

MAGDALEN  
COLLEGE SCHOOL  
INDEPENDENT DAY SCHOOL  
BOYS 7-18 & SIXTH FORM GIRLS

# Introduction to MCS' Science, Library & Partnerships Building

Magdalen College School, Oxford (MCS) was founded over 500 years ago as one of the earliest grammar schools, and its ethos – to provide an exceptional education to the brightest children, whatever their personal circumstances – remains core to its mission today.

Approximately 10% of Senior School pupils receive financial help with school fees and the school's commitment to widening access extends far beyond its own walls.

Creating an environment in which Oxford talent can continue to flourish is vital. With this in mind, the school is excited to present its proposals for a new Science, Partnerships & Library Building.

Located on the existing footprint, the new building will provide state-of-the-art facilities to support a forward-looking curriculum and emerging areas of science, as well as a fully-equipped Partnerships Lab to strengthen the school's network of community links - which lies at the heart of its strategy for the future.

## The design team

WALTERS  
& COHEN  
ARCHITECTS

BIDWELLS



GUILLAUME BALTZ  
LANDSCAPE  
+ GARDEN  
DESIGN

MAX FORDHAM

PRICE &  
MYERS

## The rationale

Built in 1959, for half the current number of pupils, the school's science block was not designed to teach subjects such as computer science and robotics which have emerged since the laboratories were constructed.

The rationale is two-fold:

- To improve the facilities for the school's own pupils;
- To enhance its existing support to educational provision in the wider Oxfordshire community.

**The school is not seeking to expand, and the proposals will not lead to more pupils, nor a larger school site.**

The proposed building will offer new facilities to support engineering, electronics and robotics, alongside emerging areas such as AI and Big Data. A new Partnerships Lab will increase the number of non-MCS pupils accessing transformative STEM learning experiences, while an exhibition space will host science-led community activities. A purpose-built library will raise the profile of independent learning and encourage a life-long love of reading for pleasure - while also releasing vital internal space for pupil recreation and easing circulation issues within the main teaching block.



All images shown of the proposals are indicative



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# Context and concept

## Proposed site

The new Science, Library & Partnerships Building is proposed to sit along the north-east side of the school's site, adjacent to Iffley Road.

The redevelopment includes demolishing the current science building and part of the Quincentenary Building. A small portion of the 1928 Building (already partially demolished during construction of the Richard Record Sixth Form Centre) will also be removed in order to maintain discrete construction access throughout the building works.

 Proposed building removal



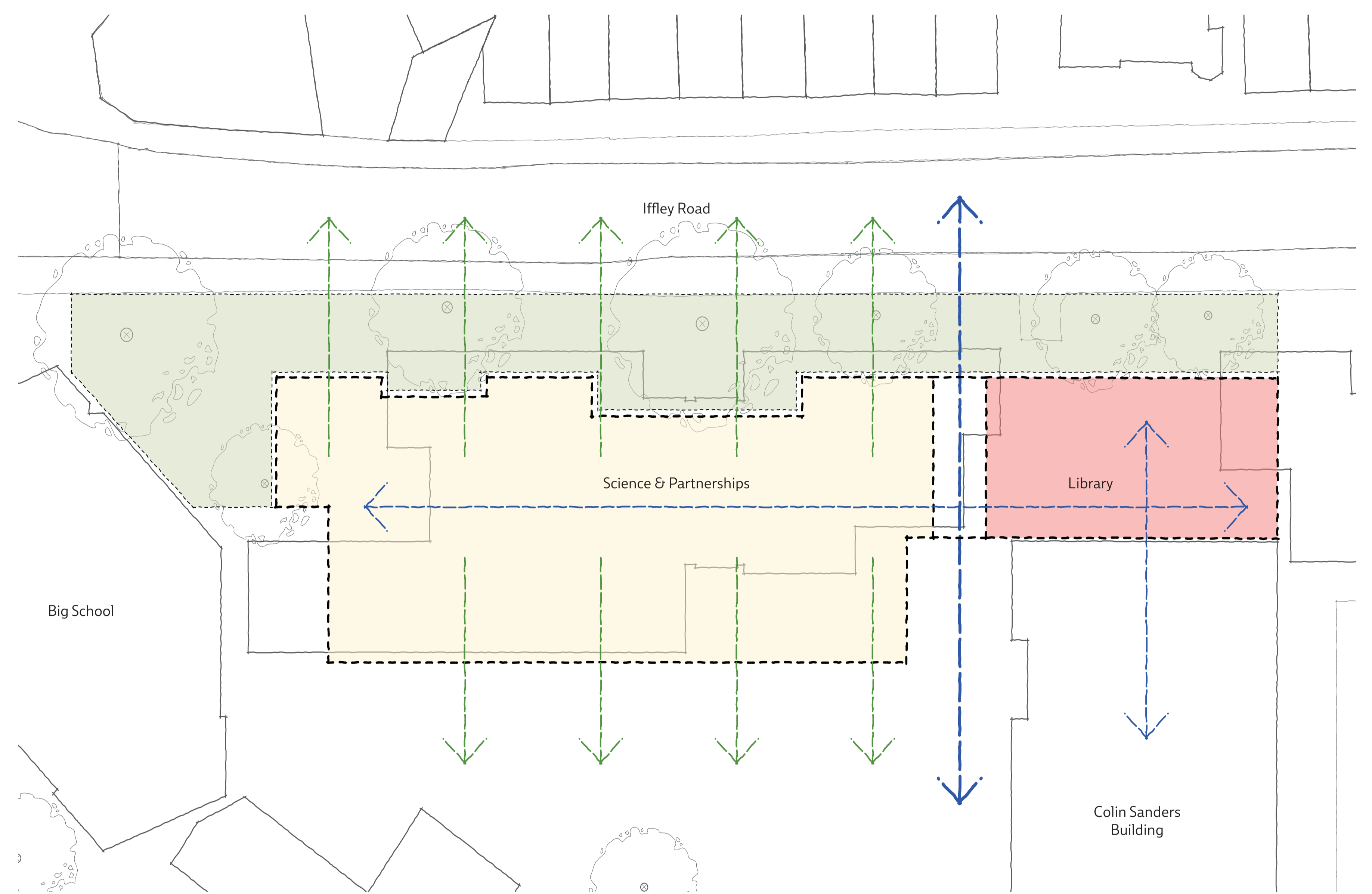
## Site strategy

Adjacent is a diagram of the proposed site strategy for the new development.

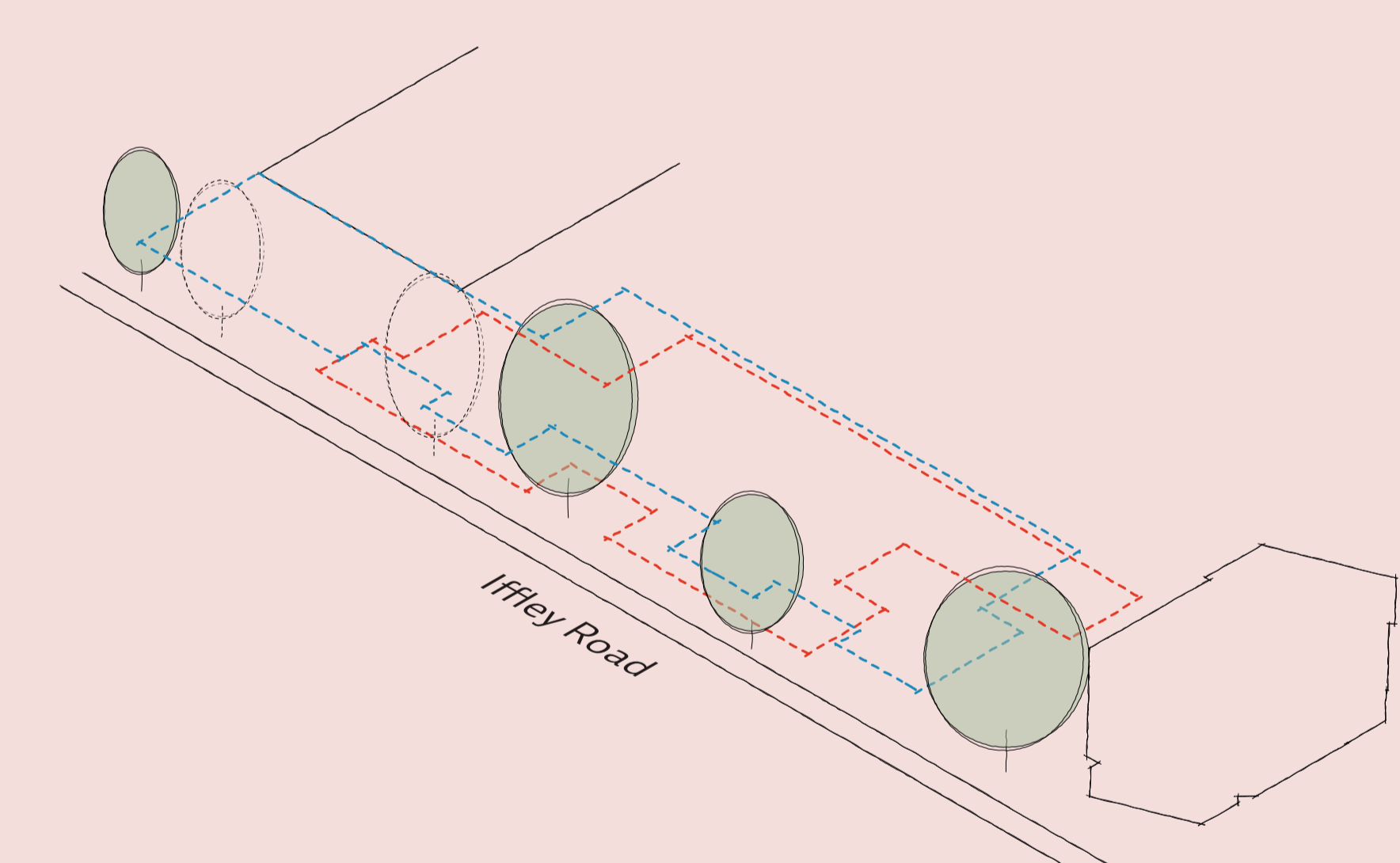
A new fit-for-purpose science building will replace the current facilities, designed to modern standards and including a Partnerships Lab that will offer transformative STEM learning experiences to non-MCS pupils as part of community outreach. The building will be designed to have a positive relationship with both Iffley Road and the school's playground.

A new library will replace the existing (currently located within a corridor space) and act as the node joining the new science building to general teaching.

An enlarged and improved landscape design along Iffley Road will bring much greater biodiversity to the soft landscaping.

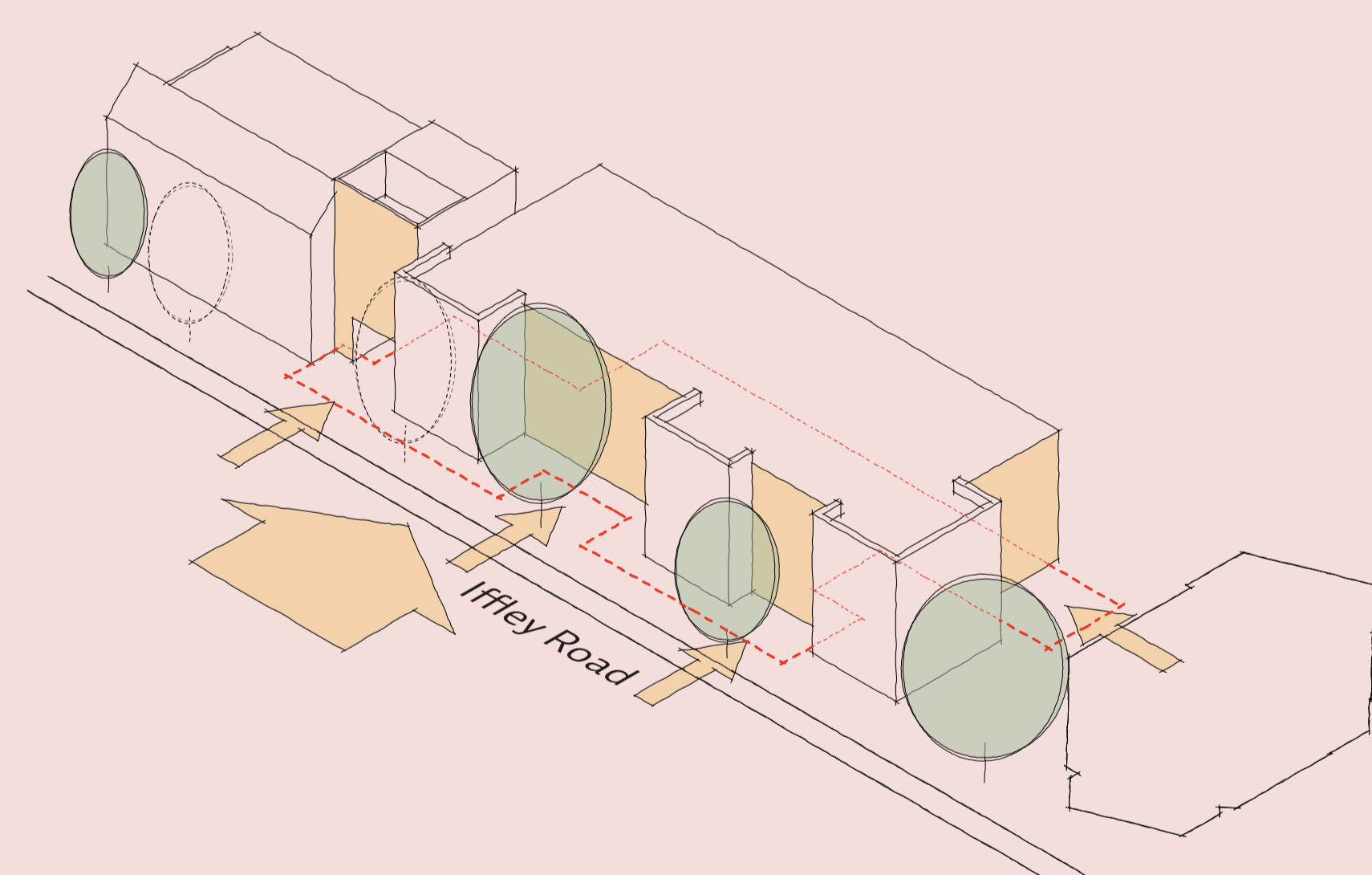


## Design development



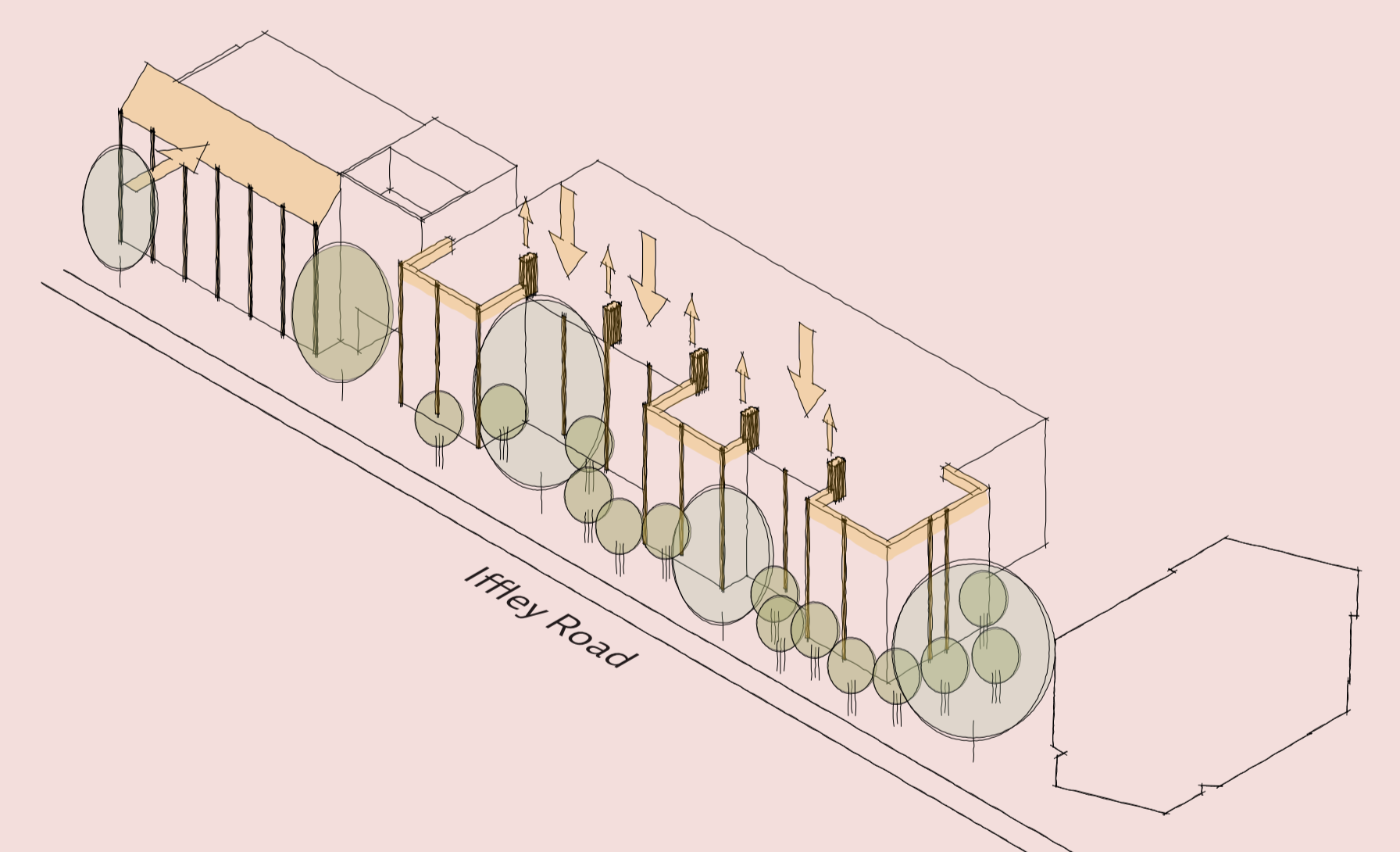
### Building footprint

- The proposed footprint (in blue) sits back from Iffley Road to provide more space for landscaping.
- It also steps generously to give existing trees more space.



### Building mass

- Building mass is designed around the large existing trees.
- Stepping back and forth breaks up the linearity of the building's mass.
- The new building gives more space to the Big School building and allows glimpses through and beyond to the playground.



### Roofscape

- Variation to the roof parapet further breaks up the mass of the building.
- Use of chimneys and height above the pupil entrance creates a distinctly 'Oxford' roofscape.
- Gable ends bring contextual interest to the street.

Iffley Road elevation

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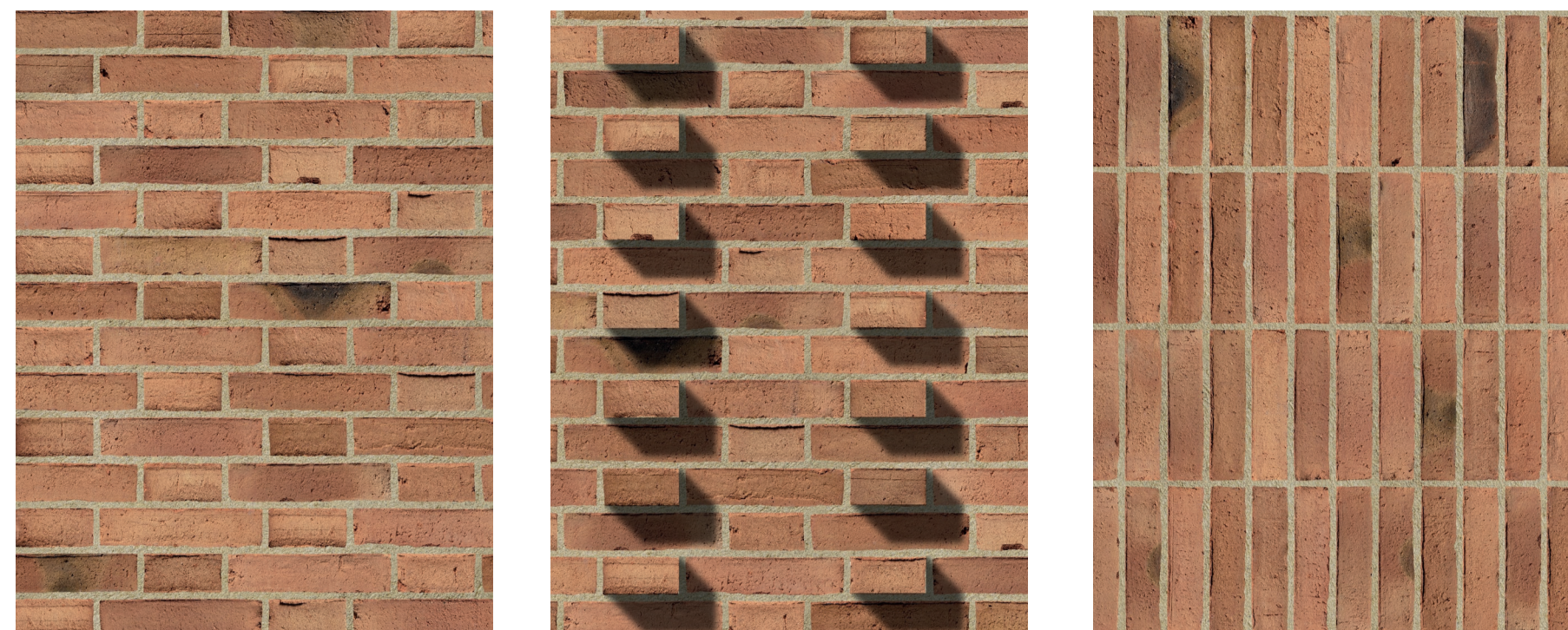


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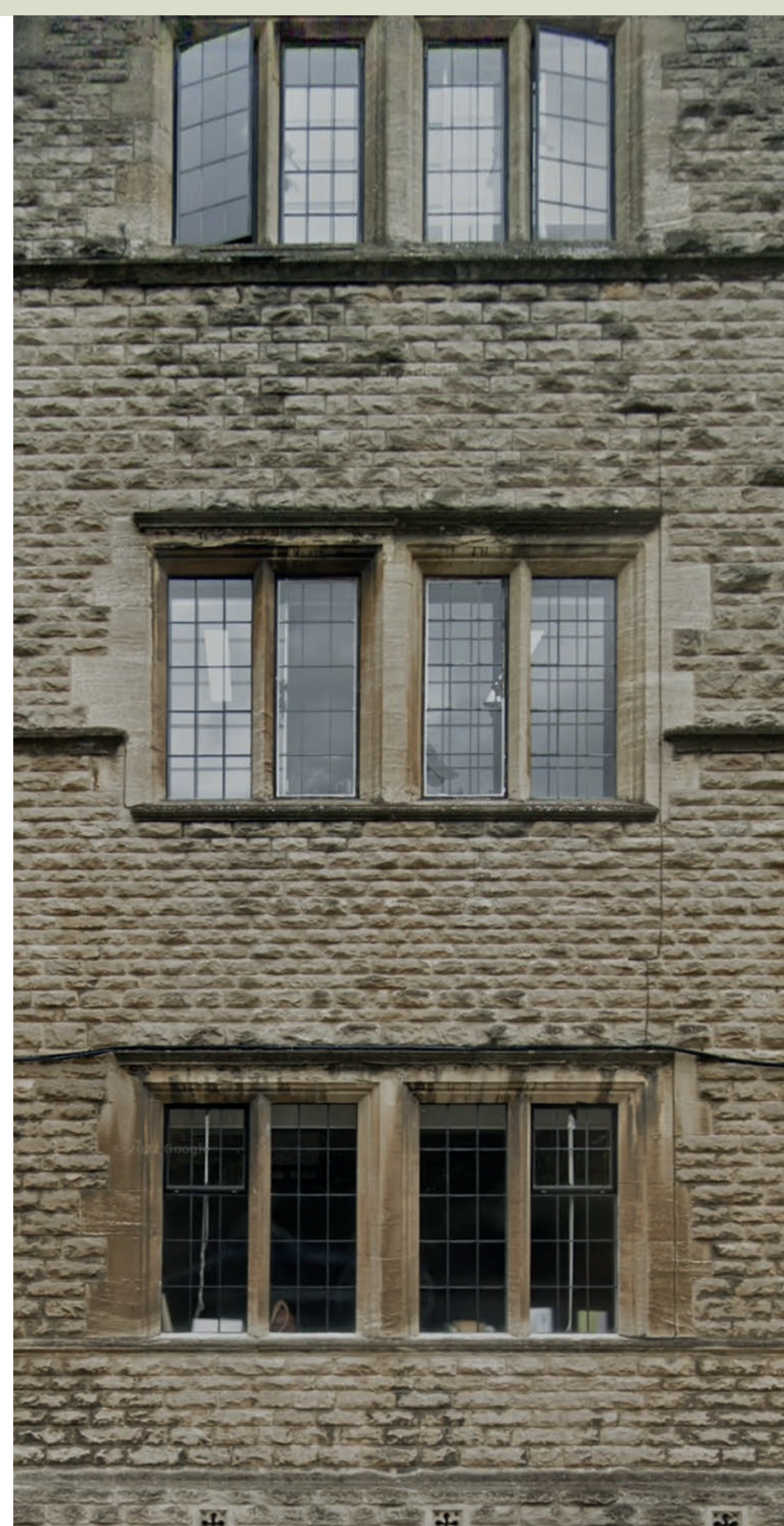


# External appearance



## Brick façades *Detailing and craft*

Brick is the predominant material used in the immediate context of the proposed building, and also within the St Clement's and Iffley Road Conservation Area. The building will use this material and draw on craft and detailing - which is also rich within the immediate context - to create a building that sits comfortably with its neighbours.



## Material precedents

The proposal will share many features seen on buildings within the immediate context and throughout Oxford's traditional vernacular architecture: decorative window surrounds, chimneys with ornamental fenestration and gable ends full of expressive features.

## Views along Iffley Road



Moving down Iffley Road, the residential properties on the opposite side of the street present a series of gable ends as blocks of houses stop and start or change height, as seen in the photo above.

The library block at this end of the proposed building presents itself as a three-storey volume plus pitched roof, in keeping with the height of the townhouses along Iffley Road. Viewed from this side, the building is a gable end with decorative brickwork, windows and rainwater downpipes.



View looking north-west down Iffley Road



Oxford's collegiate streetscape typically features a façade of regular windows and parapets that are punctuated with buttresses and large chimneys, as shown in the image of Jesus College above.

The façade of the Science, Library & Partnerships Building draws on these vernacular features and places them on a building mass that steps around existing trees, bringing variety and interest in a distinctively Oxford manner.



View looking south-east down Iffley Road

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# Internal Design



## Pupil entrance

The proposed scheme maintains the current pupil entrance on Iffley Road but widens it to provide more space off the road for pupils to gather, alleviating congestion at peak times.

The entrance is also remodelled to be more typical of pupil entrances to colleges across the city, where an open portico is placed beneath the highest part of the elevation - as seen at Pembroke College above - often allowing a glimpse into a courtyard beyond.



The Partnerships Lab will be located adjacent to the Atrium

## Partnerships programme

Located on the ground floor of the new building, next to the entrance, is the Partnerships Lab. This fully equipped science laboratory for 24 pupils will be staffed by specialist teachers from Magdalen College School and offer daily sessions to schools in Oxford and the wider region - tripling the number of pupils accessing the school's existing partnerships programme from 60 to 200 in a typical week.

Pupils will also be able to access the building's Atrium, designed for spill-out of teaching as well as demonstrations, displays and science-led community activities.



## The Library

A purpose-built Library will provide the school with a much needed new academic heart, encourage a life-long love of reading for pleasure, and provide a dedicated space for study - while also releasing vital internal space for pupil recreation and circulation within the main teaching block.



## Science labs

The building will provide state of the art labs specific to teaching Physics, Chemistry, Biology and Computer Science. Each subject will be supported by a dedicated prep space.



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# Landscape, Trees and Biodiversity

## Tree retention strategy

The mature trees at the front of the building enhance the street-scape along Iffley Road.

The proposal ensures the retention of most of these trees.

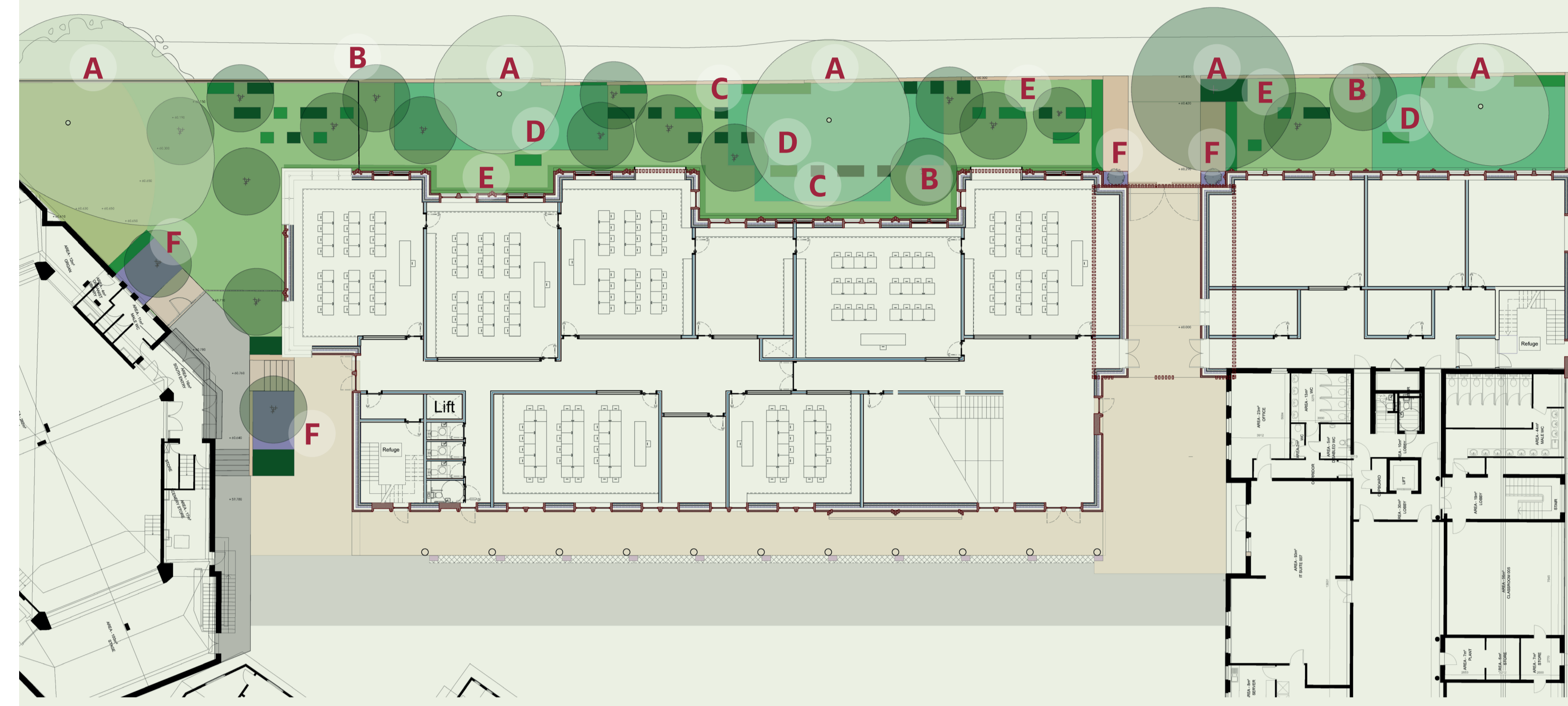
After consulting with Oxford City Council's Tree Officer, the building footprint has been designed with setbacks to provide ample space for the roots and branches of these large trees.

Two mature trees are proposed for removal:

- Tree No 8: A native Ash affected by Ash dieback, which will weaken it further.
- Tree No 9: A Small Leaf Lime, planted too close to Tree No 10, crowding its growth. Removing one will allow the other to grow more freely, reaching a similar size to other retained trees.

To offset the loss, a large specimen tree is included in the landscape plan, strategically placed between Trees T10 and T7 to complement the existing tree pattern.

Tree numbers shown follow the numbering used on the main tree survey of the school



## Soft landscape and planting strategy

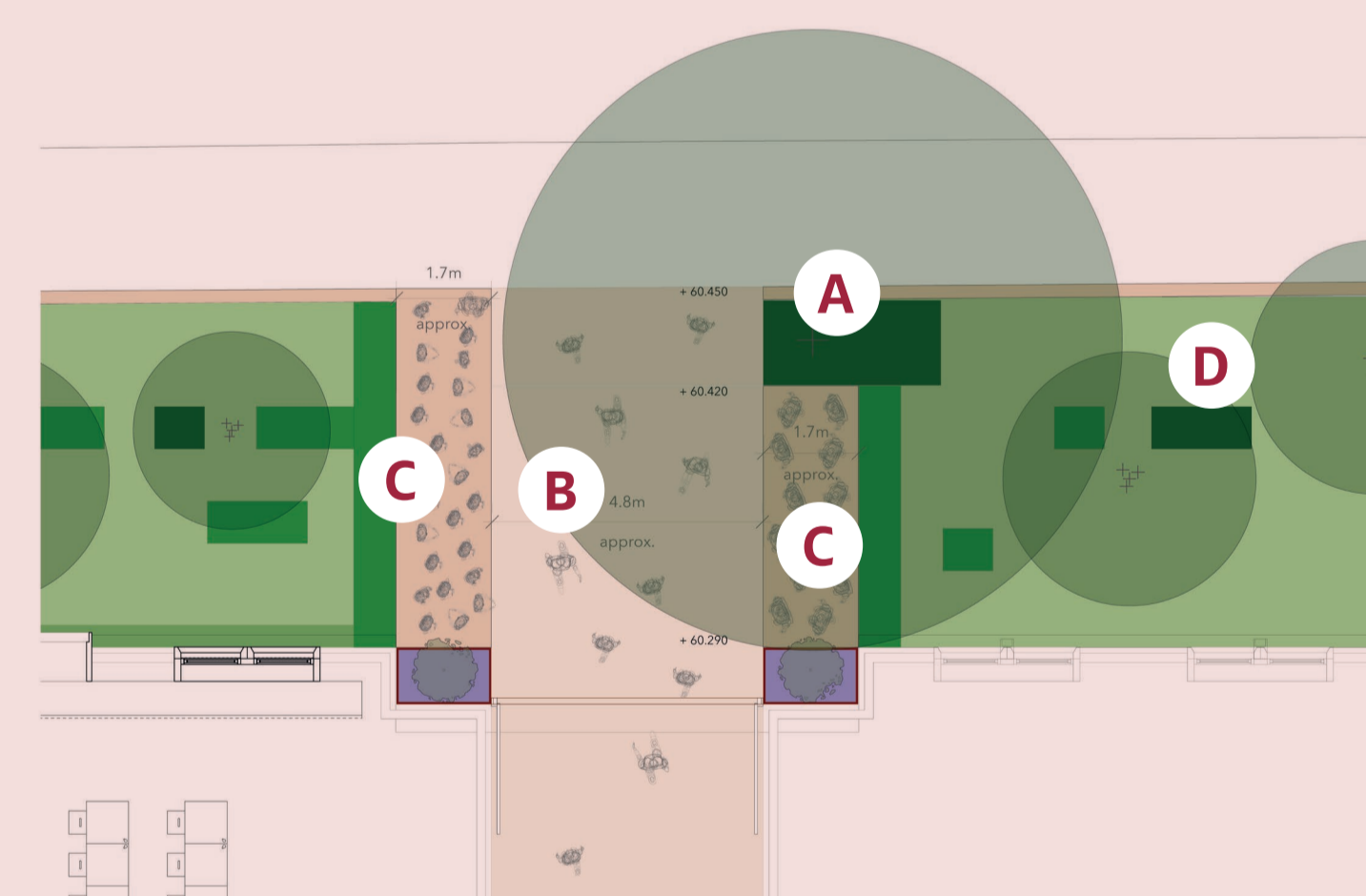
The proposed soft landscape, which retains most of the mature trees along Iffley Road and adds a new specimen tree to compensate for two removals, was praised by the Tree Officer for its vertical layering and rich ground-floor flora which will overall increase biodiversity and improve ecological habitats.

The planting types, from top to bottom, are:

- A** Retained or new high canopy trees.
- B** Multi-stem trees providing intermediate canopy cover.
- C** Clipped hedgerow blocks (mostly native species) offering depth and partial screening without fully blocking views. The overall quantity of hedgerow blocks will be greater than the current length provided by the continuous boundary hedge.
- D** Shade- and drought-tolerant shrubs, planted within root protection areas, growing to about 1.5m and providing subtle screening.
- E** Ground flora of shade-tolerant herbaceous perennials, both evergreen and deciduous, protecting borders from erosion as well as providing habitat for wildlife.
- F** Ornamental beds with herbaceous perennials, focusing on ornamental value near the main building entrance.

## Illustrative view and plan of entrance area

Showing proposed replacement tree (A), main entrance path (B) and side areas (C) where pupils can comfortably wait for their bus to arrive without over-spilling on the main path or on the public pavement. (D) view of the landscape southwards towards the proposed Library.



## Typical sections showing existing and proposed landscapes



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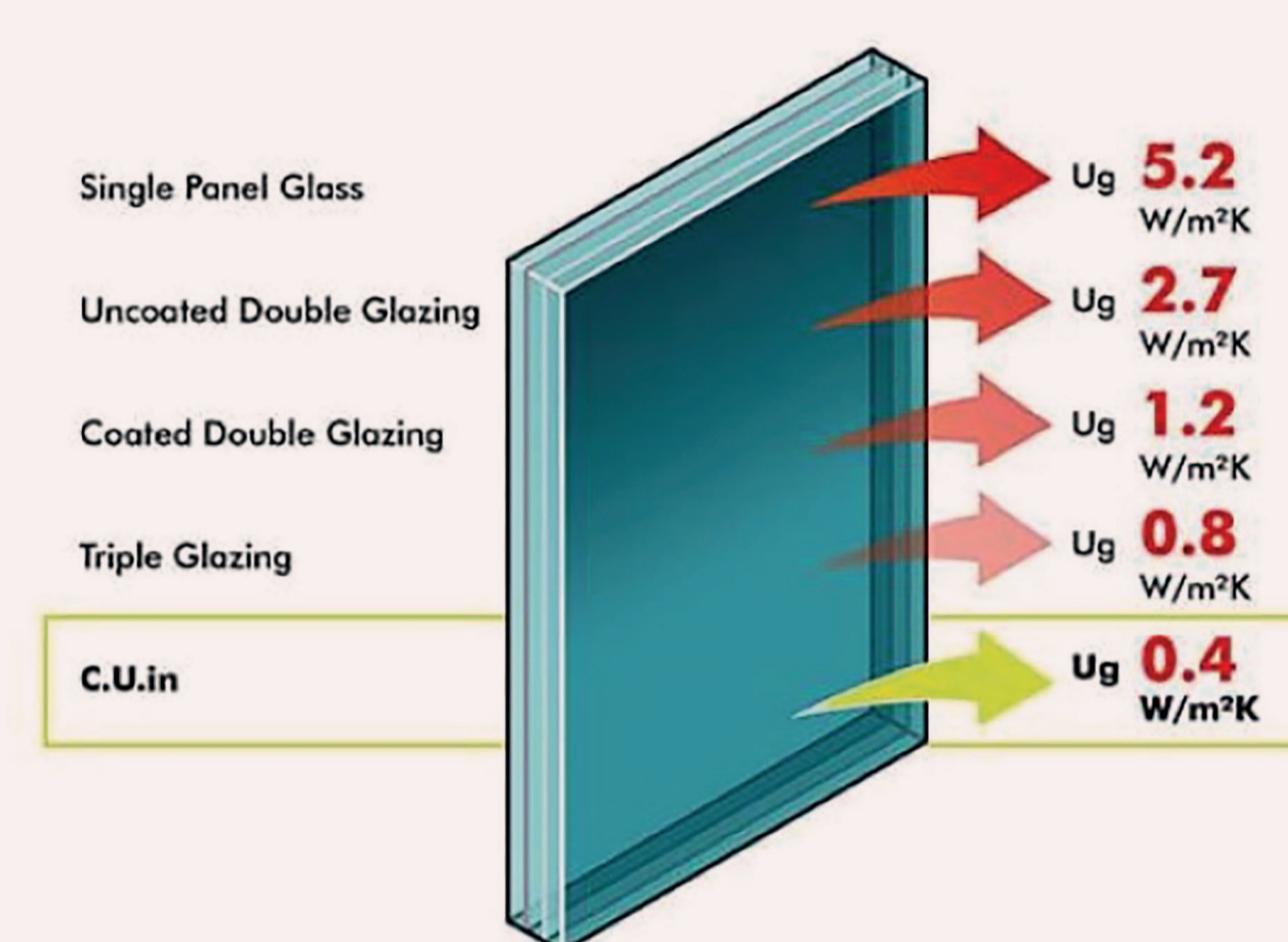


# A Sustainable New Building

The school recognises that its activities and actions have an impact on the environment, locally, nationally and globally. It is committed to ensuring that the proposed building contributes towards a sustainable environment for future generations and supports the school's Sustainability Strategy. It will be developed to achieve carbon reduction targets in accordance with Oxford City Council's adopted Local Plan 2036, and will include the following measures:

## BREEAM

The Building Research Establishment Environmental Assessment Method (BREEAM) rates a building's environmental credentials against a wide range of environmental and health and well-being issues. BREEAM rating Excellent is currently proposed for the project and should be readily achievable given the current design proposals.



## Reducing carbon emissions

It is proposed to deliver a building with minimal carbon impact by focusing on both operational and embodied emissions.

### Net zero carbon

The building will be designed to be net zero compatible for operational energy emissions by:

- Eliminating fossil fuel use.
- Minimising annual energy consumption.
- Maximising renewable energy generation.
- Implementing circular economy principles in design and construction.

### Operational energy efficiency

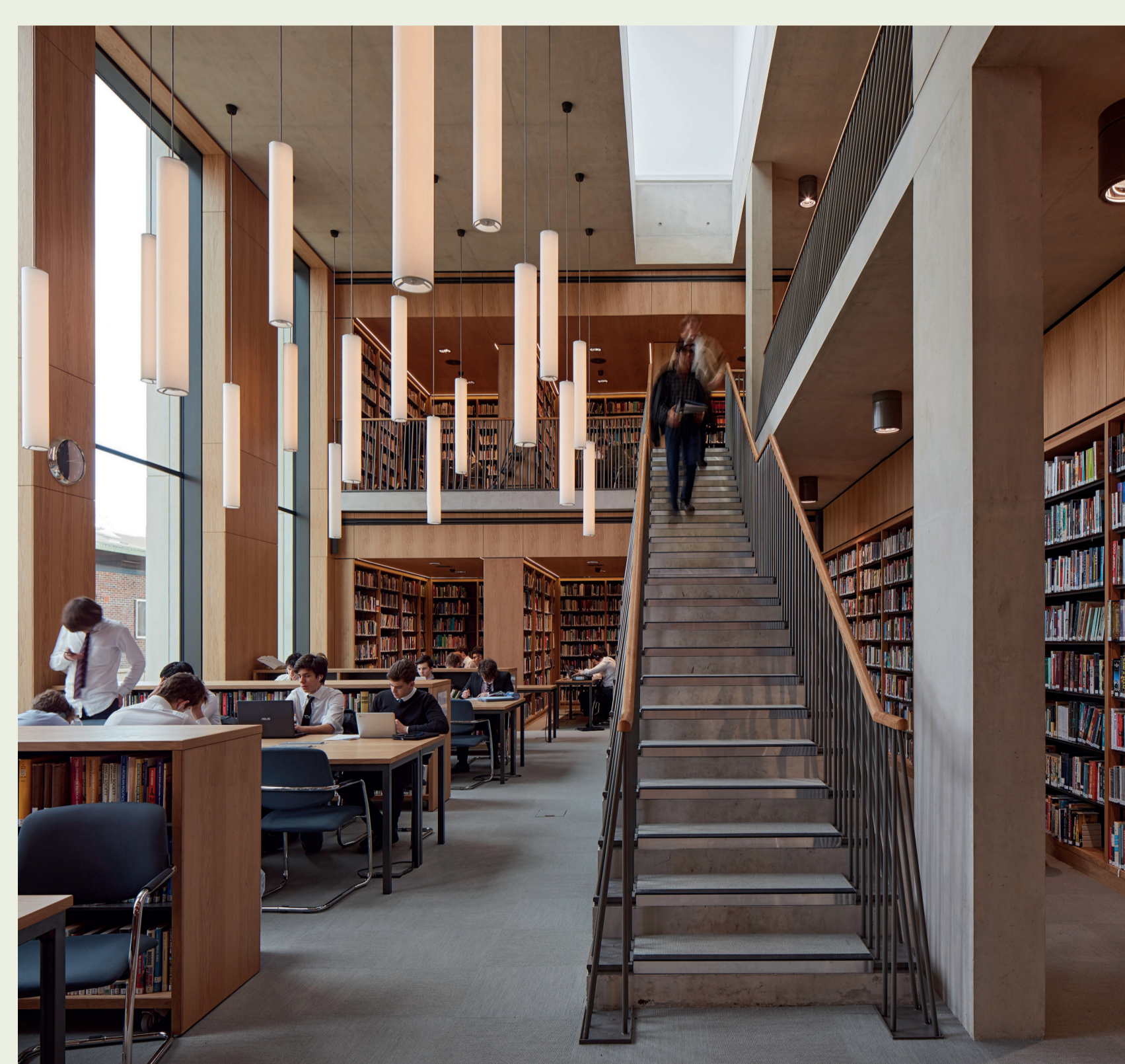
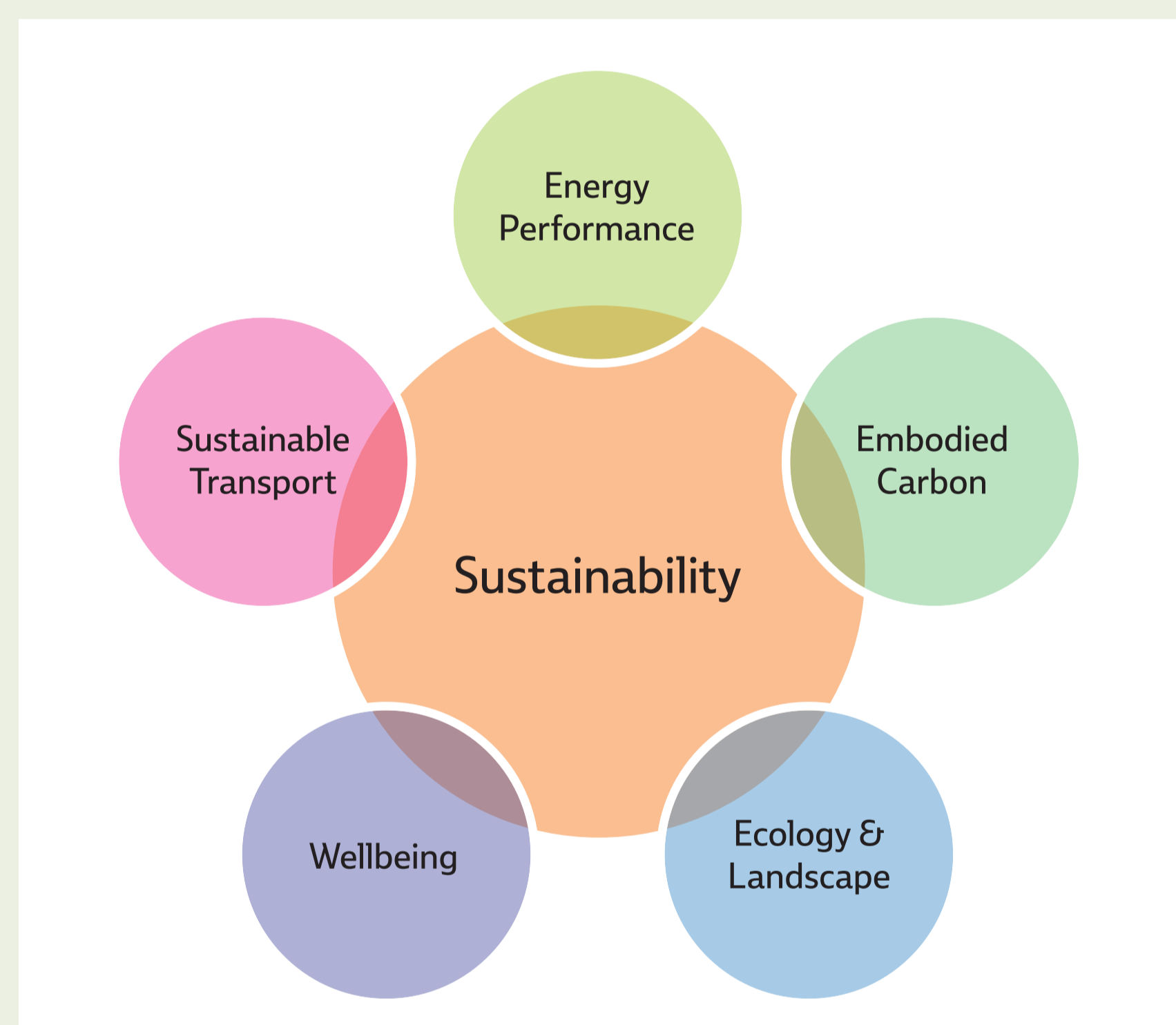
The proposed building will aim to achieve 40% less (regulated) CO2 emissions than the Building Regulations Part L standard.

### Embodied carbon reduction

The design also prioritises minimising embodied carbon by:

- Using efficient structural elements and lightweight materials.
- Correct sizing of heating, cooling, and ventilation systems for typical, not peak, conditions.
- Selecting durable materials and products with long lifespans.

Together, these strategies ensure a low-carbon, sustainable building that reduces environmental impact while maintaining high performance.



## Design hierarchy

*Be lean, be clean, be green*

**Be lean** - The building is proposed to have excellent standards of energy efficiency. A passive first approach with very high standards of insulation, airtightness and solar heat gain management is proposed.

**Be clean** - Highly efficient building services including mechanical ventilation with heat recovery (MVHR), heat pumps for heating and cooling, LED lighting and energy saving control systems.

**Be green** - It is proposed to include as much photovoltaic (PV) as possible on the building. The areas identified so far for PV are the roof space above the 2F classrooms and the roof space above the rooftop plant room. This amounts to an approximate PV area of 300m<sup>2</sup>.



## Water use

The building is proposed to be highly water efficient. The following strategies are being considered and will be continued through to the next design stage:

- Very low water use fittings and appliances.
- Automatic shut off systems.
- BMS integrated water metering.

Adapting the existing buildings is not viable; a new greener building is more sustainable in the long term.



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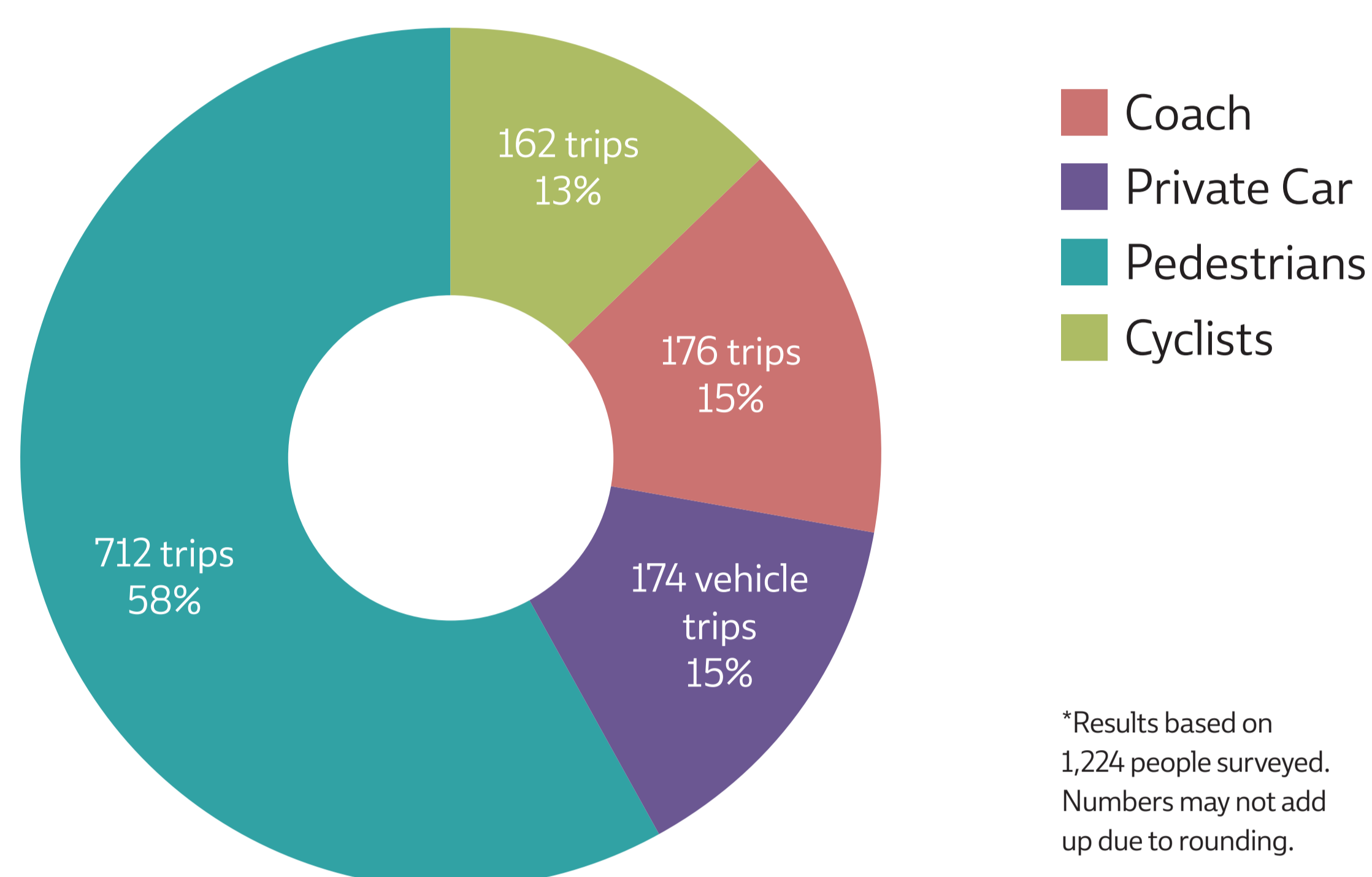


# Transport and Logistics

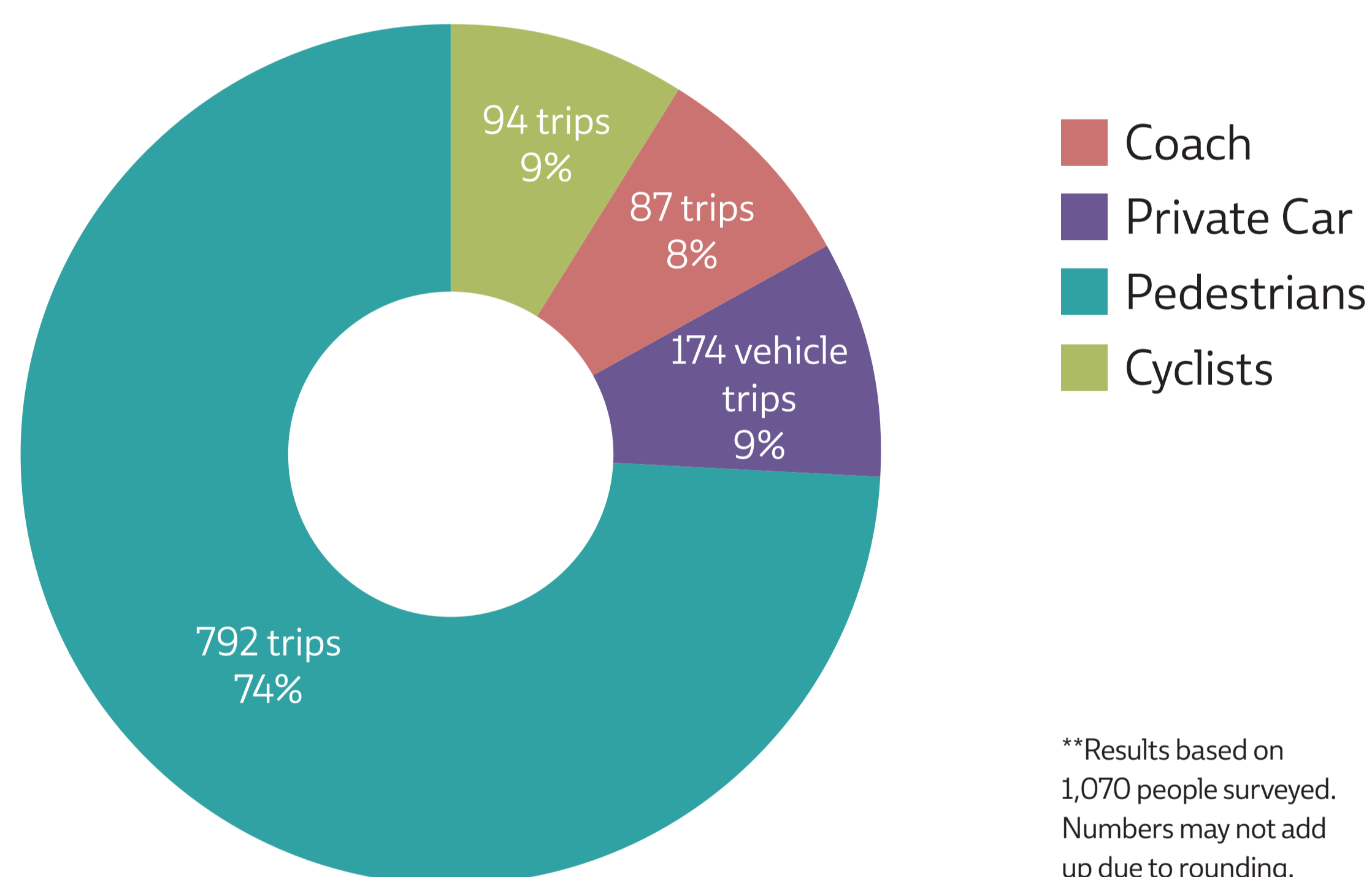
The school recognises the high volume of traffic in the immediate area. It has an active traffic management strategy in place to support pupils and staff to take sustainable journeys where possible, and a target of continuous improvement. The school recently carried out an exercise to assess its travel footprint. Surveys were organised by the transport consultancy Motion across a period of three weeks, to assess traffic in the area during term-time and school holidays. The surveys found:

**1**  
86% - 91% of all travel to school is made by non-car modes. Over 200 pupils are enrolled on school coaches.

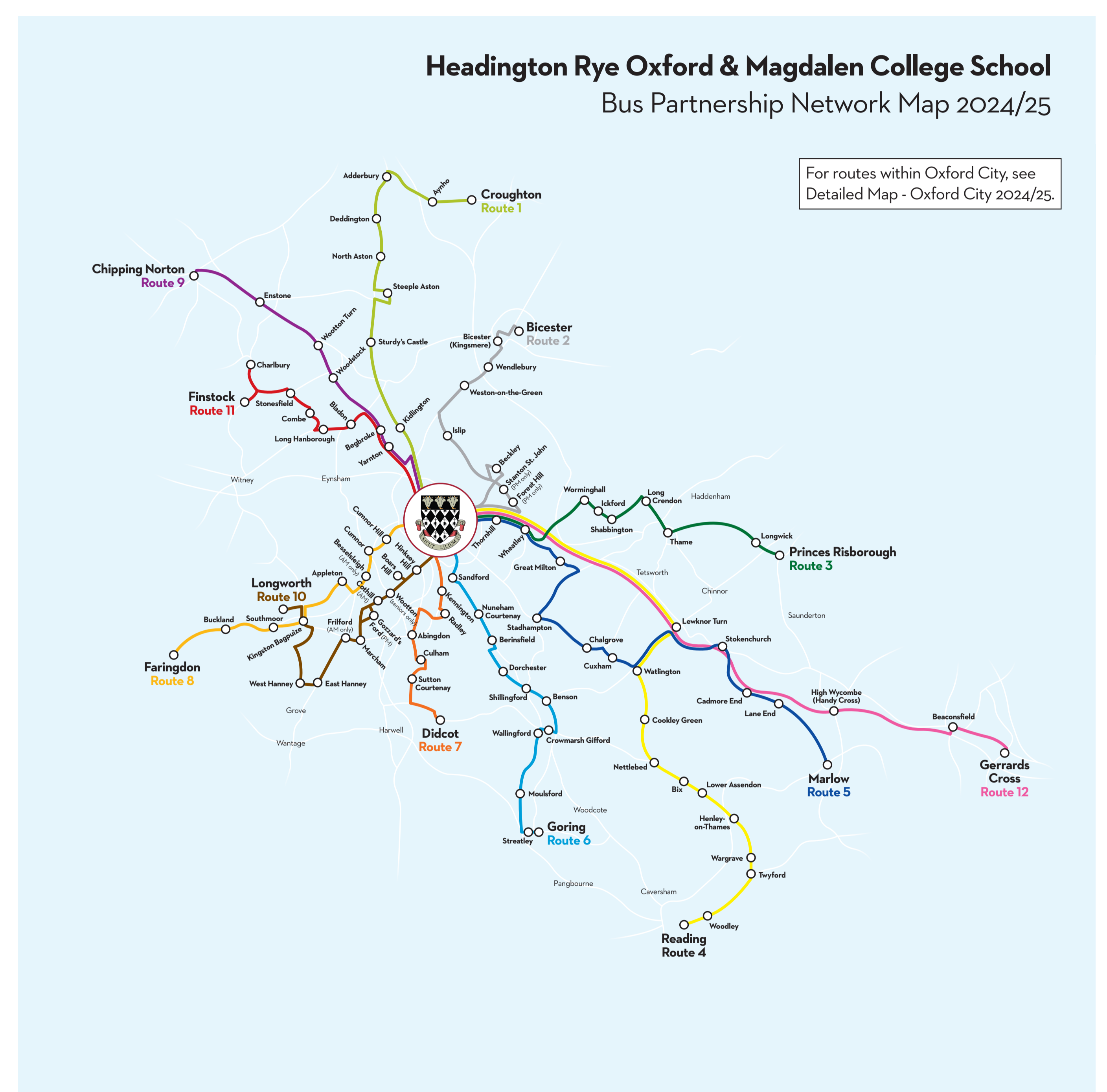
Weekday AM Average MCS Modal Split (07:00-08:30)\*



Weekday PM Average MCS Modal Split (15:00-16:30)\*\*

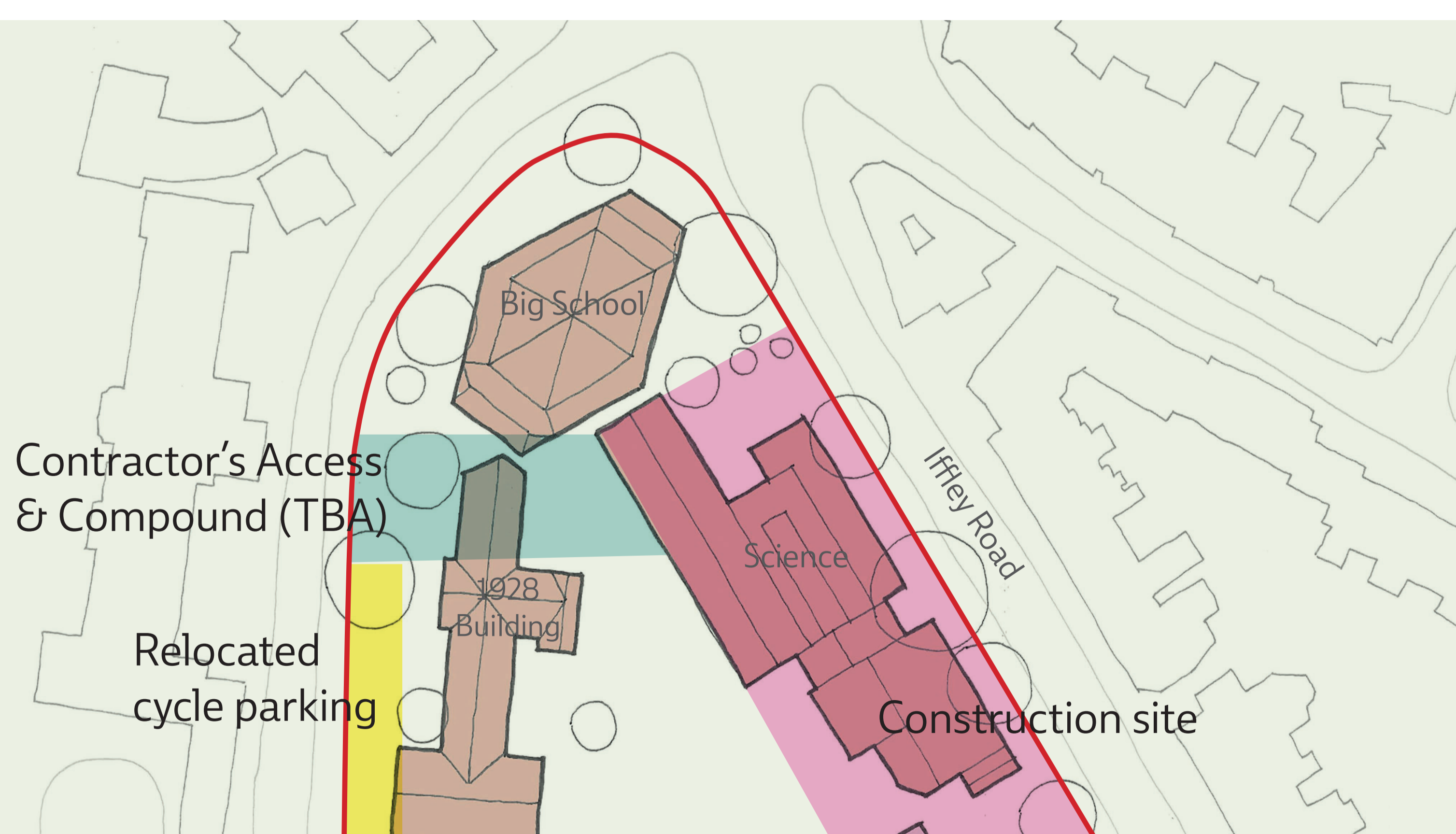


**2**  
The school operates a subsidised bus service across 12 routes



During the AM drop off period, the average MCS coach stopping time was 58 seconds.

During the PM pick up period, the average stopping time was 2 minutes and 43 seconds.



## Logistics

- Contractors will access the construction site via a dedicated temporary route from Cowley Place (TBA with County Council)
- No deliveries around peak morning drop offs, or afternoon pick ups (as per the school's last project).
- No contractor parking on site.

Thank you for engaging in this consultation process. We look forward to reviewing the feedback received as we continue to progress the proposals.



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