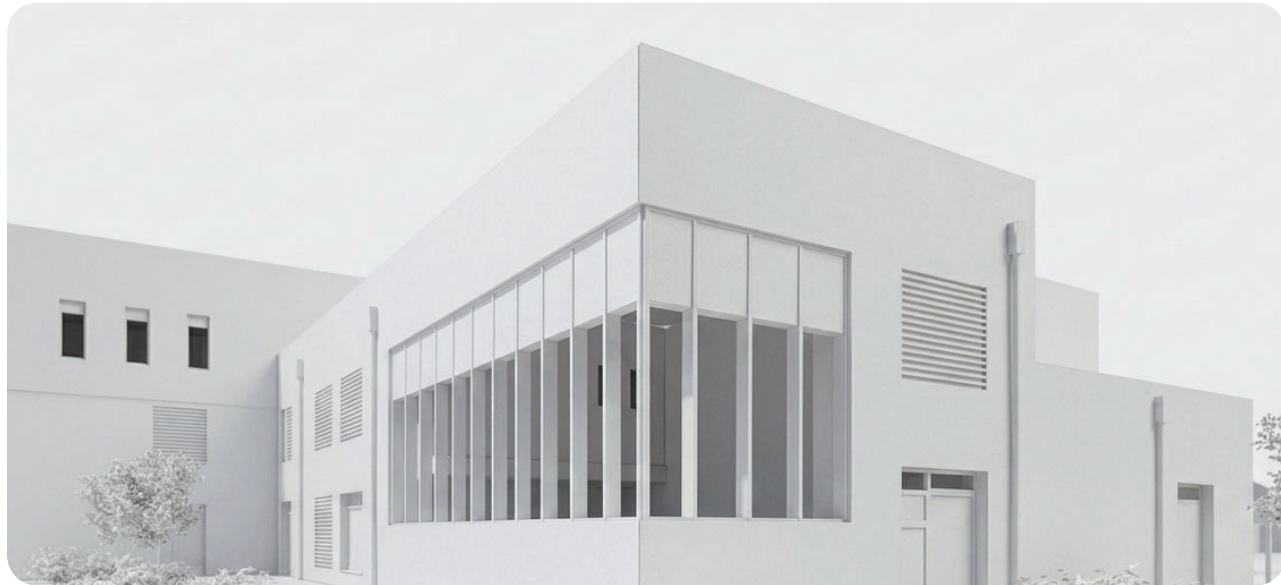


04: School Design

Facade Development – Pool



The main pool is positioned at the northern end of the building. As a double-height volume, it required a distinct architectural treatment compared to the adjacent teaching wings. To emphasise this corner condition and introduce variation within the façade, the integration of a contrasting cladding element was explored. This approach helps to articulate the pool volume while breaking down the overall façade composition.



04: School Design

Facade Development – Autism Entrance



The junction at the Autism Entrance forms a key pivot point, where the southern wing angles away and the link connects back to the base building. We explored several approaches for the link - whether it should oversail, stop short, or align directly with the base below, each offering a different spatial and visual outcome. Resolving how the ground-level canopies integrate with the recessed entrance also required careful consideration to ensure a coherent and welcoming arrival experience.



04: School Design

Facade Development – Southern Courtyard



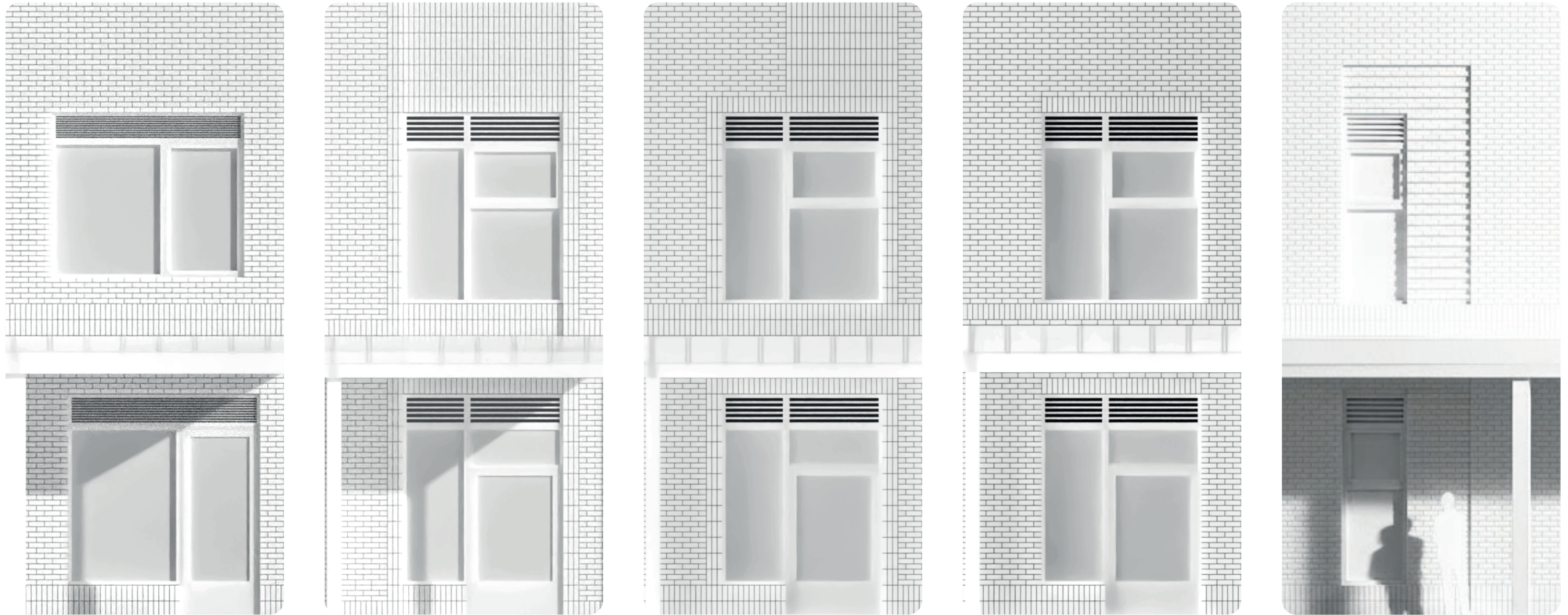
The façade along the southern courtyard accommodates the main halls and dining areas. As these are double-height spaces, careful consideration was given to their lighting requirements and to how this vertical volume is expressed in the façade design. The linking mass sits above the base, and the relationship between these two elements is particularly important given the overall length of the façade. Maintaining a clear alignment of openings plays a key role in creating a cohesive and well-resolved elevation.



04: School Design

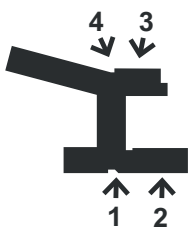
Facade Development – Brick

Brick detailing options were explored through a bay study of the teaching block facade. The studies investigate a range of approaches to string courses, window surrounds and brick articulation, testing how subtle variations in detailing can influence rhythm, depth and character across the elevation.



04: School Design

Key Design Features



As the material palette is intentionally refined, careful attention to detailing is essential to introduce depth, interest, and a sense of quality, thereby elevating the overall design. The following examples illustrate key architectural features that will help achieve this.

WRAPPED DETAILING

Recessed entrances are articulated through protruding brickwork, creating a sense of depth and drawing users in. The brick detailing wraps around corners to help guide movement and reinforce the legibility of access points on the façade.



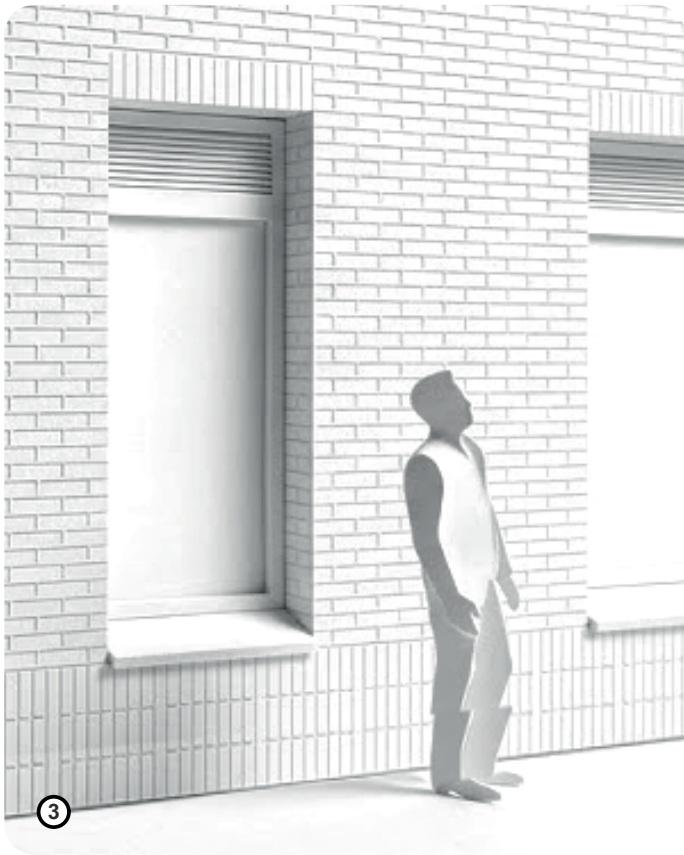
SLOPED CILLS

Due to the coastal location, sloping window cills are proposed to reduce maintenance and discourage seagull perching. Their angled form promotes water runoff, improves durability, and limits opportunities for climbing or informal seating.



SOLIDER COURSE

Three courses of soldier brickwork are proposed below the windows to ground the building visually at its base, echoing the string course detailing of the existing school at upper level.



CLADDING FINS

Vertical fins are introduced to break down the upper massing and add depth and shadow. Their varied arrangement creates rhythm and visual interest on the façade.



04: School Design

Key Design Features – Clock

The clock tower holds a central place in the life of the school. It welcomes students with familiar sounds and serves as a visual and temporal point of reference throughout the day. For many, the clock tower is an iconic landmark that defines the school’s identity and character.

Recognising this significance, the school sought to integrate the clock tower’s presence into the new design. This raises a key question: what qualities make the clock tower resonate so strongly with students and staff?



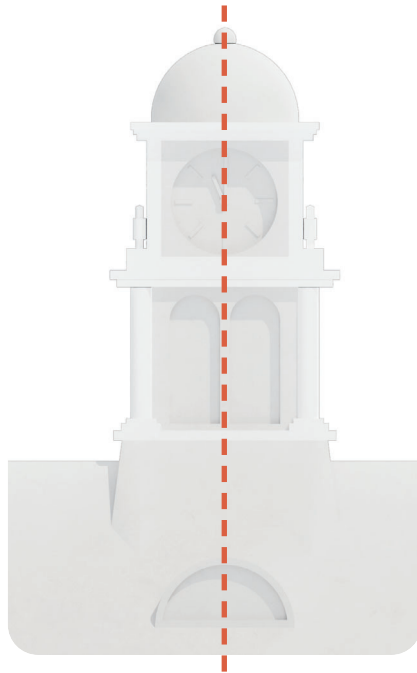
SOUND

The clock’s chime is a recognisable sound for students and staff, creating a sense of place and familiarity throughout the school.



FACE

The ornate clock face featuring Roman numerals, decorative hands, and a star pattern, draws the eye through its intricate detailing and invites closer inspection.



POSITION

Positioned centrally above the main entrance, the clock tower draws visitors in, serves as a wayfinding device, and establishes a focal point for the entire building.



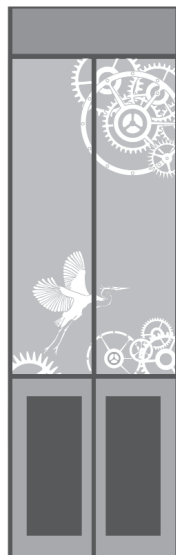
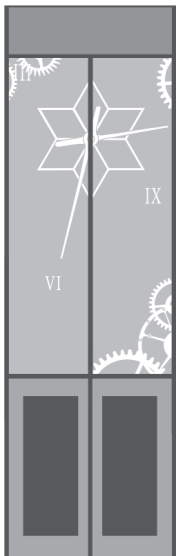
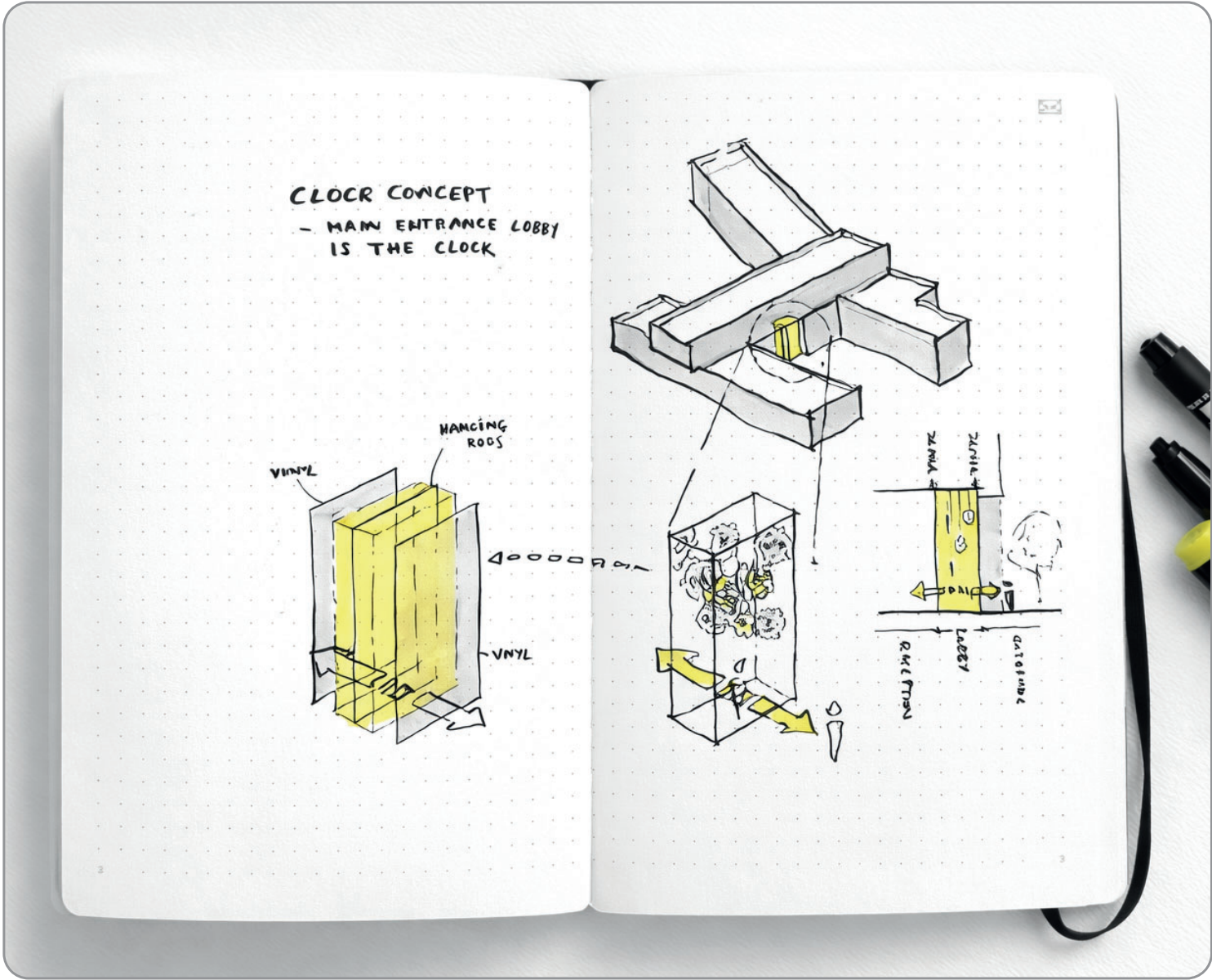
PALETTE

The clock tower’s materiality sets it apart from the rest of the building. Dark stained wood creates a striking contrast against the surrounding brick and slate, visually distinguishing it as a key architectural element.

04: School Design

Key Design Features – Clock

To further strengthen the connection between the new building and the existing school, the design reinterprets elements of the original clock tower as an art installation within the main entrance. The concept transforms the space between the two entrance doors into a feature installation, creating a memorable threshold and point of arrival. Design options draw inspiration from both the detailing of the historic clock tower and the Heronsbridge branding.



04: School Design

Key Design Features – Clock

The design of the installation will be co-developed alongside the school community. We aim to actively engage students in the design process through interactive workshops, allowing them to explore and articulate what the historic clock means to them. To create an immersive experience, the final art installation may integrate dynamic lighting, ambient soundscapes, and a digital clock projection within the space.



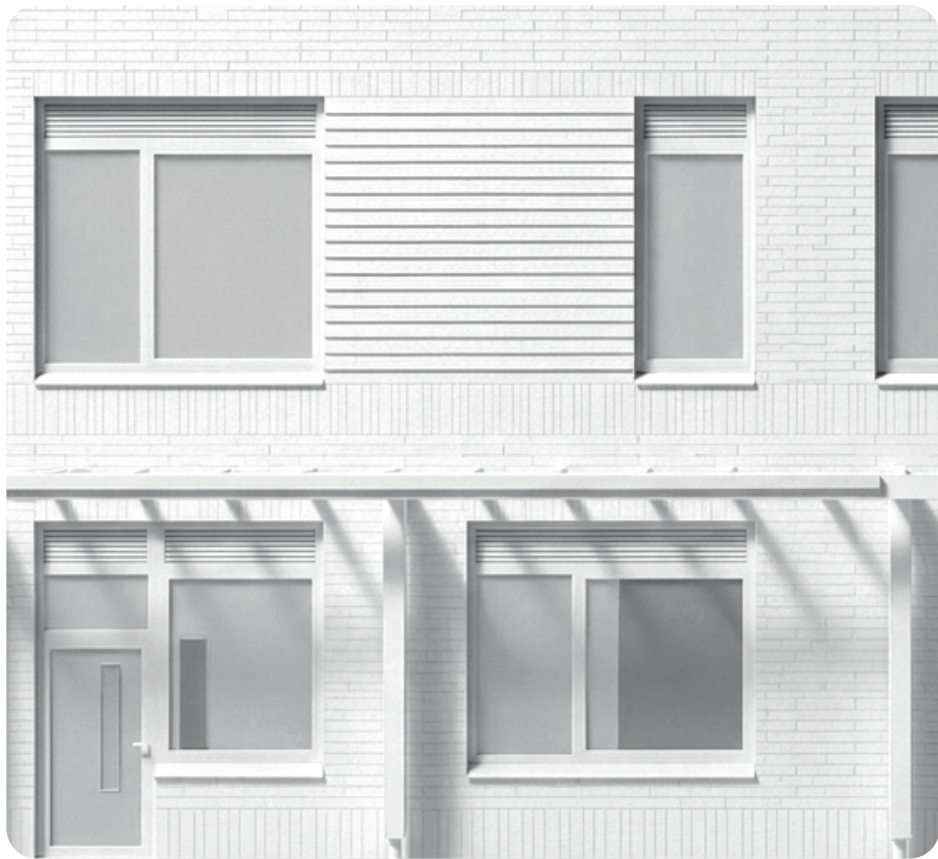
04: School Design

Canopy Design



POSTS CENTRED

Canopy posts are proposed to align centrally with the brick piers between openings. Although the canopy is designed as a standalone element, this alignment strategy helps it appear integrated and carefully considered within the wider façade composition.



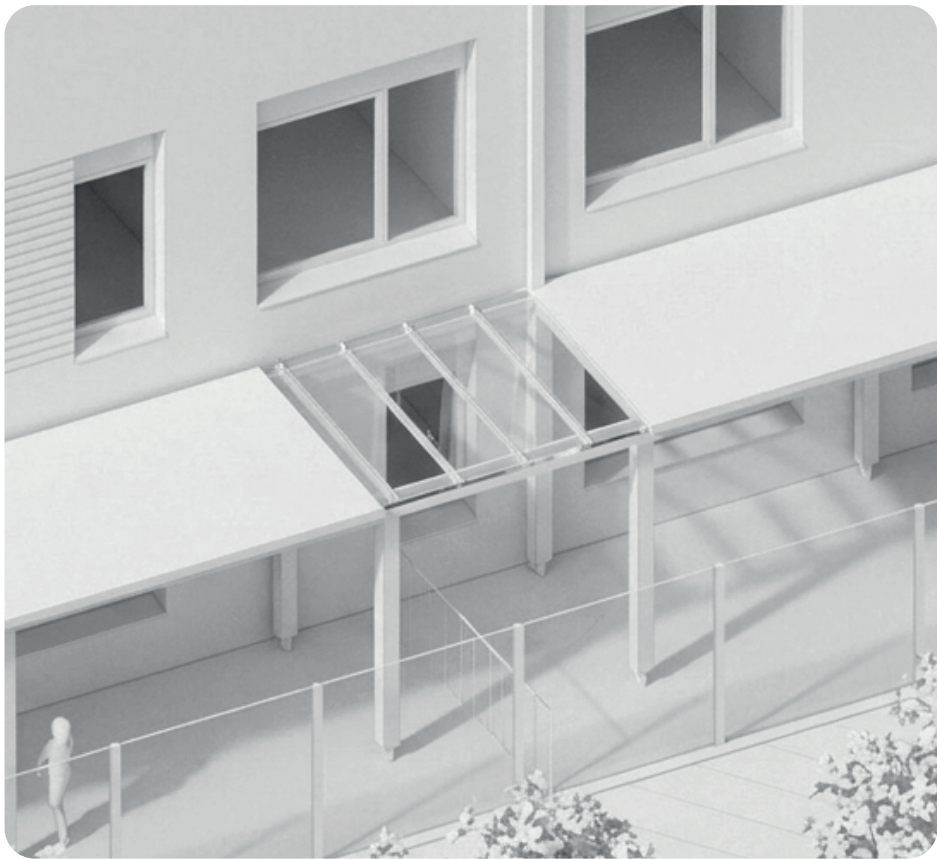
ABOVE SOLDIER

The canopy is positioned slightly above the brick soldier coursing, ensuring sufficient clearance for the louvres to operate effectively. Although expressed as a standalone element, it is important that the canopy responds appropriately to the surrounding façade composition to avoid appearing visually disconnected.



SOLID / VOID

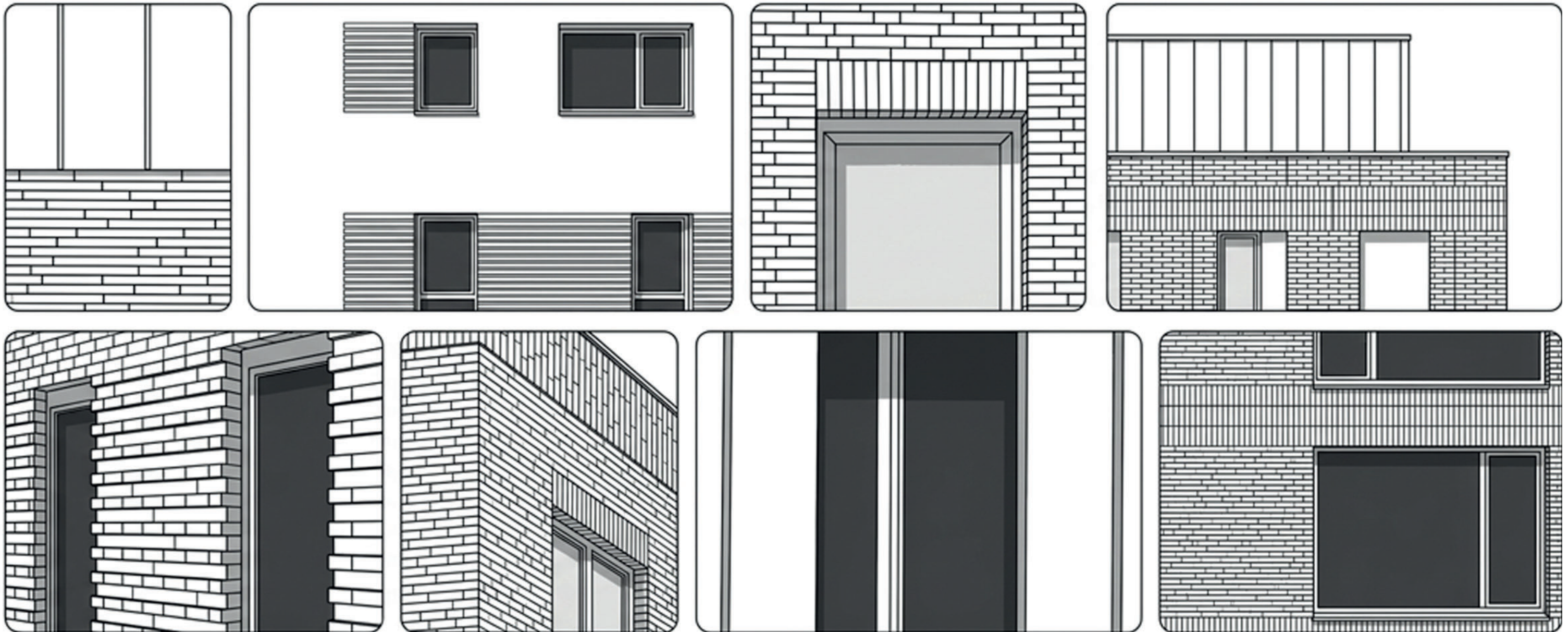
The polycarbonate roof is designed to stop and start around the group rooms, helping to break down the overall appearance of the canopy. This arrangement introduces variation and allows shifting patterns of light and shadow to animate the façade throughout the day.



04: School Design

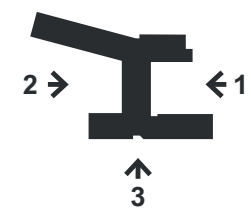
Brick & Cladding Detailing

The building massing is intentionally simple, with rationalised and ordered openings, placing greater emphasis on the quality of architectural detailing to elevate the scheme. Studying successful examples of façade composition, material articulation and architectural elements helped establish clear design aspirations focused on simplicity, restraint and subtle, well-considered detailing.



04: School Design

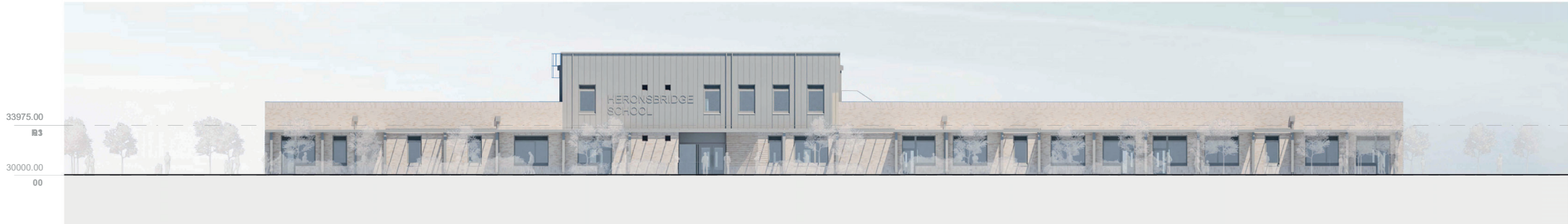
Building Elevations



① North East Elevation



② South West Elevation



③ South East Elevation

04: School Design

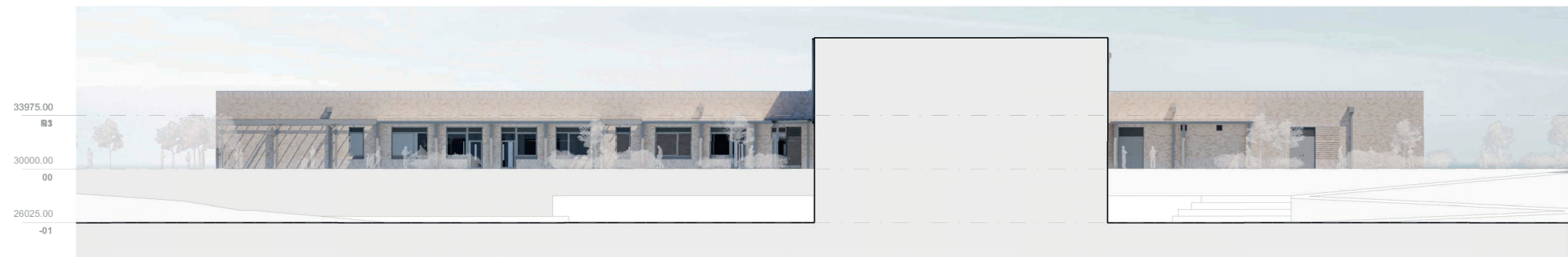
Building Elevations



① North West Elevation



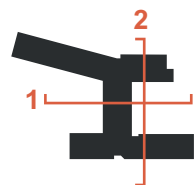
② South East Middle Elevation



③ North West Middle Elevation

04: School Design

Building Sections



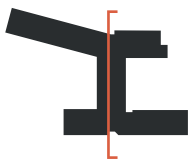
① South East Section / Elevation



② North East Section Elevation

04: School Design

Building Sections



The halls and dining spaces are envisioned as the heart of the school - welcoming, shared environments where groups can come together to learn, play, and connect. Given their scale and importance, these areas have been carefully considered in section, with their overall volume shaping the design approach.

In the hall spaces, generous ceiling heights are celebrated with large-format windows creating a sense of openness, framing expansive views across the surrounding countryside. Along this axis, even smaller adjoining spaces have been thoughtfully oriented to capture glimpses towards the Bristol Channel.

Maximising outward views has been central to the design strategy, reinforcing a strong visual and spatial connection between pupils and their natural surroundings. This integration with the landscape not only enriches the daily experience of the school environment but also supports wellbeing and enhances the learning atmosphere.





05 Interior Design

This section outlines the strategy and inspiration behind the interior design, presenting a series of aspirational images that illustrate the intended materiality, atmosphere, and spatial quality.

05: Interior Design

Colour Theory

Colour can influence many aspects including emotion, productivity, communication, and learning.

Research shows that muted colours with white and grey undertones have a calming effect when design for both Autism and PMLD. Cool colours such as blue and green also have a **calming** and **soothing** effect. However, for children that tend to be more introverted there are advantages to the use of colours such as yellow, orange and purple that can improve energy levels and **attention** and **enhance** learning.

We would **minimise** the use of bright white walls as this can lead to higher levels of **anxiety** as they can appear cold and hard to some children. In addition, the excessive extent of white walls could have affiliations to a more sterile, **clinical** environment, especially areas where glare would be a concern.

CALM

Blue enhances creativity and stimulates a cool and relaxing environment.



JOY

Many workplaces use orange as it enhances focus and promotes organisation.



GROWTH

Green, the colour of abundance can relax and contribute to better health in employees.



ADVENTURE

Red combined with other colours can help with productivity in the workplace.



NATURE

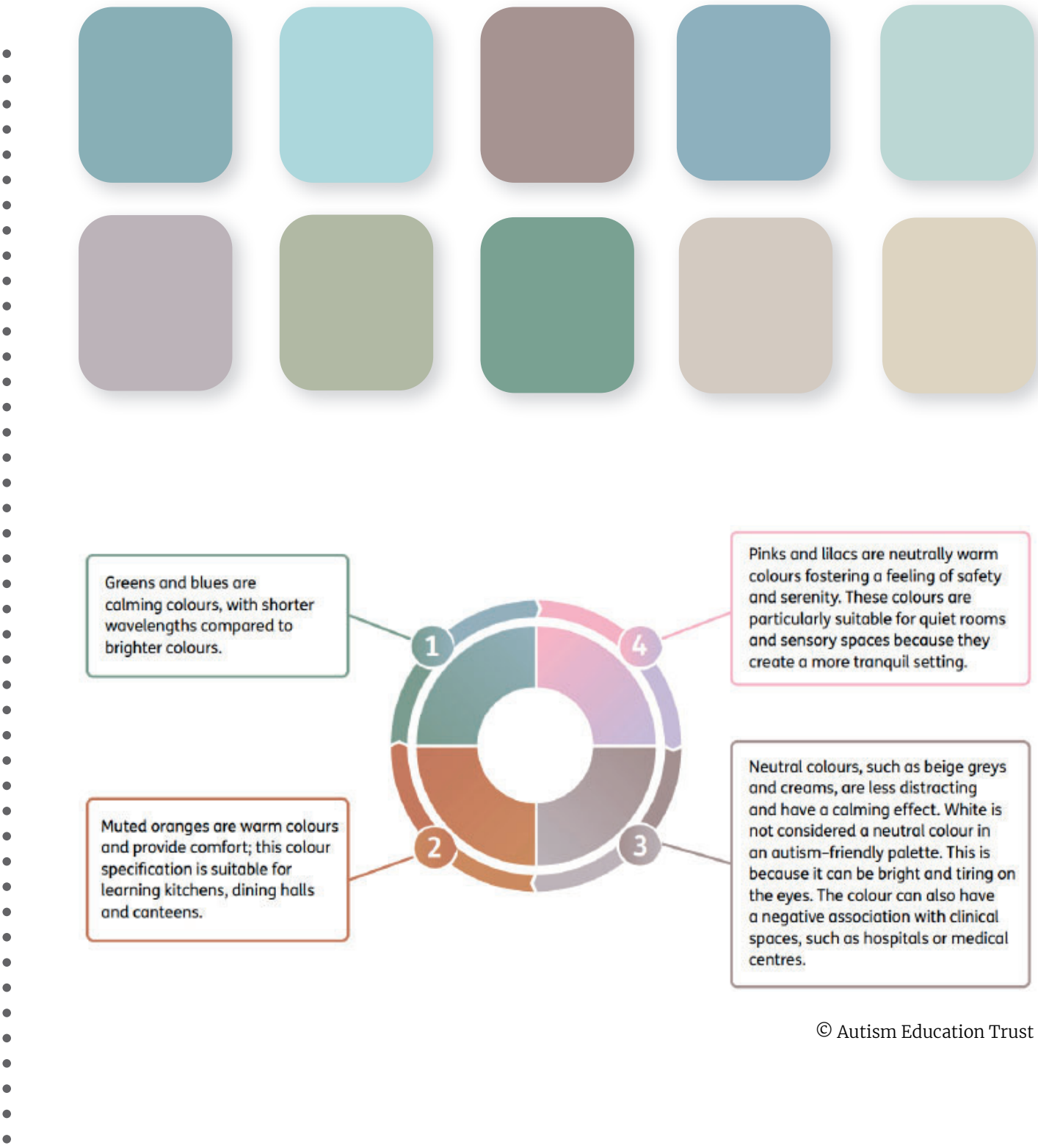
Pink, this is a calming colour. It can lower heart rate.



HAPPY

Yellow is indeed the colour of positivity and inspiration for the workplace.





05: Interior Design

Strategy & Inspiration

The interior material palette has been inspired by the local surroundings and existing school building. The design will incorporate muted colours, natural materials, and injections of texture to create a comfortable environment for pupils.

Careful consideration has been given to selecting materials that not only withstand the test of time, but also contribute to providing high quality interior spaces. Materials have been selected to ensure durability and resilience in the face of everyday wear and tear.

The colour palette is based on muted colours with grey undertones that reflect the suitability of SEN design. Pinks, Greens and Blues and are supported by supplementary tonal colours with a earthy influence, to create a warm and comfortable palette.

Overall, the materials chosen for the interior proposals aim to provide an environment that is not only visually attractive and inspiring, but also practical and functional.



Above: Ewenny Prior



Above: Heronsbridge School

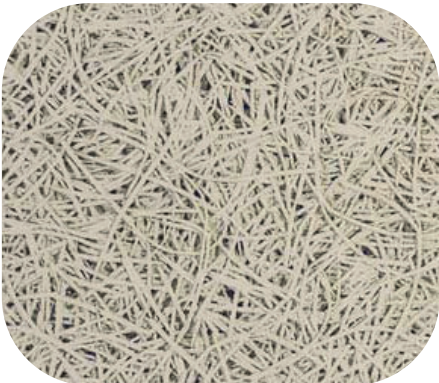


Above: Ogmores-by-Sea

Textures

Colours

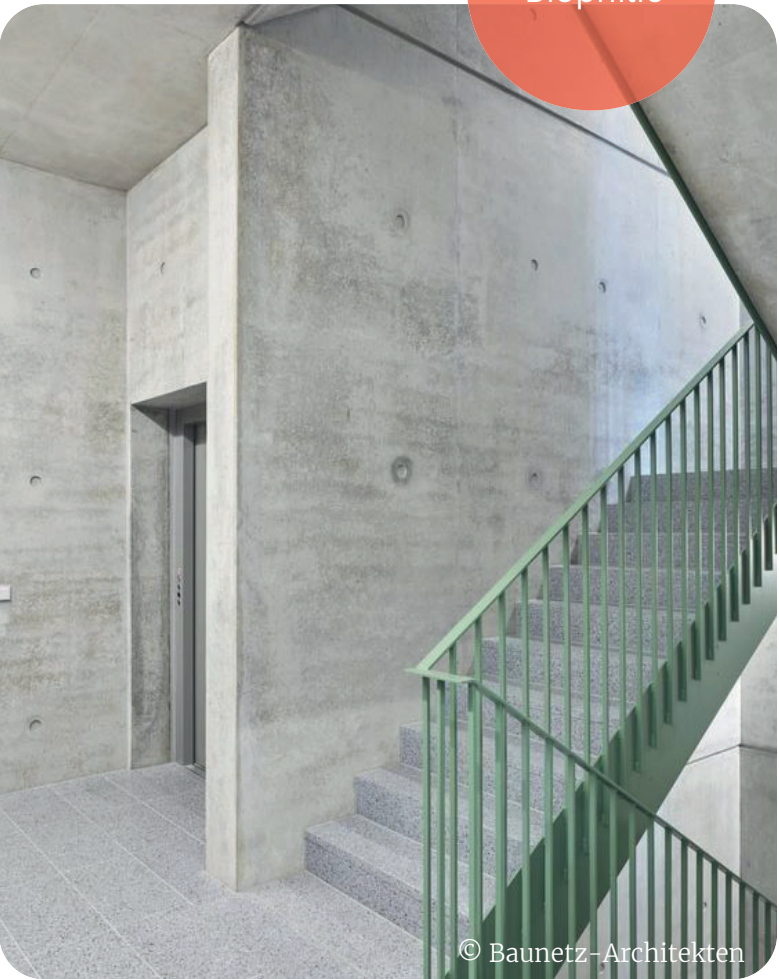
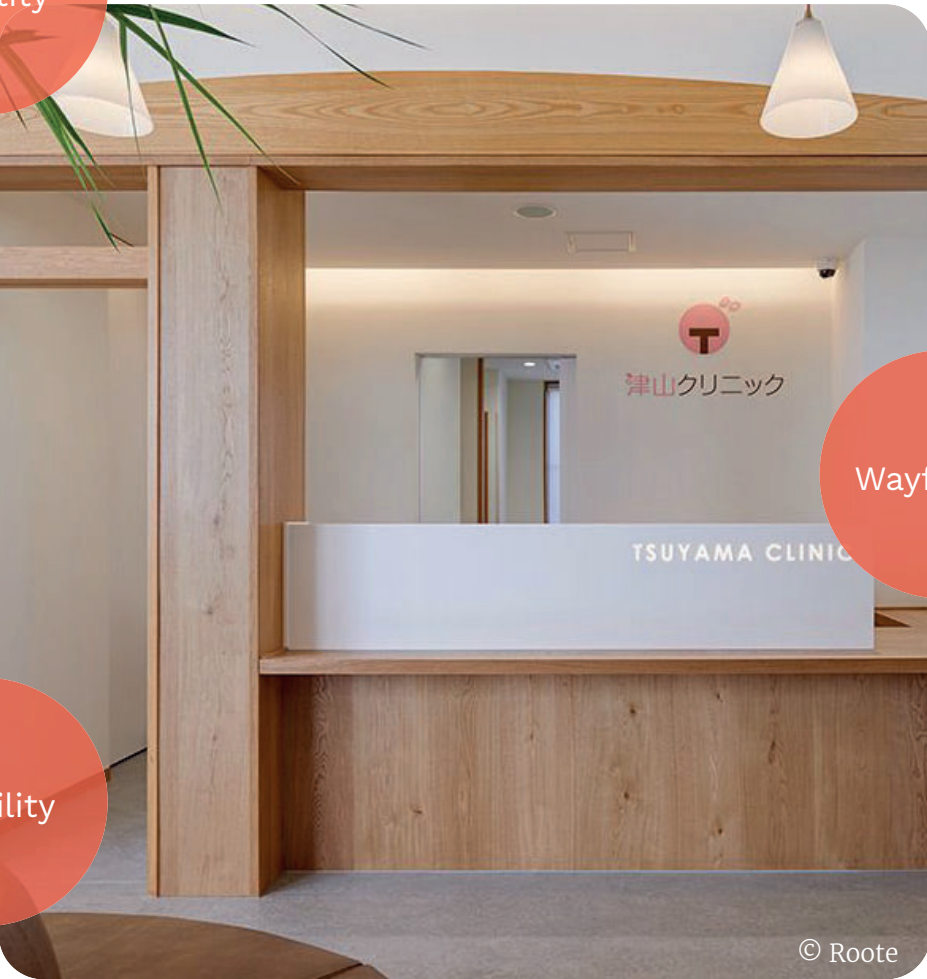
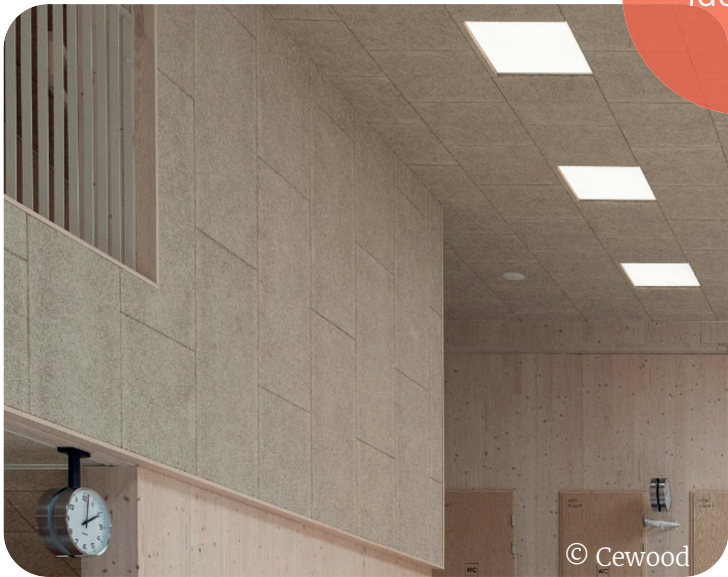






05: Interior Design

Look & Feel



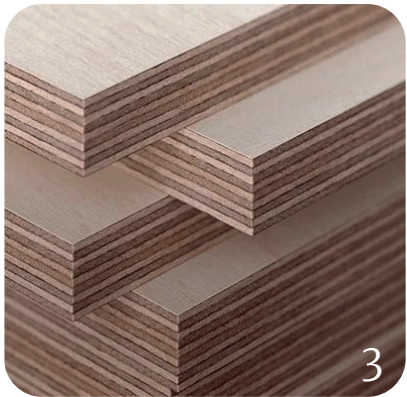
05: Interior Design

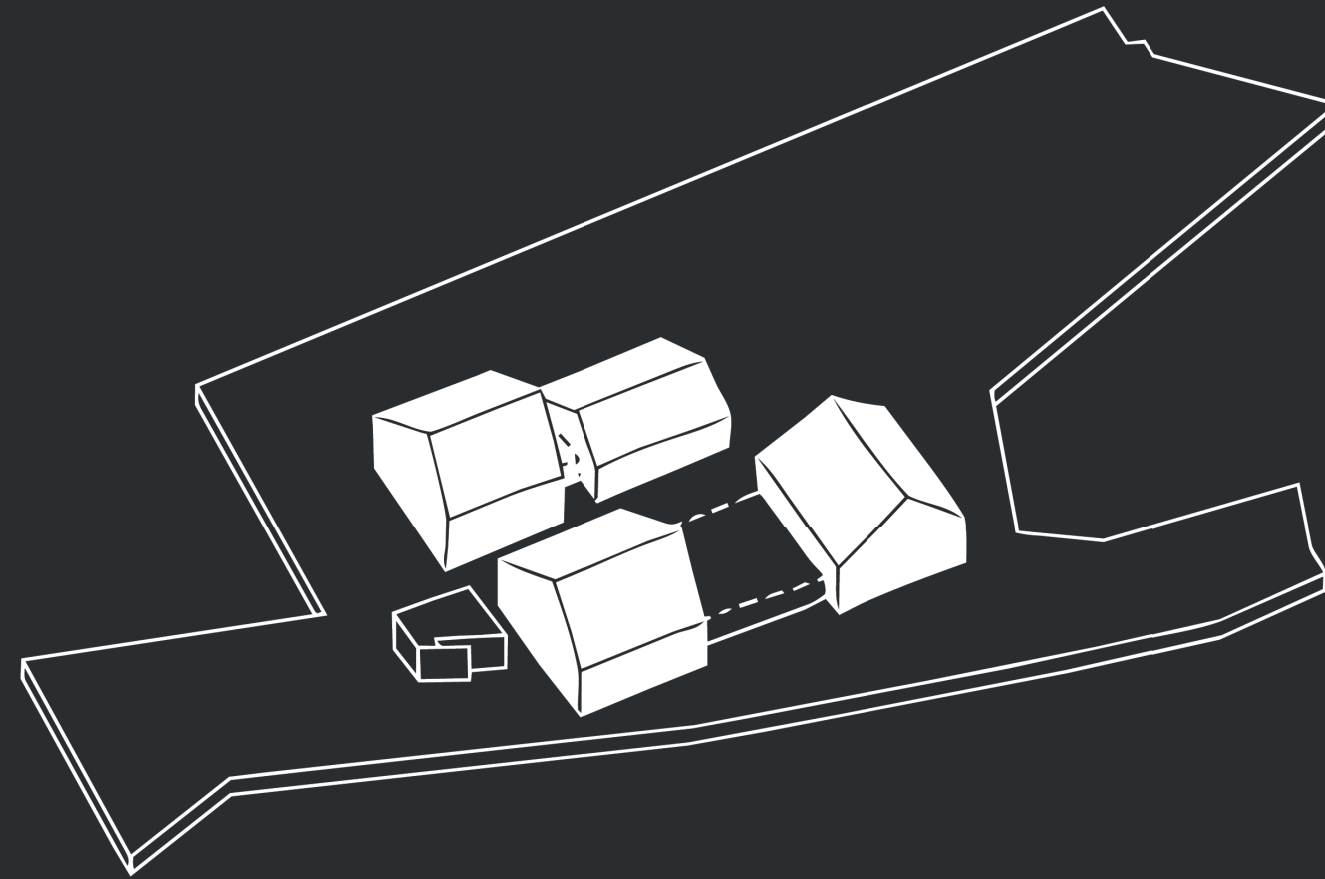
Materials

Incorporating a variety of natural textures and muted colours not only aligns with the design principal recommendations, but also creates a calming aesthetic that pupils, staff and the community can enjoy.

Using acoustic panels throughout will help soften the space and reduce noise pollution for those that are more sensitive.

- 1. Acoustic Timber effect Vinyl Flooring
- 2. Flotex, Textile Flooring
- 3. Plywood Wall Protection
- 4. Marmoleum Flooring
- 5. Wood Wool Panels
- 6. Feature Colour - Green with grey undertones
- 7. Feature Colour - Blue with grey undertones
- 8. Feature Colour - Pink with grey undertones/Warm orange
- 9. Main Colour - Brown/Beige with grey undertones





06 Residential Design

This section outlines the design development of the school residences and Harwood House.

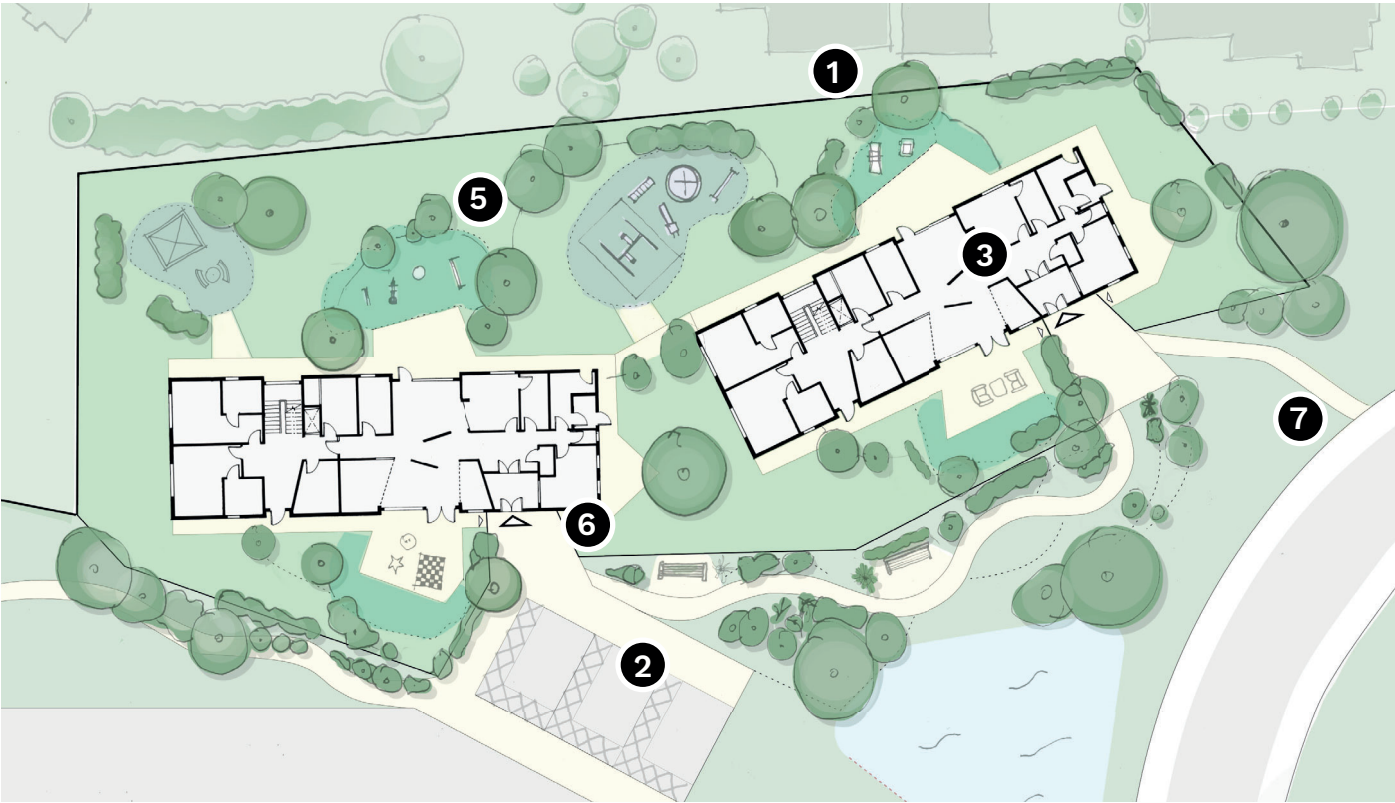
06: Residential Design

Inherited Plan

The key concerns raised with the inherited design centred around the proximity of the proposed buildings to existing residences. It is suspected that the eastern building would not be compliant with minimum separation distances to the closest existing residence to Island Farm. External spaces were also a concern, initial designs leaving little indication of adequate screening for noise and overlooking between existing and proposed properties.

The other key issue with the design was its scale and architecture not fulfilling the brief in presenting a recognisably residential building. The abstract shapes and large openings would appear unfamiliar to the residents. It was important to provide an environment which would remind the children and young people staying there of home to afford them comfort and consistency in the transition.

- 1 Proximity and impact on existing residential
- 2 Insufficient and unequal vehicle access
- 3 Internal layout not to recognisable residential style or scale
- 4 Irregular building form not supportive of familiar residential style
- 5 Primary external spaces located to neighbouring properties with little screening
- 6 Proximity to and positioning of infrastructure over sewer easement
- 7 Dedicated residential site access underdeveloped in relation to wider site
- 8 Design not in keeping with existing residential architecture

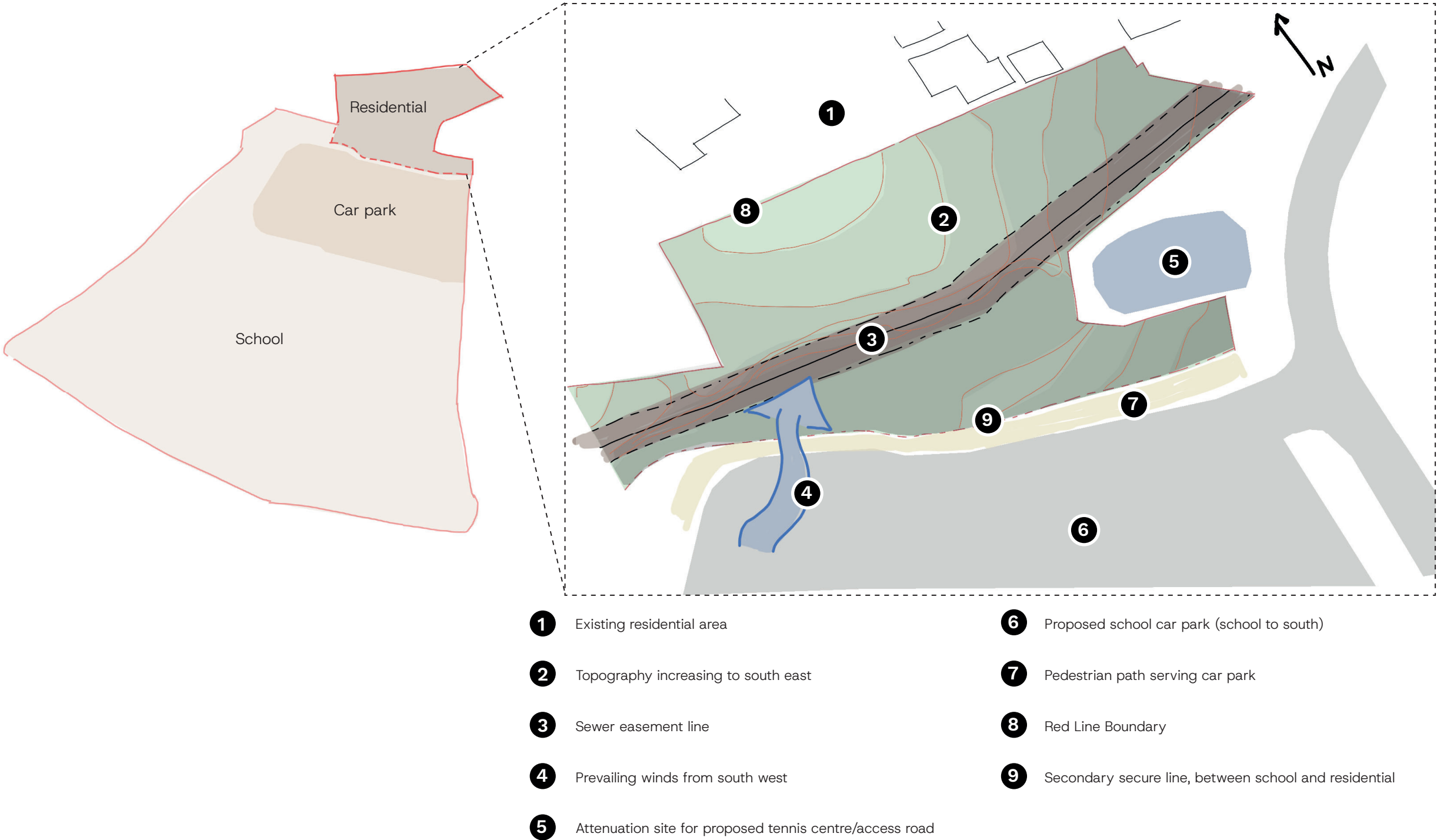


06: Residential Design

Key Site Conditions

Residential Site Overview

The residential provision is located to the north of the overall school site. This area offers a number of challenges for design conception. The site is split by a sewer line running east to west through the site which prohibits construction over the easement line (3). Space is constrained on all sides with existing residences to the northern boundary line, the school car park to the south and an attenuation site serving the proposed access road to the east. Additionally the site slopes down towards the north and suffers from prevailing winds moving from the south west (from the coastline).



06: Residential Design

Site & Building Adjacencies

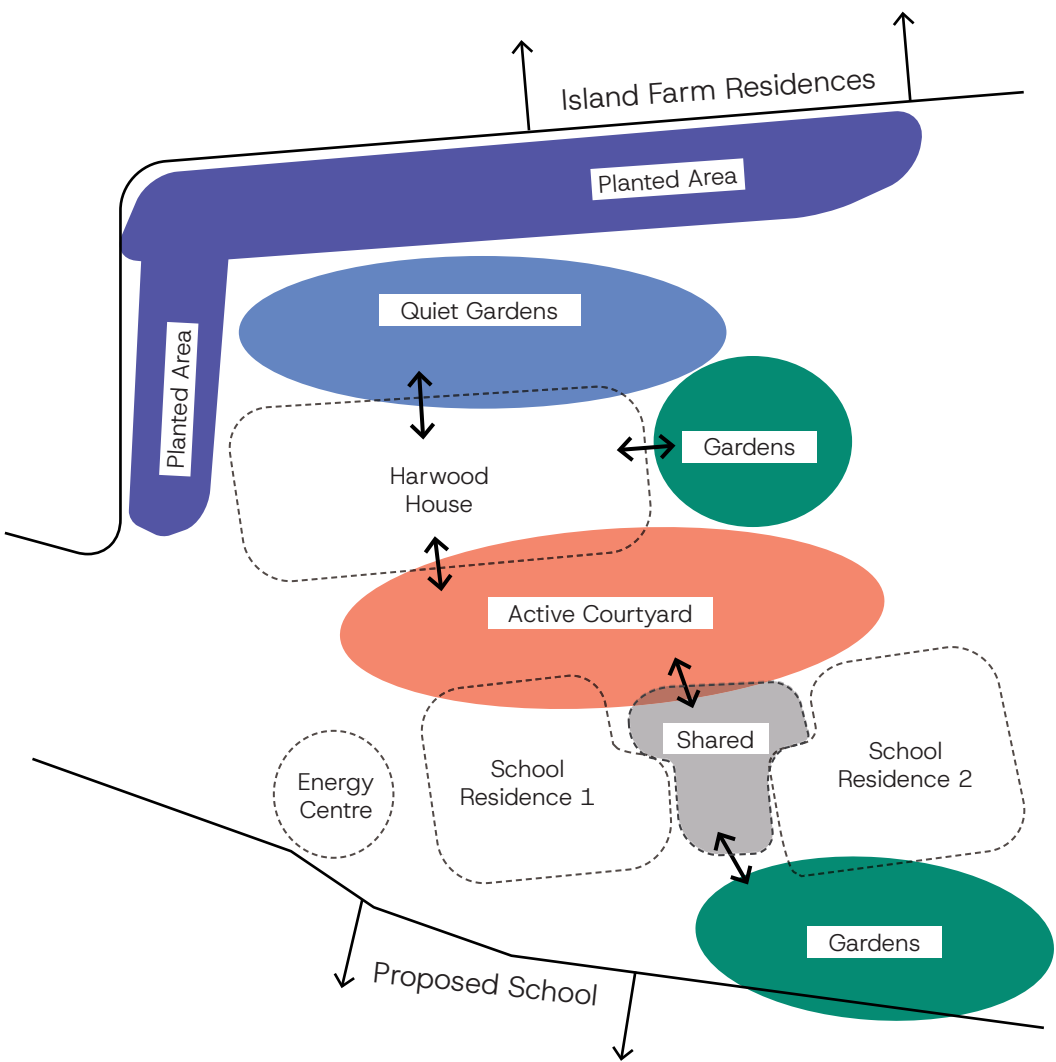
Adjacencies

Due to the constrained site the layout and form of the buildings have been driven by the need to create safe community areas and quiet spaces for relaxation. With protection of the privacy for both the prospective and existing residents to the north driving design development. The site layout configures around an active central street for arrivals, noisy play and community activities, this area will be walled and protected by the building forms. This allows the perimeter of the site to be utilised for quiet gardens and screening to the existing residences to the north and proposed school to the south.

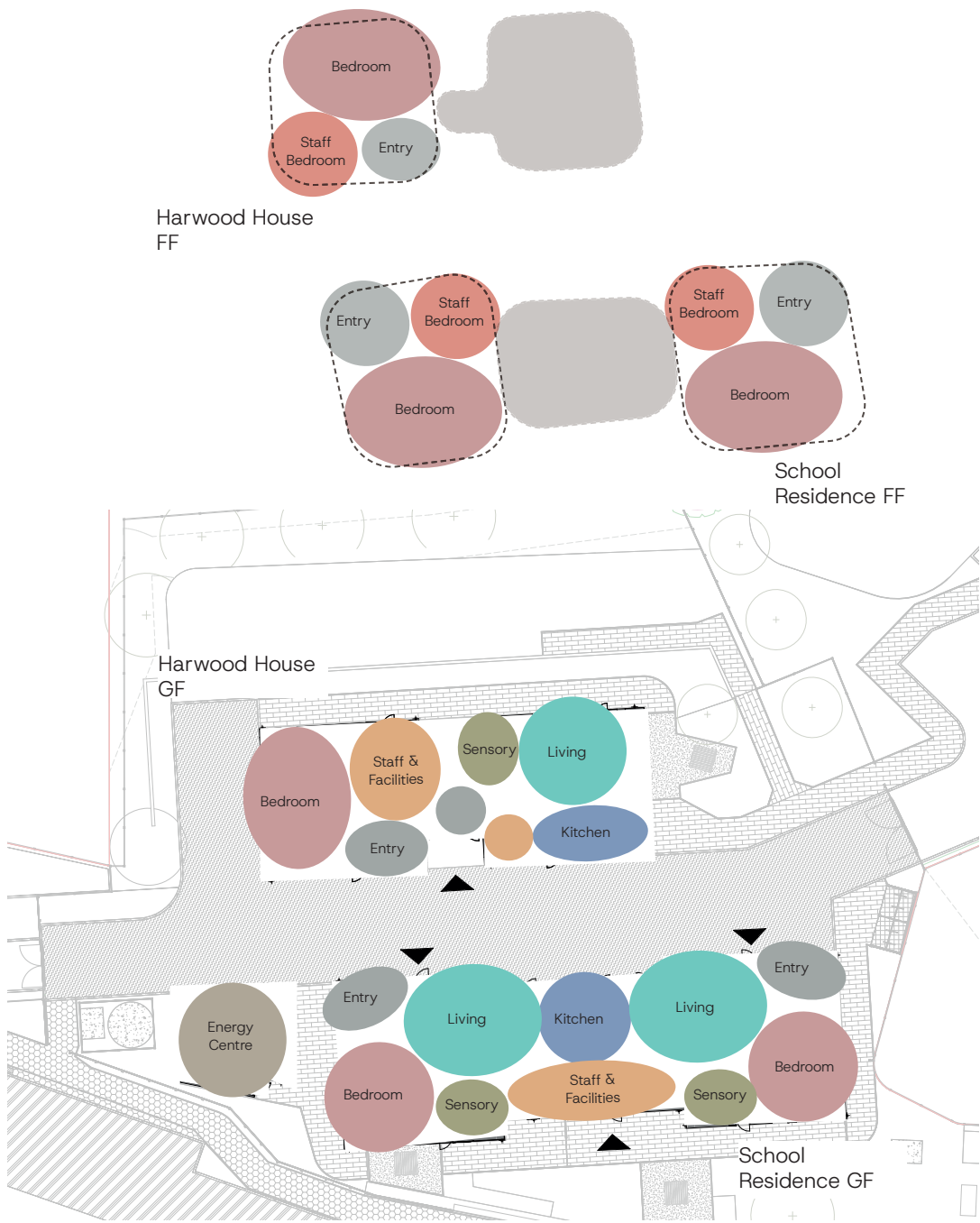
This active and quiet configuration is continued into the building. Communal areas are accessed from the central courtyard and staff bedrooms have views of this aspect. Quiet rooms such as pupil bedrooms and sensory rooms are positioned to the outer aspects to reduce distraction and provide calm.

Site Adjacencies

Quiet & Active Zoning



Building Adjacencies



06: Residential Design

Local Context

Overview of Local Context

It is imperative to the success of the scheme that the residential proposals are recognisably domestic in scale and appearance. This is in support of proposals fitting in with the local residential context and to aid the prospective residents to feel at home in this new environment.

For both these reasons, design features and principles found in existing housing to the surrounding areas was studied for opportunity to replicate and compliment within the residential elements of Heronsbridge School.

Themes of cul-de-sac communities, walled gardens, brick detailing and vertical clad elements were taken forward into the proposals.

Heronsbridge School

- Existing Heronsbridge School
- Proposed Site

Residential Types

- Semi-detached
- Detached
- Terraced
- Mobile Homes
- Image Locations



1 Pitched Forms



2 Courtyard Community



3 Walled Boundaries



4 Walled Boundaries



5 Misaligned Windows



6 Vertical Cladding



7 Brick Banding



8 Brick Banding

06: Residential Design

Design Principles

Function

The residential proposal consists of two buildings, one to be run by the school (School Residence) and the other by Social Services (Harwood House).

The School Residence consists of 6 children/young adult bedrooms and 2 staff bedrooms. The larger resident numbers has led this building to function as two separate residences with shared central facilities (kitchen/staff room/utility). Allowing each side to function individually, with opportunity to come together as appropriate. Harwood House is smaller, providing 3 children/young adult bedrooms and 1 staff bedroom.

Community

Taking reference from the existing Island Farm residences the proposals are designed to reflect a small cluster of houses. This concept will be recognisable and familiar for the residents, with orientation and landscaping of the proposals designed to support a gentle collaborative community which is flexible to the needs of it's inhabitants.

Secure

The building positions on site have been carefully considered to minimise overlooking, with children's bedrooms and sensory rooms positioned away from main communal spaces.

Going Home

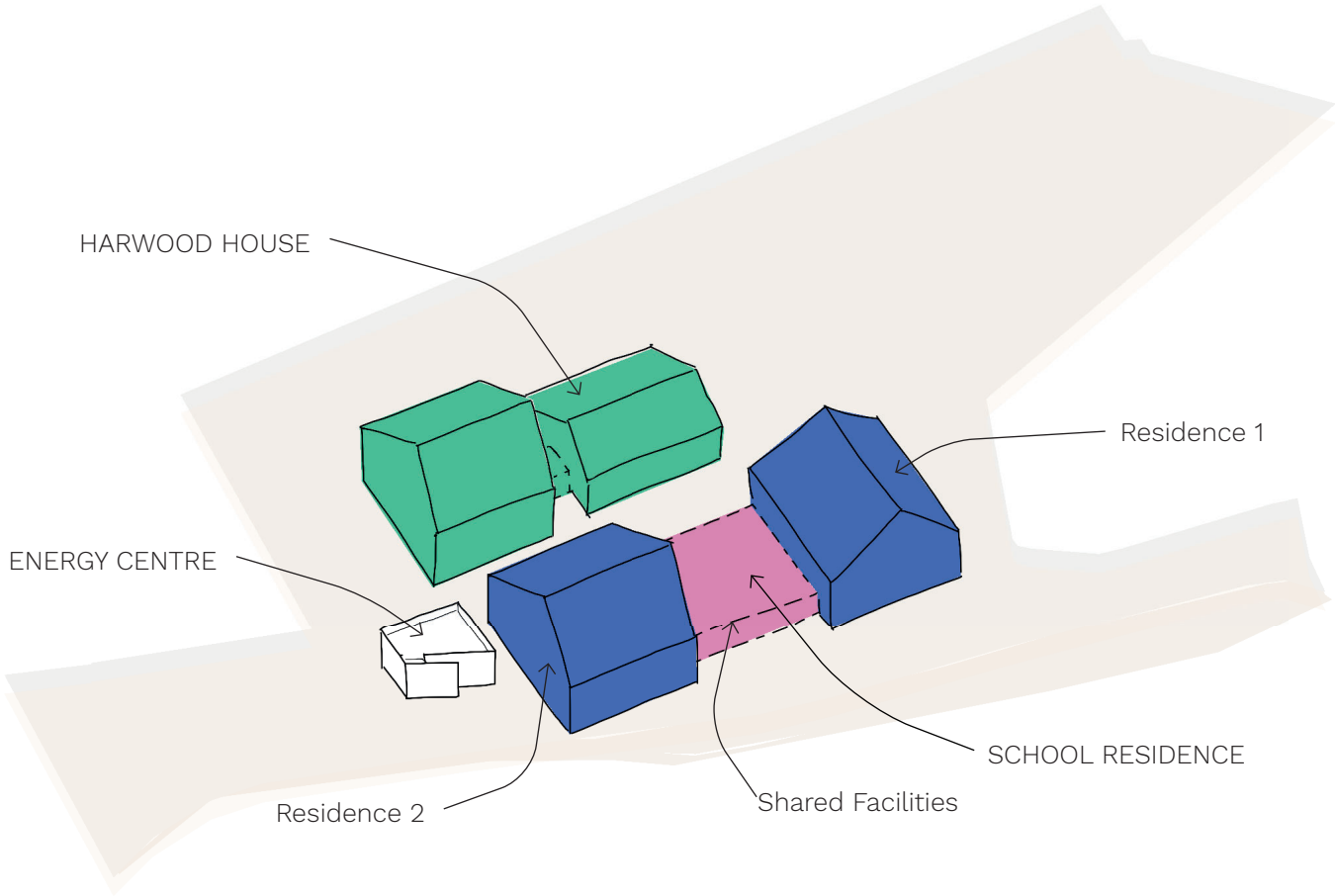
Both residences should appear separate from the school to help the residents feel like they have gone home after spending the day at school. The design should incorporate recognisable residential architectural elements, landscape screening and limit aspects facing back towards the school.

Inclusive

The residences should be inclusive to all potential inhabitants whilst maintaining a familiar homely language. Corridors should be wide enough to easily allow navigation of mobility equipment whilst retaining a modest scale. Rooms should be safe and allow secure observation from staff whilst retaining privacy.

Consistent

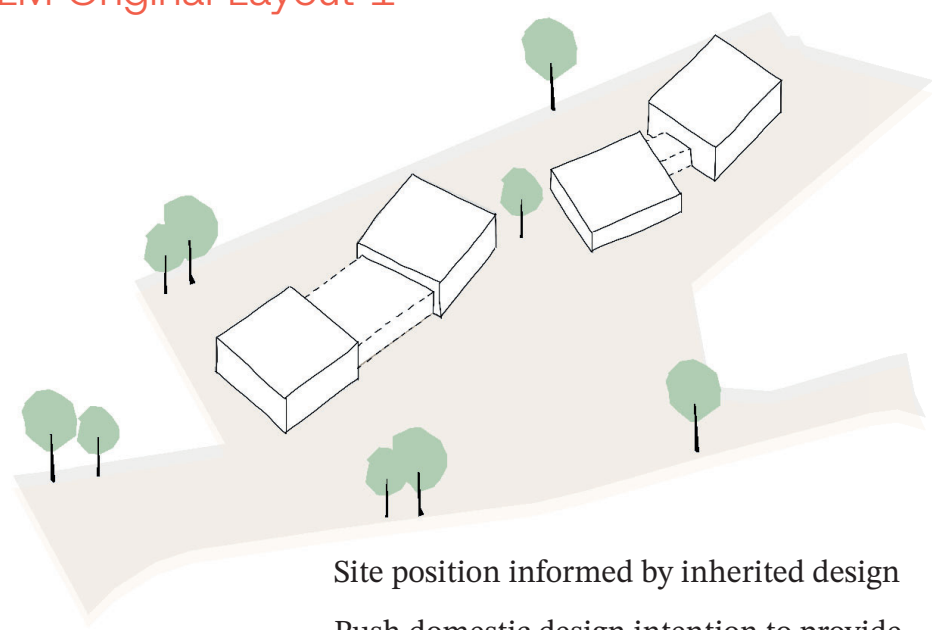
The design should sit within its context of the school proposal and the existing neighbouring properties at Island Farm. Internal spaces should feel familiar as a home setting in scale and detailing.



06: Residential Design

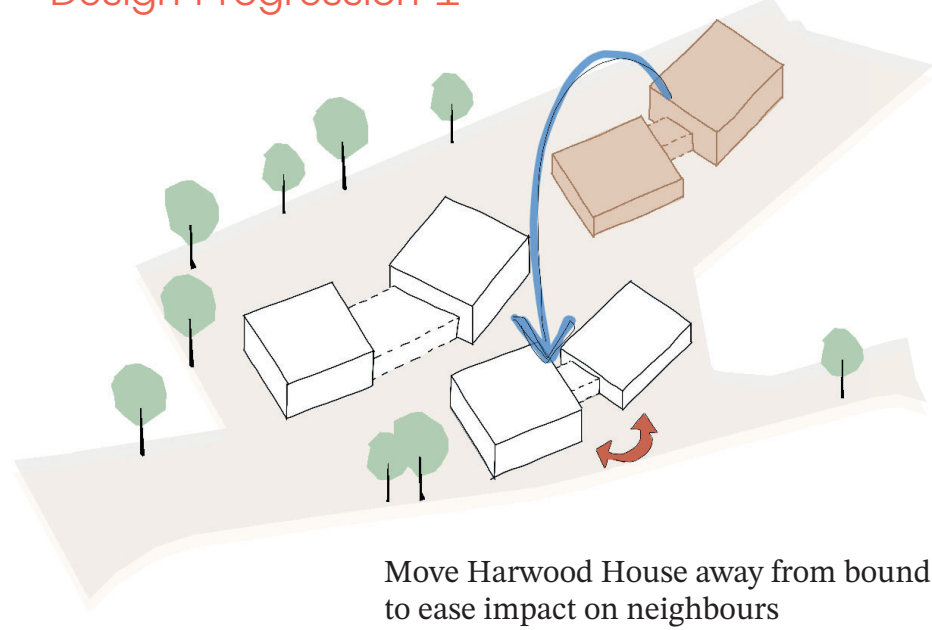
Design Development

HLM Original Layout 1



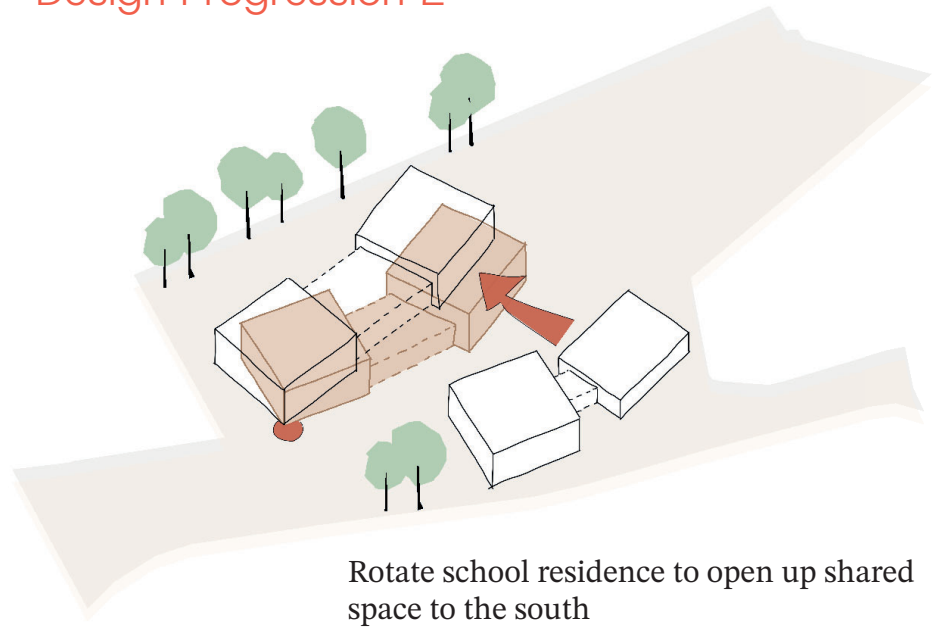
Site position informed by inherited design
Push domestic design intention to provide familiar, considered spaces

Design Progression 1



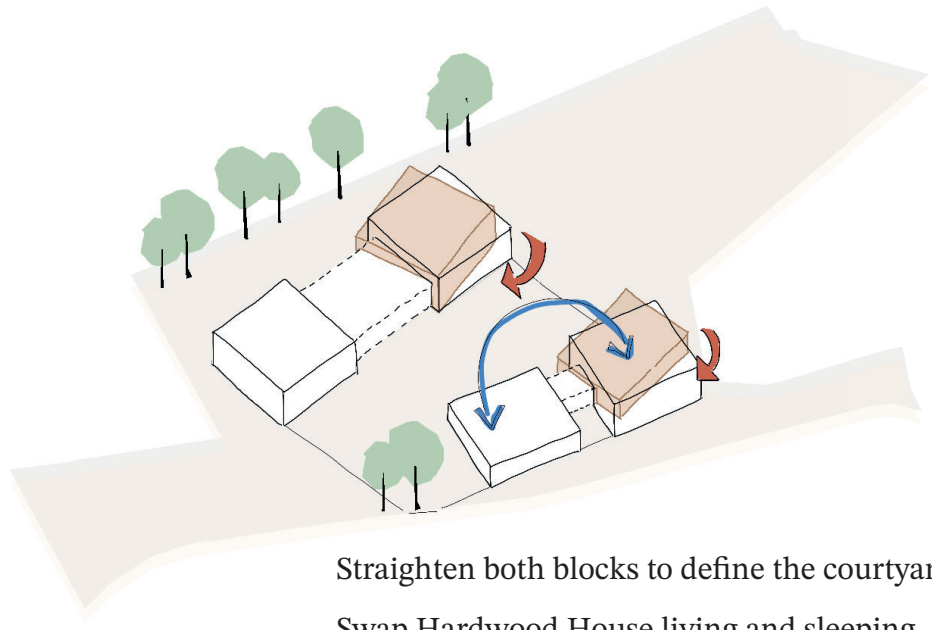
Move Harwood House away from boundary to ease impact on neighbours
Rotate Harwood House to maximise outdoor space from living area

Design Progression 2



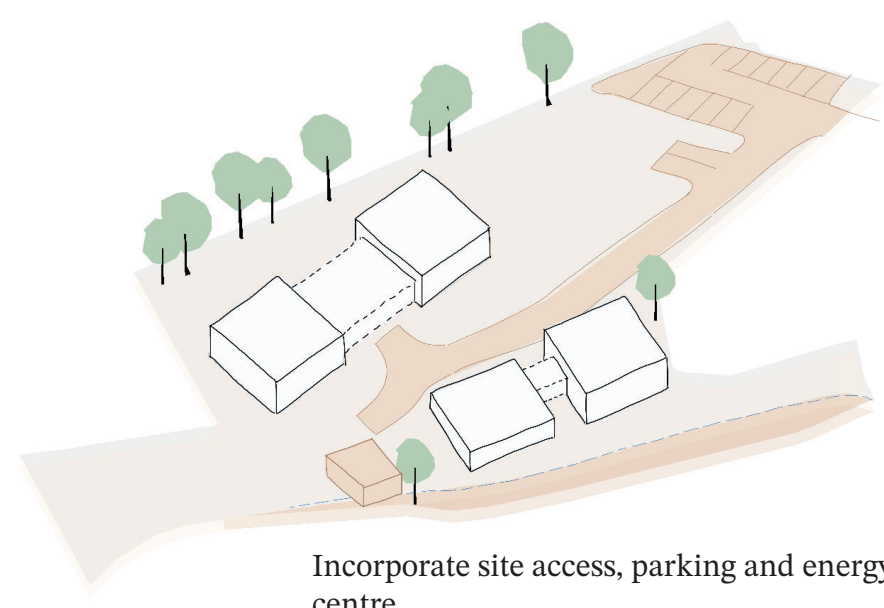
Rotate school residence to open up shared space to the south

Design Progression 3



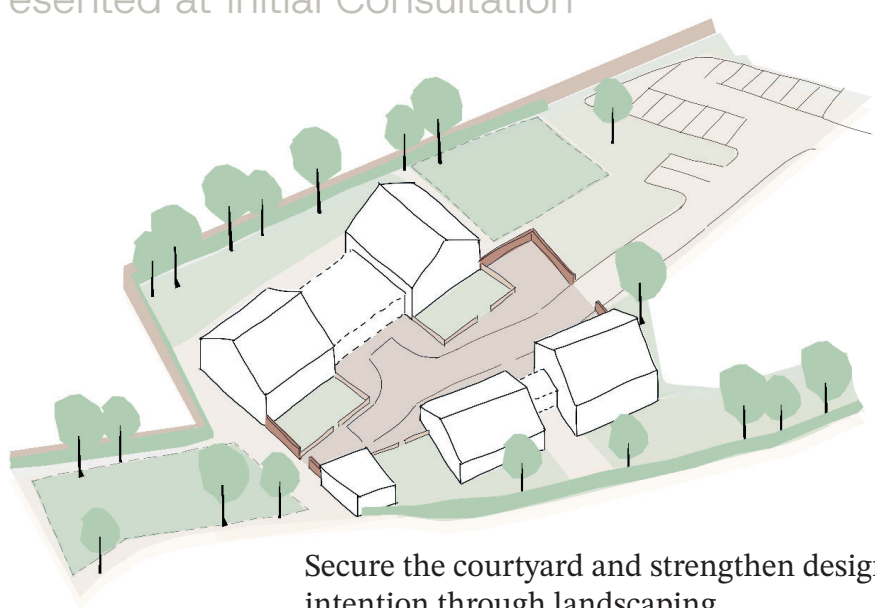
Straighten both blocks to define the courtyard
Swap Harwood House living and sleeping block to better orientate primary external space

Design Progression 4



Incorporate site access, parking and energy centre
Additional space gained from school car park

Developed Design
Presented at Initial Consultation

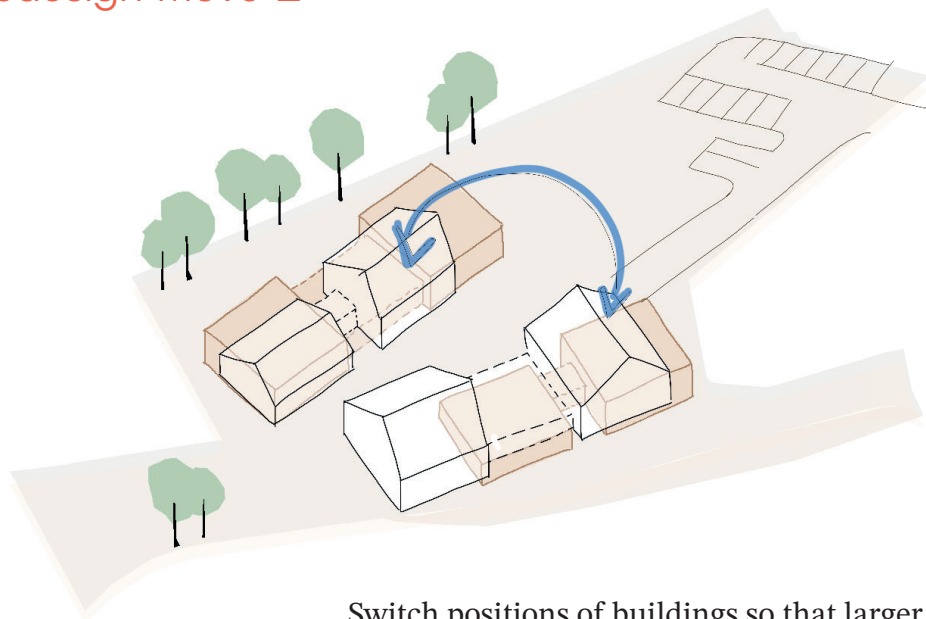


Secure the courtyard and strengthen design intention through landscaping

06: Residential Design

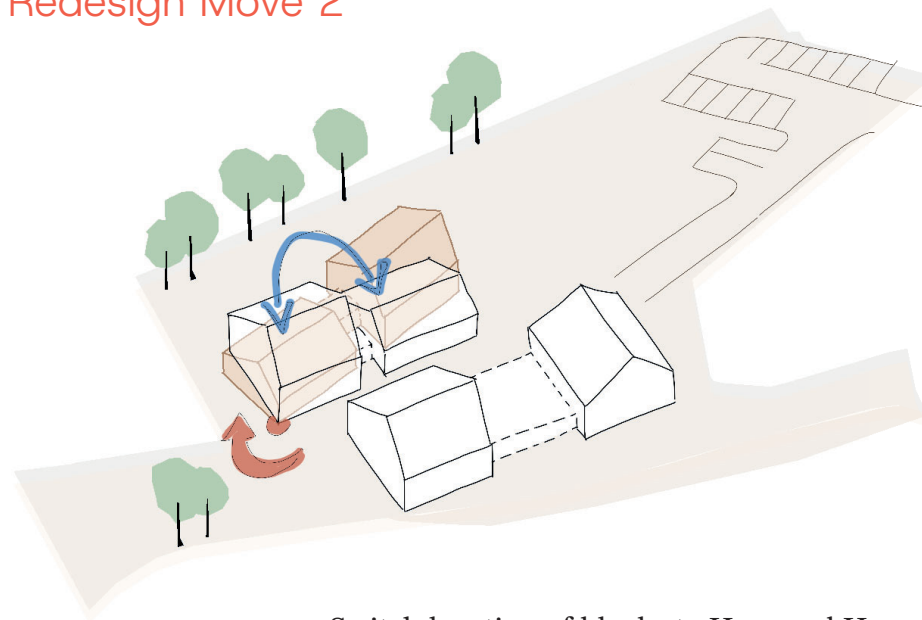
Design Development – Post Consultation

Redesign Move 1



Switch positions of buildings so that larger form, School Residence, is moved away from existing Island Farm residences.

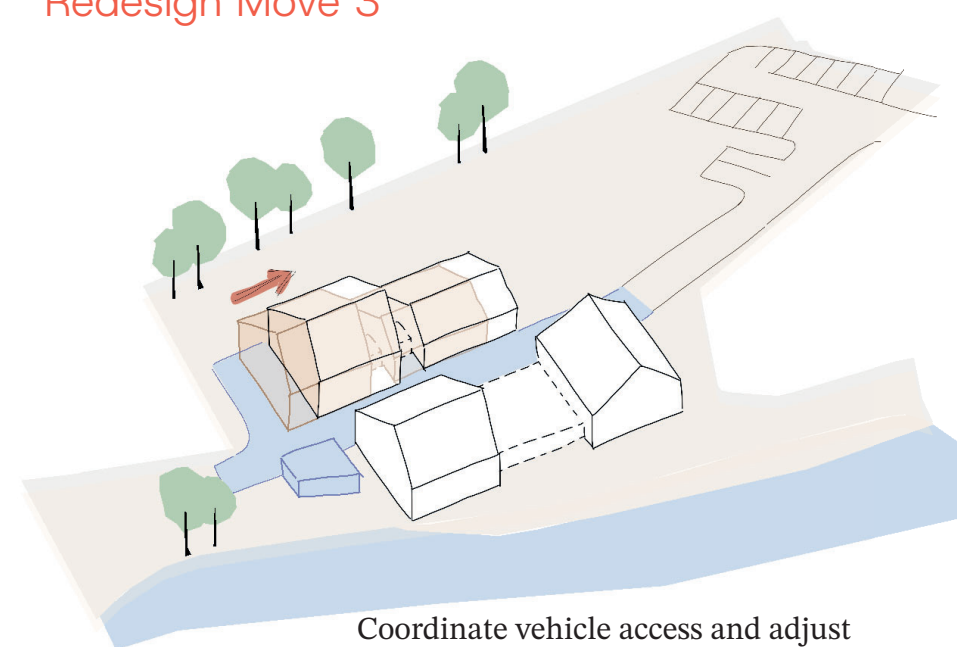
Redesign Move 2



Switch location of blocks to Harwood House so single storey element holds most prominent position.

Rotate Harwood House to create space for buffer zone planting to north boundary.

Redesign Move 3



Coordinate vehicle access and adjust Harwood House location.

Locate Energy Centre and redesign school car park to ensure ample space for safe access around buildings.

Design Development Post Consultation Event

Following the productive community consultation it was deemed appropriate to review the positioning of the buildings. With the aim to reduce any negative impact they may have on the existing residences of Island Farm to the north of the proposed residential site.

Initial development lead to switching the building positions so that the larger building, the School Residence, was moved further away from this northern boundary. With Harwood House now occupying this northern position the building was rotated so that the single storey element was now located to the most prominent position when viewing from the Island Farm residences. Thus further reducing the impact. In addition Harwood House was then rotated to become parallel to the School Residence, taking the north most corner further away from this boundary to create more space for buffer zone planting.

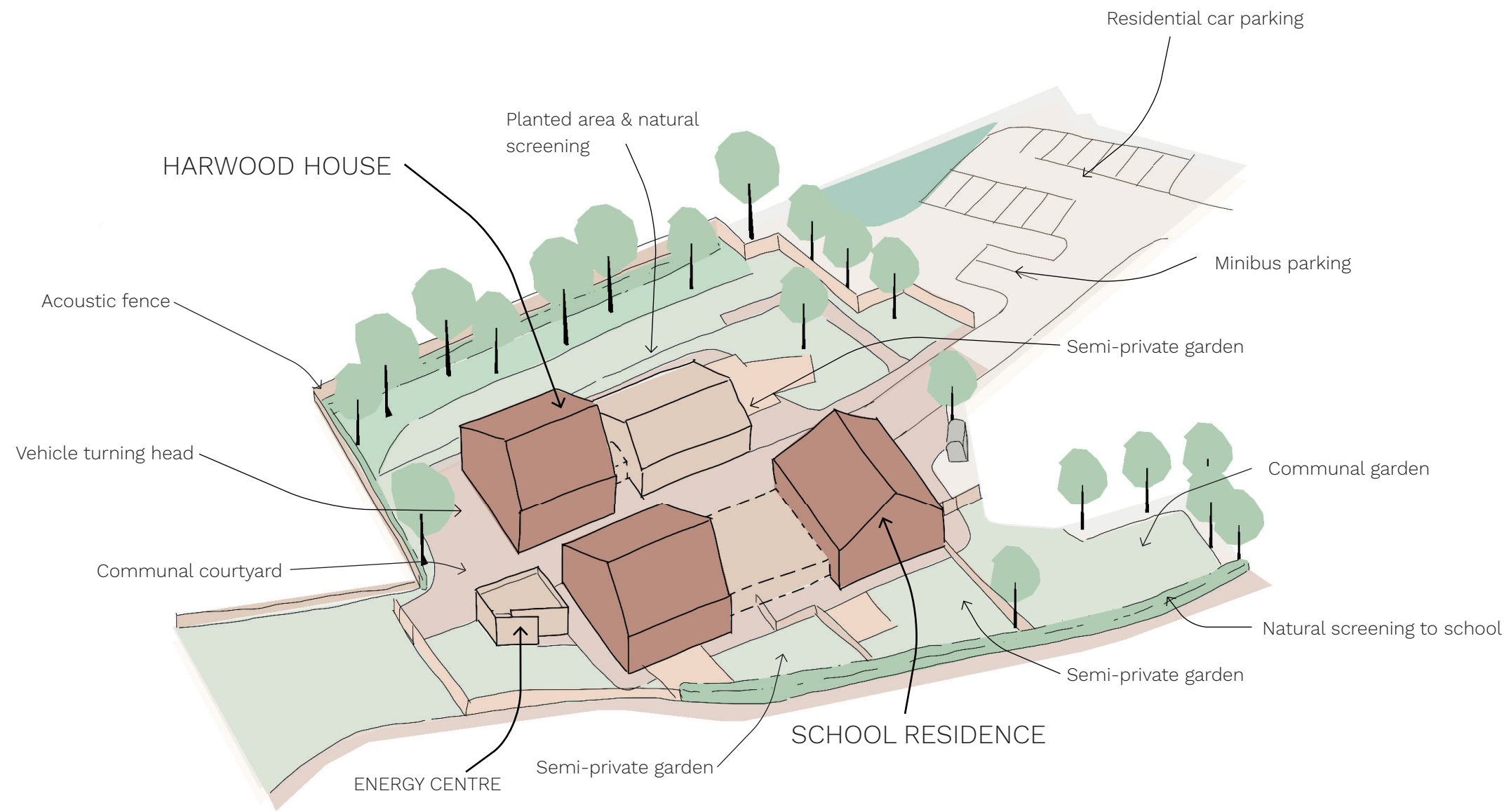
Finally vehicle and safe pedestrian access were fully coordinated. This includes retaining direct access for vehicles to drop off outside of both residence's front doors.

06: Residential Design

Design Overview

A summary of design moves in support of the brief and concept of domestic familiarity with a mix of shared and private spaces are presented through landscape, massing and site coordination.

This includes locating and shielding of spaces for privacy to and from the existing residents to the north and proposed school to the south.



06: Residential Design

Design Development – Site Section

Improvements in Section

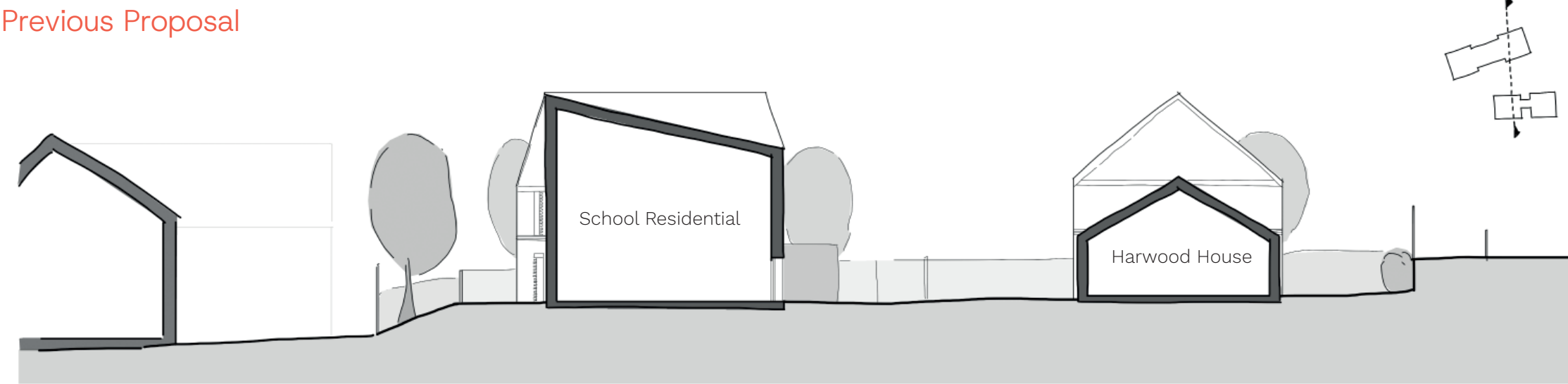
The impact on neighbouring properties due to the size of the building forms was raised to be a predominant concern during community consultation. This concern has driven much of the design development since, including careful consideration of the landscaping and levels on site. With awareness that Heronsbridge’s residential site sits elevated from the existing Island Farm residences, it was important to strive to minimise this impact as far as possible.

These site sections clearly display the improvement gained from revisiting the design with these comments in mind. Harwood House, the smaller of the two buildings, now taking up the most dominant northern position provides a softening of impact when viewed in elevation. Further from this the levels have been treated so the slope is more gradual and impact less severe. The landscape design goes further to pull activity away from this northern boundary, focusing gardens more to the east and south, all protected by planted areas designed to increase privacy while supporting biodiversity and wildlife.

Redesigned Proposal



Previous Proposal



Section sketches are representative only

06: Residential Design

Schedule of Accommodation

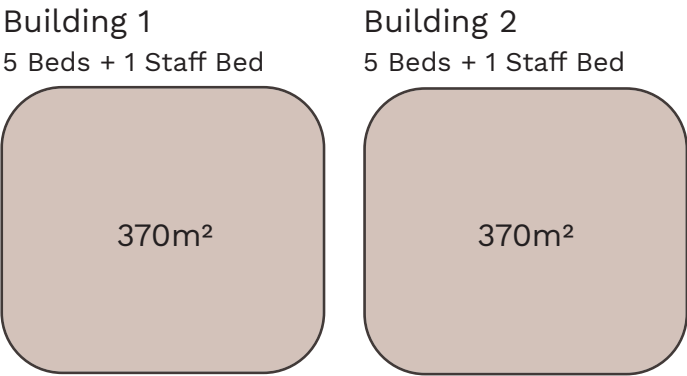
The Schedule of Accommodation produced prior to HLM’s involvement has been used as a basis informing the size and adjacencies of spaces. With space requirements being reviewed against Lifetime Homes Standards and Approved Document M for completeness.

The design has undergone some key adjustments from this inherited scheme due to updated user requirement information. Originally the scheme called for two equal buildings with accommodation for 5 children and 1 staff bedroom each. The brief has been updated to require two buildings; one for six children and 2 staff bedrooms (School Residence), with the other for 3 Children and 1 Staff bedroom (Harwood House). This and other adjustments to the brief such as additional bathrooms and removal of the winter garden, makes it difficult to directly compare the Gross Internal Floor Area (GIFA) between HLM and the original proposals.

Overall HLM’s proposal provides a reduced total GIFA compared to this original proposal. This is largely due to client feedback for some rooms, such as the winter-garden and larger bedroom numbers not being required.

Inherited Design

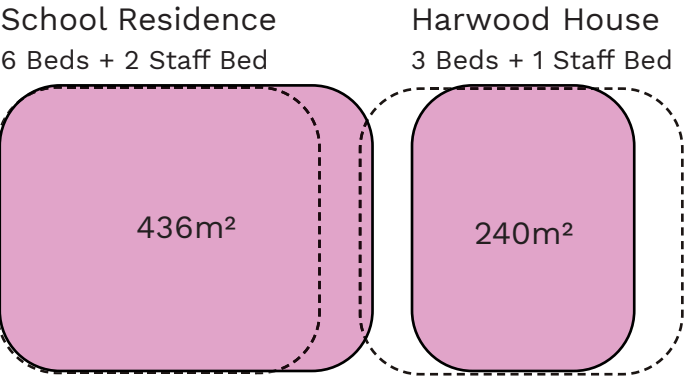
Before space requirement updates



Total GIFA: 740m²

HLM Design

After space requirement updates

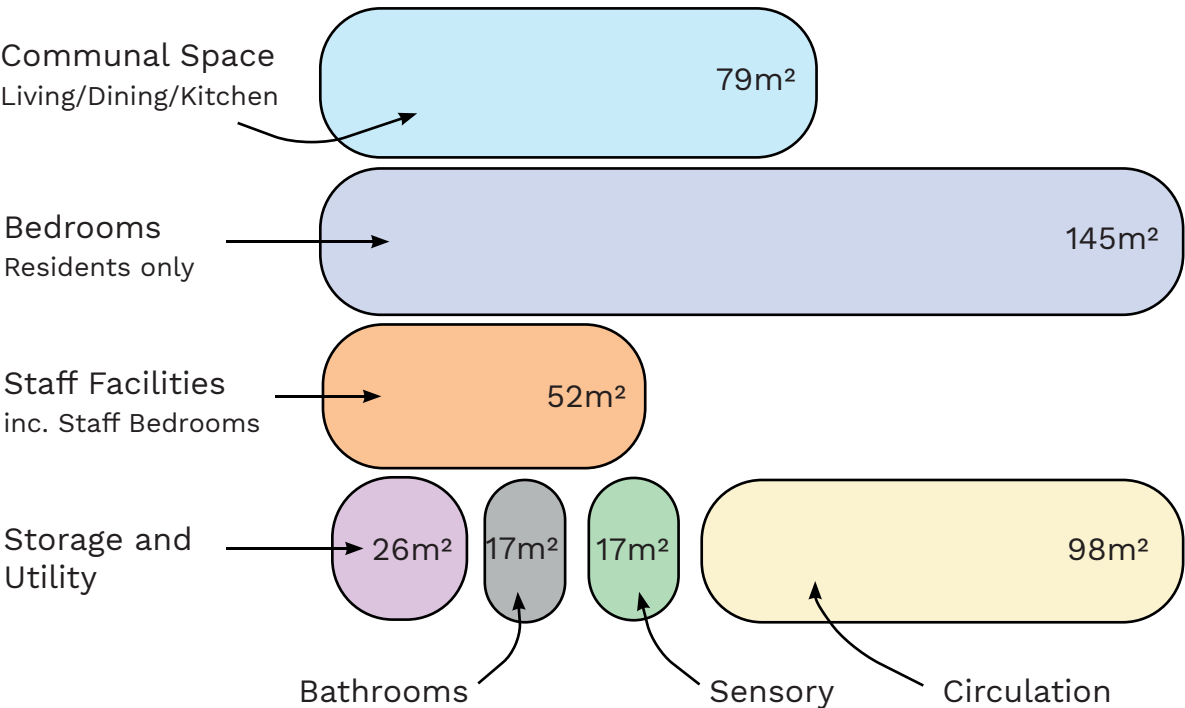


Total GIFA: 676m²

HLM Design

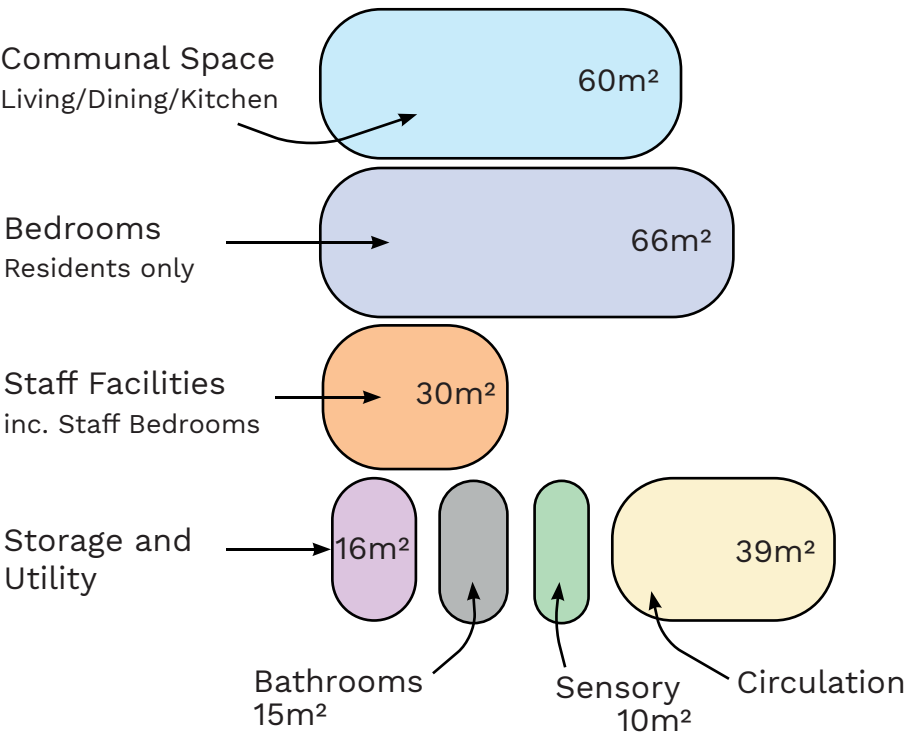
School Residence

Total GIFA: 403m²



Harwood House

Total GIFA: 224m²



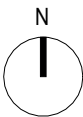
06: Residential Design

Ground Floor Plan

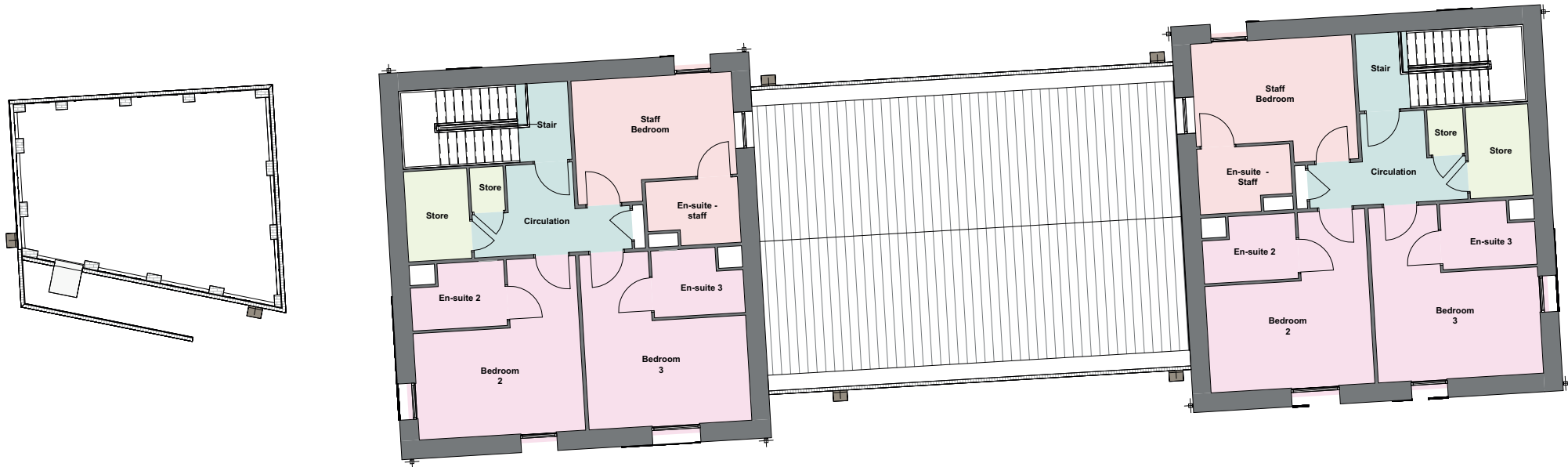
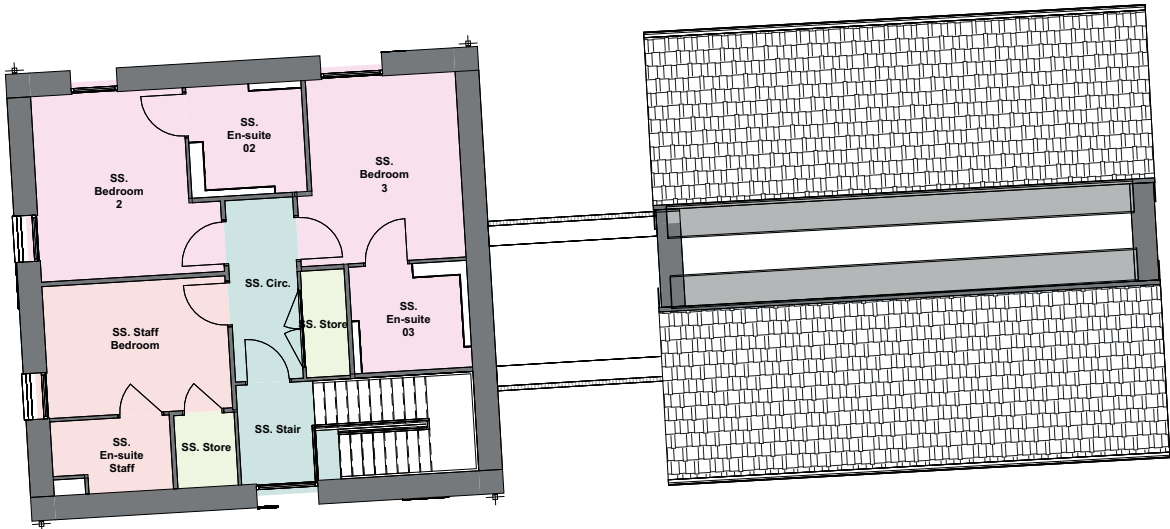


06: Residential Design

First Floor Plan

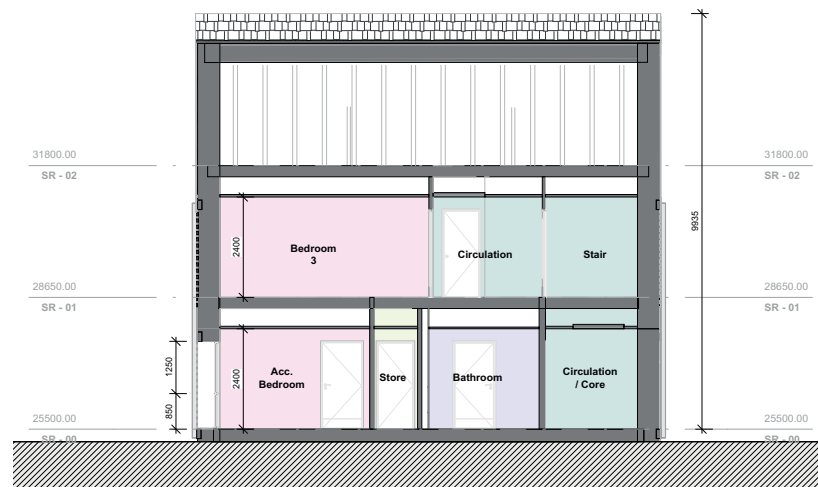


- Bedroom
- Circulation
- Staff Facility
- Store

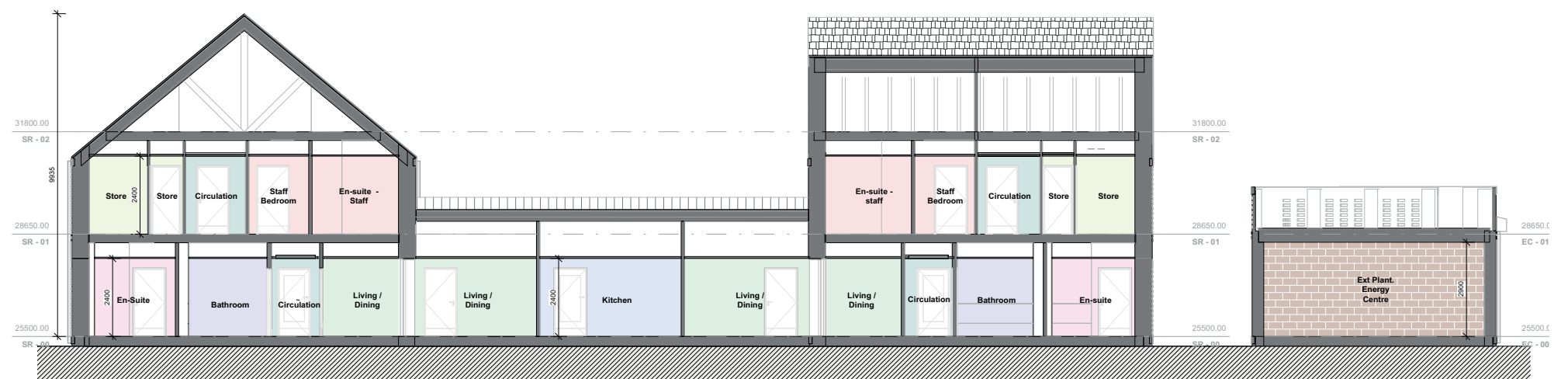
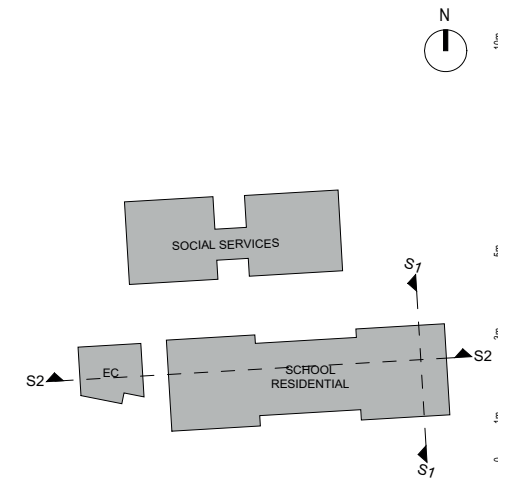


06: Residential Design

Sections – School Residence



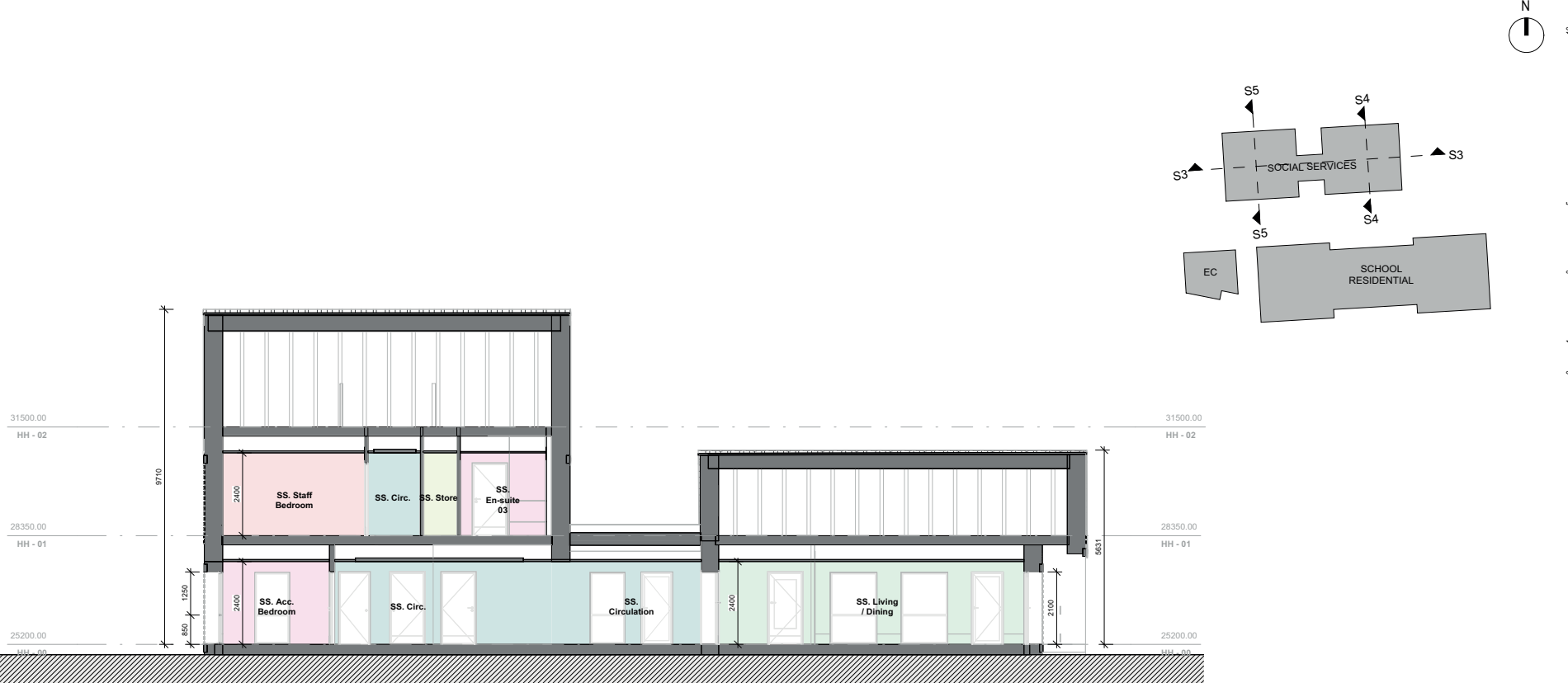
Section 1_Planning
Scale: 1 : 100



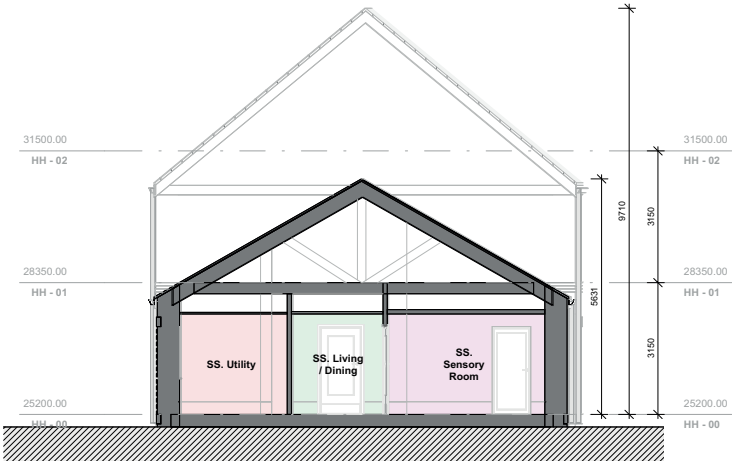
Section 2_Planning
Scale: 1 : 100

06: Residential Design

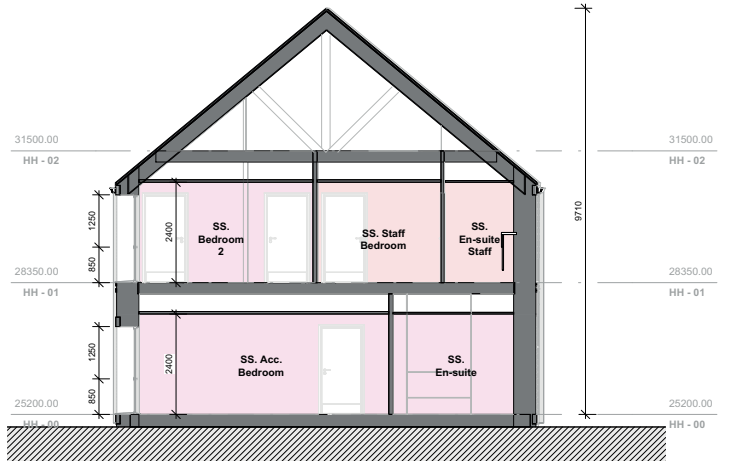
Sections – Harwood House



Section 3_Planning
Scale: 1 : 100



Section 4_Planning
Scale: 1 : 100



Section 5_Planning
Scale: 1 : 100

06: Residential Design

Look & Feel



Architect: Nick Moss Architects



Architect: CORNELIUS VÖGE



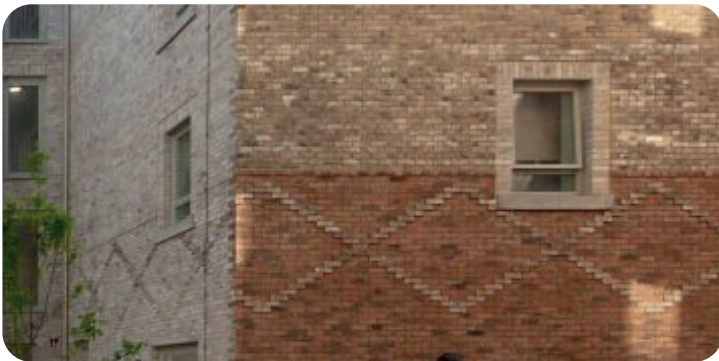
Architect: TDO Studio



Architect: Peil Architects



Architect: Arkitema Architects



Architect: Levitt Bernstein



Architect: Slangen + Koenis Architects



Architect: Napier Clarke Architects



Architect: Fletcher Crane Architects



Architect: Atelier Tom Vanhee

06: Residential Design

Elevation Design Development

Window Treatment

Design development for the elevations has been considered carefully. Keeping in mind to balance the architecture of its context, that of the existing Island Farm residences and the proposed School. The brief highlighted the need for designs to be familiar and domestic.

Initial designs proposed large floor to ceiling windows in order to let as much natural light into the internal spaces. Whilst this would remain beneficial for some areas such as living spaces, further development led to the consideration that bedrooms in particular for the children and young people residing would benefit from increased privacy. This led to the suggestion of raising the cill heights for the bedrooms. In order to maintain successful aspects of the design proportions a study into how best to articulate this raised cill while remaining cohesive with the retained full height windows was undertaken.

Precedent studies led to three prevailing solutions. Illustrated on this page they are; recessed brick, solid panel (of varied colour options), and wood panel with option of additional privacy louvres.

Options for window treatment materiality are to be developed further at the next work-stage.



06: Residential Design

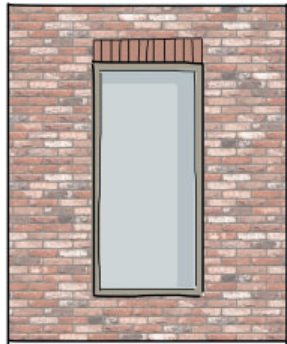
Elevation Design Development

Window Frame Colour Selection

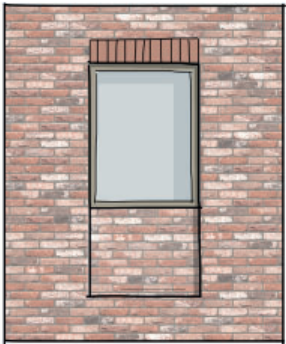
Design development for the elevations has been considered carefully. Keeping in mind to balance the architecture of its context, that of the existing Island Farm residences and the proposed School. The brief highlighted the need for designs to be familiar and domestic.

Studies into window treatment and materiality choice lead to selection of a solid panel to raised cill windows to match window frame colour selection for a cohesive appearance. Developed studies narrowed the selection to a RAL colour chosen to compliment the brick choice, in keeping with the muted natural palette.

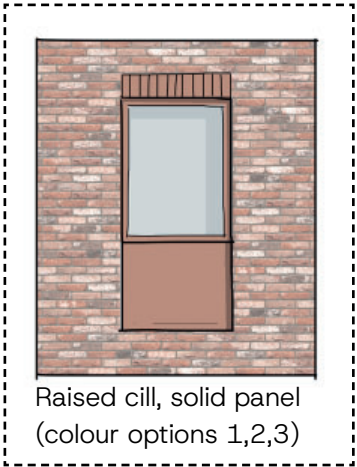
Window Treatment Testing



Full height portrait window

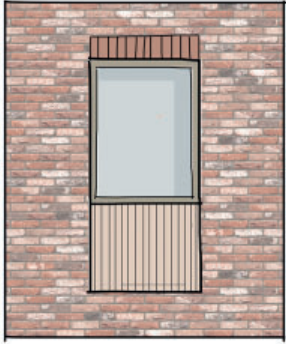


Raised cill, recessed brick



Raised cill, solid panel (colour options 1,2,3)

SELECTED OPTION



Raised cill, wood panel

Frame Colour Testing



Brick: Multi Buff with Pink Hue
Timber: Thermowood Weathered Wood Finish
Window/Door Frames: RAL 3012

SELECTED OPTION



Brick: Multi Buff with Pink Hue
Timber: Thermowood Weathered Wood Finish
Window/Door Frames: RAL 1015



Brick: Multi Buff with Pink Hue
Timber: Thermowood Weathered Wood Finish
Window/Door Frames: RAL 1001

06: Residential Design

Alternative Materials

Materiality Options

Alternative cladding options were explored to understand the effect of a single material (brick) used differently against a contrast of materials. Materials were selected for their appearance and robustness due to positioning at ground floor. The three short-listed materials explored here being timber cladding, brick on brick and fibre cement cladding.

Timber Cladding

Thermowood

Stage 3 design. Feature detail timber cladding, softening elevation appearance while maintaining natural palette.

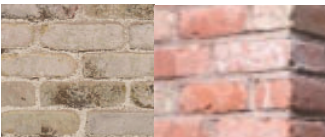


Contrast Brick

Weinerberger

①

Contrast/complimentary brick colour. Breaks up facade.



Buff / Multi Buff with Pink Hue



②

Contrast/complimentary brick colour. Emphasised brick detailing using alternate colour.



Buff / Multi Buff with Pink Hue



Fibre Cement Cladding

Equitone

①



Tectiva (TE10 Linen)

②

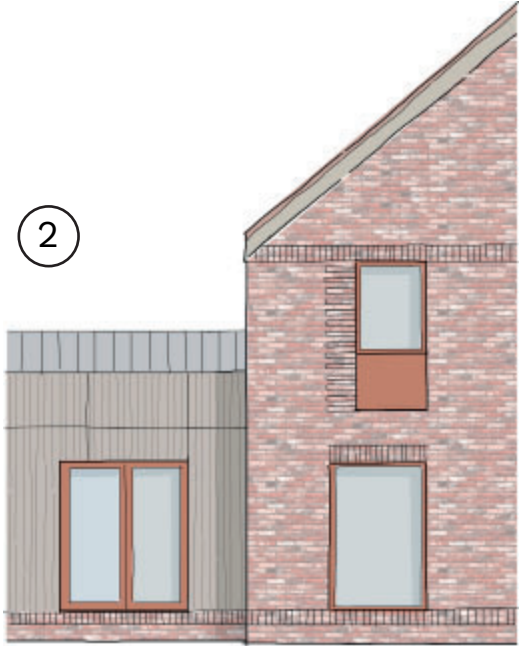


Linea (LT10 Linen)

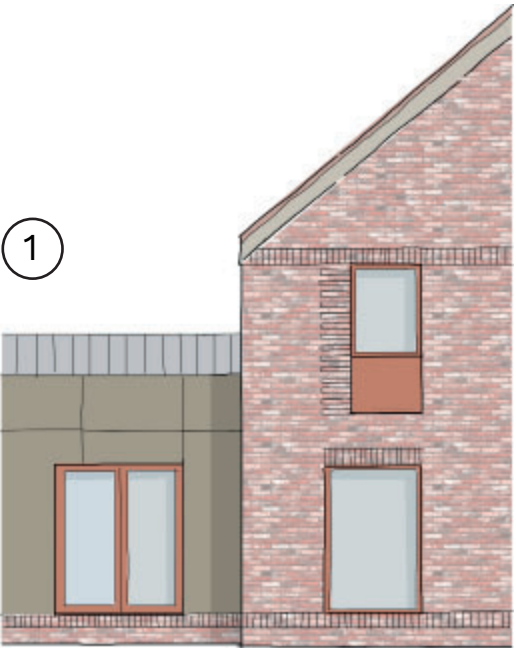
③



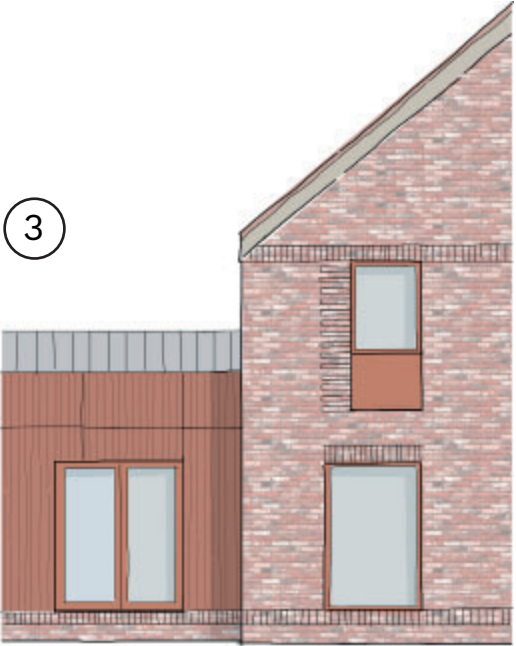
Linea (LT40 Sahara)



①



③



06: Residential Design

Material Palette

Material Palette Selection

Following the previously outlined design development the final material palette was selected. An all brick external envelope was deemed most appropriate to relate to it's context, two tones of brick are to be used, a light multi tone relating to the existing residences to the north and a buff to relate to the proposed school to the south. It was also perceived to be the best option in terms of robustness, longevity and minimal maintenance when compared to the other options of timber or fibre cement cladding.

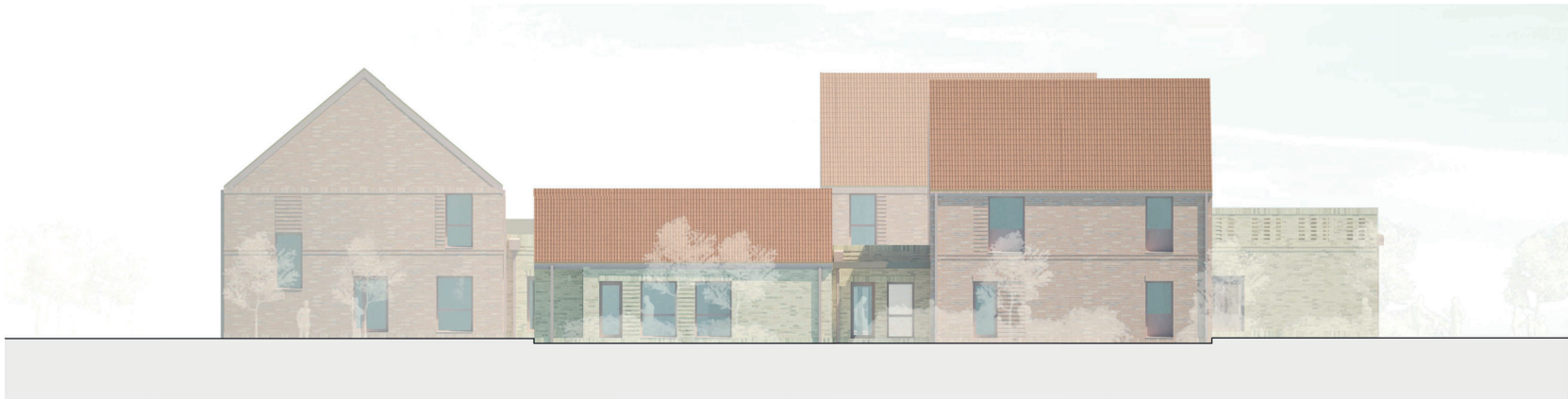
The brick elements contain effective detailing, including hit and miss, stepping and solider course providing interest to the design. Due to this the rest of the palette has been kept to subtle tones, windows and doors are in a complimentary shade to match the main brick colour and plain clay tiles finish the recognisably residential aesthetic.



Material Palette



06: Residential Design Elevations



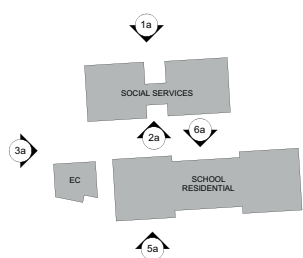
Elevation 1a



Elevation 2a



Elevation 5a



06: Residential Design Elevations



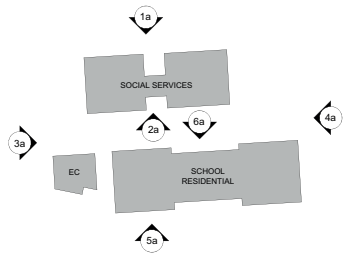
Elevation 3a

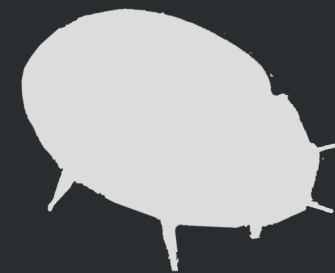


Elevation 4a



Elevation 6a





07 Landscape Design

This section sets out the landscape strategy for the scheme, highlighting the key outdoor learning, play environments and addressing access and site circulation for a range of different users.



Introduction

This section demonstrates how the proposal is rooted in its context, explaining the key decisions that have shaped its form and the rationale behind its development.

The aim is to create a landscape that enriches daily life for pupils, staff, and visitors offering stimulating, inclusive, and meaningful connections with nature throughout the school grounds.

The landscape for Heronsbridge School is envisioned as a living bridge — connecting nature, learning, and community. Inspired by the grace of the heron and the rivers that define Bridgend's landscape, the design weaves together a series of sensory, inclusive, and educational spaces that nurture curiosity, growth, and wellbeing.

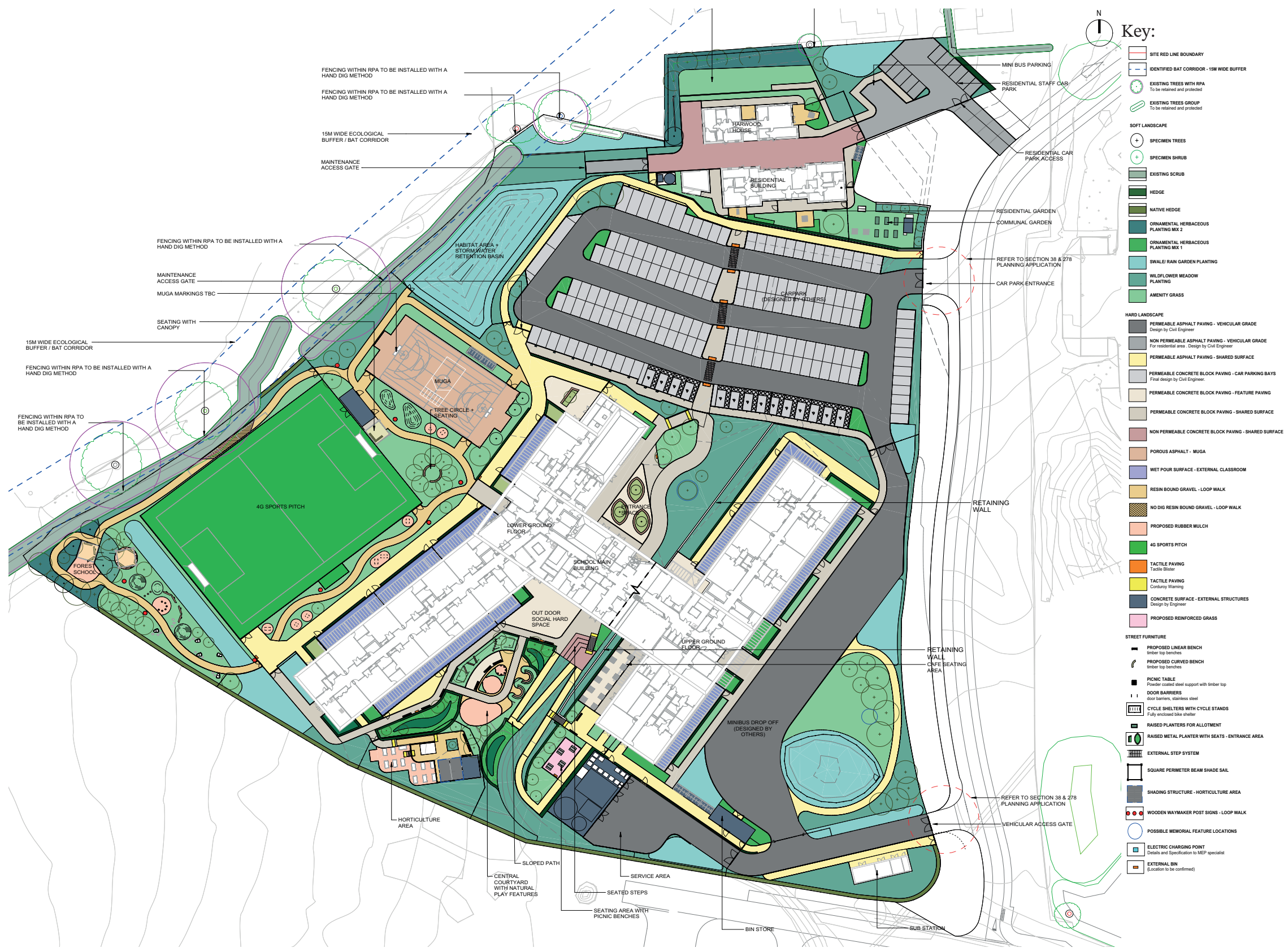
Bridges of Life

The landscape design for the school is based on the overarching concept of “Bridges of Life,” which integrates nature, learning, and community within a cohesive and accessible environment. The design prioritises inclusivity, ensuring that spaces are welcoming and usable for learners of all abilities, ages, and backgrounds. A clear spatial strategy connects key parts of the site, including the main school grounds, the residential area, and Howard House, creating a legible and continuous network of routes and places that support both educational use and wider community engagement. The landscape is designed not only as a setting for learning but also as a shared community resource.

The strategy responds sensitively to the local context, incorporating elements of Welsh ecology, supporting local wildlife, and reflecting seasonal variation to create a dynamic and engaging environment. Existing strengths of the site, including the school's horticultural area, are retained and enhanced, providing opportunities for students to actively engage in growing plants, vegetables, and fruit. This approach supports hands-on learning and wellbeing while ensuring that current facilities are not only maintained but improved as part of the proposed development.

07: Landscape Design

Site Plan



07: Landscape Design

Design Principles

Inclusive Design Principles:

- Providing a clear, cohesive layout that caters for sufficient movement for all pupils/users with a variety of needs.
- Promoting an open environment that optimises learning through clear signage, information, communication, accessible learning/teaching stations.
- Provide a range of equipment to pupils for play, exercise and activity encouraging social interactions.
- Ensuring all users and stakeholders have a voice that is listened to and implemented where possible in the landscape design.
- Flexible and adaptable in the landscape proposal to suit the changing needs of pupils/teachers and staff at the school.
- Promote respect, dignity and health and safety in all decision making.
- Ensure spaces are safe from hazards and implement observational surveillance for all users' safety.



To cater for varying needs and abilities

Space for all users and their day to day tasks.

Space to play and learn amongst nature.

Safe and welcoming adaptable environment

07: Landscape Design

Designated Spaces

The Landscape Design is organised into 8 areas:

1. The Entrance Plaza for main access to the school for pupils and staff
2. The courtyard area featuring outdoor learning and informal play.
3. The horticulture area for learning about planting, gardening and interactive “Grow your Own” classes.
4. The forest school for exploration and engagement with nature
5. A loop walk that promotes activity and a connection point to the residential area.
6. The sports facilities for ball sports and open space for exercising.
7. The residential area to the north with quiet landscape spaces away from school life.
8. The retention basin for the on-site SUDs strategy.

- ① Entrance Plaza
- ② Courtyard Area
- ③ Horticulture Area
- ④ Forest School
- ⑤ Loop Walk
- ⑥ Sports Facilities
- ⑦ Residential Area
- ⑧ Retention Basin
- ⑨ Main Car Park
- ⑩ Drop-off area
- ⑪ Amenity soft landscape incorporating SuDS attenuation basin



Note: All equipment shown in render is indicative and for representative purposes only subject to final design.

07: Landscape Design

Access and Boundary Treatments

Access:

The proposed site will be accessed by a new vehicular and pedestrian route extending onwards from ‘Technology Drive’ from the existing science and technology park.

The main access to the school for the pupils will be via the proposed car park through the main entrance plaza gates or for pedestrians walking access through a designated path running north to the proposed residential area.

All access points will be in accordance with Part M building regulations.

- Promote safe walking/sustainable transport access to the school.
- Wheelchair accessibility throughout forest school and walk.
- Access to designated outdoor learning environments via lockable gates.
- All access points are in line with Part M building regulations.

Fencing and Gates:

The aim of the fencing layout is to provide contained spaces for formal play, ball sports and outdoor learning and horticultural learning. The aim is to provide a safe and secure site for all users.

Key considerations:

- Protect pupils from cars during busy drop off periods.

General:

- Designated fenced spaces to maintain observational safety and prevent unauthorised access/exit.
- Avoid narrow spaces and pinch points to reduce stress triggers for pupils.
- Provide a safe and accessible landscape.
- Minimising and standardizing the fencing layout to maximise the sense of openness and promote sufficient room for active exercise, gardening and outdoor classes.



07: Landscape Design

Addressing School/ALN Requirements

Main Entrance:

- A shared main entrance to all four hubs and pupil access to a designated drop off area.
- A central meeting space that provides sufficient wheelchair manoeuvring and wider circulation routes for higher footfall areas.

Wayfinding:

- A clear way-finding strategy that displays concise language with signs and symbols throughout the school, combining a seamless wayfinding system that navigates from the indoor classrooms all the way through to the designated outdoor learning spaces. The wayfinding symbols will help all pupils with adapting and understanding their new daily routine.

Outdoor Secure Lines:

- The proposal caters to a multi-age hub which must be reflected into the landscape proposal, appropriate secure lines ensuring general site safety and security.

Classrooms:

- Outdoor classrooms to have direct access from indoor classrooms and be all weather wheelchair accessible.
- The outdoor classroom spaces will provide all year-round usage with shelters from sun, wind and rain.

Horticultural learning:

- Provide a sufficient wheelchair accessible space that provides sensory elements, inclusive learning about plants and gardens and provide safe storage of all garden tools.
- Provide a holistic approach to sustainable learning and “Grow your own” gardening classes.

General requirements:

- Provide a range of sports facilities.
- Elements of natural play.
- Promoting biodiversity and provision for nature-based design solutions.
- Provide spaces for recreation and promote social interaction.
- Providing outdoor learning spaces/classrooms.
- Designing for a wide range of ages and cater for learning at all levels.
- Promote sensory elements along circulation routes.
- Health and safety - identifying and designing out potential hazards, non-toxic planting.
- Multi-functional, robust spaces - making the most of space on site.
- Establish a strong connection to nature.
- Provision for special needs in all landscape spaces and circulation.



Wayfinding



Horticultural Learning



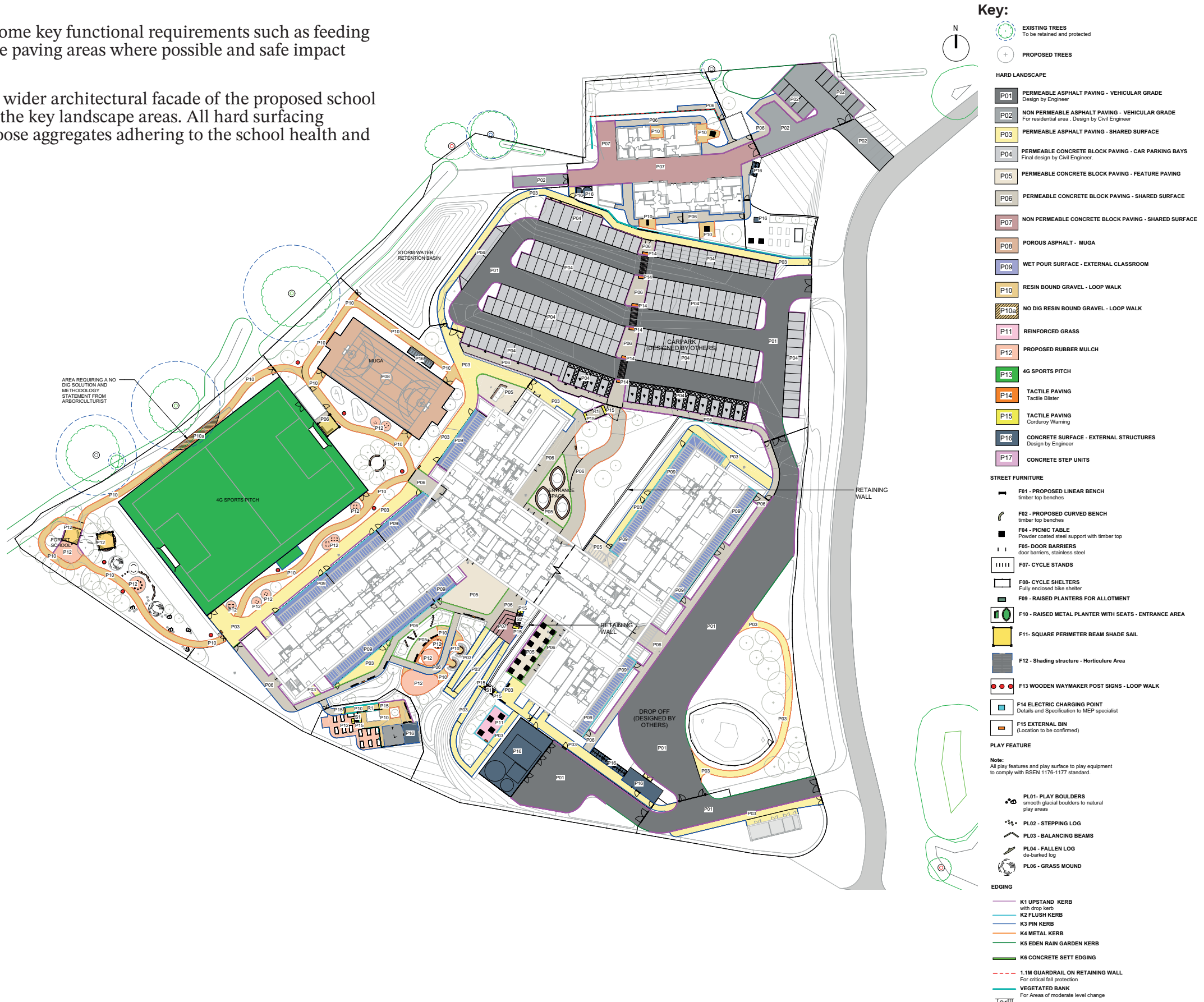
Multi-functional and robust spaces

07: Landscape Design

Hardscape Strategy

The overall hardscape strategy is facilitating some key functional requirements such as feeding into the site drainage strategy using permeable paving areas where possible and safe impact surfacing for key play spaces.

The overall aesthetic aims to complement the wider architectural facade of the proposed school while using the colour palette to differentiate the key landscape areas. All hard surfacing maintains level access and avoids the use of loose aggregates adhering to the school health and safety requirements.



07: Landscape Design

Hardscape Strategy

Hardscape Materials Palette

The aim for the hardscape palette is to provide robust long-lasting materials that are easily maintainable for the school.

The proposed colour palette aims to complement the architectural facade while reducing harsh bright colours that can cause distraction/overstimulation from key landscape features and the way finding system.

- The permeable paving is to combine into the site SUDs system.
- All outdoor classrooms to have safety wet pour surfacing for safety in mind during teaching.
- The tactile paving is placed adjacent ramps/steps and crossings to maintain Part M Building Regulations.
- The rubber mulch surfacing will provide colour and safety for users in focal play spaces.
- The reinforced grass reduces drainage requirements while still providing open spaces for pupils to socialise.



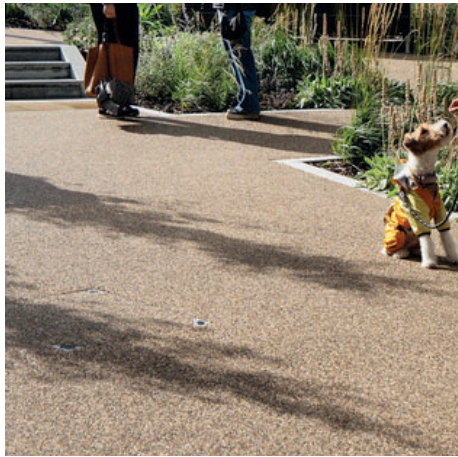
Permeable Concrete Block Paving



Shared Surface Tarmac



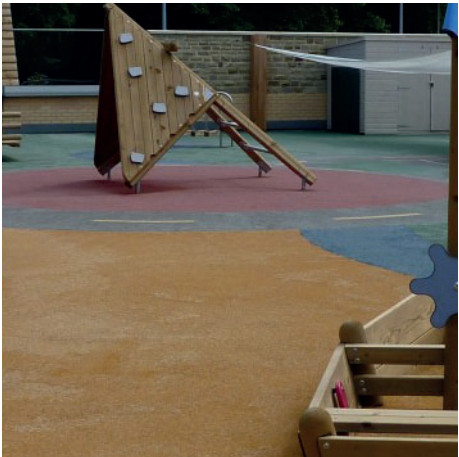
Permeable Feature Block Paving



Resin Bound Gravel



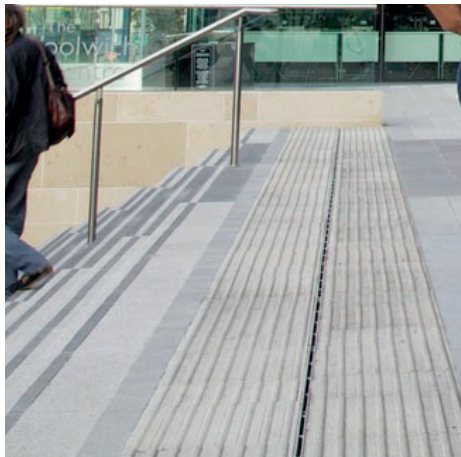
Reinforced Grass



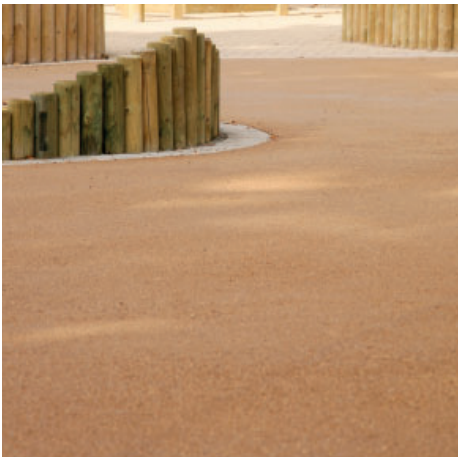
Rubber Mulch



Sports Pitch Surfacing



Tactile Paving



Wet Pour Surface

07: Landscape Design

Softscape Strategy

The overall softscape strategy is to promote a range of different planting types and landscape typologies that encourage learning, relaxation, play and exercise.

The softscape strategy aims to maximise sensory elements for pupils and encourage daily interaction with nature.

The aim of the softscape strategy adjacent the outdoor classrooms is to soften the boundary between the landscape and the building facade.



07: Landscape Design

Softscape Strategy

Landscape Softscape Palette

The aim for the softscape palette is to provide a range of different planting typologies for learning, play, socialising and sports activities.

- The species rich grass and wildflower meadow will provide reduced maintenance requirements and encourage local biodiversity enhancement.
- The sensory planting will be strategically placed along circulation paths and in key seating and relaxing spaces to provide the pupils with increased enjoyment of nature.
- Rain garden planting will be planted in SUDS and retention basins to slow the runoff from rainwater and reduce overall water storage requirements. The planting will provide local habitat improvements for bees, birds and microorganisms.
- Native hedgerows with ornamental species hedges throughout the site along paths, dividing spaces and along shrub planted beds. These will be planted along areas of existing green infrastructure to enhance habitat connections.
- Woodland groundcover will be planted outside of tree RPAs to strengthen and protect existing woodland spaces.
- Native tree planting along with ornamental species for site diversity and species resilience. These will be maximised throughout the landscape design, a diverse tree palette will be proposed to encourage diversity using the principles of Right Tree, Right Place.



“Grow your own” Planting



Formal Hedging



Wildflower Meadow



Rain Garden Planting



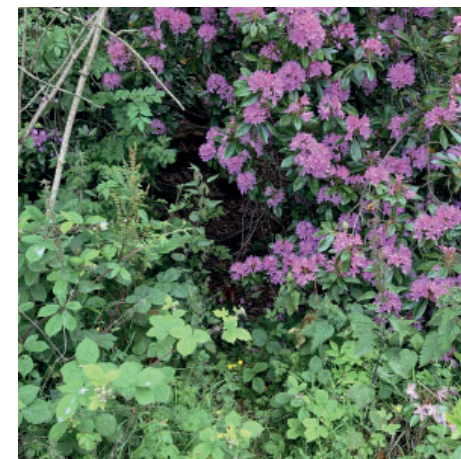
Sensory Planting



Native Hedgerow



Amenity Grass



Woodland Groundcover



Native Tree Planting

07: Landscape Design

Bat/Ecology Strategy

- Along the western boundary of the site, a bat corridor was identified by the project ecologists. This information has influenced the landscape proposal. This factored into the landscape spatial decision making to retain this vital green area.
- Our aim is to have minimal impact on the bat corridor and retain as many trees as possible along the western boundary.
- Our aim is to adhere to the tree protection recommendations set out in the arboricultural report and ensure tree protective fencing is put in place before any construction commences on site.





08 Public Consultation

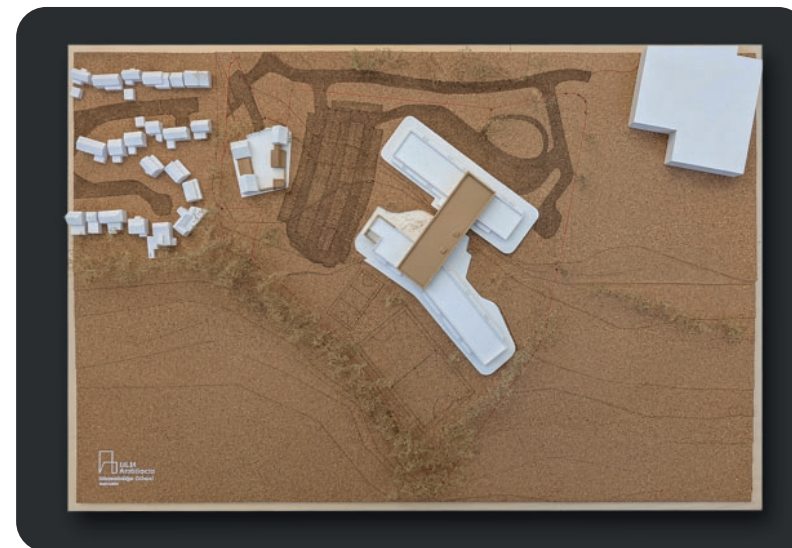
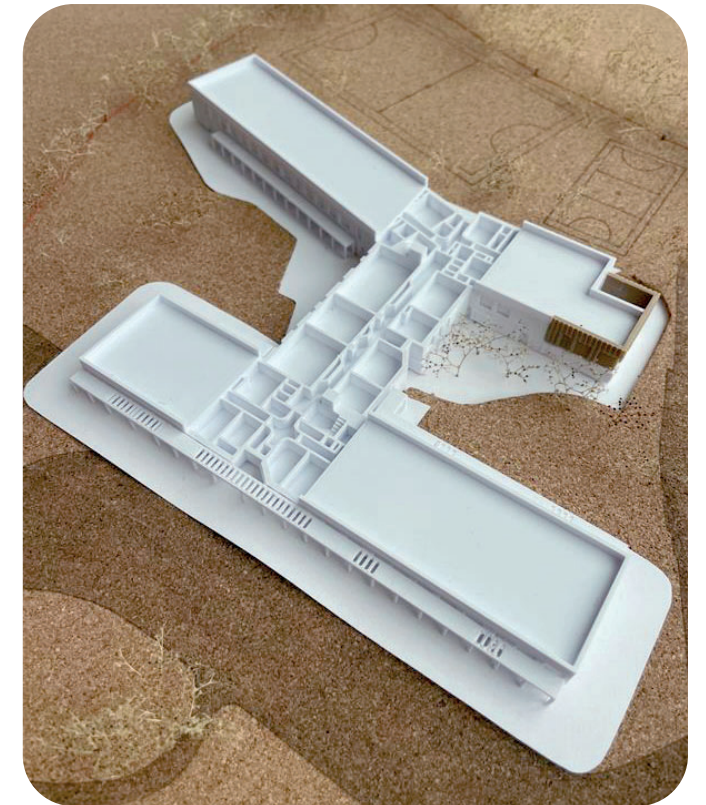
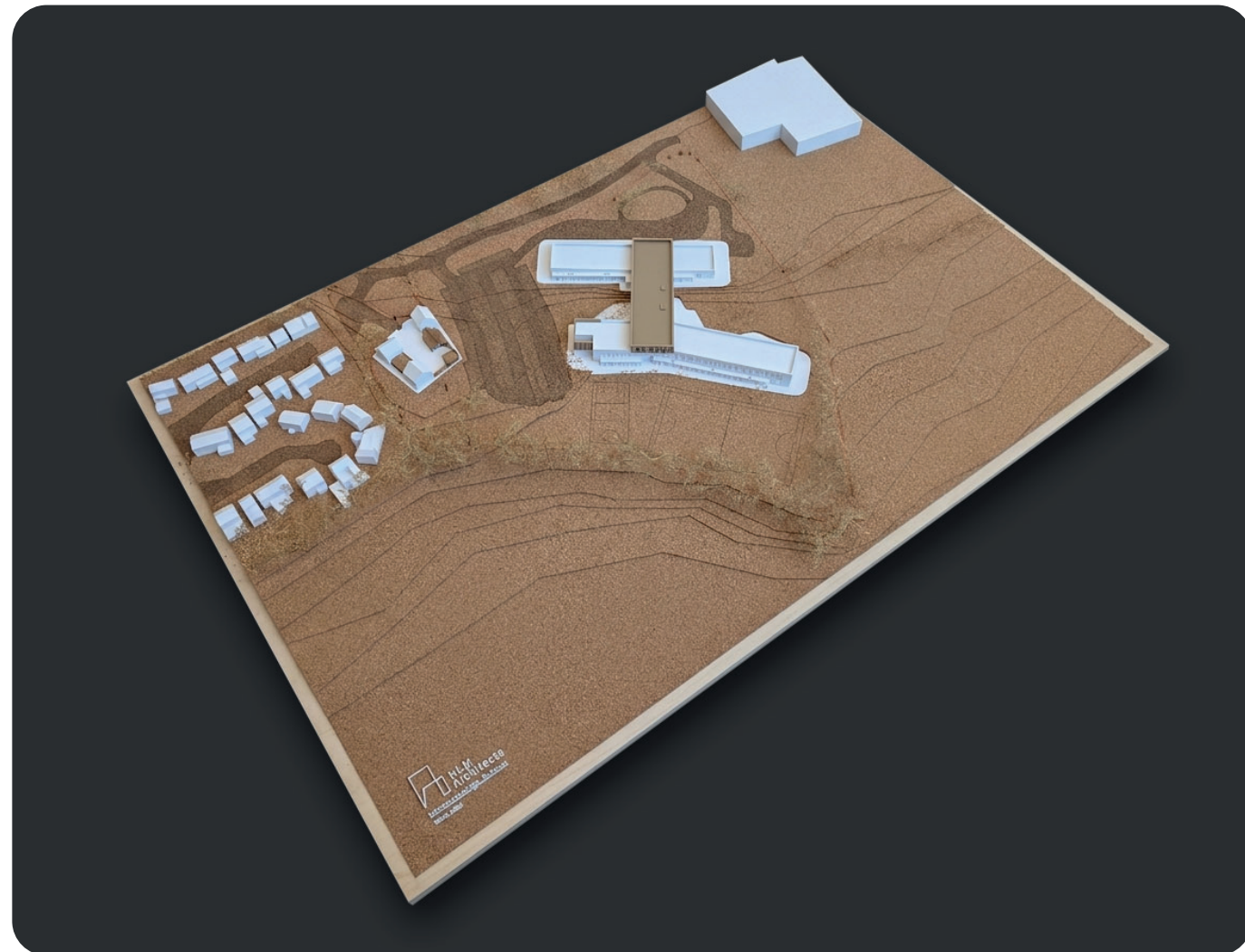
This section summarises the public & school consultation process and presents the key outcomes.

08: Public Consultation

Site Model

The production of a physical model enabled the design team to gain a deeper understanding of the scale and massing of the proposal, providing a valuable tool for design discussions relating to building form, site topography, and the relationship with the surrounding context.

The model also formed a key part of the public consultation process, allowing local residents to identify their own properties and better appreciate the scale, setting, and parameters of the proposed development.



08: Public Consultation Event

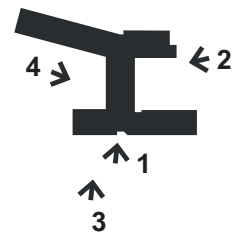
The public consultation was held in April 2026, with members of the design team in attendance to respond to questions regarding the proposed scheme. The event was well attended, with over 40 members of the public participating throughout the session. The majority of attendees were local residents from neighbouring properties.

Overall, feedback was positive, with no objections raised to the school's design or proposed location. The primary concerns related to the proximity of the proposed residential development to existing homes. With residents raising concerns regarding blocking views, overlooking and noise.

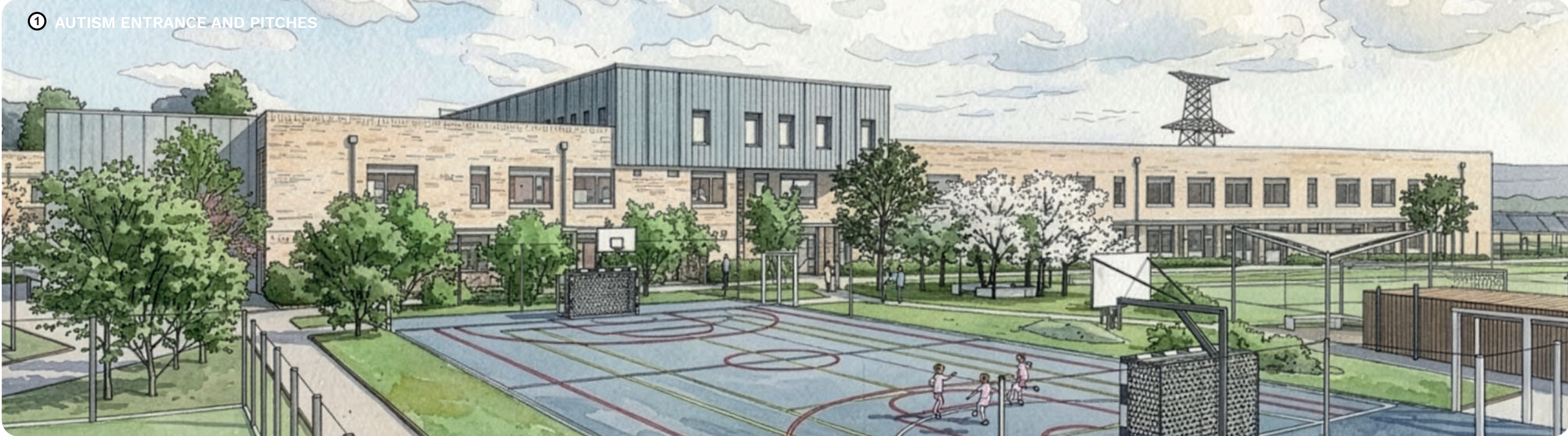
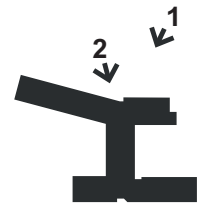
In response to this feedback, the residential element has now been redesigned to help address concerns. A range of options were explored to reorientated the buildings to minimise impact on existing residents.



08: Public Consultation Visuals

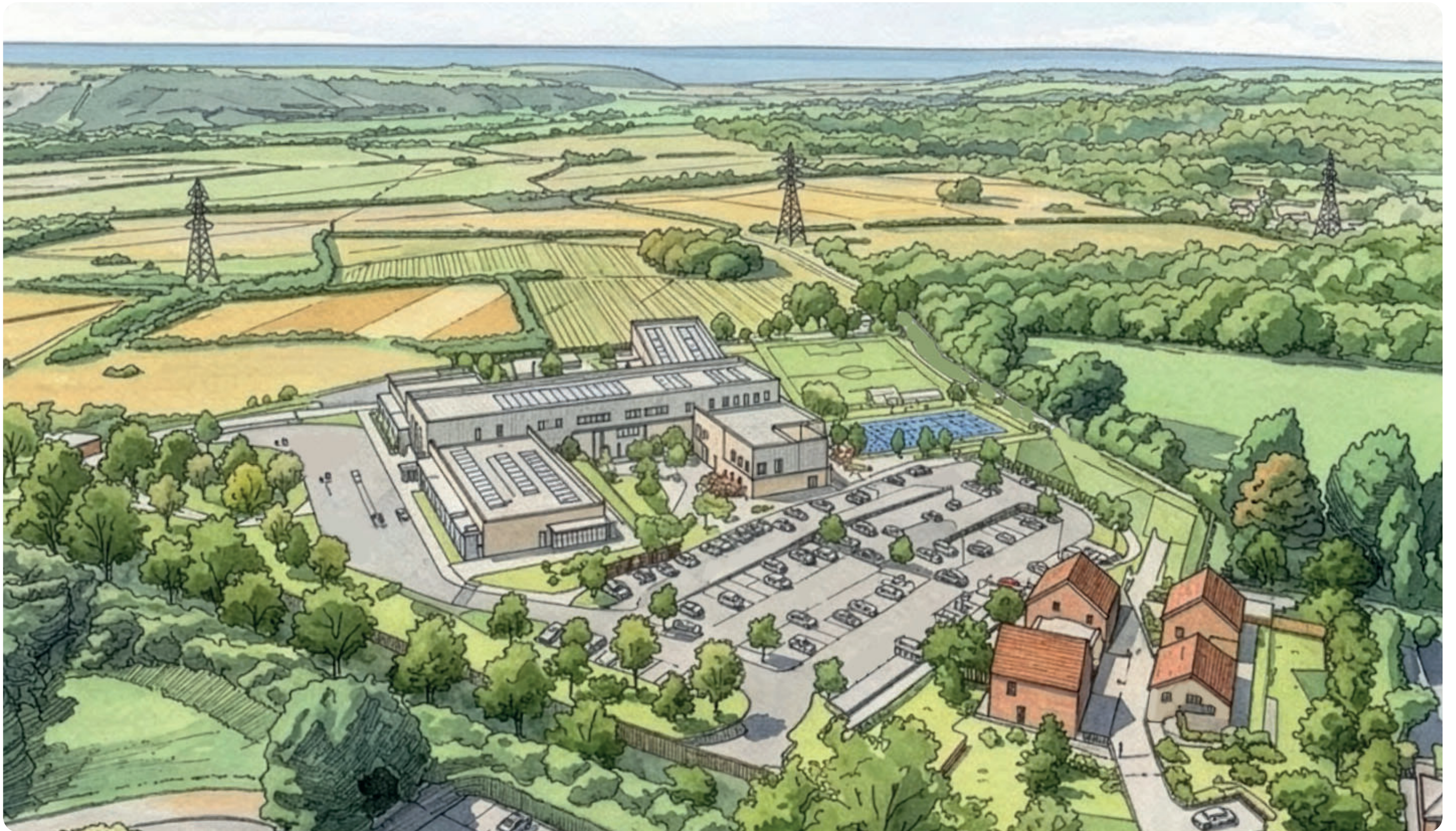


08: Public Consultation Visuals



08: Public Consultation

Aerial View



08: Public Consultation

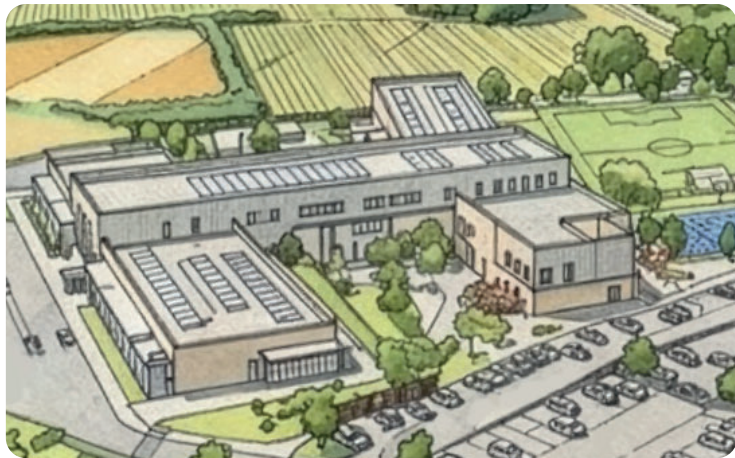
Aerial View



08: Public Consultation Outcomes

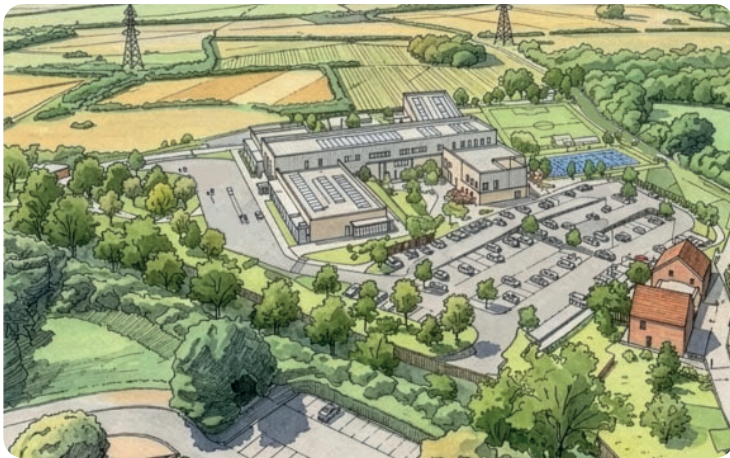
SUPPORT

Support for the scheme was primarily expressed by those with an interest in the school and its future provision.



SCHOOL DESIGN

There was support for the school design and its positioning within the landscape, with the building following the site contours and sitting relatively low within the landscape.



VEHICLE STRATEGY

There were no concerns regarding the access and vehicle strategy, which was viewed as an improvement on previous schemes by positioning access away from neighbouring residents.



RESIDENTIAL DESIGN

The domestic scale of the residential accommodation was welcomed, alongside the inward-facing courtyard arrangement which helps contain and focus noise internally.

CONCERNS

Concerns were primarily raised by neighbouring residents, particularly in relation to the residential element of the development.



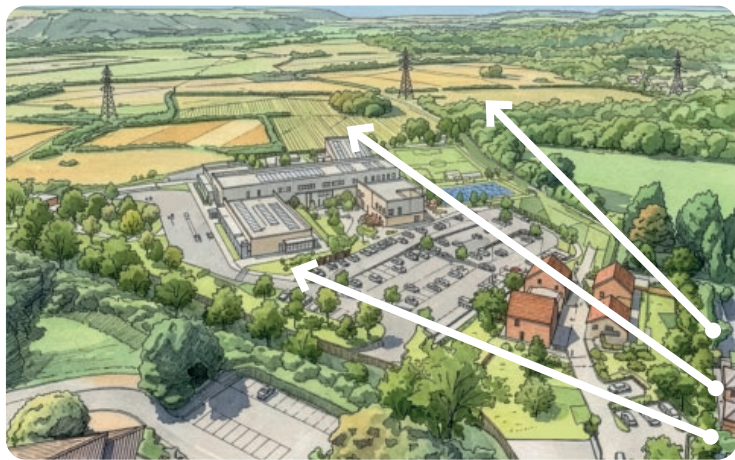
PROXIMITY

A key concern raised by residents was the proximity of the proposed residential development to existing homes, particularly regarding overlooking from upper-floor bedrooms, increased noise levels, and the potential overshadowing of private gardens.



PARKING

Users raised concerns regarding the distance between the residential car park and entrance, noting that the need to drop off children before parking could create management and operational challenges for staff.



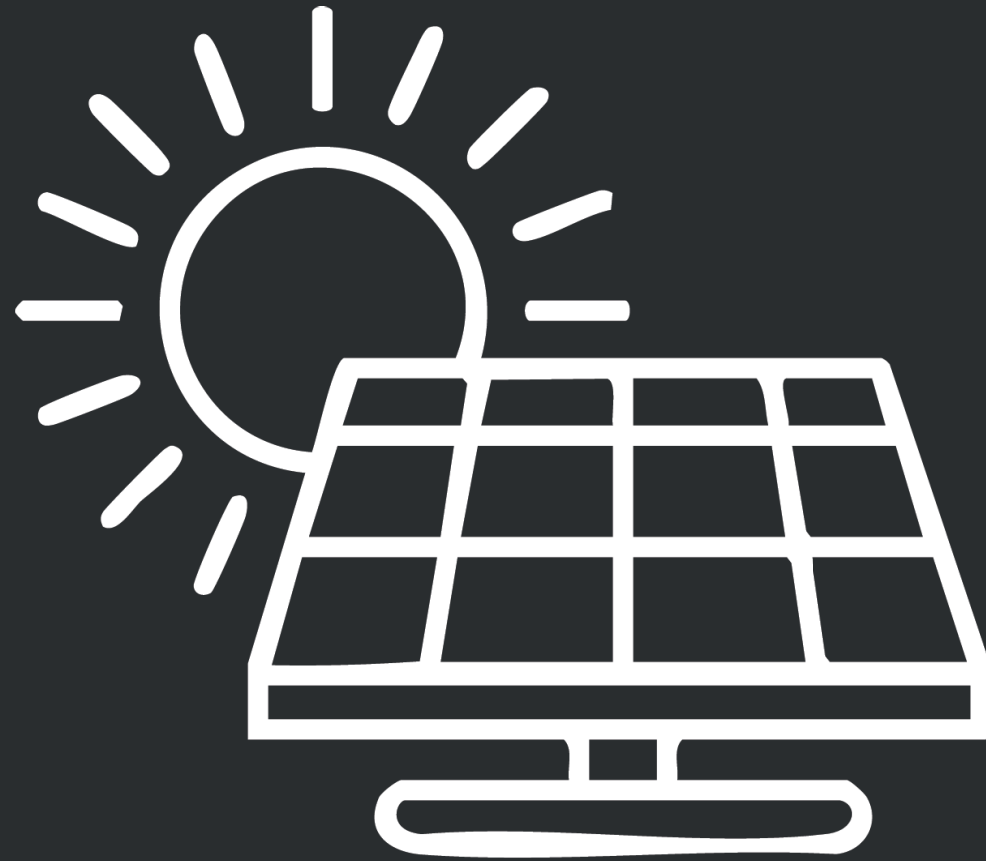
VIEWS

Residents were cornered around the impact of the residential buildings on their existing views across the surrounding countryside.

08: Public Consultation School Event

Throughout the design process, close collaboration with school staff has been vital to ensuring the proposed spaces are fully tailored to their specific needs and operational purposes. In May 2026, HLM and Kier presented the Stage 3 design directly to staff at an in-school event. The exhibition shared the same comprehensive information as the public consultation, providing staff with a valuable opportunity to review the new school design and engage in direct Q&A with the project team.





09 Environmental Sustainability

This section outlines the proposed environmental strategy for the development, to enhance sustainability, reduce energy demand, and improve overall building performance.

09: Environmental Sustainability

Potential Environmental Strategy

Environmental Objectives

In order to reduce carbon emissions, a design philosophy has been developed which outlines how we might design within the natural capacity of the planet. In order to achieve this strategy, the following six objectives have been addressed:

- Carbon emission reduction
- Self sufficient as far as possible, by collecting and reusing water
- Built using sustainable materials
- Able to cope with future climate change
- A positive contribution to the community and the built environment
- Sustainable in operation

This will mainly be achieved through intelligent passive design of the building to ensure that it does not use any unnecessary energy (e.g. for lighting or heating). This principal can be considered as an ‘energy hierarchy’, where passive design should be the first consideration to minimise energy consumption, followed by the use of energy efficient fixtures and equipment. Once the energy demand has been minimised, low and zero energy/ carbon technologies can be integrated into the design.

Measures

The following statements detail the aspiration for the project and they will be investigated further during the next stage of design:

- BREEAM rating of Excellent on the whole scheme - Low Carbon Emissions from the new building. - Maximise the passive design opportunities: orientation, shading and stack effect.
- Use of renewable resources: PV panels, solar hot water, wind energy, etc.

- Natural ventilation, utilised wherever possible (refer to acoustic report).
- Daylight factors to be at least 2 or 3% dependent on storey height.
- Improve by 20% the Best Practice and Building Regulations.
- Minimise waste and the use of water.
- Rainwater harvesting from the roofs for flushing toilets.
- Attention to the natural biodiversity and ecology of the site.
- Water attenuation in the landscape proposals: SuDS.

Environmental Overview

The following is intended as an overview to describe the way in which elements of the environmental strategy could affect the proposed space allocation and architectural articulation.

Acoustics:

Our acoustic strategy ensures that noise sensitive rooms are shielded from the traffic noise by their location towards the south of the site, furthest from the main road, thus allowing natural ventilation opportunities to be maximised.

Daylighting:

Daylight studies will be carried out by electrical engineers to ensure we achieve a factor of at least 2 or 3% throughout the classrooms. Further studies that take account of the benefits of orientation including maximising north facing natural light and the associated luminance will be undertaken over the following stages.

Thermal Comfort:

This is mainly achieved by means of convection

and radiation although evaporation does contribute to this process. Convection is largely realised through ventilation and we will design all rooms with cross ventilation both at ground and first floors. Convection also exchanges heat when the internal air is in contact with exposed high density materials such as concrete. Radiation is usually appreciated by heat loss from occupants - known as coolth. Radiated heat is also absorbed from internal heat emitters such as computer screens.

Ventilation:

In essence, two basic environmental conditions exist within the school building: Naturally ventilated areas and mechanically ventilated/ comfort cooled areas.

The responsiveness of mechanical systems will regulate the environments and will provide adequate and adaptable comfort cooling.

Renewable Energy:

As part of the school’s sustainability strategy, the new building will employ renewable technologies as a means of ‘green’ energy pollution, further reducing its impact on the environment. This sustainable approach will ensure a low energy supply of heating and cooling within the school. We will investigate the potential for the use of renewable technologies such as ground source heat pumps and solar collection.

Environmental System

Each of the listed systems has been investigated by the design team and user groups, to assess their suitability for the integration into the scheme. Elements such as cost, maintenance and suitability as well as planning issues have been taken into account.

In order to achieve a minimum BREEAM rating of ‘Excellent’ for new build elements we must look at various environmental systems to reduce the

amount of fossil fuels and nuclear power used in the building, ultimately reducing the size of the carbon footprint.

Natural Ventilation

Natural ventilation is a key aspect of a building which helps maintain an occupant’s healthy comfort levels, providing oxygen and reducing odours, pollution and internal temperatures. The building footprint has been designed around a shallow floor plan, so each classroom can be naturally ventilated with windows at the side. As the internal air heats up it rises and escapes through high level openings, creating a negative air pressure inside the building which draws in cool air from the outside. In some areas of the building, mechanical ventilation will still be needed to achieve the required rate of air changes in workshops, kitchens and toilets as required by Building Regulations.

Solar Power

Being sourced from outside of the earth, solar power is the ultimate sustainable energy tool. General continuing silicon semiconductor technology, photovoltaic cells absorb photons from direct or diffused sunlight and convert them into direct current electricity.

The optimum orientation for PV cells connected to the grid is due south with a tilt from the horizontal. However an equal east-west arrangement provides a more constant supply throughout the day, aligning with school occupancy hours. 100 kWh per annum can roughly be produced from one metre of a mono-crystalline array in the south of the UK. Although photovoltaic cells are still relatively expensive, their costs are lowering. Solar power can also be harnessed by producing hot water, this system has an earlier capital ‘payback’ than those previously mentioned.

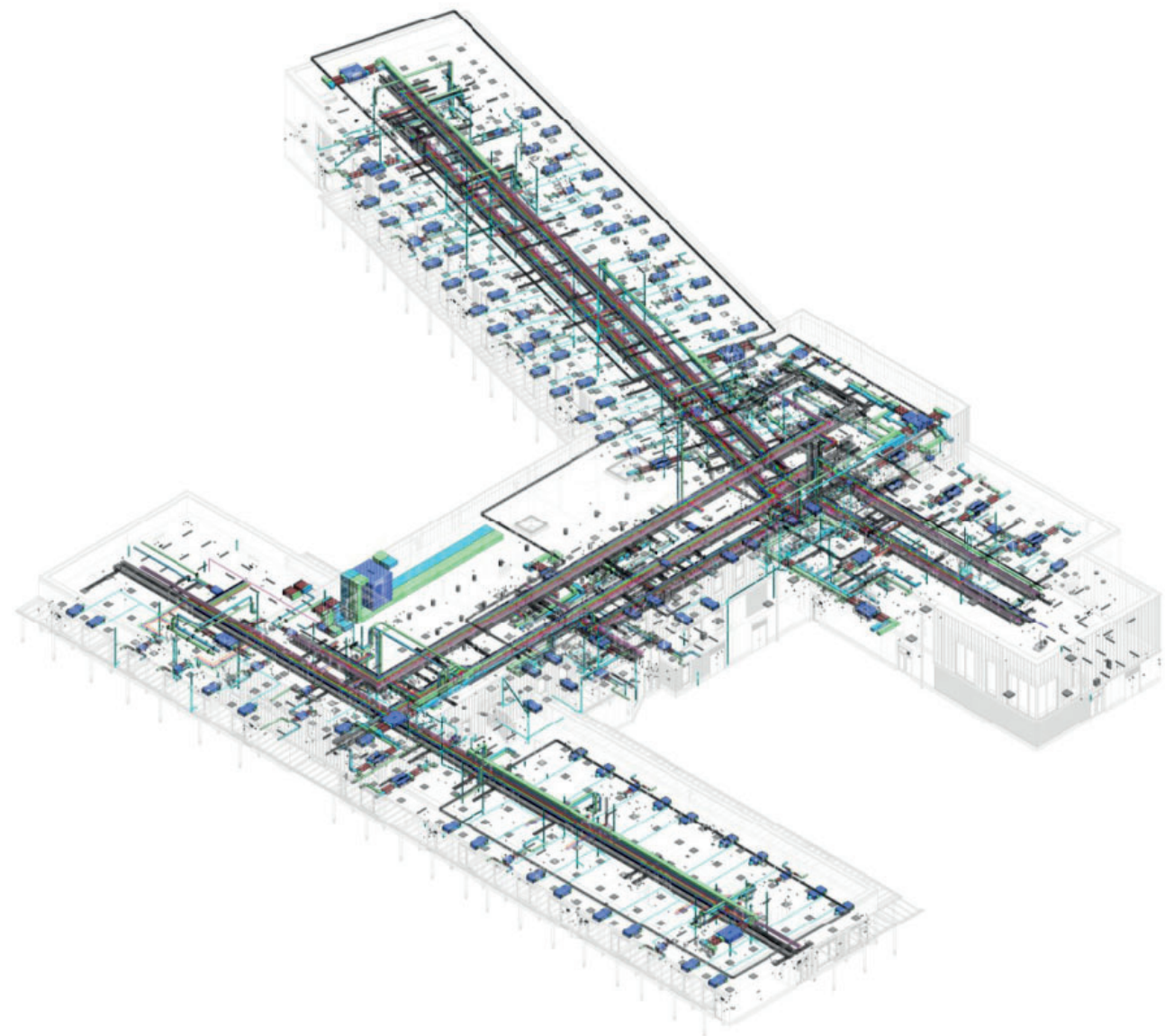
09: Environmental Sustainability

Ventilation & Heating

The environmental design of the school has been developed as an integrated, low-energy strategy that prioritises comfort, air quality and long-term operational efficiency. A mixed-mode ventilation approach is adopted, with hybrid systems serving teaching spaces to balance natural airflow with mechanical assistance, responding dynamically to CO₂ levels and temperature to maintain a healthy internal environment. More enclosed or specialist areas, including offices, hygiene spaces and the pool hall, are supported by mechanical ventilation with heat recovery and dedicated air handling systems, ensuring consistent performance where greater environmental control is required.

Heating is delivered through a low-temperature hot water system powered by air source heat pumps, enabling a fossil fuel-free approach aligned with the project's sustainability ambitions. Underfloor heating forms the primary method of heat distribution, providing a stable and comfortable internal environment while operating efficiently at lower temperatures. This is supported by heating coils within ventilation systems to temper incoming fresh air. The system is carefully zoned and coordinated, with variable speed pumps, intelligent flow control valves and buffer systems ensuring responsive and efficient operation across the building.

All environmental systems are integrated through a central building management system, allowing continuous monitoring and optimisation in response to occupancy and external conditions. The overall approach is robust yet flexible, with coordinated plant distribution, protected external equipment and carefully considered servicing routes ensuring the strategy is seamlessly embedded within the architectural design.



Above: Overview of coordinated services courtesy of McCann & Partners

09: Environmental Sustainability

BREEAM

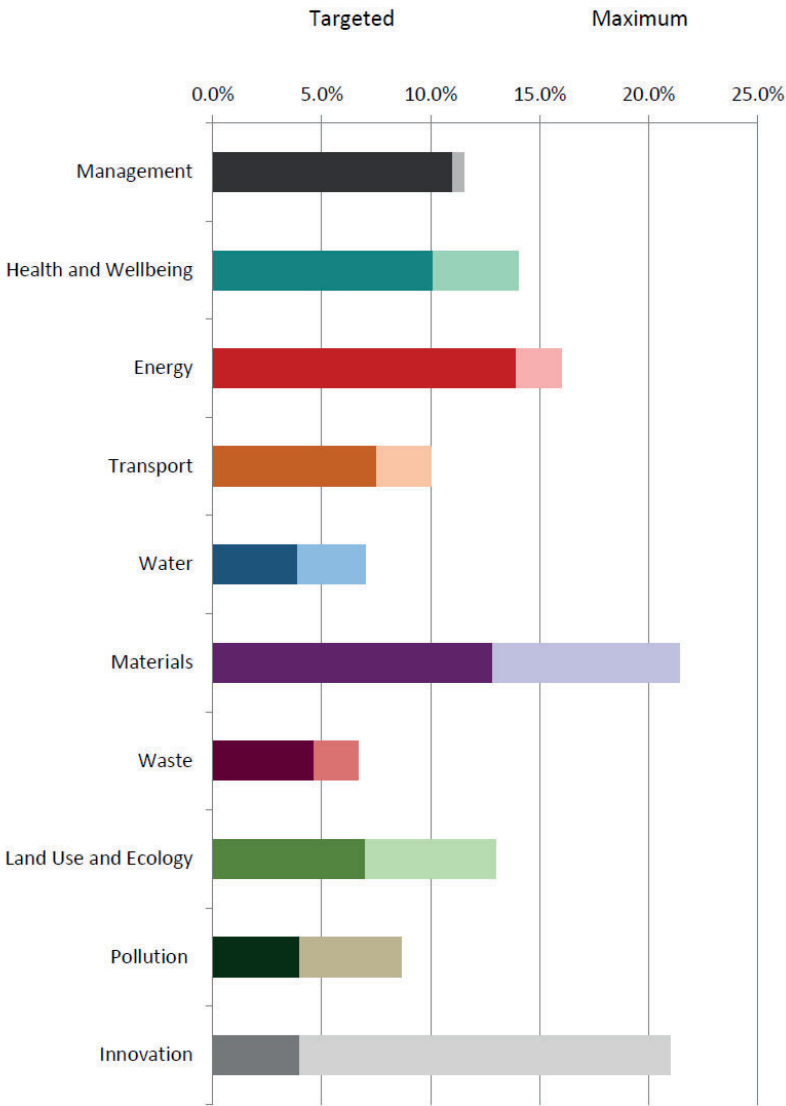
BREEAM ‘Excellent’

The development is committed to high standards of environmental performance, targeting a BREEAM ‘Excellent’ rating in accordance with Welsh planning requirements.

The assessment, currently being undertaken by McCann and Partners, utilises the BREEAM New Construction V6: Public (non-housing) - Bespoke criteria to reflect the specialized nature of the 300-place facility.

The project has established a robust target score of 78.94%, providing a significant 8.94% buffer above the ‘Excellent’ threshold to ensure the rating is maintained throughout the delivery phases. This strategy is supported by a diverse credit profile across categories such as Energy (13.91% targeted), Health and Wellbeing (10.11% targeted), and Materials (6.43% awarded), with further potential to reach an ‘Outstanding’ rating as ‘possible’ credits are reviewed during the design progression.

To ensure these sustainability ambitions are met, comprehensive documentation has been issued to the project team to coordinate the design stage submission and embed these low-energy principles into the architectural fabric.



Above: BREEAM targets courtesy of McCann & Partners

09: Environmental Sustainability

Solar Power

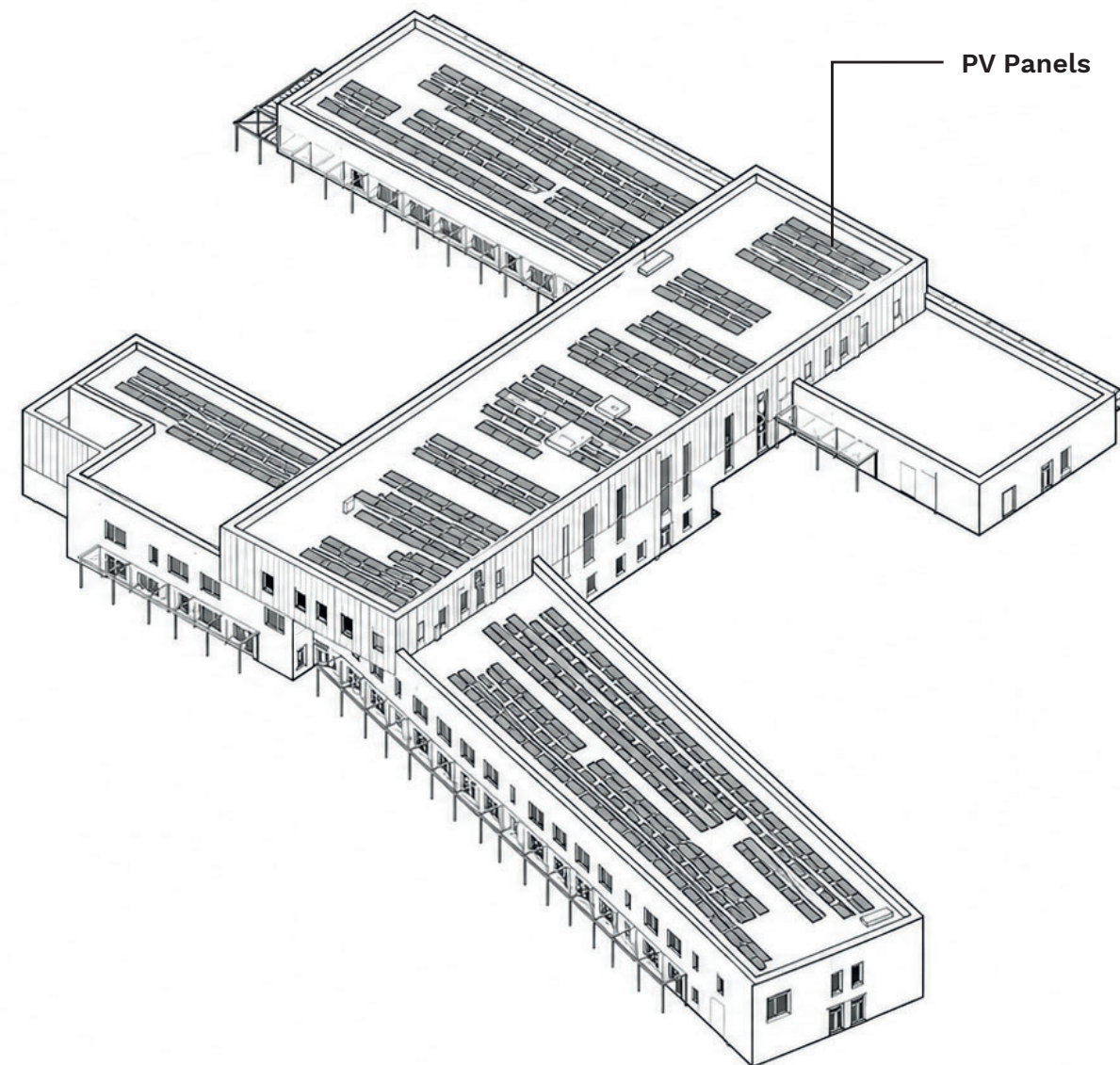
Bauder BioSOLAR photovoltaic Solutions

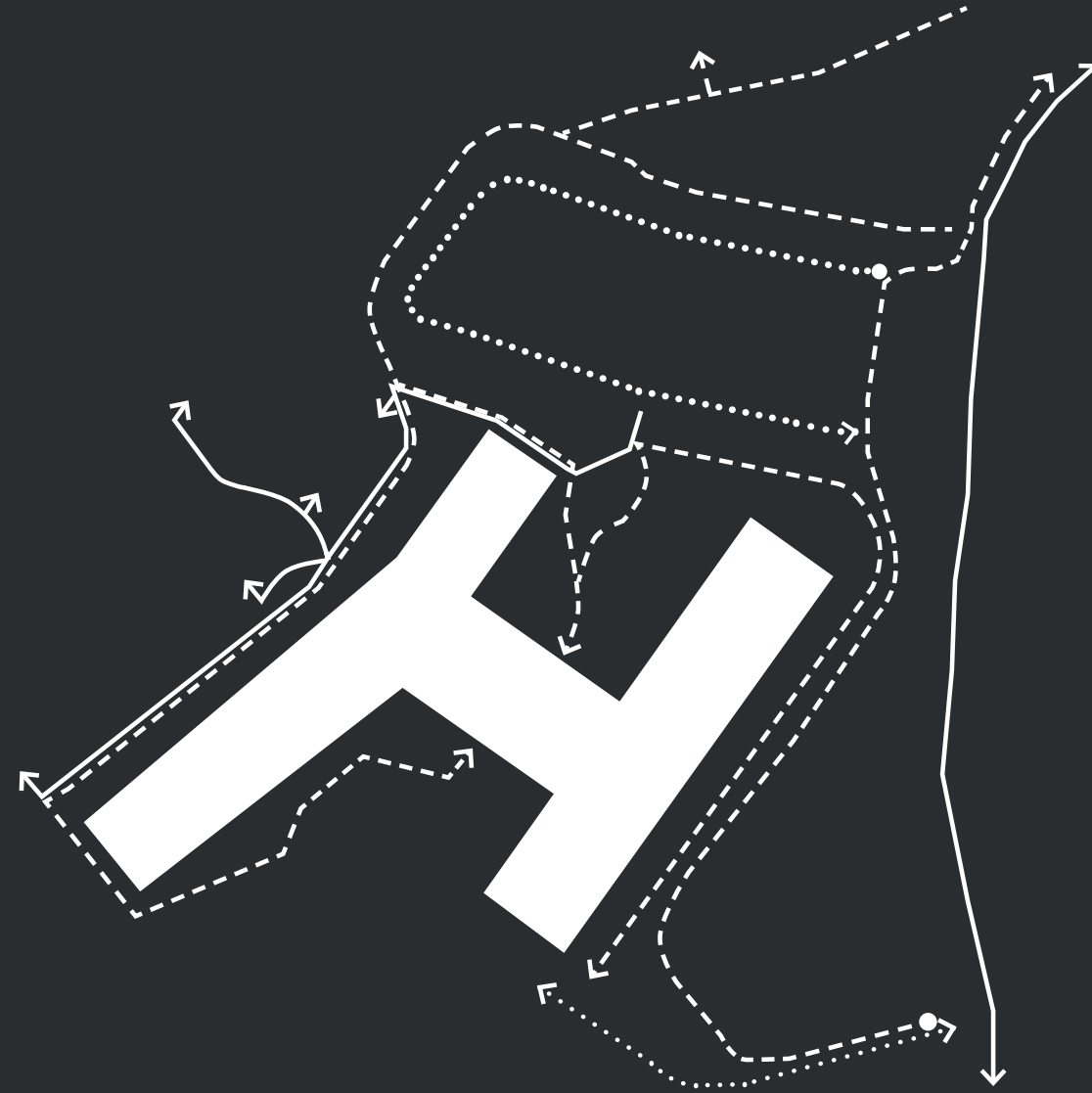
A Stage 3 photovoltaic assessment, informed by TM54 operational energy modelling, has been undertaken to evaluate the extent to which on-site renewable energy can offset the development's predicted energy demand.

The scheme has been designed to maximise roof-mounted PV provision within the constraints of the building layout, achieving an installed capacity of approximately 327 kWp and generating circa 267,000 kWh/year at Year 10. This equates to an on-site offset of approximately 40% of the total predicted operational energy demand (647,470 kWh/year).

While this represents a significant contribution towards the project's net zero carbon in use aspirations, a residual shortfall remains due to limitations in available roof space and coordination requirements.

As a result, additional measures, including PV carports, ground-mounted arrays, building-integrated photovoltaics, and potential off-site renewable energy solutions are being explored to further reduce the carbon impact of the development.



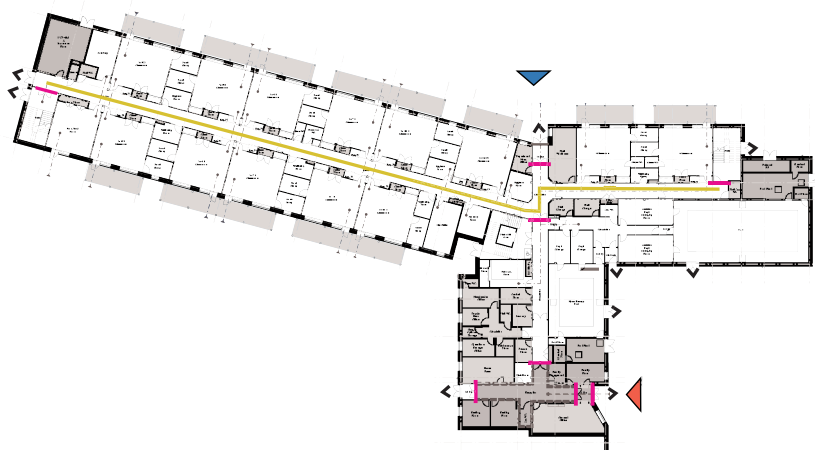


10 Access Statement

This section sets out the access strategy for the site, including arrangements for site access, security measures, and building access during both school hours and out-of-hours use.

10: Access Statement

Building Access & Security – School Hours



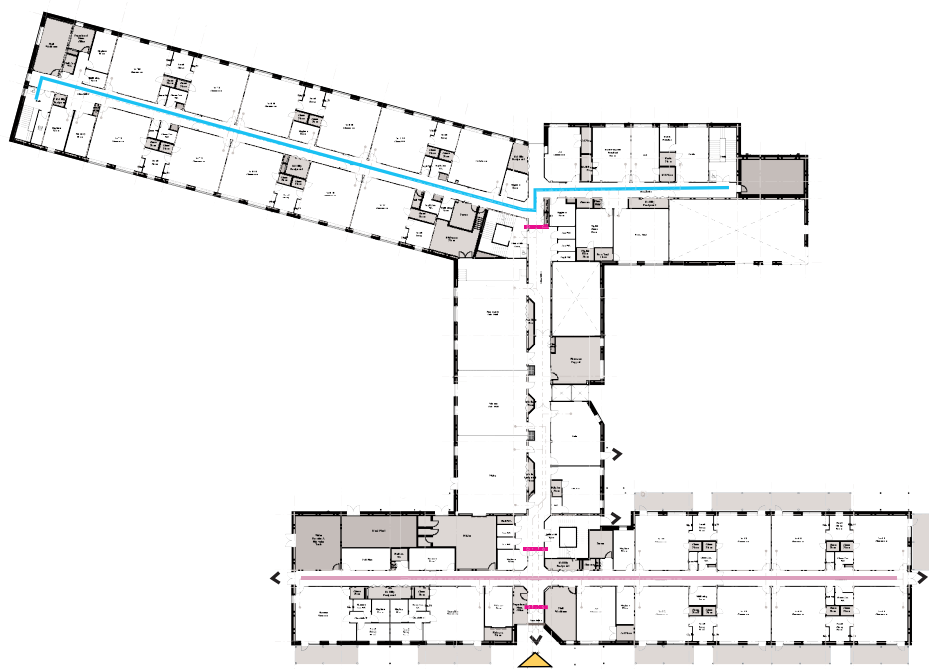
Lower Ground Floor

Key

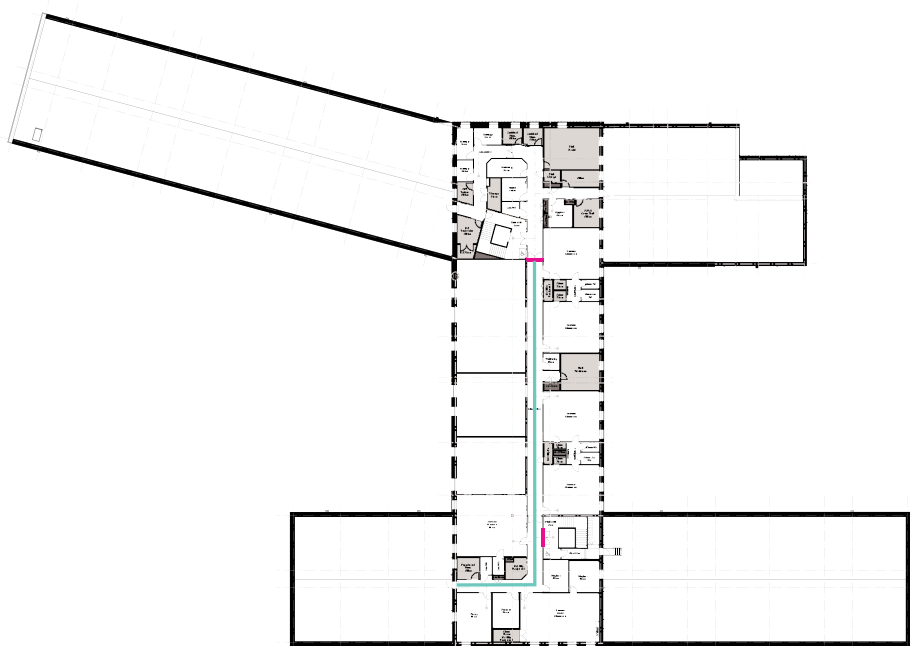
- Staff Access Only
- Maintenance Access Only
- Secure Lines
- Emergency Exits

- Centre for Autism Circulation
- Primary Circulation
- Secondary Circulation
- Leavers Circulation

- Centre for Autism Entrance
- Main Entrance
- Primary Entrance



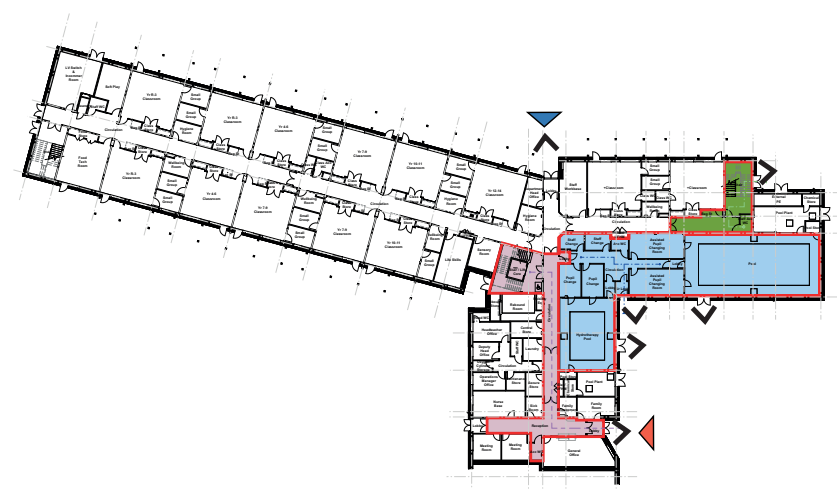
Ground Floor



First Floor

10: Access Statement

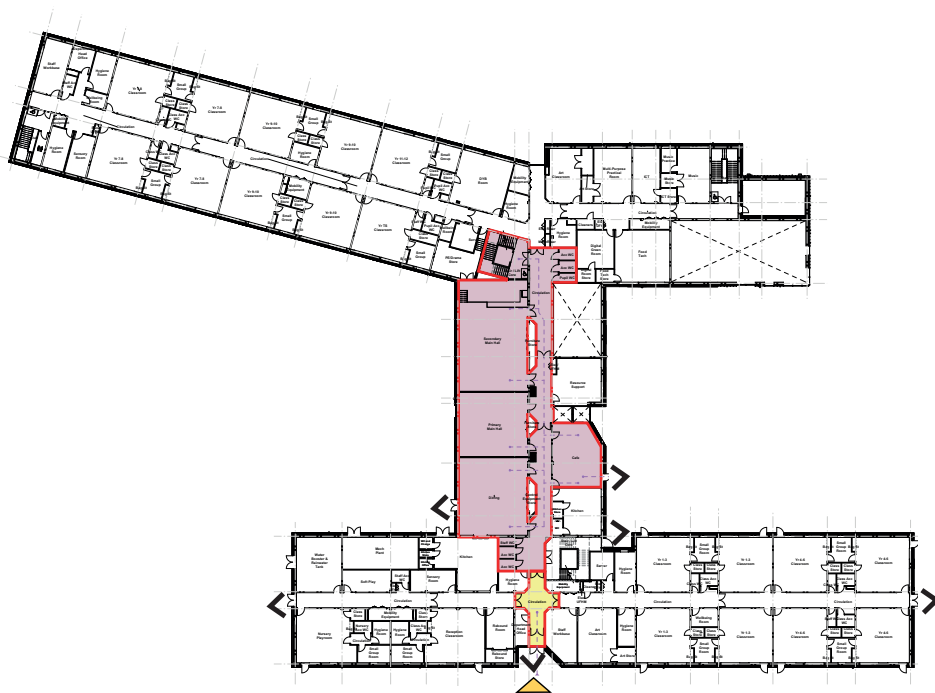
Building Access & Security – Out of Hours



Lower Ground Floor

Key

- | | | | |
|---|----------------------------|---|----------------------------|
|  | Community Access |  | Centre for Autism Entrance |
|  | Potential Community Access |  | Main Entrance |
|  | Community Pool Access |  | Primary Entrance |
|  | Community Sports Access |  | Emergency Exits |



Ground Floor



Thoughtful design.
It's in our nature.