

5.0 Landscape and Public Realm

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5.1 Landscape aims: Serving people, plants and the planet

People

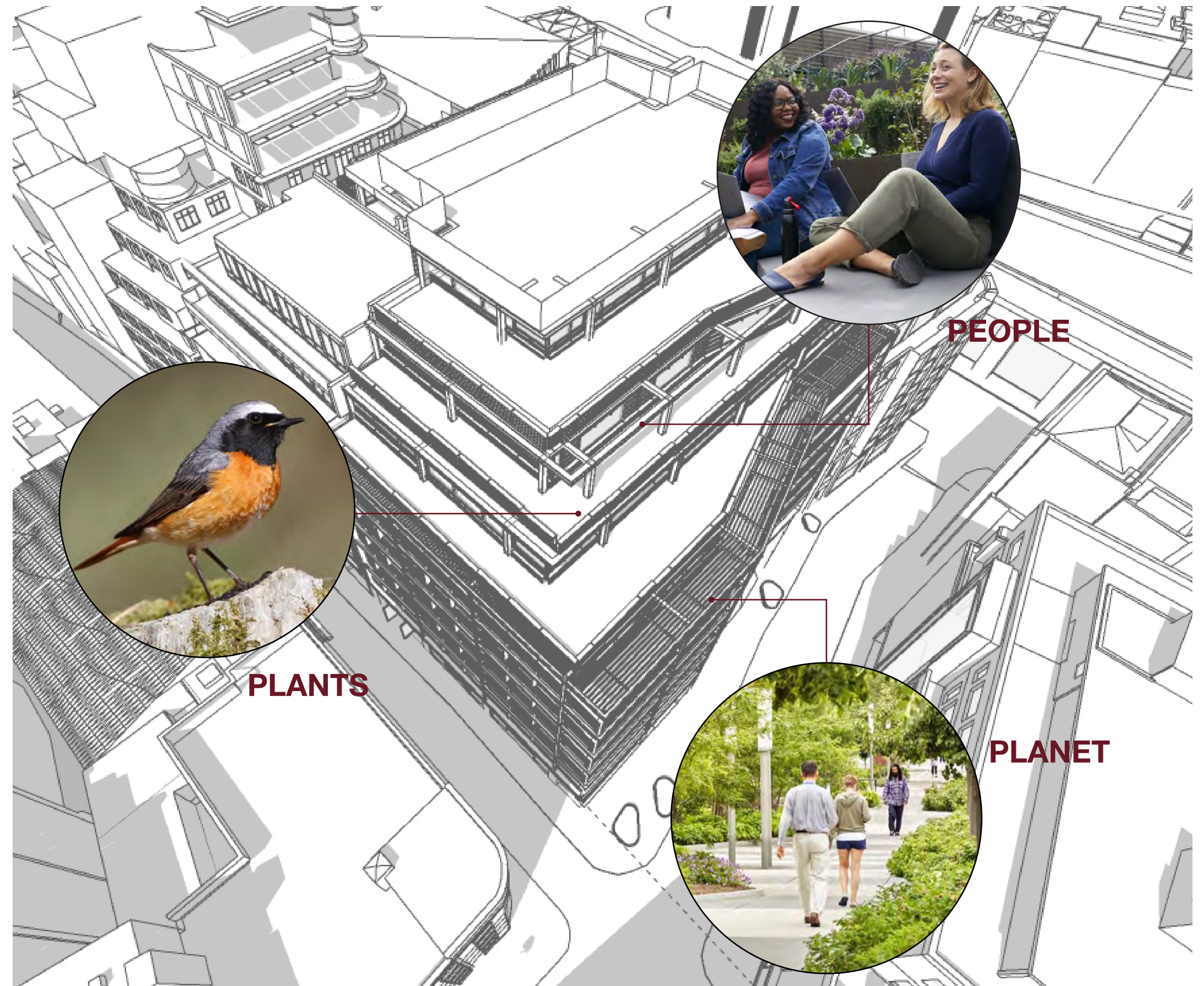
- The building will provide usable amenity terraces across four floors.
- The planting will help provide shelter from prevailing winds and screen site lines from near by neighbours.

Plants

- Proposed landscape to contribute to the local ecosystem
- Providing meaningful habitats for specific key species such as the black red start and local bats
- Planting to be resilient to impacts of climate change
- Maintenance-friendly to remain viable and enjoyed by all

Planet

- Ground level amenity to provide improvements to the public realm by introducing benches, planters and street trees
- Improve the local environment through SUDS and biodiversity
- Improve air quality and local ambient temperatures.



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5.2 Micro-climates, habitats and amenity

Micro-Climates

- South-facing terraces exposed to wind and sun.
- Planting and architecture to help shelter these terraces for comfort and usability.
- North-facing terraces sheltered from the wind but also in shade. Planting here to be shade tolerant.

Aspect and Privacy

- Plants that screen sightlines and/or orient people away from looking over to neighbours

Diversity of Habitats to suit aspect and micro-climates

- North-facing, night flowering terrace planting for bats and invertebrates
- South-facing flowering and sheltering planting for birds and invertebrates
- Screening planting for the roof (for birds and invertebrates)

Ecological Connectivity

- The site is close to other roof terraces which, together, contribute to the ecological network

Maintenance

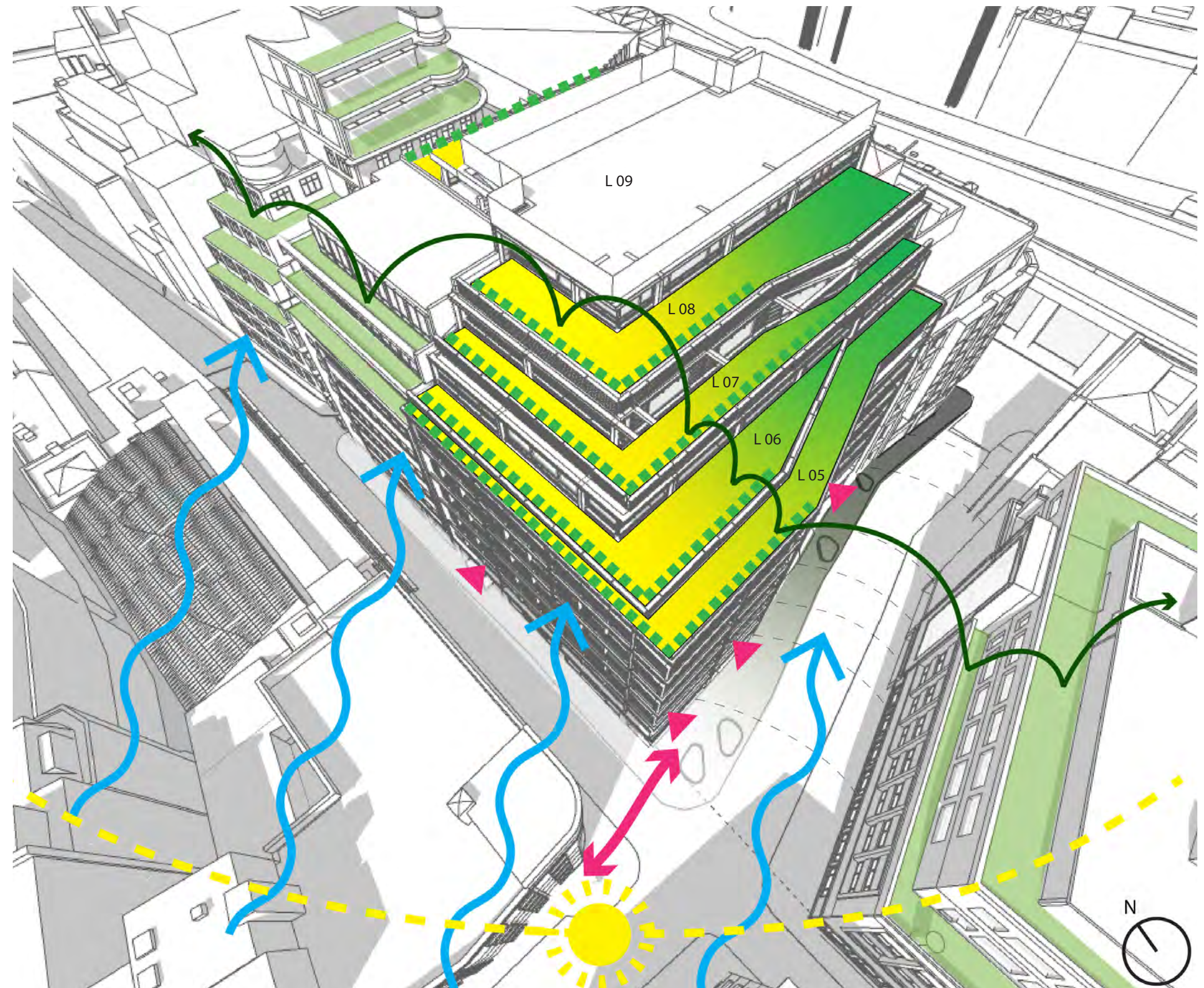
- Landscapes that are well used need to be well maintained for the benefit of both people and the ecology

Climate Change Resilience

- All planting will be chosen with future climate in consideration

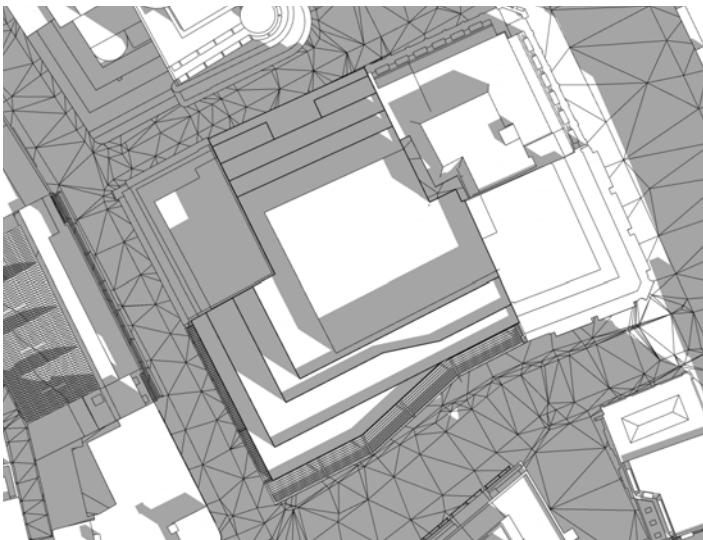
Ecological Enhancements

- UGF 0.30 Target achievable with proposed landscape
- 100% Biodiversity Net Gain achievable

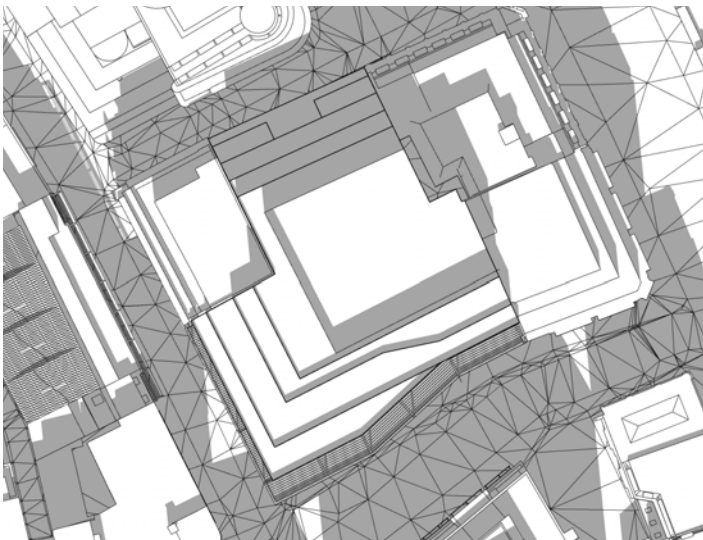


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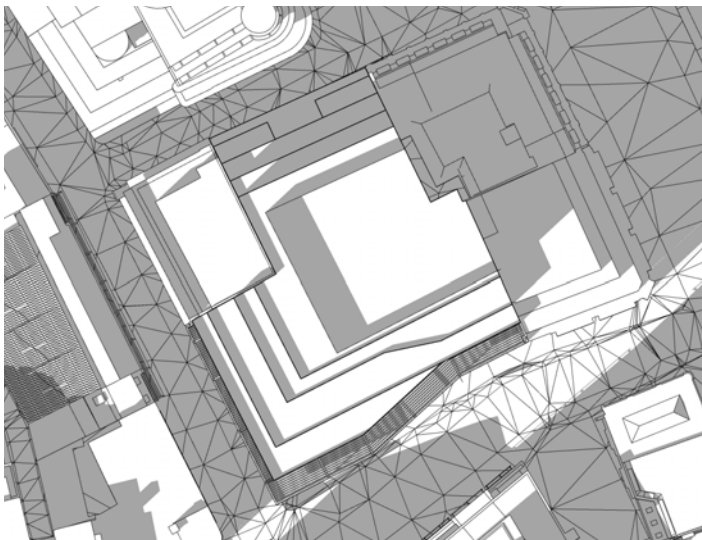
5.3 Microclimates: sunlight and overshadowing



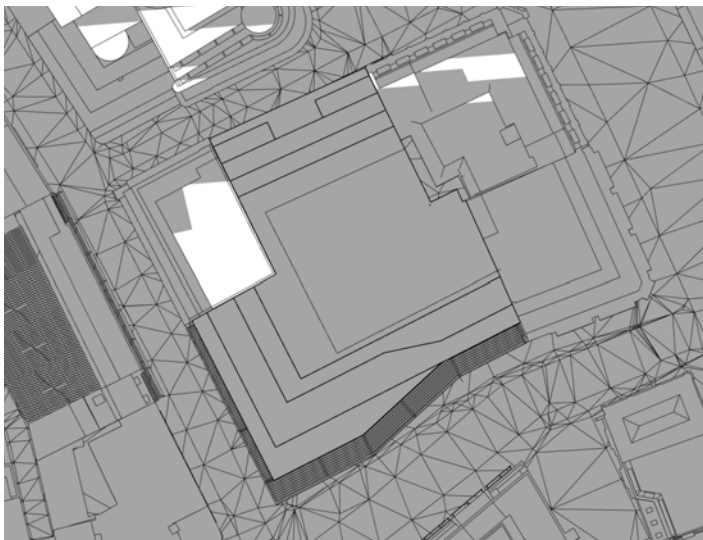
Autumn/spring 0900



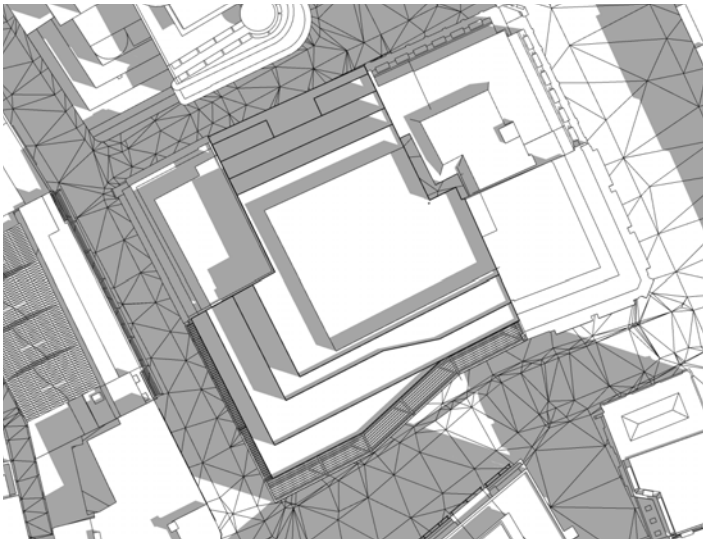
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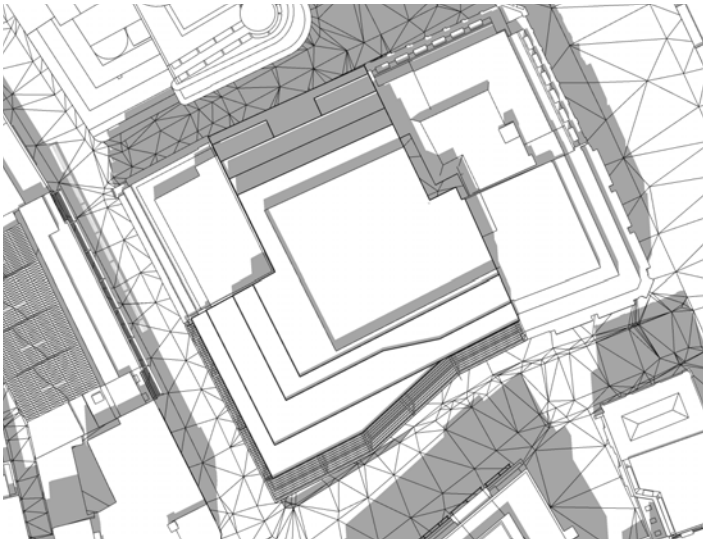
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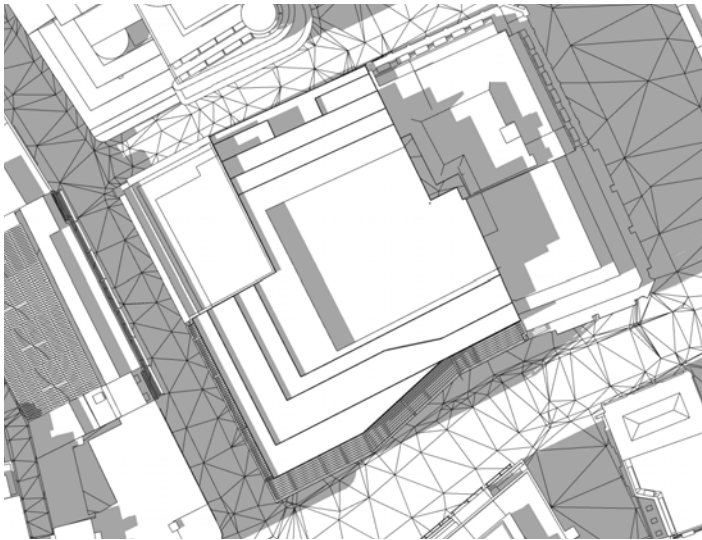
1800



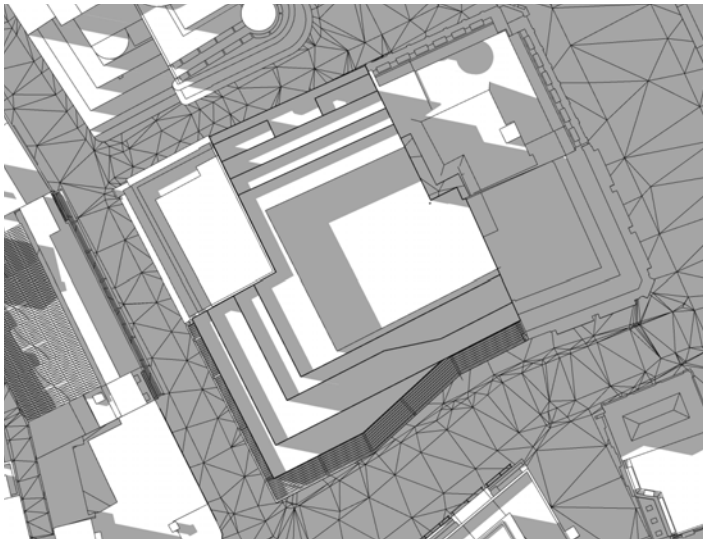
Summer 0900



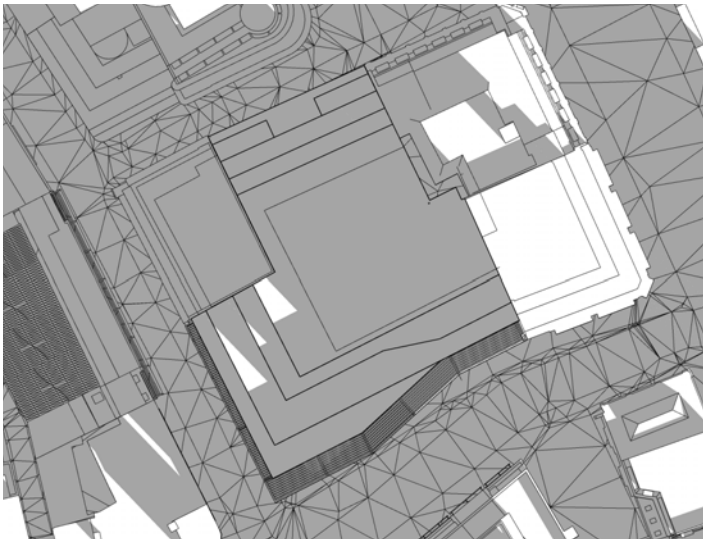
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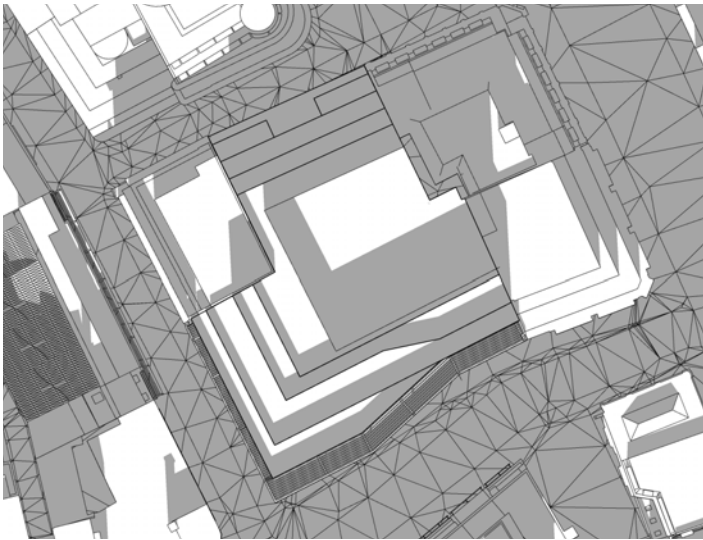
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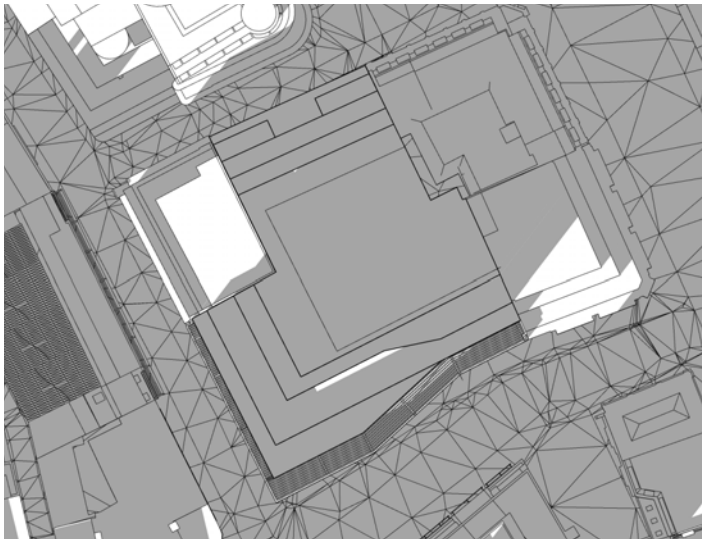
1800



Winter 0900



1200



1500

During most of the year, apart from winter, the southeast and southwest facing terraces will receive direct sunlight.

The north-facing terraces will tend to be overshadowed, apart from afternoons during summer.

This sets up two clear conditions for viable habitat creation that also distinguish the feel of the amenity terraces from one another.

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5.4 Site heritage and planting concept

“My Lord of Ely, when I was last in Holborn, I saw good strawberries in your garden there; I do beseech you, send for some of them.”

In Richard III, the Duke of Gloucester
Bishops of Ely’s Holborn estate



Saffron Hill derives its name from the saffron which was once grown here on land owned by the Bishops of Ely. Shakespeare also referred to the pleasure ground around Ely Palace.

Wild and cultivated strawberries grow in a wide range of climates and ecologies, some of which present similar conditions to those on the terraces of the proposed building.

A selection of strawberry plants and crocuses will be incorporated into the planting palette in acknowledgement of this heritage.

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5.5 Roof terraces: Biodiversity and Planting Strategy

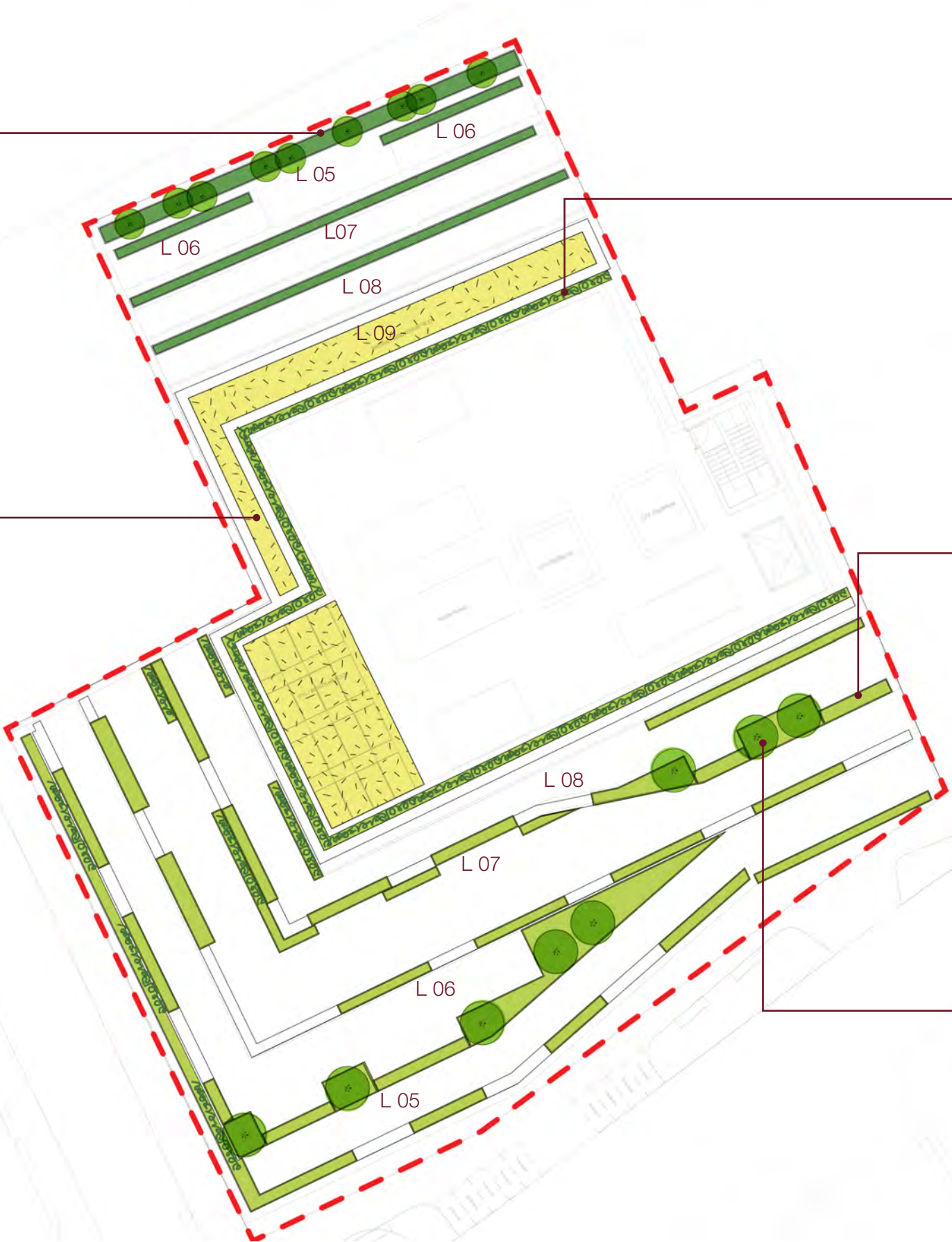


North-facing, night-flowering terrace planting for bats and invertebrates



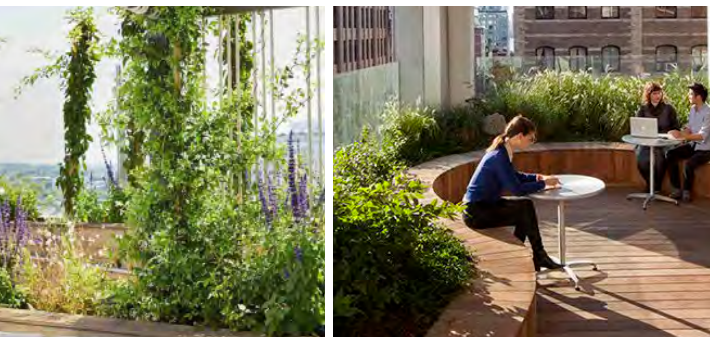
Bio-solar and bio-diverse roof

The planting strategy incorporates information taken from the sun/shade and wind studies to identify the micro-climates unique to this site. This allows the development of distinct habitats and ecology to serve the buildings inhabitants and local wildlife.



Plants to screen sightlines, orient people away from over-looking neighbours

Screening planting on the roof for birds and invertebrates, and wider ecosystem services



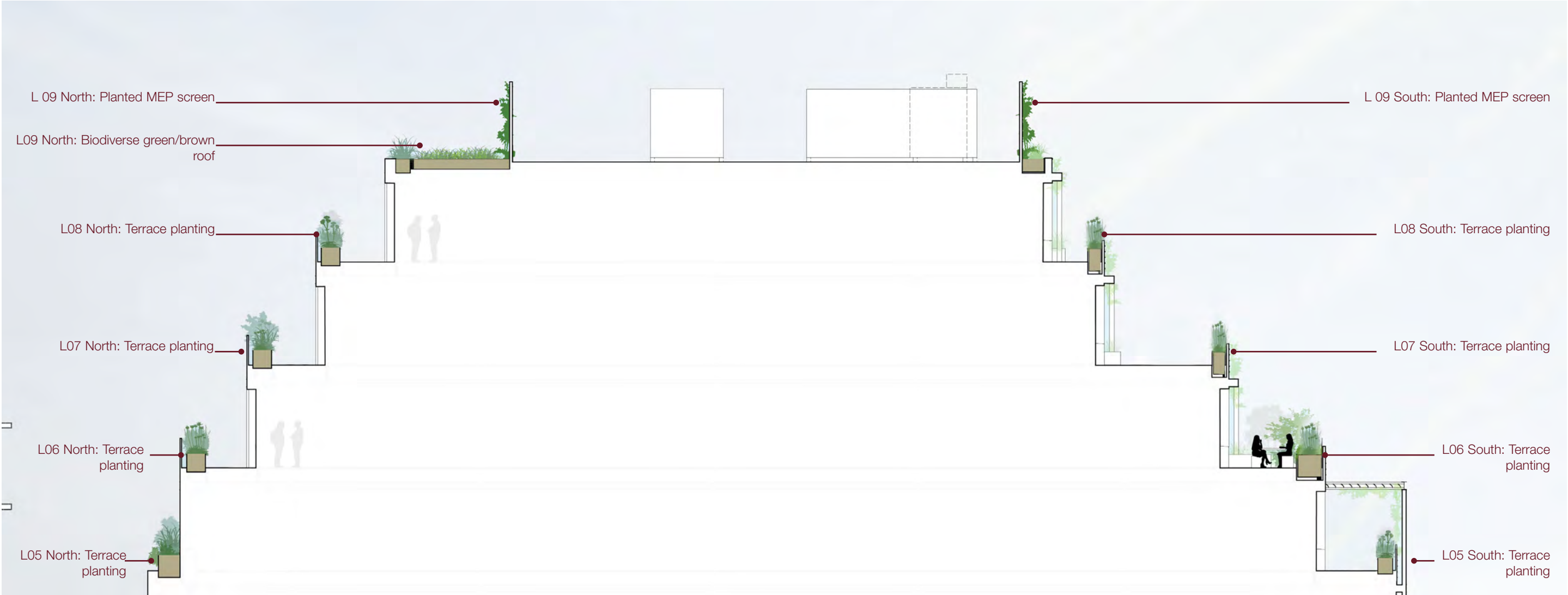
South-facing flowering and sheltering planting for birds and invertebrates



Trees and shrubs for wind shelter

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5.6 Conceptual planting section



North-facing terrace planting



Biodiverse green/brown roof



Screening planting



South-facing terrace planting

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5.7 Roof terraces: Indicative planting palette

North facing terrace planting



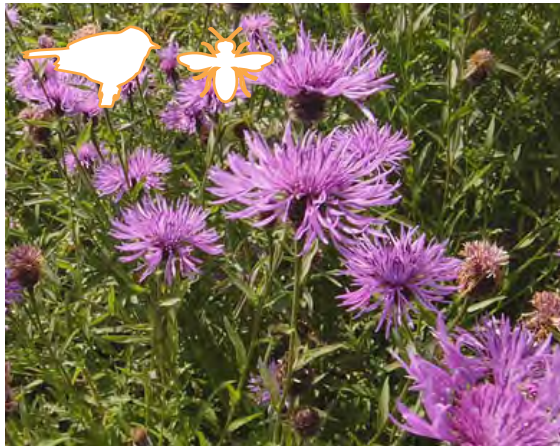
Rosa canina



Hebe



Fragaria (ornamental)



Centaurea nigra

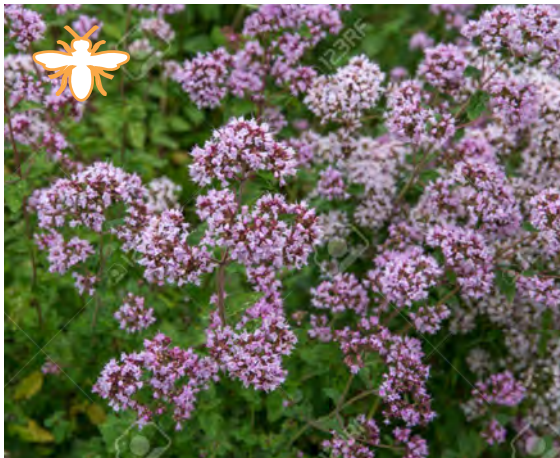


Allium schoenoprasum

Brown/green roof planting



Achillea millefolium



Origanum vulgare



Plantago lanceolata



Poterium sanguisorba



Primula veris

South facing terrace planting



Salvia officinalis



Fragaria vesca



Fragaria 'Lipstick'



Borago officinalis



Thymus spp

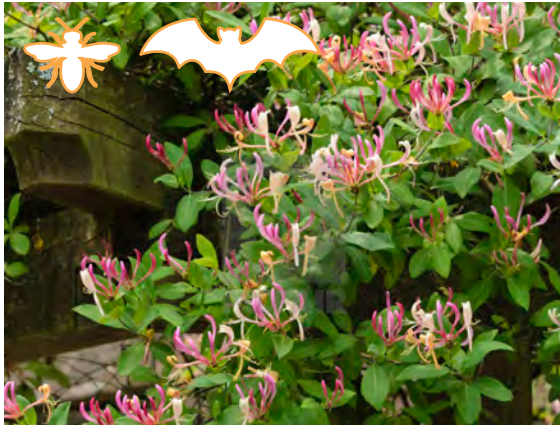
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5.8 Roof terraces: Indicative planting palette

Screening planting



Hedera helix



Lonicera periclymenum



Clematis arandii



Jasminum officinale

Trees and shrubs



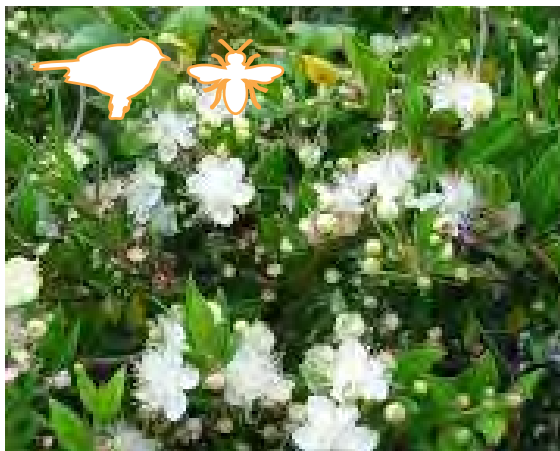
Arbutus Unedo



Chaenomeles japonica



Cistus x hybridus



Myrtus communis



Viburnum opulus

The planting palette has been developed in response to the particular micro-climate created on site. Each of these areas has its own planting profile and therefore its own habitat to serve specific local wildlife.

The mix of native and native-adjacent planting has been chosen to support multiple species of bats, birds and bugs throughout the year. The planting has also been chosen with future climate conditions in mind. For the buildings users the various habitats offer seasonal delight and a rest-bite from the urban context.

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5.9 Ground floor: Planting concept diagram



Proposed landscape strategies:

- Whole pavement for public realm and environmental benefit
- A green and welcoming entrance to cafe
- New street trees and planting for greener streetscape
- Provision for public seating
- Graded SUDs planting: pollinator-friendly, draught-tolerant, balance of evergreen and seasonal presence
- Underground services under review, to be coordinated



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5.10 Ground floor: Planting strategies



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5.11 Ground floor: Indicative planting palette

North facing raised planters



Hebe



Asplenium scolopendrium



Alchemilla mollis

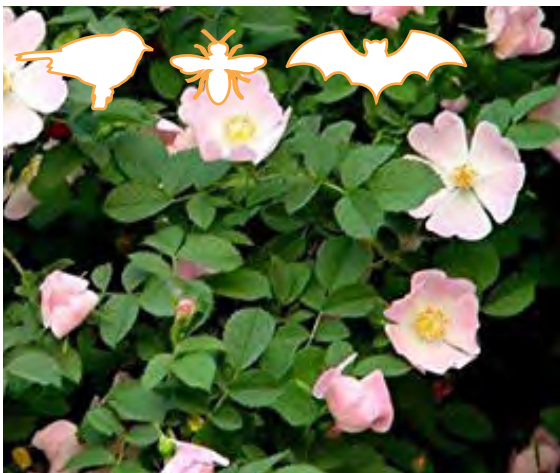


Anemone x hybrida



Ruscus aculeatus

South facing raised planters



Rosa carnia



Fragaria



Geum rivale



Hippophae rhamnoides

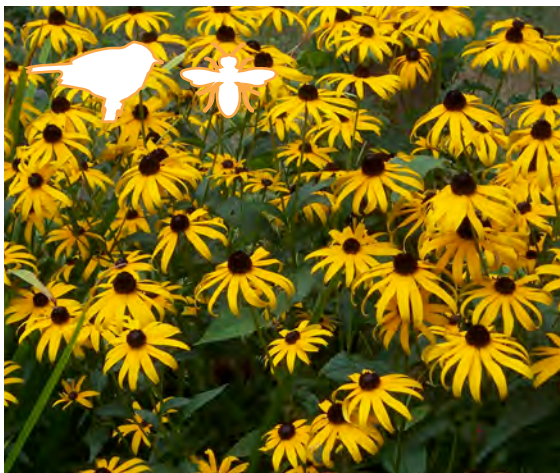


Potentilla fruticosa

Rain garden planting



Alnus cordata



Rudbeckia birta



Eupatorium cannabinum



Carex pendula



Iris pseudocorus

5.12 Available soil depths

[illegible]

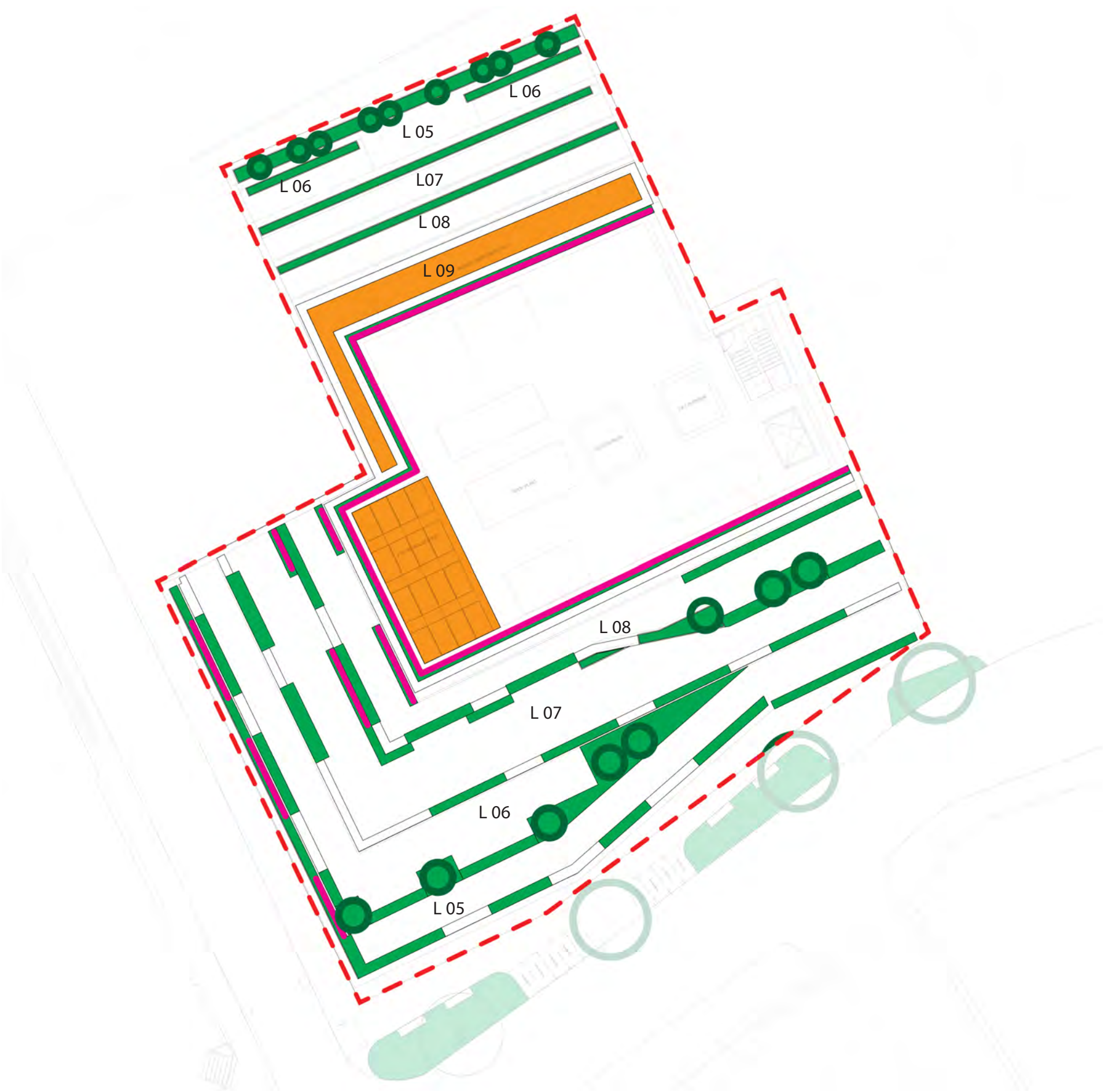
- In ground planting (Soil depth 800mm+)
- Planting (Soil depth 600mm+)

Diagram illustrating the roof terrace soil depths for a building layout. The layout shows a central yellow rectangular area, likely a courtyard or pool, surrounded by orange-colored terraces. The terraces are labeled with soil depth levels: L 05, L 06, L 07, L 08, and L 09. The diagram is enclosed in a dashed red line, indicating the overall boundary of the roof terrace area.

- Planting (Soil depth 600mm+)
- Green roof (Growing medium depth 150mm+)

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5.13 Urban Greening Factor



This scheme can achieve the target of 0.3 minimum UGF through a combination of raised planters, small shrubs and trees, climbing plants and a bio-diverse green roof.

Although it is not counted in UGF calculations, the new ground floor planting outside of the site boundary would contribute 3 new trees and 58m2 of rain garden planting.

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5.14 Urban Greening Factor: Calculations

Total site area (m2)	1430.0						
Location	Description	#		Factor	Area (m2)	Score	Notes
Ground Floor							
Ground floor	Vegetation			0.8	35.8	28.6	Raised planter (within red line boundary)
Ground floor	Non permeable paving			0			
Level 1 - 4							
Level 1 - 4 balcony	Vegetation over structure	4		0.8	14.8	11.8	Raised planter
Level 5							
Level 5 terrace	Vegetation over structure	4		0.8	46.2	37.0	Raised planter
Level 5 terrace	Climbing plants			0.6	22.5	13.5	9m length 2.5m height
Level 5 terrace	Trees (within planting areas)	9		0.8	18	14.4	1.5m diameter x 9 (2m2)
Level 6							
Level 6 terrace	Vegetation over structure			0.8	42.8	34.2	Raised planter
Level 6 terrace	Trees (within planting areas)	5		0.8	15.5	12.4	2m diameter x 5 (3.1m2)
Level 7							
Level 7 terrace	Vegetation over structure			0.8	29.8	23.8	Raised planter
Level 7 terrace	Climbing plants			0.6	9.3	5.6	6m length 2.5m height
Level 8							
Level 8 terrace	Vegetation over structure			0.8	39.3	31.4	Raised planter
Level 8 terrace	Trees (within planting areas)	3		0.8	9.3	7.4	2m diameter 3 (3.1m2)
Level 8 terrace	Climbing plants			0.6	15.0	9.0	6m length 2.5m height
Level 9							
Level 9	Extensive green roof			0.7	93.8	65.7	minimum settled depth of 150mm
Level 9	Vegetation over structure			0.8	36.3	29.0	Raised planter
Level 9	Climbing plants			0.6	175.0	105.0	70.1m length 2.5m height
Total Score						429.0	
Total red line boundary area						1430.0	
Urban Green Factor Score						0.300	

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5.15 Management and Maintenance

An ecologically-led maintenance approach is proposed, in which safety is prioritised first, then the viability and long-term health of biodiverse habitats and then amenity use and value.

The landscape maintenance strategy has been prepared in the context of a thorough and detailed understanding of the site landscape and its context and within the framework of relevant policy and design guidance. The landscape has been devised to create a range of complimentary new habitats and the routine maintenance tasks aimed to keep encouraging biodiversity whilst allowing amenity use.

Each habitat area will require different seasonal actions to help the matrix of new and existing habitats to establish and be suitably maintained.

During this establishment automatic irrigation should be used through-out the landscape, particularly in the raised planters, where planting will be installed on a structural slab, limiting tree and plant roots’ access to water that on terra firma would be in the ground.

Plants on roof terraces also tend to desiccate in the wind, so irrigation is even more important at these levels.

Beyond establishment, areas of the landscape should be watered as needed during prolonged hot and dry periods.

In addition to the horticultural actions shown on this page, the SUDS rain garden should be checked regularly and any blockages cleared to maintain their function.

		YEAR 1 - ESTABLISHMENT												FREQUENCY	2 YEAR - ONGOING MAINTENANCE												FREQUENCY
PLANTING TYPE / AREA	HORTICULTURAL & MAINTENANCE OPERATIONS	J	F	M	A	M	J	J	A	S	O	N	D		J	F	M	A	M	J	J	A	S	O	N	D	
Irrigation																											
	Water all trees and plants regularly during establishment and as necessary during the following 2-5 years in prolonged periods of hot and dry weather.													as necessary													as necessary
PLANTING TYPE / AREA	HORTICULTURAL & MAINTENANCE OPERATIONS	YEAR 1 - ESTABLISHMENT												FREQUENCY	2 YEAR - ONGOING MAINTENANCE												FREQUENCY
		J	F	M	A	M	J	J	A	S	O	N	D		J	F	M	A	M	J	J	A	S	O	N	D	
Planters/Borders																											
	Remove litter at each visit													as necessary													as necessary
	Check and top up compost/mulch if required													1x year													1x year
	General weeding (by hand only); removal of any unwanted, invasive species; collect and remove arisings													1 x month													1 x month
PLANTING TYPE / AREA	HORTICULTURAL & MAINTENANCE OPERATIONS	YEAR 1 - ESTABLISHMENT												FREQUENCY	2 YEAR - ONGOING MAINTENANCE												FREQUENCY
		J	F	M	A	M	J	J	A	S	O	N	D		J	F	M	A	M	J	J	A	S	O	N	D	
Climbers																											
Trees	Check for damaged /diseased branches and prune as necessary													2x year													2x year
	Remove weeds from around tree bases													2x year													2x year
	Regular check of tree ring irrigation and ventilation where installed													2 x year													2 x year
	Check and adjust anchoring/securing system, as necessary													2 x year													2 x year
Shrubs	Regular check for health and performance; removal of dead and/or damaged/ill branches													4 x year													4 x year
	Replace any dead or badly damaged plants with same species and size (at removal)													1 x year													1 x year
	Species appropriate pruning to maintain desired form, overall height and spread; collect and compost/remove arisings													2 x year													2 x year
	Ensure adequate irrigation of shrubs during adverse weather conditions, particularly during the first 2 years establishment													as necessary													as necessary
PLANTING TYPE / AREA	HORTICULTURAL & MAINTENANCE OPERATIONS	YEAR 1 - ESTABLISHMENT												FREQUENCY	2 YEAR - ONGOING MAINTENANCE												FREQUENCY
		J	F	M	A	M	J	J	A	S	O	N	D		J	F	M	A	M	J	J	A	S	O	N	D	
Herbaceous perennials																											
Perennials and bulbs	Regular check for health and performance; removal of dead and/or damaged/ill leaves etc													4 x year													4 x yer
	Check and removal of dead plants/replacement planting with the same species and size (at removal).													2 x year													2 x year
	Remove weeds and other invasive species from around and between perennials. Remove arisings.													3 x year													3 x year
	Species appropriate tidy up to maintain desired form and seasonal performance (removing stems to the ground) of any foliage that has died back													1 x year													1 x year
	Ensure adequate irrigation of shrubs during adverse weather conditions, particularly during the first 2 years establishment													as necessary													as necessary
	Allow bulb leaves to die-back naturally. Do not cut or cover whilst green. Remove or cover with soil conditioner when yellow.													1 x year													1 x year
PLANTING TYPE / AREA	HORTICULTURAL & MAINTENANCE OPERATIONS	YEAR 1 - ESTABLISHMENT												FREQUENCY	2 YEAR - ONGOING MAINTENANCE												FREQUENCY
		J	F	M	A	M	J	J	A	S	O	N	D		J	F	M	A	M	J	J	A	S	O	N	D	
Climbings plants																											
Climbing plants	Species-appropriate prune to maintain shape and scale, tying in lateral shoots to support structures (using biodegradable twine - no plastic or wire).													1 x year													1 x year
	Weed around base of climbings plants and apply a soil conditioner (such as Veolia Pro-Grow or equivalent).													2 x year													2 x year
	Replace any dead or damaged plants with same species and size (at removal).													1 x year													1 x year

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