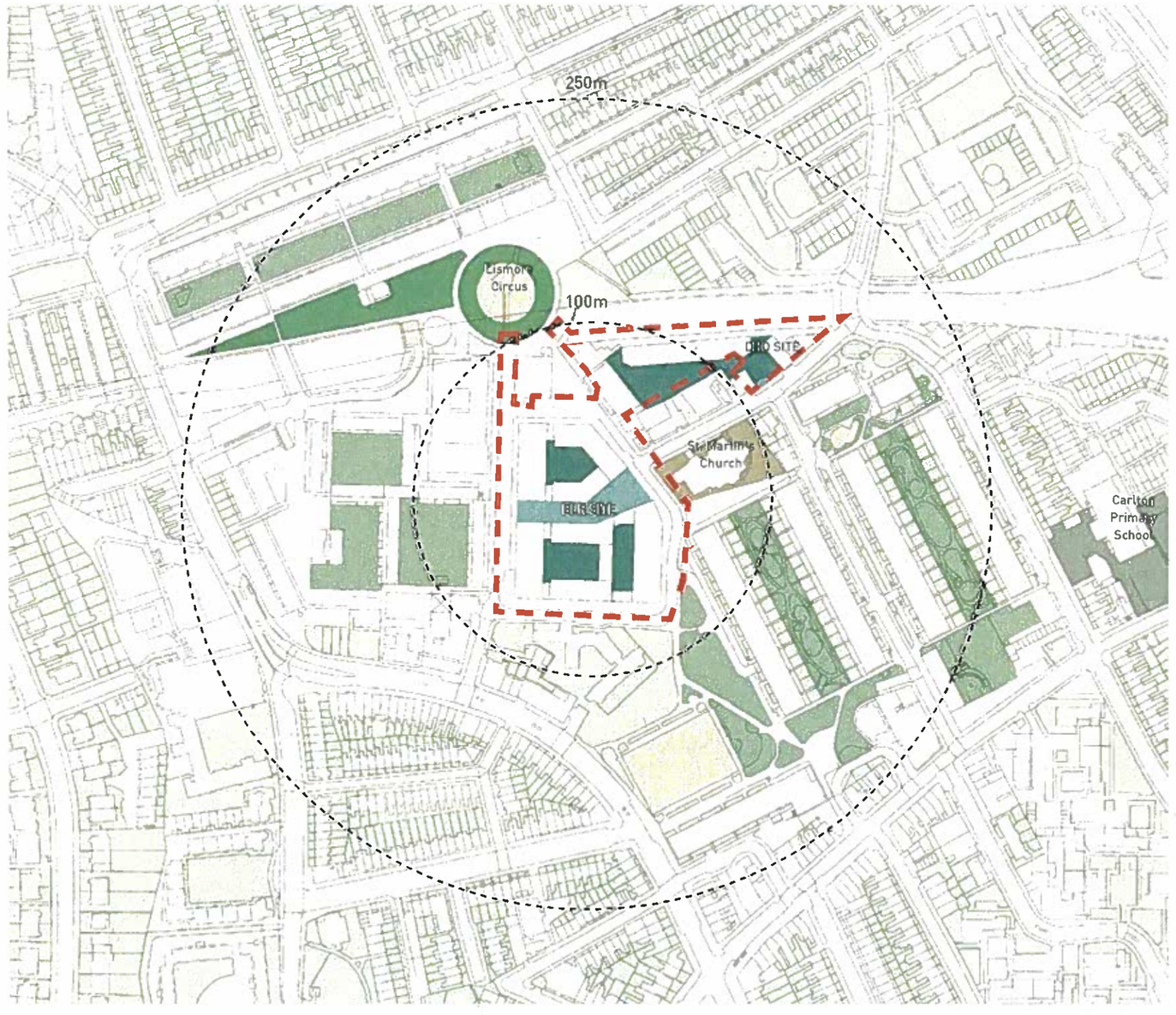
Play & Green Space Strategy

The area around the Bacton Estate has a range of existing public play and green spaces. Within 100m Lismore Circus provides play space and green amenity space. 200m to the south, public sports pitches provide additional easily accessible play space. Within 500m to the north, Parliament Hill provides an abundance of green space, coupled with dedicated play spaces for children and teenagers.
As such, our approach was to improve the connection between the area's existing amenity assets using the proposed shared surface green corridor along Haverstock Road. New communal entrance lobbys and private outdoor space will provide activity to the treelined boulevard. Furthermore, by proposing dedicated play space for the Bacton Estate residents within semiprivate courtyards, we are easing the burden on the surrounding public play spaces.

Play Space Strategy

Play & Green Space Strategy

This plan indicates the extent of communal semiprivate play spaces within close proximity to the Bacton Low Rise Estate. Coupled with the public play and sports facilities within the locality, our proposals supplement and ease the burden on these assets.
Our proposal improves connections within the locality, principally through the new central street. However, by creating active new frontages onto existing streets and strengthening street patterns, we are also enabling the animation of the urban realm and re-integrating the Estate into its surrounding context.



- Existing civic space
- Existing public play space
- Existing public sports play space
- Existing semi-private space
- Existing private space
- Existing school play space
- Proposed semi-private play space
- Proposed public space
- Application Boundary (Indicative Only)

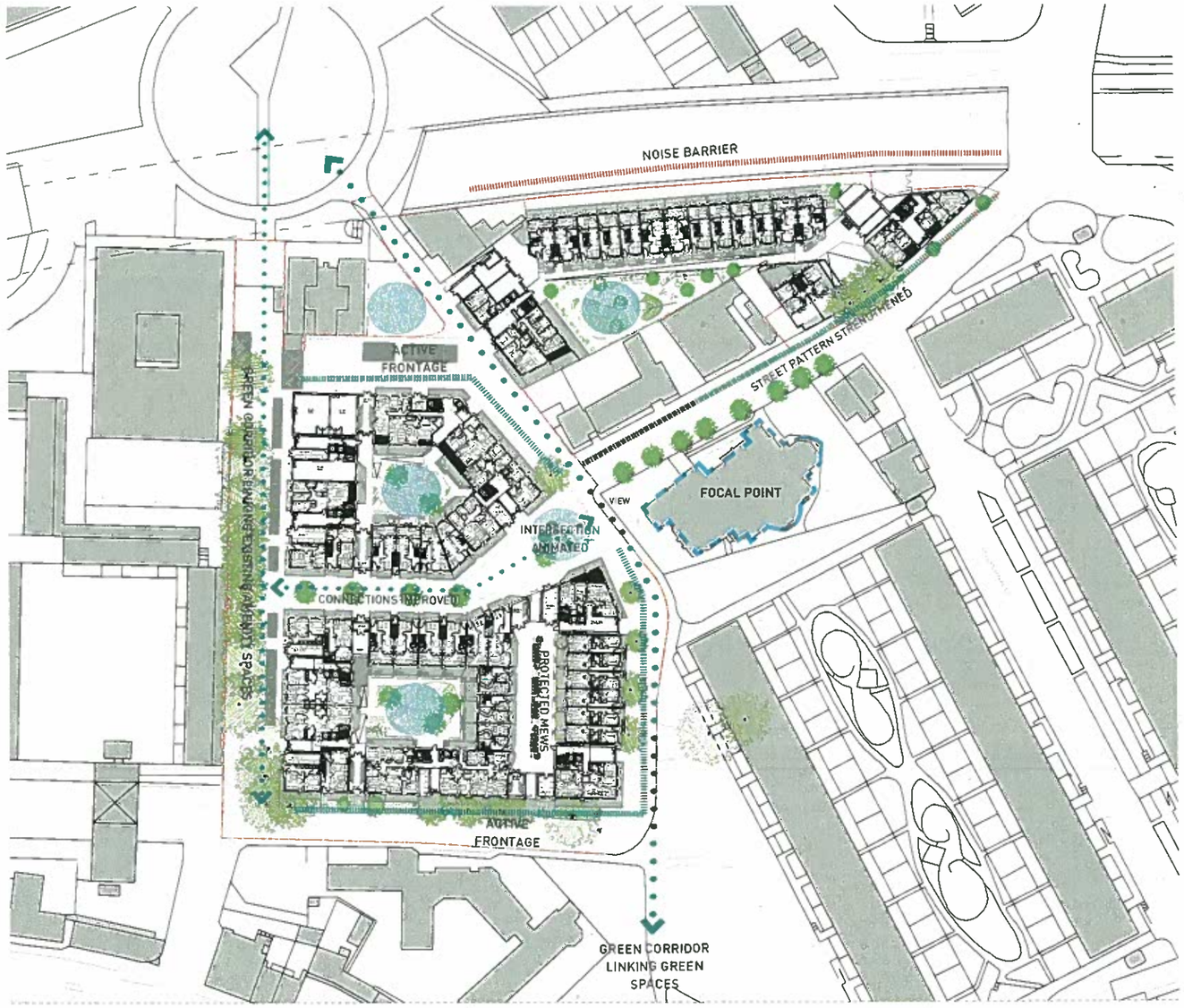
Communal / Semi Private Play Spaces

Play & Green Space Strategy

From the concept stage of the design process the focal point of our urban realm strategy has always been St. Martin's Church. By creating a new central street which splays open as it reaches the church, we are creating an intersection which recognises its significance within the local context.

This new east to west route is coupled with an improved streetscape north to south along both Haverstock and Wellesley Road. Increased permeability through the area enhances both pedestrian and bicycle routes. Generous planting and lighting enlivens these environments during day and night.

Our proposal also reclaims the street edge along Vicar's Road. Previously the workshops were set back from the pavement line creating a poorly defined urban edge. By referencing the existing street pattern created by the French School our proposal extends a newly articulated route from Haverstock Road through to Grafton Road.



Open Space Strategy

Play Equipment

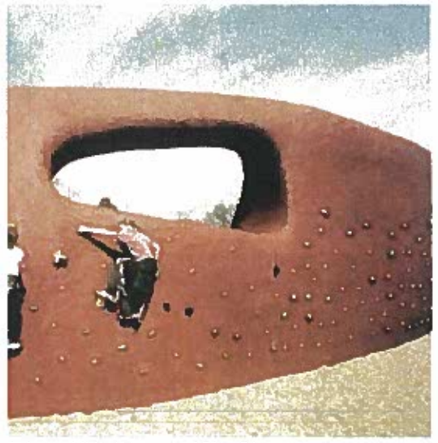
The predominant play spaces are contained within the courtyards of the BLR blocks and withing the play garden at the DHO site.

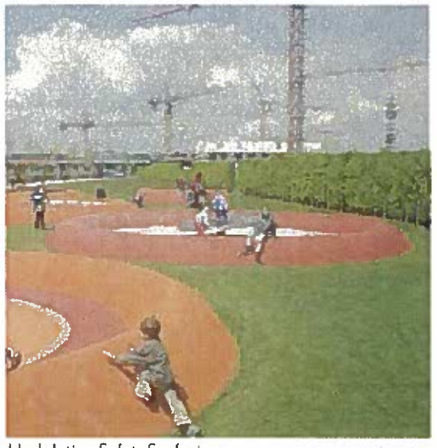
We are proposing to utilise traditional style play equipment inthe courtyards, combined with areas of play surfacing for more free play, this approach reflects the findings of the consultation process and allows a wide choice of age focussed play equipment.

Within the DHO garden the play equipment will be of a more abstract nature, incorporating all the traditional aspects of play within more sculptural play features set into the landscape. The character of the space has been designed to provide distict but interconnecting play spaces for under 5's and for older children, both spaces have a long seat designed for adults and children to use.

Informal play spaces will be created by the use of undulating safety surfacing, structures and seating to encourage development through play.


Built in play

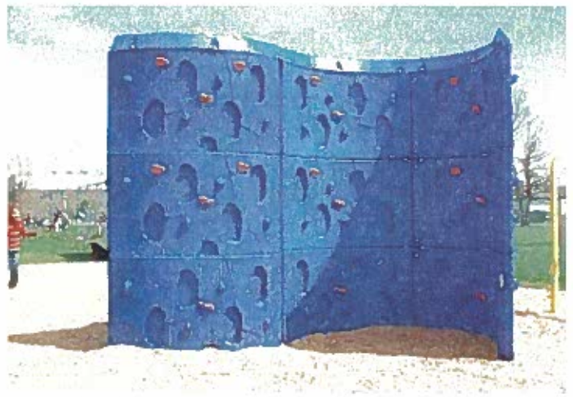

Informal/Undstructured Play Object


Undulating Safety Surfacing


Traditional Play Structures in Courtyards


Abstract Play Structures


Age focussed play


Abstract Play Structures

8. Lighting

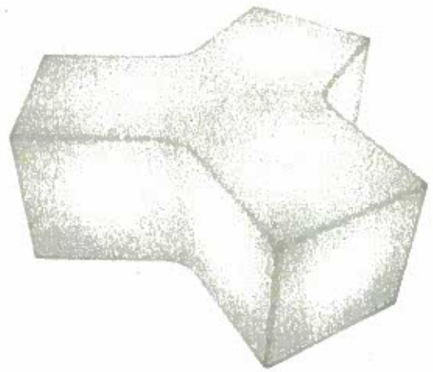
The lighting scheme will be well designed to ensure that the neighbourhood is safe and enjoyable during the hours of darkness and will define a positive and interesting identity at night. The overall lighting provision comprises several distinct components, each performing a different task.

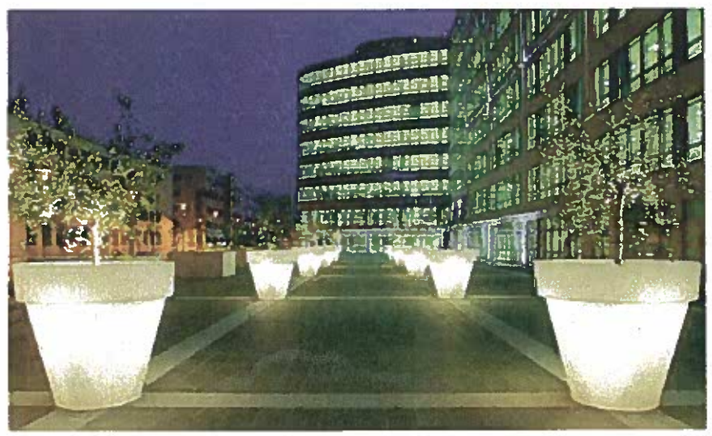
Firstly the 'street lighting' will ensure that all external areas have suitably safe light levels, depending on the activity in that place. It is assumed that the street lighting to the Wellesley and Haverstock Roads will be part of the infrastructure of the adopted highway and, as such, will be designed to comply with LBC defined standards.
The Street within the design will be columns mounted and located away from pedestrian routes.
Within the courtyards and at the play space at the DHO site there are many opportunities for 'architectural' lighting to public realm elements, structures and buildings. Ground mounted tree uplighters and 'pea' lights within tree canopies are dramatic at all times of the year.
The opportunity to have the lighting built into the furniture would allow for subtle lighting levels and a magical night time experience.
Downlighters built into walls, steps and terraces provide visual drama but also promote safety and ease of navigation. Flush ground mounted lights can be very effective in enhancing and defining public spaces. Night streetscapes can be transformed by the skilled use of coloured light.

Whilst an even distribution of light is important for safety, particularly with regard to public realm spaces and places where vehicles and pedestrians may meet, the design should seek opportunities to create contrast in light levels and colour in order to characterise the various different spatial types. Highlighted areas might include steps, ramps and entrance ways. Lower and different colour street lighting levels might be preferred where the 'architectural' lighting is required to contrast with the 'street lighting'.

The lighting will be designed in accordance with the following principles.
- All the installations will be low energy use.
- Control systems will be used so that light is provided when and where it is needed, but not at other times and places. This is an important factor in reducing energy use.
- The installations will avoid light pollution by means of the design, specification and focusing of luminaires.
- Similarly, all lighting will be designed to avoid unwanted light overspill, particularly into nearby bedrooms.
- Perhaps most importantly, all elements of the public lighting must be robust, practical and readily maintainable in the long term.

All lighting will be designed in accordance with the principles detailed in :-
- BS 7671 (AMD 2002) - IEE Wiring Regulations 17th Edition
- BS 5489 Parts 1, 3 & 8 - Road Lighting
- CIBSE Code for Exterior Lighting - Best practice guide
- ILE Guidance Notes For the Reduction of Light Pollution 2005





9. Tree Removal and Mitigation

There are a number of mature trees on the site that will be affected by the housing proposals. The trees have been surveyed and classified in Greengage's Arboricultural Report.

The proposals result in the loss of 22 trees, 2 of which are noted as requiring felling for safety reasons and 10 of which are in the existing courtyards and one in the fabric of the building to be demolished.

Having considered the practicalities of retaining the trees it was considered impractical due to the need for ground level changes and construction on root zones. The design team also investigated the potential to relocate trees to other locations in the site, however, due to the ground conditions (multiple service routes etc) size and cost of relocating the trees balanced with the slim likelihood of successful re-establishment it is proposed that the trees are removed and trees of a comparable scale are planted in the vicinity to mitigate the loss of the trees. The proposals aim to retain the existing canopy cover volume, and if possible increase this.

We have endeavored to replace the trees with a similar species or form and have proposed that trees on the existing streets be Platanus x acerifolia (London Plane) to relate to the existing tree network in the wider area.

The diagram shows the trees to be removed as part of the development proposals together with the proposed trees.

This approach has been discussed with Camdens Trees and Landscape officer who favours the planting of larger canopied species within the scheme, this is reflected in the selection of Platanus, Populus, Quercus and Tulipifera species trees.

A proposed species list is included in the application to assist in the assessment of the proposals together with an indiction of their locations

Trees to be Removed

Trees Retained

Trees To Be Removed

T1 - Silver Birch - Fair Condition
Low crown, poor previous pruning noted, dead wood present. Category grade B1-

T2 – Rowan - Poor Condition
Mechanical damage to stem, asymmetric crown, limited long term prospects. Category grade R

T3 – Rowan - Fair Condition
Compaction issues, dead wood present, close to adjacent building. Category grade C1-

T9 – Norway Maple - Fair Condition
Asymmetric crown, dead wood present, head lean toward adjacent building, located in a grass matrix. Category grade C1 -

T10 – Norway Maple - Fair Condition
Asymmetric crown, dead wood present, head lean toward adjacent building, located in a grass matrix. Category grade C1 +

T11 – Norway Maple - Fair Condition
Asymmetric crown, in decline, located in a grass matrix. Category grade C1 -

T27 - Ash - Poor (Fell for Safety)
Dead wood present, in decline. Category grade R

T28 - Ash - Poor (Fell for Safety)
In decline. Category grade R

T36 - Silver Birch - Fair Condition
Good Structure, form and vigor. Low crown. Category grade C1+

T37 – Silver Birch - Fair Condition
Poor form, good vigor. Category grade C1 -

T38 – Silver Birch - Good Condition
Good structure, form and vigor. Low crown. Category C1 +

T39 – Lime - Good Condition
Good structure, form and vigor. Located in courtyard. Category B1 -

T40 – Lime - Good Condition
Good structure, form and vigor. Located in courtyard. Category B1 –

T41 – Lime - Good Condition
Good structure, form and vigor. Located in courtyard. Category B1 -

T42 – Lime - Good Condition
Good structure, form and vigor. Located in courtyard. Category B1 -

T43 – Lime - Good Condition
Good structure, form and vigor. Located in courtyard. Category B1 -

T44 - Silver Birch - Good Condition
Good structure, form and vigor. Located in courtyard. Category grade C1+

T45 - Silver Birch - Good Condition
Good structure, form and vigor. Located in courtyard. Category grade C1+

T46 - Silver Birch - Good Condition
Good structure, form and vigor. Located in courtyard. Category grade C1+

T47 - Ash - Fair Condition
Poor structure, form and vigor. Located in 1 st floor access ramp.
Category C1-

U1 & U2* - Whitebean - Fair Condition
Weak root graft , leaning, planted in raised bed
Category C1

* = Trees too small to be surveyed under BS:5837

Large Maples shading flats

Existing Courtyard trees

Data extracted from Greengages Arboricultural Survey Sept. 2012

10. Proposed Tree Species and planted stock sizes

Tree replacements

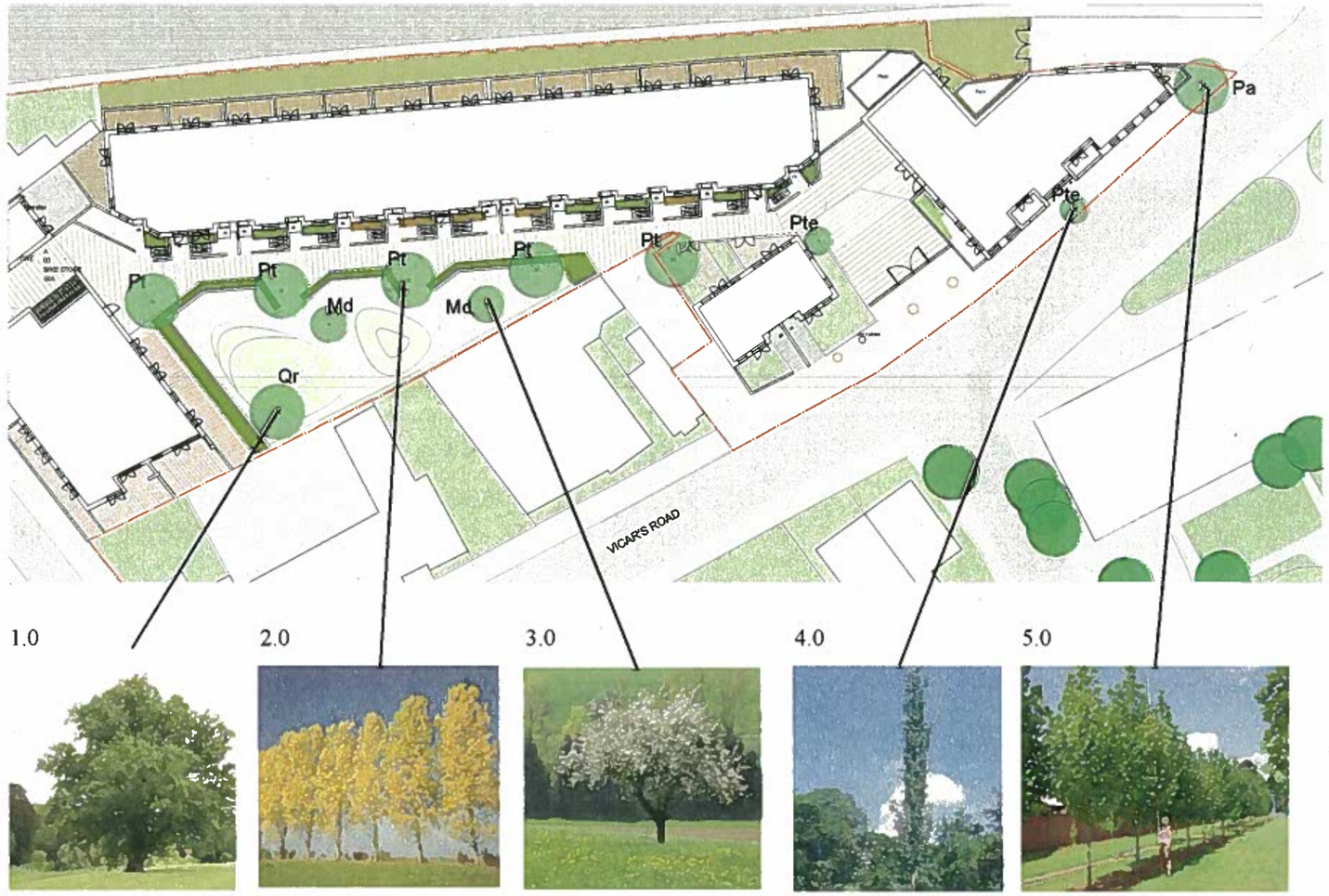
District Housing Office (DHO) Site

We are proposing to replace the Grafton / Vicars road group with a selected specimen of Platanus acerifolia – this will tie in with the existing Planes in the street and the wider area and will provide a large canopied tree at this junction.

Within the DHO site a row of Populus tremula (Aspen) are proposed, these are a large tree with a relatively light canopy, this row of trees will punctuate the access route to the houses and the play area, the spacing of the tree line continues onto Vicars Road resulting in a fastigiate tree of the same species on Vicars Road in front of the building, this narrower canopied tree fits well into the space between the building and the carriageway and links Vicars road with the new development.

Within the play area two apple trees will be planted with the added benefit of the fruit available for the residents. A large specimen Oak is also proposed for the play garden to provide shade and as an example of a large canopied native tree supporting a myriad of wildlife at maturity.

In total we are removing 3 trees in this area and replanting 11 trees.



Ref	Species	Common name	Stock size girth (unless noted)	Form
1.0	Platanus x acerifolia	London Plane	30 – 35 cm	2.25 clear stem
2.0	Malus species	Apple	20 - 25 cm	2m clear stem
3.0	Populus tremula	Aspen	20 - 25 cm	2.25 clear stem
4.0	Quercus robur	Oak	30 - 35 cm	2.25 clear stem
5.0	Populus tremula erecta	Poplar - Swedish Upright	20 - 25cm	2.25 clear stem

Bacton Low Rise Site.

The gaps in the existing avenue of trees along Haverstock road will be replanted with large specimens of Platanus acerifolia, 3 spaces present themselves after the removal of the poor quality ash trees. Although both Ash and Plane are found in the Road we consider the Plane to be a superior street tree to the Ash so propose this species as the choice of replacement.

On the Eastern side of Wellesley Road we are proposing to plant two Betula pendula. These will tie in with the existing mature Birch in the area extending the habitat for animals that utilises that particular tree species.

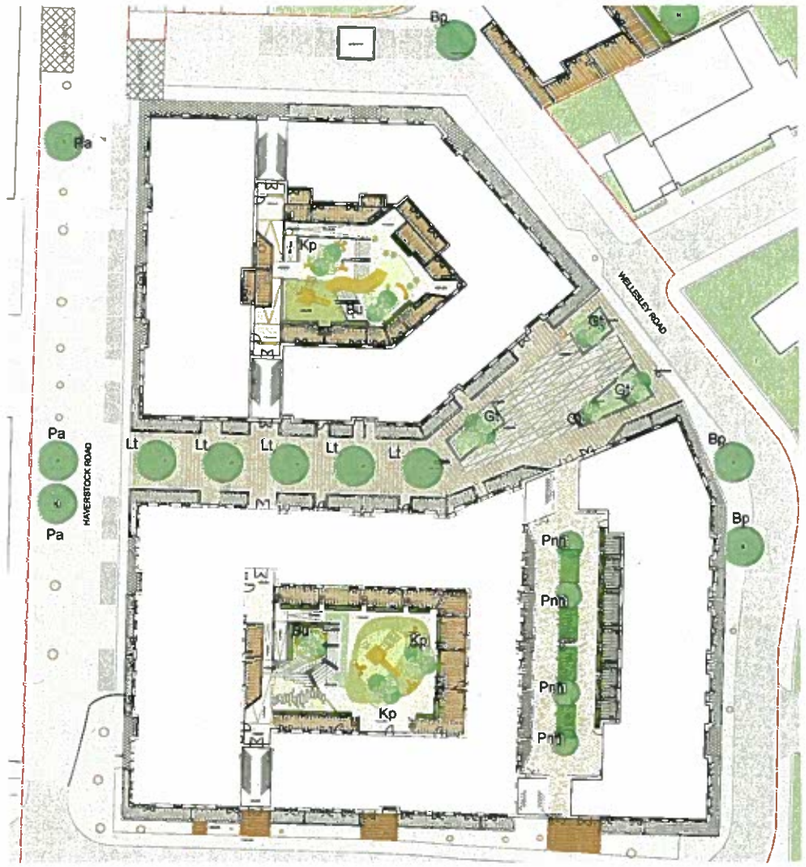
The Street between the blocks provides an opportunity for some larger scale street trees – we have proposed Liriodendron tulipifera, this is a very large tree that can be pollarded and does well in urban situations.

Where the street open up a group of thornless Gleditsia tricanthos are proposed to be planted as multi stemmed specimens in low level planters, their light foliage and glorious autumn colour will provide a large splash of colour at the entrance to the Street.

In the Mews courtyard we propose to plant large stock Pinus nigra nigra. The inclusion of an evergreen species adds another dimension to the character of the trees on site and reduces the volume of leaf fall onto the green roofs of the bike stores in this courtyard

The Courtyards – we have chosen decorative species that have light canopies and good seasonal interest – the Golden Rain Tree provides a smaller scaled tree that will inhabit the space well and provide an attractive tree through the seasons. The Betula utilis with its pure white stems and light foliage will complement the colours of the Golden rain tree and provide a bright trunk structure over winter.

In total in the BLR site we are removing 17 trees and replanting 23 trees.



1.0

2.0

3.0

6.0

5.0

4.0

Ref	Species	Common name	Stock size girth (unless noted)	Form
1.0	Platanus x acerifolia	London Plane	30 – 35 cm	2.25 clear stem
2.0	Betula pendula	Birch	25 - 30cm	2.25 clear stem
3.0	Pinus nigra nigra	Black Pine	4.0 - 5.0m hgt	2.00 clear stem
4.0	Koelreuteria panicuata	Goldenrain Tree	3.0 - 3.m hgt	Multistemmed
5.0	Gleditsia tricanthos Sunburst	Honey Locust	20 - 25 cm	2.25 clear stem
6.0	Betula utilis	Himalayan Birch	25 - 30 cm	2.25m clear stem

11. Green Roofs & Biodiversity

Biodiversity

We have taken guidance from CPG3 and the following set out the basic response, more information on the base line conditions can be found in the GreenGage report that accompanies the planning application.

Avoidance:
The proposals have aimed to avoid impacting adversely on habitats wherever possible, the retention of the trees along Wellesley road is a good example of this, their proximity to the building would normally result in their proposed removal, however the development of a sunken meadow and post supported balconies on the ground floor of the development allows the trees to be retained

Compensation:
We are proposing a number of mitigation measures to compensate for the loss of the tree canopy cover and the areas of low ecological value lawn. We are proposing to plant 34 number of trees in the development 11 of which are native species.

New Benefits:
In addition to this there are substantial green roofs proposed with a range of wild flowers and grasses seeded onto them, these will provide 1400m2 of intensive wildflower roof providing a valuable habitat that currently doesn't exist in the area, this will in turn lead to an increase in insect life and subsequently an increase in the larger wildlife fauna.

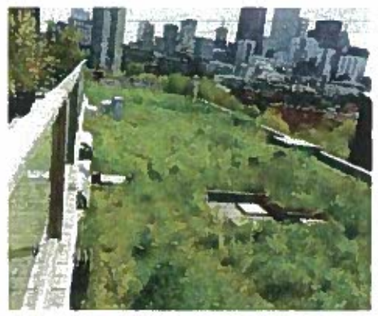
In addition to the Main green roofs as illustrated on the plan there are a number of extensive sedum roofs over the bike stores in the Mews Courtyard adding a valuable habitat for invertebrates.

The development will also contain a number of bat and bird boxes as noted in Greengages report.

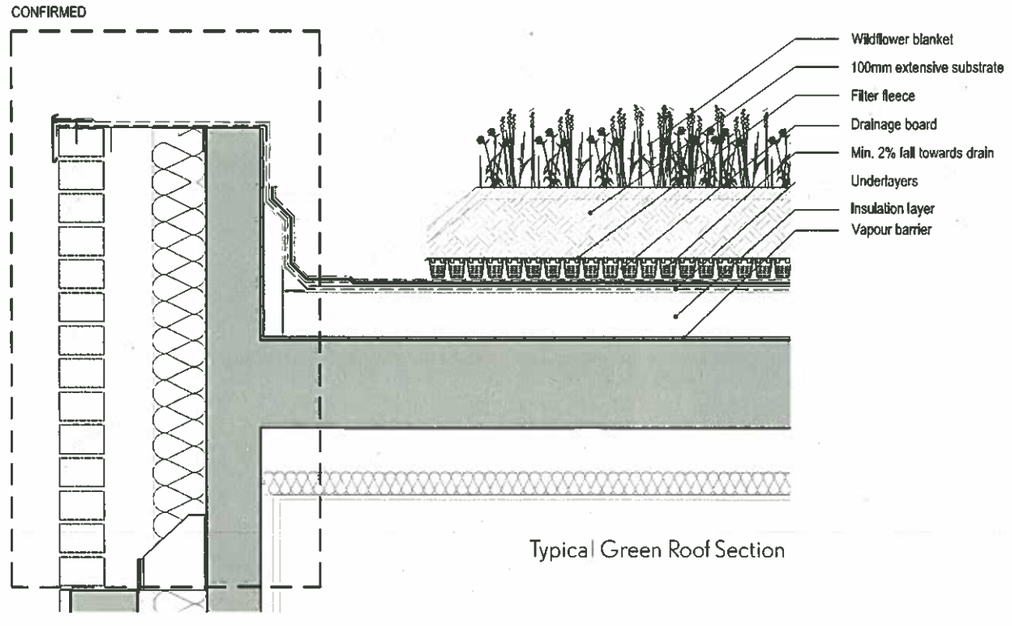
Green Roof Location

Wildflower roof 1

Wildflower roof 2



PARAPET DETAIL TO BE CONFIRMED



Typical Green Roof Section

Schedule of Roof Areas

202 Area Schedule

Karakusevic Carson Architects
The Gymnasium
56 Kings Way Place, Sans Walk
London EC1R 0LU
T: +44 (0)207 566 6300
F: +44 (0)207 566 7381
mail@karakusevic-carson.com

Project: Bacton Low Rise Estate

202_A_SCH_SCHDEDULE OF ROOF AREAS_

Date: 01.02.13

percentage breakdown of roof types across scheme

NB parapets are not included in calculation of areas.
Numbers are based only on area covered by standing seam, timber deck or green roof
Areas are calculated from plan view of roofs

	Standing seam roofs	Green roofs	Planters	Roof terrace
Phase 1: DHO Site				
Block A	480	0	0	0
Block B1	0	419	34	311
Block B2	0	13	10	83
Block C	74	106	11	105
Approximate total area	554	538	54	499
	51%	49%		
Phase 2: BLR Site: Blocks D&E				
Block D1 & D2	610	0	36	322
Block E1 & E2	616	0	32	159
Block E3	453	0	0	0
Block E H&M		619	0	92
Approximate total area	1679	619	68	573
	73%	27%		
Phase 3: BLR Site: Block F				
Block F1 & F2	487	0	22	466
Block F3 & F4	654	36	0	0
Block F H&M	0	223	0	138
Approximate total area	1141	259	22	604
	82%	19%		
Total Areas	3373	1417	144	1676
Total discounting terraces	3373	1417		
	70%	30%		

Biodiversity

Species - we have investigated a range of options for the green roof mix and have identified a number of wildflowers and grasses that will benefit the biodiversity of the area. These have been planted on green roofs in similar situations and have proved successful.

Green Roof Wildflower mix

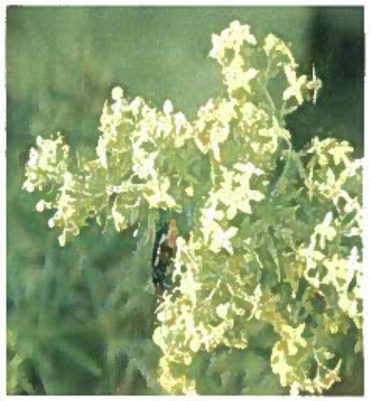
30% Grasses
Poa annua
Agrostis capillaris
Festuca ovina

70% Wildflowers

Achillea millefolium	Yarrow
Anthyllis vulneraria	Kidney Vetch
Centaurea scabiosa	Greater Knapweed
Daucus carota	Wild Carrot
Gallium verum	Lady's bedstraw
Leontodon hispidus	Rough Hawkbit
Lotus corniculatus	Bird's-foot Trefoil
Thymus vulgaris	Thyme
Silene dioica	Red Campion
Geranium pratense	Meadow crane's-bill
Origanum majorana	Marjoram
Leucanthemum vulgare	Ox-eye daisy
Tanacetum parthenium	Feverfew
Linaria vulgaris	Toadflax
Clinopodium vulgare	Wild basil
Silene latifolia	White campion
Trifolium pratense	Red Clover
Scabiosa columbaria	Small scabious


Toadflax


Feverfew


Lady's bedstraw


Ox-eye daisy


Red Campion


Kidney Vetch


Wild carrot


Yarrow


Knapweed

SUDs.

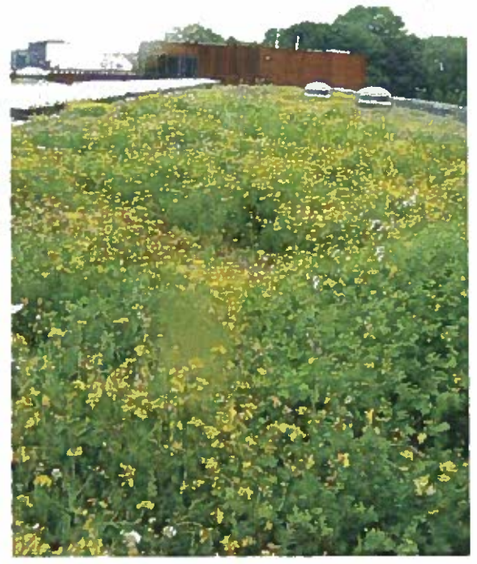
Following advice from the team Engineers we propose to utilise a below ground attenuation tank system to reduce flow rates from site. Areas of soft landscaping will be designed to free drain into the ground water and permeate away naturally, however the areas of hard surfacing will be traditionally drained using gullies and channels and subsequently collected into attenuation tanks located underground within the site boundary.

Whilst permeable surfaces are an extremely effective method of reducing water run off this method doesn't work if the substrate is impermeable, so the water would need to be collected below the surface and diverted to an attenuation tank. This results in a duplication of collection and would prove economically unfeasible.

Proposals to drain the hard surfaces into planting beds is not practical in the confines to the courtyard settings. The DHO site has large extents of soft ground which we intend to build as self draining to the natural ground sub layers. The areas of hard surfacing in the DHO will be collected in channels and fed into an underground attenuation tank as described earlier.

The project engineers have provided the following advice that we are working to at this stage, following the further planned ground investigations the proposals may alter to provide larger areas of natural ground drainage.

"Soakaways should not generally be placed in made ground because of the risks of mobilising contaminants and causing uncontrolled collapse settlements of the ground. The predominant clay to be found across the site will in any case likely prove impermeable. Soakaways are not therefore recommended for stormwater disposal and disposal off-site will be required."



Green Roof - Flow off rate reductioon

Example Attenuation Tank