7.1 Introduction

This chapter of the Design and Access Statement relates to the landscape component of Plot A. The strategy for this phase takes into consideration the surrounding existing structures as well as the new building context in terms of streetscape, adjoining buildings and site wide landscape strategies as defined in the Design and Access Statement Vol.1 and Design Guidelines.

The landscape component of Plot A will comprise new streets and public realm spaces as well as private external amenity areas and shared courtyard gardens. These works will also include alterations to existing streets: Great Field, Heybourne Crescent and Clayton Field.

This section of the Design and Access Statement will detail the strategic view for this area of the masterplan, the materials, planting, street furniture and any other elements that contribute to the landscape solution. Images are included for illustrative purposes to demonstrate the design aspirations of the Applicant.

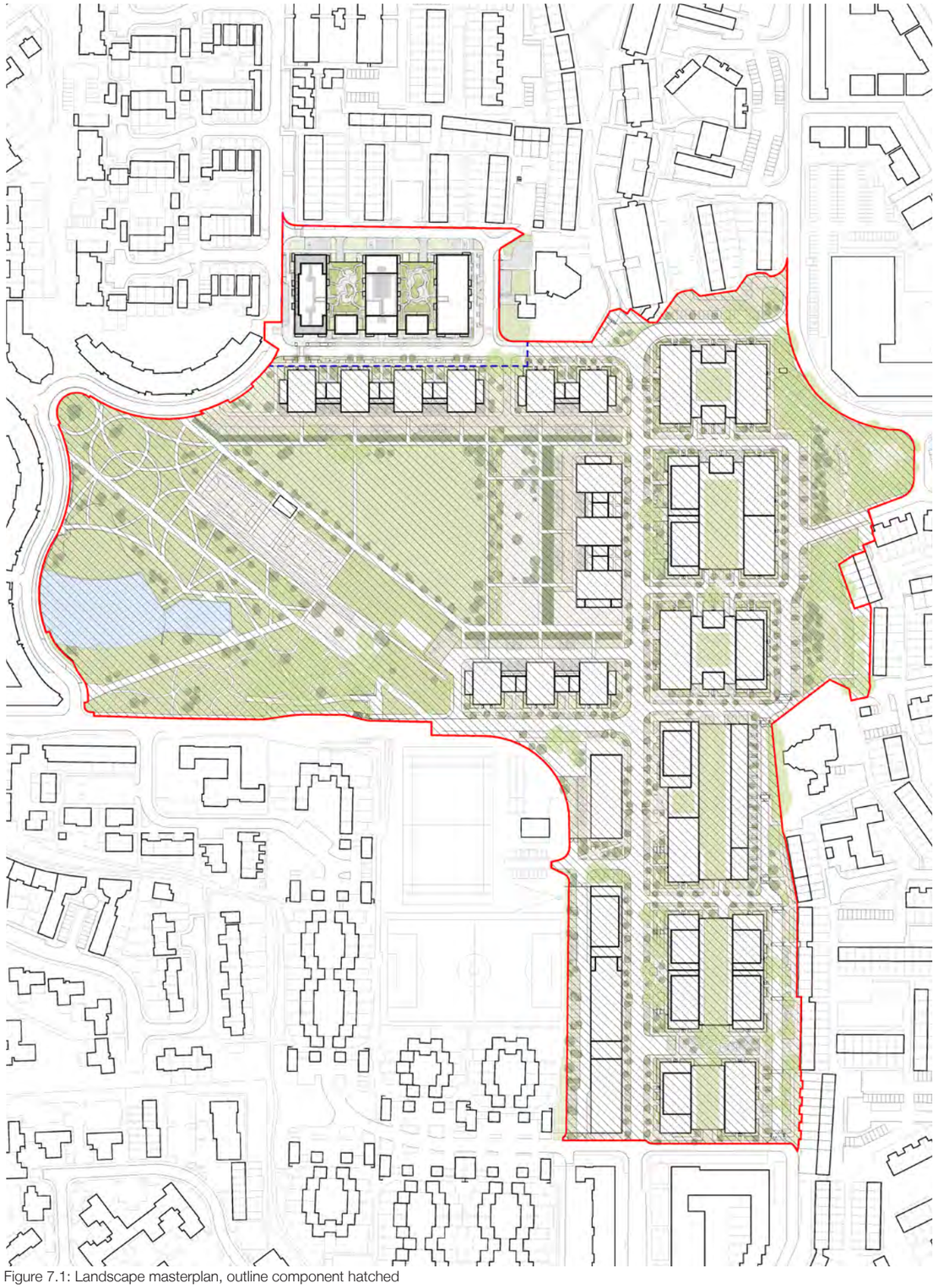


Figure 7.1: Landscape masterplan, outline component hatched

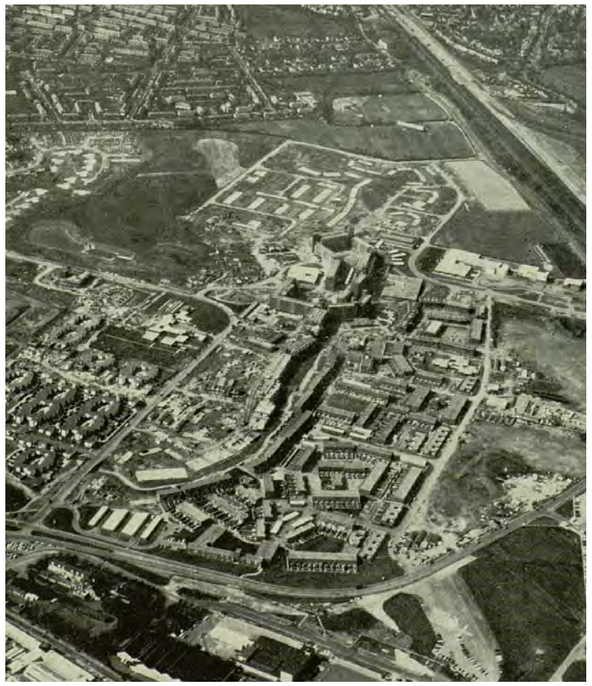


Figure 7.2: Aerial view of Grahame Park looking north (1973)

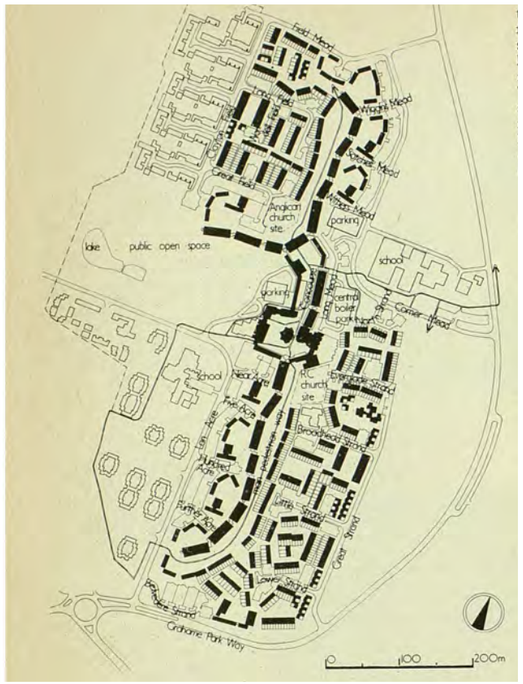


Figure 7.3: Site plan from the Architects Journal (December 1975)

Figure 7.4: Photograph showing the extensive use of brick in the landscape (1975)

7.2 Landscape context

Located in the former London Aerodrome site at Hendon, the existing Grahame Park Estate has been configured as a linear succession of interconnected apartment blocks that follow the principles of the Radburn masterplan. These determine a clear separation between vehicle and pedestrian areas with parking located around the perimeter of residential blocks which face a central pedestrian area known as “the Concourse”.

The Estate’s landscape was designed by the **Michael Brown Partnership** with a predominantly hard palette of brick paving, open grassland and trees planted in flush pits. These areas for pedestrian movement contrast with the open space of Heybourne Park, the last remaining section of the old Aerodrome Fields.

The park itself was reconfigured in 2008 by Levitt Bernstein Landscape Architects, who introduced a language of strong diagonal footpaths within a natural park and extended the existing stormwater attenuation pond.

Currently, the park is delimited to the west by Heybourne Crescent and to the north by residential blocks which are to be demolished as part of the first construction phase. The existing setting suffers from a weak transition at ground level with private land immediately bounding the park and narrow pedestrian links adjacent to open communal staircases in between the apartment blocks providing access routes into Great Field.

Figure 7.5: View of the northern edge of Heybourne park, note the use of brick pavers

Figure 7.6: Existing fencing to pedestrian paths

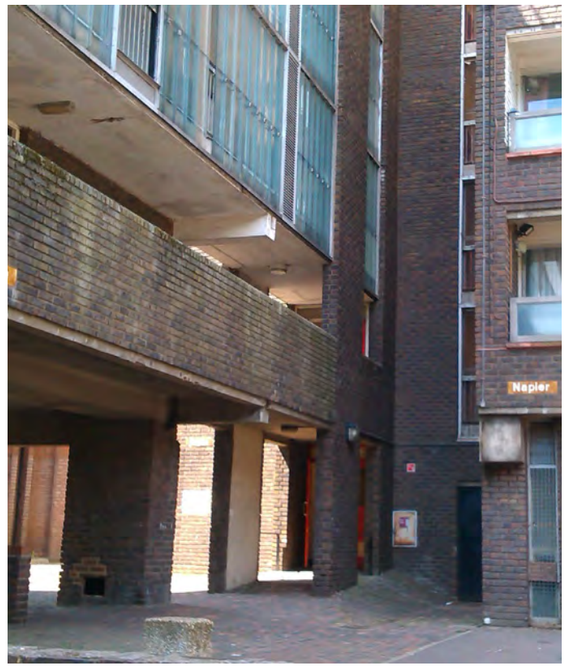


Figure 7.7: Pedestrian underpasses give access into the Concourse

7.3 Existing context

Clayton Field

Clayton Field represents one of the main points of arrival to the site. This route will acquire further importance once the proposed development takes place, and the Douglas Bader redevelopment is also completed.

Currently, the lack of public pavements and dedicated pedestrian crossings causes an unnecessary safety risk for pedestrians, rendering this route towards the park and towards public transport uninviting for residents.

Heybourne Crescent

Delivered as part of the 2008+ works of the Grahame Park Regeneration Stage A, Heybourne Crescent terminates at the south-west corner of Plot A. This proximity will represent an opportunity to facilitate flow between the two developments, emphasized by the position of the new local supermarket.

Great Field

Great Field, which will be retained and reconfigured in the development proposals, is a local access road leading to St Augustine's Church and serving a number of existing garages and parking courts.

Great Field is currently dominated by the existing open car park which will be demolished as part of the proposals. This street also hosts several mature trees which will be retained in the new proposals.

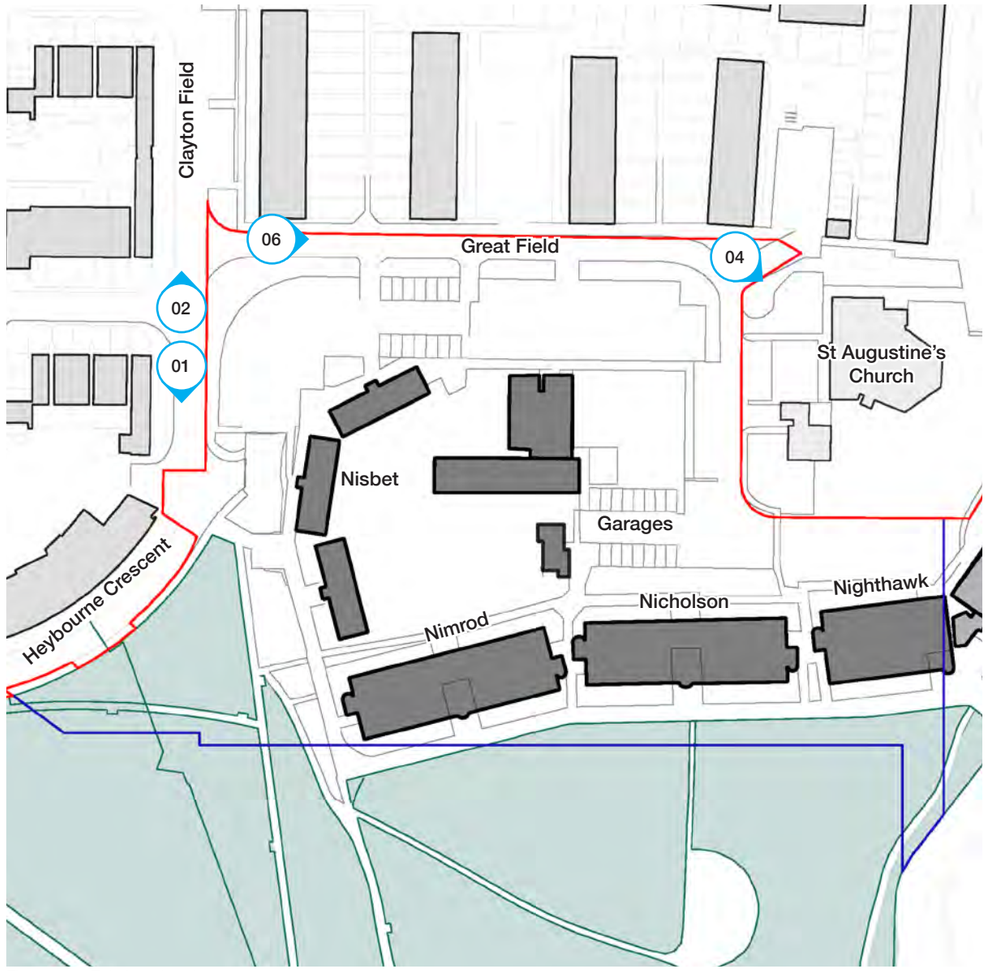


Figure 7.8: Existing site plan

Figure 7.9: View from Clayton Field looking south

Figure 7.10: View of Clayton Field looking north

Figure 7.11: View of Great Field looking east

Figure 7.12: View of Saint Augustine's Church

Figure 7.13: Illustrative overview of the proposed masterplan

Figure 7.14: Illustrative view of the emerging proposal for the redevelopment of Douglas Bader (by Levitt Bernstein Architects)

7.4 Site wide strategy

The masterplan landscape strategy establishes the following key design principles:

- Promote links and permeability;
- Establish a hierarchy of streets and access;
- Create distinct neighbourhood settings;
- Create a hierarchy of materials and planting;
- Create green streets, gardens and parkland;
- Provide for flexible outdoor uses and activities;
- Encourage play and fitness in the public realm;
- Provide functional level access;
- Maximise sustainability gains; and
- Promote biodiversity net gain.

The landscape strategy for this project has drawn inspiration from the heritage value of the aerodrome history and 1970s masterplan while actively extracting lessons from the current condition of the Estate, the resident's feedback, the surrounding developments and previous regeneration phases. This strategic view, explained in detail in the DAS Vol.1 Outline Component, has formed the basis for the design of the landscape proposals for Plot A.

Emerging context: Douglas Bader

Levitt Bernstein Architects (**LBA**) are currently preparing proposals on behalf of Home Group / Hill for the redevelopment of the Douglas Bader estate, located immediately to the west of Plot A.

Whereas the proposals are still in the early stages of design, they look to replace the low-density pre-fabricated homes on cul-de-sacs with mid-rise blocks and a network of connected streets. This development has the potential to generate pedestrian links to the green space to the northwest of Douglas Bader. A new street within this development site may also align with the existing Great Field Road, reinforcing connectivity with Plot A.

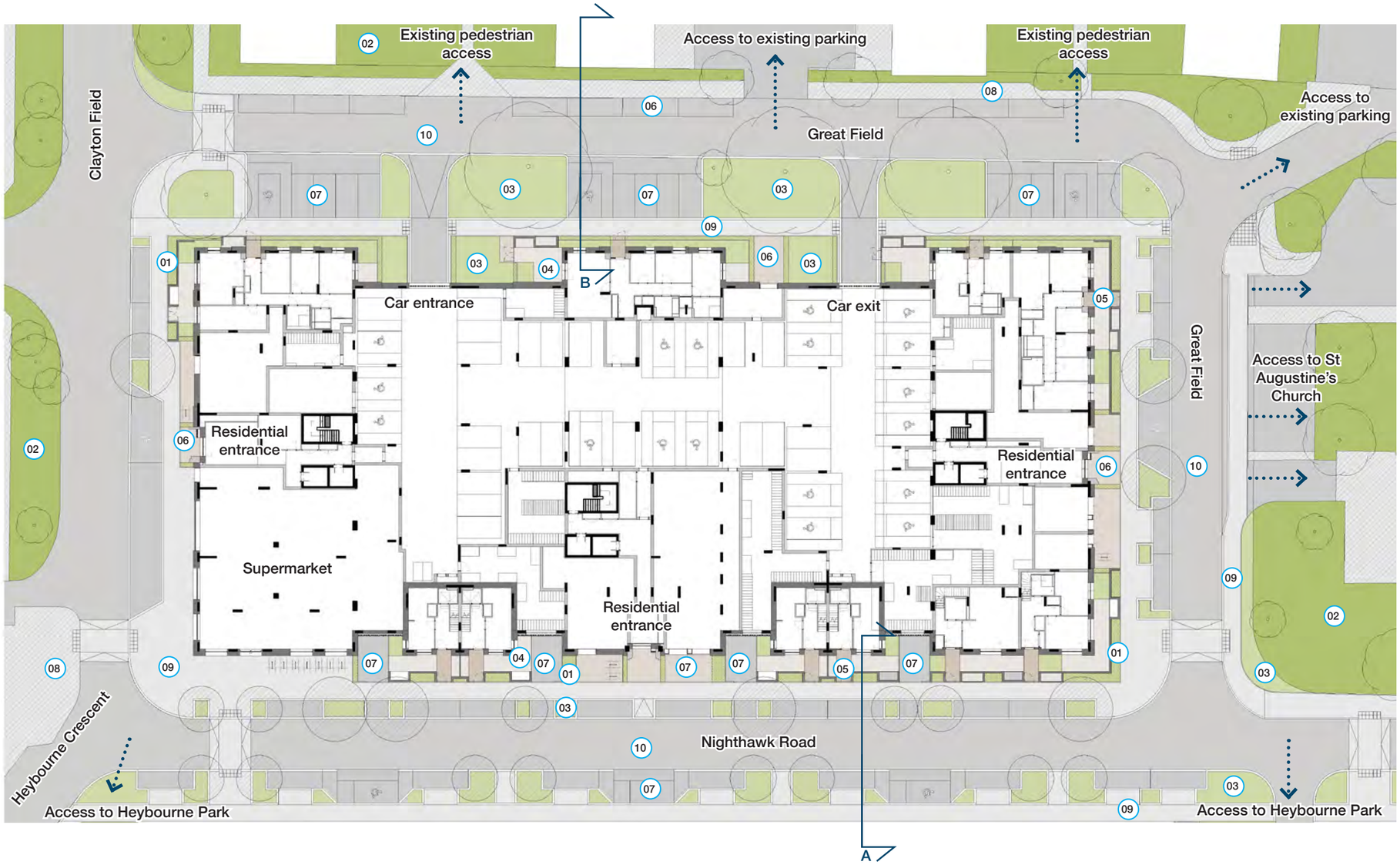
7.5 Ground floor

Plot A is located in the **North Park** landscape character area, directly to the north of Heybourne Parkside.

Due to its setting in close proximity to the surrounding context, Plot A will play a fundamental role in stitching the new development into the existing built environment. A considerate approach to the design of the plot edges and changes to the character of the existing streets will be paramount to the success of this development phase.

The landscape proposals for Plot A were developed to follow the site-wide principles noted in 7.4 and the street hierarchy defined in Chapter 2. They offer significant improvements to the existing pubic realm while creating an attractive setting for the new residential development, benefiting the new residents as well as the surrounding communities. These include:

- Reconfigure the north portion of Great Field in order to deliver additional street parking while retaining trees where possible and providing generous planted areas. New pedestrian paving is created on the new development side, giving access to the new ground floor homes. Access to existing parking courts and garages to the north of the site is maintained.
- New pedestrian paving to St Augustine's Church, by moving the carriageway away from the church's boundary. A new pedestrian crossing is created at the south end of the street to allow easy flow of pedestrians along Nighthawk Road.
- New pedestrian crossing to Heybourne Crescent, allowing residents to safely access the new access road and the local supermarket.
- Design of the new east:west street (Nighthawk Road) between Plot A and future Plot B as a main connection, with pedestrian paving and parking on both sides to be delivered from day one.



01 Hedge / shrub planting
02 Existing landscape
03 Planting zone
04 Paving type 1
05 Paving type 2
06 Paving type 3
07 Parking bay
08 Public footpath - existing
09 Public footpath - proposed
10 Adoptable road surface
Tree proposed
Tree - existing

Figure 7.15: Proposed ground floor landscape plan

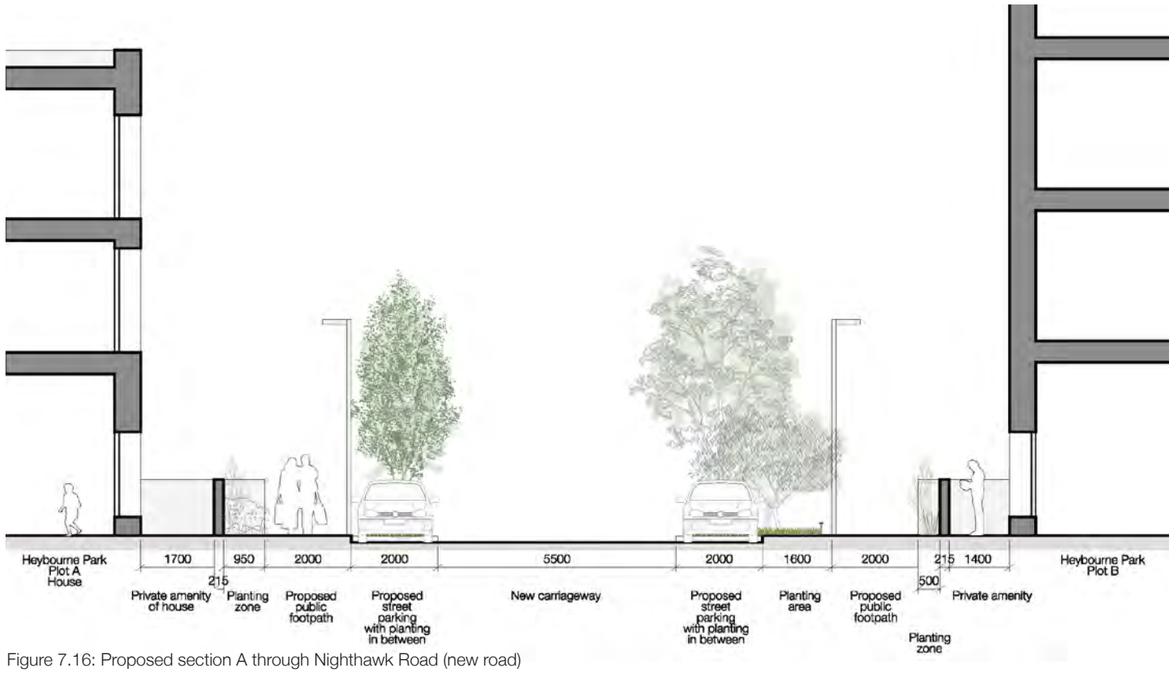


Figure 7.16: Proposed section A through Nighthawk Road (new road)

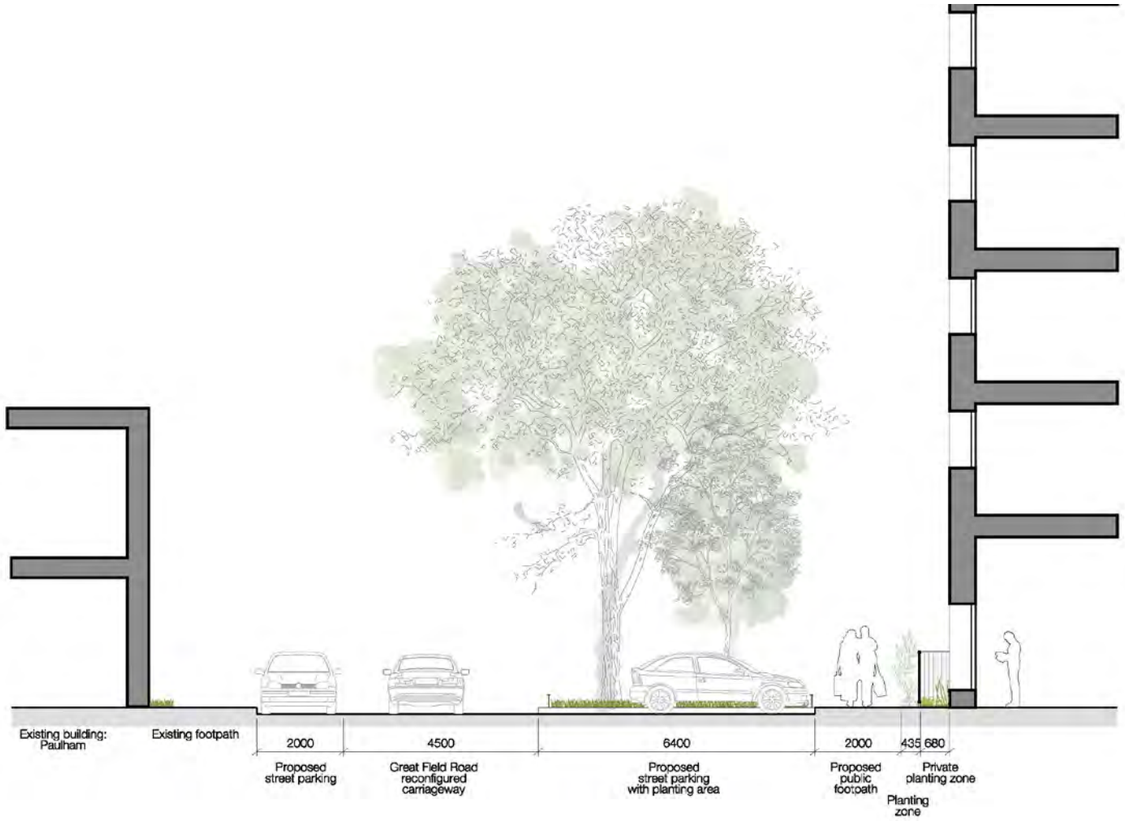


Figure 7.17: Proposed section B through Great Field (existing reconfigured road)

Ground Floor (cont.)

- Hard landscape 'spill-out' zone adjacent to the supermarket and close to the street crossings, for easy flow of pedestrians to and from the supermarket, and to and from Heybourne Park.
- Trees, hedges and planted areas in every street, providing shading, improving visual amenity and sense of well being.
- Residential entrances and amenity spaces surrounding the building plot bring animation and passive surveillance to all streets.
- All roads designed with due concern for the Highway Adoption standards required by the Local Authority.

Green streets

One of the strategic goals of the masterplan is to create green streets where pedestrians are in constant contact with open green spaces, trees or planting.

In Plot A this is achieved partially by the inclusion of trees and low level planting in all streets, but also via the design of the edges to the residential amenity areas at ground floor. These include generous soft landscape zones on the public side of the boundaries which create a continuous strip of green livery surrounding the plot.

7.6 Edge treatment - residential

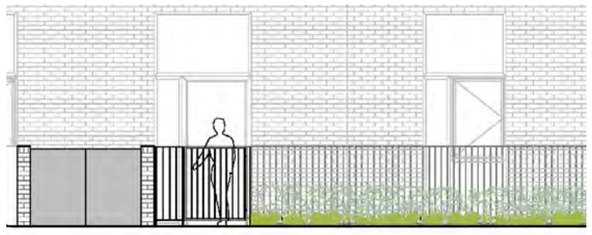
The majority of the ground floor frontage in Plot A is taken up by residential uses, and as such the design of the threshold between residential amenity spaces and the public realm is crucial for the success of this scheme.

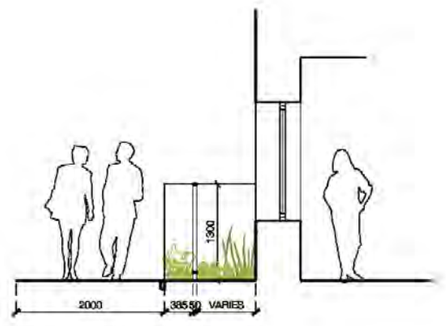
The proposed strategy has been developed with careful consideration for the setting for each home and how the private amenity areas will be perceived from the streets and used by the occupant. Questions of security, privacy, street character and views all come into play.

In addition to delimiting the external amenity areas, the boundary walls perform an essential function of keeping the public at an appropriate distance from the internal spaces, defining a privacy buffer. Whereas on the south, west and east sides the buffer area is maximised, on the north side the pedestrian path has been designed closer to the building in order to provide parking spaces perpendicular to the street and retain existing trees. A generous planted zone and fencing is provided to prevent public from approaching the windows.

The boundary treatment follows a set of **key drivers**:

- To define different levels of privacy and transparency that respond to the use of the space and its setting;
- To provide continuous planting to the public realm, maximising greenery on the streets;
- To incorporate services such as bin stores and cycle storage as part of an integrated design solution;
- To complement the building without undermining the façade articulation;
- To establish a defensible space for the residential areas, using planting to create distance between the public and the residents; and
- To generate the perception of a continuous datum to the fences around the totality of the plot.

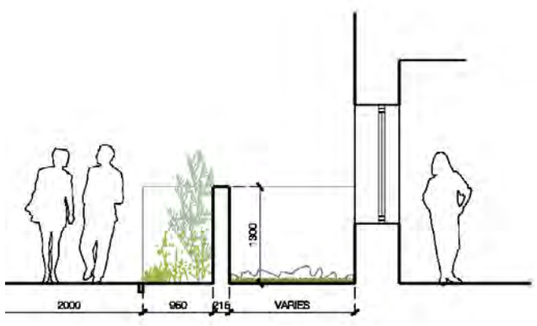




Type A

Low level metal railing at 1300mm

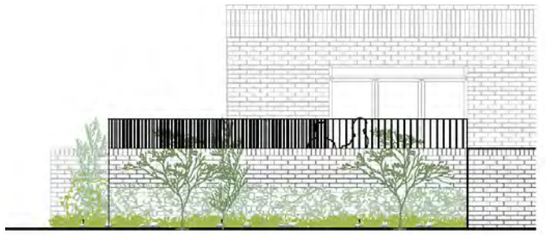
Figure 7.18: Edge treatment type A: typical elevation and section

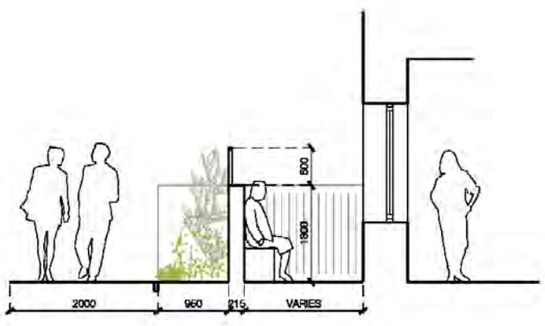


Type B

Low level brick wall at 1300mm

Figure 7.19: Edge treatment type B: typical elevation and section





Type C

Brick wall at 1300mm + railings up to1800mm

Figure 7.20: Edge treatment type C: typical elevation and section

Maximum transparency ⟵ **Maximum privacy**

Figure 7.21: Type A precedent: metal railings with planting on the outside.

Figure 7.22: Type B precedent: brick wall and planting

Figure 7.23: Type C precedent: low level brick wall + metal railing

Figure 7.24: Edge treatment key plan

Figure 7.25: Precedent: external stores integrated into the design of residential entrances.

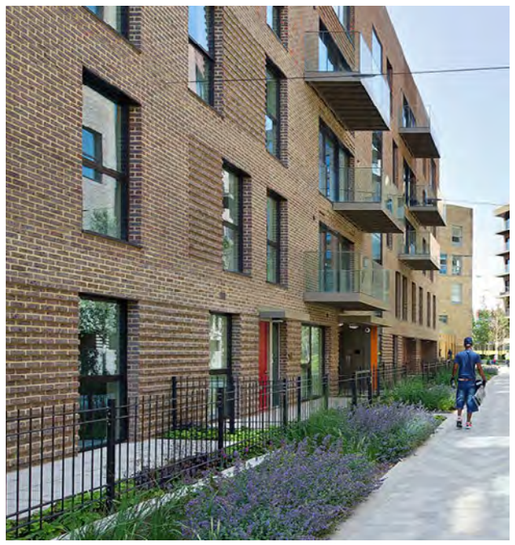


Figure 7.26: Precedent: planting on the outside of boundary line

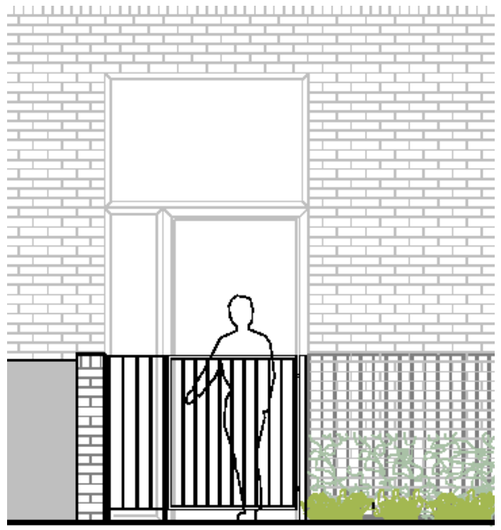


Figure 7.27: Typical entrance gate elevation

The proposal uses a mixture of brick walls, metal railings, metal gates and planted hedges, resulting in 3 types of boundary treatment:

Type A

Metal railings at 1200mm high, allowing for increased transparency. This type will be applied to the entrances, with low level metal gates that define the first threshold into the private space. It will also be combined with planting such as low level shrubs to create a semi-transparent green boundary. This type will be used at the points of contact with the building, defining screens that do not undermine the expression of the brick walls of the main building.

Type B

215mm brick wall up to a height of 1300mm. This type allows for views out while adding privacy at low level and an increased sense of security. Type B is to be combined with planted edges on the public side that will reduce the visual impact of the brick walls and increase the distance between the public paths and the external amenity spaces, increasing privacy.

Type C

Brick wall up to a height of 1300mm topped with a section of metal fence reaching up to 1800mm above floor level. This type provides maximum privacy and a sense of safety to the terraces, without the negative visual impact of a tall brick wall.

Type C is to be used exclusively in the outer corners of the building where the terraces are most exposed and will benefit from the increased protection. The high level sections of metalwork follow the design of the balcony railings, using angled flat bars to increase privacy and parallel flats to retain views (refer to details in Chapter 6.7).

The considerate use of these types defines a play of solid, semi solid and transparent zones, increasing diversity and adding interest to the public realm while establishing a consistency of materials around the plot.

Railings

The landscape railings will be made up of black metal and their materiality is intended to be matched by the remaining buildings of the masterplan, creating a continuous expression across the public realm of the various plots.

The design of the bars is intended to match the balustrades on the upper floors (see Chapter 6.7) by using flat bars set within a flat frame. Entrance gates will have a similar expression but use a thicker outer frame making them easier to identify.

7.7 Residential amenity

Houses

The 3-storey houses along Nighthawk Road are exemplary of the guidelines for the residential amenity areas while incorporating the boundary treatment principles defined under Chapter 7.6.

The entrance is defined by the brick paving path from the metal gate into the recessed entrance that clearly demarcates the main access into the dwelling. Adjacent is a terrace with a paved zone in front of the dining room that can be used for external seating or play area. The edge here is Type A, a metal fence with planted hedge on the outside, intended to allow views out from the dining room while taking advantage of the greenery.

Cycle store and bins are integrated into brick walls and have a discreet presence from the street. The houses are also provided with a demised car parking bay accessible off Nighthawk Road, and a small soft planting area.

The ground floor amenity zone described here is complemented by a second residential amenity area at first floor.

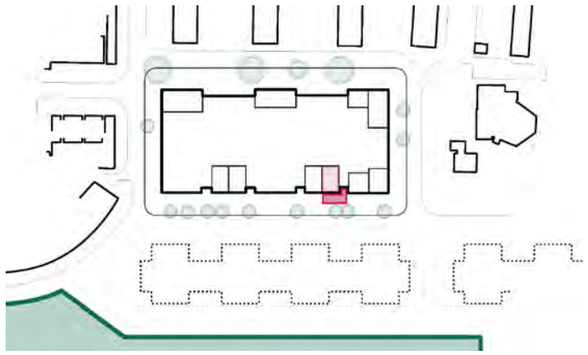


Figure 7.28: Ground floor landscape plan: house

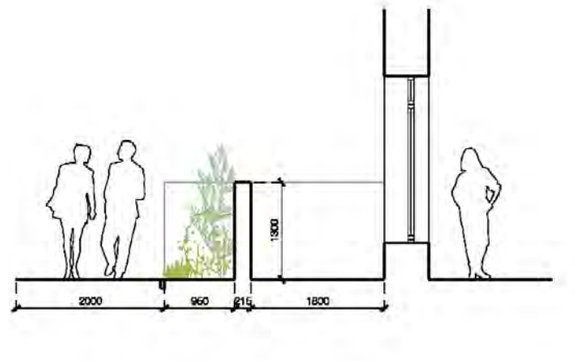


Figure 7.29: Section A

Figure 7.30: CGI view

Figure 7.31: Ground floor landscape plan: maisonette

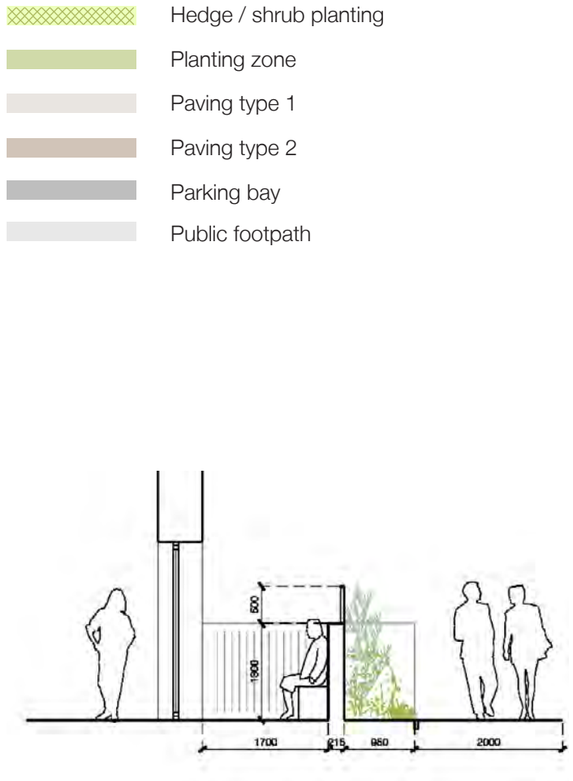


Figure 7.32: Section A

Figure 7.33: CGI view

Maisonettes

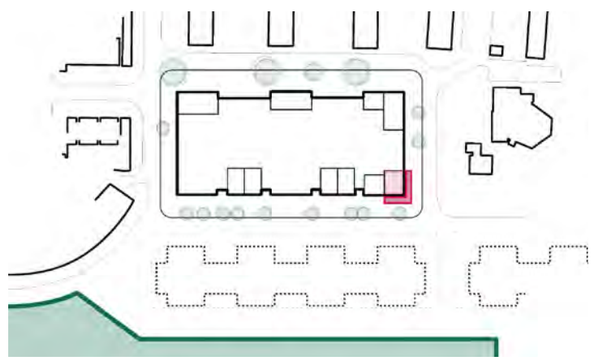
The external amenity to the maisonettes follows the same principles:

- Brick paved path and metal gate defines the entrance;
- Bin and cycle stores integrated into the boundary brick walls (Type B);
- Continuous planted hedge on the public side; and
- Metal fence (Type A) at the interfaces with the building.

This particular maisonette is provided with a more generous amenity zone, as it does not have a secondary terrace on the upper floor. As a result the paved terrace is enlarged, with direct level access from the living room. Planting areas complement all terraces, adding to the green offer of the site.

In order to increase privacy and allow residents to make the most use of their external spaces, the boundary treatment Type C is provided to the corner of this maisonette. The 1800mm high fence (partially permeable) will work together with the 950mm wide planted zone to keep pedestrians a good distance away from the residents and allow them to quietly enjoy their terrace.

The metal fence portion of the wall is configured with angled flat bars that reduce visual permeability, as described in Chapter 6.7. Where the high metal fence sits in front of the window, however, the flat bars are parallel to each other and spaced at 100mm centres to allow views out from the living room.



Ground floor homes

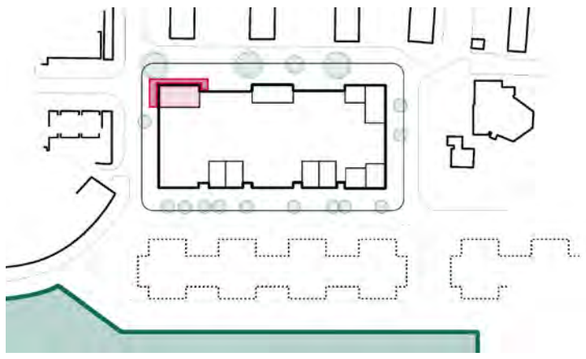
The ground floor homes along Great Field are provided with a mix of amenity and planted 'buffer' spaces. As noted in Chapter 7.6, on the north side of the Plot the pedestrian path has been set-out closer to the building line in order to incorporate a number of perpendicular parking spaces, increasing parking provision and allowing for accessible parking bays adjacent to the wheelchair dwellings.

As a result of the setting-out of the pedestrian path, these dwellings will have a fully planted defensible space along the northern edge. This is made up of a private planted area and a publicly maintained hedge separated by a metal fence (Type A). This solution ensures a minimum 1m distance to the residential windows while adding to the street livery.

To the west and east sides paved terraces and additional planting zones are provided. The main terrace has level access off the living room, whereas a smaller terrace is created with access from the main bedroom. This solution offers more than one amenity area with different characters, adding to the flexibility of use and encouraging outside living.

Similar to the maisonettes, where the terraces are located on the building corner a section of Type C boundary is provided to increase the sense of protection and privacy.

Figure 7.34: Ground floor landscape plan: ground floor home



Hedge / shrub planting

Planting zone

Paving type 1

Paving type 2

Parking bay

Public footpath

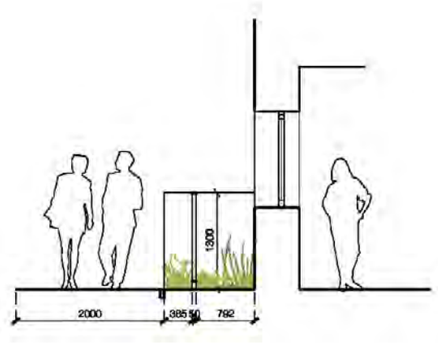


Figure 7.35: Section A

Figure 7.36: CGI view

7.8 Hard landscape

The existing hard landscape at the Grahame Park estate is strongly dominated by the use of brick pavers and brick garden walls and planters, creating an homogeneous and repetitive pattern.

For the regeneration scheme the hard landscape materials have been selected with the following **objectives**:

- To achieve a high quality public space which provides consistency to the development while at the same time allowing for particularities in the character of each area;
- To accentuate transitions between public and private spaces, and to assist wayfinding; and
- To ensure durability and ease of maintenance.

The materials chosen for the ground floor public realm consist of a combination of flag paving to the pedestrian paths, permeable pavers to the parking bays and self compacting gravel to areas adjacent to communal entrances and service access paths. Tactile paving will be provided where required, such as at approaches to pedestrian crossings and car park entrances. Carriageways will be tarmac lined with conservation kerbs.

The amenity areas in the residential terraces are to receive flag paving, whereas the residential entrances are expressed by the use of brick pavers in clearly demarcated paths: an entrance mat to your home.

The setting-out of the paving elements and the various material transitions accentuate the division between public, semi-public and private areas. Paving is used as **a wayfinding device** which contributes to an intuitive understanding of the different areas and uses.

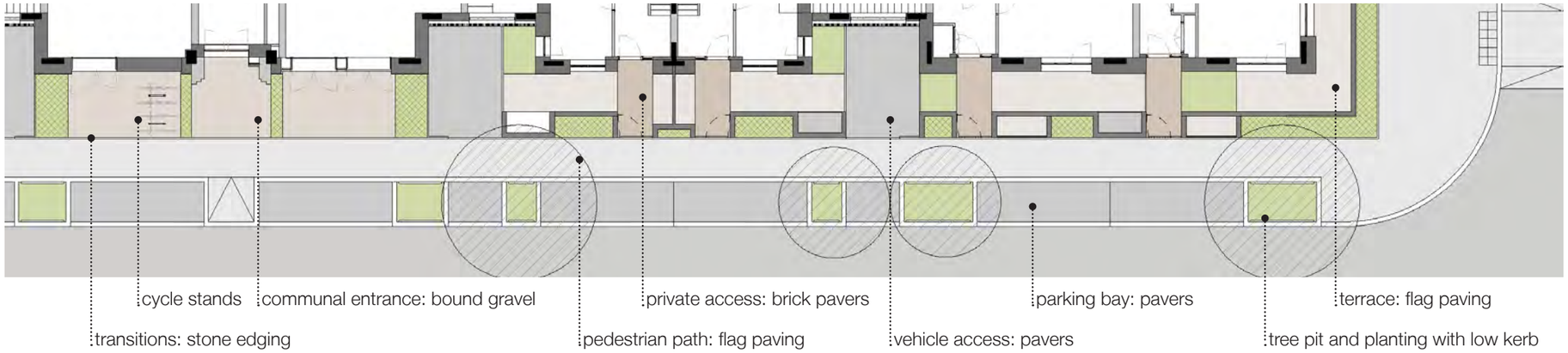


Figure 7.37: Paving plan (excerpt)

Figure 7.38: Precedent: cycle stands

Figure 7.39: Precedent: flag paving to paths

Figure 7.40: Precedent: conservation concrete kerb

Figure 7.41: Precedent: bound aggregate and kerb edging

Figure 7.42: Precedent: knee rails to protect planting

Figure 7.43: Precedent: brick paving to entrance paths

Figure 7.44: Permeable block paving

Figure 7.45: Flag paving to private terraces

7.9 First floor

The landscape proposals for the first floor courtyards has been designed to fulfil the following **criteria**:

- Integrate play areas for under 5 year old children;
- Provide spaces for quiet enjoyment which allow for a variety of uses;
- Offer views of green spaces and lush planting to the residential properties within Plot A and to the streets and surrounding properties, contributing for the overall greenery of the development;
- Create a natural buffer to the residential terraces and internal spaces at first floor, protecting their privacy; and
- Offer two identical gardens (tenure blind).

The proposed solution is for a series of gardens where a straight line of residential terraces surrounds an organic structure of paths, planters and play areas.

The main activity will be focused on the centre of the courtyards and will comprise a levelled play area surrounded by planters on all four sides. The planters will integrate a series of grasses, shrubs and tree planting in order to create a green background to the activities in the courtyard. They will provide visual amenity while giving a sense of protection and privacy: they allow residents to feel overlooked by surrounding properties (and consequently safe) yet not overly exposed.

Benches will be integrated in the design of the courtyard, inviting use of the gardens by all residents as a space for gathering as well as relaxation.

Play

The play areas are designed to be integrated within the gardens, as described in Chapter 7.10. These will be fitted with equipment that allows creative play such as wooden logs and large boulders. The details on play equipment will be further developed at the next design stage to suit the age group.

Figure 7.46: First floor landscape plan

Figure 7.47: Precedent: courtyard garden

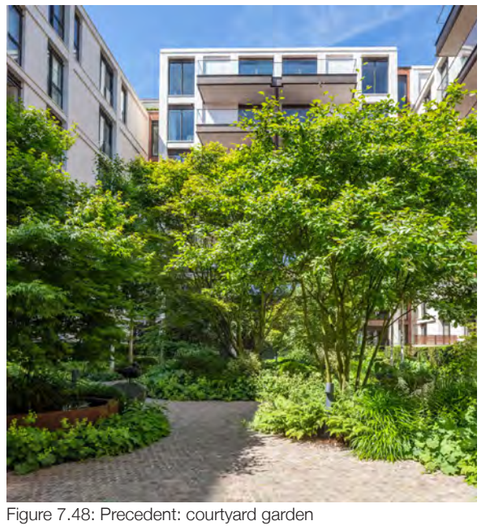


Figure 7.48: Precedent: courtyard garden

Figure 7.49: Precedent: planted mounds

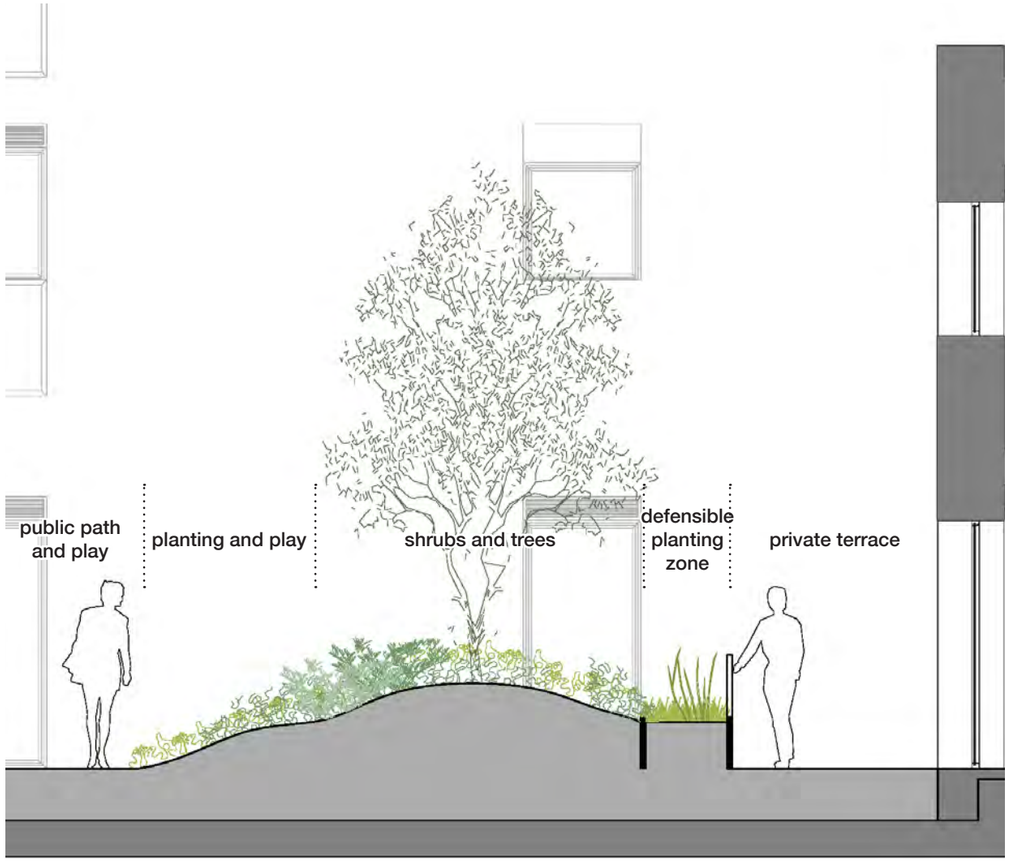


Figure 7.50: Section A

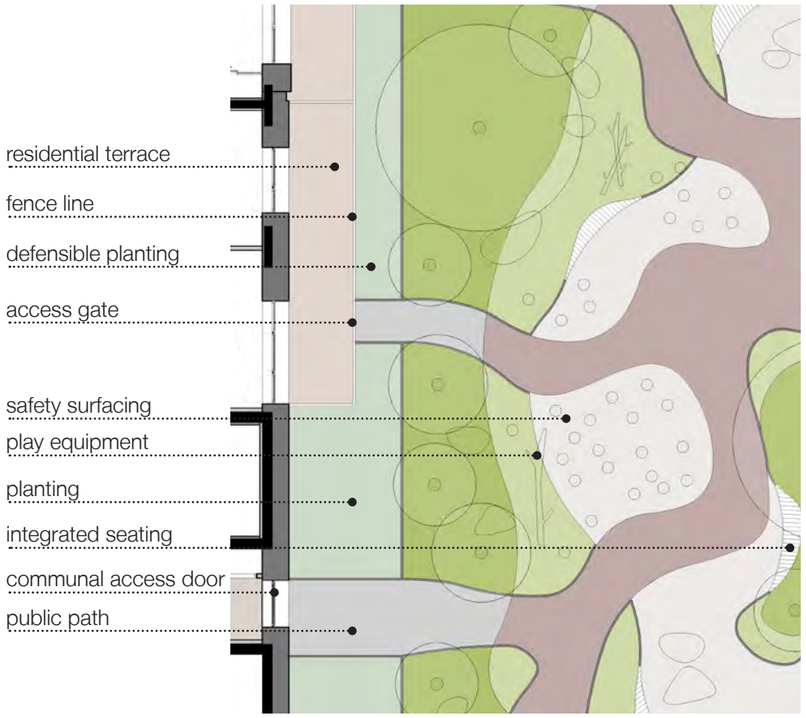


Figure 7.51: Landscape plan (extract)

Figure 7.52: Precedent: paths demarcated using different colour paving

Figure 7.53: Precedent: garden design with natural features and winding paths

Figure 7.54: Precedent: residential terraces with planters on the outside

Paving

For the residential courtyards the winding paths of bound aggregate paving will create a more domestic feel to the landscape. The transition between paving materials and colours will contribute to the intuitive understanding of the private and public areas.

Play areas will receive safety play surfacing.

Residential boundary

The design of the boundary between the public gardens and the residential terraces plays a role in defining the residential areas, increasing the sense of privacy and allowing for the quiet enjoyment of the external spaces. The design intent is to take advantage of the planting to form a soft defensible space around the terraces and push the public areas to the centre of the plan.

All terraces will integrate low level metal gates giving access to the common gardens. Planting on the external side of the terraces will typically provide a low level upstand in the form of a planter.

All planted areas will be located on the public side of the fencing to allow for landscape maintenance to be carried out by the management team.

Edge protection

The design of the balustrades to the open sides of the podium (on the north side and south sides) will be done with parallel flat bars to match the building balustrades.

The planting is allowed to reach the north and south edges of the courtyard gardens, bringing planting to the very edge of the podium and maximising the green offer and visual amenity to the streets. Where this happens the balustrade height increases to ensure a minimum of 1100mm edge protection at all locations.

7.10 Play strategy

As described in Chapter 8 of the DAS Vol.1 - Outline Component, the requirements for play space are a product of the expected population and dwelling mix. Throughout the Grahame Park masterplan a series of play spaces will be provided to incorporate a wide range of activities and respond to the needs of the various age groups.

Plot A has a child yield of 100 which corresponds to a requirement to provide 300sq.m of secure “local areas for play” (LAP) dedicated to children of under 5 years of age. The shared residential courtyards provide ideal settings for this type of play space due to the enhanced security, passive overlooking and proximity to the resident’s dwellings.

Plot A will provide a dedicated play area for under fives in each courtyard, corresponding to a total area of 300 sq.m of play space equally distributed between the two gardens.

Plot A will also benefit from the proximity to Heybourne Park which is publicly accessible and provides spaces suitable for informal play in its current condition. The masterplan proposals also include provision of a further 225sq.m of LAP play in the north-west side of the park immediately to the west of Plot B. Additionally, Locally Equipped Areas for Play (LEAP) and Neighbourhood Equipped Areas for Play (NEAP) are proposed to be integrated into the park.

The play areas in Plot A have been designed to combine formal play adequate for the age group with informal play opportunities, paths and seating areas. This informal combination encourages the use of the courtyard gardens for a variety of purposes and by residents of all ages, instigating social contact between residents and a sense of community.

Figure 7.55: Precedent: play logs

Figure 7.56: Precedent: play boulders

Figure 7.57: Precedent: informal play

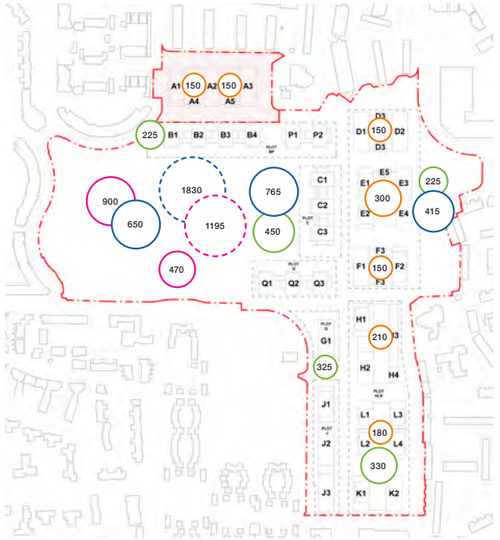


Figure 7.58: Distribution of play throughout the masterplan (see DAS Vol.1)

Figure 7.59: First floor landscape plan - play spaces highlighted

Figure 7.60: Precedent: informal play

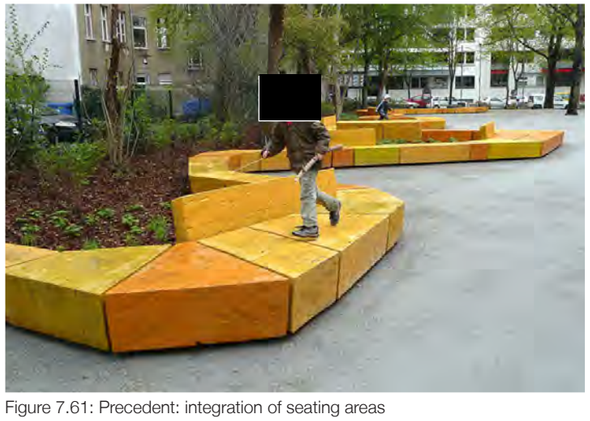


Figure 7.61: Precedent: integration of seating areas

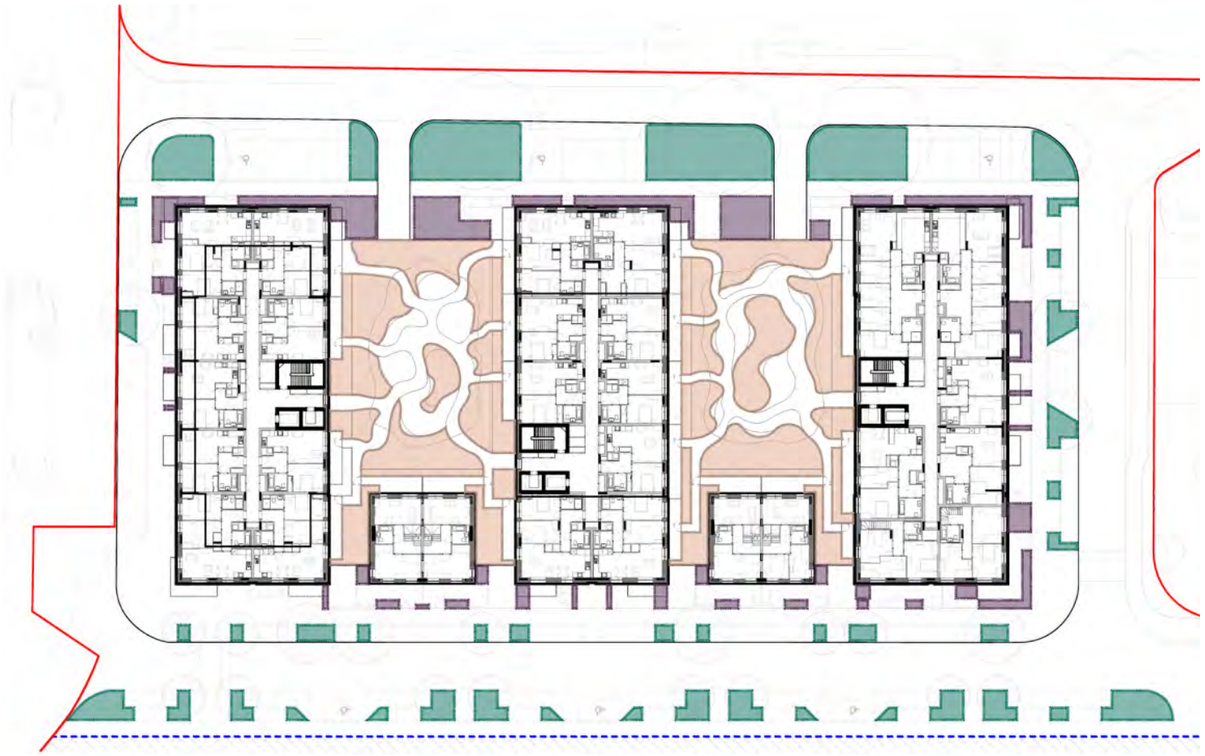


Figure 7.62: Planting types: key plan

7.11 Planting strategy

The planting strategy for Plot A seeks to respond to the overarching goals of the masterplan landscape:

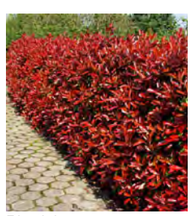
- To use ecologically friendly planting that creates a mindset of sustainability and neighbourhood pride;
- To create ornate planted streetscapes, front gardens and walkways that allow nature to infiltrate into the site creating a pleasant environment;
- To maximise longevity and ease of maintenance;
- To generate seasonal interest to ensure a year round quality experience.

A series of planting types has been designed, to suit location, use, exposure to sun and ecological value:

- Front garden shrubs and groundcovers provide a layered planting of lower level flowering building up to taller hedges and accent planting.
- Street SUDS gardens provide an oasis within the street scene to establish a thick visual urban greening that is moisture tolerant.
- Courtyard garden woodland and ornamental planting in the podium courtyards creates a verdant green understorey to the tree planting and provide a diverse mix of flowering and native species to create a strong sense of nature.

Front garden shrub/groundcovers

Lavender



Photinia

Laurel

Street SuDS

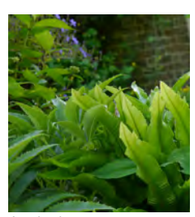
Guelder rose

Cornus

Sedge

Courtyard garden woodland

Geranium



Asplenium

Fern

Tree strategy

The existing trees have been surveyed and assessed by an Arboriculturalist and classified in categories according to their scale, age and condition: A, B, C and U (A being the highest quality and life expectancy, U being the lowest).

A tree planting strategy has been developed for the site, in consultation with LBB's Tree Officer and with reference to the London and National Guidance including DeFRA's Urban Tree Manual. More detailed information on tree survey, replanting and site wide tree planting strategy can be found in the DAS Vol.1 Chapter 8. For Plot A, all Cat. A and B trees will be replaced on a 2:1 ratio, ensuring equal canopy cover, with Cat. C and U replaced on a 1:1 ratio.

Plot A will include retention of 8 trees, as follows:

- Category A: 2 trees;
- Category B: 2 trees;
- Category C: 3 trees; and
- Category U: 1 tree.

In terms of styles the retained trees include Broadleaves parkland, Autumn colour interest, Native and Specimen trees.

New planted trees will comprise Ornamental street trees and Structural Deciduous on the streets, with Specimen trees and Structural evergreen trees planted in the first floor courtyards. This mix is intended to provide durability and resilience, provide dense shaded areas that increase human comfort as well as seasonal visual amenity and promote local biodiversity.

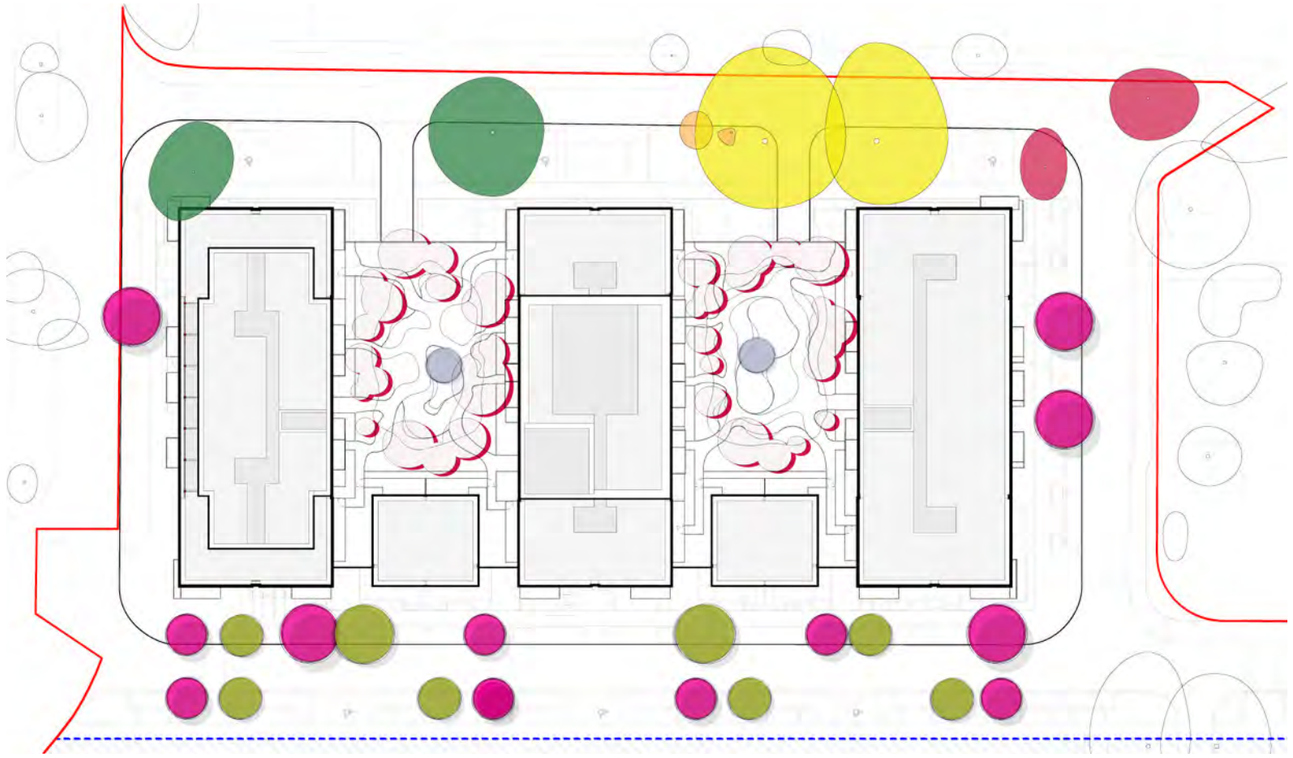


Figure 7.63: Tree types: key plan

Ornamental: Street trees

Rowan
Sorbus aucuparia 'Streetwise'

Swedish aspen
Populus tremula 'Erecta'

Cherry
'Sunset Boulevard'
Prunus 'Sunset Boulevard'

Structural deciduous trees

Field maple
Acer campestre 'Streetwise'

Hornbeam
Carpinus betulus 'Streetwise'

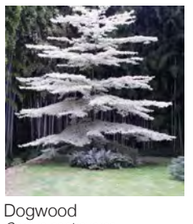
London plane
Platanus x acerifolia

Specimen trees: courtyard clusters

Paperbark maple
Acer griseum

Himalayan birch
Betula utilis 'Jacquemontii'

Serviceberry
Amelanchier lamarckii



Dogwood
Cornus controversa

Structural evergreen trees: courtyards

Corsican pine
Pinus nigra

Stone pine
Pinus pinea umbrella form

Existing trees

Figure 7.64: Existing trees along Great Field: Broadleaves parkland, Native, Autumn colour interest, Specimen.

Figure 7.65: Key plan: ground floor

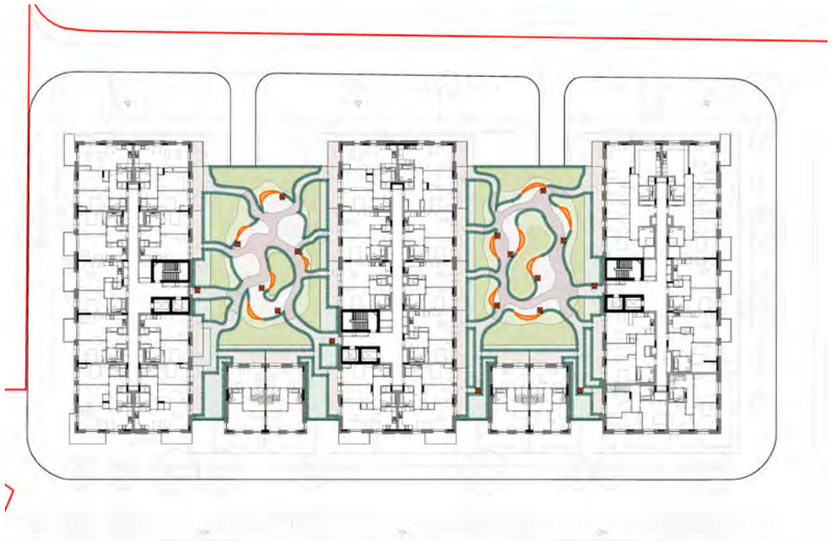


Figure 7.66: Key plan: first floor

7.12 Lighting and street furniture

External lighting

The proposed lighting types will make a safe and pleasant night time environment. It will also reinforce the way finding and circulation strategies, giving emphasis to the primary circulation routes and highlighting special features. Adoptable lighting standards will be achieved.

Street furniture

The character areas are enhanced by a palette of suitable types of furniture and lighting bringing together the landscape, public realm and architecture.

Street furniture takes a 'light touch' approach as to limit clutter and promote accessibility through the site. Essential elements such as cycle parking are provided while the remainder of elements work to define either private front gardens and planting spaces.

Within the courtyard gardens timber and metal benches will be provided. Some will have armrests for inclusive access to the space, and appropriate backs to provide comfort and respite for residents enjoying the amenity space with family, neighbours and children enjoying the play space.

Figure 7.67: Sheffield cycle stands

Figure 7.68: SuDS knee rail

Figure 7.69: Front garden railing

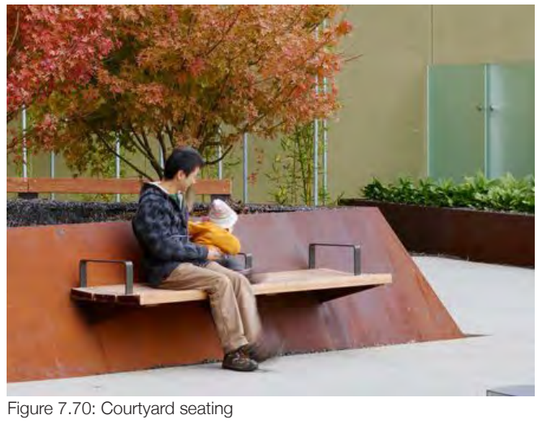


Figure 7.70: Courtyard seating

Figure 7.71: Litter bins

Figure 7.72: Adoptable LED street lighting

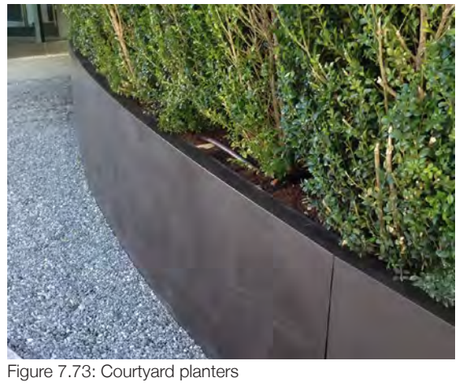


Figure 7.73: Courtyard planters

Figure 7.74: Courtyard low level lighting

7.13 Ecology strategy

The ecology strategy for Plot A has been prepared with a view to promote biodiversity for the benefit of both wildlife and people, in accordance with the London Plan (**Policy 7.19**) Draft New London Plan (**Policies G1 and G4**).

Ecological strategy principles / measures include:

- Biodiverse roofs;
- Bird / bat boxes in existing trees;
- Proposed tree, shrub and groundcover planting; and
- Invertebrate (insect) hotels.

Maximising the areas above promotes biodiversity net gain in phase one and across the future masterplan. Please refer to the ecology report for further detail.

Urban greening factor

In line with the **Policy 5.10** of the current London Plan, the proposals seek to maximise urban greening in the development. Urban greening factor measurements have also been undertaken for Plot A in accordance with DNLP **Policy G5**.

The calculations generate a 0.35 score. Plot A maximises the green potential on the site with biodiverse roofs, courtyard gardens and new street tree, shrub and groundcover planting in relation to the adoptable street surfacing with permeable paved parking spaces.

The score should also be read in conjunction with the outline masterplan as a higher proportion of green infrastructure in future phases exceeds targets. The overall development area achieve a score of 0.4 and, when including improvements to Heybourne Park the masterplan can achieve a score of 0.52.

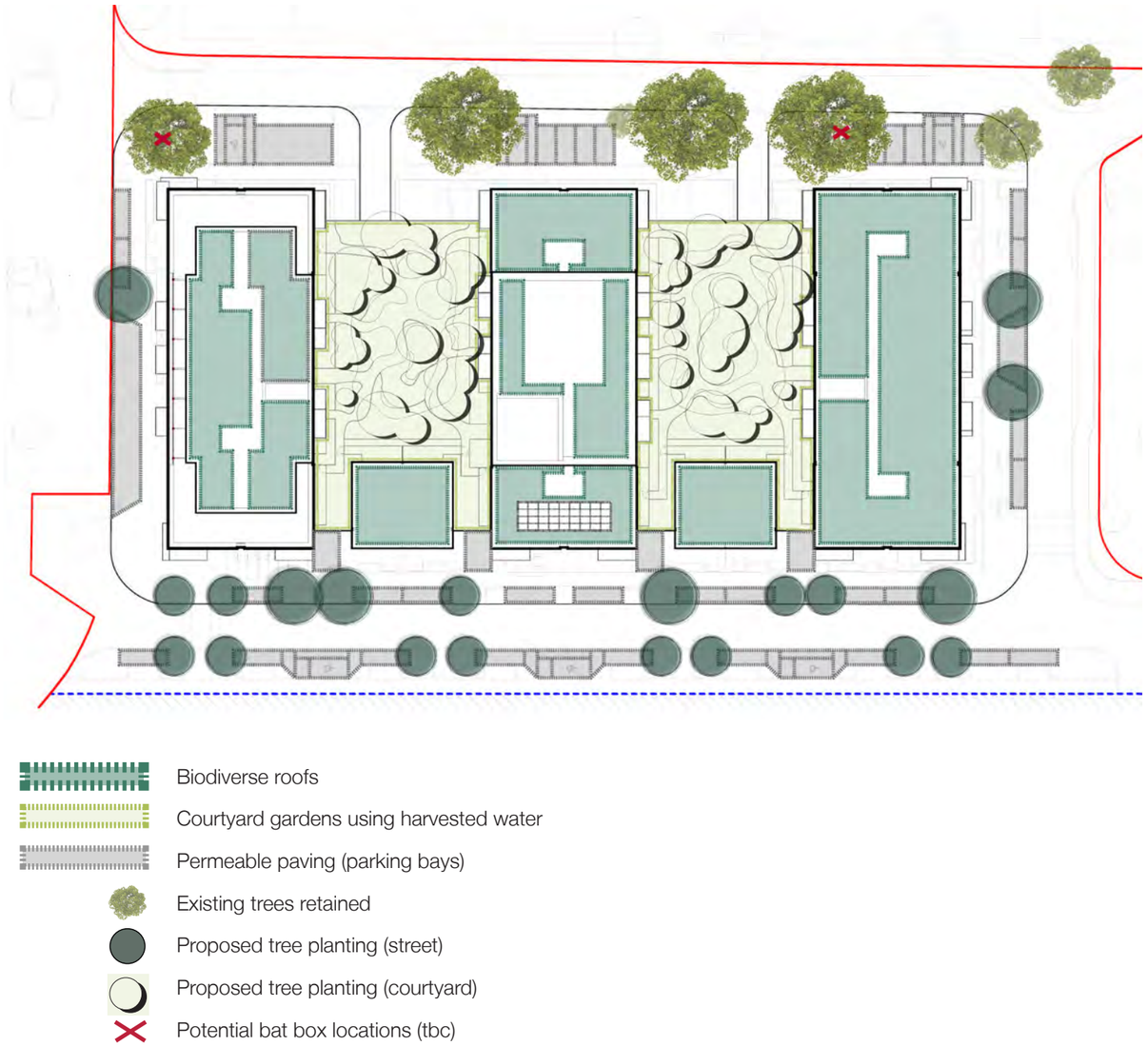


Figure 7.75: Ecology key plan

Figure 7.76: Biodiverse roof areas

Figure 7.77: Integrated facade bat boxes

Figure 7.78: Tree bat boxes

Figure 7.79: Insect hotels

SUDS Hierarchy
Draft New London Plan Policy SI13

1. Rainwater use as a resource:

- Green / brown roofs
- Courtyard gardens

3. Rainwater attenuation in green infrastructure

- Green / brown roofs
- Courtyard gardens
- Planters
- Permeable paving
- Crated water storage

7. Rainwater discharge to a surface water drain

- Adoptable roads

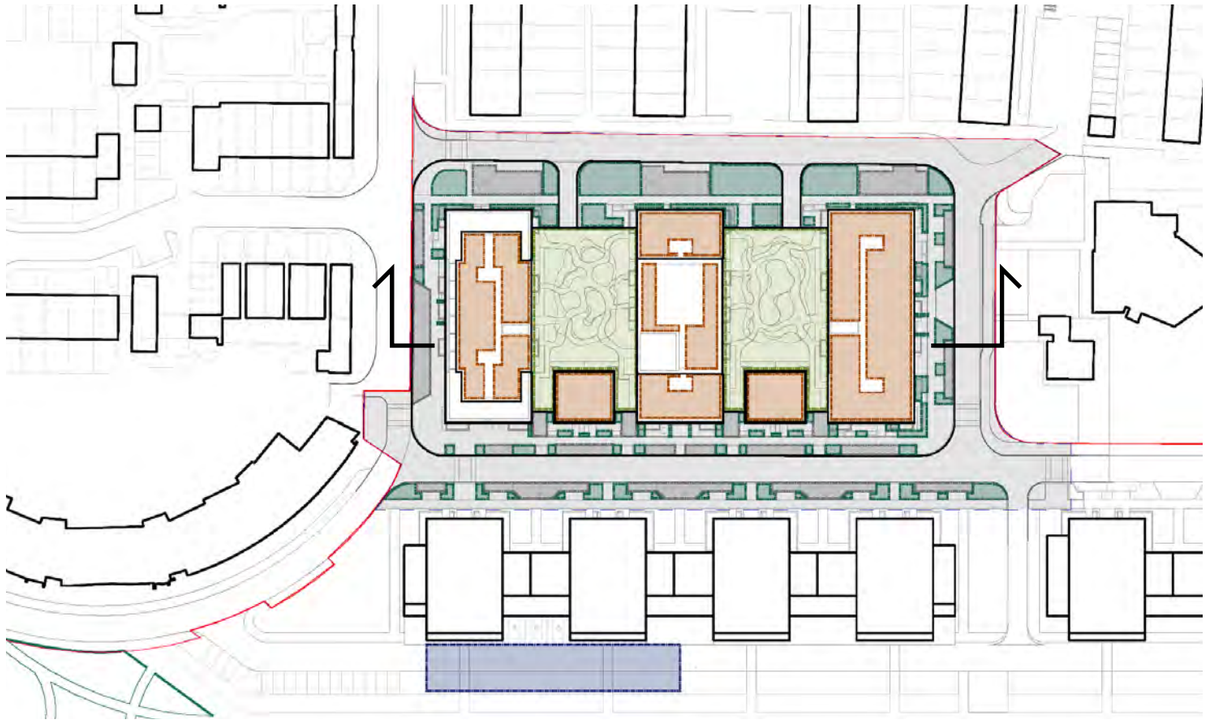


Figure 7.80: Plot A: SUDS plan

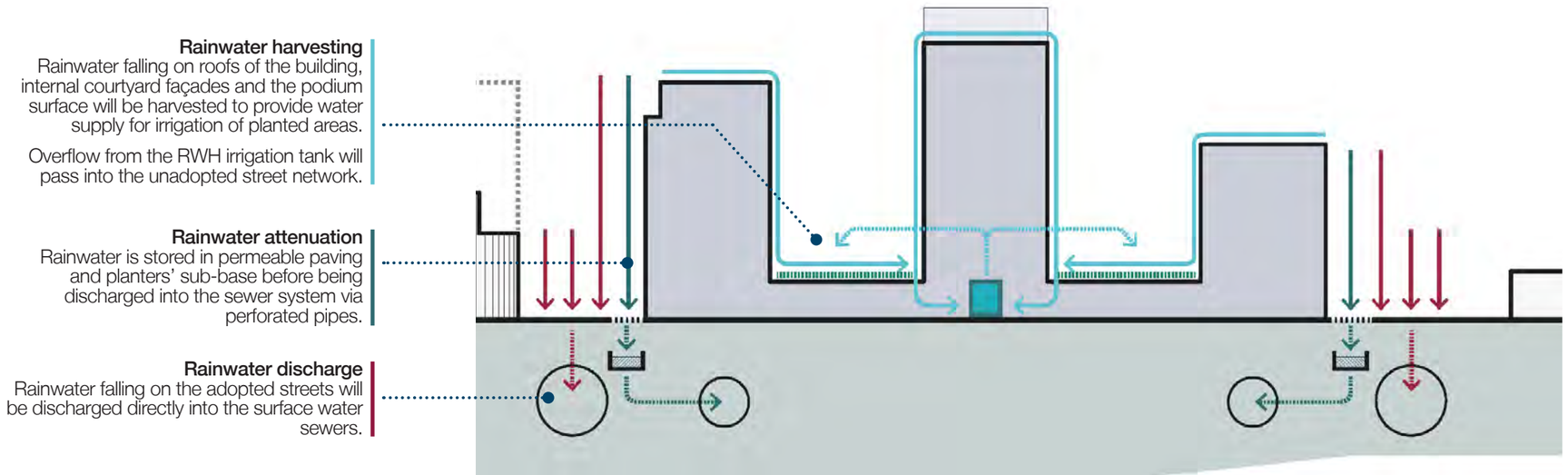


Figure 7.81: Water management strategies diagram

7.14 Water management strategy

The proposed water management solution for Plot A has derived from the site-wide strategy as described in DAS Vol.1 - Outline Component, prepared in response to the London Plan (**Policy 5.13**) and DNLP (**Policy SI13**). The design team developed a proposal which maximises Sustainable Drainage Systems (SUDS) where possible, while taking into consideration the various applicable constraints such as existing site levels and road adoption strategy.

As the site is located over London Clay subsoil, rainwater falling on surfaces within the site will not infiltrate deep into below ground water courses, but will instead perch above the clay.

Where rainwater falls on hard surfaces, including buildings, it risks overloading the drainage network and must be reused or attenuated (temporarily held on site) for gradual release to its final destination.

GLA guidance requires that a balanced solution is provided, with over-reliance on one method (e.g. crated storage) being unacceptable.

Sustainable Drainage Systems (SUDS)

A combination of SUDS methods will be employed in Plot A, as follows:

- **SUDS Hierarchy 1**
  Rainwater use as a resource
  Rainwater harvested from the building roofs and first floor gardens will be stored in water butts for use in irrigation of podium landscaping. Plot A will have a central tank integrated in the podium car park which will recirculate rainwater back into the podiums for irrigation of the courtyard gardens (see Fig. 7.81).
- **SUDS Hierarchy 3**
  Rainwater attenuation in green infrastructure
  Where rainwater falls on soft landscaping or permeable paving areas it will be captured and attenuated, partially to be used by the planting for self-irrigation with the remaining being gradually released into the network. This applies to green and brown roofs of A1-A5, courtyard gardens, soft planting at ground floor, tree pits and paving to parking bays. Crated storage is also provided adjacent to Plot B, for attenuation of the remaining water volume.
- **SUDS Hierarchy 7**
  Rainwater discharge to a surface water drain
  Where surface water falls on an adopted street, it must be discharged directly into the surface water drainage network.

7.15 Designing out crime

In accordance with the London Plan (**Policy 7.3**), DNLP (**Policy D10**) and LBB Local Plan (**Policy DM02**), issues of safety were considered throughout the design process with the intention of creating a safe and welcoming environment that can be enjoyed by all residents and visitors. An assessment of the existing estate can be found in DAS Vol.1 - Outline Component Chapter 3.

As part of this process the design team consulted with the Designing Out Crime Officer (DOCO) for Barnet, to discuss the existing estate and the new proposals.

Existing challenges

- Groups gathering in unobserved spaces;
- Narrow alleyways and undercroft passages creating a permeable environment;
- Lack of passive surveillance; and
- Concealment of items (contraband, weapons, etc.) in poorly maintained soft landscape areas throughout the site.

The DOCO expressed his support for measures to encourage the local residents of LBB to close off some publicly accessible alleyways (under The Countryside Rights of Way Act 2000), so as to reduce excessive permeability through the site.

Plot A: Safety risks & solutions

The establishment of clear and legible routes, well overlooked streets and appropriately lit public spaces will strongly contribute to a safer environment. Non active frontages are reduced and any street parking is located in observed areas with passive surveillance. The building and parking areas will also be designed to comply with Building Regulations Approved Document Q.

The proposals for Plot A were discussed with the DOCO and the following risks were highlighted for consideration by the design team:

- **Risk**: areas of hit & miss brickwork at the ground floor used for storing of items, creating a threat to adjacent residents.
- **Solution**: ground floor hit & miss areas replaced with vertical metal screens.
- **Risk**: low level brick walls allowing seating and uninvited gathering, disturbing residents.
- **Solution**: brick walls raised to 1300mm; use of metal covers to cycle stores as opposed to brick; large planting zones on the external side of brick walls typically; use of metal railings instead of brick where adjacent to the commercial unit.
- **Risk**: bicycle theft (visitors).
- **Solution**: cycle parking for visitors located in areas which are well exposed, naturally overlooked and near main circulation routes.
- **Risk**: anti-social behaviour around communal entrances.
- **Solution:** provision of wide and well-lit landings with planting strategically located to increase the distance between the public path and the door.
- **Risk**: unauthorised access to residential areas.
- **Solution**: design allows for double lines of defence into the communal lobbies. The access control strategy will be developed at the next stage and will consider restricted access to internal areas.
- **Risk**: unauthorised access to podium car park.
- **Solution**: car park entrance gates provided with controlled entry. No access to podium required for refuse collection or to serve the commercial unit.
- **Risk**: misuse of demised parking bays (houses).
- **Solution**: lockable folding bollards to access into private parking areas.
- **Risk**: refuse stores being left open by waste operatives, creating opportunities for misuse.
- **Solution**: double doors to refuse stores replaced with large single doors fitted with door closers.
- **Risk**: bicycle theft (residential).
- **Solution**: design residential cycle parking divided in smaller stores to prevent theft. Current store capacity (up to 75 spaces) considered acceptable due to increased demands of residential cycle parking provision. Use of metal grilles to walls considered positive as it provides passive surveillance.
- **Risk**: residential burglary.
- **Solution**: ground floor homes provided with secure natural ventilation openings such as grilles integrated in the window design, reducing the need to keep windows open when the room is not occupied.
- **Risk**: planting used to conceal illegal items such as weapons and drugs.
- **Solution**: planting next to a footpath should start with grass and low growing plants with taller shrubs and trees to the rear. Spiky species are encouraged. Planting should also have a clear and visible ground plane to deter concealment.

Figure 7.82: Secure by Design standards

Figure 7.83: Existing blind alleyway access off Great Field

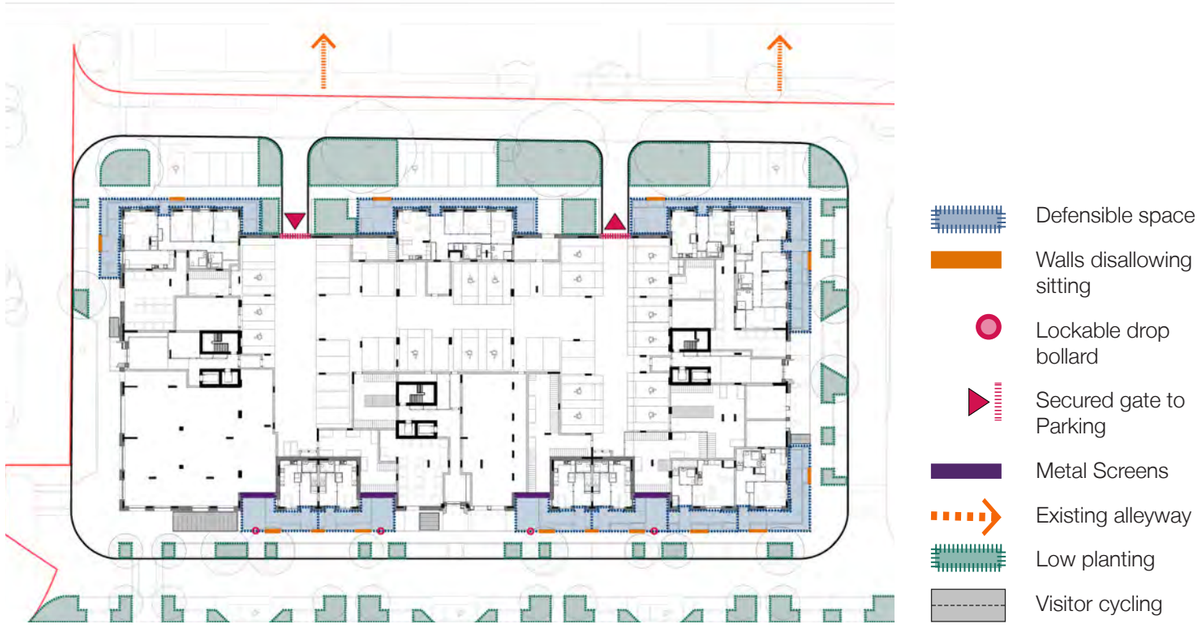


Figure 7.84: Security initiatives key plan

Figure 7.85: Precedent: planting on the public side of the demise line

Figure 7.86: Precedent: planting on the public and private sides of the demise line

7.16 Landscape implementation strategy

High quality landscape provides instant impact and good impressions to future residents, an aspect of major importance in the first phase of a regeneration scheme. For this reason a balance of tree and shrub planting with proper spacing will be used to deliver the landscape and public realm from day one. The retained mature trees along Great Field will play a central role in giving this area a sense of established place.

The majority of the street greenery is made up of green edges surrounding the residential boundary walls around the plot. In addition to choosing hard wearing species of low maintenance, these edges have been placed on the public side of the boundaries so that they can be monitored and maintained by the management team. This strategy seeks to ensure the long term success of the landscape strategy by reducing the reliance on residents to maintain private planting areas, while allowing residents to supplement the street planting and enhance the visual appearance of the public realm.

7.17 Landscape management strategy

The public realm and integrated landscape aspects have been designed to facilitate a hierarchy of spaces and places, with an inherent network of uses and demands (be it vehicular or pedestrian dominant).

The Landscape Management Strategy therefore aims to:

- Give assurance to stakeholders, neighbours, future residents and interested parties that the proposed development will be managed to exemplary standards;
- Provide a framework for a detailed maintenance plan to manage the Site to reflect the quality of the areas within; and
- Ensure that landscape elements are managed in accordance with the design intent and reflect the maintenance plan.

Development of a detailed Maintenance and Management Plan will capture the following considerations:

- Appraisal of the Site, the hierarchy of spaces and places, uses and characteristics;
- Outline the factors to be addressed by the maintenance plan and processes (for example habitat creation, public amenity, health and safety, and achieving legislative compliance);
- Define long terms design and management aims and objectives including;

1. Manage the proposed development in a sustainable manner;
2. Maintain, Evolve and Enhance the Amenity Value and Aesthetic aspiration;
3. Conserve and Enhance the Landscape Character and Ecological Value;
4. Provide detailed maintenance requirements associated with the first 5 years establishment phase; and
5. Set out the process of monitoring, inspections and review of maintenance activities, including recording any ecological establishment goals.

Routine maintenance operations such as hardworks wash downs, grass cutting, shrub and ornamental grasses pruning, litter picking, weed removal, watering, fertilizing and bark mulch top up will be supported by specialist arboricultural works, and by suitably qualified irrigation maintenance support teams. These activities will be guided (weather dependent) by an annual schedule which will be supported by regular reports and monitoring reviews.

7.0 Landscape design

BLANK PAGE