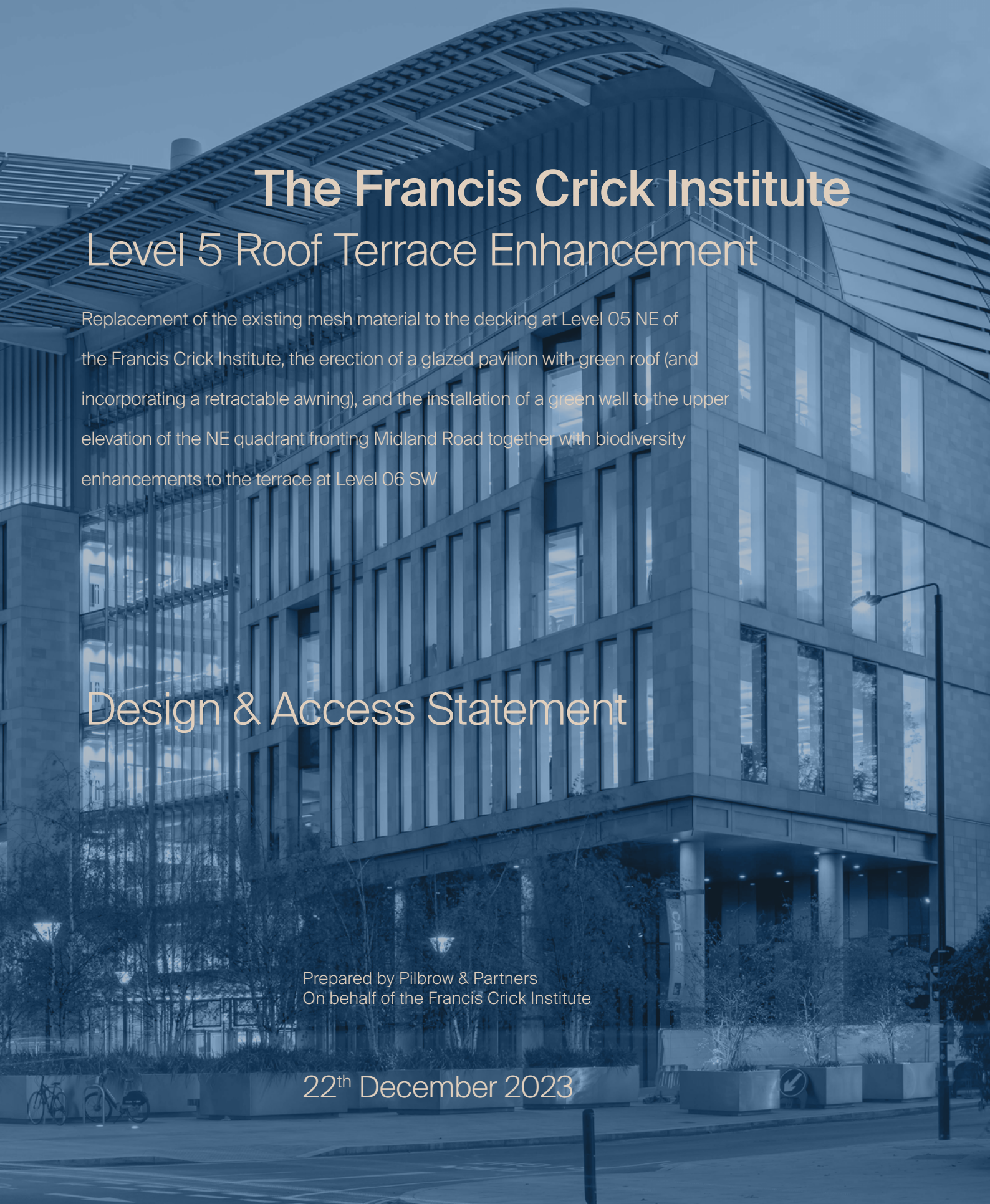
Pilbrow & Partners

The Francis Crick Institute

Level 5 Roof Terrace Enhancement

Replacement of the existing mesh material to the decking at Level 05 NE of the Francis Crick Institute, the erection of a glazed pavilion with green roof (and incorporating a retractable awning), and the installation of a green wall to the upper elevation of the NE quadrant fronting Midland Road together with biodiversity enhancements to the terrace at Level 06 SW

Design & Access Statement



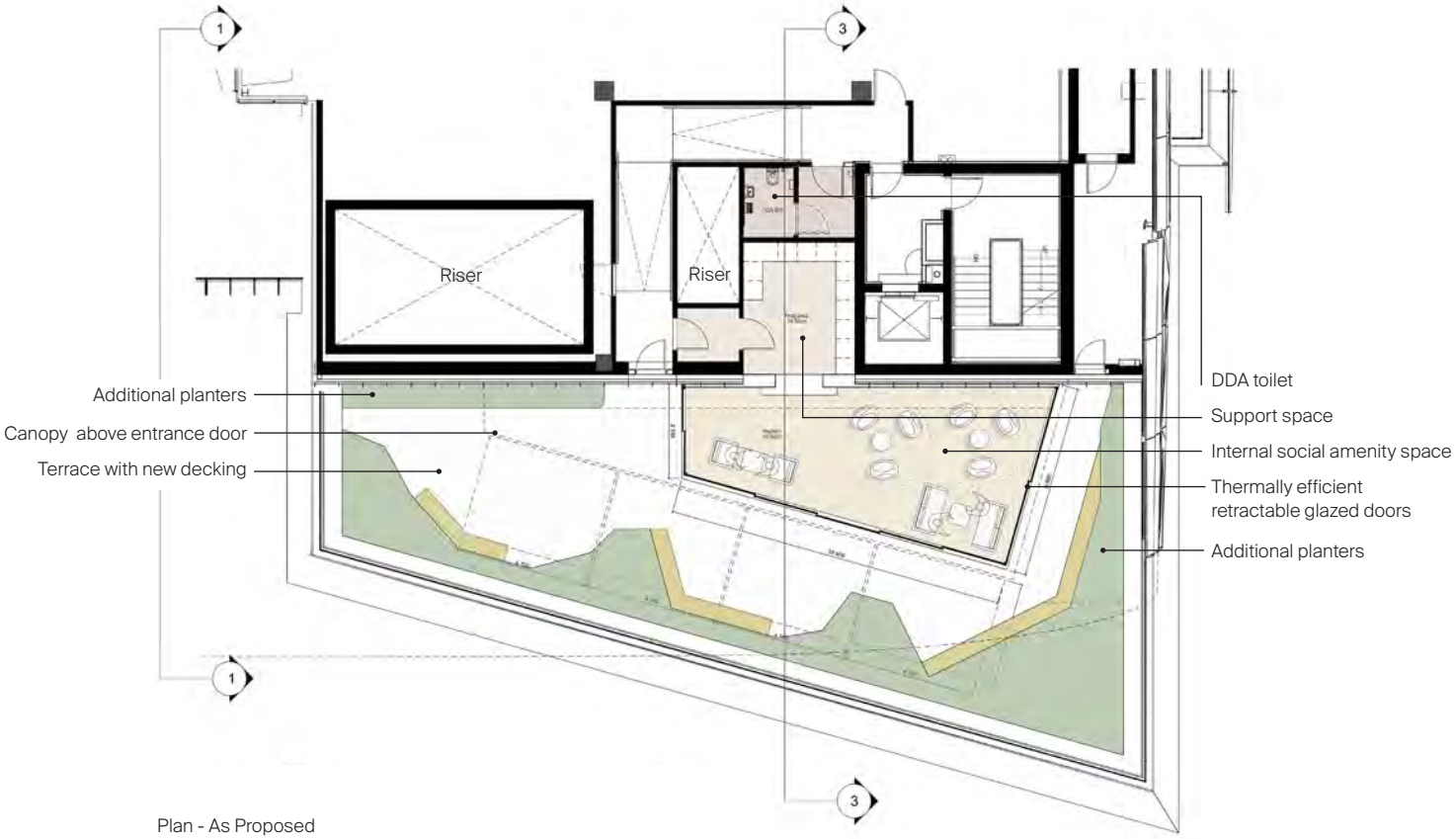
Prepared by Pilbrow & Partners
On behalf of the Francis Crick Institute

22th December 2023

The 5th Floor Terrace - As Proposed

Contents

Plan - As Existing



Plan - As Proposed

Executive Summary

This design and access statement, prepared by Pilbrow & Partners on behalf of The Francis Crick Institute, in support of the planning application for the enhancement of Level 05 North East Terrace.

The Proposal embodies the collaborative efforts of a diverse group of consultants including ecologists, landscape architects, drainage specialists, acoustician, planners, and architects, ensuring all planning key issues have been addressed holistically.

The Francis Crick Institute
The Francis Crick Building, the 'Crick', was originally granted planning permission in March 2011 and the building was first occupied in 2016. Today it is a home to 1,500 staff; 1,250 researchers facilitated by 250 support staff.

The Crick was designed to be adaptable and reconfigurable within its envelope, capable of evolving to meet the needs of research & science. Since the Crick commenced operations, it has:

- Reconfigured numerous research bays on various levels
- Focussed a number of research teams and bays to centre on Covid research & testing
- Adapted areas to provide a (temporary) Covid vaccination centre
- Adapted and reconfigured floorspace within the building – Level 08 works (ongoing)
- Applied for various Advertisement Consents associated with the outreach and educational commitments (www.Crick.ac.uk/whats-on)
- Reviewed amenity area provision (considering Covid and loss of access to the Purchase Street Open space - Level 02SW and 05NE)
- Sought to exceed it S.106 commitments in outreach, public access and education.
- Maintain an ongoing commitment to respond to issues impacting humans – development of a far-reaching Sustainability Strategy

The 2022 Implemented Scheme
The Crick provides excellent internal amenity to its staff, including generous breakout spaces, cafeteria, café, and other social spaces. During Covid however, the vital need for high quality external amenity space became evident. In response, the Crick has sought to provide external amenity spaces. The consented 2022 planning application (ref: 2022/2667/P) has delivered 152m2 outside amenity space at 5th floor level on the building's North East corner. The consented design also sought to enhance the performance of the failing brown roof.

The consent was partially implemented, including; metal grating over brown roof, planters, and benches, offering quiet reflection space to the Crick's staff.

Since completion a few shortcoming were raised:

- The brown roof isn't performing as well as it could.
- The metal grating perforation is not classified as Heel-guard presenting a Health & Safety hazard which in turn reduces the potential utilisation of the terrace as an amenity space.
- The utilitarian charter of the space and lack of provision of protected area, further reduces the potential utilisation of the space.

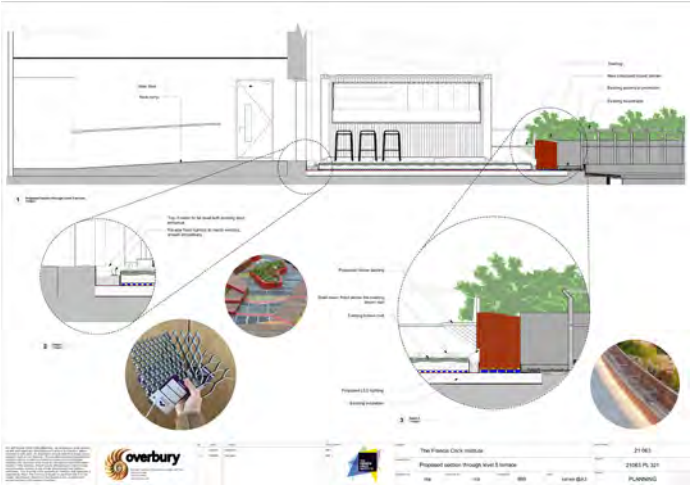
Reflecting on the shortcomings, the Crick is seeking to improve the facilities through the new Proposals.

The Proposal
The Proposal calls for the best external amenity space the Crick can offer within its boundaries. The space will provide a mixture of contemplation place, a social gathering space and managed events space. Additionally, with environmental performance responsibility at its core the Crick is seeking to optimise and enhance the current Biodiversity offer.

It is proposed to replace of the existing metal grating with Heel-guard decking, whilst maintaining the rainwater permeable properties. The under performing brown roof will be replaced with an attenuation tank to harvest grey water for plants irrigation. A series of landscape and bio diversity enhancements are proposed:

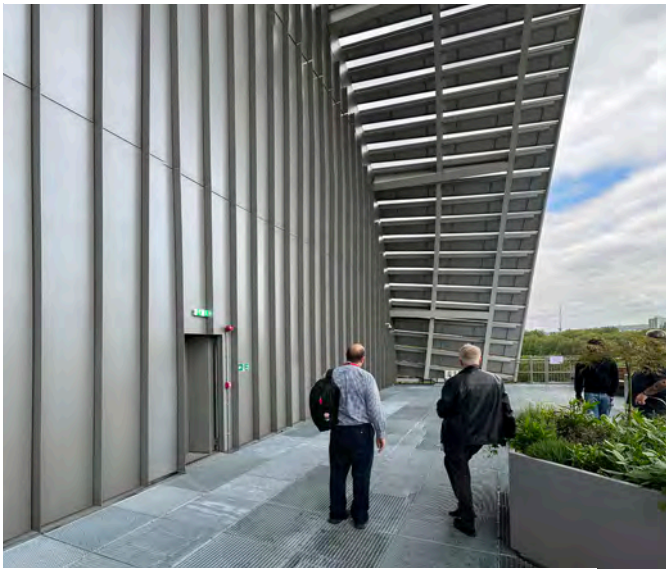
- Green wall along the Eastern face of Level 5 roof vault
- Additional planters along the north and east aspects of the terrace
- Green / planted roof on top of the new pavilion.

A 42m thermally efficient glazed pavilion is proposed, facilitating a social gathering space protected from the elements.
A DDA toilet and a small preparation area are proposed within the un-utilised riser, to the west of the terrace within the existing roof volume.



2022 Consented Details including the brown roof build-up and the metal grating

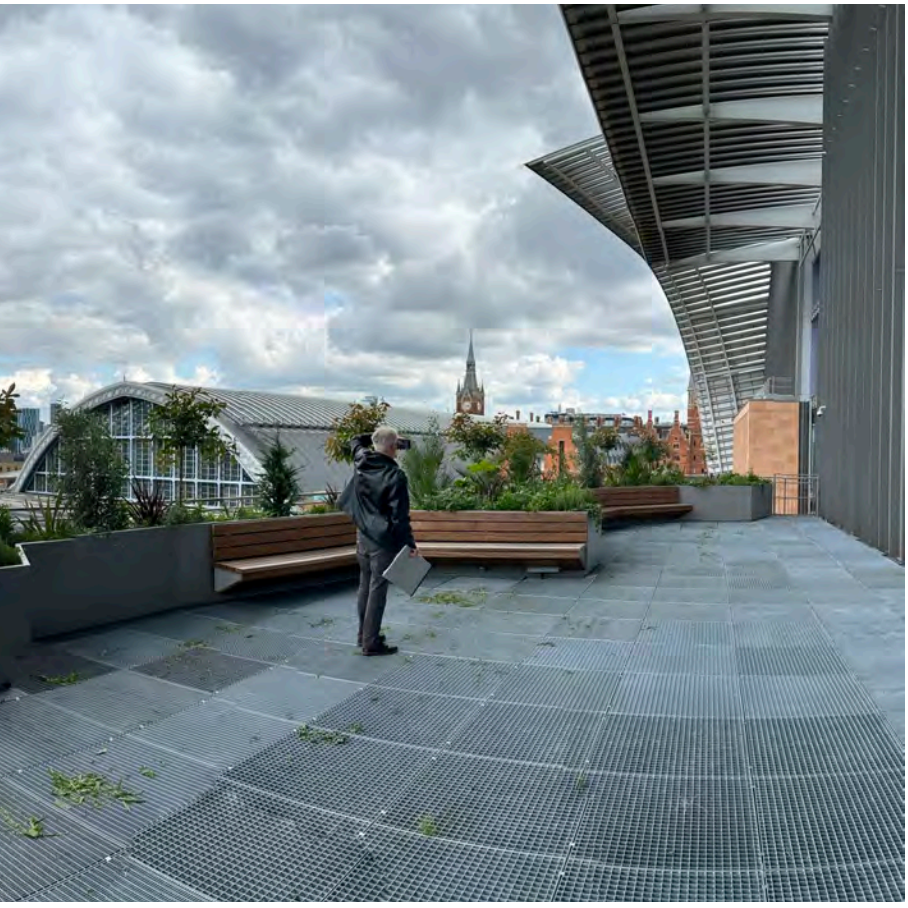
5th Floor Terrace - The steel grating, planters, and benches implemented as per 2022 consent



The Crick vaulted roof, is partially protecting the terrace from the elements

An un-utilised riser space. It is proposed to use it as support space for the terrace amenity

1 2022 Consented Scheme
1.1 The implemented scheme

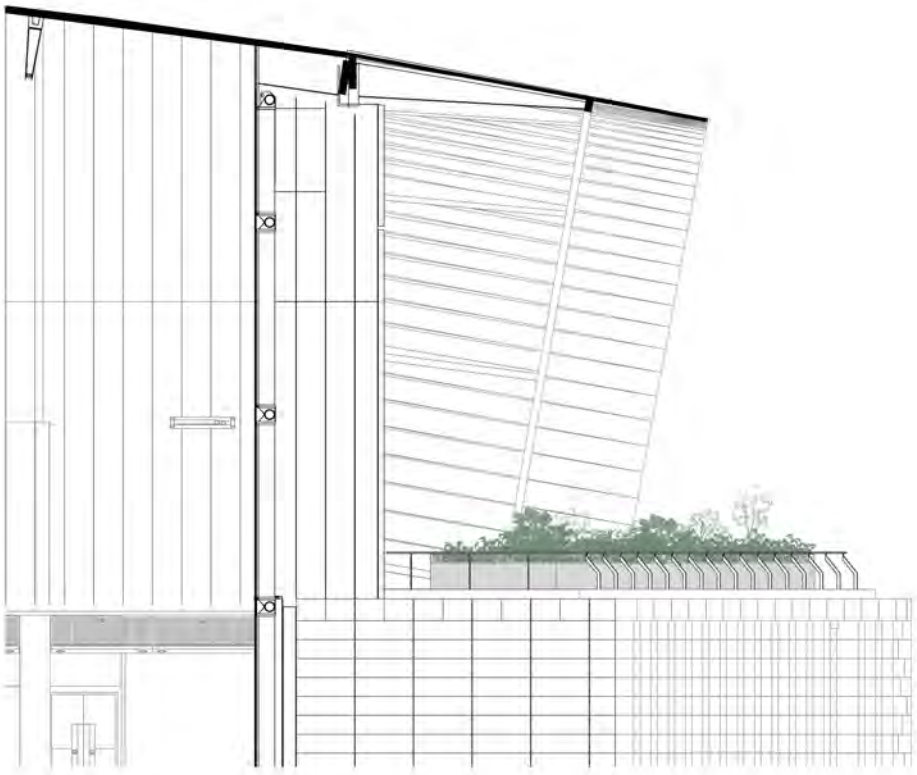


The implementation of the consented scheme delivered the first phase of the vision:

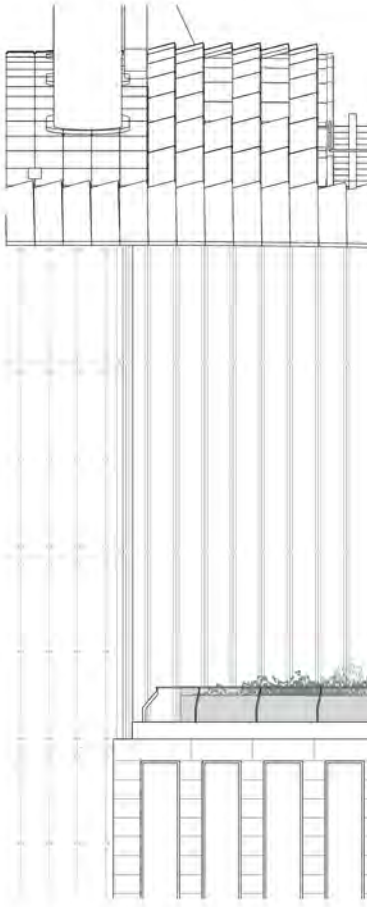
- Perimeter planters with built in benches are providing a shielded break out space for the Cricks' members.
- Metal grating is providing a utilitarian walkable surface and potential substrate for brown roof.
- A DDA ramp was built internally to make up for the 500mm height difference between the internal and external levels.

The space is now being utilised by staff, albeit on good weather days, between 10am-3pm for individual and team breakout and for quiet reflection purposes

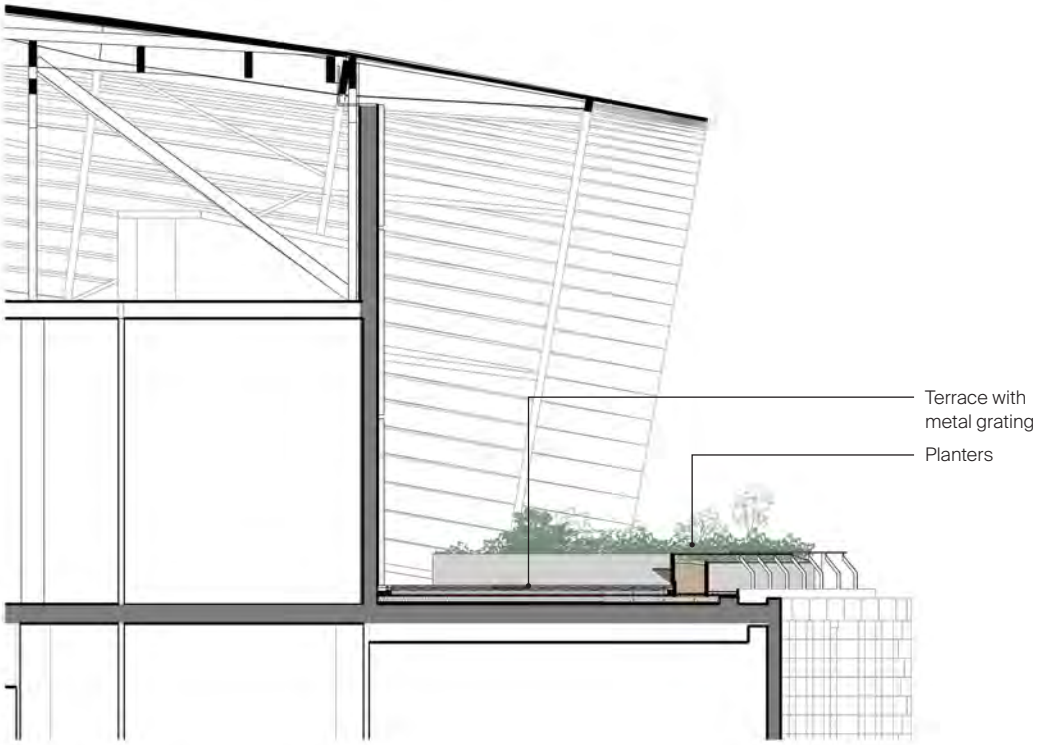
2022 Consented Plan



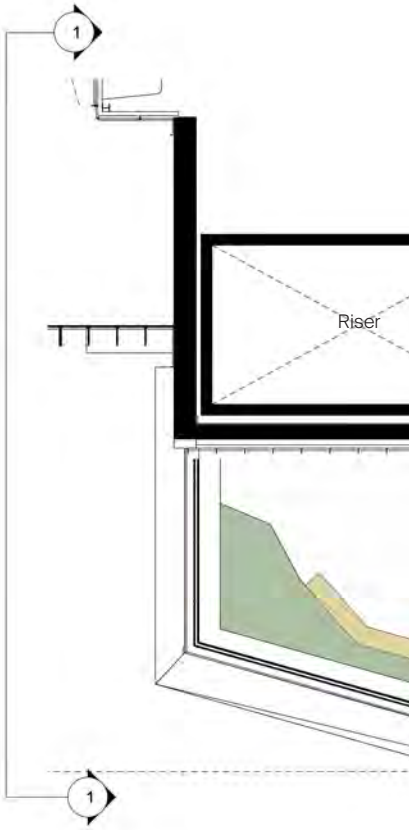
1. Section - As Existing



2. Elevation - As Existing

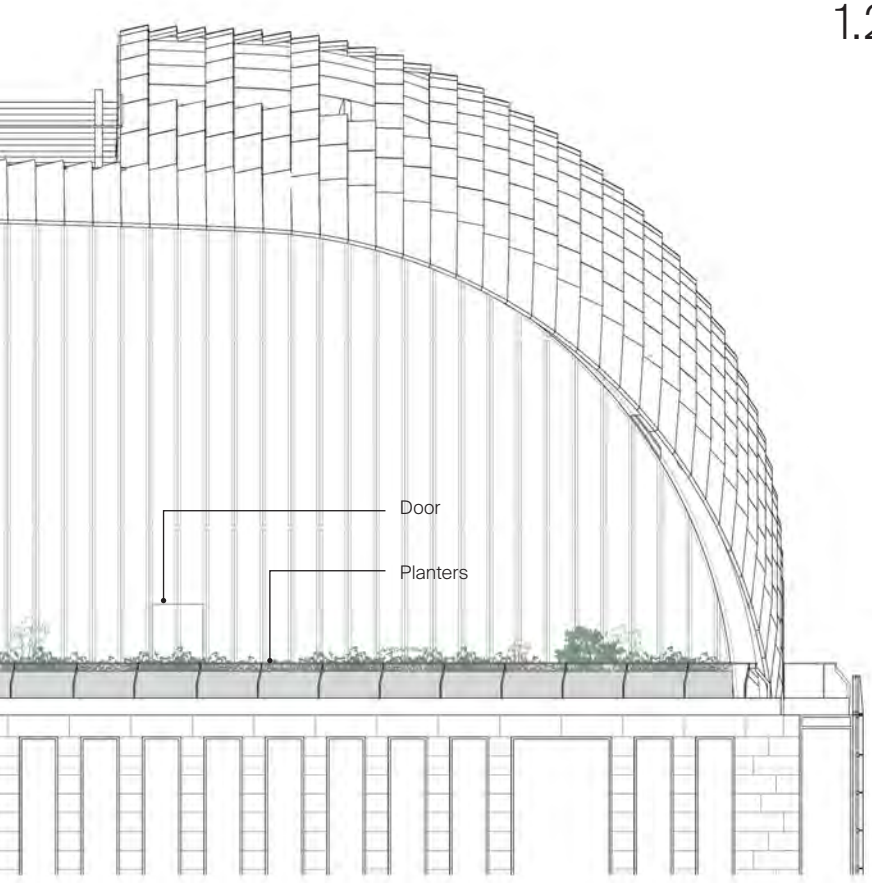


3. Section - As Existing



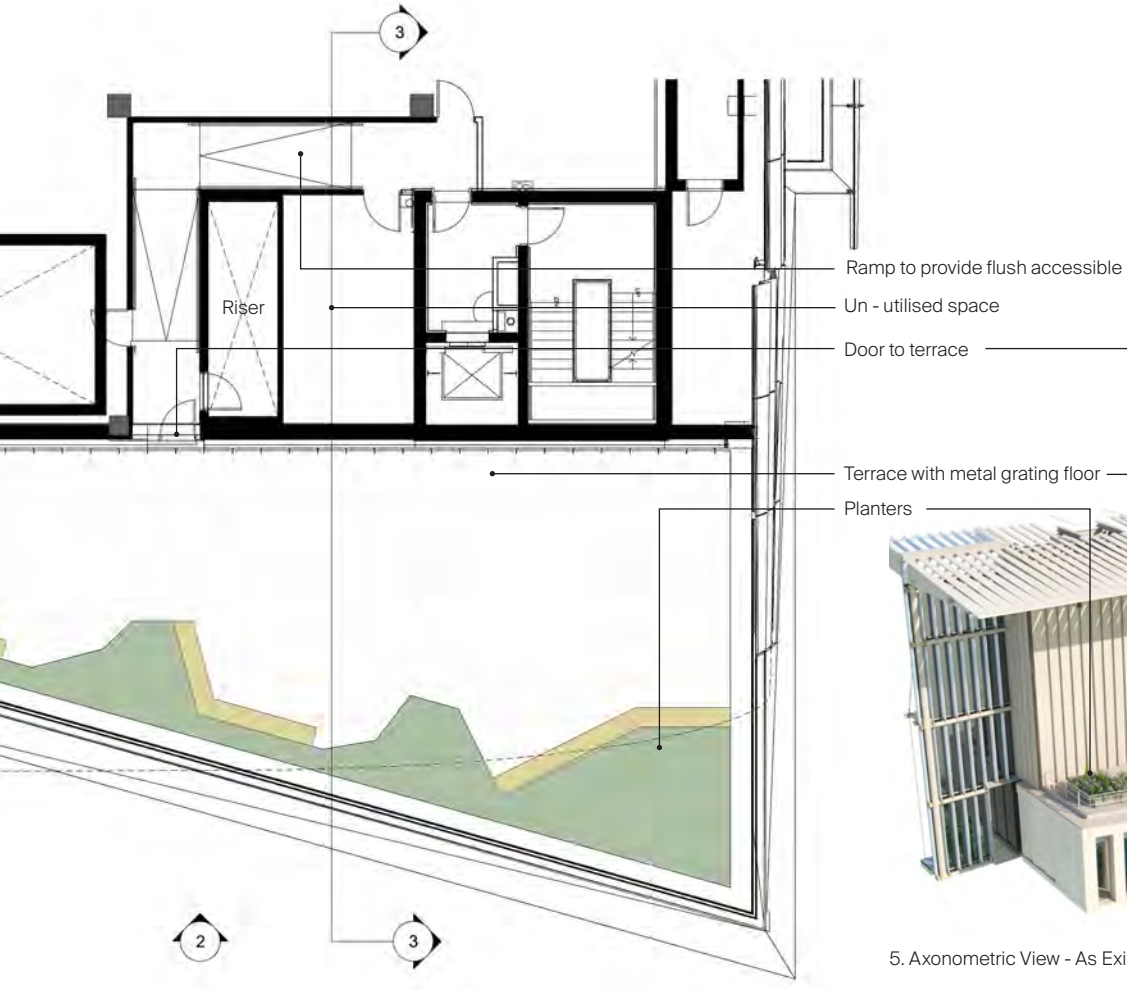
4. Plan -As Existing

1 2022 Consented Scheme
1.2 The implemented scheme shortfalls

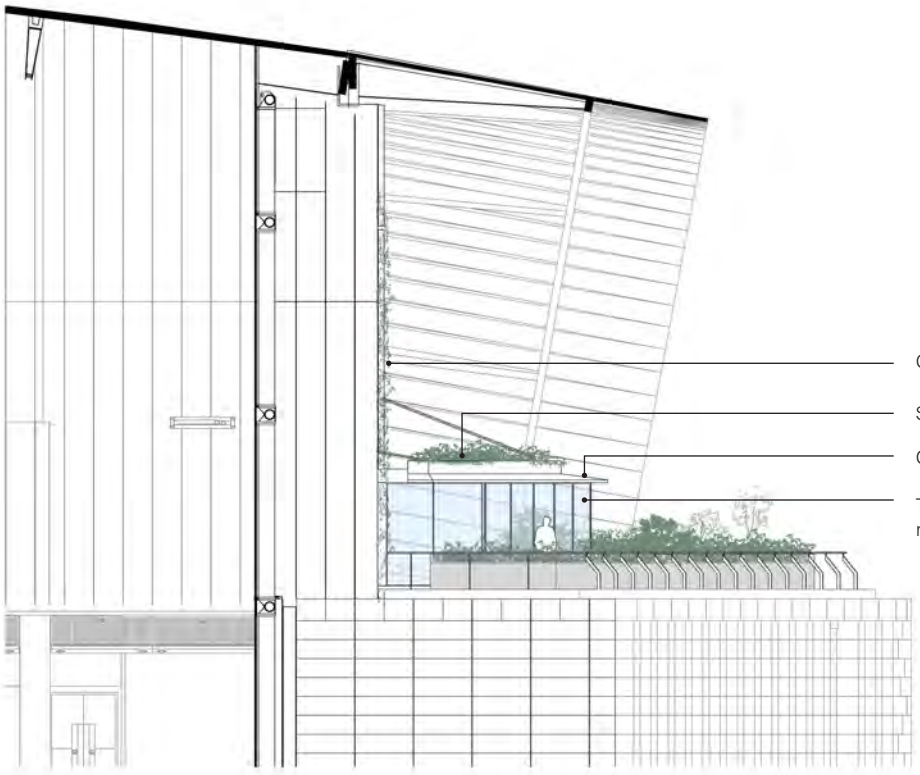


On assessment of the scheme's progress, a few shortfalls became evident:

- The planting supplied and installed by the contractor, is not the specified one and isn't suit for purpose.
- The metal grating doesn't provide adequate conditions for the brown roof growth.
- The grating, designed with relatively large opening to allow light penetration for the brown roof. Does raise health and safety concerns for high heel users. Additionally, the metal grating generates a utilitarian feel which might discourage members from using the space.
- The lack of internal space to protect from the elements limits the usability of the space to only nice days. Ideally a small, protected space can assist in extending the days in a year the terrace can be used.

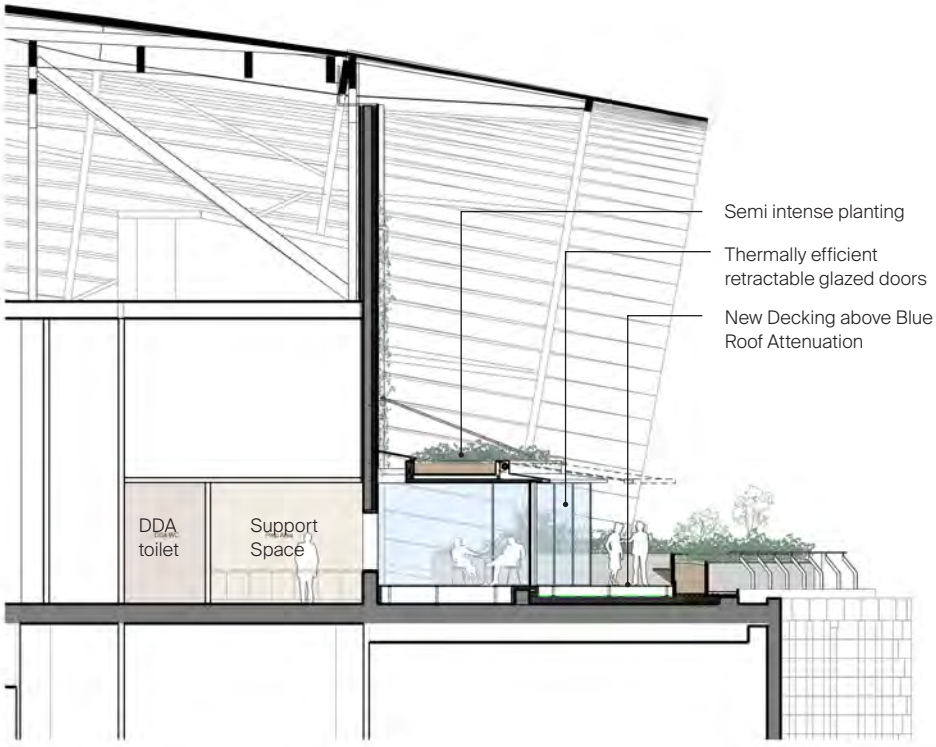


5. Axonometric View - As Existing

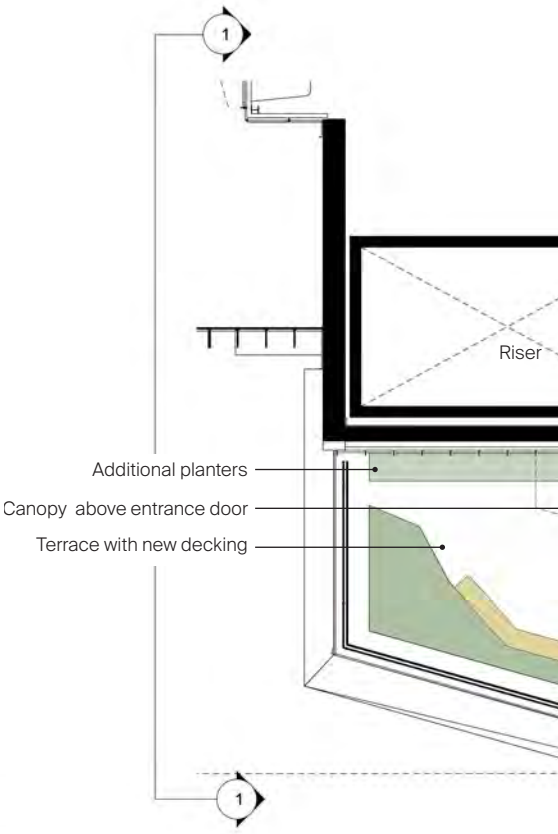


1. Section - As Proposed

2. Elevation - As Proposed

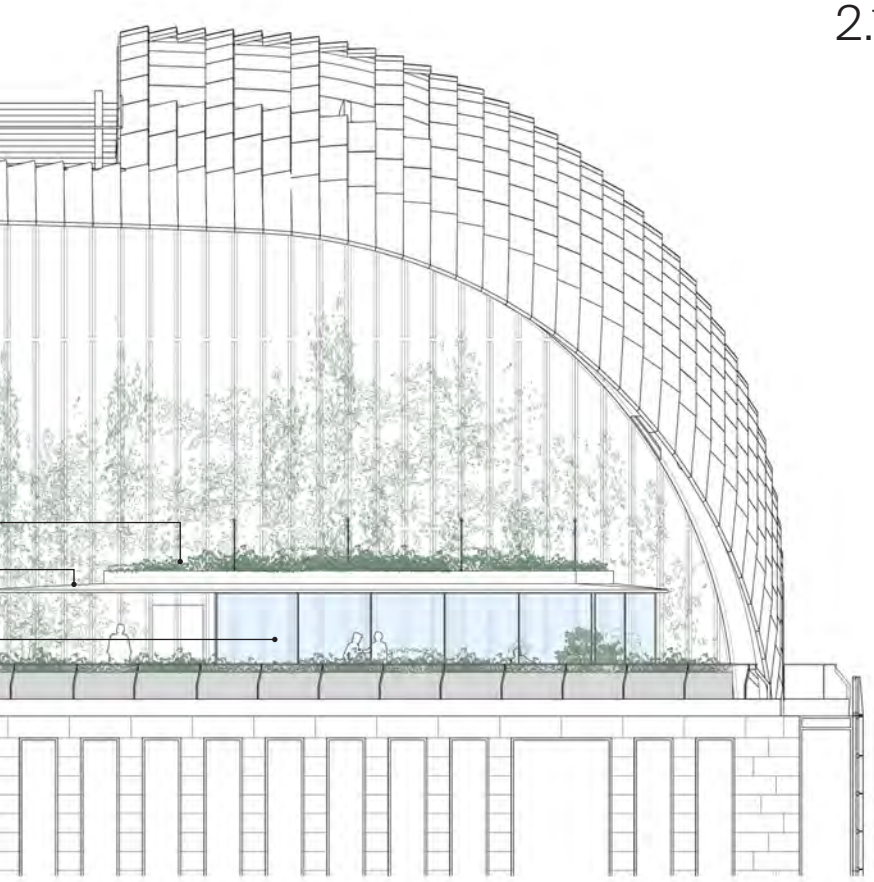


3. Section - As Proposed



4. Plan -As Proposed

2 The Proposal
2.1 Design



The Crick has evaluated the Phase 1 shortcomings and with the design team sought to provide a better proposition.

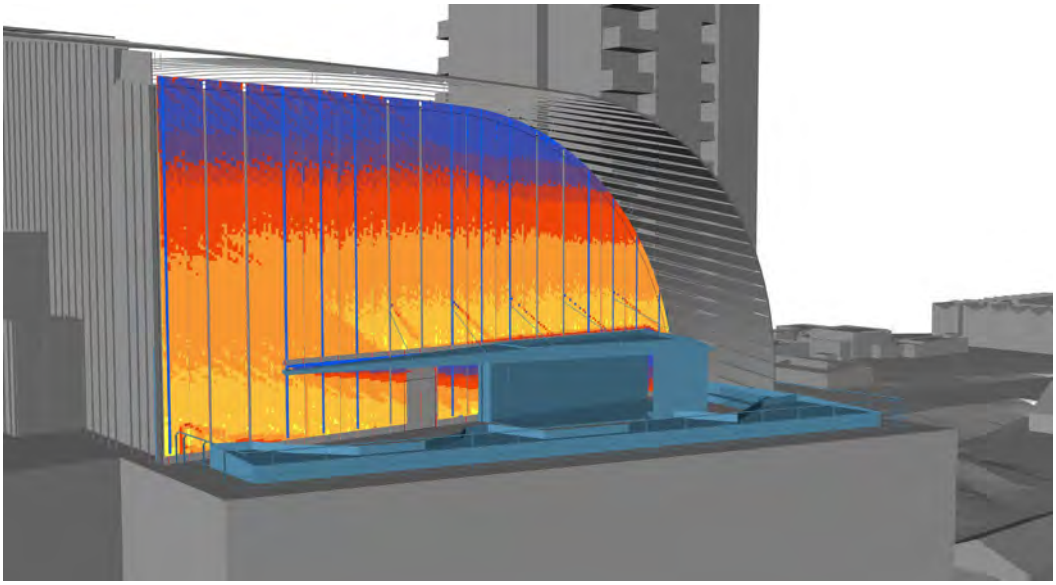
The Proposal
The Proposal seeks to provide the best external amenity space the Crick can offer for its members. The space will provide a mixture of contemplation place, a social gathering space and managed events space. Additionally, with environmental performance responsibility at its core the Crick is seeking to optimise and enhance the current Biodiversity offer.

Flooring and Water Attenuation
The metal grating will be replaced with Aluminium decking with 2mm gaps between the boards. These gaps will ensure high heels can't go through the gaps whilst water can be drained through them.
A grey water irrigation system will be installed, minimising the need for Mains water irrigation.

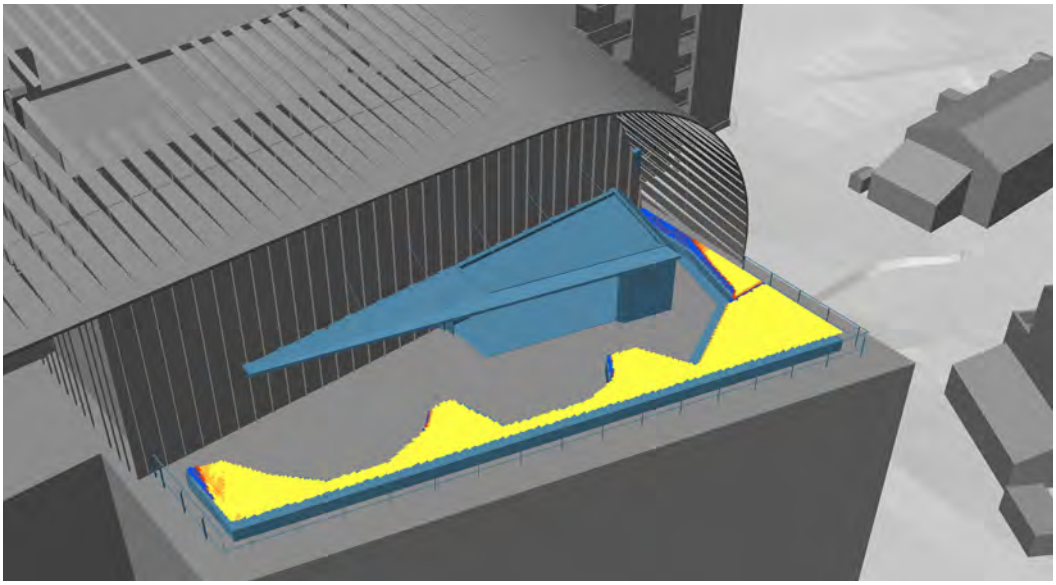
Protection from The Elements
A small triangular pavilion is proposed, facilitating a social gathering space protected from the elements.
Thermally efficient glazed sliding doors are designed to be stacked in the summer, maximising the physical connectivity between the pavilion and the terrace. In the cold months the closed sliders, will facilitate a comfortable internal environment, whist allowing great views over Kings Cross / St Pancras.

Support Spaces
To the west of the terrace within the existing roof volume it is proposed to utilise an underused riser, turning it into a support preparation area servicing the pavilion and a DDA toilet.

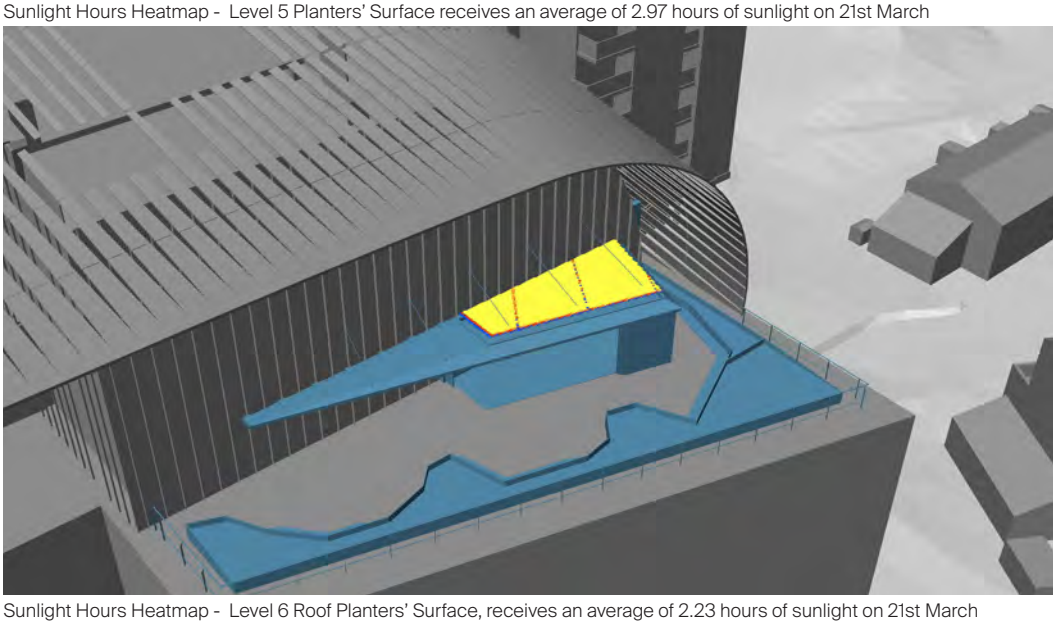
Visibility
The Pavilion, located beneath the overhanging vaulted roof of the Crick is also set back from the North, East and South elevations, making it virtually invisible from street level.
Being screened by the existing vault roof, there is no visual connection between the proposed structure and the new residential units in Brill Place Tower.



Sunlight Hours Heatmap - Vertical Gable Surface, receives an average of 1.19 hours of sunlight on 21st March



Sunlight Hours Heatmap - Level 5 Planters' Surface receives an average of 2.97 hours of sunlight on 21st March



Sunlight Hours Heatmap - Level 6 Roof Planters' Surface, receives an average of 2.23 hours of sunlight on 21st March

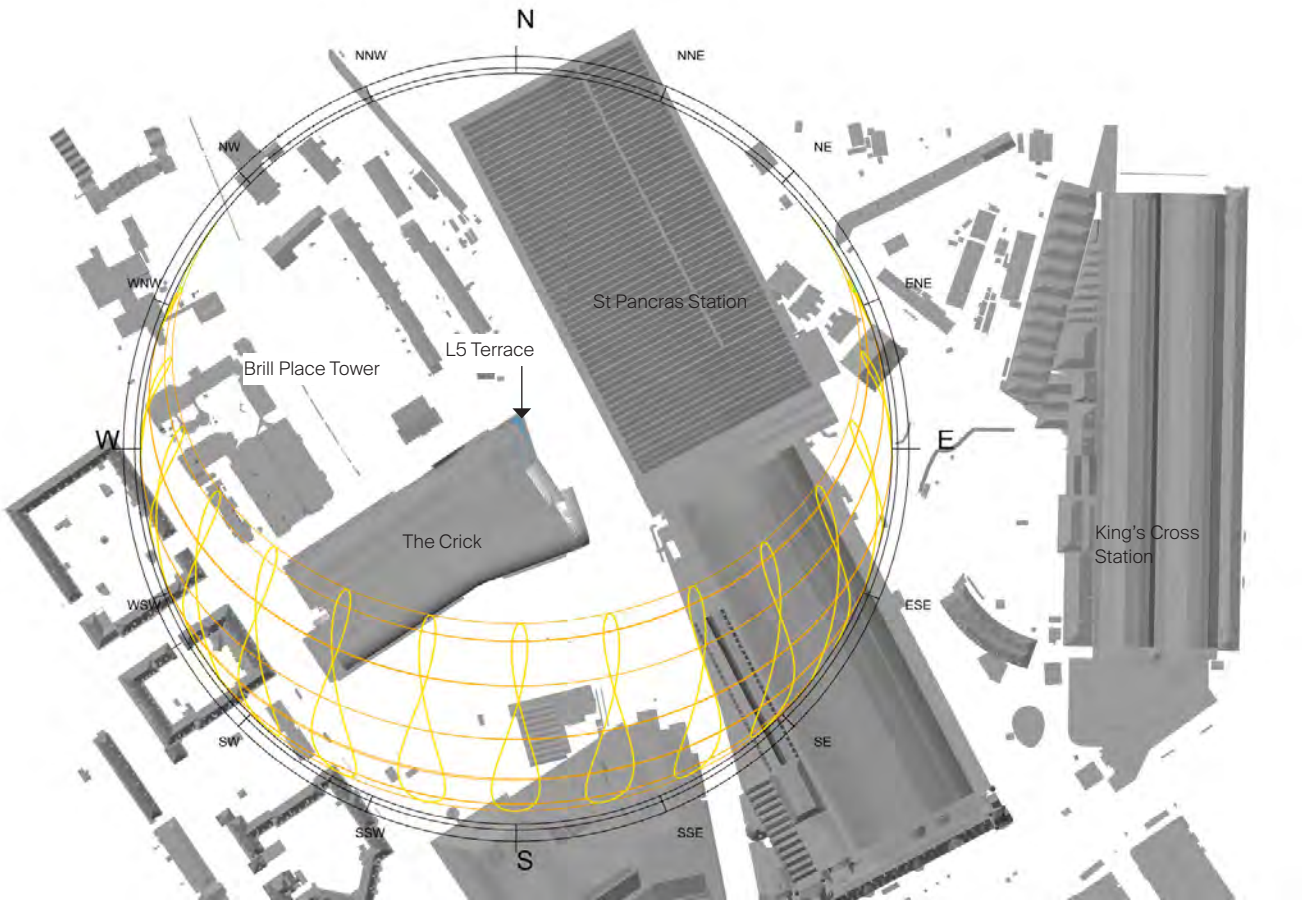
2 The Proposal
2.2 Microclimate Assessment

The site's sun path analysis suggest that good provision of sunlight could be attained on the roof terrace thanks to its east-facing orientation and the relatively low surrounding context.

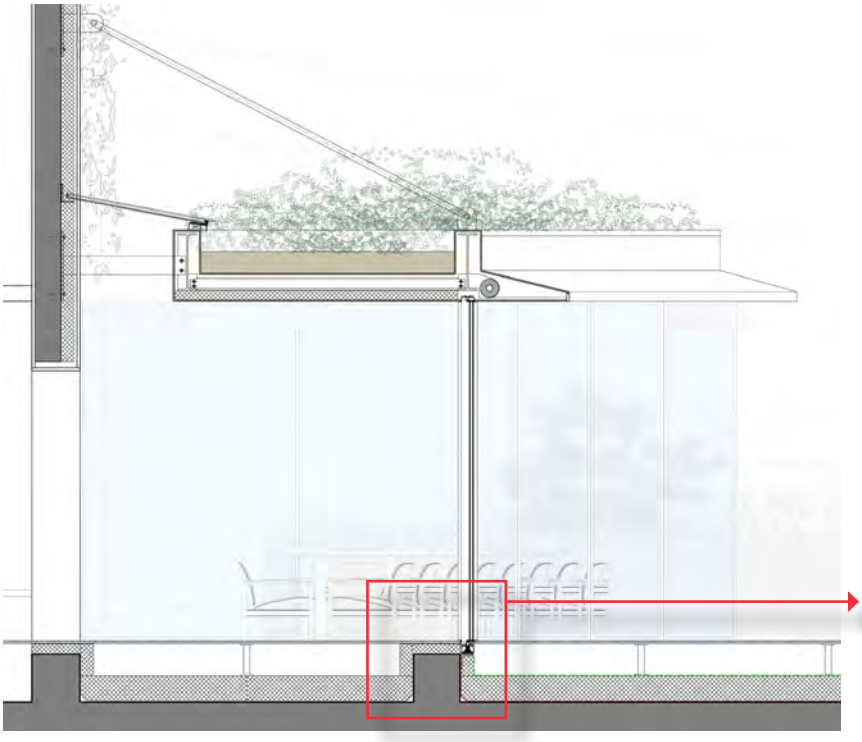
Utilizing Ladybug, a specialist environmental design software, the precise sun path around the site was created. A desktop analysis has been conducted to calculate the number of direct sunlight hours received on the different surfaces proposed for planting; the vertical gable, the pavilion roof and the terrace. The assessment takes into consideration the geo-location of the site and its neighbouring context.

The analysis indicates that the horizontal surfaces enjoy unobstructed sunlight. The vertical gable wall, partially shaded by the Crick's canopy receives 2hours of sunlight at its base which reduced gradually to no direct sunlight at it top. 21st March (spring equinox) is chosen to compute the analysis as it is also the date that BRE recommends assessing sunlight provision on amenity spaces.

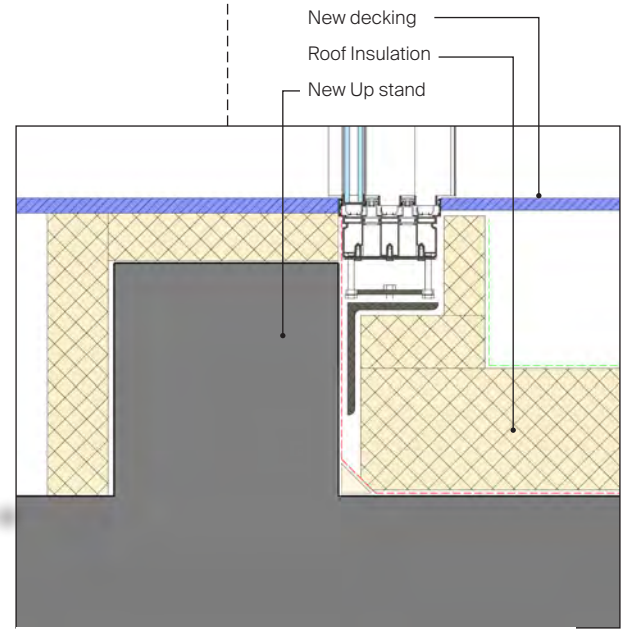
The sunlight analysis has assisted in informing the landscape strategy and planting selection.



The Sunpath Diagram - The Site located at the centre with accurate 3D model of the surrounding context



1. Section through the proposed pavilion



2. Detailed Threshold Section

2 The Proposal
2.3 Landscape Approach

Landscape Approach
The selection of the proposed planting is based on a careful assessment of the terraces' microclimate including prevailing winds and sunlight hours across the year.

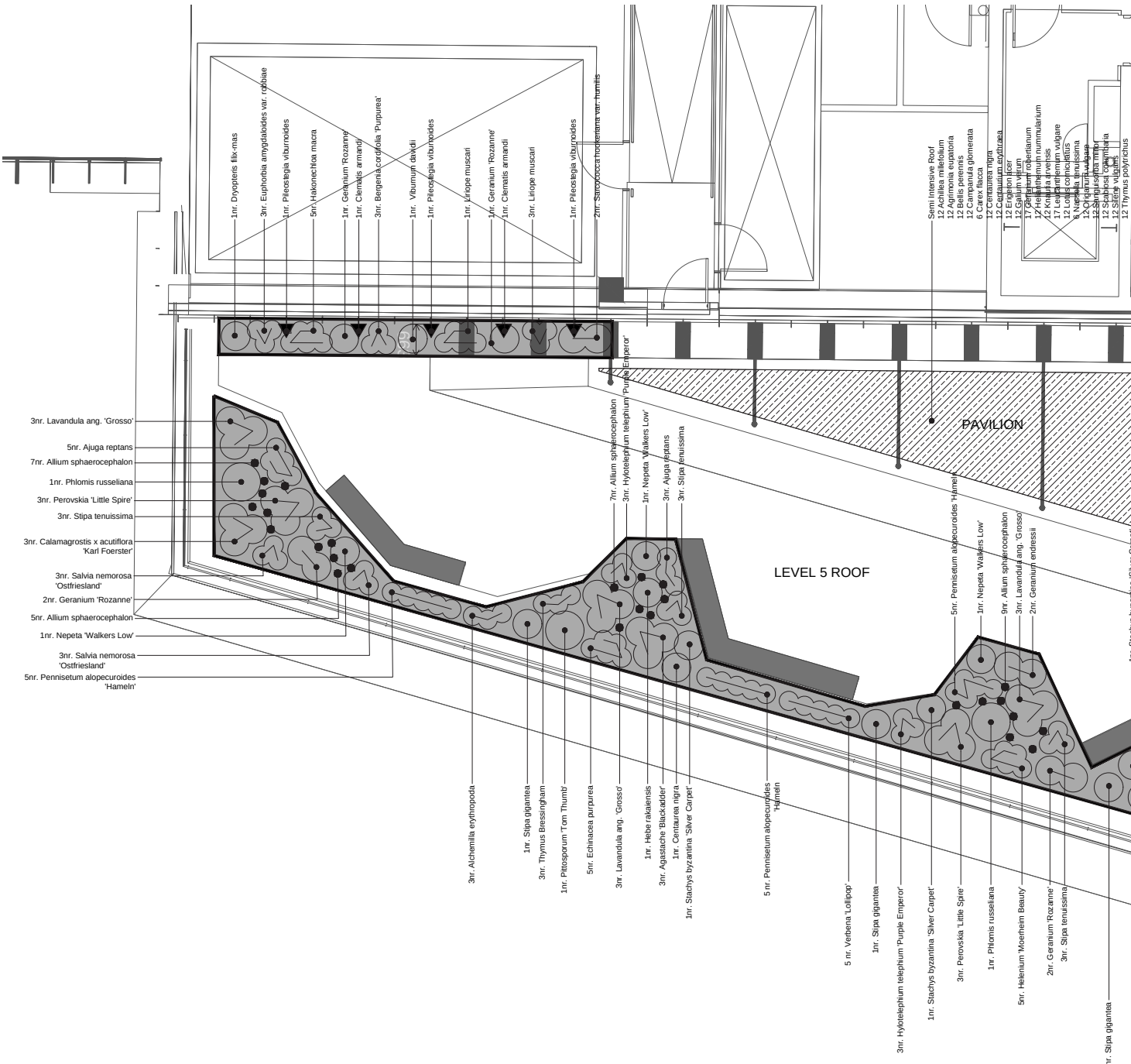
The Proposal calls for:

- The 'incorrect' planting of phase 1 will be replaced to ensure it fits the approved specifications.
- Additional planters along the north side of the terrace under the existing roof, this area is relatively shaded and therefore plants like Euphorbia, Dryopteris and asplenium were selected for this area.
- Semi Intense planting on the pavilion roof.
- Green wall on the roof existing eastern gable. A stainless-steel wire system will be applied to the existing aluminium fins, providing adequate substrate for the creepers growth. Sufficiently deep planters will be located the base of the gable for the creeper's bases.

Typical semi intensive green roof build

3. Semi intense planting

4. Green wall, applied on Stainless Steel wire system



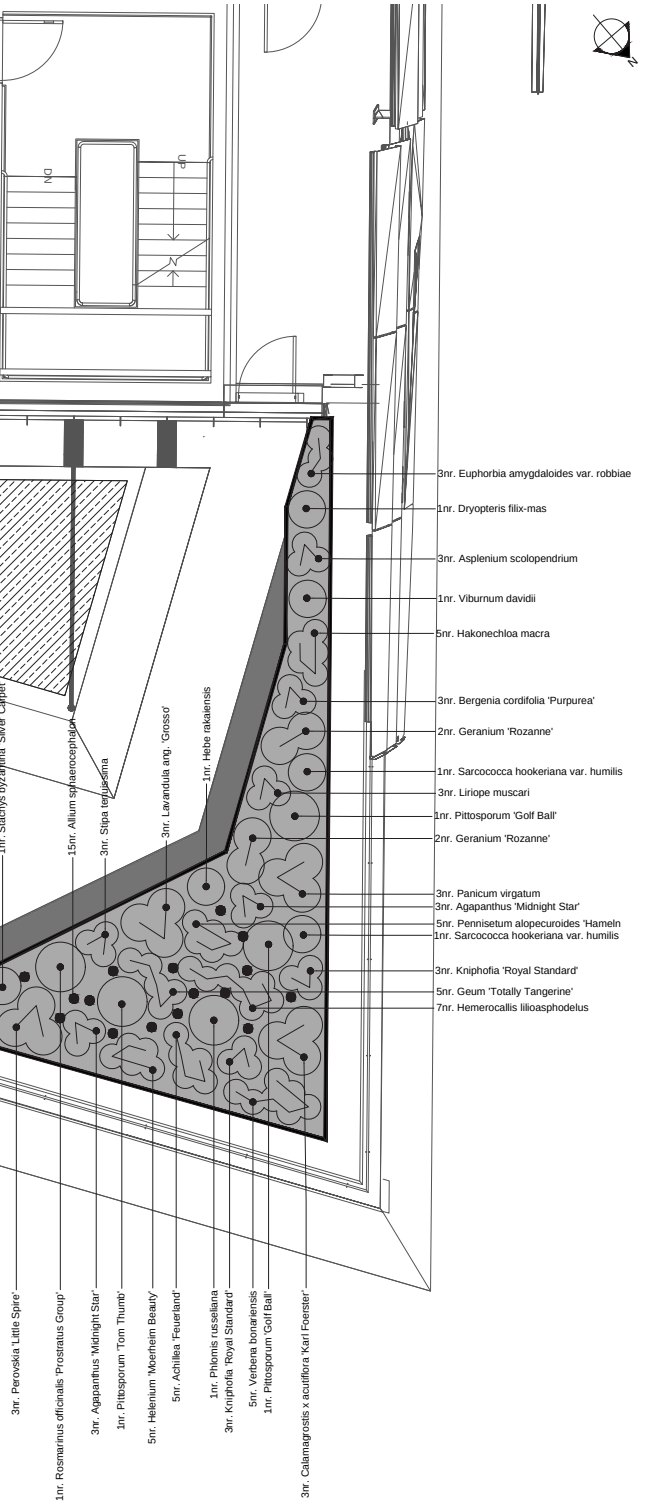

Clematis


Echinacea - Purpurea


Ferns Asplenium


Ferns

2 The Proposal
2.4 Landscape



The new proposals will seek to build on the proposed diverse planting scheme within the raised planters to provide enhanced planting to include a semi intense green roof, climbing planting and a mix of shrub and herbaceous planting to promote biodiversity, provide benefits to the micro climate as well as all year round interest. The green roof and climbers will be integrated with the architectural details to ensure a robust and sustainable system that supports plant establishment and long term success which will require permanent irrigation to the new planting areas that sit within the rain shadow of the existing building overhang. Climbers will be encouraged to cover the façade of the building using a custom made tensile wire support frame.

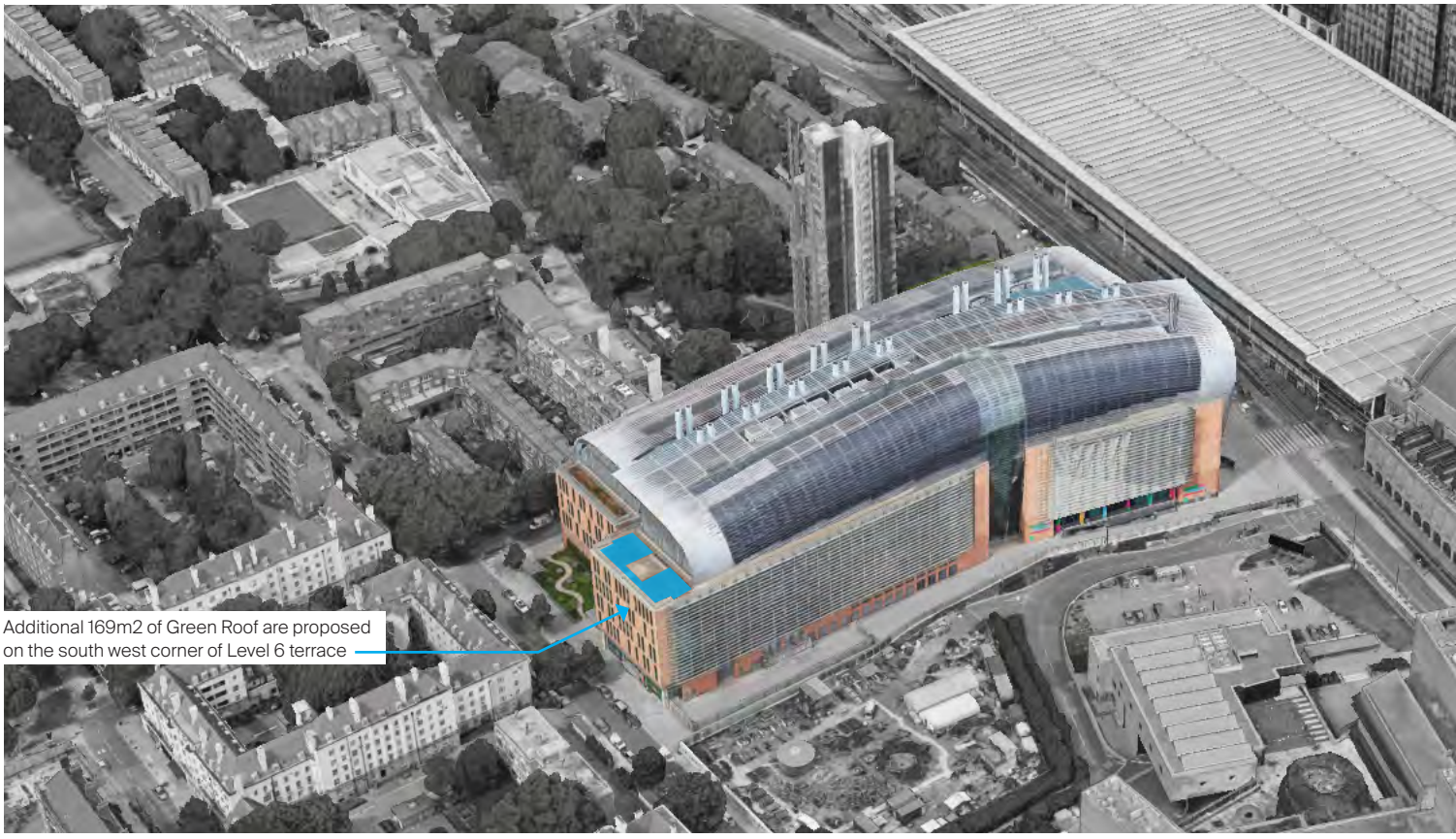

Geranium-Rozanne


Liriope


Nepeta

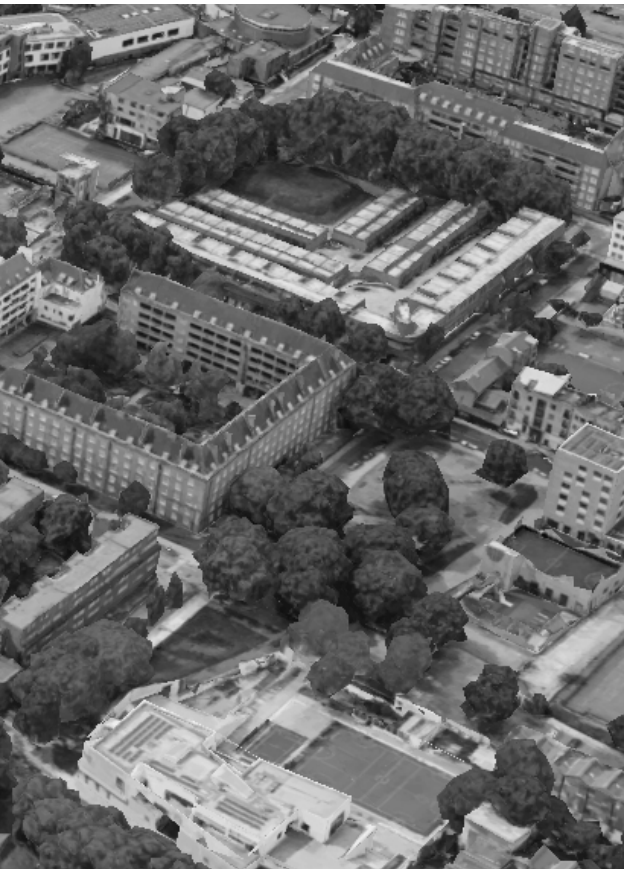

Pennisetum

The Crick from North West

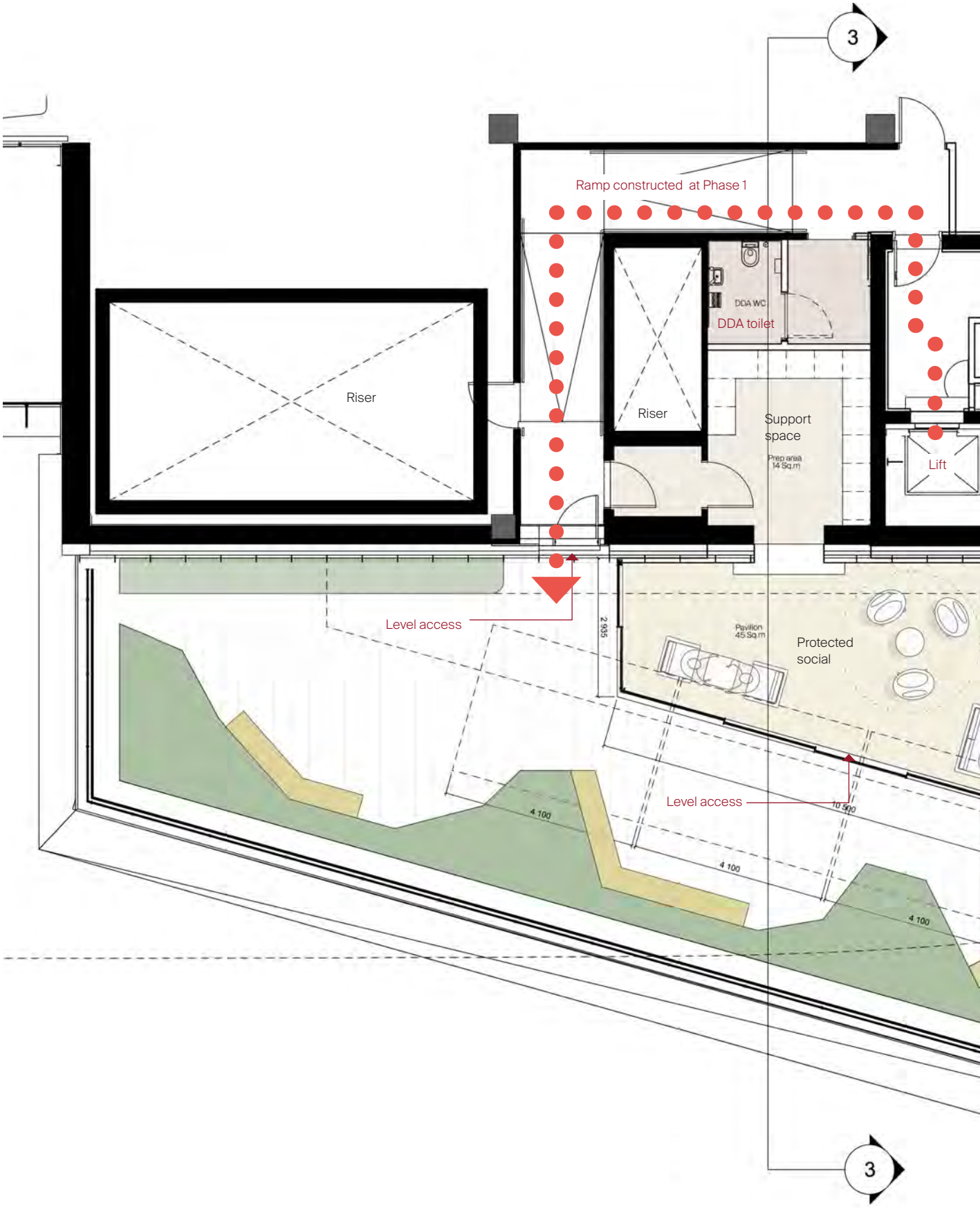


The Crick from South East

2 The Proposal
2.5 Ecology & Biodiversity



The new proposals will seek to build upon the existing biodiversity value of the Francis Crick, providing further enhancements for species of birds, bats and invertebrates (species already targeted by The Crick biodiversity and sustainability strategy). The mixture of semi-intensive green roofs, green walls, and wildflower mounds will ensure that a variety of micro-climates are delivered, which will in turn provide suitable foraging and sheltering habitat for Camden biodiversity action plan species, and year round interest. The retained and proposed planting will further compliment the range of roosting and nesting boxes installed on the site; and in line with ongoing biodiversity accounting work at The Crick, these will be monitored regularly, so that any further enhancements can be tailored to the specific species using the site. In addition, the proposals ensure that Biodiversity Net Gain (BNG) has been achieved, in line with local planning policy.


3
Ramp constructed at Phase 1
DDA WC
DDA toilet
Riser
Riser
Support space
Prep area 14 Sq.m
Lift
Level access
2 935
Pavilion 45 Sq.m
Protected social
Level access
10 500
4 100
4 100
4 100
3

2 The Proposal
2.6 Accessibility

The Crick building is fully accessible throughout. There is level access from the street into the Ground Floor Reception Area where a Vertical Circulation Core connects directly with L5.

From the L5 lift lobby and stairwell a new ramped, constructed at Phase 1, as part of the 2022 consent provides level access to the terrace.

DDA toilet is provided near the exit from the lift, to save unnecessary travels to other floors.

The terrace decking is flush, with only minimal gaps for water drainage.

The amenity pavilion sliding doors track is flush, allowing for wheel chair to transition at ease between indoor and outdoor spaces.

View from St Pancras Station Entrance towards the Crick - As Existing

View from St Pancras Station Entrance towards the Crick - As Proposed

View from Midland Road looking North - As Existing

View from Midland Road looking North - As Proposed

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