

5.4 Landscape Strategies



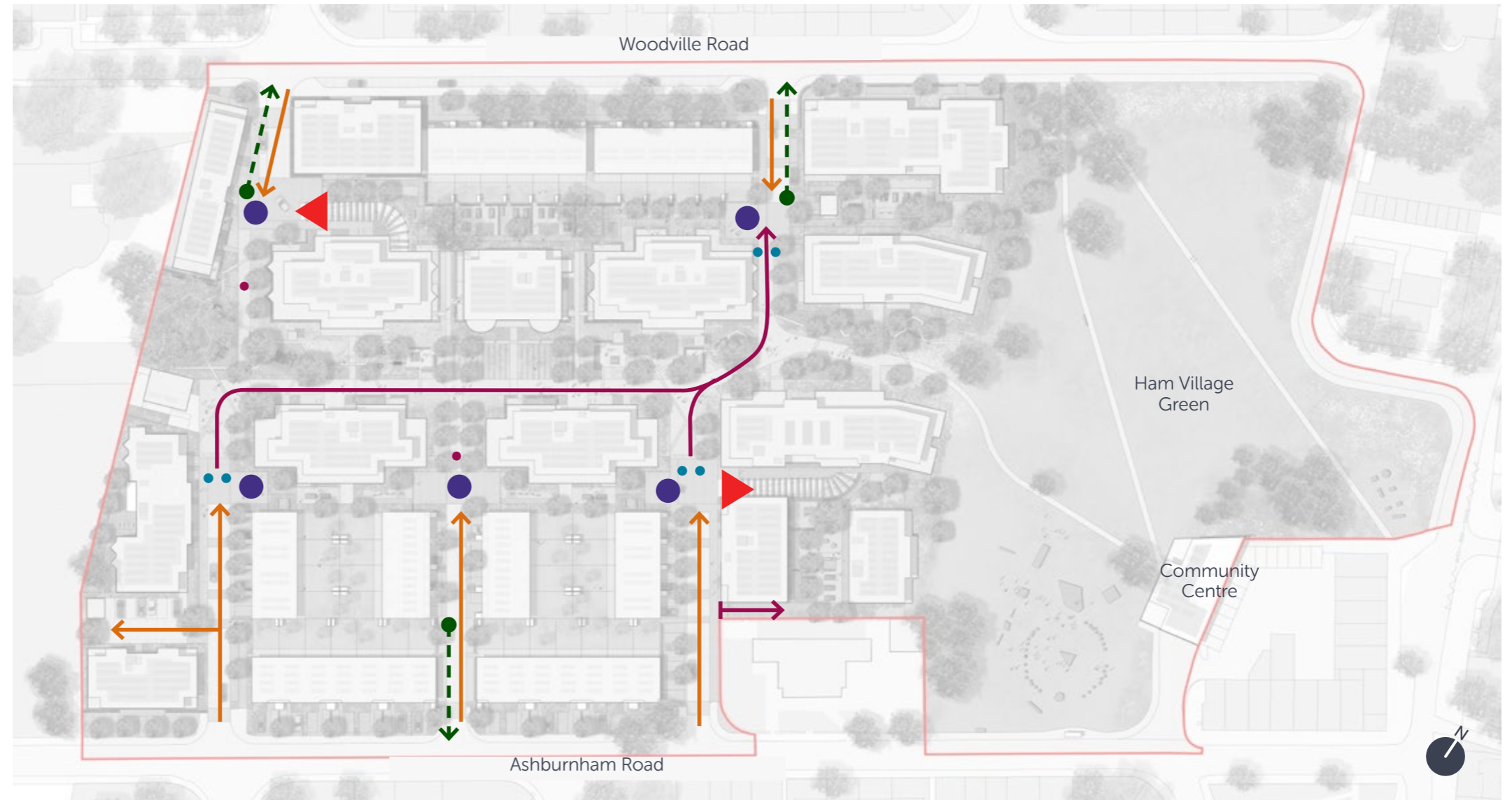
SQUIRREL

5.4.1 Access and Circulation - Vehicular Movement

Landscape Strategies








Vehicular access through the site is controlled to ensure a focus on pedestrian priority space at the heart. Public vehicular access is limited to access from Woodville Road and Ashburnham Road to parking areas or the ramped entrance and exit from the basement.

Service vehicular and emergency movements are permitted through the centre of the site to reduce the impact of the turning heads on the public realm. The on-site RHP caretaker will facilitate access when needed and emergency services will have access using a standard access key system.



Vehicular movement diagram

Key

-  Public Vehicular Access
-  Emergency vehicle, refuse and servicing vehicle access through Linear Park - controlled access
-  Refuse Access
-  Basement Ramp
-  Turning Head
-  Drop bollards to control access
-  Fixed Bollard



Precedent image - safe streets

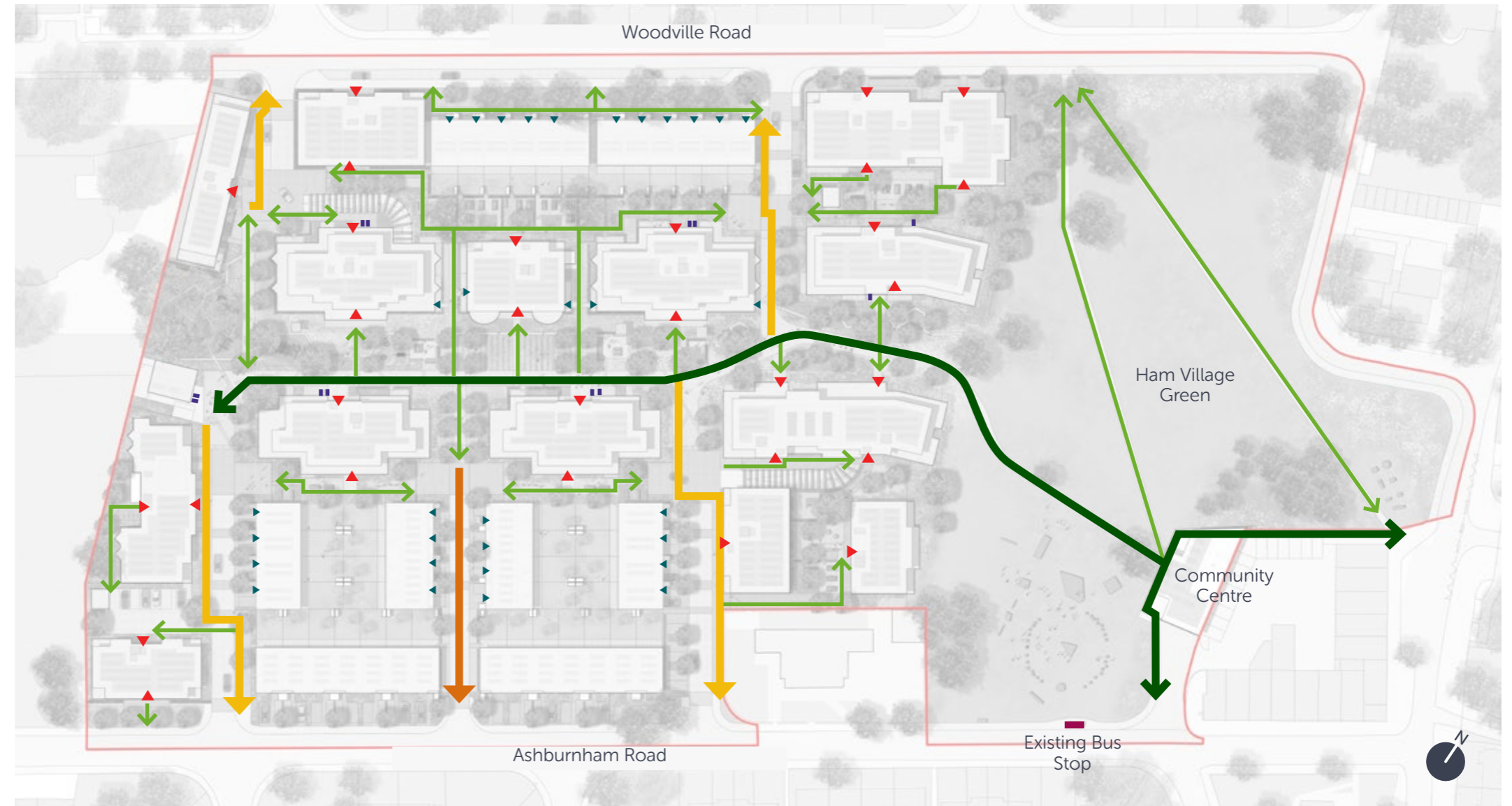


5.4.2 Access and Circulation - Pedestrian Movement

Landscape Strategies

Limiting vehicular movements through the centre of the scheme allows for a series of pedestrian focussed spaces. Public and semi-private spaces allow for secondary movements with a key route through the Linear Park to Ham Street and the proposed Community Centre on Ham Village Green.

Internal streets, provide legible safe access from surrounding streets towards the linear park. Principle streets at the four corners of the residential area include a demarcated pedestrian zone. This zone is distinguished from the carriageway by a kerb and change in paving colour and finish.



Access & circulation diagram

Key

- █ Primary Pedestrian Movement
- █ Secondary Pedestrian Movement
- █ Demarcated pedestrian route along proposed street.
- █ Shared Surface - Mews Street
- ▶ Core Building Entrance
- ▶ Private Housing Access
- Visitor Cycle Stands - 12No in total



Precedent images - Pedestrian and cycle friendly streets

5.4.3 Play Strategy

Landscape Strategies

Introduction

This section sets out the proposed play strategy for Ham Close, based on a the proposed tenure split and unit mix.

This play strategy for Ham Close is developed with reference to the Mayor of London’s SPG - Shaping Neighbourhoods: Play and Informal Recreation. Using the GLA play space calculator, it guides the recommended play provision for the site.

Based on the proposed unit mix for 452 homes and estimated tenure breakdown, the total play requirement is as follows:

Age Group	Child Yield	Area Requirement
0-4	122.6	1,226 sqm
5-11	86.4	864 sqm
12-15	29.1	292 sqm
16 & 17	15.4	154 sqm
Totals	253.5	2,536 sqm

Existing Estate Child Yield

Ham Close currently has 192 existing residential units. No play facilities are present on the estate, children must currently utilise off-site facilities including those on Ham Village Green and elsewhere in the surrounding area.

Based on the known population of children on the existing estate, the play space requirement for homes is currently:

Age Group	Child Yield	Area Requirement
0-10	40	400 sqm
10-15	42	420 sqm
Totals	104.6	820 sqm

The existing child population figures above, provided by RHP, demonstrate a lower population than that established from the GLA child yield calculator for the known tenure breakdown. That figure generates an area of 820 sqm of existing play space used by the current population.

Play Strategy

The site layout proposes the creation of communal courtyard spaces and a larger public open space (Linear Park) running through the centre linking to Ham Village Green in the east.

It is proposed to utilise a proportion of the enclosed courtyards and public open space to provide play facilities to support children on site.

Play space will be provided as set out on the next page, with suitable activities included to reflect the relevant age group. As noted given the close proximity of Ham Village Green and sports facilities in the wider context, a proportion of the play requirement is proposed to be off-site. Off-site play requirement is overall less than that of the existing estate, given the new facilities proposed on-site.



Existing play provision on Ham Village Green

5.4.3 Play Strategy

Landscape Strategies

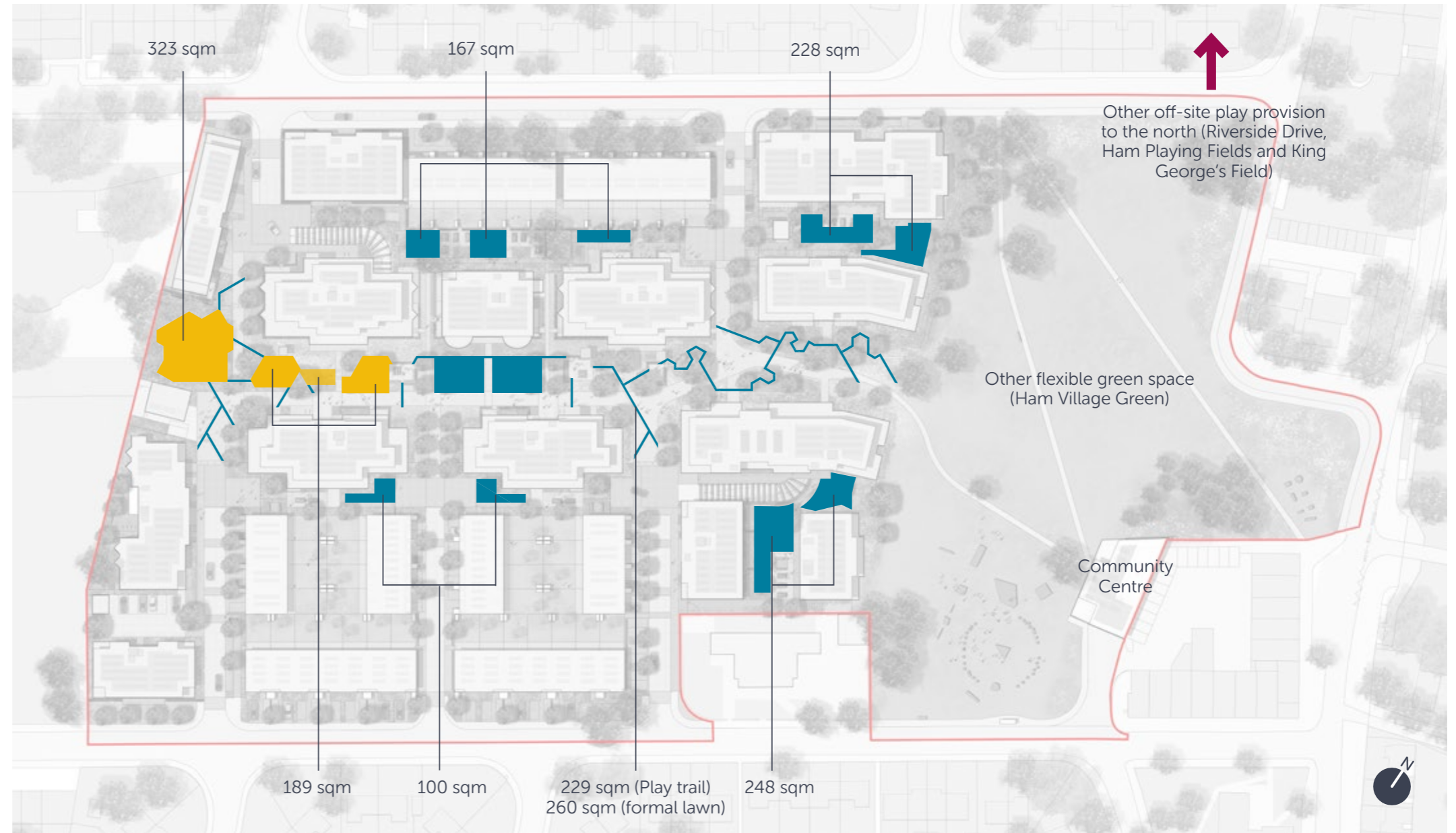
Ham Close is located close to existing play facilities which the current population can access directly from the existing flat blocks. As identified earlier in this document the existing facilities provide a range of fixed play equipment, natural features and fitness equipment covering a variety of ages.

The proposed strategy focuses on providing an area of local playable space for the 5-11 age group to the West end of the Linear Park, linked to the existing facilities via the explorer trail, a playable route where children can interact with the planting through the park. Under 4s provision is spread across the site within courtyard spaces and across the Linear Park. These focus on providing a range of facilities including lawn space for interpretive play and close to the growing spaces to encourage interaction with the planting.

The play provision offers a range of play types and will include inclusive play items accessible from adjacent hard standing.

Key

- Door step play (0-4 age group)
- Older children's play/Local playable space (5-11 age group)



Play Strategy

Age Group	Communal Courtyards	Linear Park	Off Site Provision	Totals
0-4	743 sqm - A proportion of the total area requirement which will be designed as doorstep playable space.	489 sqm - Remaining area requirement which will be designed as doorstep playable space.	-	1,232 sqm
5-11	-	512 sqm - Designed as local playable space shared with 0-4 age group.	356 sqm - Utilising existing on Ham Village Green.	868 sqm
12-15	-	-	292 sqm - Utilising existing gym provision on Ham Village Green, Riverside Drive, Ham Playing Fields and King George's Field.	292 sqm
16-17	-	-	154 sqm - Utilising facilities in Riverside Drive, Ham Playing Fields and King George's Field. The Community Centre will also provide dedicated youth facilities.	154 sqm
Totals	743 sqm	1001 sqm	802 sqm	2,546 sqm

5.4.4 Play Proposals

Landscape Strategies

Illustrative Play Facilities and Equipment

Provision in the courtyards will be informal / natural play integrated with the soft landscape, with some fixed equipment. Play provision within the public realm, will include pieces of fixed equipment integrated along a 'play trail' which knits into the hard and soft landscape proposals along the Linear Park.

Play equipment is provided for a range of ages and different requirements. Elements such as low spinning bowls and hammocks provide full support, at an accessible height. Safety surface provides access directly from adjacent hard standing.

The images opposite give an impression of the types of facilities to be provided including use of off-site facilities.



Play space location plan

Door Step Play
Proposed On-Site Components and Facilities
Sensory play space using planting, natural trails and timber elements.

- Climbing objects
- Explorer paths
- Small pieces of fixed equipment
- Seating for carers
- Raised planters/growing beds
- Lawn spaces



Precedent images

Local Playable Space
Proposed On-Site Components and Facilities

- Natural landscaping with level changes
- Fixed play equipment in timber e.g. swings, climbing frame, slide etc.
- Seating Area & Shelter
- Explorer paths
- Biodiverse planting - learning through landscape



Precedent images

Other / Off-site Provision
Utilising off-site facilities

- Play space within Ham Village Green with potential upgrades.
- Outdoor Gym within Ham Village Green with potential upgrades.
- Flexible play on the grass within Ham Village Green
- Sports pitches and facilities to the north (Ham Playing Fields, King George's Field etc)



Ham Village Green Play Area



Ham Village Green Grass Area



Ham Village Green Outdoor Gym

5.4.5 Existing Tree Retention and Removals




Landscape Strategies

The tree strategy looks to retain existing trees on the site boundaries, where they are most prominent to neighbours and streets. A proportion are also retained within the development area to enhance courtyard spaces. Trees elsewhere will need to be removed to facilitate development. Three of the four category 'A' trees are retained.

Extensive areas of new tree planting are proposed to mitigate for the loss of existing trees. This is designed to increase long-term canopy cover on the site and correspond with proposed green corridors, thereby maximising habitat connectivity and benefits for wildlife.

The full survey by Greengage can be found in the AIA issued alongside the Arboricultural Method Statement.

Key

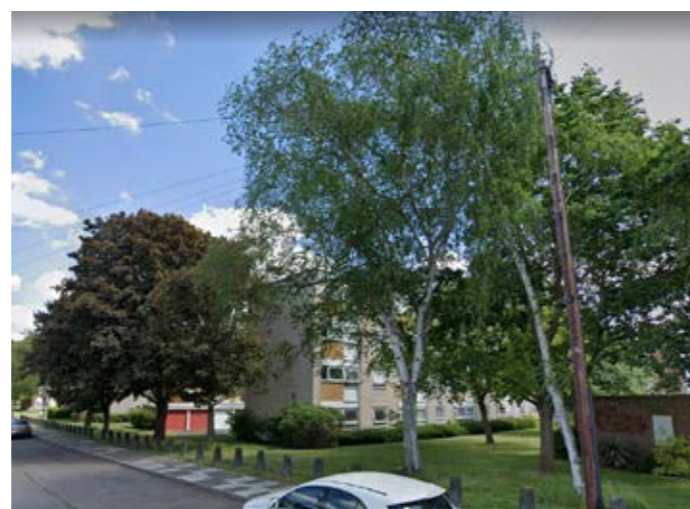
-  Existing trees retained - 46 no.
-  Existing trees removed - 41 no.
-  Proposed tree planting - 124 no.



Retained, removed and proposed tree plan



Poplar trees within Ham Village Green



Retained trees on Woodville Road



Trees at Western end of the Linear Park



Retained tree in Northern courtyard

5.4.6 Proposed Tree Palette

Landscape Strategies

The proposed tree strategy uses a range of predominantly Native species most of which are growing on the site currently, and are present in the local area. These are used principally to define the streets, courtyard spaces and the Linear Park, and are supplemented by a range of ornamental species to add seasonal interest where appropriate.

Trees are used more formally in the streets with the Linear Park allowing for a more relaxed distribution to respond to the change in character. Some larger species are used in specific locations as marker points through the landscape spaces.

Linear Park Palette

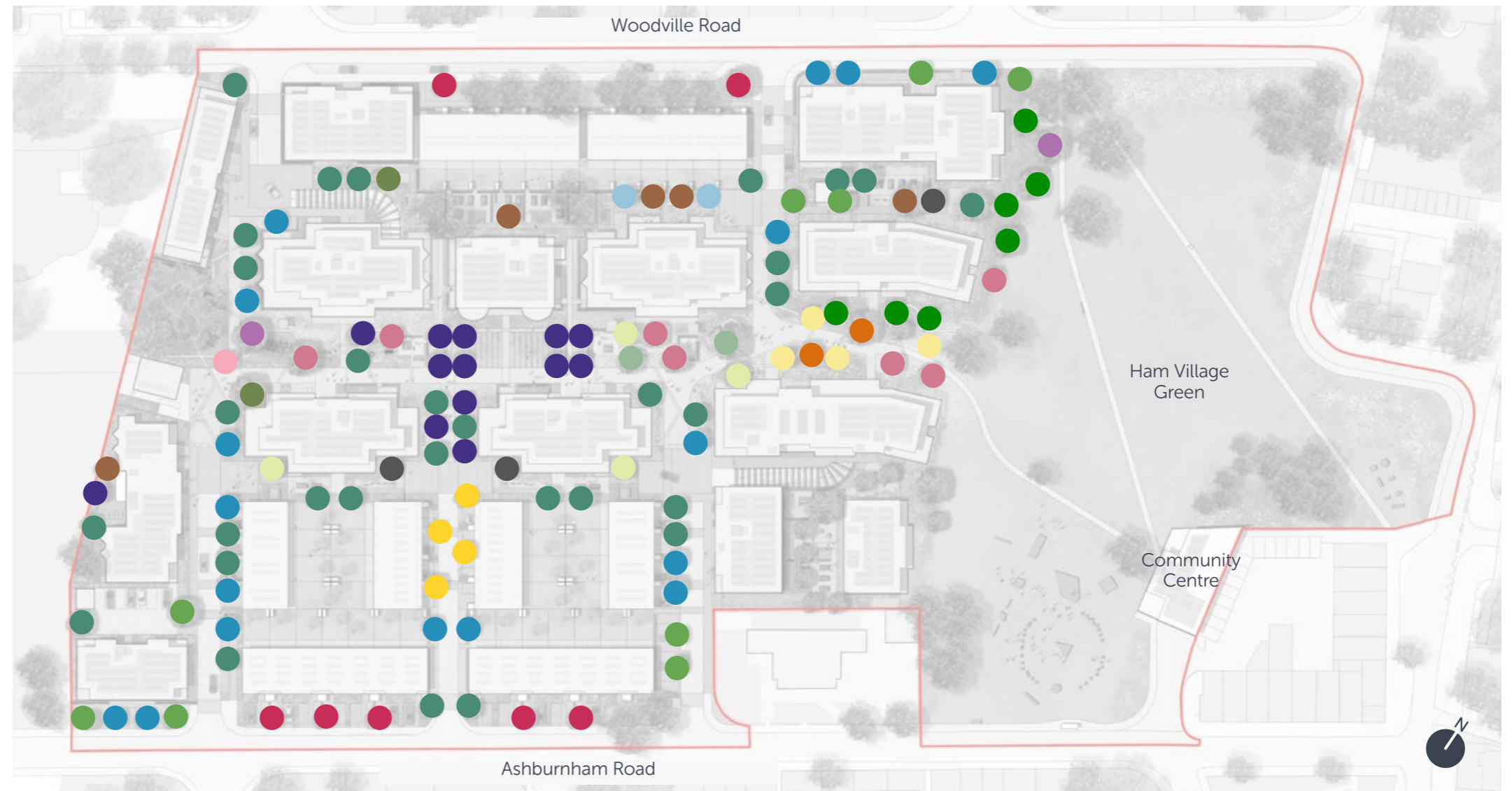
- Species respond to those species planted in the local area, and those which are currently present on site while supporting the naturalistic character.
- Birch used in stands to provide some continuity from the planting on the Village Green.
- Medium sized trees used over the basement, with larger trees as marker points towards each end.

Courtyard Palette

- Some continuity of species such as Dogwood, Birch and Cherry provide links to the species in the public realm, with more ornamental varieties providing seasonal interest.
- Fruit trees introduced around the growing spaces to introduce the notion of a Kitchen Garden and allow residents to interact with the landscape. Espalier pear trees also offer high level greening along Courtyard Boundaries.

Street Palette

- A variety of medium sized street trees are used to provide some formality to the streets.
- Continuity of species from other areas of the public realm with an emphasis on use of Native species.



Tree proposals diagram

Street Palette

- Acer campestre
- Carpinus betulus
- Sorbus aria
- Sorbus aucuparia
- Betula pubescens
- Tilia cordata

Courtyard Palette

- Betula utilis
- Cornus sanguinea 'Midwinter Fire'
- Corylus avellana
- Pyrus communis
- Hamamelis x intermedia
- Magnolia stellata
- Malus domestica
- Prunus padus

Linear Park Palette

- Betula pendula
- Betula pubescens
- Cornus sanguinea
- Corylus avellana
- Frangula alnus
- Prunus avium
- Prunus padus
- Salix pentandra
- Salix caprea

5.4.7 Proposed Tree Palette

Landscape Strategies

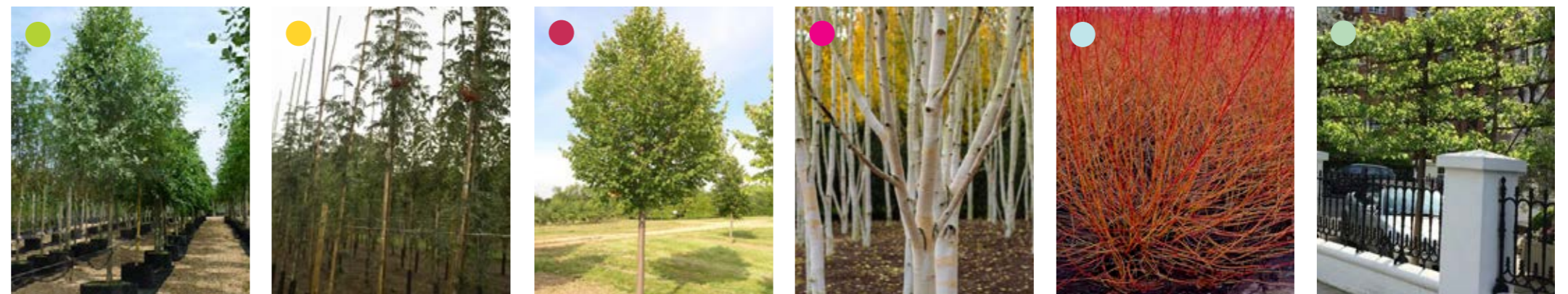
Linear Park Palette

- Betula pendula
- Betula pubescens
- Cornus sanguinea
- Corylus avellana
- Frangula alnus
- Prunus avium
- Prunus padus
- Salix pentandra
- Salix caprea
- Tilia x europaea



Courtyard Palette

- Betula utilis
- Cornus sanguinea 'Midwinter Fire'
- Corylus avellana
- Pyrus communis
- Hamamelis x intermedia
- Magnolia stellata
- Malus domestica
- Prunus padus



Street Palette

- Acer campestre
- Carpinus betulus
- Sorbus aria
- Sorbus aucuparia
- Betula pubescens
- Tilia cordata



5.4.8 Linear Park Soil Volume

Landscape Strategies


A total build up of 1200mm has been provided over the entirety of the basement. In line with policy LP11 1 metre of naturally draining permeable soil over a 200mm drainage layer provides a potential total available soil volume of 2750m³ in soft landscape areas through the Linear Park.

A total of 32 trees are proposed over the basement area within the linear park and could be supported in 960m³ of soil. Trees closer to the edge of the podium will also be able to root into the adjacent landscape therefore increasing available soil volume. The palette described on the previous pages demonstrates a range of sizes with larger trees located outside of the basement areas and medium sized trees focused in those areas where soil volumes are limited.

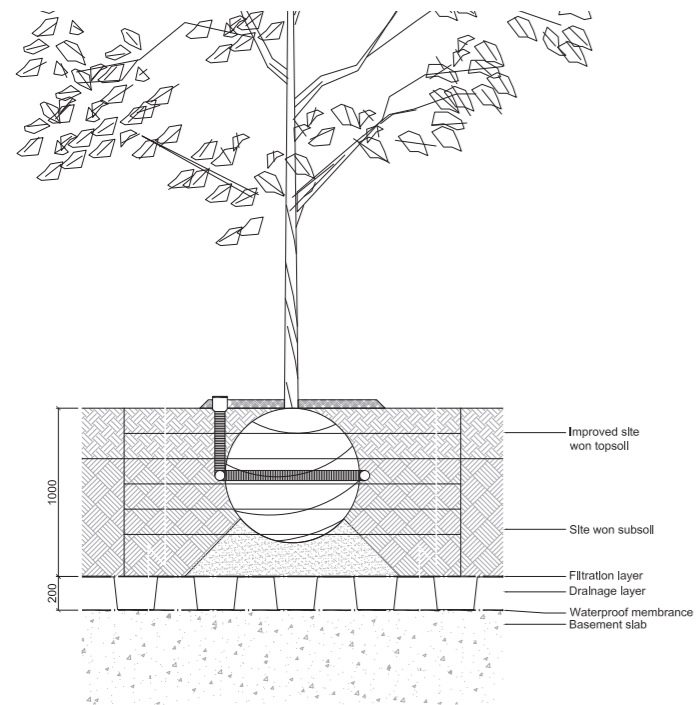
Key

 Total soil volume available excluding hard landscape build ups.

2750m³

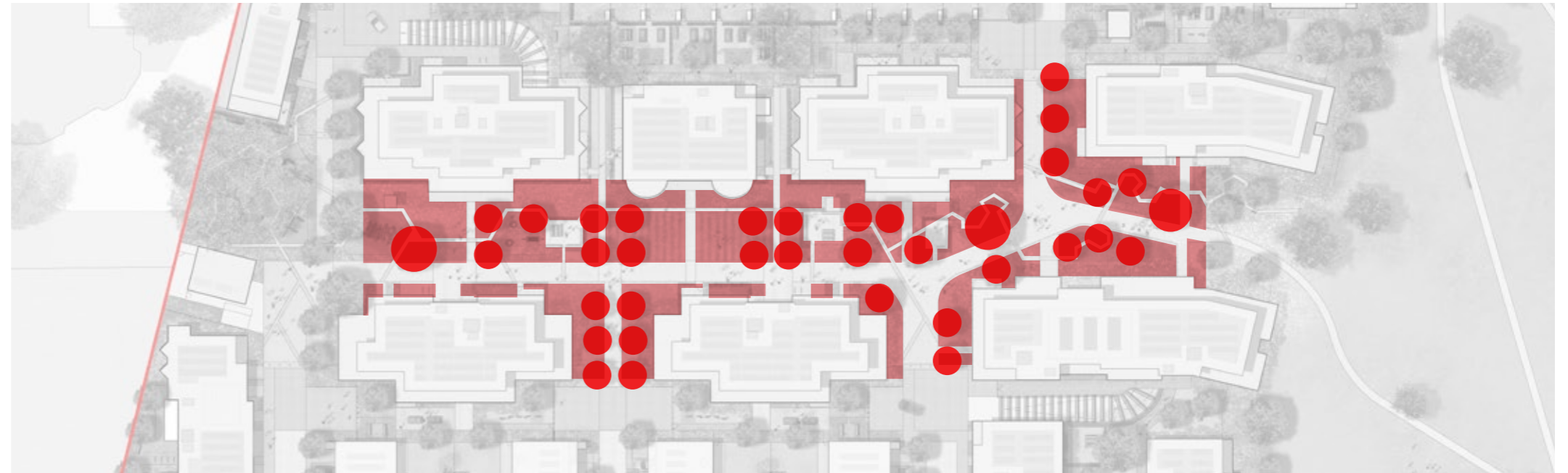
 Trees reliant on the soil volume

32 in total



1 metre of naturally draining permeable soil

200mm drainage layer



Linear Park Soil Volume



Linear Park - Section A

5.4.9 Soft Landscape Strategy

Landscape Strategies

The tree planting strategy is supported by a robust layer of planting. Species have been chosen to respond to aspect, use and maximise overall site wide biodiversity value. They help to define the character of the spaces while responding to elements of local landscape character found at Ham Lands, Ham House and Ham Village Green

The planting is divided into six broad character types:

- Street Planting
- Communal Gardens
- Linear Park
- Swales
- Hedgerows
- Cally's Garden

Planting is complimented by areas of both amenity and species-rich wildflower grassland to further diversify and add interest and functionality to the external environment. The wildflower grassland in particular helps to soften the interface with the Village Green which is also drawn through into the Linear Park.



Soft landscape strategy

Key

- Street Planting
- Communal Gardens
- Linear Park
- Ham Village Green Interface
- Swales
- Hedgerows
- Cally's Garden
- Climbing plants to flank walls
- Tree Planting

5.4.10 Planting Strategy

Linear Park

Wildflower meadow grassland is the dominant feature of the park. It weaves through the naturalised areas before giving way to a grass lawn at the centre. Pockets of Cornus and coppiced Willow will sit amongst the grasses providing height and seasonal colour.

The play area includes swathes of ornamental grasses and structural shrubs to manage potential impacts from park users.

Tree planting will be predominantly native with Birch species dominating the mix. Marker trees such as Lime will be used at the entrances, with cherry trees grouped in the formalised centre.

Herbaceous borders sit to the north of the formal lawn edging the space between the neighbouring 'marker' building in the centre of the space.

The illustrative palettes shown here are not exhaustive but provide a sense of the character in each area.

M1 Wildflower Mix



Acheille millefolium



Agrostis capillaris



Centaurea nigra



Briza Media



Knautia arvensis



Festuca rubra

M3 Linear Park Mix



Stipa tenuissima



Salix repens



Perovskia atriplicifolia



Sesleria autumnalis



Persicaria amplexicaulis



Sarcococca hookeriana

M3 Cally's Garden



Echinacea purpurea



Crocsmia 'Peach Sunrise'



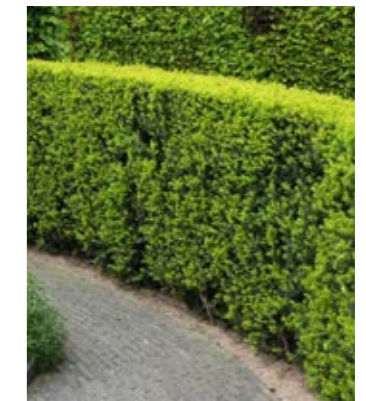
Anemanthele lessoniana



Verbena bonariensis



Echinops ritro 'Veitch Blue'



Taxus baccata

M7 Swale Mix



Ranunculus acris



Festuca pratensis



Centaurea nigra



Leucanthemum vulgare



Cynosurus cristatus



Stachys officinalis

5.4.10 Planting Strategy

Semi Private Space

Clipped hedgerows provide structure to the space and reinforce the orthogonal layout whilst forming pockets of space within the wider courtyard.

Existing trees are retained and these are complimented by fruiting trees both as specimens and espalier trees to boundaries.

Occasional ornamental specimen trees are introduced such as Magnolia, picking up on the historic garden aesthetic.

Within the spaces formed amongst hedgerows, clusters of herbaceous plants and shrubs provide colour and seasonal change to the planting scheme.

The illustrative palettes shown here are not exhaustive but provide a sense of the character in each area.

M2 Courtyard Mix



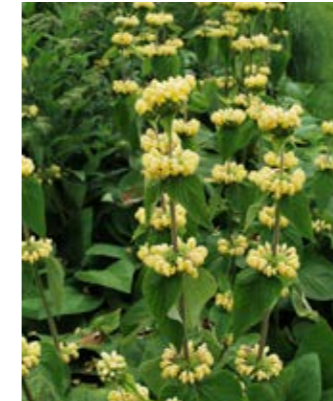
Perovskia atriplicifolia



Rosmarinus officinalis



Salvia nemorosa



Phlomis russeliana



Anemanthele lessoniana



Echinacea purpurea

M2 Courtyard Mix



Amsonia tabernaemontana



Hydrangea quercifolia



Iris foetidissima



Veronica spicata



Pittosporum tobira 'Nanum'

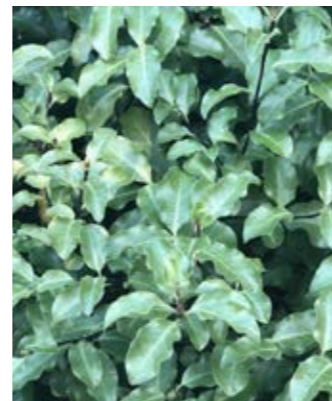


Dryopteris affinis

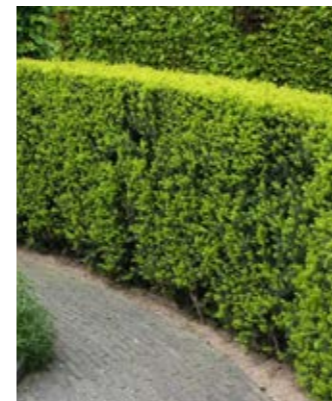
Hedge Planting



Fagus sylvatica



Pittosporum tenuifolium



Taxus baccata

5.4.10 Planting Strategy

Streets

The streets provide a direct link to the Linear Park and seek to draw on some of the influence of the wilder planting palettes in a more formal setting. Colour is balanced with structural planting to create an understory to the tree planting, and in defensive spaces.

Some streets will require a more shady aspect for the palettes and will be tailored to suit individual areas. Planted areas of Woodville Road will be intrinsically different in aspect to Ashburnham Road but colour and leaf texture is used to provide a cohesive treatment to the edges of the site.

The illustrative palettes shown here are not exhaustive but provide a sense of the character in each area.

M4 Ashburnham Road Mix



Hebe pinguifolia



Achillea 'Coronation Gold'



Cistus x hybridus



Viburnum davidii



Fagus sylvatica



Geranium macrorrhizum

M5 Woodville Road Mix



Stipa tenuissima



Iris foetidissima



Sarcococca hookeriana



Bergenia



Pittosporum tobira nanum



Dryopteris affinis

M6 Internal Streets Mix



Euphorbia amygdaloides



Geranium macrorrhizum



Viburnum davidii



Pittosporum tobira nanum



Pennisetum alopecuroides



Achillea 'Coronation Gold'

Climbers



Clematis 'Generat Sikorski'



Jasminum officinale



5.4.11 Ecology

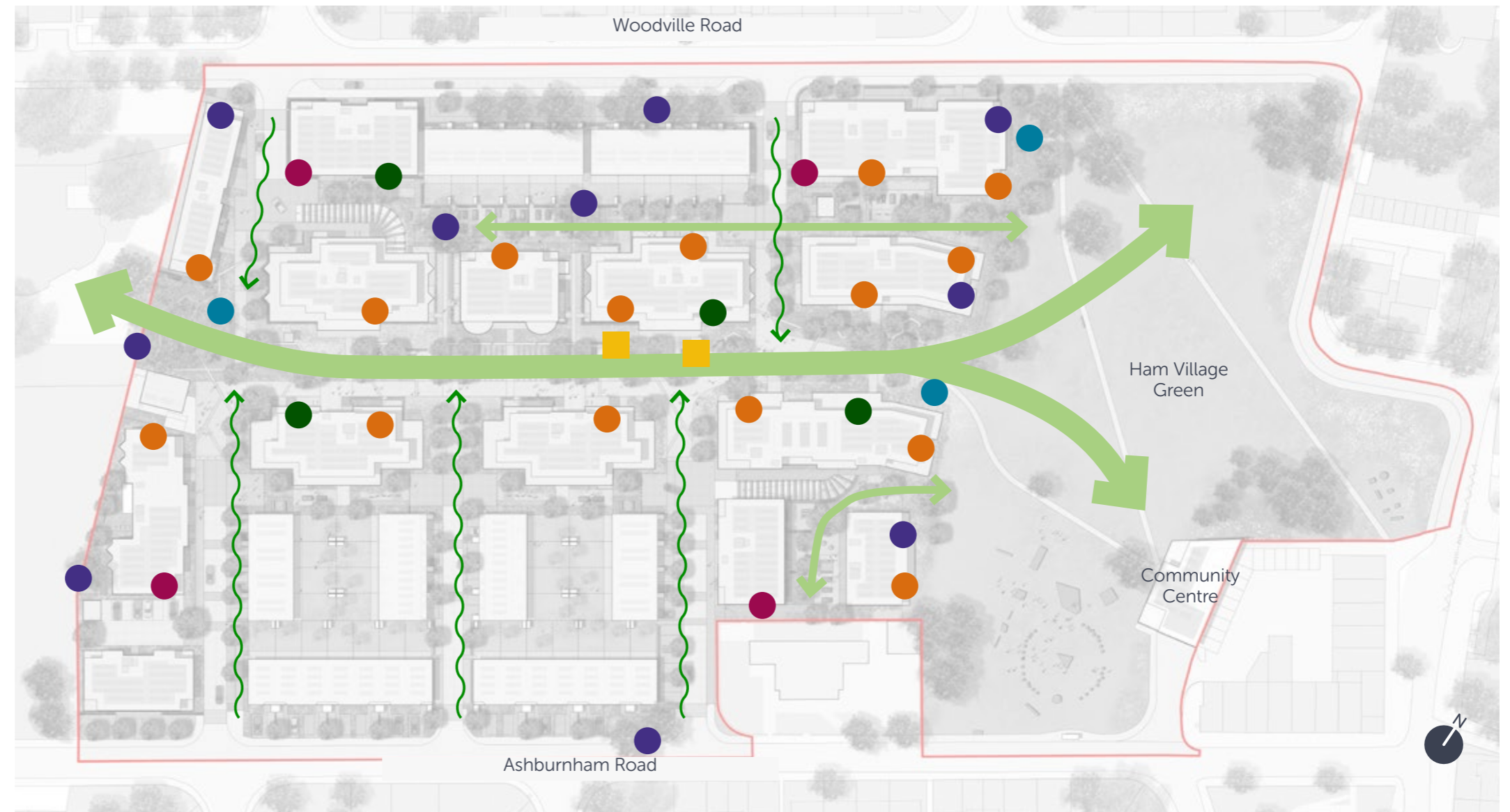
Landscape Strategies

Key ecological landscaping recommendations advise that green infrastructure should be designed to provide ecological connectivity across the site; complementing existing ecological features in the surrounding areas. Further recommendations for ecological mitigation are listed below and proposed locations identified on the adjacent plan. These features will complement the wider landscape and planting proposals spread across the scheme.

These enhancements will provide new foraging, commuting, and nesting/roosting opportunities for local bird, bat and invertebrate populations, and contribute to an overall net gain of 30.6%. Further information on net gain can be found in the Greengage BNG Report.

Key

-  Bat boxes in buildings
-  House sparrow boxes in buildings (in groups of 3)
-  Swift boxes in buildings (in groups of 3)
-  Generalist boxes trees or buildings
-  Stag beetle loggeries
-  Ventilation Stack - biodiverse roof and vertical insect habitat
-  Improved ecological connectivity
-  Linear foraging roots



Recommended locations for ecological mitigation



5.4.12 Biodiverse Roof Strategy



Landscape Strategies

Biodiverse roofs are proposed for all the flat blocks.

A lightweight substrate with a minimum of 85mm depth will be overseeded with a Native British seed mix and will be supplemented by rubble and log piles to support a biodiverse habitat.

Where biodiverse roofs cannot be provided on the housing, climbers are proposed to flank walls to provide vertical greening elements. Maintenance on roofscapes will be reliant on the homeowners whereas maintenance of the vertical greening can be facilitated from public space at ground floor.

Key

-  Biodiverse roof to flat blocks
-  Climbers to flank walls where biodiverse roofs cannot be achieved on houses



Biodiverse roof location plan



Typical biodiverse roof elements - bricks and stone piles provide shelter for insects and wildlife.

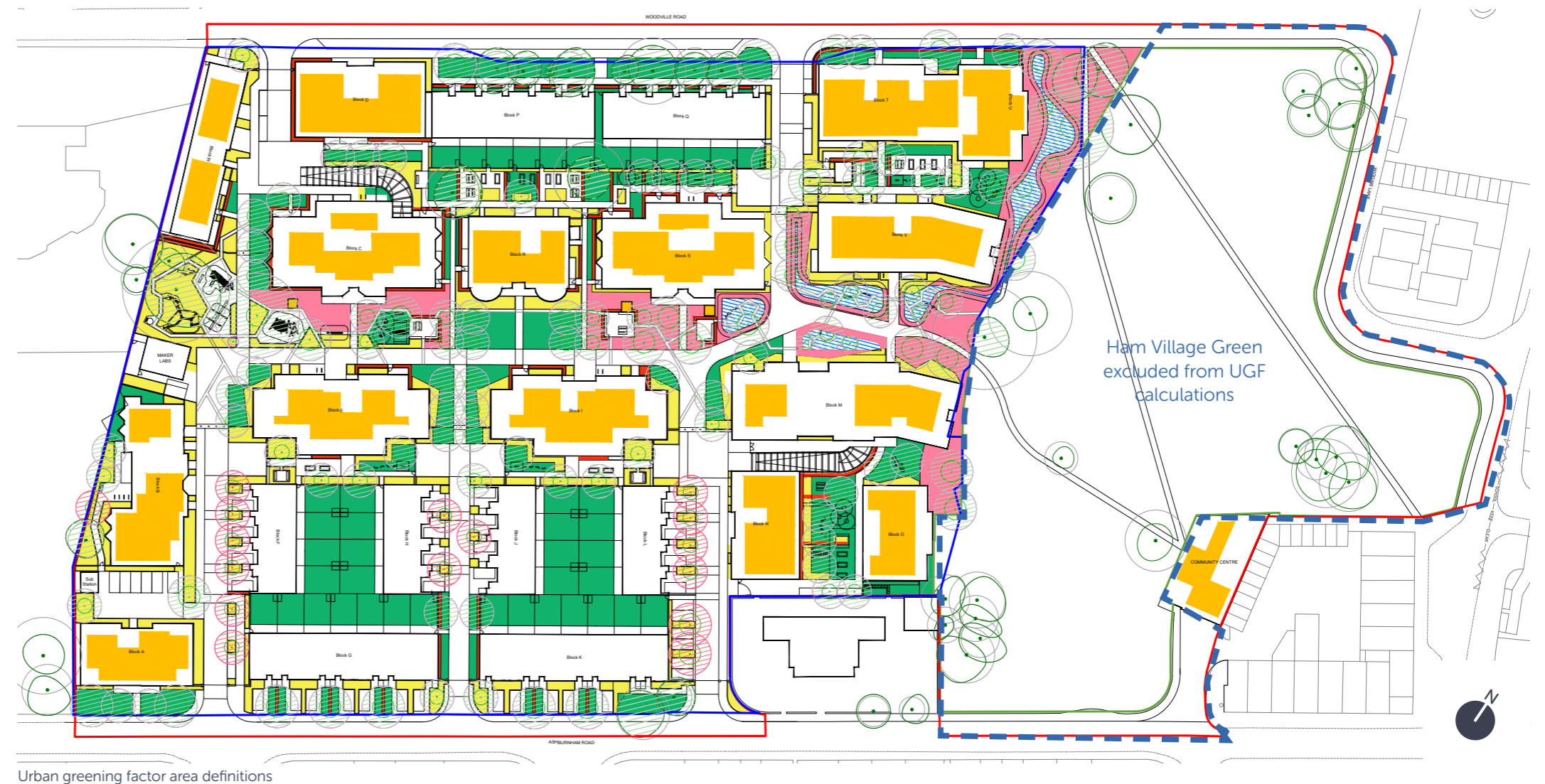
5.4.13 Urban Greening Factor

Landscape Strategies

An urban greening factor assessment has been undertaken in accordance with GLA policy. As demonstrated in the figure below and right, the proposals achieve an urban greening factor of 0.441 within the development site.

This figure does not include Ham Village Green and demonstrates the development exceeds the GLA policy of 0.4 within the ownership boundary.

Surface Cover Type	Colour	Area (Sqm)	Factor	Score
Semi-natural vegetation		1,729.36	1.0	1,729.36
Standard trees planted in connected tree pits		8,224.76	0.8	6,579.80
Extensive green roof		3,428	0.7	2,399.6
Flower rich perennial planting		1,801.08	0.7	1,260.75
Vegetated sustainable drainage		388.61	0.7	272.025
Hedges		388.60	0.6	233.160
Standard trees in tree pits (soil volume less than two thirds of projected canopy area)		771.89	0.6	463.14
Groundcover planting		773.16	0.5	386.57
Amenity grassland		5,064.6	0.4	2,025.8
Total	-	34,785	-	16,078
Urban Greening Factor: 0.441 (excluding Village Green)				



5.4.14 Hard Landscape Strategy

Landscape Strategies

A palette of hard landscape materials support the hierarchy of space with colour, texture and unit size used to denote movement and function. These areas are broadly categorised below:

- **Linear Park** - lighter palette to respond to denote pedestrian and cycle priority space.
- **Communal Courtyards** - small format, warmer paving to reinforce the intimate spaces and garden aesthetic.
- **Private Amenity/Defensive Space** - private driveways use paving from the adjacent street palette to provide uniformity. Defensive space and patios are treated in a simple concrete slab.
- **Street scape** - the streets use a simple light and dark palette to break up the ground plane with different unit sizes and direction of laying courses used to denote vehicle or pedestrian movement.



PT1 - Concrete paver, light grey 210 x 140 x 80mm



PT2 - Concrete paver, dark grey 105 x 140 x 80mm



PT3 - Concrete paver, light grey 105 x 140 x 80mm



PT4 - Concrete paver, dark grey 105 x 140 x 80mm



PT5 - Concrete paver, dark grey 210 x 140 x 80mm



PT6 - Concrete paver, buff 200 x 200 x 80 & 300 x 300 x 80mm



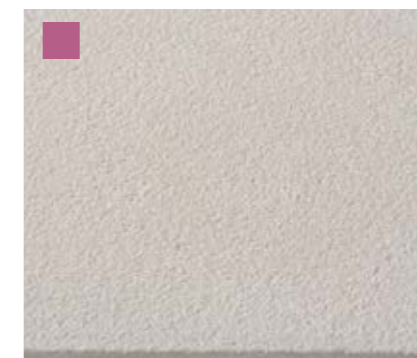
PT7 - Concrete paver, light grey 200 x 100 x 80



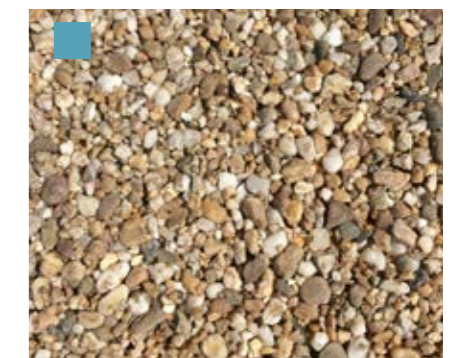
PT8 - Concrete paver, terracotta 105 x 140 x 60mm



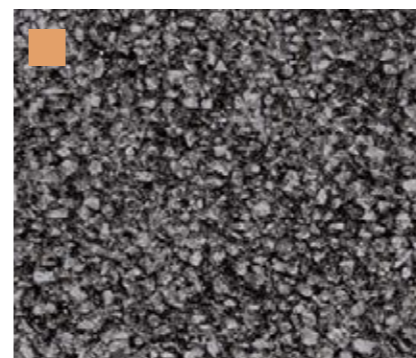
PT9 - Concrete sett, light grey 100 x 100 x 100mm



PT10 - Concrete paver, natural 450 x 450 x 38mm



PT11 - Resin bound gravel - buff



PT12/13 - New and existing macadam



PT14 - Self binding gravel, buff



PT15 - Safety surfacing - brown tones



Typical biodiverse roof build up

5.4.14 Hard Landscape Strategy

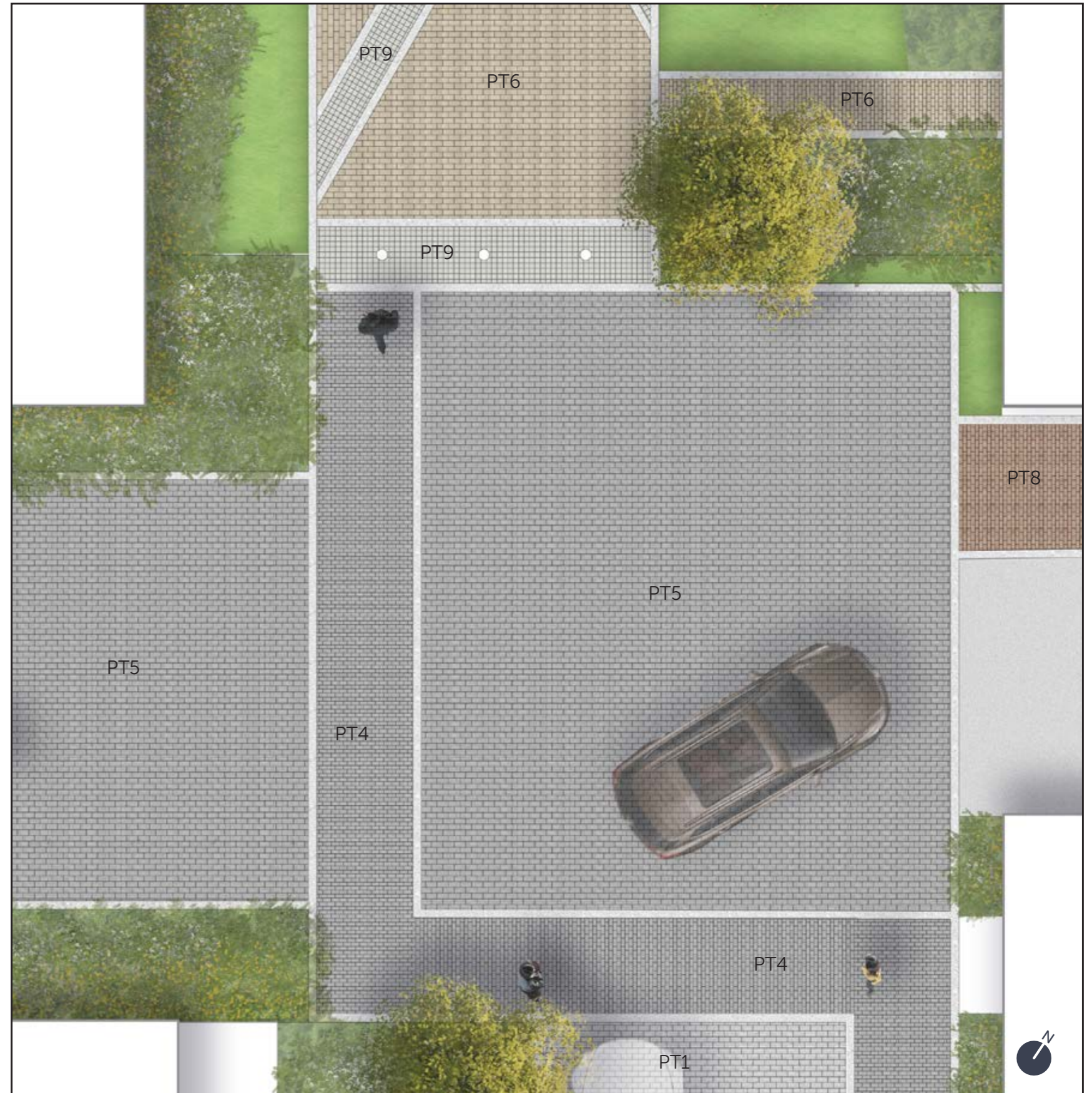
Landscape Strategies

The illustrative detail plan opposite indicates the proposed interface of different materials. Coursing is used to indicate direction of travel for both vehicular and pedestrian/cycle movements. Colour and material relate to the character of each area indicated on the previous page.

- PT1**
Concrete paver, light grey, 210 x 140 x 80mm
- PT4**
Concrete paver, dark grey, 105 x 140 x 80mm
- PT5**
Concrete paver, dark grey, 210 x 140 x 80mm
- PT6**
Concrete paver, buff, 200 x 200 x 80 & 300 x 300 x 80mm
- PT8**
Concrete paver, terracotta, 105 x 140 x 60mm
- PT9**
Concrete sett, light grey, 100 x 100 x 100



Detail location plan



Illustrative detail hard landscape plan

5.4.15 Boundaries & Interfaces

Landscape Strategies

Proposals for boundaries treatments focus on providing subtle definition of public and private spaces with low, permeable fencing allowing a connection with the surrounding public realm. Where necessary higher boundary treatments are used to provide a more secure boundary to private gardens or external interfaces.

Key

-  Proposed 1800mm High brick wall - using reclaimed bricks from existing boundary
-  1800mm High railing
-  1800mm Timber fence
-  1200mm High hedge and garden railing
-  1200mm High garden railing
-  Low key estate rail
-  1200mm High garden gate
-  1800mm High gate
-  Drop bollard controlled access
-  Fixed Bollard



Boundaries & interfaces diagram



Typical brick wall - Western boundary & rear gardens



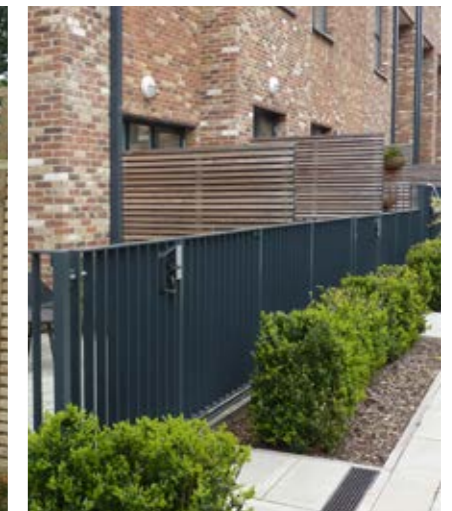
Low Key Estate Rail



1800mm High Railing



1800mm Timber Fence



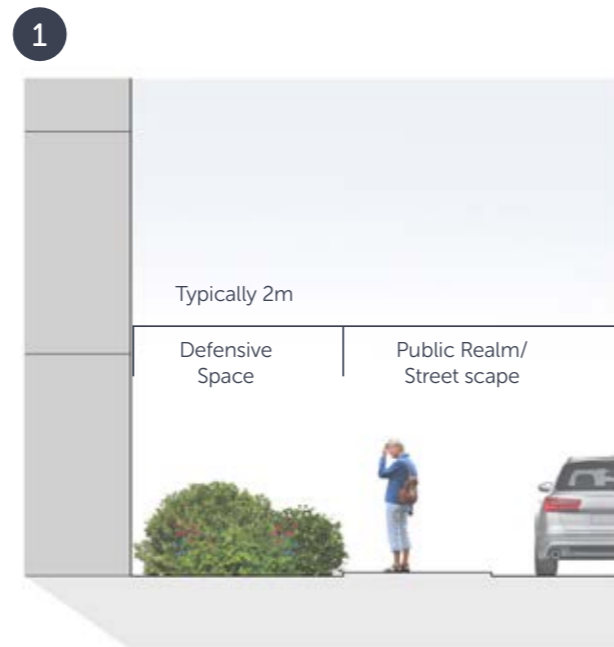
1200mm High railing, gate and hedge

5.4.15 Boundaries & Interfaces

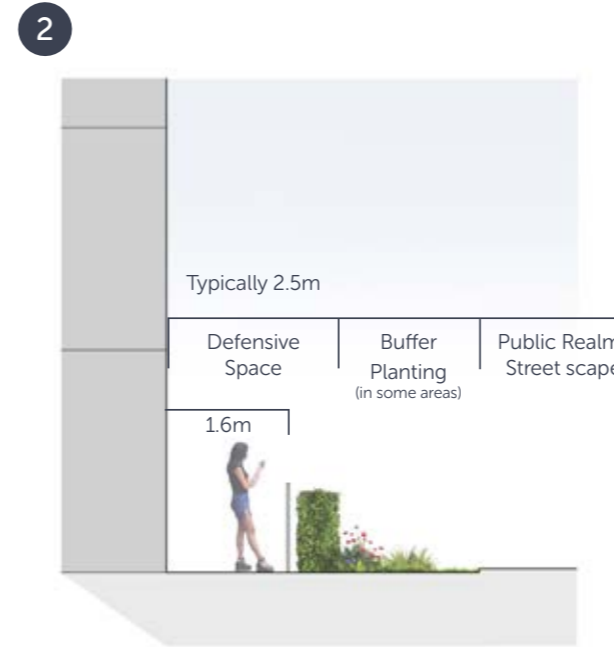
Defensive space

Ground floor dwellings help to activate the public and semi private spaces around all the apartment blocks and are offered a level of privacy using the treatment shown here.

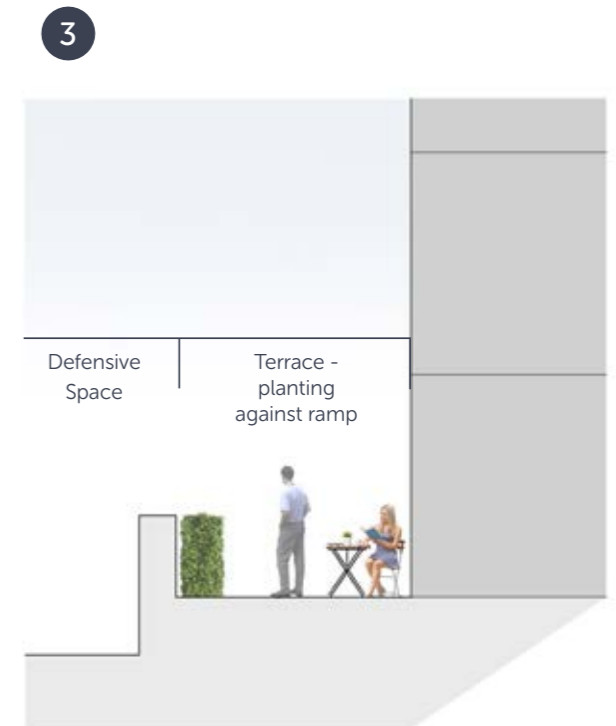
All ground floor dwellings have access to private amenity space in the form of a terrace typically using a hedge and railing around the perimeter. Between terraces where ground floor windows look directly onto semi-private or private space a strip of planting provides a buffer. The soft landscape palettes respond to each space and the mixes detailed in the soft landscape strategy.



Defensive Treatment 01
Where dwelling interface with public or semi-private space at the ground floor, defensive planting provides some privacy beyond the extent of private terraces.



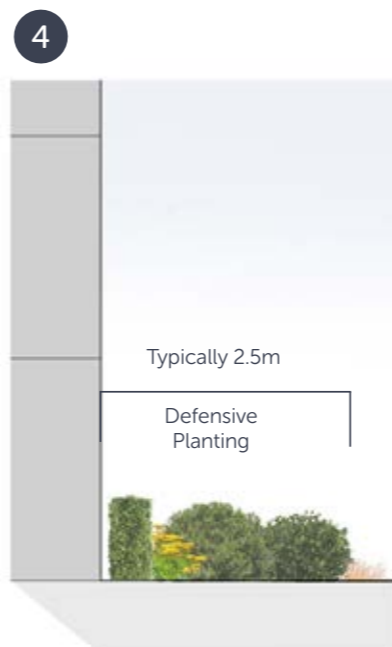
Defensive Treatment 02
All ground floor units have access to a private terrace. Typically these use a railing, with hedge planting to the perimeter and in some areas are further enhanced with some additional buffer planting.



Defensive Treatment 03
Two terraces North of Block C interface with the parapet walls of the basement ramp. Where they do hedge planting is used to soften wall and limit direct overlooking of the ramp.



Detail location plan



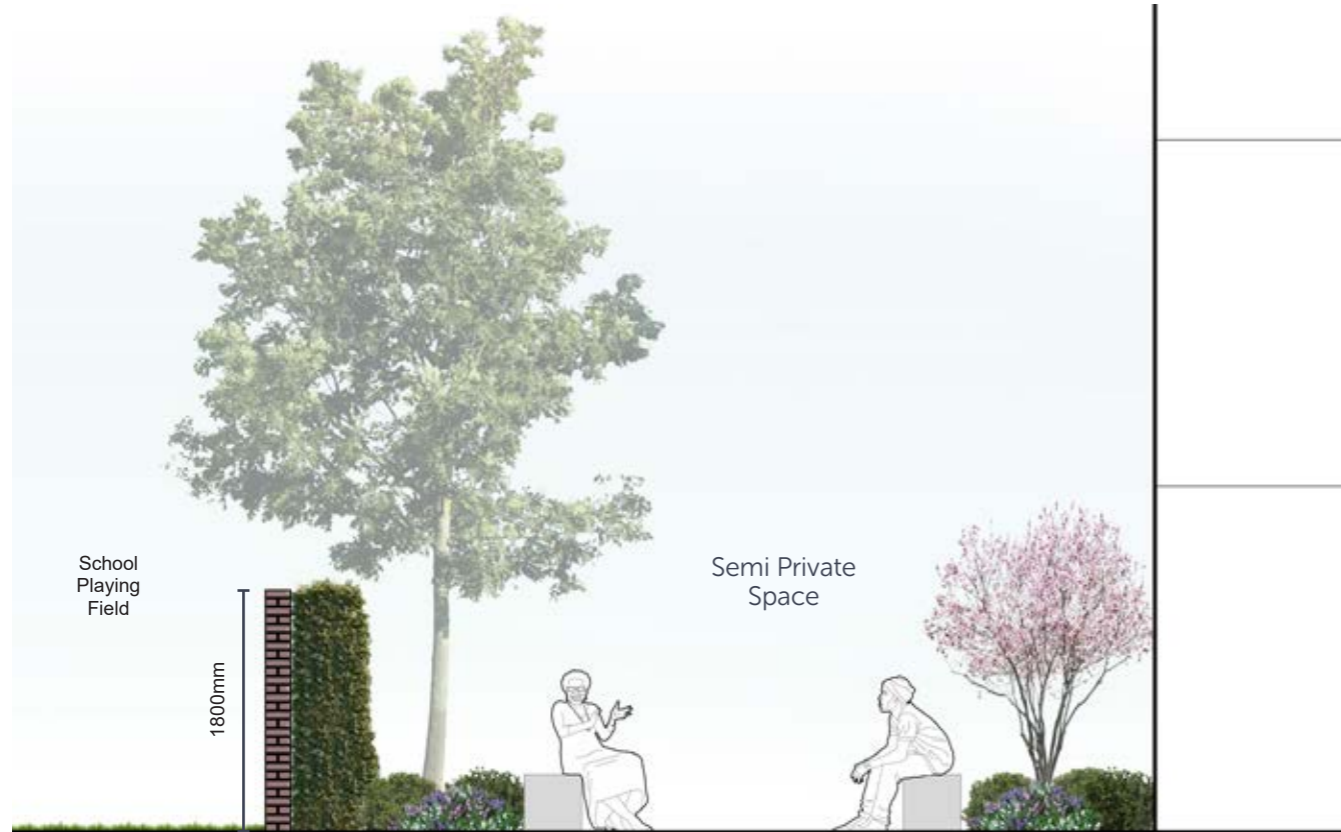
Defensive Treatment 04
Groundfloor spaces outside of private terraces use hedge planting to define the edge of the park, further softened by defensive planting



Defensive Treatment 05
Private terraces which interact with the Linear Park are defined with a railing, and hedge planting to the perimeter. Additional planting within the terrace softens the space.

5.4.15 Boundaries & Interfaces

Western Boundary



Section A-A Hedge & Railing interface with Block B semi private space



Traditional brick wall with piers and coping



Existing Western boundary condition



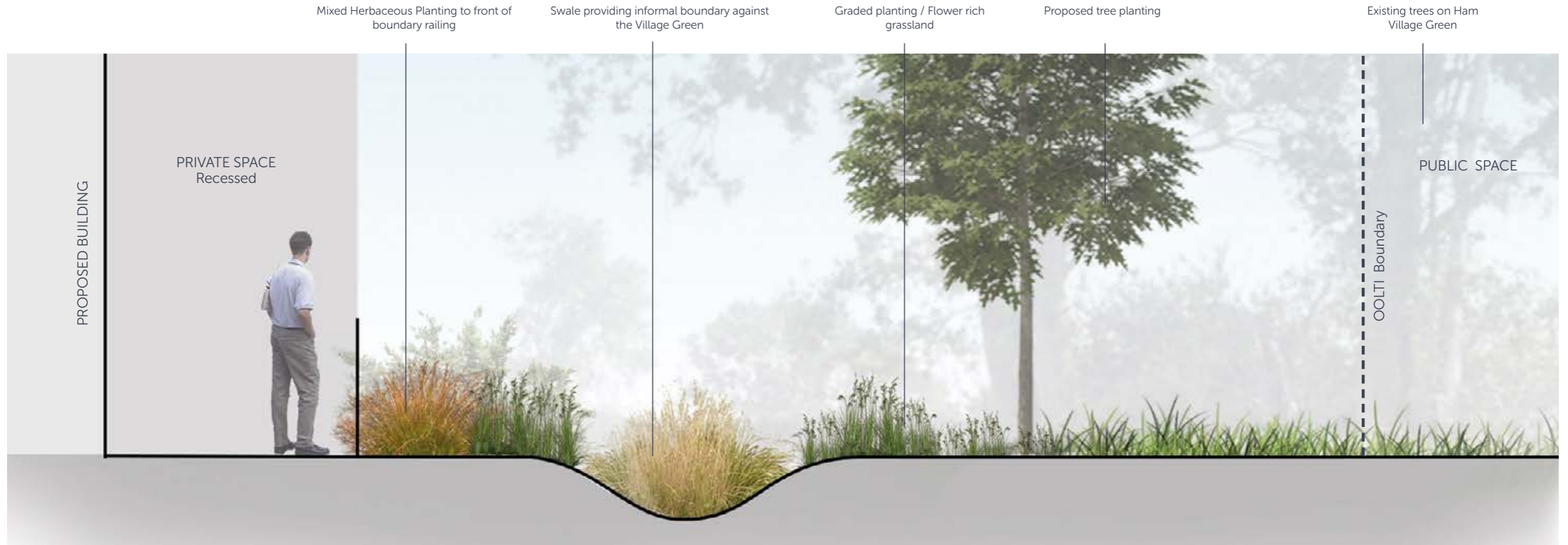
Section B-B Hedge & Railing interface with Linear Park play space



Location Plan

5.4.15 Boundaries & Interfaces

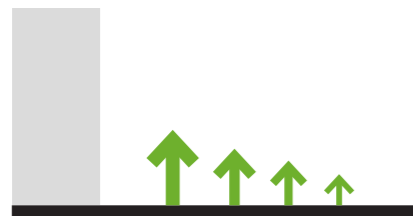
Ham Village Green Interface



Illustrative section through development boundary

Design Principles

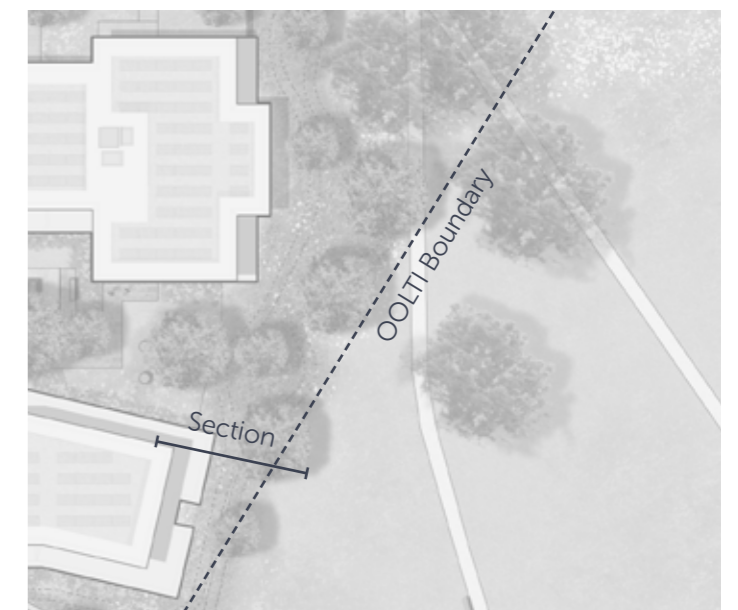
- Density and height of planting is increased closer to defensive space to create a soft buffer.
- Visual permeability to green is retained by the gradation of proposed planting.



Graded planting between public open space and defensive space



Swale creates an informal boundary against the Village Green



Location Plan

5.4.16 Ham Village Green Integration

Landscape Strategies

The proposed arrangement of build form allows for a more generous area of soft landscape adjacent to the Village Green and Ownership boundary than is afforded by the current layout of flat blocks. This allows for a swale and gradual transition of soft landscape treatment from the Village Green towards the development.

Key

--- Ownership Boundary

Existing arrangement of buildings against Ham Village Green



View of Benson House from the Village Green



Ham Village Green Interface - existing built form

5.4.17 Illustrative Lighting Strategy

Landscape Strategies

The lighting strategy has been designed to ensure principal routes are lit to an acceptable standard and provide safe places for the public and residents to move through at night. This strategy will be developed into a detailed scheme at the next stage of design.

Streets will be lit with pole mounted luminaries to provide a safe space for vehicles and pedestrians to move around at night.

Communal gardens and parking areas will be illuminated via a combination of low columns and lighting bollards.

The principal route through the Linear Park will be lit with complementary columns to those used in the streets.

All forms of lighting will be minimised so as to reduce unnecessary light spill and associated impacts on wildlife, whilst maintaining a safe environment for users.



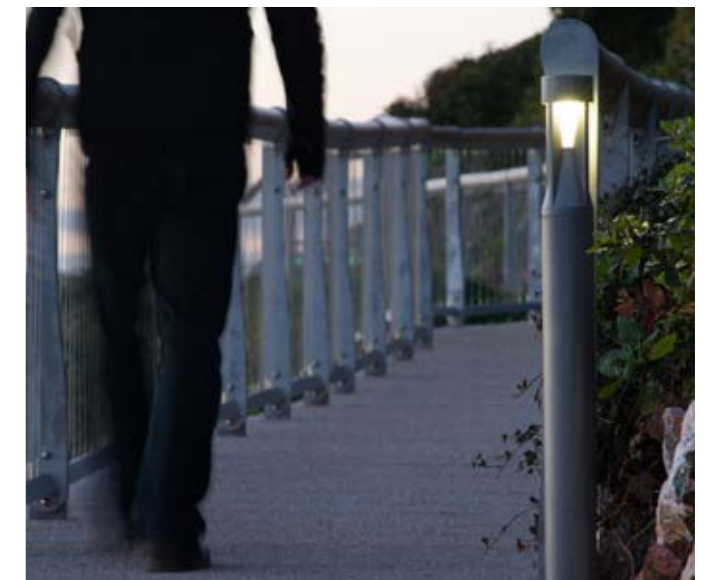
Column mounted luminaries along the primary movement areas in the Linear Park.



Column lighting to streets and courtyards.



Bollard lighting to secondary routes within public space.



Bollard lighting to secondary routes in courtyard spaces.



Illustrative Lighting Strategy

5.4.18 Furniture Strategy

Landscape Strategies

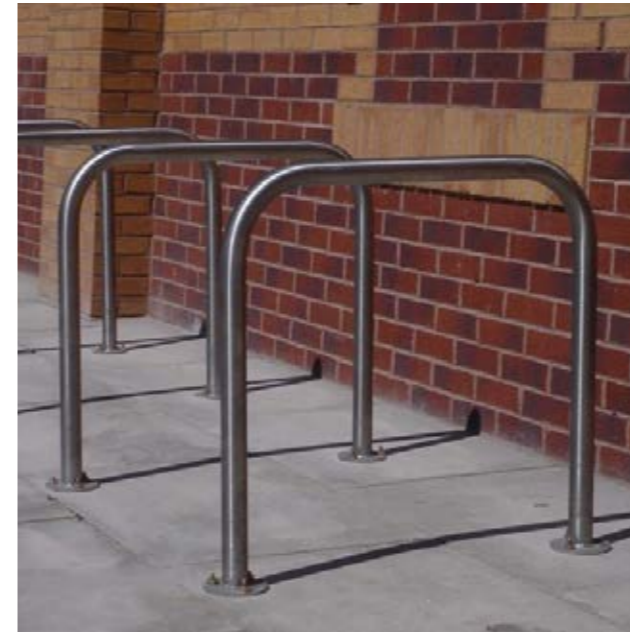
The illustrative furniture palette responds to the functions of the space in which they are located helping to reinforce the character of each space.

Public spaces such as the Linear Park use robust furniture. Seating in particular focuses on providing a range of opportunities to gather in small groups or as an individual across a variety of spaces.

The semi private spaces have a softer garden aesthetic with more traditional timber benches and play elements across smaller lawns.



F1 - Demountable Bollard



F2 - Cycle Stand



F3 - Bench in Courtyard



F3/F5 Timber top bench



F4 Picnic Table



F6 - Informal play trail

5.4.19 Basement Ramp Treatment

Landscape Strategies

Two ramps provide an entrance and exit point for vehicular access to the basement. Their locations will mean a degree of overlooking from terraces of the upper floors of units close by and would therefore require a treatment to soften both the structural elements and vehicular movements below.

A slatted pergola style structure is proposed to offer a lightweight covering and mitigate the view of the ramp and car movements from above.



Slatted timber structure and metal shoe detailing



Detail Plan



Location Plan - basement entrance & exit ramps



1 Illustrative View

5.5 Landscape Maintenance



SQUIRREL

5.5.1 Landscape Management

Background and Purpose of Strategy

This strategy has been written to direct the future management and maintenance at the Ham Close development. The strategy is intended to inform the management criteria for the external spaces for a period of 5 years.

The intention is currently for the public and semi-private amenity spaces to be maintained by a private estate management company. Hedgerows surrounding defensive spaces will also be maintained. A breakdown of the areas is shown in the diagram opposite.

Aims and Objectives

Aims:
To carry through the landscape design intent, ensuring the appropriate ecological enhancement and mitigation operations are applied whilst continually evaluating the success of such proposals.

Objectives:
The landscape, ecological enhancement and mitigation objectives will be:

- To maintain all landscape areas to a satisfactory level in order to maintain public access and ensure planting establishes in accordance with the design intent;
- To provide an attractive environment that enhances biodiversity;
- To implement a monitoring and review process during the first years of establishment, targeting special requirements over and above standard maintenance activities.

Implementation Methodology

This section sets out the proposed method for implementing the proposed landscape works and managing them during the construction and post construction period. The method is split into works to be undertaken pre-construction, during construction and post construction.

Implementation Programme

Pre-Construction Works
To preserve elements of the existing site ecology, works are required prior to development commencing.

These works are as follows:
Establish tree protection fencing to preserve trees and shrubs identified for retention.

During Construction Works

A series of measures are to be put in place during the construction period to facilitate the future enhancement and mitigation of existing tree planting or ecological features.

These measures are as follows:

Continue to maintain the installed tree protection fencing to preserve trees and shrubs identified for retention.

Tree removal: All birds, their nests and eggs are protected by law (Wildlife and Countryside Act, 1981) and it is thus an offence to intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built. Trees should be felled outside of the bird nesting season or under the direction of a suitably qualified ecologist.

Following laying of topsoil, in the first available planting season carry out planting in accordance with the approved soft landscape details. This will incorporate the proposed native and ornamental planting.

Install temporary protection fencing such as chestnut pale to newly planted beds which may be vulnerable to trampling.

Carry out initial maintenance activities on all planted areas to ensure successful establishment. Replace any failed plants with equivalent specimens.

For a period of 2 months following completion of these works, monthly monitoring visits by a landscape architect will be undertaken to ensure the successful establishment of these works.

Post Construction Works

Following completion of the construction works, maintenance will commence and the site will be cleared of construction related items.

Remove the tree protection fencing and assess the existing tree stock. Carry out any required pruning which may be required to help ensure the long term viability of the trees.

As plants become established, remove any temporary protective fencing. Replace any dead diseased or dying species. Top up mulch to all plant beds and weed as required.

Carry out maintenance of all planted areas.

Continue monitoring as outlined later in this document.



Soft landscape strategy

Key

- Street Planting
- Communal Gardens
- Linear Park
- Ham Village Green Interface
- Swales
- Hedgerows
- Cally's Garden
- Climbing plants to flank walls
- Tree Planting

5.5.2 Landscape Maintenance

Guidelines

Maintenance and Component Operation		Period of year	Location
Trees	Pruning, remove deadwood, adjust ties and supports, feed etc.	Feb/March	All areas
Shrubs	Prune to maintain natural form	Nov-March	All areas
	Lightly fork over soil, add fertilizer and work in	Nov-March	All areas
	Spread compost / top-up mulch to 75mm depth	Nov-March	All areas
	Watering to shrub beds as required to enable establishment	As required	All areas
Ornamental Hedges	Cut side faces vertical and top horizontal or parallel to the ground	Mid-late summer	All areas
Litter Picking	Pick up and remove litter from all hard and soft landscaped areas and dispose of arising's	Year round	All areas
Timber structures	Repair any damage and reaffirm posts and supports	Year round	All areas
Play equipment	Maintain netting and structures in accordance with manufacturers guidelines	Year round	All areas
Boundary Treatments	Repair any damage to boundary treatments to form a continuous intact boundary	Year round	All areas
Hard surfaces	Level hoggin areas, repair any damage to pathways.	Year round	All areas

Maintenance Guidelines

Trees

All trees will be visually inspected on routine maintenance visits for storm damage and general safety and security issues. Damaged branches will be removed from both tree and ground promptly to minimise damage to the tree and danger and obstruction to campus users or passers-by. The lower extent of the crown of the trees will be set at the height specified in Table 1.

Further comprehensive tree inspections will be carried out each year by an arboriculturist to assess any works required to maintain the health, safety and form of the trees and to conserve their landscape and ecological value. Consideration will be given at these inspections to personal safety issues and the need to maintain a degree of natural surveillance. Sensitive minor crown lifting works may be carried out periodically to maintain an open aspect and also to maintain appropriate clearance over parking spaces and around lamp columns. The resulting works will be carried out by a qualified arboricultural contractor to the accepted professional standard (currently BS 3998).

Young trees will be inspected each month, underground guying and staking monitored and adjusted to allow for the growth of the trees. Epicormic growth will be removed, formative pruning and irrigation carried out as required promoting healthy growth.

Routine maintenance of mature trees will include the removal of epicormic growth, pruned back to the main stem of trees up to a height of 1.8 metres. All trees will be watered as required using pre-installed irrigation pipes.

Trees that fall or have to be removed will be replaced. Replacement or new tree planting will consider the design intention of the scheme to guide the selection of tree species and spacing.

Shrub and herbaceous planting

Shrub and herbaceous planting will be maintained to a high horticultural standard to ensure a healthy stock of plants, pruning / cutting back as appropriate for the species and maintaining a weed free, tidy, semi-formal appearance.

Mulching will be carried out each year in March to increase moisture retention and inhibit weed growth. Well-rotted mulch sourced from on-site chipping will be used wherever possible to maintain a mulch depth of 75mm. Regular maintenance visits will be carried out to ensure the beds are kept weed free throughout the year. The use of herbicide for weed control on bed areas will not be permitted.

Shrub and herbaceous plants will be allowed to grow to achieve their intended form and maintained as specified for the species to promote their healthy development. The open and bare areas will be forked over in the winter, cutting back foliage when the herbaceous plants have died back. Taller herbaceous plants will be supported with 'pea sticks' as required and shrubs pruned at the appropriate time of year for the species to encourage healthy growth, maximum flowering.

Once fully established, herbaceous planting will be managed on a three-yearly cycle, lifting and dividing some of the plants each year to maintain plant diversity in the beds and to rejuvenate the planting, encouraging healthy flowering specimens.

Replacement planting will be guided by the landscape proposals and the design intent with species selected to fit the character of the bed and to maintain variety of planting heights.

Ornamental hedges

The hedges around defensive spaces will be maintained to have a uniform finish with a flat top and faces. The hedge is to be maintained at a height of 1.1m and a depth of 0.5m. Cutting will be undertaken twice per year using appropriate and well-maintained tools in order to form a dense and well-formed hedge. The base of hedges will be kept free of weeds and litter.

Litter picking

The collecting of litter is extremely important in defining the appearance of the park and amenity spaces. It is important that litter is collected at a rate that is dictated by the rate at which it accumulates. Rubbish will not be left to lie around the area, be blown onto beds, or suggest that the area is neglected.

Leaf clearance will be undertaken during the autumn / winter months so that leaf litter is not allowed to accumulate, with particular attention to their removal from paths to maintain pedestrian grip.

Play Areas

Play equipment to be checked at intervals as advised by the manufacturer. Moving parts to be regularly checked in accordance with the manufacturers suggested maintenance schedule. Safety surfaces to be kept in good order and replaced if damaged to ensure compliance with minimum fall heights.

A full annual health and safety check should be carried out to review how the space is functioning and make any upgrades which may be necessary to address any issues.