





5.0 Public Realm

5.1 Landscape Design Principles

In which we describe the objectives for the public realm and the way that the masterplan achieves these objectives.

This part of the Design and Access Statement sets out the design principles that have shaped the landscape and public realm elements of the Development Specification and Place Making Principles document and which have been taken further to develop this illustrative proposal.

It is emphasised that the level of detail presented is more than sufficient at this outline application stage but this is intended to give confidence that the development specification contains the basis of an extremely high quality public realm that will greatly enhance the surrounding area.

The public realm design is closely integrated with all other aspects of the application and so is progressive in approach and responds to the pressing contemporary agenda of sustainability and to the creation of safe, pedestrian friendly and green residential neighborhoods.

The landscape and public realm design principles can be summarised as :-

- to create **spatial definition and hierarchy**
- to improve **connectivity**
- to set an exemplar for an **urban public realm** based on its location and history
- to provide an integrated approach to **water** management
- to develop **active frontage** and a commercial hub in synergy with the BAAP
- to create a **pedestrian friendly, accessible and safe** environment
- to build a public realm that is **multifunctional and robust**
- to create a **green** neighbourhood
- to develop an holistic approach to **play** provision
- to **light** the public and communal realm to create a safer place and a magical night scene
- to deliver quality **private and communal amenity space** that compliments and enhances the open space provision

The following pages set out these principles in more detail.



5.1.1 Spatial Definition and Hierarchy

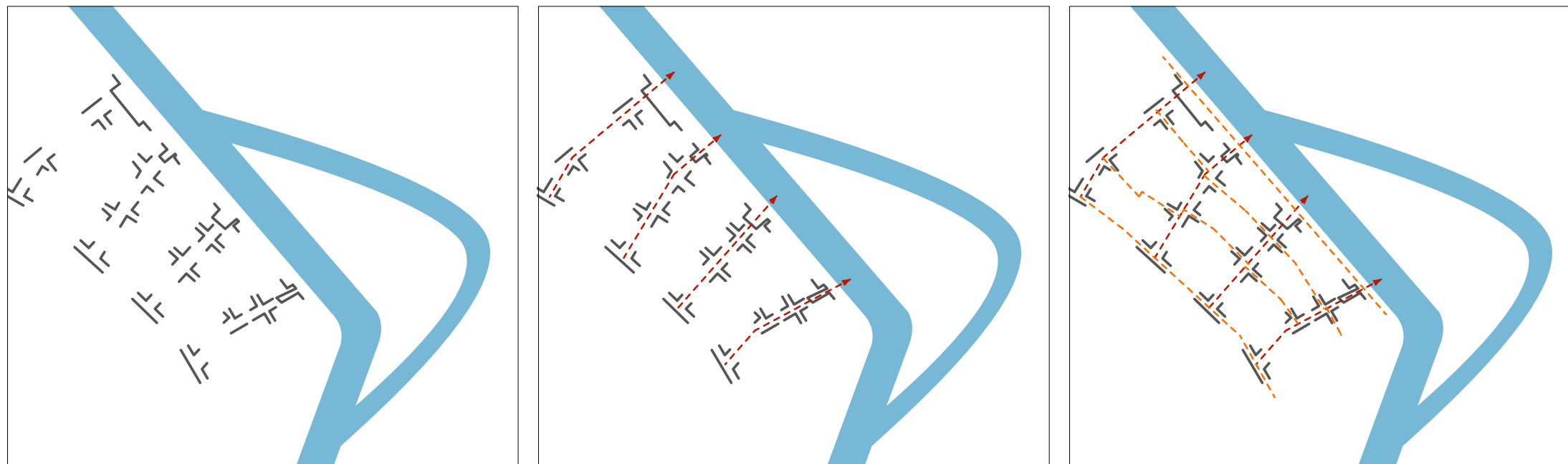
The masterplan composition for BLW consists of a number of constituent open spaces and buildings in a cohesive and attractive urban block formation. The arrangement of open space is based on a clear hierarchy, with each space characterised in terms of its relationship with the site and surroundings, its relationship with the new buildings and how it will be used for movement and leisure.

The spaces are categorised as follows :-

- 1 **main street**
- 2 **side streets**
- 3 **neighbourhood street**
- 4 **tow path**
- 5 **watergates**
- 6 **canal square**
- 7 **communal courtyards**

Section 5.3 sets out illustrative proposals on the appearance and use of each of these spatial types.





5.1.2 Pedestrian Connectivity

Movement and activity in the new neighbourhood will rely on pedestrian connectivity with surrounding buildings and the spaces between them. The public realm must reinforce existing connections and make new links. The quality of the public realm experience depends a great deal on the numbers of people moving through the spaces and should be improved in terms of safety, comfort and architecture. The pedestrian network is made up of several sequential spaces created by the junctions. The east-west connections encourage views and movement between the canal and Commerce Road. The north-south links complete the skewed grid to allow maximum permeability throughout the neighbourhood. There is a further layer of permeability through the semi private courtyards within most of the blocks. Closely related to pedestrian connectivity is the issue of accessibility for all users. This is covered in section 5.2.7.



Tow Path

Streets

Watergates and Square

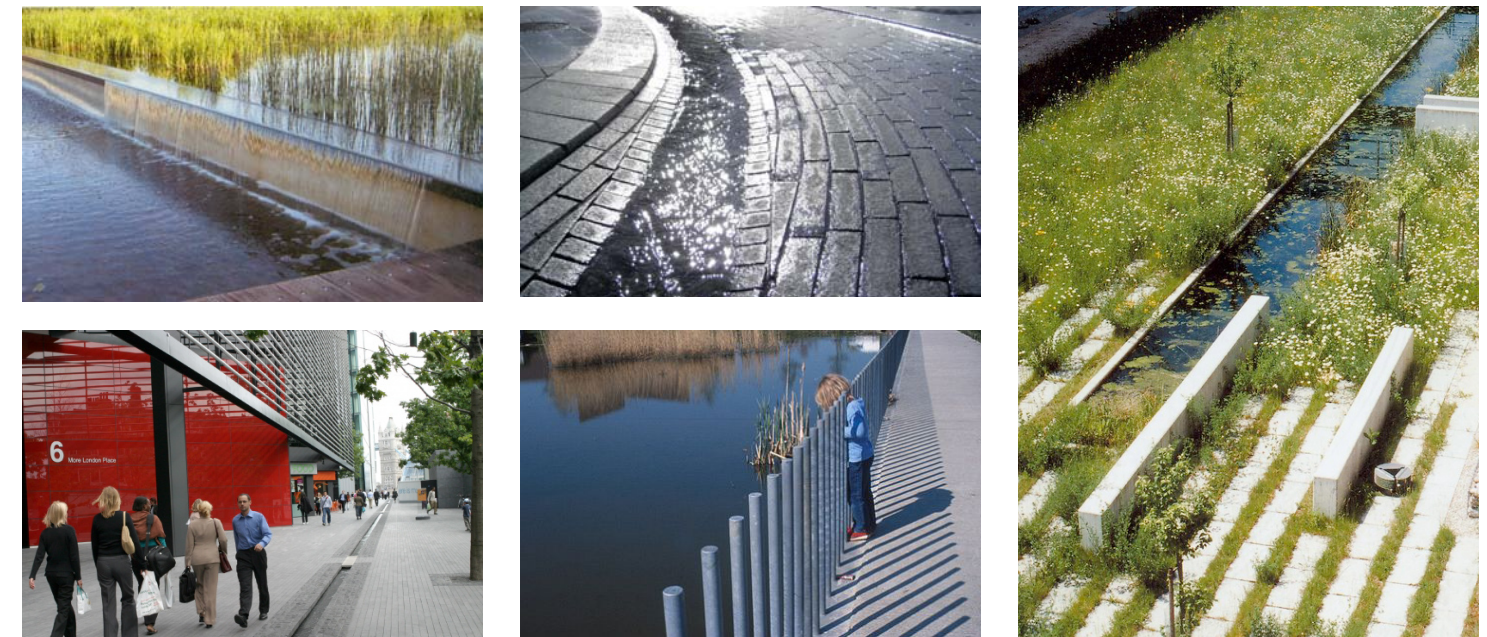
5.1.3 Urban Public Realm in response to existing context

The design of the public realm takes its initial inspiration from the development's location by the canal and the proposed pedestrian movement network. The towpath along the canal is the main north-south route, allows city-wide connections and draws in people from a wide radius. The side streets are part of the local neighbourhood public realm and enable the east-west movement. Where the side streets run into the towpath, these two worlds meet and create a space where changes in level and direction occur, where people are able to rest, linger, meet and congregate. These are the watergates and the Canal Square.

Commerce Road is the dominant public realm feature on the west side. This should retain the character of an urban road, used by a range of large vehicles, but it can be greatly enhanced by the planting of many trees to extend the influence of the new green residential neighbourhood.



Rainwater Management



Examples of water management solutions

5.1.4 Rain Water

An integrated approach to water management could realise significant environmental benefits in terms of water conservation, waste minimisation and pollution control. These proposals aim to establish a hierarchy of interventions that will lead to the conservation and management of water within the wider environment, and for the future community. The collection, treatment and storage of storm water within the public realm, through the use of ponds, wetlands, swales, basins and drainage channels along the streets and at the watergates will support the overall rainwater management and create interesting spaces for recreation, visual amenity and biodiversity.

5.1.5 Commercial Hub

Much, if not most, of the character of urban public space comes from the envelope of architecture and activity around it. Active frontage is a great generator of pedestrian movement and vice versa, pedestrian movement encourages quality in active frontage. The commercial hub is proposed as a busy public square with businesses animating the public realm, complemented by use of the space for pedestrian movement, relaxing, meeting and informal events. The frequent residential front doors, the apartment lobbies and access to the courtyards contribute to a lively, local atmosphere along the adjoining streets.



Illustration of a neighbourhood street

5.1.6 Pedestrian Accessibility Through the Public Realm

The drawing to the right shows the extent of pedestrian accessibility through the public realm.

One of the most significant aspects of this illustrative public realm proposal is the absence of upstand kerbs within the residential area. This has far reaching benefits for pedestrian accessibility. Firstly, at its simplest, this avoids all of the inconvenience to pedestrians and safety issues associated with negotiating a change in level. Secondly, it avoids all of the design, construction and maintenance issues associated with dropped kerbs and tactile paving. Thirdly, the absence of upstand kerbs allows carriageway edges to be undefined, the key to creating true shared surfaces, and to all of the benefits that flow from that.

In this illustrative proposal, all public realm areas and semi private spaces are accessible by ramps. These are as shallow as they can be and all within DDA compliance. Generally the ramps are as wide as possible, and certainly greater than the minimum requirement. Wider ramps are traversable at various angles and therefore at shallower gradients.

Stepped changes in level are intended as part of the public realm architecture and play an important role in how people navigate through the site and use the public spaces. They are dimensioned as DDA compliant.



BRENTFORD LOCK WEST
AREAS OF LEVEL/RAMPED ACCESS

Buildings	Areas / features without flush / DDA compliant accessibility
Private garden and entrances	Areas of DDA compliant level / ramped access

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Example of vehicle entrance into block, Hammarby, Stockholm

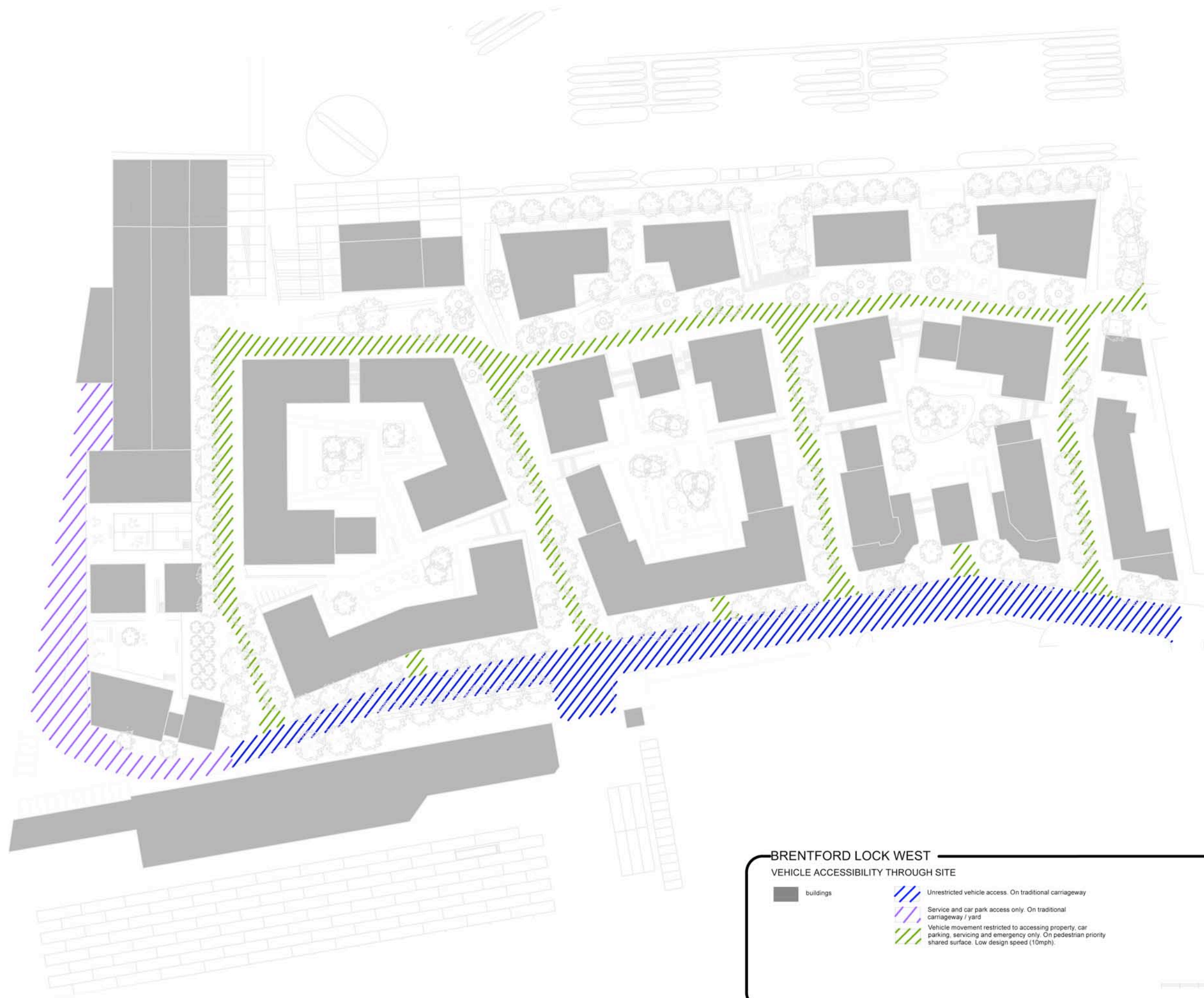
5.1.7 Vehicle Accessibility Through the Public Realm

The drawing to the right shows the extent of vehicle accessibility through the site. Traffic will remain unrestricted as existing on Commerce Road. At the end of Commerce Road, vehicle access around the back of Block B, and to the rear of Block A, will be restricted to service and car park access only. In the side streets and the neighbourhood street, vehicle access will be restricted to accessing property, car parking, servicing and emergency only. Furthermore, this access will be through pedestrian priority areas on shared surfaces.

Vehicle speed will be very low, restricted by ‘self enforcing’ aspects of the design such as restricted space for vehicle movement generally, surfacing type, on street parking, tree and furniture locations and tight corners. The current illustrative proposal has been tested by tracking to ensure that refuse and delivery vehicles can manoeuvre through the streets without reversing or impacting on furniture, trees etc. The resulting low vehicle speeds and numbers will have a profound beneficial effect on the quality of the residential streetscape as a place for pedestrians to move around, relax, meet and play.



Examples of surface treatments designed to reduce the speed of traffic



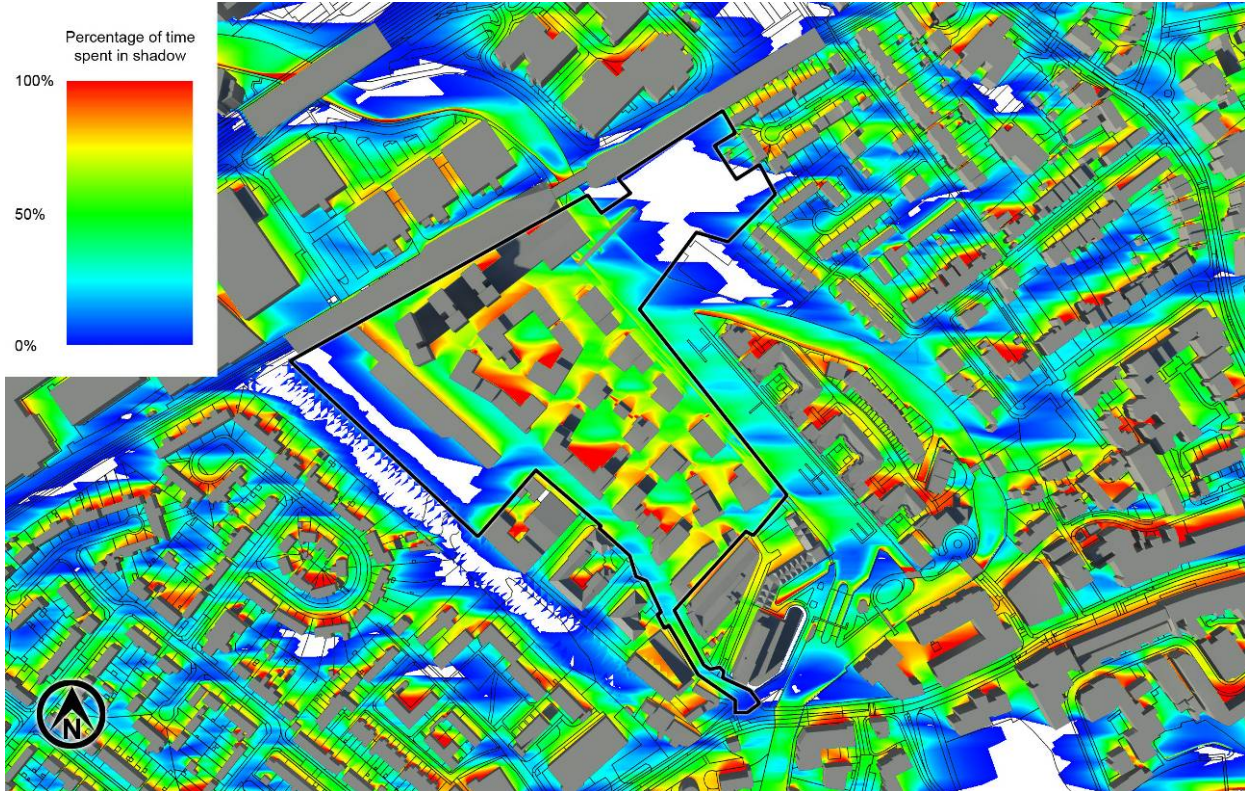
5.1.8 Interface Between Pedestrian and Vehicular Movement

The success of BLW as a place for pedestrians to pass through and gather depends a great deal on how safe and comfortable they feel. The overwhelming priority therefore is to reduce vehicle speed by traffic calming measures. Given that the new public realm will be high quality and pedestrian friendly, traffic calming measures must be sophisticated and progressive to ensure that the ‘architecture’ of the public realm is dignified and avoids the appearance of vehicle dominated spaces. Such measures include minimal carriageway widths, on street parking, changes in running surface and prominent signage. Experience elsewhere shows that if the spaces are designed uncompromisingly as pedestrian areas, drivers will moderate their behavior and drive slowly and safely in this alien environment. Every space will be designed in detail to be safe and comfortable for all users.

The drawing to the right shows how the public realm as a whole is designed to be pedestrian friendly, with vehicle movement accommodated as necessary, but with the balance in favour of the pedestrian increasing away from Commerce Road and towards the canal. The primary distinction is that only the carriageway in Commerce Road can be considered as vehicle priority. All other parts of the neighbourhood are pedestrian priority or are inaccessible to vehicles. Where spaces are shared by pedestrians and vehicles, the layout of furnishings, trees etc. slows vehicle movement. Furthermore, the layout provides a large amount of marginal space which can act as a pedestrian ‘refuge’ from vehicle movement.

One issue of particular importance is the presence / absence of upstand kerbs. The absence of upstand kerbs through most of the site will benefit almost all users, especially wheelchair users and people with pushchairs. However, people with severe visual impairment normally use upstand kerbs to navigate. This can be accommodated in the detailed design stage in two ways. Firstly, tactile paving can be used to indicate the extent of areas where there will be vehicle movement. Secondly, the layout of each individual space will reduce vehicle speed and assert pedestrian priority to create an inherently safe environment, where motorists will defer to pedestrian movement as a matter of course. These access design issues are much discussed at a national level and new approaches are emerging following dialogue between the many interested groups. There is confidence that, once this proposal progresses beyond outline application stage, these principles can be developed in consultation with local groups with an interest in access issues, to make spaces which are accessible and safe.

A further example of how the proposal asserts pedestrian priority is the layout of the side street junctions on Commerce Road. The continuation of the footway surfacing and kerb (with dropped kerb) along Commerce Road emphasises to the motorist immediately that a turn into the side street enters a pedestrian dominated environment.



Ground Shading on 21 March from 07:15 to 17:00

5.1.9 Aspect and Microclimate

The overall form of the development is urban in character, however the configuration of the buildings and surrounding spaces is carefully articulated so that the public realm is pleasingly complex and full of variety. This ensures a range of microclimates and that the sunlight penetrates the public and private open spaces in a constantly changing pattern through the day and over the seasons. Advantage is taken of the aspect wherever possible. For example, the south west facing side of the neighbourhood street has the more pedestrian orientated spaces with furniture and tree planting.

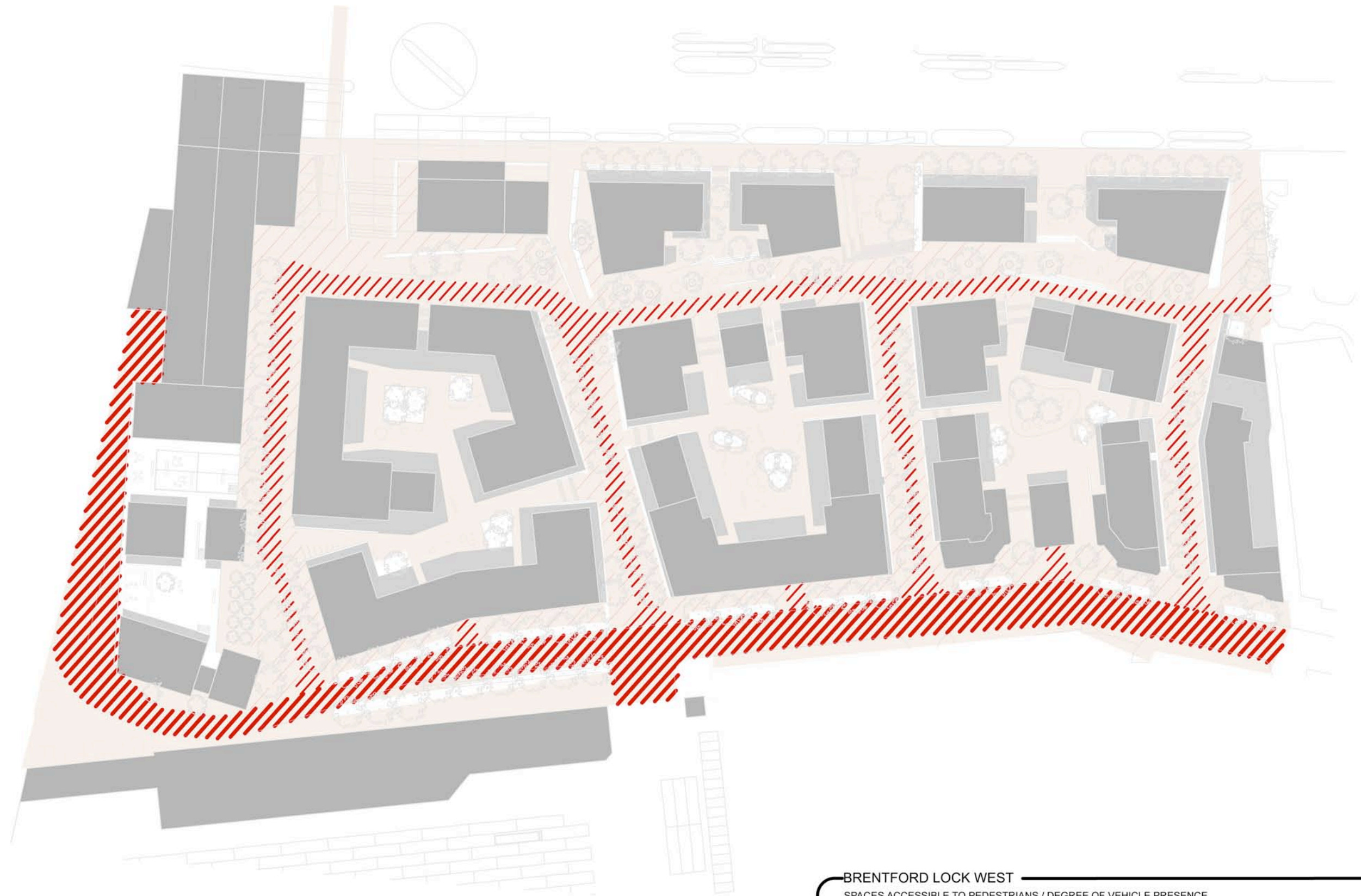
The quality of light and microclimate on the towpath is a key consideration. The proposed buildings face northeast and would cast a shadow on the towpath at certain times of day. However, the integrated landscape and architectural design has ensured that there are six substantial openings between these buildings which will allow light through to the canalside, particularly in the afternoon. This arrangement is crucial to unlocking the potential offered by the canal. It allows the creation of a series of very different spaces, all of which encourage views, activity and movement between the canal and the inner parts of the neighbourhood.

Detailed sunlight, daylight and overshadowing surveys have been undertaken and have been included in the relevant chapters or the supporting Environmental Impact Assessment.

5.1.10 Multifunctional and Robust

This is mainly achieved in two ways. Firstly, clutter is reduced to a minimum and all furnishings and trees are grouped to leave areas free. Secondly, the proposed surfacing and furnishings should be of sufficient quality and technical specification to be suitable for all envisaged activity, including markets, temporary stages and other informal events. External electricity and water supplies can also be provided in key locations for events and maintenance.

Besides the more aspirational aspects of public realm design, nothing is more important than the durability and practicality of the design. The resulting public realm should be readily maintainable and manageable. The choice of surfacing materials, furnishings and details, around tree planting for example, should consider whole lifetime costs, replacement periods and required maintenance operations.



BRENTFORD LOCK WEST

SPACES ACCESSIBLE TO PEDESTRIANS / DEGREE OF VEHICLE PRESENCE

-  Buildings
-  Private gardens
-  Vehicle priority carriageway, dominated by vehicle movement
-  Pedestrian priority shared surface where vehicle movement can be expected
-  Pedestrian priority shared access with the possibility of occasional very slow moving vehicles
-  No vehicle access



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Sketch View along the neighbourhood street



Examples of landscape within the public realm



A communal courtyard in Jarla Sjö, Sweden

5.1.11 Hard Landscape

Even at this outline application stage, it has been important to start to define the surfacing materials and details to ensure that the proposals are properly thought through and capable of delivering the overarching design intentions as set out above. Experience elsewhere indicates that the proposed materials are practical, maintainable and support the design intention in terms of appearance and of pedestrian and motorist legibility for different areas.

Broadly, there are four areas of distinct surfacing material types : Commerce Road, the shared surface streets, the principle ‘civic’ spaces and the communal courtyards.

Commerce Road is considered a traditional street with upstand kerbs and footways. Therefore the carriageway is blacktop and the footway is high quality concrete flags. The kerbs and other edgings (eg. around tree pits) are textured concrete products to provide continuity with other parts of the site.

The side streets and neighbourhood street are proposed as asphalt with applied surface dressing. The technical requirements are fairly demanding. These areas need to be capable of withstanding vehicular traffic whilst being an attractive and slightly informal surface over the whole area. The textured concrete channels, edgings and trims will bring visual definition and rigour to the three dimensional setting out.

The most distinctive and busy public spaces in the neighbourhood will be the commercial hub and the watergates. These areas will be paved with stone materials to reflect their importance within the development and as a destination from elsewhere. The various walls, steps and water features could also be finished with stone materials. The terraces adjacent to the towpath would have the same quality finishes.

In terms of construction, the communal courtyards are technically ‘roof gardens’. Therefore the surfacing will be integral to the drainage system for the building, incorporating SUDS principles as appropriate. Textured concrete flags will be used, laid with open or otherwise permeable joints as required. Steps will match the surfacing. Finishes to walls and any retaining elements will be brickwork and / or render as appropriate to complement the architecture. The communal courtyards will contain a great deal of furniture and play equipment made from various materials.

Throughout the site the tree pit surfacing is to be resin bound aggregate. This is attractive and durable, but also allows air and water to penetrate to the growing medium.

5.1.12 Soft Landscape and Habitat

There is always an appetite for vegetation in our urban centres. People enjoy the freshness of it, the visual screen it provides, the shade and even the wildlife it can bring. The introduction of urban greenery must be carefully designed if it is to survive in the short term and make an increasing contribution in the long term without making undue call on maintenance resources. Tree species should be selected which are reliable and vigorous in this situation, but also will not outgrow the location and cause problems with shading and root damage.

The pits should be as large as possible to ensure sufficient growing medium for the lifetime of the tree (compared with the more usual practice of a pit barely large enough for the rootball). Urban trees should be planted at a large ‘semi mature’ size for maximum impact and resistance to vandalism. The anchoring system should be underground and tree guards avoided. The surfacing over the tree pits should be stable but permeable to air and water to ensure rapid establishment and a long healthy life. In addition, each tree should have a passive irrigation / aeration system built into the tree pit.

The courtyard gardens and other spaces such as terraces and private gardens present opportunities for other planting such as climbing plants, shrubs, groundcover and herbaceous plants. There are various locations where lawns will be appropriate, bringing all year round colour and places to sit in the summer. It cannot be over emphasised that the aspirations for urban greenery will be fully realised only if the design takes account of a realistic assessment of the maintenance resources that will be available in future years.

Most of the species of trees and other plants should be native to encourage biodiversity in fauna. However, it would also be appropriate to introduce some ‘exotica’. All plant selection and planting details should take account of the likely effects of climate change.

A combination of these measures will provide a green neighbourhood, full of delight and interest to people of all ages. It will enhance the distinctiveness of each space but will also characterise the development as a whole.



BRENTFORD LOCK WEST
PROPOSED PUBLIC REALM MATERIALS

- natural stone flag / sett surfacing, steps, low walls, cladding etc.
- texture concrete roof top system, incorporating drainage, with finish to steps, walls etc to compliment the architecture
- asphalt with surface dressing, textured concrete kerbs, edgings and channels
- high quality textured / coloured concrete flags with textured concrete kerbs, edgings and channels
- blacktop carriageway surface, textured concrete kerbs and edgings



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5.1.12 Play

The overall aspiration for play space at BLW is to establish an exciting and diverse experience that presents challenging and stimulating play that sits comfortably within the social and environmental character of the neighbourhood. The recreational strategy will encourage exploration and discovery that allows both children and adults of all ages to actively interact with their environment.

Generally, all play facilities and other features that can be used for play are incorporated within the design of the courtyards and streetscape. This is efficient use of space in an urban neighbourhood. More importantly, it recognises that play and adult supervision of play is one part of the broad range of everyday activity that occurs in the public spaces within any residential area. It is very much part of the overall open space aspiration to create a public realm which is used by all parts of the community and animated by the widest possible range of activity. The table opposite shows the overall range of play space to be provided and where it is located.

Age Group	Space Typologies	Location
0-4	Doorstep Playable Space: Landscaped space; Natural play features; Space for carers to sit/ talk though no formal supervision; Play equipment to provide range of physical experiences; Well overlooked/ not more than 15m from residential; Min 100 sqm; Within 100m of doorstep.	Courtyards, Neighbourhood Street
5-11	<div>Local Playable Space: Landscaped space; Children up to 11 can be active; Space for carers to sit/ talk; Flexi/ no formal supervision; Play equipment to be multi-functional and to provide range of physical experiences; Min 300 sqm; Within 400m of doorstep; Not more than 30m of and well overlooked by residential/ retail/ educational uses.</div> <div>Neighbourhood Playable Space: Varied natural space with secluded and open areas, landscaping and equipment; Children up to 11 can play/ be physically active; Space for carers to sit/ talk; Some youth facilities; Flexi use; May be supervised; Play equipment to be multi-functional and to provide range of physical experiences; Min 500 sqm; Within 400m of doorstep; Not more than 30m of and well overlooked by residential/ retail/ educational uses.</div>	Neighbourhood Street, Robin Grove
11-15	Youth Space: Social space for young people aged 12+ to meet, hang out and take part in informal sport/ physical recreation activities; No formal supervision; Min 200 sqm; With 800m of doorstep; 10-50m from frontages of, residential, educational, retail or leisure property; Avoid locations where noise will cause disturbance	Robin Grove



Examples of play facilities