

November 2020



7.0 Landscape design

7.1 Introduction

This chapter of the Design and Access Statement relates to the detail landscape component of Phase 1 including Plots B, C and E. 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 Phase 1 will comprise new streets and public realm spaces as well as private external amenity areas and shared podium gardens.

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.

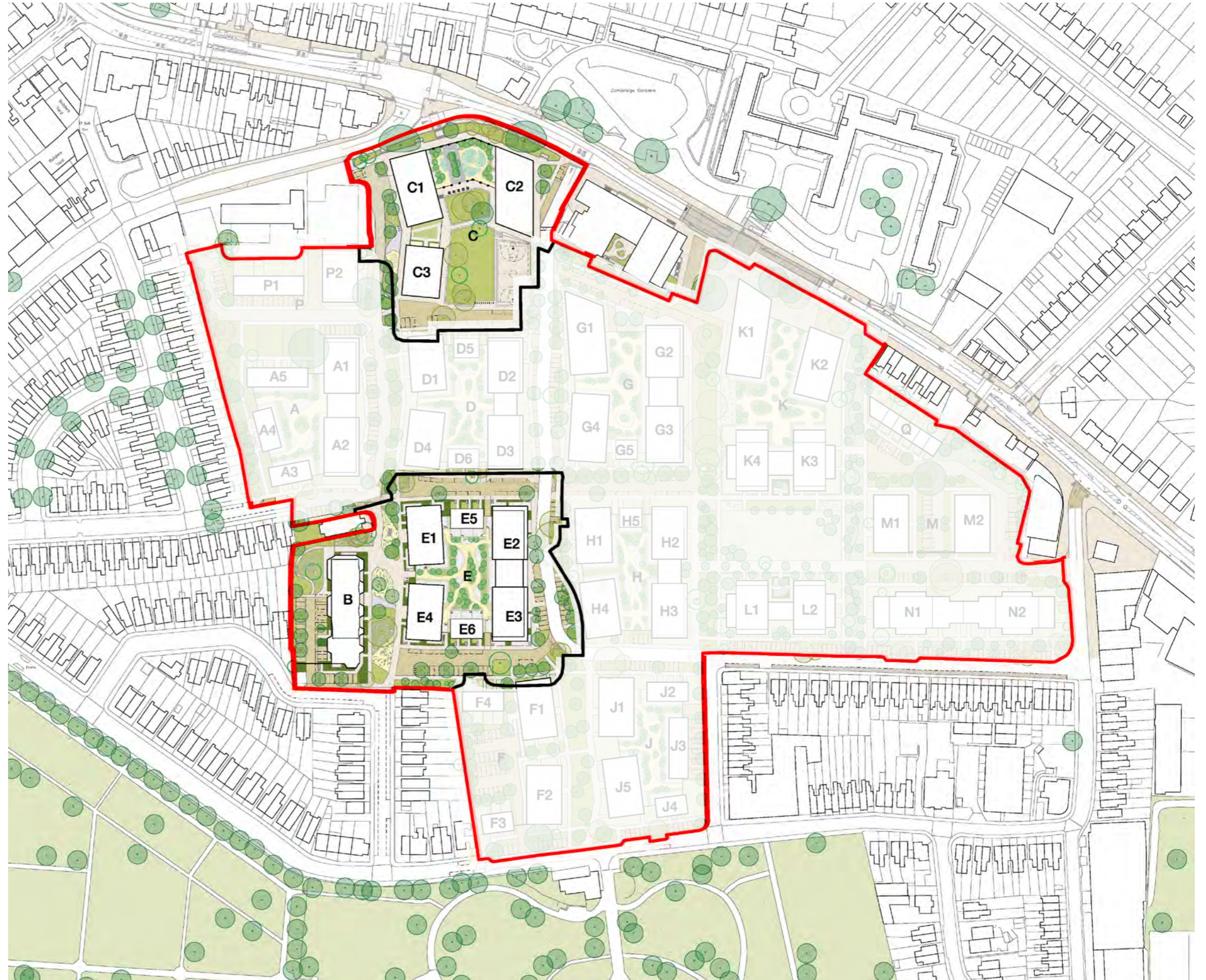


Figure 7.1: Landscape masterplan, outline component hatched

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7.2 Landscape context

Located in Norbiton Kingston, the existing Cambridge Road Estate has been configured as a series of tower blocks and interconnected apartment blocks. Key spaces and mature trees are seen as important assets which have been retained as part of the landscape masterplan.

7.3 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 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.



Figure 7.5: Illustrative view



Figure 7.3: Horse chestnuts and beech trees in Madingley Gardens



Figure 7.4: London Plane, Sycamore and Maple on Cambridge Road



Figure 7.2: Piper Weeping Willow

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7.4 Ground floor

Plot C is located in the Northwest corner with a prominent location on the junction of Cambridge Road and Hawks Road. Plots B and E are then the Southwest corner at symbolic location on the existing Piper Hall.

Both of these sites 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 were developed to follow the site-wide principles and the street character hierarchy. They offer significant improvements to the existing public realm while creating an attractive setting for the new residential development, benefiting the new residents as well as the surrounding communities. These include:

- Put the Community Centre on the prominent gateway corner location where it will become a visible icon for the local community.
- Retain Madingley Gardens and the existing prominent Trees.
- Enhance the setting of the existing Parish Hall and Piper Willow tree with new softscape and play elements activating the space and removing the dominant car parking in the area. A new pedestrian thoroughfare is created to allow easy flow of pedestrians through the site.



Figure 7.6: Proposed ground floor landscape plan, Plot C

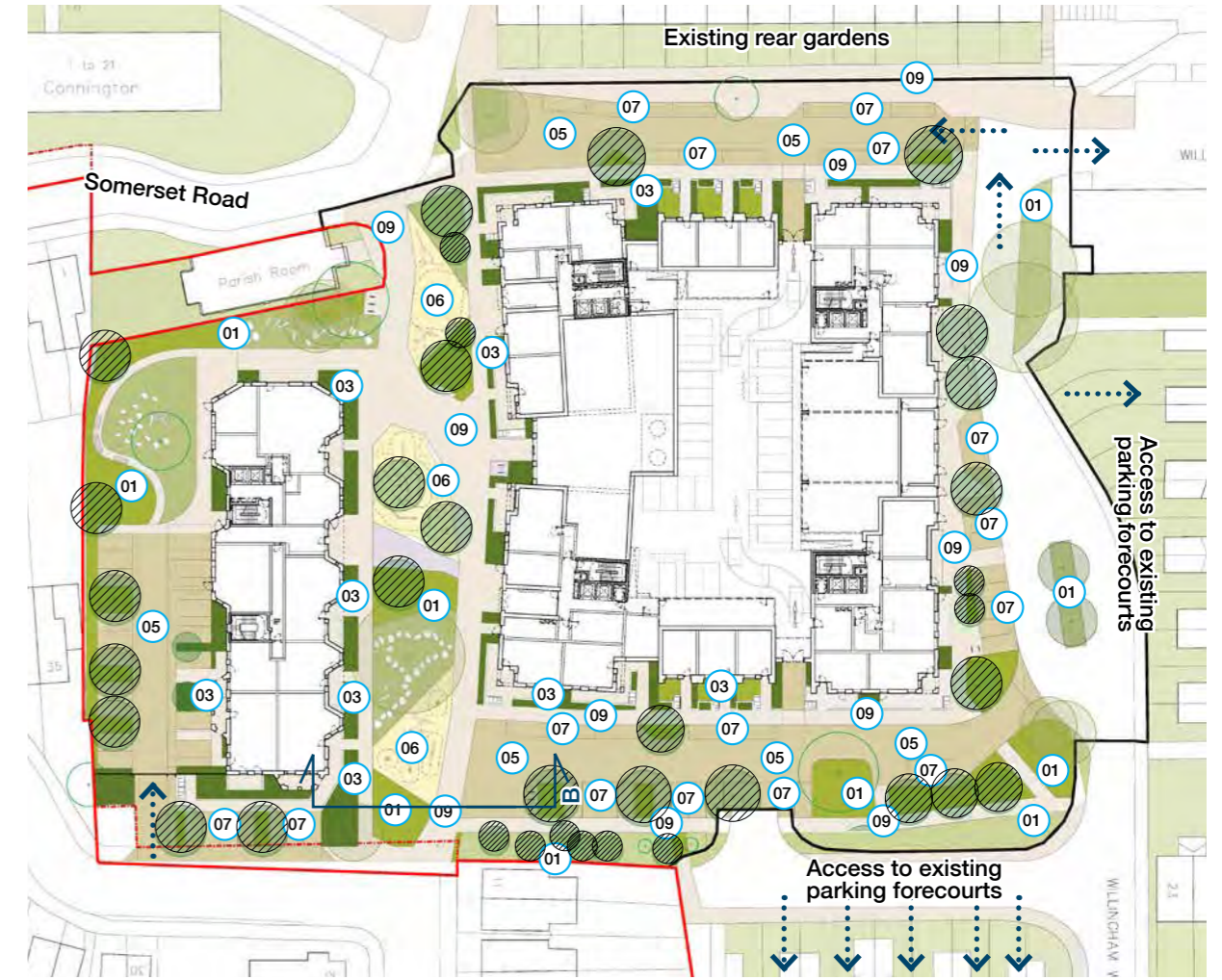




Figure 7.7: Proposed ground floor landscape plan, Plots B and E

01	Planting zone	07	Parking bay
02	Existing landscape	08	Public footpath - existing
03	Hedge/front garden planting	09	Public footpath - proposed
04	Existing paving	10	Proposed amenity grass
05	Paving type 1		Tree proposed
06	Play area		Tree - existing

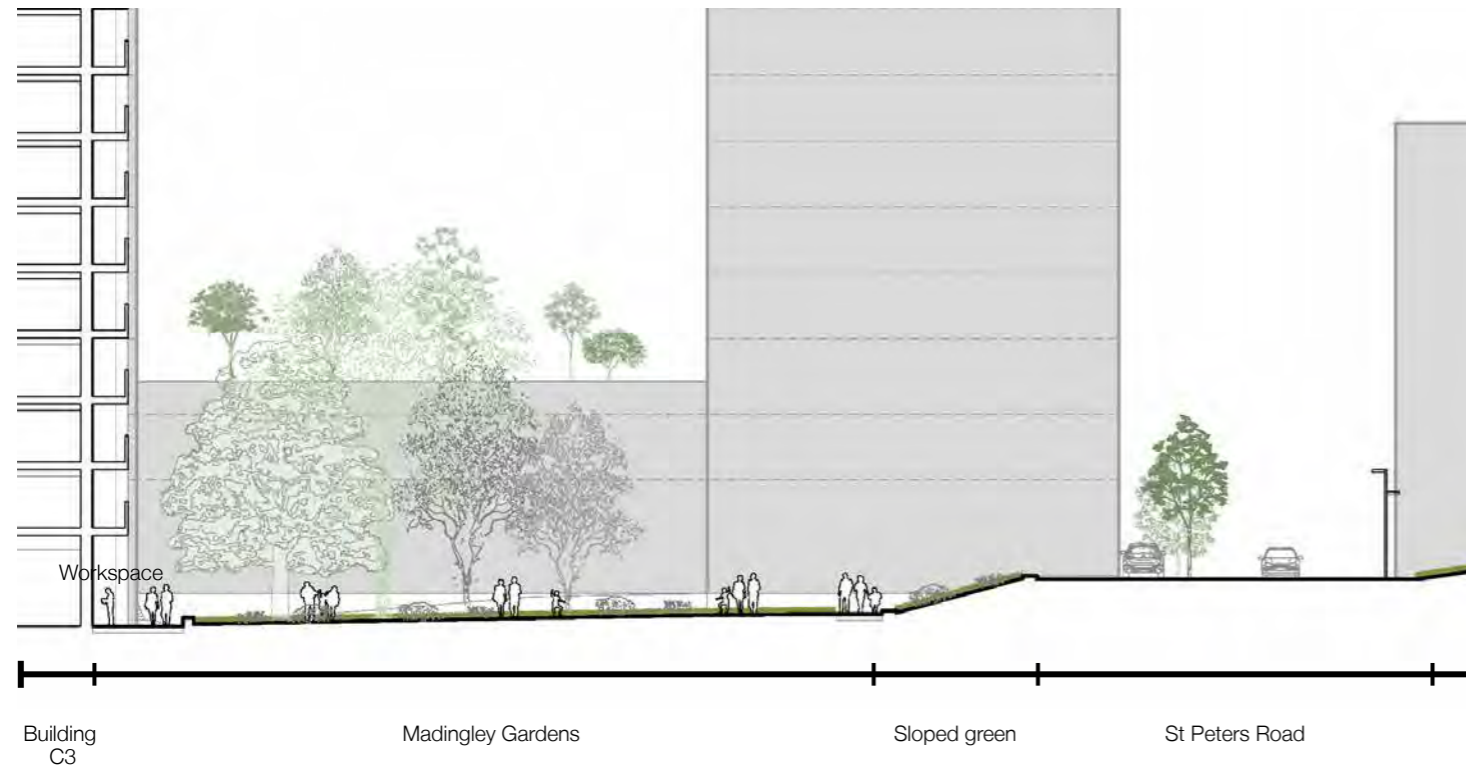


Figure 7.9: Section across Madingley Avenue and Madingley Gardens



Figure 7.8: Section across Piper Way

Ground Floor (cont.)

- 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 Phase 1 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.

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7.5 Edge treatment - residential

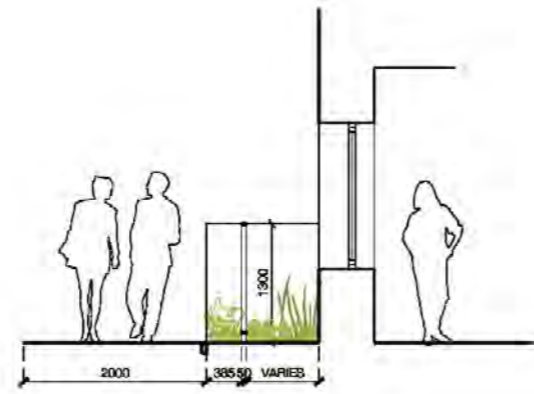
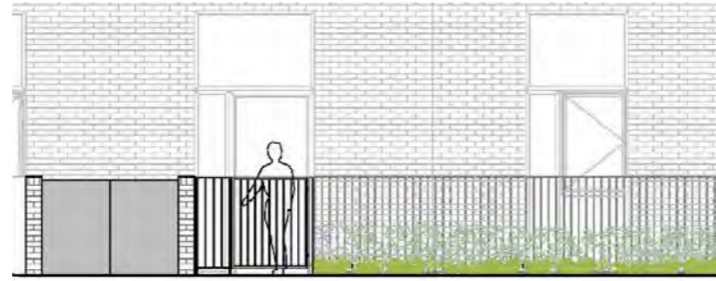
A high proportion of the ground floor frontage in Phase 1 is taken up by residential uses, and as such the design of the threshold between residential amenity spaces and the public realm is crucial for the success of this scheme.

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.

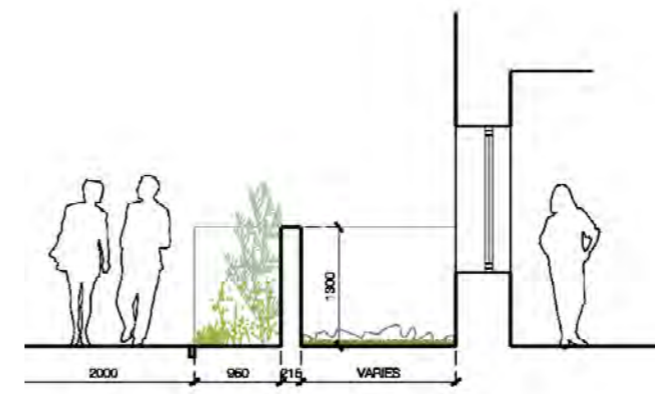
The boundary treatment follows a set of **key drivers**:

- 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 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.



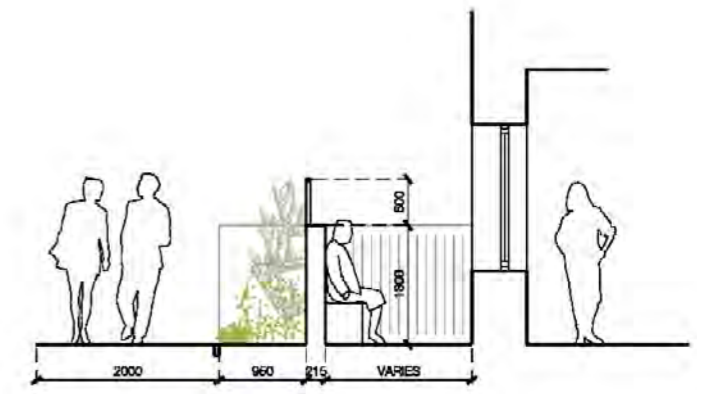
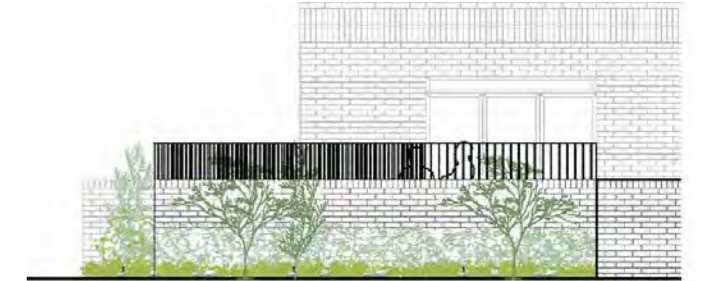
Type A

Low level metal railing at 1300mm



Type B

Low level brick wall at 1300mm



Type C

Brick wall at 1300mm + railings up to 1800mm

Maximum transparency



Maximum privacy



Figure 7.10: Edge treatment type A: typical elevation and section

Figure 7.11: Edge treatment type B: typical elevation and section

Figure 7.12: Edge treatment type C: typical elevation and section



Figure 7.13: Type A precedent: metal railings with planting on the outside.



Figure 7.14: Type B precedent: brick wall and planting



Figure 7.15: Type C precedent: low level brick wall + metal railing

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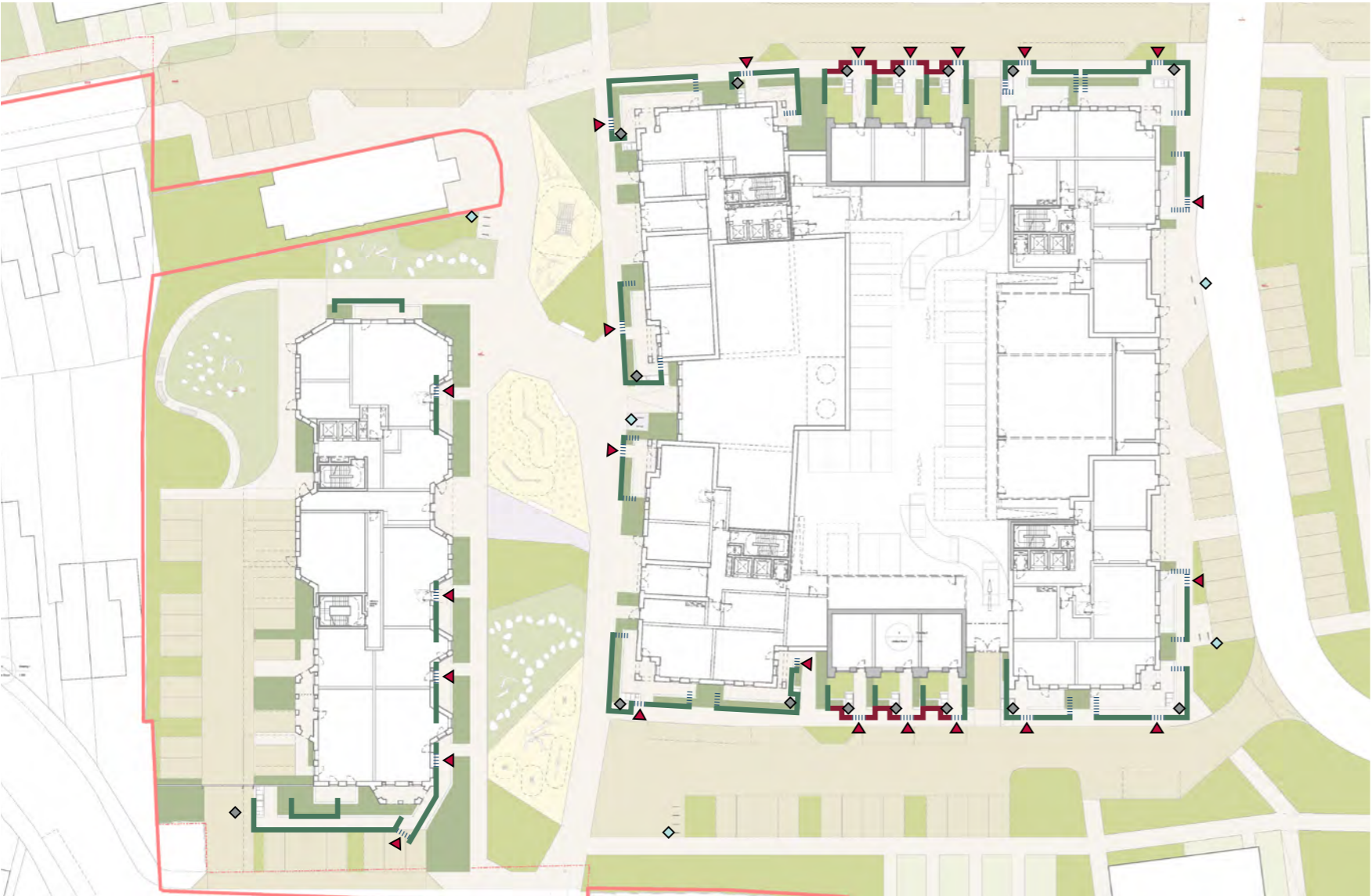


Figure 7.19: Edge treatment key plan

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.



Figure 7.16: Precedent: external stores integrated into the design of residential entrances.



Figure 7.17: Precedent: planting on the outside of boundary line



Figure 7.18: Typical entrance gate elevation

7.0 Landscape design

7.6 Residential amenity

Houses

The 4-storey houses along Franklin Street 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 Franklin Street, and a small soft planting area.

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

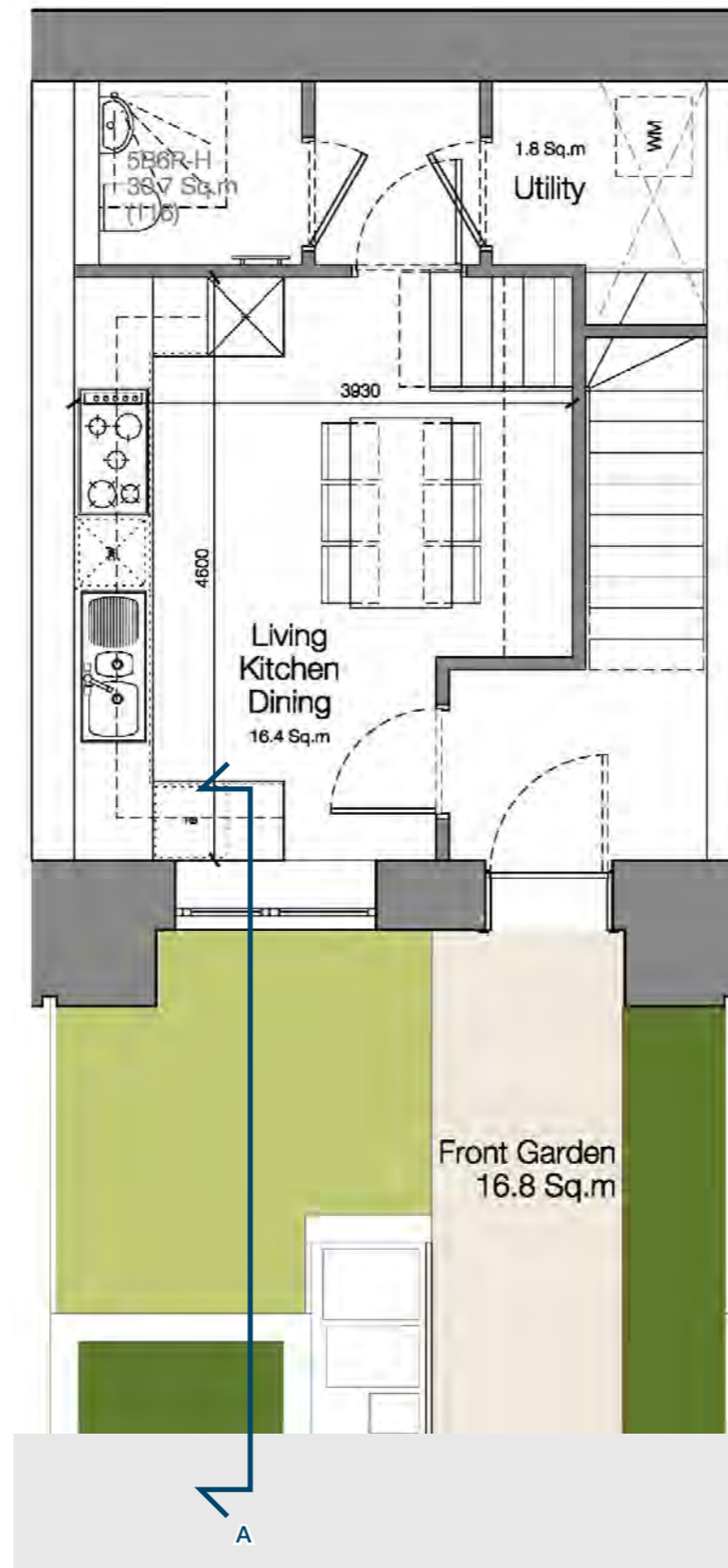
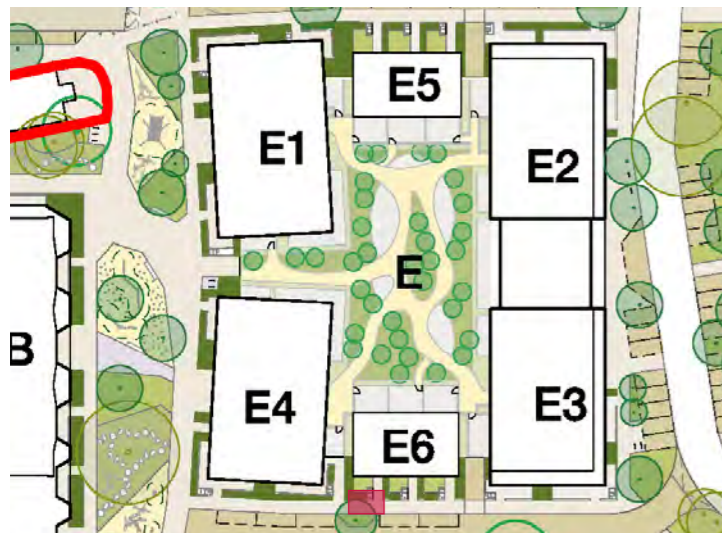


Figure 7.20: Ground floor landscape plan: house

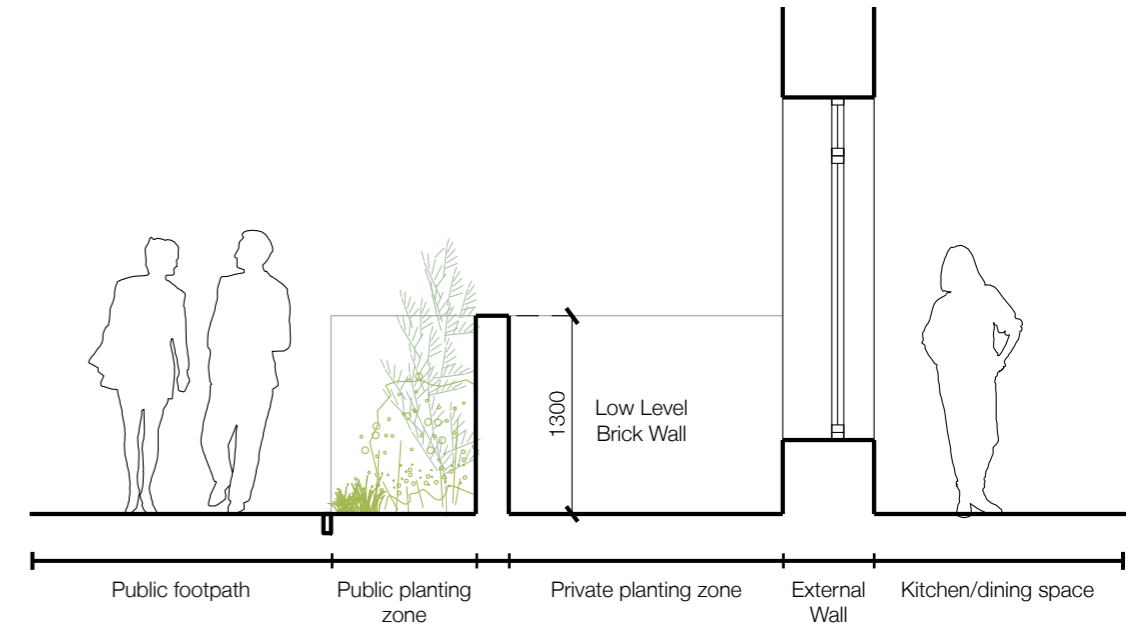


Figure 7.21: Section A

- Hedge / shrub planting
- Planting zone
- Paving
- Public footpath

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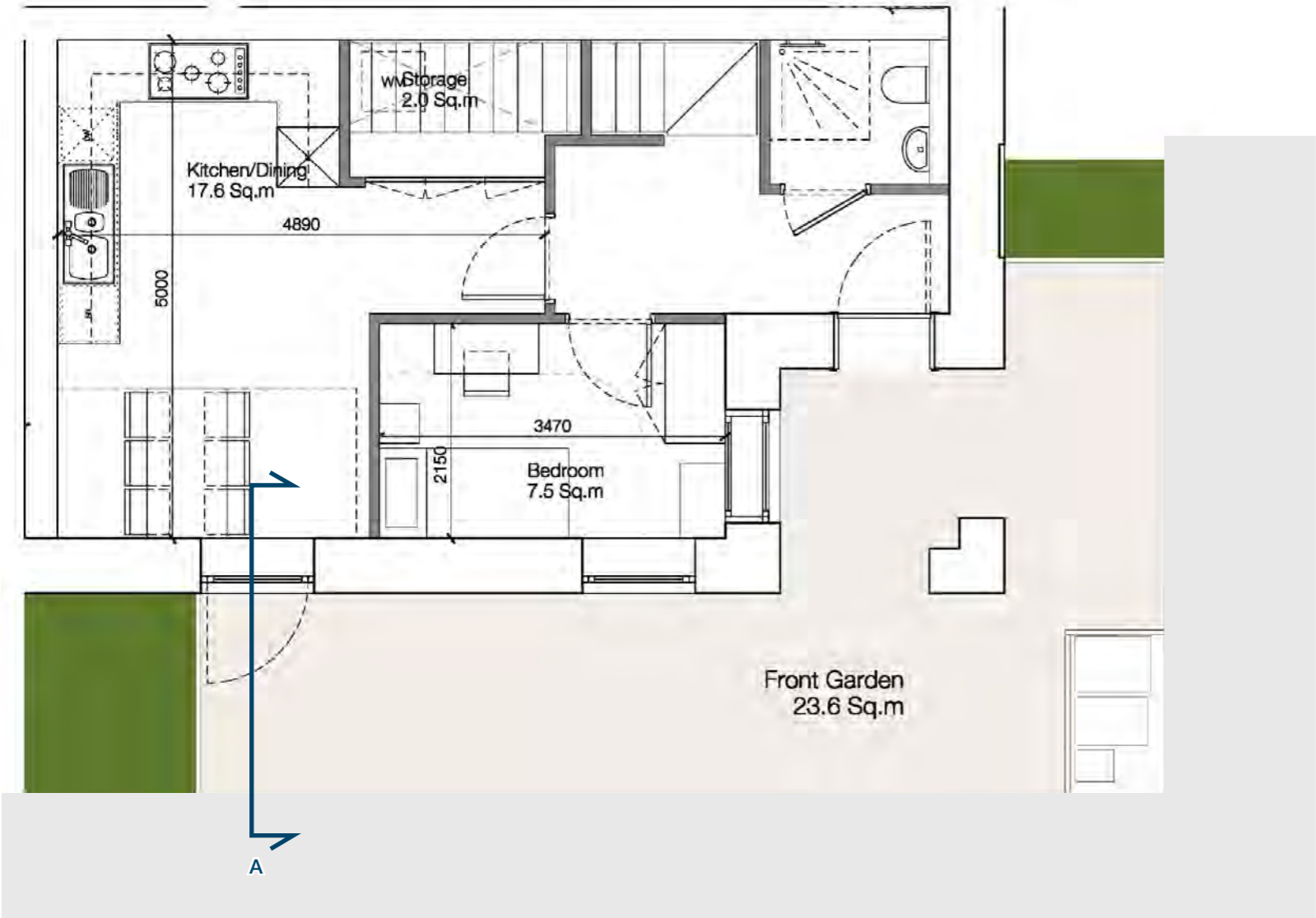


Figure 7.22: Ground floor landscape plan: maisonette

Maisonettes

The external amenity to the maisonettes follows the same principles:

- Brick paved path and metal gate defines the entrance;
- Bin 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, due to the wide frontage of the home and six bed spaces it provides. 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.

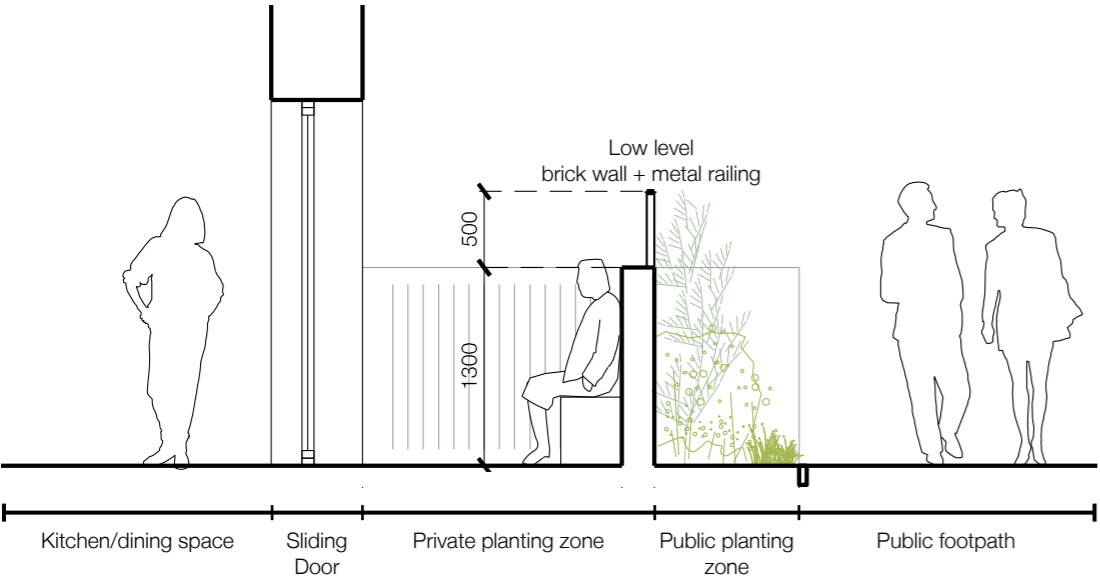
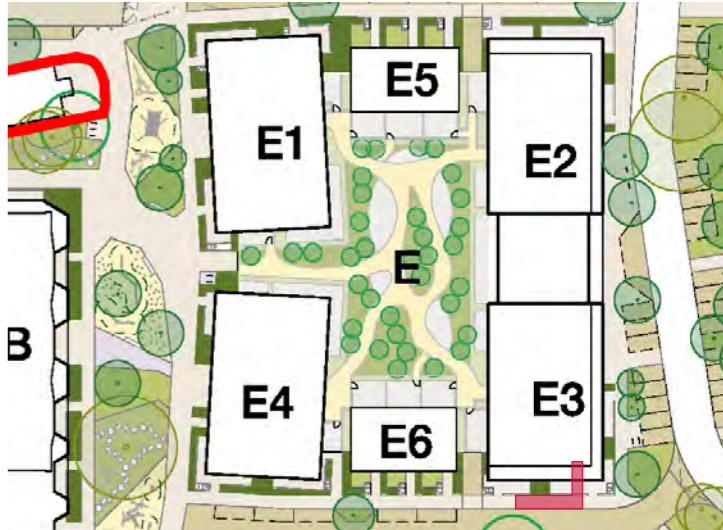


Figure 7.23: Section A



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Ground floor homes

Ground floor homes 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.

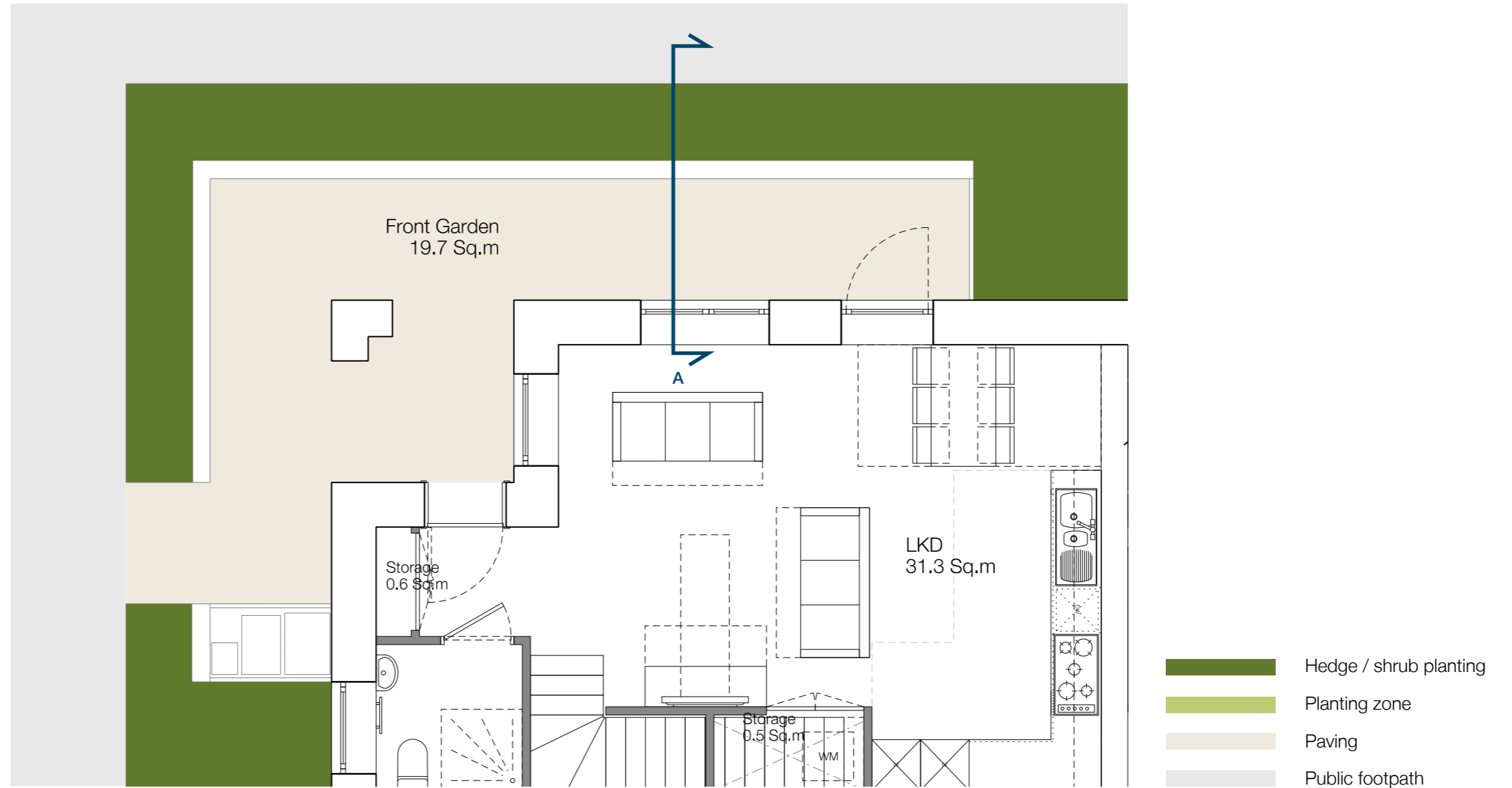


Figure 7.24: Ground floor landscape plan: ground floor home

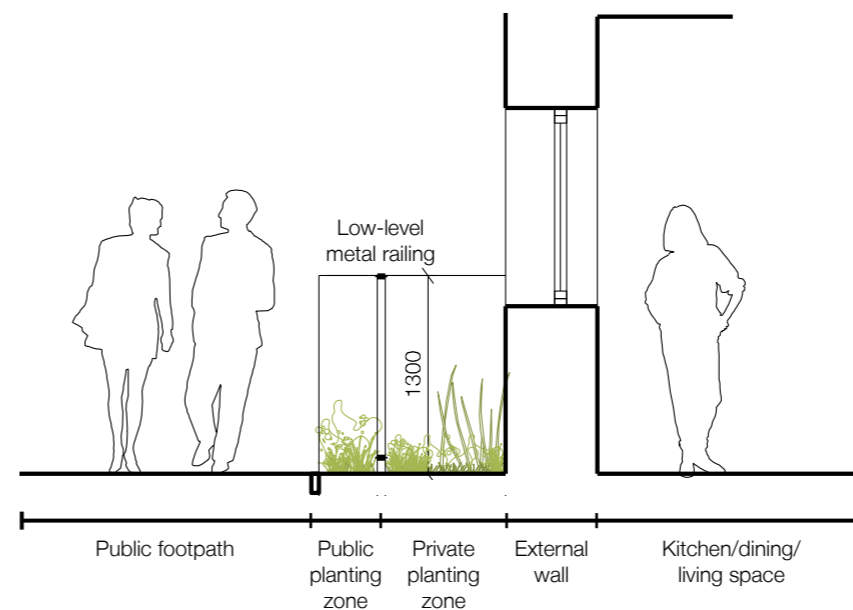
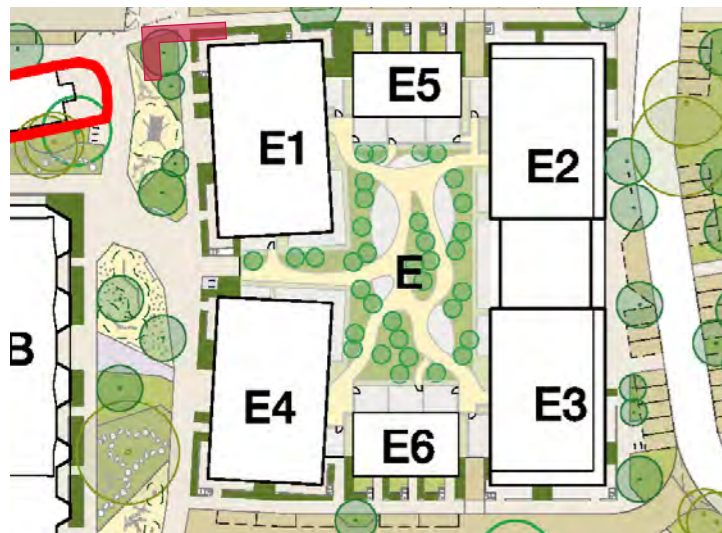


Figure 7.25: Section A

7.7 Hard landscape

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 and permeable pavers to the parking bays. Tactile paving will be provided where required, such as at approaches to pedestrian crossings and car park entrances. Carriageways will be 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.

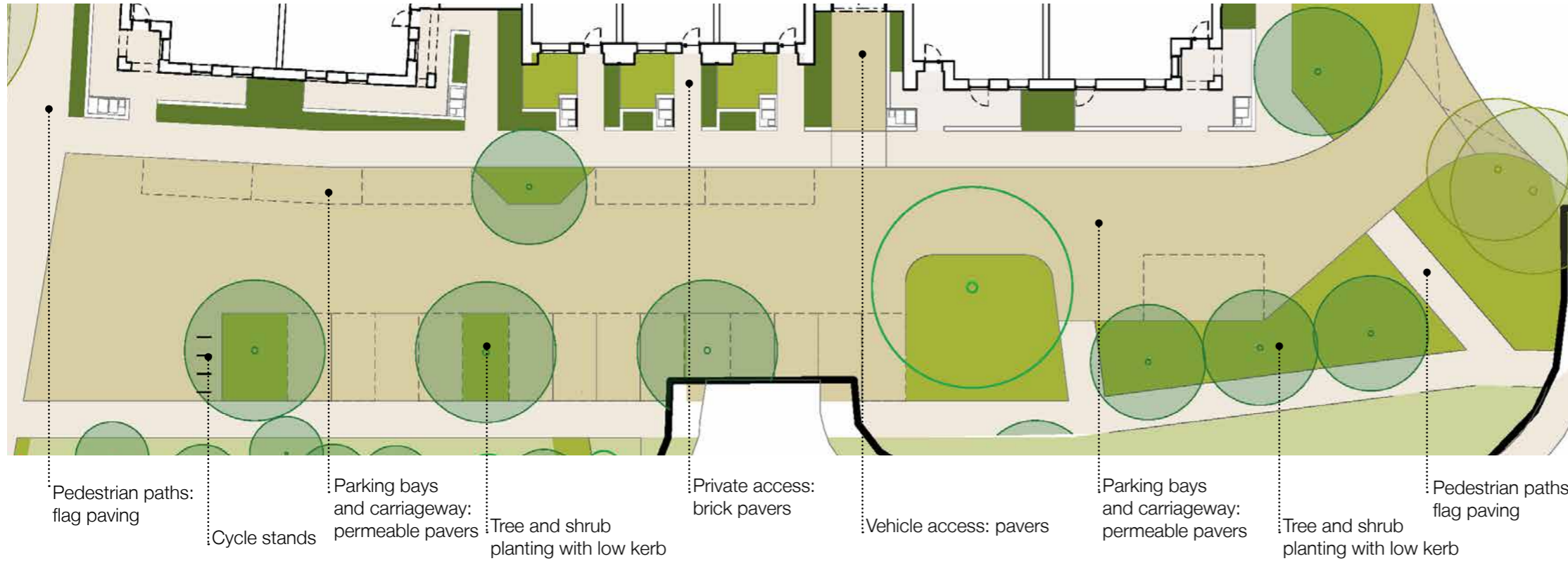


Figure 7.26: Paving plan (excerpt)



Figure 7.27: Precedent: cycle stands



Figure 7.29: Precedent: conservation concrete kerb



Figure 7.34: Precedent: paved walkways



Figure 7.32: Precedent SUDS planting w/ low kerb



Figure 7.28: Precedent: flag paving to paths

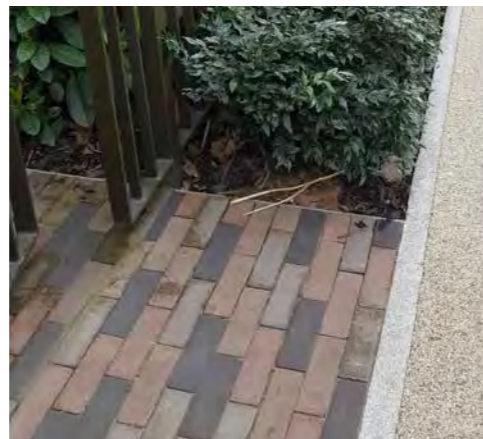


Figure 7.30: Precedent: paving and kerb edging



Figure 7.31: Precedent: brick paving to entrance paths



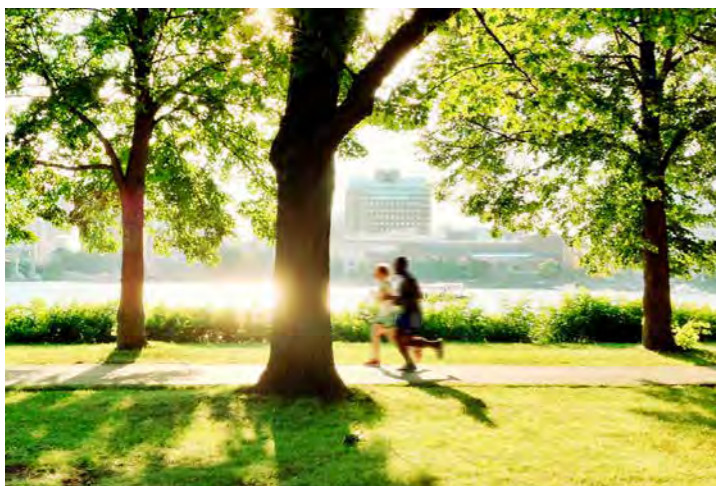
Figure 7.33: Precedent: paved parking areas

7.8 Madingley Gardens

Madingley Gardens has the potential to be a lovely focal setting for hosting outdoor community events. Mature trees will remain to carry forward this cultural asset. Trees can also add play value for curious minds and delight at leaf fall time. Interspersed playable features also add to the use of the space.

The paved surfacing around the community building might be used by the café for outdoor seating. Also for table tennis for social and impromptu play – increasingly a popular outdoor game.

Future phases will also include the addition of a Multi Use Games Area (MUGA) which will cater for older children and youth groups using the community centre.

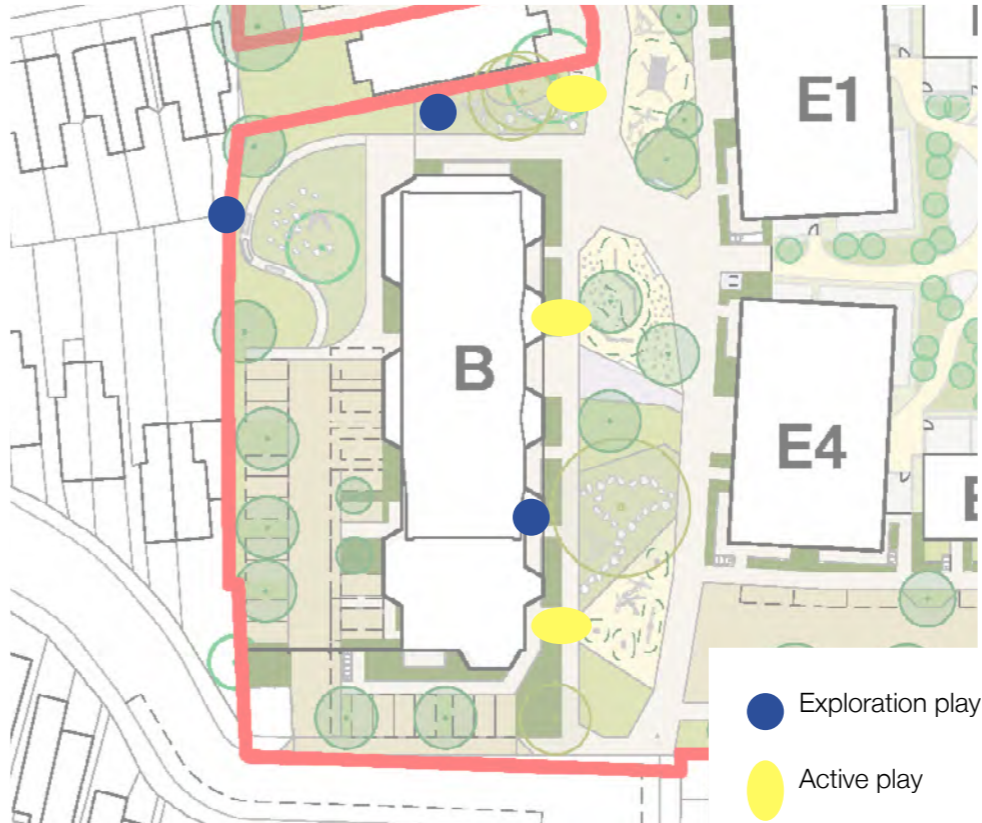


7.9 Piper

Planting and safety surfacing mean plenty of interactions between all activities.

Seating, small pieces of play kit and incidental play items are dispersed along the way.

The nature setting of the mature weeping willow tree at the end of Piper Grove will be reinforced with further tree planting. A series of places with playful and social invitations makes the whole of Washington Road to Piper Grove an easily accessible place of discovery.



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7.10 Upper floor amenity

The landscape proposals for the first and second floor podium gardens has been designed to fulfil the following **criteria**:

- Integrate doorstep play areas;
- Provide spaces for enjoyment which allow for a variety of uses;
- Offer views of green spaces and lush planting to the residential properties within Plot E and C 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 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 podium gardens 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 podium gardens. 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 podium gardens, inviting use of the gardens by all residents as a space for gathering as well as relaxation.



Figure 7.35: Building E First floor landscape plan



Figure 7.39: Building C Level 1 and 2 landscape plan







	Shrub and tree planting		Defensive planting		Paving type 5
	Planting area with playable elements		Paving type 4		Hard landscape activity area with safety surfacing



Figure 7.36: Precedent: courtyard garden



Figure 7.37: Precedent: courtyard garden



Figure 7.38: Precedent: planted mounds



Figure 7.40: Section A

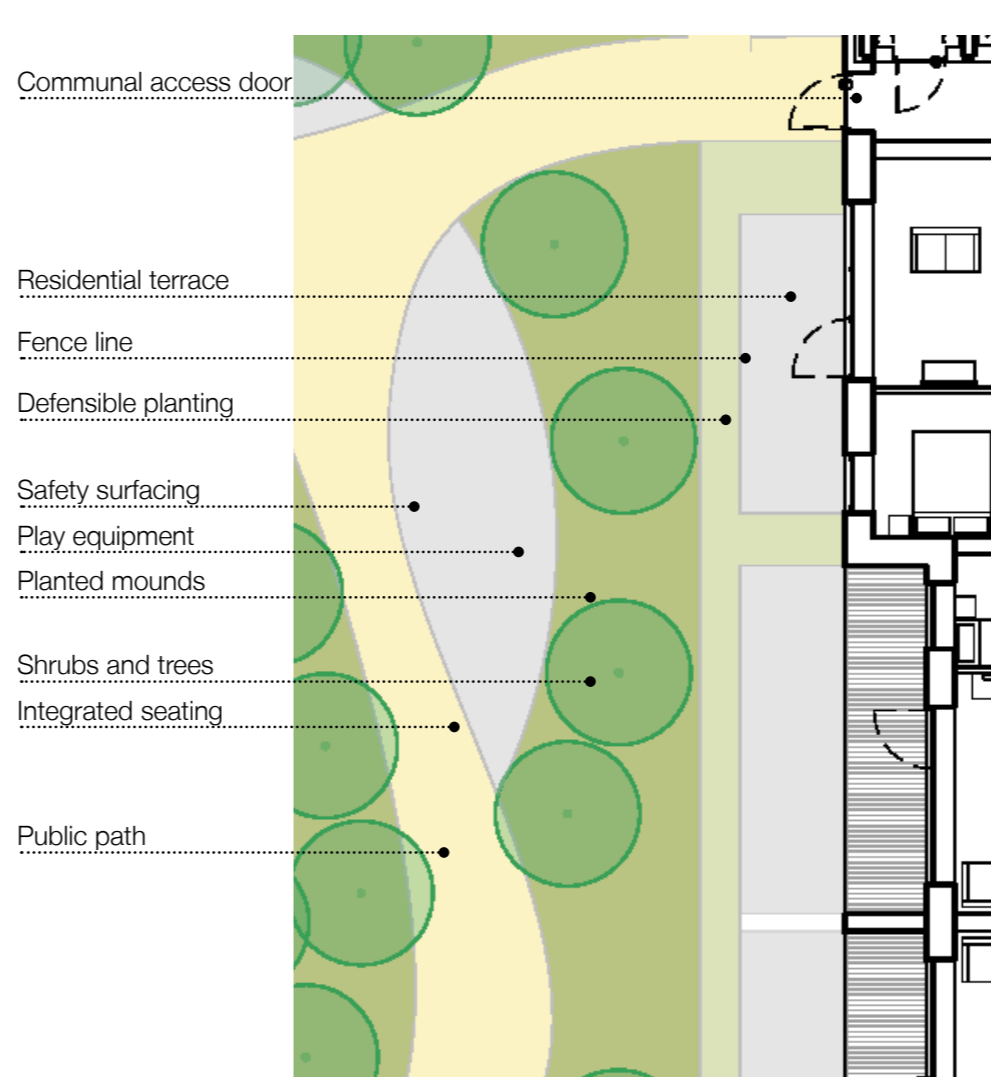


Figure 7.44: Landscape plan (extract)

Play

The play areas are designed to be integrated within the gardens, as described in Chapter 7.10. Play space will be primarily doorstep play including engaging play features and equipment such as wooden logs and large boulders as well as places for carers to sit and talk. This will be accompanied with equipment suitable for older children. The details on play equipment will be further developed at the next design stage to suit the age group.

Paving

For the residential podium gardens 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 to match the building balustrades.

The planting is allowed to reach the north and south edges of the podium 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.



Figure 7.41: Precedent: garden design with natural features and winding paths



Figure 7.42: Precedent: garden design with natural features and winding paths



Figure 7.43: Precedent: residential terraces with planters on the outside

7.0 Landscape design

7.11 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 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 C has a child yield of 71.5 which corresponds to a requirement to provide 715sq.m. Plot B has a child yield of 37.8 which corresponds to a requirement to provide 378sq.m. Plot E has a child yield of 119.6 which corresponds to a requirement to provide 1,196 sq.m.

Plots C and E will provide dedicated doorstep play areas in each podium garden in addition to those at ground level.

The play areas in Phase 1 have been designed to combine formal play adequate for different age groups, with a combination of doorstep play to youth space with informal play opportunities, paths and seating areas. This informal combination encourages the use of the podium gardens for a variety of purposes and by residents of all ages, instigating social contact between residents and a sense of community.

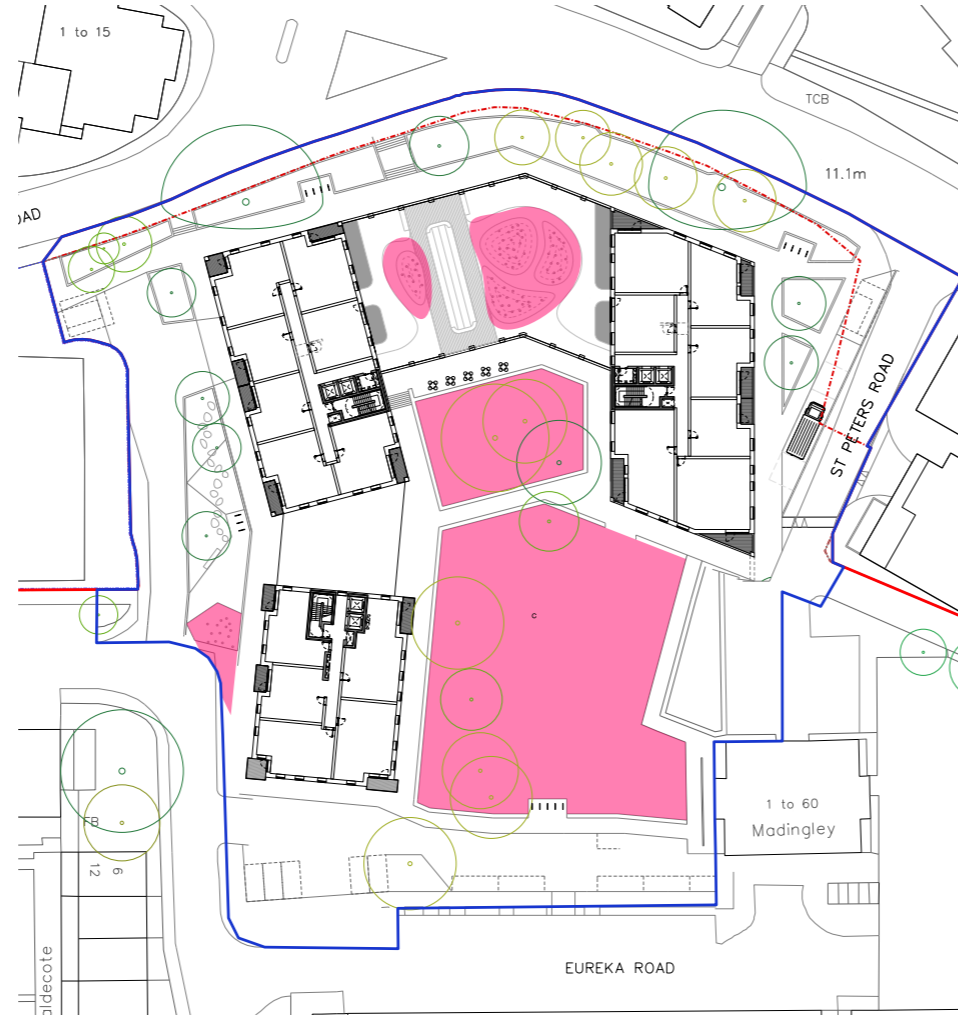


Figure 7.45: Proposed play plan, Plot C



Figure 7.46: Proposed play plan, Plots B and E

Play area



Figure 7.47: Precedent: play logs



Figure 7.50: Precedent: informal play



Figure 7.49: Precedent: informal play



Figure 7.48: Precedent: integration of seating areas

7.0 Landscape design

7.12 Planting strategy

The planting strategy 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 gardens provide an oasis within the street scene to establish a thick visual urban greening that is moisture tolerant.
- Podium garden woodland and ornamental planting in the podium gardens 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.

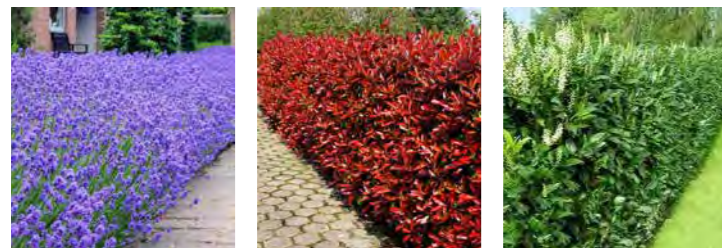


Figure 7.51: Proposed play plan, Plot C



Figure 7.52: Proposed play plan, Plots B and E

Front garden shrub/groundcovers



Lavender Photinia Laurel

Street ground cover / ornamental



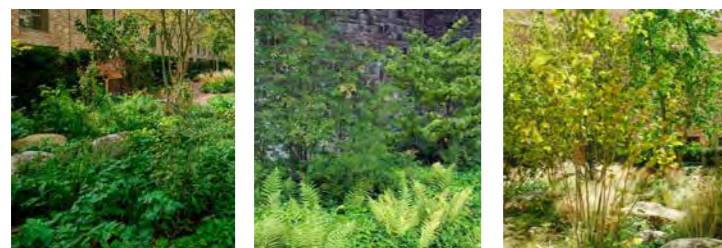
Guelder rose Cornus Sedge

Podium garden woodland



Geranium Asplenium Fern

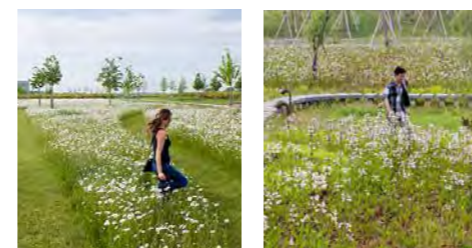
Native buffer planting



Tall perennials



Grassland and/or wildflower meadow



Amenity lawn



7.0 Landscape design

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 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 Phase 1, all category A trees will be retained. Category 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.

Phase 1 will include retention of 36 trees, as follows:

	C	B and E
Category A	3	0
Category B	11	9
Category C/U	6	7
TOTAL	20	16

New planted trees shown in the adjacent figures will comprise Broad Canopy, Native, Ornamental, Specimens Structural evergreen and Structural Street. A mix of types planted in the first floor podium garden. 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 7.53: Building C tree types: key plan



Figure 7.54: Buildings B and E tree types: key plan

Broad canopy

Species selected for their broad, leafy canopy for summer shade. Many existing specimens retained.



Black locust
Robinia pseudoacacia
Bessoniana



Hop hornbeam
Ostrya carpinifolia



Yellowwood
Cladrastis sinensis



Birch
Betula ermanii



Honey locust
Gleditsia triacanthos



Wingnut
Pterocarya traxinifolia

Seasonal climax

Deciduous trees which have a particularly vibrant display in spring or autumn, changing colour or fruiting.



Paperbark maple
Acer griseum



Golden rain tree
Koeleruteria paniculata



Sweetgum
Liquidambar styraciflua



White cherry
Prunus Tai Haku



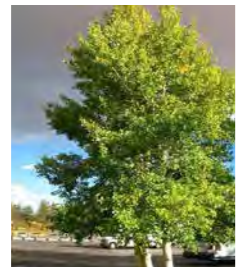
Persian spire
Malus floribunda

Structural street

Species defined by a columnar form providing rhythm and greening to the streetscape without broad spread and rootball.



Field maple
Acer campestre *Streetwise*



Quaking aspen
Populus tremula



Fastigate hornbeam
Carpinus betulus *Fastigiata*



Ginkgo
Ginkgo biloba



Pear
Pyrus calleyrana *Chanticleer*

Ornamental

Smaller species suitable for restful, more private spaces such as residents' podium gardens. Many fruiting and blossom trees.



Trident maple
Acer buergerianum



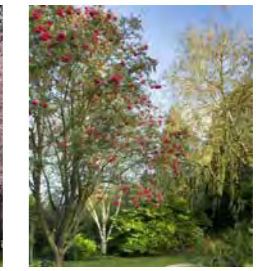
Serviceberry
Amelanchier lamarckii



Birch
Betula utilis



Winter cherry
Prunus subhirtella *Autumnalis*



Rowan
Sorbus vilmorinii

Specimen

Uncommon tree specimens or clusters which stand out in the streetscape and provide interest and variety against a backdrop of planting.



Pine
Pinus nigra



Sophora
Sophora japonica



Lime
Tilia x flavescens *Dropmore*



Euodia
Euodia hupehensis



Stone pine
Pinus pinea

Structural evergreen

Evergreen species providing year-round greening to the streetscape when deciduous species drop their leaves.



Juniper
Juniperus communis



Holly
Ilex aquifolium



Holly
Ilex aquifolium *Argentea*
Marginata



Holly
Ilex castaneifolia



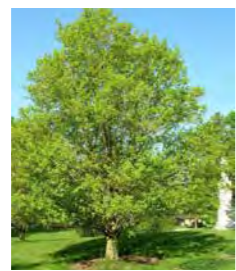
Yew
Taxus baccata

Native

Native tree species selected for reinforcement of local character and ecology.



Rowan
Sorbus aucuparia



Field maple
Acer campestre



Mountain ash
Sorbus aria



Blackthorn
Prunus spinosa



Hawthorn
Crataegus monogyna



Guelder rose
Viburnum opulus

7.0 Landscape design

7.13 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 podium 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.

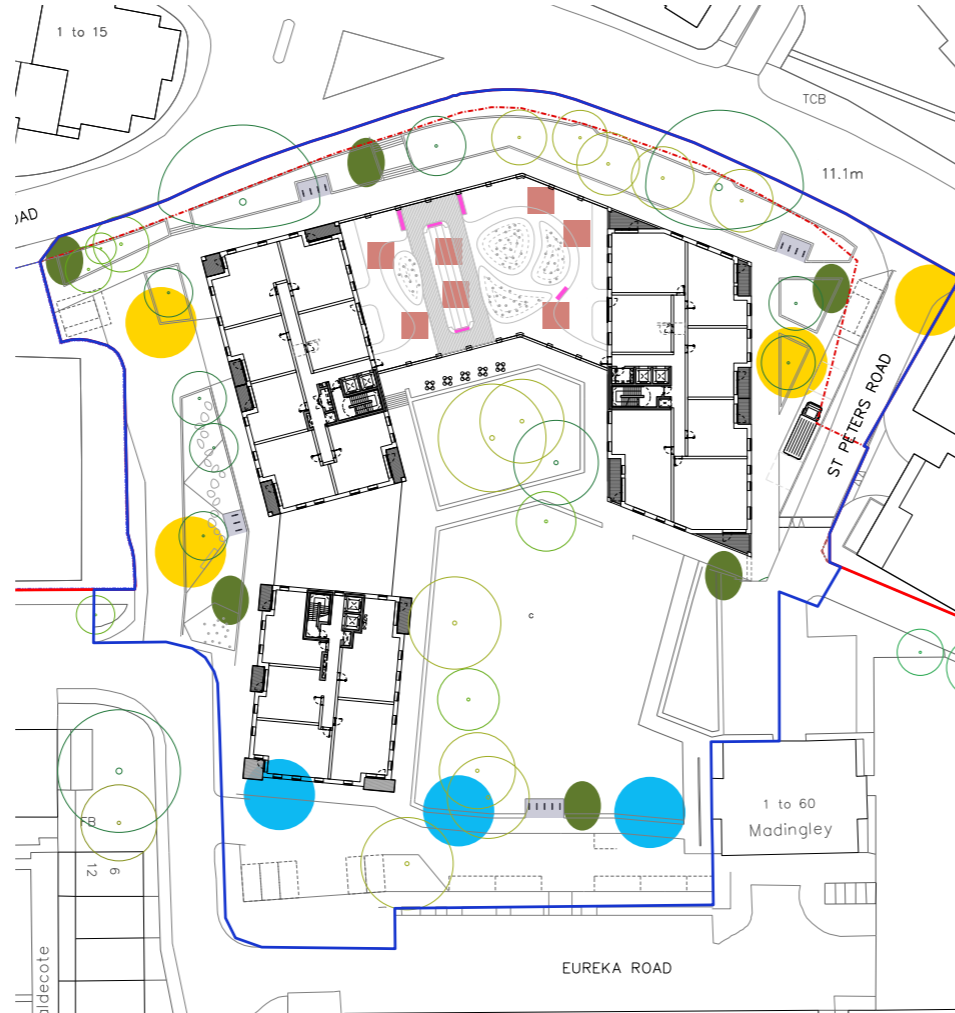


Figure 7.63: Building C lighting and street furniture: key plan

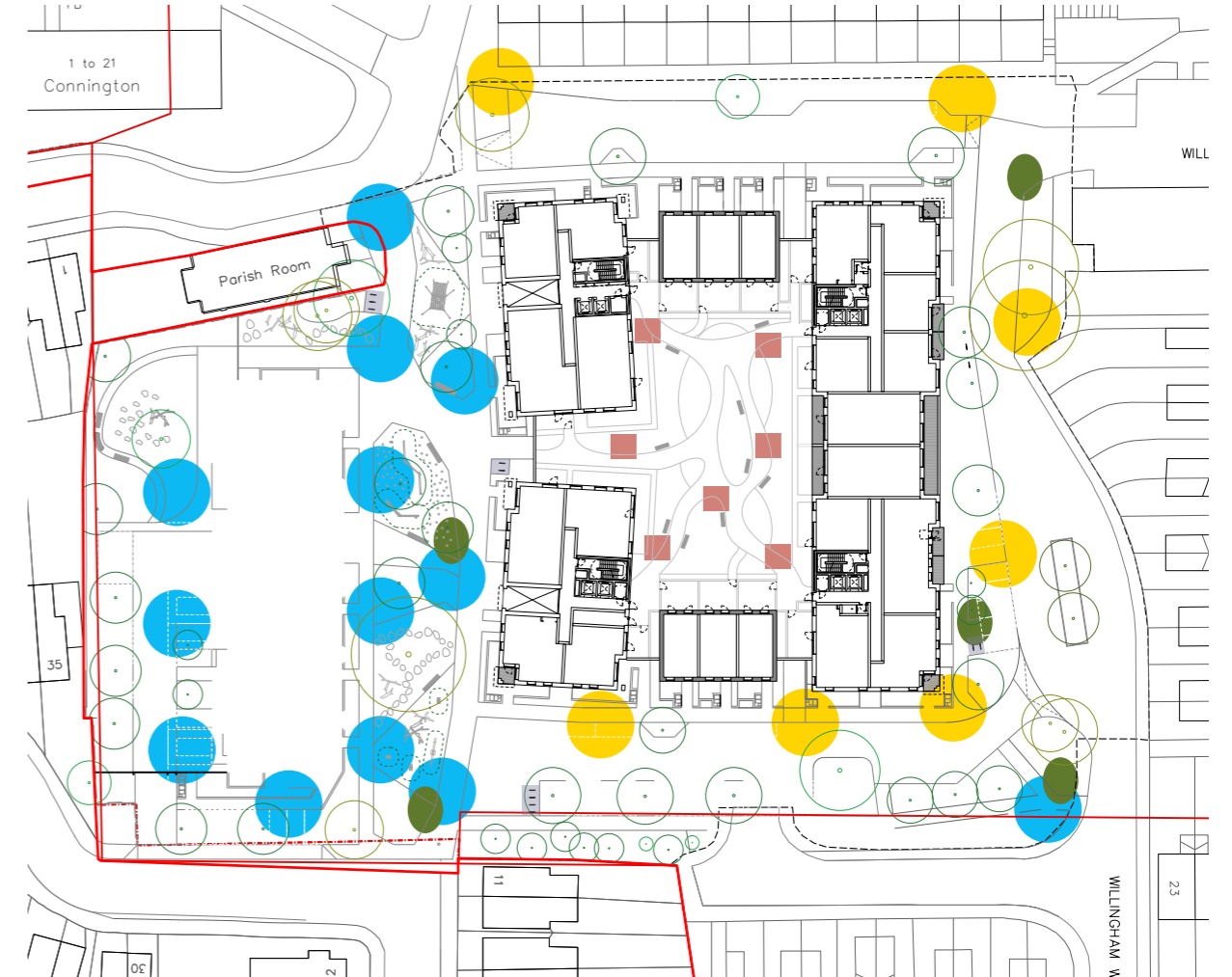


Figure 7.64: Buildings B and E lighting and street furniture: key plan

- Carriageway lighting columns (5-8m tall)
- Pedestrian lighting columns (4-6m tall)
- Podium garden lighting bollards
- Seating benches
- Litter Bins
- Cycle Stand



Figure 7.55: Sheffield cycle stands



Figure 7.56: 6m lighting columns



Figure 7.58: Podium garden seating



Figure 7.57: Front garden railing

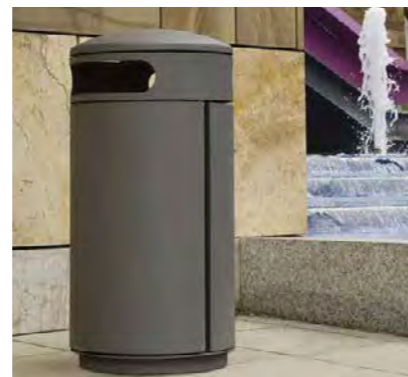


Figure 7.59: Litter bins



Figure 7.60: Adoptable LED street lighting



Figure 7.61: Podium garden planters



Figure 7.62: Podium garden low level lighting

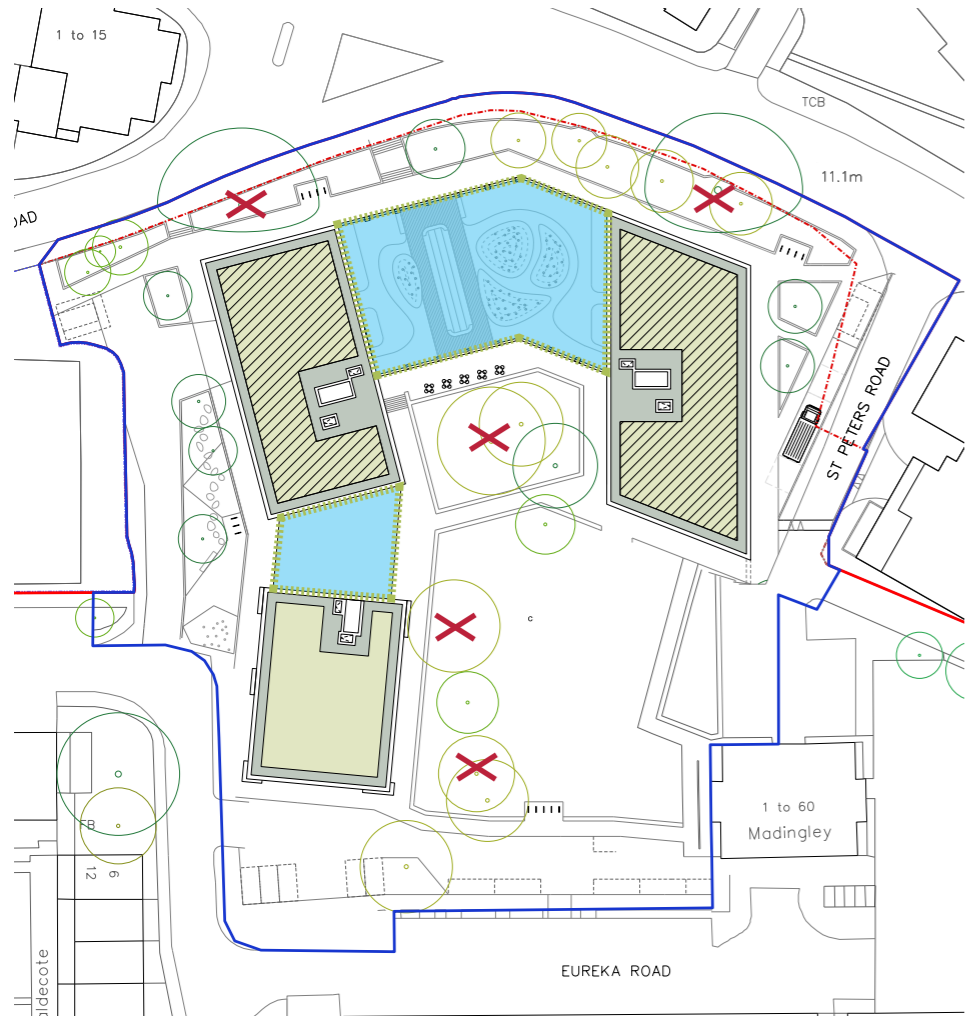


Figure 7.69: Building E First floor landscape plan

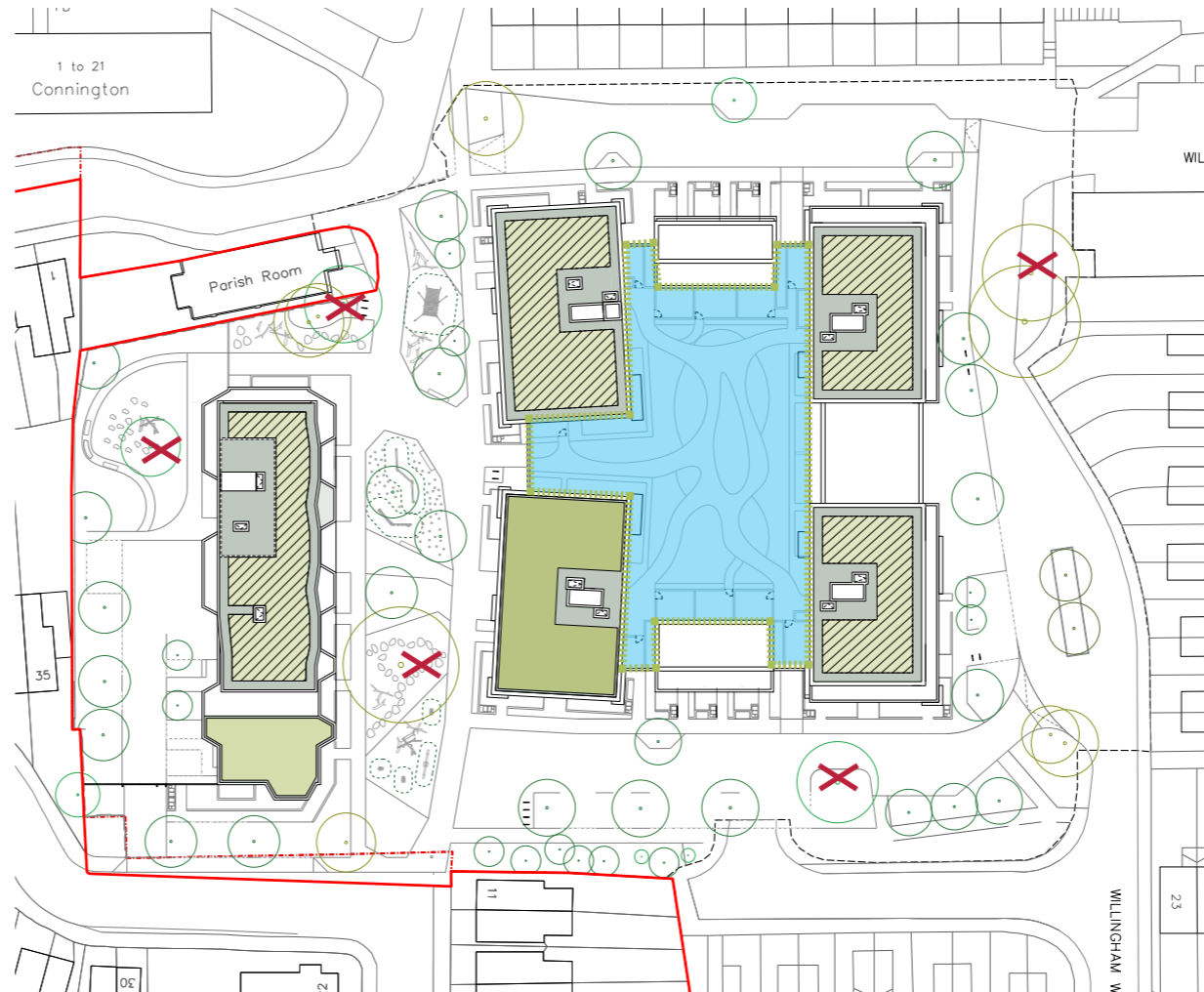


Figure 7.70: Building E Floor 01 and 02 landscape plan

- Biodiverse roof
- Intensive planted roof
- Podium gardens using harvested water
- Potential bird/bat box locations (tbc)

7.14 Ecology strategy

The ecology strategy for Phase 1 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 Phase 1 in accordance with DNL **Policy G5**.

The calculations generate a 0.362 score. Phase 1 maximises the green potential on the site with biodiverse roofs, podium 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.



Figure 7.65: Biodiverse roof areas



Figure 7.66: Integrated facade bat boxes



Figure 7.67: Tree bat boxes



Figure 7.68: Insect hotels

7.0 Landscape design

7.15 Water management strategy

The proposed water management solution for Phase 1 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.

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 E will have a central tank integrated in the podium car park which will recirculate rainwater back into the podiums for irrigation of the podium gardens (see Fig. 7.83).
- **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, podium gardens, soft planting at ground floor, tree pits and paving to parking bays. Crated storage is also provided adjacent to Plot C, for attenuation.
- **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.



Figure 7.71: Building C water management strategy: key plan

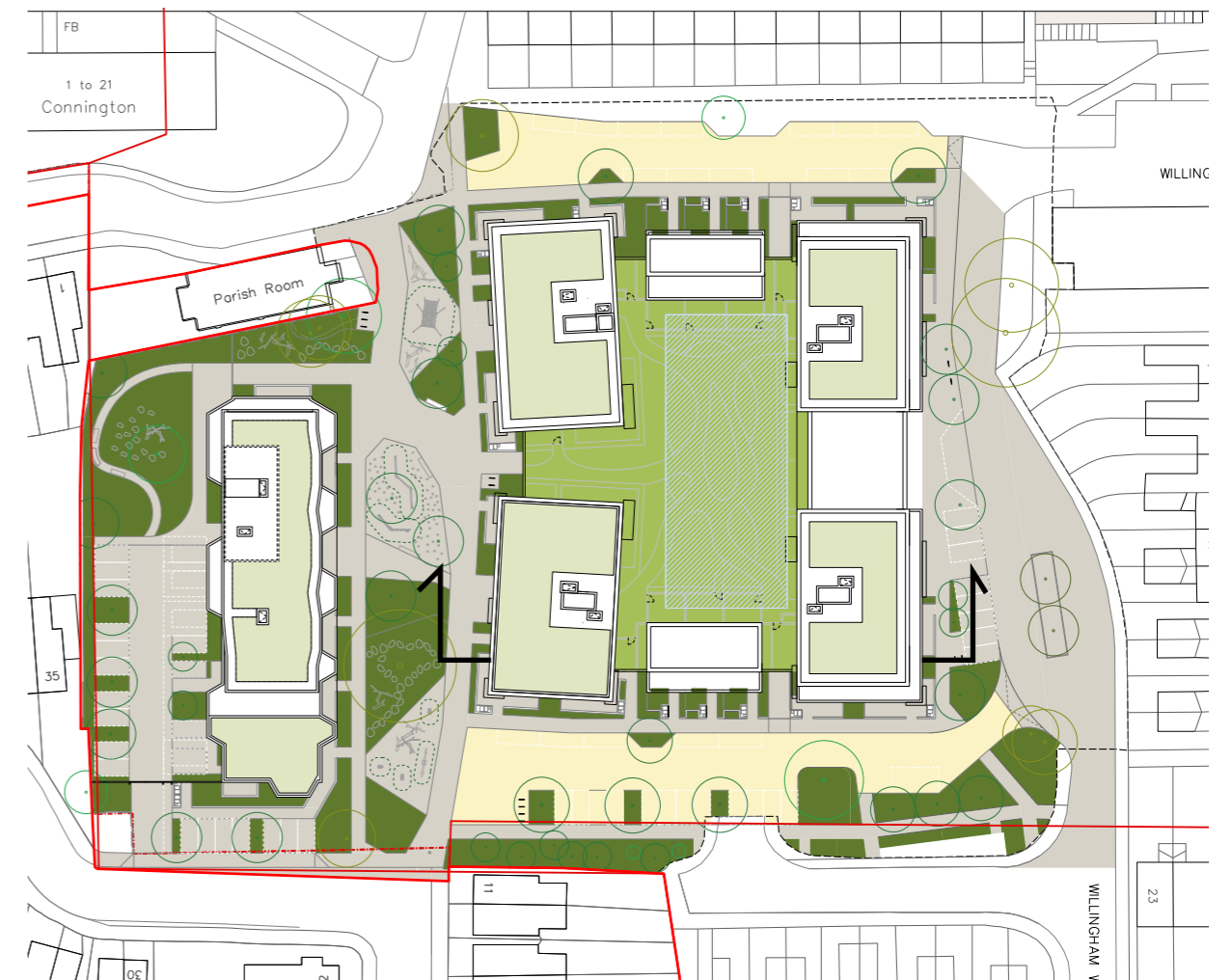


Figure 7.72: Buildings B and E water management strategy: key plan

1. Rainwater use as a resource:
 - Green / brown roofs
 - Podium gardens
3. Rainwater attenuation in green infrastructure
 - Green / brown roofs
 - Podium gardens
 - Planters
 - Permeable paving
 - Crated water storage
7. Rainwater discharge to a surface water drain
 - Adoptable roads

Rainwater harvesting

Rainwater falling on roofs of the building, internal courtyard façades and the podium surface will be harvested to provide water supply for irrigation of planted areas.

Overflow from the RWH irrigation tank will pass into the unadopted street network.

Rainwater attenuation

Rainwater is stored in permeable paving and planters' sub-base before being discharged into the sewer system via perforated pipes.

Rainwater discharge

Rainwater falling on the adopted streets will be discharged directly into the surface water sewers.

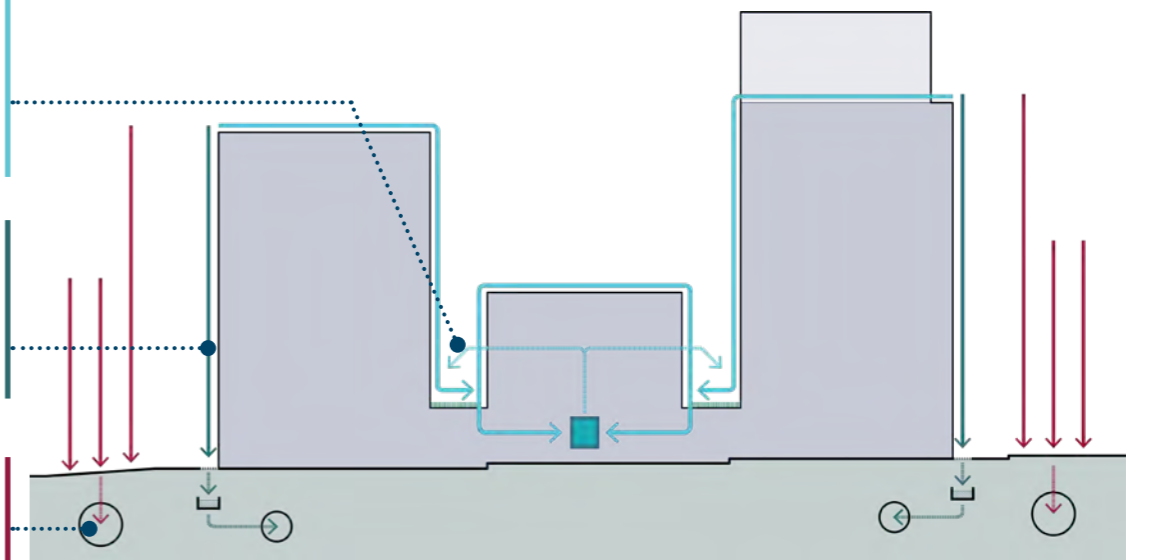


Figure 7.73: Water management strategies diagram

7.16 Designing out crime

In accordance with the London Plan (**Policy 7.3**) and DNLP (**Policy D10**) 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 10.

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

Existing challenges

- History of gang association including possession of contraband and anti-social behaviour (ASB).
- Congregation in unobserved / inactive places.
- Poor visibility and line of sight through building arrangement.
- Public and private realm ill-defined with lack of respect or responsibility for property.
- Permeable public realm with multiple concealed entry / exit points.
- Pursuit routes inaccessible to vehicles aiding evasion and 'starburst'

Phase: 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.



Figure 7.76: Proposed ground floor landscape plan, Plot C

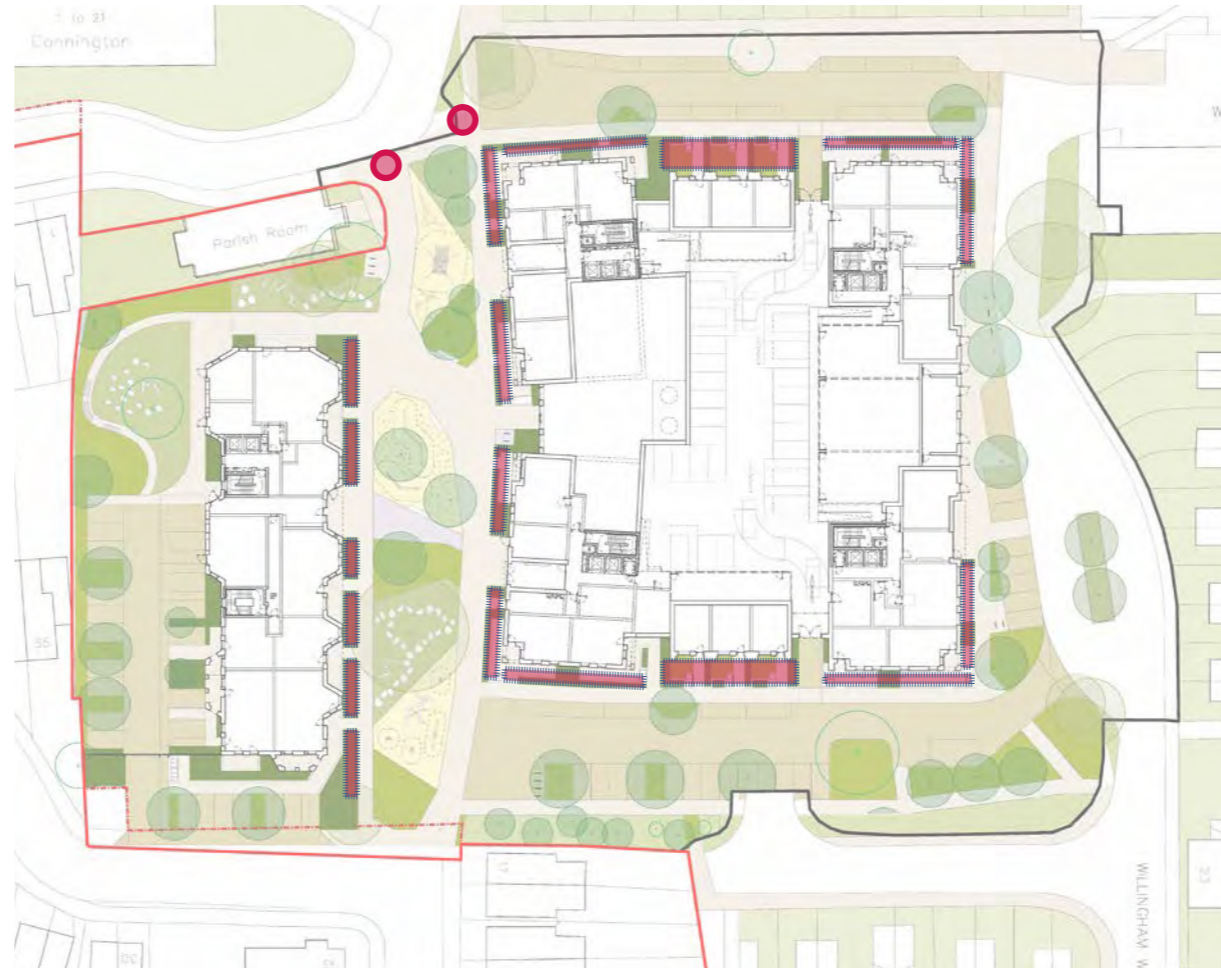


Figure 7.77: Proposed ground floor landscape plan, Plots B and E

- Defensible space
- Lockable drop bollard



Figure 7.74: Secure by Design standards



Figure 7.75: Existing elevated corridors

7.0 Landscape design

7.17 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 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.

7.18 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.

A draft Estate Management Strategy (EMS) has been submitted in support of this Application and will be developed with RBK.



Figure 7.78: Precedent: planting on the public side of the demise line



Figure 7.79: Precedent: planting on the public and private sides of the demise line