DESIGN AND ACCESS STATEMENT

OCTOBER 2018

TURING HOUSE SCHOOL

HOSPITAL BRIDGE ROAD

TWICKENHAM

Turing House

Education & Skills Funding Agency

Bowmer & Kirkland

dpp

couchperrywilkes

curtins

ares LANDSCAPE ARCHITECTS

STRIDE TREGLOWN

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1 / EXECUTIVE SUMMARY

1 / EXECUTIVE SUMMARY

Bowmer & Kirkland have been commissioned by the Education & Skills Funding Agency **(ESFA)** to develop a scheme for a secondary school within the London Borough of Richmond upon Thames **(LBRuT)**. This Design and Access Statement supports the formal planning application submission and has been prepared by architects Stride Treglown with input from other members of the project team, including Ares Landscape Architects and Service Engineers Couch Perry Wilkes. DPP Planning are acting as Planning Consultants and are leading the planning process.

The site for the proposed Turing House School (THS) is an area of Metropolitan Open Land (MOL) accessed via Hospital Bridge Road, Twickenham. The site was most recently utilised by the adjacent Sempervirens nursery for parking and informal storage. The site, which is approximately 6.6 hectares, will accommodate THS within a consolidated new building designed to minimise impact on the open MOL character. THS will be a mixed secondary school for students aged 11-18 years, and will provide 1050 new places overall; 750 places for years 7-11 and 300 places for the sixth form. There will be 150 students per year group, with class sizes of 30 students.

The works associated with this application includes:

- Construction of Teaching Block, containing general and specialist teaching, performance and catering facilities.
- Construction of joined Sports Block containing sports facilities and configured to support Community Use.
- The provision of new trees and high quality soft landscaping, hardstanding, games court areas, and external dining
- Bicycle, visitor and staff car parking, servicing zone, and bin store
- New secure boundary fencing
- Associated highways and access works.
- The dedication of an area of land as public open space, as an extension to Heathfield Recreation Ground.

The development of Turing House School is part of the Government's Free School Programme, delivered by the ESFA Contractor's Framework, which creates new schools to address the need for pupil places. The basic need for secondary school places in the London Borough of Richmond is recognised by the local authority - without Turing House School, Year 7 demand would overtake capacity in 2018, and even with the school, capacity will be overtaken in 2019. Therefore, this rising demand provides significant justification, not only for the proposals for Turing House School but also the further expansion of secondary school places as a whole in the Borough. As the school has already opened in temporary accommodation, it is important that a permanent home is found as the current split site arrangements will reach capacity in 2020.

The proposal will create a new facility to offset some of this pupil place shortfall, providing an inspiring learning environment that will support all students to achieve their academic and social potential. Turing House is part of the Russell Education Trust, an organisation with four other existing schools in London and the Southwest. The school was judged by Ofsted to be Good with Outstanding features in June 2018. Subject to planning permission, the school will open in its permanent site for the September 2020 intake.

The proposals in this document have been guided by consultation with local residents, planning officers and the client's advisors. The design presented is intended to represent the sympathetic development of the Hospital bridge Road Site into a cohesive, modern school that retains, enhances and celebrates the unique character, community and identity of this MOL site.

Proposed Front Entrance View

Proposed Rear Playground View

Building Areas

Total Internal Area:	**8236m²**

Site Areas

Building Footprint:	**3800m²**
Vehicle Hard Surface:	**1900m²**
Pedestrian Hard Surface:	**3100m²**
MUGA:	**2000m²**
Grass:	**32855m²**
Planting:	**3945m²**
Public Open Space:	**18000m²**
Total:	**65600m²**

Proposed Development Summary Table

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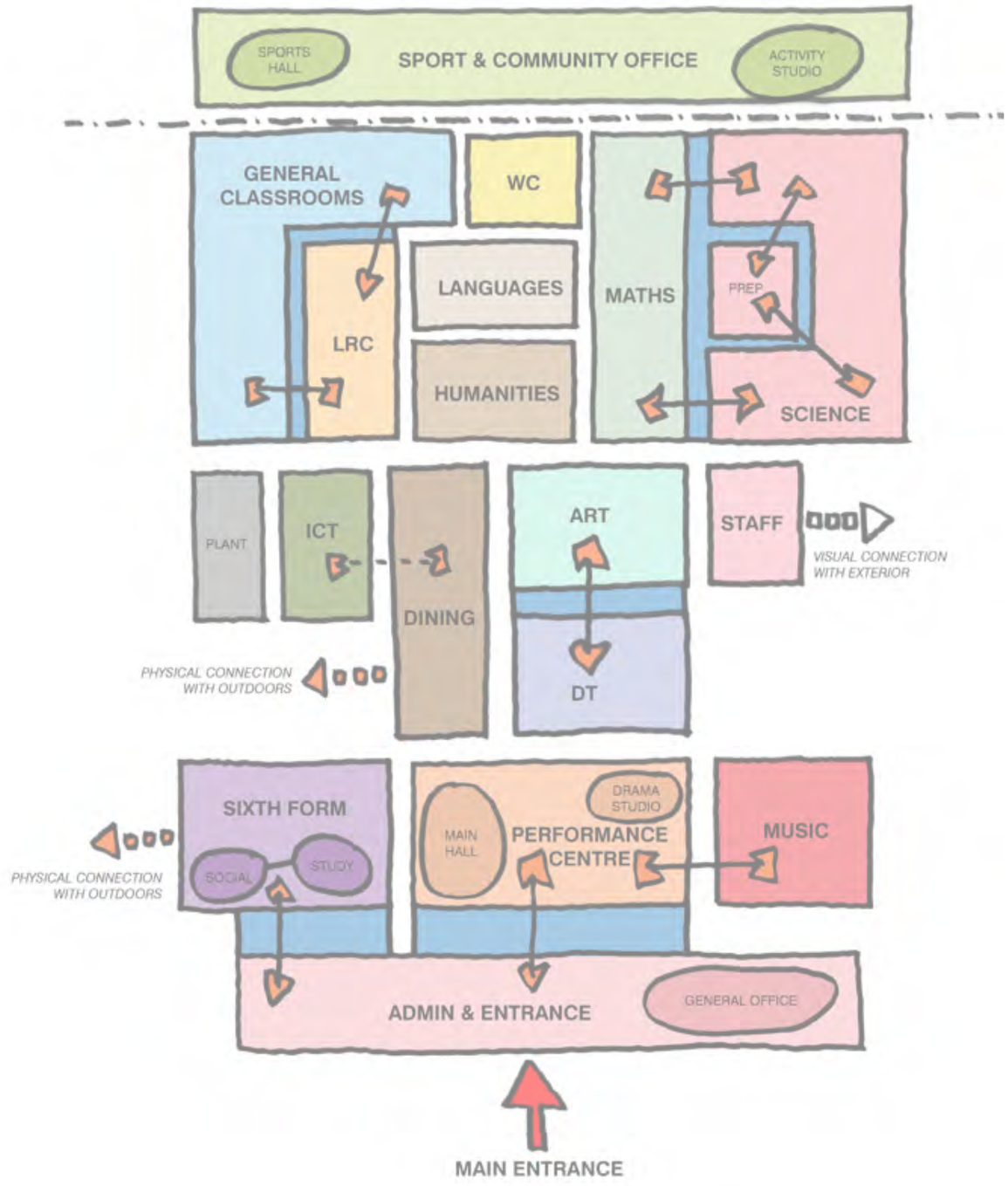
2 / THE BRIEF


SPORTS HALL
SPORT & COMMUNITY OFFICE
ACTIVITY STUDIO
GENERAL CLASSROOMS
WC
LRC
LANGUAGES
HUMANITIES
MATHS
PREP
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PLANT
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SIXTH FORM
SOCIAL
STUDY
PHYSICAL CONNECTION WITH OUTDOORS
MAIN HALL
DRAMA STUDIO
PERFORMANCE CENTRE
MUSIC
ADMIN & ENTRANCE
GENERAL OFFICE
MAIN ENTRANCE

2 / THE BRIEF

2.1 / Core Brief and Vision (Overview)

The main intention of the design throughout has been to establish a permanent site for THS within new build, purpose built accommodation to provide a modern teaching environment that accommodates and respects the specific attributes of the school and site. The school specific brief was reviewed as part of a consultation and engagement process, which began in February 2018, and evolved during the design period. This was considered alongside the ESFA's Schedule of Accommodation and Area Data Sheets, the Control Option, Building Regulations and Building Bulletins where relevant.

The briefing documents given to contractors and their architects within the design development process comprise a suite of documents, the most significant of which is the Output Specification (OS), which sets out the ESFA's requirements for new school buildings. The OS places a strong emphasis on the quality of the internal learning environment, particularly in terms of daylighting and ventilation in order to provide the best possible environment for learning.

2.2 / Turing House School Educational Design Brief

The Russell Education Trust (RET) will operate the proposed secondary school. RET is a not-for-profit charitable trust. It is sponsored by the directors of Education London (EL), an educational consultancy that, between 2003 and 2017, worked in partnership with a number of outstanding schools and academies to support the implementation of best practice in schools nationally. RET uses the experience of EL, and all their trustees and partners, to work with parents, communities, and diocesan authorities to establish and run new Free Schools. RET Free Schools are inclusive comprehensives with the highest possible academic standards, serving their locality and working as part of their local family of schools.

The educational vision and values for Turing House School are defined in the school specific brief as:

"an outstanding and inclusive school, with a clear focus on high performance for children from 11-18. We will instil good behaviour and attitudes towards others as the basis for excellence at every stage of school life. Our school will enable children from all backgrounds to make exceptional progress. It will attract and retain outstanding staff and support them to inspire our pupils".

The School's Vision and Values are summarised below:

1. *Support all students to achieve their academic and social potential*
2. *Provide a special focus on science, engineering and music*
3. *Provide a caring environment where staff know the children by name*
4. *Encourage parental engagement*
5. *Encourage Responsibility for Self and Others*
6. *Be a resource for the local community*

The school will ultimately house 1050 students, including a 300 place sixth form, together with all necessary associated car parking, access routes and hard and soft play areas. The school will expect to employ around 100 full time equivalent teaching staff. Sports pitches will be provided on site as part of the school's grounds.

The core requirement for Turing House School is the provision of a faculty based school focusing on academic excellence within core subjects. An important aspect of the curriculum will be science, engineering and maths as school specialisms with overlapping themes, benefitting from collocation of facilities.

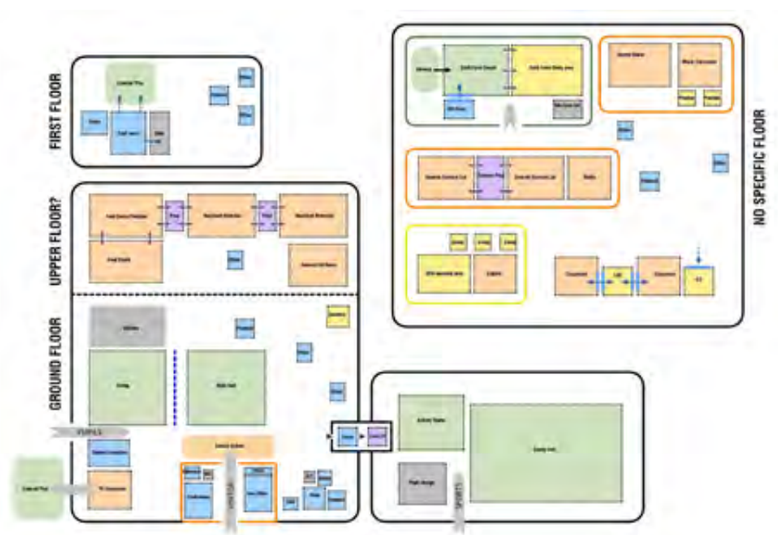
It is the Trust's vision for dining and sixth form to be at the centre of the new school, providing a clear heart to the building. The Trust required the layout and design of the sixth form area to reflect the transition being made from child to adult and the "status" of the sixth form cohort as "seniors" in the school able to think independently and act as example to the rest of the school.

The Trust also required a performance centre at the centre of the school that comprises modern, leading facilities to enable the school to produce performances and allow community, exam and assembly uses. The hall has been collocated with the activity studio to allow for future connection between spaces to be made.

Specific requirements of the Trust's educational vision for the school were identified as follows:

- Maths and Science to be collocated to enable collaboration
- Sixth Form design to reflect their special position within the school.
- Learning Resource Spaces to be distributed to enable flexibility and dynamic learning.
- The design must seek to make the most of the open identity of the site, supporting access to the grounds for pupils as an inspirational asset.

Initial Drawn Schedule of Accommodation



Proposed Adjacency Diagram

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3 / DESIGN PROCESS

3.1 / Site Location and Context

The proposed site for Turing House School is an area of Metropolitan Open Land located off Hospital Bridge Road in Whitton, situated to the north of the London Borough of Richmond. The site is bounded by railway and residential properties to the north, Borough Cemetery to the west, Heathfield Recreation Ground and Sempervirens Plant Nursery to the South and Hospital Bridge Road (HBR) to the east. HBR is the main thoroughfare passing the site and will form the primary access into the site for vehicles and pedestrians. HBR slopes up as it passes the proposed school site, passing over a humpback bridge just to the north of the site access.

Sempervirens Nursery
Part of the site is tenanted by Sempervirens nursery - a plant nursery and landscaping business. The nursery currently informally utilises some of the MOL for parking and storage (as shown on the site aerial photograph opposite). The school project will ensure that the nursery remains in operation on site throughout construction and after the school's completion. Suitable measures have been proposed to ensure that the existing access from Hospital Bridge Road can be appropriately managed to be safe for school and nursery uses.

Local Schools
There are four schools located within the context of the proposed THS site; Bishop Perrin Primary School, St Edmunds Primary, Heathfield Junior and Twickenham Academy. The presence of these nearby schools and the potential impact of the proposed THS has been carefully considered and mitigated within the school's admission policy and proposed highways and access strategies.

Metropolitan Open Land
Turning House School and the ESFA have been seeking a permanent site for the school for a number of years. Sites of the size required to accommodate the school are not easily available within the western half of Richmond upon Thames. It is acknowledged that the current site is MOL (presumption against inappropriate development) but in other aspects it is relatively unconstrained (no designation as public open space, playing fields or a site of nature conservation importance) and our assessments have identified that there are no less constrained sites than this in western Richmond upon Thames which are available in the short term and viable for a secondary school use. Please refer to separate sequential site testing report for further information.

Site Location Map

Extract from Richmond Council Local Plan

Local Policy Map Key

- Green Belt
- Metropolitan Open Land
- Public Open Space
- Other Open Land of Townscape Importance
- Locally Significant Site
- Proposed area for tree planting
- Primary or Secondary road
- Local distributor road / Crown road
- Borough boundary

3 / DESIGN PROCESS

Existing site aerial view with boundary line and view markers

1 / Existing access from Hospital Bridge Road to Sempervirens Nursery

2 / Access onto proposed site

3 / DESIGN PROCESS

3 / Road bridge over railway line to north

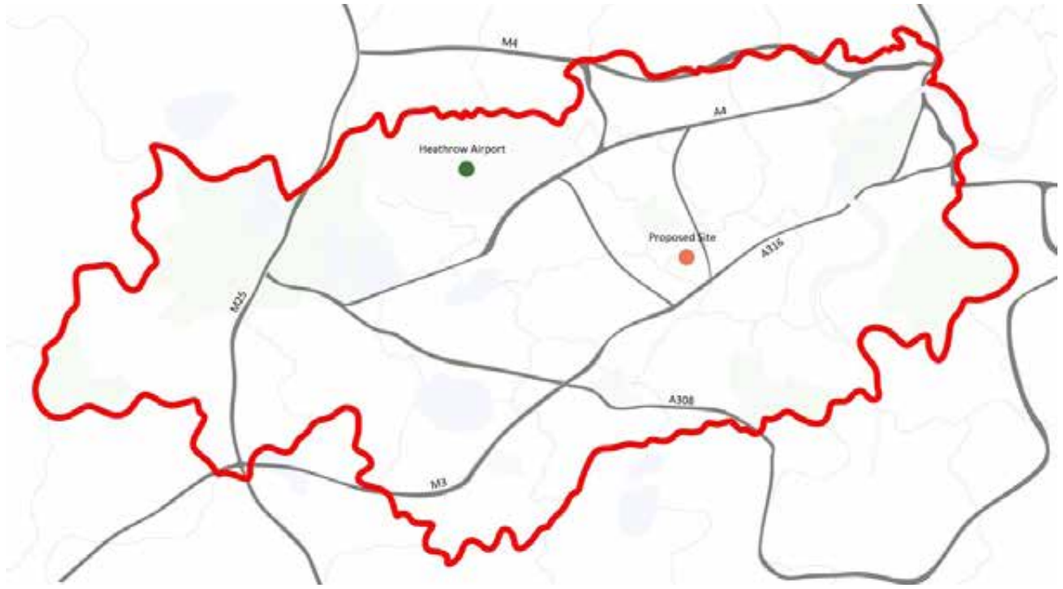
4 / Proposed Site showing nursery overspill

5 / View North from Hospital Bridge Road

6 / View South from Hospital Bridge Road

3 / DESIGN PROCESS

Local Schools



Local Roads

Local Green Spaces

Public Transport - Accessibility

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3.2 / Site Analysis

Extensive analysis of the site through research and technical surveys has been undertaken as part of the design process. This process has investigated issues relating to ecology, daylight, noise, air quality, and protected species present on site. Any relevant conditions or constraints that were put in place following these investigations have been considered in the design and where necessary will be secured by condition.

Access:
The proposed site for THS currently has a PTAL rating of 1a-1b. PTAL is a measure of connectivity by public transport. It does not cover trips by car. The poor PTAL for the HBR site has been recognised. Discussions with the local Highways Authority and Transport for London have been undertaken to establish how the existing situation may be improved to accommodate the school access requirements.

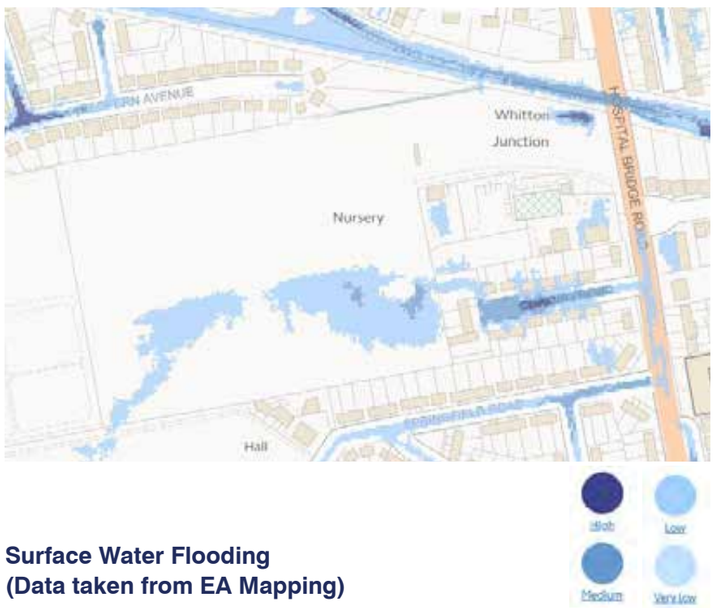
Ecology:
A Preliminary Ecological Assessment has been undertaken. The PEA identified potential for the presence of Bats, Badgers and Reptiles and these species have been the subject of further investigation. Three trees with moderate potential to support roosting bats were identified (all retained in submitted scheme). There is one disused outlier badger sett, showing no signs of current use. No evidence of reptiles was recorded during reptile surveys.

Flooding:
A study was carried out of flood risk factors that may affect the site. From the available information there is no significant evidence of any historical flooding within the vicinity of the site. The Environment Agency's flood map for planning shows the site is in Flood Zone 1, at low risk of fluvial flooding. The Environment Agency mapping does show areas of the site as being at risk from surface water flooding which is mitigated in the detailed design.

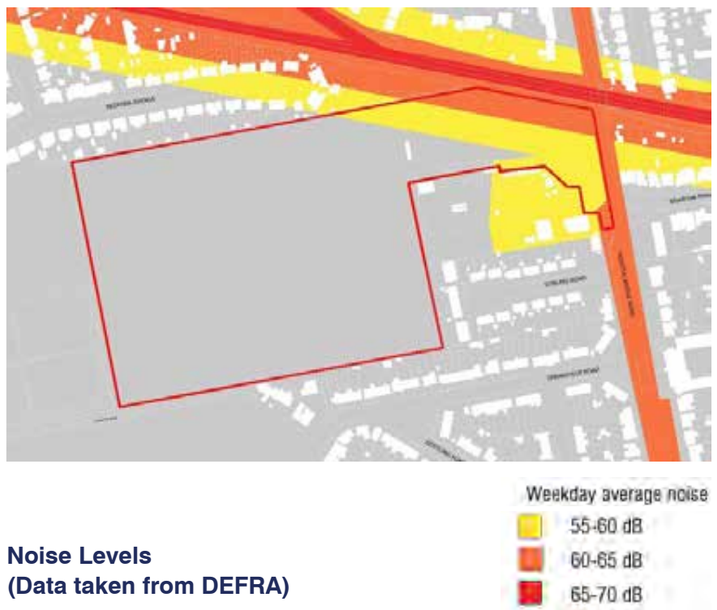
Noise:
A Background Noise Assessment has been prepared which has confirmed there to be no noise related issues which cannot be readily mitigated. It is recommended that acoustically attenuated natural ventilation and/or mechanical ventilation will be required on certain elevations to control noise break-in to within the internal ambient noise level criteria although natural ventilation using opening windows alone will be sufficient to the western and southern façades.

Access Level PTAL
(Data from TFL)

Ecology
(Data taken from survey)



Surface Water Flooding
(Data taken from EA Mapping)



Noise Levels
(Data taken from DEFRA)

3 / DESIGN PROCESS

Existing Site Character

The pre-application feedback received from the Local Planning Authority indicated that the design should seek to minimise the impact of the proposed school building on the Metropolitan Open Land.

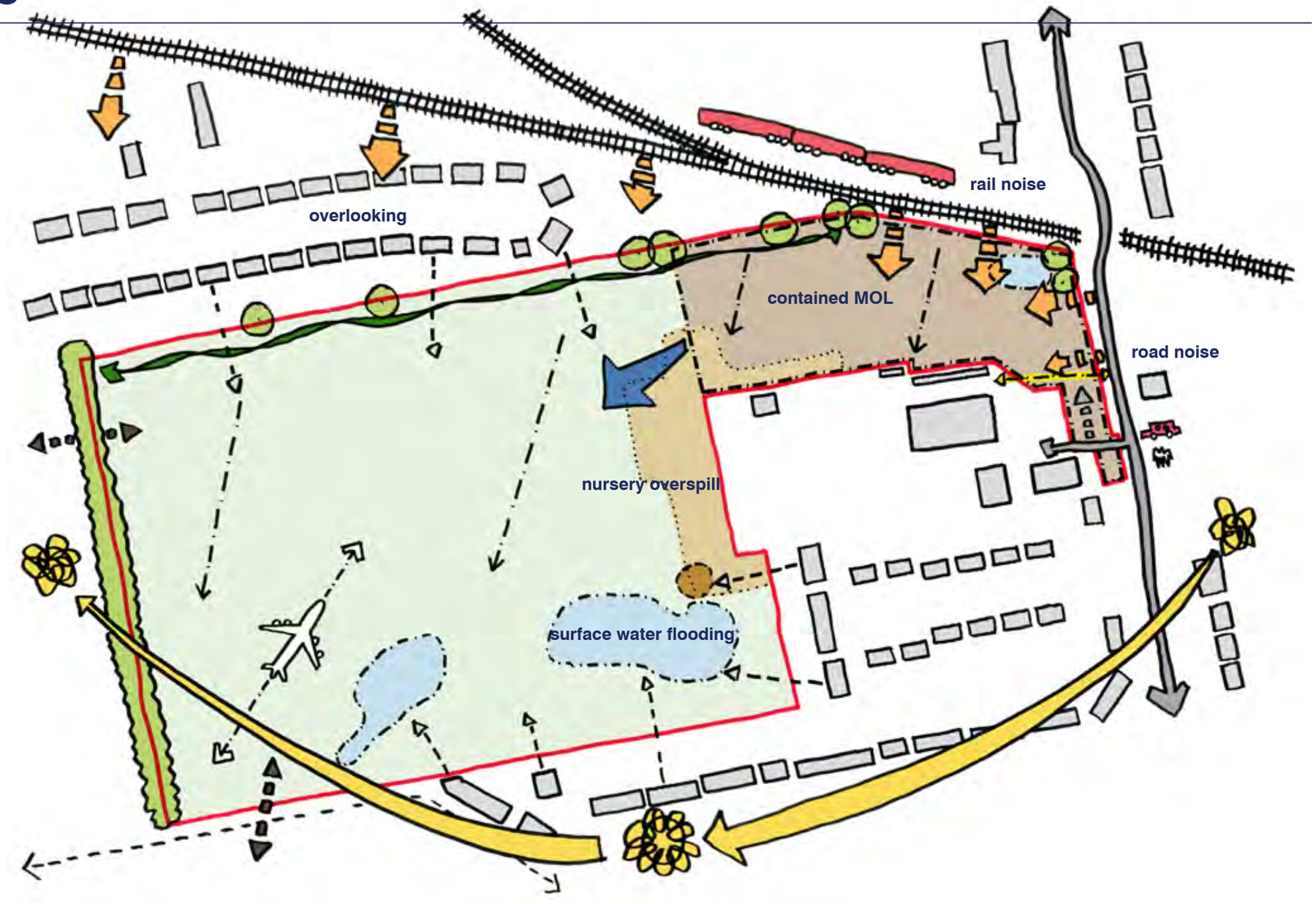
The nature of the site is that there is a more expansive area of the site available to the west and the site becomes narrower to the northeast towards Hospital Bridge Road. The enclosed area to the east is also bounded by the railway, Hospital Bridge Road itself and Sempervirens Nursery, meaning that the character of this portion of the site is more ‘urbanised’ than the west.

Masterplanning Principles

The overriding masterplanning principle for the site is to locate the school building, and as much of the associated hardstanding as possible, within the enclosed northeastern corner of the site.

Situating the building is this location reduces the impact of the development on the most valuable area of MOL and means that the urbanisation of this part of the site is more in character with the adjacent site conditions.

The northeastern corner of the site also benefits from being a substantial distance from any adjacent residential properties which will mitigate overlooking and overshadowing concerns.



Existing Site Analysis

3 / DESIGN PROCESS

3.3 / Review of Control Option

As part of the feasibility information that contractors typically receive from the ESFA, a control option is included which provides a starting point for design development.

The features and benefits of this option were considered to be:

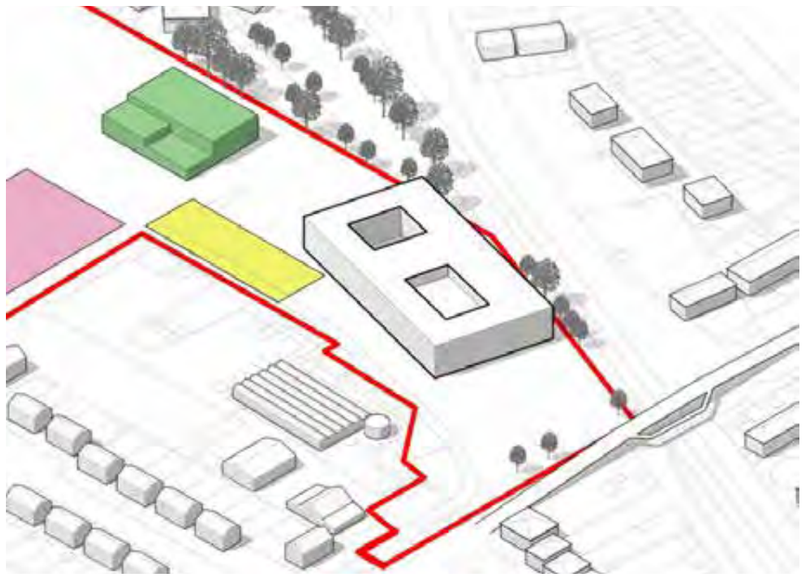
- Majority of buildings within ‘closed’ MOL
- MUGA away from sensitive residential properties
- Logical parking arrangement incorporates a loop (to be checked)
- Efficient building footprint
- Sports Hall separate building – easily managed for community access
- Sports Building close to pitches

The design team identified the following shortcomings in the control option:

- Sports Block is within open part of ‘MOL’ – sensitivity to harm and difficult community access
- Teaching block short façade overlooking to west gardens?
- Entrance is a long way into site and not visible from road
- Building angle not conducive to spill out
- Proximity to railway and pinch points at corners

Following on from the assessment of the control option, the school specific brief was appraised and a series of preliminary options were developed. This option study provided a framework to test the opportunities and constraints of the site against the school’s aspirations and to ensure that the optimum site arrangement is realised.

Control Option Site Plan



Control Option Illustrative 3D view

3 / DESIGN PROCESS

3.4 / Design Approach and Philosophy

The design approach for THS began with an appraisal of the school specific brief and analysis of the site and control option. Once the project basis was established, the Design Team worked with the school to incorporate best practice design principles and adapt them to the Trust's ethos. Current school design is driven by the ESFA's Output Specification (OS). This is a suite of documents that sets out the requirements of any school to ensure that optimum internal and external environments are maintained and that buildings are efficient, low maintenance and future proof. This includes requirements for daylight, ventilation, acoustics, as well as optimum layout and servicing strategies.

In addition to the OS, schools must also adhere to Building Bulletin 103 which sets out the exact area requirements for a school of a specific size - identifying numbers of spaces and minimum area to be provided including maximum depth of classrooms, minimum ceiling heights and minimum corridor widths. These principles broadly dictate the building's overall height and width and cannot be varied without impacting the school's operation.

These standards also incorporate a number of 'baseline' plans which set out example school arrangements to achieve the necessary criteria - these typologies are 'Superblock' and 'Fingerblock', with 'Superblock' being classrooms arranged around the perimeter of a school with 'dark' hall spaces and dining in the centre and 'Fingerblock' being classrooms arranged in narrower blocks with projecting halls and less central space. Both approaches were tested with the school.

Due to the sensitive site and the requirement to limit the impact of the building on the MOL it was considered that a consolidated 'superblock' that minimises the school footprint would be the preferable approach for THS. The 'superblock' design principle also creates better circulation flow internally, benefitting from continuous 'circular' corridors.

ESFA Baseline: SuperBlock

ESFA Baseline: Fingerblock

3 / DESIGN PROCESS

3.5 / Initial Building Design Options

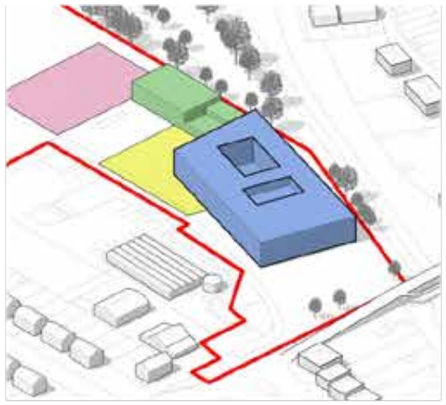
The options appraisal study for Turing House School began with a broad set of designs to ensure that every possible approach was considered. The conclusions from the site character analysis were implemented to ensure that the options were located to the northeast of the site, minimising impact on the open MOL.

Building options of three and four storeys were considered. During the Client Engagement process it was identified that although a taller building allowed for a reduced footprint, the increased height would be more visually intrusive and detrimental than a lower, broader alternative. In addition, delivering the building over 4 storeys would bring educational issues for supervision, curriculum dispersal and circulation. The four storey options (E-G) were therefore discounted.

A 'fingerblock' option (H) was tested in addition to the 'superblock' options. This option was discounted by the school due to the length of internal corridors and poor circulation flow in addition to the disadvantage of the massing splitting the external playspace into two areas that would cause supervision and access issues.

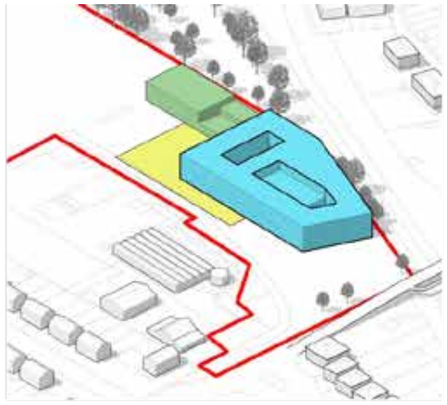
An option locating the Sports Block in front of the Teaching Block was also considered (C). Although this enabled easier access for the community to the sports hall out of hours, it also separated the sports hall and changing from the external sports pitches and so was discounted.

The Trust expressed preference for the options that consolidated the approach shown in the control option (A-B) and wished to explore the potential benefits of locating the sports hall in the centre of the plan (D). It was decided to progress with options A, B and D to the next stage of detail development.



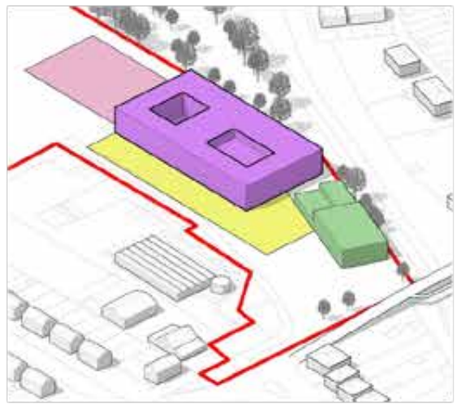
Option A

Teaching Block to front, Sports Block to the rear. Buildings joined to minimise building footprint.



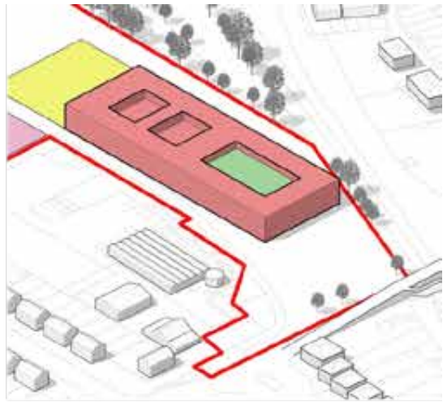
Option B

Teaching Block to front, Sports Block to the rear. Buildings joined, Teaching Block widened out towards site.



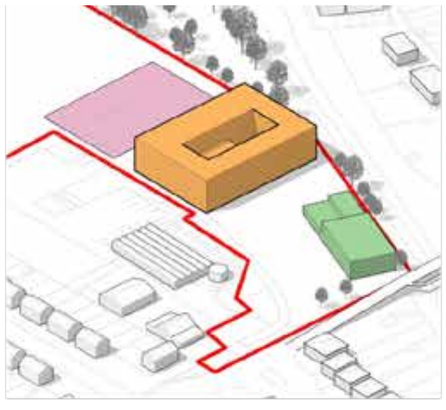
Option C

Sports block to front, Teaching Block to the rear.



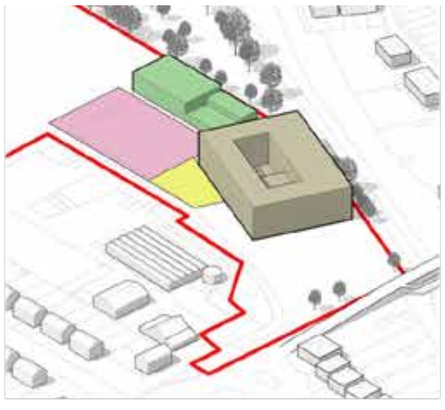
Option D

Sports block located within building to consolidate school envelope.



Option E

Sports Block to the front, Teaching Block to the rear. Teaching Block modelled as 4 storeys.

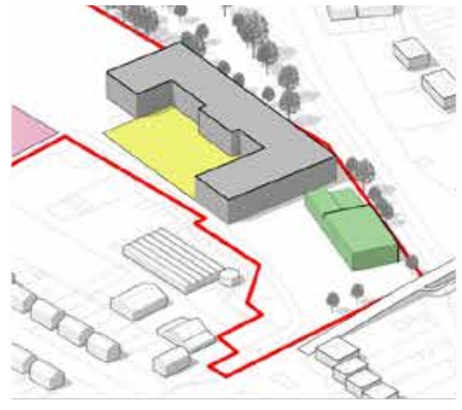


Option F

Teaching Block to front, Sports Block to the rear. Teaching Block modelled as 4 storeys.

Option G

Sports block located within building envelope. 4 Storey Building.



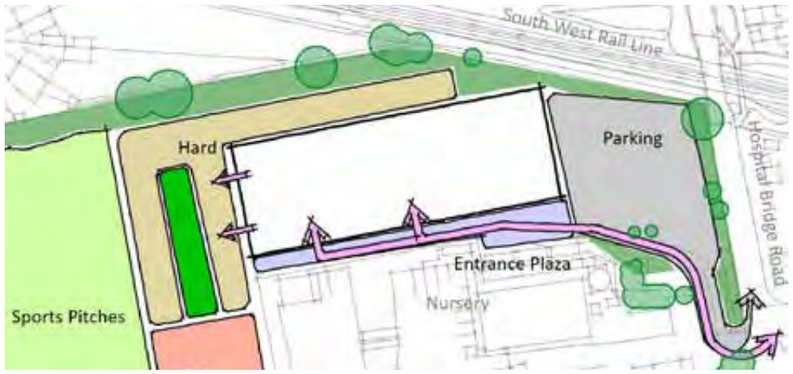
Option H

Finger block design with Sports Block to front.

Sports Block Massing

3 / DESIGN PROCESS

3.6 / Developed Building Design Options



Joint Sports and Teaching Building - Option A

Advantages

- Sports Hall adjoins the MUGA
- Hard informal space in close proximity to the building - south facing and sheltered from residents by Sports Block
- Good circulation model and flow
- Dining and main hall form school heart spaces
- Separately manageable Sports Block.
- Modulated, less blocky massing.

Drawbacks

- Potentially not as good aspect from internal dining out into the site.

Open Teaching Building to Landscape - Option B

Advantages

- Sports Hall adjoins the MUGA
- Hard informal space in close proximity to the building - south facing and sheltered from residents by Sports Block
- Good circulation model and flow
- Dining and main hall form school heart spaces
- Separately manageable Sports Block.
- Modulated, less blocky massing.

Drawbacks

- Some internal spaces need to be atypical shapes due to footprint
- Footprint takes up majority of available northeast site area - quite dominant towards the nursery.

‘Superblock’ Teaching Building - Option D

Advantages

- Efficient use of space
- One consolidated form is more efficient to manage and operate
- Potential for school to gain a huge volume internally - sports hall in addition to main hall, activity and drama studios can be colocated.

Drawbacks

- Massing is quite blocky.
- Building would be quite long and potentially dominant towards the nursery.
- Long, blank corridors past the internal sports hall.

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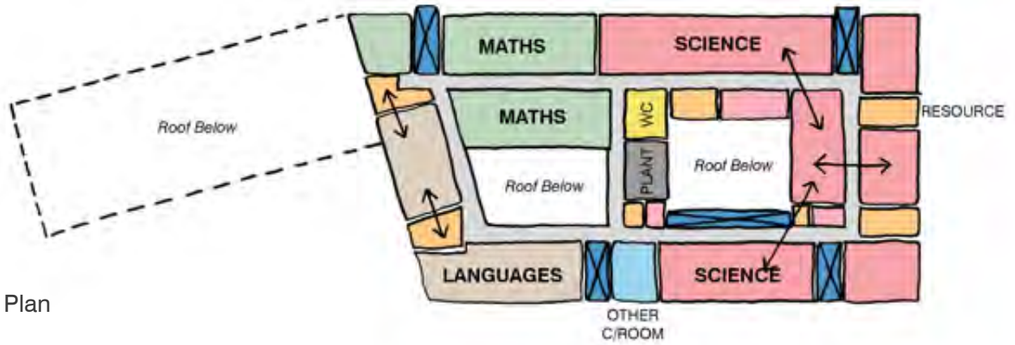
3.6 / Developed Building Design Options

Through engagement with the Trust, three of the initial options (A,B,D) on the preceding page were chosen for more detailed development to investigate the relative advantages and drawbacks.

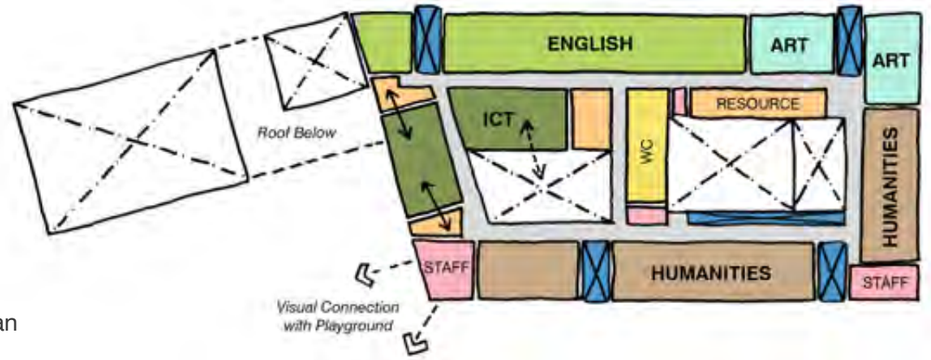
Option A allowed for an efficient footprint that placed main hall and dining in the centre and supported an optimal circulation model. Option B maintains the massing and organisational benefits from option A but also opens the heart of the school outwards towards the open site area. Option D allows for a more efficient building which is practical to operate and consolidated on the site.

Ultimately, the school identified a preference for the Option A scheme for the following key reasons:

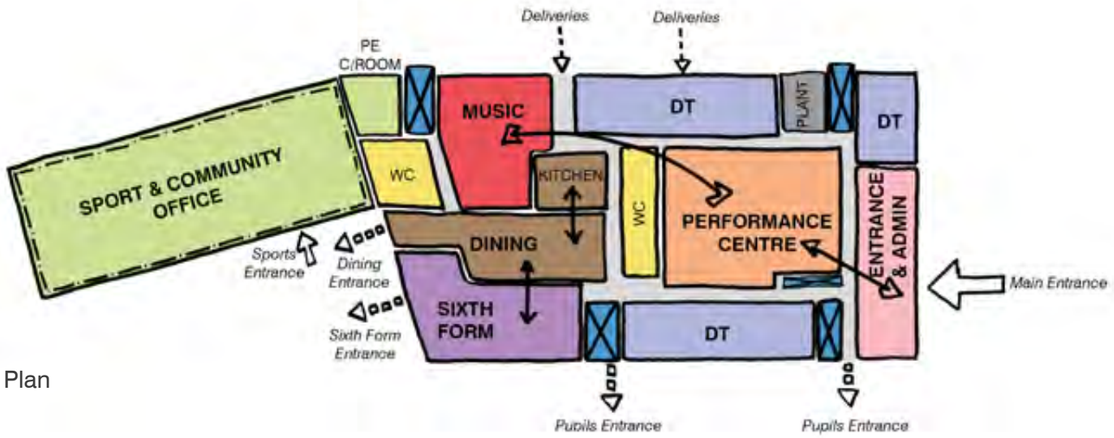
- The Sports Block can be utilised independently of the main teaching accommodation to support community access.
- The majority of the accommodation is regularly shaped.
- Reasonable area is left to north and south of the school for access and pupil use.
- A south facing area with potential use for external dining is created that is sheltered from neighbouring residential properties by the Sports Block.
- Less fully internalised areas lacking daylight are required to be located in the middle of the plan.
- The sixth form study and social can be collocated to form a destination 'hub' for these older students.



Option A - Sketch Second Floor Plan



Option A - Sketch First Floor Plan



Option A - Sketch Ground Floor Plan

3 / DESIGN PROCESS

3.7 / Building Design Principles

Throughout the development of the design our aim has been to ensure we minimise impact on the Metropolitan Open Land and respect the unique context in the siting, design and massing of the proposed development.

The initial building form and the preliminary elevation designs were developed through Client Engagement Meetings with the ESFA and Trust. New schools delivered through the ESFA focus on providing practical, robust and sensible designs within a reasonably constrained budget. The preliminary designs for the school were developed within this framework as a baseline typical school offer which was subject to discussion with the local planning authority and further development.

Building Form

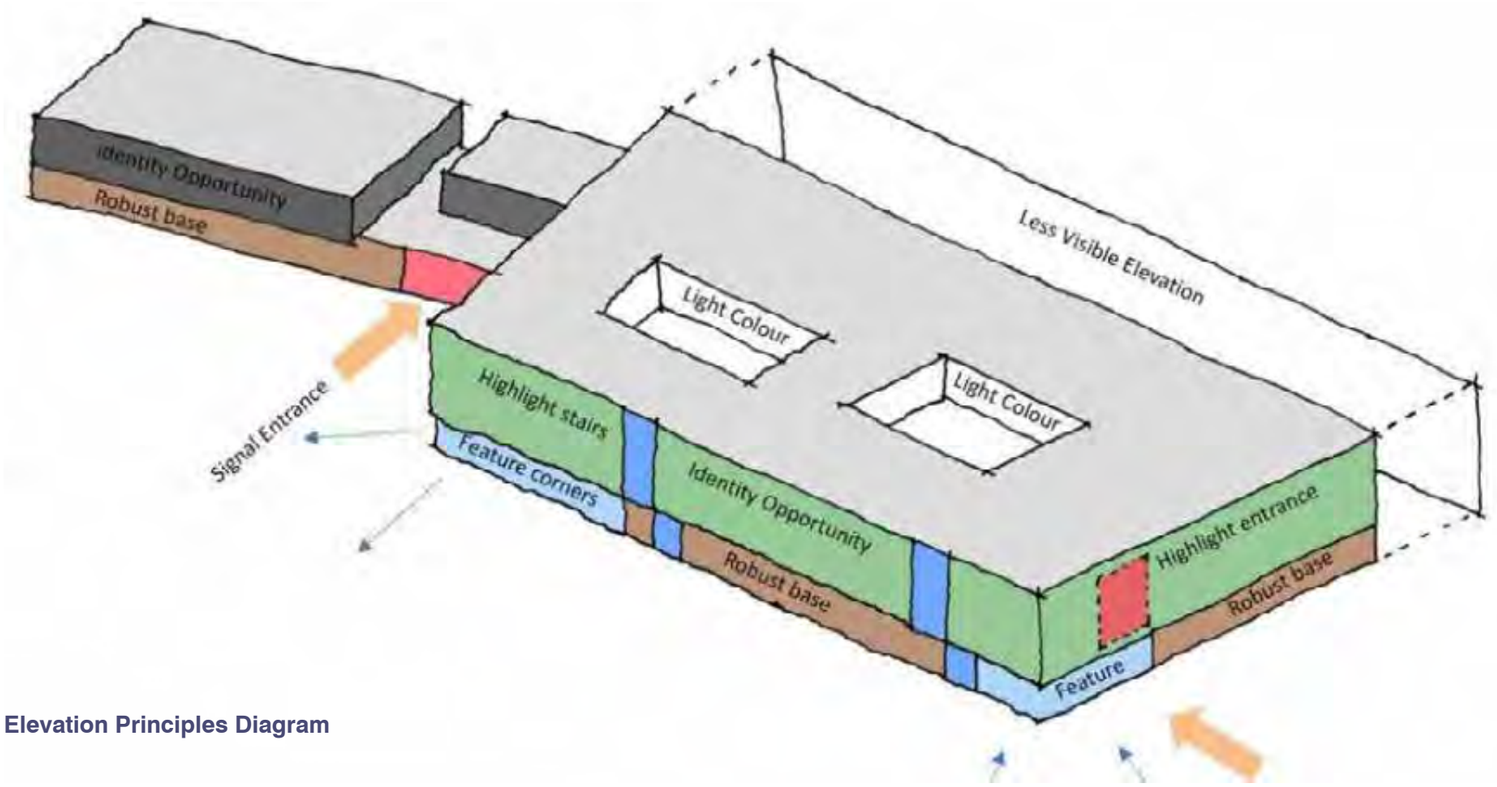
The form of the buildings was developed to complement the school's setting and provide a strong identity for the school. The building is three storeys facing Hospital Bridge Road to give the school street presence but steps down to a mixture of 1 and 2 storeys to the rear to reduce the impact of the building on the open MOL.

Two lightwells have been provided over the dining and main hall. This allows for external windows to the upper floor around the perimeter of these spaces and also provides space for external plant to be located that would not be as visible as if it were on the main roof level.

The location of the Sports Block to the west allows for a separately identifiable building that can be operated independently for community use and has its own identity. The position of the Sports Block also provides shelter for a south facing external play area that can be utilised for external dining.

The new school was designed to provide a compact, easily navigable building, to ensure optimum class arrangements as promoted through the ESFA's "Baseline Designs", with good supervision across floors and efficient circulation.

The building siting has developed to respond to site conditions and constraints whilst also ensuring optimum internal and external environments. The comments received from the local authority planners in the feasibility study and during our pre-application meetings support the proposed form.



Elevation Principles Diagram

Contextual Example - Ashley Drive

Contextual Example - Evelyn Close

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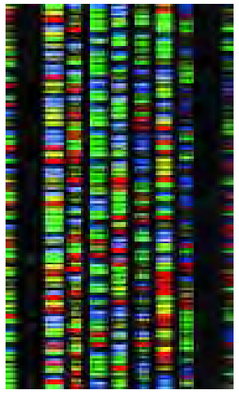

Preliminary Concepts

- Computer science
- WWII Codebreaker
- Logic, pattern, sequence

Preliminary Sketch Views

Elevation Design

The starting point for the design of the elevations was to consider the baseline school design and adapt the materials to reflect the school ethos and site context. Turing House School is named for Alan Turing and the school will have a focus on science, maths and engineering - this specialism was identified as suitable to reflect on the building's external design.

A simple palette of materials was selected for use on the school building, predominantly comprising a robust brickwork base with render upper storeys, with areas of full height brickwork and feature recessed render stripes. The elevations were designed so that facades facing the open MOL were mostly brickwork whilst less sensitive areas facing Sempervirens nursery and railway were render with feature recessed stripes. The recessed, contrasting coloured render stripes were chosen to reflect mathematical patterns and coding whilst the grey colour gave the school a modern, grownup appearance.

The window sizing and design is based on a proven system that achieves the ESFA's strict environmental requirements - providing optimum natural 'stack' and hybrid boosted ventilation, avoiding cold draughts and ensuring a uniform level of light distribution across the entirety of the teaching room.

Identity

The use of brickwork as the primary base material was carefully considered to provide a high quality appearance to the building and create an impression of a robust, grounded civic building at the heart of the community. The local brick context was carefully considered and the masonry colour proposed is intended to suit the surrounding vernacular (mid brown) whilst also marking the school as an important civic building. The school's identity from the adjacent highway is announced through extensive glazing and feature signage.

The areas of through colour render, particularly in the upper levels of the building, reduce the perceived height of the building whilst also tying it to its context (majority of surrounding properties are a mix of render and brick). The colour chosen was grey which is intended to be long lasting and reflect the school's STEM specialisms. This render is also utilised within recessed stripes, suggesting patterns and coding, reinforcing the school's namesake and modern forward looking ethos.

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3.8 / Pre-Application Consultation

Whilst developing the scheme with the Trust and ESFA, the design team have also undertaken extensive consultation with the Local Authority (planners, environment and transport), public and community stakeholders (local residents, parents, community groups, Sempervirens Nursery). Consultation with these stakeholders has allowed the team to substantially amend the design to reflect their requirements.

Consultation Meeting Timeline

15 Feb 2018 - Preliminary meeting with LBRuT Planning; Strategic Applications Manager

30 Jul 2018 - Meeting with Greater London Authority Planning Team

21 Aug 2018 - Meeting with LBRuT Planning; Urban Design Principal, Case Officer

03 Sep 2018 - Meeting with LBRuT Planning; Case Officer, Strategic Applications Manager, Policy Principal, Transportation Planner,

21 Sep 2018 - Members Briefing with Local Councillors; Leader; Education, Environment and Transport Cabinet Members; and Ward Councillors for Whitton and Heathfield

Public Consultation

12,13,14 July 2018 - Public Consultation Event

12 Oct 2018 - Sempervirens Nursery Meeting

3.9 / Pre-Application Design Development

During the course of the pre-application consultation, a number of amendments to the scheme have been made to respond to comments from the various consultees. These developments are summarised below.

Amendments to Masterplan

Due to the existing site being designated Metropolitan Open Land there is a presumption against development of the site unless there are Very Special Circumstances. Due to the exceptional need for pupil places and the lack of a viable alternative site for Turing House, these circumstances are present. Due to the sensitivities for developing the site, the LBRuT Planning Authority have identified that a portion of the site should be separated from the school and provided as a public open space for community benefit, managed by the local council and giving opportunity for a rich, natural environmental resource for the surrounding neighbourhood.

In addition to the public open space, the local residents, TfL and Richmond Highways suggested an additional pedestrian entrance into the site from the South. This would disperse pedestrian access to the site and open up the use of further bus routes from roads to the west and south. The open space has been located to retain this access point from the south within the school's owned land.

Amendments to Landscape Design

Further to the above amendments to the masterplan, there have been further amendments made to the external design to meet LPA requests. The LPA have requested additional greening measures be provided the site frontage to soften the appearance of the building from Hospital Bridge Road and reflect the green, open MOL site. To achieve this aspiration, the landscape

Developed Landscape Plan

Post-Consultation entrance view showing enhanced greening

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architects have proposed that the car parking areas are covered with green roofed shelters that partially conceal the tarmac finish from Hospital Bridge Road, particularly as HBR is elevated above the site at this point.

Amendments to External Appearance

Broadly, the massing proposed has been supported by Local Authority throughout the pre-application consultation. Feedback from the LPA on the building design has primarily related to the materiality and appearance of the elevations.

Enhanced 'Greening'

Due to the sensitive MOL designation of the proposed school site, the LPA have aspirations for the school to reflect and enhance the natural setting wherever possible. The school design team have worked with the LPA to identify suitable opportunities for greening the building in an appropriate, manageable way that does not place undue maintenance burdens on the school. The potential for inclusion of green roofs was investigated and all viable areas have been proposed as a low maintenance grass sedum blanket. The areas that have not been provided with green roof were:

- **The sports halls** - due to large spans being unable to accommodate the increased weight
- **The light wells** - due to self shading and location of plant equipment
- **The central area of the main roof** - due to extensive solar panel provision and required maintenance access areas.

Further to the provision of extensive green roofs, which will help to provide ecological, biodiversity benefits and soften the appearance of the building, additional areas of green walls have been proposed in key areas of the school facades to soften the building's massing. The majority of the school facade is taken up by glazing into teaching spaces so there are relatively few available areas. The locations chosen for green wall have been selected for maximum benefit and comprise:

- South and West Sports Hall Facades - this will help to soften the corner of the new building that faces the open MOL.
- Northeast corner of building - this will improve the building's appearance from the adjacent railway line and from Hospital Bridge Road.

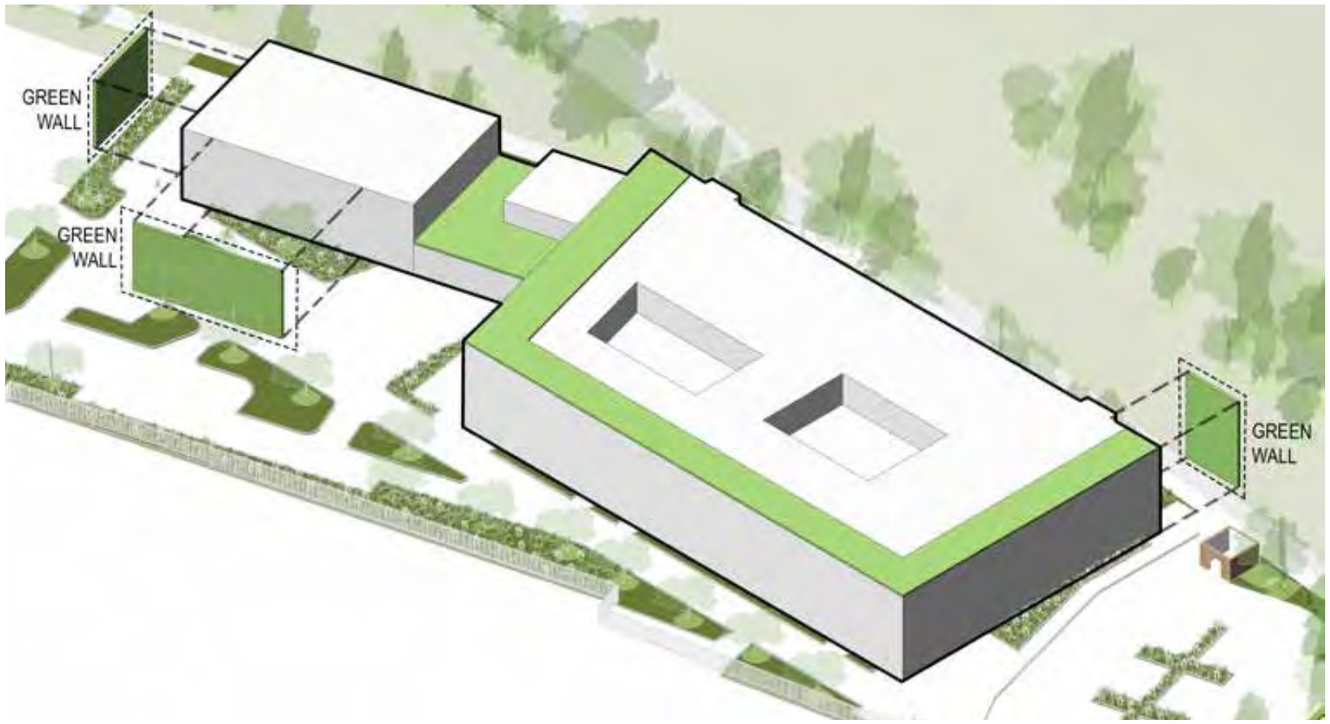
The green walls proposed are a strained wire and climbing plant system, selected to ensure low maintenance and low operations cost for the school. The climbing plants proposed have been carefully specified by the landscape architects to be non-damaging to the wall substrate and low maintenance.

Elevation Design

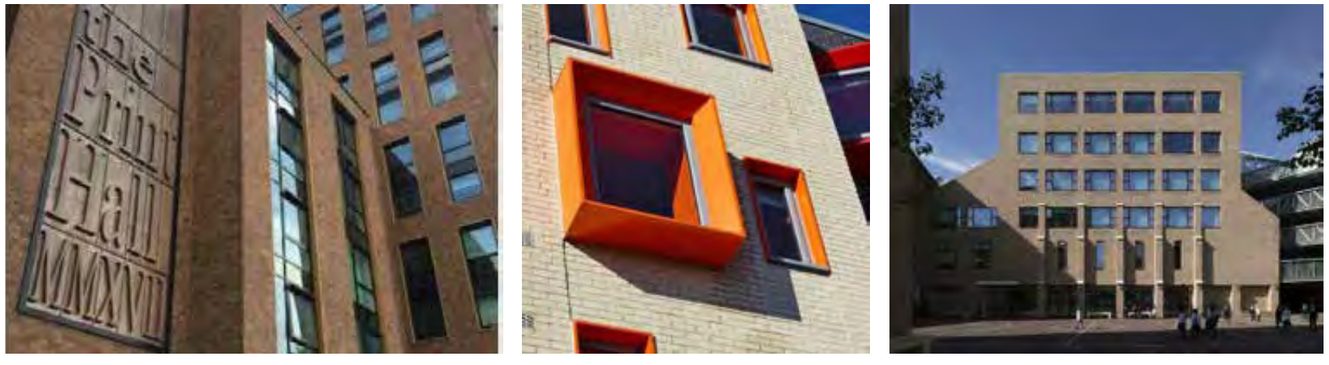
The initial starting point for elevations for pre-application consultation was based on the Bowmer & Kirkland 'Configure' school model which reflects the funding envelope available for ESFA schools. This baseline is predicated on design efficiency and is robust and low maintenance whilst achieving excellent environmental standards.

Engagement with the Local Authority indicated that the standard 'configure' model, which comprises brick to ground floor window head height with through colour render above would not be appropriate for this context. Through a series of pre-application meetings, the team developed a bespoke design that responded to the MOL context of the scheme whilst achieving the ESFA's OS requirements.

Feedback from the Local Authority was that the design presented was utilitarian and did not sufficiently reflect its natural context. More variation across the facade and different



Post-Consultation greening proposals



Elevation development techniques

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coloration and texture were requested to enhance the quality of the elevations. The entrance was felt to be lacking in identity and the use of render to the primary facades was discouraged.

Materials

The proposed materials have been uplifted as a result of the pre-application feedback. The render previously identified to the south, east and west facades has been replaced with a high quality metal cladding. The colours of the metal cladding have been adjusted to better reflect the natural context through earthy, bronzed tones with feature, reflective vertical stripes.

The brickwork proposed has also been amended. As requested by the LPA, a bespoke brickwork blend has been proposed, formed by a weighted mixture of light, mid and dark bricks in specific proportions. To create further variation across the facade, the areas of recessed brickwork between piers have been adjusted to be a darker variation of the same bespoke brickwork blend.

Window Design

Part of the LPA feedback on the 'utilitarian' appearance of the building prior to the proposed changes related to the uniform, 'gridded' window appearance. We have proposed that the typical classroom window is amended so that the same areas of opening and fixed glazing is retained but that the openable lights are relocated to the sides. This change creates asymmetry and variation in the window design, relieving the necessary uniformity of the classroom windows whilst still achieving the environmental requirements of the OS.

In addition to the amended window design, we have introduced further variation across the facade by providing projecting surrounds to windows within the metal cladding and selected feature windows within brickwork. These surrounds create variations in shadows and

Developed Post-Consultation Entrance View

Initial Pre-Consultation Entrance Comparison View

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reveal depth and provide more visibility of the feature, reflective material when viewed from an oblique angle.

Identity

The final aspect of the design which has been amended as a result of the LPA pre-application discussions relates to the building's identity and character.

The appearance and legibility of the entrance within the eastern facade has been improved through the provision of additional curtain walling glazing to highlight the main entrance and give views into teaching spaces beyond.

In addition, high quality, bespoke signage is proposed to indicate the main entrance. This is designed to be in the same material colour as the feature cladding to give the building presence from Hospital Bridge Road and create a unified elevation within a restrained overall palette.

The green walls and roofs will inevitably give the building a natural character and identity, with the building becoming part of the landscape as the green walls become populated.

The colours of the cladding have been selected to reinforce the natural identity of the site but also to reflect aspects of the school's STEM ethos represented by Alan Turing.

Copper tape, bronzed components, patterns and circuitry are themes representative of the historical form of engineering that resonates with the school's namesake and are reflected in the chosen colour palette.

Developed Post-Consultation Entrance View

Initial Pre-Consultation Entrance Comparison View

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Masterplanning Diagram

4 / DESIGN PROPOSALS

4.1 / Use and Amount

The proposal is for the construction of one new building on the site to function as the complete Turing House School - a Secondary, 'Free School', managed by the Russell Education Trust and designed to accommodate 750 students aged 11-16, 300 Post 16 students (aged 16-18) and approximately 100 full time equivalent staff.

The total site area of approximately 6.6 hectares will accommodate the entire school; buildings, playgrounds and playing fields and also allows an area of land to be dedicated as public open space. The site is generally grassland at present, with areas of unchecked vegetation and signs of informal parking, storage and overspill from the adjacent Sempervirens nursery.

The landscape masterplan proposal includes a range of social and recreational uses, realising Commission for Architecture and the Built Environment's (CABE) advice to make assets of the external spaces. This includes an entrance sequence designed to give the school presence from Hospital Bridge Road and providing clear, delineated pedestrian access to the main entrance for visitors and to the rear playground for pupils at the start and end of the school day. The positioning of the buildings within the northeast corner of the site is intended to minimise the impact of the development on the most valuable open area of MOL, restricting the majority of urbanisation to a less sensitive area between railway, plant nursery and Hospital Bridge Road.

Care has been taken to maximise the quality of external play space for pupils on this sensitive MOL site. Immediately adjacent to the school the landscape has been designed to facilitate external dining and provide a variety of smaller areas, incorporating seating and greenery, to encourage calmer activities closer to the school. This area is south facing and is screened from the adjacent residential properties by the proposed Sports Block. The external sports provision has been located further away from the proposed building to the west of the informal play spaces. A multi-use games area is proposed adjacent to the sports hall, allowing the students to benefit from direct access for changing etc. The majority of the remaining, wider MOL has been utilised for grass pitches, retaining the open, green character of the site an enhancing the potential for community use.

Areas within the school, including some classrooms, the sports and main halls, will be accessible to the local community, offering excellent opportunities to gain improved access to sports facilities, performance spaces and ICT training. In addition, the external playing fields will also be available for local use outside of school operating hours and during school holidays.

Illustrative view showing proposal in context

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4.2 / Massing

The proposed massing is sensitive to the school's MOL context and neighbouring setting whilst providing all the accommodation required of an 1050 place secondary school. The arrangement proposed is efficient and locates the majority of development within the enclosed portion of the MOL.

The Teaching Block and sports buildings are proposed to be connected. This allows for a compact building footprint that removes any awkward space between buildings, allows direct connection from the main block and provides efficiency of servicing. The school building has been proposed at three storeys. This building height allows a balance of a consolidated footprint and reasonably sympathetic building height. A taller building would give a reduced footprint but the increased height would make it more visually dominant, locally and in relation to the sensitive MOL.

The Sports Block has been located to the west of the Teaching Block to provide a direct connection between internal and external sports. The Sports Block steps down to 1-2 storeys which brings a massing benefit of reducing the impact of the building facing the open MOL. The massing of the Sports Block also screens the external dining and play space from residential properties to the northwest, mitigating overlooking and acoustic breakout. Further to the east, residential properties are located a considerable distance from the school site and are screened from the building by a tree buffer so overlooking is less of an issue. The area to the north of the school is proposed to be a maintenance and deliveries strip only, using the building as a screen to keep pupils away from the adjacent railway track.

The school hall and dining area have been located at the heart of the school plan. Two lightwells have been introduced into the massing above these spaces. These dropped areas allow for external windows into the surrounding upper storey, contain rooflights for lighting the spaces below and provide a hidden area for the location of rooftop plant.

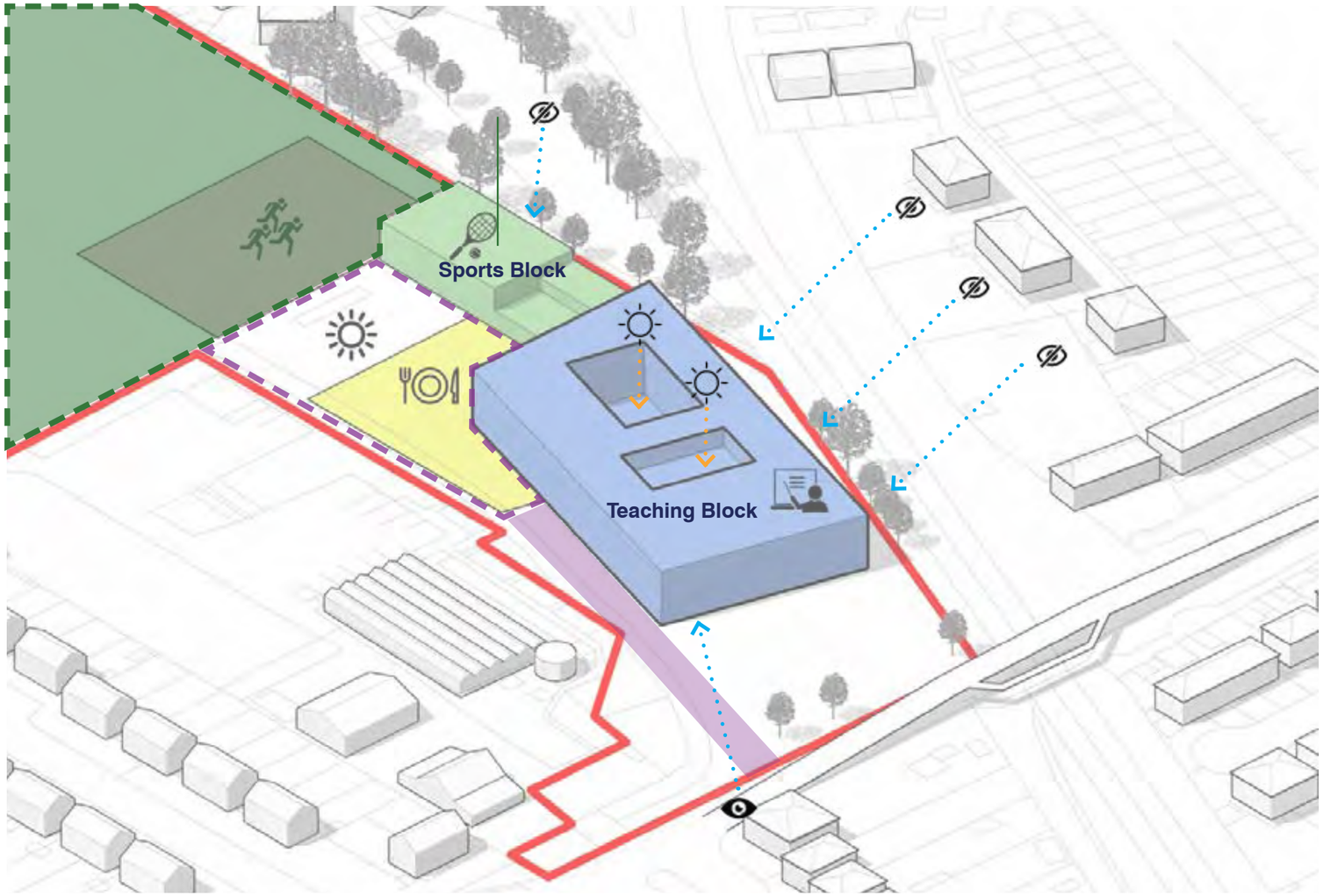

Diagram showing proposed massing principles