



Concrete benches



Bins



Bollards



Resin bound gravel tree pit



Tree grilles



Cycle stand



Timber benches

SOFT LANDSCAPE STRATEGY

PLANTING STRATEGY

The soft landscape strategy of the Stag Brewery development includes several layers of planting typologies including streetscapes, plazas and squares, courtyards, riverside littoral planting and incorporation of existing trees.

The main structural planting of trees will comprise lines of feature trees defining one or both edges of the main access routes – Ship Lane, Green Link and Thames Street.

Street trees will also be installed along residential streets, as well as augmenting tree planting on Lower Richmond Road and Mortlake High Street. A mix of perennial shrub and groundcover planting will be provided throughout all softscape areas, with mass planting and screen planting to suit use of each area. Planting mature heights will take into account safety and secure by design parameters to ensure general safety and to maintain sightlines and passive surveillance opportunities.







Soft landscape strategy for plazas and squares in the development will provide for a range of functions and activities, as well as providing resting places, shade and seasonal celebration. Residential courtyards will provide green amenity open space for residents and visitors, as well as natural play opportunities for children.

Littoral plant species are used in the areas close to the river edge, responding to existing riverside vegetation. This plant selection emphasises the riverside location and integrates the river edge living environment into the development. A mix of native, locally adapted and exotic plants are proposed to provide increased biodiversity and a sustainable mix of plants with improved drought resistance and longevity.

Good quality existing trees around the site will add valuable character to the site, and together with the soft landscape strategy, will deliver a well-connected green network in and around Stag Brewery development.

PLANT PALETTE

Legend

-  Lawn
-  Mass Plantings
-  Hedges
-  Rain Gardens
-  Site Application Boundary
-  School Application Boundary





Lawn



Lawn



Hedges



Rain Gardens



Rain Gardens



Mass Planting



Mass Planting

MASS PLANTING: TYPICAL MIXES

SHADE PLANTING



Aconitum spp.



Lunaria



Vinca difformis



Saxifraga umbrosa



Aster divaricatus



Helleborus niger



Tiarella spp.



Persicaria affinis



Digitalis



Blechnum orientale



Polypodium



Polystichum

SUN PLANTING



Allium



Eremurus



Agastache



Osteospermum



Armeria maritima



Aster



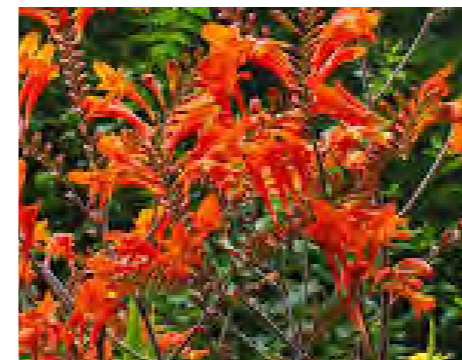
Lupinus



Digitalis purpurea



Perovskia



Crocsmia



Helianthemum



Thymus vulgaris

RAIN GARDEN PLANTING



Myosotis Scorpioides



Iris Pseudacorus



Iris Versicolor



Mentha Aquatica



Angelica Purpurea



Silene flos-cuculi



Phalaris Arundinacea



Juncus Articulatus



Carex Rostrata



Wildflower Borders



Reed Borders



Wildflower Borders

UNDERSTOREY / GROUNDCOVERS



Cyperus Involucratus



Galium Odoratum



Zantedeschia Aethiopica



Francoa Sonchifolia



Dianella Tasmanica



Heuchera Cylindrica



Luzula Nivea



Arum Pictum



Crinum Asiaticum



Asarum Europaeum



Asplenium scolopendrium



Adiantum Aleuticum

TREE PLANTING

STRATEGY:

The proposed tree strategy can be broken down into the following landscape types and will be defined by the tree species shown in the indicative planting list and the tree strategy plan:

- 1) Retained trees: on-going husbandry and canopy management of the existing trees, alongside a new augmented tree planting to emphasise and enhance the amenity impact of any blocks of planting.
- 2) Large feature trees underpin pedestrian avenues and squares, framing the urban sphere by creating a soft backdrop and creating a shaded threshold to any main spaces; Clusters of small trees are informally scattered in large green area to provide shade and define more intimate spaces within.
- 3) The Courtyards: trees will be chosen for their hardiness in these conditions, light weight and light dappled canopy to ensure their suitability for the conditions encountered.
- 4) Structural Street Tree Planting: along the streets, tree planting is to be predominantly native species with columnar canopies, allowing the trees to be situated in close proximity to the building massing & thereby providing shade and shelter from wind and giving seasonal interest in leaves, bark and form. Interspersed softscape bays and corners are populated with clusters that unify the street scene and define their own character.
- 5) On Chalkers corner specific attention has been paid to the pollution absorbing potential that the trees have to offer adjacent to Chertsey Court - species are chosen that possess excellent retention properties and also the form and habit to contribute to an absorbent vegetation screen that replaces and improves greatly on the previous mixed quality screening as part of the highways improvement works. (See separate Chalkers Corner proposals)
- 6) Augmented tree planting in softscape areas throughout the wider masterplan: these are predominantly of a smaller habit, native species and mixed forms with some multi-stem species that have good seasonal qualities, suited to the spaces and anticipated light levels.
- 7) Specimen trees: will be interspersed throughout the development in selected parts of pedestrianised areas and in locations which present a good opportunity to host and display trees of particular merit.
- 8) Fruit /berry and nut bearing trees will be located in a grove in the pocket park below the school, providing community access and educational opportunities for students.

The selection will conform to the Borough's Greenscape Guidance - being a varied palette of predominantly native trees, with a sourcing preference for UK stock with adaptability to climate change, and comments received in consultation with LBRuT officers and the arboriculturalists engaged for the submission taken into account. Further information can be found in the environmental statement and appendices.



TREE PLANTING STRATEGY DIAGRAM



EG: CORYLOPSIS PAUCIFLORA



EG: BETULA UTILIS V. JACQUIMONTII



EG: CARPINUS BETULUS



EG: ALNUS INCANA



EG: ACER CAMPESTRE



EG: BETULA PENDULA



PLAY STRATEGY

REQUIREMENTS AND OBJECTIVES

Playful Landscapes:

Integration of play and playable landscapes is a major element of the development of the landscape and public realm for this site. The site is designed to limit and manage vehicular traffic within the site, with access for service and emergency vehicles only at ground level. All residential, retail and visitor cars are located at basement level, providing a pedestrian dominated environment through the Phase 1 development.

Play space for all age groups is proposed across the redeveloped Stag Brewery site and consideration of existing facilities in the area has influenced the approach to provision of play. The inclusion of a Secondary School within the site is also taken into account, with the intention of the developer to establish a community agreement for shared access to sporting and play facilities for the local community - on site and within the precinct.

The calculated child yield (based on unit numbers and mix) has informed the quantum and distribution of space allocated for play and are calculated separately for Development Area 1 and Development Area 2. Residents will have access to play within the private and public amenity space of the masterplan, and in the wider context of the proposed community park, Mortlake Green and surrounding area.

The mix and unit number for Development Area 2 has not yet been fixed, therefore the playspace has been generated on an assumption in order to enable the scheme to be designed with sufficient capacity. It is worth pointing out the Affordable mix isn't fixed and we have adopted a worst case approach.

The play strategy accords to current best practice guidelines for play, including the London Supplementary Planning Guidance "Providing for Children and Young People's Play" and Play England's "Design for Play: A guide to creating successful play spaces". London Play (GLA) aims for every child in London to have quality, accessible and inclusive play opportunities.

Objectives for Play:

The landscape masterplan objectives for play provision include:

The integration of play provision within an overall open space strategy, recognising that play can take place in a variety of settings which may or may not involve equipment;

The provision of opportunities for accessible play to occur within the whole environment that a child occupies;

Ensuring a well-defined and overlooked 'playable route' along key pedestrian connections;

The creation of locally accessible 'greenspace', including playable elements and seating opportunities;

Exploring opportunities to introduce natural elements of risk and challenge within play provision while considering safety and maintenance;

The concept of a 'Playable Route' or 'Play on the Way' within the 'homezone' where opportunities for informal play are woven into the proposed public spaces rather than providing stand alone fenced off play areas;

Improvements to the nearby play areas in the park to accommodate the extra demand.

Access to river based activities - rowing or canoeing

Development Area 1 - Land to the east of Ship Lane

Assessing child occupancy and play space requirements

Size of your development:

Number of FLATS	Studio	1 bed	2 bed	3 bed	4 bed	5 bed	Total
Social rented/affordable	0	0	0	0	0	0	0
Intermediate	0	0	0	0	0	0	0
Market	0	65	232	138	8	0	443
Total	0	65	232	138	8	0	443

Number of HOUSES

	1 bed	2 bed	3 bed	4 bed	5 bed	Total
Social rented/affordable	0	0	0	0	0	0
Intermediate	0	0	0	0	0	0
Market	0	0	0	0	0	0
Total	0	0	0	0	0	0

Proportion of children

	Number of children	%
Under 5	40	57%
5 to 11	21	30%
12+	9	13%
Total	70	100%

Play space requirements

GLA benchmark (sqm)*	Alternative local benchmark (sqm)**	Total (sqm play space) required
10		695.6
	10	695.6

Development Area 2 - Land to the west of Ship Lane (excluding the school)

Assessing child occupancy and play space requirements

Size of your development:

Number of FLATS	Studio	1 bed	2 bed	3 bed	4 bed	5 bed	Total
Social rented/affordable	0	17	46	43	6	0	112
Intermediate	0	4	11	10	1	0	26
Market	0	36	106	67	3	0	212
Total	0	57	163	120	10	0	350

Number of HOUSES

	1 bed	2 bed	3 bed	4 bed	5 bed	Total
Social rented/affordable	0	0	0	0	0	0
Intermediate	0	0	0	0	0	0
Market	0	0	12	12	0	24
Total	0	0	12	12	0	24

Proportion of children

	Number of children	%
Under 5	94	45%
5 to 11	73	34%
12+	44	21%
Total	211	100%

Play space requirements

GLA benchmark (sqm)*	Alternative local benchmark (sqm)**	Total (sqm play space) required
10		2113.0
	10	2113.0

* GLA benchmark standard=minimum of 10sqm of dedicated play space per child

** Borough's local benchmark

PLAY STRATEGY

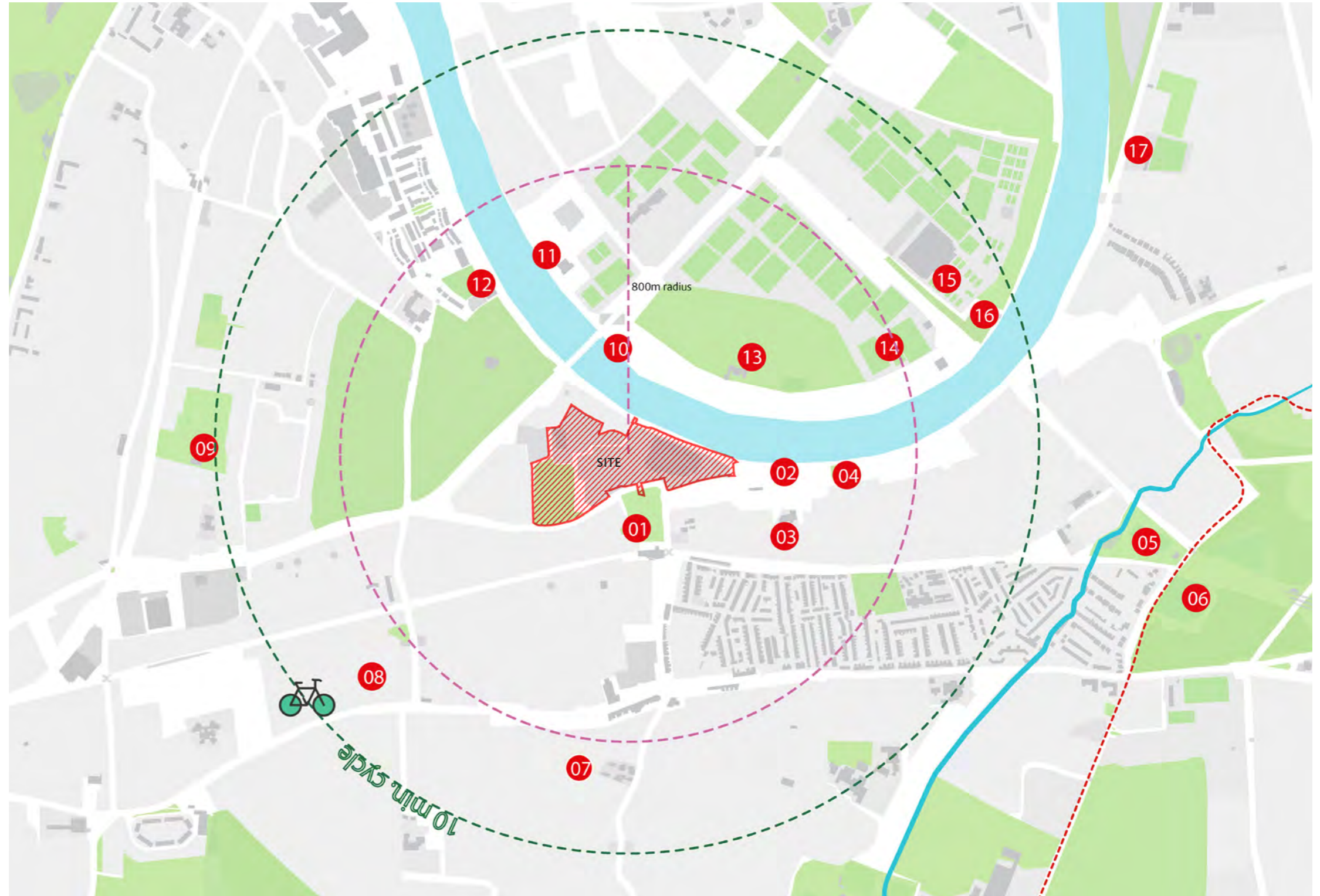
EXISTING RECREATION FACILITIES

The site benefits from a number of existing surrounding open spaces and recreational facilities as shown. In particular, the long established open space of Mortlake Green provides a significant landscape setting and recreational asset to the site and the design maximises this connection.

Discussions with council indicate the majority of these, including children's playgrounds, are used to capacity. Planning of the development has therefore endeavoured to provide for all stipulated play requirements within the site. Facilities within the Secondary School have been considered, in part, as the Applicant's intention is to establish a Community Agreement for use of the recreational facilities outside school hours, to the benefit of the site population and the wider community.

Legend

- 01 Mortlake Green
- 02 Tapestry Court
- 03 Mullins Path Open Space
- 04 Riverside Open Space
- 05 Vine Road Recreation Ground
- 06 Barnes Common Local Nature Reserve
- 07 Palewell Common & Field
- 08 Tangier Green
- 09 North Sheen Recreation Ground
- 10 Tideway Sculler School
- 11 Quintin Boat Club
- 12 Putney Town Rowing Club
- 13 Dukes Meadows Golf Club
- 14 Chiswick Rugby Club
- 15 Chiswick Riverside Health & Racquet Club
- 16 Barnes Bridge Ladies Rowing Club
- 17 Barnes Squash Club



EXISTING RECREATION FACILITIES

PLAY STRATEGY

PROPOSED PLAY DISTRIBUTION

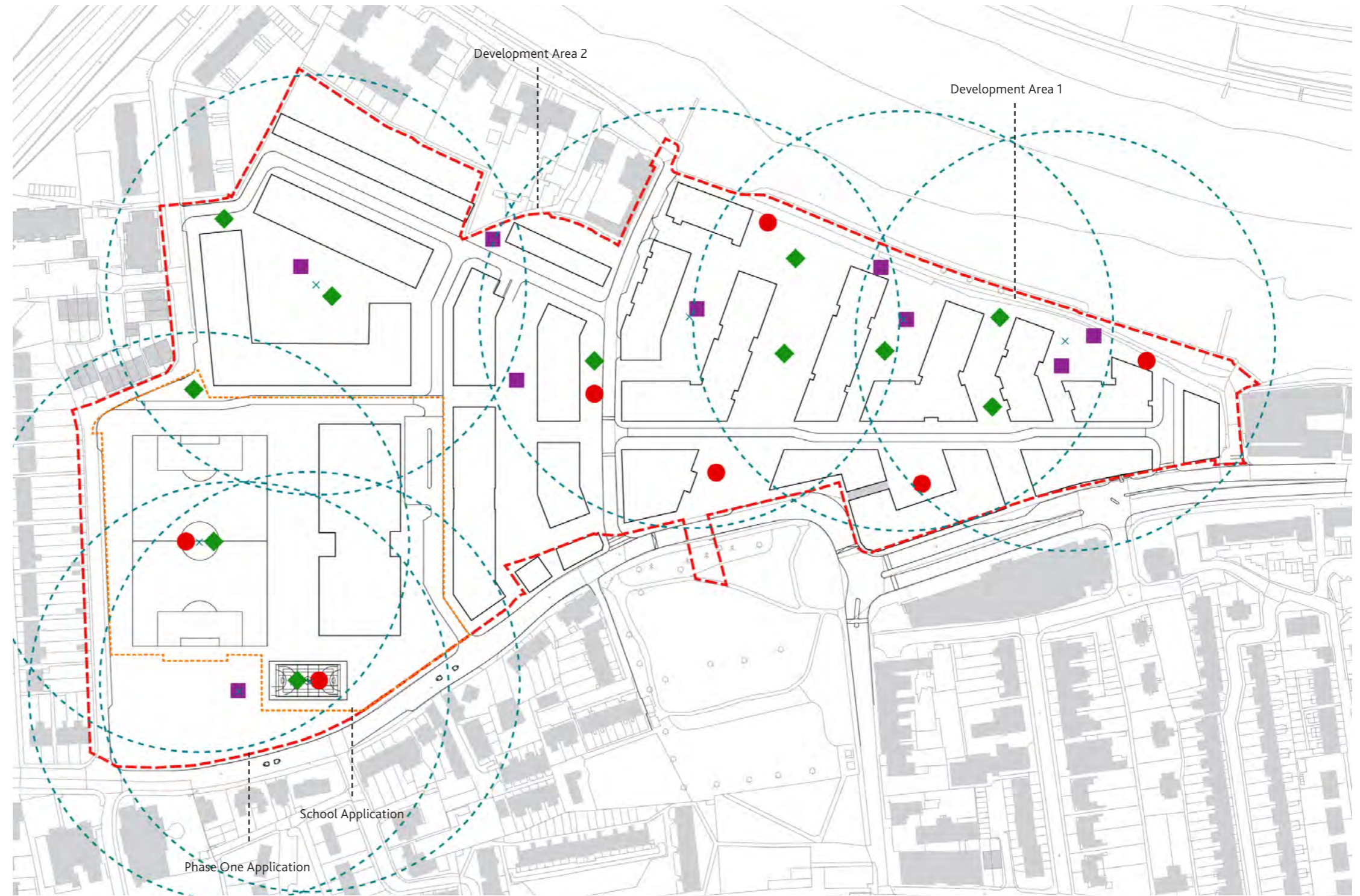
The provision and distribution of play facilities within the site has been developed within the overall Masterplan and aligns with recommendations of GLA (Play and Informal Recreation SPG 2012) and London Borough of Richmond upon Thames (Planning Obligations SPD 2014).

Play facilities for different age groups are positioned within residential courtyards, parks, plazas and open space areas around the site, to achieve the required areas of play and the distribution related to residential apartments, as set out below:

- » Doorstep Play (Under 5) within 100 metres of residential units
- » Local Playspace (5-11yrs) 400 metres
- » Neighbourhood Space (12+yrs) 800 metres.
- » Play on the way (All ages)

This diagram indicates proposed location of play facilities for each age group and 100m walking distances from each location. Play elements and facilities are provided in a range of forms within the public and private realms of the development, including designated and fenced playgrounds, unfenced but contained play spaces with a range of play elements and carer seating, topographic variation and play opportunities in the landscape (within planting areas) and 'play on the way' elements within circulation spaces and public realm areas. Proposed development of a rowing club facility in the base of Block 09 at the eastern end of the site with direct link to the tow path and Bulls Alley slipway will provide additional recreational functions for older children.

Refer to more detailed precedent studies in this report.



PLAY FACILITIES DISTRIBUTION (BY AGE GROUP)

Legend

- Under 5 Years
- ◆ 5 - 11 Years
- 12 + Years
- 100m radius
- - - Site Application Boundary
- - - School Application Boundary

PLAY STRATEGY

PROPOSED PLAY PROVISION

Following definition of the housing mix (market and affordable) and the final numbers of units, required areas of play space have been determined based on current guidelines. Based on GLA requirements, a target of 2,810m² of dedicated amenity play space is required within the site (Development Area 1 and Development Area 2), while LBRuT play standards require a target of 6,631m². While the current masterplan allows to exceed GLA required play space, without considering the school facilities, these facilities enable totals to almost achieve the high target of LBRuT.

The proposed configuration of play space for different age groups has been developed as shown on this diagram.

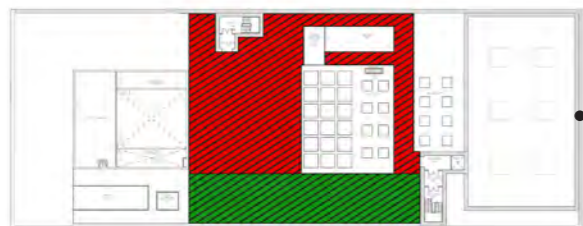
Table 1 indicates targets and provision of play spaces for different age groups. As shown, play provision exceeds the requirements of GLA SPG.

Calculation of the school facilities (indoor and outdoor) a weighted contribution has been included in figures for 5yrs and above, in line with the intention to arrange a community use agreement with the residential development community. We have calculated these facility areas on the basis of intermittent use outside school hours (during week nights and weekends) as 2/7 of the actual space.

Calculation of play space is also shown excluding allocation of school facilities.



SCHOOL INDOOR MUGA /ACTIVITIES HALL



SCHOOL ROOF PLAYSACE



CAPTION

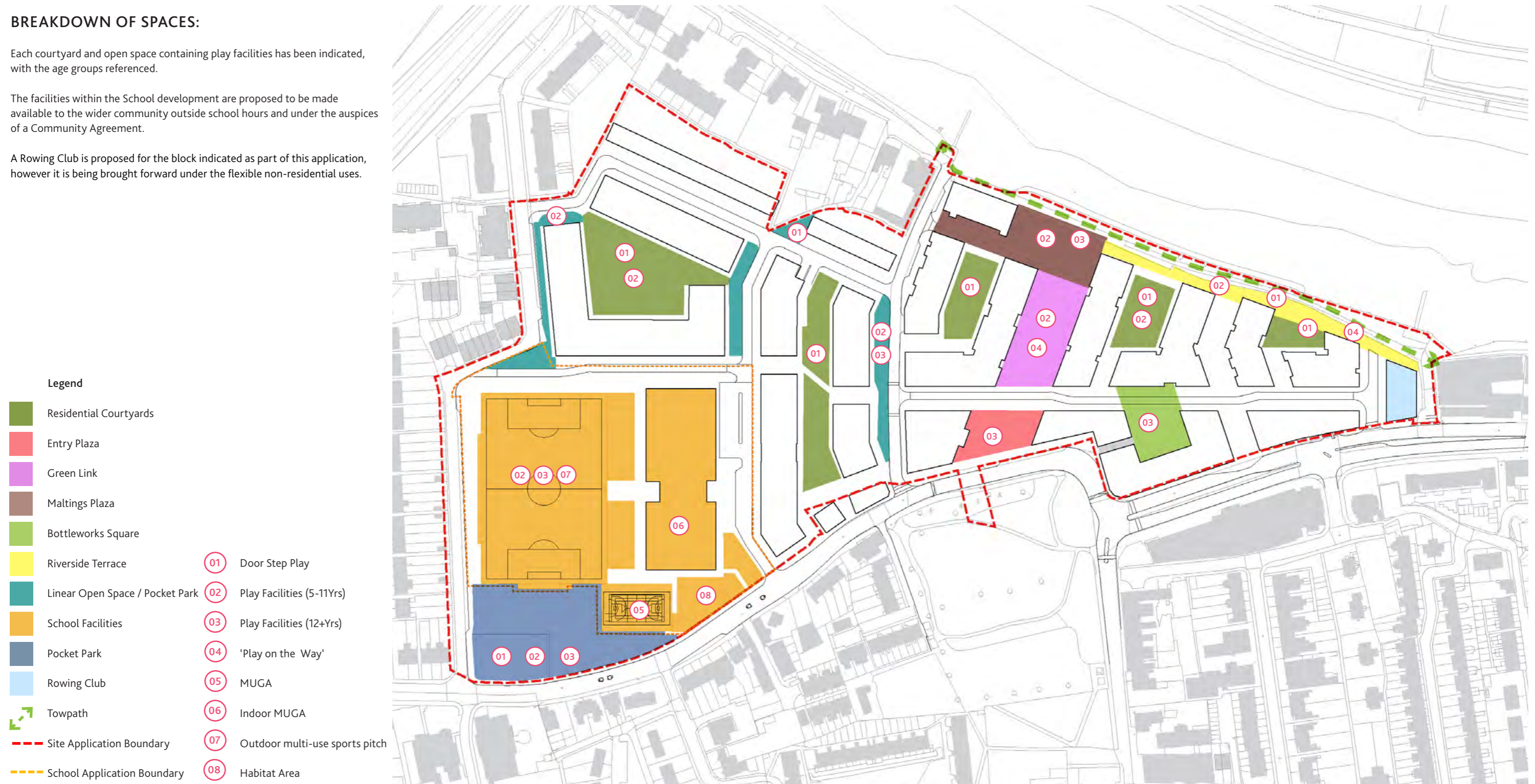
PLAY STRATEGY - SITE-WIDE APPROACH

BREAKDOWN OF SPACES:

Each courtyard and open space containing play facilities has been indicated, with the age groups referenced.

The facilities within the School development are proposed to be made available to the wider community outside school hours and under the auspices of a Community Agreement.

A Rowing Club is proposed for the block indicated as part of this application, however it is being brought forward under the flexible non-residential uses.



PLAY STRATEGY

TYPES OF PLAY ELEMENTS

The design concept for the public realm is to facilitate incidental playable space throughout the scheme with dedicated areas to cater for 0-18yrs through Doorstep and Local Playable Spaces as defined by the SPG.



SENSORY



CONSTRUCTION



CHALLENGE



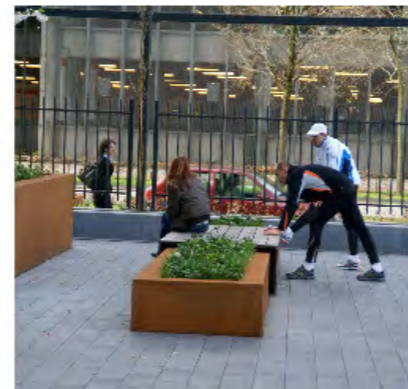
TOPOLOGY



TOPOLOGY



SCULPTURAL



INCIDENTAL / SAFE ROUTES



FIXED PLAY EQUIPMENT



PLANTING



SEATING



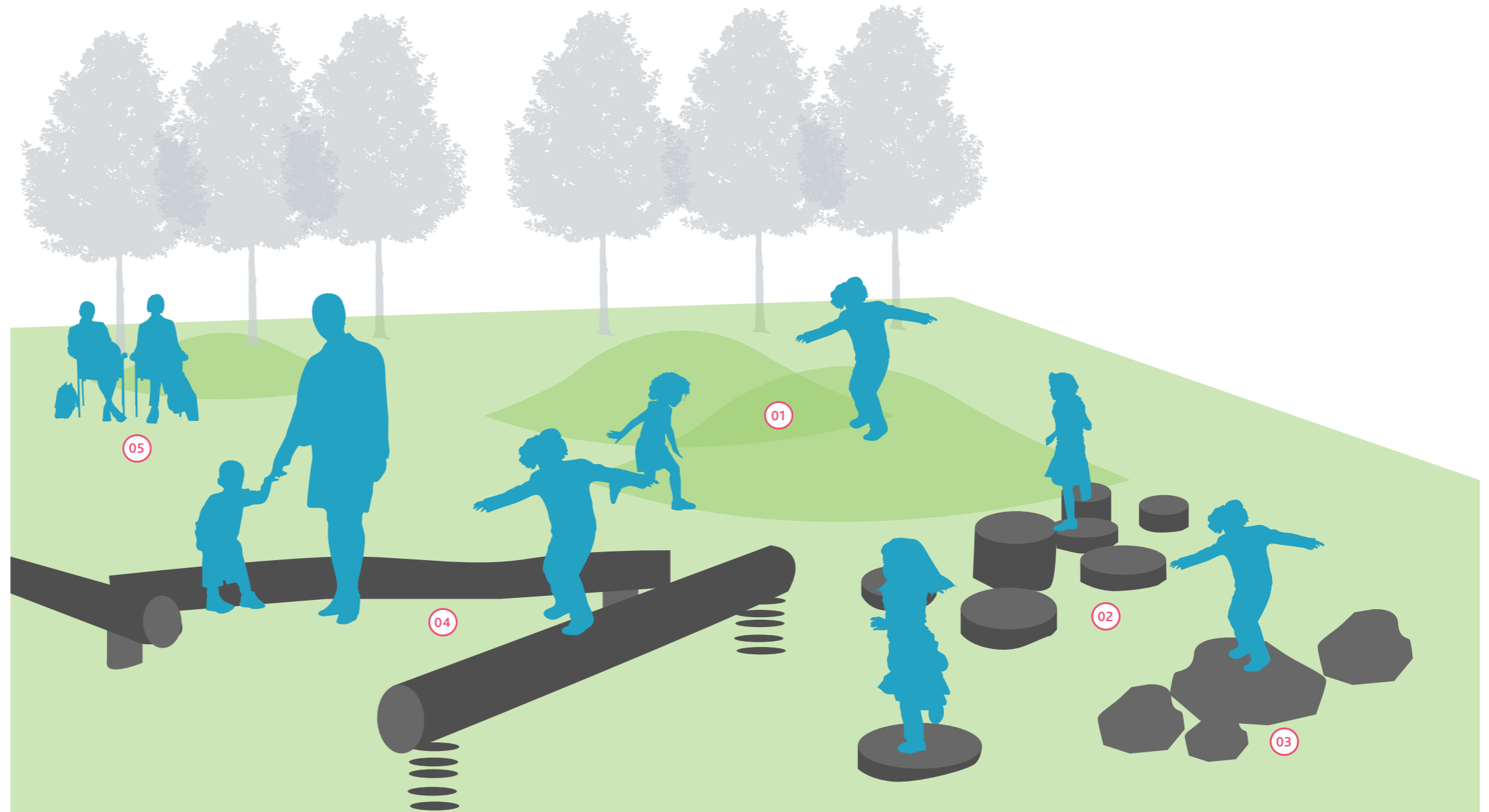
SPORTS EQUIPMENT

PLAY STRATEGY

DOORSTEP PLAY (0-4 YEARS)

Opportunities for informal play including lawn, mounds, and natural features. Play elements would include:

- » Within 100m of each residential apartment
- » Land forms including small hillocks and grassed mounds (1)
- » Climbing, stepping and jumping blocks set within grass areas (2)
- » Small scale play equipment with softfall surface material (3)
- » Stepping stones for balance and clambering (4)
- » Sensory play elements (5)
- » Seating in close proximity for parents and carers



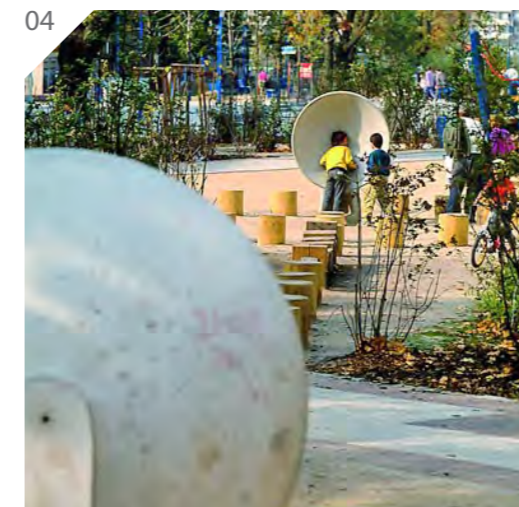
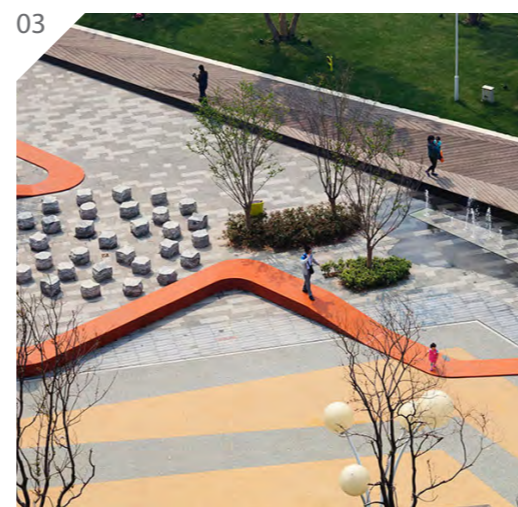
PRECEDENT IMAGES ABOVE SHOWING DESIGN INTENT.

PLAY STRATEGY

LOCAL PLAYSPACE (5-11 YEARS)

Opportunities for informal playable landscape features as well as more formal play elements set within area(s) of soft play surface to cater for older children:

- » Within 400m of doorstep
- » Natural play features as for 0-5 years
- » Low walls, seats and stepping stones for balance and clambering (1)
- » Small climbing structures (2)
- » Landscaping to create natural feel, including changes in level (3)
- » Equipment that allow children to swing, slide and climb (4)
- » Sensory play elements (5)
- » Seating areas adjacent to equipment and play space
- » Water play (if possible)



PRECEDENT IMAGES ABOVE SHOWING DESIGN INTENT.

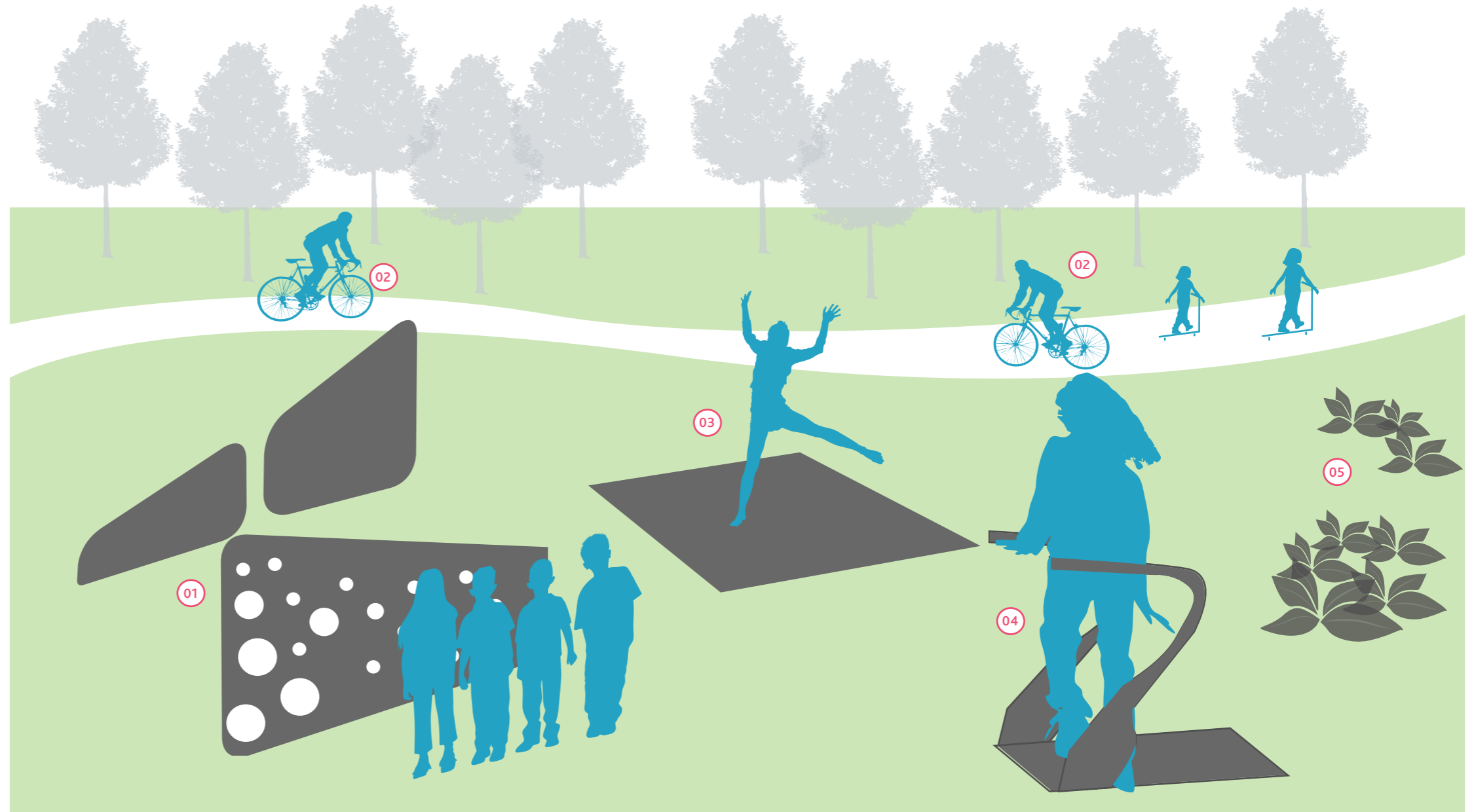
PLAY STRATEGY

12+ YEARS

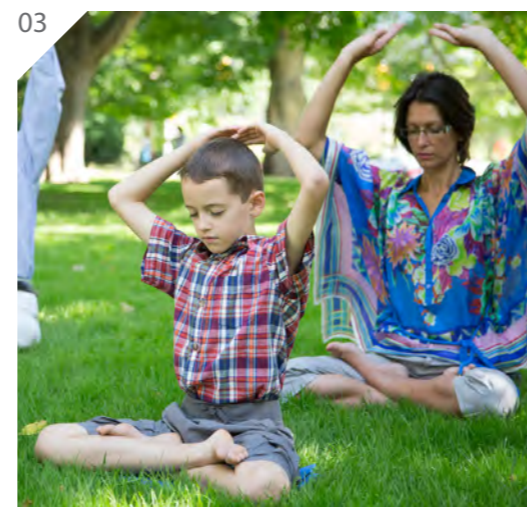
Opportunities for teenagers to play can be integrated into public realm landscapes of the site such as Malting Plaza, Entrance Plaza and Bottleworks Square.

These facilities can include:

- location preferred within 800m of doorstep
- Table tennis tables (1)
- Outdoor gym facilities / Jogging and cycling trails (2)
- Spaces and facilities for informal sport or recreation activity e.g. climbing walls or boulders, exercise trials, outdoor exercise equipment (3)
- Shared surfaces- suitable for skating, cycling or roller-blading (4)
- Multi-Use Games Area (MUGA) (5)
- Multi-use all weather sports pitch (School)
- Seating areas on the edge of the activity spaces
- Boules, piste and elderly/ family play
- Topographic variation within landscaped areas
- Rowing Club or other organised sporting facilities / groups



PRECEDENT IMAGES ABOVE SHOWING DESIGN INTENT.



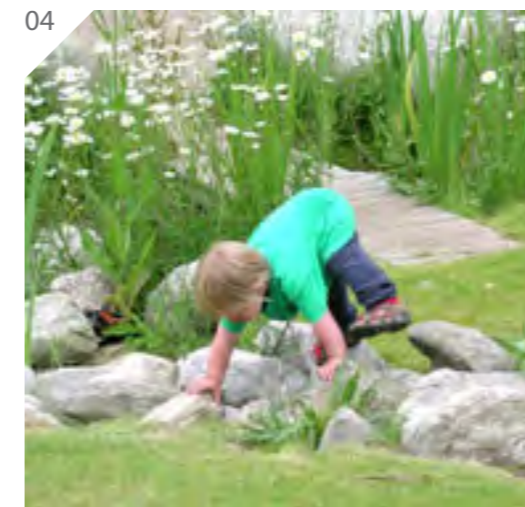
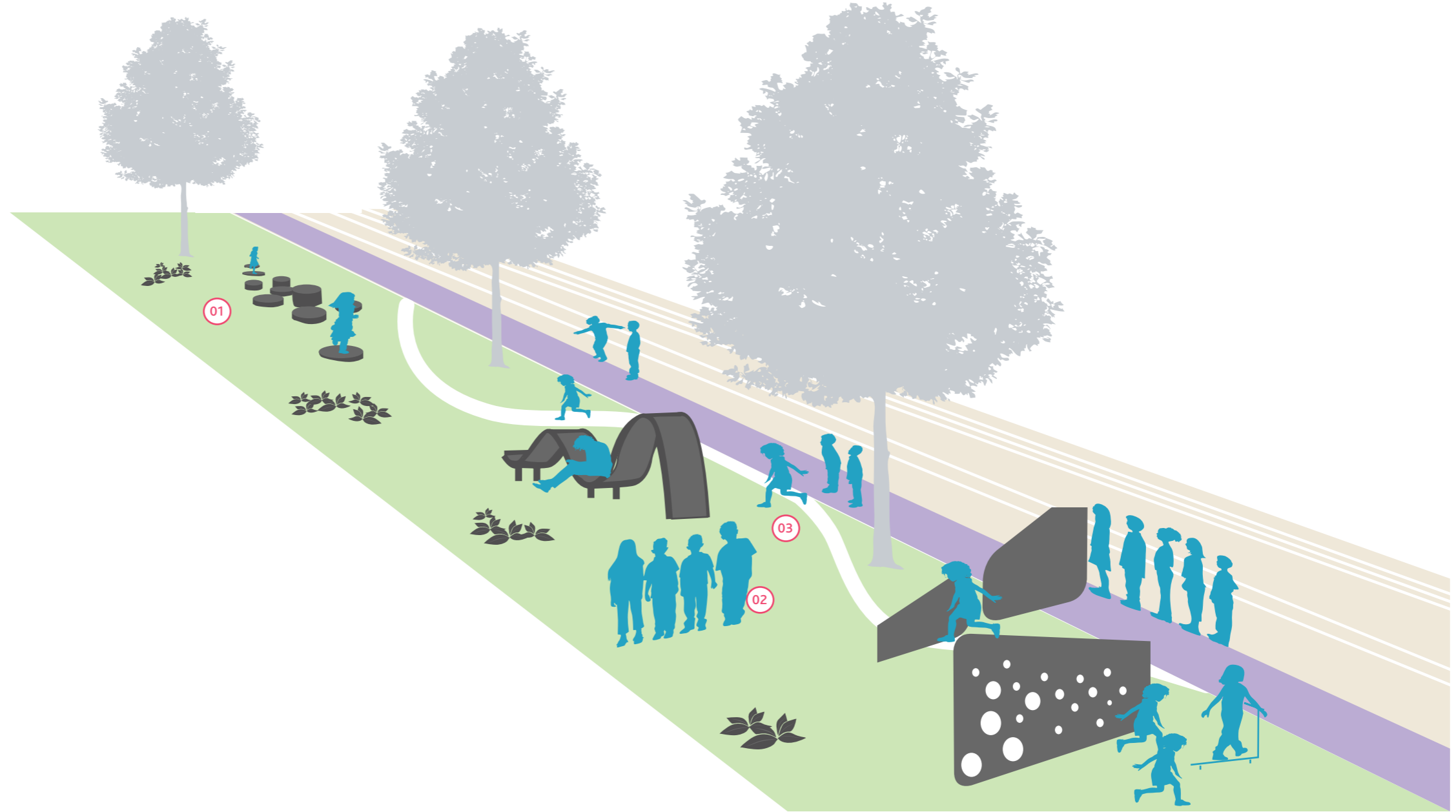
PLAY STRATEGY

PLAY ON THE WAY (ALL AGES)

Opportunities for children to play can be integrated into public realm landscapes of the site such as William's Lane and Aynescombe Lane.

These facilities can include:

- Equipment integrated into the landscape that allow children to jump, climb and explore (1)
- Small scale play equipment (2)
- Equipment e.g.. climbing walls or boulders, exercise trials (3)
- Sculptural play equipment that provides opportunities for play as well as being aesthetically pleasing (4)



PRECEDENT IMAGES ABOVE SHOWING DESIGN INTENT.

PLAY STRATEGY

DOORSTEP PLAY FACILITIES FOR RESIDENTIAL COURTYARDS:



PRECEDENT IMAGES BELOW SHOWING DESIGN INTENT:



LOCATION PLAN



PLAY STRATEGY

'PLAY ON THE WAY' ELEMENTS WITHIN GREEN LINK



PRECEDENT IMAGES BELOW SHOWING DESIGN INTENT:



PLAY STRATEGY

'PLAY ON THE WAY' ELEMENTS IN STREETScape/RIVER TERRACE



PRECEDENT IMAGES BELOW SHOWING DESIGN INTENT:



LOCATION PLAN



PLAY STRATEGY

WATER PLAY AND WATER JETS AT MALTINGS PLAZA



LOCATION PLAN

PRECEDENT IMAGES BELOW SHOWING DESIGN INTENT:



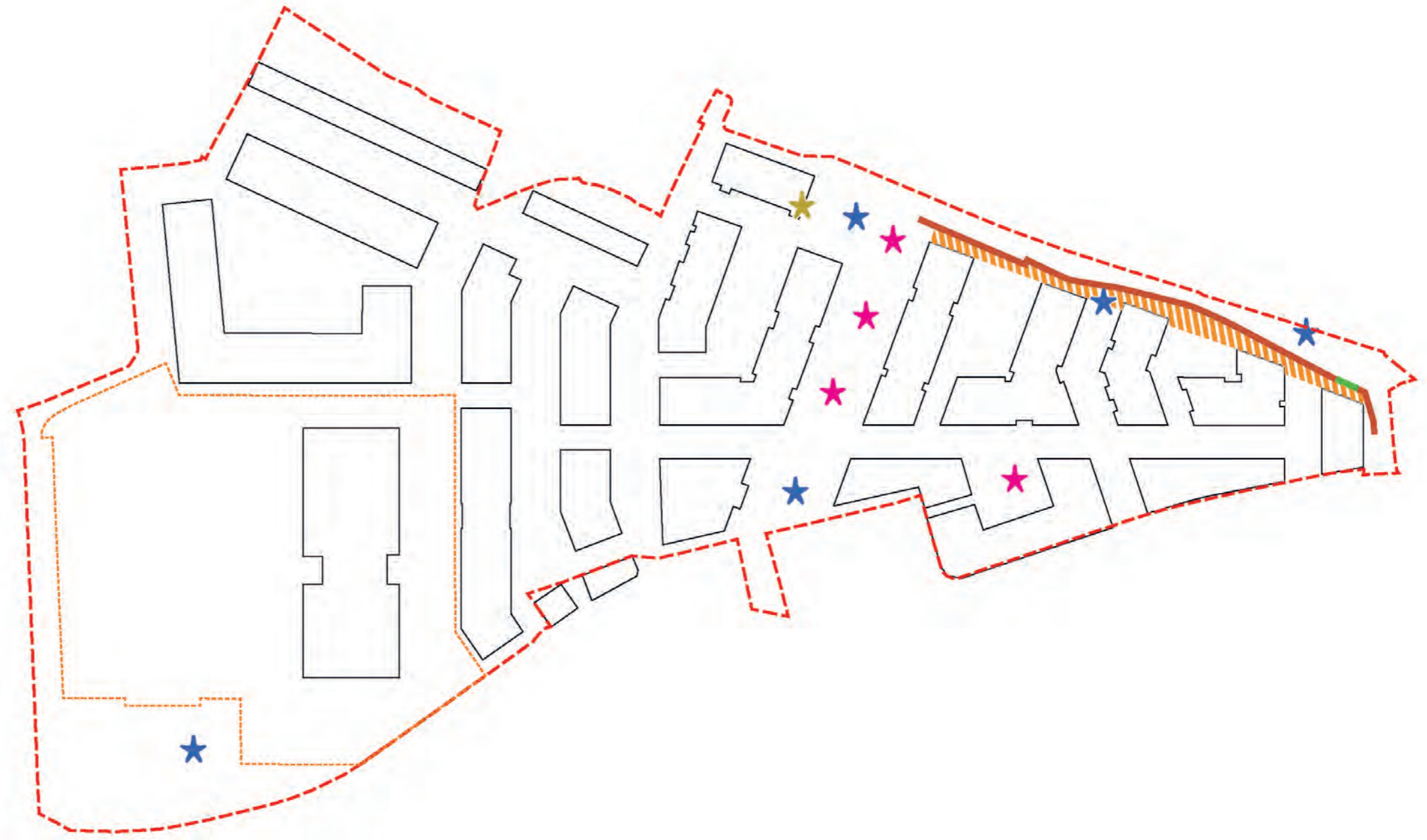
HERITAGE AND PUBLIC ART STRATEGY

STRATEGY:

Opportunities exist within the landscape and public realm of the masterplan to integrate public art that will provide reference to the long and intricate history of the site, the riverside location and add a layer of interest and animation to the user experience. The initial strategy is to identify potential positions for interventions along key routes and in locations that tie in with the site-wide art strategy, potentially including:

- Sculptures at major focal points
- Appropriate found objects from the brewery
- Artistic play installations
- A history trail – with cast or etched narrative panels
- Temporary happenings and installations related to the project,
- Paving art, light and sound pieces, elements within street furniture,
- Signage, graphics and branding

The proposal would be to work with a curatorial specialist in the next phase of the development to identify and commission artists to bring this vision to life.



Legend

- ★ Locations of Potential Art Installations
- ★ Heritage Celebration Through Public Realm (incorporated in hardscape and street furniture design)
- ★ Potential Location for the War Plaques
- ▨ Riverside Art Trail
- ▬ Section of Existing Riverwall Partially Retained
- ▬ Watney's Brewery Gates Relocated
- - - Site Application Boundary
- - - School Application Boundary



BIODIVERSITY STRATEGY

BIODIVERSE ROOFS:

It is proposed to implement extensive green / brown roof systems on a number of the buildings with flat roofs, exploiting the ecological potential of these upper levels. A percentage of the roof space on new buildings in the development has been designed as extensive green or brown roofs, to provide biodiversity and energy benefits, as well as contributing to stormwater drainage and short term attenuation storage. While it is acknowledged that the LBRuT recommendation of 70% of roofs being allocated to green roofs is not achieved, we have provided over 50% of green or brown roofs and have endeavoured to maximise suitable biodiversity through the green and brown roof strategy illustrated, as well as significant planting areas and retained vegetation throughout the site. The roofscape is also utilised to provide PV cells, air conditioning and other mechanical plant and lift overrun structures, together with maintenance access.

Green and brown roofs provide beneficial insulation to buildings and a degree of infiltration and storage of rainwater, while adding to the biodiversity of the site with a range of plant types, habitats for various insects and invertebrates and potentially birds and bats. A number of bat and bird boxes and bricks will be integrated into the roofscape and informal habitats created with rocks and gravel surfaces to brown roof sections.

Green roofs include a wildflower and native grasses mix and are designed as a sustainable, biodiverse roofscape and a pleasant visual outlook for surrounding higher buildings. This light weight roof system will assist in absorbing rainwater as well as increasing the biodiversity of the site by providing additional foraging and habitat for insects and birds.

Brown roofs are accessible for maintenance purposes and will incorporate PV cells in some areas, as indicated in Architectural and MEP drawings. Each roof will be seeded with plant species collected from the site or nearby, to boost local endemic habitat and foraging for local species. Certain features will be introduced to maximise potential for biodiversity and habitat for target species. These will include log piles, slabs or twigs gathered from the local area, combined with bird and bat boxes noted below. Where possible, the substrate depth will be varied to provide opportunities for small pools of water to collect on the roof.

For Development Area 2, biodiverse roofs will be incorporated using same principles as above and additional details will be provided in detail design stage.

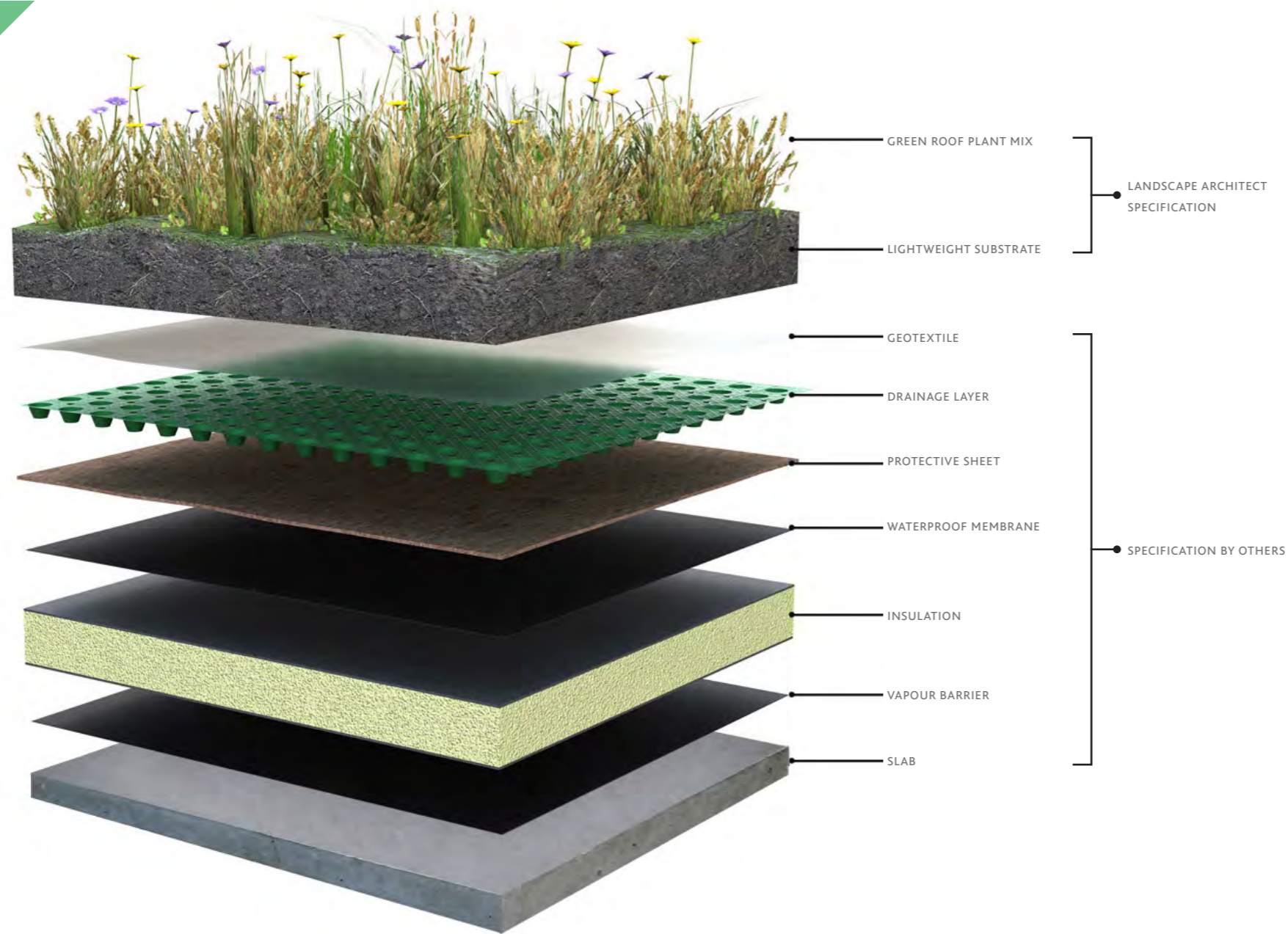


Legend

■ Biodiverse Roof (total 2,265m²)

--- Site Application Boundary

--- School Application Boundary



Precedent Image of Green Roof Detail



GREEN ROOF WILDFLOWER SPECIES



Alliaria petiolate



Echium vulgare



Papaver rhoeas



Galium verum



Daucus carota



Prunella vulgaris



Silene vulgaris



Rhianthos minor

BIODIVERSITY STRATEGY

BIRD AND BAT BOXES:

Bat boxes are integrated into the green and brown roofs on various buildings of the development (detailed component) with a total of ten (10) boxes, tubes or bricks provided in association with soft landscape treatment on these roofs. Boxes are to be oriented between south-east and south-west to suit use.

Bird boxes are also provided on roofs closer to the River Thames, including three (3) Schwegler 2H Nest Boxes for black redstarts and seven (7) additional boxes for other bird types. These are to be oriented east or west to suit use. Plant species have been selected to suit a variety of habitats and micro-climatic conditions across the site.

These will include a range of plants suitable as food or habitat plants for a wide range of fauna, including bee attracting flowering plants.

For Development Area 2, the biodiversity strategy will utilise the same principles as above and will be provided in detail design stage.



Legend

- Bird Boxes
- Bat Boxes
- Hibernaculums
- Roof Habitat
- - - Site Application Boundary
- - - School Application Boundary



Bird boxes



Bat box



Bees at work



Bat box



Wood log piles



SUSTAINABLE URBAN DRAINAGE

SUSTAINABLE URBAN DRAINAGE STRATEGY:

RAIN GARDENS

A 'rain garden' forms a significant landscape feature within the central Green Link, draining one side of the pavement directly into a planted storage 'trench' which ultimately connects to the stormwater attenuation system. This feature provides an effective sustainable drainage system while creating an obvious ecological feature in the public realm, accentuating the visibility of sustainable measures taken in the development. This feature provides a link to the master planning strategy for ecological development and sustainable drainage and allows surface water to be collected in mass planting areas along the Green Link.

BIODIVERSE ROOFS

Green and brown roofs on the majority of buildings across the site provide biodiversity and also contribute to the rainwater attenuation. Surface treatments in the public and private realm are proposed as predominantly permeable, with soft landscape, turf and grasses, together with permeable pavements of gravel (self-binding or bonded) contrasting with hard paving surfaces and assisting drainage of stormwater.

IRRIGATION

An irrigation system will be provided to all soft landscape areas (planting and grassed) excluding green or brown roofs. This will include soil moisture monitors and a programmable control system to ensure efficiencies in operation and water management.

The irrigation plant room and central controls will be positioned in the basement plant room and link to mains water supply.

PERMEABLE SURFACES

Paved areas will be designed where feasible to drain into tree pits and planting areas, providing natural watering and assisting infiltration and storage of stormwater.

For Development Area 2, the sustainable urban drainage strategy will be developed in accordance with the above and provided in detail design stage.

- Legend**
- Rain Garden
 - Planter
 - Permeable Paving
 - Site Application Boundary
 - School Application Boundary





Rain garden



Planter



Rain garden detail



Rain garden detail



Permeable paving



