

Robotics Living Lab Pavilion

Design & Access Statement

MFI-BA-XX-XX-TRP-A-0002

Manchester Fashion Institute
Manchester Metropolitan University

October 2023

Document Control

Document Title	MFI-BA-XX-XX-TRP-A-0002
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Company	Bennetts Associates
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Revision	P01
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Date	17 th October 2023
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Details	00412 Robotics Living Laboratory (Phase 2) Work in Progress Pavilion Design & Access Statement
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Address	Bennetts Associates 38 - 42 Mosley Street Manchester M2 4AF
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01. Introduction

Executive Summary

The Planning Application

This Design and Access Statement accompanies the planning application for the Robotics Living Laboratory Pavilion for Manchester Fashion Institute of Manchester Metropolitan University.

The project is located on the All Saints campus, in the courtyard of the Cavendish Building. This space is bordered by the Grade II listed Righton Building on the northeast edge.

The site was previously the site of a landscape pavilion that has since been removed from the site. The previous planning application reference is 106313/FO/2014/C1.

The proposal consists of single storey, timber framed building containing a single internal space. The use of the building will be for flexible workspace for the majority of the year with periodic exhibitions of work and events by Manchester Fashion Institute.

The pavilion is phase 2 of a two-phase project. It forms the interactive element that intends to promote and showcase the work and research of Manchester Fashion Institute. This Work in Progress pavilion accompanies the phase 1 laboratory space in which the robotics research will be undertaken. This planning application is only concerned with phase 2 of the project.



Location of the project on the MMU All Saints campus, indicated by the red dot

The Applicant & Project Team

MMU & Manchester Fashion Institute

Manchester Fashion Institute are part of Manchester Metropolitan University (MMU) and are undertaking research into the combined fields of fashion and robotics.

They have set out a vision to achieve the following ambitions:

- Modernisation of the UK fashion industry
- Become world leading in fabrication with robotic/cobot technologies
- Re-shore SME production & retain IP rights, boost UK economy
- Support carbon neutral manufacturing to aid meeting the net zero manufacturing target set for 2038 by Greater Manchester Combined Authority
- Circular economic business models realised – based in multiple business cases and linked to micro factory scenarios

The pavilion is closely linked to this vision with equal ambitions to push low carbon design and adopt principles of the circular economy. This means the project seeks to use regenerative and low carbon materials throughout the design, and to construct the project in a way that means it can be disassembled allowing the materials to be re-used in the future.

Consultant Team

The following team of consultants have been appointed on the project with the following roles:

Bennetts Associates

Architect
Planning

Manchester Metropolitan University

Project Management

Curtins

Structural Engineer
Civil Engineer

Pettit Singleton Associates

Services Engineer

Exterior Architecture

Landscape Architect

SDA Consulting

Cost Consultant

Faithful + Gould

Principal Designer



Example robot technologies

Consultation

Manchester City Council

Manchester Metropolitan University and Bennetts Associates have met with Manchester City Council's planning department on several occasions in 2023 during the development of the project.

The following feedback was received and has been taken on board to help form this planning application:



Site conditions as viewed on 5th October 2023

Pre-application meeting, Thursday 28th September

MMU and BA met with Manchester City Planning department to present and discuss the proposed scheme. The following comments were noted:

- The scheme is in the context of the Grade II listed Righton Building but will not touch the Righton Building.
- The scheme will retain the existing tree on the site.
- Secure by Design assessment should be considered.
- Acoustic information required to show noise levels wouldn't exceed the existing levels created by the new external plant equipment.
- Information is required so show the proposal will not create a glare issue with the lighting.

Site meeting, Thursday 05th October

MMU and BA met with Manchester City Planning department to discuss the submission requirements and review the current condition of the site and the Righton Building. The following comments were noted:

- The scheme is expected to be sufficiently away from the existing tree that is believed to be contained by the existing planter. Should substantial tree roots be uncovered during works, assessments will be undertaken to mitigate the impact on the tree.
- The rear façade of the Righton Building does not present any special considerations to the proposed scheme and the overall environs of the courtyard should be improved by the development.
- Secure by Design assessment is expected to be required due to the nature of the proposed building contents.
- The Construction Management Plan and Local Labour Agreement will be submitted as and when they are available but not with initial application.

The Site

Cavendish Courtyard

The Cavendish Courtyard is a hard landscaped courtyard space enclosed on three sides by the 1972 Cavendish Building by Sheppard Robson. The fourth side of the courtyard is closed off by the rear-façade of the Grade II listed Righton Building.

The space currently features a large masonry brick planter that features a large mature tree. The planter is filled with loose gravel stones and there is no soft landscaping in the courtyard.

Orientated on a southeast to northwest axis, the Cavendish Building is three storeys tall on the southeast and northwest sides and rises to six storeys on the southwest. This provides significant overshadowing to the courtyard. The building is brick clad with ribbon windows on each floor around the courtyard.

The Righton Building is two storeys tall with a predominantly featureless façade facing the courtyard. It is mainly adorned by various elements of building services equipment and several small, modern windows. The façade is a mix of white glazed and unglazed red brick.



Existing site condition, the existing tree, hard landscape and Righton Building façade

The Brief & Low Carbon Design Ambition

The Brief

Key requirements of the client's brief:

- **Flexibility**

The pavilion is required to function as both a temporary workspace for approximately 6 persons but also an exhibition space to stage shows and events to promote the work of MFI. Shows are expected several times a year.

- **Visibility**

The pavilion is required to attract attention and show off the activity and work inside the building, promoting MFI. It should be attractive and of suitable design quality.

- **Net Zero Carbon**

Aligning to both the university's climate commitments and MFI's agenda, the design seeks to limit the upfront carbon emitted. It also seeks to sequester or capture back as much carbon as possible, to offset the carbon that is emitted.

- **Design for manufacture and disassembly**

The intention is to facilitate the dis-assembly and future relocation or reuse of the building in the future, again aligning to the circular economy principles of MFI. Using modern methods of construction and off-site preparation of part of the building forms part of this strategy.

The following targets are set in line with the University's Leadership in Sustainability 2022 - 2026 enabling strategy and GM's Zero Carbon Manchester 2038 plan.

Embodied Carbon Target

The project team are targeting a low upfront carbon design by employing a strategic approach to the design and material selection for the project:

- Where possible, using low carbon alternatives to building materials, e.g. timber frame instead of concrete or steel
- Where possible, using biogenic/regenerative materials that will capture carbon in their production or life-cycle, e.g. timber, straw or lime

Certification Targets

- Due to the bespoke nature and small scale of the project, no specific certifications are being targeted, such as BREEAM, NABERS, SKA, Well, etc.
- Instead, measured outcomes are being set that will be tracked through the design and delivery of the project, incorporating relevant aspects of certifications as necessary.

Energy Use Intensity

- The design seeks to minimise the energy use intensity rating for the building by employing a well-insulated, airtight building fabric with passive climate control measures including natural ventilation and an air source heating and cooling system.
Refer to the accompanying Energy Statement for further information on the Energy Use Intensity.

OUR AMBITION WHERE WE ARE GOING

In working to deliver this goal, from 2022 to 2026 we will:

Implement our carbon management plan to stay on track to **reduce our carbon emissions** related to our fuel and energy use (scope 1 and 2) to zero, and our carbon emissions related to our value chain (scope 3) to net zero before 2038.

Embed sustainability and net zero into new and refurbishment building projects.

Implement services and systems that **support and enable sustainable behaviour**. These include sustainable procurement practices, food offering, resource use, waste, and travel management, and protecting and enhancing green infrastructure and biodiversity across the campus.

Undertake responsible investment practices as outlined in our Ethical Investment Policy.

Extracts from MMU's Leadership
in Sustainability 2022 - 2026 plan

Site Analysis

Constraints and opportunities

1. Hard landscape and tree planter

The tree is to be retained and the condition of existing masonry planter improved with new cladding and further soft landscaping/planting.

2. Research laboratory

The phase 1 lab space that will accommodate the robotics research element of the project is located facing into the courtyard. This provides an opportunity to have the lab and pavilion spaces create a relationship to each other.

3. Existing mechanical plant equipment

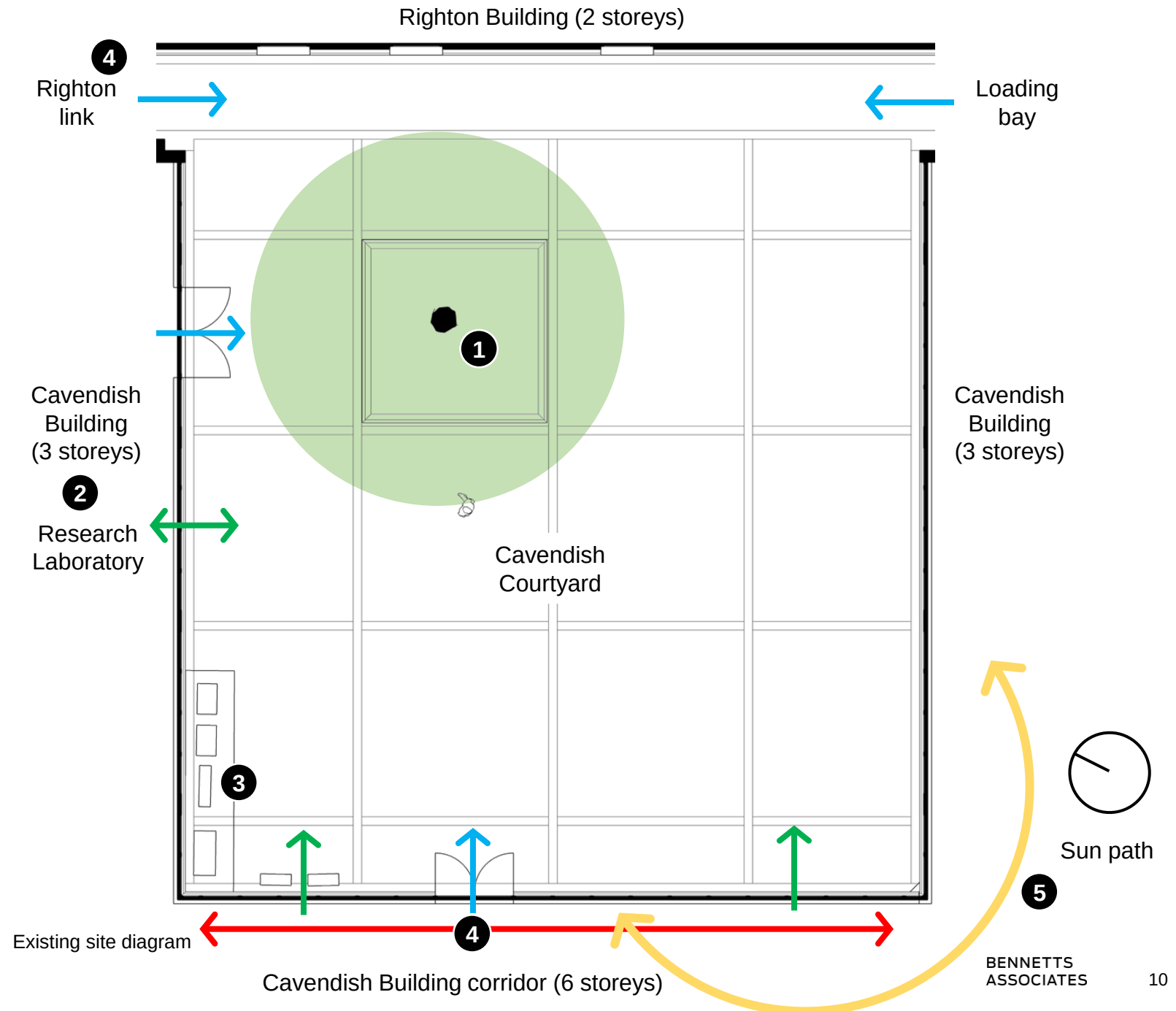
Various external building services pieces of equipment are located in the west corner of the site. This is taken as suitable location for the equipment to serve the new pavilion to prevent further cluttering the courtyard space.

4. Access & visibility

Routes into the courtyard are as indicated in blue with a circulation corridor on the southwest side that will provide views of the pavilion to a wider audience.

5. Daylight

Due to the orientation and height of the Cavendish Building, daylight has been carefully considered. The northwest side and north corner of the courtyard receive the most sunlight throughout the year whilst the rest of the space is mostly in shadow.



Site Response

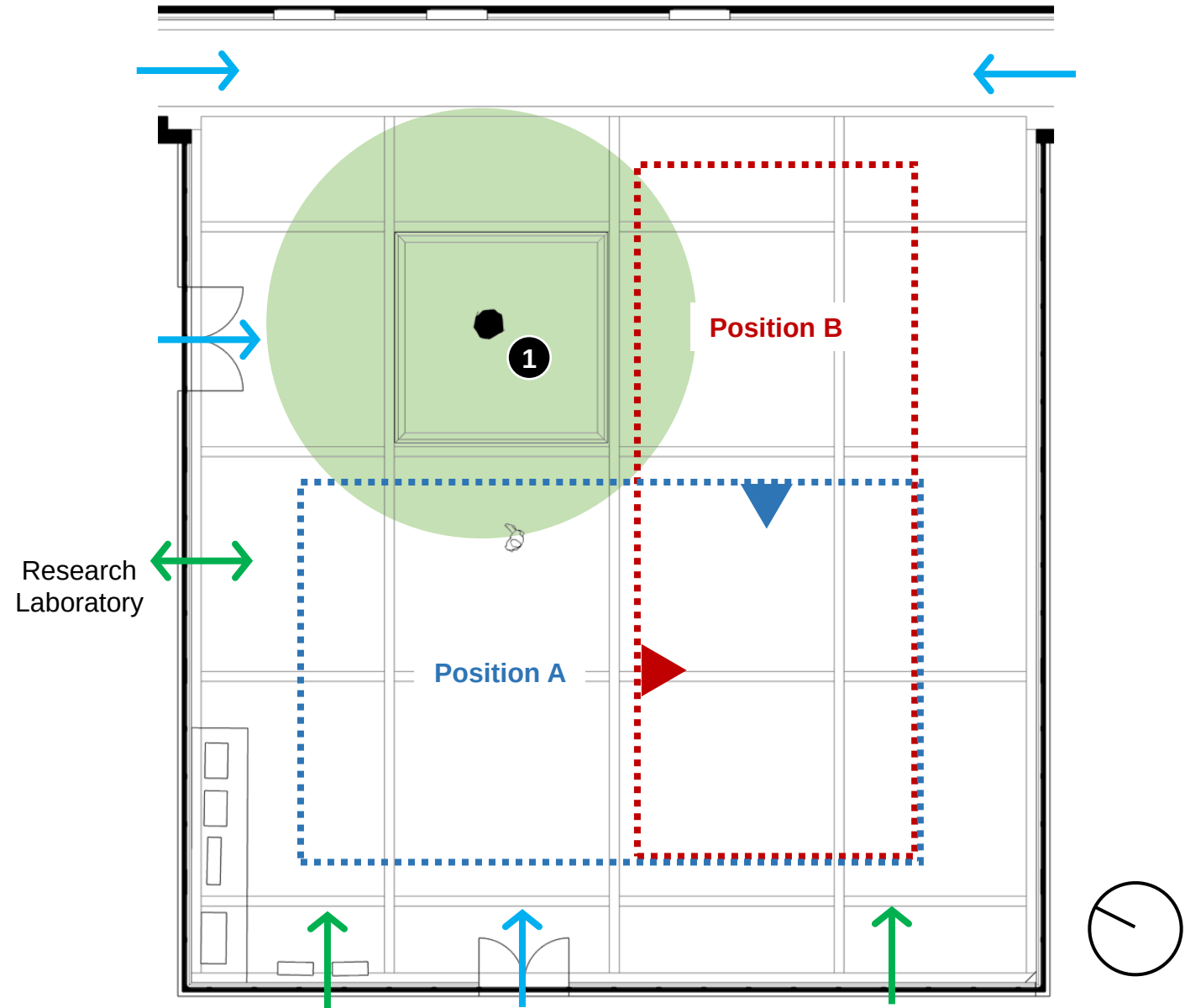
Building position and size

The design considered a number of positions and forms for the pavilion with two primary options. Positions A and B presented here were found to be the most satisfactory options that could offer a suitable building footprint to accommodate the brief.

Position A fills the southwest end of the courtyard, retaining the planter in the north corner. This brings the pavilion close to the Cavendish Building on several sides and takes up space that receives more daylight throughout the year on the west side. Entry into the pavilion would be required on the northeast side, away from the primary entrances into the courtyard.

Position B fills the southeast side of the courtyard whilst retaining the tree and planter. It provides a longer building footprint that is less wide and therefore has a more dominant axis. It is located in the shadow of the Cavendish Building for a large portion of the year but allows an entrance on the northwest side, next to the tree, addressing the lab space and Cavendish corridor. This begins to form an outdoor space that becomes an amenity for users of both the pavilion and the Cavendish Building.

Building Position B was taken forward in the design. The size of the footprint is based on a 2.4m by 4.8m grid with 6 bays. This gives an overall footprint of approximately 4.8m by 14.4m and internal area of approximately 75 sqm.



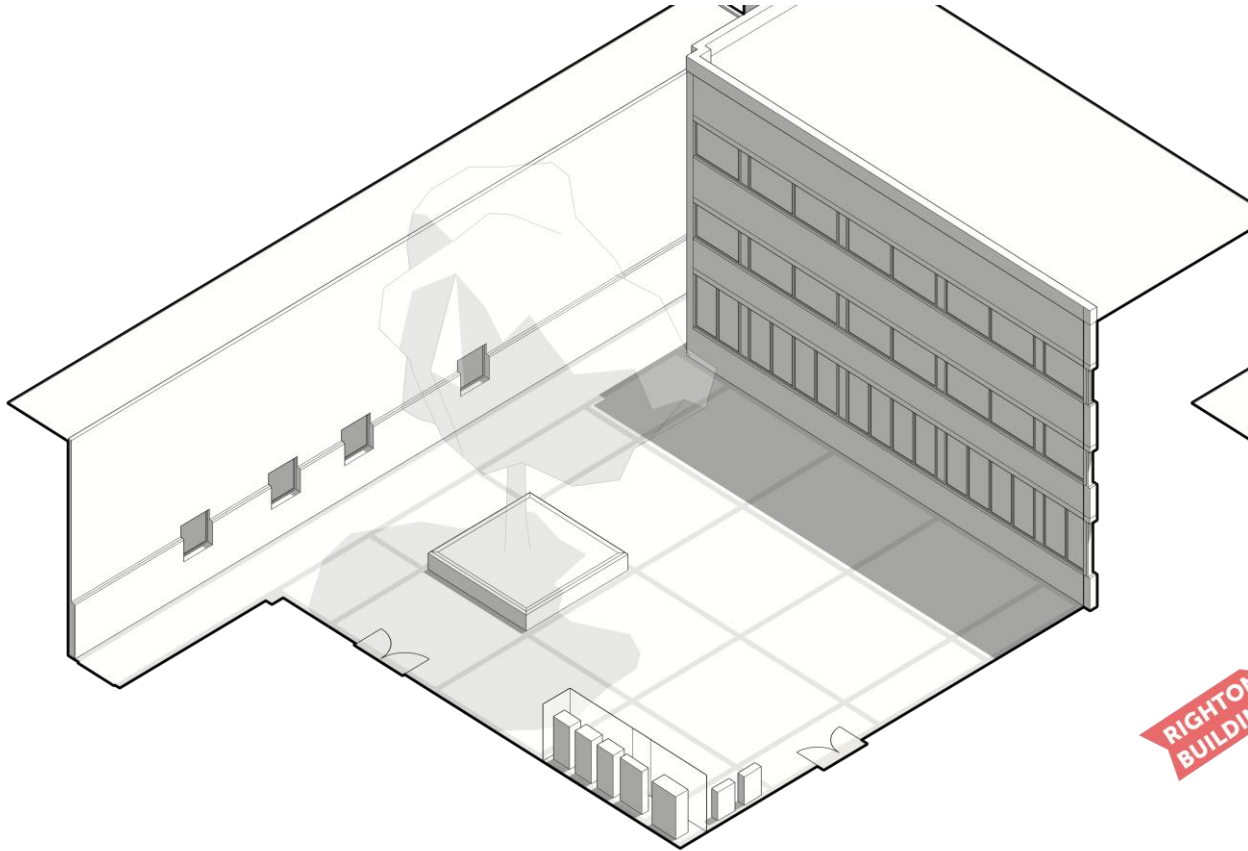
Existing site diagram

Cavendish Building corridor

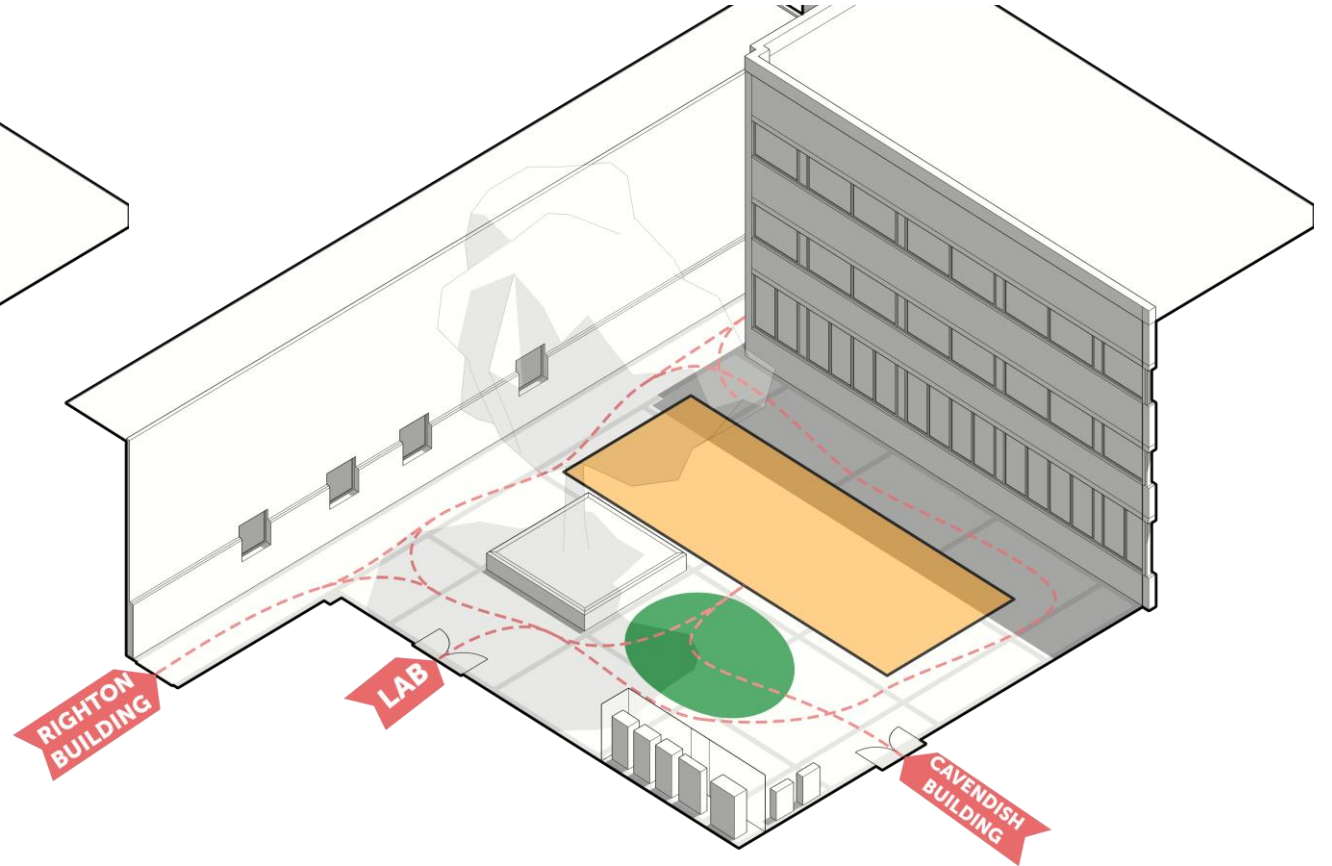
02. Design

The Concept

Design Principles



Existing site – is comprised of a hard landscaped courtyard, devoid of any attractiveness, with a single tree in a large masonry planter in the north corner

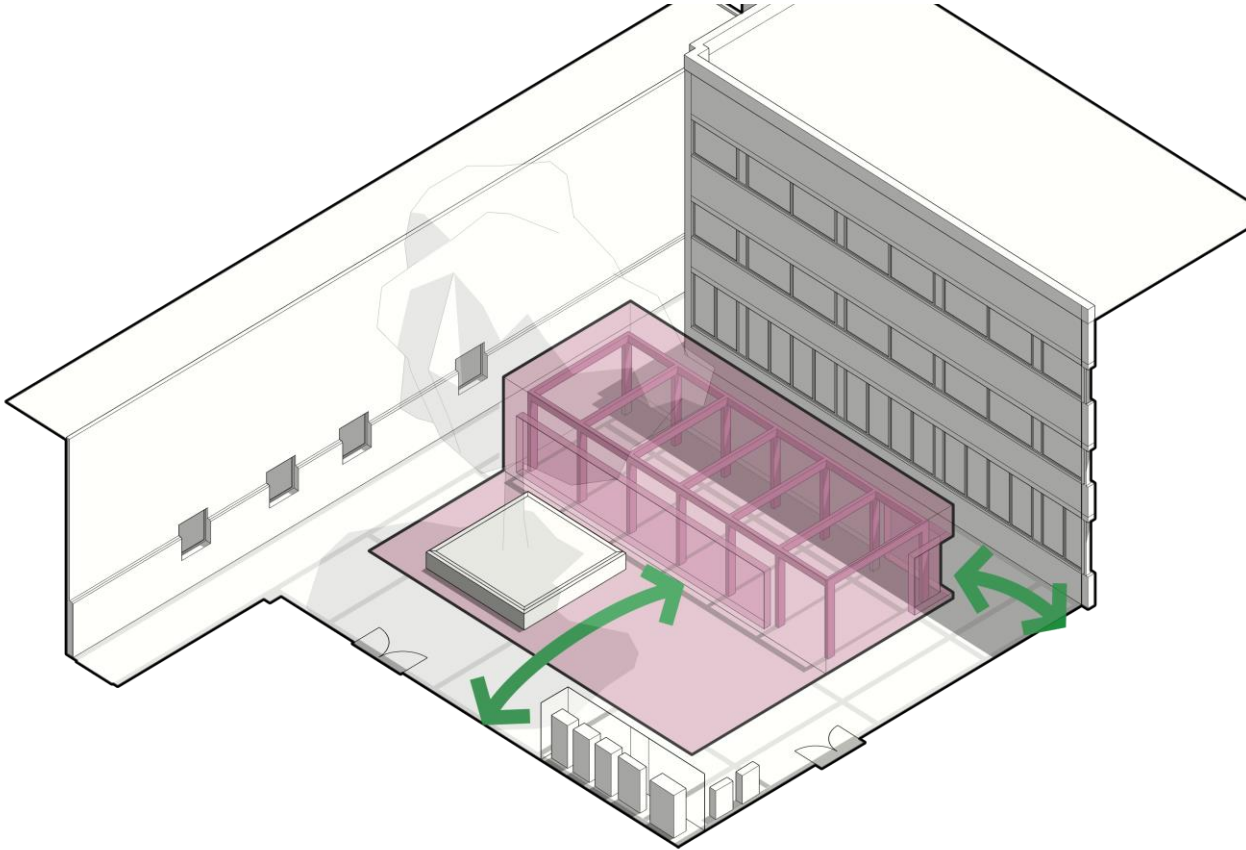


Building footprint – is situated down one side of the courtyard, creating a shared communal outdoor space, addressing the Righton Building, Cavendish Building, the lab and the pavilion

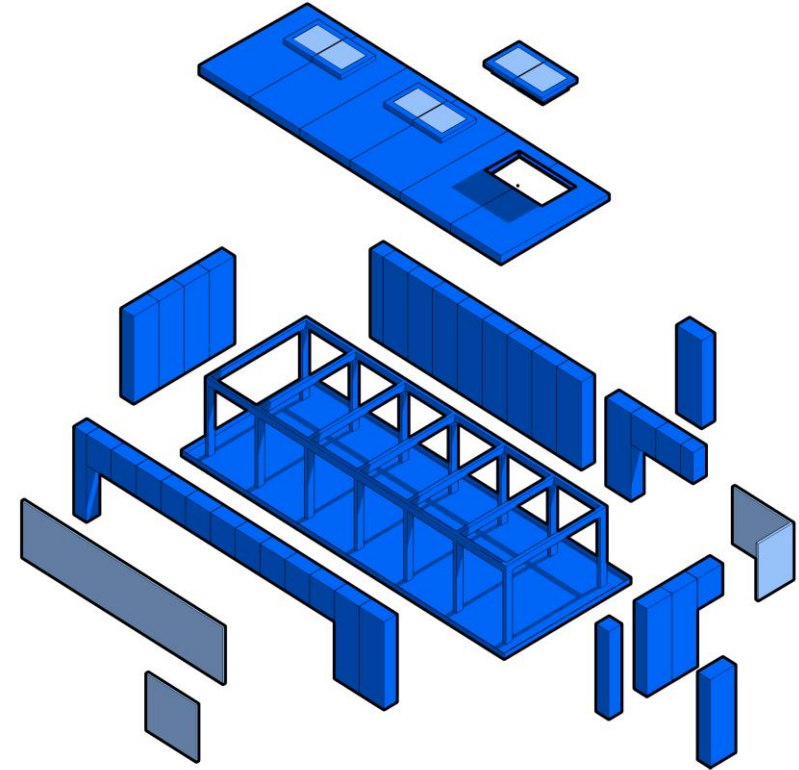
Concept diagrams explaining the key design moves rooted in an approach to low carbon design and designing for manufacture and dis-assembly

The Concept

Design Principles



Building volume – is formed around a demountable frame and openings are made in the skin to open up views to the lab space and Cavendish corridor

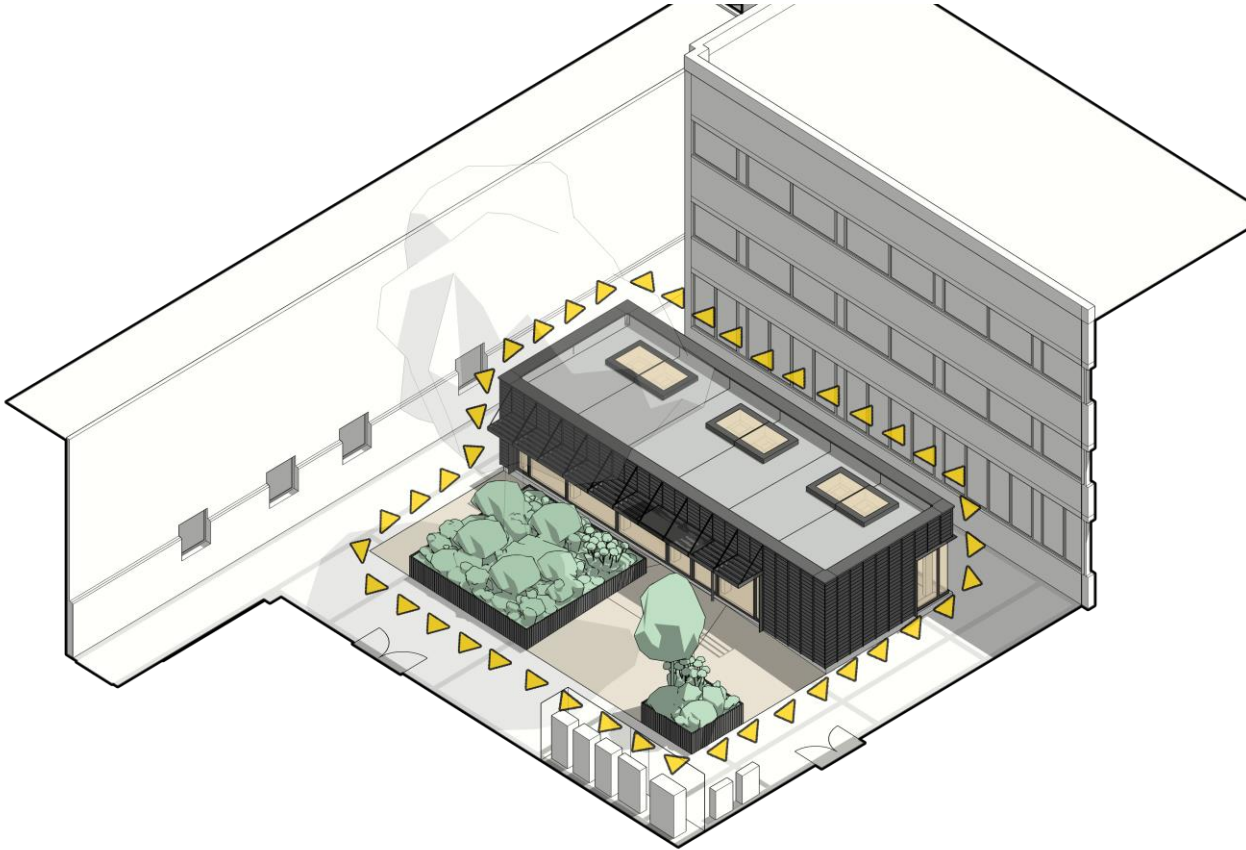


Kit of parts – made of components selected and designed to make use of low carbon materials and reduce the upfront carbon of the design, made off site, assembled in place and able to be taken apart again in the future and reused elsewhere

Concept diagrams explaining the key design moves rooted in an approach to low carbon design and designing for manufacture and dis-assembly

The Concept

Design Principles



Materiality & texture – is used to create an attractive building envelope with minimal materials including black, charred timber and soft, green planting to contrast a warm timber interior

Concept diagrams explaining the key design moves rooted in an approach to low carbon design and designing for manufacture and dis-assembly

Building Layout & Landscaping

Ground Floor Plan

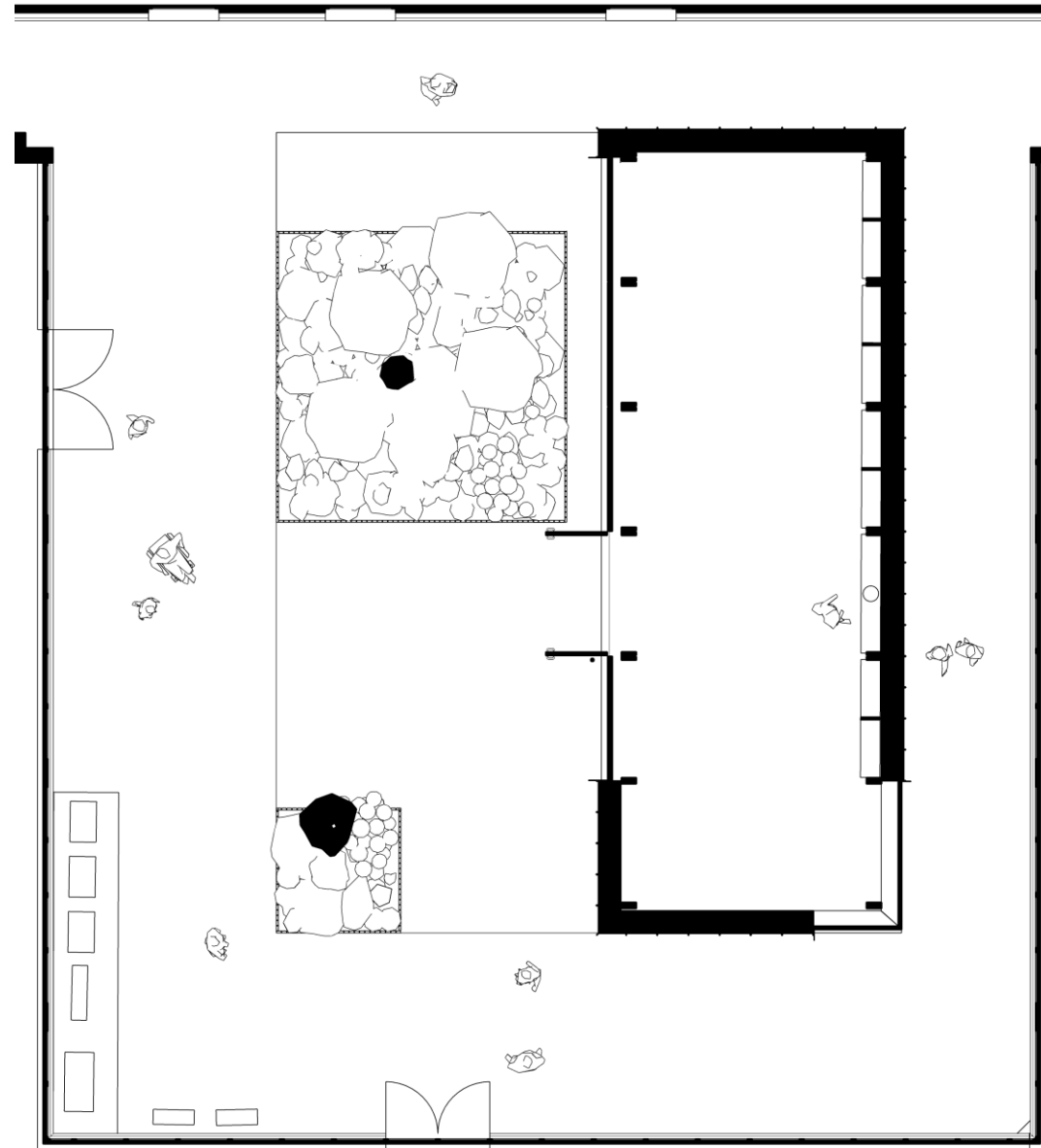
The brief for the project requires a space that can accommodate a wide range of uses. It may also remain as an asset to the University in the future. Therefore, it needs to demonstrate a high level of adaptability.

The building layout is based around six repeating structural bays that allow the space to be split up into more discrete areas. Storage is located along the long, solid wall to provide space for items to be kept tidy between the different uses. A small kitchenette space is provided facing the doors as people enter, providing a natural split between either end of the room.

The long format lends itself to functioning both as a workspace, a teaching space, an exhibition space and a presentation and talking space as shown on the plans on the following page.

The main, glazed façade faces back out towards the lab space, across the newly landscaped courtyard. A corner window gives views through the pavilion and views in from the corridor in the Cavendish Building.

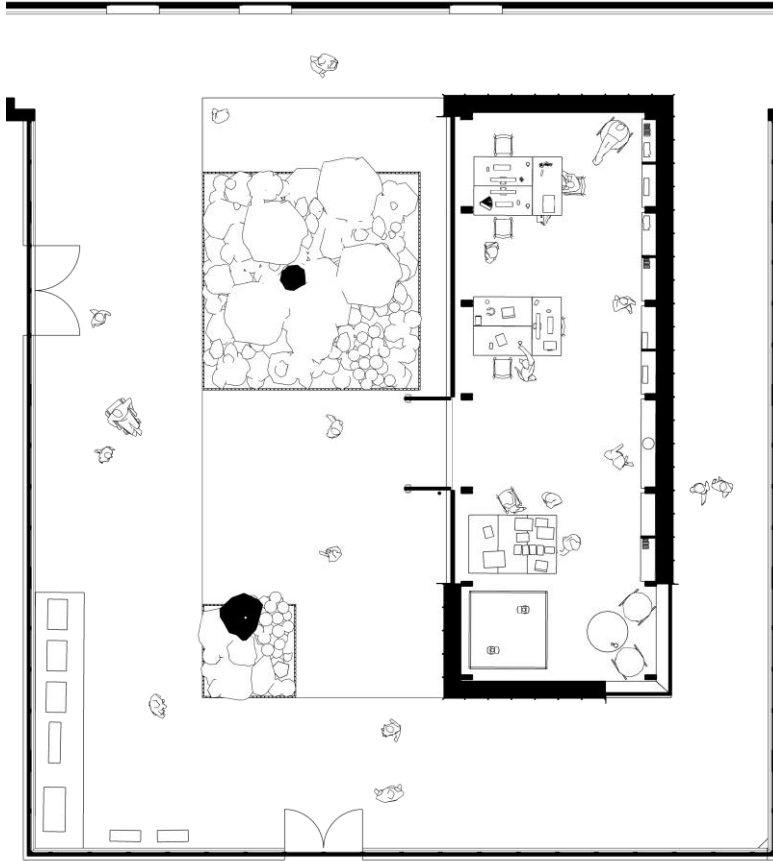
The landscaping picks up on the geometry of the pavilion to encompass the centre of the courtyard and integrates in the two soft landscaping planters. Refer to the Landscape Design in the appendices for further planting information. The landscaping provides a level means of access into the pavilion, allowing all people to make use of the building.



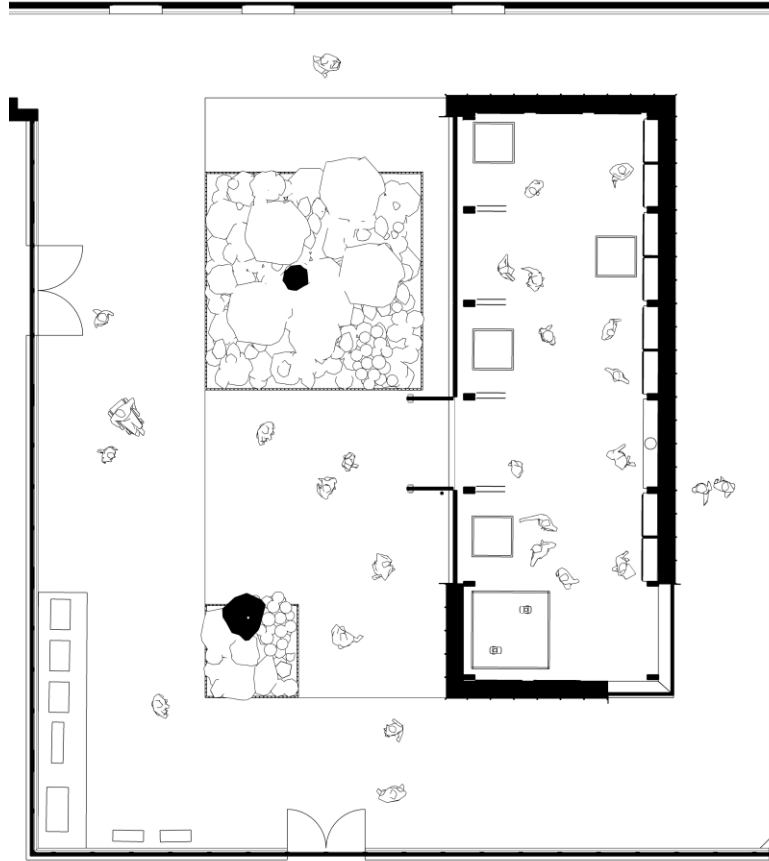
Proposed ground floor plan

Building Layout

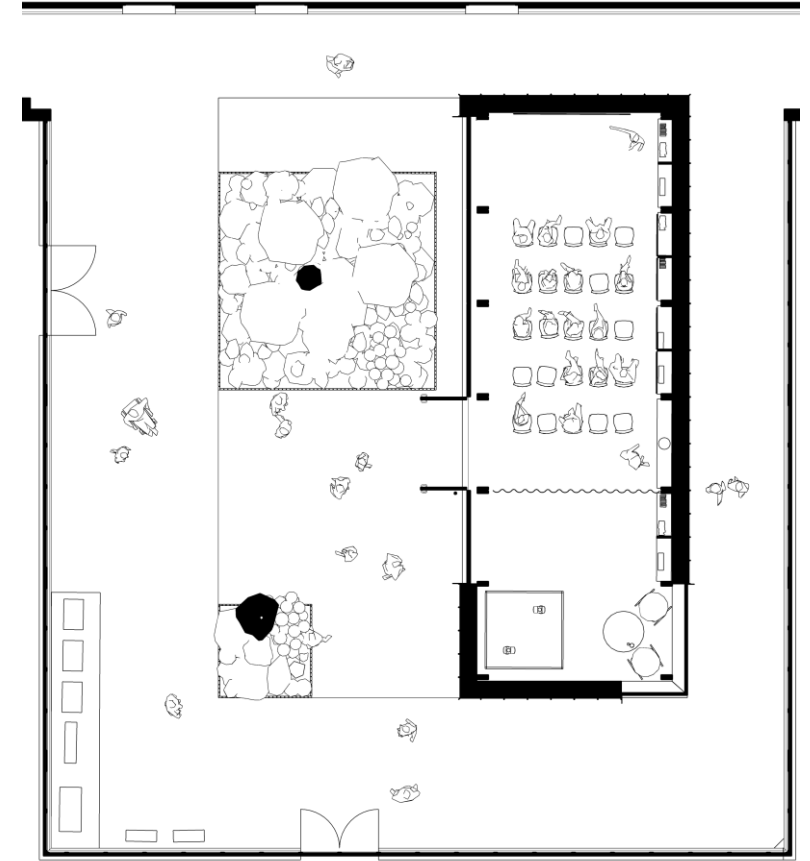
Adaptable & Functional Space



Typical Use Case – Workspace for 6 persons



Special Events – Periodic exhibits held throughout the year



Mixed mode – Space divided for multiple uses including talks

Indicative internal layouts, demonstrating the flexibility of the space to accommodate many uses by Manchester Fashion Institute and the University.

External Appearance

Cladding & Materiality

The external appearance of the pavilion is very important, to create an attractive building that will bring attention to the building, Manchester Fashion Institute and their work within. To achieve this, timber was chosen as the material of choice to clad the building. This was for several reasons:

Firstly, timber is a regenerative material that captures carbon as it is grown, meaning it is inherently a low carbon material. The captured carbon helps balance off the carbon needed to manufacture and assemble the building in its construction. It is also a material that can be sourced from the UK saving further carbon emissions due to the project.

Secondly, timber has very strong material qualities with grain, pattern and texture. Expressing these qualities of the material are essential to providing a high-quality and elegant skin to the pavilion that will stand out in the courtyard context.

Thirdly, treating the timber by charring the outer surface provides a permanent colour and protective skin to the wood. The charred timber is more resistant to the weather than un-charred timber and is also more resistant to fire and the surface spread of flame. It requires minimal maintenance with the surface only needing to be re-oiled approximately every 3 years or more depending on species.

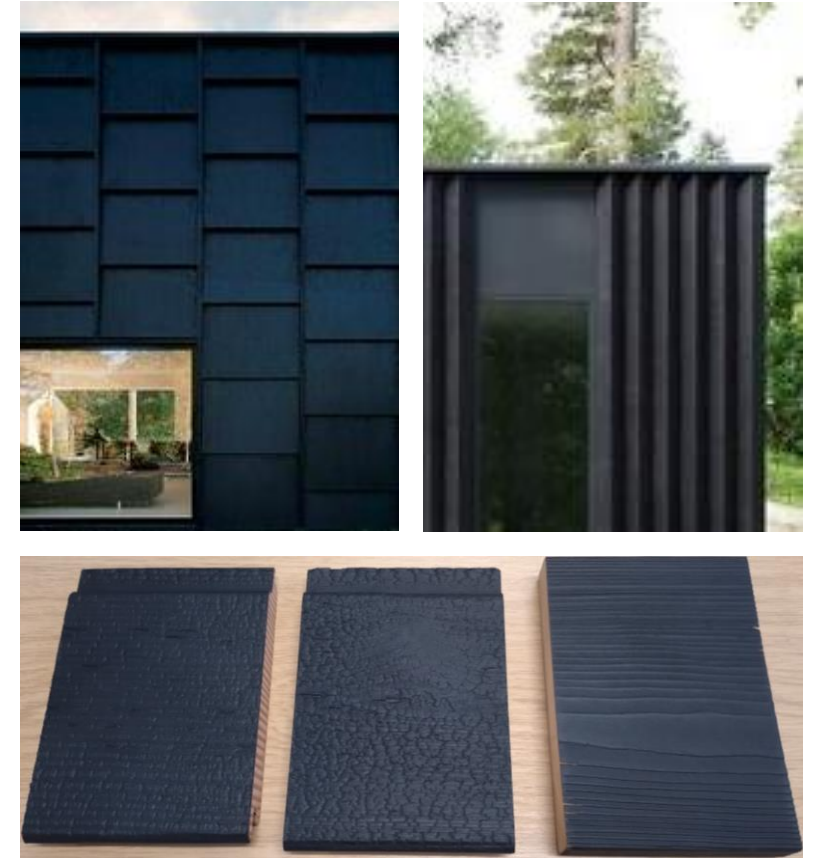
Keeping the material palette simple, the charred timber is accompanied by large elements of glazing that form a strong relationship between outside and inside the building. The glazing, rainwater goods, flashings and trims to the building are all finished in a matching powder coated finish that is durable.

In addition to the glazing, a timber canopy structure highlights the main glazed façade and provides shelter to the entrance of the building. It is constructed in charred timber to match the main cladding.

The main cladding is formed by a series of vertical panels of overlapping boards. This adds texture to the building at a variety of scales, where the vertical rhythm can read further away, the horizontals are apparent closer in, and the charred timber grain is seen up close. It reflects the rhythm of structure inside the building and is proportioned to suit the scale of the pavilion. The design will conceal fixings for the cladding.

Lastly, the base of the building is treated in a dark masonry material that will tie into the minimal palette of dark grey and black materials. These dark materials will give the pavilion a smart and uniform appearance that contrasts to a warm timber interior and provides a backdrop to new soft green planting.

Refer to the materials schedule as part of this planning application for further information on materials proposed.



Precedent cladding examples and photos of material samples proposed

External Appearance

North corner view



Planting shown is indicative only

External Appearance

West corner view



Planting shown is indicative only

Landscaping

Planting and Landscaping Strategy

The ambition of the landscaping is to provide the pavilion, Cavendish and Righton Buildings with an outdoor amenity space. The most important element to this is providing new planting to soften the hard, concrete and brick environment. It's intended to improve the standing of the existing tree that is being retained. The Landscaping Design section in the appendices can be referred to for more detail on the planting proposed.

Aligning to the geometry of the pavilion, there are two planters proposed. One planter is built over the existing masonry tree planter. The strategy with this planter is to remove the top layers of gravel, soil and masonry and put back suitable top-soil for new plants to be grown in. Material removed here will then be used to help build up the soil level in a new, smaller planter in the west corner of the courtyard.

Materiality of the landscaping ties in with the pavilion, featuring the same black, charred timber for the planters as is used for the main cladding. This is intended to create a set of neat and elegant forms in the courtyard with a coherent material language. They are intended to contrast with the new green planting and help visually soften the courtyard's appearance.

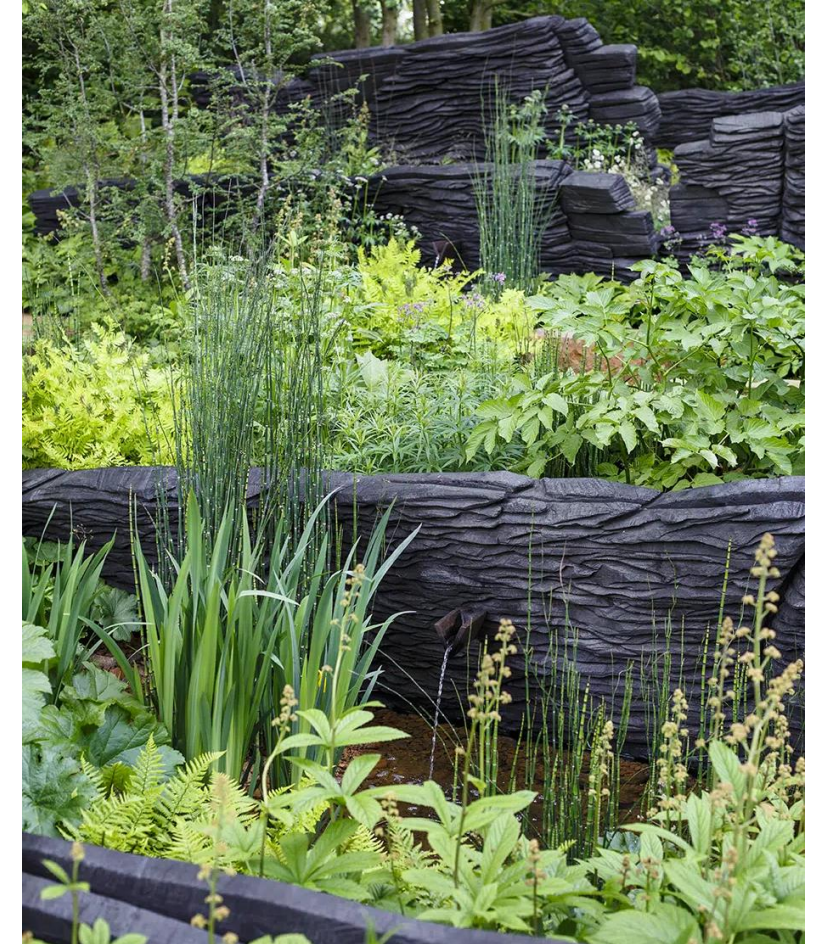
Furthermore, the landscaping design is essential in providing a means of level access into the pavilion. Graded surfaces are proposed that will slope up to the pavilion entrance, allowing wheelchair users and goods trolleys unencumbered access.



Aerial view of proposed landscaping, existing tree hidden



Landscaping design precedent



Landscaping design precedent

Internal Appearance

Designing for Manufacture and Dis-assembly

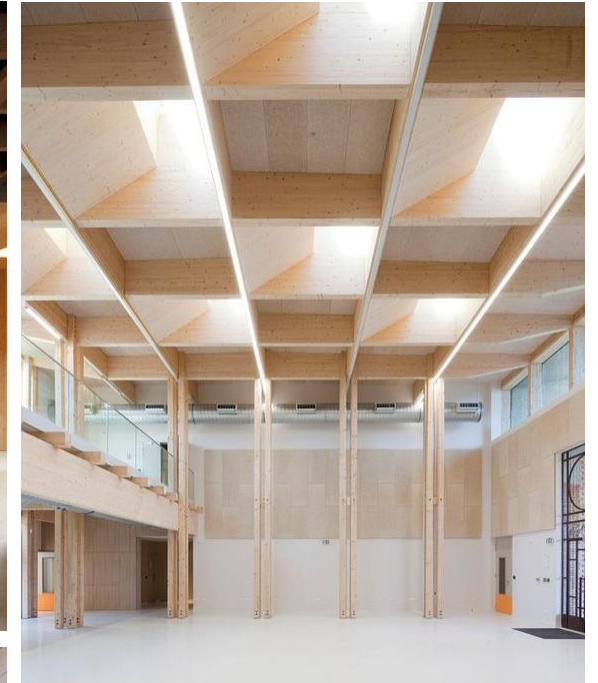
Expressing the timber frame of the building is the primary means of creating character and interest to the internal space of the pavilion. This warm, timber interior is intended to contrast to the black, charred timber exterior skin. It's further enhanced by an expressive timber waffle soffit structure.

To accomplish this, the design intends to apply the principles of modern methods of manufacture with a focus on off-site construction and assembly on site. This works in parallel with the intent to provide a building that can be un-bolted and taken apart in the future, following principles of the circular economy.

The component kit of parts of the building is being designed with this principle in mind. The timber frame will be brought in pieces and put together with the walls, cladding, glazing and roof coming in parts that will be pre-assembled where possible. Internal finishes are being considered that can be fixed in place and later removed without being destroyed. This is most likely to be panelised materials such as treated plywood panels, or similar, that add to the other expressed materials in the design.

Glare

The internal lighting will be designed to meet BS 12464-1 and LG7 which stipulate glare requirements lower than 19 UGR. For further details on the servicing strategy, refer to the Energy Statement submitted with this planning application.



Precedent examples of expressive, exposed internal timber structures and top-lit spaces

Internal Appearance

Internal Views



Typical day-to-day use, workspace format for 6 persons

The space is naturally ventilated with opening windows and rooflights to provide passive control of the internal conditions in the building. Automated sensors will help control temperature and fresh air levels. An underfloor heating and cooling system is intended to heat and cool the space in winter and summer respectively, all run off an air source heat pump.



Exhibition use, special events held at different times of year

The space is well lit by the large wall of windows facing approximately north, giving a soft and even light. Rooflight further help bring light further into the building from above to help with the overshadowed condition of the courtyard. Views out the windows look out over the new landscaping and soft planting.

03. Access

Access

Inclusive access and security

Access

Access to the pavilion is made from four routes into the Cavendish courtyard as follows:

1. Righton Building and Cavendish Building link – level access
2. Robotics Living Laboratory – stepped access (staff only)
3. Cavendish Building corridor – stepped access
4. Loading bay – level access

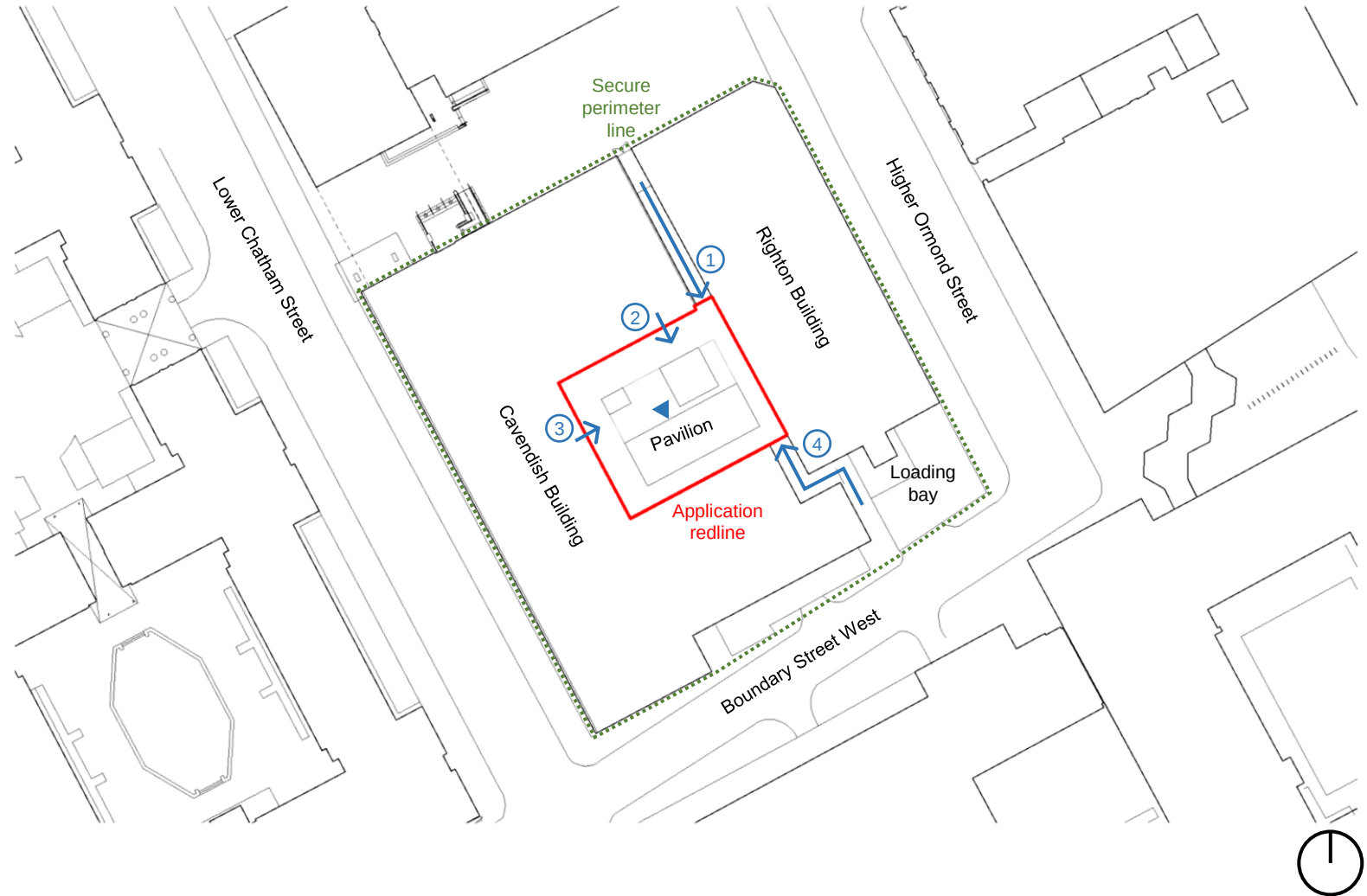
All access is intended to be made by pedestrians with an inclusive design approach. Situated in the Cavendish courtyard, the landscaping provides level access into the pavilion.

The site benefits from the University's provisions for active modes of transport and public transport connectivity on the All Saints campus. No additional provision is proposed for this development due to the low typical occupancy.

Access for servicing is made from the loading bay area to the rear of the Righton and Cavendish Buildings. This is a closed off and secure compound with a controlled access gate.

Security

The building will have access controlled via the University's access control system and will be monitored with CCTV. It is located within a secure line beyond existing controlled access doors and spaces as shown. Refer to the Secured by Design Statement included in this planning application for more detail.



Proposed site plan in context showing access routes and secure line

04. Waste Management

Waste Management

Strategy Outline

It is proposed for a building of this scale, the waste produced would be absorbed by the existing collection schedule.

The Cavendish Building is served by a weekly refuse collection service as outlined in the adjacent table. The University further has a site-wide colour coded bin system:

- Black non-recyclable waste
- Green dry mixed recycling (i.e. plastic bottles, metal)
- Blue paper and cardboard recycling
- Brown food recycling
- Pink glass recycling

Further to this provision, the University has a ‘Hazardous & Non-Hazardous Waste Management and Recycling Operational Control Procedure’ that further outlines the segregation and management of waste across the campus. The pavilion will fall under these procedures.

Bin store location	Unit type / size	Waste stream	Bin numbers	Lifts per week	M	T	W	Th	F
Cavendish Building	1100L	General waste	1	4	•		•	•	•
Cavendish Building	1100L	Paper / card	1	3	•		•		•
Cavendish Building	1100L	Co-mingled	1	3	•		•		•
Cavendish Building	240L	Food	2	1			•		
Cavendish Building	240L	Glass	1	1					•

Current waste collection schedule for the Cavendish Building

05. Appendices

5.1 - Landscape Design

5.2 - Tree Condition Survey

5.1 - Landscape Design

Soft Landscape

The soft landscape palette has been developed to add a strong, well-vegetated character to the courtyard and will form a rich vegetative backdrop to the proposed building. Species have been chosen from an appropriate palette to match the anticipated micro-climate, soften the appearance of the development, help create variation in character, enhance ecological diversity, and provide visual interest and colour throughout the seasons. The proposed planting has been developed from various sources which include the RHS recommendations for pollinator-friendly planting.

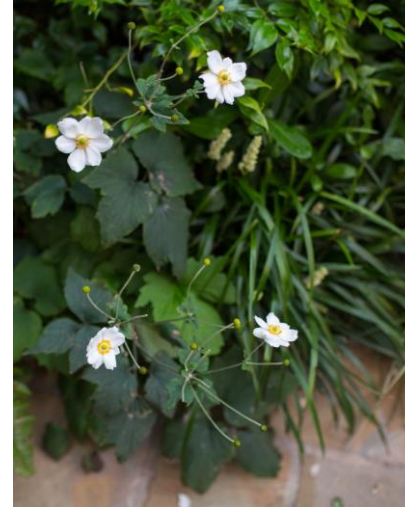
The following principles have been applied to the soft landscape design:

The selection of plants will consider the form and eventual scale of the species in relation to the spacing and their configuration. The future maintenance requirements of the plants will also be taken into account;

The selection of shrub planting will enhance the design of the building. The use of planting which will respond to the articulation of the spaces by framing and terminating views, celebrating entrance and thresholds and defining pedestrian routes and connections;

The selection of plant species will be appropriate to their location in terms of soil type, micro-climate, their setting and future maintenance/management requirements; and

The use of plant species that will increase biodiversity potential of the site through the use of locally indigenous species and planted to diversify the age range of species for enjoyment for this generation and the next.



Example Scheme
Kampus, Manchester



Example Scheme
Elm Walk

5.1 - Landscape Design

Soft Landscape



Choisya x dewitteana 'White Dazzler'



Daphne 'Eternal Fragrance'



Euphorbia mellifera



Choisya x dewitteana 'White Dazzler'



Hebe parviflora var. angustifolia



Carex morrowii 'Irish Green'



Dryopteris affinis



Euphorbia amygdaloides var. robbiae



Galium odoratum



Gillenia trifoliata

5.1 - Landscape Design

Soft Landscape



Helleborus orientalis 'Pink Lady'



Libertia grandiflora



Luzula nivea



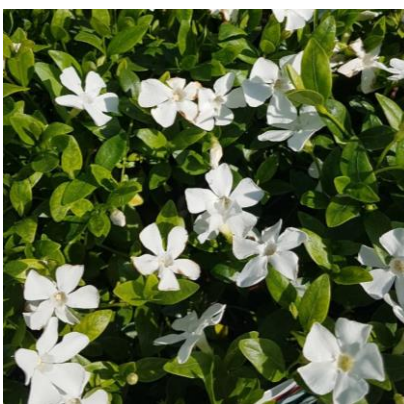
Matteuccia struthiopteris



Polypodium vulgare



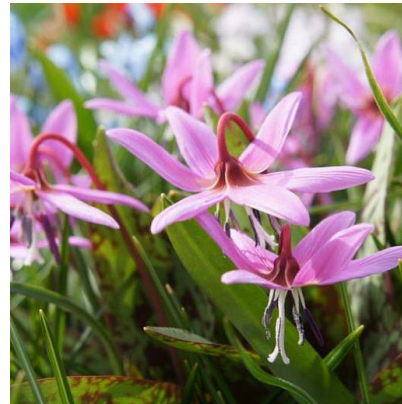
Polystichum setiferum



Vinca minor 'Gertrude Jekyll'



Viola cornuta 'Alba' Group



Erythronium dens-canis

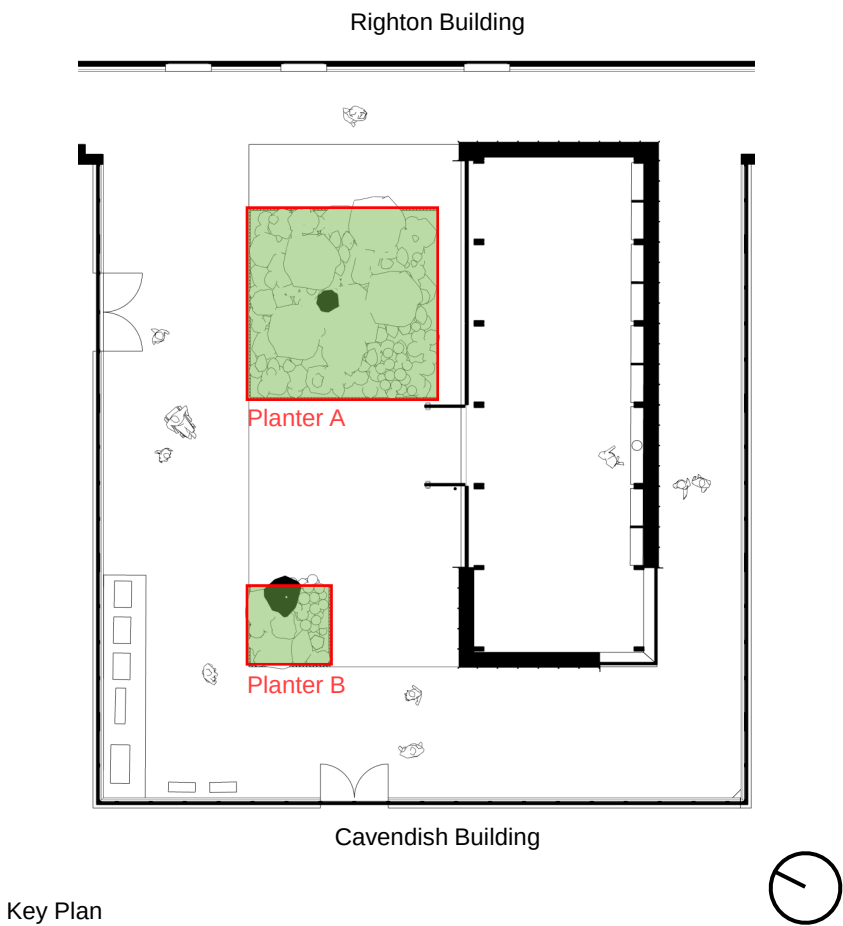


Galanthus nivalis

5.1 - Landscape Design

Planting Schedule

Planter A schedule	Botanical Name	Common Name	Root Zone	Specification	per m ²	
	Carex morrowii 'Irish Green'		3L	Full pot	5	
	Euphorbia amygdaloides robbiae	Mrs Robb's Bonnet	1L	Full pot	6	
	Galium odoratum	Sweet Woodruff	1L	Full pot; Sept to April planting; British native-origin	6	
	Hakonechloa macra	Japanese Forest Grass	2L	Full pot	5	
	Helleborus orientalis	Lenten Rose	2L	Full pot	5	
	Luzula nivea	Snowy Wood-rush	2L	Full pot	5	
	Matteuccia struthiopteris	Shuttlecock Fern	2L	Full pot	4	
	Polypodium vulgare	Common Polypody	2L	Full pot	4	
	Polystichum setiferum	Soft Shield Fern	2L	Full pot	4	
	Vinca minor 'Gertrude Jekyll'	Lesser Periwinkle 'Gertrude Jekyll'	2L	Several shoots; 3 brks	5	
	Viola cornuta 'Alba Group'	Horned Violet	1L	Full pot	6	
Planter B schedule	Botanical Name	Common Name	Height cm	Root Zone	Specification	per m ²
	Cornus controversa 'Variegata'	Wedding Cake Tree	125-150	30L	Leader with laterals; 3 brks	Counted
	Dryopteris affinis	Golden Scale Fern		2L	Full pot	4
	Galium odoratum	Sweet Woodruff		1L	Full pot; British native-origin	6
	Gillenia trifoliata	Bowman's Root	20-30	3L	Full pot	4
	Hakonechloa macra	Japanese Forest Grass		2L	Full pot	5
	Hebe Parviflora Angustifolia	Hebe	40-60	10L	Bushy; 9 brks	1
	Helleborus orientalis	Lenten Rose		2L	Full pot	5
	Libertia grandiflora	New Zealand Satin Flower		3L	Full pot	5
	Polystichum setiferum	Soft Shield Fern		1.5-2L	Full pot	4
	Vinca minor 'Gertrude Jekyll'	Lesser Periwinkle 'Gertrude Jekyll'		2L	Several shoots; 3 brks	5
	Viola cornuta 'Alba Group'	Horned Violet		1L	Full pot	6
Shrubs for pots	Botanical Name	Common Name	Height cm	Root Zone	Specification	
	Choisya x dewitteana White Dazzler	Mexican Orange Blossom White Dazzler	40-60	10L	Bushy; 7 brks	
	Daphne x transatlantica 'Eternal Fragrance'	Daphne Eternal Fragrance	60-80	10L	Bushy; 7 brks	
	Euphorbia mellifera	Honey Spurge	80-100	20L	Bushy	
Bulbs	Botanical Name	Common Name	Specification			
	Erythronium dens-canis	Dog's Tooth Violet	Size 1			
	Galanthus nivalis	Common Snowdrop	Grade 6/+ Topsize			
	Hyacinthoides non-scripta	English Bluebell	Grade 6/7			



5.2 - Tree Condition Survey

A detailed tree inspection has been conducted by Tall Oaks Arboriculture to assess their condition, risk and hazard, based on a visual tree assessment from ground level.

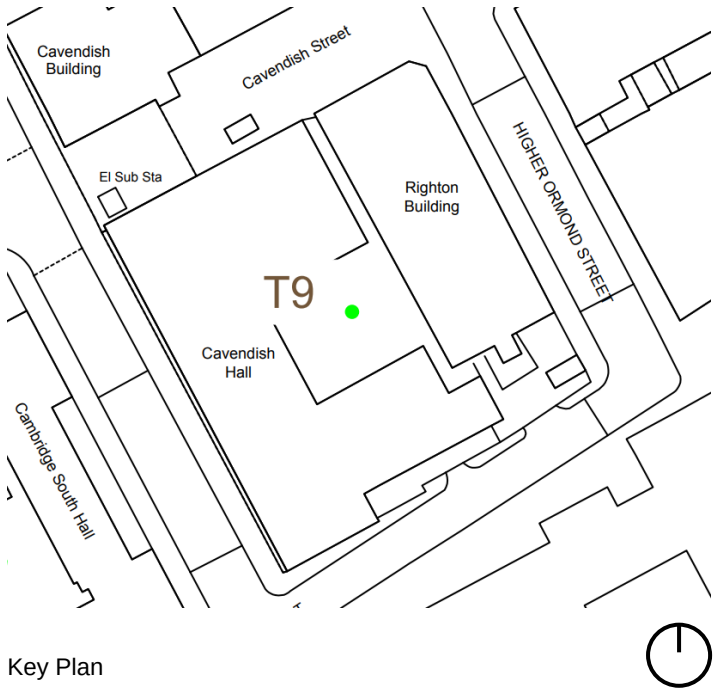
Any identified hazards or significant defects have been assessed in line with the QTRA Risk of Harm thresholds (see adjacent table).

The tree in the Cavendish courtyard is identified as being in good condition without any current need for treatment or works. The table below details the condition survey.

The tree was also inspected on site with the planning officer as noted on page 7 of this document.

Thresholds	Description	Action
1/1,000	Unacceptable: Risks would not ordinarily be tolerated.	Control the risk
	Unacceptable (where imposed on others): Risks would not ordinarily be tolerated. Tolerable (by agreement): risks may be tolerated if those exposed to the risk accept it, or the tree has exceptional value	- Control the risk - Review the risk - Control the risk unless there is broad stakeholder agreement to tolerate it, or the tree has exceptional value. - Review the risk
1/10,000	Tolerable (where imposed on others): Risks are tolerable if Risk is as Low as Reasonably Practicable	- Access costs and benefits of risk control - Control the risk only where a significant benefit might be achieved at reasonable cost - Review the risk
1/1,000,000	Broadly acceptable: Risk is as Low as Reasonably Practicable	- No action currently required - Review the risk

QTRA Risk of Harm thresholds



Key Plan

Tree No.	Tag No.	Species	DBH	Height	Canopy Radius	Age Class	Condition	Comments	Recommendation	Priority	Next Survey	Assessed Part	Target	Size of Part	Probability of Failure	Mass %	Risk of Harm
T9	-	False acacia	520	17	8	M	G	Large tree in courtyard. Minor epicormic growth on lower stem. Minor deadwood. No visible significant defects.	No works.	N/A	Jan 24	Deadwood	3	4	3	50%	1/1M

