Blue & Green Infrastructure Response.
MIX Manchester - Phase 1 Planning Application
Airport City Limited Partnership

PLANIT

Introduction

This Strategy outlines the importance of Green and Blue Infrastructure in creating successful, liveable cities. The strategy has been produced to set out how this will be achieved in the future of Phase 1 Planning Application for Mix and at a later stage for the Outline Phase.

We envision creating a safe, welcoming and cohesive science campus that supports the Manchester Airport City North and its surroundings as a destination for education, services and community.

The design of the public realm for the Phase 1 Planning Application for MIX, will be driven by several design drivers to provide wider access and servicing into the site and for the proposed buildings, biodiversity goals and water management.

At a later stage, the Outline Phasing for the landscape proposals around the delivery of Plots A3,A6, E2, B3 and B1 will blend with the proposals of Phase 1. On the west boundary, between the Enterprise Way and the Thorley Lane, the landscape proposals will adapt similar design drivers for the delivery of Plots F1, F2, F3 and F4.

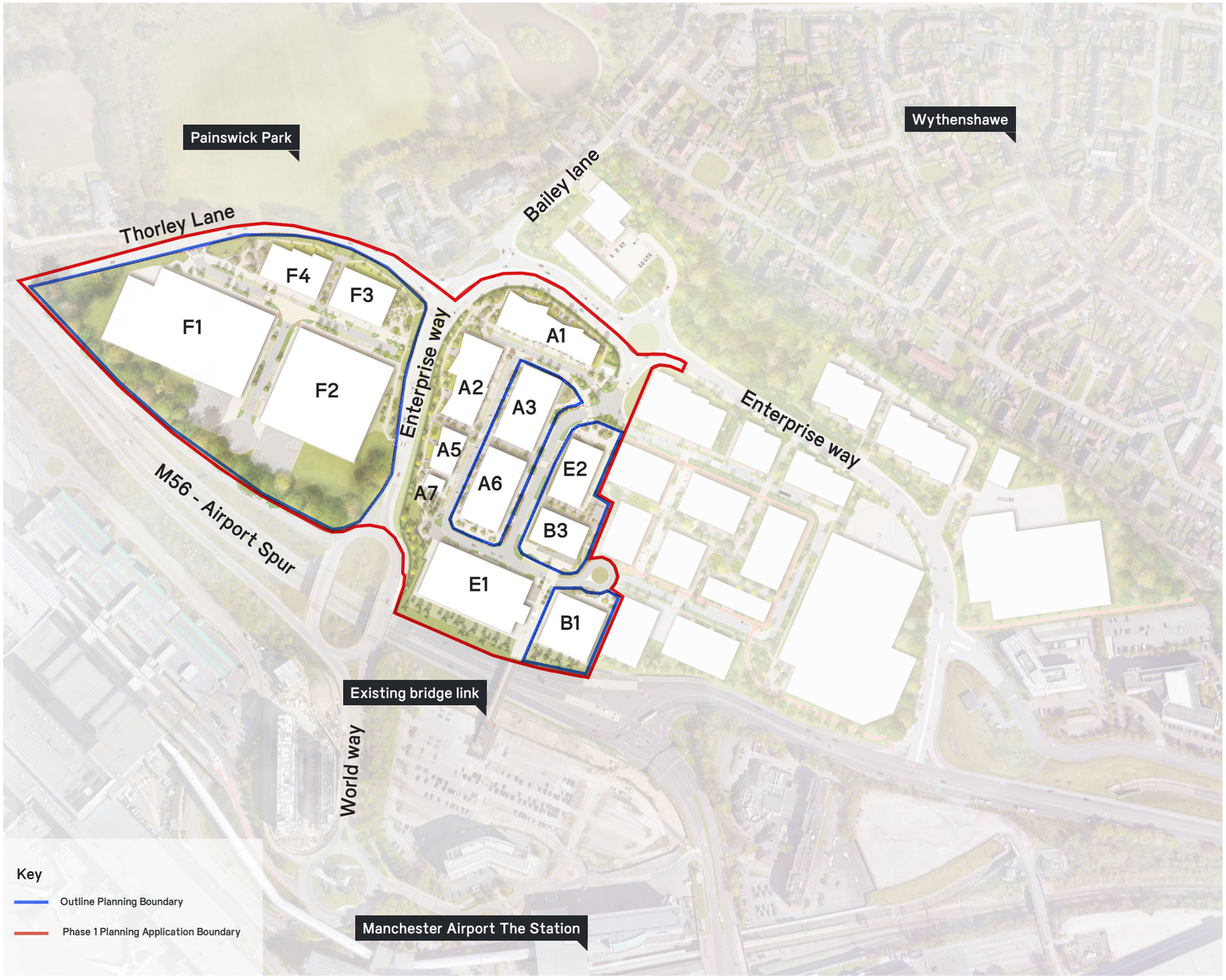


Figure 1 . Manchester Airport City North Masterplan

Policy

Manchester's Great Outdoors a Green and Blue Infrastructure Strategy for Manchester outlines the importance of Green and Blue Infrastructure in creating successful, liveable Cities. The strategy has been produced to set out how this will be achieved in the future with the vision being:

"By 2025 high quality, well maintained green and blue spaces will be an integral part of all neighbourhoods. The city's communities will be living healthy, fulfilled lives, enjoying access to parks and green spaces and safe green routes for walking, cycling and exercise throughout the city. Businesses will be investing in areas with a high environmental quality and attractive surroundings, enjoying access to a healthy, talented workforce. New funding models will be in place, ensuring progress achieved by 2025 can be sustained and provide the platform for ongoing investment in the years to follow."

This need for improvements to the quality of open space and recreational space is also highlighted in both the Core Strategy Evidence Base and specifically within Policies EN9 and EN10. EN9's Green infrastructure policy stipulates 'New development will be expected to maintain existing green infrastructure in terms of its. quantity, quality and multiple function.

EN10 - The Council will seek to retain and improve existing open spaces, sport and recreation facilities to the standards set out above and provide a network of diverse, multi-functional open spaces. Proposals will be supported that:

The Following pages outline how the development responds to the Manchester Green and Blue Infrastructure Strategy based on the three main objectives and actions within the document.



Manchester's Local Development Framework

Core Strategy Development Plan Document

Adopted 11th July 2012

Published by Manchester City Council
planningstrategy@manchester.gov.uk

MANCHESTER CITY COUNCIL



Manchester's Great Outdoors

a Green and Blue Infrastructure Strategy for Manchester

2015-25

July 2015

MANCHESTER CITY COUNCIL

Wider Context

The plan illustrates the ultimate intention for the overall outline application site and highlights the landscape proposals.

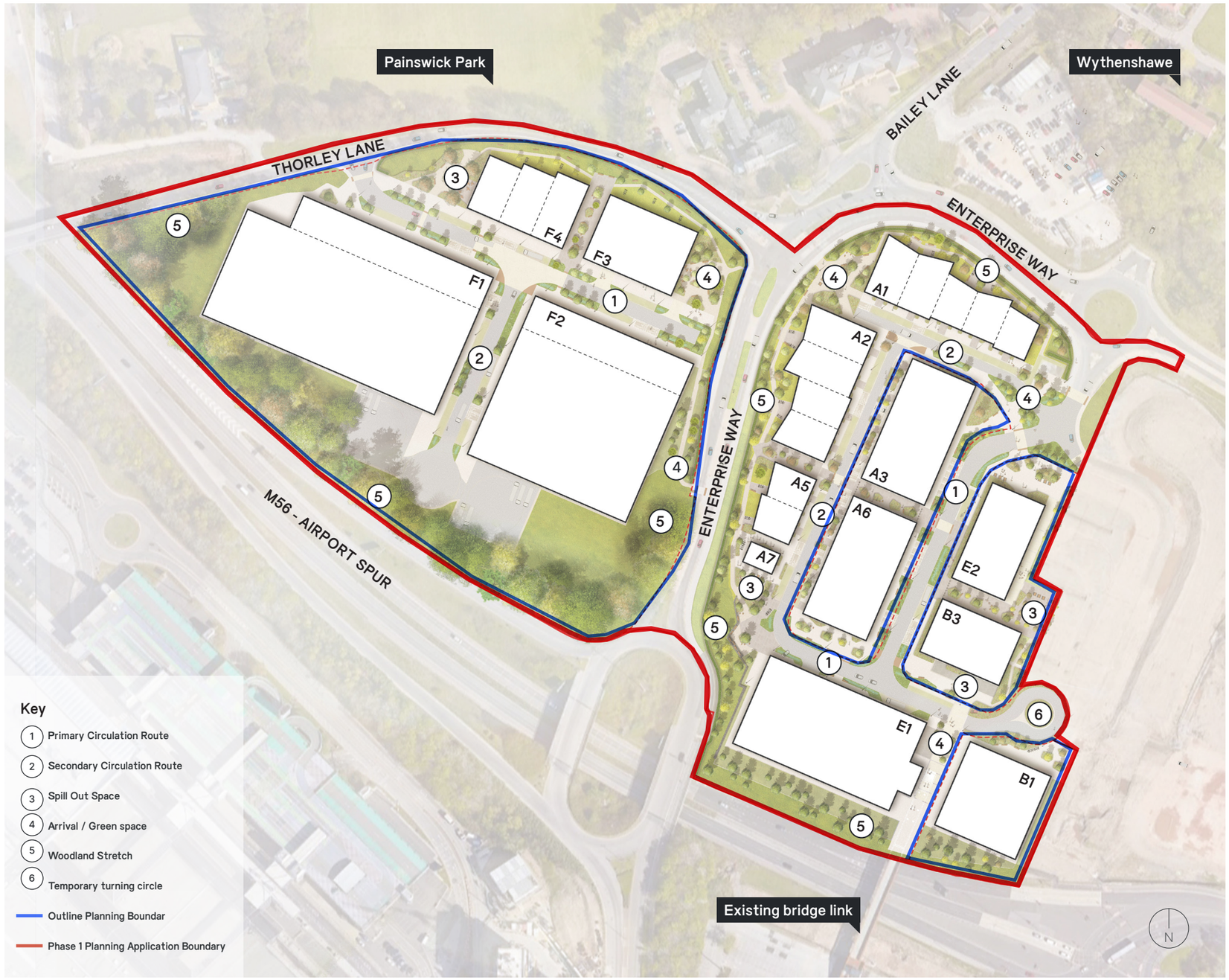
The landscape design primarily consider the wider access and servicing into the site and for the proposed buildings, considering careful selection of the hard materiality and soft palette.

The landscape will respond the mid to large scale nature of the manufacturing and science buildings, providing a rich tapestry of planting and spaces for the occupiers and new working community to enjoy.

The public realm will offer fully accessible, interconnected communal spaces, enabling visitors to gather, dwell and collaborate whilst also providing legible connections to surrounding infrastructure and public transport hubs.

The pedestrian and cycle bridge that was recently competed lands in the south. It is a fundamental piece of infrastructure and provides a key link between the future Airport City North, wider communities, airport terminals and GTI. The proposals are looking creating a new arrival point alongside the multi story car parking.

New arrival points from Enterprise Way and Thorley Lane connect the site with existing green spaces like Painswick Park and the Wythenshawe community.



Manchester Airport City North Outline Masterplan



Arrival green space



Spill out area



Woodland Stretch



Primary circulation Route

MIX MANCHESTER

Manchester Mix Logo



Secondary circulation Route

Detail Context

The Landscape Proposals primarily consider the wider access and servicing into the site and for the proposed buildings, considering careful selection of the hard materiality and soft palette.

The Masterplan establishes a green, active and connected streetscape that encourages pedestrian and cycle movement. The introduction of SUDs and additional planting creates an immersive feel to the streets and provides a nature-led pedestrian focus.

The public realm has been designed in accordance with the wider Landscape Masterplan proposals , taking cognisance of the overarching design principles set out in the vision and as listed below.

- Dominance of green infrastructure.

- Minimal hard surfaces, to be permeable where possible.

- Meeting the airport safeguarding requirements.

- Strong network of cycle links.

- Temporary treatments to the future development parcels will have low grass until the next phase of development is implemented.

- A temporary tarmac turning circle will also be implemented prior to the future one way vehicular loop being implemented in the future phase.

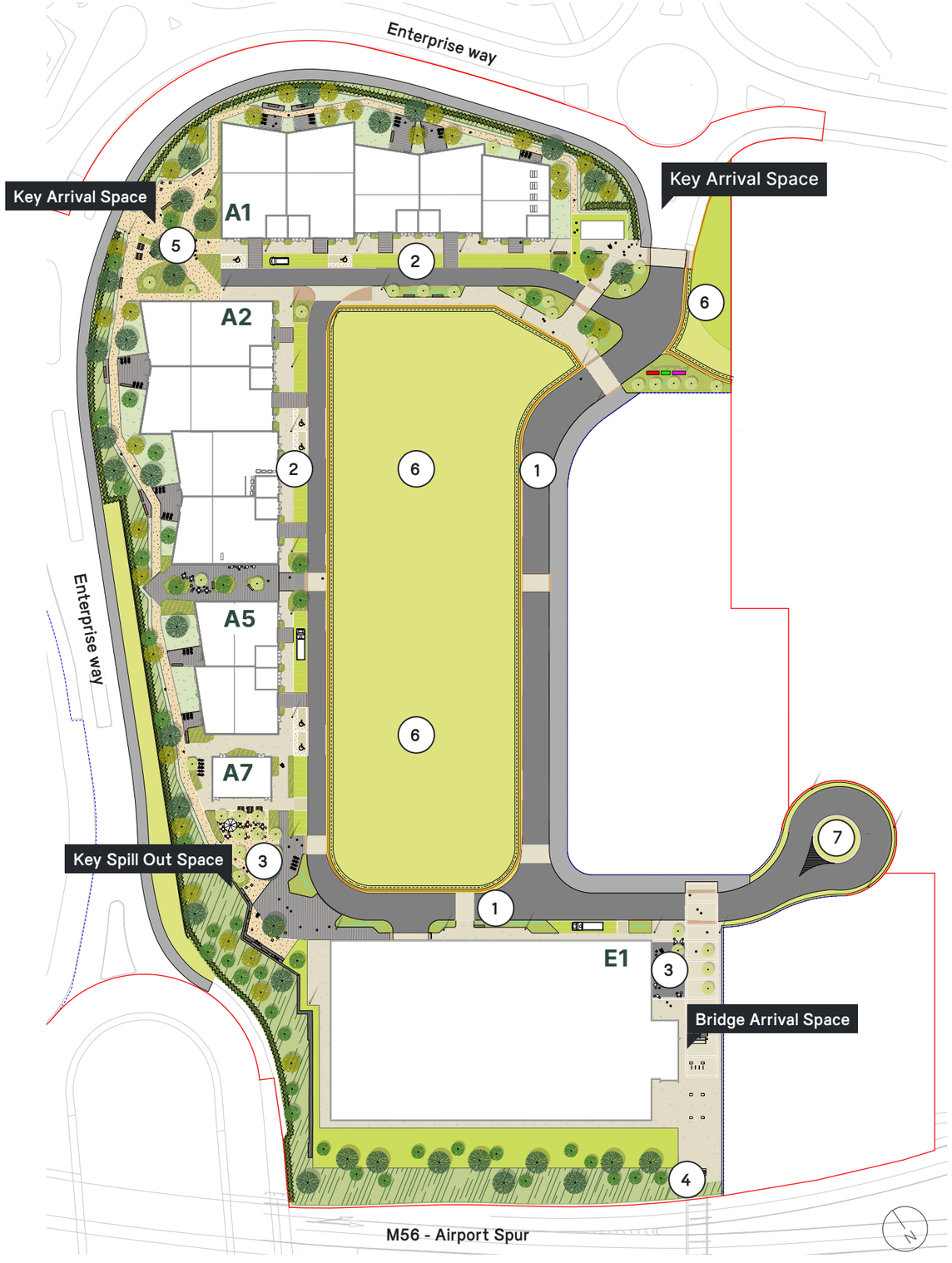
- Pedestrian access throughout the site with provision of temporary footpaths to link the airport bridge with Wythenshawe neighbourhoods.

- Vehicle access throughout the site and within the units. Selection of materials with rigid foundations.

Key

1. Primary Circulation Route
2. Secondary Circulation Route
3. Spill Out Space
4. Bridge Crossing and Segregated
5. Arrival Plaza
6. Temporary Landscape Treatment. Part of the Outline element of the application.
7. Temporary Turning Circle

Phase 1 Planning Application Boundary



Landscape Masterplan

Design Drivers

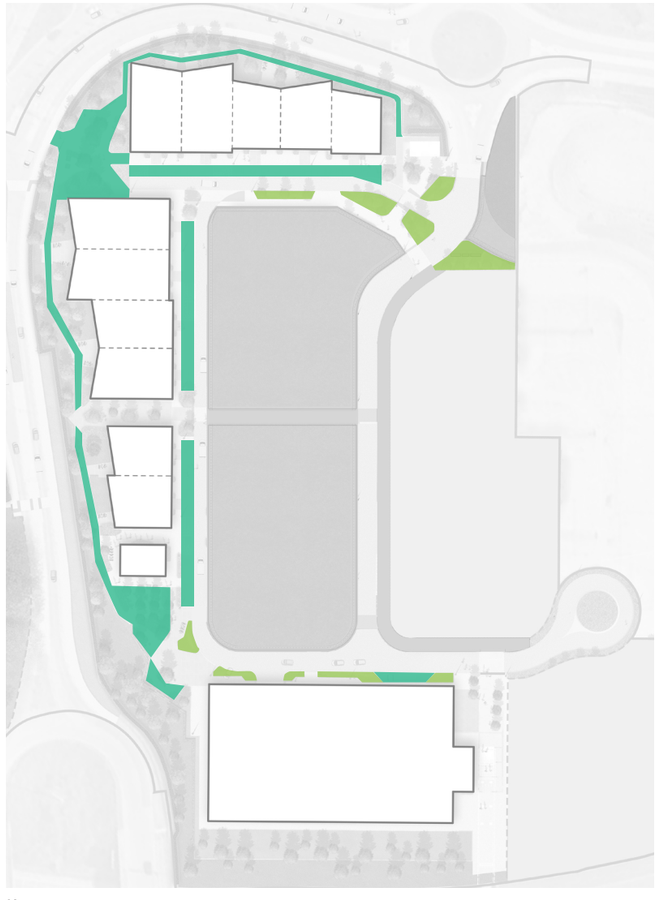
Green Infrastructure

A strong wildlife corridor wraps around the western, northern and southern boundaries, consisting of dense native tree, hedge and shrub planting. Green streets consist of tree planting, roadside planting beds and rain gardens. The green spaces have a naturalistic ornamental planting.



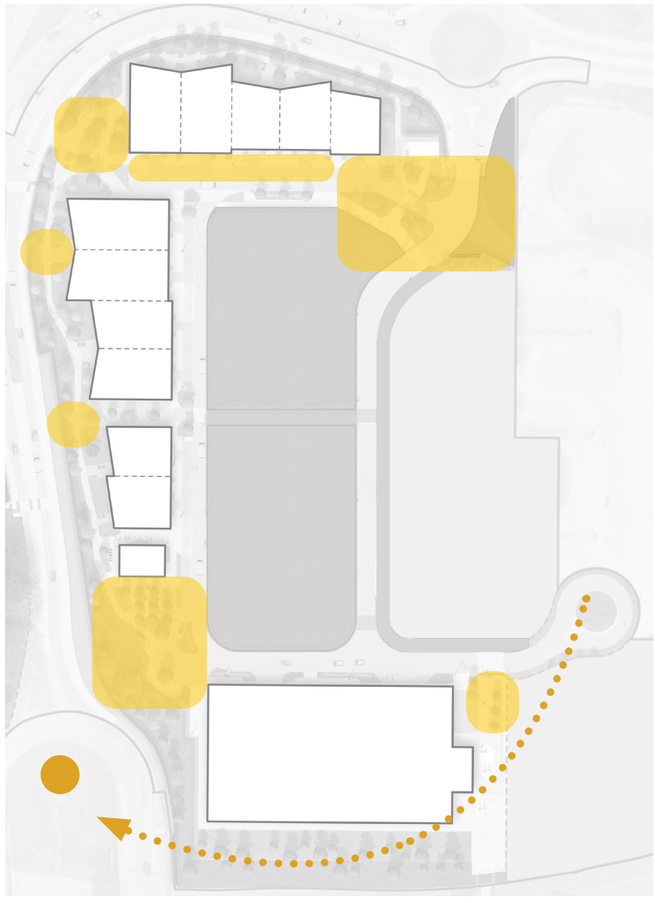
Water Management

Permeable surfaces will be used where feasible allowing water to naturally filtrate into the ground. Rain gardens are located on the north and west of the streets, working with the natural fall of the levels of the site. Detail layout to come forward at the later design stage and the condition stage.



Sunlight Exposure

The scale of the manufacturing buildings will provide areas of shade. Sunnier spots will be created within the gaps and provide spaces for dwell. Trees will be included in these spaces to provide dappled shade for shelter.



Street Typologies

Primary Routes

The primary circulation route is a key movement corridor in the masterplan. In this first phase the carriageway will have two way traffic at 7.2m wide, a roundabout in the south of the site allows vehicles to turn.

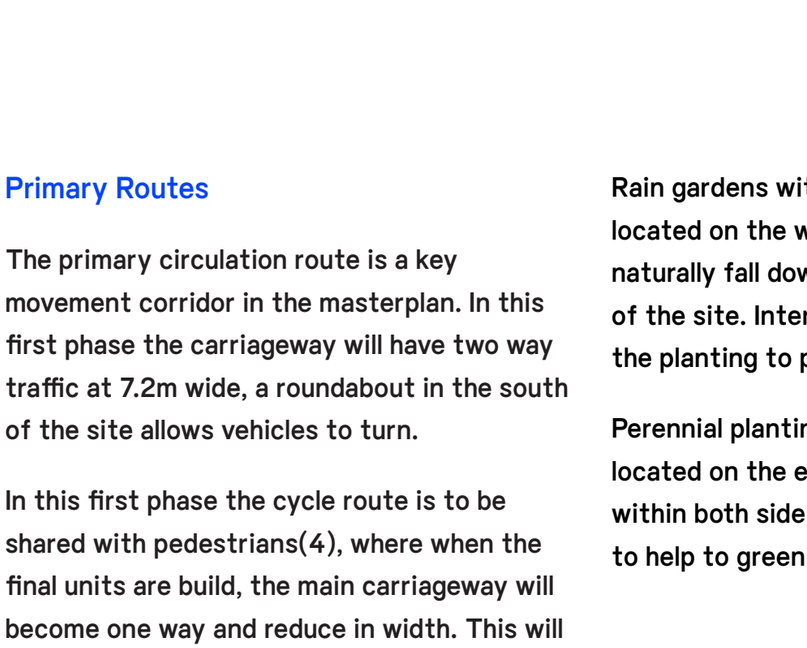
In this first phase the cycle route is to be shared with pedestrians(4), where when the final units are build, the main carriageway will become one way and reduce in width. This will allow for a segregated cycle loop adjacent to the road.

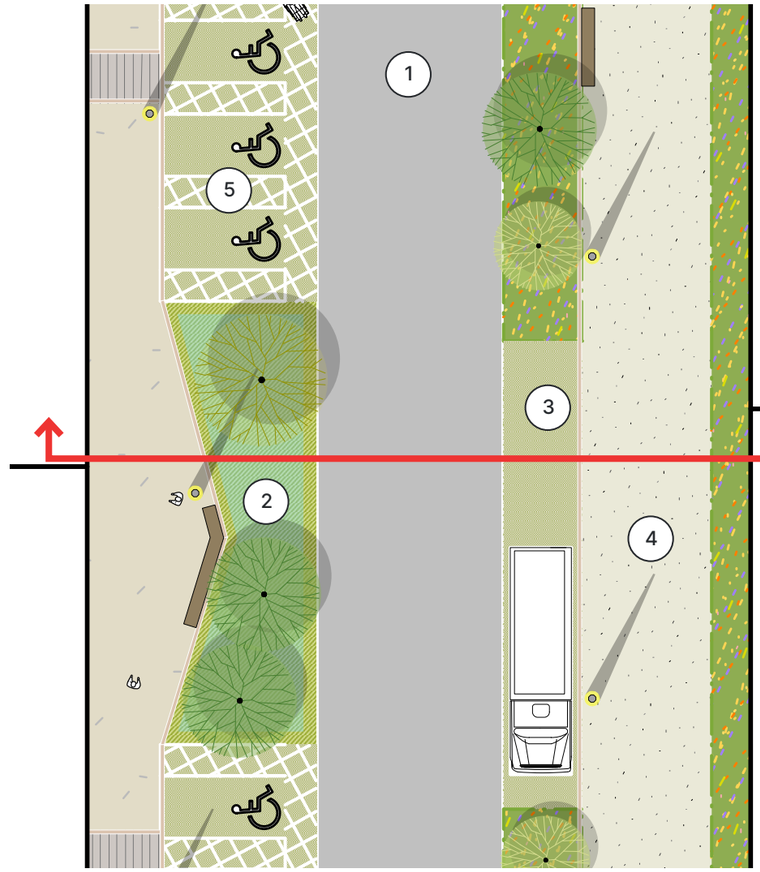
Rain gardens with natural style planting are located on the western kerbside as the levels naturally fall down to the north western corner of the site. Intermittent seating is nestled into the planting to provide dwell and shelter.

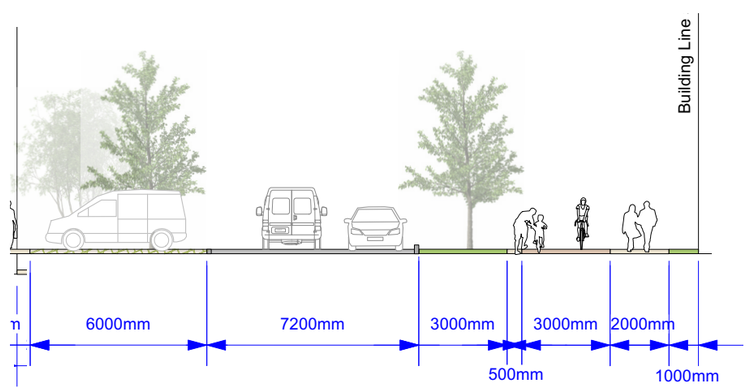
Perennial planting and delivery bays are located on the eastern roadside. Trees are set within both side of the road amongst planting to help to green the street and provide shade.

Key

1. Perennial Planting
2. SUDs Planting
3. Service Bays
4. Shared Pedestrian/Cycle path
5. Accessible Parking







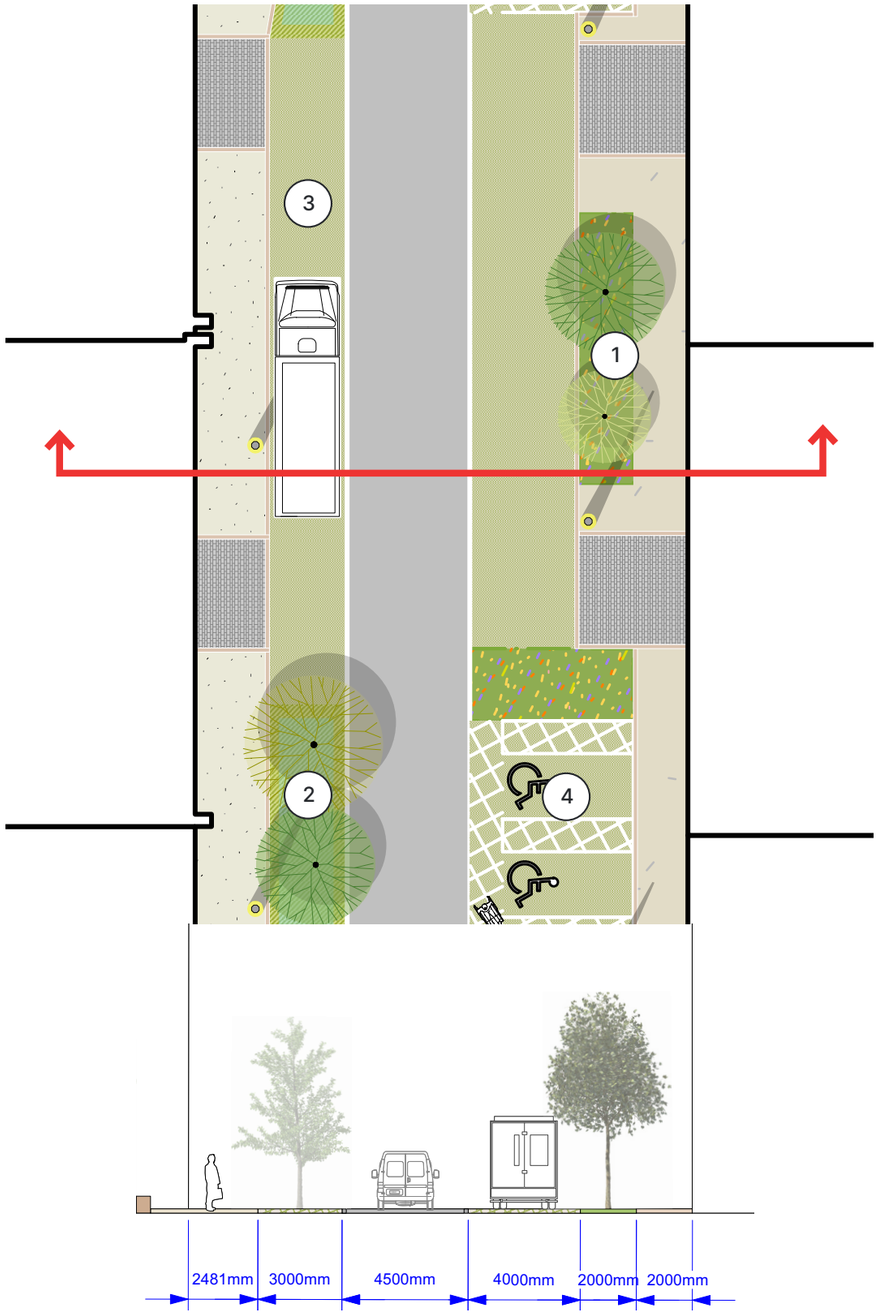
Secondary Routes

The Secondary Route will primarily be used for servicing and deliveries to the manufacturing units. This is to be a one way road with a number of servicing lay bys and access points to the manufacturing units. Loading bays are designed with permeable materials like grasscrete and concrete pavers. Trees and planting have been included where possible to soften the hard materials. Entrance points into the units are demarcated within the paving



Key

1. Perennial Planting
2. SUDs Planting
3. Service Bays
4. Accessible Bays



Respond to Objective 1

OBJECTIVE: Improve the quality and function of existing green and blue Infrastructure, to maximise the benefits it delivers.

Relevant Action Points

5 Trees and woodlands: effective and appropriate tree and woodland management and planting.

10 Health and wellbeing: deliver green infrastructure projects with a particular focus on improving health and wellbeing.

Design Response

5 Existing green infrastructure is low on site. The majority of the site consists of rough vegetated ground with a temporary tarmac path. In the north, an area has been developed for temporary parking. There is an existing stretch of woodland along the highway which there is an opportunity for improving and expanding along the boundary with native species.

10 The proposals include new trees and planting areas that will be subject to a comprehensive maintenance and management strategy. The site will benefit from a high-quality, long-term management programme, either delivered through private management companies or, where applicable, by the city's own maintenance team for adopted areas.

The creation of an new green links throughout the site will create a green infrastructure framing the various spaces and allowing stuff and visitors to be within nature.



Respond to Objective 1

Planting design within the Airport Environment

The masterplan planting strategy needs to take into consideration risks that could impact on the airport operation. Specifically this relates to minimising the risk of birdstrike. The soft landscape design therefore needs to include elements that will:

- Prevent larger birds from nesting either at ground level
  or within vegetation
- Prevent larger and flocking birds from colonising the area

Currently the large open area of mixed grassland contains a criss-crossing of fencing to prevent larger birds from landing and discouraging ground nesting. Waterways have either been culverted (open and closed) or aligned to prevent large areas of open water. Open culverts include design measures, narrow channel and vertical sides to prevent birds from landing.

As the masterplan area is built out it is envisaged that such measures will need to be retained to undeveloped plots to minimise the risk of birdstrike.

The Birdstrike Management Plan Report which is being submitted with the application is considering the below recommendations, following the airport's Safeguarding Officer advice.

- The airport safeguard against the risk of birdstrike within a 13km radius from the boundary
- There is not an approved landscaping species list or a list of species to avoid
- Each development application will be assessed and advice given on a case-by-case basis. This is based on location, other landscape features in close proximity and flight paths
- However, large proportions of berry-bearing species should be avoided
- Scots pine should also be avoided as they can become attractive to rooks
- Large areas of open water should be avoided and planting used to block the landing paths of larger birds
- Where there is a risk of bird colonisation by larger species, introduce preventative measures such as:
    - Bird wires and fencing to prevent landing
    - Well vegetated embankments to water / drainage features
    - Reduced areas of water
    - Effective management/ maintenance regimes



Respond to Objective 2

OBJECTIVE: Use appropriate green and blue infrastructure as a key component of new developments to help create successful neighbourhoods and support the city's growth

Relevant Action Points

1 Embed green and blue infrastructure as part of city centre developments

1 Design Response

Several planting concepts underline the overarching design of the Masterplan. Retaining and enhancing woodland buffers will shelter the fringes of the site and maintain segregation with adjacent residential properties.

Naturalistic edge planting, including wildflower and tree planting, will offer a nature sensitive treatment for areas of reduced activity between buildings and the road infrastructure. Street planting will include climate resilient species which will contribute to the site wide SuDS strategy whilst increasing ecological value and establishing separation between vehicular and pedestrian uses.

The soft landscape plays an important role in the management of surface water. These permeable areas reduce the amount of rainfall falling onto impermeable surfaces that would otherwise flow directly into the drains. Levels of paved surfaces will be designed to fall to soft landscape.

Refer to the landscaping proposals and plans that have been submitted alongside the application for further details to the planting species.

Rain Gardens

Drawing on the aspiration to create a network of continuous connected spaces, the SuDS strategy looks to utilise the green spaces within the public realm to collect, store, convey and filter surface water run-off from the hard paving.

The rain gardens will be designed such that water from extreme events can also be stored within the structure before discharging at a controlled rate to the drainage network. As well as having a significant positive impact on the quantity and quality of water entering the drainage network. The planted areas will contribute positively to the biodiversity of the area.

Water

Engineered water treatments and SuDS, mixed with urban water features and green/planted spaces. The landscape design will seek to incorporate a series of linked water channels and swales, which provide opportunities to attenuate water and enhance the sites biodiversity. A larger dished land form subtly contoured into the public realm will channel flood water through the site so as to protect the sites assets.



Sustainable drainage strategy

Respond to Objective 3

OBJECTIVE: Improve connectivity and accessibility to green and blue infrastructure within the city and beyond

Relevant Action Points

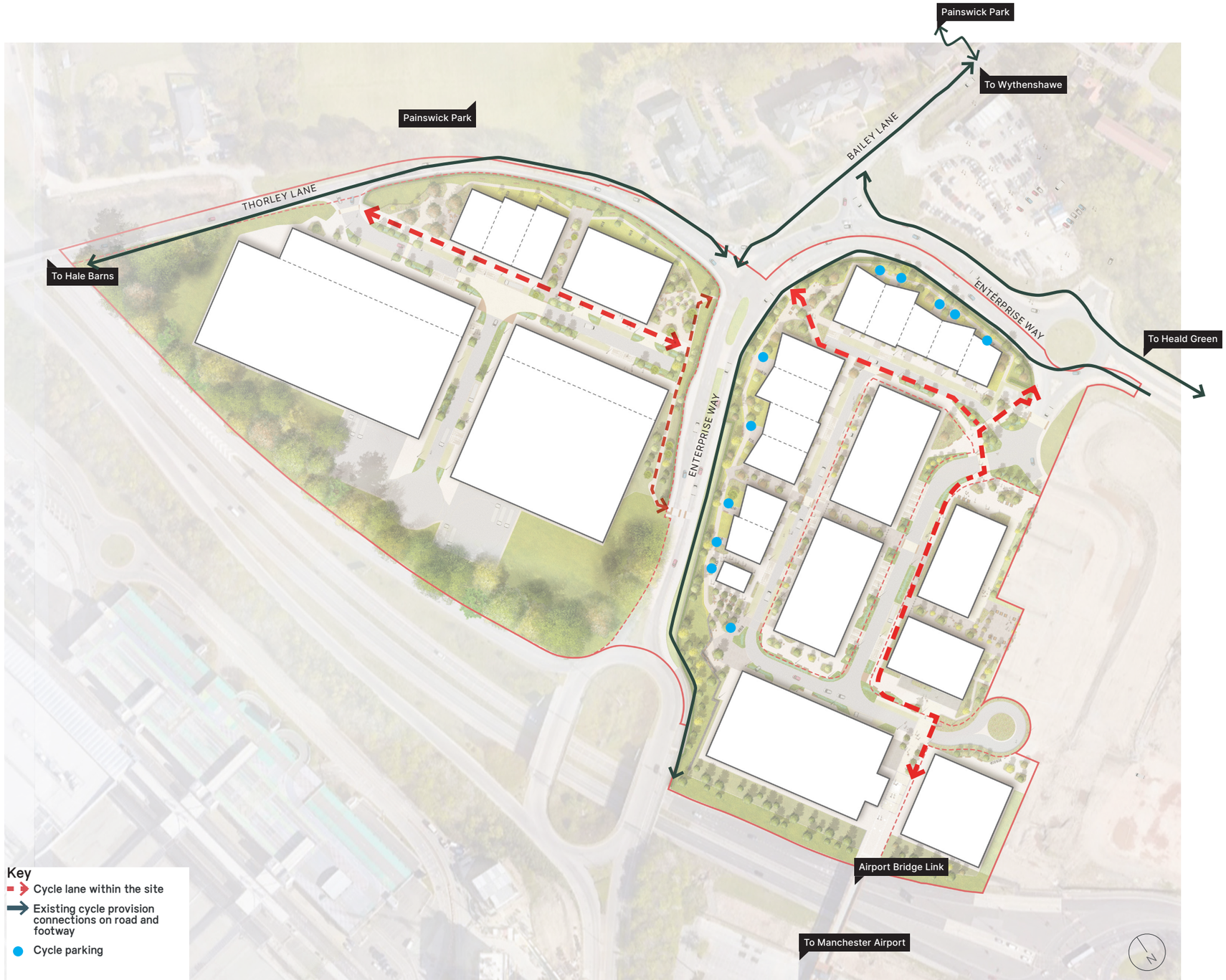
4 Use active and sustainable transport to access green infrastructure in the city and beyond

Design Response

4 Cycle movement will be directed along the Primary Green Street. In this phase this will take the form of a shared pedestrian and cycle route. When the future masterplan is developed and the loop road becomes one way a segregated cycle route will be formed.

The proposed cycle route within the site is connected to primary green spaces for example, Painswick Park and linking the creating a stronger cycle provision for the Wythenshawe community to the Manchester Airport.

Cycle parking has been provided for stuff and visitors close to the building units where a Cycle hub is located at the MSCP building.



Sustainable transport strategy

Conclusion

In conclusion, the proposed development demonstrates a clear response to the objectives of the Manchester Green and Blue Infrastructure Strategy by integrating landscape, biodiversity and water management into the design of the site. The landscape strategy for the Phase 1 planning application for MIX establishes the foundation for a welcoming science campus that will support the wider Manchester Airport City North area as a destination for education, services and community activity.



Manchester Airport City North look and feel Illustration

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