ATKINS

Richmond upon Thames College

Richmond upon Thames College STEM Building

Design and Access Statement

August 2019

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The Purpose of the Statement

This Design and Access Statement has been prepared to accompany the Reserved Matters Application (RMA) to London Borough of Richmond-upon-Thames for the Richmond upon Thames College STEM Building. The Richmond-upon-Thames College campus is being developed in phases and Reserved Matters Details are being submitted for each Development Zone or phase thereof.

The proposed development has been designed to encompass a variety of faculty disciplines located within a four storey building. This is also developed in conjunction with extensive soft and hard landscaping proposals to unite the campus.

The Design and Access Statement will analyse the local context in relation to the development and explain the design principles and concepts which have been derived through the analysis of the local context and in response to the parameters set within the Outline Planning Approval (Ref 15/3038/OUT).

The Design and Access Statement will address the following considerations:

- Assessment of the site
- Layout
- Scale
- Appearance
- Landscaping
- Access and Movement
- Parameter Plans
- Development Specification
- Design Code
- Building Zone Guidance

The proposed development will enable the College to improve the education of younger people and contribute further to the local community. The STEM Building has been designed with a vision to enrich the surrounding community through the delivery of specialist education to a wider demographic. This vision will allow for businesses and universities to prosper from the high capacity of students that are all empowered by the College's vision:

"Building Futures, Achieving Ambitions".

Contents

1 Introduction

1. Introduction

1.1. Document Aims

This Design and Access Statement has been prepared by Atkins in liaison with the wider project team. It refers to the 'Building Zone 2' of the College Development Zone and surrounding land including Marsh Farm Lane north of Craneford Way. The proposal is referred to as the STEM Building and is located towards the south west corner of the College Development Zone.

The college initiative is a part of a wider redevelopment of the education campus known as Richmond Education and Enterprise Campus (REEC), which was subject of an Outline Planning Application to London Borough of Richmond-upon-Thames, granted on the 16th August 2016 (15/3038/OUT).

Subsequently, Reserved Matters Applications have been approved for College Building Zone 1, 3 and The Schools Building Zone. A resolution to grant consent for the Residential Development Zone was made on 24th July 2019.

The School is now operational on site and the College Building Zone 1 is due to be operational in February 2020.

This Design and Access Statement accompanies the Reserved Matters Application for the STEM Building (College Building Zone 2) and includes details of the proposed upgrading to Marsh Farm Lane.

Outline Planning Parameter Plan PL-04 - Site Building Zones

1.2. Richmond Education and Enterprise Campus

The ambition is to create an outstanding campus for specialist education, skills and enterprise, bringing with it significant community benefits and urban improvements.

REEC is made up of key partners:

- Richmond-upon-Thames College,
- Haymarket Media Group,
- Harlequins,
- Clarendon School,
- Waldegrave School,
- Richmond Council,
- Achieving for Children

The organisations involved are committed to working together to create an innovative campus which is better equipped for the future.

Vision

The vision is to create a new Campus for Education and Enterprise; an innovative College of further and higher education, working in partnership with Haymarket, Harlequins, their partners and other successful global companies and local employers. A new, much needed, 11-16 five form secondary school; purpose built accommodation for Clarendon School's secondary pupils; and, Haymarket's new "Tech Hub" and digital media incubator.

The Campus will provide unparalleled opportunities for developing skills and pursuing employment through work experience, apprenticeships and ultimately, jobs.

The key partners share a strong common commitment to promote quality, innovation and enterprise. This is a unique opportunity to introduce high quality teaching and learning together with a commercial and business portfolio and a new community offer.

This redevelopment will derive support from these organisations through the utilisation of strength and expertise of their staff. This partnership will act as a launch pad to create a new venture of national significance in the heart of Richmond upon Thames.

By sharing an estate the College and schools will operate on a coherent basis, providing seamless access to facilities and expertise. The Richmond Education and Enterprise Campus (REEC) will provide:

- Opportunities for joint curriculum development between the schools and College, and unified planning between them;
- Greater educational choice on a single site;
- Access to shared facilities and staff expertise that would not be possible in most school settings;
- Opportunities to share best practice in teaching and learning;
- Economies of scale that strengthen the business model and provide a platform for further innovative developments;
- Access to work experience opportunities, internships and Apprenticeships – with Haymarket, Harlequins, and other local employers;
- Access to the new Haymarket "Tech Hub", through the Haymarket Skills Academy, providing state of the art facilities, industry standard technology and the opportunity to work with established professionals.

1.3. Executive Summary of Proposals

This phase of the Richmond Education and Enterprise Campus (REEC) consists of a site area of 6.4 Ha.

The building is an integral part of the wider development and is a key factor in accomplishing the educational aim which is to achieve the following:

- Renew and rationalise the estate;
- Create a versatile and fit for purpose estate;
- Support economic growth;
- Develop technical talent to support SME growth;

The building is funded via a combination of land sale revenues and capital funding support from the LEP. Construction works will commence following completion of the College Phase 1 building, once existing buildings located within the proposed footprint have been demolished.

The design proposal remains consistent with the Outline Planning Application (15/3038/OUT) approved by the LBRUT and is within the relevant design parameters set by that submission.

Design Proposal Summary:

The STEM building forms a further phase of the REEC redevelopment and is located on the western edge of the site and neighbours the proposed Sports building. The Gross Internal Area of the STEM building is 5,343sqm over 4 storeys.

The new STEM Facility is designed as a building to be used by Richmond upon Thames College. Internally, it is divided into two distinct areas that work to segregate workshop & classroom activities.

As set out in the Outline Planning Approval the STEM Development Zone is located along Marsh Farm Lane, to the west, whilst the east faces the School side. The North faces to the Main College and the south faces the Sports Building.

At ground and first levels the STEM building will provide large flexible workshop spaces that will accommodate the subjects of automotive research, engineering, carpentry and masonry.

The levels above have been designated for teaching 'cleaner' activities within more traditional cellular classrooms, which will be positioned around a central atrium to create an open and light learning environment.

The buildings internal programme and layout responds to the building's orientation maximising gains from natural daylight and ventilation.

Along Marsh Farm Lane glazing at ground floor is used as a visual connection between key internal workshop spaces and external pedestrian routes, 'showcasing' the innovative learning spaces.

To welcome students and visitors, the ground floor entrance acts as a bridge between the public and private spaces of STEM. The entrance faces the Main College building across the plaza.

In the design of STEM careful consideration has been given to harmonising its form, massing and material palette with other buildings on the campus, albeit with its own distinct character.

Consideration has been given to STEMs relationship with the rest of the masterplan and in particular the role the building plays in establishing the character of the Student Plaza.

The STEM Reserved Matters Application demonstrates how the design proposals comply with Design Guidance for Building Zone 2 and the surrounding area.

The building proposal responds to design guidance by creating a simple building form and an identity that fits harmoniously within the surrounding context of the Sports and Haymarket buildings.

The landscape for this phase of development follows the masterplan principles of the Campus to maintain a cohesive and unified aesthetic. This is intended to create a safe and comfortable environment where passive supervision and secure boundaries are clearly identified along a new shared surface route

1.4. Existing Facilities

Richmond Upon Thames College is an historic site that carries a considerable amount of planned maintenance liabilities. The existing accommodation is not fit for purpose and thus fails to provide a modern teaching environment for students. Educational accommodation has existed on the College site since 1937 and the site has undergone many alterations and building development over the last 80 years.

The current College technical facilities sit in the north west of the site, between the A316 Cherstsey Road and Langhorn Drive.

The demolition of the existing KLM building will be required to develop the STEM Building Development Zone.

1.5. Proposed Facilities

The new STEM building is as key part of the College vision and represents modern teaching. It is this approach to teaching and learning within an integrated education campus that will enable students to go on sharing and contributing to the community of both Richmond upon Thames College and the wider community.

The proposed development provides a high proportion of much needed vocational learning space, such as, a state-of-the-art automotive workshop, fully equipped engineering labs, carpentry and masonry workshops set up to teach modern methods of construction.

The first floor comprises installation trades, namely electrical and welding facilities. The building floor plates are designed to be flexible to allow curriculum areas to expand or contract as the curriculum evolves.

The second floor will provide multifunctional teaching spaces, it support vocational spaces on the lower floors. In addition to this, there is be a lecture space and open cafe space, providing much needed social learning space. These central spaces are designed to be more flexible offering opportunities for informal and collaborative learning.

The third floor of the STEM building is centred around an open atrium. Around the periphery are advanced science laboratories and IT suites..

The STEM building is a specialist centre that will provide an innovative learning environment to support a diverse range of teaching and learning scenarios. There is an opportunity to provide an active learning experience and the college's own opportunity to engage with industry professionals in simulated work environments.

2 Assessment

2. Assessment and Character

2.1. Site Location & Context

The application site is located in Twickenham, part of the London Borough of Richmond upon Thames in south west London, Twickenham lies just west of Richmond, separated by the River Thames.

The aerial view of the site (opposite) shows the proximity to the neighbouring Twickenham Stadium to the north and the Harlequins Stadium to the west. Twickenham main line railway station is located to the south east of the proposed site, a ten minute walk.

The application site is adjacent to Marsh Farm Lane, which runs from the A316 (Chertsey Road) past the College's Main Building & Playing Field sites. In accordance with the Outline Planning Permission and specific planning guidance for the site, Marsh Farm Lane will be upgraded, as it serves as an important pedestrian and cycle route to the College site. This upgraded route will improve connectivity for the College, encouraging pedestrian and cycle access to the site, as well as providing vehicular access to the STEM and Sports Facility buildings. The proposed STEM building will act as a key landmark in the important approach to the site from both the North and South. There is an aspiration to reveal internal activity of the ground floor workshops along Marsh Farm Lane to create a clear identity for the STEM building.

The proposed STEM building is sited close to new parking on the southern boundary, these spaces will allow for staff parking during the day and community parking out-of-hours.

Generally, the topography of the site is relatively flat with approximately 200-300mm variation across the site. This has allowed the ground finish floor level to be set in accordance with the Outline Planning Application and for the building to remain within the height parameters of the Outline Planning Application.

Visitor parking spaces are located to the north of the building within the first phase of development and opposite the main entrance to STEM

Proposed STEM Building site (College Building Zone 2)

Site Location

2.2. Design Code Character Analysis

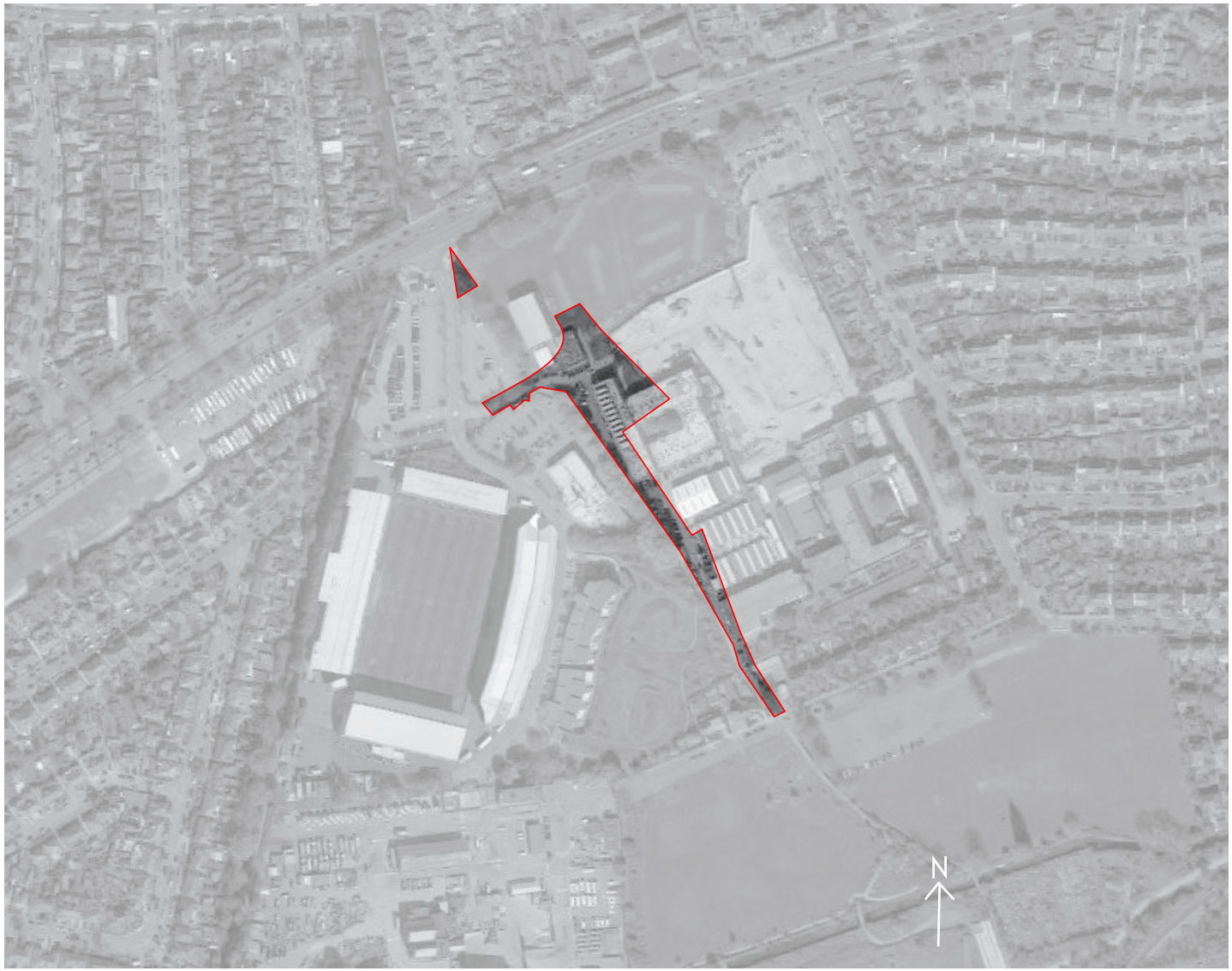
The proposals are driven by the Design Code submitted as part of the Outline Planning Application. The Code states that "the redeveloped site will be composed from a collection of places, each with their own distinct character".

Through the character analysis and with reference to the Design Code the proposals seek to promote the following design principles:

- Sustaining and enhancing the local character
- Promoting legible development that has a clear and understandable layout
- Promoting clear and legible access points and entrances
- Enhancing and creating a successful relationship between public and private space.
- Promoting a cohesive development
- Promoting quality and identity
- Promoting sustainable, innovative and inclusive design.

An analysis of the surrounding built context has been undertaken to inform an appropriate scale and form of the proposed development of the STEM facility to enable its integration into the overall campus masterplan and into the wider urban fabric.

The Outline Planning Approval has supported a contemporary architectural response to the development proposals. This makes particular reference to the larger buildings in the wider context, such as the Twickenham Stadium and Harlequins Stadium. The proposed position fronting the new Student Plaza and the student approach along Marsh Farm Lane has also influenced our architectural response to the site.



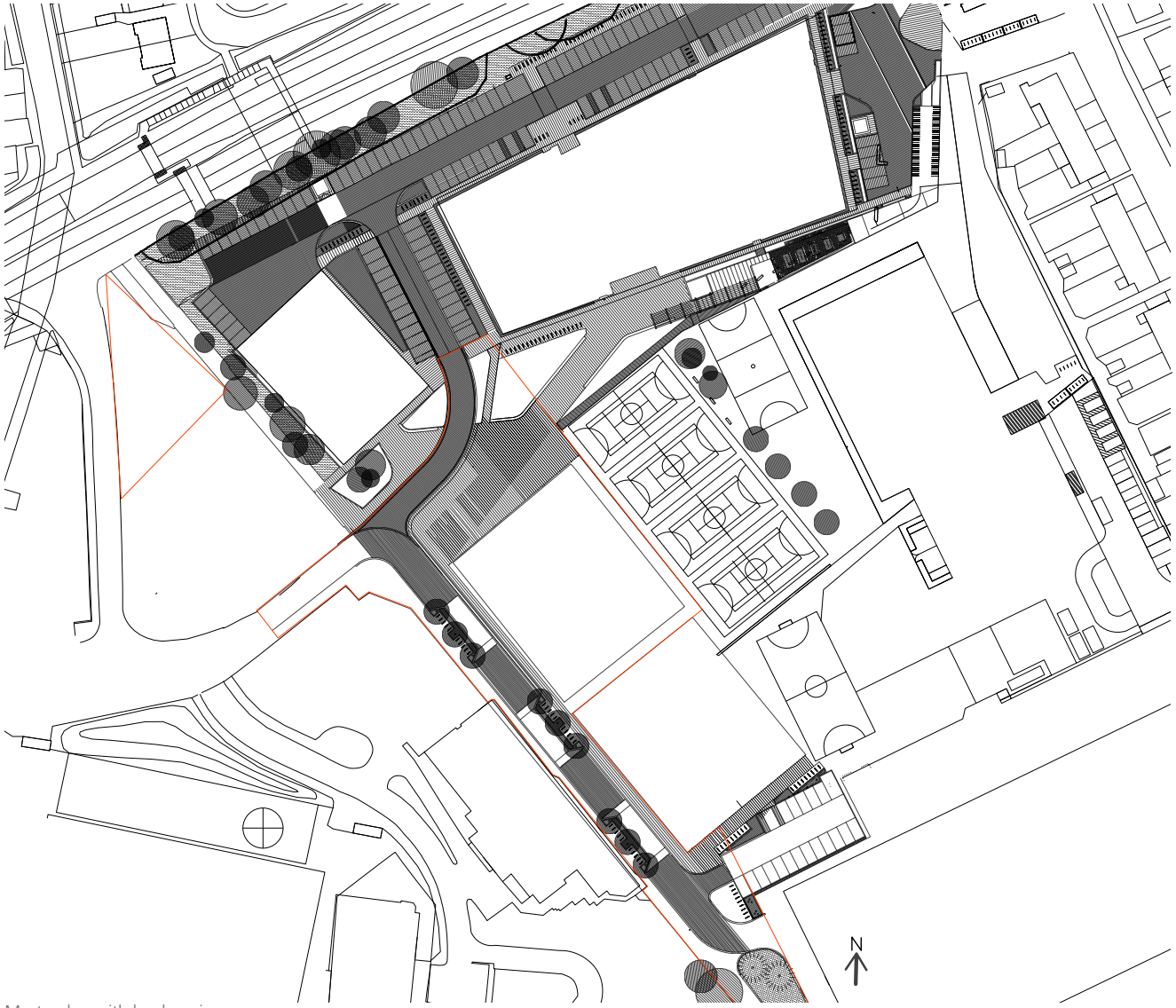
Aerial view of redline boundary of the phase 2 redevelopment

2.3. Illustrative Masterplan and Principles

The site masterplan has evolved through an iterative process involving all stakeholders in the Richmond Education and Enterprise Campus (Richmond upon Thames College, Haymarket Media Group, Harlequins, Clarendon School, Richmond Council and Richmond upon Thames College Free School Trust). The comments received at each stage have helped to inform the formation and structure of the masterplan. The evolving education briefs, twinned with continuous design engagement meetings, have enabled the College to play a vital role to inform the design of the masterplan. The building mass, height and internal layouts have helped to inform the position of main entrances, service access and external landscaping.

The STEM building sits in a prominent location, and will play a vital role in creating attractive external landscape spaces that links the new STEM facility to the wider campus buildings. The proposed building will provide a bespoke facility that provides training focused on the specific higher level skills required by local businesses and the wider community.

The masterplan development sets high standards for design quality and sustainability, It is the expectation from Richmond upon Thames College, that the STEM building will reflect this ethos.



Masterplan with landscaping

Access Principles

The STEM building will be accessed via Langhorn Drive which will be suitable for general and service vehicles. Marsh Farm Lane will have a designated vehicular route that is clearly distinct from the pedestrian route through variation of ground surface material. Delivery vehicles to STEM will be able to access the Service Yard from Marsh Farm Lane. The main student access will be from the college plaza at the north of the building.

Building Elements

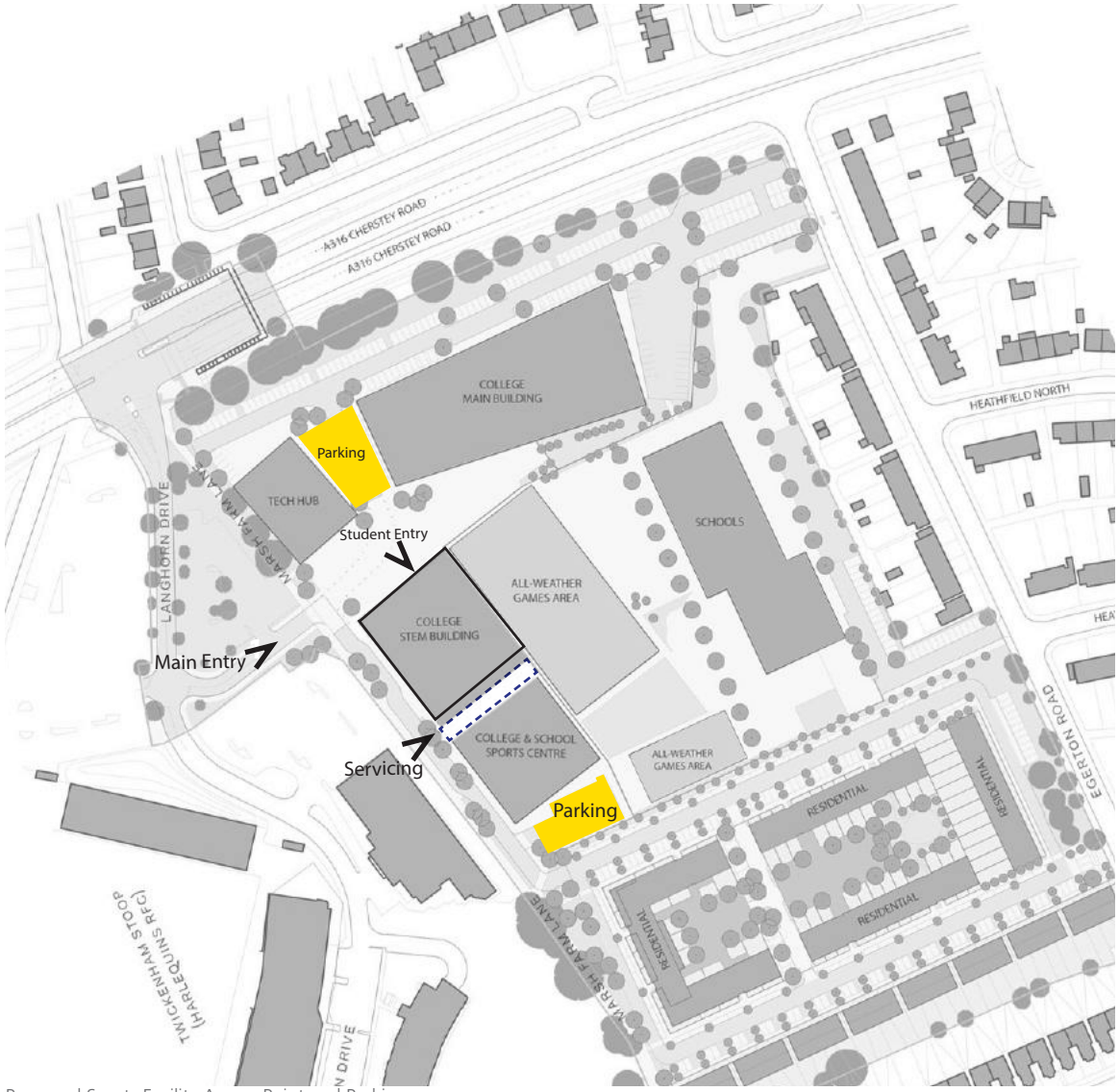
The STEM building is composed of 4 storeys to provide the necessary building accommodation and massing. The facade design is based on a simple yet elegant language with materials and proportions designed to harmonise with the other buildings on the campus. The built fabric is of appropriately high standard for STEM workshop activities and provides a meaningful contribution to its location adjacent to the Sports Building.

To create openness and transparency on the ground floor a glazed curtain walling system is used, revealing the activity within workshops and acting as a 'Shop Window' to the STEM building.

Upper floors have more punctured openings reflecting the smaller type spaces on these levels. A large scale 'Picture Window' is situated above the main entrance and responds to the Main College Building opposite by angling towards the entrance (refer to drawings 5186066-ATK-V1-ZZ-DR-A-1400 and 5186066-ATK-V1-02-DR-A-1102).

At the second and third floors perforated metal panels will form a 'skin' that wraps around the building Within this system windows will be introduced as punched openings for day lighting and ventilation to the classroom spaces.

Parking Key View Servicing



Proposed Sports Facility Access Point and Parking

Parking

Parking for the STEM Building is located adjacent to the Main College Building and set down points are located opposite the main entrance, adjacent to the Haymarket building. Visitors will also be able to use the parking located around the Sports Facility. Larger service vehicles such as refuse and delivery vehicles will use the designated Service Yard between the STEM and Sports building.

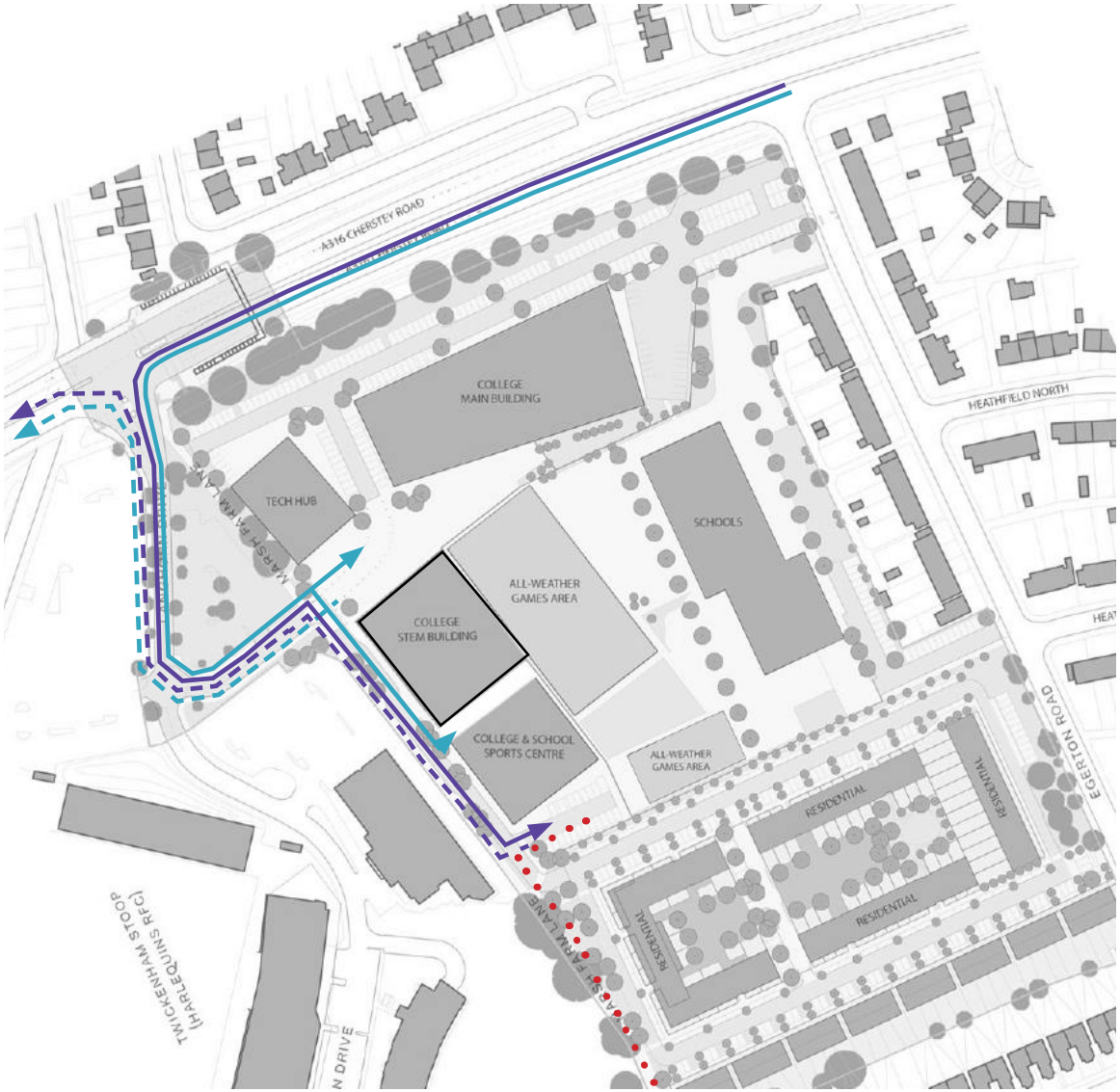
Vehicular Routes

Vehicular access to the proposed STEM building will be from the A316 (Chertsey Road), via Langhorn Drive and across Marsh Farm Lane.

The primary egress from the car park will be via Langhorn Drive. An emergency access / egress point is provided on Marsh Farm Lane.

The connection to adjoining parts of Marsh Farm Lane is limited to pedestrians, cyclists and emergency service vehicles.

In relation to condition U07965, the relatively flat nature of the site provides uninterrupted and accessible routes for disabled people to gain access to the building and wider site.



Proposed Masterplan Vehicular Access

Pedestrian and Cycling Routes

For STEM Building users the primary access point will be from the college plaza. Secondary access will be provided from Marsh Farm Lane, on the western boundary, via an escape stair core at the rear southern facade of the building.

It is envisaged that the primary pedestrian route to the neighbouring Sports facility runs adjacent on Marsh Farm Lane, which will be used by both College students and the community. There are dedicated short term cycle spaces opposite the STEM building entrance.

Marsh Farm Lane will provide a dedicated cycle route that will connect into the planned cycle highway along Chertsey Road.

Phase 2 boundary Pedestrian Access

Proposed Masterplan Pedestrian Access

2.4. Site Constraints and Opportunities

As part of the design process and site analysis the constraints and opportunities associated with the site have been assessed and summarised as follows:

Constraints

- The maximum building envelope has been defined by the College Building Zone 2 parameter plan. This parameter plan (refer to PL-08A) sets the spatial constraints for the Building Zone and states a maximum Building length of 59m, a width of 39m and height of 19m
- The proximity to the adjacent Building Development Zone 3 (Sports Building) which will influence the materiality selection and servicing of the STEM Building
- Aircraft noise associated with the Heathrow flight path which may impact on natural ventilation strategies
- High water table which may present structural foundation complications
- Public Right of Way across the site for Harlequins to be maintained to provide free and unobstructed access during construction and as built.

Opportunities

- Relatively flat gradient site allowing flexibility in building location
- Passive energy strategy; Efficient daylighting and energy strategies through building orientation
- Opportunity to create a focal point/identity through showcasing the automotive workshops
- Opportunity to create positive contribution to central green space at the heart of the masterplan
- Enhance existing pedestrian and cycle flows through and around the site
- Respond to distant views within the site to create a distinctive building
- Opportunity to enhance ecological biodiversity through boundary treatments and open space
- Opportunity to create high quality public realm
- Potential to expand quality public realm

Design Response

The STEM building design responds to the constraints and opportunities as detailed within Sections 3, 5 and 6.

Section 3 details the design vision for the building and the ambition to create spaces that will provide functional and flexible teaching and learning environments that adapt to the changing needs of the College in the future. Additionally, this section sets of the buildings environmental strategies and sustainability criteria.

Section 5 describes the scale and mass of the STEM building and demonstrates how the building design responds to the Outline Design Code.

Section 6 provides detailed information for the site landscaping. This elaborates how the STEM building creates a positive contribution to the central student plaza and enhances the pedestrian flows around the site.

Site Constraints and Opportunities Plan for Building Development Zone 2