



CORNELSCOURT RESIDENTIAL DEVELOPMENT LANDSCAPE DESIGN AND ACCESS STATEMENT

LANDS AT CORNELSCOURT VILLAGE, OLD BRAY ROAD, CORNELSCOURT, DUBLIN 18

C0098 | REP01
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LANDSCAPE INTRODUCTION

Quality landscape and public realm spaces are a defining part of the development; This section of the Design & Access Statement outlines the landscape proposal for the scheme.

The site covers an area of 2.05ha, which will comprise of high quality architecture, public and private gardens, areas of new public realm, and extensive roof gardens and terraces. The sheer extent of landscaped spaces is a real positive and distinctive feature of the proposed development.

The overall aim of the development is to create a high quality scheme containing high quality open space for the surrounding proposed residences. This will provide opportunities for fitness, social interaction and play which is accessible and inclusive for all ages and abilities.

The landscape and external spaces provide significant opportunities for future communities in the area. How the landscape will serve both the new and existing community has been a key consideration. Finding a balance between the needs of people using the space whilst also remaining sympathetic to the sites environmental context has been a challenge. However this challenge has provided an opportunity to do something really special, which we believe sets a high benchmark.

The overarching objectives and design principles have served as a framework and informed the development of the landscape proposals which are explained in more detail throughout this section of the report.

OVERARCHING AIMS, OBJECTIVES AND DESIGN PRINCIPLES

- » Deliver quality, permeable open space
- » High quality external landscaped areas which provide an extension of the internal spaces.
- » Consideration of family living and their associated requirements.
- » Showcase innovative approaches to landscape design, architecture and ecology.
- » Establish a new green and ecologically minded community.
- » Provide flexible spaces which can be adjusted to accommodate a range of uses and functions.
- » Create public spaces which people can live, work and relax in.
- » To include high quality play spaces for children to enjoy, interact and engage with the natural environment.
- » Creating visual connections between internal and external spaces.
- » Creating focal points on key views within the space.
- » Enhancement of the entrance area using a courtyard style design which incorporates tree planting and high quality linear paving to provide a luxurious arrival experience.
- » Cohesive Material/Paving palette which blends into the natural environment and ties the design together by providing clear legibility for all.
- » Rationalising design principles which respond to the above.

SITE ANALYSIS

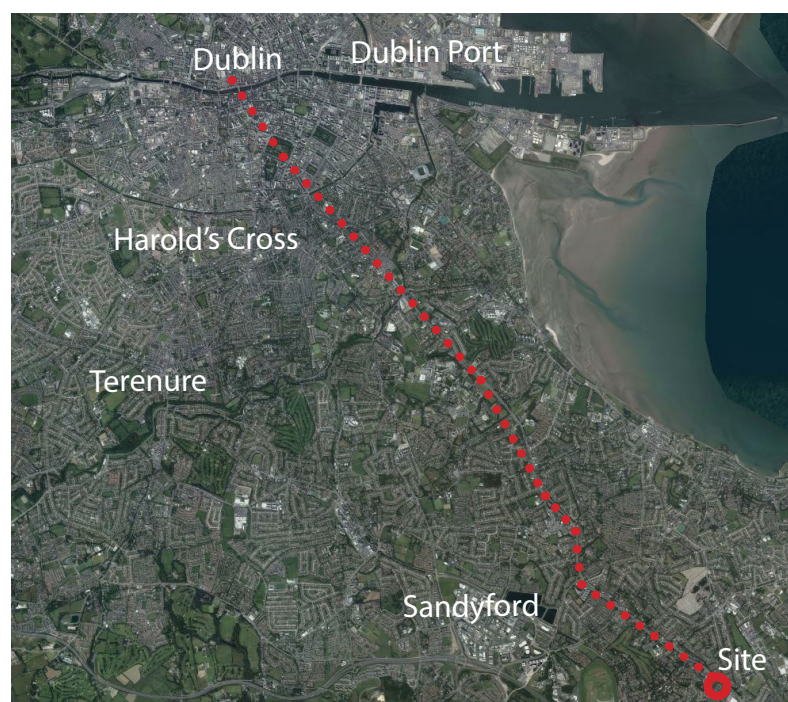
LOCATION

The adjacent diagram visually depicts how important character zones and districts surround the site. Through the existing road, paths and bridge network physical connections are achieved with these surrounding areas.

The site for the proposed development is located within a disused 2.05 ha. field between the Old Bray Road and the N11 (Stillorgan Road) approximately from 100 meters east of the junction. Cornelscourt village is located along the Old Bray Road to the west of the site. This area is a vibrant mix of small shops, cafes, restaurants and offices. The area is characteristically populated by two storey detached and semi-detached houses with a very variable appearance.

On the North and East side of the site lies the Beech Park and South Park housing areas. The AIB bank, a contemporary 3-storey office block with its surface car park to the rear (towards the N11), sits on the west side of the site.

South of the site is a petrol station into the site, followed by a 2-storey food outlet and then a row of 13 very small single-storey cottages. This row of cottages is a characteristic feature of the village extending approx. 110 meters along the Old Bray Road to just short of Willow Grove at its southern end.



Site location within the wider context of Dublin.



1. Dunnes Shopping Centre
2. St Brigid's Boy's School
3. Loreto College

 Nearby bus stop

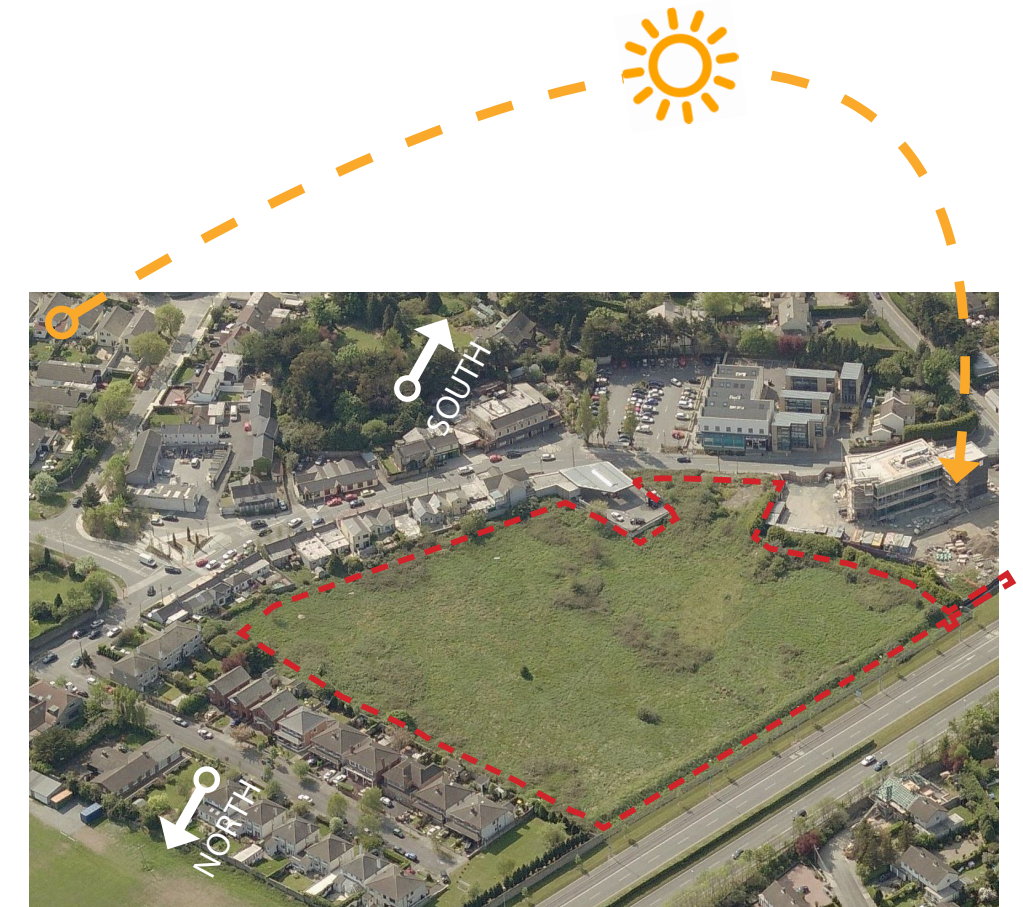
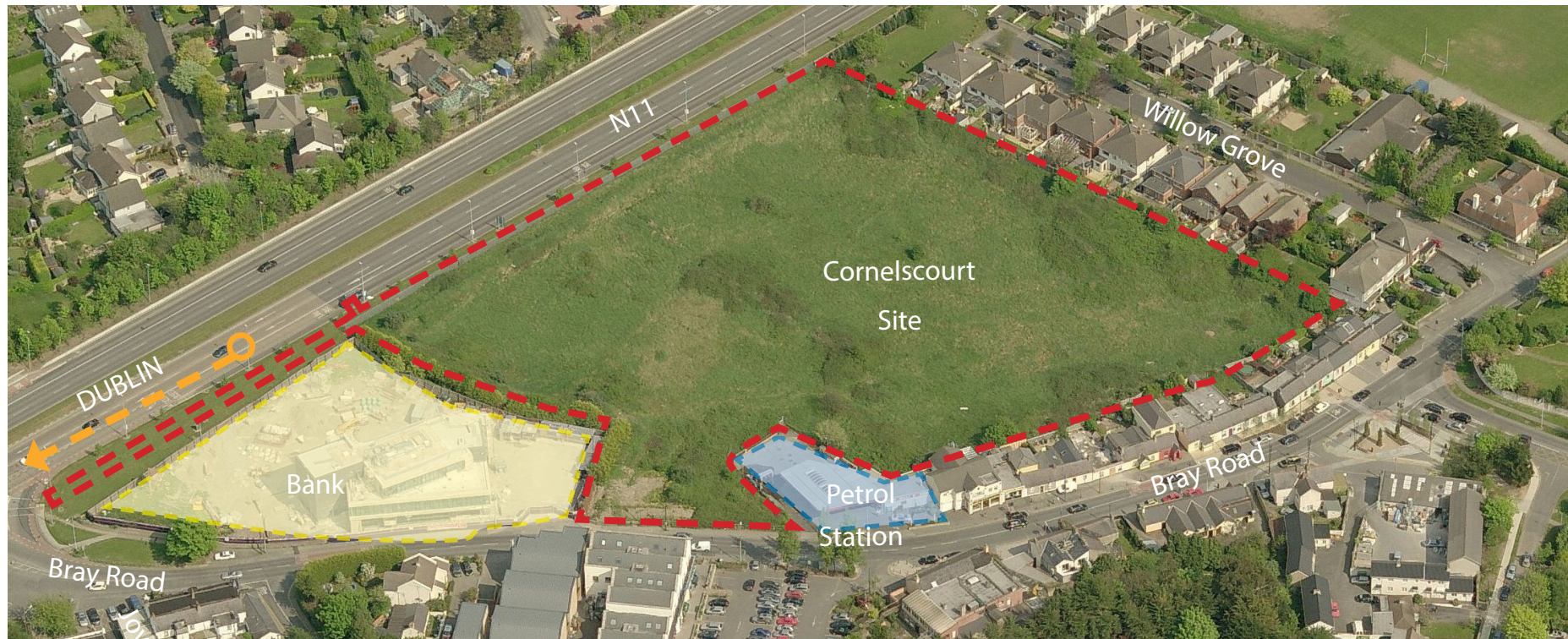
SITE DRIVERS & KEY INFLUENCES:

In order to develop a suitable and appropriate landscape scheme it is imperative an understanding of the site and those forces which influence the site are identified and understood.

The adjacent diagram sets out the key factors / drivers which influence the site and the user experience.

SITE ANALYSIS

ADJACENT CONTEXT AND SUN PATH ANALYSIS



The adjacent diagram and the views on the left visually depict how the daily sun path influencing shade and aspect. These constraints have a strong impact on the landscape design.

DESIGN DEVELOPMENT

CONCEPT DEVELOPMENT

This page includes a few examples of how the scheme has evolved and changed over time. Each image is a snap shot of the ideas and concepts which informed the final design.

- Entrance zone
- Activity
- Garden zone
- Play spaces
- Central amenity



GREEN SPACE STRATEGY



FORM AND CONNECTIVITY DEVELOPMENT



STRUCTURE AND LAYOUT



GREEN SPACE STRATEGY KEY

ECOLOGY STRATEGY

- » Species Specific
- » Nature Species
- » Rainwater Gardens
- » Attenuation
- » Storage of Water
- » Irrigation

SOCIAL STRATEGY

- » Play
- » Activity
- » Well-being and Fitness
- » Community Gardens
- » Sport
- » Social Interactions

DESIGN CONCEPT

KEY PRINCIPLES

The design has been split into two categories to help inform the correct use of the space and to improve site legibility and functionality.

←→ PASSIVE SPACE

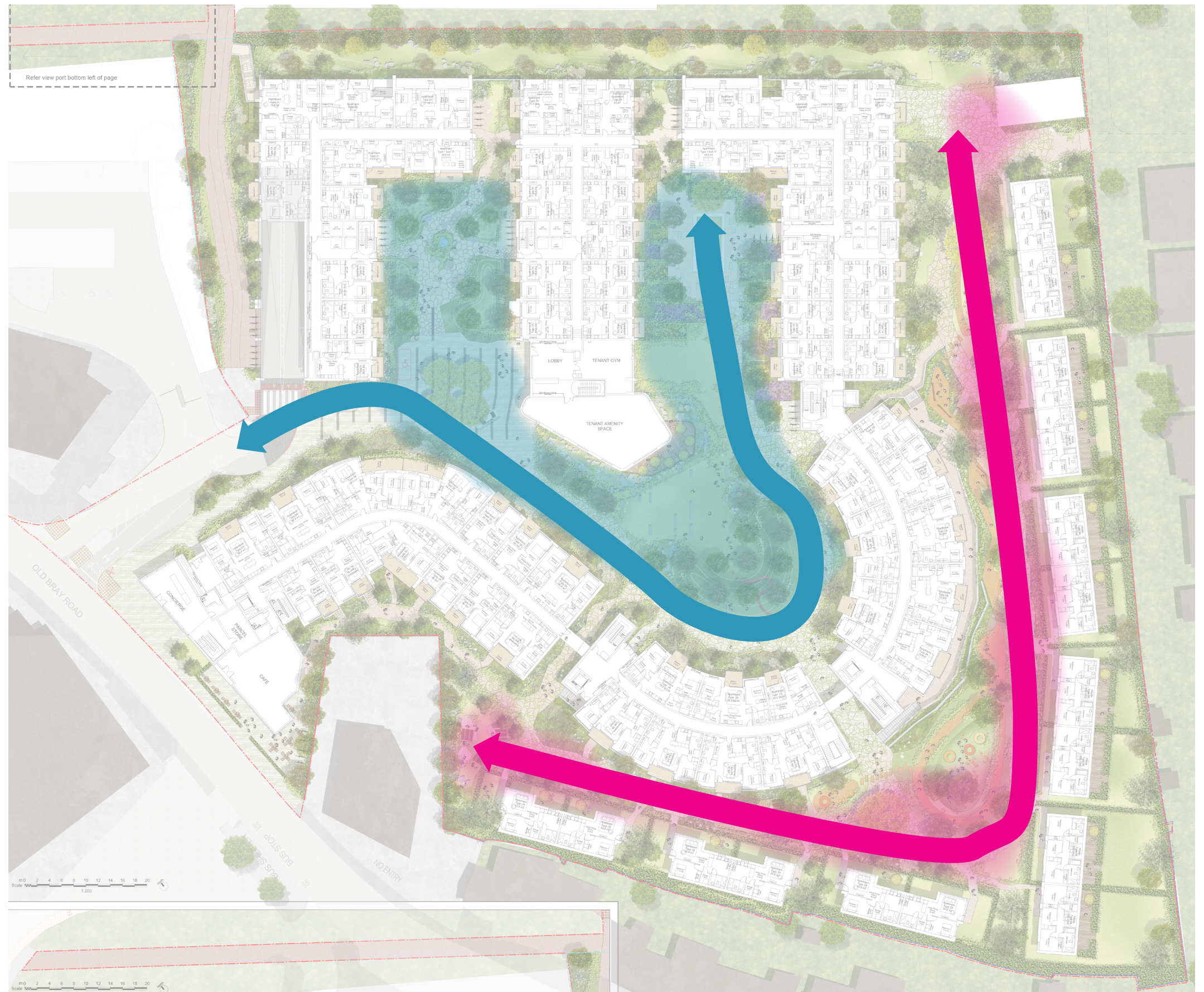
This passive space will be a place for community and relaxation.

- » Attractive & charming
- » The landscape reflects architectural geometry
- » Calming and comforting space
- » Undulating edges give the space a softer feel

←→ ACTIVE SPACE



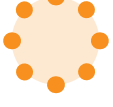
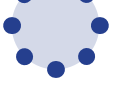

This activity space will be a place for activity and play

- » Create pedestrian friendly environment
- » Connected, legible and walkable
- » Sinuous and organic design encourages exploration
- » Active zones (play, BBQ, exercise) to encourage fitness and community involvement



SPACE USAGE

The space has been broken down into a number of key usages. These areas developed to form the main character areas which makes up the overall design.

-  Courtyard Gardens: relaxing, calming
-  Arrival Space: attractive, welcoming
-  Lounge and Hub: meeting, dining
-  Central Space: meeting, play, relaxation
-  Active Zones: play, BBQ, sport



LANDSCAPE PROPOSAL

DESIGN OVERVIEW

Cameo's concept is based on the relationships between architecture and landscape and the transition between internal and external spaces. The angular edges of the footpaths which bleed into the planting areas provide a softer feel and easy circulation. Planting and open lawn areas have been distributed in a way that provides essential screening to the apartments which are more exposed to the key communal area and also provides opportunities for socialising and play.

This open space will encourage people to socialise and interact.

Residents will have the flexibility to use the space how they wish, which will establish a sense of pride and ownership.

The semi natural style of the planting will create a unique identity for the scheme and contribute to a sense of place for the residents and wider community.

Play spaces and family gathering areas ensure new residents of all ages can enjoy the space. Ongoing maintenance and management will ensure the garden is safe and welcoming at all times.

Native planting and careful habitat creation aims to establish an ecologically rich environment which will benefit the local people and the environment.

It is important that people feel welcome and are encouraged to use the space. The idea that 'people attract people' is true in spaces such as this, so to encourage this behavior measures such as BBQ areas, activity zones and play areas have all been included.

GENERAL ARRANGEMENT OF THE GROUND FLOOR AREA



GENERAL ARRANGEMENT OF THE BASEMENT (LOWER) AREA



LANDSCAPE PROPOSAL

ILLUSTRATIVE MASTERPLAN OF THE GROUND FLOOR

This space performs a variety of roles, it will be welcoming to families, promote the ecological aspirations of the development, establish a sense of community, and create a high quality external space.

To achieve these roles the space includes a series of key features and designated areas as listed below:

1. High quality, elegant entrance zone with courtyard feel which includes tree planting, linear paving patterns and ornamental planting.
2. Rock garden with natural water feature, natural seating and generous perennial borders.
3. Flexible play / activity area on amenity lawn
4. Paving with planted joints which bleeds into the planting beds and binds the site together.
5. Sculptural seating and social space with mound and shaded seating.
6. Rainwater gardens for informal play and enhanced biodiversity.
7. Natural Rain Garden with deck area.
8. Sensory garden with scented planting which also provide food source for pollinators and enhances biodiversity.
9. Activity zone with BBQ.
10. Activity area for informal play and socialising.
11. Sunken play area with sinuous path
12. Fitness nodes.
13. Informal play area.
14. Buffer planting with native trees and shrubs.
15. Cycle and pedestrian connection with natural planting.



ILLUSTRATIVE MASTERPLAN OF THE BASEMENT (LOWER) AREA



The basement / lower area space includes a series of key features and designated areas as below:

1. Pedestrian & cycle access to the basement cycle storage area.
2. Vehicle access to the basement parking.
3. Buffer planting with native trees and shrubs. Boulders and logs provide informal play
4. Flexible play / activity area on amenity lawn and open space.
5. Paving with planted joints connecting the wider site.
6. Sunken garden area which provides access to private amenity.
7. Densely planted retaining wall structure to provide a visually appealing garden view to the basement flats.
8. Stepped access to the sunken garden area.

SITE ACCESS

ACCESS AND CIRCULATION

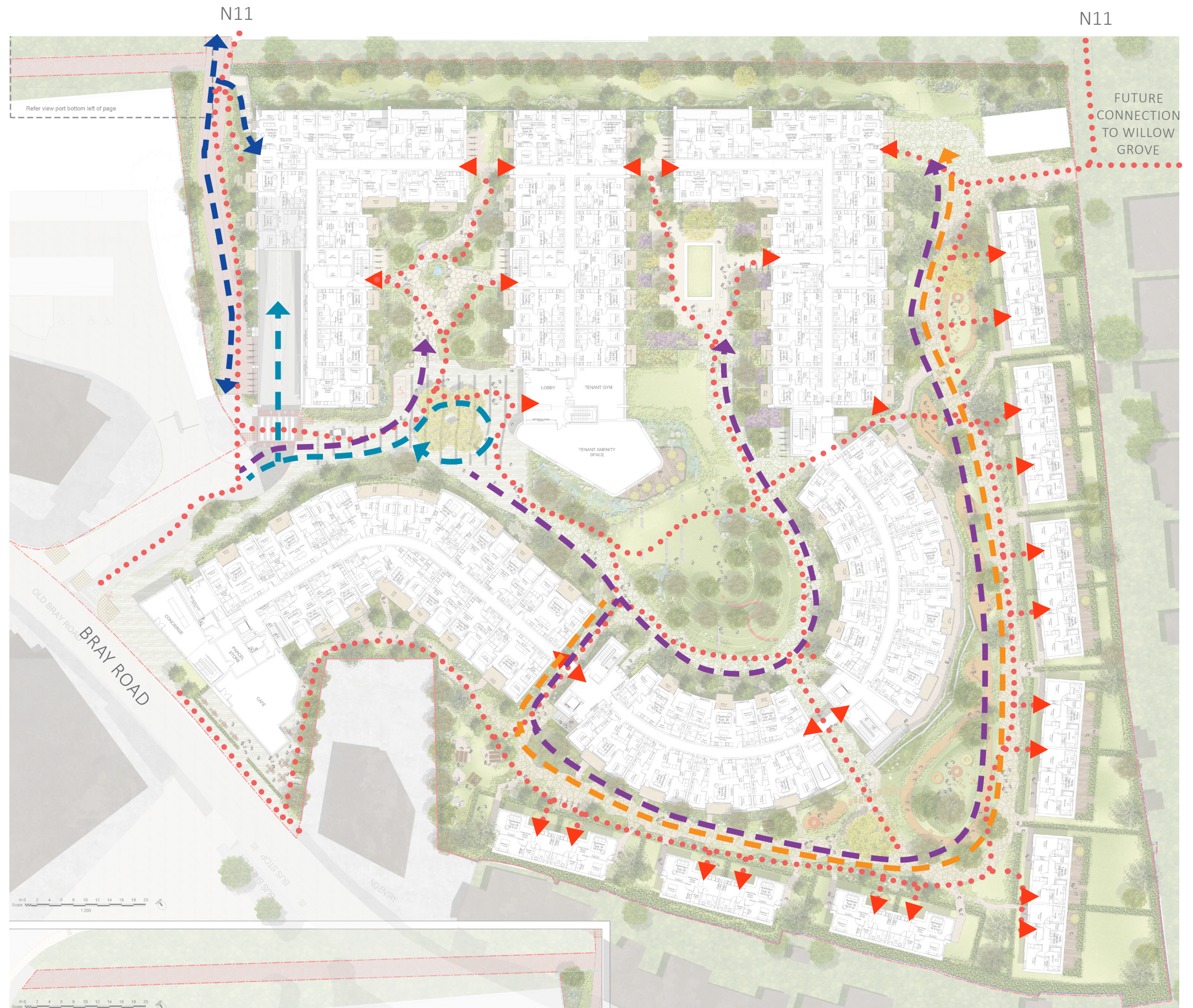
This diagram illustrates the available routes for pedestrians and vehicles around the site. Improving connectivity of routes and green space with a pedestrian friendly approach is a key objective.

The development shall be served via the existing vehicular access point from the Old Bray Road. Vehicles only have access to the Entrance Plaza and to the basement parking area. There is no vehicle access across the landscape except for emergency/delivery/removal vehicles.

Our main approach to keep the garden space as green as possible but provide space for the fire tender. We used 2-3m wide natural stone paving with reinforced grass (Advanced Turf Reinforced Grass) and planted areas along the garden space where fire tender route required. These reinforced planted areas allow us to keep the garden green while we can provide the 4 m wide access route for the fire vehicles.

The technical solution of the reinforced grass is something explored in greater detail later in this report.

- Pedestrian routes to building core entrances
- ▶ Building & flat entrances
- ▶ Vehicular access and drop off zone
- ▶ Fire tender route
- ▶ Delivery/Removal/ Emergency Vehicles
- -▶ Cycle routes and access to site



DISABLED ACCESS

This diagram illustrates the available routes for disabled access. All access routes have been designed in accordance with Section 1.1.3 of TGD M 2010 to provide compliant gentle slopes across the site with level landings where required

Steps have only been used where necessary to address the level changes on the site to achieve the required FFL. Where steps have been used we have provided and alternate ramped/sloped access where possible.

- Designated disabled access path- min. 1.5m wide path with 2m long by 1,8m wide passing places on every 25m distance. Paving made with mortar joints rather than green joints (refer diagram below).
- Wheelchair accessible routes
- Secondary disabled access
- Stepped access



1.5m wide path with 6-10mm mortar joints between slabs for wheelchair access

Green joints between slabs to soften and blend into surrounding soft landscaping

OPEN SPACE DIAGRAMS

OPEN SPACE

The Open Space requirements set out in the Development Plan and Apartment Guidelines 2018 are as follows:

DLR:
At least 10% of overall site: (Site Area 20,500m²)
= 2,050m²

Apartment Guidelines:
 - 41x studios (4 m² each)- 164 m²
 - 257x 1 bed (5 m² each)- 1,285 m²
 - 136x 2 bed- (7 m² each) 952 m²
 - 18x 3 bed- (9 m² each) 162 sq m²
= 2,563

The Development Plan for house units:
 - 10 houses with three or more bedrooms (35 persons) x 15 sq m= **525m²**
 - 6x houses with two or less bedrooms (9 persons) x 15 sq m= **135m²**
= 660m²

Total requirement for Apartments and Houses Combined - **3,223m²**

Communal Open Space- 523m²

Communal Open Space- 1783m²

Communal Open Space- 5205m²

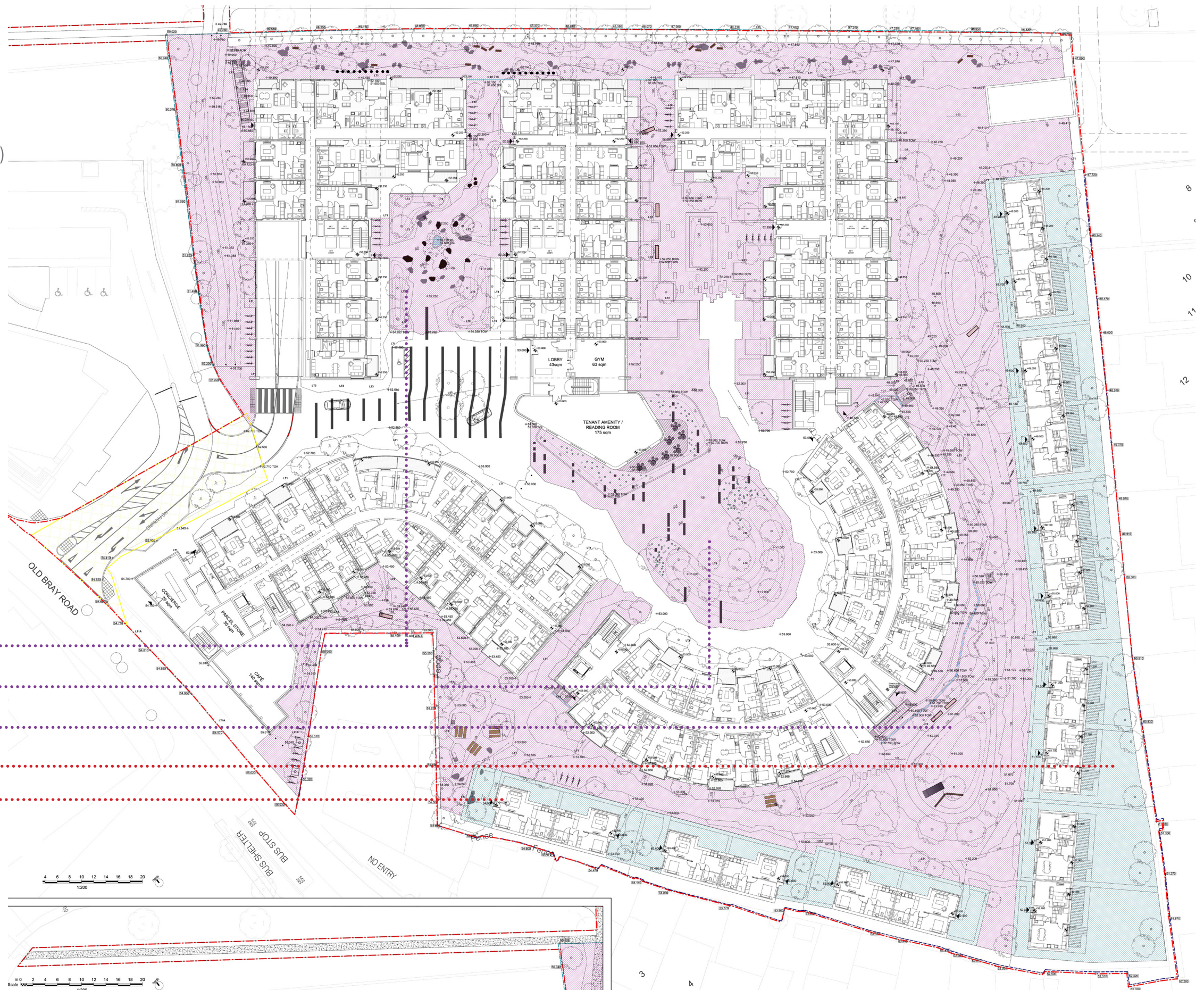
Private Open Space- 1402m²

Private Open Space- 418m²

 **Total Communal Open Space - 7511m²**

 **Total Private Open Space - 1820m²**

Clearly we are well over the required Open space requirements set out by the DLR and Apartment Guidelines




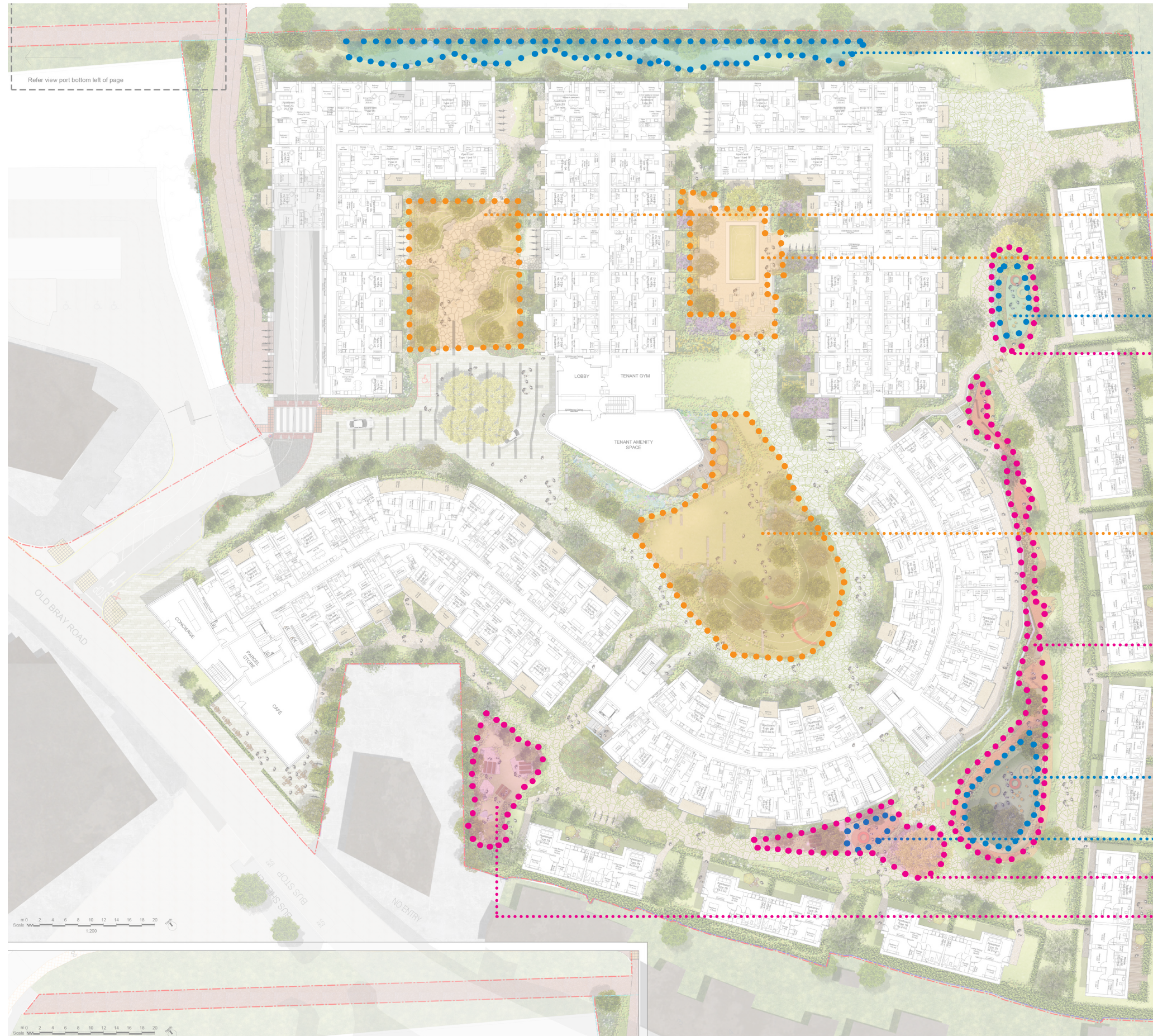
COMMUNAL OPEN SPACE TYPOLOGIES

The available communal open space has been broken down into the following categories:

Communal recreation
Designated play facilities
Activity area for running and cycling

Areas outside of these typologies are made up of hard and soft transitional open spaces.

-  Recreation Space
1,260m²
-  Play Space- 604m²
-  Activity Areas- 493m²



Play Space- 380m²

Recreation Space- 375m²

Recreation Space- 235m²

Play Space- 38m²

Activity Area- 39m²

Recreation Space- 650m²

Activity Area- 206m²

Play Space- 161m²

Play Space- 25m²

Activity Area- 130m²

Activity Area- 118m²

LOCATION MAP

Our landscaping vision for the development will create several distinct areas. The adjacent schematic identifies the key character areas within the scheme. Each area is explored in more detail in the coming pages.

It is important to note that, whilst each area has its own unique character, there are a series of unifying design principles, materials and styles applied to each space to create an overall cohesive landscape.

These character areas make up the key user experiences available on the site:

1. Entrance Plaza and Drop Off Zone
2. Tenant Amenity / Community Hub
3. The Rock Garden
4. The Scented Garden
5. Activity and Play Area



CHARACTER AREAS

CHARACTER AREA 1. - ENTRANCE PLAZA

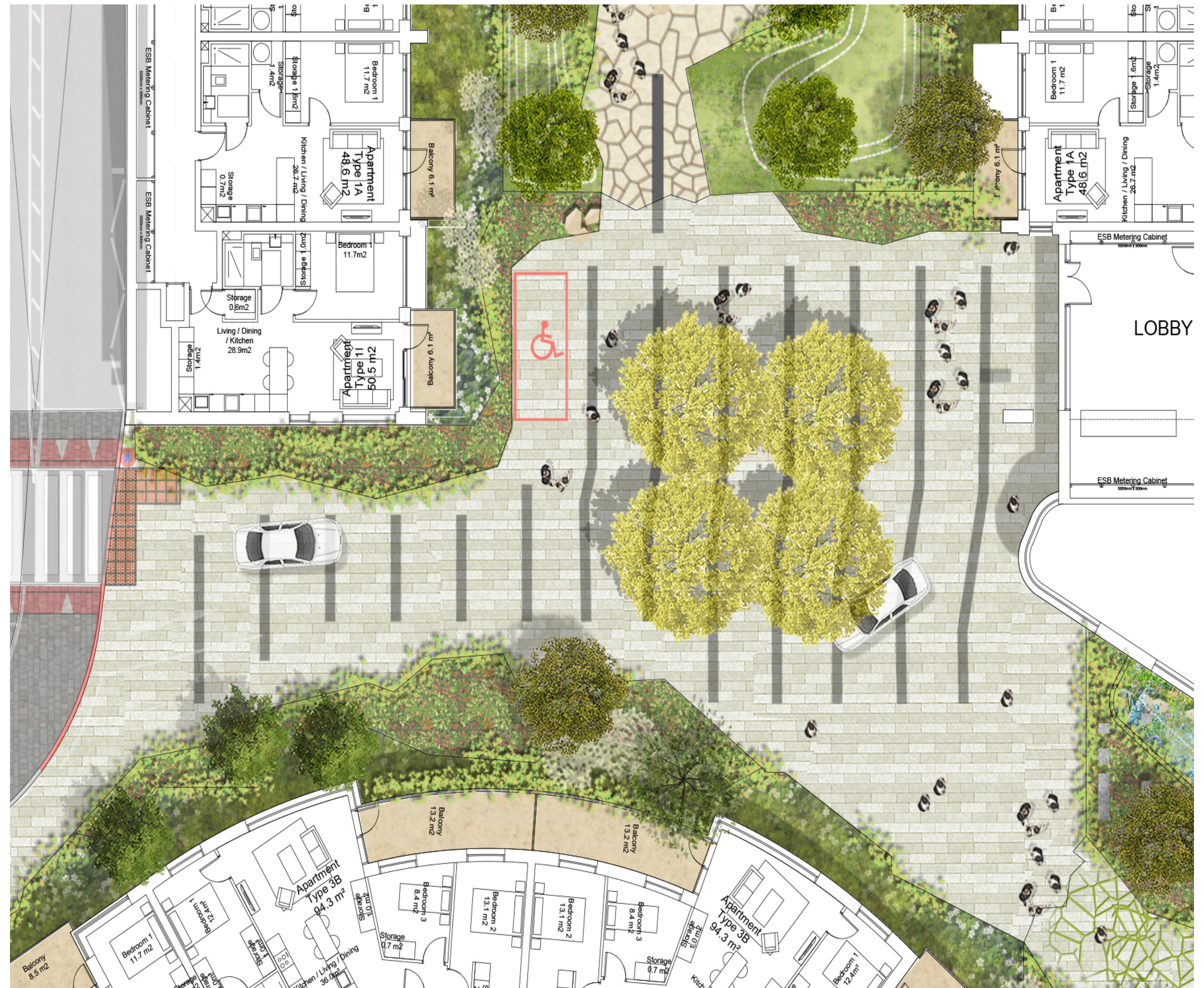


A simple, understated, hardscaped plaza. The plaza surface is open and expansive to allow vehicles to manoeuvre appropriately, but is enclosed with a canopy of branches above to establish a sense of humanised scale for residential users within the space.

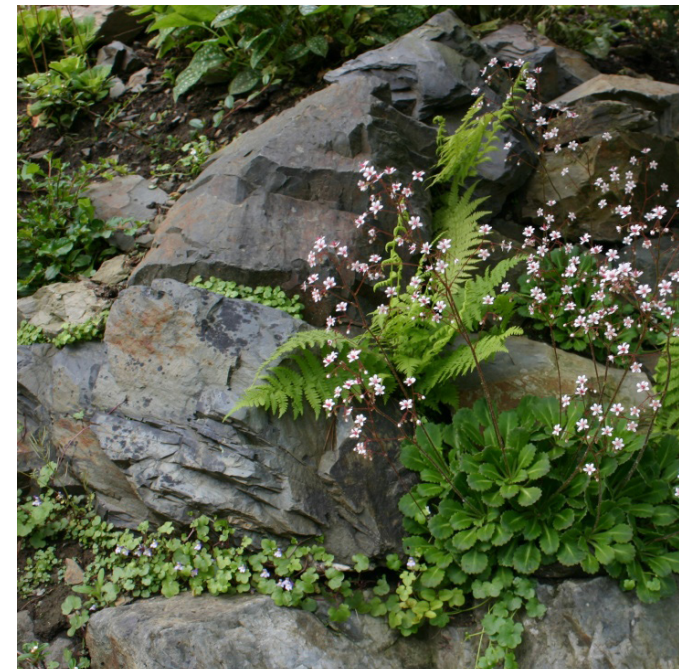
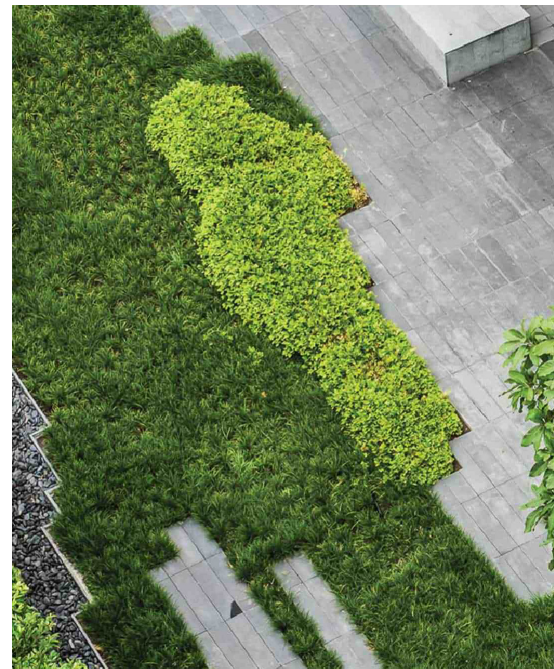
Layout allows space for vehicular movement, drop-off, disabled parking and pedestrian access via a shared-space approach.

KEY ELEMENTS / CHARACTERISTICS:

- » A simple sophisticated palette of high quality robust setts and small units.
- » Trees and planting pushed to the flanking edges of the space.
- » A central grove of mature, high stem Tulip trees as a focal feature, for arrival and from within the lobby.
- » Trees positioned at grade, set within the paving, allowing vehicles to circumnavigate the plaza.

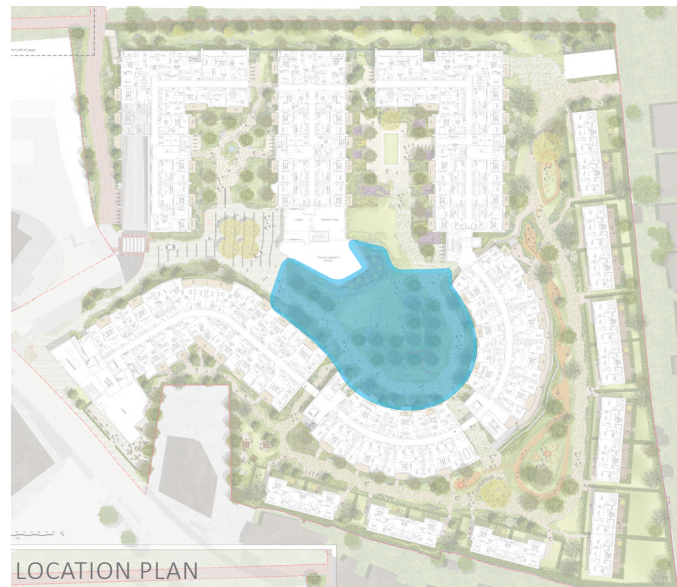


CHARACTER AREAS



CHARACTER AREAS

CHARACTER AREA 2. - TENANT AMENITY / COMMUNITY HUB

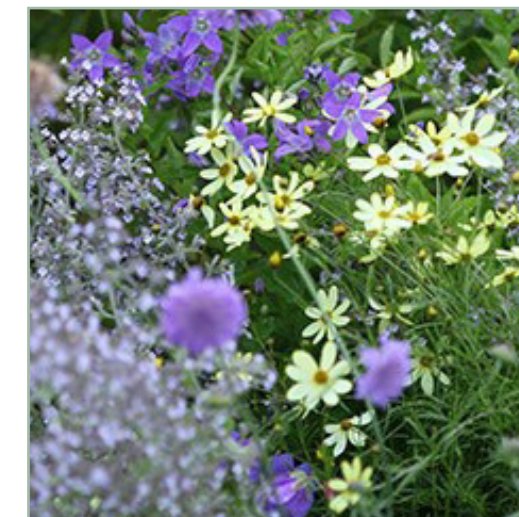
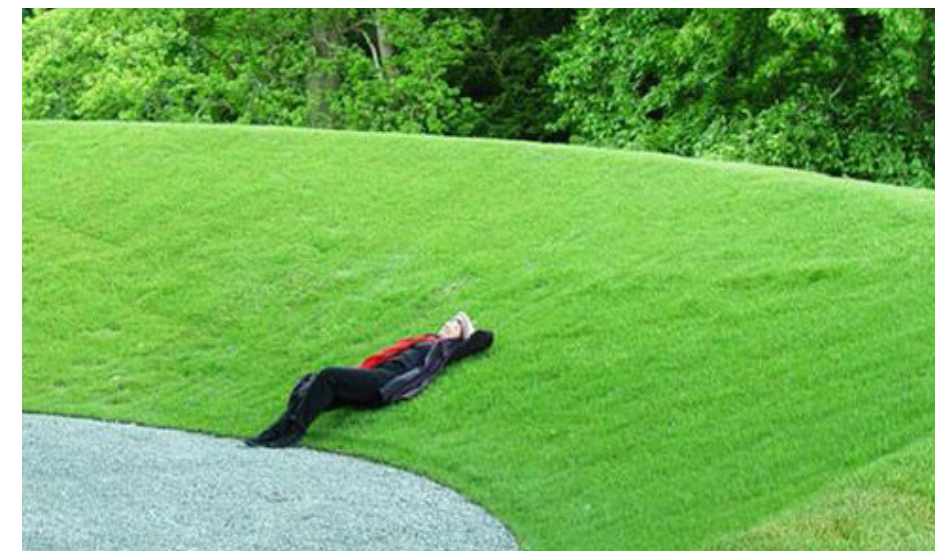


The community hub will be a public space which sits at the heart of the development, providing a green oasis which aims to serve the new residents. This open space will encourage people to socialise and interact, helping cement existing and forge new community relationships. Residents will have the flexibility to use the space how they wish which will establish a sense of pride and ownership over the space.

KEY ELEMENTS / CHARACTERISTICS:

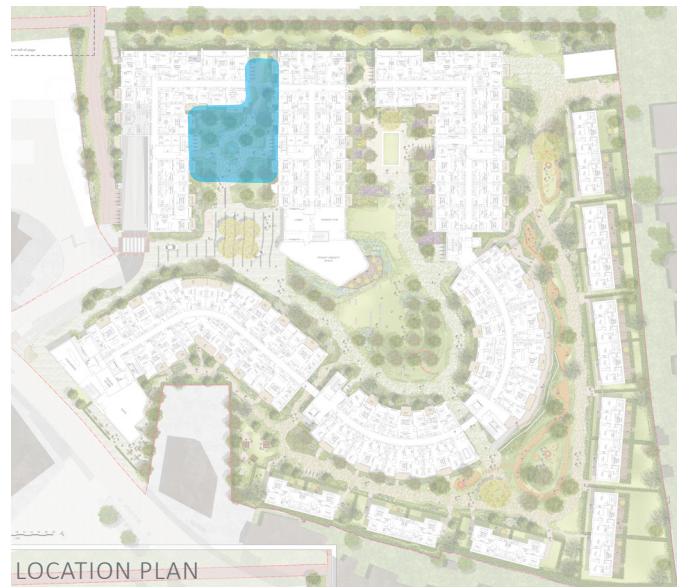
- » Mounding informal landscape with geometric tree arrangement.
- » Rainwater garden to enhance ecology and provide natural play feature for kids.
- » Amenity lawn areas for active and passive recreation.
- » All ages can enjoy the space.
- » High quality paving materials and elements.
- » Dense planting with a year around interest.





CHARACTER AREAS

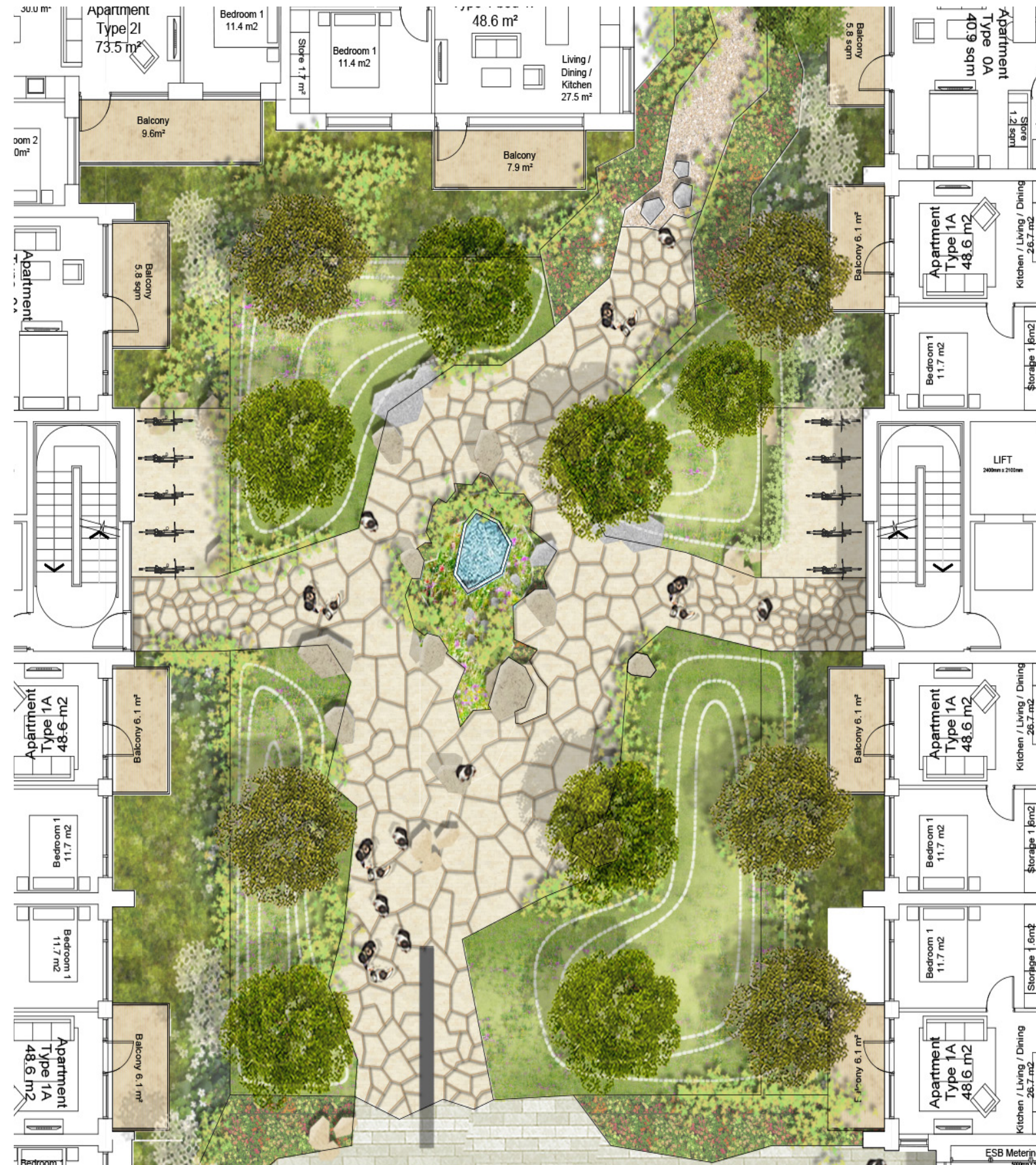
CHARACTER AREA 3. - THE ROCK GARDEN

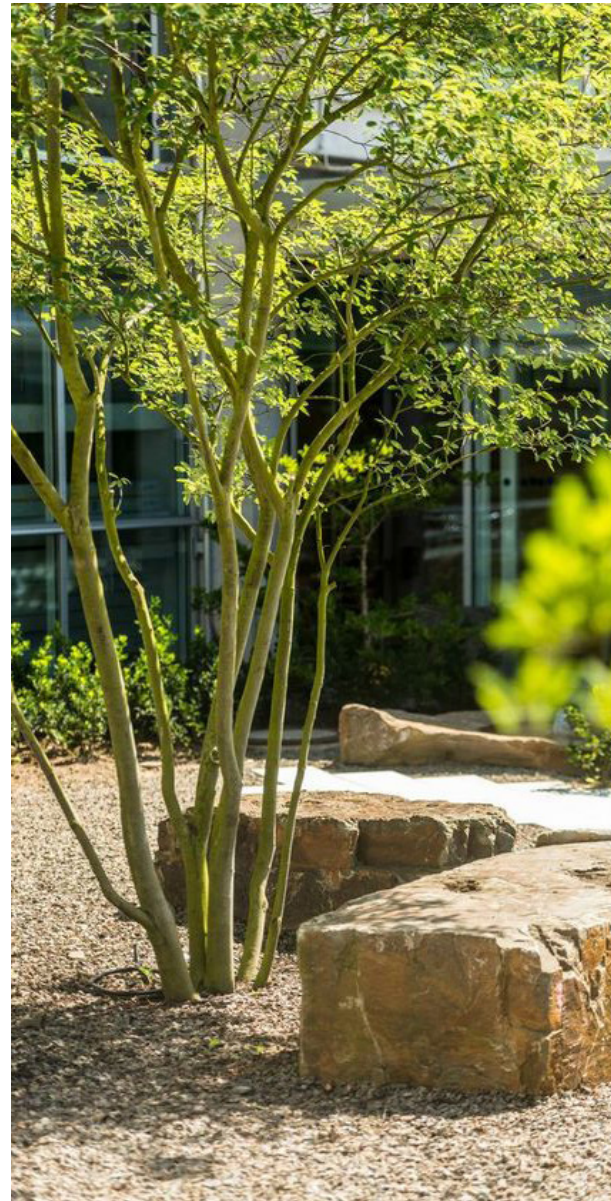
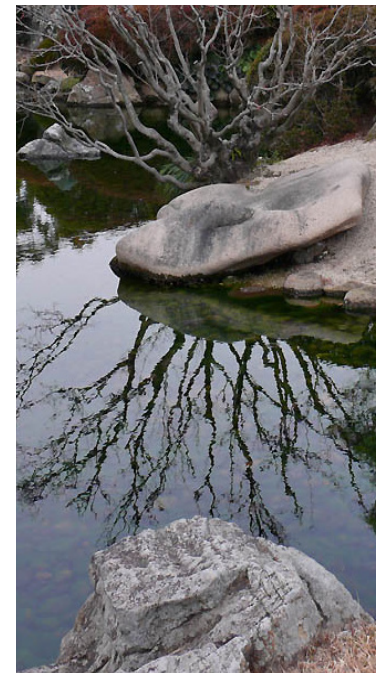
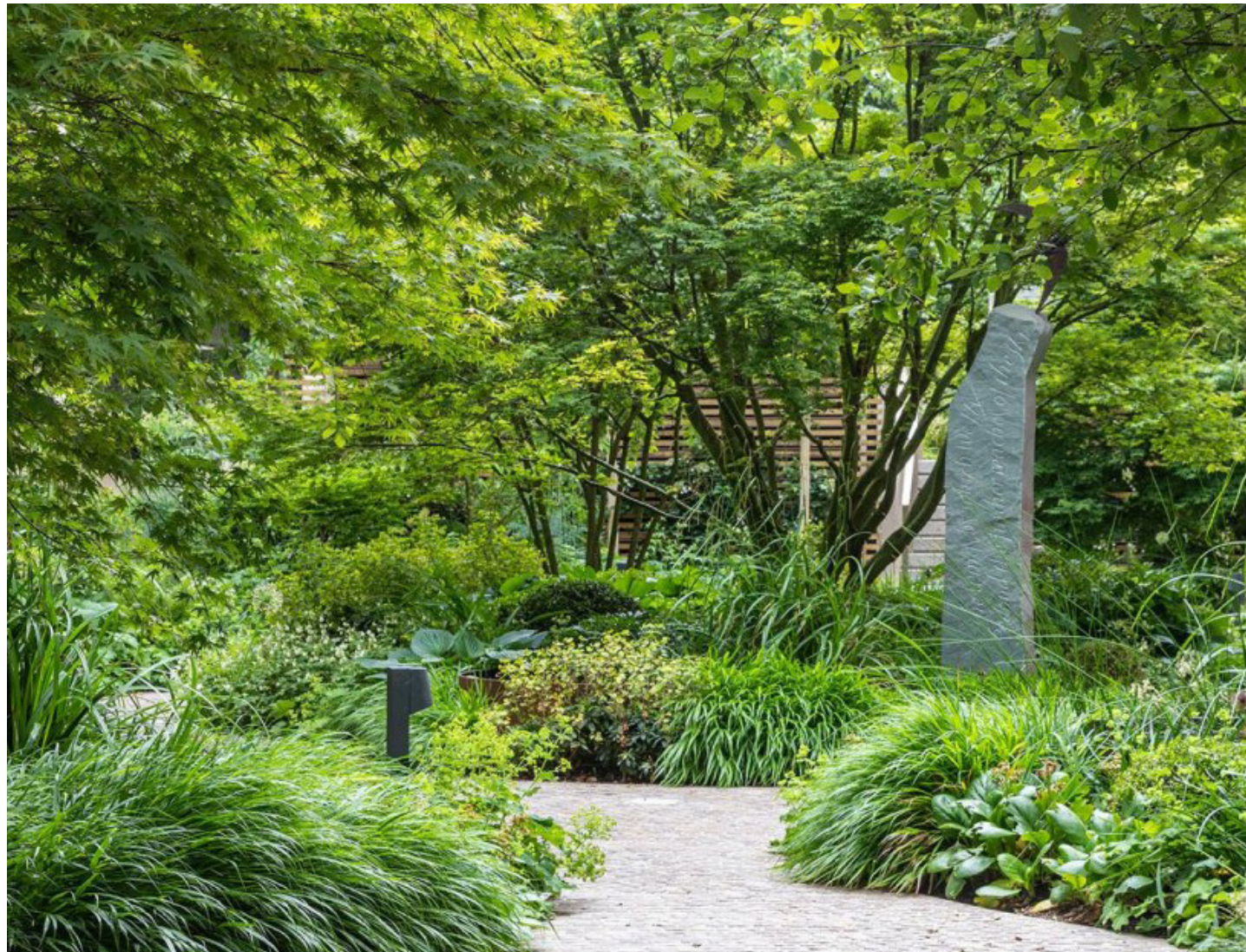


This space will perform a variety of roles, it will be welcoming to the residents, promote the ecological aspirations of the development, establish a sense of community, provide a space for short term relaxation and use high quality materials.

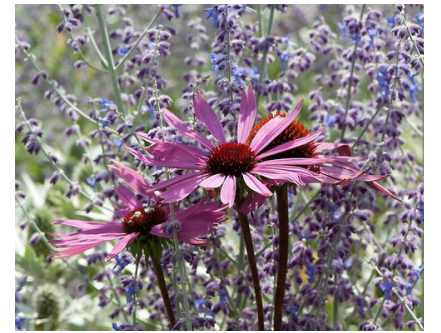
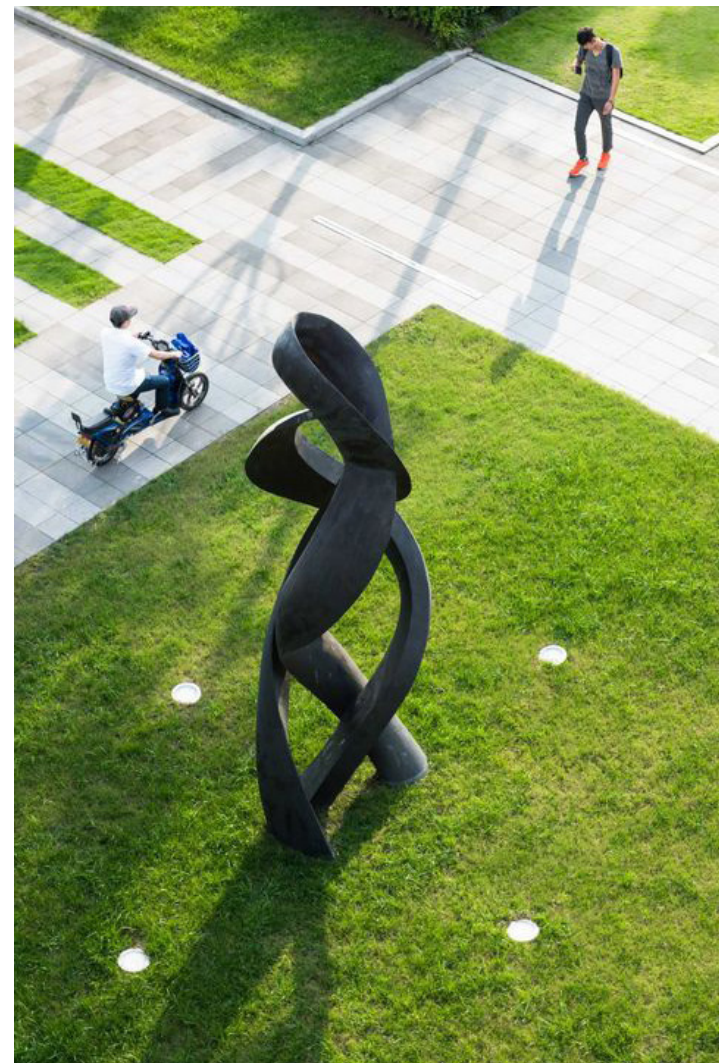
KEY ELEMENTS / CHARACTERISTICS:

- » Mounding landscape with dense ornamental grass planting surrounding the central garden space.
- » Natural, high quality materials as paving and seating elements.
- » Formal/geometric tree planting provide visual connection with the community hub area.
- » Granite natural rain water collector will serve as an attractive visual centre point and reflective element.
- » Provides possibility to collect rain water in the rainwater garden around the water feature and enhance ecology of the garden space.



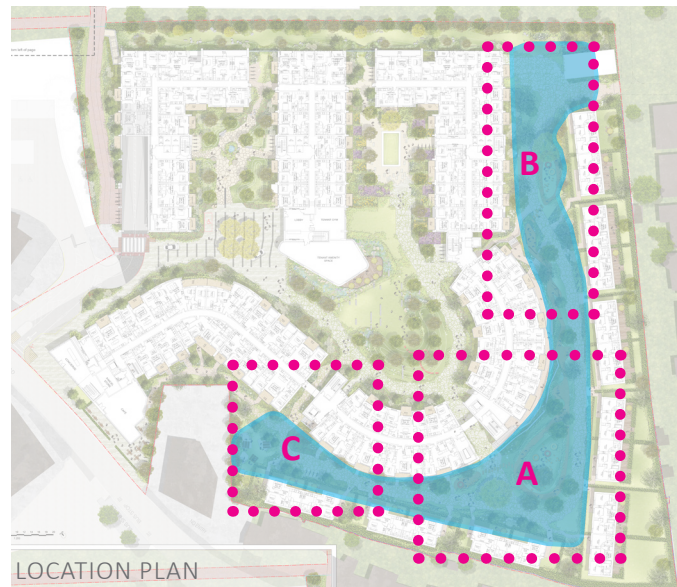


CHARACTER AREAS



CHARACTER AREAS

CHARACTER AREA 5. - ACTIVITY AND PLAY AREA

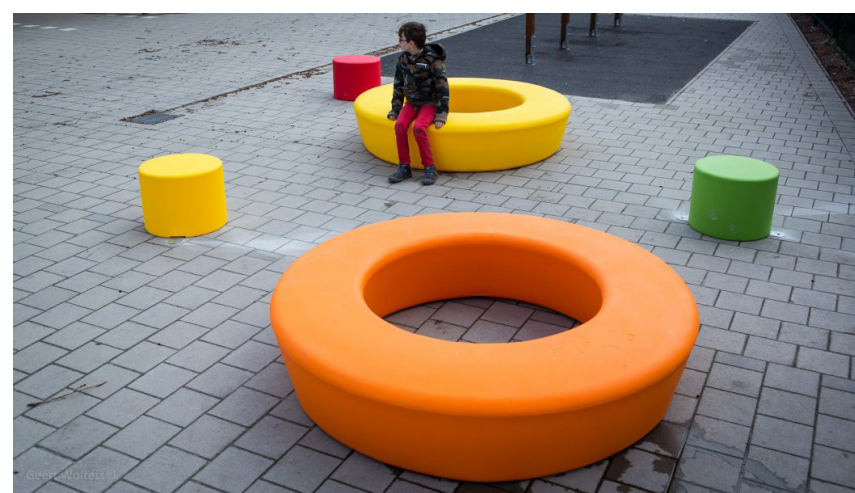
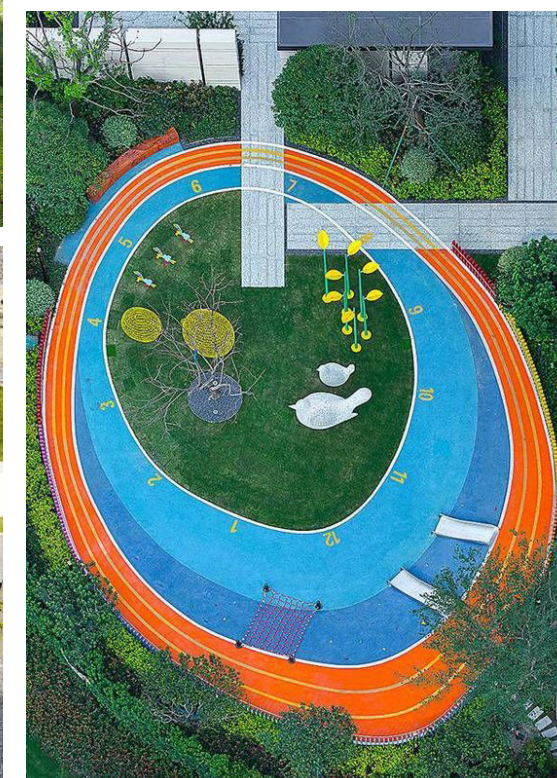


Play spaces and family gathering areas ensure new residents of all ages can enjoy the space. Native planting and careful habitat creation will establish an ecologically rich environment which will benefit the local people and the environment. The area requires a family friendly approach to the landscape design due to the nearby housing. With this in mind the space features an undulating play and activity surface which spans through the garden and connects together the activity nodes. Variety of planting types offer variations in colour, texture and aroma. These design techniques are intended to stimulate the senses and encourage nearby residents to use the outdoor spaces more frequently.

KEY ELEMENTS / CHARACTERISTICS:

- » Mounding landscape forms and undulating activity surface connects the garden spaces
- » Multi-age play areas and natural play elements
- » BBQ areas and gathering spaces
- » Lush planting along the sunken garden areas of the basement flats

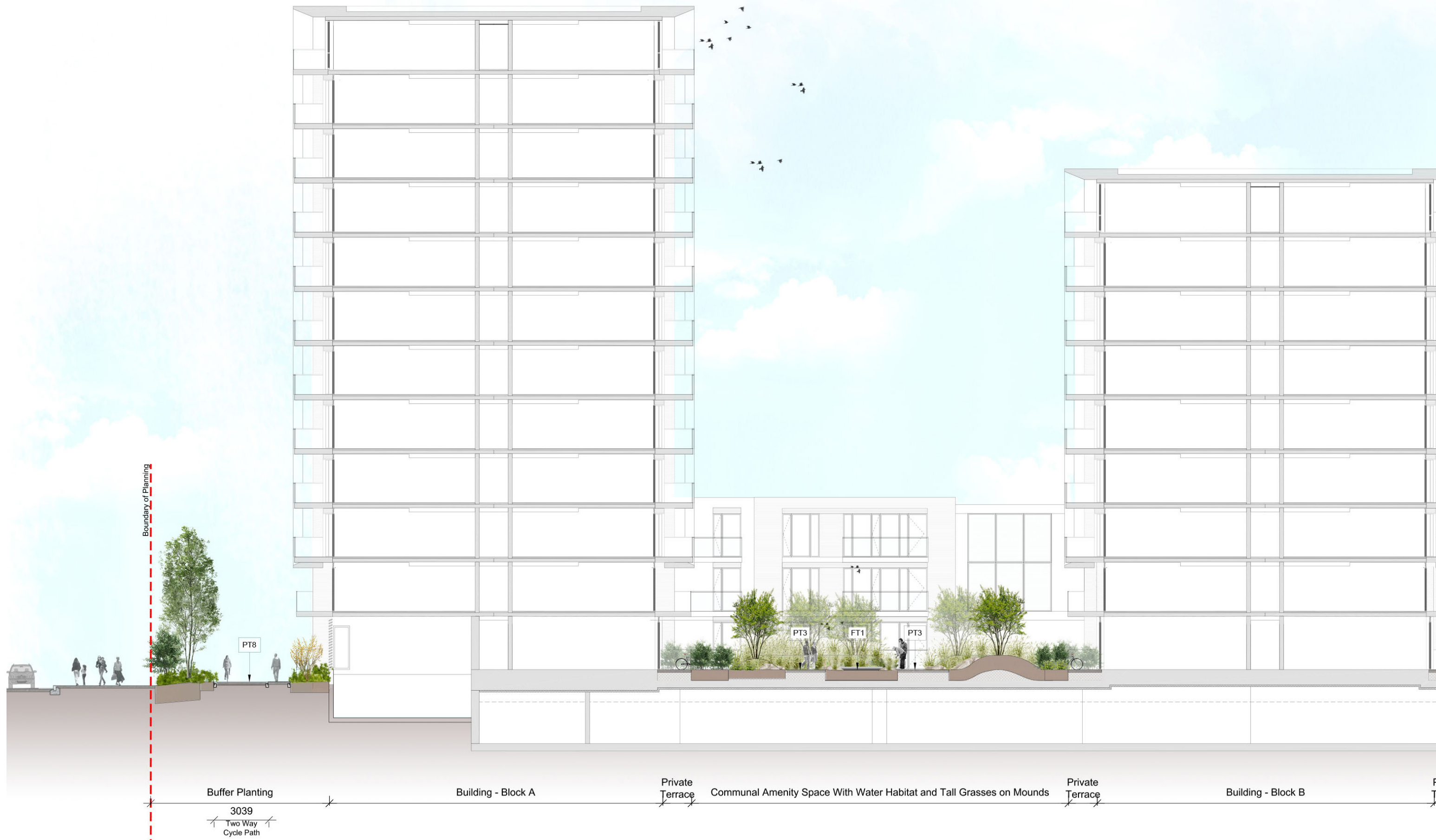




C

LANDSCAPE SECTIONS

LANDSCAPE SECTION 1.





Private Terrace

Communal Amenity with Open Lawn and Trees on Mounds

Private Terrace

Building - Block C

Private Terrace

Communal Amenity with Activity / Play Area

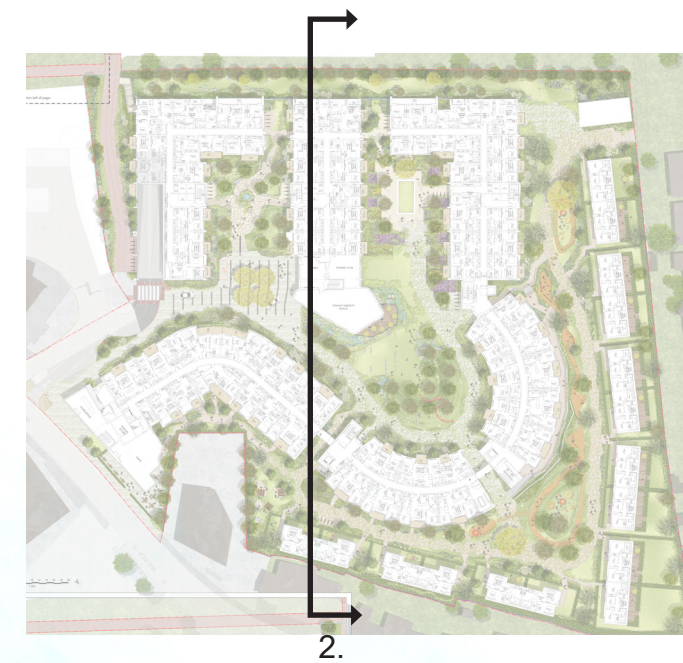
Private Garden

Boundary of Planning

LANDSCAPE SECTIONS

LANDSCAPE SECTION 2.

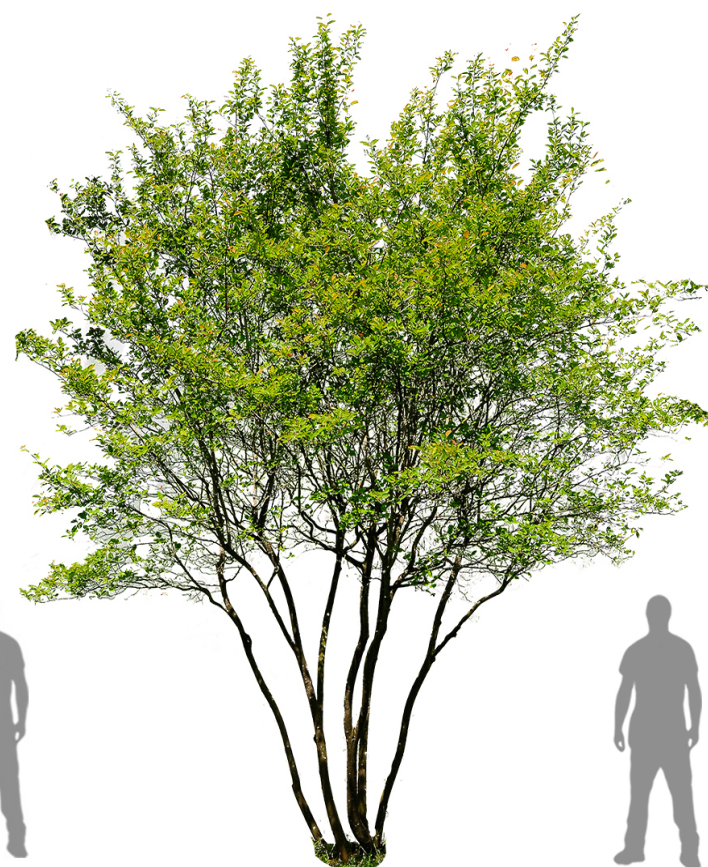




PLANTING TYPES



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 and vehicular routes and in key landscape areas. The required height of the multi-stem trees is: 3.5-4 m.



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: 3-3.5 m.



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- 1.3 m.



Ground covers provide protection of the topsoil from erosion and drought. In an ecosystem, the ground covers forms 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.

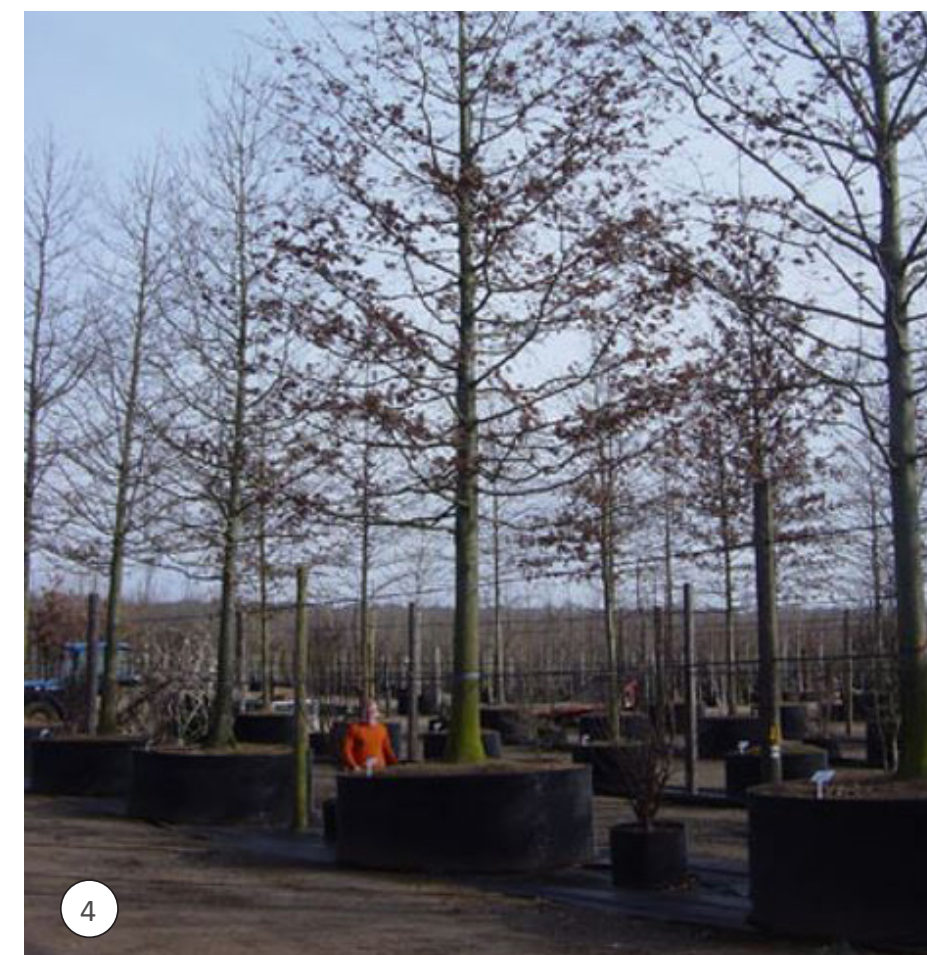
TREE TYPOLOGIES & SIZES

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 16-18cmg.
Root ball size approx 50cm diameter x 50cm deep.
Heights vary- approx 4.0-5.0 m.
2. Girth: 20-25 cm.
Root ball size approx 80 cm diameter x 50 cm deep.
Height of plant: approx 5.0-6.0 m.
3. Girth: 35-40 cm (on the right).
Root ball size approx 110 cm diameter x 70 cm deep.
Height of plant: approx 7.0-8.0 m.
4. Girth: 70-80 cm
Root ball size: approx 180 cm diameter x 80 cm deep.
Height of plant: approx 8-10 m.

(Note: Photos of tree sizes taken from Deepdale tree's website.)



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.

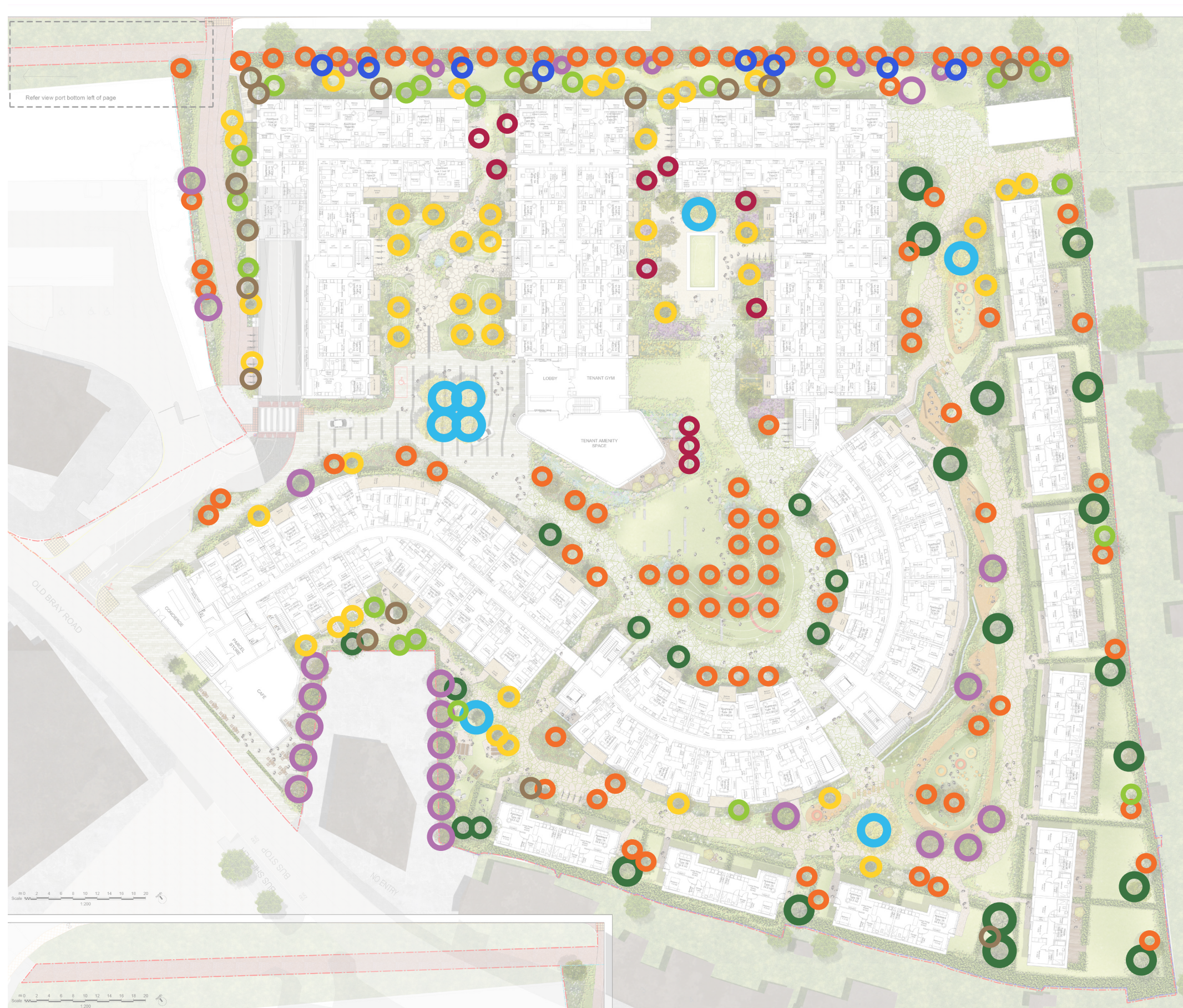
The tree planting strategy aims to position the right tree in the right place, with an emphasis on stock quality over quantity.

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

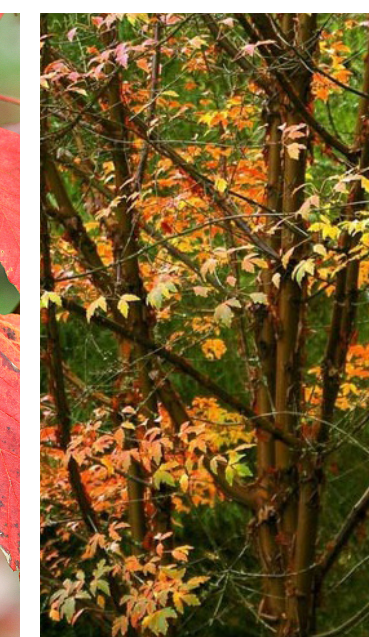
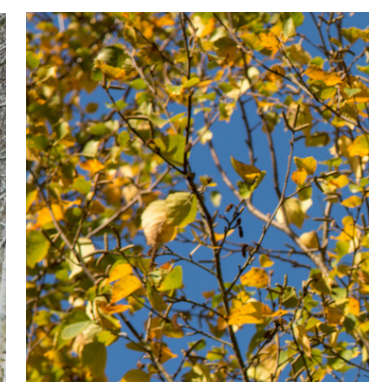
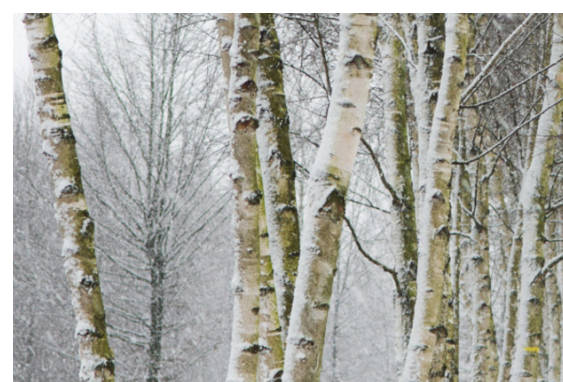
The adjacent diagram illustrates the tree positions and identifies the different species proposed. The chosen species consist of a mix of small multi-stem trees and clear stem specimens.

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



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

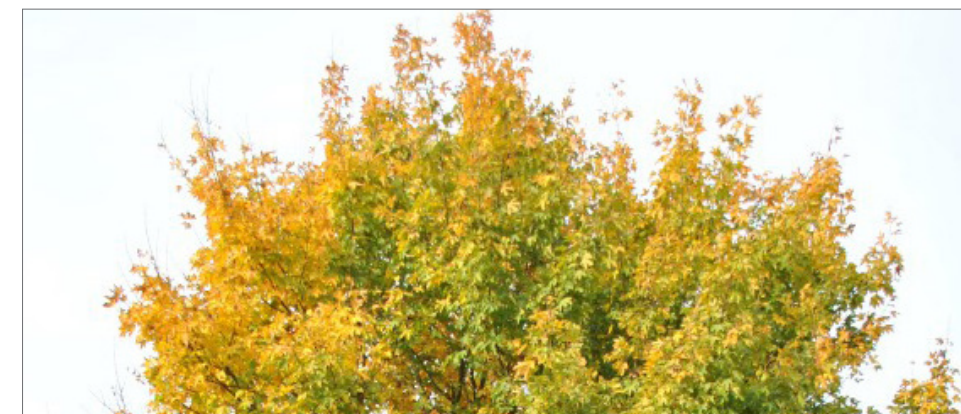
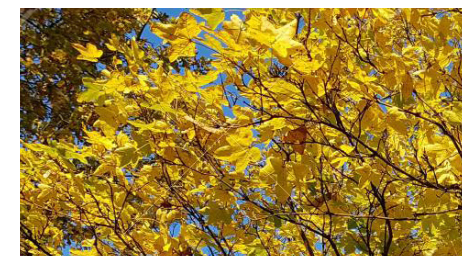
Ultimate spread: 4-8 meters

Time to ultimate height: 20-50 years

SOFT LANDSCAPE STRATEGY

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: 4-6 meters
Ultimate spread: 4-8 meters
Time to ultimate height: 10-15 years

CORNUS MAS - DOGWOOD

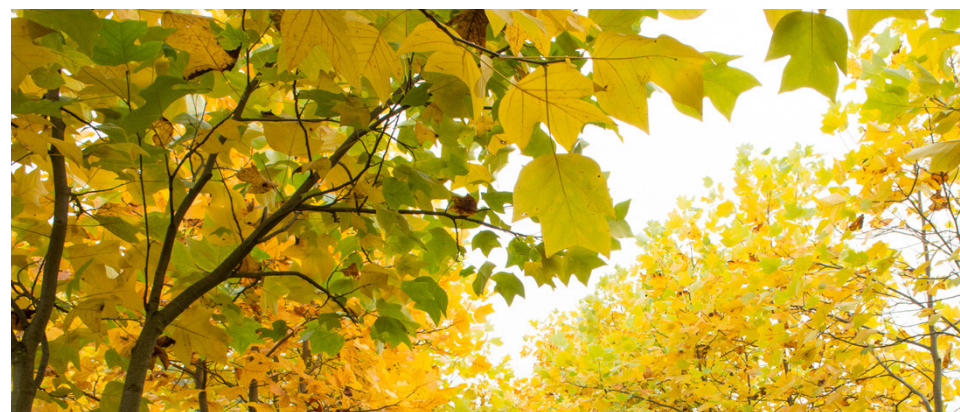
Dogwood is a large deciduous shrub that produces lots of shiny red berries, this fruit has long been used as a food crop as well as been loved by birds.
Cornus mas has soft foliage with small, bright yellow flowers in early Spring that are followed by fleshy, bright red, cherry-like fruits in late Summer. Attractive bark on older plants.
Ultimate height: 4-5 meters
Ultimate spread: 3-4 meters
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 10-20 meters
Ultimate spread: 4-8 meters
Time to ultimate height: 10-20 years

TREE PLANTING

Semi-mature clear stem trees, with 2.5m clear stem



 **LIRIODENDRON TULIPIFERA 'AUREOMARGINATUM' - TULIP TREE (COLUMNAR)**

This 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: 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 12 meters
 Ultimate spread: 8 meters
 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: 6-12 meters
 Ultimate spread: 3-4 meters
 Time to ultimate height: 20-50 years








SOFT LANDSCAPE STRATEGY

ORNAMENTAL PLANTING

This diagram has been developed to outline the types of planting proposed for the scheme, where it is positioned and approximate height.

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.

-  Rainwater garden planting
-  Herbaceous planting
-  Herbaceous planting
-  Herbaceous planting
-  Shrub planting, 50-100 cm
-  Clipped hedge, 110 cm
-  Lawn



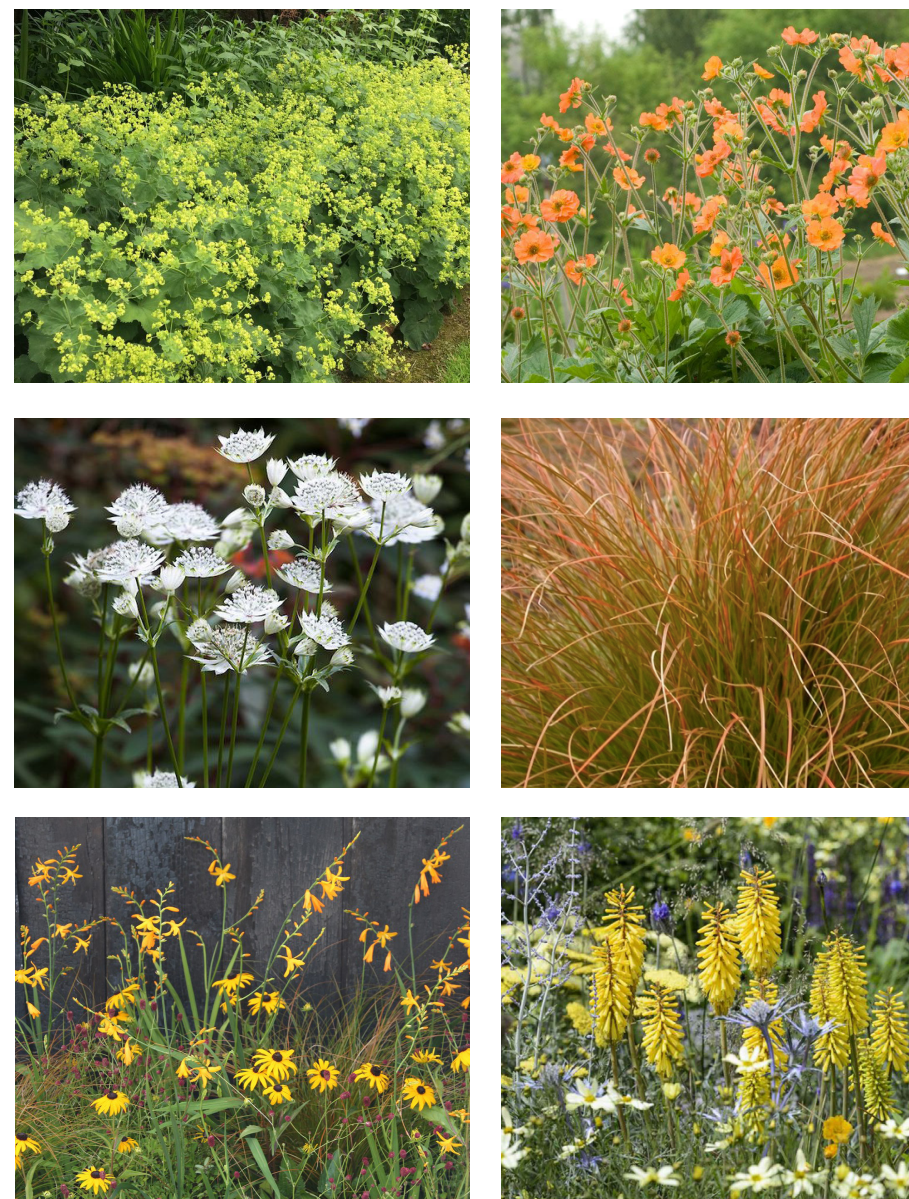
HERBACEOUS PLANTING

PERENNIAL MIX A



1. Anemone h. var. japonica 'Splendens'
2. Perovskia atriplicifolia
3. Penstemon 'Rich Ruby'
4. Echinacea purpurea
5. Sanguisorba Tanna
6. Salvia 'Caradonna'

PERENNIAL MIX B



1. Alchemilla mollis
2. Geum 'Totally Tangerine'
3. Astrantia major 'White Giant'
4. Carex testacea
5. Rudbeckia fulgida, Crocosmia crocosmifolia 'George Davison'
6. Kniphofia 'Sunningdale Yellow'

PERENNIAL MIX C



1. Anemanthele lessoniana
2. Dierama pulcherrimum 'Blackbird'
3. Lisimachia 'Atropurpurea'
4. Aquilegia 'Black Barlow'
5. Anthriscus sylvestris Ravenswing
6. Verbascum 'Petra'

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'
6. Polystichum aculeatum

PERENNIAL MIX E



1. Hyacinthoides non-cryspa
2. Carex 'Ice Dance'
3. Aстранtia major 'Claret'
4. Luzula nivea
5. Liriope muscari
6. Pachisandra terminalis

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'

SHRUB AND HEDGE PLANTING

SHRUB PLANTING



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

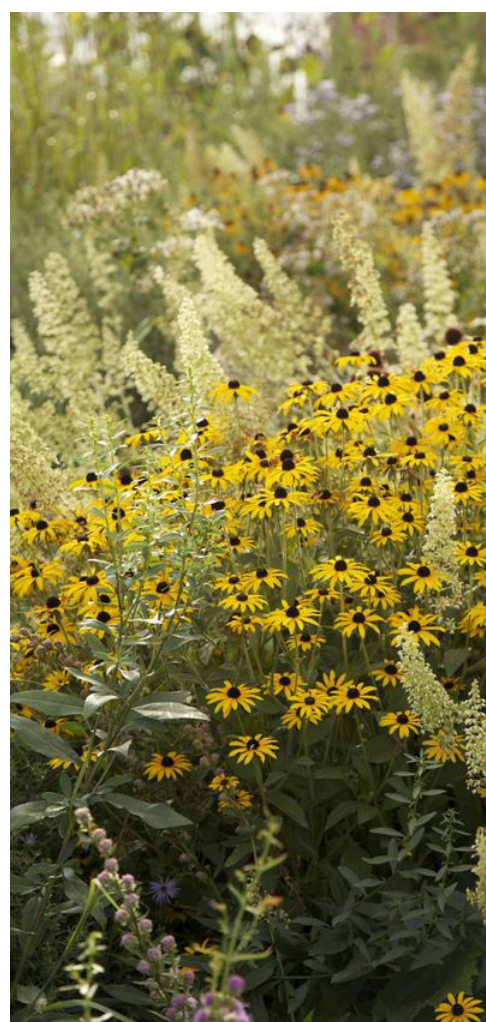
SOFT LANDSCAPE STRATEGY

HERBACEOUS PLANTING MOOD IMAGES

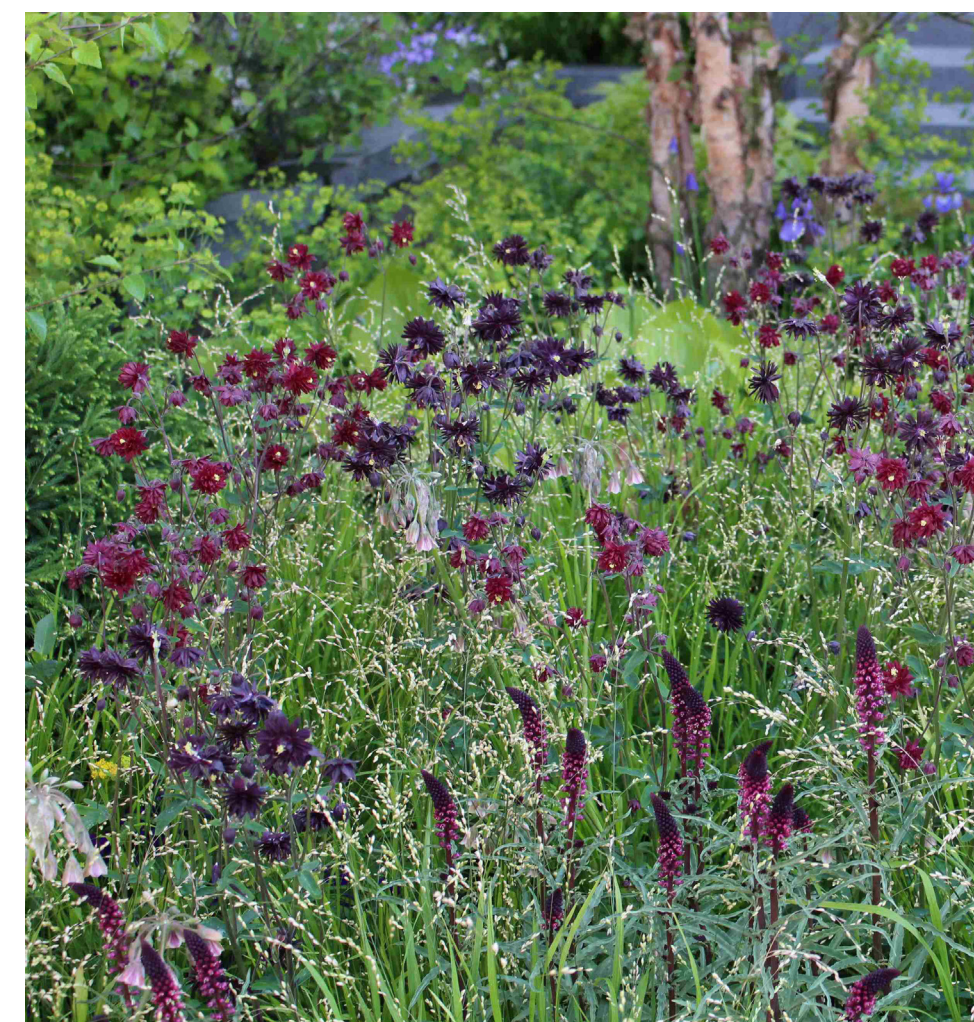
PERENNIAL MIX A



PERENNIAL MIX B



PERENNIAL MIX C



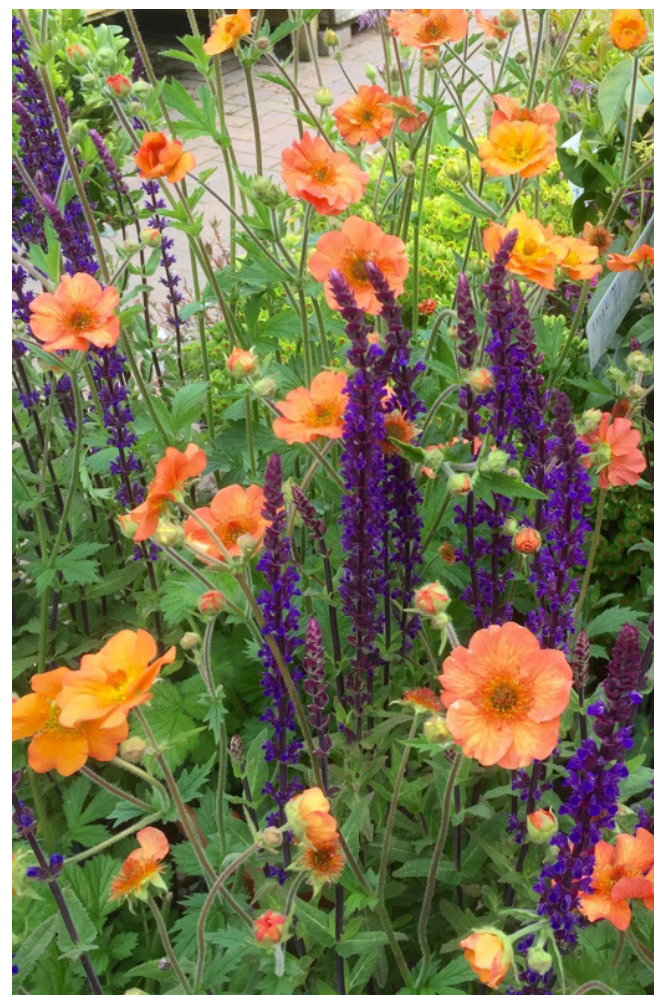
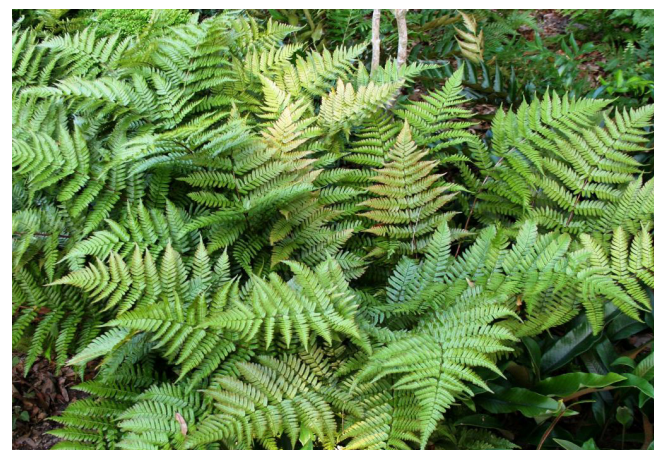
HERBACEOUS AND SHRUB PLANTING MOOD IMAGES

PERENNIAL MIX D, E & F WITH BIRCH TREES



SOFT LANDSCAPE STRATEGY

PLANTING STRATEGY - ROOF TERRACE PLANTING PALETTE



1. Carex testacea
2. Carex 'Ice Dance'
3. Liriope muscari

4. Euphorbia amygdaloides var. robbiae
5. Euphorbia amygdaloides purpurea
6. Pittosporum tobira 'Nanum'

7. Dryopteris species
8. Geum 'Totally Tangerine'
9. Salvia species

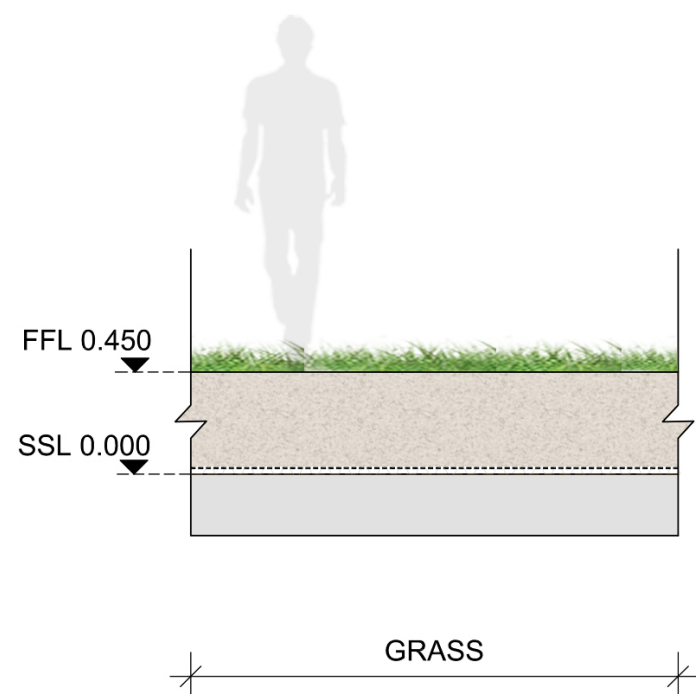
10. Rudbeckia fulgida
11. Crocosmia species
12. Salvia nemorosa

TYPICAL SOFT LANDSCAPE SECTIONS

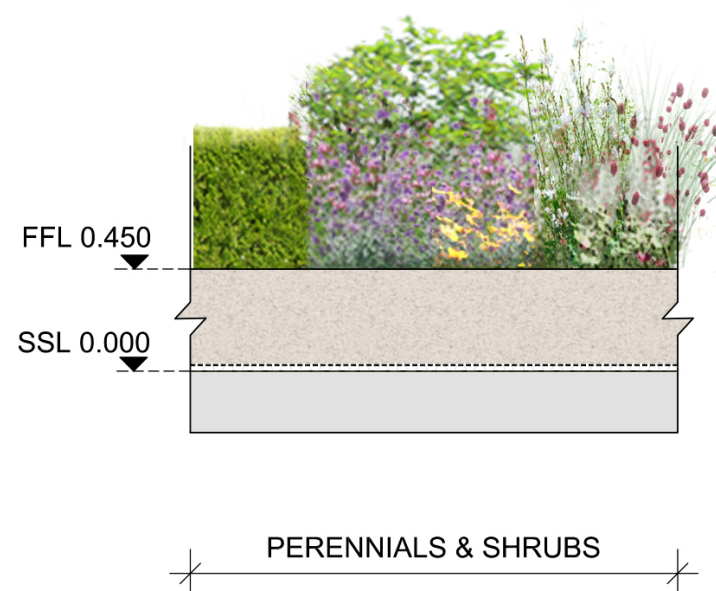
More than 50% of the garden will be built on the slab of the parking area below ground. Whilst this may seem challenging to maintain a healthy and working landscape, it is perfectly possible as long as the minimum required soil depth is provided for the plants.

A wide range of plants will do very well in this area. The key for podium planting, as in any traditional

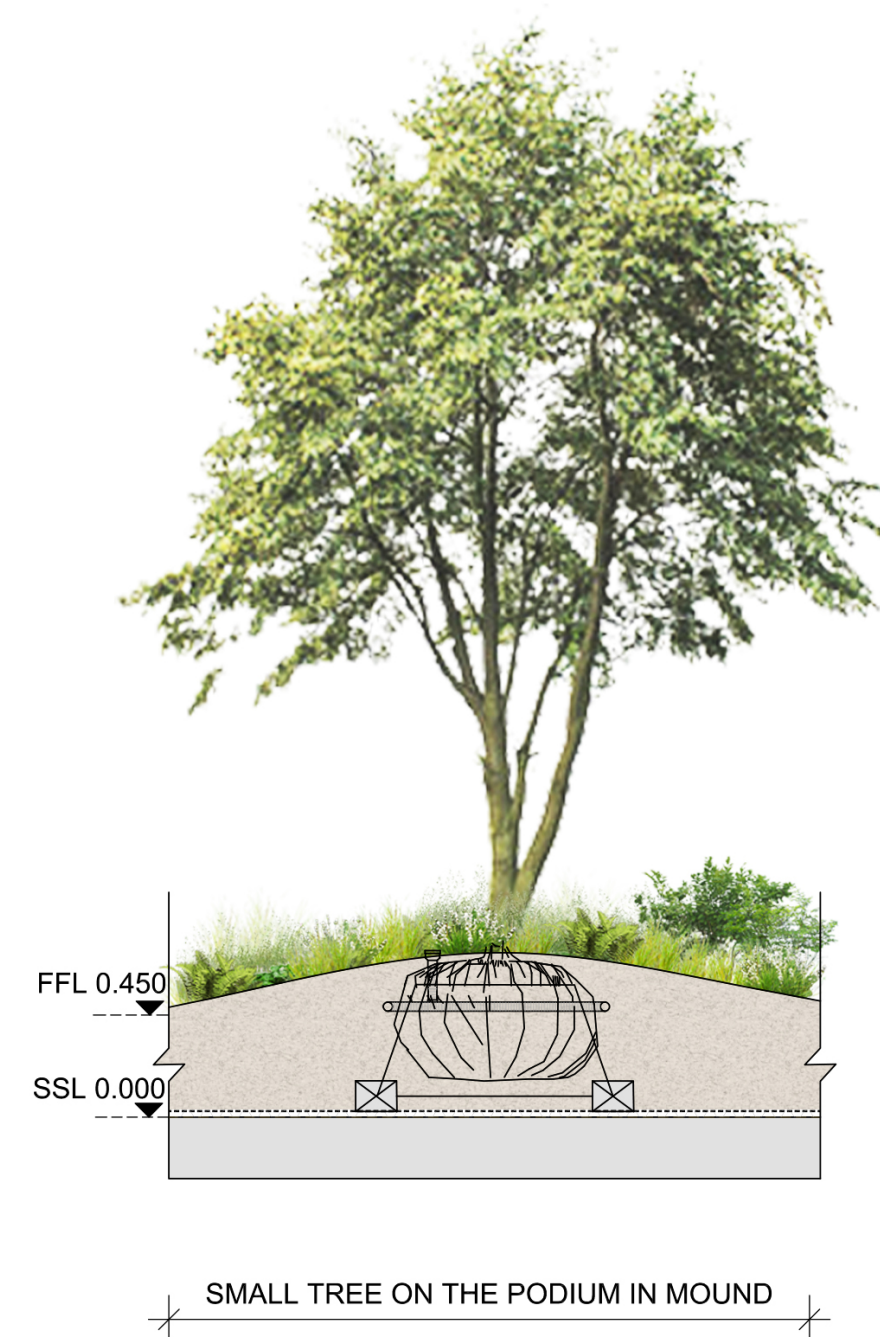
border design, is to choose the right plant for the situation. As a general rule, as little as 60mm will support a sedum mat. With 150mm, it is possible to grow amenity turf, given appropriate irrigation and regular feeding. With 300mm of growing medium, a good range of small shrubs and herbaceous perennials 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 3-4 meters: min. 750-800mm.
For larger trees: minimum 1000mm.

SOFT LANDSCAPE STRATEGY

PLANTING STRATEGY - EXTENSIVE SEDUM ROOFS

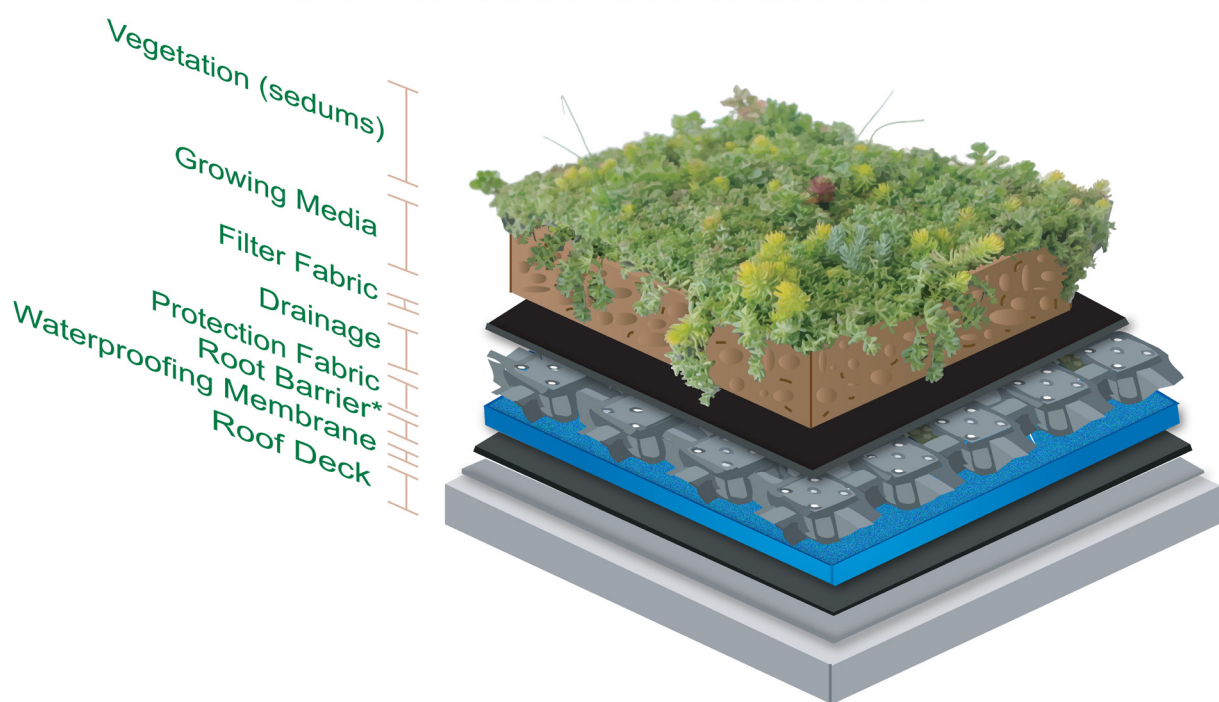
There are many opportunities for green roofs which can improve local biodiversity and support the wider green infrastructure network by re-introducing green spaces and surfaces into the urban environment.

The principle build up of the green roofs is shown on the diagram below. This is 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) approaches to development. The selection of and specification of planting species will be established at the detailed design stage with the aim of providing a range of planting types which aim 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.



GREEN ROOF COMPONENTS



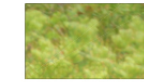
PLANTING STRATEGY - EXTENSIVE SEDUM ROOFS: ILLUSTRATIVE MASTERPLAN



Paving Type 10. Product: Gravel Strip
Supplier: TBC or Similar Approved
Size: Width 500mm



Edge Type 2: Product: Aluminum Edge
Supplier: Marshalls or Similar Approved
Type/Size: AluExcel, 100mm high



Sedum Roof
Supplier: Bauder or Similar Approved
With bio-diversity (logs, stones) elements.

SOFT LANDSCAPE STRATEGY

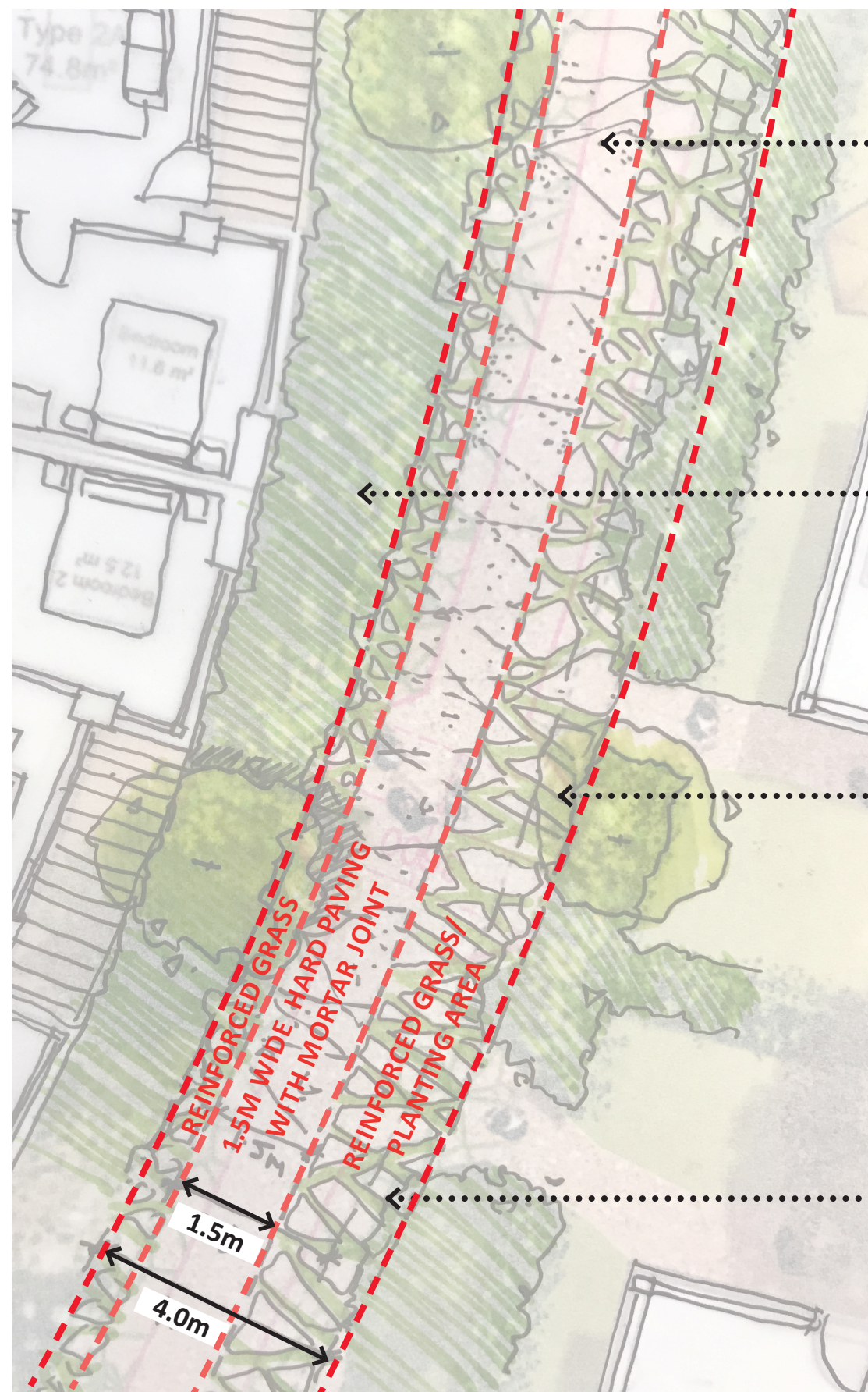
LANDSCAPE EDGING - SOFTENING THE HARD LANDSCAPE

One of our main design objectives is to create a pedestrian friendly, green garden space for the residents of Cornellscourt Village. The garden needs to provide access to the emergency vehicles and needs to be accessible for everyone.

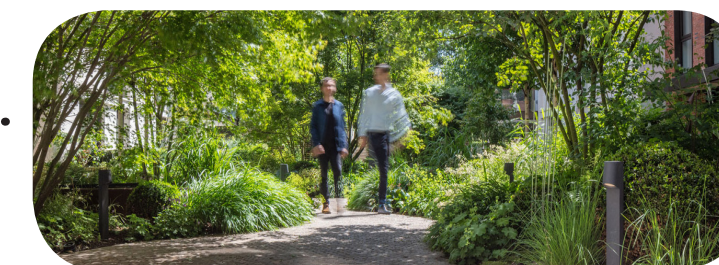
The circulation through the scheme is via a series of 'green streets', for shared use by pedestrians, disabled people and occasionally by emergency/delivery and maintenance vehicles. These min. 4m wide 'green streets' incorporate a 1.5m wide natural stone surface with mortar joints while the hard surface loose up along the edges and allows the grass and planting to protrude into the paving joints.

KEY ELEMENTS / CHARACTERISTICS:

- » Informal landscape edges.
- » Reinforced lawn areas along the 'green streets'.
- » High quality paving materials and elements.
- » Dense planting with a year around interest along the hard surfaces.
- » The dense planting along the access route provide privacy for the ground floor residents and their private amenities.



Designated disabled access path - min. 1.5m wide path with 2m long by 1.8m wide passing places on every 25m distance. Paving made with mortar joints rather than green joints.



Dense planting along the edges to provide privacy to the residents on the ground floor



Semi-hard path along the hard surfaces with mortar joint. The 60-80 mm wide grass joints soften up the hard landscape.



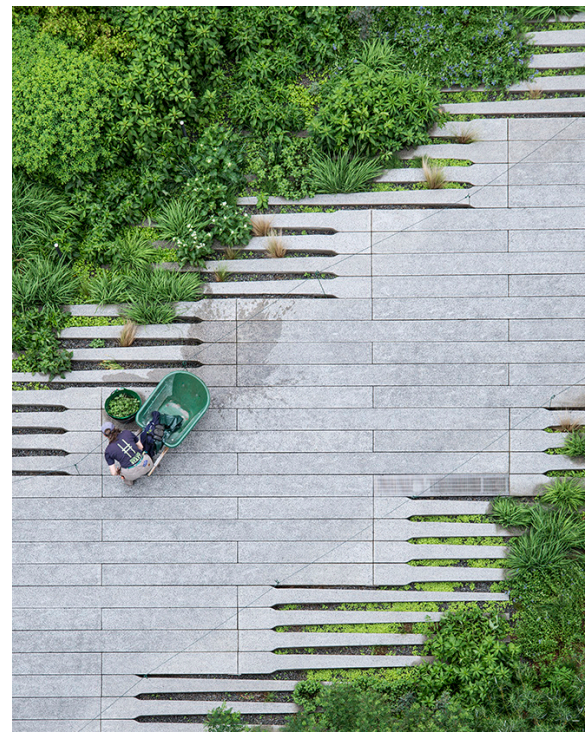
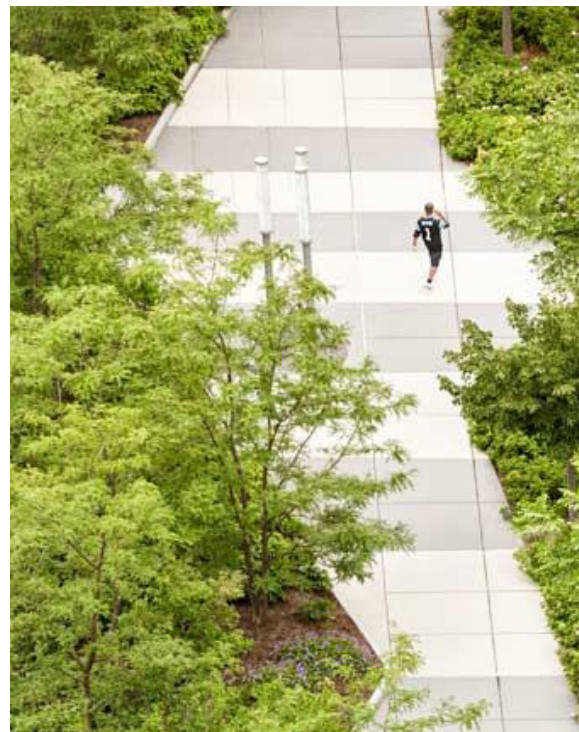
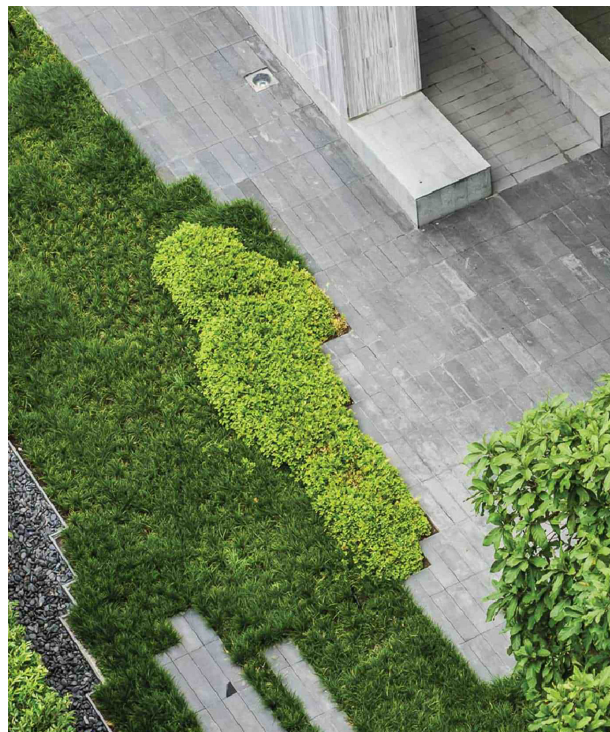
The frazzled and non-linear edges of the paving surface allows the soft landscape to protrude into the hard areas.

SOFT LANDSCAPE STRATEGY



LANDSCAPE EDGING - SOFTENING THE HARD LANDSCAPE

The adjacent images provide examples of how we intend to blend the paving into the surrounding planting areas. The design incorporates these different strategies throughout the site.



SOFT LANDSCAPE STRATEGY

THE TECHNOLOGY OF REINFORCED GRASS

The Netlon Advanced Turf System (ATS400/B) is a load-bearing natural grass reinforced surface with no visible surface structures or trip hazards. It provides a safe, free-draining, wear tolerant reinforced grassed surface which resists compaction and surface rutting, whilst sustaining increased pedestrian and vehicle traffic up to HGV loadings when provided with an appropriately designed sub-base.

Advanced Turf consists of a high quality sandy soil root zone into which thousands of playing card sized polypropylene Netlon plastic mesh elements are pre-blended, the composite mesh reinforced root zone, selected turf and installation fertiliser are delivered to site as a system. Once the Advanced Turf grass reinforcement root zone system is installed and as the roots develop, they entwine with the interlocking Advanced Turf's plastic mesh elements and form a strong, extremely stable and deep anchored root system. Maintained as a standard quality grassed surface,

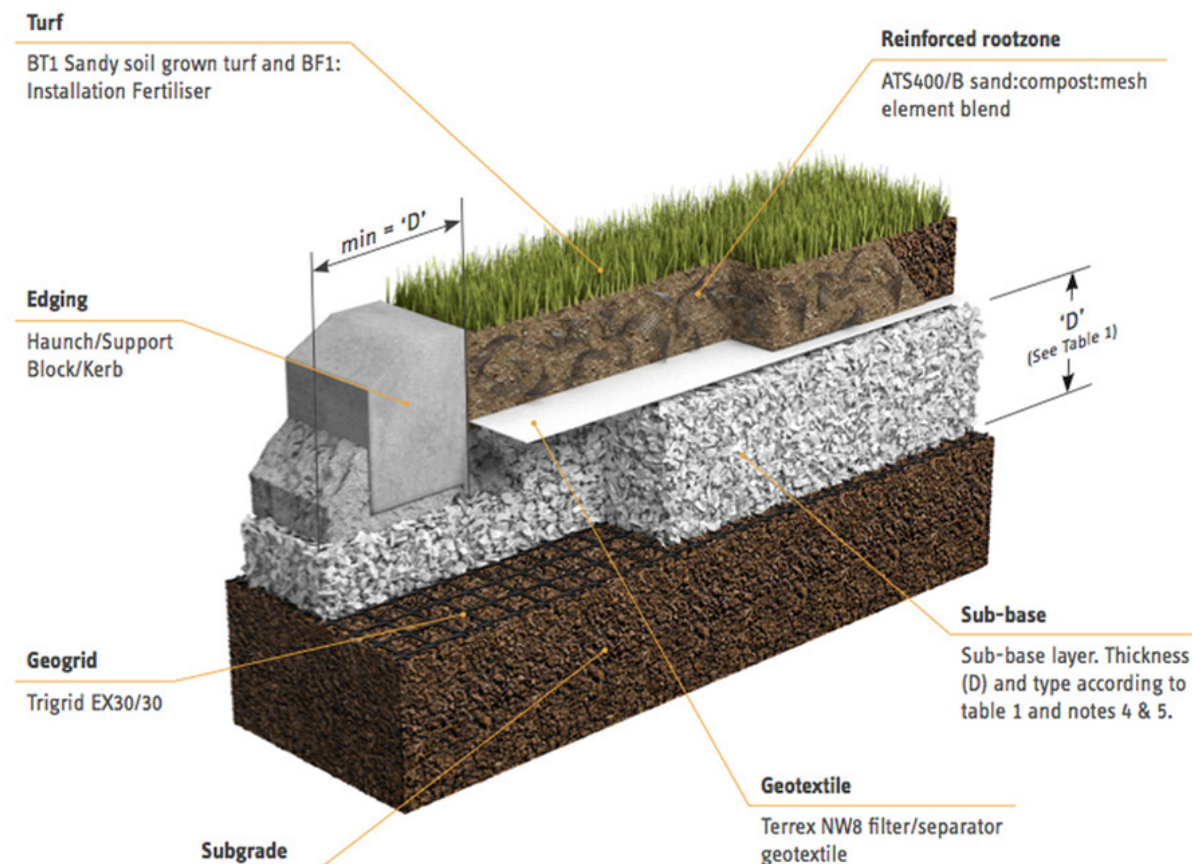
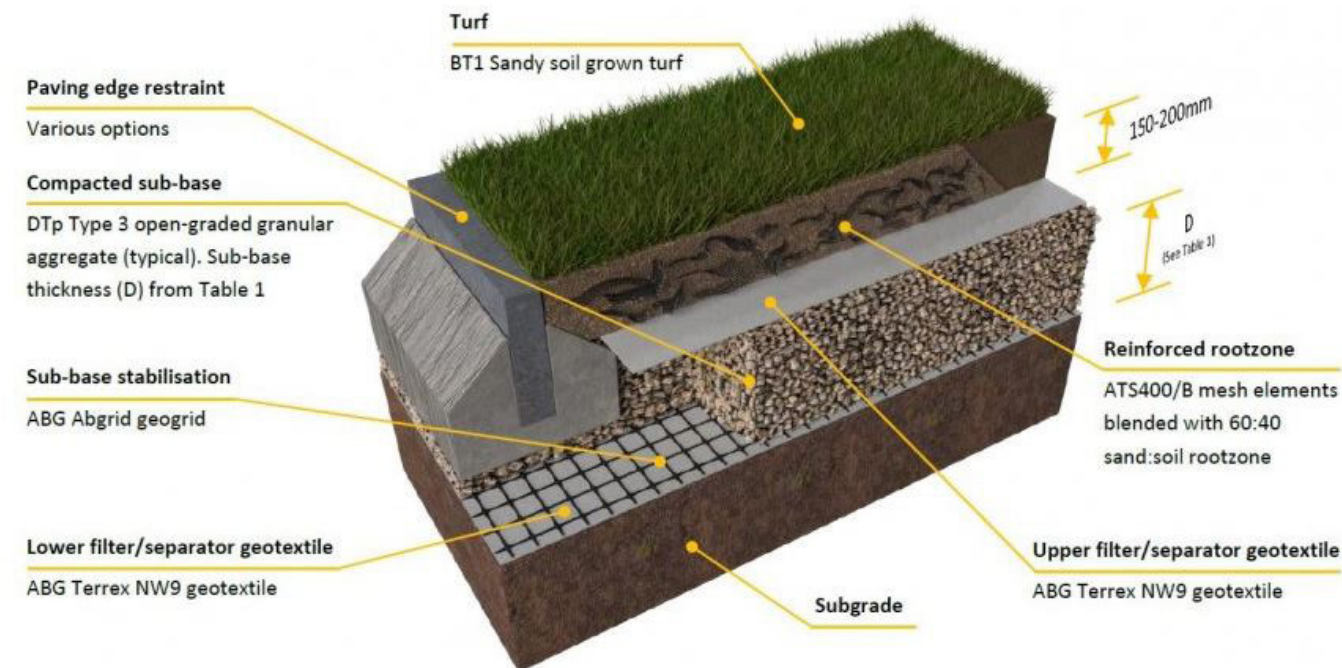
Advanced Turf can be specified as a component of SuDS Source Control and in many trafficked applications such as: Grassed Fire/Emergency Access routes, Cherry Picker/Service access,



AREAS SUPPORTED WITH GRASS REINFORCEMENT SYSTEM

AREAS SUPPORTED WITH GRASS REINFORCEMENT SYSTEM

DETAILS OF THE REINFORCED GRASS SYSTEM



Without Netlon ATS (left) rutting occurs as the applied vehicle wheel loads are not distributed efficiently through the soils. However, with Advanced Turf grass reinforcement system, the load is transferred efficiently meaning that higher vehicle loads can be applied without the risk of rutting occurring,



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HARD LANDSCAPE STRATEGY

PAVING AND EDGING STRATEGY

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

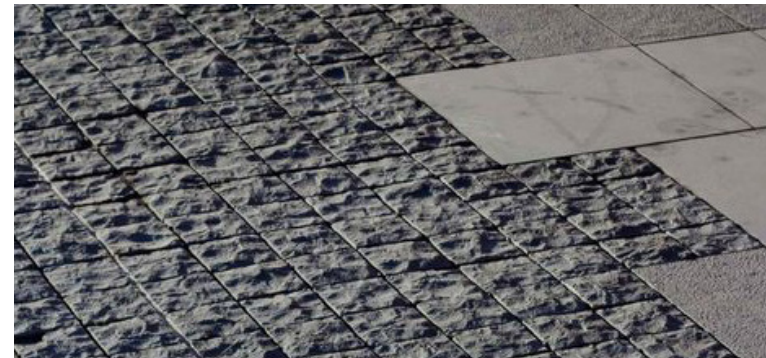
High quality elements will help to create a positive, inclusive and inspiring environment, where people feel comfortable to walk through, sit, contemplate and enjoy the landscape setting.

For the location of the paving and edge types refer to C0098 L100 Ground Floor General Arrangement Plan.

Paving Type 1. Product: Granite slabs
Supplier: Marshalls or Similar Approved
Size/Colour: 700x450x80mm/Light grey (Silver grey)



Paving Type 2. Product: Granite slabs
Supplier: Marshalls or Similar Approved
Size/Colour: 300x450x80mm/Dark grey



Paving Type 3. Product: Yorkstone slabs,
irregular shapes with 5-10mm mortar joints
Supplier: Marshalls or Similar Approved
Size/Colour: max. 800x800x80mm



Paving Type 4. Product: Yorkstone slabs,
irregular shapes with 'green' joints
Supplier: Marshalls or Similar Approved
Size/Colour: max. 800x800x80mm



Paving Type 5. Product: Natural stone slabs,
irregular shapes with 'green' joints
Supplier: Marshalls or Similar Approved
Size/Colour: max. 800x800x80mm



Paving Type 6. Product: Self binding gravel
Supplier: Breedon Special Aggregates or similar app.
Size/Colour: 0-4mm/ Golden Amber



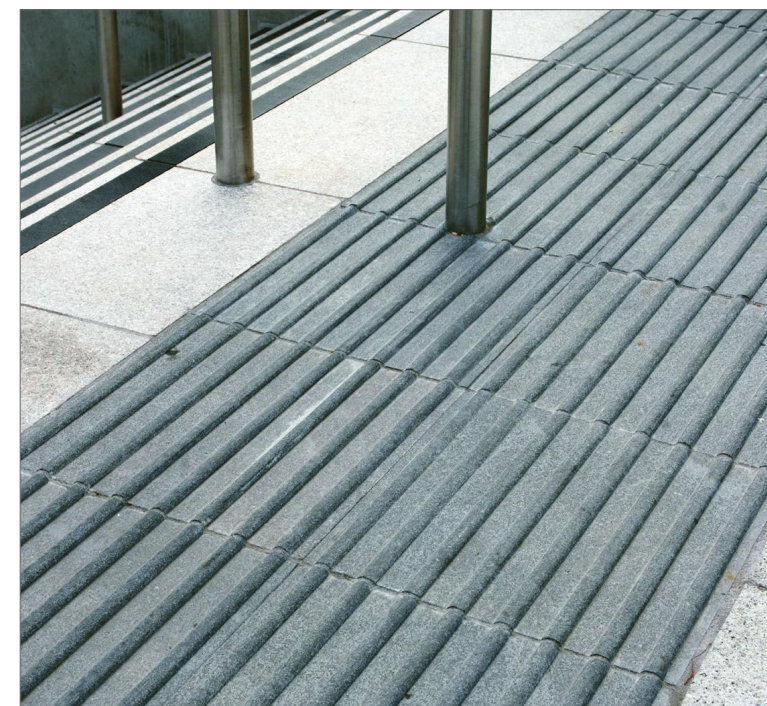
Paving Type 7. Product: Wet Pour Safety Surface
Supplier: TBC
Colour: Buff/Golden brown



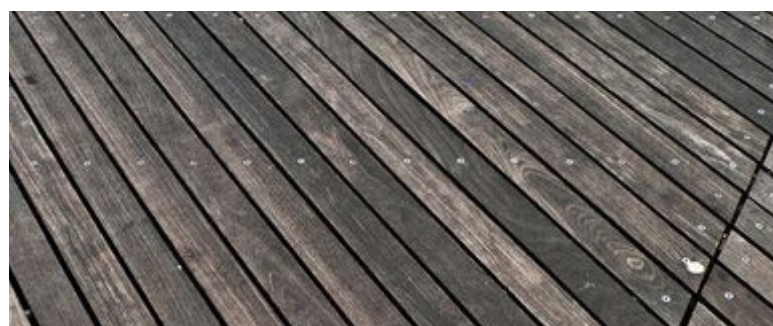
Paving Type 8. Product: Asphalt Paving
Supplier: TBC or Similar Approved



Paving Type 9. Product: Blister Tactile Flag Paving
Supplier: Marshalls or Similar Approved
Size/Colour: 400x400x65mm/Textured Natural.



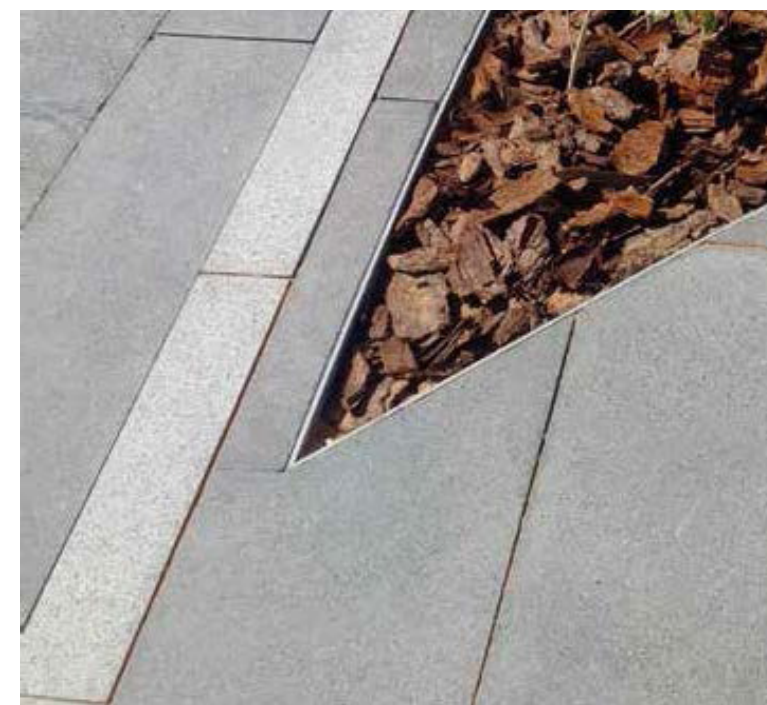
Paving Type 10. Product: Decking
Supplier: Marshalls or Similar Approved
Size/Colour: TBC



Edge Type 1. Product: Conservation Kerb
Supplier: Marshalls or Similar Approved
Size/Colour: 145x255x915mm/Concrete/Textured.



Edge Type 2. Product: Aluminium Edge
Supplier: Kinley or Similar Approved
Type/Size AluExcel, 100mm high



HARD LANDSCAPE STRATEGY

FURNITURE STRATEGY

Furniture and features are carefully selected to enhance the space without cluttering the garden. Through careful spacial planning, the selected furniture and features will enrich the space and provide opportunities for residents to enjoy the space and feel connected with the surroundings.

The design and placement of elements will respond to the architecture through sympathetic, appropriate and consistent materials, textures and scales. 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.

Furniture Type 1.: Natural Play Equipment
Supplier: TBC
Smooth and rounded boulders with no sharp edges and under 0.6m height.



Furniture Type 2.: Bench: Prima Marina
Supplier: Marshalls or Similar Approved
Size: 2125x600x450mm
Material: White acid etched reconstituted stone with wooden seat.



Furniture Type 3.: Bollards - GEO
Supplier: Marshalls or Similar Approved
Size: 102x1100 mm
Material: 316 stainless steel body and cap.



Furniture Type 4.: Recessed Tree Grille: Castle
Supplier: GreenBlue Urban or Similar Approved
Size: 1200x1200mm. Material: Galvanised Steel



Furniture Type 5.: Cycle Stand: Coda
Supplier: Marshalls or Similar Approved
Size: (H)800x(W)629x50 mm
Material: Powder coated steel.



Furniture Type 6.: Tables Prima Marina
Supplier: Marshalls or Similar Approved
Material: White acid etched reconstituted stone with wooden seat, top.



Furniture Type 10.: Handrail
Supplier: LiniLED
Description: Stainless steel handrail with LED lighting compliant with building regulations.



Furniture Type 7.: Playful Seats: Hop-op and Loop
 Supplier: Artform Urban Furniture
 Description: Freestanding plastic, roof fixed playing and seating furniture with built-in light option.



Furniture Type 8.: Temporary Canopy
 Supplier: TBC
 Description: Canopy above BBQ and play areas to provide shelter from sun and light rain.



Furniture Type 9.: Fitness Trail
 Supplier: Playdale or similar approved.
 Description: Fitness trail elements made of timber.



Furniture Type 11.: Frameless Glass Balustrade
 Supplier: TBC
 Height: 1.1m



Furniture Type 12.: Stone Bench
 Supplier: TBC
 Dark granite stones with smooth sawn top.
 Height: aprx. 450 mm. Width: 600-1000 mm.



Furniture Type 14. Metal bicycle access channel.
 (To help move the bikes up and down on the steps.)
 Supplier: TBC



HARD LANDSCAPE STRATEGY

BOUNDARY TREATMENT

A balance needs to be struck between security and privacy requirements in the scheme. The landscape proposals have adopted a variety of boundary treatments which aim to keep residents safe, maintain levels of privacy whilst discouraging anti-social behaviours.

The main boundary treatment types used in the scheme are:

- Defensible space boundary along the private terraces: balustrades and/or hedges
- Block work wall with rendered finish
- Low brick wall with railing
- Wooden closed board fencing

The idea is to create a simple cohesive palette across the scheme, which will reinforce the character of the development and help instill a sense of place.

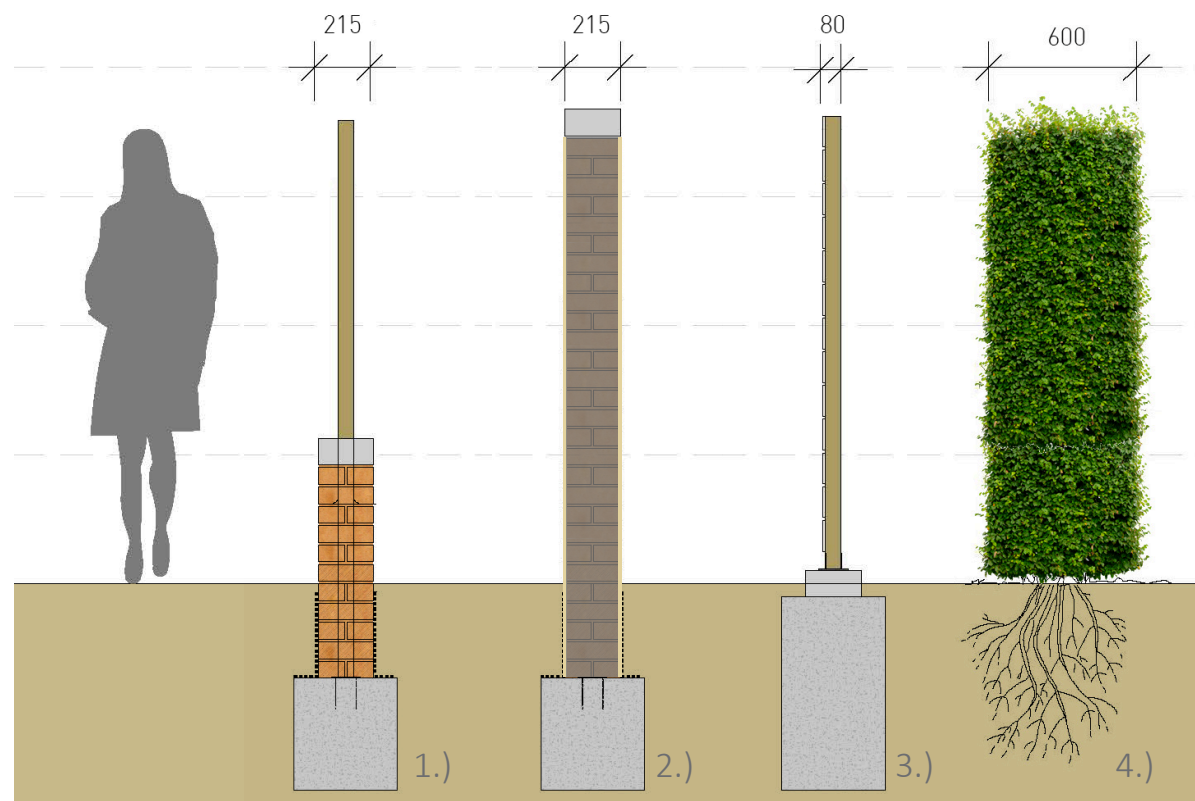
The adjacent diagram illustrates broadly where the various boundary treatment types have been utilised.

Some examples of the type of finishes and materials proposed are included on the opposite spread.

- Low brick wall and railings to 1.8m combined height
- 1.8m high block work wall with rendered finish
- 1.8m closed wooden board fence with hedge and dense planting on the residential side
- 1.2m hedge

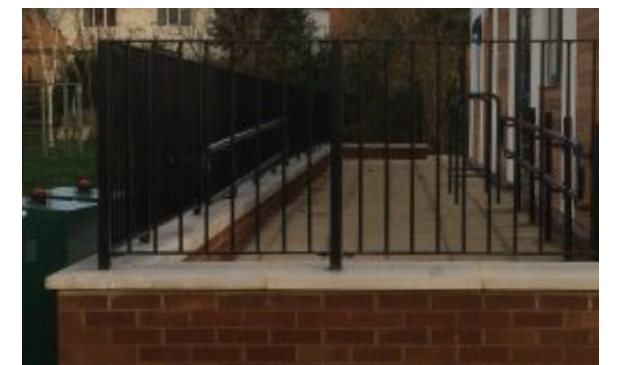
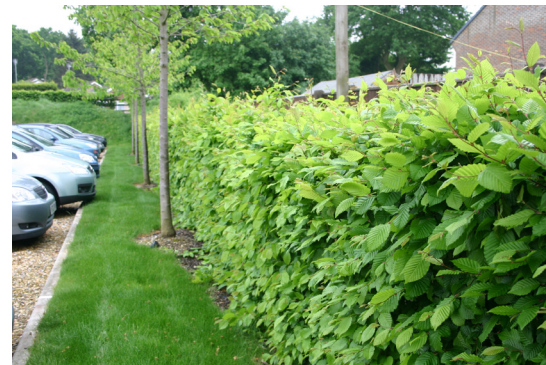
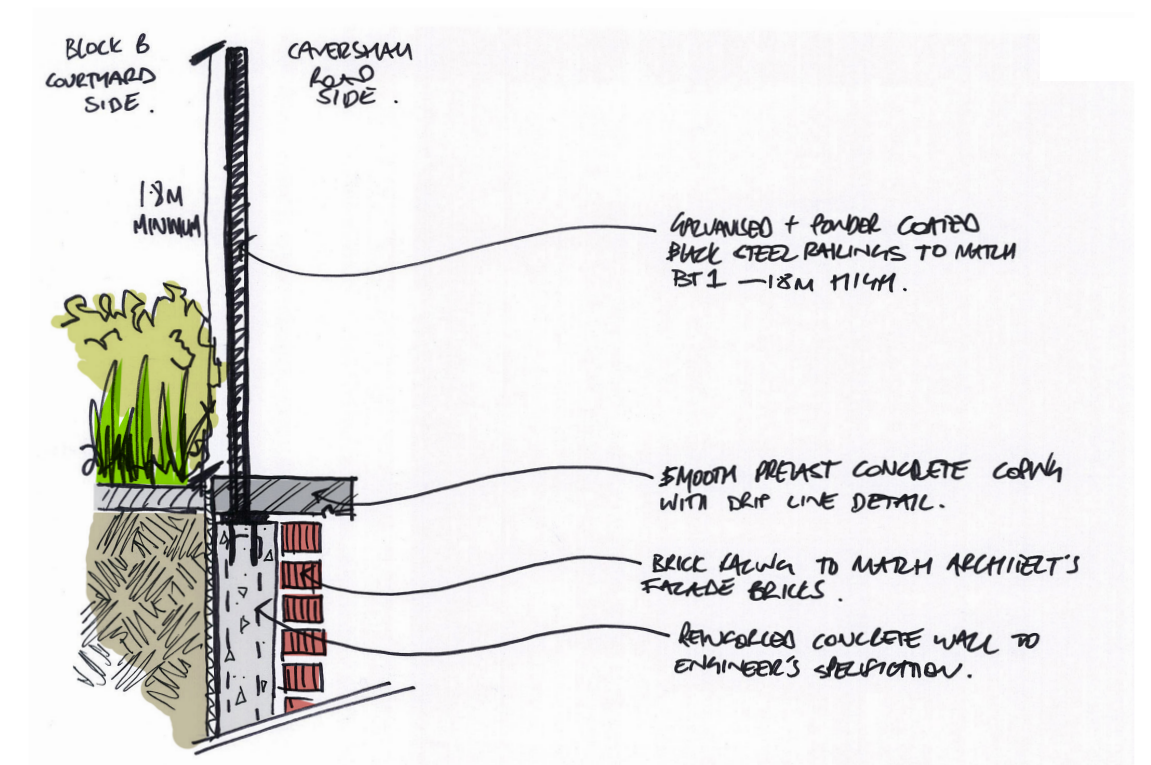


BOUNDARY TREATMENT



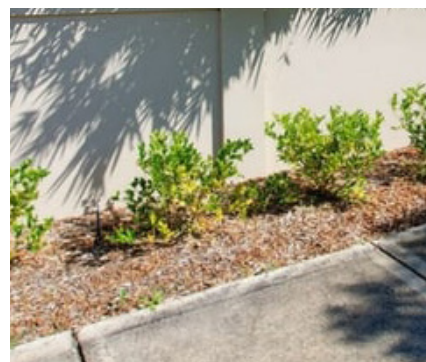
- 1.) Low brick wall and railings to 1.8m combined height
- 2.) 1.8m high block work wall With rendered finish
- 3.) 1.8m closed wooden board Fence with hedge and dense Planting on the residential Side
- 4.) 1.2m high hedge to provide Privacy to the ground floor houses

LOW BRICK WALL AND RAILINGS TO 1.8M COMBINED HEIGHT



Wooden board fence. Finish needs to be confirmed by the architects.

Brick type to be confirmed. Refer to architect's building facade proposals.



Block work wall with rendered finish. Finish by architects.

1.2m privacy hedge.

Precast wall coping to match architectural materials.

HARD LANDSCAPE 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:

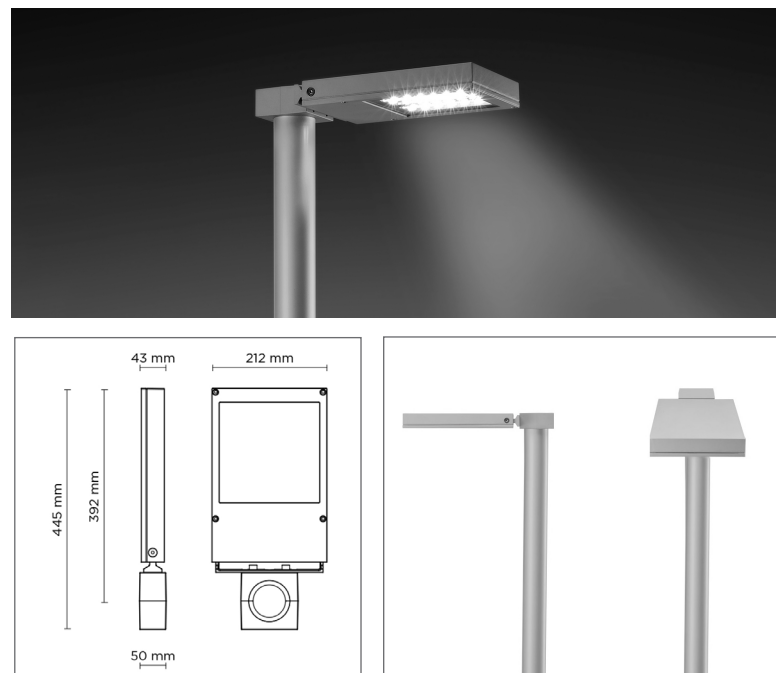
-  Light Type 1.: Lighting column
-  Light Type 2.: Bollard lighting
-  Light Type 3.: Tree uplighter
-  Light Type 4.: Handrail lighting



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.



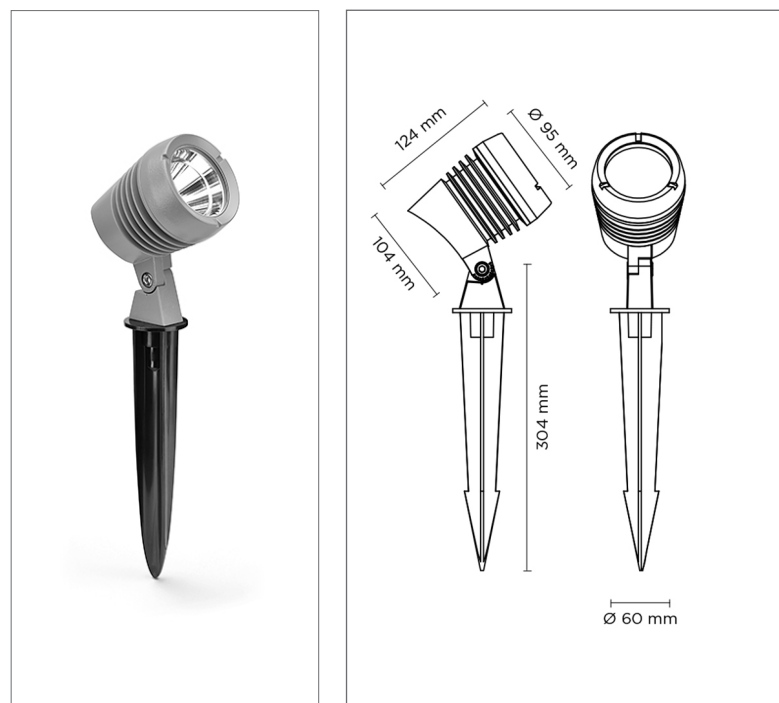
Light Type 2.: Bollard Lighting

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



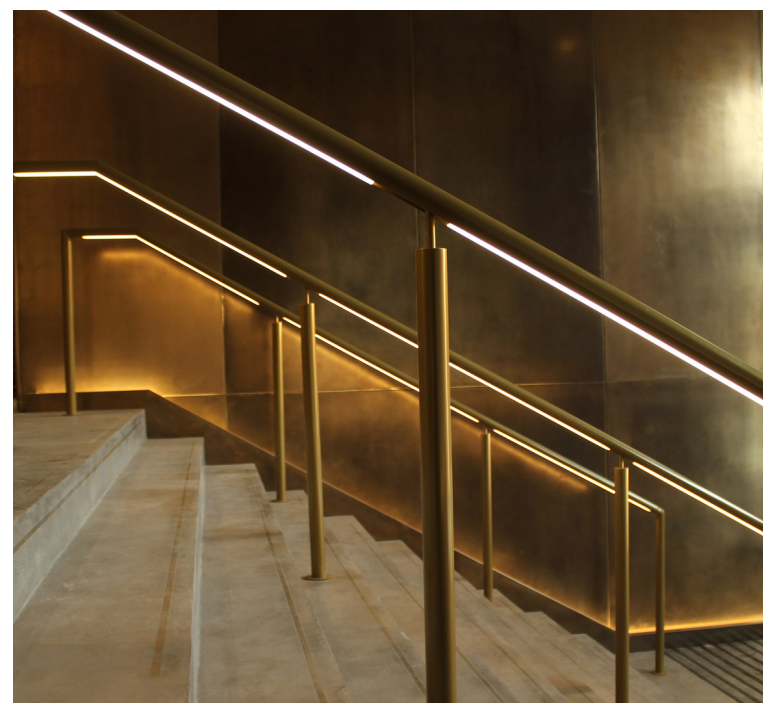
Light Type 3.: Tree Up-light

Supplier: PUK or similar approved. Type: Jet Medium LED 12W.



Light Type 4.: Handrail Lighting

Supplier: LiniLED or Similar Approved
Size/Colour: TBC



PLAY STRATEGY

PLAY APPROACH

The play strategy for the scheme adopts a flexible, multi-use approach to the amenity and play space.

Provision within the scheme caters for young children (0-14 yrs) only. This section of the report outlines the play space quantum, the style of play space and proposed equipment / features.

NATURAL / INCIDENTAL PLAY:

The scheme includes a distinct area for play. This Activity and Play Areas (highlighted as Character Area 5. In this documentation) located at the South of the landscape and uses natural features to create a playful landscape.

The idea is to provide a safe, inspiring environments in which children can play and adults can socialise and observe their children.

This multi- functional approach is intended to maximise the usable exterior space, and help create a sense of community within the development.

PLAY SPACE AIMS AND OBJECTIVES:

The play space is designed to achieve the following aims and objectives:

- » A safe, inspiring play scape for young children.
- » To create an environment which also appeals to adults.
- » Encourage children to be active which in turn can improve health and well-being.
- » Where possible reconnect children with nature, educating them about the environment and helping to establish a sense of ownership and pride over the space.

A series of associated precedent images have been included on the opposite spread.

It is important to note that the final equipment selection will be subject to detail design and client approval.



PLAY PROVISION



1.) Natural Boulders

A natural element to any play area, strong and maintenance free these are great looking as well as bring elements of natural play and informal meeting and seating points. Boulders are proposed which are smooth and rounded with no sharp edges. They are proposed in different sizes, all options are low level (under 1m in height) and are suitable for seating and clambering in any area.

2.) Natural Tree Trunks

Tree trunks blend in to the natural environment of a play area providing climbing, balancing and hiding as well as informal meeting and seating place. The trunks are trimmed and prepared for use with branches cut back to leave a rustic and relatively smooth finish. The species have been specifically chosen to give approximately 5-10 years life without significant deterioration. Tree trunks are available in different sizes and are all low level, suitable for seating and clambering in any area.

3.) Mounds and Land Forms

Natural mounds are great to add element of height to any play area, breaking up a flat landscape and helping shelter a play area from surroundings, they can be used to help aid with play equipment such as slides and tunnels for be used to place items such as trees, boulders and tree trucks on.



4.) Plants and rainwater gardens

can be used as borders to create different zones throughout areas but as well as being functional they also add play value. Plants encourage sensory play which includes scent and texture and particular plants can be chosen to attract wildlife to an area and compliment any natural play equipment.

PLAY APPROACH



5.) HopOP Seats and Loop Benches

Hop op have a pure, simple, cylindrical forms of variable sizes and positioned at customisable heights and distances, inviting passers-by to sit, rest, play and jump! Inspired by low tree stumps the possibility of varied elements in the land and cityscape is wide and extensive.

Loop benches offering sociable seating for 4-6 people. With its circular form and inviting colours, Loop stands out in any environment.

HopOp and Loop have a textured/granulated surface due to abrasive blasting of the mould. This process enhances the friction and makes the surface comfortable and safe to use

The material is suitable for recycling.



6.) Colourful Embankment Slide

The slide goes down a natural embankment at the play area. This double width slide is made from satin polished stainless steel with red painted sides to match the red play huts. These galvanized and painted mild steel features provide a splash of colour to the children's play area.



7.) Twisted Climber - Intertwine

Two joined balance beams create a tough balancing activity that will help to test children's skills. Age: 3-14 years.



8.) Scramble Climber

A timber A-frame climbing unit that is great to get children active. Age: 3-14 years.



9.) Trapeze Equipment

Great for testing strength, agility and coordination as children can swing across the trapeze. Age: 8-14 years.



10.) Monkey Bars

A timeless classic that remains a playground favorite! The Monkey Bars help to develop a number of skills and are great for juniors. Age: 6-14 years.



11.) Wobble Board

The Wobble Board's wobbling walkway is designed to push children's balancing skills to the max as they work their way to the end. Age: 18 months- 6 years.



12.) Web Traverse

Holding onto the upright ropes children can work their way across the Web Traverse, carefully placing their feet in the correct positions. Age: 3-14 years.



KEY CONSIDERATIONS:

A successful scheme will embed the play within the landscape, ensuring the spaces can be enjoyed by adults and children alike.

USER GROUPS:

As mentioned the courtyards are designed to benefit both adults and children. The play-scape should be visually appealing to on lookers even when there are no children within the space.



Any play equipment should be visually appealing, and work with the surrounding landscape and architecture. Details of the proposed features and equipment follow.

The design approach incorporates some natural play elements such as logs, boulders, land form and living structures.

ECOLOGICAL ENHANCEMENT

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

Some of these opportunities are:

- Wild flower meadows
- Biodiverse roofs
- Native planting
- Shelter for birds, bats
- Insect hotels

Other enhancements will also be adopted to maximise the opportunities the scheme brings, and to set a high benchmark for other developments within the wider masterplan to follow. The following pages set out some of the interventions we are incorporating to meet local biodiversity targets. The final specifications and details of these elements will need to be developed with a suitably qualified ecologist to ensure the equipment and habitat creation is correctly installed.

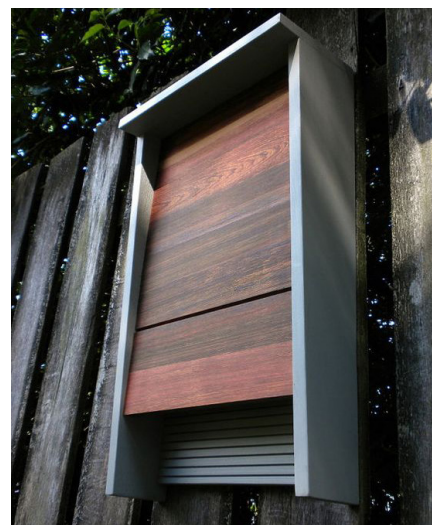
We have set out our proposal for the locations for the following interventions. These are in accordance with the ecological impact assessment produced by Openfield Ecological Services.



BAT BOXES

The inclusion of bat boxes can help provide roosts for a variety of species. These boxes can be fabricated from a range of materials and positioned against building façades, 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 or rooftop roosts are to be adopted.



INSECT HOTELS

Insect hotels have been 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 new development.

The design, scale and location to be confirmed and developed post planning in collaboration with an ecologist to maximise the benefits associated with this habitat type.

These can be creatively designed as focal points, or sculptural elements which may also provide connections for engagement with local school programmes or nature groups.



BIRD BOXES

Bird boxes provide a low-tech and effective way to encourage wildlife into the scheme. Positioned on buildings, within trees and on specially designed poles, these simple habitats provide visual interest and can echo the architectural styles seen throughout the development.

The use of birds and other wildlife to manage pests is a more environmentally friendly approach than the use of pesticides. By encouraging a healthy bird population residents can also benefit from the improved sense of well-being bird song can bring. As with the other ecological enhancements it is hoped the bird population on site can provide an educational resource for residents, and help achieve an appreciation for nature and the environment.

The ultimate number of bird boxes and their positioning will need to be confirmed with an ecologist. The adjacent images demonstrate the range of bird boxes available and how they are integrated with the style of the development.



IES Consulting have been commissioned to investigate the potential impact of wind movement on pedestrian comfort around the proposed residential scheme.

Extraction of the Wind and Microclimate document of IES:

'11.5. Potential Impact of the Proposed Development

Once the development is operational, it will act as a wind barrier for the surrounding site, especially the N11 which is to the north of the site. The surrounding sites beyond the N11 will not be subjected to unabated winds over the plain site. The development as such has the ground level amenities surrounding by the various buildings of the development. This courtyard style cocooning will help in ensuring the amenities are not adversely affected by winds for a major part of the year.

11.9. Mitigation Measures

Operational Phase

Additional mitigation features are unlikely to be required in the operational phase of the development.

11.10. Predicted Impacts of the Proposed Development **Walking Criteria:**

There are two walking criteria: leisure and business. The leisure walking criterion applies to people out for a stroll, people jogging or people walking their dogs on the site. The business walking criterion applies to people moving in and out of the buildings as part of their commute and generally walking briskly.

Figures 11.15 to 11.22 below demonstrate the site shows excellent compliance with both walking criteria on all ground level amenity spaces.

Standing Criterion:

The standing criteria applies to locations where leisure standing can occur for a long duration of time. Major locations for such criteria are balconies and public amenity spaces. Activities that would fall under standing would be

waiting while walking the dog and conversations between residents.

Figures 11.23 to 11.26 below show the results for standing criterion. Most of the locations – balconies and public amenity spaces show good compliance.

Marginal compliance was observed in the space between blocks A and F (circled in red in figure 25), and between block H and the semi-detached houses (circled in blue in figure 25).

Sitting Criterion:

The sitting criterion applies to locations where prolonged seating will occur. Such locations include public gardens, cafes and roof terraces.

Sitting activities also are likely to occur in warmer conditions like spring to autumn rather than winter. Further popular times for sitting activities are the afternoon and evenings rather than early mornings or late night.

As such we have looked at these most optimum sitting times for the analysis.

As seen in figures 11.27 to 11.30 below, the balconies of all blocks show excellent compliance with the requirements of the sitting criterion. Most of the courtyard also shows good compliance with the sitting criterion. The only locations where the criterion is exceeded is the space between blocks A and F (circled in red in figure 11.29), and between block H and the semi-detached houses (circled in blue in figure 11.29)

As seen with the standing criterion results, these locations experience slight acceleration of wind due to the reduction in width of the passage as air travels through. However both locations may be classed more as locations of people movement rather than static locations. So marginal compliance would not be a concern.'

ADDRESSING THE WIND ASSESSMENT ISSUES

The space is designed to achieve the following aims and objectives:

- » A group of trees are proposed in the Entrance Area In the space between the blocks A and F. These can mitigate the winds at this area make the entrance zone compliant with the standing criteria.
- » The landscape design proposing green wall elements and dense planting around the Blocks A and F corners which can mitigate the winds too.
- » The landscape design does not propose any seating at the Entrance Area, between the corners of Block A and F.
- » Where possible outdoor activities and play occur planting with various tree species (taller single stem and lower multi-stem types) and dense shrub and herbaceous planting are designed which can mitigate the winds further.

A comprehensive tree survey and Arboricultural Impact Assessment has been undertaken by the Arborist Associates Ltd for the Site Area at on 'Old Bray Road', Cornelscourt, Dublin 18 . This document is dated 5th October 2019 and relates to existing trees and vegetation within the development boundary.

The existing trees on site were assessed for their condition, size and location in accordance with the criteria outlined in BS5837 'Trees in Relation to Design, Demolition and Construction Recommendations 2012.

Summary of Survey Findings.:

4.1 The site area is located off the 'Old Bray Road', Cornelscourt, Dublin 18 and it is broadly rectangular in shape. The site is bounded by the 'N11 Dual Carriageway' to the east, by the 'Old Bray Road' and associated commercial / residential developments to the west and to the north by the 'AIB Bank' grounds and to the south by existing residential development area known as 'Willow Grove'.

4.2 The site is mostly in unmaintained grass / exposed soil and slopes from the 'Old Bray Road' down towards the N11 Dual Carriageway. There is just one tree (No.0441) an early-mature Holly on the site area located on the western boundary. There are isolated clumps of scrub around the site area consisting of Elder, Buddleia and Bramble developing due to the lapsed management.

4.3 There are a number of trees located off site which have been included in the survey. Along the north-western boundary of the site within the bank grounds, there is one Sycamore (Tree No.1) and two Cedar trees (Nos. 2 & 3) of an early mature age class establishing well with the two Cedars being of reasonable good quality with potential to add to the tree-scape of this area as they grow in size. Along the roadside grass verge outside the east site boundary bordering with the N11 Dual carriageway, there is a line of six semi-mature Lime trees

(Nos.4-9) that are establishing well with future potential to add to the tree cover of this area.

5.4.0 Impacts on the tree vegetation

5.4.1 The current proposed development layout does not impact negatively on the tree vegetation on this site area with only a need to remove the scrub areas consisting of Bramble, Elder and Buddleia and the following two trees:

- *Tree No.0441 an early- mature Holly needs to be removed to accommodate the proposed boundary treatment of a new wall.*
- *Tree No.1 an early-mature most likely self sown Sycamore will need to be removed to accommodate the proposed entrance and other development works within this area.*

5.4.2 The line of Limes (tree Nos. 4-9) on the N11 grass verge are being retained. The construction of the boundary treatment which consists of a low wall and railing comes within the root zone of Tree Nos. 4-6 and will result in some soil and root damage to these trees, but it is not expected that this damage will warrant their removal at this time. This boundary within the finished landscape is to be strengthened with new tree planting within the site area and if in the future Tree Nos.4-6 need to be removed, their loss will be mitigated with this new tree planting which will be establishing.'

ADDRESSING THE ARBORICULTURAL ASSESSMENT

Two trees, 0441 (Ilex sp) and Tree No.1 (Acer platanoides) require removal in order to facilitate the construction of the development proposals. The removal of these trees will have a negligible impact on the site's arboricultural value due to their low quality.

The for tree retention has been based upon the guidance contained within BS5837:2012. Category A trees should be seen as the highest priority for retention and Category C the lowest.

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 landscape design proposing:

- » No.111 new semi-mature multi stem trees
- » No.121 new single-stem trees

on the Cornelscourt Village site.



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