nature people urban

Cameo Partners design studio

# WATERFRONT SOUTH CENTRAL

## SHD RESIDENTIAL SCHEME – LANDSCAPE ACCESS AND DESIGN STATEMENT

## DUBLIN

C0096

JANUARY 2021 | REV 02

## REVISION HISTORY

| Date: | Revision: | Description: | By: |
|---|---|---|---|
| 04.11.2020 | 00 | Landscape Design & Access Statement - Issued for review | **MM** |
| 12.11.2020 | 01 | Landscape Design & Access Statement- Issued for review | **MM** |
| 04.01.2021 | 02 | Landscape Design & Access Statement- issued for planning | **MM** |
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# LANDSCAPE INTRODUCTION

This document has been prepared on behalf of Waterfront Block 9 Developments Ltd. It conveys the landscape and public realm proposals for Waterfront South Central, North Wall Quay, Dublin 1.

This report is designed to convey the thinking and design proposals for the public realm, landscaped areas and residential roof gardens within the scheme. Design concepts, materials and spatial arrangements have been tested and integrated to reveal the proposals set out in this document.

The landscape scheme has been represented on drawing C0096 L100 series and should be viewed in conjunction with this report.

The details of each specific area are explained in greater detail within this report, highlighting features such as paving design and planting. Play provision, lighting and street furniture have also been included to create a holistic approach to the design of the exterior space.

## PUBLIC REALM PLANS FOR THE SDZ OF NORTH LOTTS & DOCKLANDS

The SDZ public realm plans have been reviewed in relationship to City Block 9 and the surrounding green infastructure. The following sections have been taken into account in the redesign and improvments being proposed withing the document.

The Masterplan seeks to develop a sustainable new vision for the SDZ that connects the city with the water front. It proposes to **improve the environmental quality** of the SDZ area through new water management proposals, **improving bio-diversity** through the design of new parks and green streets, and seeks in particular to improve the **connectivity of the city streets** with a new green and animated water front.

# LANDSCAPE VISION

## LANDSCAPE PROPOSAL

The proposed Landscape and Public Realm within the North Docks is setting out to create a strong vision in the fields of air quality, waste, green growth and eco-innovation. Our ambition is to look at how we reconnect our busy urban lifestyles with nature once again.

Waterfront South Central will create a proud community, which has a sence of belonging as a core value.

A new part of the Docks, which will reconnect to local communities and allow the city of Dublin and its residents to be proud of its future.

The scheme will be a world class development with inspiring architectural buildings woven into an urban framework to sustain Dublin's growth.

Dublin has a population of 1.4 million; Ireland has 5 million in total with an estimated increase of 70-75 thousand people every 5 years. These future challenges of urban expansion must be explored and challenged.

We must approach our future all togther; we must explore new ideas, expand our knowledge, start working towards smarter living,  find time to play, share and most importanly learn.

This development will be a symbol of the future health and happiness of our cities; it will always stand as a marker to remember what's important in our lives. We must learn to breathe again for the first time and reconnect ourselves for our future generations.

## GREEN STRUCTURE RECOMMENDATIONS:

1. To provide a new green network of multi-functional parks and squares. Key to this approach is to design for daylight and shadowing and to locate  greenery and seating accordingly to make the most of these areas.
2. To develop proposed parks to a high level of specification in recognition of the dense urban environment they are situated within.
3. To work with other departments in Dublin City Council to improve the routes and linkages to major DCC public parks, proximate to the SDZ, to encourage and promote their use by residents, workers and visitors.
4. To differentiate the use of each park so that a wide variety of amenity and experience may be provided.
5. To encourage alternative methods of greening in the public realm, for example in the form of flowering grasses in streets, micro parks, greening of quaysides, floating vegetation on water etc.
6. To strengthen and improve existing and proposed tree layers and use best practice planting guidelines for the planting of all new trees.
7. To encourage and stimulate greenery in private developments, particularly through the provision of green roofs and green walls for water retention.
8. To improve connections with the wider green structure of the city, along the water corridors of the city, rivers Liffey & Dodder and the Royal & Grand Canals.

# LANDSCAPE ANALYSIS

## SITE CONTEXT

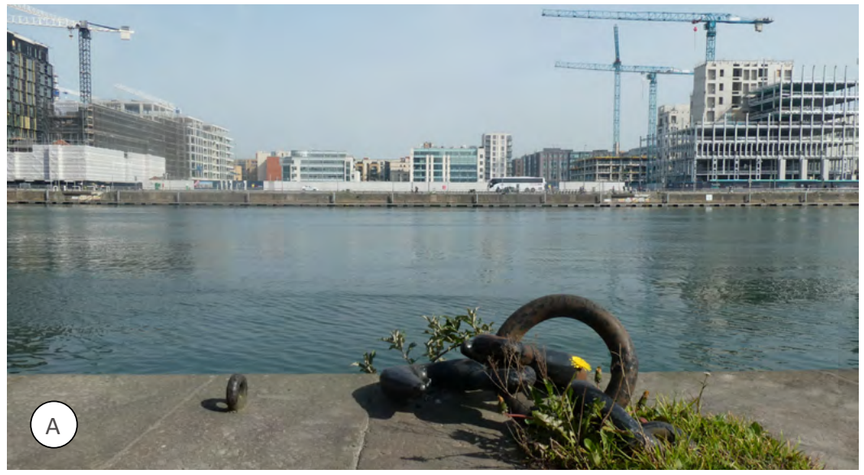
The site is located within the North Lotts of Dublin's Docklands.

To the north of the site is Mayor Street with its connection by LUAS back into the city Centre.

Improvements to the public realm will soon be implemented to Castleforbes Road, consisting of natural stone granite paving and semi mature tree planting. These enhancements have already taken place to North Wall Avenue.

The site is situated right on the river front along one of Dublin's main transport routes- North Wall Quay and the site is a former goods and yards site (c 1.93ha) with little or no ecology due to the site being demolished prior to purchase. Formally known within the SDZ as City Block 9 it is located in close proximity to LUAS Terminus and The Point Square.

The site will be split into two applications. One under the SDZ commercial application and the second a residential application under the SHD, with an overall public realm masterplan.

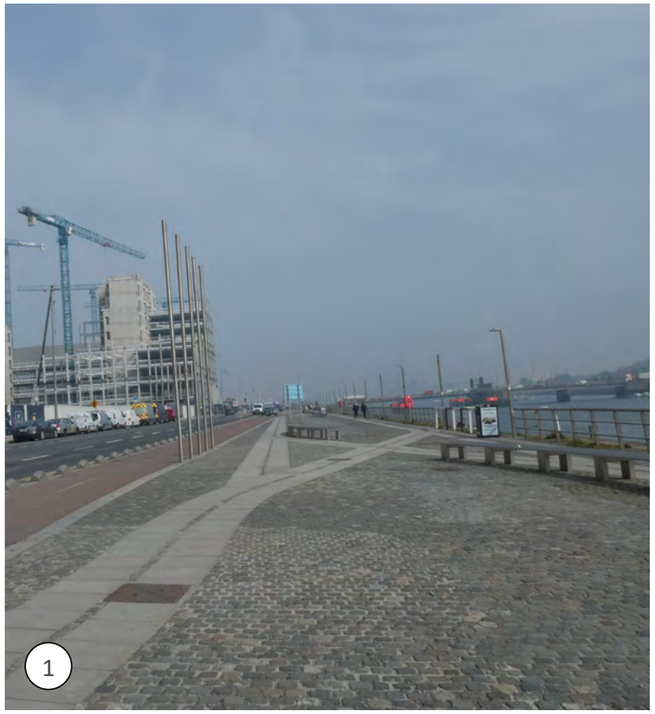




# LANDSCAPE ANALYSIS

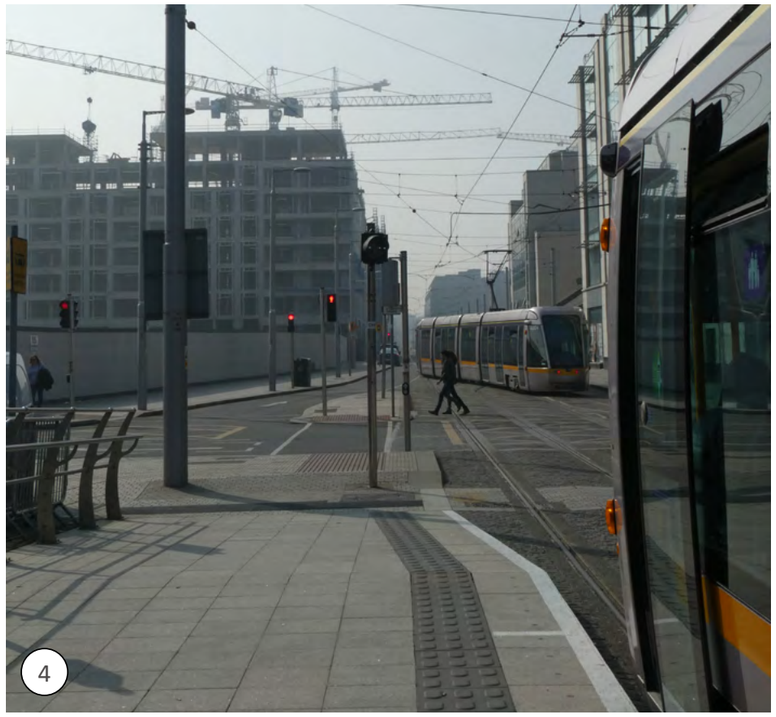
## EXISTING SITE CONDITION

A series of site character photos:

1. North Wall Quay road and harbour public realm treatment
2. New student accommodation on North Wall Avenue
3. New development of the EXO building and upgrade of Point Village main square
4. The LUAS to Mayor St.
5. Empty site as it stands at the moment
6. The Gibson Hotel with new student accommodation at Point Village







# LANDSCAPE ANALYSIS

## SURROUNDING AREAS

The adjacent diagram visually depicts how different character zones or districts surround the site and through the existing road, path and bridge network, physical connections are achieved.

The site is located within the North Docklands of Dublin. The site itself is the last remaining designated development city block under the Dublin City Council North Lotts and Grand Canal SDZ Planning Scheme.

Surrounded on all four sides with roadways and designated newly implemented public realm, the site is blessed with extensive views onto the River Liffey and out to sea through the harbour entrance.

Dublin City Council have plans to upgrade and activate the North Wall Quay along with aspirations of creating such features as a floating park within the river itself. Over the past 10 years, a dramatic expansion has taken place within the Northern Lotts SDZ boundary. New high density residential development, along with commercial expansion have activated such existing public spaces like Point Village and the 3Arena. All of this expansion and improved transport links are within a 5 minutes walk from our proposed development.

1. Ringsend Park
2. Grand Canal Dock
3. Samuel Beckett Bridge
4. 3Arena
5. Central Bank of Ireland
6. The Conversion Centre Dublin
7. Custom House
8. Merrion Square
9. Trinity College Dublin


Bus Stop  LUAS Stop

# LANDSCAPE PRINCIPLES

## BIODIVERSITY ENHANCEMENT

The site is a former goods and yards site with a little or no ecology due to the site being demolished prior to purchase. Formally known within the SDZ as City Block 9 it is located in close proximity to LUAS Terminus and The Point Square.

New public realm enhancements are taking place within Point Square and surrounding streets, thus these street trees are providing important Biodiversity within the North Docks and the City's Green Infrastructure Network.

Within the Landscape Strategy of our proposal, we will demonstrate how we aim to protect and enhance the diversity and range of habitats, species and wildlife corridors/green corridors within the SDZ area in relation to our development and neighboring streets.

We will be using numerous methods and innovative solutions, which will be integrated into the proposed urban landscape and how we envision our ability to reduce the loss of biodiversity with actions being taken to try to address them within the urban environment.

The formal definition from the International Convention on Biological Diversity indicates it is ''the variety of living organisms across all ecosystems, and the ecological complexes they are part of, including diversity within, and between, species and ecosystems''. Conservation of biodiversity will assist in maintaining ecosystem services that are essential for human life to persist.

**Waterfront South Central - future visions of biodiversity**

Our landscape strategy will identify in the following sections how we aim to protect and improve the biodiversity within our development.

**Community engagement, integration and wellbeing**

- Engaging residents and encouraging the active participation of residential events. This is being addressed by the introduction of two private allotments within Block A and Block B. The development's biodiversity strategy is planning to engage with local food growing networks to initiate the community schemes and the support provided for resident-led micro enterprises, allowing local citizens to generate income from their produce, increasing the local sustainable food supply.
- Raise awareness of biodiversity whilst providing informal education opportunities for residents to learn about their local environment. As part of the design we have proposed a key garden terrace designated just to biodiversity and the educational value of the design within Block B, to promote community cohesion and improved community relations.
- Recent research has highlighted the significant benefits that urban green space can deliver for mental wellbeing, recording lower levels of mental distress and significantly higher wellbeing. The Faculty of Public Health, has also emphasised that increasing contact with green spaces can reduce symptoms of poor mental health and stress, whilst improving mental wellbeing across all age groups.

**Green infrastructure**

- Our design will include a coherent sustainable drainage systems (SUD's) through permeable paving, natural run-off into rain gardens within the public realm and water attenuation at roof level to allow slow release of rain water back through the vertical gardens and landscaped terraces.
- In addition, street trees will be naturally watered through road surface water run-off. This has already been implemented in one of our previous developments at Windmill Lane.

**Smart biodiversity**

Smart phone apps are creating a new era in the world of data collection, especially with the addition of GPS which has accurate locating abilities. The ease at which members of the public can submit geolocated photographs, has made the validation and verification of species, habitats and diseases a fast and feasible process. For example:

1. Bird-track, using web-based platform for recording bird sightings
2. Leaf-watch, allowing the collection of geolocated photographs for tracking horse chestnut disease
3. Bud-burst which collects plant observations throughout the seasons

These technology promotes of ''citizen science'' often gives participants a sense of involvement and opportunity to influence the outcome of the project, hence encouraging participation.

**Climate change resilience**

A site wide strategy of utilizing bio-diverse roofs, which are proposed to be partially or completely covered with substrate formed of local soil & spoil and self-seeding vegetation, will be implemented wherever possible.

The roofscape shares its space with plant equipment, solar collection arrays and other roof infrastructures. Where space is available, the proposals will see a mix of both lightweight and extensive brown roof material which will serve several purposes for the buildings, such as absorbing rainwater, providing insulation, creating habitats for wildlife, helping to lower urban air temperatures and locally mitigating the urban heat island effect.

**Summary**

The design concept is to start from the sky and work back to ground level through a series of known ecosystems. This will allow us to see where we can improve, promote and sustain existing systems through our design.

Our proposed green roofs will reduce energy consumption and therefore CO2 emissions, of a building helping to reduce the urban heat island effect, and filtering airborne particles and pollutants from the atmosphere, thus improving air quality.

These green roof systems will also be designed to encourage migrating birds, such as swallows (which are on the decline within Dublin City), by helping with their natural migration pattern. On a number of buildings, PV cells will be incorporated above the brown roof finished levels, providing a renewable energy source.

Rain water will be collected on rooftops and terraces; this water will be directed into the landscape through a series of engineered solutions, which retain and slow down this natural process. This rainwater will intern be lead through a series of living green walls, and vertical farming will create not only visual attraction, but provide important habitats for wildlife in these urban areas.

Harvested rain water will also be directed into ‘collection features’ within the gardens and terraces, allowing a visual connection for the residents and helping strengthen their re-connection with nature.

To the sides of Blocks B & C, living green walls are being introduced; thermal properties of vegetated walls and roofs have been shown to positively impact on the energy consumption of a building. In turn, improving the insulating qualities can help reduce heating requirements during winter months, while also reducing the need for air conditioning in summer, hence contributing to lower CO2 emissions.

Following the rainwaters’ journey down through each terrace, our goal is to use this natural resource as much as possible. Once the rain water reaches the ‘Heart’ of the development our design really celebrates this journey as part of a natural rainwater gathering point. The proposed water feature will be self-filling and adaptable to all weather conditions.

Our vision is for residents, workers and visitors to truly connect with the natural cycle of nature at this point. Overhead lush green residential bridges will cascade greenery all around. At street level a synchronized landscape layout will, again, create a ‘green spine’ (lane) running both South to North and East to West, through the development.

To the perimeter of the development our street trees will be chosen for their anti-pollution quality. This approach will be taken throughout all our entire planting selection, regarding species and quality. We will also include an external specialist to review our design in order to maximise the impact of reducing air pollution within the scheme.

# LANDSCAPE PRINCIPLES

## SUMMARY OF ECOLOGICAL ENHANCEMENT

The scheme presents numerous opportunities to deliver ecological enhancements for the benefit of local people and biodiversity.

Aspect Ecology undertook a comprehensive ecological appraisal of the site, and set out a range of measures to enhance the scheme and boost local biodiversity.

Many of these measures have been mentioned as part of the overall landscape proposals, and include interventions such as:

- Vertical living green walls
- Bio-diverse roofs.
- Native planting.
- SUD systems and associated wetland planting.

Other enhancements will also be adopted to maximize the opportunities the scheme brings, and to set a high benchmark for other developments within the wider Masterplan.
The ultimate goal is to develop the CB9 Plot Masterplan with ecological principles sitting at the heart of each development site.

## BAT BOXES

The inclusion of bat boxes can help provide roosts for a variety of species such as Pipistrelle, Noctule, Leisler's, Natterer's, Daubentons and Brown Long-eared bats.

These boxes can be fabricated from a range of materials and positioned against building facades, fences and amongst tree planting. The final design and style of the bat boxes is yet to be agreed and will form part of the detail design process. Coordination with the architects and the ecologist will be required if facade mounted boxes are to be adopted.

## BUG HOTELS

Bug hotels will be positioned in strategic locations across the scheme providing the perfect habitat for invertebrates such as bees and butterflies. The inclusion of these types of habitat will help cross pollination of the planting, help sustain other wildlife and provide an interesting educational tool for children living in the proposed residential development.
The design, scale and location to be developed post planning in collaboration with an ecologist to maximize the benefits associated with this habitat type.







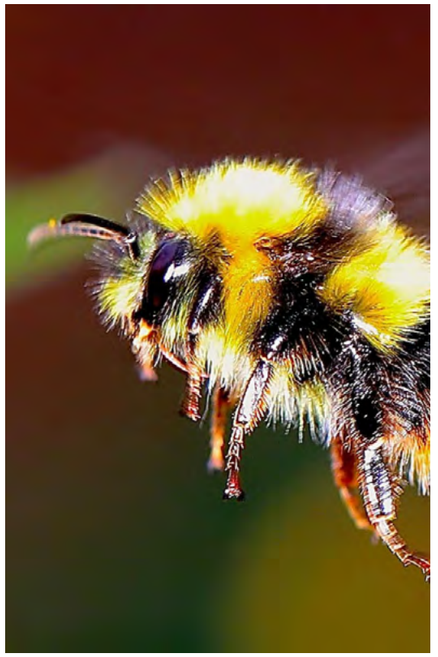


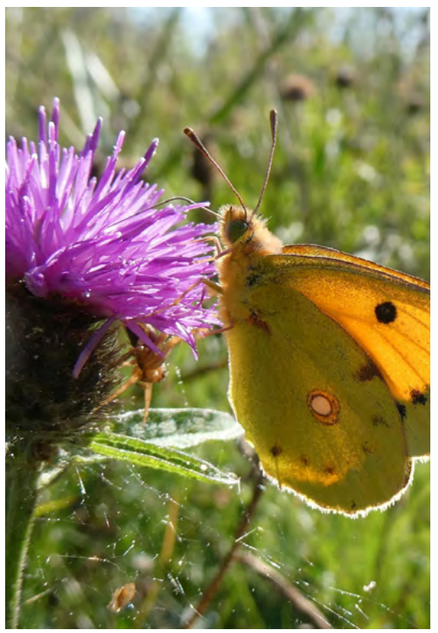
## SPECIFIC SPECIES

Boxes for the declining **Green Finch** and other birds such as tits, sparrows and starlings will be fixed two to five metres up the proposed new green walls, with the hole of the box facing between north and east, to avoid strong sunlight and the wettest winds.

The ideal site for **Swift** Nest Boxes is under the eaves or on walls northeast or north-west out of direct sunlight. These boxes should be place five metres above the ground, with clear adjacent airspace so swifts can access it in a high speed direct flight.

Most beekeeping books will tell you to place your **beehive** so that the entrance is facing East or Southeast. Having the early morning sunshine on the front of the hive, warms the bees earlier in the day. We will be also introducing beehives to our scheme design. In addition, bug hotels will be introduced into the green walls. Insects like to be warm so placing the bug hotel on a south-facing wall would be beneficial. Therefore, the best position for bug hotels is in sunlight or light shade.





# LANDSCAPE ANALYSIS

## MOVEMENT AND TRANSPORTATION

This diagram illustrates the available routes for pedestrians and cyclists around the site, indicates bus stop positions and the relative location of Point Village LUAS station

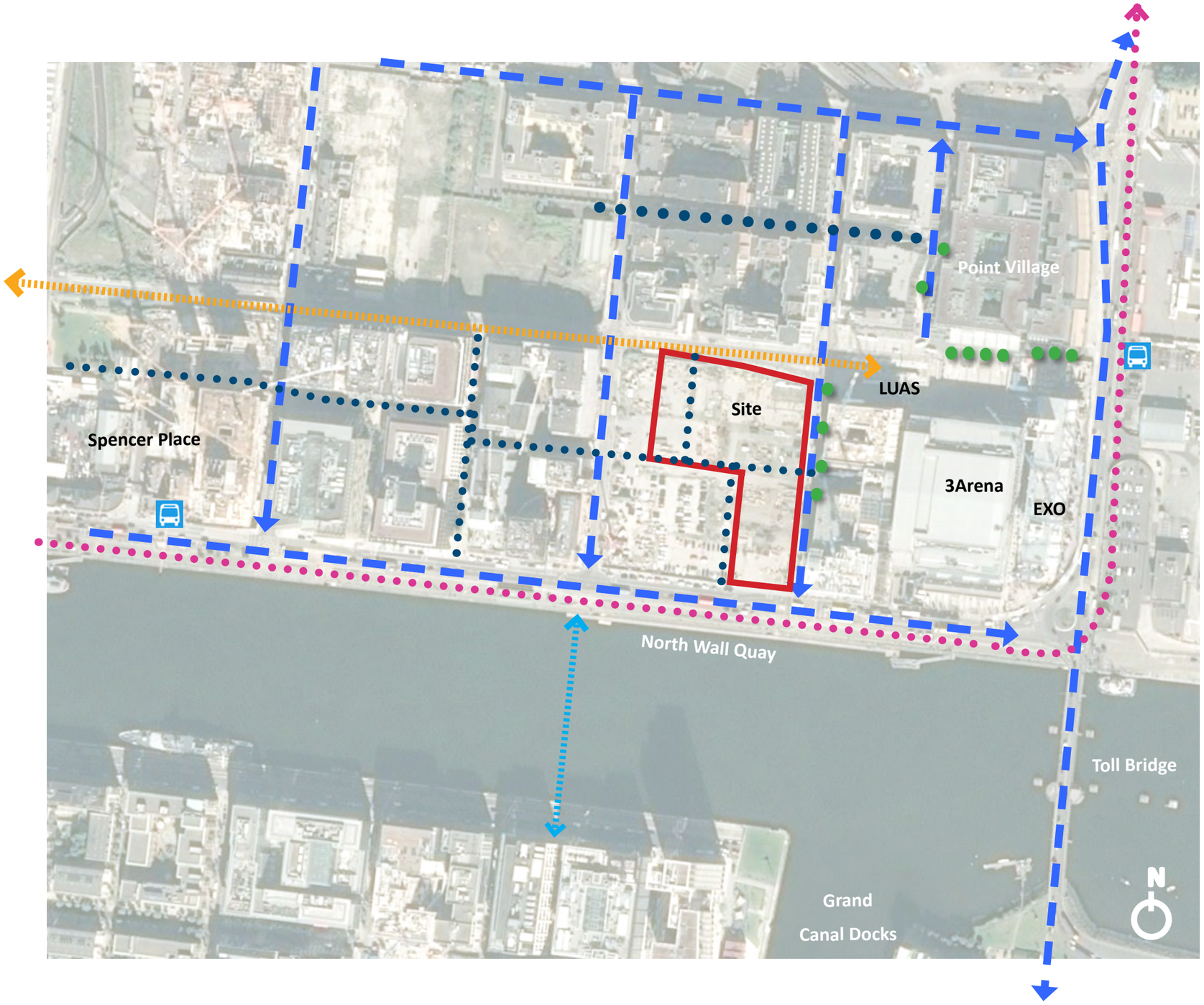
This graphic demonstrates a limited number of pedestrian routes currently through the site. It is envisaged that as the area is developed, pedestrian and cycle connectivity will improve.

Existing trees have also been included to show how the site currently contains no major green space or vegetation.

Improving connectivity of routes and green space is a key objective and something explored in greater detail later in this report.

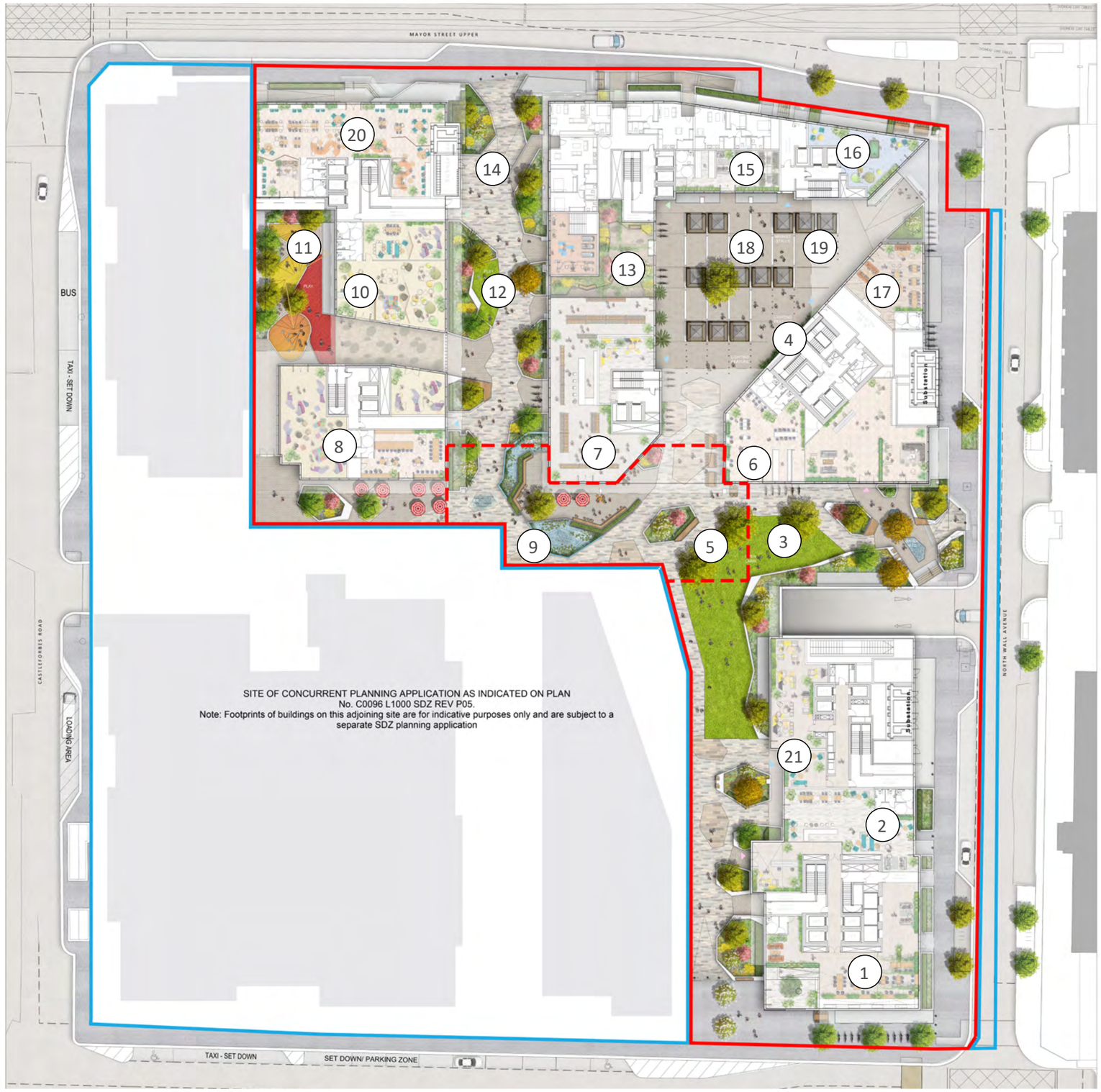
LEGEND:

- Site
- Existing tree (Private and public)
- LUAS line
- Public footpath
- Main vehicular roads
- Future bridge connection
- Cycle route
- Bus stop



# LANDSCAPE PROPOSAL - GROUND FLOOR MASTERPLAN

The proposed Landscape and Public Realm within the North Docks is setting out to create a strong vision in the fields of ***air quality, waste, green growth and eco-innovation***. Our ambition is to look at how we reconnect our busy urban lifestyles with nature once again.




1. The Town Hall and main entrance to the development
2. Venue bar
3. Pocket park and water feature
4. Green wall
5. Semi mature landscape planting
6. Bakery
7. Farmers' Market
8. Pop up restaurant
9. Rain water feature
10. Creche
11. External creche play area
12. Play-on-the-way
13. Winter garden
14. Edible streets
15. Management services
16. Games room
17. Cycle cafe
18. External market
19. Sculptural lighting feature
20. Residential study area
21. Residents' communal room

# LANDSCAPE PROPOSAL - PUBLIC REALM ZONES

## CHARACTER AREAS

### THE GREEN LUNG

The central Green Lung stretches east to west and holds the public realm together, while creating a moment of tranquility within the Northern Docks.

The words 'Green Lung' literally means the source of oxygen. It's a moment that celebrates nature and gives nature a place to breath and grow.

The promise is to create a space which is enticing to spend time in, a place that allows both residents and visitors a moment to stop, relax, socialise and find their own moment.

### THE MARKET PLACE

The Market Place is one quarter of the internal space, allowing the opportunity for both residents and the wider community to engage in the process of purchasing local produce and produce actually grown on site.

It's envisioned as a multi-use space which can double up for events throughout the calendar year. This space will have its own programmed calendar, allowing celebrational events such as Christmas, Ramadan, Chinese New Year, St. Patrick's Day, Festival of Light and many more.

### THE FUNNEL

The Funnel works as a connector from the Point Village LUAS stop, down through the development's network of streets and spaces, finally reaching the Campshire and potential upgrade, which is in line with the SDZ's vision for this area.

The connection with the water's edge is a fundamental part of the public realm. The buildings have been pulled back and opened to allow views back into the green central heart, encouraging internal connectivity with North Wall Quay.

### EDIBLE STREET

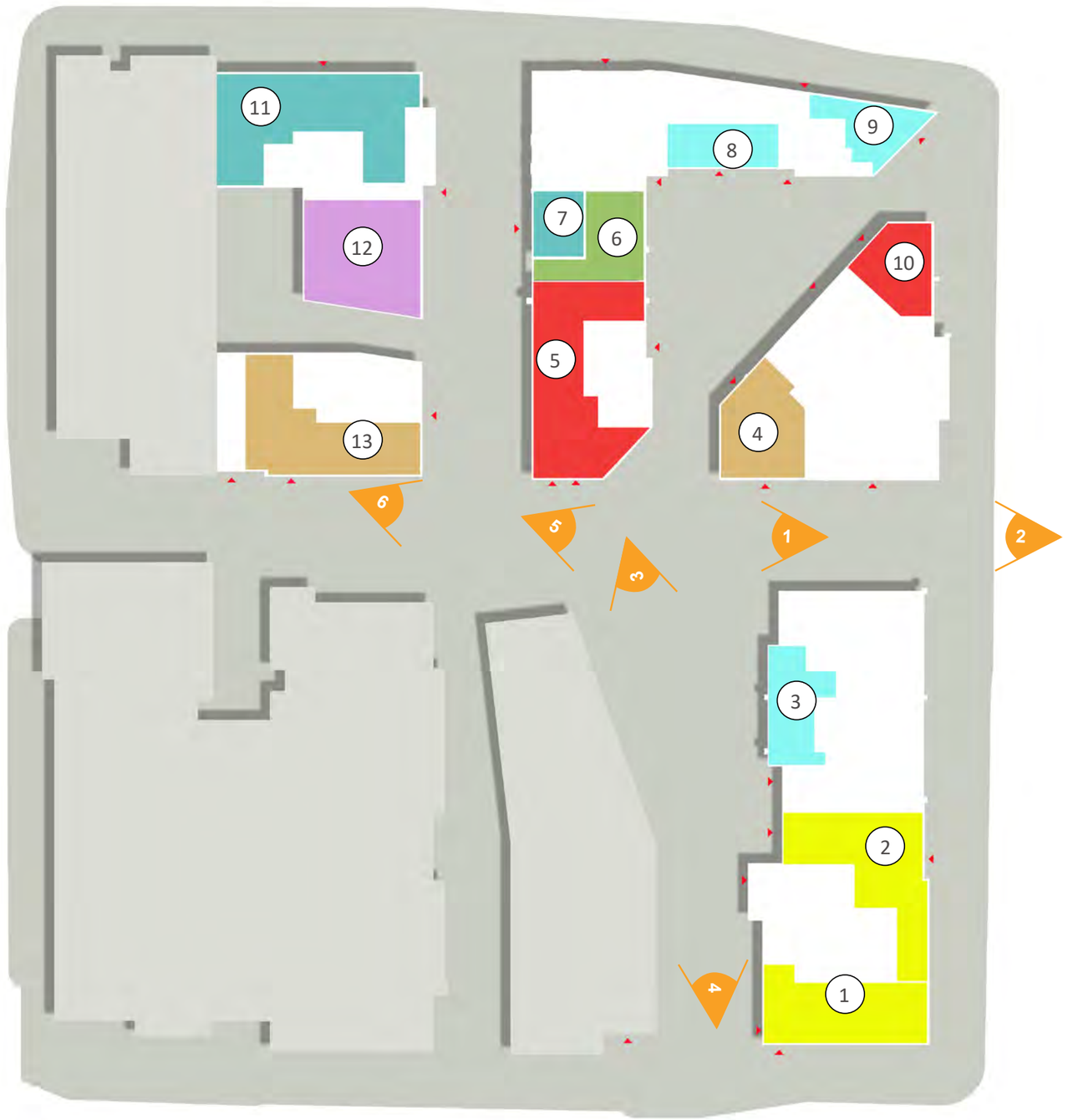
The ability to engage with nature is taken to the streets. Our ambition is to grow edible fruits, nuts and berries which we all share and appreciate the season's produce created by nature.

This street is also adjacent to the proposed childcare facility, once again allowing the next generation to appreciate and engage with nature.


Character Area Plan

# LANDSCAPE PROPOSAL - GROUND FLOOR USAGE

1. Town Hall
2. Venue Bar
3. Resident’s communal space
4. Bakery
5. Farmers’ Market
6. Winter garden
7. Gym
8. Management suite
9. Game’s room
10. Cycle cafe
11. Residential study area
12. Childcare centre
13. Pop-up restaurant




Ground Floor Usages Plan

Key:

View locations 1

# LANDSCAPE PROPOSAL

## GREEN LUNG - POCKET PARK


1

*''We are planting 105 trees which will produce over 12 tons of oxygen a year. Two mature trees can provide enough oxygen for a family of four.''*

As part of the SDZ's public realm guidelines, City Block 9 has a requirement for a pocket park with sheltered biodiversity as part of the overall public realm masterplan for the North Docks.

Within the SDZ, the defined area for the Pocket Park is 35m x 20m with an overall area of 710m2. The newly proposed pocket park has an estimated size of 2,400m2.

The central space has activation on all four sides with a local bakery and farmers' market feeding off from the designated Market Place quarter.

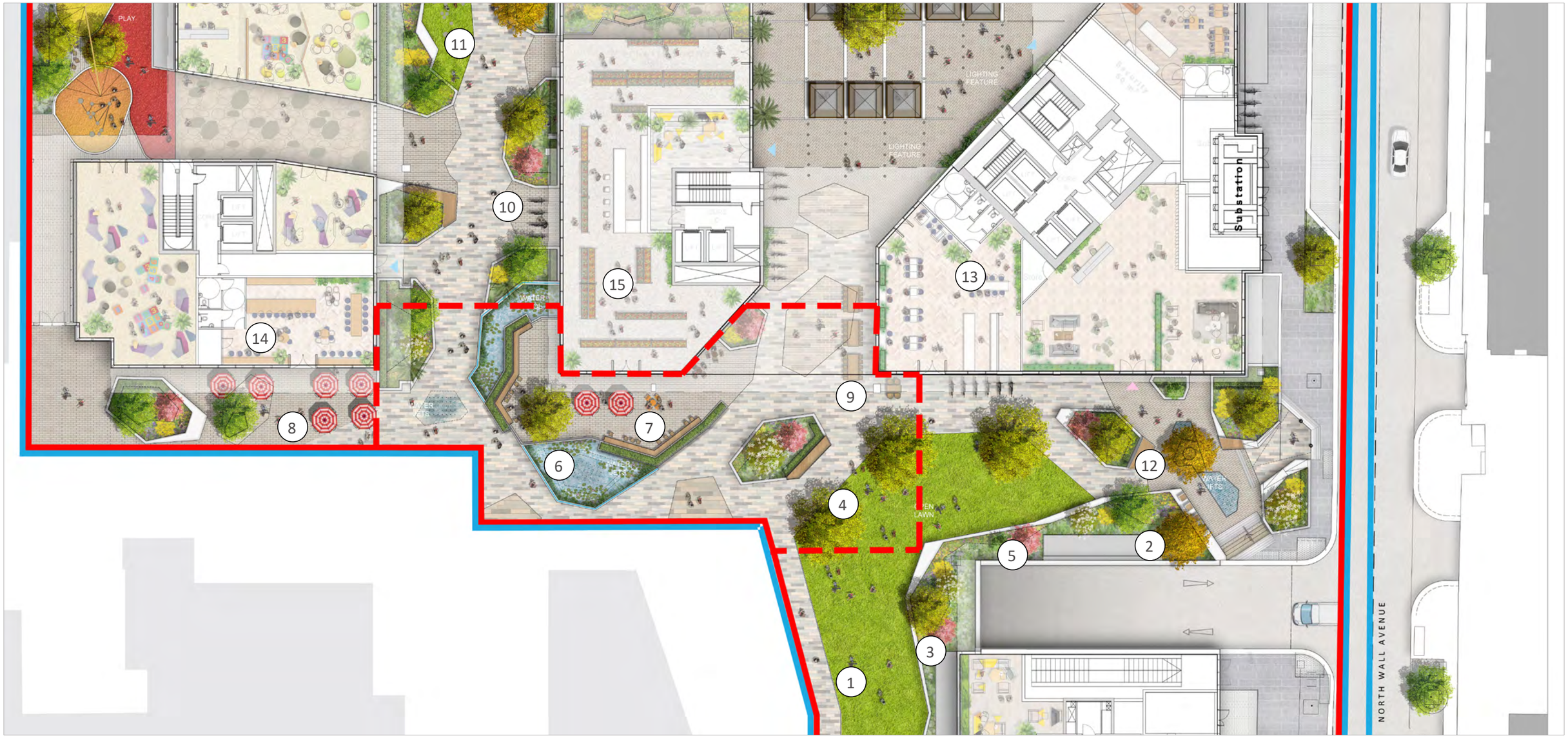
The scheme will also incorporate a pop-up restaurant, which will have seasonal food offerings and opportunity for start-up companies to show off their culinary skills to the public.

The green lung will have an estimated 850m2 of native herbaceous plants, season perennial planting to encourage local biodiversity along with a central natural rain water feature full of aquatic plant species. This equates to approximately 6,800 plants all selected to encourage and enhance local biodiversity, creating a green oasis for nature. Herbaceous perennials - mixture of native and non-native species that are beneficial for pollinating insects.

As part of our strategy and aligning with the vision of the SDZ we are also introducing VERTICAL living green walls to once again encourage local bird life, bees and insects, especially aimed at the green finch and swifts, which have declined dramatically in the past 10 years in Dublin.

2

# LANDSCAPE PROPOSAL




1. Lawn
2. Ornamental planting
3. Wild flower planting
4. Mature native trees
5. Living walls
6. Rain water feature
7. External decked area to Farmers' Market
8. External area to pop up restaurant
9. External area to Bakery
10. Cycle stands
11. Play-on-the-way
12. Public Seating / sun lounging
13. Bakery
14. Pop-up restaurant
15. Farmers' Market

PUBLIC POCKET PARK LOOKING SOUTH TOWARDS THE RIVER

3

# LANDSCAPE PROPOSAL

## TYPICAL SECTIONS THROUGH POCKET PARK


Section through Funnel towards North Wall Quay


Section through Pocket Park

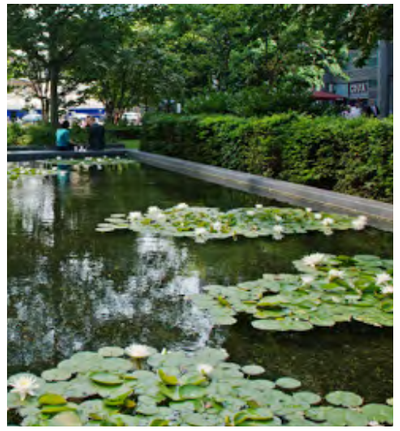
Proposed living green wall to base of building

Social seating area on eastern edge of the park to enjoy the morning sun

Feature maple tree, set within a grouping of small water jets to encourage natural play as well as noise and activation.

Native herbaceous planting, designed to attract local wildlife such as birds, bees and insects



# LANDSCAPE PROPOSAL


4

PUBLIC POCKET PARK LOOKING EAST

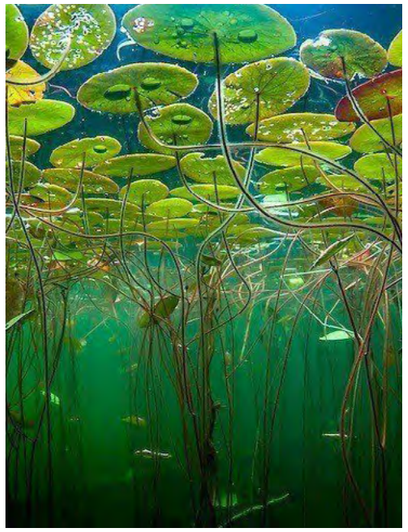
5

# LANDSCAPE PROPOSAL

## RAIN WATER FEATURE AND NATURAL POND

As part of the proposals we are installing a 50m2 rainwater / pond collector as part of the overall SUD's strategy. This feature not only will give a setting for the decked area of the Farmers' Market, will also be a haven for local wildlife. The design will have a stepped profile with a maximum depth of 60mm to accommodate different types of pond flora and fauna.

A body of water at this scale will be able to breed caddis flies, damselflies, dragonflies, mayflies, pond skaters, snails and water beetles within the water. Birds such as swifts and housemartins will pick off insects from above the water surface, which ties in with our vision of recreating natural habitats for the decline of swifts in Dublin in the past 10 years.



Typical aquatic plant selection:

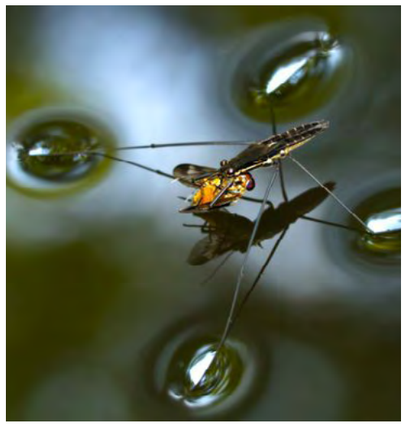
1. *Nymphaea 'Pygmaea Helvola'*
2. *Orontium aquaticum*
3. *Ranunculus flammula*
4. *Zantedeschia aethiopica*
5. *Myosotis scorpioides*









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# LANDSCAPE PROPOSAL

## THE MARKET PLACE

The Market Place is located on the north-east edge of the site adjacent to the already thriving Point Village with its new F&B offers, vibrant office space, student accommodation and cinema. It already has a new growing population of students who are becoming part of the ever-expanding local community.

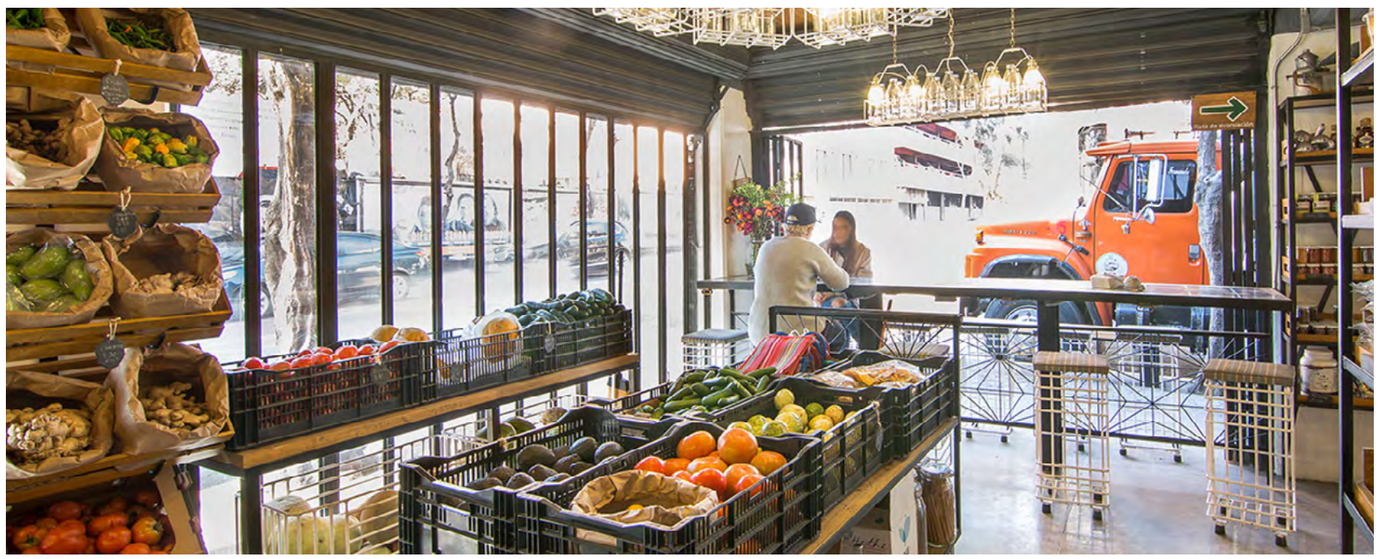
Our vision is to create a market place on a diagonal from the LUAS tram stop into the heart of the scheme. This space will be activated at street level with a cycle café on the corner, games' room for residents, management office, residential entranceways, but most importantly the space will have regular organised events throughout the year.

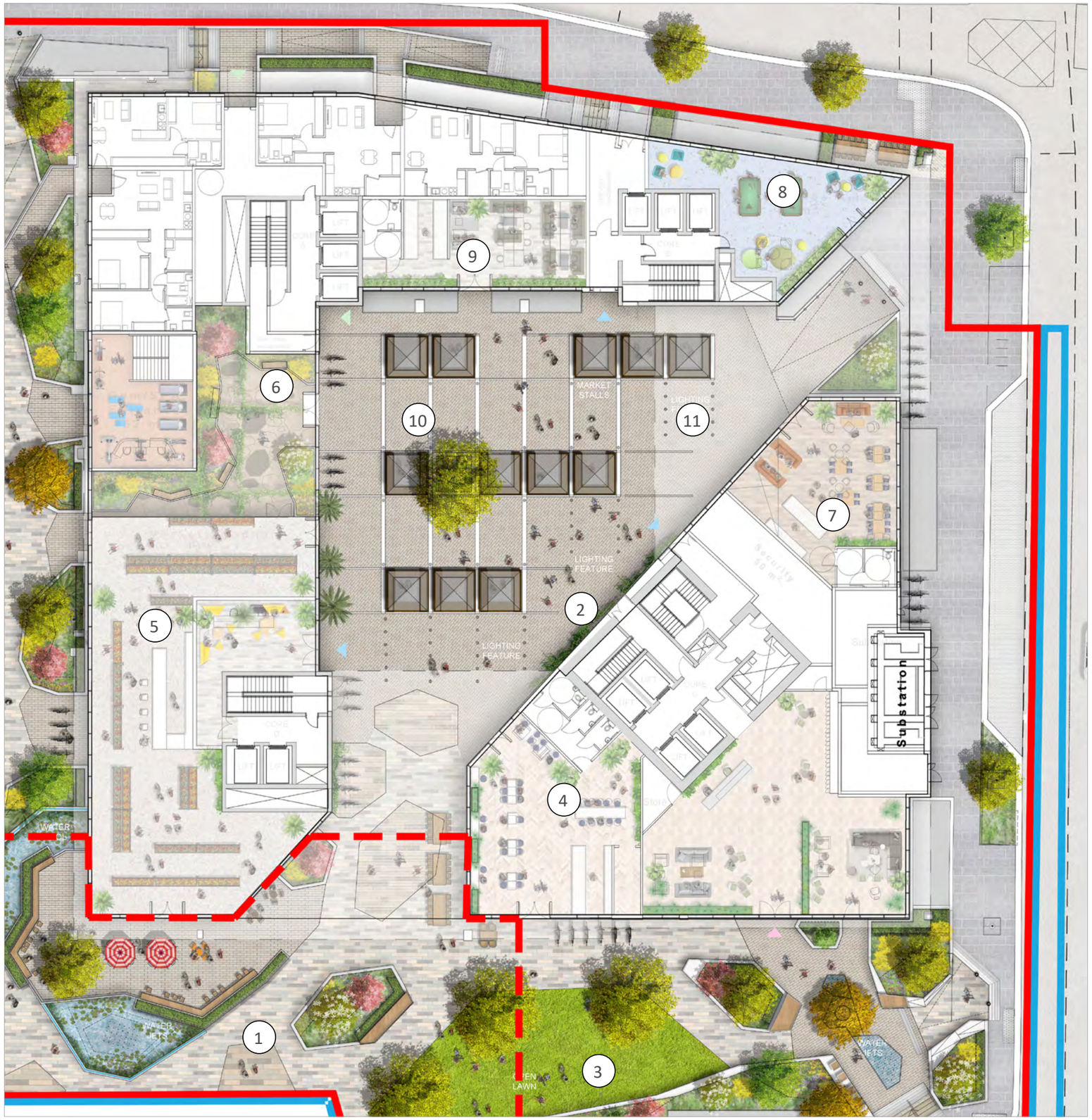
This area will have lighting designed by artists to create interest at night, allowing the night time economy to maybe run a little longer into the evening and create a vibrant and safe atmosphere.

The Market Place will also connect on its western side into an internal winder garden, which allows residents and the public through into the Farmers' Market.



MARKET STALL






1. Pocket park and water feature
2. Green wall
3. Open lawn
4. Bakery
5. Farmers' Market
6. Winter garden
7. Cycle / Run cafe
8. Games room
9. Management centre
10. External seasonal market
11. Sculptural lighting feature

# LANDSCAPE PROPOSAL

## CHILDCARE FACILITIES

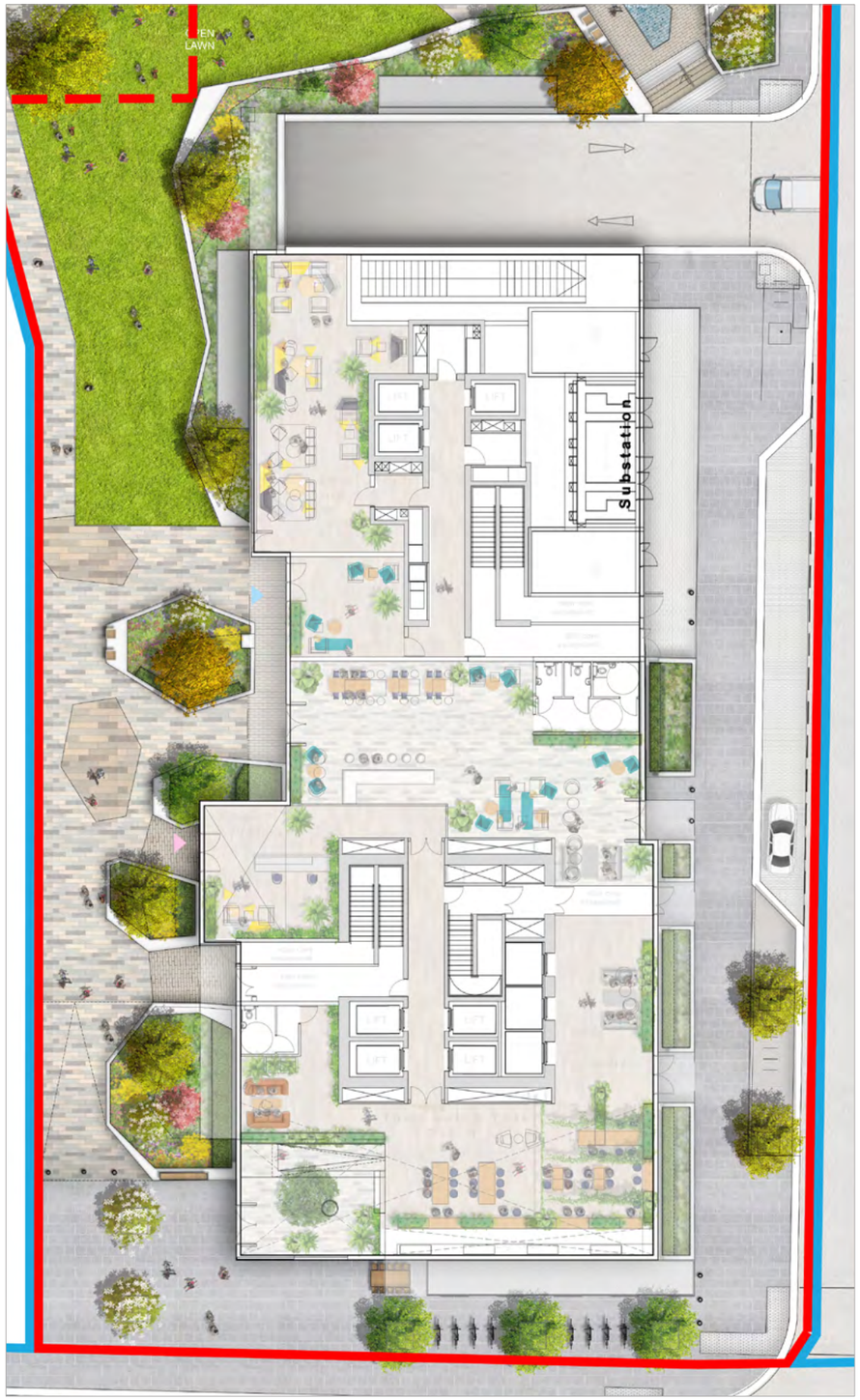
Within the north-south Edible Street, there is proposed a childcare facility for both the residents and the wider community. Attached to the Centre is approximately 280m2 of external play area and discovery. Our vision is to create a playful environment, which starts our next generation on the path of discovering nature.

Our ambition is to create a safe playable external area, which allows children to climb and explore not only at ground level but also at higher levels to create a multi-layered natural play area.

Plant species will be chosen to enhance their senses through colour, sound and smell, as well as allow them to see how wildlife can be encouraged into the garden using bug hotels, bird boxed and even beehives if possible.

# LANDSCAPE PROPOSAL

## THE FUNNEL - CONNECTING THE CAMPSHIRE




The future residents and workforce envisioned to live and work around Waterfront South Central will be the people who create place making. As part of the design process it's our responsibility to help this natural process become a reality through the support we give our community and the environment we create for them.

By creating a facility (Town Hall) at the base of the tower we can accommodate both community events and a workplace for future companies along with a new centre for communication, we will allow all people to become a part of this process. In addition, a Venue Bar will be created to accommodate and facilitate this offer for all.

As part of the SDZ North Docks documentation there is in place a real desire to 'activate' and 'green-up' the existing Campshire. We want to be a part of this process in the Dock's future and be the ones who start this change and set the benchmark for the future of the North Docks and beyond.

# LANDSCAPE PROPOSAL

## EDIBLE STREET

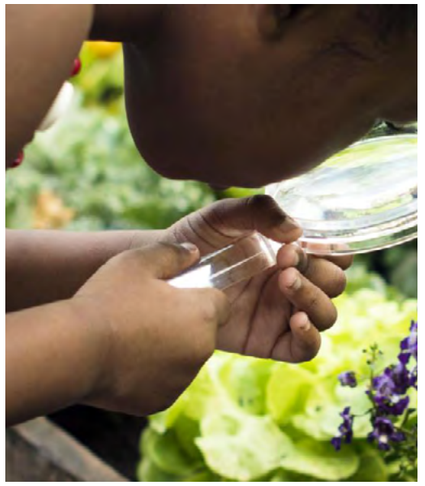

The Street will be designed in such a way that the plants and species being selected will produce edible produce thoughout the year. Our vision is to create a number of fruit trees such as apple, plumb, pear and even trees that produce nuts such as hazel and chestnut.

In addition, the planting of herbs will be introduced such as:

- *Wild garlic (Allium ursinum)*
- *Fennel (Foeniculum vulgare)*
- *Borage (Borago officinalis)*
- *Corn mint (Mentha arvensis)*
- *Dandelions (Taraxacum officinale)*
- *Ground elder (Aegopodium podagraria)*
- *Red Clover (Trifolium pratense)*
- *Wild Fennel (Foeniculum vulgare)*

Also, plants which produce edible berries such as elderberry, gooseberry, blackberry and raspberry will be introduced as part of the planting strategy.

These plants listed are just the start of getting people back into nature and educating them in the seasonal produce and colour nature has to offer.

## TREE STRATEGY FOR THE EDIBLE STREET

Trees which can give educational experience, while supplying a harvest of fruits and nuts within the edible streets strategy.

**1 Hazel,** *Corylus avellana.*
Classed as a tree or shrub, regular coppicing will keep the tree quite short. Nuts and leaves provide a great deal of food for birds and mammals, including the now rare dormouse.

**2 Elderberry,** *Sambucus nigra*
Harvesting the berries is easy. They grow in large bunches called umbrellas and each stem can be removed once the berries are ripe. From delicious elderberry jams, wines, and pies to an effective and natural way to fight the flu, the elderberry is a very beneficial plant.

**3 Fig,** *Ficus carica*
An Asian species of flowering plant in the mulberry family, known as the common fig.
Figs can be eaten fresh or dried, and used in jam-making. Most commercial production is in dried or otherwise processed forms, since the ripe fruit does not transport well, and once picked does not keep well. The widely produced fig roll is a biscuit (cookie) with a filling made from figs.

**4 Plum Tree,** *Prunus subg. Prunus*
A plum is a fruit of the subgenus Prunus of the genus Prunus
Fruits are usually of medium size, between 2–7 centimetres (0.79–2.76 in) in diameter, globose to oval. The flesh is firm and juicy. The fruit's peel is smooth, with a natural waxy surface that adheres to the flesh.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# LANDSCAPE PROPOSAL

## INTERNAL WINTER GARDEN

Examples of our species selection will be species such as honeysuckle, which is ideal when space is tight. In autumn, it provides berries and shelter for birds such as **thrushes**, **warblers** and **bullfinches**. In summer, its scented flowers attract insects and so provides food for a different range of birds.

In autumn, ivy flowers attract insects, which in turn provide food for **robins** and **wrens**. When the blackberries appear in the middle of winter, they're devoured by everything from **waxwings**, **starlings** and **jays**, to **finches** and **blackbirds**. The leaves provide food for caterpillars of the **holly blue butterfly**, as well as nesting and roosting shelter for birds.

GOODNESS OF GREEN

## IMPROVED AIR QUALITY

Plants filter out pollutants from the air & absorb dust particles

## INCREASED BIO-DIVERSITY

Living Walls provide an ecological habitat within cities for insects, bats & birds

## HEALTH & WELLBEING

Positive impact on people's mental & physical health and well being

## STRUCTURAL PROTECTION

Living walls provide outdoor structural protection from acid rain & ultraviolet rays

## TEMPERATURE REGULATION

Use of Living Walls in cities contributes to a reduction in the heat island effect. The panels also act as insulation to regulate the temperature of the building

## SOUND INSULATION

Plants absorb & deflect noise

# LANDSCAPE PROPOSAL

## GREEN WALL SYSTEMS

The team is proposing to install approximately 2500m2 of the proven ANS Global organic substrate living wall system, which will have a total of 240,000 plants. The plant palette will include local indigenous species, which will include some of the attached list (on the following page) to increase the local flora and fauna.

Within the plant palette will be selection of bulbs and evergreen plants to give colour and interest throughout the seasons.

The living wall will have bird boxes / bat boxes and insect hotels, installed at various heights aimed to provide for the green finch and swift plus any others, details to advised by the local environment team and the national bird protection consultants, such as Bird Watch Ireland.

**Key design details:**

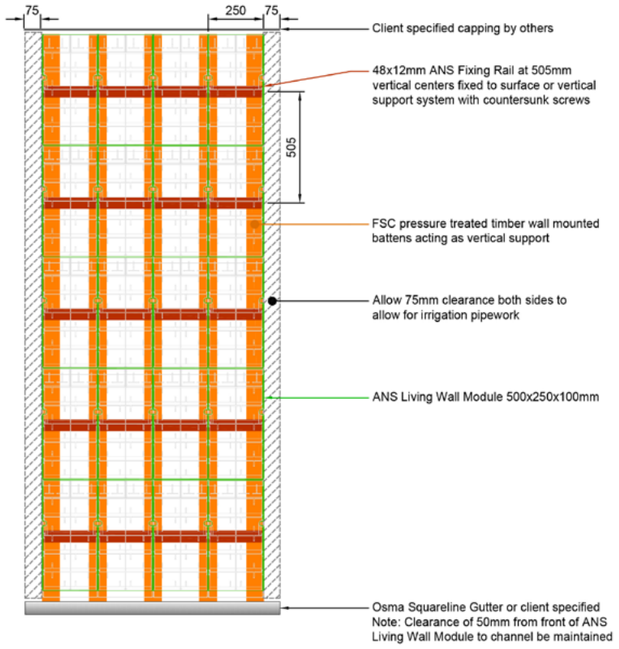
The following key points have been considered during development of the living walls – plants have been selected to ensure long term sustainability, which is why they are designed in palettes of three to ensure the wall is evergreen with colour and interest all year round, with discovery plants (blub planting) evolving throughout the seasons.

The organic substrate will ensure the plants have the required nutrients. Also using an organic substrate, the water requirements will be minimal – on average 1 litre of water per m2 per application.

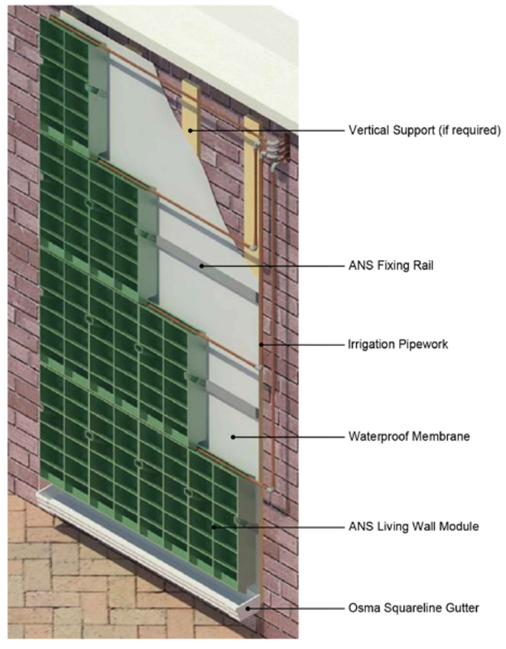
The success of this project will be the ongoing maintenance and management of the irrigation system. Therefore, we have included a maintenance schedule and access statement. ANS Global will have a local installer and provide full aftercare with a lifetime warranty including the plants under the maintenance contract.

*"60% of the plants selected will have ecological properties and 40% of the plants used within the planting palette will be selected for their properties to absorb ppm pollutants and carbon dust to assist in creating cleaner and healthier air and increasing oxygen".*

## GOODNESS OF GREEN

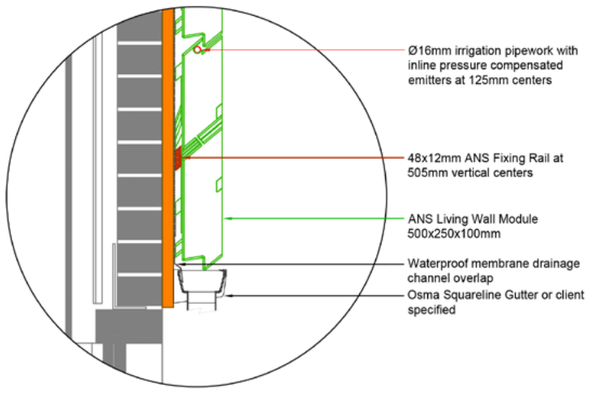



**Front Elevation**
Scale 1:20

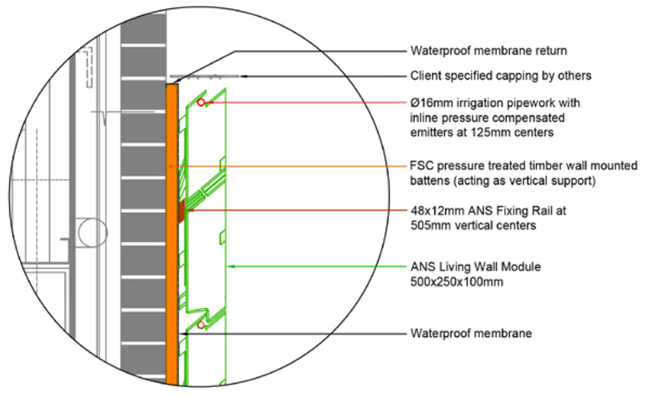



**Axonometric**
Not to Scale

NOTES
1. Any dimensions scaled from this drawing are taken at the readers own risk.
2. All dimensions are in mm unless stated otherwise.
3. Weight Loading of 72kg/m²




**Bottom Section**
Scale 1:10




**Top Section**
Scale 1:10

ansurbanruralism
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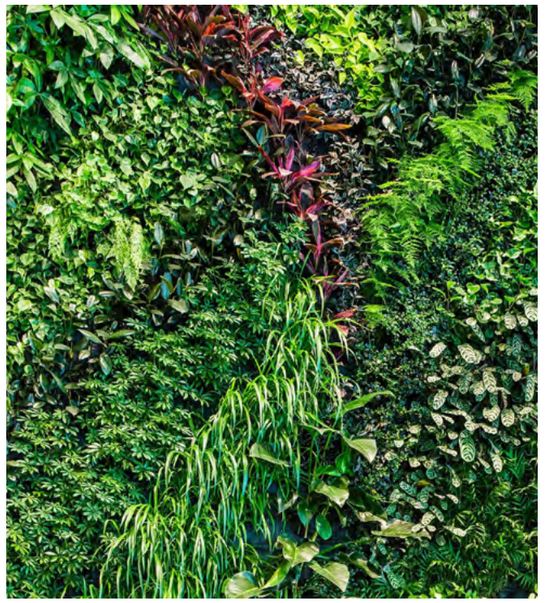
Aldingbourne Nurseries, Church Road,
Aldingbourne, Chichester, PO20 3TU
+44 (0)845 505 5555 | +44 (0)845 5055556
info@ansgroupeurope.com | www.ansgroupeurope.com

ANS Living Wall Module
Sample Fixing Instructions Sheet
Solid Walls (Brick, Block, Concrete, etc)

SCALE AS STATED | SHEET SIZE A3 | DRAWN BY MC | CHECKED BY RS | DATE 13.06.19



Statistics regarding mental health suggests that approximately 19.5% of people in Ireland will experience a mental health issue in any given year. It's vital to look after our psychological wellbeing, as well as our physical health, and a growing number of studies are finding empirical evidence revealing the link between interactions with nature and improved mental health.

The increased urbanisation of our towns and cities can make it difficult for people to access green outdoor spaces but integrating nature into our homes and offices can ensure there's still a significant positive impact on our mental wellbeing.

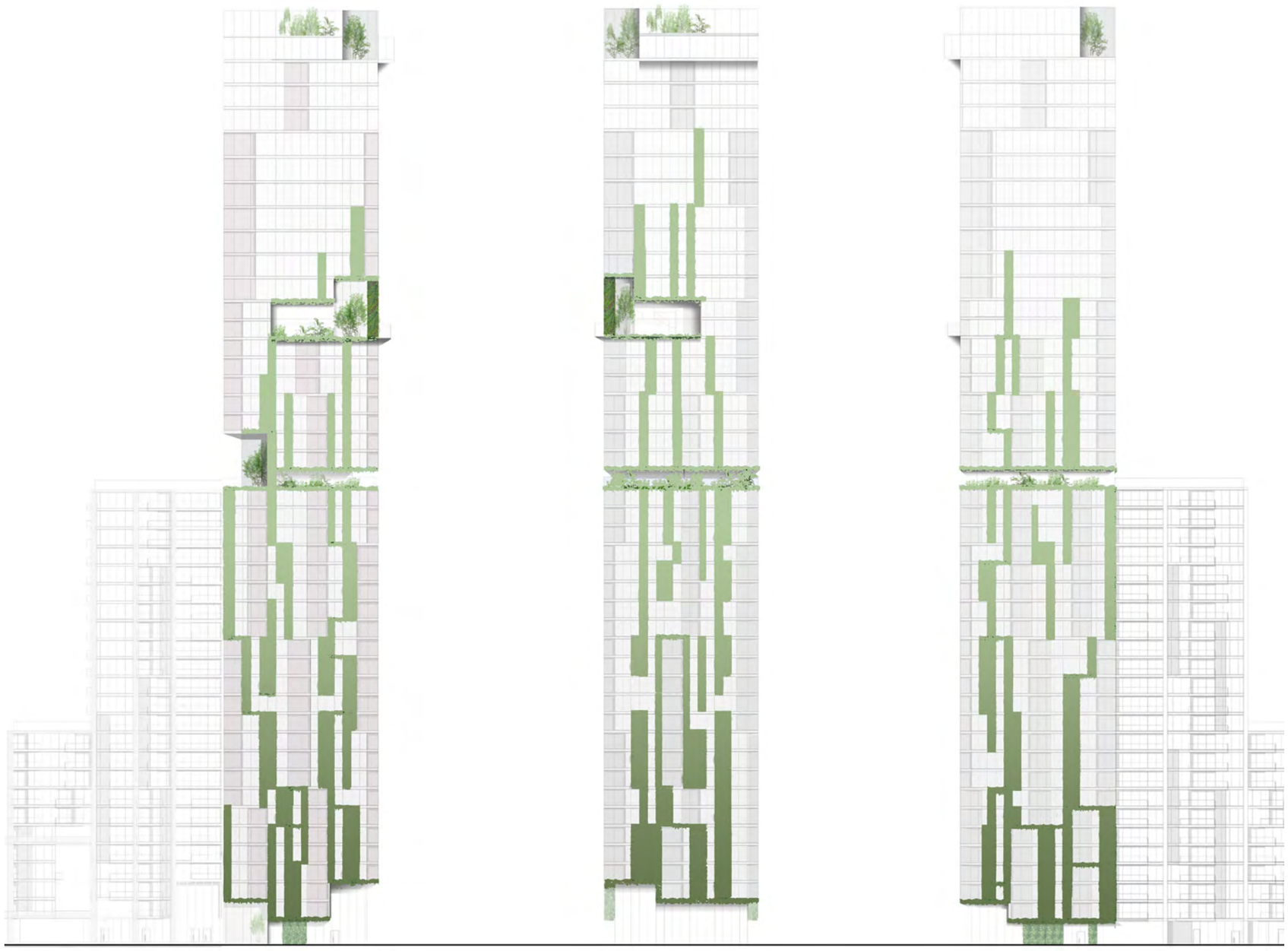
# LANDSCAPE PROPOSAL

## VERTICAL GARDENS

These pages will begin to explain the landscape strategy of 'greening' the external architecture and how we will ensure the longevity of plant species, maintenance and adding extra value to both residents, the surrounding community and most importantly the ecology and biodiversity of the North Docks.

In addition, the overall planting strategy will create a darker base in colour of planting species, becoming lighter as it reaches up through the building facade. The architecture too will have the same ideology in its glass facade detailing.

*"We are planting over **700,000 plants**, within all three elevations of Tower C"*



WEST ELEVATION

SOUTH ELEVATION

EAST ELEVATION

KEY FACTS

**972kg of PARTICULAR MATTER CAPTURED from ATMOSPHERE**

**717, 792 PLANTS**

**EUROPE'S LARGEST LIVING WALL**

**80,000ft²**

ANS LIVING WALL MODULE

**17,197kg of TOXIC GASES EXTRACTED from ATMOSPHERE**

**12, 710kg of OXYGEN per m²**

# LANDSCAPE PROPOSAL

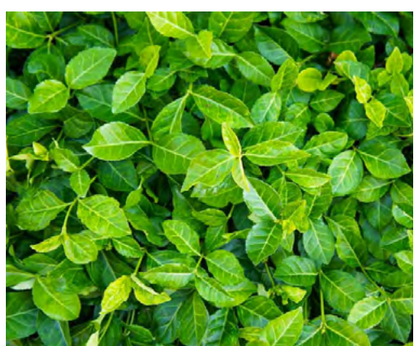
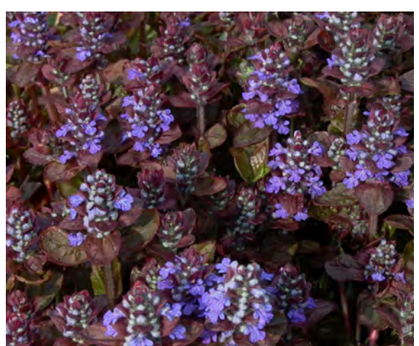
Lower Level plant mixes

*Erica Carnea*
*Carex pendula*
*Hedera helix*
*Sarcocca confusa*
*Rosmarinus prostrata*
*Thymus vulgaris*
*Armeria maritima*
*Sage officinalis*
*Lavendula nana*
*Bergenia cordifolia*
*Erysium Bowles mauve*
*Ophipogon nigrascens*
*Berberis thunbergii atro nana*
*Ajuga reptans atropurpurea*
*Bechnum spicant*
*Pachysandra terminalis*
*Pulmonaria*
*Euonymus coloratus*
*Euphorbia amygdaloides purpurea*







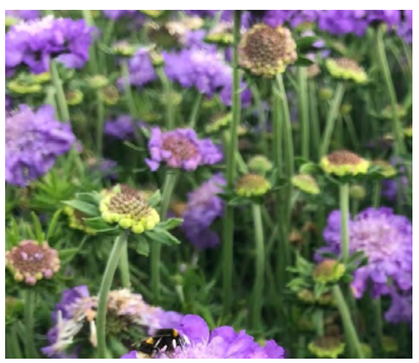
Blending through the middle

*Vinca minor*
*Liriope muscari*
*Lavendula nana*
*Hebe sutherlandii*
*Carex frosted curls*
*Hedera green ripple*
*Iberis sempervirens*
*Carex elata aurea*
*Euphorbia robbiae*
*Geranium macrorrhizum*
*Luzula Nivea*
*Scabiosa columbaria*
*Lirope muscari Monroe white*
*Persicaria bistorta*
*Primula vugaris*
*Cotoneaster dammerii*
*Saxifraga x urbium*
*Helleborous argutfolius*
*Bergenia Bressingham white*
*Vinca minor Gertrude Jekyll*
*Tellima grandiflora*
*Gallium odoratum*







Upper levels

*Euonymus emerald gaiety*
*Hebe Sutherlandii*
*Liriope muscari white*
*Cotoneaster dammerii*
*Gallium odoratum*
*Lamium beacon silver*
*Carex frosted curls*
*Erigeron Karvinskianus*
*Euonymus gaiety*
*Vinca minor alba*
*Geranium macrorrhizum white ness*
*Erica carnea white glow*
*Hebe sutherlandii*
*Hedera green ripple*
*Helleborous silver lace*
*Luzula nivea*
*Lamium white Nancy*
*Pulmonaria*








*"As an indication the wall will produce approximately 425 tones of Oxygen per m2 and capture 32.5 tones of particulate matter and extract 575 tonnes of toxic gases from the atmosphere".*

# SITE WIDE STRATEGY

# HARD LANDSCAPE STRATEGY

## PAVING AND EDGING STRATEGY

The hard landscape elements will be carefully selected to enhance the space.

High quality elements will help to create a positive, inclusive and inspiring environment, where people feel comfortable to walk through, sit, contemplate and enjoy the landscape setting.

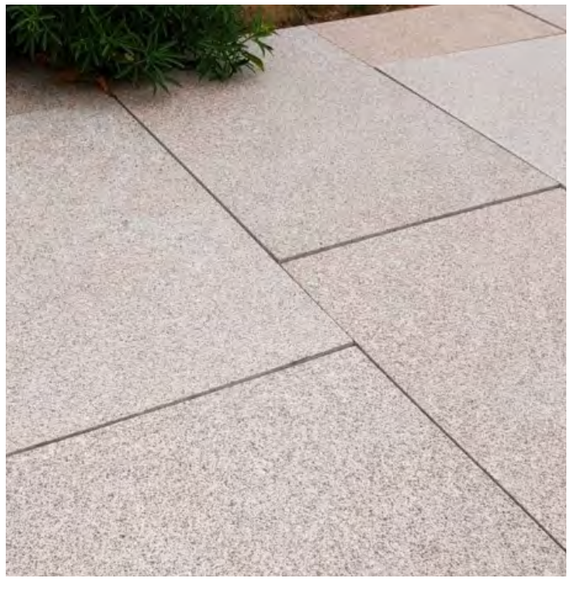
For the location of the paving and edge types refer to C0096 L100 Ground Floor General Arrangement Plan.

Paving Type 1: Buff Coloured Granite Slabs
Size: 100x200, 200x400x400x600, depth 80mm.
Colour: 3 shades of light buff.
Supplier: Stonepave or Similar Approved

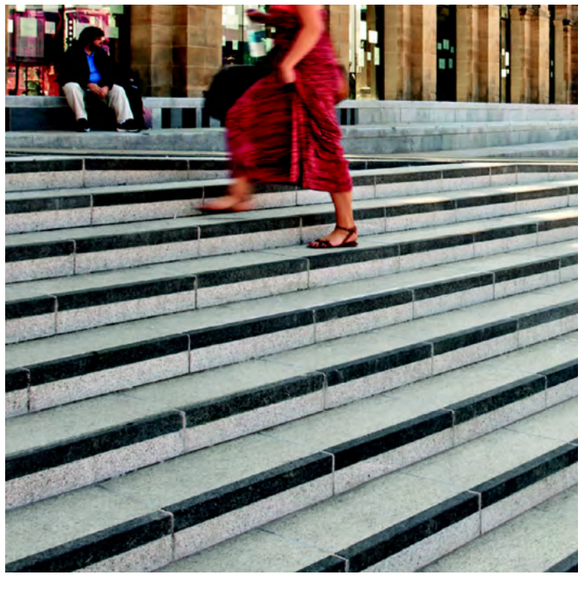
Paving Type 2: Granite Slabs
Size: 600X600mm, depth 80mm.
Colour: Silver Grey to DCC standard
Supplier: Stonepave or Similar Approved

Paving Type 3: Buff Coloured Granite Setts
Size: 100x200, depth 80mm.
Colour: 3 shades of light buff.
Supplier: Stonepave or Similar Approved

Paving Type 4: Buff Coloured Granite Slabs
Size: 600x900mm, depth 80mm.
Colour: 3 shades of light buff.
Supplier: Stonepave or Similar Approved



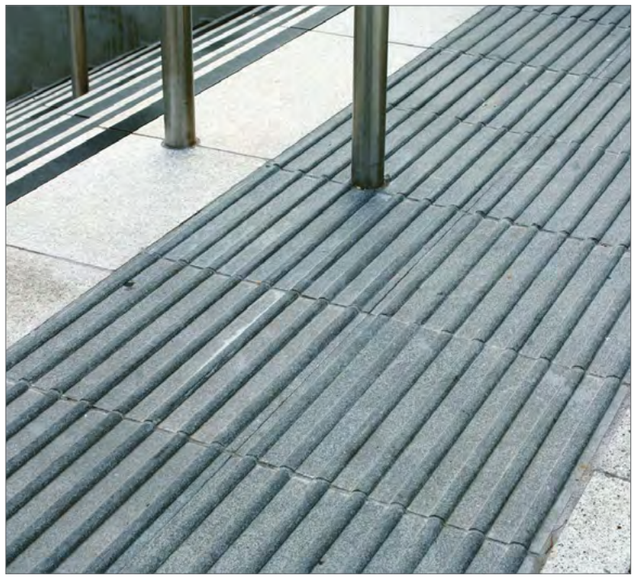
Step Type 1: Granite Steps
Colour: To match PT1. Finish: Sand blasted. Stack bond.
Supplier: Stonepave or Similar Approved



Paving Type 8: Buff Coloured Granite Setts
Size/Colour 100x200, depth 80mm / to meet DCC standards.
Supplier: Stonepave or Similar Approved

# HARD LANDSCAPE STRATEGY

Paving Type 11: Tactile Flag Paving
Supplier: Stonepave or Similar Approved
Size/Colour: 400x400x65mm. Silver gray to DCC standard



Edge Type 1: Granite Road Kerb
Size/Colour: 450mm width to meet DCC requirements.
Supplier: Stonepave or Similar Approved

Edge Type 2: High Performance Concrete Edges and Walls
Height: various. Colour: White with etched surface.
Supplier: Cassidy Brothers or Similar Approved

Edge Type 3: Silver grey Granite dish channel within the public realm to DCC specification
Supplier: StonePave or Similar Approved
Size/Colour: 300x900x12mm dish to match PT2

Edge Type 4: Galvanised recessed manhole covers where required

Edge Type 3:  Conservation Pin Kerb
Size/Colour: 150x50x915mm/Concrete/Textured.
Supplier: Doranconcrete or Similar Approved

# LIGHTING STRATEGY

## LIGHTING STRATEGY

The adjacent diagram illustrates the design approach to the lighting strategy, which will be developed in detail by a specialist lighting consultant. The lighting levels will be calculated and final light fittings will be chosen to work both aesthetically and provide the correct illumination.

The lighting strategy is based on the lighting columns along pedestrian paths to provide secure movement along the footpath after dusk. In addition, there is some accent bollard lighting adjacent to private amenities and tree up lighters to few chosen trees.

The staircases needs to be lit by built in handrail lighting to provide the necessary lighting levels to meet the requirements of the Building Regulation Part M.

The adjacent images show the potential light fitting types / styles and are for illustrative purposes only.

KEY FOR THE LIGHTING TYPES:

DCC Lighting column

Uplighting lighting

Tree uplighter

Internal lighting column

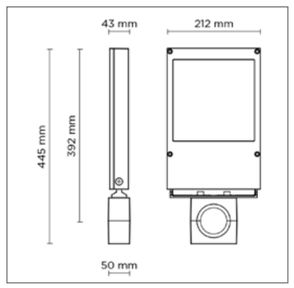
**DCC Public Realm Lighting .:**

**CitySoul gen2 LED Large**

Supplier: Philips or similar approved.
Type: Brook Maxi 6m high, 24w led 36w with street optic. Colour: To match architectural metalwork.

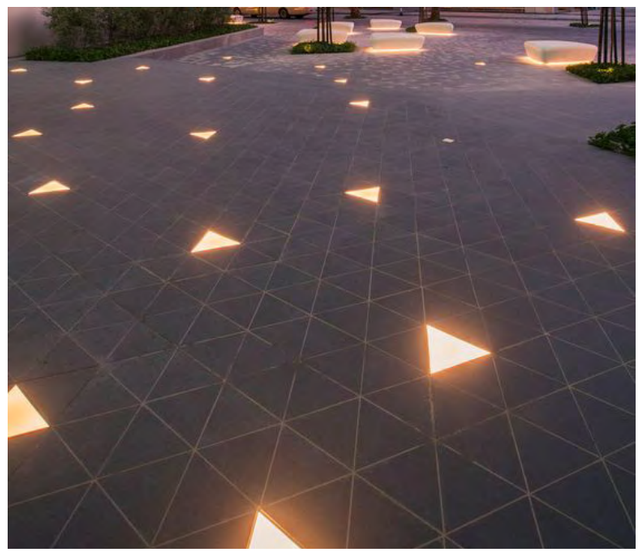
# LIGHTING STRATEGY

**Lighting Type 1 and 1A: Lighting Column**
Supplier: PUK or similar approved. Type: Brook Maxi 6m high, 24w led 36w with street optic. Colour: To match architectural metalwork.



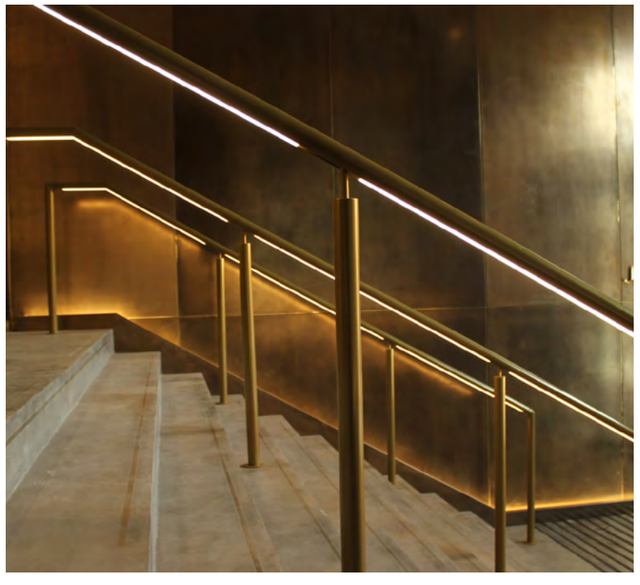

**Light Type 2: Bollard Lighting**
Supplier: PUK or similar app. Type: Periscope, 750mm height "L-shape" bollard, one-side downward asymmetrical light distribution, 14W. Colour: To match architectural metalwork.

**Light Type 3: Feature paving lighting**
Supplier: LiniLED or Similar Approved
Size/Colour: TBC



**Light Type 4: Tree Up-light**
Supplier: PUK or similar approved. Type: Jet Medium LED 12W.

**Light Type 5: Handrail Lighting**
Supplier: LiniLED or Similar Approved
Size/Colour: TBC

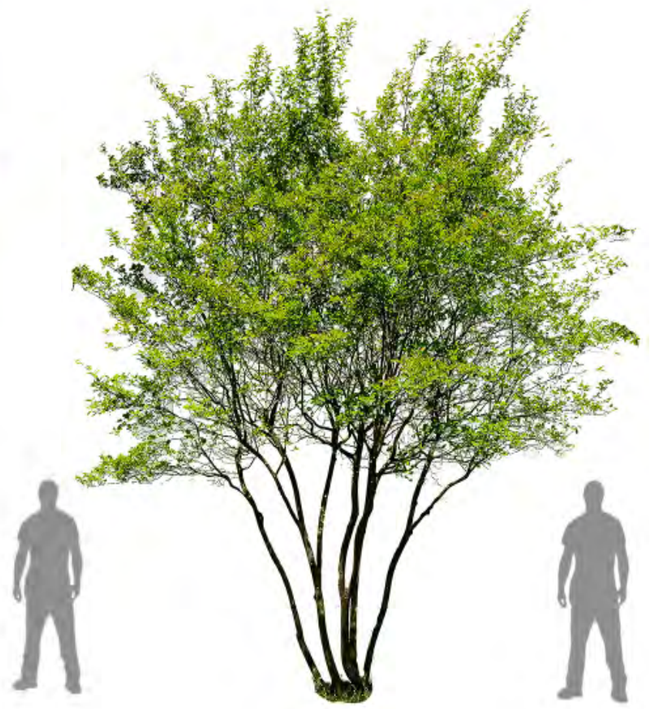


**Light Type 6: Feature seat lighting**
Supplier: LiniLED or Similar Approved
Size/Colour: TBC

# SOFT LANDSCAPE STRATEGY

## PLANTING TYPES

Clear stem, semi-mature tree has a single, upright, clear stem up to 2-2.5m from the ground before the canopy starts.
These type of trees are proposed along the main pedestrian routes and in key landscape areas, such as the pocket park.
The required height of the multi-stem trees is: 3.5-4m.



A multi-stem tree: has multiple stems, branching from the ground. The cloud-like canopy starts around 1.5-2m above ground. These type of trees were used to achieve privacy and help separate the residential and retail areas. They also help mark the key locations in the landscape, such as entrances and access points. The required height of the multi-stem trees is: 3-3.5m.

Herbaceous planting has no persistent woody stems above ground. These plants grow fast and produce flowers and many seeds in a short period of time. They have an important role in the biodiversity, because they can provide habitat and food for wildlife.

The height of the proposed herbaceous planting is apx. 0.3- 1.3m.

Ground covers provide protection of the topsoil from erosion and drought. In an ecosystem, the ground covers form the layer of vegetation below the shrub/herbaceous layer.

The height of the proposed perennial planting is aprox. 0.1- 0.3m.

The shrub palette are used as separation between the different functions in the urban realm. In addition they have an important role in the biodiversity, because they can provide habitat and food for wildlife.

The required height for the proposed shrubs is: 0.8- 1.5m.

Clipped shrubs are used to give privacy and help separate the areas.

The required height for the proposed hedges is: 1- 1.5m.

## TREE TYPOLOGIES & SIZES

To help communicate the type of trees proposed in the scheme this section sets out examples of the stock sizes currently proposed. The final sizes and specification subject to detailed design in accordance with planning conditions.

It is important to note the height and root ball sizes of proposed single stem trees varies according to the girth and species selection. The dimensions given are a rough guide only.

1. Girth 16-18cm.
   Root ball size approx 50cm diameter x 50cm deep.
   Heights vary- approx 4.0-5.0m.

2 Girth: 20-25cm.
   Root ball size approx 80 cm diameter x 50cm deep.
   Height of plant: approx 5.0-6.0m.

3. Girth: 35-40cm (on the right).
   Root ball size approx 110 cm diameter x 70cm deep.
   Height of plant: approx 7.0-8.0m.

4. Girth: 70-80cm
   Root ball size: approx 180 cm diameter x 80cm deep.
   Height of plant: approx 8-10m.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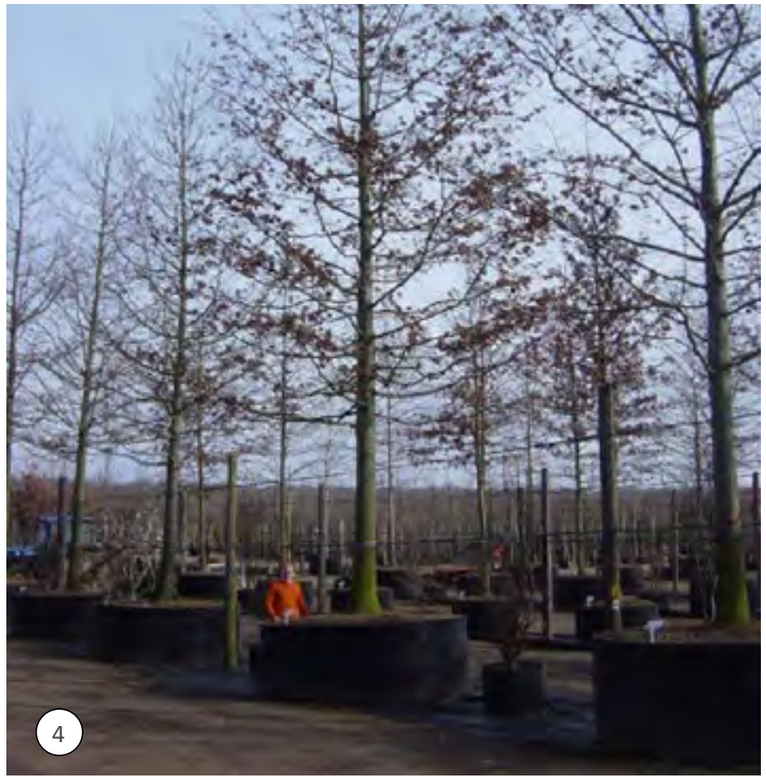
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# SOFT LANDSCAPE STRATEGY

## TREE STRATEGY

Trees are important for all forms of native wildlife, including birds, mammals and insects. They will add another dimension to the organic growing area - providing leaves and fruits as a rich larder; habitat for nesting; shade and shelter, plus height for safety.

The following list provides species which are ideal for proximity to open water, winds and hard conditions, yet have maximum ecological value.

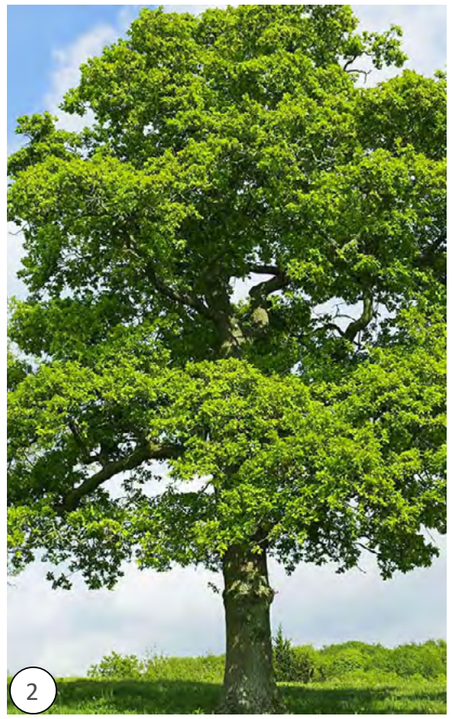
**1 Maple**, *Acer campestre*
Pollution fighter, autumn stunner, syrup maker. The field maple is a sturdy broadleaf which supports caterpillars, aphids, and all their predators, all whilst resisting air pollution.

**2 English Oak**, *Quercus*
Oaks can provide a home for more than 284 species of associated insects. Although lofty at full height, this tree can be pollarded, or coppiced, and can also be 'laid' to make a hedge.

**3 Silver birch**, *Betula pendula*
A beautiful tree, with silvery-white bark. Suitable for small gardens. Older trees play host to bracket fungi and birds such as woodpeckers. Supports 229 associated insect species. Seeds popular with over-wintering birds and small mammals

**4 Small-leaved Lime**, *Tilia cordata*
This can be grown as a hedge, with sweet smelling flowers that are highly attractive to bees early summer.
Host to 31 insect species.


1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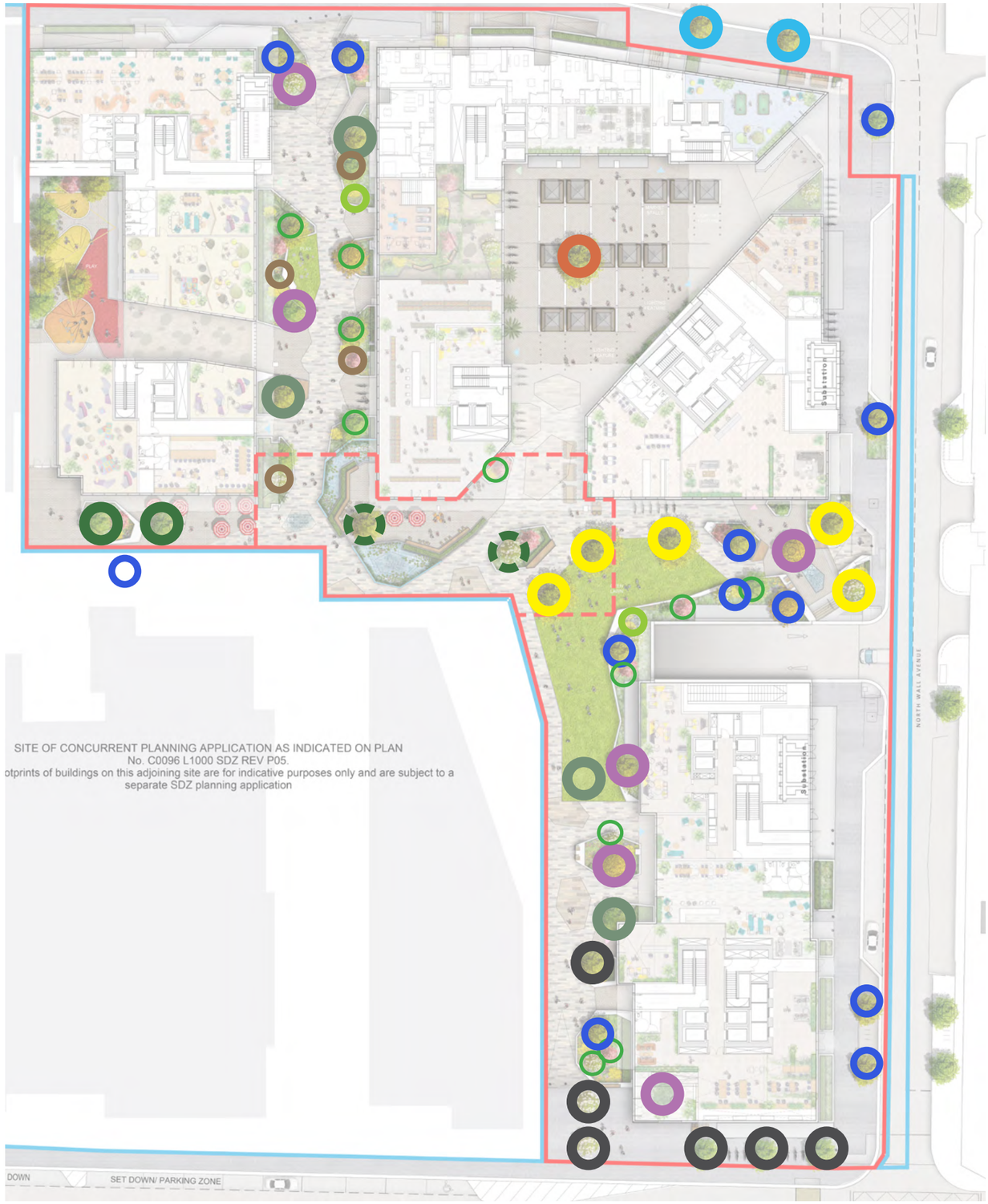

**5 Hazel**, *Corylus avellana.*
Classed as a tree or shrub, regular coppicing will keep the tree quite short. Nuts and leaves provide a great deal of food for birds and mammals, including the now rare dormouse.

**6 Honey Locust,** *Gleditsia triacanthos var. Inermis 'Shademaster'*
A wonderful tree without thorns and elegant trunk. Its also flowers supporting local bees and produces a pod which local birds feed apon. These trees are also ideal for roosting.

**7 Poplar**, *Populus alba*
Hardy, pale, magical tree. It supports early pollinators and is an excellent coastal windbreaker, tolerating salty winds and exposure.

**8 Scots Pine**, *Pinus sylvestris.*
This species of tree can provide home for more than 200 species of associated insects. Unique form and evergreen value are ideal for a feature tree. Long lived.

**9 Norway Maple**, *Acer platanoides.*
A number of moth caterpillars feed on the leaves, and the flowers provide nectar and pollen for bees and other insects. Birds and small mammals eat the seeds.


3


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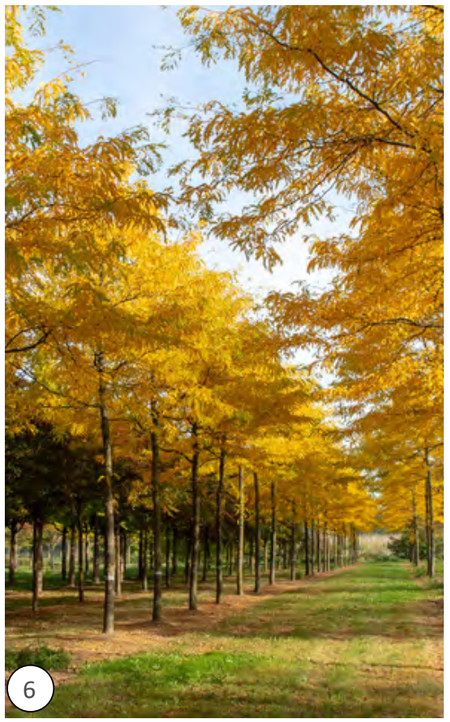
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9

# SOFT LANDSCAPE STRATEGY

## TREE PLANTING

Small multi-stem trees, with 2-2.5m clear stem











### *CORYLUS AVELLANA* - HAZEL

Hazel is a large, spreading deciduous shrub or small tree, with rounded leaves turning yellow in autumn, and yellow male catkins in early spring, followed by edible nuts in autumn
Ultimate height:  4-6m
Ultimate spread: 4-8m
Time to ultimate height: 10-15 years

### *CORNUS MAS* - DOGWOOD

Dogwood is a large deciduous shrub that produces lots of shiny red berries, this fruit has long been used as a food crop as well as been loved by birds.
Cornus mas has soft foliage with small, bright yellow flowers in early Spring that are followed by fleshy, bright red, cherry-like fruits in late Summer. Attractive bark on older plants.
Ultimate height: 4-5m
Ultimate spread: 3-4m
Time to ultimate height: 10-15 years

### *ACER CAMPESTRE* - FIELD MAPLE

Field maple is a medium-sized deciduous tree with a compact bushy crown. Leaves with 5 blunt lobes, turning yellow or red in the autumn. Flowers small, green, forming typical winged maple fruits
Ultimate height: more than 10-20m
Ultimate spread: 4-8m
Time to ultimate height: 10-20 years

# SOFT LANDSCAPE STRATEGY

## TREE PLANTING

Mature clear stem trees, with 2.5m clear stem

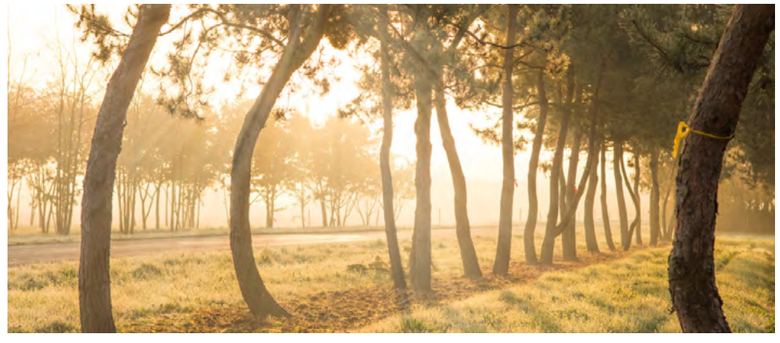












### *PLATANUS × ACERIFOLIA*, THE LONDON PLANE

London plane produces green, spiky fruits, which develop in clusters. Its leaves are similar to that of the sycamore. They are leathery and thick, with five triangular lobes.
Ultimate height: 30m
Ultimate spread: 8m
Time to ultimate height: 20-50 years

### *ACER RUBRUM* - RED MAPLE

Red maple is a round-headed tree growing up to 30m tall. In spring, tiny red flowers are borne in erect clusters before the appearance of dark green leaves with whitish undersides. The leaves turn bright red in autumn.
Ultimate height: more than 12m
Ultimate spread: 8m
Time to ultimate height: 20-50 years

### *PINUS SYLVESTRIS* - SCOTS PINE

Slow-growing tree that remains narrow when young but later grows asymmetrical and broad. The crown is semi-closed and more irregular than the species, and the lower branches, which are often shorter, hang down slightly. The trunk is purplish grey and smooth, but darker and peeling later.
Ultimate height: 6-12m
Ultimate spread: 3-4m
Time to ultimate height: 20-50 years

# SOFT LANDSCAPE STRATEGY

## HERBACEOUS PLANTING

### PERENNIAL MIX D






1. *Erytronium 'Pagoda'*
2. *Euphorbia am.var. robbiae*
3. *Dryopteris erythtiosa*
4. *Helleborus x hybridus ‘Harvington Apricot’*
5. *Liriope muscari 'Monroe White'*

### PERENNIAL MIX E






1. *Hyacinthoides non-cryspa*
2. *Carex 'Ice Dance'*
3. *Astrantia major 'Claret'*
4. *Luzula nivea*
5. *Liriope muscari*

### PERENNIAL MIX F





1. *Alchemilla mollis & Polystichum polyblepharum*
2. *Carex 'Ice Dance'*
3. *Epimedium x warleyense 'Orangekonigin*
4. *Geranium macrorrhizum 'White Ness'*
5. *Liriope muscari 'Monroe White'*

# SOFT LANDSCAPE STRATEGY

## SHRUB AND HEDGE PLANTING

### SHRUB PLANTING


1


2


3


2


4


7


5


6

1. *Aucuba japonica ‘Rozannie’*
2. *Chaenomeles japonica sp.*
3. *Cornus stolonifera*
4. *Cornus sericea ‘Kelsey’*
5. *Prunus laurocerasus sp.*
6. *Perovskia atriplicifolia*
7. *Cornus ‘Winter Flame’*

### HEDGE PLANTING


1


2


3

1. *Crataegus monogyna - Hawthorn*
2. *Carpinus betulus - Hornbeam*
3. *Grisellinia litoralis - Broadleaf*

# UPPER FLOORS & TERRACES

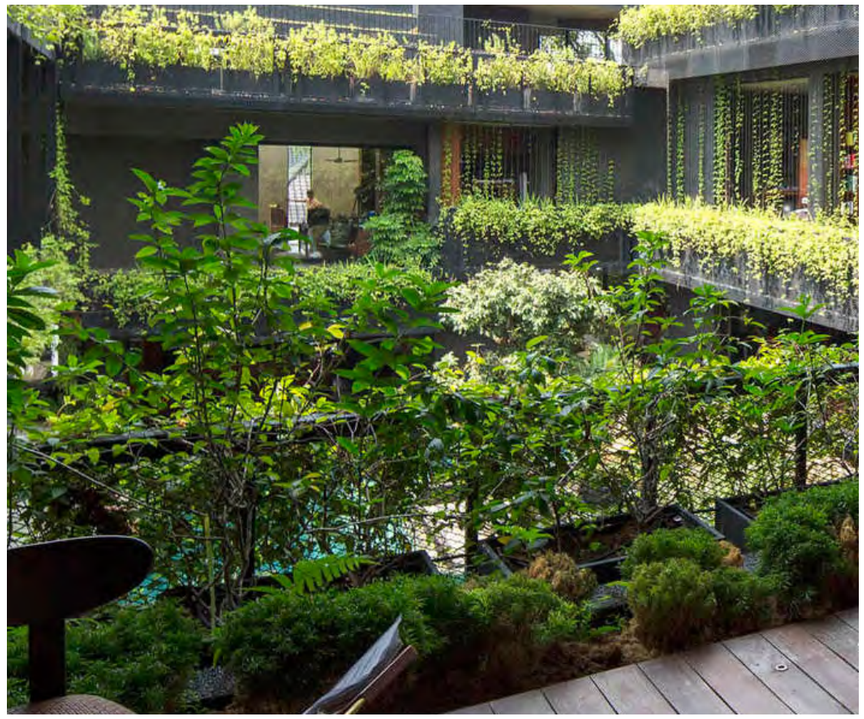
# INTERNAL AMENITY SPACE

## RESIDENTS AMENITY - LEVEL 5 BUILDING A

Within the building itself, semi-internal green amenity spaces will be created. These spaces will be specifically designed for the residents only.

It's hoped that these communal spaces will again allow the residents to socialise with each other and start the process for creating a community. The proposals will entail lush green planting set within areas which are both active and passive.

From the external elevations, these gardens will again create a unique break in the building facade and also help advertise the vision of living with nature.

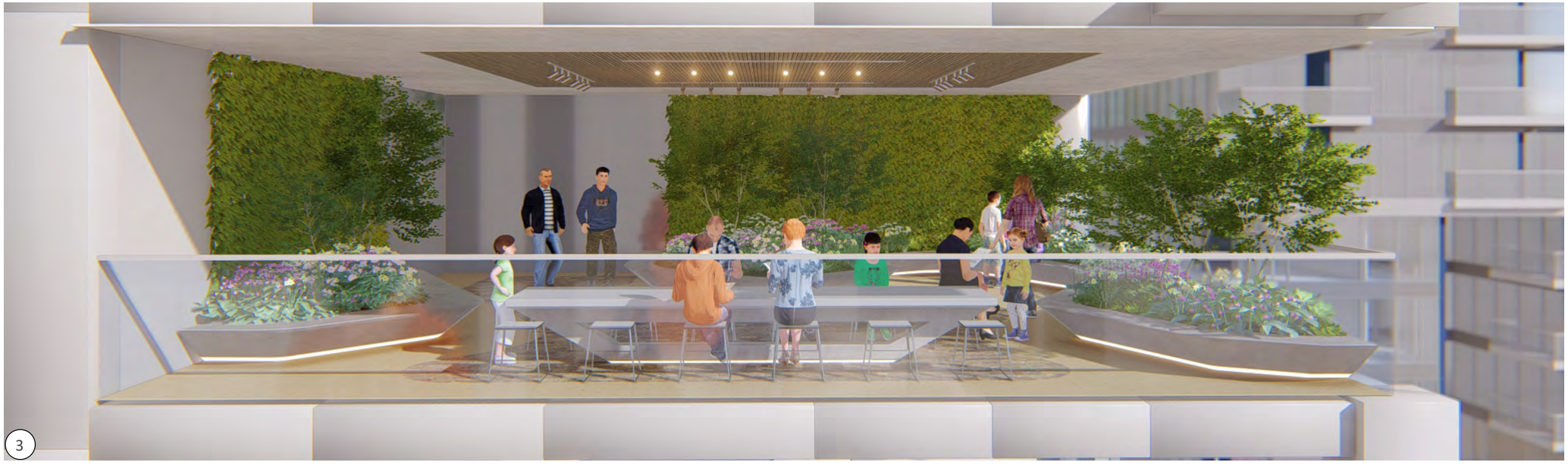



# INTERNAL AMENITY SPACE

## PERSONAL SPACE


1


2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# RESIDENTIAL ALLOTMENTS

## RESIDENTIAL GROWTH - LEVEL 8 & 11 BUILDINGS A & B

Within the overall residential amenity design approach, we as a team have wanted to reconnect the residents with nature and self-sustainability. From this approach residents will be encouraged to get involved with the allotments and living green walls. Any time and given for free in exchange for the maintenance, the residents will be rewarded with fresh produce. During the weekdays a schools' education programme will bring children into the scheme to learn about urban growing and sustainability.

Plants will be grown for environmental, educational, aesthetic and nutritional purposes, as well as being cultivated for sale in ground floor plant nursery and garden centre. Managed allotment gardens on the elevated terraces will provide food sources for consumption in the restaurants and in the fresh food store and outdoor market.





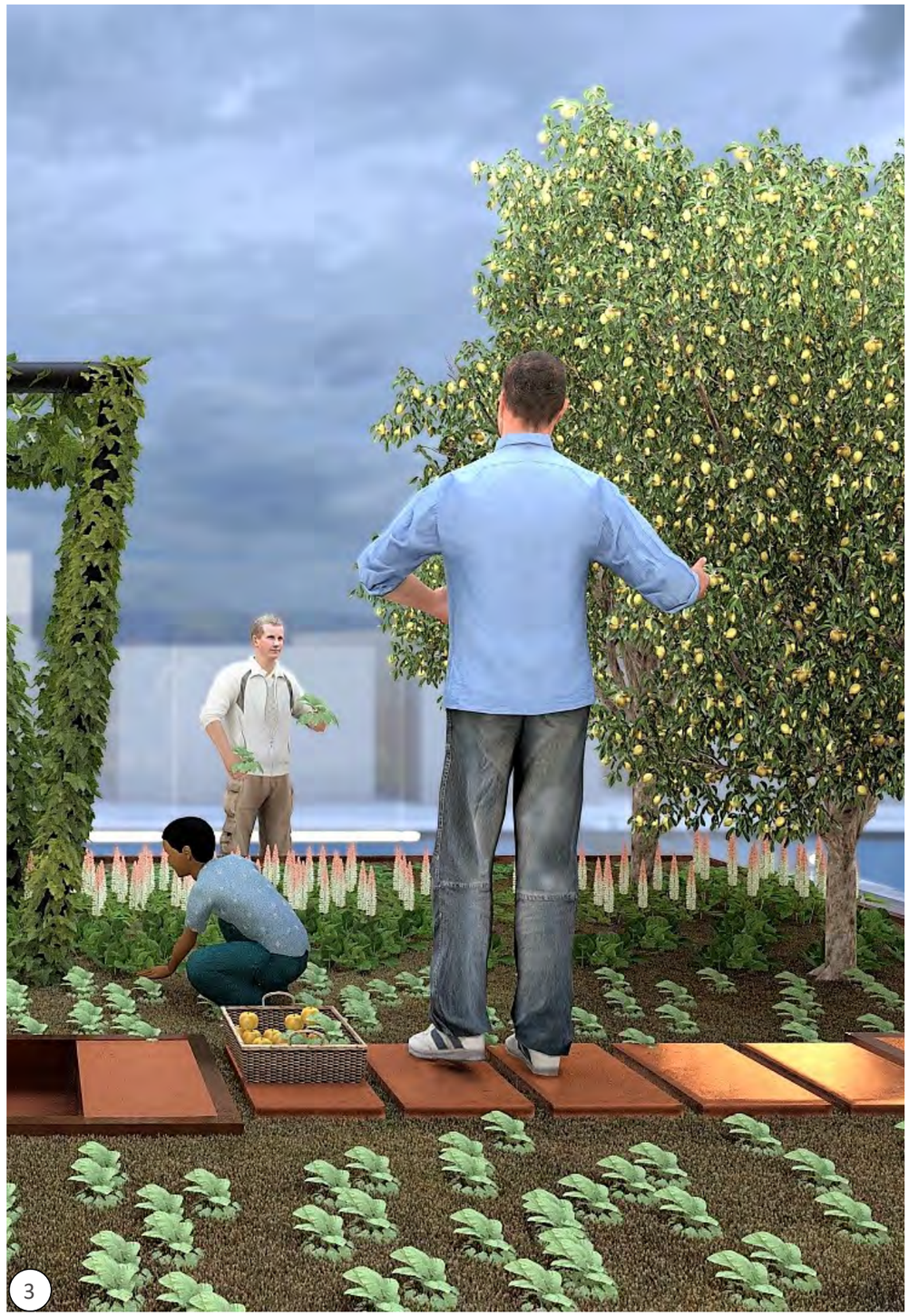

RESIDENTIAL ALLOTMENTS

| | |
|---|---|
| 8TH FLOOR BUILDING A | 200m2 |
| 8TH FLOOR BUILDING B | 470m2 |
| 11TH FLOOR BUILDING A | 130m2 |
| TOTAL | 800m2 |

As part of the landscape strategy our ambition is to create urban allotments for the residents within the development.

Our design approach is to help increase the bee population within the local area, through a balance of flowering plants and vegetables, such as courgettes, runner beans, and herb plants like lavender, rosemary, thyme and mint.

*"The planting is native and sustainable, and where possible will be productive; providing food, community resources, education opportunities and activation and placemaking, all of which will combine to form an Urban Food Network, which will be established in partnership with a suitable operator".*



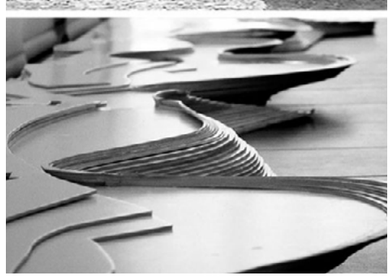
# CHARACTER AREA - BIODIVERSITY GARDEN

## 11TH FLOOR TERRACE BUILDING B

On the eleventh floor a Native Biodiversity Garden will be introduced to help educate residents on the local biodiversity and native planting within the North Docks. In addition, our use of the ANS green walling system will be applied to maximise the green impact and ecology.

This residential amenity garden is specifically designed to allow maximum exposure to nature for the residents and allow them to watch throughout the season, the wonders of nature and its local wildlife- as well as educating the residents and allowing them to develop pride in their gardens.


1

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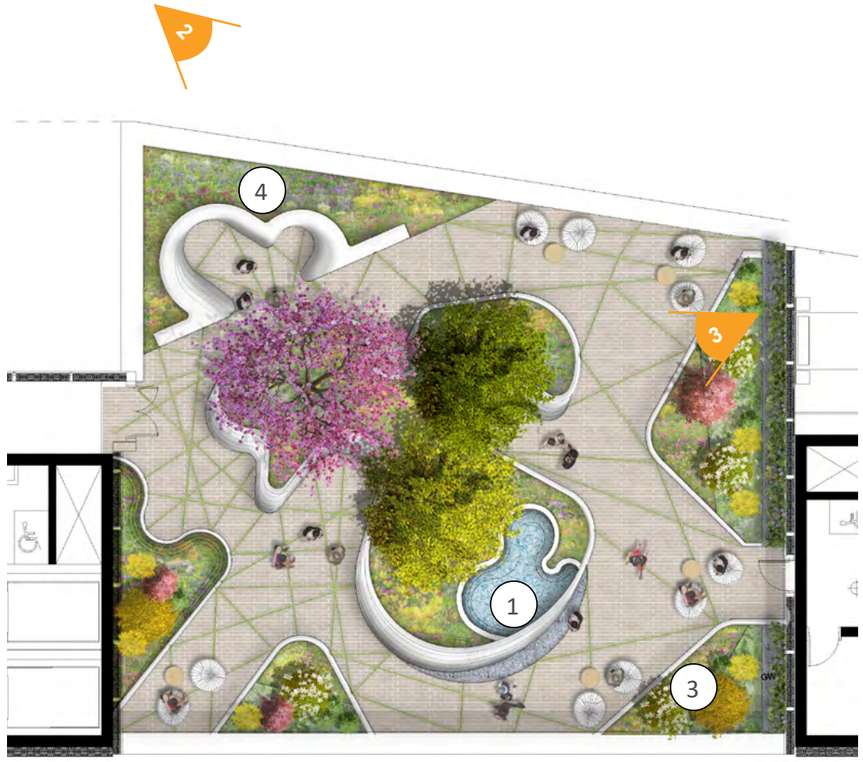



1. Rain water collection
2. Living green walls
3. Native plantain
4. Feature wall

# CHARACTER AREA - TEA GARDEN

## 11TH FLOOR  TERRACE BUILDING C

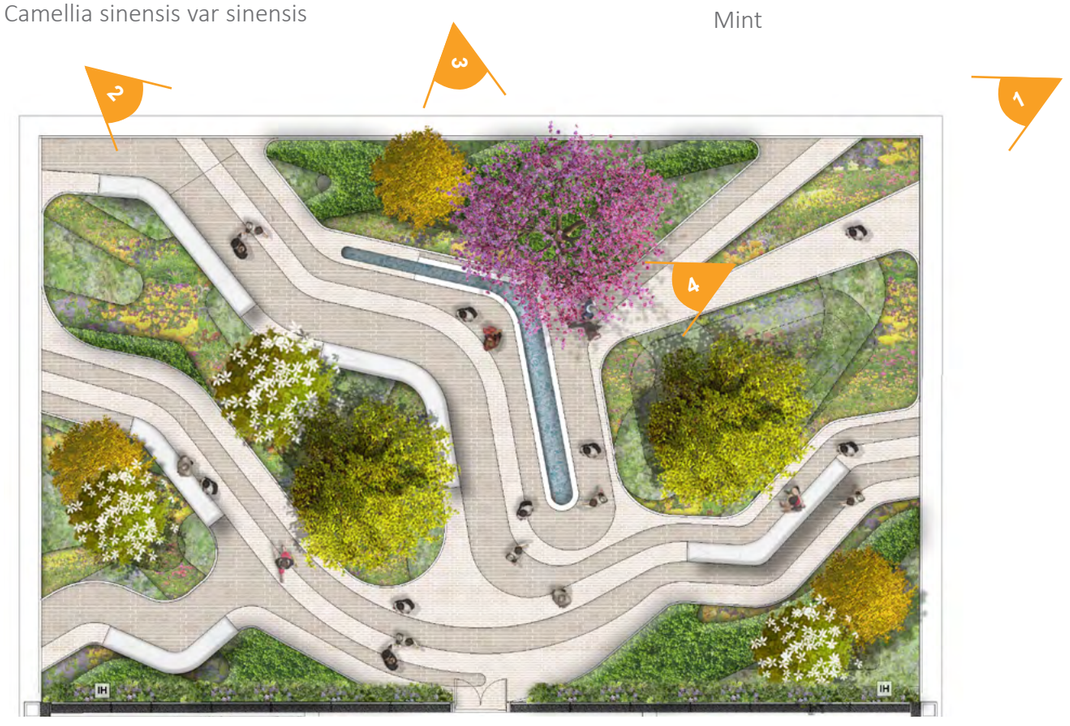
The Tea Garden is designed to create a place of calm and relaxation. The fusion-inspired space has created a unique garden of visual movement through layers of terracing and planting.

Key species such as chamomile will help residents connect with the plants and what they have been used for in the production of tea.

In addition, water collectors will be positioned so trickles of the water create a tranquil sound, while sitting under the dappled shade of the multistem native strawberry trees.

Camellia sinensis var sinensis

Mint

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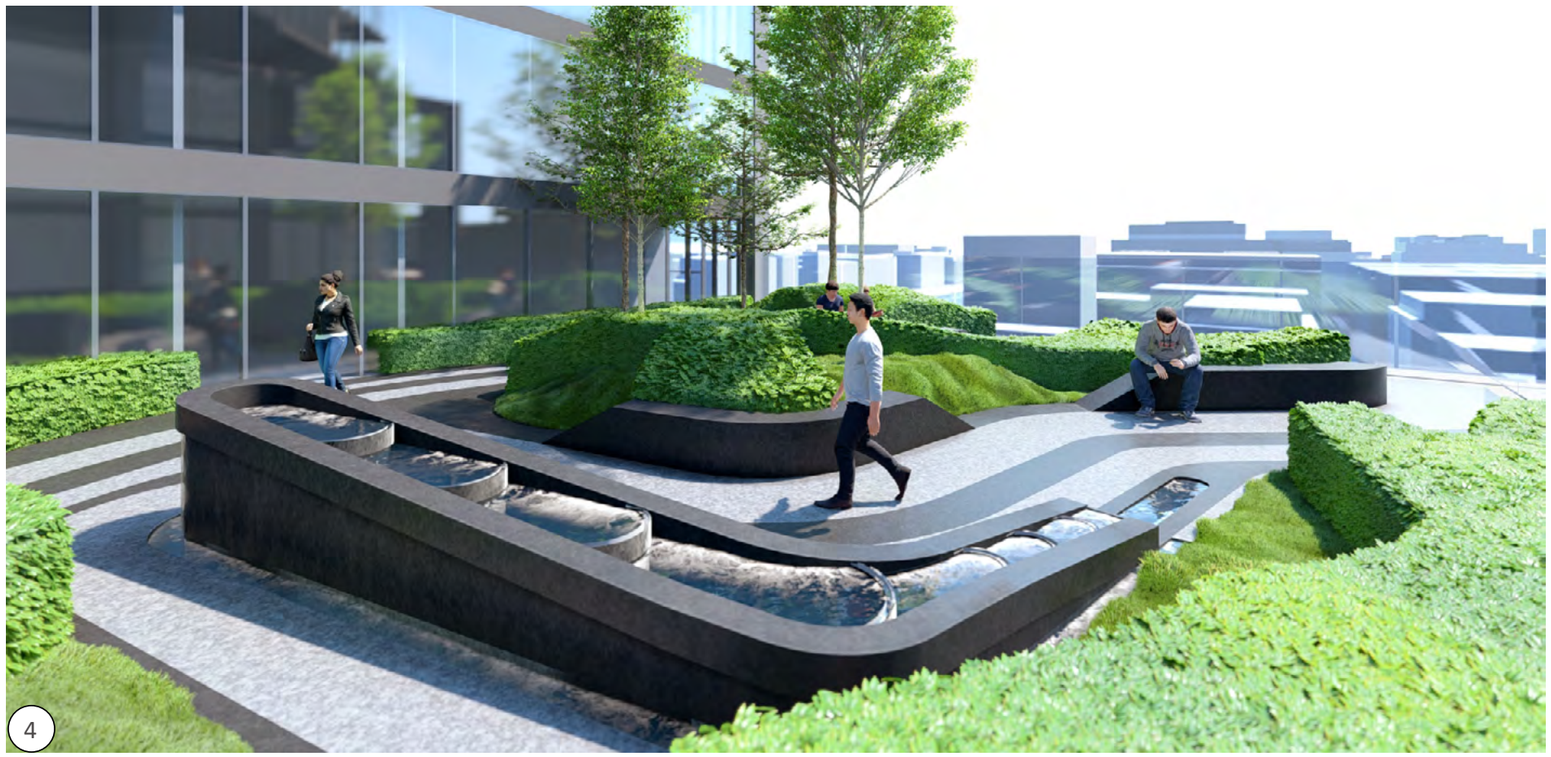


4

Rose hip buds

Chamomile buds

Angelica root

Passion flower leaves

Achillea millefolium

Lemon Balm

# CHARACTER AREA - HERB GARDEN

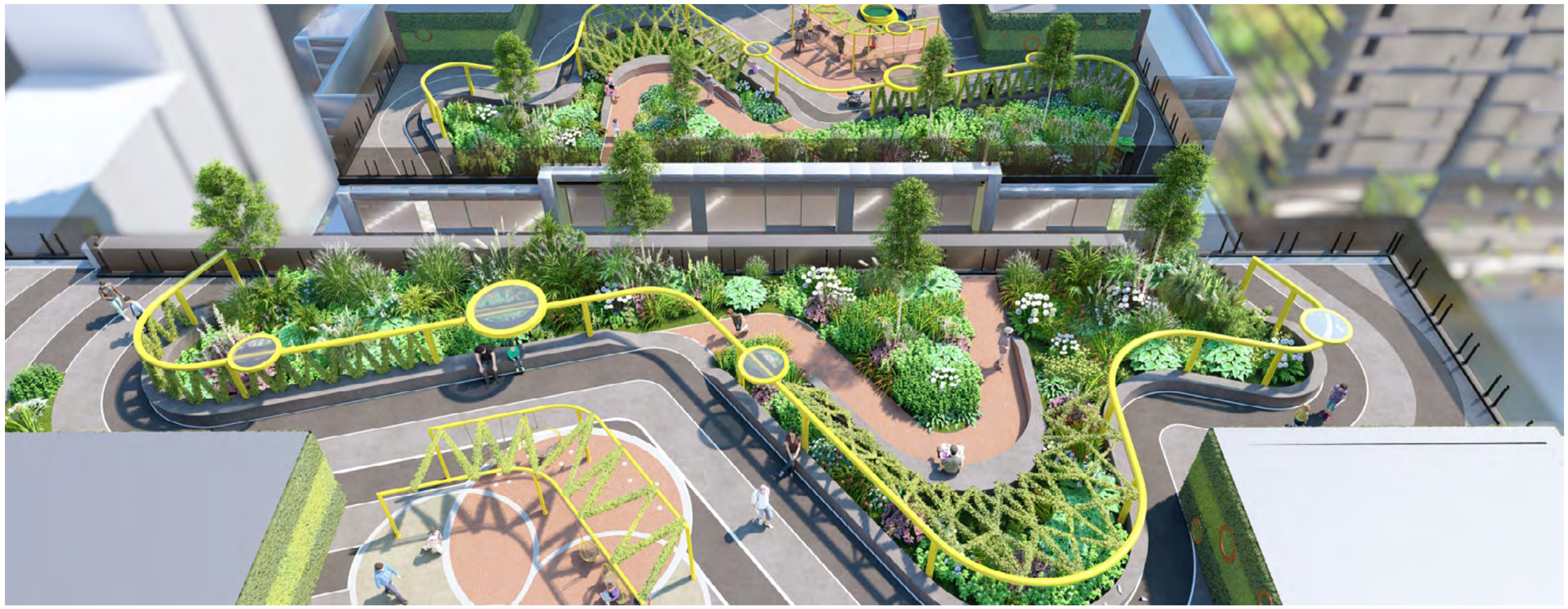
## 13TH FLOOR TERRACE BUILDING B


A small residential winter garden will be created at Level 13 of Block B. This garden is a linear design with a combined strategy of inside – outside feel. We wanted to create an ***east-facing terrace***, which will be enjoyed in the morning by the residents and allow a moment of calm before the day begins. There will be spectacular views over Point Village, 3Arena and beyond into the Docks.

Many of the plants here will be vertical in form with a ***herb-based palette*** of species for scenery interaction through sight and smell.

# CHARACTER AREA - PLAY GARDENS

## 12TH& 14TH FLOOR TERRACE BUILDINGS A & B



*"A place for Healthy Living for all ages and all abilities".*

The twelfth floor design of Block B has been visually incorporated into the thirteenth floor of Block A. The ideology is to create one large design, which expands over two rooftops. This design will be viewed by the residents in the two towers of Blocks B and C.

Our ambition is to create two rooftops, which are ***dedicated to play spaces***. Within these spaces a range of facilities of various age group equipment will be installed. These designated areas of play will also increase the amount of smaller areas of play within the public realm through 'play-on-the-way' design.

The Thirteenth Floor of Block A, once again, opens up onto a designated play area. These play areas will require shading and wind breaks. This will be achieved through vertical green wire screens and horizontal structures, all aimed to create a three dimensional landscape with areas for play and fun.

Sculptural play elements

Wind and shade shelter

Creative play

## PLAY TERRACE BUILDING A


1. Play equipment
2. Rain water collector
3. play frame
4. Native planting
5. Open kick about area
6. Living green wall

## PLAY TERRACE BUILDING B


# CHARACTER AREA - FITNESS GARDEN

## 14TH FLOOR TERRACE BUILDING B

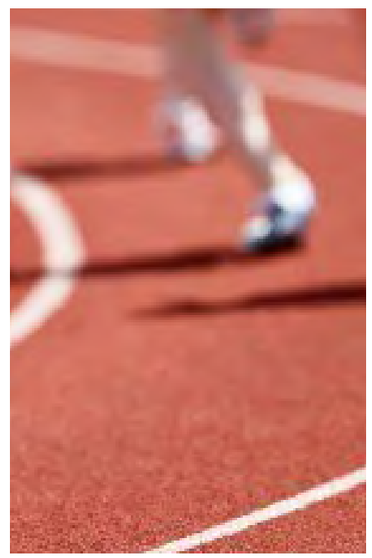
The fourteenth floor residential terrace has been targeted towards fitness and wellbeing. This area boasts an ***impressive running track***, with multi-purpose external gym equipment along the route.

This running track will be designed within a lush green planting pallet of native species. These new plants will also be specifically chosen to show seasonal changes and help mitigate wind exposure.

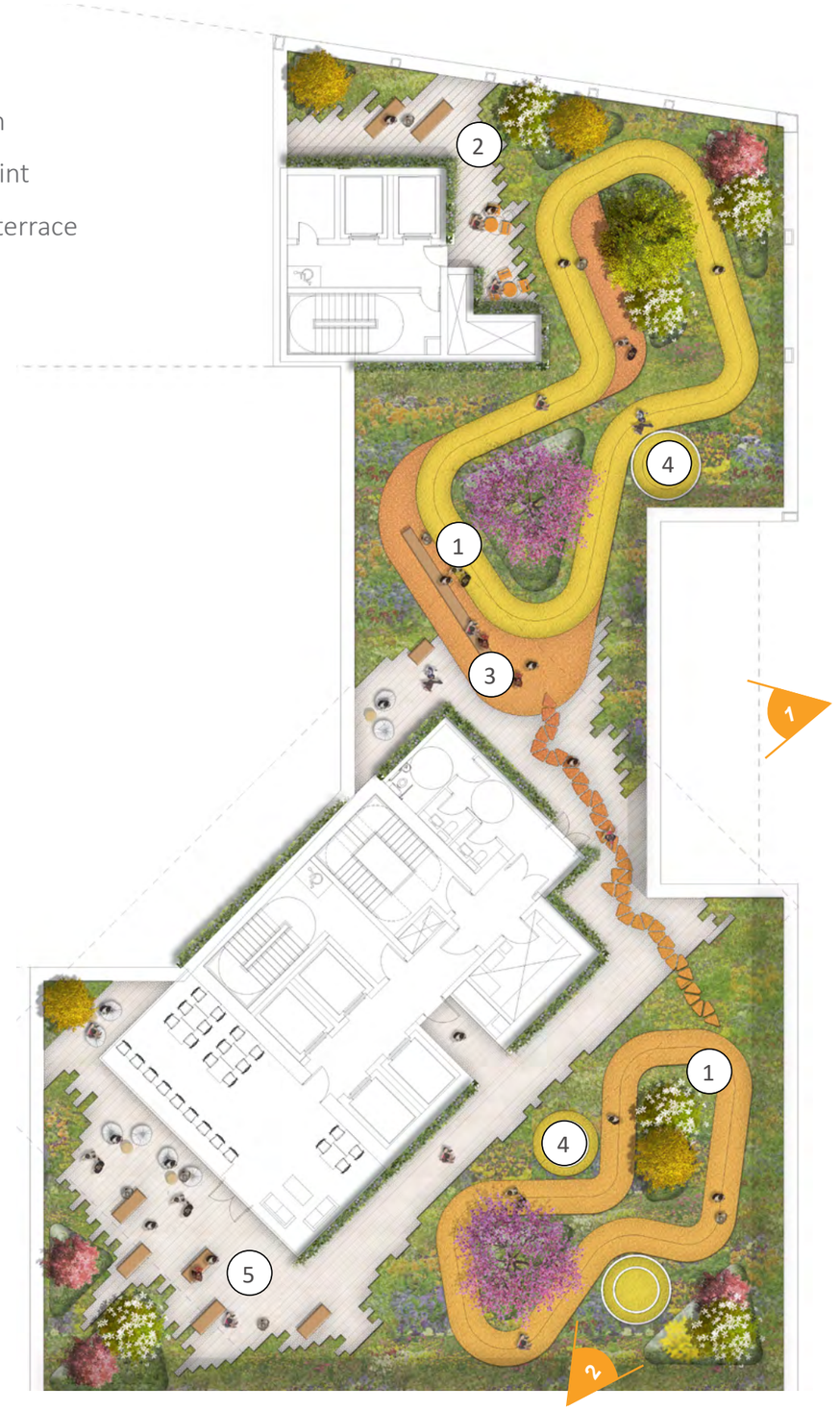
External gym

Climbing wall

Stepping logs


1. Jogging track
2. Yoga terrace
3. Stretch out bench
4. Gym work out point
5. Resident's social terrace



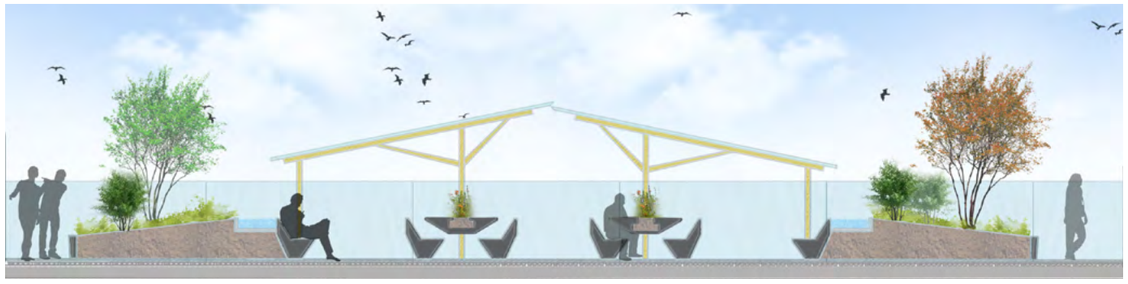
# CHARACTER AREA - DINING TERRACE

## 24TH FLOOR BUILDING C

Within Block C, the design has created a unique dining experience. This private terrace is an external area which has a semi-covered canopy structure. The main objective of the canopy is to capture rainwater and activate the rain gardens on either side of the structure, during rainy periods.



1

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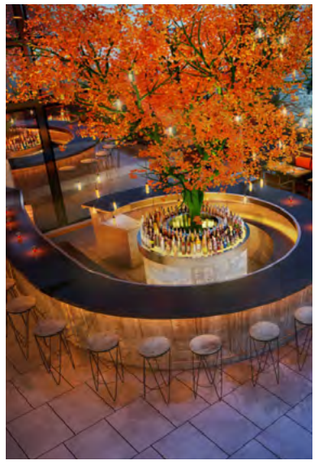


Canopy structure to protect and catch rainwater.

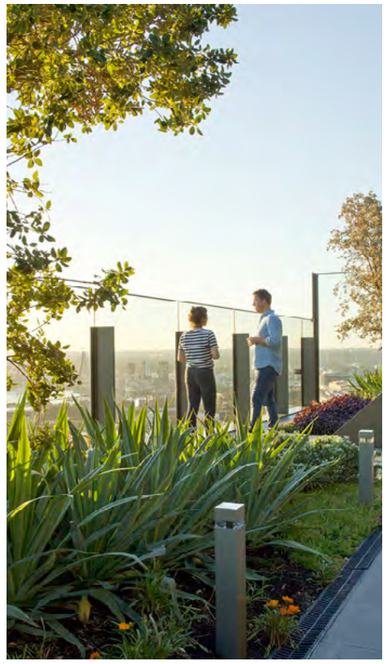
3

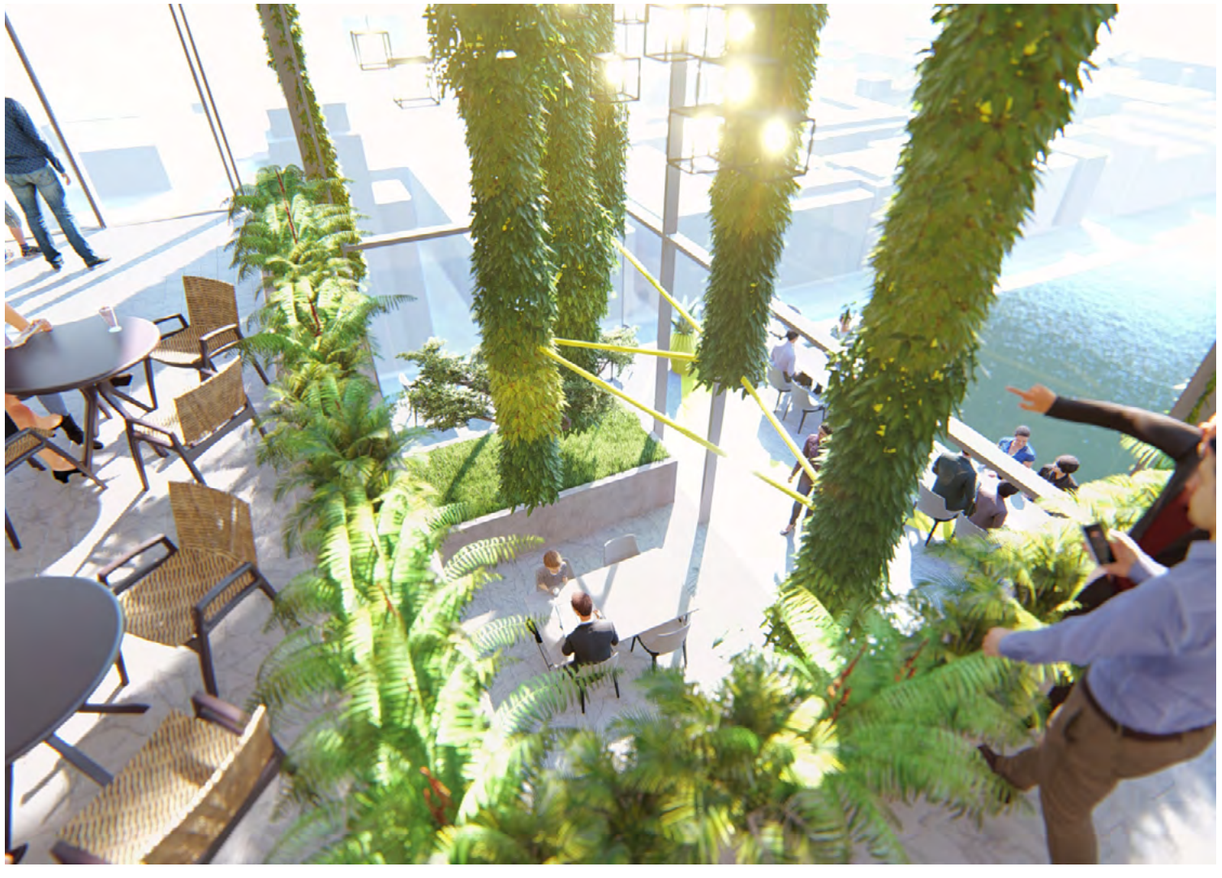
# CHARACTER AREA - RESTAURANT

## 32ND FLOOR, BLOCK C

The sky restaurant and garden is about more than just a view. The external terrace will be designed to create an internal / external landscape experience, aling with the spectacular views over the city.

The restaurant is accessible by the public, residents and workers, who will be able to book for both family events and corporate events if required. This restaurant is in a landmark location within the city of Dublin. Sunrise breakfast, live music events & more.



# CHARACTER AREA - PRIVATE TERRACE

## 41ST FLOOR BUILDING B

Within Block C, the design has created a unique dining experience.

This private terrace is an external area which has a semi-covered canopy structure. The main objective of the canopy is to capture rainwater and activate the rain gardens on either side of the structure, during rainy periods.

# CHARACTER AREA - PANORAMIC TERRACE

## 45TH FLOOR BUILDING C

On the top floor of Block C Tower, a 360 degree panoramic viewing garden is to be designed with spectacular views over the City and beyond, towards the Wicklow Mountains and Dublin Bay.

The views from this terrace will be the most exciting found in the City of Dublin; due to the prime location facing east, towards the historical Georgian Quarter and west towards The Harbour and Irish sea beyond.

# LIGHTING STRATEGY

## TERRACES

The adjacent diagram illustrates the design approach to the lighting strategy for the private terraces, which will be developed in detail by a specialist lighting consultant. The lighting levels will be calculated and final light fittings will be chosen to work both aesthetically and provide the correct illumination.

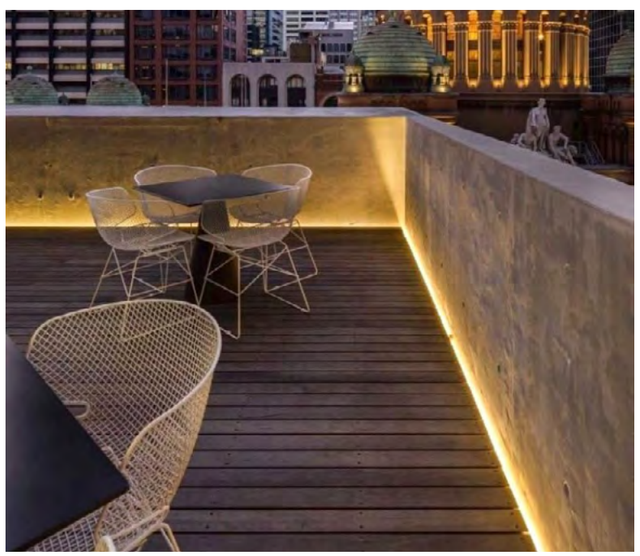
The lighting strategy is envisioned to be detailed in such a way to create mood lighting throughout the terraces. Places which create a unique space during the night time hours.

The staircases will need to be lit by built in handrail lighting to provide the necessary lighting levels to meet the requirements of the Building Regulation Part M.

The adjacent images show the potential lighting styles and are for illustrative purposes only.

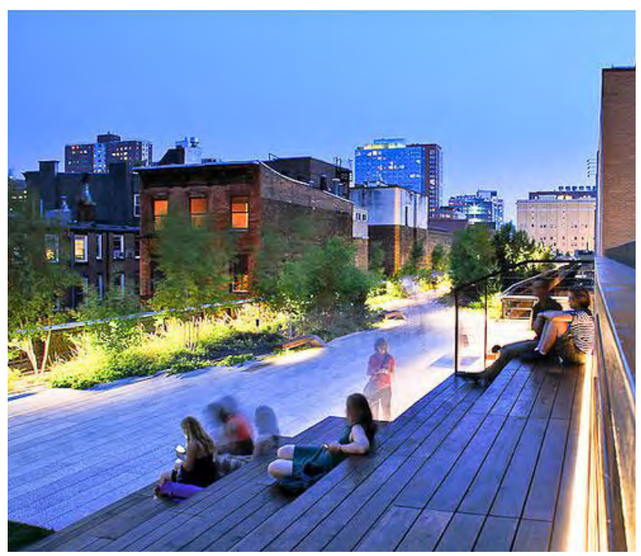
# LIGHTING STRATEGY

A simple and coherent lighting strategy will be reviewed as part of the design process for all rooftop terraces and amenity spaces.



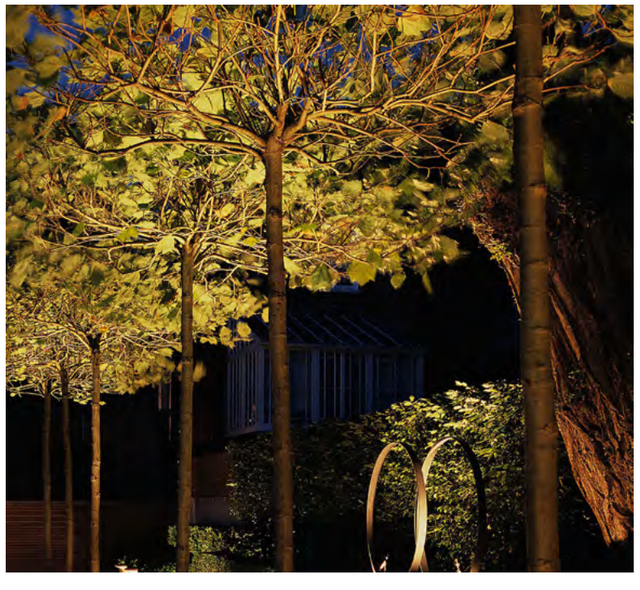
Back lighting to the planting will create a wash lighting effect.

Key elements such as the sun decks, will have integrated lighting.



Subtle mood lighting and feature external lighting will be designed into all external amenity areas, helping to promote night-time socialising from the residents

Focal lighting, such as spot lights, will be used to highlight specific trees and plants at night.



The biodiversity green wall will only have washed light to the base, this will allow any roosting birds the correct lighting level for resting times.

## PAVING AND EDGING STRATEGY - TERRACES

The hard landscape elements will be carefully selected to enhance the space.

High quality elements will help to create a positive, inclusive and inspiring environment, where people feel comfortable to walk through, sit / contemplate and enjoy the landscape setting.

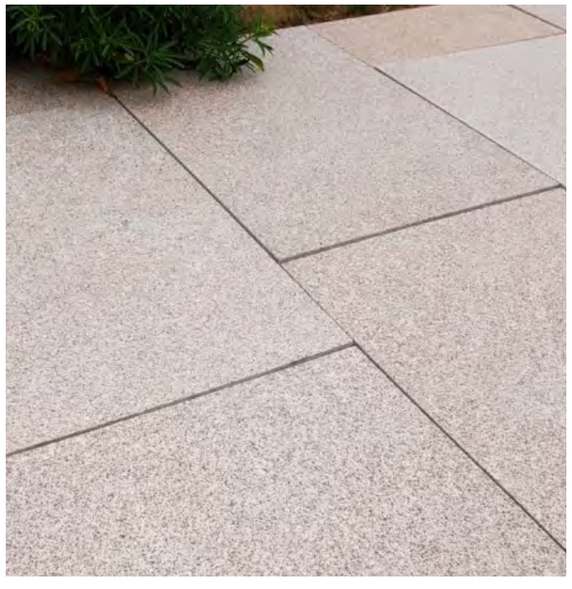
For the location of the paving and edge types refer to C0096 L101 Ground Floor General Arrangement Plan.

Paving Type 21: Buff Coloured Granite Slabs
Size: 100x200, 200x400,400x600, depth 50mm.
Colour: 3 shades of light buff.
Supplier: Stonepave or Similar Approved

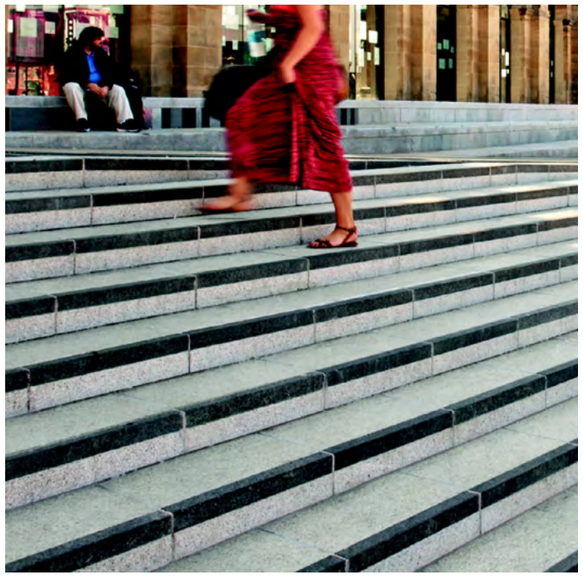
Paving Type 23: Wet Pour Safety Surface
Colour: 4 shades of yellow and orange.
Supplier: Soft Surfaces or Similar Approved

Paving Type 20: Buff Coloured Granite Setts
Size: 100x200, depth 50mm.
Colour: 3 shades of light buff.
Supplier: Stonepave or Similar Approved

Paving Type 22: Buff Coloured Granite Slabs
Size: 600x600mm, depth 50mm.
Colour: 3 shades of light buff.
Supplier: Stonepave or Similar Approved



Step Type 1: Granite Steps
Colour: To match PT1. Finish: Sand blasted. Stack bond.
Supplier: Stonepave or Similar Approved



Paving Type 8: Buff Coloured Granite Setts
Size/Colour 100x200, depth 80mm / to meet DCC standards.
Supplier: Stonepave or Similar Approved

Furniture Type 3: Seats & Benches on Top of Wall
Solid composite deck board
Size/Colour: Plain deck, 21x146 mm, 6m / Grey-brown.

Edge Type 4:  Powder coated metal planter edge
Height: varies, depends on location.
Supplier: TBC

Edge Type 2: High Performance Concrete Edges and Walls
Height: various. Colour: White with etched surface.
Supplier: Cassidy Brothers or Similar Approved

Furniture Type 4:  Handrail
Supplier: OMOS or Similar Approved
Size:⍰50mm, Material: Stainless Steel. Finish: Brushed.

Furniture Type 11:
Proposed powder coated galvanized pergola structure

Water Feature
Bespoke water feature with to be developed with water feature specialist.

# SOFT LANDSCAPE STRATEGY

## PLANTING TYPES TERRACES

A multi-stem tree: has multiple stems, branching from the ground. The cloud-like canopy starts around 1.5-2m above ground. These type of trees were used to achieve privacy and help separate the residential and retail areas. They also help mark the key locations in the landscape, such as entrances and access points.

The required height of the multi-stem trees is: 3-3.5m.

Herbaceous planting has no persistent woody stems above ground. These plants grow fast and produce flowers and many seeds in a short period of time. They have an important role in the biodiversity, because they can provide habitat and food for wildlife.

The height of the proposed herbaceous planting is apx. 0.3- 1.3m.

Ground covers provide protection of the topsoil from erosion and drought. In an ecosystem, the ground covers form the layer of vegetation below the shrub/herbaceous layer.

The height of the proposed perennial planting is aprox. 0.1- 0.3m.

The shrub palette are used as separation between the different functions in the urban realm. In addition they have an important role in the biodiversity, because they can provide habitat and food for wildlife.

The required height for the proposed shrubs is: 0.8- 1.5m.

Clipped shrubs are used to give privacy and help separate the areas.

The required height for the proposed hedges is: 1- 1.5m.

## TREE TYPOLOGIES & SIZES

To help communicate the type of trees proposed in the scheme this section sets out examples of the stock sizes currently proposed. The final sizes and specification subject to detail design post planning.

It is important to note the height and root ball sizes of proposed single stem trees varies according to the girth and species selection. The dimensions given are a rough guide only.

1. Girth 16-18cm.
   Root ball size approx 50cm diameter x 50cm deep.
   Heights vary- approx 4.0-5.0m.

2 Girth: 20-25 cm.
   Root ball size approx 80 cm diameter x 50 cm deep.
   Height of plant: approx 5.0-6.0m.


1


2

# SOFT LANDSCAPE STRATEGY

## TREE PLANTING

The strategy for the tree planting is to create a visual interest and important screening. The species have been chosen to create all year round interest, with some evergreen trees located throughout the space.

Trees are a key part of the green infrastructure in any scheme. This is because trees and woodlands bring ecological value to an area, and benefits to residents, such as improved well-being, air quality and seasonal interest.

The tree planting strategy aims to position the right tree in the right place, with an emphasis on stock quality over quantity.

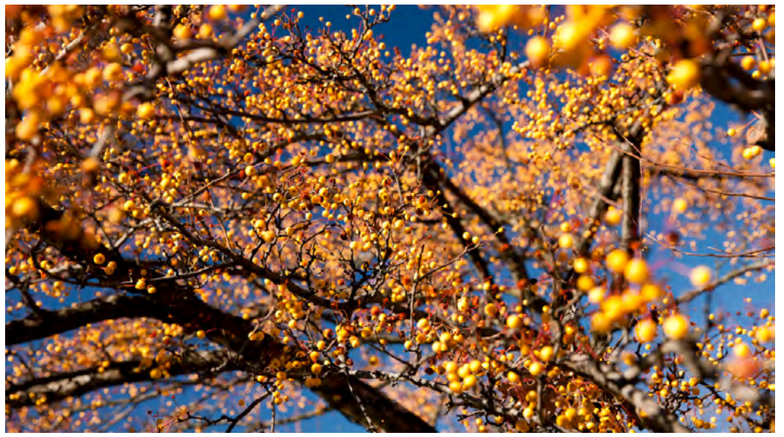
The planting of trees can provide a number of social, environmental and economic benefits. A summary of the key benefits achieved by tree planting are given below:

- Physiological and psychological health improvements.
- Urban cooling – reduction of  the urban heat island effect
- Maintenance and enhancement of biodiversity
- Influential in developing a sense of place and unique site character

The adjacent diagram illustrates the tree positions and identifies the different species proposed. The chosen species consist of a mix of small multi-stem trees and clear stem specimens.

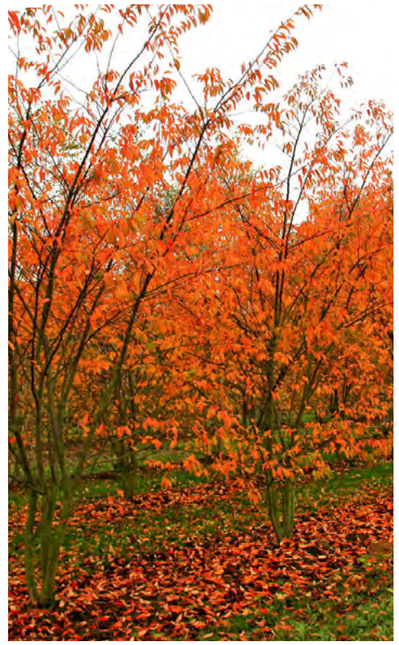
All trees chosen are suitable for podium level tree installation above the basement car parking below.

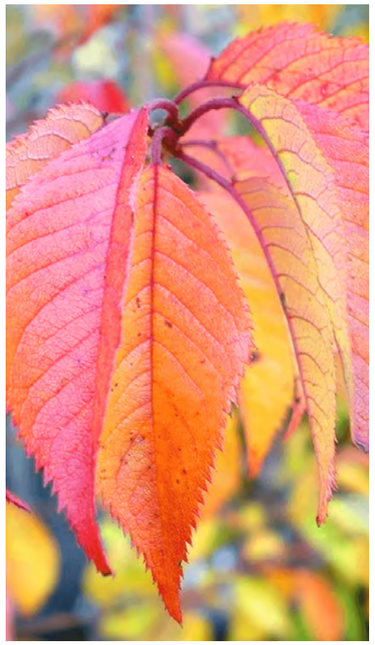
Small multi-stem trees, with 2-2.5m clear stem



*MALUS* - ‘WINTER GOLD’

‘Winter Gold’ is a small, round-headed, deciduous tree to 6m tall with ovate, glossy, dark green leaves that turn yellow in autumn. White flowers emerge from pink buds in late spring and early summer and are followed by clear yellow fruits that are carried into winter.
Ultimate height: 5-6 meters
Ultimate spread: 4-8 meters
Time to ultimate height: 10-20 years









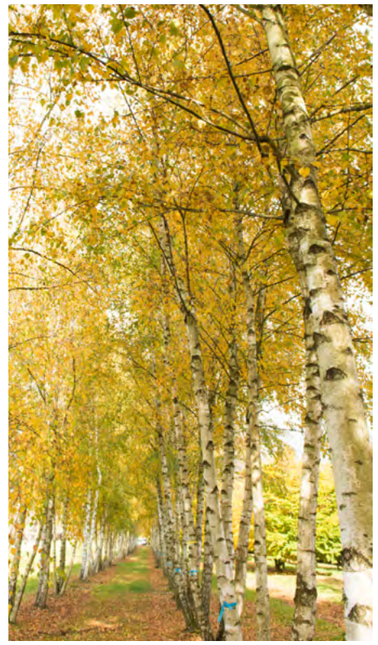
*PRUNUS X SUBHIRTELLA* - ‘ AUTUMNALIS ROSEA’

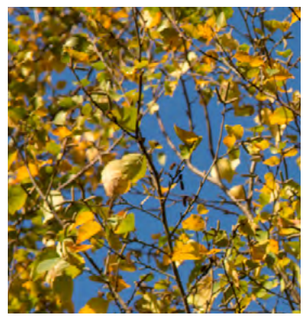
‘Autumnalis Rosea’ is a small deciduous tree of spreading habit with ovate leaves turning yellow in autumn, and pale pink, semi-double flowers opening during mild weather from late autumn to early spring
Ultimate height: 5-6 meters
Ultimate spread: 4 meters
Time to ultimate height: 10-20 years

# SOFT LANDSCAPE STRATEGY

## TREE PLANTING

Small multi-stem trees, with 2-2.5m clear stem





### *AMELANCHIER LAMARCKII* - JUNE BERRY

June berry is a large erect deciduous shrub or small tree of open habit, with bronze-tinged young leaves turning orange and red in autumn. White flowers in short lax racemes as the leaves unfurl. Fruit a red to dark purple-black berry, soon eaten by birds.
Ultimate height: 8-12 meters
Ultimate spread: 4-8 meters
Time to ultimate height: 10-20 years

### *BETULA PUBESCENS* - DOWNY BIRCH

Downy birch is an elegant medium-sized deciduous tree with slender drooping twigs. Bark white, becoming black and rugged at base. Leaves ovate, yellow in autumn. Flowers in catkins
Ultimate height: 12 meters
Ultimate spread: 8 meters
Time to ultimate height: 10-20 years

### *ACER GRISEUM* - PAPERBARK MAPLE

Paperbark maple is a small spreading deciduous tree with attractive peeling, papery chestnut-brown bark. Leaves with 3 leaflets, downy and whitish beneath, turning brilliant red and orange in autumn. Flowers are small.
Ultimate height: 8-12 meters
Ultimate spread: 4-8 meters
Time to ultimate height: 20-50 years

# SOFT LANDSCAPE STRATEGY

## ORNAMENTAL PLANTING

Planting is an important consideration as it softens built form, humanises space, mitigates the micro-climate and provides a seasonal sense of place. The planting scheme has been developed based on the following considerations:

- Suitability of form and the eventual scale of planting in relation to the space and elevation.

- The use of tree, shrub and perennial planting to enhance the design by responding to the articulation of space in opening vistas, defining and hiding views.

- Planting to be appropriate to setting, not posing threat or nuisance, for example; through the specification of clear stem trees adjacent to public routes.

- Species selection to elevate local biodiversity levels.

# SOFT LANDSCAPE STRATEGY

## HERBACEOUS PLANTING

### PERENNIAL MIX A






*Anemone h. var. japonica 'Splendens'*

*Perovskia atriplicifolia*

*Penstemon 'Rich Ruby'*

*Echinacea purpurea*

*Sanguisorba Tanna*

*Salvia 'Caradonna'*

### PERENNIAL MIX B






*Alchemilla mollis*

*Geum 'Totally Tangerine'*

*Astrantia major 'White Giant'*

*Carex testacea*

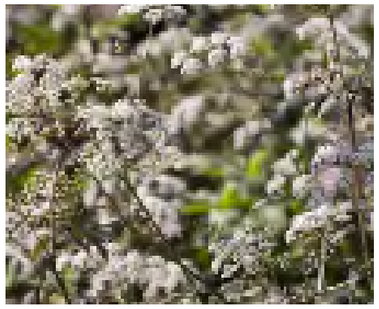
*Rudbeckia fulgida, Crocosmia*

*crocosmifolia 'George Davison'*

*Kniphofia 'Sunningdale Yellow'*

### PERENNIAL MIX C



*Anemanthele lessoniana*

*Dierama pulcherrimum 'Blackbird'*

*Lisimachia 'Atropurpurea'*

*Aquilegia 'Black Barlow'*

*Anthriscus sylvestris Ravenswing*

# SOFT LANDSCAPE STRATEGY

## HERBACEOUS PLANTING

### PERENNIAL MIX D






*Erytronium 'Pagoda'*

*Euphorbia am.var. robbiae*

*Dryopteris erythtiosa*

*Helleborus x hybridus 'Harvington Apricot'*

*Liriope muscari 'Monroe White'*

### PERENNIAL MIX E






*Hyacinthoides non-cryspa*

*Carex 'Ice Dance'*

*Astrantia major 'Claret'*

*Luzula nivea*

*Liriope muscari*

### PERENNIAL MIX F





*Alchemilla mollis & Polystichum polyblepharum*

*Carex 'Ice Dance'*

*Epimedium x warleyense 'Orangekonigin*

*Geranium macrorrhizum 'White Ness'*

*Liriope muscari 'Monroe White'*

# SOFT LANDSCAPE STRATEGY

## SHRUB AND HEDGE PLANTING

### SHRUB PLANTING



*Aucuba japonica ‘Rozannie’*

*Chaenomeles japonica sp.*

*Cornus stolonifera*

*Cornus sericea ‘Kelsey’*

*Prunus laurocerasus sp.*

*Perovskia atriplicifolia*

*Cornus ‘Winter Flame’*

### HEDGE PLANTING

*Crataegus monogyna - Hawthorn*

*Carpinus betulus - Hornbeam*

*Grisellinia litoralis - Broadleaf*

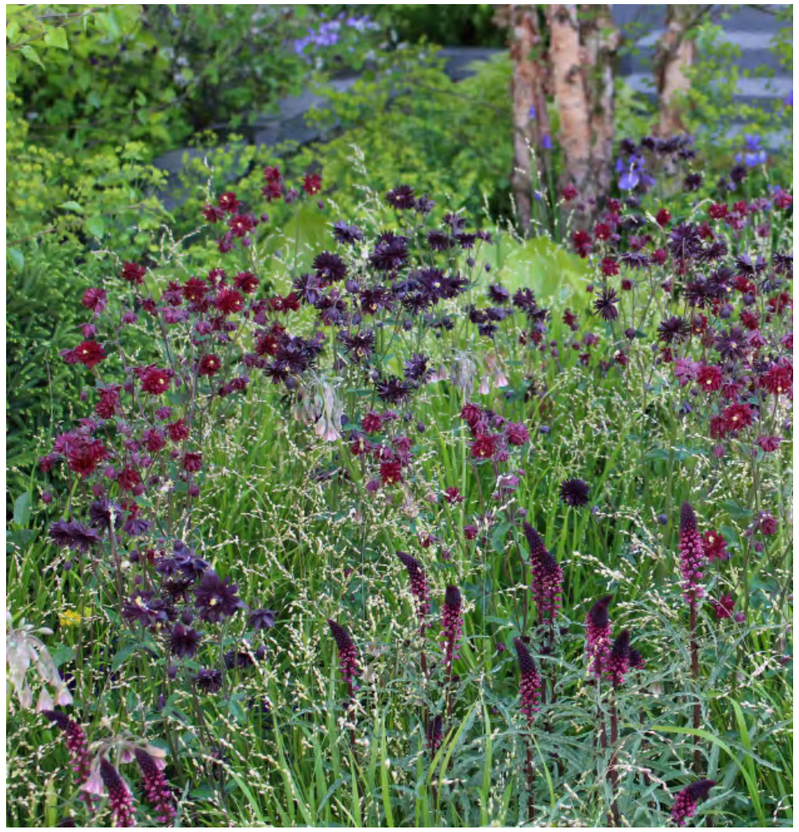
# SOFT LANDSCAPE STRATEGY

## HERBACEOUS PLANTING MOOD IMAGES

PERENNIAL MIX A


PERENNIAL MIX B

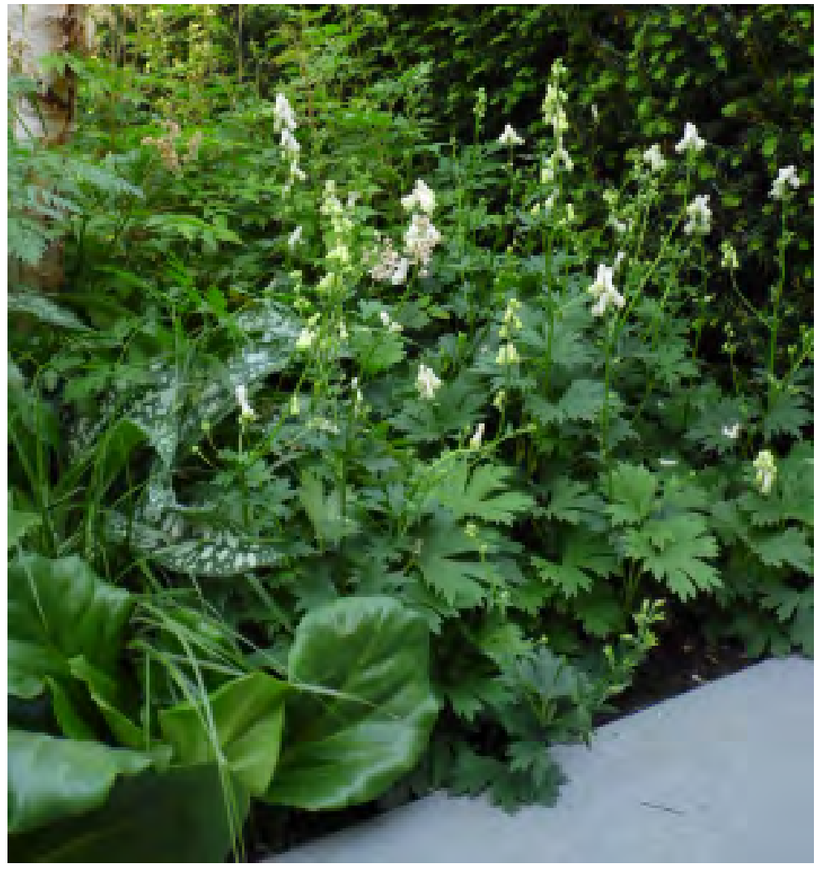
PERENNIAL MIX C



# SOFT LANDSCAPE STRATEGY

## HERBACEOUS AND SHRUB PLANTING MOOD IMAGES

### PERENNIAL MIX D, E & F WITH BIRCH TREES



# SOFT LANDSCAPE STRATEGY

## PLANTING STRATEGY - ROOF TERRACE PLANTING PALETTE

- *Carex testacea*
- *Carex ‘Ice Dance’*

- *Liriope muscari*
- *Euphorbia amygdaloides var. robbiae*

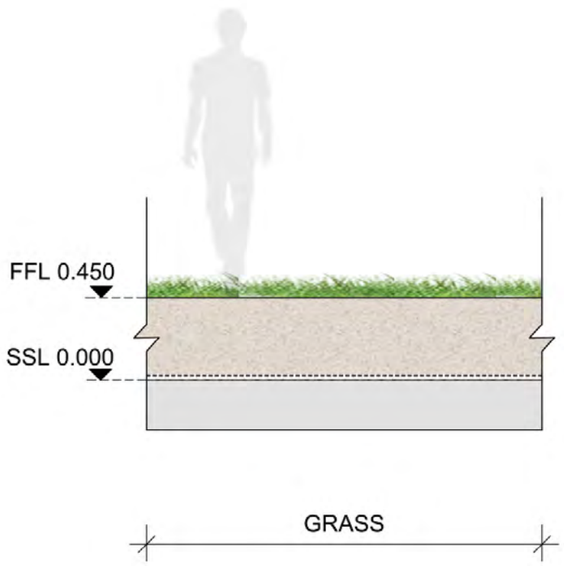
- *Euphorbia amygdaloides purpurea*
- *Pittosporum tobira ‘Nanum’*

- *Dryopteris species*
- *Geum ‘Totally Tangerine’*

## TYPICAL SOFT LANDSCAPE SECTIONS

Large areas of the rooftop gardens will be built off structural slabs. Whilst this may seem challenging to maintain a healthy and working landscape, it is perfectly possible as long as the minimum required soil depth is provided for the plants.

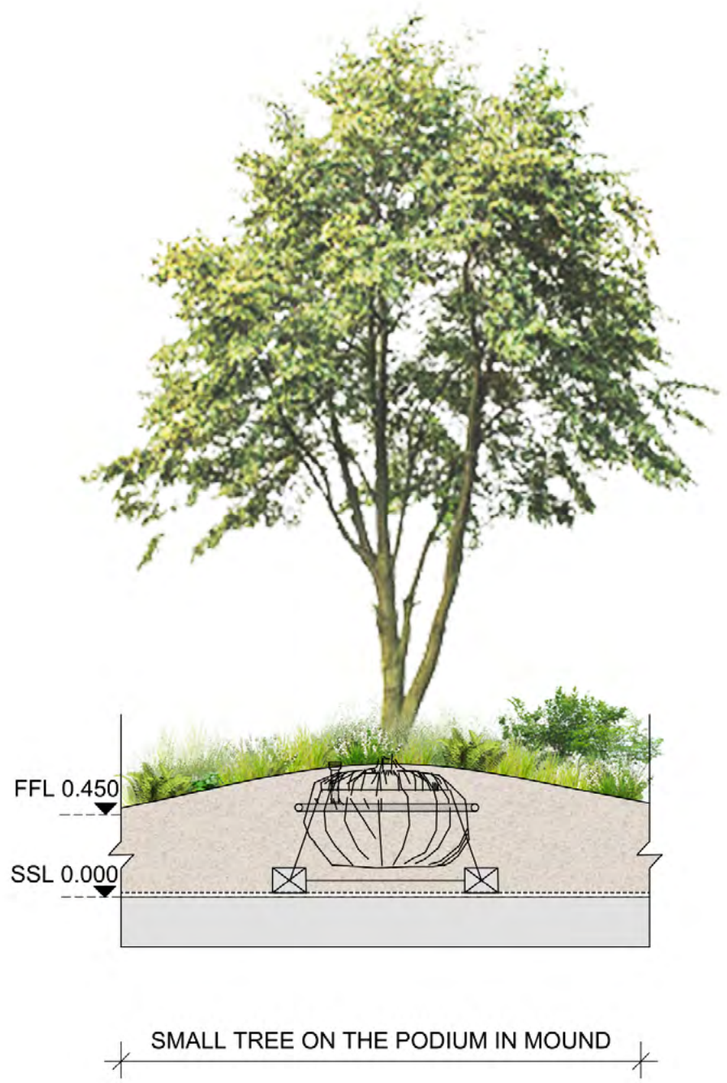
A wide range of plants will do very well in this area. The key for podium planting, as in any traditional border design, is to choose the right plant for the situation. As a general rule, as little as 60mm will support a sedum mat. With 150mm, it is possible to grow amenity turf, given appropriate irrigation and regular feeding. With 300mm of growing medium, a good range of small shrubs and herbaceous perennials will be perfectly happy, and there is always the option of localised mounding over areas with extra structural support for smaller trees .




Preferred soil depth for amenity lawn: 450mm.




Preferred soil depth for small shrubs and herbaceous planting: 450mm.
For larger shrubs: 600mm.




Preferred soil depth for small multi stem trees which do not grow higher than 3-4m: min. 750-800mm.
For larger trees: minimum 1000mm.

# SOFT LANDSCAPE STRATEGY

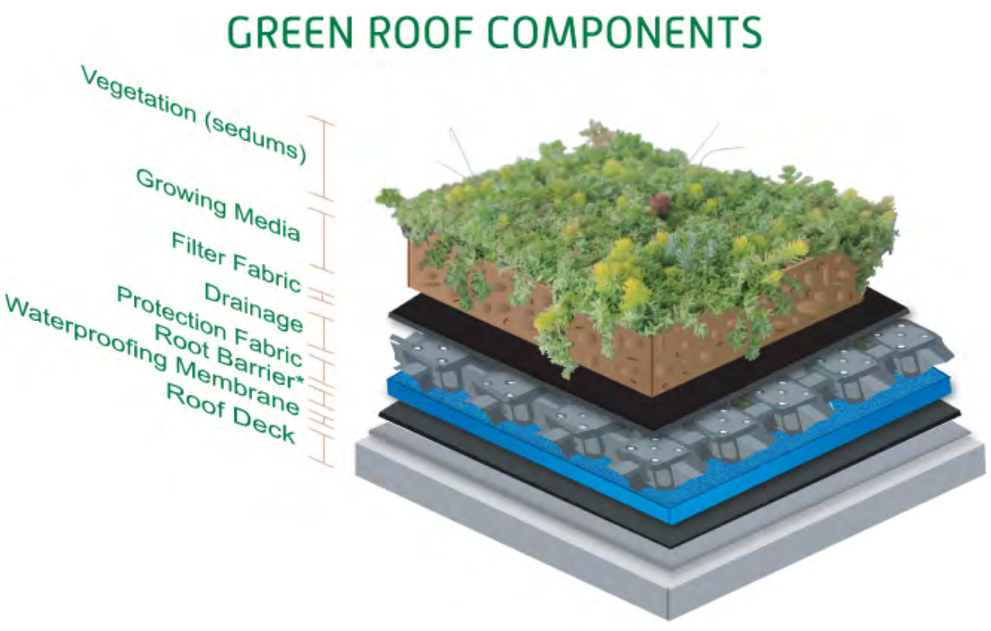
## PLANTING STRATEGY - EXTENSIVE SEDUM ROOFS

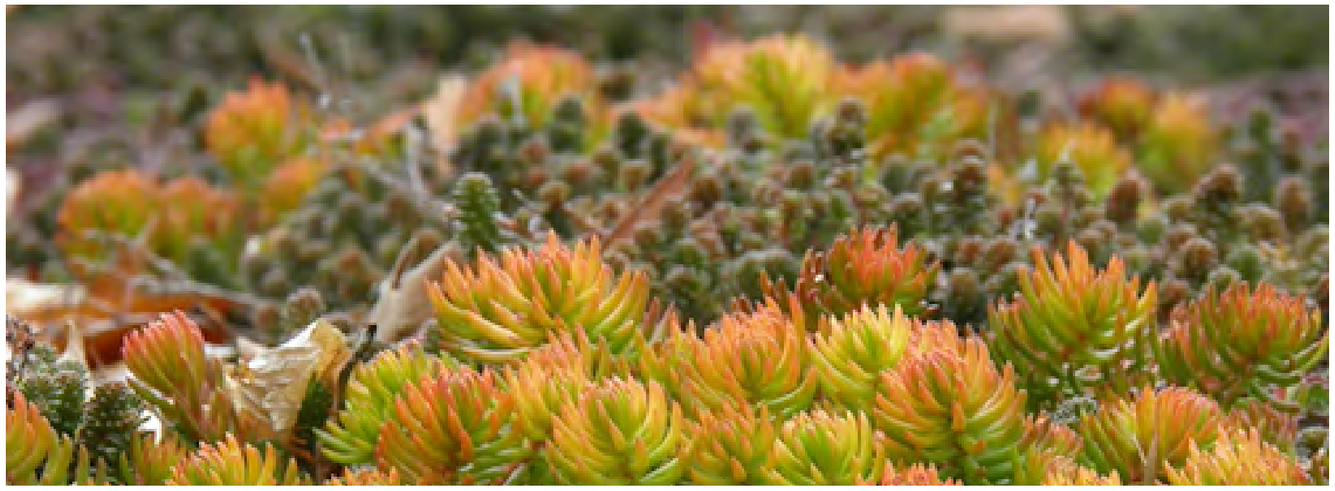
There are many opportunities for green roofs which can improve local biodiversity and support the wider green infrastructure network by re-introducing green spaces and surfaces into the urban environment.

The build-up of the green roofs is shown on the diagram below. This a typical proprietary system which will be developed further, based upon specific requirements to be established with engineers as part of the detail design process.

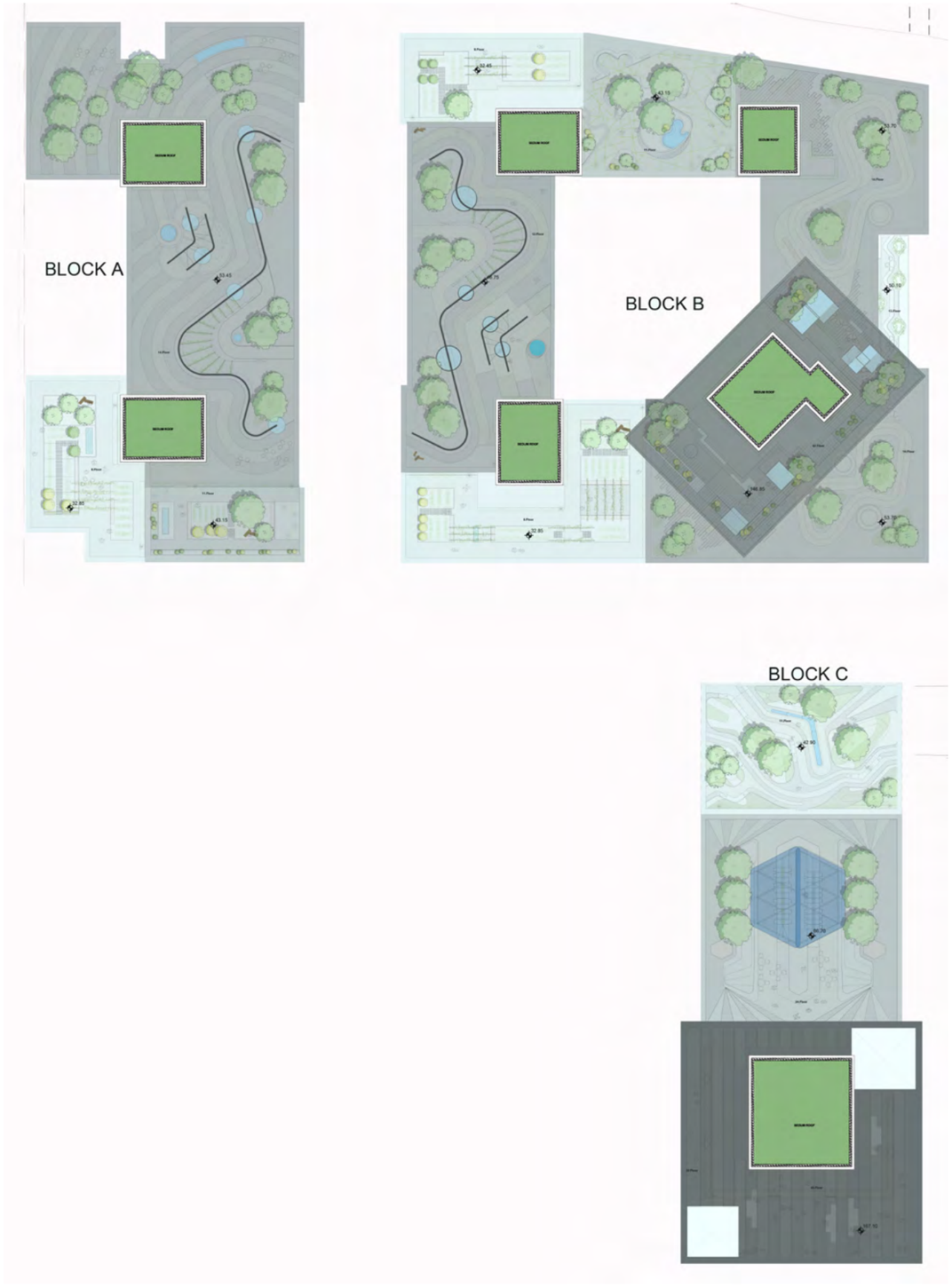
Biodiverse roofs are an excellent way to encourage new wildlife into the development. These roofs can also help improve air quality, reduce the heat island effect, and attenuate roof surface run-off, supporting Water Sensitive Urban Design (WSUD) approach to development. The selection and specification of planting species will be established at the detailed design stage, with the aim of providing a range of planting types to align with local biodiversity targets.

A series of sedum roof precedent images are included below, and demonstrate the variety of planting and styles which can be achieved.



# OVER 450M2 OF SEDUM ROOFS WILL BE PROPOSED.




# APPENDIX

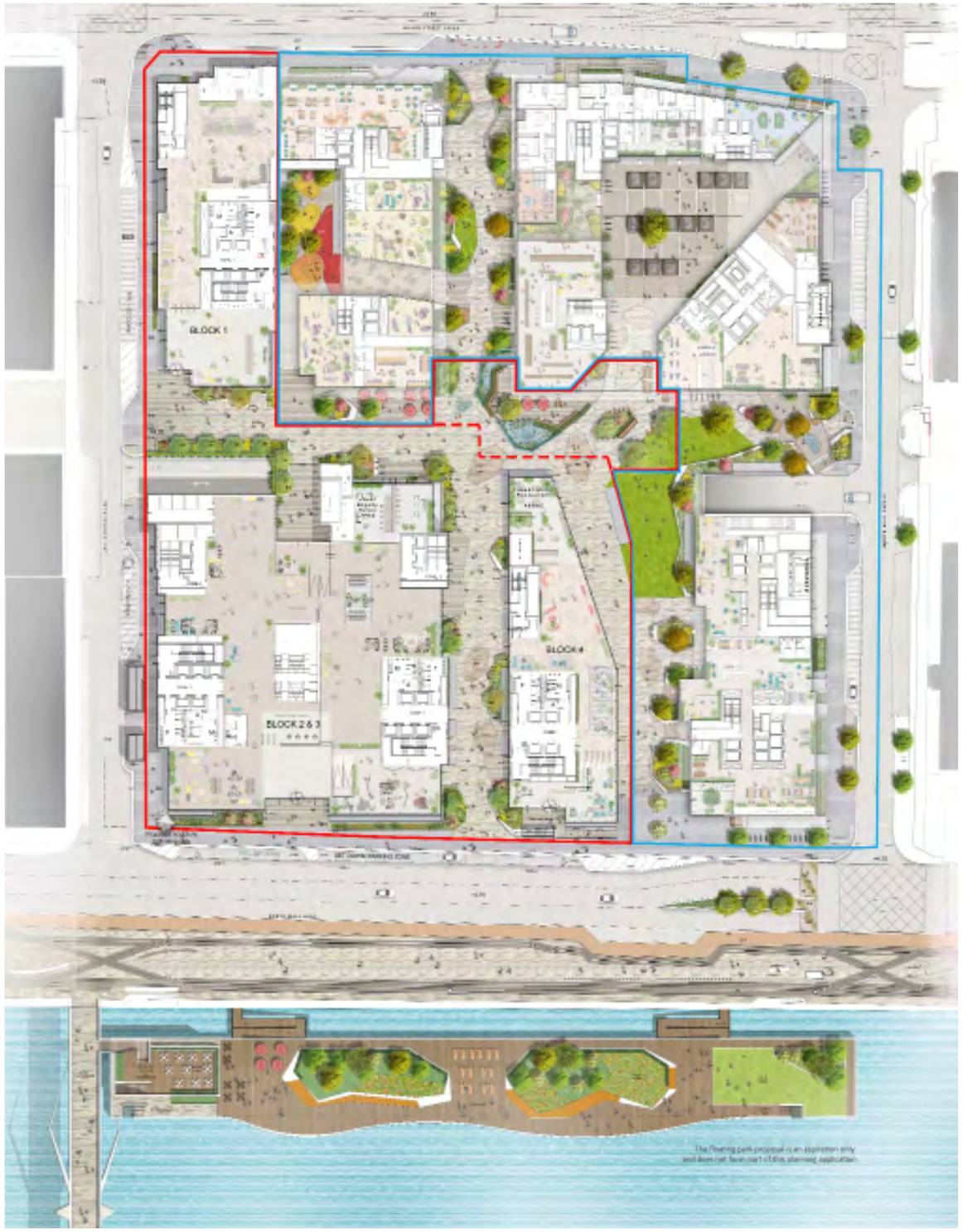
**The following pages illustrate the potential public realm and enhancement of the Campshire. Waterfront South Central is a unique opportunity to create a new way of living, working and playing in our urban cities.**

**These pages are for illustration only and are not part of this application!**

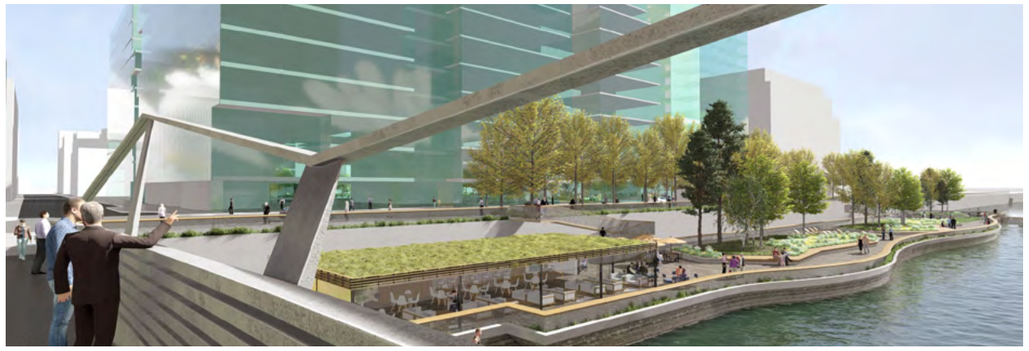
# FUTURE ASPIRATION FOR WATERFRONT SOUTH CENTRAL, CITY BLOCK 9

## A PLACE TO BELONG

***WATERFRONT SOUTH CENTRAL is the fusion of social sustainability, eco sustainability, a reality challenging the future needs of our ever-growing city, constantly learning, questioning, sharing, growing. But most importantly, it's about belonging to a clear vision of our future.***



# VISION FOR THE UPGRADE OF THE CAMPSHIRE



As part of the SDZ, Public realm design guidance notes, there is a proposal to upgrade the public realm to North Wall Quay. This included the introduction of ''greener'' enhancements, activating the existing Campshire and the possible introduction of a floating park. Our overall vision for the development and the wider area would be to help deliver such a beneficial idea to both the new development and Dublin's wider communities.

The proposed floating park would be constructed of water barges all combined together to create a park of some 700m2. In turn we would like to discuss how this new park could be part of a wider water taxi strategy for the city and try and interlink the park with the newly proposed pedestrian bridge.

There is a real opportunity to deliver a unique eco innovation for Ireland; it is an ambitious and truly inspiring approach to the North Docks. Examples can be found in Prague, with its activated waterfront with boardwalks and floating event areas, such as the waterfront in Green Bay and Lazne na lodi Gallery.

1. Water taxi point
2. Open space for events
3. Native planting
4. Sun Deck
5. External cafe area
6. Kayak Club access point
7. New pedestrian bridge connecting the South and North Docks

*SDZ - "To activate the waterfront through a series of floating landscapes providing new public spaces, attractions, recreation and cultural activities".*

# WATERFRONT

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