

3.0

LANDSCAPE DESIGN

3.4 OPEN SPACE PROVISION

In terms of open space provision, the Reading Open Space Strategy (2007) document states that national guidelines are adopted, namely National Playing Fields Association (NPFA's) Six Acre Standard, however, this has subsequently developed to the latest Field in Trust 'Guidance for Outdoor Sport and Play, Beyond the Six Acre Standard'. Table 1 provides the recommended benchmark guidelines - formal outdoor space and Table 3 on benchmark guidelines - informal open space. The figures have been used to calculate the required open space to serve the proposed development as set out opposite (relative to the number of units rather than bed spaces).

The proposals aim to provide a range of connected, interesting and stimulating open spaces and natural environments to encourage people to be physically active, that can be used throughout the day and which contributes to positive mental health, wellbeing and lifelong learning and education. The series of open space will deter crime through 'Secure by Design' measures and which by means of natural surveillance, cohesion and a sense of community ownership provide opportunities for residents to be active through their everyday lives, and creating a safe and accessible built environment with well-designed public spaces that encourage community participation and in a way that reduces loneliness and isolation.

A Local Equipped Area of Play (LEAP) is proposed within the central parkland area, together with varies informal outdoor spaces throughout the development. Sustainable Drainage provision is excluded from the open space calculation.

Refer to Figure 3.5 - Open Space Provision On Site Referencing To Field In Trust Open Space Guidance.

The following pages illustrate the design intent for these spaces.

Table of Open Space Provision On Site			
	Quantum Guideline (hectares per 1000 population)	Quantum Required Based On 223 Units (2.4 people per unit)	Quantum Provided On Site
Playing Pitches	1.2	0.64Ha	0ha
All Outdoor Sports	1.6	0.86ha	0ha
Equipped / Designated Play Area	0.25	0.13ha	0.16ha (plus informal play throughout within parks and gardens)
Other Outdoor Provision (MUGAs and Skateboard Parks)	0.3	0.16ha	0ha
Total Formal Outdoor Space Quantum		0.16ha (Play only) 1.63ha (All Sports)	0.16ha (Play only)
Parks and Gardens	0.5	0.27ha	1.01ha
Amenity Green Space	0.6	0.32ha	1.33ha
Natural and Semi-Natural	1.8	0.97ha	1.39ha
Total Informal Outdoor Space Quantum		1.56ha	3.73ha
Total Open Space Quantum		1.72ha (excluding sports)	3.89ha
SuDS (In addition to the above)			0.50ha

FIGURE 3.5 – OPEN SPACE PROVISION ON SITE REFERENCING TO FIELD IN TRUST OPEN SPACE GUIDANCE (FABRIK, NOVEMBER 2021)



LANDSCAPE CHARACTER AREAS AND PRECEDENT IMAGES

4.1 POCKET PARK AND GREEN LINK

The Pocket Park and Green Link will form the primary open space hub and corridor within the proposed development, connecting the green infrastructure of the Site to the wider area in accordance with Policy EN12. The purpose of the Green Link is to provide an ecological corridor and therefore will have an emphasis towards native planting and will connect a series of spaces along the spine of the Site.

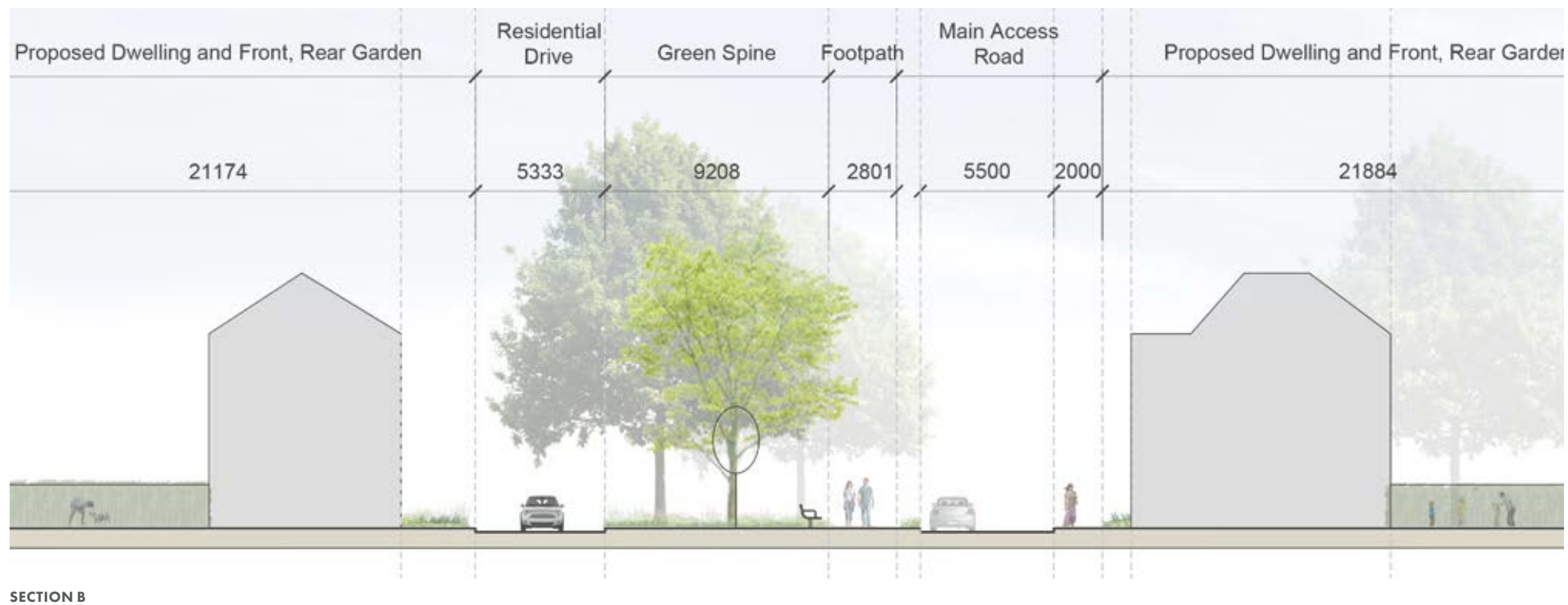
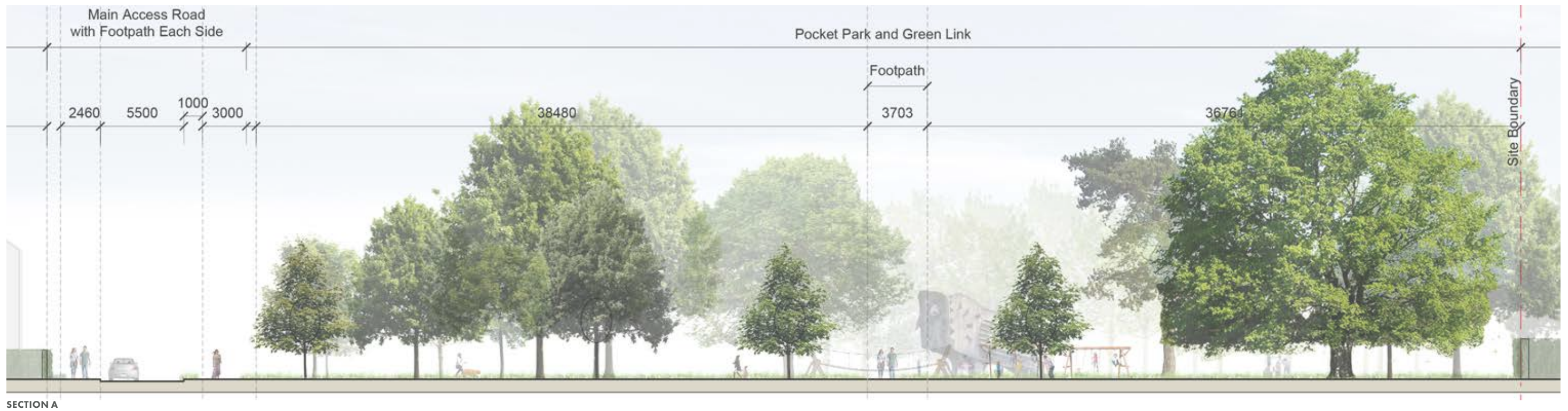
This central space is concentrated around the existing cluster of trees and will provide a degree of flexibility in use, for informal gatherings, formal recreation (such as Park Yoga) relaxation through interaction with nature and socialising. This space is large enough to accommodate an equipped area of play, as described on the following page.

- 1 Flexible open park space in the centre of the Site
- 2 Green pocket space for community gathering and relaxation
- 3 Green spines with large trees and flexible lawn space
- 4 Pocket space encouraging outdoor social life

LEGEND

-  POCKET PARK LOCATION
-  INDICATIVE GREEN LINK





LANDSCAPE CHARACTER AREAS AND PRECEDENT IMAGES

4.2 PLAY

Equipped play will be integrated into the natural treed area within the centre of the Site, in a location which is easily accessible and overlooked. The type of equipped play offer to be provided is to complement that found locally, or provide an alternative offer such as a trim trail, or table tennis but is essentially to be naturalistic in design to reflect its treed setting.

There is the opportunity for informal natural play to weave through the overall design of the open space network, using natural elements as play features, reflecting the character of the Site.

Tree trunks, boulders, mounds and simple changes in ground topography provides rich opportunities for explorations and inventiveness.

Low level planting around this space create a sense of scale, seasonal interest.

- 1 Stones, planting and natural play
- 2 Natural play elements in the open space area
- 3 Pebble trail integrated with SuDs
- 4 Opportunities for alternative play offer, such as table tennis
- 5 Pocket space with boulders, trim trail and outdoor furniture, to complement the play equipment at Emmer Green
- 6 Tree swings and play



LOCATION PLAN



1



2



3



4



5



6

LEGEND



INDICATIVE EQUIPPED PLAY LOCATION



INDICATIVE INFORMAL PLAY OPPORTUNITY



LANDSCAPE CHARACTER AREAS AND PRECEDENT IMAGES

4.3 SENSORY GARDENS

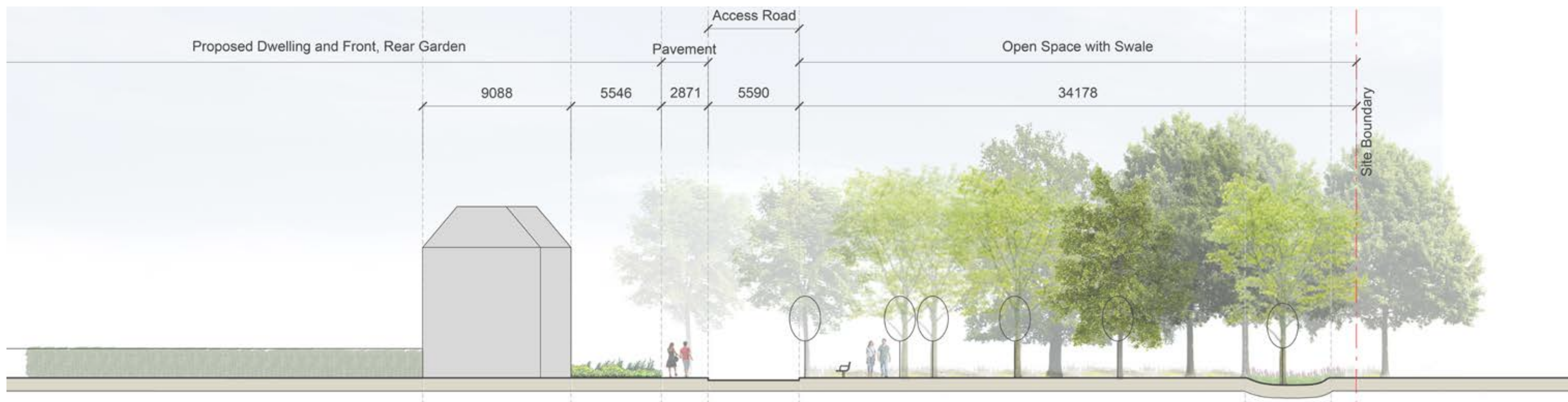
There is an opportunity to create a series of smaller, more intimate spaces, which can provide doorstep opportunities for the local residents for both play and relaxation and where the residents can take ownership of the space. Planting is to be naturalistic, but providing seasonal, sensory and biodiversity interest.

- 1 Hopscotch integrated into the garden space
- 2 Interaction with nature
- 3 Garden courtyard space within the development parcel with trees and seating
- 4 Hand made details personalising the space

LEGEND

 SENSORY GARDEN LOCATION





SECTION D



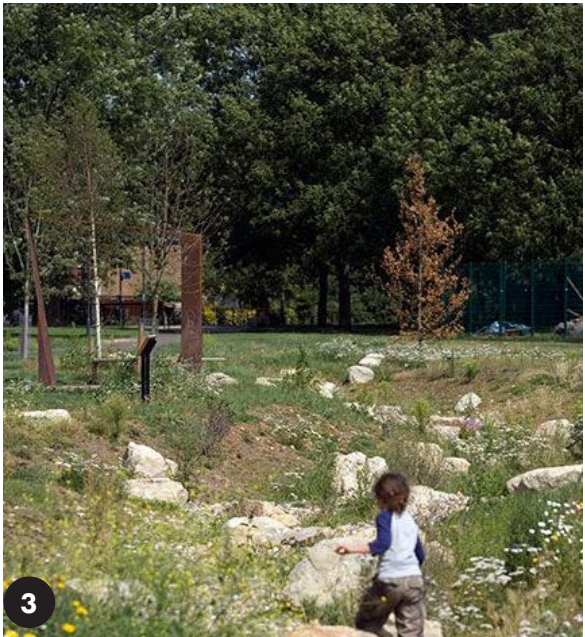
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LANDSCAPE CHARACTER AREAS AND PRECEDENT IMAGES

4.4 SUDS

Sustainable urban drainage systems are integrated into the landscape via the creation of ponds across the northern section of the Site. The seasonally wet features will provide a opportunities for wildlife whilst being available as additional open space during the dry season. The design intent is that these will be naturalistic features in the landscape, as shown in the precedent images opposite.

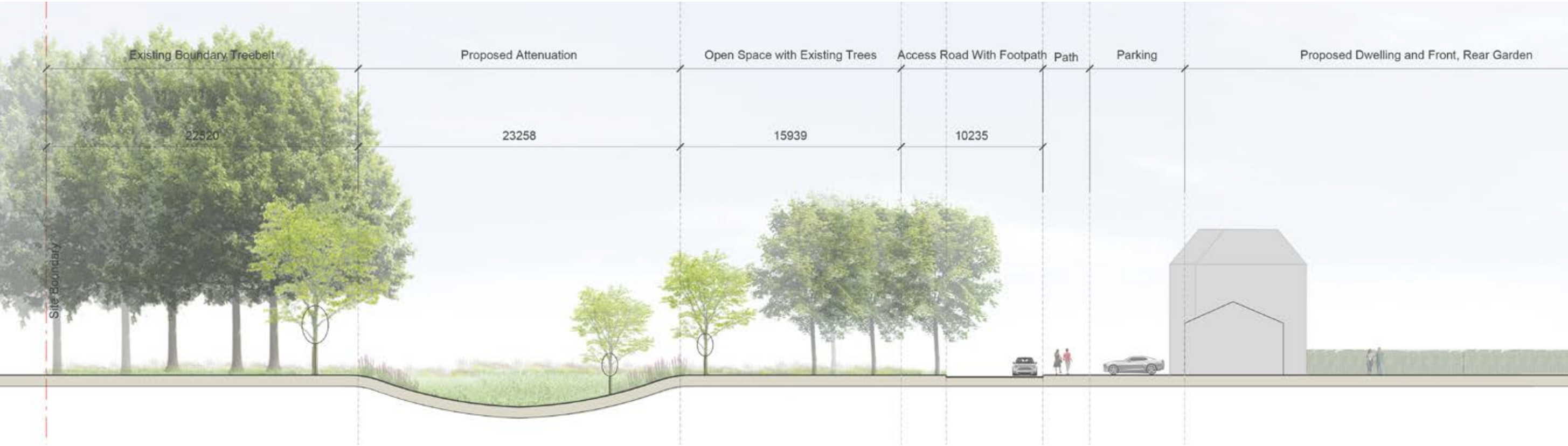
- 1 Dry meadow grassland and wildflower
- 2 Play incorporated in SuDs
- 3 Meadow, rocks and boulders



LEGEND

 SUDS LOCATION





SECTION E



LANDSCAPE MATERIALS

5.1 SOFT LANDSCAPE DESIGN INTENT

Planting softens the built form, humanises scale, mitigates the microclimate, provides a seasonal sense of place, provides well being benefits and biodiversity opportunities. The soft landscape design intent have considered the following aspects:

- The plant species selected are mostly native to the local landscape;
- All native species, in particular English Oak (Quercus robur) will be sourced locally to limit the risks of spreading arboreal disease and pests through imported plant stock;
- The current Site condition and the retained tree species;
- The current and future soil and climatic conditions;
- The existing and potential future habitat opportunities;
- The careful selection of species to reduce CO2 emission and pollution;
- The health and wellbeing of the residents in terms of the provision of a range of open space typologies and the associated planting;
- The legibility across the Site;
- The consideration of a range of plant species that provide seasonal interest;
- Planting to provide pollen, nectar and seed;
- Native Lime tree line along the central area of the main access road;
- Green / Wildflower verges and rich mixture of amenity grass wherever possible to increase the biodiversity;
- Mixture of evergreen and deciduous species.

The overarching soft landscape strategy will deliver a strong landscape connection between the Site and the wider green link and green infrastructure in Reading and beyond. The key landscape principle is the retention of the existing trees across the Site wherever possible, and the implementation of a new landscape framework throughout the open space, public realm areas of the Site to create a Green Spine and ecology corridor from the east to the north and from the east to the south, in respond to the Local Plan policy EN12.

The overarching soft landscape strategy proposes:

- Native tree planting in prime locations such as *Tilia x cordata* at the main access and the green spine to provide visual interest to the internal spaces and shade, thus replicating and replacing the existing landscape structure across the Site and forming a connection with the wider landscape;
- In contrast, planting around the proposed dwellings such as front gardens, will be ornamental, clipped hedges and more domestic scale;
- A selection of species suitable in form and scale and appropriate to location in relation to the space and elevation;
- Additional tree planting within the open space and public realm to reinforce the landscape framework;
- Water tolerant species around the attenuation basin areas;
- A mix of evergreen species, such as scots pine, holly, cedar are proposed across the development;
- The zone of influence for each of the proposed species have been taken into considerations during the masterplan design to ensure sufficient space is allowed for the establishment and healthy growth of trees.

All proposed trees within the Site will be planted at a *mix of 5m and 3m* height at day one. The proposed tree locations have been co-ordinated with the proposed underground utilities to ensure the integrity and principle of the tree strategy can be realised. Wherever needed, underground utility apparatus will be routed outside the tree / hedge Root Protection Areas (RPAs) in ‘service corridors’ throughout the Site, using ducts and shared trenches to facilitate this as a co-ordinated approach.

The lighting, ground conditions and building foundation design are unknown at this stage. Planting may also be subject to changes in order to address any further engineer’s advice on vehicle tracking and sight lines.

5.0

LANDSCAPE MATERIALS

5.1.1 INDICATIVE TREE PALETTE

The following tree species have been selected based on those present within the Site, locally and to provide biodiversity interest:

Feature Trees

- 1 Field Maple - *Acer campestre*
- 2 Common Alder - *Alnus glutinosa*
- 3 Silver Birch - *Betula pendula*
- 4 Downy Birch - *Betula pubescens*
- 5 Cedar - *Calocedrus decurrens*
- 6 Hornbeam - *Carpinus betulus*
- 7 Midland hawthorn - *Crataegus laevigata*
- 8 Hazel - *Corylus avellana*
- 9 European Beech - *Fagus sylvatica*
- 10 Holly - *Ilex aquifolium*
- 11 Scots Pine - *Pinus sylvestris*
- 12 English Oak - *Quercus robur*
- 13 Wild Service Tree - *Sorbus torminalis*
- 14 Rowan - *Sorbus aucuparia*
- 15 Small Leaved Lime - *Tilia x cordata*



5.0

LANDSCAPE MATERIALS

5.1.2 INDICATIVE HEDGE PALETTE

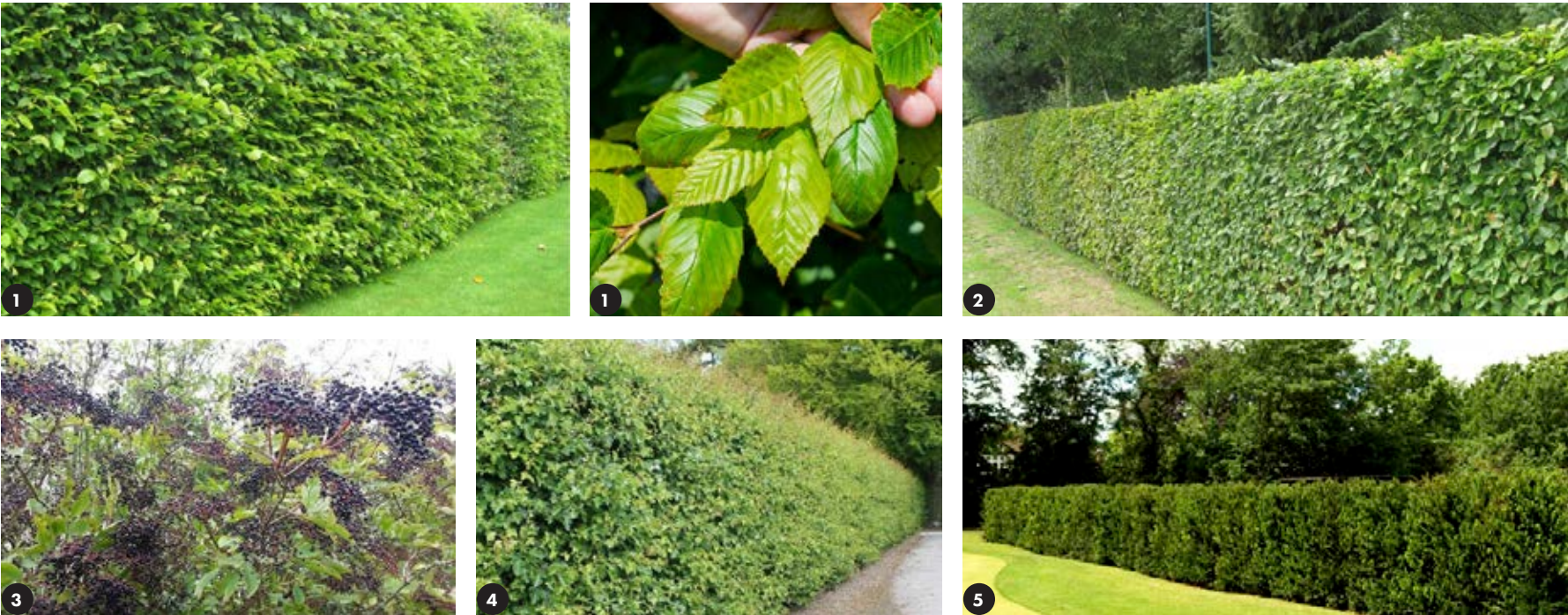
Hedges can be used across the site to bolster existing vegetated boundaries, or create the separation between the public and private realms. The species selected are based on those found on Site or locally and are tolerant of both wet and dry conditions.

Hedge Species for residential gardens

- 1 Hornbeam - *Carpinus Betulus*
- 2 Beech - *Fagus Sylvatica*

Hedge Species for public realm and Site perimeters

- 3 Elder - *Sambucus nigra*
- 4 Hawthorn - *Crataegus monogyna*
- 5 English Yew - *Taxus baccata*



5.1.3 INDICATIVE SHRUB AND BULB PALETTE

A mix of ornamental shrub planting is proposed along the front entrances of each individual dwellings to provide visual attraction and biodiversity interest whilst adding colour year round. A limited palette is proposed due to the scale of the space and to provide a rhythm and unity to the space.

- 6 Mixed Alliums - 'Purple Sensation', 'Violet Beauty'
Botanic Names: *Allium hollandicum*, *Allium Stipitatum*

- 7 Planting combination of Russian Sage and Calamagrstis 'Karl Foerster'
Botanic Names: *Perovskia 'Blue Spire'*, *Feathered reed grass*

- 8 Masterwort
Botanic Names: *Astrantia major 'Large White'*

- 9 Sweet box
Botanic Names: *Sarcococca hookeriana var. humilis*

- 10 Japanese Skimmia
Botanic Names: *Skimmia Japonica*

- 11 Purple top, Chinese fountain grass 'Red Head'
Botanic Names: *Verbena bonariensis*, *Pennisetum alopecuroides 'Red Head'*

- 12 Black lily turf - Ophiopogon
Botanic Names: *Ophiopogon planiscapus 'Kokuryu'*

- 13 Sweet box
Botanic Names: *Sarcococca confusa*



5.0

LANDSCAPE MATERIALS

5.2

HARD LANDSCAPE DESIGN INTENT

The hard landscape materials palette have been selected to fulfil the following:

- To realise the hierarchy of the space - the materials selected are self weathering elements based around a restrained selection of modular units reflecting the materials used in the local area;
- To inform the movement of different users, i.e. private residents and public realm;
- To be suitably robust for the proposed uses of the development and the technical requirements of the Site and its construction.

- 1 Gravel dressed surface treatment to pedestrian paths within the open spaces;
- 2 Block pavers to residential areas and driveways;
- 3 Conservation kerb;
- 4 Asphalt on main access road;
- 5 Grey block pavers for car parking and pedestrian pavement adjacent to the main access road.

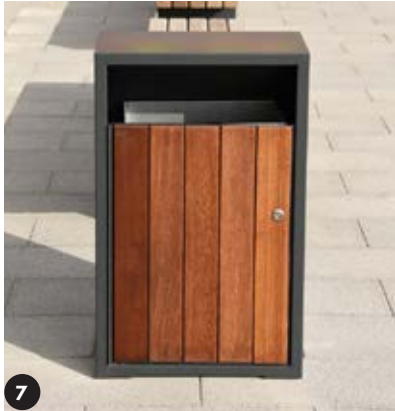


5.1.5

STREET FURNITURE

Street furniture will be carefully considered to provide a simple and elegant palette, with an emphasis on natural materials that provide minimal intrusion into the space.

- 6 Timber bench;
- 7 Timber slated litter bin.



6.0

LANDSCAPE MAINTENANCE AND MANAGEMENT

6.1 INTRODUCTION

The maintenance of the scheme as it progresses both on Site and following completion will be critical to its success. Every effort is being made in this current scheme design to choose the correct species but this effort will be wasted with poor maintenance.

At this outline masterplan stage, it is key to establish the principles of maintenance and the review procedures that the chosen Landscape Contractor will be required to undertake. Detailed landscape maintenance specifications and a landscape, arboricultural and ecological management plan are envisaged to be submitted, including the maintenance of the communal area, pests control and tree pit specifications, to clear planning conditions and are envisaged to encompass the following:

6.2 REVIEW PROCEDURE

Timing and responsibility of reviews and method of reporting to ensure the correct communication channels are set up at the start of the project.

6.3 GENERAL OPERATION

The following principles will need to be established:

Working notice, reinstatement procedures, the use of any specialist firms/ methods for the control of mammalian pests in line with the environmental health policy of the Local Authority and the use of rain water for irrigation means, depths required, watering times and removal of arisings as part of any operation on site. The protection of areas affected by maintenance operations and the safety of Maintenance and Management operatives and members of the general public will need to be explained in a method statement. The Landscape Maintenance Contractor shall give 3 working days notice to the Client before the application of herbicide, the application of fertilizer, watering and each site maintenance visit. The Landscape Maintenance Contractor shall reinstate to its original condition any damage or disturbance to soil structure, planting, grass, fencing, hard landscaping, structures or buildings. The Landscape Maintenance Contractor shall employ specialist firms/methods for the control of mammalian pests in line with the environmental health policy of the Local Authority.

The Landscape Maintenance Contractor shall use portable mains water when watering and will ensure that the planting is wet to the full depth of topsoil, will not damage or loosen plants. With compacted soil loosen or scoop out, to direct water to rootzone. Watering is to be carried out as necessary for the continued thriving of all planting, unless specified otherwise. The Landscape Maintenance Contractor will dispose of arisings as follows; biodegradable arisings to an approved tip, grass cuttings to an approved tip, tree roots and stumps to an approved tip, shrub and tree prunings to an approved tip and litter and non-biodegradable arisings to an approved tip. Extraneous rubbish not arising from the contract work will be collected and removed from site. The Landscape Maintenance Contractor is to protect areas affected by maintenance operations using boards/tarpaulins. Excavated or imported materials should not be placed directly onto the grass.

6.5 EXISTING ESTABLISHED TREES

Remove dead, diseased, decaying and damaged wood. Major pruning only to be undertaken after discussion with the Client. Note that permission will be required to carry out any tree surgery works to the trees that are subject to a tree preservation order. This permission is to be obtained from the Local Authority Tree Officer prior to any works being carried out. Replacement planting, if requested by the Local Authority, is to be with species of local provenance.

6.6 SEMI-MATURE, ADVANCED NURSERY STOCK AND STANDARD TREES

The planting, establishment, pruning and ongoing maintenance of these trees will need to be clearly specified. Prune to remove dead, dying, diseased branches. The Maintenance Contractor is to advise the Landscape Architect of any major works required and if necessary obtain an assessment from an approved arboriculturalist. Remove suckers from base. Check condition of stakes and ties. Adjust as necessary to prevent rubbing of bark and to ensure tree is upright. Firm up trees which have suffered frost heave or are affected by strong winds. Ensure that sufficient water is applied to maintain healthy growth. Dependant on location, apply correct N.P.K. ratio slow release fertiliser (at rates recommended by the manufacturer) on annual or two-yearly basis.

The monitoring of the trees across the Site, within the area of public realm, is to be carried out beyond the initial defects liability period, to successfully realise the tree strategy and to enable the longevity of the trees for the long term and for generations to come. The following specific measures are to be included in the detailed management plan:

- Watering - trees will be watered for the first two years after planting, after which they will generally become self-sufficient. The number of times watering is required will depend on location, weather conditions, climatic / micro-climatic conditions and variations to the growing season and is to be reviewed relative to their position within the site as part of the detailed management plan. In terms of successful establishment, giving the tree a lot of water once a week is of greater benefit than watering every day as this will encourage root development and prevent the tree becoming “lazy”. Over watering is to be avoided as it will push oxygen away from the root system preventing root development.
- Analysis of soil conditions and compaction - this is to be carried out by a specialist contractor to monitor the oxygen levels and soil moisture both within the rootball and surrounding ground. Amelioration recommendations are to be provided and a programme of works agreed accordingly.
- Tree canopy - leaf development, size, colour and the amount of foliage that is within the crown; along with length of new growth and bud development and size of buds is to be monitored. Pruning is to be carried out to promote healthy growth and to remove dead and diseased wood.
- All works to existing and proposed trees to be carried out in accordance with BS:3998 and the latest Forestry and Arboricultural Advisory Group /Health and

Safety Executive safety guides.

In addition, further details relative to the following works are to be set out in the management plan to ensure successful establishment of the proposed tree stock:

- The methods and timings of regular checks, replacement and / or adjustments of tree guys, stakes, ties, guards and grilles.
- The means of refirming trees where required.
- The methods and timings (relative to bird nesting season) of formative crown pruning and lifting work to deliver long term aspirations.
- The measures and timings for the removal and clearing out of dead wood; cutting and pruning operations; and crown lifting and thinning.
- The methods and timings for any tree felling and replacement works.

6.7 SHRUB AND HEDGEROW PLANTING

The planting, establishment, pruning and ongoing maintenance of shrubs and hedgerows both generally and specifically will be clearly specified. The intention is to encourage the establishment of planting to provide continuous cover. Keep all beds weed free by hand weeding and/or use of approved herbicides. Fork over shrub beds as necessary to keep soil loose with no low or high spots. Clear soil and/or mulch from adjacent hard surfaces. Until review period (year 5) apply a slow release fertiliser during March/April in accordance with manufacturers recommendations. Prune shrubs to remove dead, damaged or diseased branches, dead flower heads, etc. Prune to maintain shape appropriate to the species and planting type with additional shaping or height maintenance. Apply sufficient water to maintain healthy growth. Maintain beds rubbish and litter free.

6.8 GRASS AREAS

The planting, establishment and ongoing maintenance of grass areas and any proposals for replacement will need to be clearly specified. Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt. Prevent waterlogging and compaction. Repair damage due to trampling, abrasion or scalping during mowing and fallen leaves remove regularly to maintain a neat appearance. Before mowing The Landscape Maintenance Contractor is to remove litter, rubbish and debris. Following mowing the Landscape Maintenance Contractor is to leave a neat and even finish, without surface rutting, compaction or damage to grass. Neatly trim around obstructions and sweep clear and remove arisings from adjoining hard areas. Do not use mowing machinery closer than 100mm to tree stems. Use nylon filament rotary cutters and other hand held mechanical tools carefully to avoid damage to bark.

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