Nine Elms
On the South Bank
Public Realm Design Guide

Transport for London

Lambeth

The Brighter Borough Wandsworth

GREATERLONDONAUTHORITY

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Nine Elms on the South Bank Public Realm Working Group
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Introduction

1.1 INTRODUCTION

1.1.1 BACKGROUND

1.1.1.1 2014 has seen a rapid acceleration in the rate of new development applications and construction activity in Nine Elms on the South Bank (NESB). With the London Boroughs of Lambeth and Wandsworth receiving and processing an ongoing series of planning applications for large and small developments across NESB, this Public Realm Design Guidance was commissioned to assist in producing a coherent approach to public realm design across the many and varied developments.

1.1.1.2 Work on the Guidance document was commissioned by Transport for London (TfL) and NESB in conjunction with the London Boroughs of Wandsworth and Lambeth supporting the work of the Public Realm Working Group (PRWG). The Guidance was commenced in April 2014, with a brief to:

- Analyse and summarise existing proposals, policies and guidance
- Establish a narrative and Guidance to draw the developments together to form a cohesive new district in the heart of London.

1.1.2 SCOPE OF THE GUIDE

1.1.2.1 The Public Realm Design Guide covers an area stretching from the Albert Embankment at Lambeth Palace to Battersea Power Station in a zone corresponding to the area identified in the 2011 Nine Elms Opportunity Area Planning Framework (OAPF).

1.1.2.2 This Guide summarises and builds upon existing public realm design aspirations, guidance and policy including:

- General design principles
- Spatial and route hierarchies
- Public realm character areas
- Planting design and biodiversity
- Street surfacing materials and furniture
- Public realm lighting
- Sustainable drainage within public realm
- Safety and security
- Temporary development and interfaces between sites

1.1.2.3 The Guide draws upon many other publications and studies, and is intended to be used in parallel with them. These include the NESB Surface Materials Code, TfL Nine Elms Lane Strategy, Vauxhall One's "Missing Link" project, and anticipates separate studies on Lighting, The Thames Path, and infrastructure phasing. Many aspects of highway design are also subject to an ongoing (2014) review of traffic in and around Vauxhall gyratory. The outcome of the traffic studies will substantially determine the design of public realm in Vauxhall and impacts on related issues, such as space available for cycle routes, and the locations of pedestrian crossings.

1.1.2.4 This Guide supplements the existing documents, and updates them where newer proposals or studies dictate. It is recommended that the Guide is updated at regular intervals to ensure it remains current and relevant as NESB develops and parallel guidance is developed.

1.1.3 STATUS OF THE GUIDE

1.1.3.1 This Public Realm Design Guide is intended to be read alongside other parallel reports as a guide to the quality and appropriate materials for the public realm of developments within the NESB area. It has been compiled as combined initiative between the following:

- Transport for London (TfL)
- London Borough of Lambeth (LBL)
- London Borough of Wandsworth (LBW)
- The Nine Elms South Bank (NESB) Public Realm Working Group (PRWG).

1.1.3.2 The Guide is recognised by the London Boroughs of Wandsworth and Lambeth and is approved by Strategy Boards and Lead Members of both Boroughs. It is not, however, adopted as a formal Supplementary Planning Document (SPD). Non-adoption of the Guide will allow the it to be subject to regular review and update without lengthy Adoption processes, ensuring it can remain up to date and relevant.

1.1.3.3 Public realm proposals described in individual planning submissions will continue to be considered and consulted upon in the normal way by the relevant Borough.

1.2 DEVELOPING THE GUIDANCE

1.2.1 PROCESS

1.2.1.1 This Guide has been developed by:

- Compiling and analysing development proposals for public realm design (as available May 2014)
- Summarising current public realm initiatives and planning policies in the area
- Establishing common aspects and a narrative to guide cohesive design and materials strategy
- Consulting with Key Stakeholders, including TfL, the two Boroughs and developers through the NESB Public Realm Working Group (PRWG)

1.2.2 CONSULTATION

1.2.2.1 The Guide has been developed in association with a Steering Group drawn from the NESB PRWG. It has then been reviewed by the wider group, which includes representatives of the Boroughs, developers, and other interested parties, including landscape architects, architects, infrastructure engineers and the urban design team from Transport for London. Initial findings were summarised in public display boards in June 2014 and comments incorporated.

1.2.3 REVIEW OF DEVELOPMENT PROPOSALS

1.2.3.1 The Design Guide team reviewed and analysed publicly available planning application drawings and design statements from across the NESB area, based on the plan major development sites identified in section 2.6. The review represents a 'snap-shot' of the development proposals at the time of submission and it is recognised that proposals may change. For example, the Battersea Power Station masterplan (approved in 2011) will be progressively superseded by 'Detailed' proposals. This Guide is kept flexible in acknowledgment of this natural process of design development.

1.2.3.2 Because the Guide is intended to offer advice relevant over a number of years, the it also allows flexibility to accommodate changing construction technology, regulations, policy and economic conditions.

1.2.3.3 The team also examined Previous Studies and Guidance.

1.2.3.4 This guide references other Policies and Guidance throughout. These include policies and studies that span London-wide Planning Policy Guidance, Borough Planning Policies, and studies specific to the NESB area. These include ongoing initiatives to upgrade the public realm of Nine Elms Lane, Vauxhall Gyratory, the new London Underground stations and Vauxhall Missing Link winning competition submission. These documents also reference relevant parts of Local Plans, Supplementary Planning Documents (SPDs) and other documents prepared by the two Boroughs, such as Parks and Green Space Strategies, and Site Specific Allocation Documents (SSADs).

1.2.4 ESTABLISHING NARRATIVE

1.2.4.1 In reviewing development proposals and existing reports and guidance the authors established a loose database of public realm design principles and materials. These were analysed to identify common threads, themes and materials which can then be used as the basis for design in the area.

1.2.4.2 Some developments and locations establish clear identities of their own. They include outstanding architectural, heritage and cultural features which range from the panoramic views from the Albert Embankment, to the iconic architecture of Battersea Power Station, the new US Embassy and the emerging cluster of tall buildings in Vauxhall. They also include vital economic and transport infrastructure. These include New Covent Garden Market which is diversifying from its origins as London's principal fruit, vegetable and flower wholesale markets to become the heart of a vibrant new Food Quarter. The analysis seeks to:

- Establish common themes and materials
- Identify the areas of difference and distinctiveness, in order to define Character Areas within the common guidance
- Describe a rationale which allows identity and uniqueness in the public realm design of each development within the Character Areas without compromising coherence or quality
- Forecast phasing and boundary issues, and suggest temporary strategies to mitigate them

1.2.5 GUIDE STRUCTURE

1.2.5.1 The body of the Guide is written in four sections:

SECTION 1

This first section is the introduction and identifies over-arching themes common to good public realm design

SECTION 2

Addresses the structure of the public realm across the whole NESB area.

SECTION 3

Identifies how the public realm structure applies across ten Character Areas

SECTION 4

Identifies design principles, guidance, good practice and standards for different aspects of the public realm.

1.3 OVER-ARCHING THEMES

1.3.1 PLACEMAKING

1.3.1.1 Lifetime Neighbourhoods and Inclusive Environment

The Public Realm must be designed and managed to serve the interests of all users, irrespective of age, gender, and cultural differences. The approach is described in "Lifetime Neighbourhoods" (DCLG 2011), which states that main attributes of a lifetime neighbourhood are:

- Supporting residents to develop lifetime neighbourhoods – especially resident empowerment
- Access
- Services and amenities
- Built and natural environments
- Social networks/well-being
- Housing

1.3.1.2 "Lifetime Neighbourhoods" identify considerations for both physical amenity (movement, sports and play areas, leisure space, seats, bins, lighting etc.) and psychological amenity (character, identity, views, beauty, richness, etc.).

1.3.1.3 These considerations combine to promote healthy lifestyles policy. Guidance on equitable access, healthy lifestyles, play and leisure is given in Sections 2, 3 and 4.

1.3.1.4 Design teams should ensure the public realm responds to the themes of Lifetime Neighbourhoods.

1.3.1.5 Designing Out Crime

The standards of design and maintenance of public realm have a profound impact on the social environment. Poorly designed and maintained streetscape, insufficient (or surplus) permeability, clutter, and lack of greenery are well known to be reciprocated with anti-social responses such as littering, graffiti, and fly-tipping. Conversely, good public realm promotes respect, care and a sense of community. High-level guidance on 'Designing Out Crime' in the public realm is offered throughout this Guide.

Design teams should ensure they consult with Designing Out Crime officers, and comply with the principles of the Designing Out Crime initiative.

1.3.1.6 Local Community and Character

The social contribution of public realm extends far beyond the leisure amenities afforded by parks, play areas, and sports pitches. Streets, squares, shops and transport interchanges are the stage for social interaction and chance encounter. They provide the meeting places, movement framework and setting for everyday life and special events.

1.3.1.7 The creative industries and arts can help to foster memorable public realm across NESB. Developers are demonstrating their understanding of the value of art in the public realm in creating local identity, and promoting quality. This Guide looks to identify ways in which the arts can address and enhance the "genius loci" (sense of place).

1.3.1.8 Design teams should respond to the social functions and benefits of public realm - creating streets, squares, parks and other public areas to promote social and cultural interaction and as expressions of civic pride and creativity.

1.3.1.9 Economic Value of Public Realm

1.3.1.10 A series of studies by the Commission for Architecture and the Built Environment (CABE) in the early 2000s highlighted the economic value of good quality public realm design. They highlighted and quantified the economic benefits that a high quality and green environment can bring. Economic benefits include:

- Attracting residents, workers and visitors to the area and encouraging passing trade
- Increasing property values and incomes
- Extending trading activity and the evening economy
- Establishing new business opportunities in retail, leisure and tourism
- Activating ground level floor-space

1.3.1.11 Good public realm also provides the setting for cultural activity with its own economic benefits. The London Mayor's Culture Strategy "Cultural Metropolis" (2014) describes London-wide initiatives and builds on the experience of London the 2012 Cultural Olympiad. Cultural destinations in NESB will extend London's growing range of attractor destinations, which include the world-class cultural and tourism offer of the Thames South Bank, Millbank, and Lambeth. The public realm of Nine Elms will link these to the new destination at Battersea Power Station and to Battersea Park.

1.3.1.12 The value to be gained through investment in public realm works in the new NESB destination is self-evident: The development proposals that were analysed in researching this Guide all recognise and demonstrate a commitment to creating a high quality, high value environment. This level of commitment must be universal across NESB. This document describes materials which meet quality thresholds appropriate to the central, waterfront location that NESB enjoys, as well as principles of continuity and coherence.

1.3.1.13 Design teams should demonstrate how the public realm positively contributes to the placemaking and economic functioning of NESB.

1.3.2 GREEN INFRASTRUCTURE, ADAPTATION AND HEALTHY LIVING

1.3.2.1 Mayoral and Borough Policies recognise the value of Green Infrastructure in environmental moderation of and creating healthy environments. The London Plan includes Policies specific to:

- Climate Change Mitigation
- Minimising Carbon dioxide emissions
- Urban Greening
- Flood Risk Management
- Improving Air Quality
- Enhancing the Acoustic Environment
- Protecting Open Space and Addressing Deficiency
- Biodiversity and Access to Nature
- Trees
- Blue Ribbon Network, Rivers and Waterspaces

1.3.2.2 These are supported by a series of Supplementary Planning Guidance (SPG) and Best Practice Guides (BPG). These supplement Lambeth and Wandsworth Borough Planning Policies and guidance which are set out in their respective Local Plans.

1.3.2.3 Environmental Value of Public Realm

All aspects of the public realm should actively address their environmental roles. Environmental sustainability must consider both the local environmental context and global issues such as climate change (described by UN Secretary General Ban Ki Moon as “Mankind’s greatest threat”).

1.3.2.4 Evidence indicates that dense, low lying urban areas will typically be subjected to greater impacts from climate change than rural areas. Opportunities exist in the design of the public realm to both minimise the emissions which drive man-made climate change, and to mitigate the predicted impacts.

1.3.2.5 Development within NESB has a particularly need to address attenuation of surface water due to its low lying position alongside the Thames. Wherever feasible, the design of the public realm should promote on-site soakage of rainwater, the capture of surface water (for irrigation or other grey-water use) and incorporate attenuation. A coordinated drainage strategy is in development as part of a wider engineering infrastructure strategy (2014).

1.3.2.6 Public realm proposals must address the adoption of strategies which might include (but is not limited to):

- Specifying materials which are reused, reusable, recycled and recyclable
- Minimising the “embodied carbon” in materials and resources across the whole lifecycle of the design / material
- Examining durability and cradle to cradle emissions
- Using tools such as the Green Guide to Specification, Code for Sustainable Homes and BREEAM and LEED (or their successors) as aids to minimising climate change impacts
- Integration of on-site renewable energy generation, and establishing flexibility for later installation

1.3.2.7 Public realm proposals should demonstrate their positive local environmental benefits in:

- Water quality and local attenuation of storm-water
- Habitat creation
- Minimising the ‘urban heat-island’ effect
- Ground level wind-speed mitigation – particularly around tall and large buildings
- Mitigating negative noise and visual impacts – especially during construction
- Improving air quality by reducing dust and other particulates, atmospheric pollutants.

1.3.3 MOVEMENT AND ACCESSIBILITY

1.3.3.1 Cities are built around the ceaseless movement of people and goods, and London’s transport infrastructure is indivisible from its public realm.

1.3.3.2 In common with all other quarters of the city, transport infrastructure profoundly influences both the historic and contemporary patterns of development. It is a fundamental influence on cultural heritage in NESB: The River Thames, the railway, road and London Underground networks have shaped the pattern and pace of development through history.

1.3.3.3 With the replacement of most industrial and many logistics land uses, the public realm of NESB will be shaped by the increasing emphasis on public transport and a reduction in the use of private vehicles. It must encourage walking and cycling as practical and healthy modes of transport, and in support of public health and environmental policy.

1.3.3.4 This change in emphasis demands a permeable and sociable public realm and is essential to the ensuring quality of life and environment for the new and existing communities. It will lead to improving air quality, and environmental function, even while population and economic activity increase.

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2.0

Nine Elms
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Public Realm Strategy

This chapter presents an overview of the Public Realm Strategy across the NESB area with diagrams and high-level analysis of the structure of the Public Realm of NESB.

2.1 URBAN CHARACTER

2.1.1 INTRODUCTION

2.1.1.1 NESB covers approximately 195 hectares of highly diverse central south-west London. Much of the area's character is derived from its pivotal role in London's industrial development. Though the northern end of NESB is only half a mile from the Palace of Westminster, much of the area has, until recently, been seen as isolated.

2.1.1.2 The rapid pace of transformation will help define a distinct character for the new NESB quarter of London: The architectural styles and technology of the era will be identifiable in future years, just as the work of Victorian architects and engineers is to us today. It is important to ensure that the existing diversity of the local neighbourhoods within NESB can be retained at a scale to which individuals and communities can relate.

2.1.1.3 This guide also builds on Lambeth and Wandsworth Boroughs' Character Areas within NESB. London is a city of many "villages" where identity is expressed at a neighbourhood and local scale.

2.1.1.4 The public realm must therefore respond at four levels of urban identity:

- NESB as a part of London
- NESB as a distinct, coherent and vibrant new quarter – one of London's many 'towns'
- Character areas within NESB which reflect local districts, local context and local urban functions
- Uniqueness and self-expression on a place-by-place and building-by-building level.

2.1.2 LONDON POLICY

2.1.2.1 London is one of the world's great cities with unique international reputations as:

- An historic and architectural centre
- A major economic and financial centre
- A tourist destination
- A centre for an extraordinary array of arts and culture

2.1.2.2 The public realm is inextricably woven into the fabric of London through existing buildings, transport and engineering infrastructure, and most of all by the communities within the area.

2.1.2.3 London wide policy is set out in the Further Alterations to the London Plan (2014). Chapter 5 sets out relevant policies relating to climate change and the greening of the built environment and Chapter 7 sets out the city wide place making policies including the importance of place shaping, ecology, landscape and the role the historic environment plays in defining London's unique character.

2.1.2.4 The Vauxhall Nine Elms area is identified as an Opportunity Area by the London Plan and the Vauxhall 9 Elms Opportunity Area Planning Framework 2012 (VNEB OAPF) is the Mayors adopted Supplementary Planning Guidance for the area. This sets out in greater detail how the policies of the London Plan are to be implemented.

2.1.2.5 The VNEB OAPF was prepared in cooperation with the London Borough of Lambeth and Wandsworth and has been endorsed by both boroughs as the strategic framework for the area. Chapter 7 of the VNEB OAPF sets out the areas public realm strategy which comprises five principle interventions:

1. An improved river walk
2. Strategic links to the river
3. A new linear park
4. Road Environment improvements
5. A new pedestrian/ cycle bridge

2.1.2.6 This guidance takes the strategic framework described in the VNEB OAPF as its starting point and sets out further detailed advice on its delivery and implementation.

2.1.2.7 Specific components of the public realm that must be incorporated as completely coherent with London-wide standards are mostly based on transport and movement infrastructure such as:

- TLRN: e.g. Signing, pavement design, markings
- London Cycle Hire furniture and signing
- London Buses – design of stops, signing and routes
- Underground and rail networks – design of stations, signing and security
- Design of pedestrian signing (using the Accessible London standards)
- Accessible London way-finding and signing system

London-wide
GLA + National Policy and Design Guidance

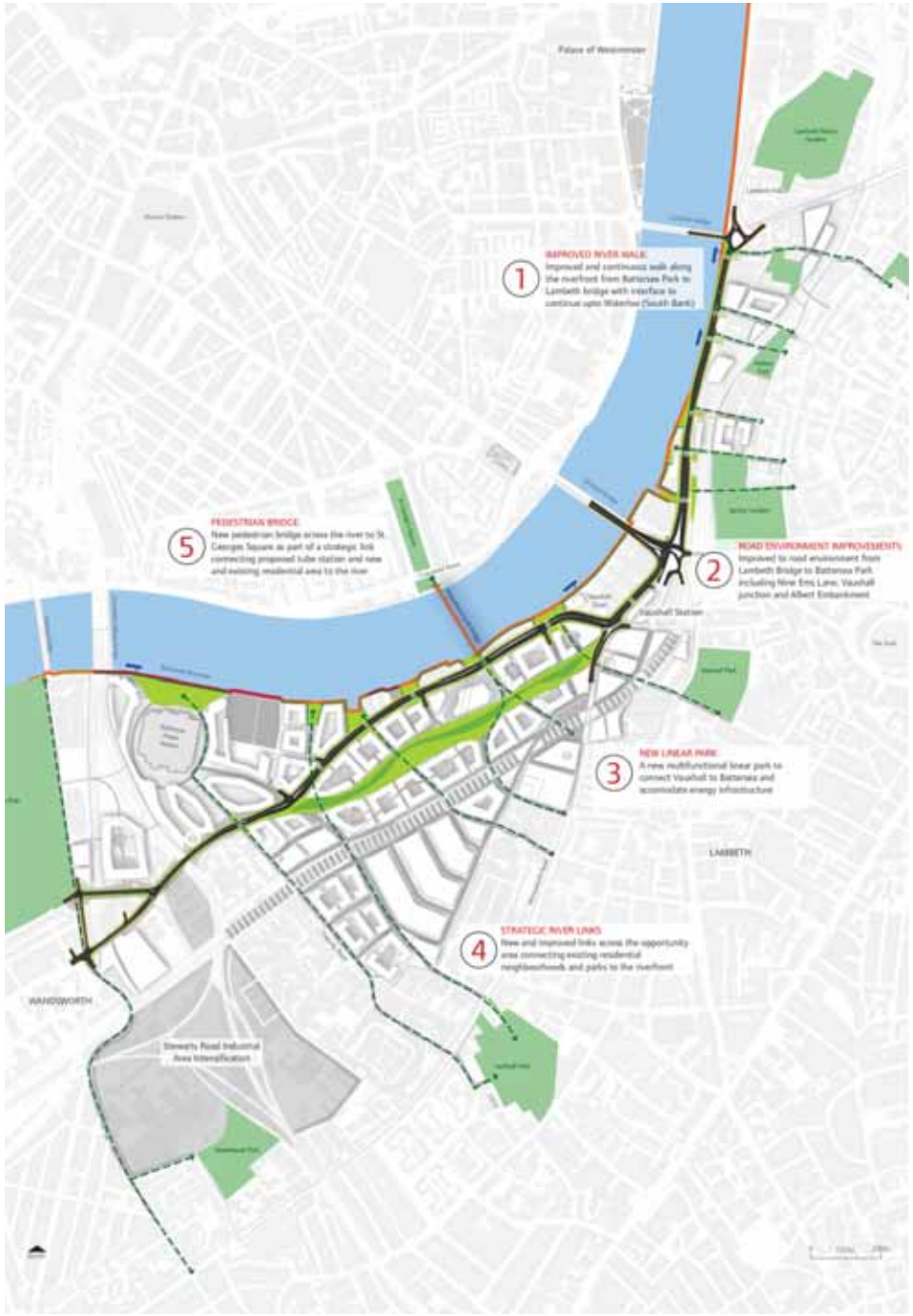
NESB-wide
GLA + Borough Policy and Design Guidance

Character Areas
Borough + NESB Design Guidance

Local Identity
NESB Design Guidance Development Design Teams

City scale

Local scale



5 Principle interventions: VNEB Opportunity Area Planning Framework (2012)

2.1.2.8 Character and Context SPG (GLA, 2014) establishes the London-wide context for NESB's urban character. This document defines the terms 'Character' and 'Context' as:

- Character is created by the interplay of different elements, including the physical or built elements that make up the place, the cultural, social and economic factors which have combined to create identity, and the people associated with it through memories, association and activity.
- Context can be defined as the way in which places, sites and spaces inter relate with one another whether physically, functionally or visually, or the way in which they are experienced sequentially and understood.

"All places are made up of combinations of the following elements:

- Physical: including underlying structure such as geology and landform, landscape, architecture, urban and built form and settlement
- Cultural: the evolution of places over time, often also linked to social, environmental and economic factors and the ways in which places function and the activities which define them
- Perceptual and experiential: the sensory aspects of a place – how places are used and experienced. Also covering memories and associations which people or communities have with their place"

2.1.2.9 The SPG defines four fundamental principles:

- Character is all around us and everywhere has a distinctive character;
- Character is about people and communities as well as the physical components;
- Places are connected and overlap – boundaries, edges and transitions are important;
- Character is a dynamic concept – evolution and change are a fundamental characteristic of London.

2.1.3 NESB DESIGN STANDARDS

2.1.3.1 As a new quarter, NESB:

- Is an inner city regeneration project of extraordinary scale
- Is located in very close proximity to the heart of London and UK government
- Offers Thames-side locations that command exceptional residential value
- Benefits from unique cultural and economic assets
- Has a unique set of challenges for engineering and transport infrastructure

2.1.3.2 To address these, NESB-wide policy and standards include:

- The Opportunity Area Planning Framework (GLA, 2012)
- Borough policy and guidance (such as Lambeth's Vauxhall SPD)
- NESB Cycling Strategy (TfL, 2013)
- The Surface Materials Design Guide (NESB, 2013)
- Nine Elms Lane Public Realm Design (TfL, 2013)
- Emerging strategies for Vauxhall gyratory system (which influence the wider area)
- Emerging strategies for the NESB Thames Path, NESB Lighting; Infrastructure phasing and Nine-Elms Lane
- Nine Elms on the South Bank - A Place for Culture (NESB, 2013)

2.1.3.3 As a summary and extension of these, public realm design standards across NESB generally are described in Section 4 of this Design Guide.









2.1.4 CHARACTER AREA GUIDANCE

2.1.4.1 NESB is establishing its physical identity around three iconic landmarks:

- Battersea Power Station
- New Covent Garden Market
- The US Embassy

2.1.4.2 These are supplemented by many other highly distinctive, unique developments of high quality. These include the developments forming the cluster of new tall buildings in and around Vauxhall Cross - which is fast becoming another iconic feature in London's historic skyline. The new and existing landmarks, features and patterns of development have defined a series of Character Areas in Wandsworth and Lambeth Policy which are developed in this Public Realm Design Guidance.

2.1.4.3 Wandsworth's adopted Site Specific Allocations Document (2012), describes eight districts within the Area Spatial Strategy for Nine Elms which are adopted in this Guidance. The Site Specific Allocations Document (SSAD) also defines Design Principles describing (among other headings) Streets/street blocks; View Corridors; Parks and Open Spaces.

2.1.4.4 Lambeth's Local Plan describes 6 smaller character areas within Vauxhall. These reflect the fine grain of detail in the Planning Policy for the area that is developed in the Vauxhall Supplementary Planning Document (2013). These Character Areas are:

- Lambeth Gateway
- Central Embankment
- Glasshouse Walk
- Vauxhall Cross
- Miles Street
- Pascal Place

2.1.4.5 For the purposes of this wider public realm guidance, these have been simplified to:

- Vauxhall Albert Embankment
- Vauxhall Pleasure Gardens District
- Vauxhall Cross
- Embassy Character Area (part)

2.1.4.6 The public realm Character Areas are modified in order to:

- To reflect the wider scale of NESB, and the level of detail possible in this study
- To ensure they focus on public realm uses and character rather than development areas
- To help unify the public realm across Borough boundaries.

2.1.4.7 By combining the Wandsworth and Lambeth character areas, 11 Character Areas are established within NESB (shown opposite).

2.1.4.8 The characteristics, structure and principles for public realm within each character area are described in Section 3, with the objective of providing useful guidance within each character area, while giving design teams creative freedom based upon their own site analysis and guidance.

2.1.4.9 It should be noted that there are a few cases where Character Area boundaries do not coincide with land ownership boundaries. These occur where a natural change in character or a feature (such as Nine Elms Lane / Battersea Park Road) differentiate between development parcels.

2.1.5 EXPRESSING LOCAL IDENTITY

2.1.5.1 Residents, workers and regular visitors to NESB will respond most often and most directly to their immediate environment and its local identity. The local scale establishes the detail with which we interact every day. Developers also seek clear identity for each development site, as a means of making the development attractive to purchasers or tenants. There is therefore a common interest in ensuring each building, street, square or garden is unique within the context of the Character Area, the NESB and London.

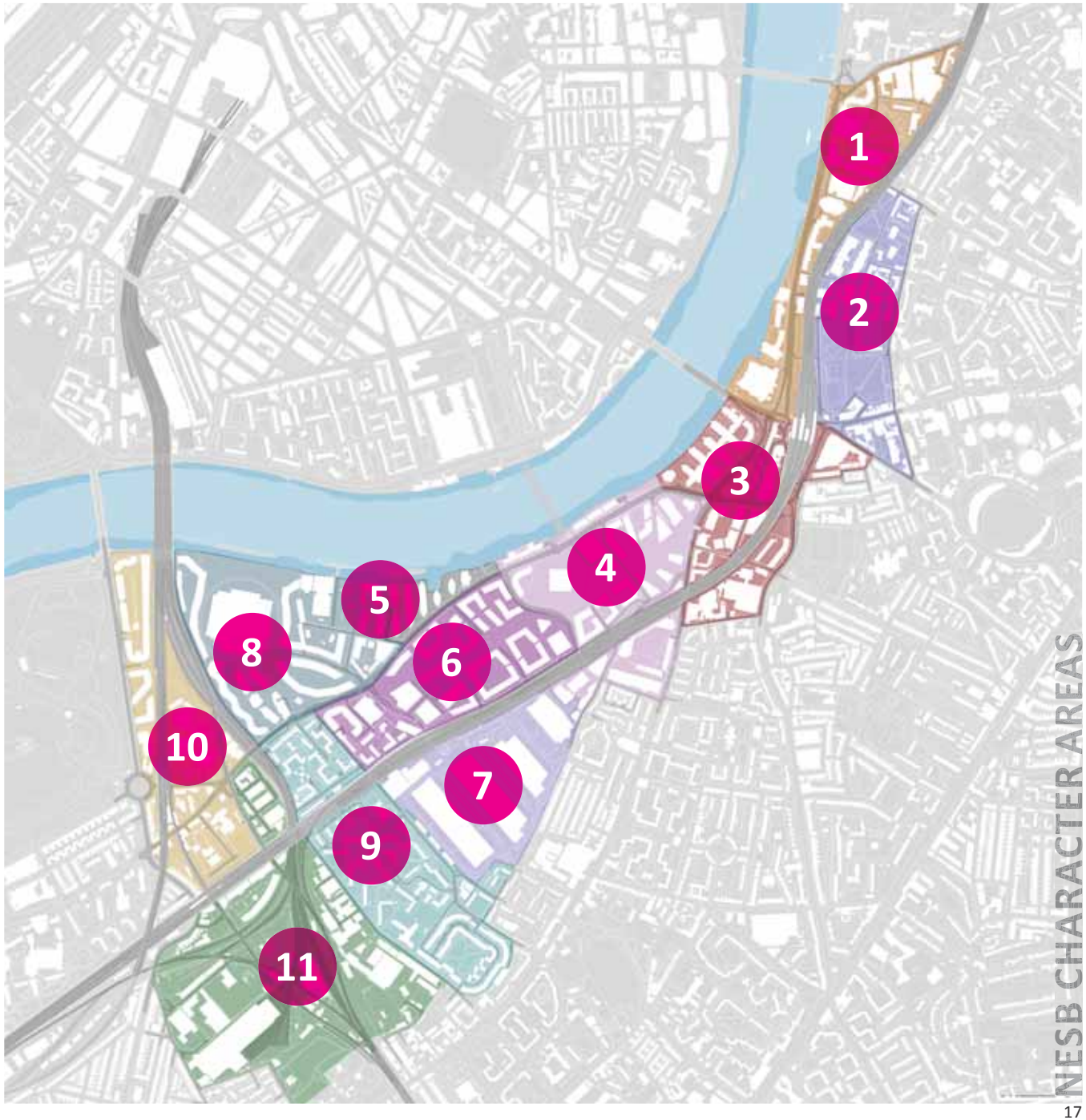
2.1.5.2 Each design team will develop an interpretation of the public realm based on this and other guidance, but also on the individual qualities of their own development. This freedom of expression within the framework of the design guidance gives rise to the rich urban environment for which London is famous.

2.1.5.3 Local landmarks, artworks, junctions, pocket-parks, and even bench-seats can become expressions of local distinctiveness.

2.1.5.4 Public realm that is common to several or many developments however, should not be commandeered into the style of any particular development. Features such as Nine Elms Linear Park, Nine Elms Lane and the Thames Path embrace individuality and difference, but demand coherence within their demise. For this reason materials, lighting design, furniture and planting of public and common areas (including streets) must be designed to be neutral using materials and principles found in common guidance.

2.1.5.5 Strategies for coherence on the interfaces and boundaries between adjacent developments are described later in this section.

1. VAUXHALL ALBERT EMBANKMENT
2. VAUXHALL PLEASURE GARDENS DISTRICT
3. VAUXHALL CROSS
4. EMBASSY CHARACTER AREA
5. NINE ELMS RIVERSIDE
6. NINE ELMS PARKSIDE
7. MARKET DISTRICT
8. POWER STATION DISTRICT
9. THESSALY
10. BATTERSEA PARKSIDE
11. STEWARTS ROAD



NESB CHARACTER AREAS

2.2 SPATIAL HIERARCHY

2.2.1 INTRODUCTION

2.2.1.1 Spatial hierarchy is essential in delivering a navigable public realm. NESB is characterised by iconic landmarks and buildings of international status. These include:

- The Thames (its presence is identified by its spaciousness even when not directly visible)
- Battersea Power Station (cultural and architectural icon)
- New Covent Garden Market (iconic in its scale and a significant barrier to movement)
- The US Embassy (a new architectural icon)
- Lambeth Palace (one of London's most important historic Palaces)

2.2.1.2 These are supplemented by features which include:

- The bridges over the Thames
- The transport nodes at Vauxhall, Nine Elms and Battersea
- The railway viaducts which cross NESB
- The emerging cluster of towers in Vauxhall
- Highly distinctive developments such as Vista, Riverlight, St Georges Wharf
- District and Local centres at Vauxhall and Battersea Power Station
- Parks, greenspace and squares

2.2.2 THREE ROUTES

2.2.2.1 These distinctive features are linked through the emerging network of public spaces, streets and green infrastructure. The network is structured around three very different routes which run approximately parallel to the Thames:

- The Thames Path (Blue Route)
- Battersea Park Road, Nine Elms Lane, Albert Embankment highway corridor (Red Route)
- Battersea Power Station Park, Nine Elms Linear Park, Vauxhall Pleasure Gardens, Vauxhall "Missing Link" (Green Route)

2.2.2.2 The three routes are crossed by streets and public space running approximately perpendicular - linking the Thames, bridges and existing communities to the south and east of NESB.

2.2.2.3 The public space network formed by the three routes and cross connections is described further in Section 2.4.

2.2.3 DISTRICT CENTRES

2.2.3.1 Vauxhall is being reinvented as the road gyratory is replaced with two-way traffic and the loose urban grain becomes more structured and defined by the cluster of tall buildings located around the bus, rail and underground interchange.

2.2.3.2 The dramatic increases in development and population densities place greater importance on Vauxhall as a Central Activities Zone (CAZ) and identifiable District Centre. The transition to two-way traffic must create a more pedestrian friendly and accessible environment for many thousands of commuters and local residents using the transport and retail facilities.

2.2.3.3 The increased enclosure provided by taller buildings will help re-establish a more coherent urban grain. It is important that building frontages directly address the alignment of streets in order to re-establish a coherent public realm.

2.2.3.4 Battersea Power Station will be the focus of a new CAZ serving the International Quarter and existing communities along, and to the south of Battersea Park Road. The new cultural, leisure and retail developments will be linked to Battersea Underground by pedestrian routes through a two-level shopping centre and the new two-level Malaysia Square. The Power Station itself, park and play areas are all in close proximity.

2.2.4 WAYFINDING: MARKERS AND ATTRACTORS

2.2.4.1 Markers and attractors can be used to signify a destination, a threshold or an intermediate location (a junction or change of direction).

2.2.4.2 At a local scale, markers and attractors can give places a clearer identity and purpose by drawing people in (with an artwork, water feature, garden or lighting), or providing a service (such as seating, play-space, civic space, school entrance).

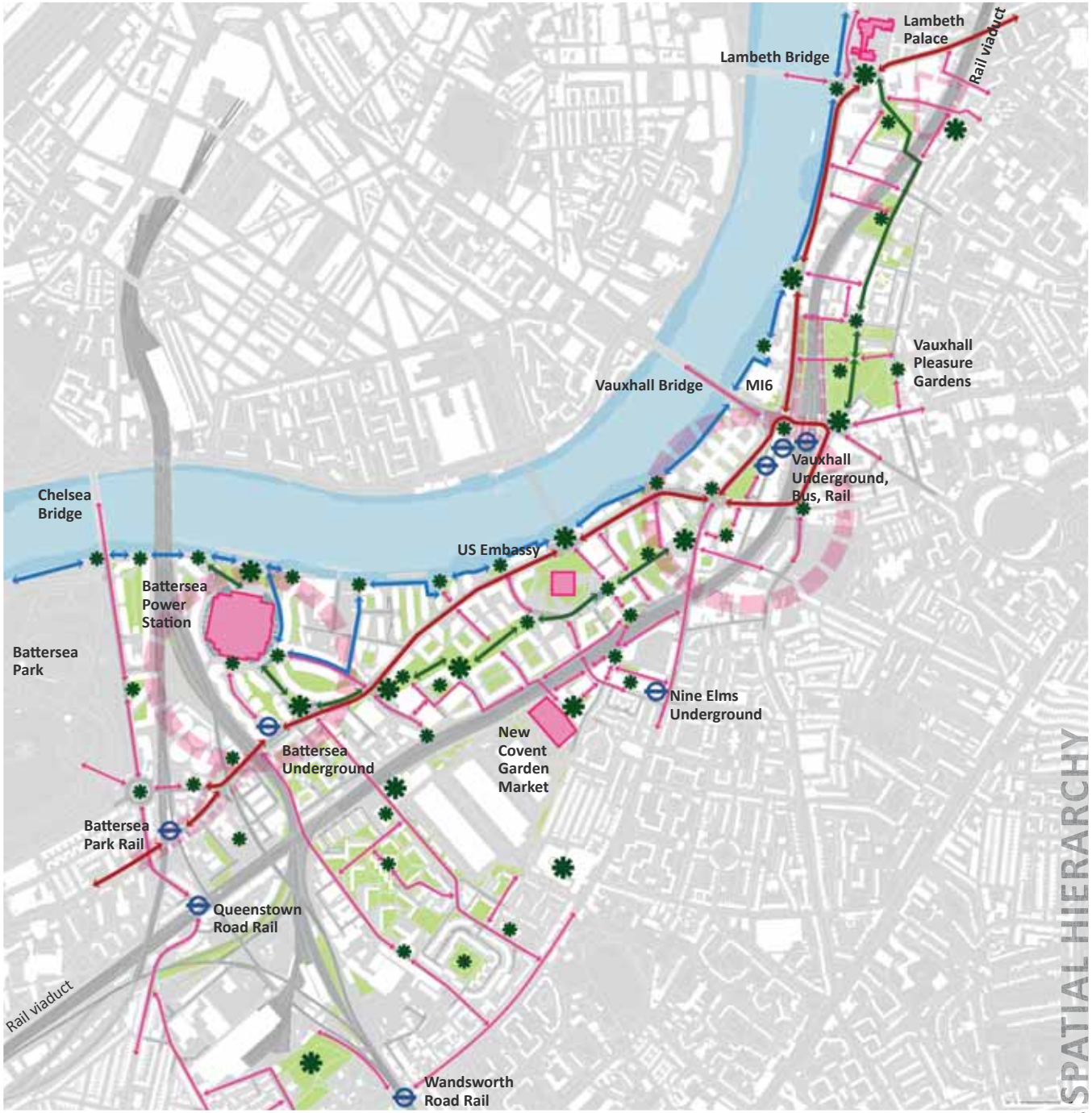
2.2.4.3 Examples include:

- The Entrances to the Nine Elms Linear Park
- 'The Prospect' at Battersea Power Station
- The existing columns at the entrance to Vauxhall Pleasure Gardens
- The landing point of the proposed pedestrian bridge
- Dwell and performance spaces (e.g. in the Linear Park).

2.2.4.4 Artworks used as markers should respond to their location and intended audience. The response should be intellectual (often responding to local cultural references) and practical (for example, markers for the Linear Park entrances should be visible from a distance, so need to be tall, and well illuminated at night). These primary works should set benchmarks for creative innovation. Guidance on the use of markers and attractors in each Character Area is given in Section 3.

Key: Spatial Hierarchy

- Iconic Landmarks
- Principal markers and attractors
- Secondary markers and attractors
- Principal transport nodes
- Principal Greenspace
- District and local centres
- Thames Path (Blue Route)
- Battersea Park Road; Nine Elms Lane; Albert Embankment (Red Route)
- Linear Park; Pleasure Gardens; Missing Link (Green Route)
- Cross Connections



SPATIAL HIERARCHY

2.3 STREETS + CYCLE NETWORK

2.3.1 URBAN GRAIN

2.3.1.1 Through a long history of industrial land-uses and a period as rail yards, NESB has inherited a disjointed and fragmented street network. The remaining railway lines, yards, junctions and long elevated viaducts disrupt the continuity and connectivity of the urban fabric, making pedestrian way-finding difficult and creating dead-end and one-sided streets.

2.3.1.2 Large industrial and distribution depots, railway arch units with blank facades and railway yards often offer little passive surveillance and leave many streets feeling intimidating.

2.3.1.3 The redevelopment of large, previously industrial areas provides the opportunity to establish an urban grain with coherence, permeability and human scale.

2.3.1.4 The overall structure of streets in NESB is described in the Vauxhall Nine Elms Battersea Opportunity Area Planning Framework (GLA, 2012). This is supplemented by a range of streetscape and cycle strategy documents including:

- The Public Realm Surface Materials Code (TfL and Nine Elms Vauxhall Partnership Public Realm Working Group, 2013)
- 'Cycling Strategy: Nine Elms on the South Bank' (TfL, 2013)
- 'Nine Elms Lane Public Realm Design' (TfL, 2013)
- Ongoing studies into the transport infrastructure of Vauxhall Cross (2014)
- 'Vauxhall Supplementary Planning Document' (London Borough of Lambeth, 2013)
- 'Battersea Public Realm Scoping Study' (TfL, 2013)

2.3.1.5 Better connectivity is inherent in the proposals for NESB. However, too much pedestrian permeability (especially where there is no vehicular through route) across poorly defined landscape can dilute footfall, causing routes to feel isolated especially at night.

2.3.1.6 The railway viaducts form a major barrier to connectivity. Existing routes through the railway arches even when enhanced with artworks, but can still feel insecure due to poor space lighting and surveillance.

2.3.2 STREET AND CYCLE NETWORK OBJECTIVES

2.3.2.1 The OAPF and subsequent documents establish a network of routes which strikes a balance between permeability and focused use on particular routes. The network offers:

- Good levels of permeability, around and between each development block - normally provided by through-routes (rather than cul-de-sac routes).
- Connectivity and continuity of routes within and beyond NESB - to establish good connections with surrounding neighbourhoods and facilities.
- Well defined streets (pedestrian or vehicular), spaces and parks - with clear and focussed routes across public open space
- Clear boundaries and thresholds to public open space to focus use on particular routes and enable management of access on less-used routes and public spaces during the night
- New and enhanced railway arch connections to be brightly lit at all times, enhanced through artworks and feature lighting but focussed in safe, through-routes with good natural surveillance characteristics.
- A comprehensive system of London Cycle Network (LCN) routes and Quietways throughout NESB

2.3.3 GENERAL DESIGN PRINCIPLES

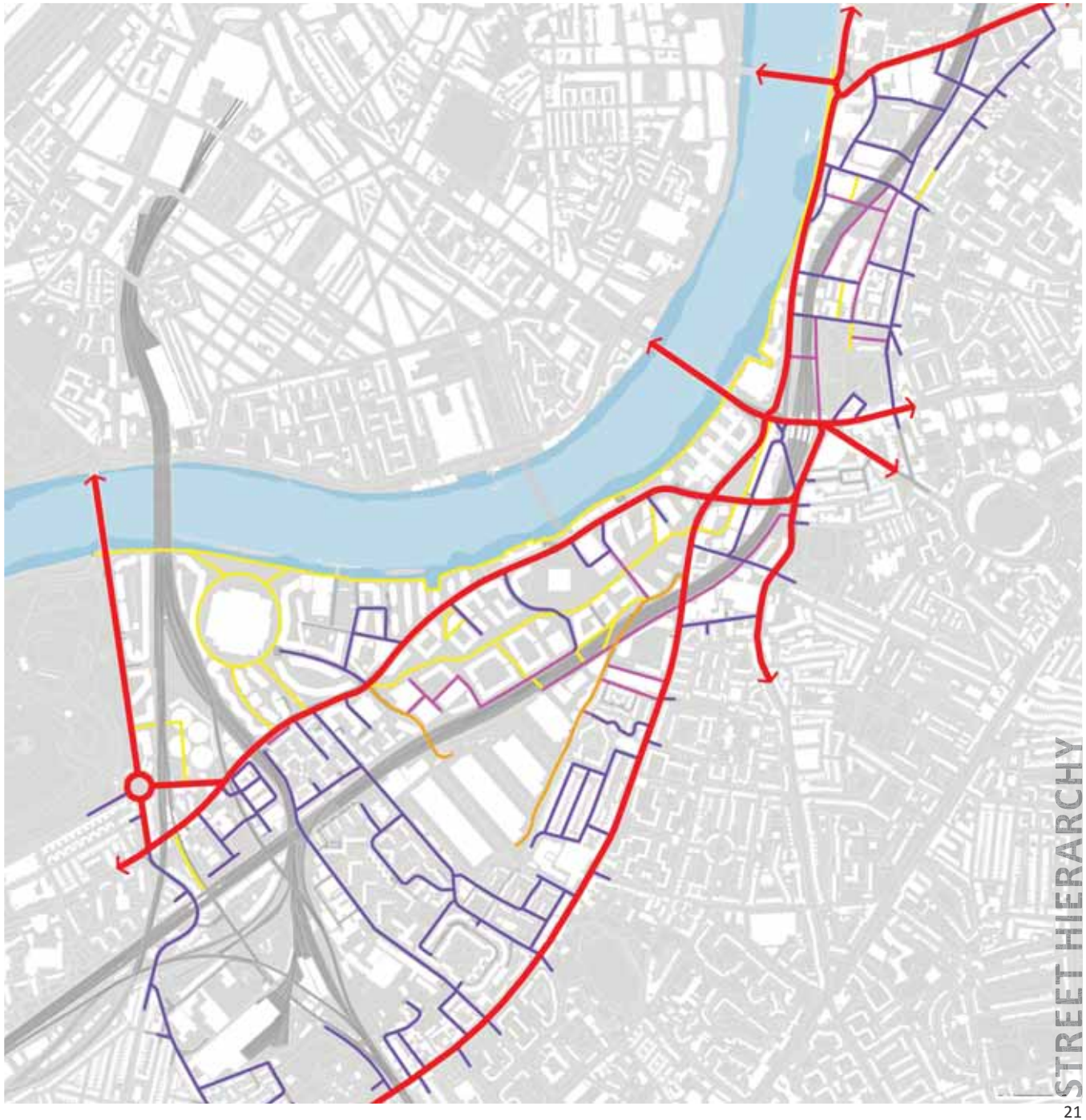
2.3.3.1 Permeability: To achieve coherent, permeable design of a high quality, public realm designers should ensure the following:

- Pedestrian and cycle connectivity will be enhanced in and around each development providing access for its own benefit and for the benefit of neighbouring areas and communities
- Establishment of safe and direct access to amenities for residents of the preexisting communities as well as new developments
- Both ends of a street are visible from any point on it.
- Green infrastructure within the street network to improve on the preexisting natural and ecological capital to establish connective habitat associated with streets, pedestrian and cycle routes and contribute to surface water drainage strategy
- Streets, parks, squares, cultural destinations and attractions will stimulate tourism, social interaction, and leisure appropriate to the location

NESB STREET CODE HIERARCHY

(Based on 'Public Realm Surface Materials Code: Nine Elms on the South Bank' (2013)

- Main Street
- CGMA HGV Infrastructure
- Side Street - Traditional Layout
- Side Street - Pedestrian Friendly Layout
- Pedestrian Dominated Space



STREET HIERARCHY

2.3.4 STREET HIERARCHY

2.3.4.1 Streets within NESB are placed in a hierarchy of typologies derived from the Public Realm Surface Materials Code (2013). The Code has been expanded to incorporate areas in the north of NESB not previously covered.

2.3.4.2 Typical plans and cross sections illustrating each street type are shown in the illustrative diagrams (right and opposite).

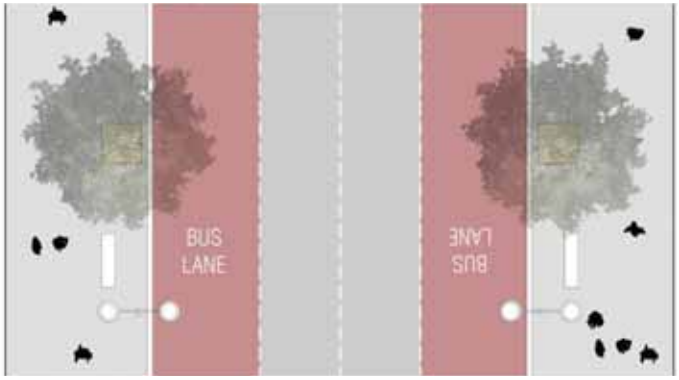
2.3.4.3 Description of each street type, covering the design intent, design speeds, materials, and features is given in the Public Realm Surface Materials Code (2013).

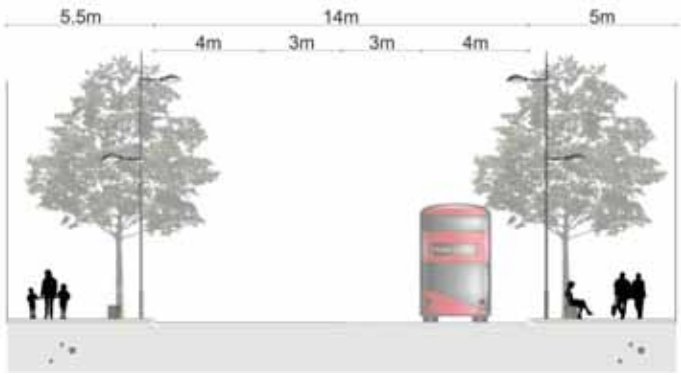
2.3.4.4 Further guidance on street design, materials and street zoning (based on the Surface Materials Code) is given in Section 4.

TYPICAL STREET SECTIONS

NESB STREET TYPOLOGY 1

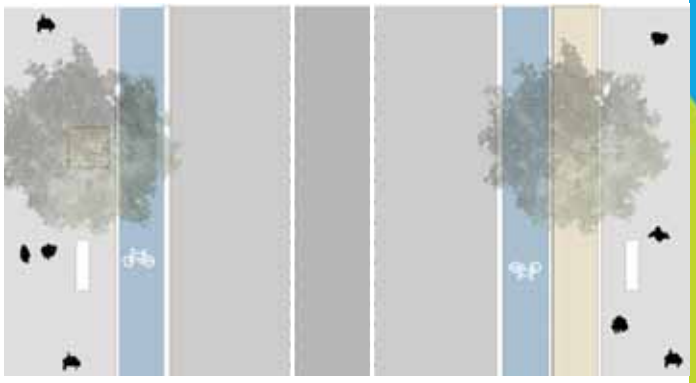
MAIN STREET (NO SEGREGATED CYCLEWAY)

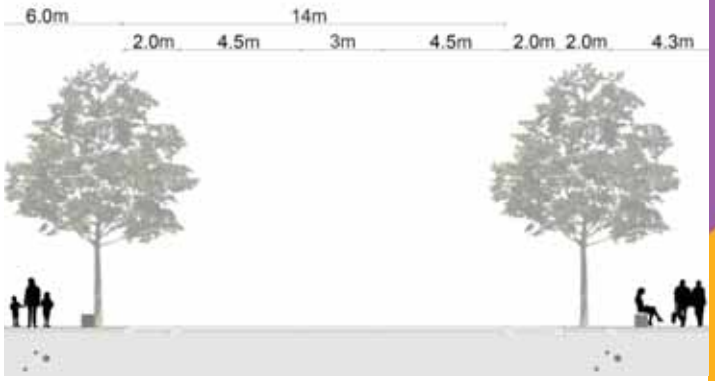




NESB STREET TYPOLOGY 1A

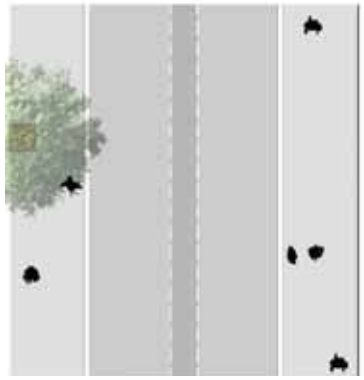
MAIN STREET (WITH SEGREGATED CYCLEWAY)





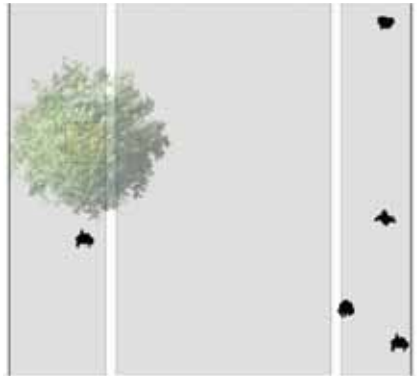
NESB STREET TYPOLOGY 2

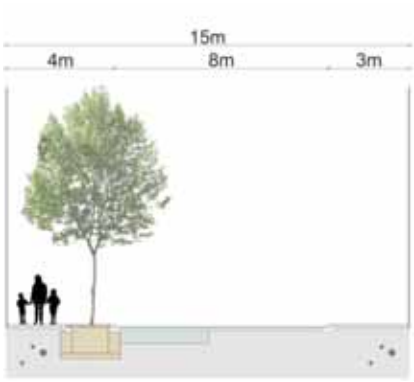
CGMA HGV INFRASTRUCTURE



NESB STREET TYPOLOGY 3

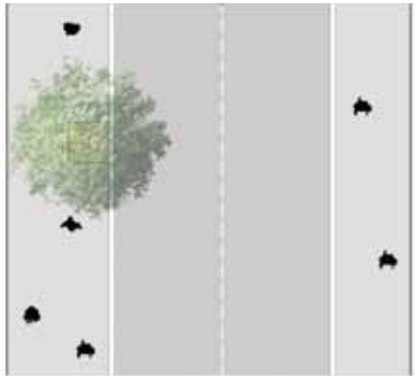
SIDE STREET - TRADITIONAL LAYOUT

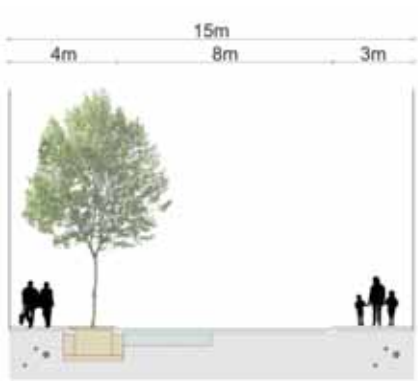




NESB STREET TYPOLOGY 4

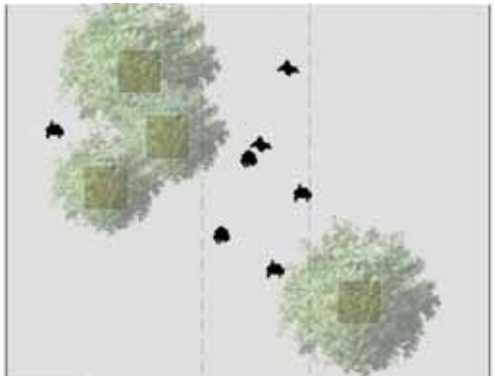
SIDE STREET - PEDESTRIAN FRIENDLY LAYOUT

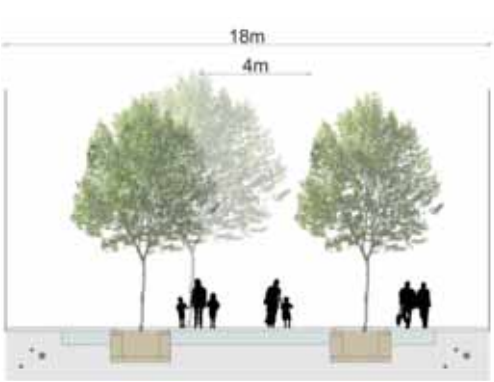




NESB STREET TYPOLOGY 5

PEDESTRIAN DOMINATED SPACE





2.3.5 CYCLE NETWORK

2.3.5.1 Cycle connectivity is based upon the guidance 'Cycling Strategy: Nine Elms on the South Bank' (TfL, 2013). The guidance describes a hierarchy of cycle routes which vary from the Street typologies. In common with the Street Hierarchy, this has been extrapolated to cover areas to the north of NESB not previously covered.

2.3.5.2 Further guidance on the Street and Cycle Network for each Character Area is given in Section 3.

2.3.5.3 London's cycle network is developing rapidly, and provision within NESB will be influenced by the outcome of a number of ongoing studies. These include:

- Studies examining the re-introducing two-way vehicle movements at Vauxhall Cross
- Continuing implementation of the London Cycle Network
- London-wide initiatives to improve provision for cyclists and cycle safety through increased segregation and improved junction design.

2.3.5.4 The use of recently completed (2015) proposals to improve cycle safety at Queen's Circus will be analysed, and the designs and safety statistics of this scheme (and similar proposals elsewhere) will continue to be used to develop safer design for cyclists in NESB and across London.

2.3.5.5 The TfL Cycling Strategy acknowledges the likely use of the Thames Path as an "off road" cycle leisure route, but also the difficulties presented by tight corners and the sometimes narrow corridor available. The potential and constraints of the Thames Path for cycling will be considered as part of the separate Thames Path study, and only after analysis of the safety of all users.

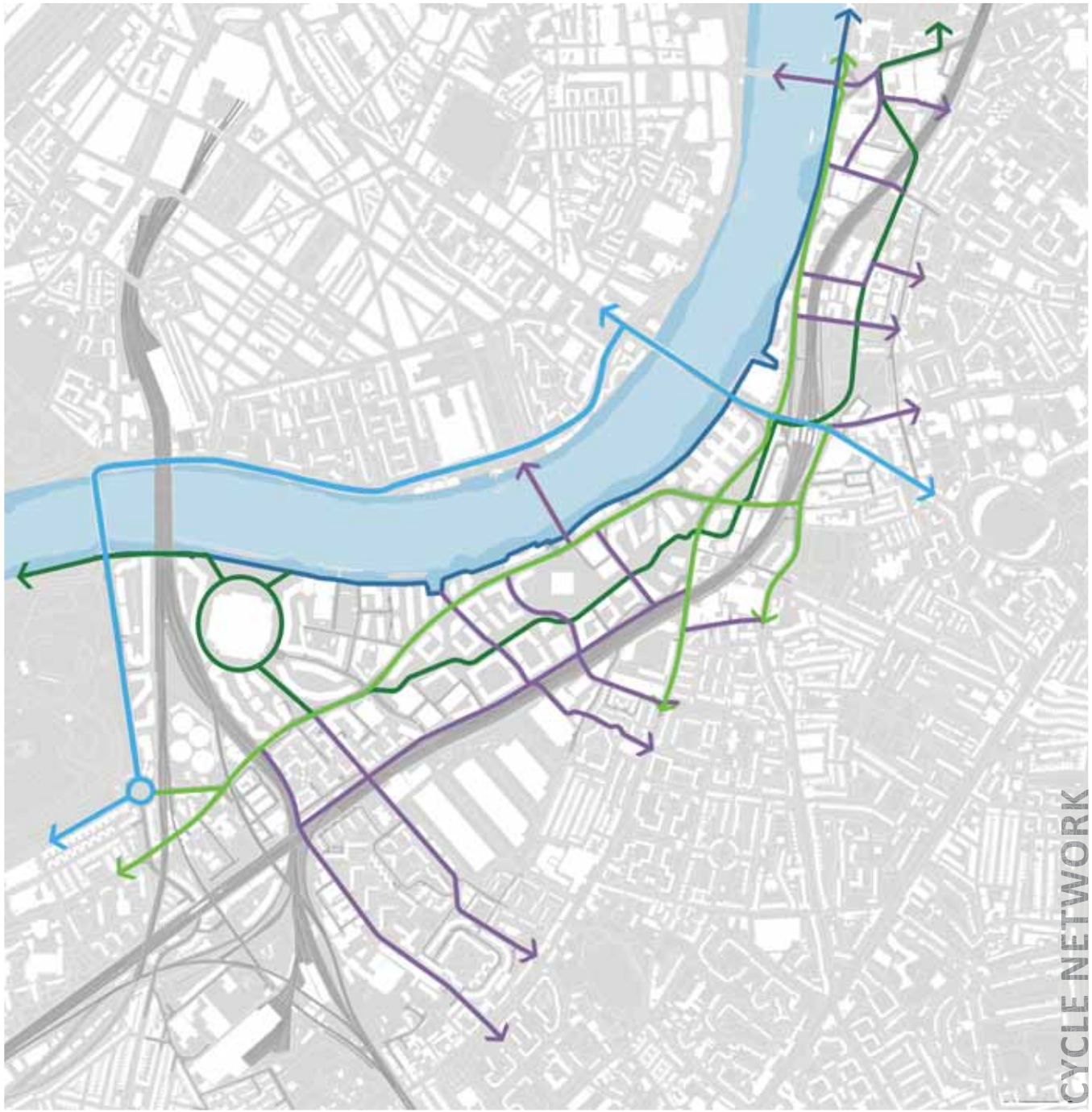
2.3.5.6 The TfL Cycling Strategy also acknowledges Nine Elms Linear Park offers a potentially attractive route for leisure cyclists. Design for cycling any route through the Park must take due account of the needs and safety of all park users.

2.3.5.7 Provision of segregated cycle routes along the railway viaduct corridor and / or Nine Elms Lane/Battersea Park Road will help ensure faster moving commuter cyclists are not misusing leisure routes.

NESB CYCLE NETWORK

(Refer to 'Cycling Strategy: Nine Elms on the South Bank' (TfL, 2013)

- London Cycle Superhighway Routes
- London Cycle Network Routes
- Quietways
- Green link - informal leisure route
- Thames Path - informal leisure route



2.4 PUBLIC SPACE NETWORK

2.4.1 INTRODUCTION

2.4.1.1 One of the principal aims of the Public Realm Design Guidance is to ensure the coherence and continuity of public open space. All developments will be expected to meet Borough and GLA standards for the provision of amenity and play space, which is determined by a formulas based on the type and size of accommodation. This section describes at a high level how these areas should correlate.

2.4.1.2 Public space network can be described in terms of the three routes described in Section 2.2 above:

- The Thames Path (blue)
- Albert Embankment, Nine Elms Lane/Battersea Park Road (red)
- Nine Elms Linear Park and Vauxhall Missing Link (green)

2.4.1.3 This supported by the finer grain of streets, squares and green space (including roof gardens and green walls) that together form interstitial streets and space. An example of the opportunities for this finer grain urban greening is set out in the Vauxhall One Green Infrastructure Audit

2.4.2 THE THAMES PATH

2.4.2.1 The Thames Path is one of the UK's National Trails. NESB's section presents the opportunity to better connect London's South Bank cultural quarter to Vauxhall, Nine Elms and Battersea Park to the southwest via a series of new public spaces associated with developments (such as Riverlight and St Georges Wharf) and new infrastructure of Thames Tideway Tunnel.

2.4.2.2 At Battersea Power Station the Path takes in the Battersea Power Station Park. In Nine Elms the path will meet the proposed new pedestrian bridge linking to Pimlico. On the Albert Embankment, the Path takes advantage of world class views to Westminster.

2.4.2.3 The Thames Path is subject of a separate study (2014) investigating permanent, temporary and 'meanwhile' proposals. As well as defining the long term nature of the public realm along the Thames Path, the project examines its use as an asset for existing and recently completed developments during ongoing construction in NESB.

2.4.3 NINE ELMS LANE + ALBERT EMBANKMENT

2.4.3.1 The road corridor following the Thames comprises the streetscape of Nine Elms Lane and Battersea Park Road to the south of Vauxhall, and Albert Embankment to the north. A project is currently (2014) in development which examines Nine Elms Lane and will look to incorporate a safer route for cyclists and treed boulevard to soften the impact of traffic and reduce the scale of high- and mid-rise development.

2.4.4 LINEAR PARK + VAUXHALL "MISSING LINK"

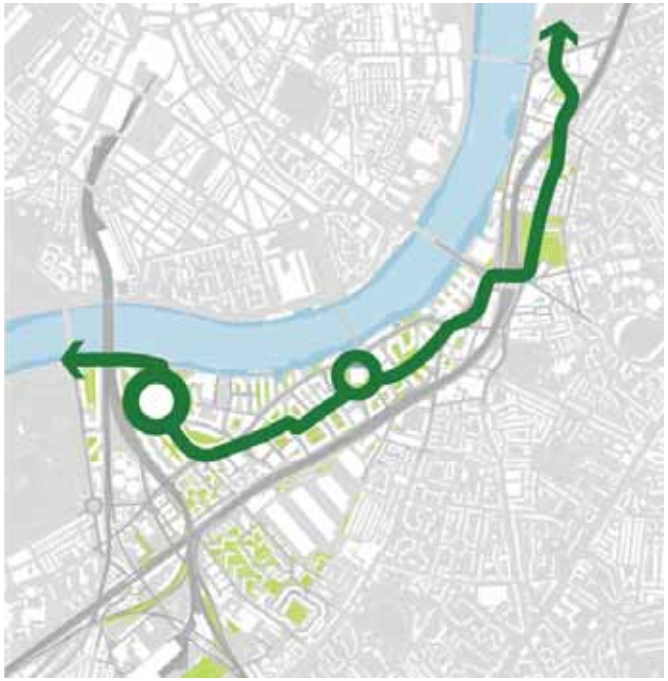
2.4.4.1 The primary greenspace component is a ribbon of parkland and open spaces which describes a continuous pedestrian route between the principal destinations in NESB. This ribbon was first described in the Opportunity Area Planning Framework and has the Nine Elms Linear Park at its heart. This Design Guide extends the principle north of Vauxhall by correlating with the Vauxhall "Missing Link" project.

2.4.5 STREETS AND INTERSTITIAL SPACE

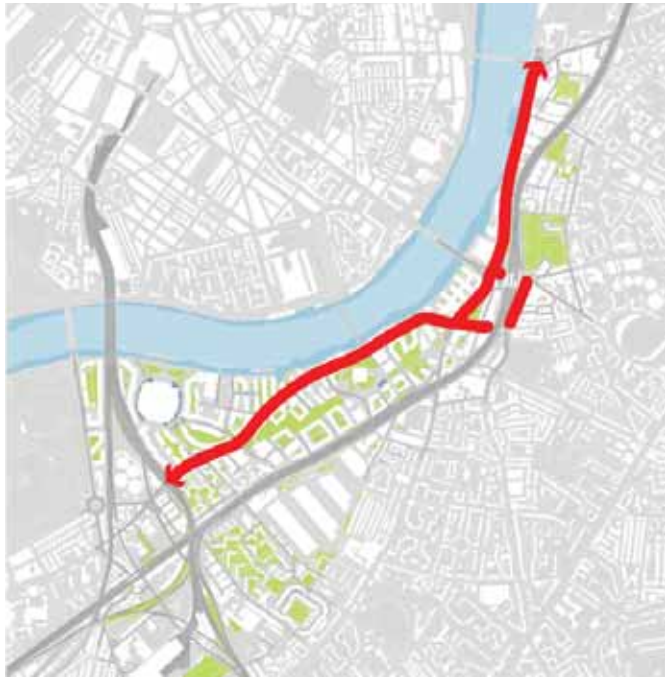
2.4.5.1 The fourth part of the greenspace network is the system of streets and spaces which link all of the above to each other and the surrounding areas. Varied and diverse spaces include many locally important public spaces, streets and communal courtyards.

Thames Path

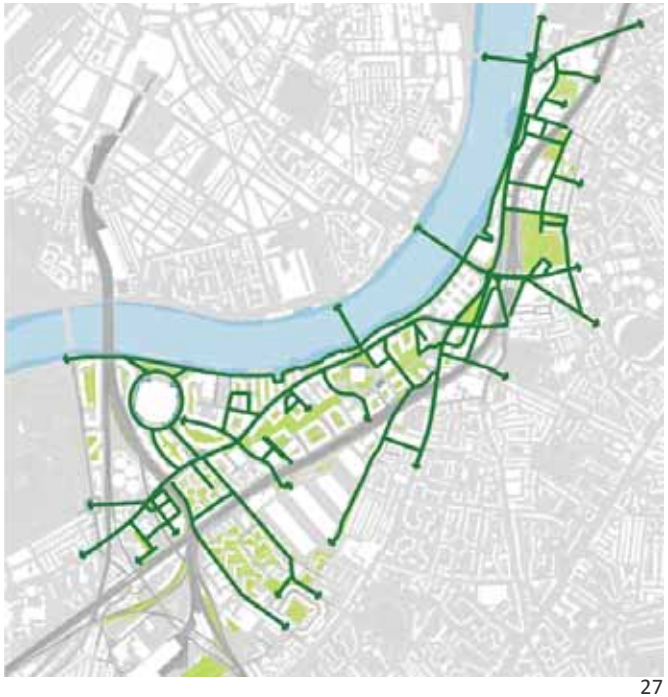
Linear Park and Vauxhall Missing Link



Nine Elms Lane + Albert Embankment



Streets and Interstitial Space



2.4.6 GREEN RIBBON COMPONENTS

2.4.6.1 The components of the Green Ribbon are as follows:

2.4.6.2 A. Starting at Battersea Park, the Thames Path links beneath Chelsea Bridge and Cremorne (rail) bridge to the new Battersea Power Station Park

2.4.6.3 B. Battersea Power Station acts as the focus of pedestrian dominated public realm (The Circle) which extends parkland to a pedestrian crossing of Nine Elms Lane (The Prospect).

2.4.6.4 C. The CGMA Entrance Site features the Battersea Entrance to Nine Elms Linear Park. This draws people and the eye with a prominent artwork, water features, play space and café areas.

2.4.6.5 D. The Linear Park extends eastwards past Embassy Gardens (west), the proposed school site and games areas to the plazas and water features around the US Embassy.

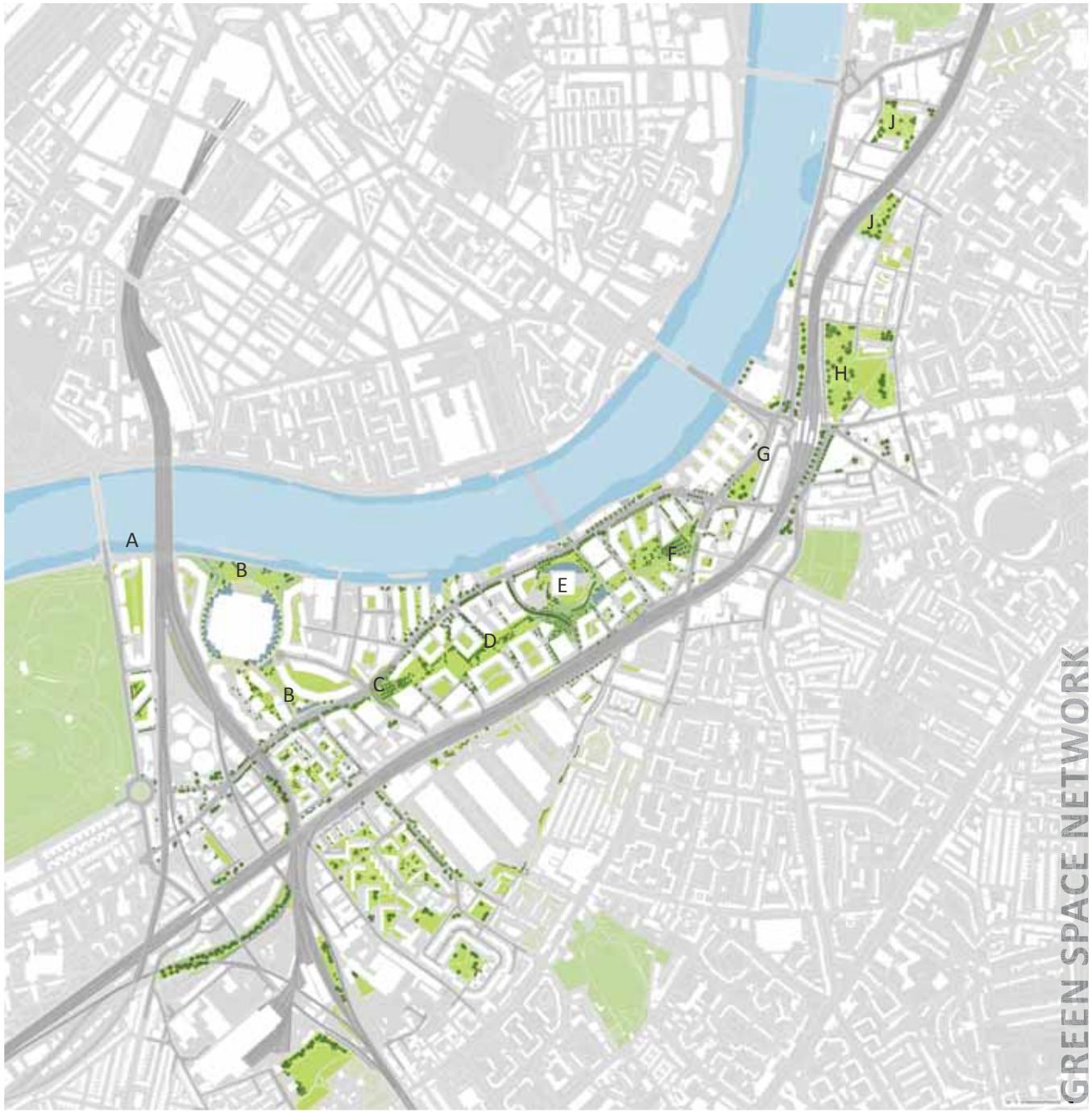
2.4.6.6 E. At the US Embassy, the Linear Park opens out to Nine Elms Lane and the location for a proposed new pedestrian bridge across the Thames.

2.4.6.7 F. The Linear Park narrows to extend past water features before opening out again within the CGMA Northern Site which features a large play area and the Vauxhall Entrance to the Linear Park. This entrance also includes water features, cafes, retail space, prominent artwork.

2.4.6.8 G. Via an enhanced crossing of Wandsworth Road and the central courtyard of Vauxhall Square, the Vauxhall transport interchange is reached. Greenspace proposals in Vauxhall Cross are dependent upon the ongoing (2014) transport studies which will radically transform the road network. While the heart of Vauxhall will be transformed by the cluster of tower developments and highway changes, the principle of direct pedestrian public realm linking north-south is essential.

2.4.6.9 H. North of Vauxhall Cross, the Vauxhall Pleasure Gardens continue the greenspace chain, and features marker artworks, games areas and marks the start of the Vauxhall Missing Link featuring a series of “Curiosities”

2.4.6.10 J. The tight network of streets north of the Pleasure Gardens is the setting for a series of greening initiatives as part of the Missing Link project which takes in Vauxhall Walk, Pedlars Park, Old Paradise Gardens and the entrance to the Garden Museum.



GREEN SPACE NETWORK

2.5 RECREATION, PLAY + LEISURE

2.5.1 RECREATIONAL SPACE - POLICY

2.5.1.1 Minimum areas of amenity space for leisure, and play are determined in the planning policies of the London Boroughs of Wandsworth and Lambeth and is informed by GLA Supplementary Planning Guidance. The previous section (Greenspace Network) describes how the amenity space forms a coherent network across NESB.

2.5.2 GLA PUBLIC OPEN SPACE CATEGORIES

2.5.2.1 GLA Guidance describes a hierarchy of public open space determined in terms of a guideline size and distance from homes. Application of this hierarchy demonstrates that there is good access to public open space within NESB.

2.5.2.2 Within and influencing NESB's park provision, open space can be categorised as:

2.5.2.3 Metropolitan Parks (catchment 3.2km):

- Battersea Park

2.5.2.4 District Parks:

- None

2.5.2.5 Local Parks and Open Spaces (catchment 400m):

- Vauxhall Park
- Vauxhall Pleasure Gardens
- Nine Elms Linear Park
- Battersea Power Station Park
- Prospect Park (Battersea Power Station)
- Heathbrook Park

2.5.2.6 Small Open Spaces (catchment < 400m):

- Pedlars Park
- Old Paradise Gardens

2.5.2.7 Pocket Parks (catchment < 400m):

- Interstitial spaces generally

2.5.2.8 Linear Open Spaces (catchment varies)

- Thames Path

2.5.3 PLAYABLE SPACE

2.5.3.1 Guidance relates not only to the quantity, but also the type and proximity of different types of amenity and play area. With particular reference to play, GLA Guidance describes a hierarchy of Playable Space:

- Doorstep Playable Space (target age range: 0-5 years; catchment 100m)
- Local Playable Space (target age range: 0-11 years; catchment 400m)
- Neighbourhood Playable Space (target age range: 0-18 years; catchment 800m)
- Youth Space (target age range: 12-18 years; catchment 800m)

2.5.3.2 All residential developments are required to ensure that they provide on-site play for younger children in accordance with the need for Doorstep Playable Space, other play may be provided with a combination of on- and off-site provision. This approach ensures facilities are well used and focussed in the most accessible locations.

2.5.3.3 Provision of Local and Neighbourhood Playable space is often combined as Neighbourhood Space, an approach which is followed within parks across NESB.

2.5.3.4 Neighbourhood Playable Space is distributed along the principal greenspace chain – with additional facilities off-site in neighbouring residential areas. Principal locations are:

- CGMA Entrance Site
- CGMA Northern Site
- Vauxhall Pleasure Gardens
- Old Paradise Gardens
- Pedlars Park
- Existing play facilities exist in Savona, Carey Gardens and Patmore Estates

2.5.3.5 Guidance on playable space within each Character Area is given in Section 3, and design guidance given in Section 4.

2.5.4 SPORTS FACILITIES

2.5.4.1 Sports facilities (Multi-use Games Areas and dedicated pitches) are located in:

- Battersea Park
- Heathbrook Park
- Nine Elms Linear Park
- CGMA Market (accessed from Thessaly Road)
- Vauxhall Pleasure Gardens
- Larkhall Park also includes large areas suitable for informal sports

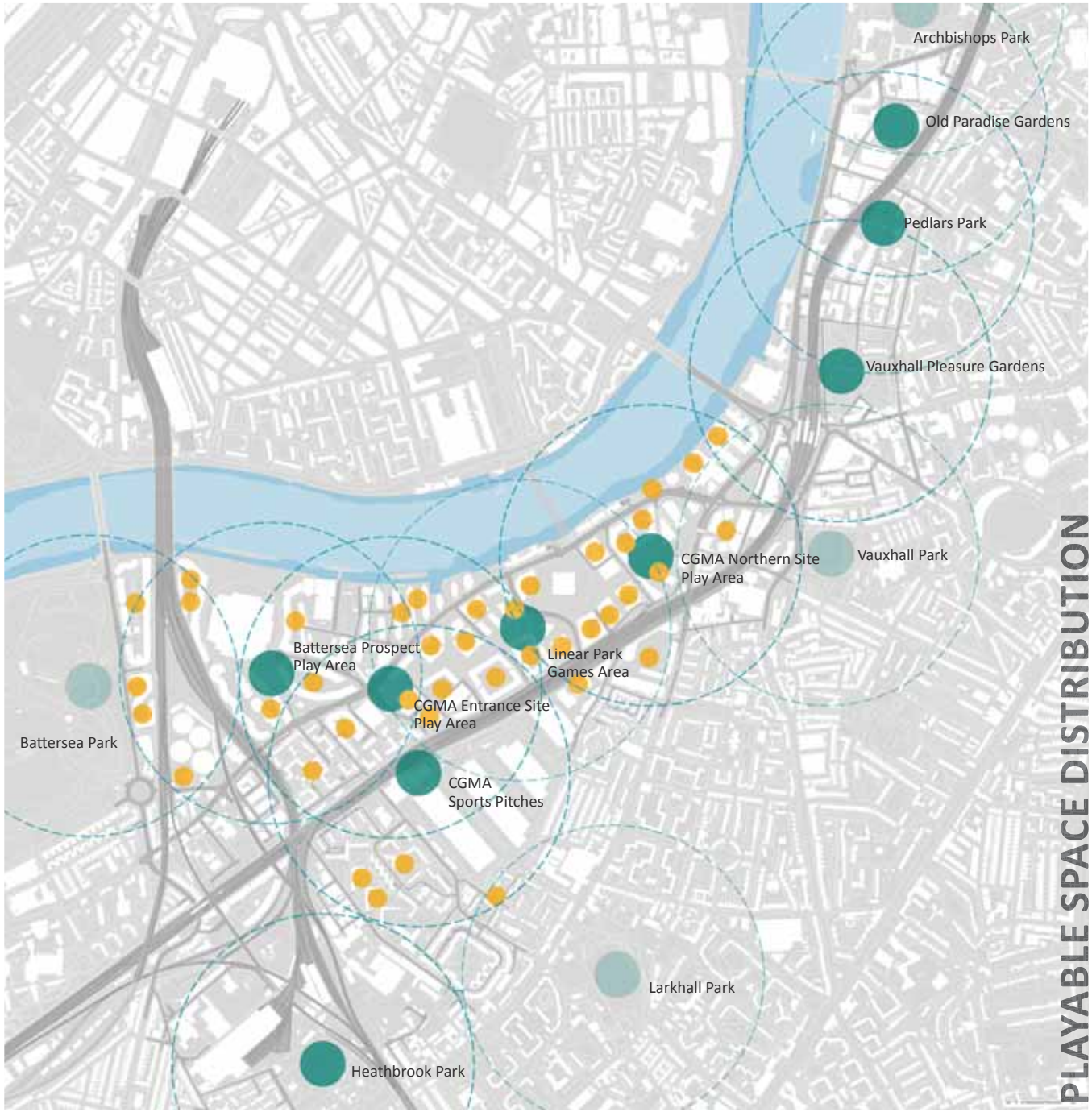
2.5.4.2 Contributions towards these facilities and others is likely to be required as on-site provision is often not possible due to area constraints.

PLAYABLE SPACE - KEY

Local / Neighbourhood Playable Space (400m catchment)

Public Playable Space and Sports provision

Indicative location of Private / Communal Doorstep Playable Space



PLAYABLE SPACE DISTRIBUTION

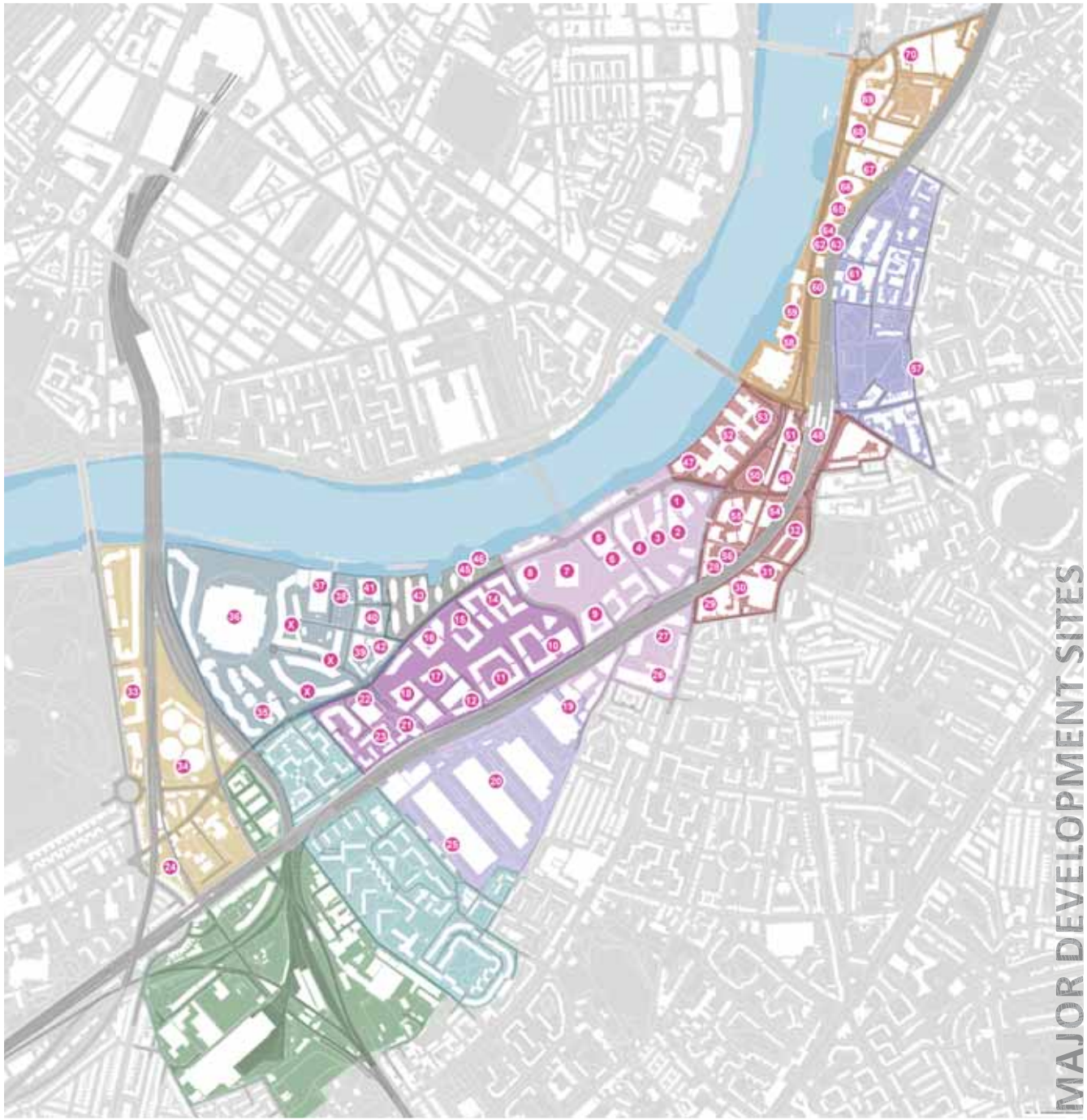
Nine Elms
On the South Bank

2.6 MAJOR DEVELOPMENT SITES

1) One Nine Elms
2) CGMA / VSM
3) CGMA / VSM
4) CGMA / VSM
5)Embassy Gardens Phase 3
6)Embassy Gardens Phase 3
7) US Embassy
8) Dutch Embassy
9) Embassy Gardens Phase 2
10) 40-42 Ponton Road
11) Government Car Dispatch
12) Metropolitan Police Warehouse
14) Embassy Gardens Phase 1
15) Nine Elms Parkside
16) Nine Elms Parkside
17) Nine Elms Parkside
18) Entrance Site (NCGM / VSM)
19) Apex Site (NCGM / VSM)
20) Market Site (NCGM / VSM)
21) BMW Garage, 49-59 Park Road
22) Bookers Cash and Carry
23) Battersea Crest
24) Battersea Park East
25) NCGM / VSM
26) Nine Elms Underground Station
27) Nine Elms Point
28) Vauxhall Square
29) Sky Gardens
30) 12-2- Wyvil Road
31) Keybridge House
32) The Atlas
33) Vista
34) Battersea Gardens
35) Battersea Underground station
36) Battersea Power Station
37) Cringle Dock
38) Cemex
39) Thames Tideway Tunnel
40) Thames Tideway Tunnel
41) Thames Tideway Tunnel
42)TBC
43) Riverlight
45) Heathwall Pumping Station
46) Middle Wharf
47) The Tower, One St. George Wharf
48) Vauxhall Station
49) South Lambeth Place
50) Vauxhall Island Site
51) Vauxhall Station
52) St. George Wharf
53) Vauxhall Station (Underground)
54) New Bondway
55) Vauxhall Square
56) Vauxhall Square
57) Vauxhall City Farm
58) Camelford House
59) Thames Tideway Tunnel
60)Texaco Garage
61) Spring Mews
62) Merano Residence
63) Prince Consort House
64) Corniche
65) Park Plaza Hotel
66) 10 Albert Embankment
67) 81 Black Prince Road
68) Fire Brigade HQ
69) TBC
70)TBC

Nine Elms
On the South Bank

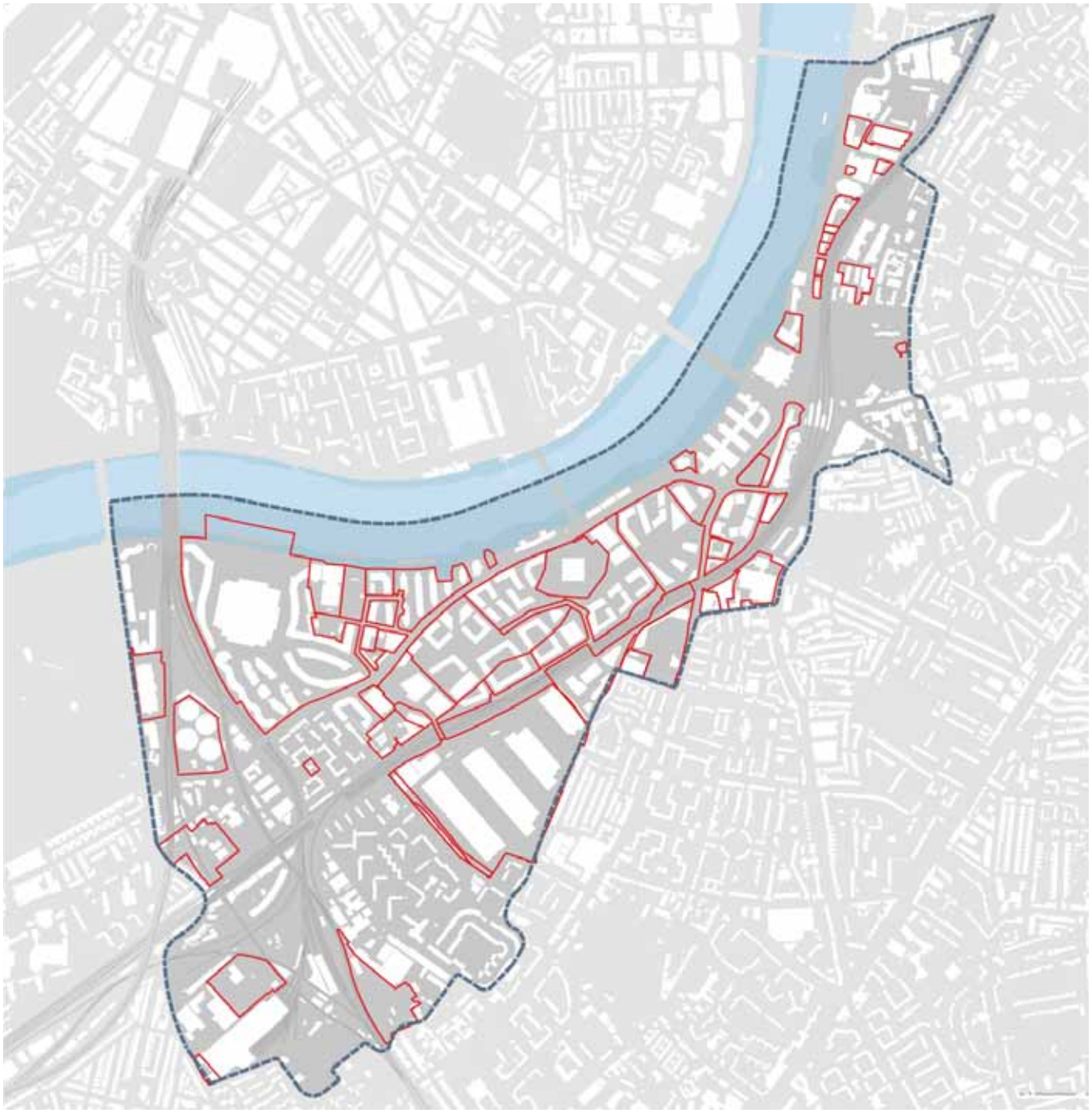
2.6.4.1 Major development sites in NESB (2014) within the 10 Character Areas.



MAJOR DEVELOPMENT SITES

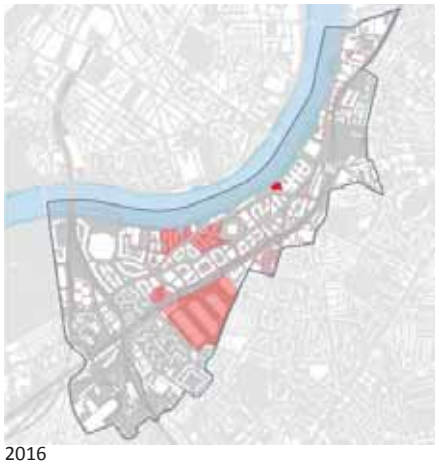
Nine Elms
On the South Bank

2.7 MAJOR SITES – PHASING



NESB Site Boundaries

Current



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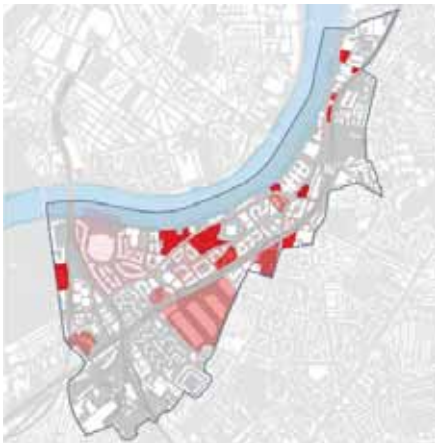

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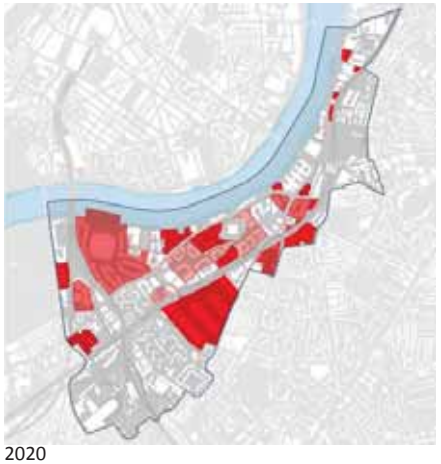

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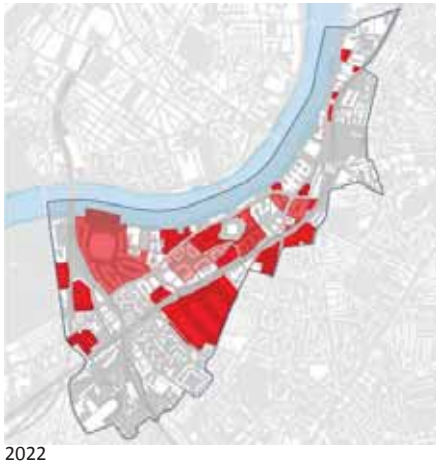

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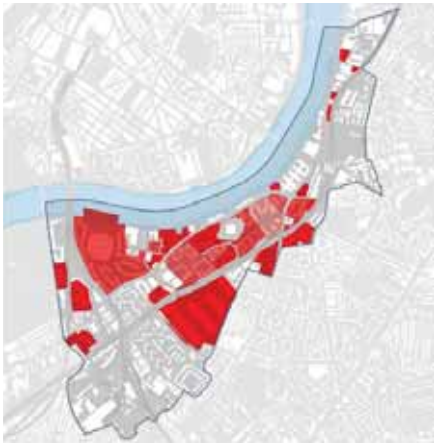
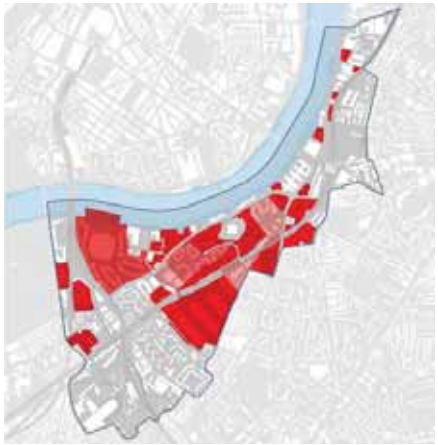


2023

Key: Completion

- 0-25%
- 25-50%
- 50-75%
- 75-99%
- Complete
- Opportunity Area Planning Framework



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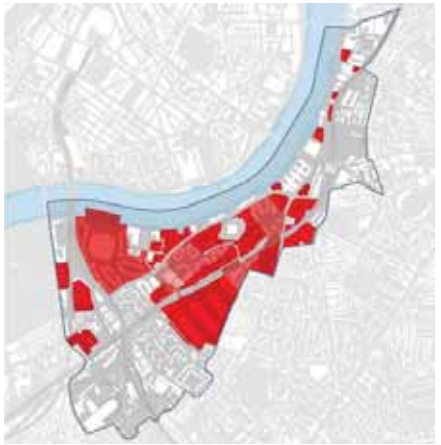

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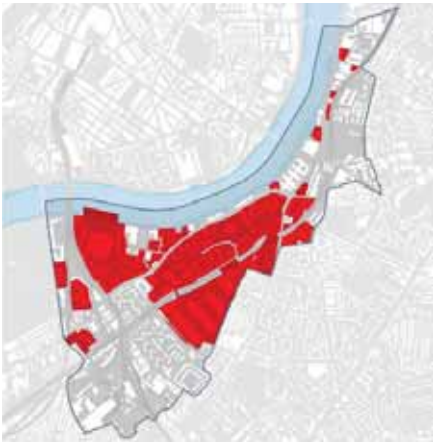


2030


LOWER
EAST SIDE

3.0

Nine Elms
On the South Bank

Character Area Guidance

Section 3 provides strategic guidance for each of the 10 character areas (right) covering the following topics:

- Urban Character
- Public Realm Objectives
- Street Hierarchy
- Cycle Network
- Green-space Leisure and Play
- Designing Out Crime

3.1 ALBERT EMBANKMENT

3.1.1 URBAN CHARACTER

3.1.1.1 Albert Embankment character area lies north of Vauxhall Cross, between the Thames and the railway viaduct leading to Waterloo. The area spans the western portions of the Lambeth Local Plan character areas of Lambeth Gateway, Central Embankment, Glasshouse Walk. The area boasts outstanding views across the Thames and Lambeth Bridge to the Palace of Westminster.

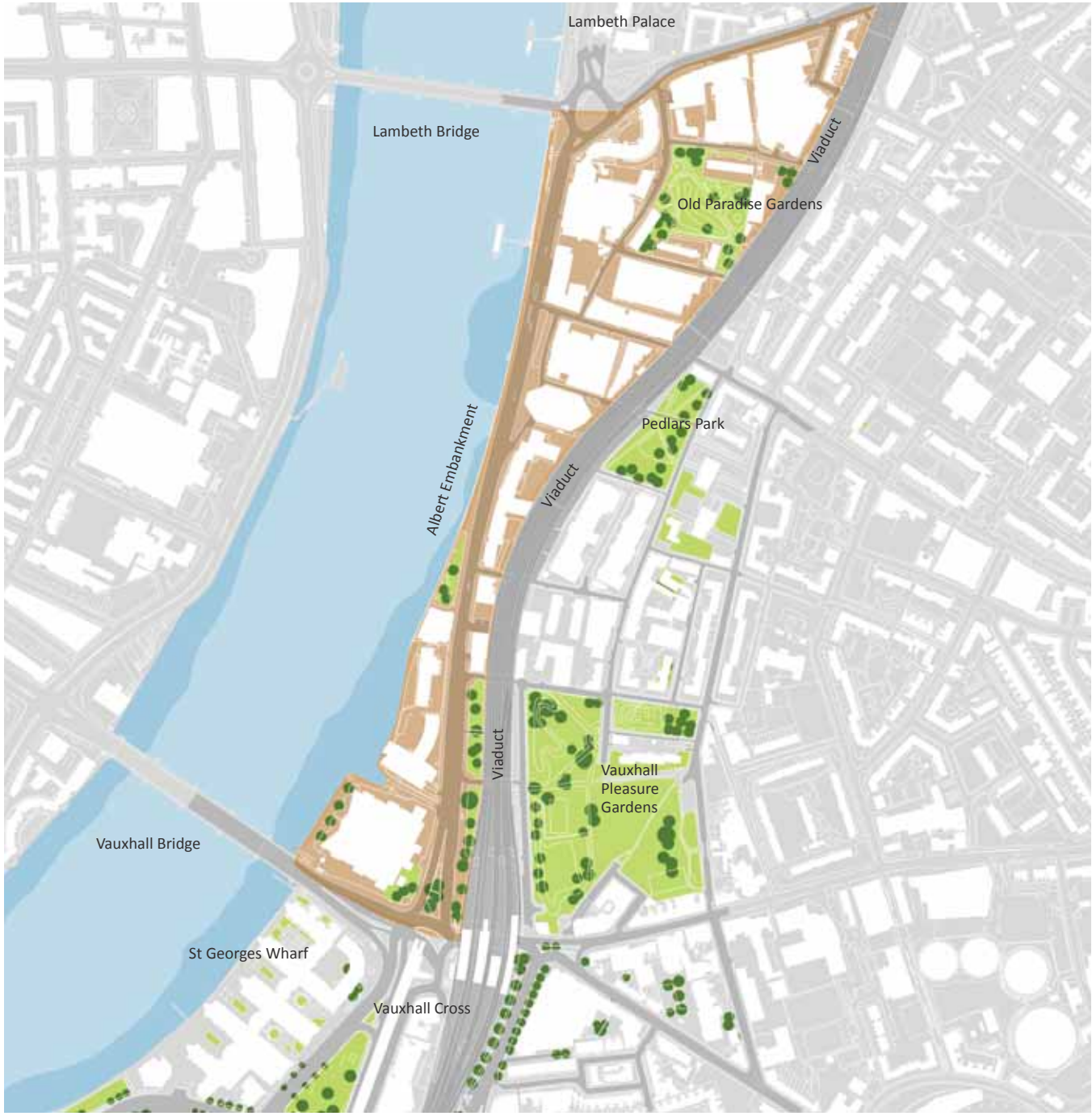
3.1.1.2 The influence of the Thames is very strong, with substantial riverside developments maximising views and secondary streets following ancient alignments down to the former wharfs at the water's edge.

3.1.1.3 The 'hidden' River Effra outfalls near Lambeth Bridge and the maritime themed offices of the international Maritime Organization.

3.1.1.4 Behind the river front the elevated mainline rail into Waterloo, separates the Albert Embankment from areas to the east. The railway arches are often occupied by single aspect tenants, resulting in a clash of front and back of house uses, bin storage, kitchen vents, and car parking. Low footfall and impermeable viaduct facades make associated side-streets feel isolated and under-used.

3.1.1.5 New development nearby includes the Newport Street Gallery and Vauxhall Missing Link project which will help to address these issues by activating the area between Lambeth Palace and Vauxhall Cross.

3.1.1.6 19th and early 20th century brick built buildings are giving way to varied commercial and residential developments. The new development on Albert Embankment is diluting the heritage, but bringing much needed economic and cultural activity.

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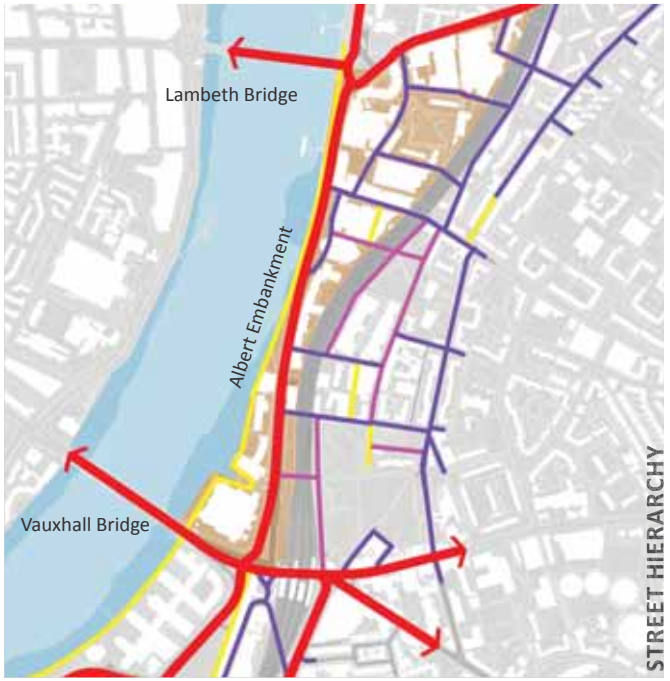


3.1.1.7 Principal public realm components include:

- The Thames Path and Albert Embankment (subject of a separate study)
- A series of arches beneath the rail viaduct linking Albert Embankment to northern Vauxhall
- Old Paradise Gardens
- A tight network of small scale streets behind the Embankment

3.1.2 PUBLIC REALM OBJECTIVES

3.1.2.1 Optimise the views and character of the Albert Embankment by:

- Developing the cultural functions and character of the Thames Path (this is subject of a separate NESB initiative)
- Reducing the impact of road traffic
- Promoting a greener Embankment streetscape

3.1.2.2 Retain elements of the Albert Embankment's founding era through heritage preservation, detailing and materials references.

3.1.2.3 Enhance the Embankment through greater continuity, attention to edges and interfaces and universal use of higher quality of materials.

3.1.2.4 Activate and enhance smaller streets to promote economic and cultural objectives, improve footfall, increase the number of street trees, quality of environment and connectivity. This initiative is supported by the separate "Vauxhall Missing Link" initiative.

3.1.3 STREET HIERARCHY

3.1.3.1 The large scale, busy highway of Albert Embankment runs north-south alongside the Thames connecting Lambeth and Vauxhall Bridges. To its east, a loose grid of smaller Traditional Side Streets connects eastwards via arches beneath the railway viaduct. Salamanca Street is proposed as a Shared Surface Side Street.

3.1.3.2 Refer to Section 4 for definitions and guidance for the Street Types described.

3.1.3.3 Servicing Strategy for businesses beneath the Viaduct should be carefully considered to avoid 'rear' facades facing the Pleasure Gardens and Randall Street. Extract vents, deliveries, parking (including motorcycles), and low quality signing detract from the quality of the public realm along much of the viaduct.

3.1.3.4 The Thames Path forms a continuous pedestrian route along the Embankment. This is the subject of a separate study (ongoing 2014).

3.1.4 CYCLE NETWORK

3.1.4.1 Enhancing cycle connectivity is an important part of the studies underway (2014) for Vauxhall Cross. The results of these studies will inform the feasibility of other routes in the area.

3.1.4.2 The Albert Embankment is not currently part of the London Cycle Network, though its strategic position as a direct and scenic connection between Cycle Superhighway 5 (at Vauxhall Bridge) and National Cycle Network Route 4 (at Lambeth Bridge), and continuous Bus Lanes make it a popular cycle route that should be considered for upgrading.

3.1.4.3 Quietway Routes are proposed to link east-west through the Side Streets. A north-south route connecting Vauxhall via the Pleasure Gardens, Vauxhall Walk, could connect to the existing Quietway on Newport Street. This could also extend from Whitgift Street (arch) through Old Paradise Gardens to Lambeth High Street.

3.1.4.4 Refer to TfL for guidance on the development and detailing of cycle routes.

3.1.5 GREEN-SPACE, LEISURE AND PLAY

3.1.5.1 Riverside greenspace, Albert Embankment – has potential for development as highly functioning leisure area associated with the Thames Path. The path and green space would benefit from measures to activate the Path with cultural initiatives, unify materials and enhance lighting and furniture. The Thames Path is subject of a parallel study.

3.1.5.2 Old Paradise Gardens – local park, with play area. Originally a burial ground. General redesign and increased visibility through the perimeter would help increase use and value of this space. The area should not lose its function as a valuable resource for play and relaxation for local people.

3.1.5.3 Green space between Albert Embankment and viaduct - featuring mature trees and well used with café tables. Design and maintenance should improve the functioning and quality for the viaduct arches, and psychological separation from road traffic. Upgrades should focus on boundary conditions, advertising control and maintenance.

3.1.6 DESIGNING OUT CRIME

3.1.6.1 The rail viaduct segregates the streets of the Pleasure Gardens District from the busy thoroughfare of Albert Embankment. This pattern concentrates activity on the Embankment, and establishes a series of quiet streets with reduced footfall. In these areas, increased late night users, students and commuters leaving Vauxhall may be more vulnerable to street crime. Designers should ensure good through visibility and activate routes with good passive surveillance.

3.1.6.2 Attention should be given to the railway arches and their activation through commercial activity, artworks and improved lighting – refer to guidance on lighting

3.1.6.3 The network of small streets between Albert Embankment and the railway viaduct includes a number with low footfall and little passive surveillance at night. Vulnerable stretches are found on Pratt Walk, Lambeth High Street and others. New developments and attractions nearby should help increase footfall and improve safety.

3.1.6.4 The nearby Vauxhall Pleasure Gardens have been (2014) a crime hotspot at night and especially at weekends. Connections to the Gardens should be enhanced through improved lighting commercial activation and art projects.

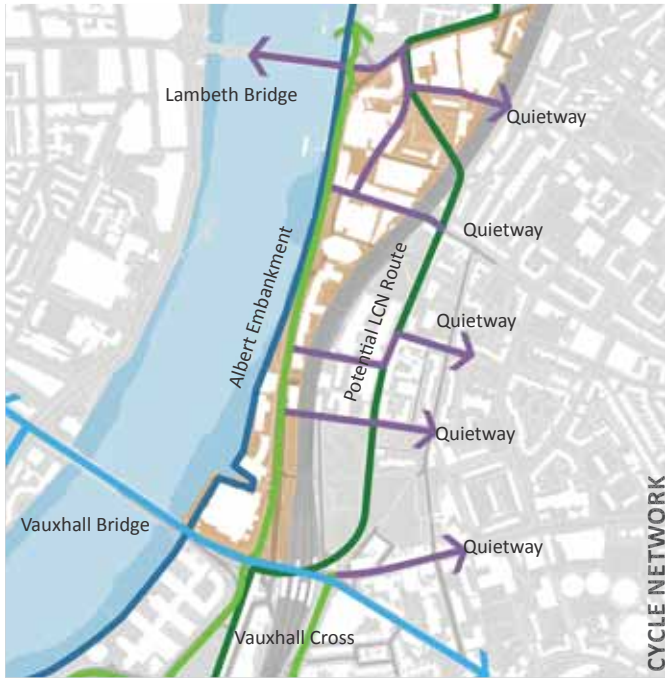
3.1.6.5 Quiet spaces with seating on the Thames Path Gardens and Old Paradise Gardens can become gathering points for addicts and street drinkers. Antisocial use of seating areas can be discouraged through bright lighting throughout the night.

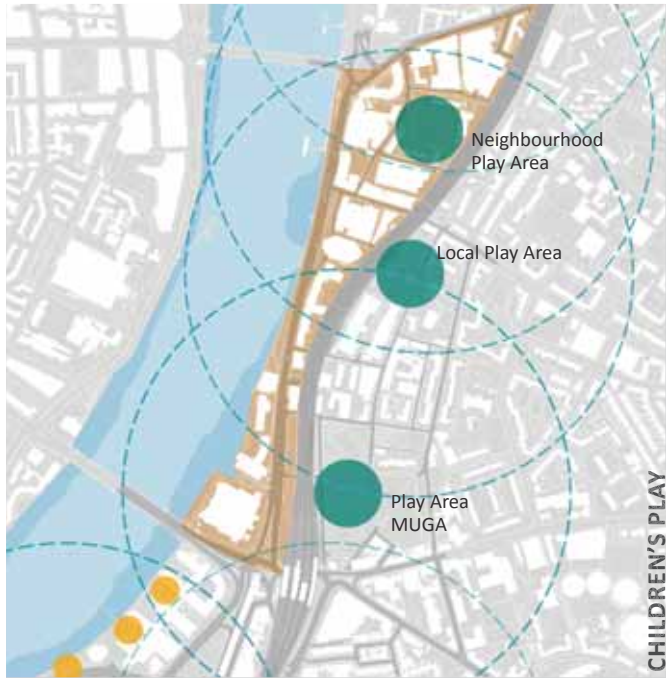
3.1.6.6 New hotel and student accommodation is attracting increasing tourist and student populations who may be more easily distracted or targeted by thieves.

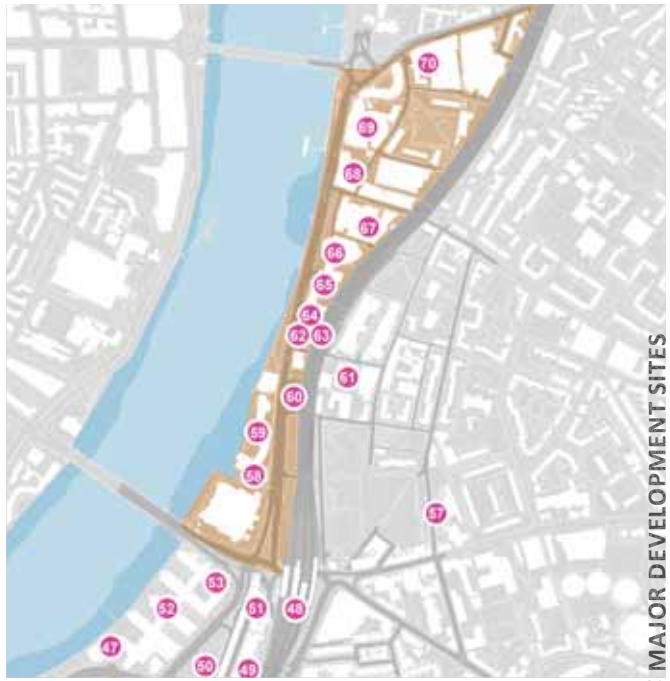
3.1.6.7 Changes in parking regime may help reduce car crime in quiet streets such as Whitgift Street and Salamanca Street.

3.1.6.8 Refuse and recycling storage must be provided to comply with local authority standards (SPD) and wherever possible, to eliminate on-street commercial bins. This is particularly challenging for businesses within the railway arches on Albert Embankment.

3.1.6.9 Refer to section 4 for further guidance on integration of security and Counter Terrorism measures within the public realm.







Nine Elms
On the South Bank

3.2 VAUXHALL PLEASURE GARDENS

3.2.1 URBAN CHARACTER

3.2.1.1 Vauxhall Pleasure Gardens character area lies within Lambeth Local Plan character areas of Lambeth Gateway, Central Embankment, Glasshouse Walk, extended to include areas west of Tyers Street and Durham Street. The area is bounded on the west by the elevated railway viaduct between Vauxhall and Waterloo.

3.2.1.2 The viaduct segregates the area from Albert Embankment and gives areas to the east a different character which is small scale streets.

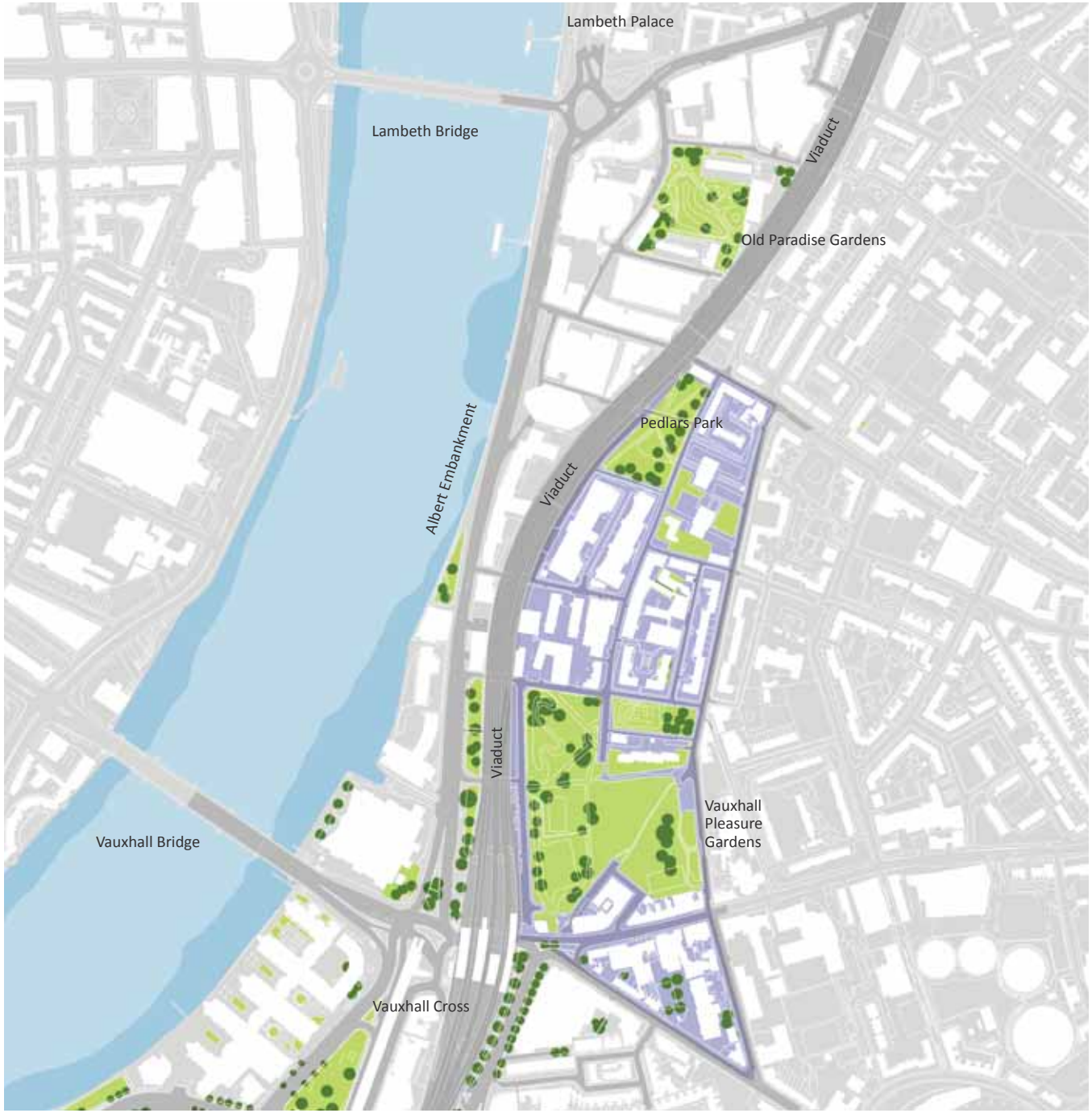
3.2.1.3 The area benefits from public green spaces which include Vauxhall Pleasure Gardens and Pedlars Park, though these need improvement to fulfil their potential.

3.2.1.4 The railway arches are often occupied by single aspect tenants, resulting in a clash of front and back of house uses, bin storage, kitchen vents, and car parking. Low footfall and impermeable viaduct facades make associated side-streets feel isolated and under-used.

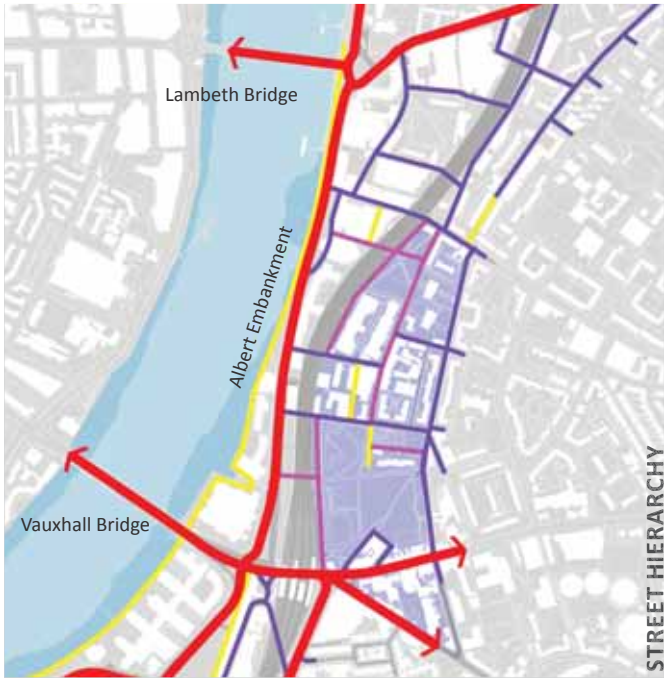
3.2.1.5 New development includes the Newport Street Gallery and Vauxhall Missing Link project which will help to address these issues by activating the area between Lambeth Palace and Vauxhall Cross.

3.2.1.6 19th and early 20th century brick built buildings are giving way to varied commercial and residential developments. These include the Newport Street Gallery and Spring Mews which have sensitively re-intepreted the Victorian palette and retained the scale and density of the Victorian precedent while bringing new economic and cultural activity.

3.2.1.7 The railway arches are often occupied by single aspect tenants, resulting in a predominance of bin storage, kitchen vents, and car parking. The combination of low footfall and impermeable




PEDESTRIANS



viaduct facades means the associated side-streets and parks can feel isolated and are often under-used.

3.2.1.8 The Vauxhall Missing Link project seeks to address these issues by activating a route from Lambeth Palace to Vauxhall Cross.

3.2.1.9 The principal public realm components include:

- A series of arches beneath the rail viaduct linking westwards to Albert Embankment
- The Vauxhall Missing Link – an activated linear route (subject of a separate study)
- Vauxhall Pleasure Gardens – (subject of a separate study)
- Pedlars Park
- A tight network of small scale streets featuring a patchwork of unique historic architecture as well as lesser buildings of the twentieth century

3.2.2 PUBLIC REALM OBJECTIVES

3.2.2.1 Retain and develop the uniquely 'London' characteristics of the tight streets and dense grain of the Victorian precedent

3.2.2.2 Preserve the street pattern which has its origins in early streets leading to historic wharfs

3.2.2.3 Sensitively work alongside the historic palette of London stock brick, granite surfaces

3.2.2.4 Develop the cultural and arts functions and the quirky character of the Missing Link, with public realm which actively facilitates the emerging galleries, artworks and year round events

3.2.2.5 Activate and enhance the smaller streets to promote economic and cultural objectives, and improve footfall.

3.2.2.6 Promote footfall to improve personal safety and reduce crime and anti-social behaviour

3.2.2.7 Re-establish the Pleasure Gardens as a primary destination in Vauxhall

3.2.2.8 Developments around the Vauxhall gyratory and north Vauxhall should ensure they retain and build upon Vauxhall's distinct identity. This should be reinforced through establishment of a common palette of street furniture and fittings, to include lighting, seating, bins, bollards, drainage covers etc. The furniture should be identifiable and clearly differentiated from Nine Elms Character areas.

3.2.3 STREET HIERARCHY

3.2.3.1 A loose grid of smaller Traditional Side Streets connects to the Albert Embankment (westwards) via arches beneath the railway viaduct. Randall Street and Goding Street alongside the viaduct's east side are proposed as Shared Surface Side Streets.

3.2.3.2 Refer to Section 4 for definitions and guidance for the Street Types described.

3.2.3.3 Servicing Strategy for businesses beneath the Viaduct should be carefully considered to avoid 'rear' facades facing the Pleasure Gardens and Randall Street. Extract vents, deliveries, parking (including motorcycles), and low quality signing detract from the quality of the public realm along much of the viaduct.

3.2.3.4 The Missing Link project looks to activate streets and green space from Vauxhall Cross to Lambeth Palace

CYCLE NETWORK

3.2.3.5

3.2.3.6 Enhancing cycle connectivity is an important part of the studies underway (2014) for Vauxhall Cross. The results of these studies will inform the feasibility of other routes in the area.

3.2.3.7 Quietway Routes are proposed to link east-west through the Side Streets. A north-south route connecting Vauxhall via the Pleasure Gardens, Vauxhall Walk, could connect to the existing Quietway on Newport Street. This could also extend from Whitgift Street (arch) through Old Paradise Gardens to Lambeth High Street.

3.2.3.8 Refer to TfL for guidance on the development and detailing of cycle routes.

GREEN-SPACE, LEISURE AND PLAY

3.2.3.9

3.2.3.10 Vauxhall Pleasure Gardens – an ongoing programme of redesign and improvements should focus on activating the margins of the Gardens, and increasing their use through new facilities, events and infrastructure. Security issues must be addressed while building upon the existing attractions which include a City Farm, community, play, allotment and sports facilities.

3.2.3.11 Entrance columns form bold statements of intent for the Gardens, and the Missing Link proposals aim to reactivate the Gardens with "Curiosities" and landscape enhancements. The increasing footfall from nearby developments will drive demand for enhancement and reduce security concerns where natural overlooking is currently limited.

3.2.3.12 Re-profiling to existing mounds should be prioritised to improve cross-visibility and reduce security issues.

3.2.3.13 Pedlars Park – a small, local Park with play facilities, but with potential for safety issues due to poor overlooking.

3.2.3.14 Play facilities are features of both principal green spaces. Multi-use Games Area (MUGA) in the Pleasure Gardens is well used, but feels isolated and could be better integrated into its surroundings.

3.2.3.15 The increasing student population will stimulate substantial local demand for MUGA space for football, basketball and similar.

3.2.4 DESIGNING OUT CRIME

3.2.4.1 The railway viaduct which forms the western extent of the Vauxhall Albert Embankment character area, segregates the streets of the Pleasure Gardens District from the main thoroughfare along the Albert Embankment. This pattern leaves low levels of passive surveillance through quiet streets. Low footfall can increase potential vulnerability, particularly late at night, for students and commuters walking to and from Vauxhall. Designers should ensure good through visibility and activate routes with good passive surveillance.

3.2.4.2 Attention is required to the railway arches and their activation through artworks and improved lighting – refer to the guidance on lighting

3.2.4.3 Vauxhall Pleasure Gardens has been seen (2014) as a crime hotspot at night and at weekends. This is perpetuated by limited through visibility, proximity to Vauxhall Cross, poor

lighting, and little passive surveillance. Work to activate the night-time economy of the Gardens, upgrade lighting and re-profile mounding will improve footfall and passive surveillance.

3.2.4.4 Quiet spaces with seating in the Pleasure Gardens and Pedlars Park have been gathering points for addicts and street drinkers. Antisocial use of seating areas can be discouraged through bright lighting throughout the night.

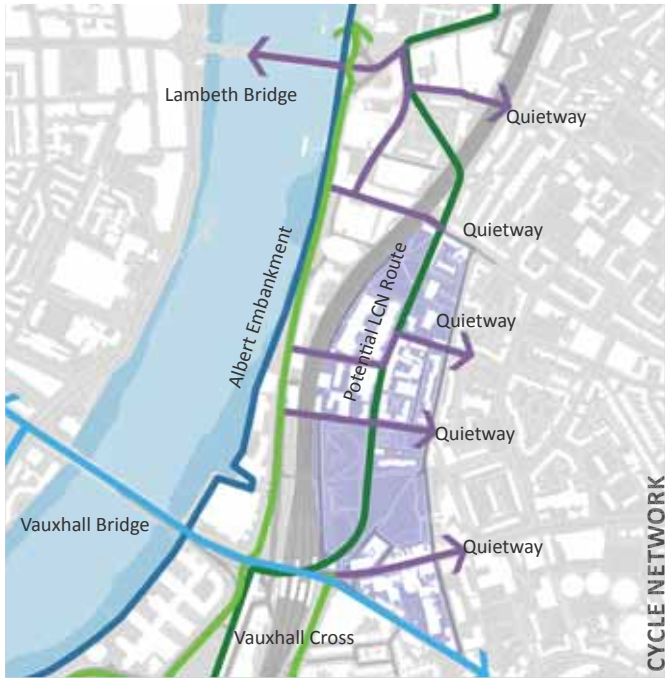
3.2.4.5 Light dimming regimes may be useful to concentrate use of particular routes through the Pleasure Gardens at night.

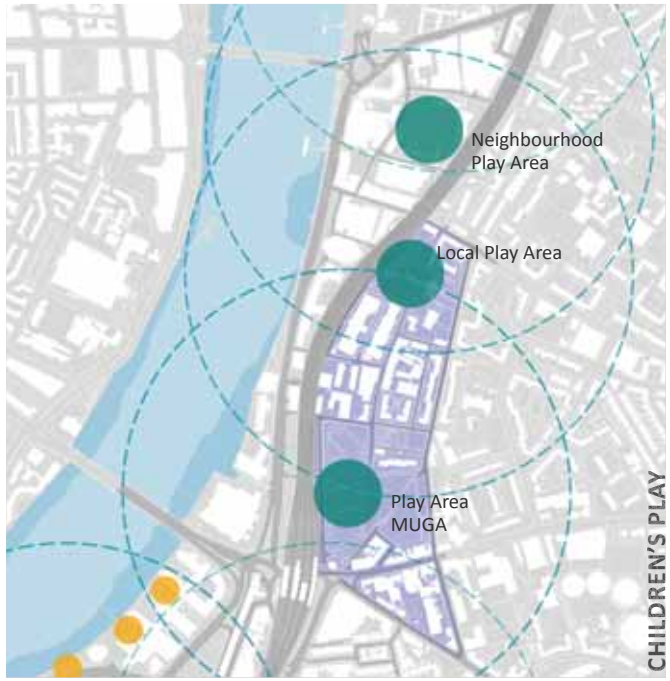
3.2.4.6 New hotel and student accommodation is attracting increasing tourist and student populations who may be more easily distracted or targeted by thieves.

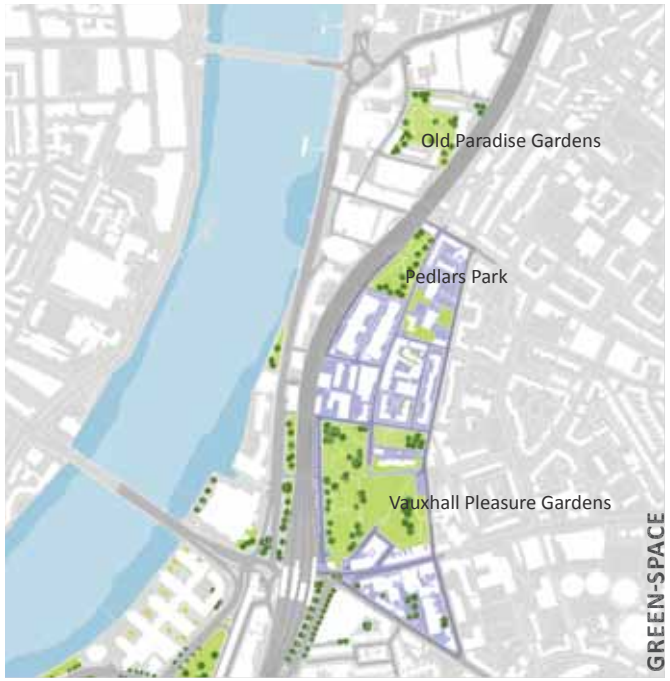
3.2.4.7 Changes in parking regime may help reduce car crime in quiet streets such as Whitgift Street and Salamanca Street.

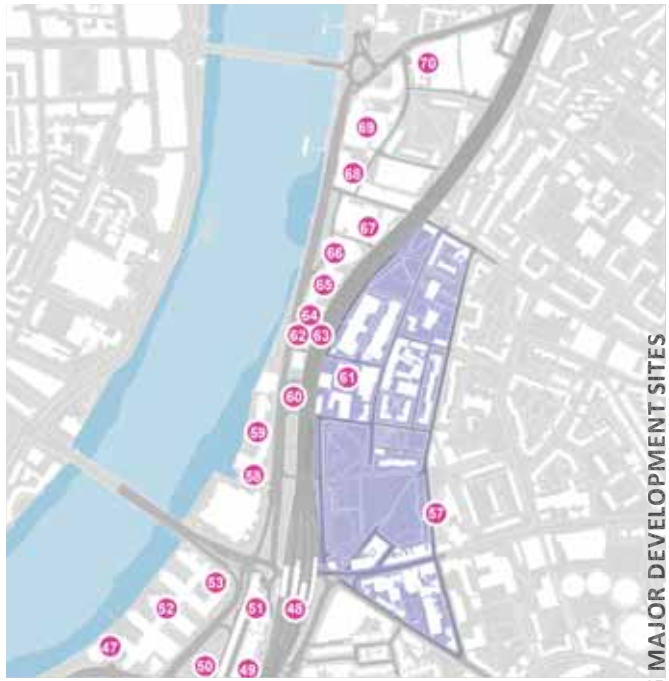
3.2.4.8 Adequate refuse and recycling storage must be provided to comply with local authority standards (SPD), but wherever possible should be eliminated from on-street locations. This demands particular attention for businesses within the railway arches on Goding Street and Randall Road.

3.2.4.9 Refer to section 4 for further guidance on integration of security and Counter Terrorism measures within the public realm.









Nine Elms
On the South Bank

3.3 VAUXHALL CROSS

3.3.1 URBAN CHARACTER

3.3.1.1 Vauxhall Cross is currently a vibrant but fragmented environment dominated by transport infrastructure which includes busy rail, bus and underground stations set within one of London's busiest gyratory road systems.

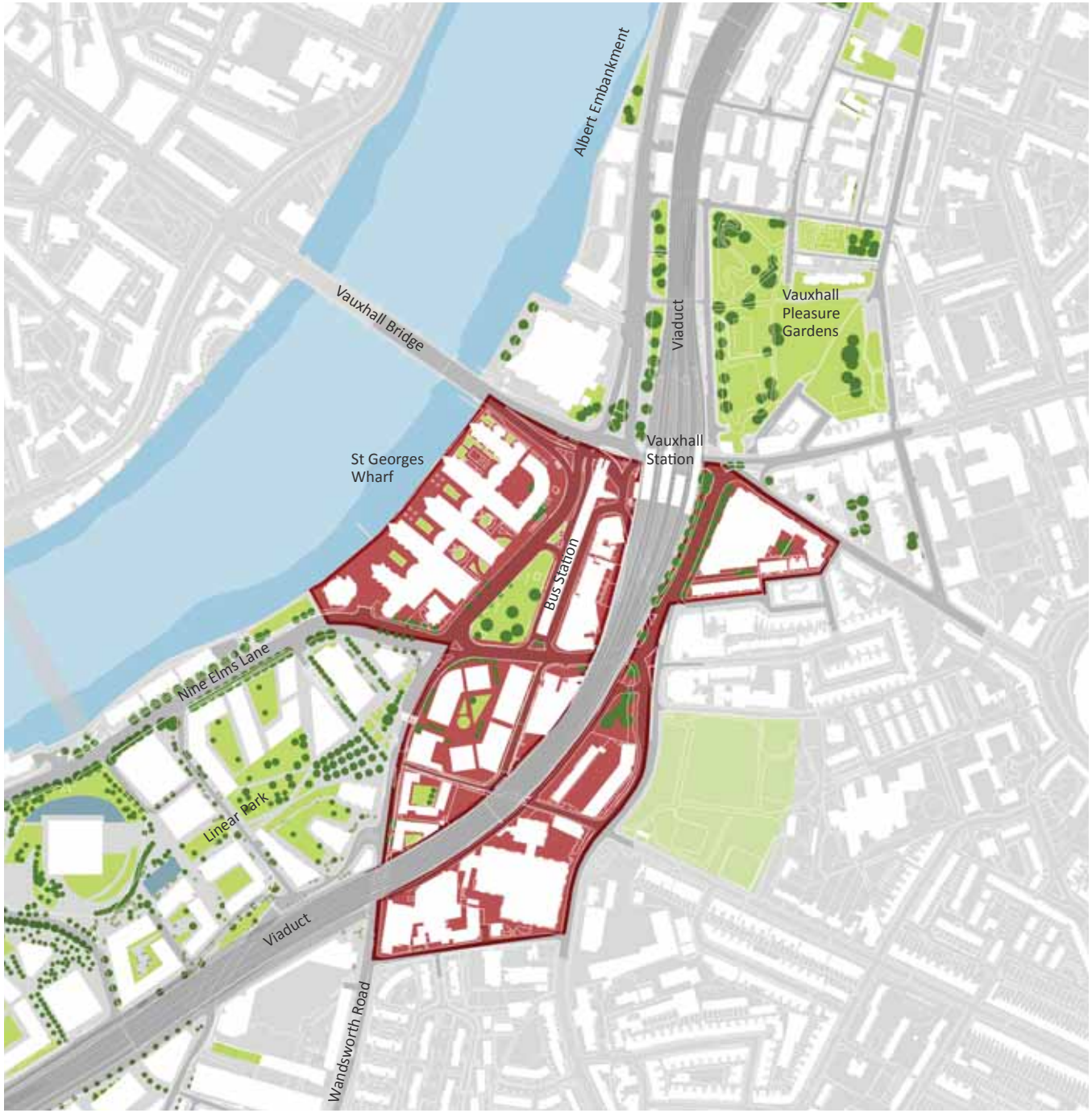
3.3.1.2 The gyratory provides connectivity in all directions (Albert Embankment, Goding Street/Missing Link, Kennington Lane, Harleyford Road, South Lambeth Road, Wandsworth Road, Nine Elms Lane, and Vauxhall Bridge). It is the subject of intensive study (2014) to identify effective reforms that should significantly benefit the public realm and the general environment for cyclists and pedestrians. This process will address both existing needs and the significant increase in transport demand from the development of NESB.

3.3.1.3 The gyratory system straddles the rail viaduct, and encircles the rail, underground and bus stations. The large-scale massing and dominant architecture of St Georges Wharf segregates the gyratory from the recent riverside public realm and Thames Path.

3.3.1.4 The streetscape is generally in need of renewal across areas that have not been redeveloped. Materials with low visual quality (concrete block and flag), and highway features dominate. Newly completed areas of St George's Wharf improve this palette.

3.3.1.5 The roads beneath the rail viaduct are particularly noisy and unfriendly to pedestrians (where permitted at all) and cyclists.

3.3.1.6 Vauxhall Cross has a tradition of a vibrant 24 hour economy and among much larger twentieth century buildings nestle several unexpected Victorian buildings - these are typified by the pubs, restaurants and nightclubs - the Vauxhall Tavern, The Vauxhall Griffin and Brunswick House.



3.3.1.7 The nightclubs bring activity to Vauxhall's night-time economy but also some crime problems. Their character has potential to change as the economics, population and density of development increases.

3.3.1.8 The principal public realm components include:

- The Thames Path and recent public realm of St Georges Wharf
- The co-located rail, underground and bus stations
- The Vauxhall gyratory system – or its replacement with a two-way high-volume traffic system
- Long viaduct arches
- A new, more legible retail and commercial led public realm

3.3.2 PUBLIC REALM OBJECTIVES

3.3.2.1 Maintaining Vauxhall's vitality and its cultural melting-pot identity should be priorities of public realm design. This means integrating Vauxhall's industrial and cultural heritage into the new development and continuing the tradition of retaining characterful historic buildings, and valuing its colourful cultural life and vibrant communities among the new.

3.3.2.2 New destinations in Vauxhall and Nine Elms will bring increased footfall to the transport nodes in Vauxhall Cross. Vauxhall's public realm should naturally welcome visitors to their destinations - it is the arrival and orientation point for public realm initiatives that include the Linear Park, Missing Link, New Covent Garden Market Food Quarter and will be come the point of arrival for tourists, diplomats, art and food critics, clubbers and tourists. This places emphasis on the routes to and from the transport interchange, and ensuring they are pedestrian friendly, clear to identify, direct and safe.

3.3.2.3 The prospect of wholesale changes to the one-way system, a series of major new developments including the 'Vauxhall Cluster' of towers within and around the current gyratory will provide the opportunity to significantly improve connectivity, quality and coherence in the public realm.

3.3.2.4 Redevelopment around the Vauxhall gyratory should ensure they retain and build upon Vauxhall's distinct identity. This should be reinforced through establishment of a common palette of street furniture and fittings, to include lighting, seating, bins, bollards, drainage covers etc. The furniture should be identifiable and clearly differentiated from Nine Elms Character areas.

3.3.3 STREET HIERARCHY

3.3.3.1 The Vauxhall gyratory system dominates Vauxhall Cross, surrounding the public transport interchange and reducing its value as a commercial centre and as a destination. Ongoing work by TfL has the potential to fundamentally change both the access patterns and the quality of the public realm.

3.3.3.2 Busy roads passing beneath the railway viaduct are noisy, and unwelcoming due to the volume of traffic. Wholesale upgrading of lighting would improve the appearance.

3.3.3.3 Refer to Section 4 for definitions and guidance for the Street Types described.

3.3.3.4 Servicing Strategy for businesses beneath the Viaduct should be carefully considered to avoid the prospect of 'rear' facades facing public streets. Delivery access will be considered as part of TfL's ongoing studies to change traffic to two-way flow.

3.3.3.5 The Thames Path forms a continuous pedestrian route along the Embankment. This is the subject of a separate study (ongoing 2014). Works associated with Thames Tideway Tunnel will establish a new promontory and intertidal habitat near Vauxhall Bridge.

3.3.4 CYCLE NETWORK

3.3.4.1 Enhancing cycle connectivity is an important part of the studies underway (2014) for Vauxhall Cross. The results of these studies will inform the feasibility of other routes in the area.

3.3.4.2 Cycle Superhighway 5 traverses from Vauxhall Bridge from Harleyford Road. Albert Embankment and Nine Elms Lane both feature continuous Bus Lanes and form a popular commuter route that should be considered for upgrading.

3.3.4.3 Quietway Routes are proposed throughout backstreets in Vauxhall Cross.

3.3.4.4 Refer to TfL for guidance on the development and detailing of cycle routes.

3.3.5 GREENSPACE, LEISURE AND PLAY

3.3.5.1 Vauxhall Pleasure Gardens – to the north, an ongoing programme of redesign and improvements should focus on the margins of the Gardens, security issues and build upon the City Farm, community, play, allotment and sports facilities.

3.3.5.2 Nine Elms Linear Park - to the south, the new park will provide direct connection to Vauxhall Cross via a large public plaza with water features, retail and tree planting (CGMA Northern Site). Adjacent developments (One Nine Elms, Vauxhall Island Site) should preserve a clear vista between the Linear Park and Vauxhall transport interchange to promote visual access to the Park from the heart of Vauxhall Cross.

3.3.5.3 Provision of further green-space within the Vauxhall Cross Character Area is largely dependent upon traffic reconfiguration. Lambeth policy develops Vauxhall as a district centre, and public realm is likely to take the form of urban paved plazas with small scale green space providing local relief.

3.3.5.4 The wholesale redesign of the highway network should ensure zones are set aside for planting of large trees within the heart of Vauxhall. Refer to section 4 for guidance on rooting volumes and benefits with regard to particulate mitigation.

3.3.5.5 Play provision will be localised within public plazas or "doorstep playable space" associated with specific developments. Neighbourhood play facilities are provided within the Linear Park and Vauxhall Pleasure Gardens.

3.3.6 DESIGNING OUT CRIME

3.3.6.1 Streetscape design teams should demonstrate they have addressed the following crime and anti-social behaviour issues:

3.3.6.2 Vauxhall is likely to continue to be a particularly active area in the early hours especially at weekends, though the type of establishment may change as property values increase. Late night uses invigorate the local economy and provide passive surveillance throughout the night, but can encourage antisocial and criminal behaviour. Public areas should be spacious, with good through visibility and passive surveillance. At night they should be well lit with uniform, white light at all times.

3.3.6.3 Public areas in Vauxhall are a 'no drinking zone' in order to control late night noise and nuisance. Outdoor drinking and

dining must comply with the bylaws. Cafe tables and seating should be separated from through routes where feasible.

3.3.6.4 Pop-up urinals at Vauxhall Tavern are well utilised, but for male use only. Proposals for Vauxhall should maintain provide well supervised toilet facilities for all members of the public, travellers, late night users of both sexes. Public realm enhancements should ensure centrally located toilet facilities remain associated with the public transport node. All toilet facilities should be spacious and very well lit.

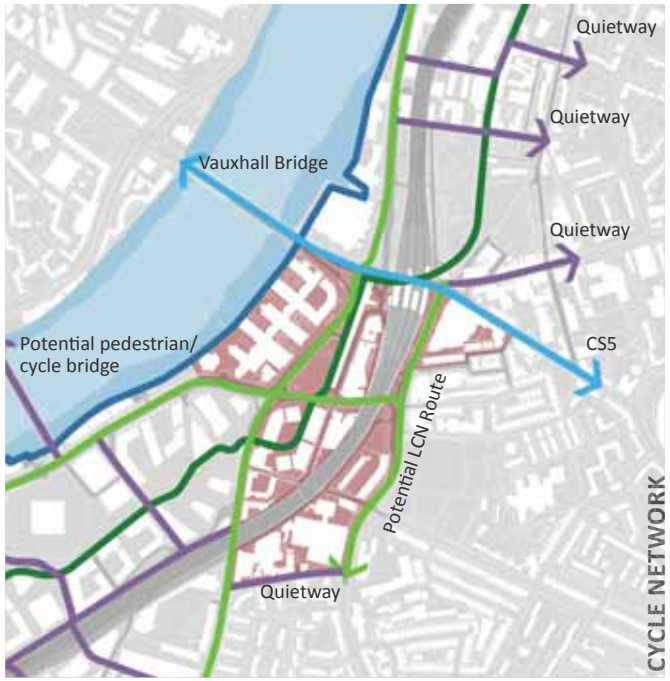
3.3.6.5 Vauxhall has a 100 year + tradition of help for homeless people. It is also home to several refuges / shelters / centres for drug users and has a high street population. Continued local provision of shelter and assistance for the street population is essential to their safety and helps reduce incidence of anti-social behaviour (including street fouling), and drug and alcohol abuse in public areas.

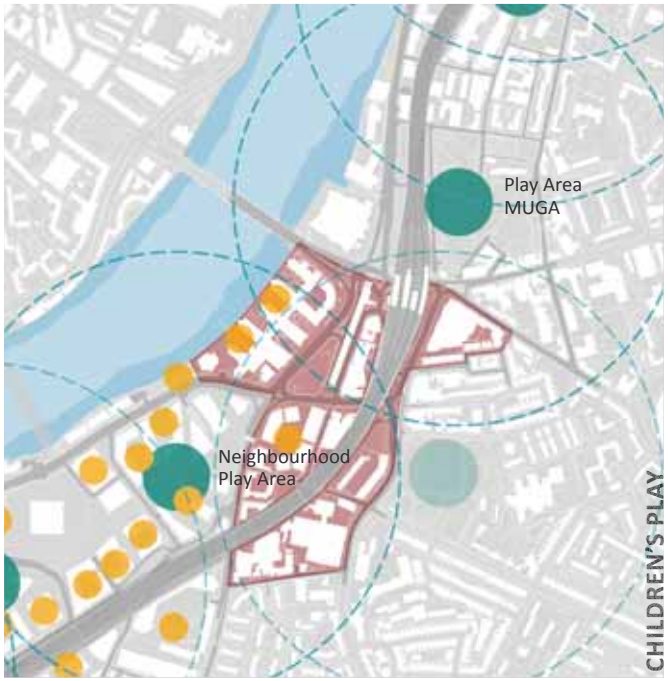
3.3.6.6 Designers' proposals should ensure the provision of bright and uniform, white lighting levels throughout the night, and street furniture should discourage sleeping.

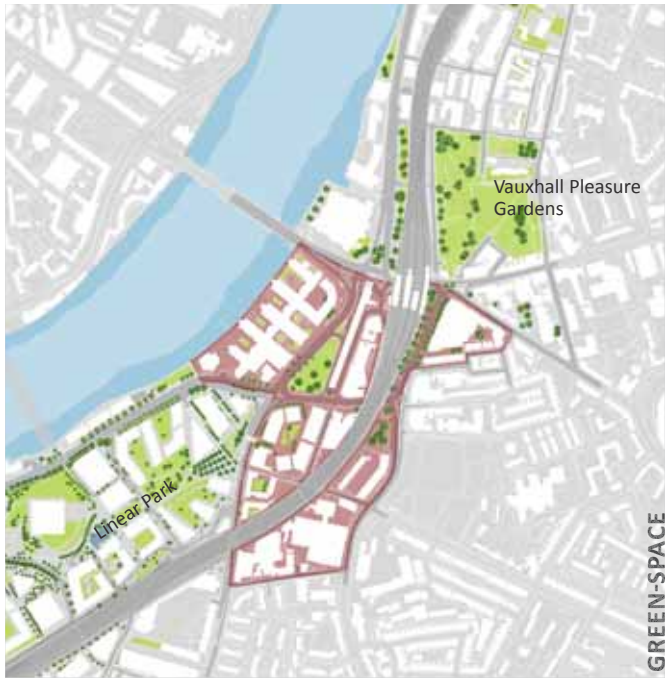
3.3.6.7 Parking strategies should be developed to reduce on-street parking in streets with low footfall to help reduce car crime and theft in quiet and 'dead-end' streets such as Miles Street and Bondway.

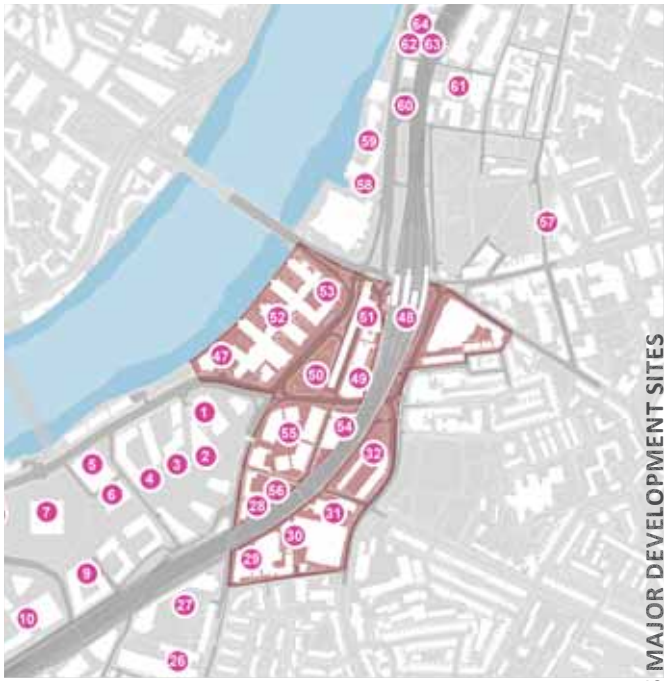
3.3.6.8 Refuse and recycling strategies must be considered to eliminate on-street bin storage. This is particularly challenging for the railway arches on South Lambeth Road which also suffer from heavy traffic, blank facades and narrow footpath.

3.3.6.9 Refer to section 4 for guidance on integration of security measures within the public realm.









Nine Elms
On the South Bank

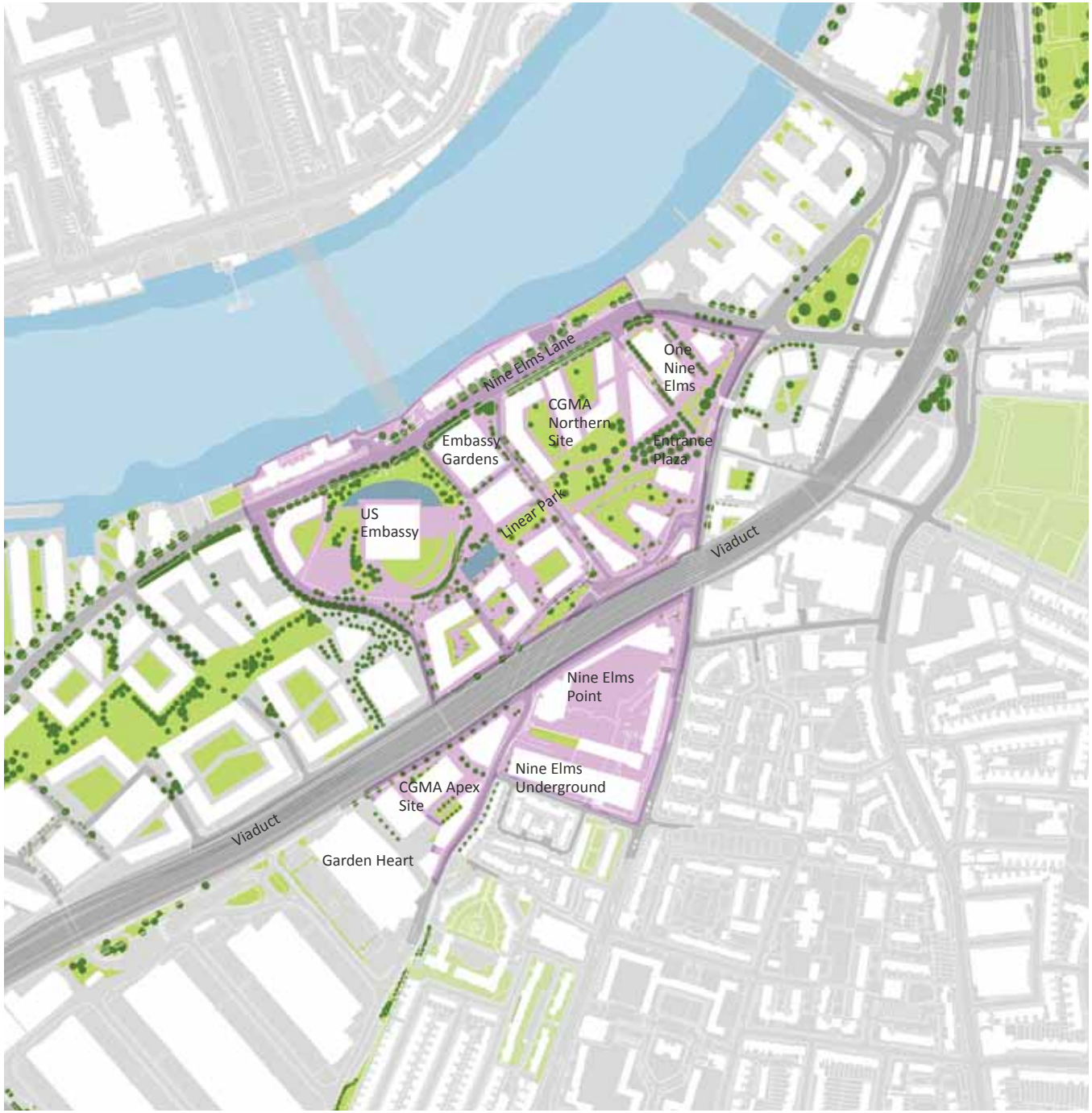
3.4 EMBASSY

3.4.1 URBAN CHARACTER

3.4.1.1 Described in Wandsworth SSAD as follows:

"High density mixed use area, with the potential for a cluster of tall buildings at Vauxhall, together with a small CAZ frontage (local centre) linking Vauxhall Underground Station with… a new large-scale supermarket… in Wandsworth Road. The new American Embassy will form a focus for the district, with the potential for further similar institutions and related business uses between the new Embassy and Vauxhall. Vauxhall/ Embassy will form the gateway to the linear park, which will link Vauxhall to the Power Station."

3.4.1.2 The area is an almost entirely new construct with only the rail and road infrastructure, late twentieth century riverside residential developments retained from the condition at the turn of the twentieth century. The US Embassy will be at the heart of this district, surrounded by high quality public parkland and plazas of the Linear Park. Towards Vauxhall, the district includes very tall buildings of the CGMA Northern Site and One Nine Elms.








3.4.1.3 The principal public realm components include:

- The new Linear Park, and its entrance plaza (shared between One Nine Elms and CGMA Northern Site) which forms the gateway from Vauxhall Cross.
- Nine Elms Lane – upgraded to afford safer cycle access and improved streetscape (subject to a separate study)
- The Thames Path – upgraded (subject to a separate study)
- A series of shared surface streets across the Linear Park providing access to developments and visual access to the Thames.
- Railway arch links to the Market District (CGMA and Nine Elms Point)
- The new Nine Elms Underground station and concourses
- Communal and private areas associated with individual development blocks

3.4.2 PUBLIC REALM OBJECTIVES

3.4.2.1 The high density of development will activate an intensively used and high-profile public landscape. Proposals centre around the new Nine Elms Linear Park, which will be brought to fruition through a series of developments. The overall principles are set out in the OAPF supplemented by the Surface Materials Code, Lighting and Infrastructure strategies and agreements between the parties and Borough of Wandsworth. Coherence of approach and design is critical to the success of the Linear Park as a single, shared resource which adds value to all the surrounding developments.

3.4.2.2 Activating the railway arches on both sides will establish linkages between the existing and new communities east of the viaduct to the Linear Park and the Thames. It will improve passive surveillance and help establish a more permeable movement network. Arches can be brought to life through a combination of commercial and artist intervention.

3.4.2.3 Nine Elms Lane can become an attractive street punctuated by frequent 'window' views to the Thames, enhanced tree planting and greater degree of definition.

3.4.2.4 The re-imagining of the Thames Path through this area will create another genuine asset, forming a well-used part of the walk linking Lambeth to Battersea Power Station. This stretch of the Path is proposed to host a new cycle and pedestrian bridge over the Thames to Pimlico.

3.4.3 STREET HIERARCHY

3.4.3.1 Nine Elms Lane is the principal street through this character area. Its character and appearance is rapidly changing from an open, traffic dominated highway through a largely industrial area to a strongly defined street of largely residential buildings. Nine Elms Lane is subject of a separate study for TfL which will examine possibilities for new tree planting, junction and pavement design and cycle and pedestrian facilities.

3.4.3.2 Traffic does not generally permeate the new development areas but is channelled to basement parking and service areas. Where traffic crosses the Linear Park, it is highly controlled, in a pedestrian dominated environment. Where safe, these streets are shared surface streets (refer to Section 4).

3.4.3.3 Vehicles can also gain entry from Wandsworth Road to access New Covent Garden Market via the existing diagonal arches (beneath the railway viaduct) and Embassy Gardens.

3.4.3.4 Arches beneath the railway viaduct are essential in bringing people from Nine Elms underground to the heart of the Embassy Character Area, but are currently few in number and unwelcoming. Wholesale upgrading of lighting would be required to improve security and appearance. The arches present the opportunity for a set of coordinated artworks and potential retail space to actively encourage their use.

3.4.3.5 The railway arches are accessed via continuous shared surface street with an industrial aesthetic. Servicing Strategy for businesses beneath the Viaduct should be carefully considered to avoid 'rear' facades facing public streets.

3.4.3.6 Refer to Section 4 for definitions and guidance for the Street Types described.

3.4.3.7 The Thames Path forms a continuous pedestrian route along the Embankment. This is the subject of a separate study (ongoing 2014).

3.4.4 CYCLE NETWORK

3.4.4.1 The cycle network has been developed in TfL's Cycling Strategy - Nine Elms on the South Bank. Cycle lanes along Nine Elms Lane are to be upgraded and, where feasible, segregated from vehicles. This is to be detailed in a separate study by TfL for Nine Elms Lane.

3.4.4.2 Quietway cycle routes are proposed throughout side streets of the Embassy Character Area. These operate in a largely pedestrian dominated environment. A direct and continuous route is also proposed alongside the railway viaduct.

3.4.4.3 Continuous cycle leisure routes are to be established to run the length of the Linear Park and along the Thames Path. Both are to be designed for low speed travel within the pedestrian dominated leisure environment.

3.4.4.4 Refer to TfL for guidance on the development and detailing of cycle routes.

3.4.5 GREEN-SPACE, LEISURE AND PLAY

3.4.5.1 Nine Elms Linear Park - The new park will provide continuous green-space linking Vauxhall Cross to Battersea Power Station. The Park's entrance from Vauxhall is via a large public plaza with water features, retail and tree planting (CGMA Northern Site). Adjacent developments (One Nine Elms, Vauxhall Island Site) should preserve a clear vista between the Linear Park and Vauxhall transport interchange to promote visual access to the Park from the heart of Vauxhall Cross.

3.4.5.2 From the entrance plaza, the Park widens to form a community park with Neighbourhood Play facilities alongside cafes, seating and planted embankments which transition to raised communal Gardens within CGMA's Northern Site. Doorstep Playable Space will be provided within communal gardens to supplement the Neighbourhood facilities within the public park.

3.4.5.3 The Park continues towards the US Embassy where it incorporates water features, and the Embassy complex. Access to areas around the US Embassy will be controlled, while the Linear Park extends beyond.

3.4.5.4 The Linear Park is the subject of a separate high level design and management strategy.

3.4.5.5 The Park and adjacent side-streets should ensure zones are set aside for planting of large trees. Refer to section 4 for guidance on rooting volumes and benefits with regard to particulate mitigation.

3.4.5.6 The Park is intended to operate as attenuation in a 1 in 100 year storm event. It is sculpted to hold water when buried attenuation reaches capacity. This function can be expressed through detailed designs (refer to Section 4)

3.4.5.7 Play facilities are to be provided in Neighbourhood Playable Space within the CGMA Northern Site. The play acts as an attractor to the Park and is co-located with cafes with outdoor seating.

3.4.5.8 DESIGNING OUT CRIME

3.4.5.9 Streetscape and public realm designers should demonstrate they have addressed the following crime and anti-social behaviour issues:

3.4.5.10 This new quarter of NESB will be subject to high levels of security due to the presence of the US Embassy, and high-profile signature residential and hotel tower buildings. Streetscape design should respond to the needs for CCTV and other surveillance and security needs of the high-profile developments.

3.4.5.11 Retail activity is anticipated to extend into the evening with outdoor seating for food and beverage extending to the margins of the Linear Park and play areas, improving passive surveillance. Segregation of outdoor dining areas from through routes may help reduce theft of poorly attended possessions.

3.4.5.12 Spacious public realm and choice of routes should be given especially at transport nodes and gathering points. The proposed plaza at the entrance to the Linear Park will function as an orientation and meeting point and offers a retail function. Good through visibility and passive surveillance should be maintained in this and similar areas.

3.4.5.13 Obvious and physical means of segregation should be provided between public, communal (private) and private space.

3.4.5.14 Seating in the Public plaza (CGMA Northern Site) should discourage rough sleeping and the space should be lit to high levels until early hours when dimming may be possible.

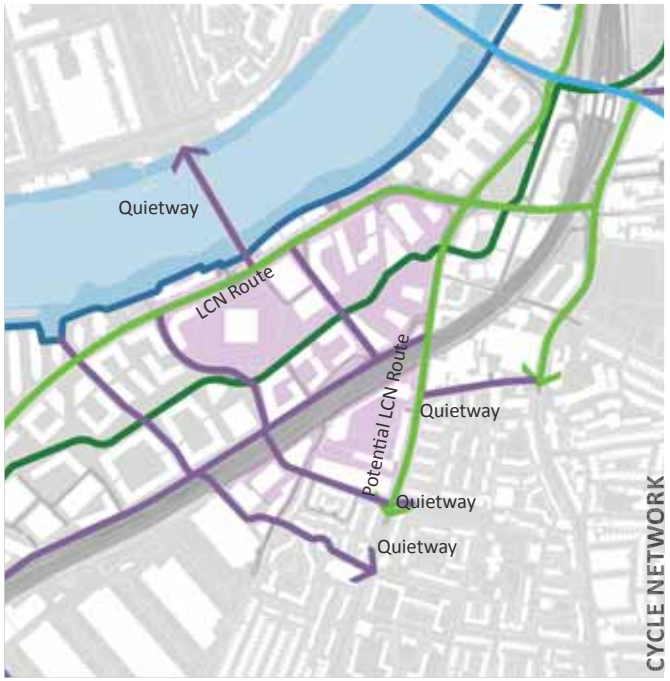
3.4.5.15 During construction, good practice (refer to general principles) should be adhered to. Special consideration should be given to routes between existing communities, occupied developments and public transport nodes, shops and other facilities.

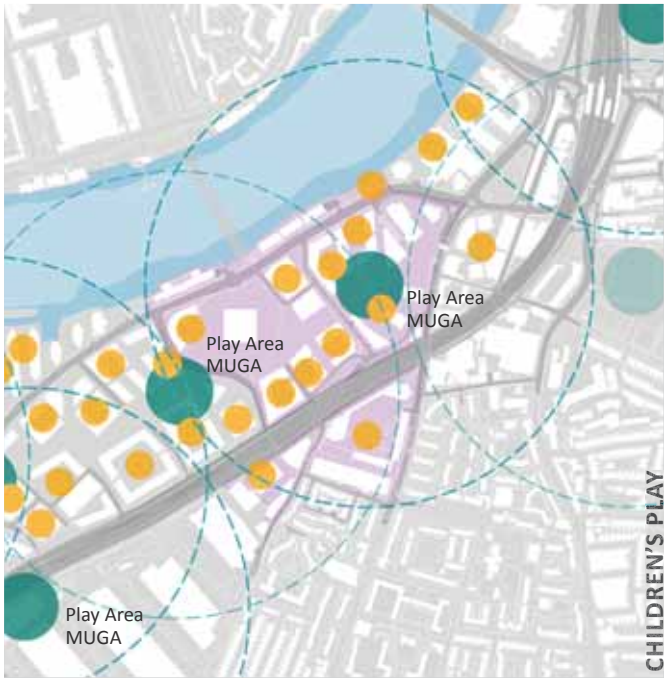
3.4.5.16 Particular attention is required to railway arches and their lighting – refer to sections on lighting.

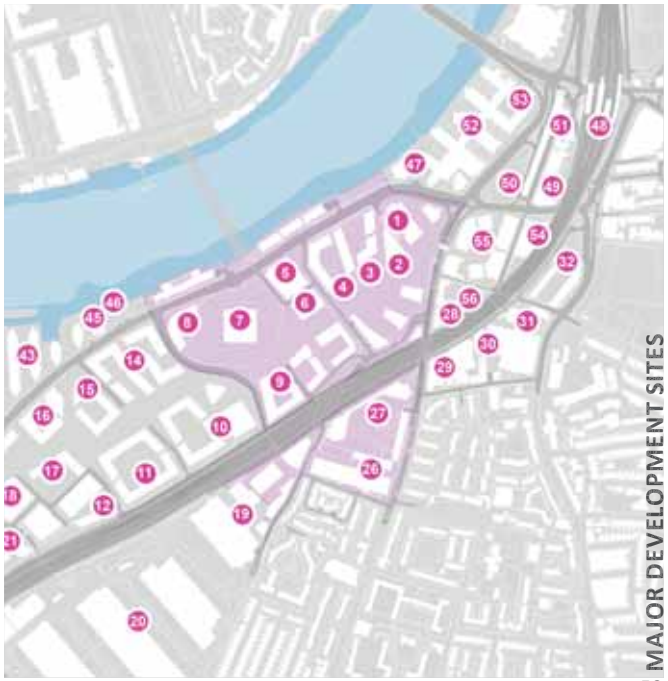
3.4.5.17 Design of the Thames Path should allow the maximum available space for pedestrians and avoid hidden corners. Uniform white lighting should be used throughout.

3.4.5.18 Hostile Vehicle Mitigation (HVM) is to be integrated into the urban landscape by deploying level changes, water features, planters and resistant site furniture strategically. The use of overt HVM (bollards etc.) is to be minimised and confined to points of vehicle access wherever feasible.

3.4.5.19 Refer to Section 4 for further details.







Nine Elms
On the South Bank

3.5 NINE ELMS RIVERSIDE

3.5.1 URBAN CHARACTER

3.5.1.1 Described in Wandsworth SSAD as follows:

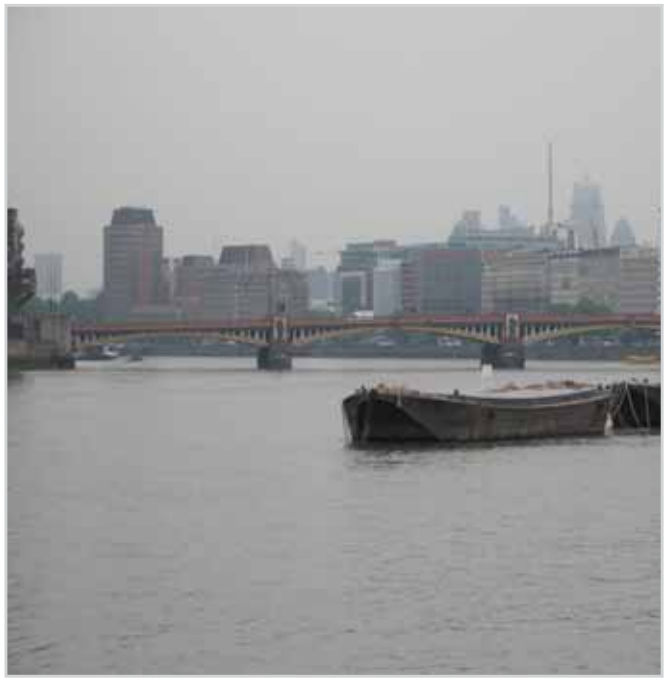
"Area between Nine Elms Lane and the River Thames including existing residential blocks. Largely residential mixed-use developments with an emphasis on providing active ground floor frontages, including fronting Nine Elms Lane and riverside-focused pocket parks."

3.5.1.2 This character area is dominated by the Riverlight development. This development has been one of the first to complete, and sets precedents for quality and management of public space. The development positively addresses the river and enables the public Thames Path route to pass through.

3.5.1.3 Riverlight is however, sandwiched between the active Cringle Dock (waste transfer station and works) and Thames Water pumping station to the east. These constrain the route of the Thames Path and present challenges in terms of consistency and nuisance during the long construction period of the Thames Tideway Tunnel.

3.5.1.4 The principal public realm components include:

- The Thames Path (subject of a parallel project). The Path provides physical and visual access to the Thames and associated wharf
- New public, communal and private areas associated with Riverlight. Public areas link between Nine Elms Lane and Thames Path
- Nine Elms Lane – upgraded to afford safer cycle access and improved streetscape (subject to a separate study)

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3.5.2 PUBLIC REALM OBJECTIVES

3.5.2.1 Through the Riverlight development, many objectives are already met. The development establishes well designed, accessible green space and public realm between the parallel buildings. These provide access (physical and visual) to the Thames from Nine Elms Lane / Battersea Park Road. They also integrate playable artwork to help fulfil both play and cultural aspirations.

3.5.2.2 The emerging proposals of the Thames Path should be integrated and referenced in riverside areas once this is established (2014). Landscape design and management should be coordinated in the interests of establishing the Thames Path as a coherent linear feature.

3.5.2.3 The public realm proposed as part of the Thames Tideway Tunnel proposals should be developed in response to the emerging proposals for the Thames Path.

3.5.2.4 The further development of proposals for Nine Elms Lane / Battersea Park Road should be supported by adjacent landholdings.

3.5.3 STREET HIERARCHY

3.5.3.1 Nine Elms Lane is the principal street through this character area. Its character is rapidly changing from an open, traffic dominated highway through predominantly industrial areas, to a strongly defined urban street. Nine Elms Lane is subject of a separate study for TfL.

3.5.3.2 An existing small-scale grid of streets provides access to Cringle Dock, Tideway and nearby sites, including energy supply infrastructure. These side streets are 'traditional' in their arrangement (refer to section 4) and currently handle a high proportion of HGV traffic accessing waste transfer facilities and works. Thames Tideway Tunnel's site will require HGV access during the construction of the tunnel.

3.5.3.3 Traffic does not permeate the Riverlight development which is served by basement parking. Riverlight therefore establishes extensive pedestrian areas leading to the Thames Path.

3.5.3.4 Refer to Section 4 for definitions and guidance for the Street Types described.

3.5.3.5 The Thames Path forms a continuous pedestrian route along the Embankment. This is the subject of a separate study (ongoing 2014). Works associated with Thames Tideway Tunnel will establish a new promontory at Tideway.

3.5.4 CYCLE NETWORK

3.5.4.1 Cycle lanes along Nine Elms Lane are to be upgraded and, where feasible, segregated from vehicles. This is to be detailed in a separate study by TfL for Nine Elms Lane. No other cycle routes are indicated in TfL's Cycling Strategy - Nine Elms on the South Bank. Cyclists are more likely to use routes associated with Battersea Power Station.

3.5.4.2 A continuous informal cycle leisure route is to be established along the Thames Path, designed for low speed travel within the pedestrian dominated leisure environment.

3.5.4.3 Refer to TfL for guidance on the development and detailing of cycle routes.

3.5.5 GREENSPACE, LEISURE AND PLAY

3.5.5.1 Views to the Thames between the blocks of Riverlight are to be maintained as pedestrian space. Communal and public areas include play and arts features and give access to the Thames Path.

3.5.5.2 Space has been provided for large trees within public and communal areas.

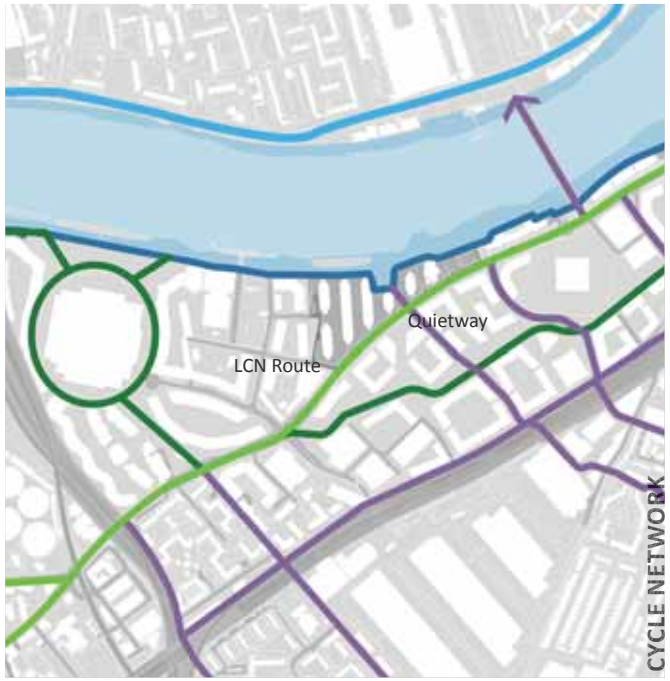
3.5.5.3 Neighbourhood Play facilities are located off-site in the nearby Linear Park. Doorstep Playable Space will be provided within communal gardens to supplement the Neighbourhood facilities within the public park.

3.5.6 DESIGNING OUT CRIME

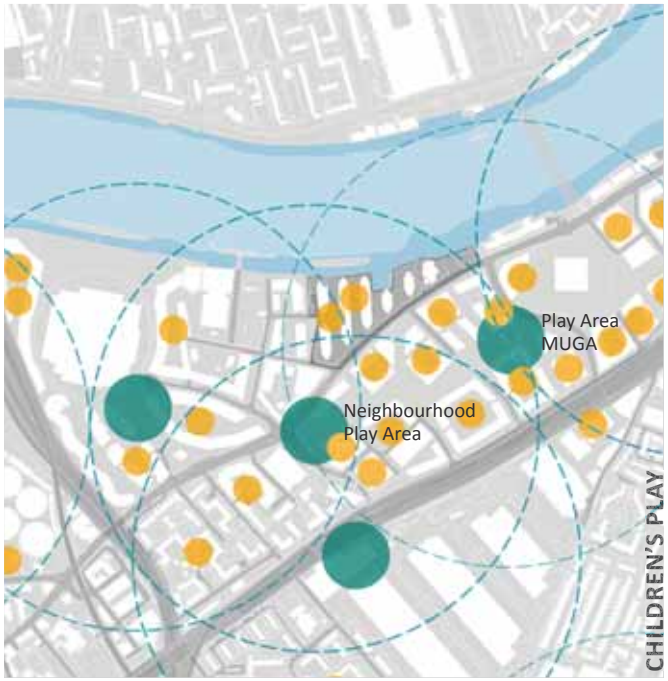
3.5.6.1 Streetscape and public realm designers should demonstrate they have addressed the following crime and anti-social behaviour issues:

3.5.6.2 This quarter includes the highly specified Riverlight development almost directly alongside the working wharfs at Cringle Dock and Thames Water infrastructure. With no through access on the Thames Path anticipated for many years (2014), pedestrian connectivity westwards and security must be considered. Though the development itself is expected to offer a safe and secure environment with good CCTV and surveillance, routes to and from public transport and other amenities have potential to be isolated especially at night. Enhanced public realm and lighting on Nine Elms Lane along with temporary innovations should be addressed by neighbouring developments.

3.5.6.3 Refer to section 4 for guidance on integration of security measures within the public realm.

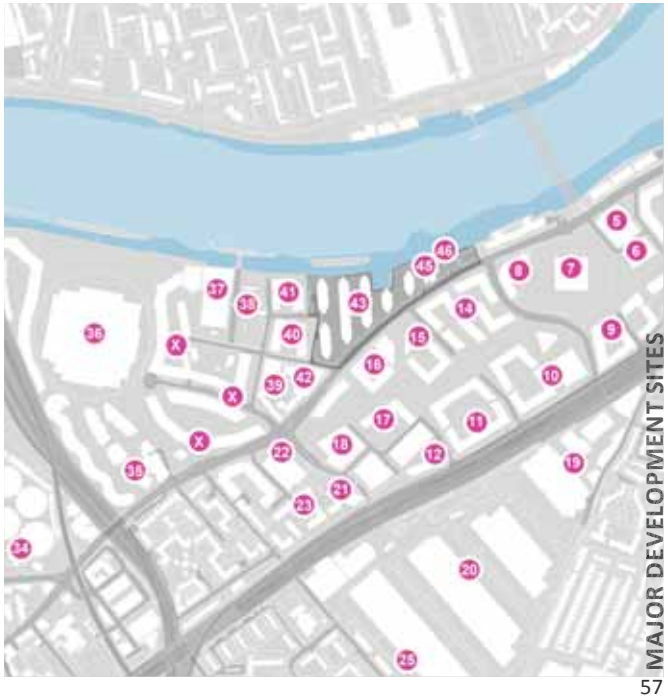


CYCLE NETWORK



CHILDREN'S PLAY

GREEN-SPACE



MAJOR DEVELOPMENT SITES

3.6 NINE ELMS PARKSIDE

3.6.1 URBAN CHARACTER

3.6.1.1 Described in Wandsworth SSAD as follows:

"Area to the south of Nine Elms Lane with predominantly residential mixed-use developments, on either side of the linear park, as well as school/community use provision to serve the area as a whole. As well as having the linear park as its core, the area will be influenced by major improvements which will be made to Nine Elms Lane. This will create an urban boulevard, where commercial uses will be appropriate."

3.6.1.2 The Linear Park establishes a central traffic-free green corridor through the residential developments which include western Embassy Gardens, Royal Mail, CGMA Entrance Site.

3.6.1.3 Cross streets are predominantly shared-surface but do not cross beneath the rail viaduct, due to the New Covent Garden Market beyond.

3.6.1.4 The access road to the Market is adjacent to the entrance to the Linear Park, establishing the junction with Battersea Park Road as a critical crossing point for vehicle traffic and pedestrians.

3.6.1.5 The principal public realm components include:

3.6.1.6 Nine Elms Lane – upgraded to afford safer cycle access and improved streetscape (subject to a separate study)

3.6.1.7 The new Linear Park, and its entrance at the junction with Battersea Park Road.

3.6.1.8 New public, communal and private areas associated with residential developments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3.6.2 PUBLIC REALM OBJECTIVES

3.6.2.1 Enhancement of the streetscape of Nine Elms Lane / Battersea Park Road. In particular address the crossing of Battersea Park Road at the entrance to the Linear Park and junction for CGMA.

3.6.2.2 Establish the entrances to New Covent Garden Market and Nine Elms Linear Park as landmarks visible from Battersea Park Road.

3.6.2.3 Establish the Linear Park as coherent, well managed green space. The Park should provide facilities and a readily identified "address" that is of mutual benefit to all nearby developments.

3.6.2.4 Establish safe, (almost) traffic free routes and general environment within the Character Area for families, residents, visitors and passing pedestrians and cyclists.

3.6.3 STREET HIERARCHY

3.6.3.1 Nine Elms Lane is the principal street through this character area. Its character is rapidly changing from an open, traffic dominated highway to a strongly defined street. Nine Elms Lane is subject of a separate study for TfL.

3.6.3.2 Traffic does not generally permeate the new development areas but is channelled to basement parking and service areas. Where traffic crosses the Linear Park, it is highly controlled, in a pedestrian dominated environment. Where safe, these streets are shared surface streets (refer to Section 4).

3.6.3.3 The principal goods entrance to New Covent Garden Market spurs off Nine Elms Lane to access the Market via the existing underpass (beneath the railway viaduct). This access road also provides vehicle access to CGMA's entrance site and links to other development sites alongside the rail viaduct.

3.6.3.4 Design of the CGMA goods access should ensure safe, smooth access to the and from the market at night. Vehicles should be segregated from pedestrians and cycles.

3.6.3.5 The Underpass to the Market is an opportunity to signal the Market's presence through artwork and lighting. The underpasses and arches also present the opportunity for a set of coordinated artworks.

3.6.3.6 Refer to Section 4 for definitions and guidance for the Street Types described.

3.6.4 CYCLE NETWORK

3.6.4.1 The cycle network has been developed in TfL's Cycling Strategy - Nine Elms on the South Bank. Cycle lanes along Nine Elms Lane are to be upgraded and, where feasible, segregated from vehicles. This is to be detailed in a separate study by TfL for Nine Elms Lane.

3.6.4.2 Quietway cycle routes are proposed throughout side streets of the Embassy Character Area. These operate in a largely pedestrian dominated environment. A direct and continuous route is also proposed alongside the railway viaduct.

3.6.4.3 Continuous cycle leisure routes are to be established to run the length of the Linear Park and along the Thames Path. Both are to be designed for low speed travel within the pedestrian dominated leisure environment.

3.6.4.4 Refer to TfL for guidance on the development and detailing of cycle routes.

3.6.5 GREEN-SPACE, LEISURE AND PLAY

3.6.5.1 Nine Elms Linear Park - The new park will provide continuous green-space linking Vauxhall Cross to Battersea Power Station. The Park's entrance from the junction with Nine Elms Lane at Cringle Street is via a public plaza with water features, local café or community space and tree planting (CGMA Entrance Site). Design should deliberately echo that of the Linear Park's Vauxhall entrance plaza.

3.6.5.2 From the entrance area, the Park widens to form a community park with Neighbourhood Play facilities alongside cafes, seating and planted areas.

3.6.5.3 The Park continues past proposed school and includes games facilities as it heads towards the US Embassy. Access to areas around the US Embassy will be controlled, while the Linear Park extends beyond.

3.6.5.4 The Linear Park is the subject of a separate high level design and management strategy.

3.6.5.5 The Park and adjacent side-streets should ensure zones are set aside for planting of large trees. Refer to section 4 for guidance on rooting volumes and benefits with regard to particulate mitigation.

3.6.5.6 The Park is intended to provide attenuation in a 1 in 100 year storm event. It is sculpted to hold water when buried attenuation reaches capacity. This function can be expressed through detailed designs (refer to Section 4)

3.6.5.7 Doorstep Playable Space will be provided within communal gardens to supplement the Neighbourhood facilities within the public park. These are located in the CGMA Entrance Site with multi-use games area located centrally in thee Park within Embassy Gardens.

3.6.6 DESIGNING OUT CRIME

3.6.6.1 Streetscape and public realm designers should demonstrate they have addressed the following crime and anti-social behaviour issues:

3.6.6.2 This new quarter of NESB will be subject to high levels of security due to the nearby Embassy and signature residential and hotel buildings with a high profile and high quality developments. It is anticipated that this quarter will have generally low levels of crime and anti-social behaviour. Streetscape design should respond to the needs for CCTV and other surveillance and security needs of the high-profile developments.

3.6.6.3 Retail activity is anticipated to extend into the evening with outdoor seating for food and beverage extending to the margins of the Linear Park and play areas. This improves passive surveillance but establishes opportunity for theft of poorly attended possessions. Segregation of outdoor dining areas from through routes.

3.6.6.4 Tourists attracted to the Linear Park and events may be targets of theft. Spacious public realm and choice of routes should be given especially in events areas and gathering points. These areas will also function as orientation and meeting points and offer retail. They may therefore become prone to thefts. Good through visibility and passive surveillance should be maintained.

3.6.6.5 Obvious and physical means of segregation should be provided between public, communal (private) and private space. Consideration should be given to night-time closure of pedestrian-only routes through residential blocks, with access only given to residents.

3.6.6.6 Footfall will be lower than the Embassy Character Area, and at night lighting dimming regimes should be used to direct people to the principal pedestrian routes through the Linear Park so as to focus footfall on a limited number of paths.

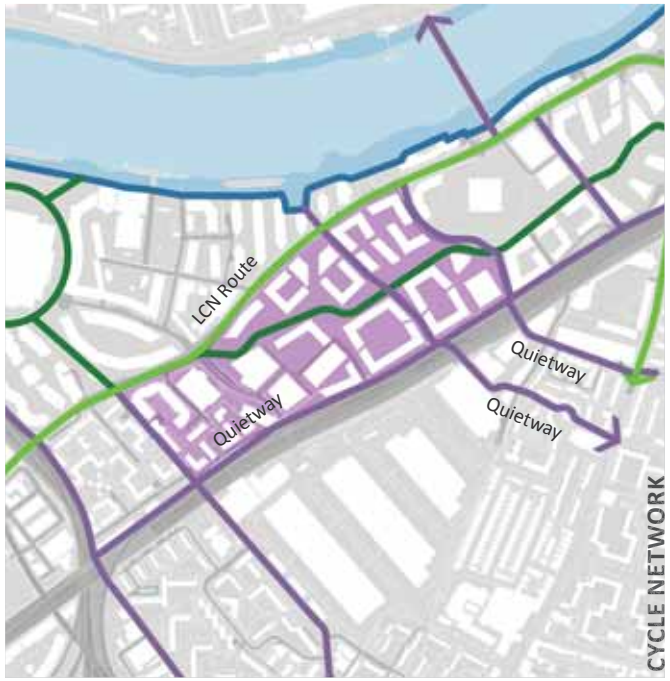
3.6.6.7 Seating should discourage rough sleeping and the areas with seating should be well lit to high levels until early hours when dimming may be possible.

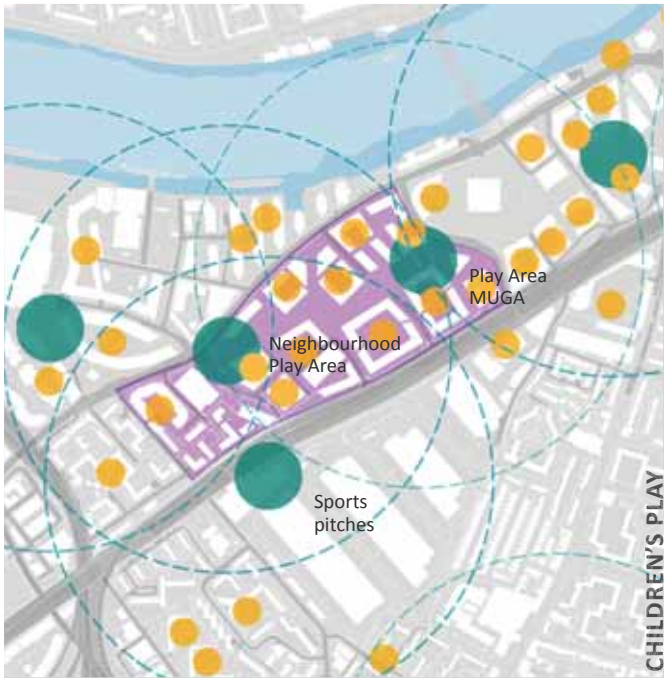
3.6.6.8 While construction is ongoing, good practice (refer to general principles) should be adhered to. Special consideration should be given to routes between existing communities and occupied developments and public transport nodes, shops and other facilities.

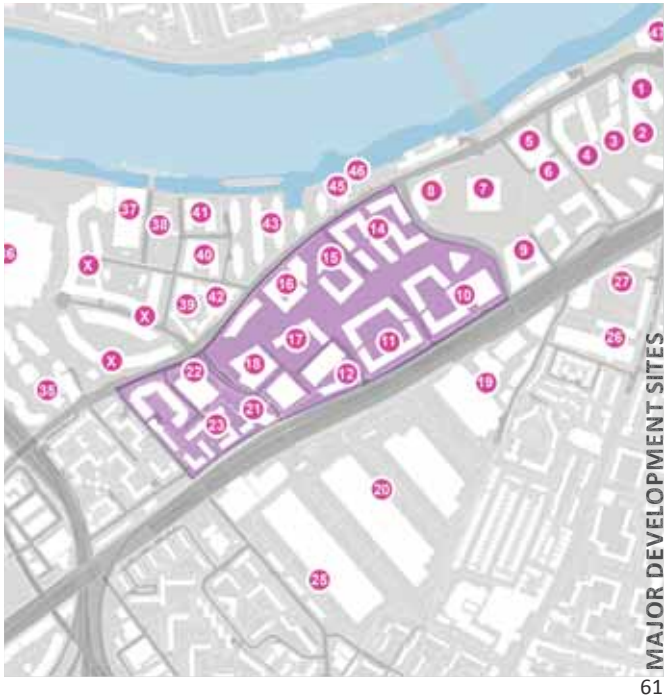
3.6.6.9 Hostile Vehicle Mitigation (HVM) should be integrated into the urban landscape by deploying level changes, water features, planters and resistant site furniture strategically. The use of overt HVM (bollards etc.) is to be minimised and confined to points of vehicle access wherever feasible.

3.6.6.10 Streets and pedestrian shared spaces may require vehicle access management to control service access and eliminate unauthorised vehicles from the Linear Park and associated areas.

3.6.6.11 Refer to Section 4 for further details.







3.7 MARKET

3.7.1 URBAN CHARACTER

3.7.1.1 Described in Wandsworth SSAD as follows:

3.7.1.2 "Redevelopment of the main market site, to provide a wholesale food and flower market to meet the needs of London in the 21st Century. Complementary uses, e.g. hotel, restaurants, food related college and limited retail, will be introduced to the north of the site and improved north/ south linkages provided through the railway viaduct. The redevelopment of the market has the potential to create significant new economic activity, including the potential to attract visitors to the area."

3.7.1.3 Much of the Market District is not publicly accessible due to the commercial logistical operations of the New Covent Garden Market which dominates the district. The public realm is confined to Nine Elms Point and CGMA's Apex Site which includes the Garden Heart retail market building and associated outdoor market spaces. Both developments comprise residential units over retail, and the public realm is to be characterised through the 'Food Quarter' theme. This will seek to develop a specialist food retail offer and niches for small-scale and start-up producer/retailers, as well as growing spaces, roof gardens, markets and artworks.

3.7.1.4 The principal public realm components will be:

- The Garden Heart public-facing market building
- New outdoor market areas, retail led squares, and niche food retailers within railway arches

3.7.2 PUBLIC REALM OBJECTIVES

3.7.2.1 Much of the Market character Area is not generally publicly accessible, however its size, visibility and public areas all have a major impact on the public realm of NESB.

3.7.2.2 The Market areas should be designed to ensure the Market operations are visible, colourful and animated from passing trains, and that when not operational the expansive logistics areas do not portray a negative image rather than promoting the Garden Heart as a destination.

3.7.2.3 The Market areas should establish green areas wherever viable without compromising the safe operation of the Market's distribution areas. Tree planting within peripheral areas is to be encouraged - especially along boundaries with neighbouring residential areas.

3.7.2.4 The Garden Heart area is intended to be the venue for food themed markets, start up businesses and as a showcase for growing, preparing and selling food and food products. The public realm should actively promote these themes through planting (for example fruiting trees and allotment style gardens) and through the provision of well serviced, robust retail market areas.

3.7.2.5 The Market brings many heavy goods vehicles into the area each night. The safe and efficient operation of vehicle logistics should be paramount. Where feasible, the design of public realm should ensure that the necessary transport infrastructure does not dominate over human scale interest and the wider environment.

3.7.2.6 Materials should reflect the industrial qualities of the Market site and its heritage and setting.

3.7.2.7 Establish new covered sports pitch facilities for the district alongside the existing (retained) multi-storey car park. The car park should be 'greened' as far as is sustainable and feasible.

3.7.3 STREET HIERARCHY

3.7.3.1 The Market is accessed from Nine Elms Lane (via the existing entrance route beneath the railway viaduct – to be upgraded) and from Wandsworth Road. The former is the principal entry for large HGVs. The latter is normally used by purchasers with generally lighter vehicles. Both routes are busiest during the night.

3.7.3.2 Internal market site roads are designed for safety, simplicity and robustness, and are not generally accessible or visible to the public. Areas alongside the elevated railway are visible to rail passengers and are to feature tree planting where feasible.

3.7.3.3 Rail viaduct arches: Present the opportunity for a coordinated series of artwork installations and retail spaces which front onto the pedestrian routes. Upgrades to lighting will also encourage their safe use as principal routes to and from Nine Elms underground station.

3.7.3.4 Servicing Strategy for businesses beneath the Viaduct should be carefully considered to avoid blank or 'rear' facades facing public streets.

3.7.3.5 Refer to Section 4 for definitions and guidance for the Street Types described.

3.7.4 CYCLE NETWORK

3.7.4.1 Cycling is not permitted within the Market due to safety concerns. Secure cycle parking should be provided for staff near the entrances and for visitors in retail market areas.

3.7.4.2 The cycle network has been developed in TfL's Cycling Strategy - Nine Elms on the South Bank. Quietway cycle routes are proposed to provide access to public market areas (and market staff access). These connect to the Embassy Character Area via arches beneath the railway viaduct, an continue to existing communities beyond Wandsworth Road.

3.7.5 GREEN-SPACE, LEISURE AND PLAY

3.7.5.1 Public market areas outside the Garden Heart building incorporate sculptural play features within the paved market square. Trees are proposed alongside the rail viaduct in public and internal market areas.

3.7.5.2 Screen planting is also proposed on the south-eastern boundary for neighbouring dwellings

3.7.5.3 Stacked multi-use sports pitches are proposed alongside the existing retained multi-storey car park. These are accessed from Thessaly Road and will be focussed around 5-aside football and similar use.

3.7.5.4 Residents of CGMA's Apex Site will also have access to the facilities within the Linear Park.

3.7.6 DESIGNING OUT CRIME

3.7.6.1 The Market District is almost entirely a controlled environment for the Covent Garden Market Authority's food wholesale and distribution activities. The wholesale market's hours of operation are largely during the night – with the majority of movements in the early hours.

3.7.6.2 The site is secure with well controlled points of access. The public is not generally admitted during operation.

3.7.6.3 Retail markets will be held on both sides of the secure line around the Garden Heart building. Spacious public realm and choice of routes in events areas and gathering points should be provided, along with good through visibility and passive surveillance.

3.7.6.4 If the food retail areas and markets precede the opening of Nine Elms Underground Station, many people attending markets will pass through the long arch underpasses beneath the rail viaduct.

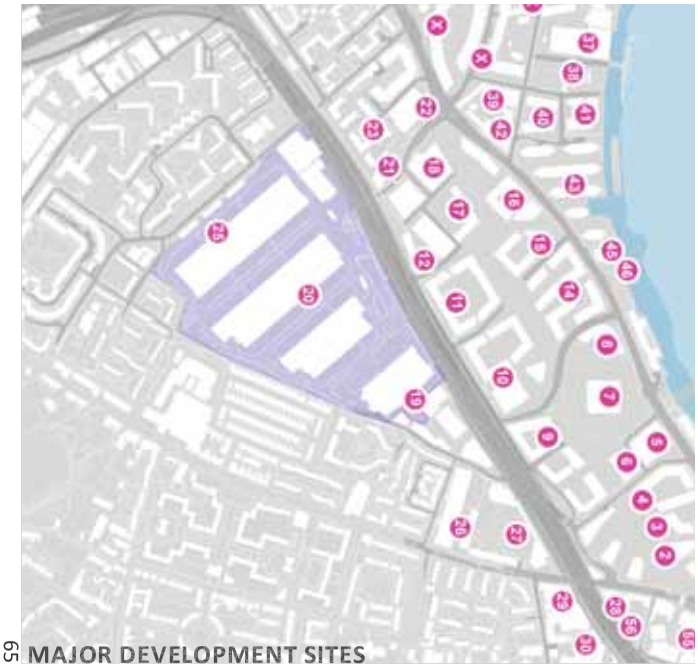
3.7.6.5 Consideration should be given to safety of pedestrians using the arches leading to the Garden Heart during hours of darkness. Promoting a hierarchy among the routes may help to concentrate pedestrian flows and improve passive surveillance.

3.7.6.6 Public realm design should ensure good lighting levels in all active areas and especially through the arches.

3.7.6.7 CGMA will continue to manage access and security for all vehicles entering the market.

GREEN-SPACE

CYCLE NETWORK



MAJOR DEVELOPMENT SITES

CHILDREN'S PLAY

Nine Elms
On the South Bank

3.8 POWER STATION

3.8.1 URBAN CHARACTER

3.8.1.1 Described in Wandsworth SSAD as follows:

"High density mixed use development focused on the iconic Battersea Power Station building, including large scale provision of business floor-space and a potential CAZ frontage (town centre) meeting the needs of the local community and providing a destination shopping centre for London as a whole. The provision of a riverside open space will form the end of the linear park, with the riverside walk linking through to Battersea Park. A new passenger pier will provided."

3.8.1.2 Battersea Power Station is NESB's single most iconic architectural landmark. The massive brick structure and four chimneys dominate the urban landscape, though the surrounding developments increasingly reduce the effect.

3.8.1.3 The public realm forms part of the continuous green chain, linking with Nine Elms Parkside's Linear Park to the east and Battersea Park (via the Thames Path) to the west. Views are channelled from Battersea Park Road to the south façade of the Power Station, where a circular water feature effectively encircling the historic structure, setting it apart from the surrounding new development.

3.8.1.4 The Circle is punctuated by squares to the north and south of the Station.

3.8.1.5 The northern square opens out to the Thames to form a substantial riverside park and events space.

3.8.1.6 The southern Malaysia Square is a dramatic split level space within the extensive retail areas of Electric Boulevard leading between the Power Station and the new Battersea Underground Station. The unique curvilinear forms of the architecture and retail environment will make this an exceptional and well used shopping area.

3.8.1.7 The new Battersea Underground station opens on to Battersea Park Road, and associated retail areas to the south of the Power Station building.

3.8.1.8 Principal public realm components include:

- The new Battersea Underground station and retail street 'Electric Boulevard'
- Parkland linking The Circle to the Nine Elms Linear Park
- New squares to north and south ('Malaysia Square') of the Power Station
- The Circle, circular street and water feature
- New riverside park with connection to Thames Path and Battersea Park (via Chelsea Bridge Wharf)
- New public, communal and private areas associated with residential developments
- New link beneath Battersea Park Road between Battersea Underground Station and Stewarts Road
- The working safe-guarded Wharfs of Cringle Dock

3.8.2 PUBLIC REALM OBJECTIVES

3.8.2.1 The public realm of the Battersea Power Station development will be an exceptional destination, combining the unique heritage of the Power Station building, with high specification residential development, creative arts, retail and public squares, split level open air mall and new riverside park.

3.8.2.2 The public realm should respect the original Battersea Power Station as an iconic landmark within the regeneration of the site.

3.8.2.3 Traffic free routes should be maintained linking the river front (and beyond to Battersea Park) to Nine Elms Linear Park via new crossings of Battersea Park Road.

3.8.2.4 The quality of materials, finishes and design should reflect the importance of the Power Station in the national psyche and the heavy use it is likely to receive.

3.8.2.5 The public realm - and particularly the Riverfront Park - should provide the venue for the arts and cultural events, for the local community and for visitors.

3.8.2.6 Areas associated with the industrial heritage of the Power Station may develop this as a theme for materials and design of bespoke furniture.

3.8.2.7 Proposals for the Thames Path should seek to establish a continuous route alongside the Thames, where current working wharves currently divert the Path inland. This may be possible, through the development of the air-space over the safe-guarded wharfs.

3.8.2.8 The Thames Path should seek to provide pleasant, greened, accessible, well surveilled and coherent treatment of the route until a riverside route is possible.

3.8.3 STREET HIERARCHY

3.8.3.1 The majority of the Power Station District is vehicle-free. Access or parking and servicing is via Cringle Street and a short spur to basement areas accessed from Nine Elms Lane. One new side-street brings vehicle access towards the Circle and Power Station from the east.

3.8.3.2 The Prospect and retail areas are vehicle free.

3.8.3.3 The Thames Path forms a continuous pedestrian route along the Embankment and giving access to the park and public realm of the Power Station developments, except where the working wharfs operate, where it diverts inland until/unless development of the wharfs permits otherwise. The Thames Path is the subject of a separate study (ongoing 2014).

3.8.4 CYCLE NETWORK

3.8.4.1 Cycle facilities on Battersea Park Road / Nine Elms Lane are subject of ongoing assessments with the ambition of upgrading cycle lanes where possible. No other cycle routes are indicated in TfL's Cycling Strategy - Nine Elms on the South Bank.

3.8.4.2 Quietway cycle access is to be established on The Prospect and around The Circle giving access to Power Station Park and Thames Path.

3.8.4.3 An informal cycle leisure route is likely to operate along the Thames Path, designed for low speed travel within the pedestrian dominated leisure environment. The Thames Path diverts away from the river front to negotiate the working wharves to the east of the Power Station

3.8.4.4 Refer to TfL for guidance on the development and detailing of cycle routes.

3.8.5 GREENSPACE, LEISURE AND PLAY

3.8.5.1 The Power Station development establishes a new park on the riverfront as a setting for the Power Station. The park will provide playable space determined in line with the identified need. Within communal gardens "doorstep playable space" will be associated with specific developments. Nearby play includes provision within the Linear Park and Battersea Park.

3.8.5.2 The Circle establishes an elliptical boulevard of trees around the Power Station and links to new green space within the Prospect. The Prospect channels views to the Power Station from Nine Elms Lane and establishes connection across Nine Elms Lane to the Linear Park.

3.8.5.3 Local Playable space will be provided in The Prospect, with Doorstep Playable Space in each courtyard development.

3.8.5.4 Battersea Power Station Park will establish a substantial new resource for play on the riverfront.

3.8.6 DESIGNING OUT CRIME

3.8.6.1 Streetscape and public realm designers should demonstrate they have addressed the following crime and anti-social behaviour issues:

3.8.6.2 Battersea Power Station's high quality environment, of mixed residential, retail, leisure and business uses will establish a well-balanced and well used environment. Public realm design should ensure good through visibility and lighting levels.

3.8.6.3 Retail activity is anticipated to extend into the evening with outdoor seating for food and beverage extending to the margins of the Linear Park and play areas, improving passive surveillance. Where feasible, cafe tables and seating should be segregated from through routes.

3.8.6.4 Spacious public realm and choice of routes should be given especially in events areas and gathering points. These areas will also function as orientation and meeting points and offer retail. Good through visibility and passive surveillance should be maintained.

3.8.6.5 Obvious and physical means of segregation should be provided between public, communal (private) and private space. Consideration should be given to safety of pedestrians during hours of darkness. Promoting a hierarchy among the routes may help to concentrate pedestrian flows and improve passive surveillance.

3.8.6.6 Management should ensure riverside areas do not become subject of tourist scams such as gambling games.

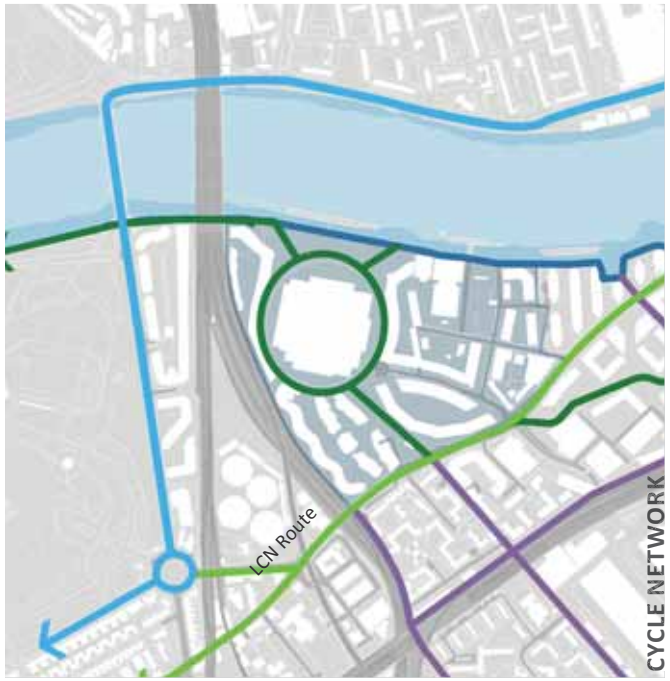
3.8.6.7 Battersea Underground Station entrance should be spacious with plenty of space for pedestrians to orientate themselves clear of traffic on Battersea Park Road.

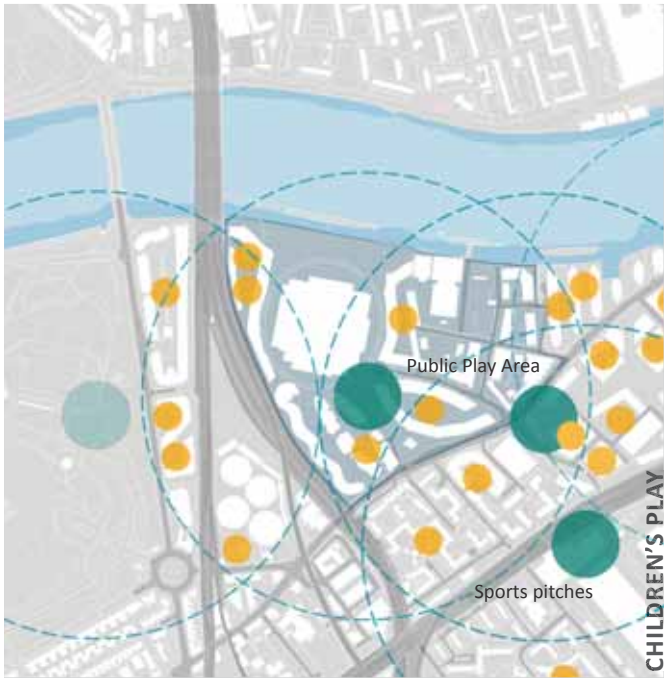
3.8.6.8 Footpaths on Battersea Park Road over the railway bridge are narrow and could present road safety issues.

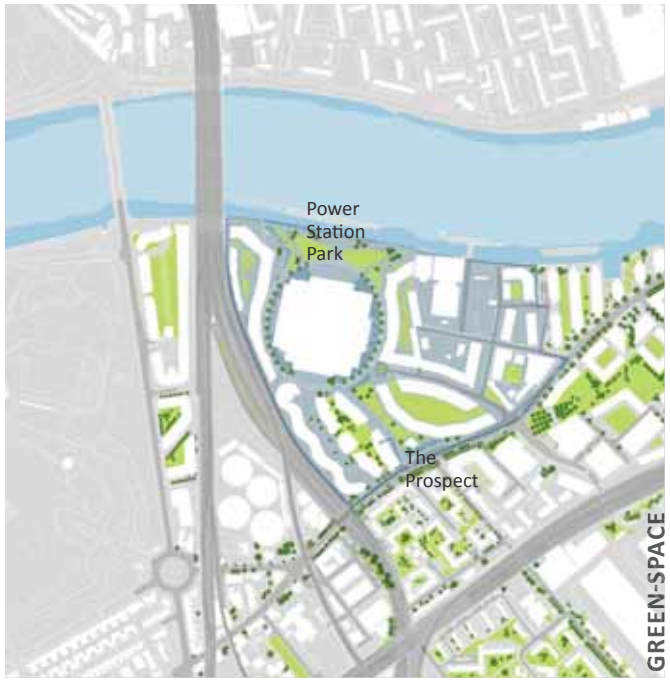
3.8.6.9 The Design of the Thames Path should allow the maximum available space for pedestrians and avoid hidden corners. Lighting is the subject of a separate study, but good levels of 'white' lighting may help reduce potential for crime, with particular attention given to the route beneath the rail bridge leading towards Chelsea Bridge Wharf where passive surveillance is limited.

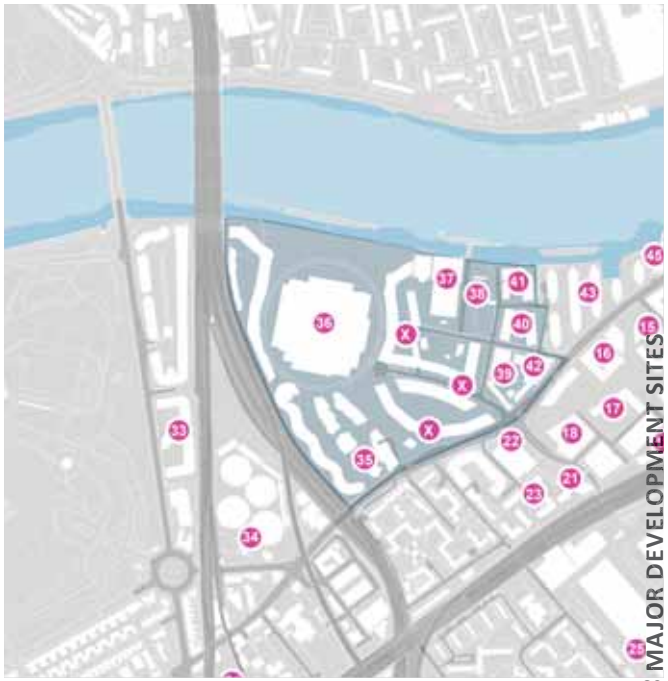
3.8.6.10 Hostile Vehicle Mitigation measures to prevent vehicle access may be advantageous in some areas. Where used it should be integrated into the urban environment, with overt HVM (bollards etc) minimised.

3.8.6.11 Refer to section 4 for guidance on integration of security measures within the public realm.









Nine Elms
On the South Bank

3.9 THESSALY

3.9.1 URBAN CHARACTER

3.9.1.1 Described in Wandsworth SSAD as follows:

3.9.1.2 "Residential district linking Wandsworth Road to Battersea Park Road. Potential to supplement existing housing with new mixed tenure developments."

3.9.1.3 The Thessaly district includes the Savona Estate, Patmore Estate and Carey Gardens. Savona is separated from Patmore by a double railway viaduct of the fly-over junction of lines towards Waterloo. Savona is set slightly below the level of Nine Elms Lane as the latter rises over the main-line to Victoria.

3.9.1.4 The landscape of the three estates is well-maintained leafy and green, but the over-permeable environment, narrow footways and low-footfall (especially on the single-sided portions of Stewarts Road and Thessaly Road) leads to a perception of poor public safety.

3.9.1.5 The principal public realm components include:

- The Stewarts Road and Thessaly Road – running parallel, northeast-southwest, largely single-sided streets (to be addressed in part with new housing CGMA Thessaly Road).
- The new route to Battersea Underground and Power Station beneath Battersea Park Road
- New public, communal and private areas associated with residential developments

3.9.2 PUBLIC REALM OBJECTIVES

3.9.2.1 Address perceptions of poor public safety in and around the estates. Landscape management, and redesign of access (where necessary) to reduce the number of Cul de Sac arrangements without encouraging rat-running, are in the interests of better access and improving passive surveillance.

3.9.2.2 Retain the green, verdant character of the area, and develop a more ecologically diverse landscape with more richness and detail.

3.9.2.3 Promote connectivity between the Thessaly Character Area and the facilities and features of Nine Elms and Battersea Power Station - including the Thames Path, Linear Park, shopping and leisure destinations, sports facilities within the Market site (accessed via Thessaly Road).

3.9.2.4 Improve the environment beneath the railway bridges to Stewarts Road and Thessaly Road.

3.9.2.5 Enhance lighting especially in areas with low passive surveillance, such as railway arches, underpasses and one-sided streets.

3.9.2.6 Upgrade footpaths and crossings to aid fulfilment of inclusive access objectives.

3.9.2.7 Create more 'playable space' rather than focus on designated play areas.

3.9.2.8 Enhance quality and safety of routes linking to the proposed underpass access to Battersea Power Station and Battersea Underground Station.

3.9.3 STREET HIERARCHY

3.9.3.1 Bounded to east and west by Thessaly Road and Stewarts Road, the residential areas between comprise leafy, green parking accesses. These are arranged as short cul-de-sac spurs or meandering routes with retro-fitted bollards to prevent through traffic.

3.9.4 CYCLE NETWORK

3.9.4.1 The cycle network has been developed in TfL's Cycling Strategy - Nine Elms on the South Bank. Quietway cycle routes are proposed along Thessaly and Stewarts Roads and alongside the rail viaduct. These quiet streets provide good access to residential areas within the character area.

3.9.4.2 Refer to TfL for guidance on the development and detailing of cycle routes.

3.9.5 GREENSPACE, LEISURE AND PLAY

3.9.5.1 The housing estates which make up this character area incorporate many mature trees and extensive area of planting and grass. This serves as useful local amenity for residents.

3.9.5.2 All areas are privately owned and managed but much is openly accessible.

3.9.5.3 All areas are well served by existing local play facilities, though these are of mixed quality. Neighbourhood play areas will be supplemented by the new sports pitches accessed from Thessaly Road.

3.9.5.4 Opportunities exist to enhance the estate landscape through providing a richer, more 'playable' space. Further guidance is given in Section 4.

3.9.6 DESIGNING OUT CRIME

3.9.6.1 Streetscape and public realm designers should demonstrate they have addressed the following crime and anti-social behaviour issues:

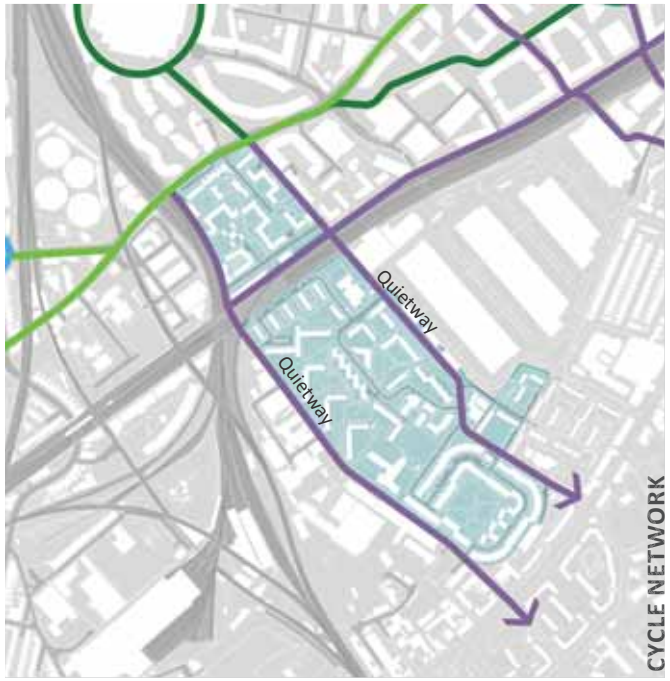
3.9.6.2 The Thessaly Character Area includes the Patmore and Savona Estates. There are known hotspots for some types of criminal activity (2014) with the highly permeable estate landscape offering opportunities for escape and for illicit activity.

3.9.6.3 Streetscape enhancements should seek to reduce permeability through the attractively planted estates, restricting the number of access points and concentrating pedestrian movement on a limited number of routes to reduce the potential for theft from students and children.

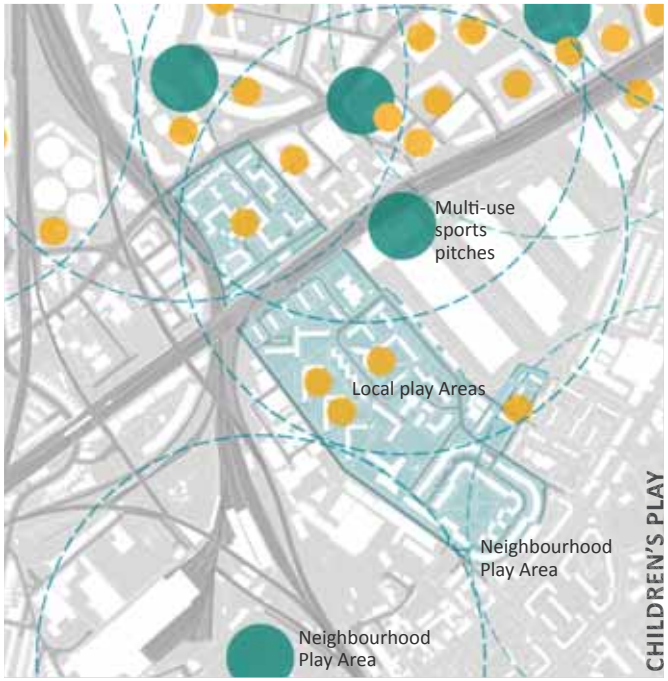
3.9.6.4 Opportunities may be taken to reduce the height of some planting near to footpaths and to improve street lighting.

3.9.6.5 Measures to address potential for car crime (vehicle movement patterns, parking strategies and passive surveillance of streets) in quieter streets.

3.9.6.6 Enhanced levels of 'white' lighting should be provided beneath the railway bridges on Thessaly Road and Stewarts Road to discourage potential for antisocial behaviour and street crime.

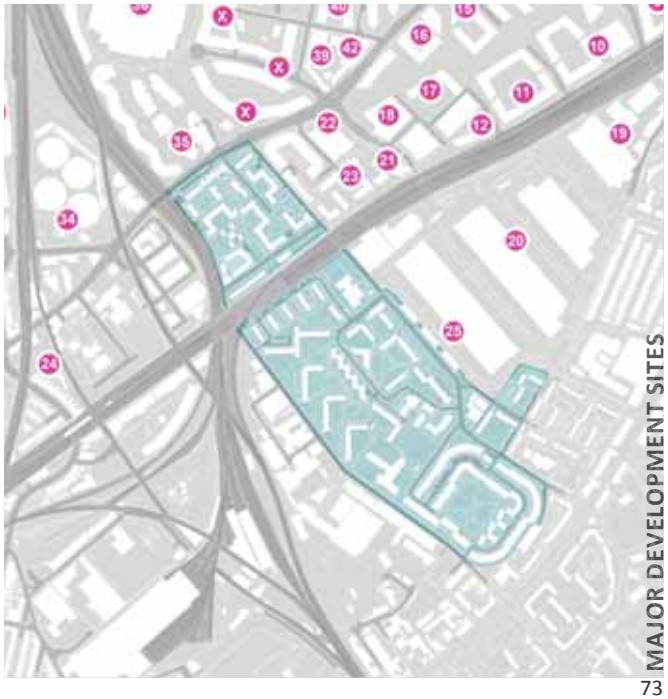


CYCLE NETWORK



CHILDREN'S PLAY

GREEN-SPACE



MAJOR DEVELOPMENT SITES

Nine Elms
On the South Bank

3.10 BATTERSEA PARKSIDE

3.10.1 URBAN CHARACTER

3.10.1.1 Described in Wandsworth SSAD as follows:

3.10.1.2 "High density residential led mixed use development facing and close to Battersea Park. Much of this district lies within the Battersea Park and Parktown Estate Conservation Areas."

3.10.1.3 Benefitting from prime views along the Thames and across Battersea Park, the new developments along Queenstown Road are of high value. The continuity, close proximity, height and scale of Chelsea Bridge Wharf accentuate the linear character of Queenstown Road as it approaches Chelsea Bridge. The curving shapes of the Vista development will present a more open aspect.

3.10.1.4 Changes to the Queen's Circus will improve safety for cyclists, but reduce the green setting of the entrance to Battersea Park.

3.10.1.5 The treatment and lighting of the Thames Path connection to Battersea Power Station will be important to establishing the Path as a leisure route.

3.10.1.6 The principal public realm components include:

- Queenstown Road and Queen's Circus highway
- Smaller scale streets, shops, railway stations and impressive Victorian rail arches either side of Battersea Park Road
- New public, communal and private areas associated with residential developments
- The Thames Path connection between Battersea Power Station and Battersea Park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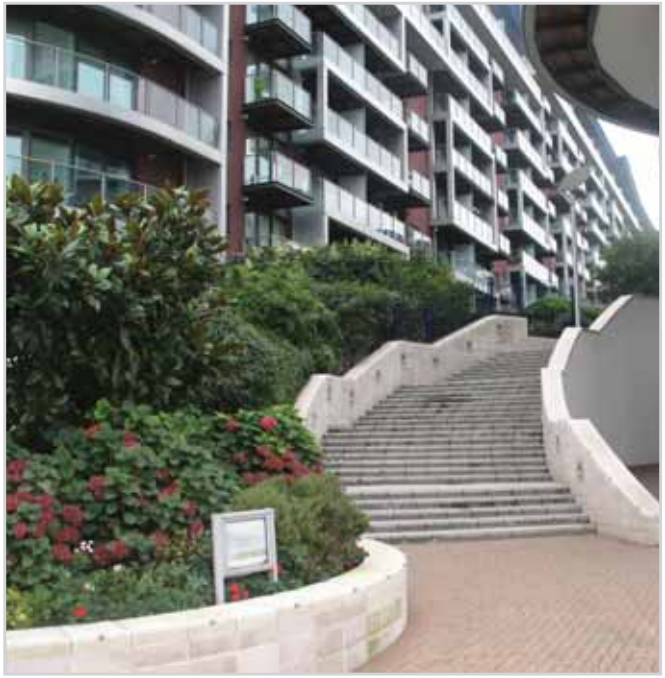


3.10.3 STREET HIERARCHY

3.10.3.1 The area is bounded by Queenstown Road running north-south and Battersea Park Road running approximately east-west. Prince of Wales Drive forms a more direct route between Nine Elms and Chelsea Bridge (via Queens Circus).

3.10.3.2 A loose grid of side-streets serves areas south of Battersea Park Road – an area which has no through-traffic due to the rail infrastructure.

3.10.3.3 Development sites such as Vista and the site of the gas holding tanks are accessed directly from the principal streets.

3.10.4 PUBLIC REALM OBJECTIVES

3.10.4.1 Examine opportunities to enhance the streetscape of Prince of Wales Drive, Battersea Park Road and Queenstown Road. These should focus on improving pavement widths and accessibility between the rail stations and new Battersea Underground Station.

3.10.4.2 Examine the other opportunities to link stations by alternative means, for example by establishing shared surface street along Patcham Terrace between Battersea Park Station and Queenstown Road Station.

3.10.4.3 Examine other public realm linkages of the Stewart's Road study (2010) using arches to give greater connectivity to Bradmead and Lockington Road areas.

3.10.5 CYCLE NETWORK

3.10.5.1 Cycle Superhighway route 8 (CS8) is programmed to join Queenstown Road at Queens Circus and continue northwards across Chelsea Bridge. Queens Circus has proposals for segregated cycle lanes currently in consultation (2014).

3.10.5.2 The cycle network developed in TfL's "Cycling Strategy - Nine Elms on the South Bank" indicates cycle routes continuing from Queens Circus east along Prince of Wales Drive and for the length of Battersea Park Road.

3.10.5.3 Refer to TfL for guidance on the development and detailing of cycle routes.

3.10.6 GREEN-SPACE, LEISURE AND PLAY

3.10.6.1 The western portion of this character area faces directly onto Battersea Park – one of London's most important public parks. Battersea Park provides sports, cultural and arts events, play and general amenity space in a mature setting on the banks of the Thames.

3.10.6.2 Development of the gas holder site and areas south of Battersea Park Road are constrained by rail infrastructure or the density of existing development, but all lie within 800m of Battersea Park.

3.10.6.3 All new developments are to contribute amenity space and doorstep playable space in accordance with the standards set by the GLA and Borough.

3.10.6.4 Excellent play and sports facilities for all ages and abilities are found in Battersea Park.

3.10.6.5 New sports pitches at New Covent Garden Market (accessed from Thesssaly Road) are well within 800m catchment.

3.10.7 DESIGNING OUT CRIME

3.10.7.1 Streetscape and public realm designers should address the following potential crime and anti-social behaviour issues:

3.10.7.2 In common with other river-front character areas, Battersea Parkside will present a high quality environment, of mixed residential, retail, leisure and business uses that will establish a well-balanced and well used environment. Crime rates would be expected to be generally low. Public realm design should ensure good through visibility and lighting levels generally.

3.10.7.3 Proximity to Battersea Park may increase risk to nearby areas slightly due to lower footfall and passive surveillance from only one side of the street (Queenstown Road). Areas with limited connectivity due to rail infrastructure may also be more vulnerable.

3.10.7.4 Shops and food and drink outlets on Battersea Park Road, and other gathering points – such as Queenstown Road Station - may have increased potential for anti-social behaviour during evenings. School children in particular, may be vulnerable to theft.

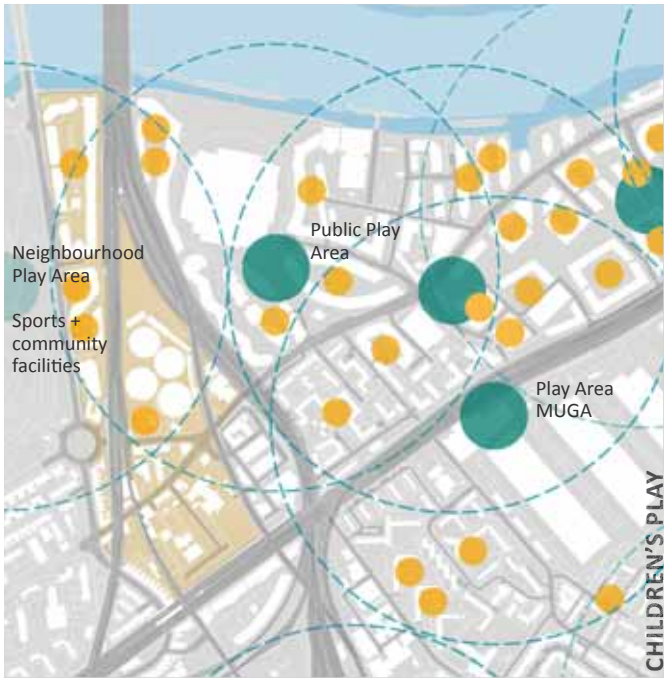
3.10.7.5 Spacious public realm and choice of routes should be given especially at gathering points in tourist areas. Good through visibility and passive surveillance should be maintained.

3.10.7.6 The Design of the Thames Path should allow the maximum available space for pedestrians and avoid hidden corners. Uniform white lighting used throughout may help reduce potential for crime, with particular attention given to the route beneath the rail bridge leading towards Chelsea Bridge Wharf where passive surveillance is limited.

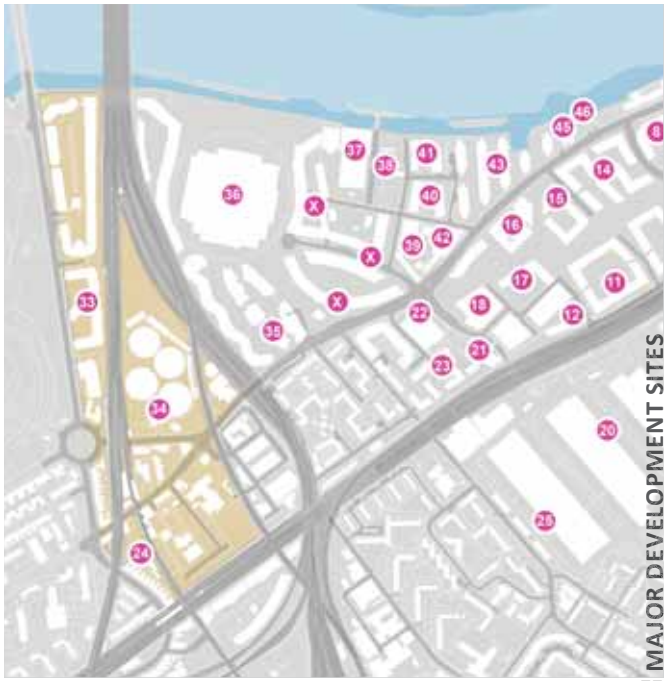
3.10.7.7 Areas south of Battersea Park Road have limited permeability and low footfall. Work to better integrate these areas into the wider street network would be expected to reduce potential for crime.

3.10.7.8 Refer to section 4 for guidance on integration of security measures within the public realm.


CS8
Quietway
LCN Route
LCN Route
CYCLE NETWORK


Neighbourhood Play Area
Public Play Area
Sports + community facilities
Play Area MUGA
CHILDREN'S PLAY


Battersea Park
GREEN-SPACE


MAJOR DEVELOPMENT SITES

3.11 STEWARTS ROAD

3.11.1 URBAN CHARACTER

3.11.1.1 Described in Wandsworth SSAD as follows:

"Intensification of the existing industrial and waste uses, to help provide capacity for relocating and incoming businesses. Western part of the area to be designated as an Industrial Business Park, to provide a buffer between the key industrial sites and adjoining residential areas, notably the Parktown Estate Conservation Area. Improvements to access in the area and to the environment will be provided."

The area is the subject of the "Stewarts Road Study" (London Borough of Wandsworth and Design for London, 2010). The study's stated aims included to "Give impetus to the development and regeneration of the Stewarts Road area" and to "ensure...a carefully planned, integrated and implemented" regeneration programme.

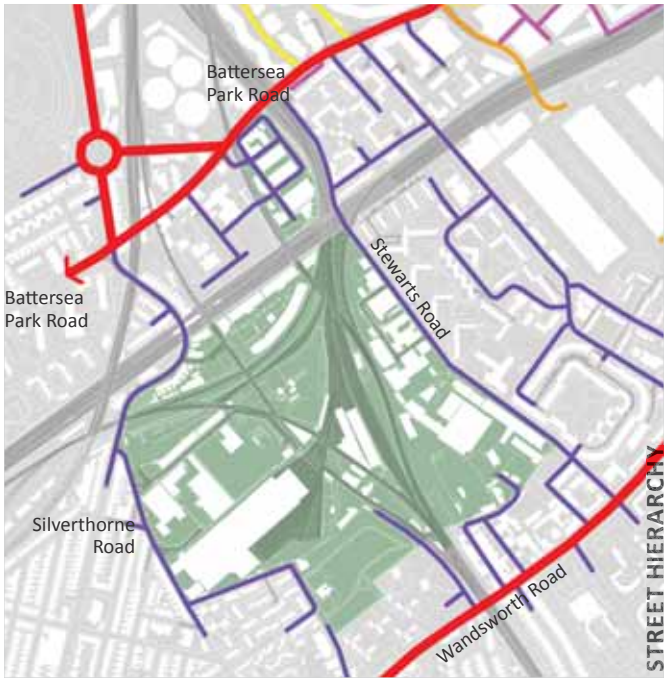
3.11.1.2 Across the Stewarts Road district the public realm is of low quality and can feel threatening due to a combination of factors. These include, the absence of housing, poor natural surveillance of streets, low-footfall, large single land-use zones, fragmentation caused by the complex network of railway lines and junctions, blank building facades and cul-de-sac road layouts in industrial areas. Housing areas south of Heathbrook Park suffer by association (lack of pedestrian and cycle through traffic), and because of unattractive retro-fitted traffic control and cul-de-sac road layouts and open, unenclosed landscape.

3.11.1.3 The landscape of Heathbrook Park is enclosed by railings and includes play areas and outdoor gym equipment.

3.11.1.4 The principal public realm components include:

- A complex and confusing arrangement of railway lines, viaducts and yards which fragment the area and reduce its legibility and permeability for pedestrians, but provide useful employment uses.


ALY'S BEST CONTRACTS



3.11.2 PUBLIC REALM OBJECTIVES

3.11.2.1 Stewarts Road Character Area is typified by industrial land uses and disconnected street patterns. The rail infrastructure which dominates the area does not naturally promote a connective environment. The Stewarts Road Study (2010) included an examination of ways in which permeability could be enhanced.

3.11.2.2 Greater levels of passive surveillance can be achieved by measures such as promoting active frontages to buildings, and the use of railway arches as business uses.

3.11.2.3 The introduction of plantings of robust, large trees would help reduce the predominance of hard surfacing and built forms, help filter dust and atmospheric pollutants. Used as boundaries to sites (or groups of sites) these would ultimately break down the scale of the industrial zone, making it feel more integrated into the surrounding areas.

3.11.2.4 Enhancements to Heathbrook Park may include more playable space, better through visibility and more prominent entrances.

3.11.2.5 Enhancements to streetscape should include identifying viable new opportunities for street tree planting.

3.11.3 STREET HIERARCHY

3.11.3.1 The Stewarts Road character area is dominated by rail infrastructure – marshalling yards and the junction between lines between Clapham Junction, Victoria, Waterloo and the south via Brixton. No streets cross this area which is served by a series of disconnected access roads. These provide access to industrial areas, yards, and Battersea Studios.

3.11.4 CYCLE NETWORK

3.11.4.1 A Quietway Route is proposed along Stewarts Road and Queenstown Road. The latter ultimately joins the route of Cycle SuperHighway CS8 at Queens Circus.

3.11.4.2 Refer to TfL for guidance on the development and detailing of cycle routes.

3.11.5 GREEN-SPACE, LEISURE AND PLAY

3.11.5.1 Existing rail infrastructure includes some substantial areas of naturally regenerated trees. These should be managed carefully though most fall within the demise of Network Rail and may be pruned to reduce leaf litter.

3.11.5.2 Heathbrook Park is the principal public open space in the Character Area, providing extensive open grass, and mature trees.

3.11.5.3 Heathbrook Park includes extensive mown grass areas with community and play facilities and a ball games area. The park does not benefit from passive surveillance margins include railway arches, and planted perimeters.

3.11.5.4 Any new residential development would need to consider play and amenity space provision based upon proximity to existing green space and on-site provision of doorstep playable space.

3.11.5.5 Play provision will be localised within public plazas or “doorstep playable space” associated with specific developments. Neighbourhood play facilities are provided within the Linear Park and Vauxhall Pleasure Gardens.

3.11.6 DESIGNING OUT CRIME

3.11.6.1 Streetscape and public realm designers should demonstrate they have addressed the following crime and anti-social behaviour issues:

3.11.6.2 Large parts of the Stewarts Road character area are industrial in character and could be intimidating at night. With a low resident population, footfall is often low. Designers should use streetscape and lighting enhancements to focus footfall into a number of principal pedestrian routes.

3.11.6.3 The landscape around Amesbury and Durrington Towers and the Westbury Estate is excessively permeable. Design proposals should look to establish communal and public interfaces and controlled points of entry with the aim of focusing pedestrian movement into a more limited number of principal footpaths.

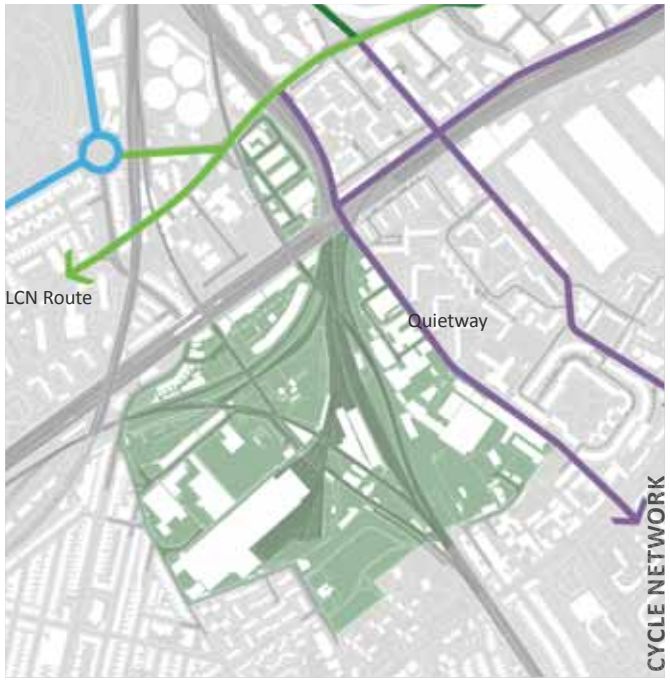
3.11.6.4 Single sided streets have poor natural surveillance especially alongside industrial areas and railway arches which often present closed, blank facades to the street. Design teams should attempt to achieve greater levels of passive surveillance by glazing elevations and achieving a mix of uses within arches.

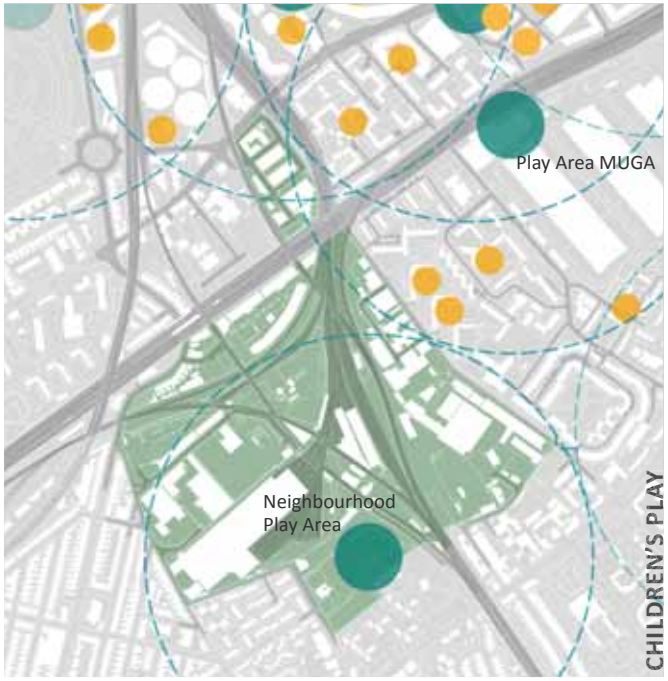
3.11.6.5 High walls on some sections of Stewarts Road reduce passive surveillance of the street which is often single sided.

3.11.6.6 Streets such as Pensbury Place are dominated by blank facades on both sides of the street and therefore have almost no passive surveillance.

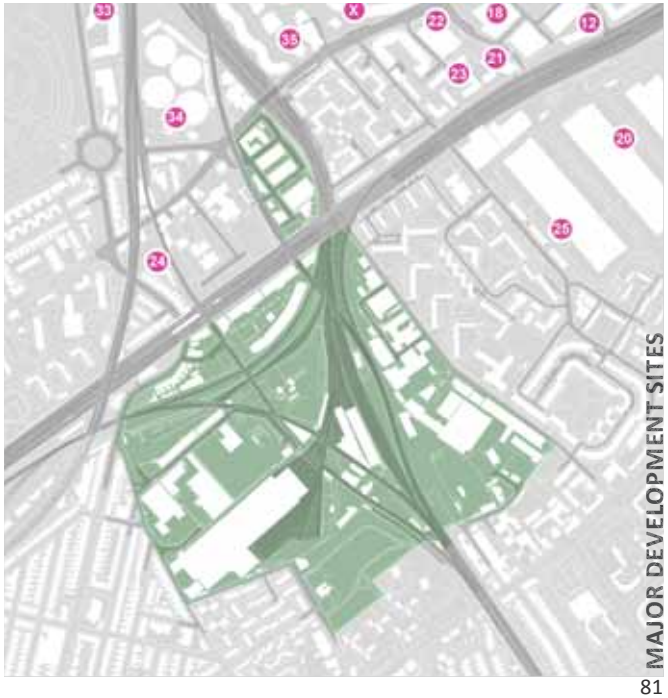
3.11.6.7 Any redevelopment in the Stewarts Road character area must carefully consider personal safety issues for users and ensure the development establishes a positive relationship with the street.

3.11.6.8 Refer to section 4 for guidance on integration of security measures within the public realm.


LCN Route
Quietway
CYCLE NETWORK


Play Area MUGA
Neighbourhood
Play Area
CHILDREN'S PLAY


Heathbrook
Park
GREEN-SPACE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MAJOR DEVELOPMENT SITES


PARK

4.0

Nine Elms
On the South Bank

Public Realm Design Standards

This chapter presents standards for design and management of public realm across NESB.

4.1 NARRATIVE IN THE PUBLIC REALM

4.1.1 LAYERING CULTURAL HERITAGE

4.1.1.1 Understanding the story of NESB's industrial, cultural and historic heritage is to be an important aspect in defining the character of public realm in NESB. The urban characteristics identified in Section 3 are made up of the accreted layers of the area's cultural and industrial heritage, of which the current patterns of use are just the most recent.

4.1.1.2 In common with much of London, historic features and references are arranged in a complex web of new and old, with industrial, cultural and residential land-uses, sitting "cheek-by-jowl". The often ad-hoc nature of the urban environment makes for pockets of discontinuity and isolation, but also for a complex, multi-faceted urban community and environment.

4.1.1.3 The area's historic role as an under-valued industrial and transport hub, and as Westminster's (literally) poor neighbour, has meant that the unconscious historic layering of the cultural fabric is now one of its strongest characteristics. Each intervention in the urban environment is clearly of its time with little attempt at direct integration with the past.

4.1.2 THE HISTORIC CONTEXT

4.1.2.1 It appears that little remains of the original marshland landscape, except the overall shape of the topography, but beneath the surface lie the substrata and the long-culverted streams that originally drained this part of the Thames basin.

4.1.2.2 From the earliest Norman records, much of the area was in the ownership of important figures of the early medieval world, including successive Archbishops of Canterbury, and the 'Black Prince'.

4.1.2.3 The area retained significant rural land uses until well into the industrial era. Significant areas of marsh and meadow were still in existence as late as the early 19th century in the area known as Battersea Fields (the areas around Battersea Park and Power Station)

4.1.2.4 As the marshes and meadows were progressively drained, the medieval market gardening expanded to provide London with food, medicinal herbs and even flowers. Some market gardens morphed into a series of Pleasure Gardens, parks and venues which extended along the Thames to Southwark. The famous botanist, John Tradescant's collection was developed in his Vauxhall grounds. Some of the gardens became home to popular attractions and events, including rowing races, fetes, boxing, theatre, animal baiting and markets.

4.1.2.5 As London grew more successful, the area became better linked by bridges, wharfs and rail connections. Its population and industrial economy grew. Some of the gardens and attractions became well known for theatre and music, some as places of disrepute. Some became renowned across Europe. Like the marshes, most now are difficult to trace in the physical environment.

4.1.2.6 The most famous and successful of the gardens was the Vauxhall Pleasure Gardens. It drew visitors from across Europe and was immortalised by Canalletto in 1751. Its memory lives on in the recently renamed park (formerly Spring Gardens – named after the original Spring Gardens).

4.1.2.7 As London's needs grew, industrial-age development replaced leisure. It is still particularly evident in original (and sometimes almost unmodified) transportation infrastructure. The railway viaducts, wharfs, yards, warehouses and roadways of nineteenth and twentieth century London are still in wide use and indeed are vital to London's economy and transport infrastructure. Original viaducts have been widened and new structures added, but the character areas of NESB are in large part determined by this original industrial era of London's development.

4.1.2.8 Major developments of the Early and mid-twentieth Century include the iconic Battersea Power Station, its wharfs and cranes, and the busy distribution centre of New Covent Garden Market, but also new communities built on the need for social housing, schools and social amenities. These in turn helped spawn a renewed sub-culture of music and the arts from the 1960s onward.

4.1.3 RESPONDING TO HERITAGE - PRINCIPLES

4.1.3.1 The historic layering of new development over and alongside old should be used as a meme for the development of the new public realm of NESB.

4.1.3.2 It is also important that reference to the cultural heritage of NESB is strongly represented in the public realm. The following complimentary principles are to be followed:

- Materials and features within the public realm may (and should) derive specific references from the cultural heritage of the location as new, contemporary design themes. They may include reference to the plants and ecology of the original Thames marshland landscape, or to the different stages of the area's development including historic Market Gardens, Pleasure Gardens, the arrival of the railways, markets, water industry, gasworks, stone yards and logistics industries, the local communities and more recent popular music heritage from The Who to So Solid Crew.
- New elements within the public realm should not imitate or become confused with original features: Instead they should respect retained features but be bold, clear, new interventions.
- Preexisting materials or features that are to be retained or reused within the public realm should be clearly identifiable as an historic layer within the new urban realm.
- The "collision" of different layers of cultural and historic fabric is characteristic of the area and should be accepted as a valid design response in the new public realm.

4.1.4 CONTEMPORARY CULTURAL REFERENCES

4.1.4.1 Public realm proposals should reinforce current and emerging cultural references. These include:

- Battersea Power Station as an emerging centre for arts and cultural experiences
- The thriving night-time economy of Vauxhall Cross
- New Covent Garden Market and the Food Quarter
- International relations in the Embassy Character Area
- An emerging gallery quarter including Damien Hirst's Newport Street Gallery in north Vauxhall
- Nine Elms Linear Park

4.1.4.2 This can be achieved by recognising important cultural destinations through various techniques:

- Identifying and signing routes (overtly and by implication)
- Defining space and orienting materials to emphasise destination developments
- Providing complimentary orientation spaces, seating, lighting performance or exhibition space with associated servicing to facilitate uses as needed

4.2 STREETSCAPE + 'HARD' PUBLIC REALM

4.2.1 OBJECTIVES

4.2.1.1 This Guide allows for the expression of individuality in proposals for public realm, but this must be within an overall framework. Continuity and coherence is needed in the public realm to avoid a patchwork of approaches. The Character Areas describe principles and high-level characteristics, but these are not intended to be comprehensive analyses, and design teams should use these as the basis for their own research and not as a completed set of fully-defined rules. They offer a flavour of the character that can be developed to help give identity and a sense of community to each new locality.

4.2.1.2 It is not intended that each Character Area is strictly defined through its own distinct palette of materials. Instead:

Each character area and development draws upon a common palette of materials and principles which is modified to suit the local situation and cultural references.

4.2.1.3 The principles of streetscape design in NESB and the palette of materials for public realm are drawn from two groups of sources.

- Design guidance references
- Planning Submissions and Precedent

4.2.2 DESIGN GUIDANCE REFERENCES

4.2.2.1 Better Streets Delivered: Learning from Completed Schemes (TfL 2013) describes useful first principles and gives examples where these have been implemented in existing London streets and spaces. The principles are summarised in the report as:

- Tidy up – look to remove unnecessary road markings or broken street furniture which is simple to clear up and will not damage the footway
- De-clutter – requires a more strategic justification for every individual piece of equipment in the street, with the presumption of removal unless a clear reason for retention is given
- Relocate or merge functions – any remaining features should be rationalised to combine signage and lighting or better locate street furniture to fulfil its intended use
- Rethink traffic management options – by considering user priority, changes to carriageway widths or removal of traffic signals
- Recreate the street – complete remodelling of the street may be suitable if a new set of objectives or character is desired, such as by creating a shared surface. This approach is not suitable in all locations and requires extensive consultation

4.2.2.2 The Public Realm Surface Materials Code (PRSMC, TfL and Nine Elms Vauxhall Partnership Public Realm Working Group, 2013) gives background information on materials, guidance on specification, a Street Code, guide to stone selection, and Technical guidance on design and maintenance.

4.2.2.3 Streetscape Guidance 2009 – A Guide to Better London Streets (TfL, 2009 – to be updated/replaced 2014). This Guide describes standard materials, specifications and details for design and construction of roads, pavements and cycleways on TFL operated routes. The Guide is comprehensive and detailed.

4.2.2.4 Nine Elms Lane Public Realm Design (TfL, 2013). Describes proposals with plans and details for the upgrading of Nine Elms Lane. Proposals include promoting cycle safety, and increasing the tree cover within both footways and central reservations.

4.2.2.5 Nine Elms on the South Bank – Designing for Cycling (TfL, 2013). This is a comprehensive guide to cycle routes and common details of the different categories of cycle route proposed by TfL in NESB.

4.2.2.6 Local Plan Policy and SPD, London Boroughs of Wandsworth and Lambeth.

4.2.3 **PLANNING SUBMISSIONS AND EXISTING PRECEDENT**

4.2.3.1 The Second group of sources is the Planning Submissions and design proposals of individual developments. These are too numerous to reference, but as the first stage of developing this guidance a review was conducted of materials and design principles for all major developments submitted for Planning Approval in NESB. Results were tabulated and over-arching design principles and common materials were derived through this review process.

4.2.3.2 Generally, the choice of materials for public realm is drawn from a relatively limited palette of robust, economical, and available materials. This in itself lends a degree of coherence to the streetscape, but does not distinguish NESB from other parts of London. This is where adherence to the specific Guidance given in the Public Realm Surface Materials Code is helpful.

4.2.4 **STREET DESIGN AND ZONING**

4.2.4.1 The Public Realm Surface Materials Code (PRSMC) incorporates descriptions of a hierarchy of street types with typical cross-sections to indicate illustrative dimensions.

4.2.4.2 This hierarchy covers:

- Main Street - highway through routes in Borough or TLRN management
- Side Street - Traditional Layout: quiet streets with a conventional carriageway and footpath
- Side Street - Pedestrian Friendly Layout: quiet streets with a more relaxed approach to carriageway and footpath alignments and informal tree planting
- Pedestrian Dominated Space: areas where vehicle are not normally permitted

4.2.4.3 This Guide extends this hierarchy to include:

- Heavy Goods Vehicle (HGV) access: Routes specifically designed to permit safe, efficient access to New Covent Garden Market.

4.2.4.4 The new HGV Route provides access to and from the Market, and is mostly used at night. Roads are wide enough for two large HGVs to pass and manoeuvre at junctions and bends. Road surfaces are of Macadam or if practicable, porous Macadam to reduce spray and noise. Roads have raised kerbs. Crossings and other speed reduction measures should not cause unnecessary breaking or acceleration of vehicles due to the late hours of operation, and potential noise impacts on local residents.

4.2.4.5 Details of paving materials for each different street type, furniture and general arrangement are summarised in the table on the following page. They are described in fuller detail in the PRSMC.

4.2.4.6 Typical paving details are provided in the PRSMC. For consistency in areas such as the Linear Park, these details should be used as guidance for designing streets and pedestrian spaces.

4.2.4.7 Cross sections through each street type are derived through a process of zoning. This is required to avert clashes between buried services, trees, road traffic and pedestrian access.

4.2.4.8 Typically street zoning should co-locate trees, street furniture, signing and lighting to create clear surface zones for traffic and pedestrians to either side.

4.2.4.9 The clear surface zones should include underground services (such as electricity, gas, water, drainage and fibre-optic cable) which are therefore outside the zone used by tree-roots. In this position, if properly detailed, vehicle trafficking does not compact rooting zones and if given sufficient space, roots will not disrupt pavements. Refer also to following sections on ‘soft landscape design’.

4.2.4.10 Streets shall normally be designed in accordance with illustrative sections and design details provided in The Public Realm Surface Materials Code (PRSMC). Where design teams propose to diverge from the PRSMC, clear rationale must be given based on interpretation of the context, or clear design concepts which reinforce the objectives for the character area.

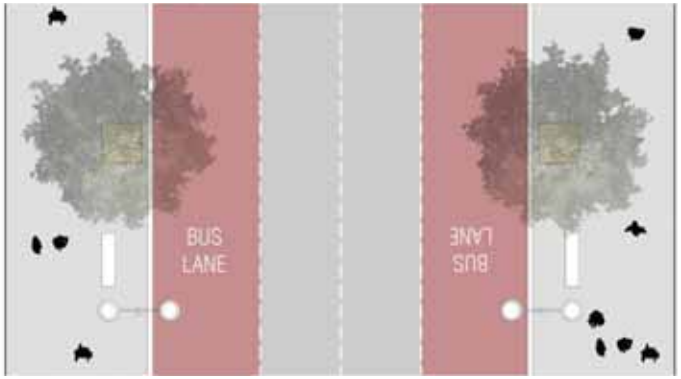
4.2.4.11 Shared surface (pedestrian, cycle and vehicle) streets are encouraged, but shared areas must be supplemented by adjacent pedestrian-only routes which are clearly usable and legible to children and people with disabilities and sensory impairment.

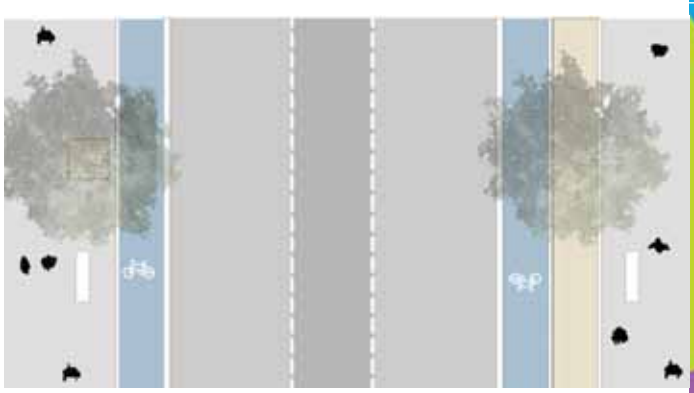
4.2.4.12 Where pedestrian-only routes cross shared surface areas, the crossing point must be similarly identifiable by means of tactile paving and contrasting coloured edge detail. All streets will be subject to safety audit.

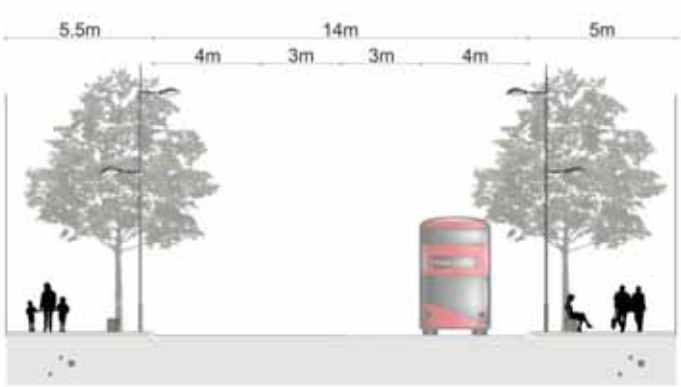
	NESB STREET TYPOLOGY 1	NESB STREET TYPOLOGY 1A
	MAIN STREET	MAIN STREET (WITH SEGREGATED CYCLEWAY)
Description	Unrestricted vehicle access in traditional carriageway	
Design Speed	30 mph	
Carriageway	Varies according to location; Macadam surfacing.	
Footway	4m minimum; Segregated cycleway on some routes	
Kerb Upstand	125mm	
Drainage	Traditional Road Gullies in channels	
Lighting	Column mounted luminaires	
Utilities	Located in footways and carriageway	
Tree Planting	Platanus acerifolia (London Plane)	

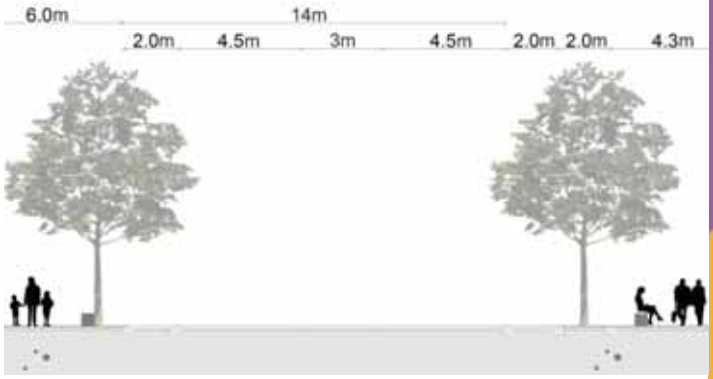
TYPICAL STREET SECTIONS

Typical Street Sections (right) and descriptions (above right) are developed from the NESB Public Realm Surface Materials Code (2013)

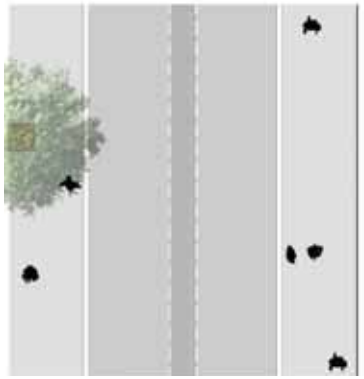


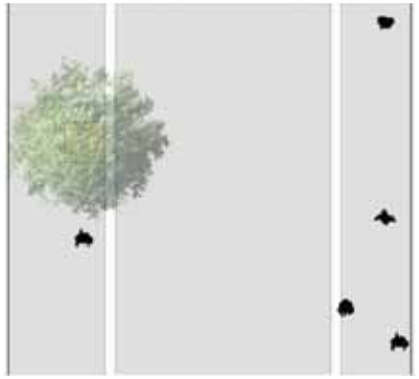


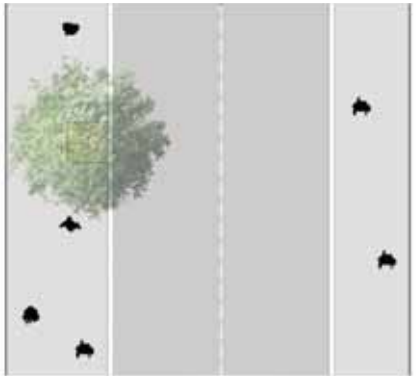


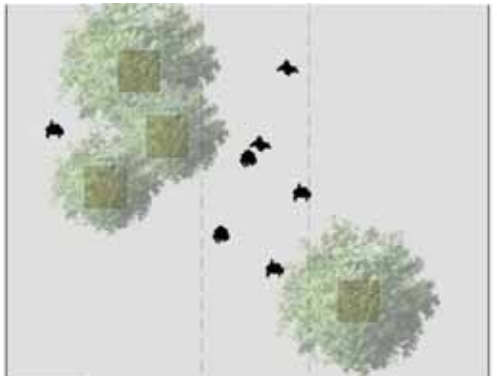


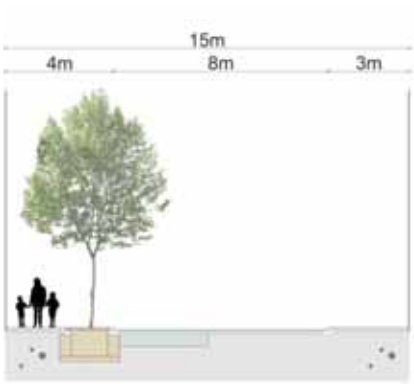
NESB STREET TYPOLOGY 2	NESB STREET TYPOLOGY 3	NESB STREET TYPOLOGY 4	NESB STREET TYPOLOGY 5
CGMA HGV INFRASTRUCTURE	SIDE STREET - TRADITIONAL LAYOUT	SIDE STREET - PEDESTRIAN FRIENDLY LAYOUT	PEDESTRIAN DOMINATED SPACE
Access for Market Vehicles only	Unrestricted vehicle access in reduced speed traditional carriageway	Vehicle access in reduced speed shared carriageway with pedestrian friendly layout defined by surfaces, furniture and alignment	Pedestrian space with vehicle access only for maintenance and emergencies
20 mph	20 mph	20 mph	5mph
Varies according to location; Macadam surfacing.	5.5m minimum single carriageway with opposing single lanes or dual carriageway with two 3.5m lanes and central swale	5.5m minimum shared surface. Varying width and pedestrian oriented surfacing	No defined carriageway; 4m minimum clear access where vehicle access is required
3m minimum	3m minimum	3m width – 2m clear way	2m minimum, mostly much wider
125mm	75mm	75mm	None - all areas flush
Traditional Road Gullies in channels	Traditional Road Gullies in channels, SUDS where available	Traditional Road Gullies in channels, SUDS where available	Traditional Road Gullies in channels, SUDS where available
Column mounted luminaires	Column mounted luminaires	Column mounted luminaires	Column mounted luminaires and other feature lighting
Located in footways and carriageway	Located in footways and carriageway	Located in footways and carriageway	Only where necessary
Specimen trees (varied)	Specimen trees (varied)	Specimen trees (varied); informal arrangement	Specimen trees (varied)

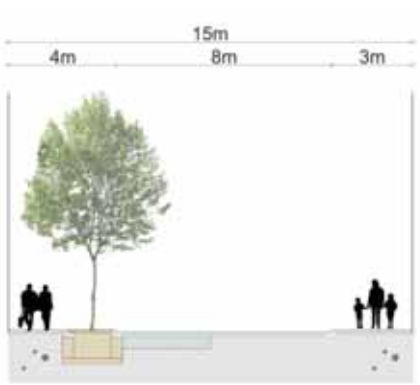


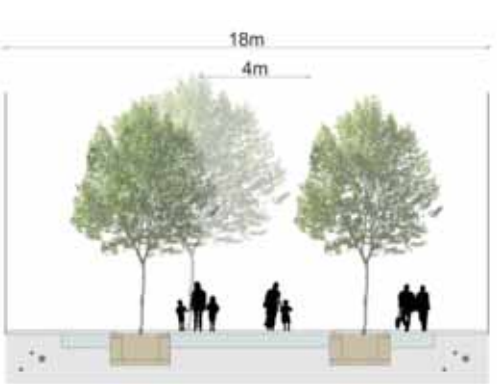












4.2.5 STREETSCAPE MATERIALS

4.2.5.1 Materials for all sites should be selected for their durability and functionality as well as their appearance. Preference should be given to materials and techniques which utilise recycled and recyclable materials and minimise energy and resource use throughout their lifecycle. The BRE's Green Guide to Specification is used as guidance, but it is recognised that it is not currently (2014) a comprehensive resource for landscape materials.

4.2.5.2 Where possible, materials should be available from more than one source, to permit continuity between adjacent sites which may have differing construction programmes, and for repair and replacement of damaged areas.

4.2.5.3 Materials selection should comply with the overall look and feel for the NESB and for the particular Character Area set out in this Guide, but where feasible should be available from a number of fabricators to last the duration of project.

4.2.5.4 Material selection shall be made with regard to:

- Local reference and consistency of use
- Fitness for purpose
- Robustness and durability
- Ease of maintenance and replacement
- Sustainable sourcing
- Embodied energy over the full lifespan of the product
- Capacity for re-use or recycling
- Efficiency and sustainability – Energy/carbon embodied, recycled/reusable/recyclable
- Whole design life cycle impacts – management/ maintenance input, after-life

4.2.6 PAVING MATERIALS - SELECTION

4.2.6.1 The PRSMC has been drawn up to ensure consistency of approach and materials within the public realm. The Street Code, Stone Selection and Technical Guide chapters of the PRSMC set out the rationale for choices of materials and describe typical details, with the content is principally focussed on the establishment of new streets in Nine Elms Parkside and Embassy Character Areas.

4.2.6.2 Where designers are working within a different and coherent existing context, alternative materials and approaches may be suggested where this aids consistency or can make positive local reference without damaging overall consistency.

4.2.6.3 This applies to character areas such as the Market District's Food Quarter and Vauxhall Albert Embankment's 'Missing Link' project where strong existing influences can successfully reshape the design language. Further details are given in the Character Area Guidance section of this document.

4.2.6.4 Within the demise of the Transport for London Route Network (TLRN) generally, details should comply with current TfL Streetscape Guidance. The Streetscape Guidance provide full details and materials for paving, kerbs, crossings, cross-overs and the location of street furniture adjacent to the highway. The PRSMC also includes typical details for a range of paving interfaces, and scenarios such as crossings, edges and interfaces.

4.2.6.5 For Nine Elms Lane and Vauxhall Cross, separate strategies are in progress (2014) which will improve cycle safety and enhance the streetscape. These strategies should be the primary source of Guidance for these areas.

4.2.6.6 Conservation Areas in both Boroughs may have additional considerations in the selection of paving materials which are appropriate to the conservation heritage and context.

4.2.6.7 Where design teams propose to diverge from the Code, clear rationale must be given based on interpretation of the context, or clear design concepts which reinforce the objectives for the character area.

4.2.6.8 Within heavily used public and trafficked areas, particular emphasis must be placed on ensuring robustness, ease of maintenance and replacement, and long design life (to reduce the embodied energy over the full lifespan).

4.2.6.9 Within communal and private areas, consistency of materials is given less emphasis, and the capacity for re-use or recycling greater emphasis.

4.2.7 PRIMARY PAVING MATERIALS

4.2.7.1 Principal paving materials used across NESB shall include the following, with further detail on the use and development of this basic palette for each site is given in chapters describing public realm for each of the character areas.

- Natural York Stone and Forest of Dean Stone – UK sourced
- Cornish 'De Lank' Granite – UK sourced
- Acid washed concrete
- Asphalt Concrete (fine graded rock asphalt)
- Cast Stone – with recycled aggregate content where possible (e.g. slag, china clay aggregates etc)
- Brick and clay pavers – sourced and manufactured in the UK or near continent where feasible. Colour: typically London Stock Yellow, but other colours may be appropriate depending upon context

NESB PUBLIC REALM SURFACE MATERIALS CODE (PRSMC)




Cornish Granite – flags and kerbs. Flags are proposed in differing, integrated size ranges. Cornish granite has historically been transported to Vauxhall on the railway for use across London. The material is robust and has good slip resistance and compressive strength, making it appropriate for vehicle traversed areas as well as pedestrian pavements. Granite can be surface treated for subtle variations in appearance and effect – punched, flamed and plain sawn finishes are all possible. Cornish granite is fairly coarse textured and can include stone with a very crystalline structure. Colour varies from a cool grey to subtle warm rusty tones, though these may not be even throughout a batch or even within a single stone. Mixing Cornish granite with other sources may permit a more varied appearance and wider range of commercially available sources(4 images).




Concrete – is proposed with particular reference to an historic Vauxhall-born concrete processing pioneer. Concrete can incorporate a range of exposed and recycled aggregates, including china clay waste, and slag from British industries to reduce the need for virgin quarried material and create a range of high quality and robust finishes. Variations in the mix of aggregates and manufacturing processes can create subtle but permanent 'through colour' ranging from a warm yellow to cool grey in a range of tones. The addition of china clay waste and slag can add sparkle or black flecks to the finish, and brushed, blasted or acid-washed surface finishes applied. The use of concrete is particularly relevant to the New Covent Garden Market sites south of the viaduct, where it forms a principal paving material for market and artisan trade areas because of its robustness and ease of regular wash-down (4 images).




York Stone – is a material widely used in London and on the approved paving materials for TfL and London Boroughs. Its attractive, smooth appearance and warm colour range provides an excellent foil to the cooler colours of the Cornish granite and concrete (4 images).




Portland Stone – may be appropriate for some details in streetscape, but is more commonly used in architectural detailing due its lesser resistance to road salts and general wear and tear (2 images upper).

Forest of Dean Sandstone – may be appropriate for some detailing but is less widely available than York stone, so less likely to be widely used in streetscape or landscape detailing (2 images lower).

4.2.8 INTERFACES BETWEEN DEVELOPMENTS

4.2.8.1 How boundaries and interfaces are dealt with will strongly influence the cohesion of NESB's public realm identity. Interfaces between developments must not become a source of discontinuity between contrasting design principles, details and materials.

4.2.8.2 In most cases, neighbouring developments will be separated by a street providing common access and neutral design. This space between should be treated as common to both developments and designers must cooperate to identify proposals which are coherent and in line with NESB Guidance. This is particularly important in areas such as the Nine Elms Linear Park.

4.2.8.3 Where a neutral street does not separate neighbouring developments, design teams should seek to develop a common design language and materials palettes in line with NESB Guidance to forge a coherent public realm. A duty to collaborate should be enforced by Planning Authorities when considering neighbouring development proposals. Where designers work up to legal boundaries without adequately considering continuity with neighbouring developments, Planning Authorities may seek to impose Planning Conditions to ensure design is coherent across site boundaries.

4.2.8.4 Design teams must work within the context of existing guidance for NESB, and must cooperate with their neighbouring development teams for the greater benefit of all parties. Whether one development precedes another or adjacent sites are on parallel design programmes, designers must ensure coherence with neighbouring precedent, through compatible spatial arrangements, and preferably through common materials and design details.

4.2.8.5 Developers may find this approach helps reduce procurement costs of paving and other materials by guaranteeing large volumes and long-term stability for suppliers.

4.2.8.6 Where common materials are not possible, boundary transitions should be achieved by means of:

4.2.8.7 Public space designed as a neutral zone which mediates between contrasting areas

- Elements within the public realm which are used as a 'natural' boundary feature. The boundary feature(s) should be determined on the grounds of good public space design rather than legal boundaries, and can be aligned within either neighbouring site or both.
- Transition - by blending materials from one area to the next. This approach is often difficult to achieve and likely to be limited in its application to areas where similar materials are proposed – for example different blends of otherwise similar granite paving).
- A combination of the above – for example a neutral zone of linear planters and benches which establishes a permeable, 'broken' boundary line where paving transitions from one type to another.

4.2.9 STREET FURNITURE

4.2.9.1 Street furniture should be carefully coordinated to present a unified family of products which use a consistent set of materials and finishes, and a common design language without tying design teams to a single manufacturer or product range.

4.2.9.2 Design teams must ensure that street furniture is consistent in terms of materials, finish, colour and style. Even where items are sourced from different manufacturers, they should appear to be 'of the same family'

4.2.9.3 Products and bespoke designs should be contemporary in their style and in keeping with illustrated examples.

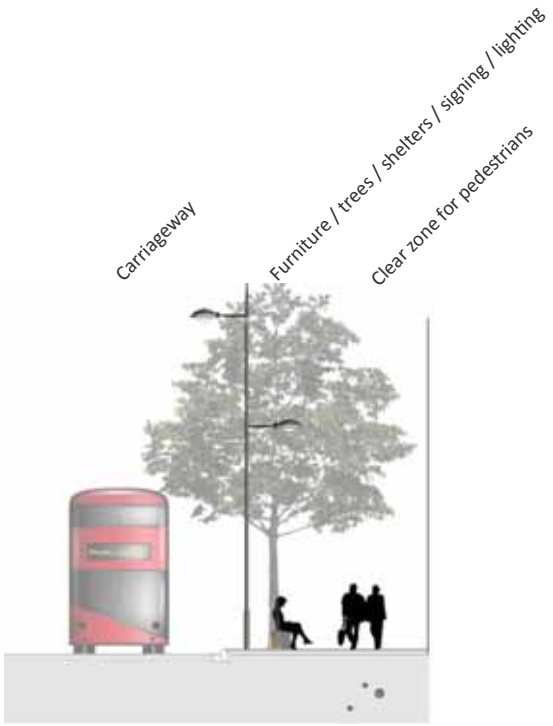
4.2.9.4 Street furniture should be robust and easy to clean and maintain, avoiding difficult to clean recesses and corners. Furniture should be located to avoid inaccessible and difficult to clean areas behind or around the item.

4.2.9.5 Street furniture should be seen as a primary method of integrating artwork into the public realm. Products and bespoke designs may make reference to cultural and historic heritage where appropriate and coordinated as part of an Approved Arts Strategy.

4.2.9.6 Principal materials for Street Furniture should be:

- Stainless steel – Grade 316, brushed finish - high recycled content and recyclable
- Grey finished Mild Steel (powder coated/painted finish RAL 7004 Signal Grey)
- Black finished Mild Steel (powder coated/painted finish RAL 9004 Signal Black)
- Timber (FSC Chain of Custody fully certified)

4.2.9.7 Other materials, such as Stainless steel mesh or glass may be used for infill panels where appropriate.


Carriageway
Furniture / trees / shelters / signing / lighting
Clear zone for pedestrians

4.2.10 ACCESSIBILITY AND STREET FURNITURE

4.2.10.1 Street furniture must be logically located - ensuring it is placed out of pedestrian flows and avoids unnecessary clutter.

4.2.10.2 Street furniture should be located within the appropriate zones within streets and public realm - especially for the benefit of people with sensory or physical impairments. Design of street furniture layout should be coordinated across the full range of furniture and fittings in the public realm, including:

- Trees
- Planters
- Lighting
- Bus-stops
- Artworks and special features
- Service access cabinets
- Signing and signalling
- Advertising
- Traffic and access management furniture

4.2.10.3 Street furniture should be located where it will not obstruct or create a dangerous situation for disabled people, especially people who cannot see the obstruction

4.2.10.4 Street furniture should be visually contrasting with the surroundings and be apparent in all lighting conditions, including at night

4.2.10.5 Street furniture, should have smooth rounded edges to reduce the possibility of injure in case of impact

4.2.10.6 Base details should include warnings underfoot or detected during the sweep of a cane as well as visual contrast

4.2.10.7 Interactive street furniture (seating, telephones, internet access points, vending machines, ticket machines etc.) Should be located so that people using them do not obstruct the main pedestrian flow

4.2.10.8 Street furniture should be accessible for a wide range of users including people with mobility impairments, people with limited manual dexterity and with sight impairments

4.2.10.9 Litter bins should be at a height of 1300mm with the opening approximately 1000mm from ground level

4.2.10.10 Bollards should be at least 1000mm high and should not be linked with chains or ropes

4.2.10.11 A minimum of width between bollards of 1000mm is required

4.2.10.12 Each free-standing post or column within a circulation area should incorporate a 150mm wide visually contrasting band whose bottom edge is between 1400mm – 1600mm above ground level

4.2.11 WAY-FINDING AND SIGNAGE

4.2.11.1 Way-finding should not rely exclusively on text-based signage, but utilise more information systems, for example:

- Colour
- Simple and careful language
- Identification and confirmation as well as directional information
- Simple symbols
- Guidance paving
- Architectural elements including public art works

4.2.11.2 Legible London design standards should be used for all general locational and directional signing.

4.2.12 SEATING

4.2.12.1 Seating is an important component of the public realm and accessibility standards. It can be provided in three ways across:

- Informal 'perch' seating opportunities, 'in-built' into planter edges or low retaining walls in many locations.
- Seat tops to 'perch' walls can provide access for people with disabilities, by providing backrests and arms for people who need them. These are fixed to the sides or top of planter or retaining walls.
- Free-standing seats and benches (and tables where appropriate) can be located in the 'static' spaces in the streetscape, park and courtyards, where opportunities for 'in-built' seating are not present. They are used to animate these spaces and establish corners and junctions as social spaces.

4.2.12.2 Seating provision should establish regular opportunities for rest and a range of seat heights and back- and arm-rest options for children and people with physical impairments. Seating should allow space for a wheelchair alongside, out of the line of through movement.

4.2.12.3 Where Hostile Vehicle Mitigation (HVM) is required, seating and planter edges can be utilised to provide integral fixed and robust barriers to protect assets and areas from attack – refer to the section 'Counter terrorism'.

4.2.12.4 To meet with accessibility requirements:

- The preferred maximum distance on level ground between resting places should be 50m (this need not be formal seating)
- Seating should be located along, but not within, pedestrian routes and clearly identifiable against their surroundings
- Seating should to be sited on a suitable surface
- Seating areas should provide a choice of different seat designs, for example single seats and benches

- Seating areas must allow a wheelchair user or scooter user to sit alongside those using benches
- Seating provision should include seats with backrests and armrests
- Seat heights should typically aim to be between 450mm – 480mm
- Where appropriate, low level seating should be provided for children and people of short stature
- Where provided, armrests should be approximately 200mm above seat level
- Armrests should be clearly identifiable and contrast visually with their surrounds
- Perch seating should be at a range of heights between 650 mm – 800 mm

4.2.12.5 Materials should normally be in accordance with section 4.5, utilising steel with timber slats. Natural stone block or planter edgings may provide an alternative base where seats are to be built in.

4.2.13 CYCLE STANDS

4.2.13.1 Cycle Stands should normally be of simple ‘Sheffield’ type design to allow locking of wheels and frame. Stands which grip the wheel are not normally acceptable. Materials should match the local suite of furniture and typically be Grade 316 stainless steel with a brushed or satin finish.

4.2.13.2 Stands should be carefully located out of pedestrian routes and so as to avoid trip hazards and ‘stamping’ of wheels.

4.2.14 BUS SHELTERS

4.2.14.1 Bus shelters are generally provided to a standard design and requirements approved by TfL.

4.2.15 BINS

4.2.15.1 Bins should always be of complementary design to nearby seating – using similar finishes (typically Grade 316 brushed stainless steel) and colours.

4.2.15.2 Where possible, bins should be mounted from light columns or sign posts to reduce clutter. Free-standing bins should be 'pedestal' types to allow pavements beneath to be cleaned or comply with Borough Standards where the Borough manages collection

4.2.15.3 The bin size should reflect the anticipated level of use. Bins for recycling should be provided in line with recycling collection policy. Segregated recycling bins should be provided at busy locations such as transport interchanges. The different bins should be mounted from a single pedestal post for ease of maintenance and avoidance of clutter and aperture designs should encourage responsible use.

4.2.15.4 Where bin collections are to be by the London Boroughs of Wandsworth and Lambeth, designs must comply with agreed standards for capacity, design and access.

4.2.16 BOLLARDS

4.2.16.1 Bollards should meet the requirements for visibility advised in BS 8300 (2009) or subsequent national standards. Generally, bollards should be manufactured from grade 316 brushed finish stainless steel with a contrasting coloured visibility band. This applies to hydraulic and removable bollards as well as fixed bollards. Painted finishes to hydraulic bollards should not normally be permitted.

4.2.17 ROAD SIGNS AND COLUMNS

4.2.17.1 Road signs should be mounted from light columns wherever feasible, and low level information signs (such as those required to demarcate designated accessible parking bays) should be mounted from within planting areas or from adjacent walls or fences where possible to avoid cluttering.

4.2.17.2 CCTV cameras should, wherever feasible, be mounted from buildings or light columns to minimise the number of columns within the public realm.

4.2.18 FEEDER PILLARS

4.2.18.1 Feeder pillars and similar services infrastructure should be located within a zone to the rear of footpaths. Where this is not feasible they may be used in line with light columns and road signs. Feeder pillars, cabinets and kiosks should be grey painted finish (RAL 7004).

4.2.19 ADVERTISING

4.2.19.1 Control of advertising is determined by Borough policies, and subject to normal Planning requirements.

4.2.19.2 Advertising within the street should be zoned to align with other street furniture and trees and out of pedestrian routes.

4.2.19.3 Advertising stands should be designed as a part of the 'family' of street furniture local to the area.

4.2.20 LIGHTING STRATEGY

4.2.20.1 A separate strategy is in preparation for lighting in NESB (2014). Public realm design teams should refer to that strategy when available. Much of this section therefore takes the form of advisory notes for public realm designers.

4.2.20.2 Lighting is a rapidly evolving area of public realm design, and design standards should be regularly reviewed to ensure they remain current with emerging technology. Recent innovations - such as dimmable street-lighting - make it essential that outdoor lighting products should be selected with future-proofing as well as energy efficiency and ease of control in mind.

4.2.20.3 The quality of the night-time environment is profoundly improved by good quality 'white' light sources which allow the human eye to render colour easily and accurately. This better quality of light can even permit relaxation of safe lux levels, saving energy and reducing light pollution. 'White' lighting is therefore seen as fundamental throughout the development.

4.2.20.4 Lighting must be designed to meet the requirements of CCTV. Again, rapidly changing technology is changing the requirements for high levels of light for CCTV, and adjustable luminance offered by modern LED sources has advantages in ensuring CCTV images are of good quality at all times.

4.2.20.5 With very long periods between re-lamping and very low energy use, LED light sources have emerged as viable sources for street lighting. LED fittings are readily interchanged and highly controllable, making them well suited for future enhancements.

4.2.20.6 In public areas, metallic 'signal grey' columns (RAL 7004) should normally be specified in order to coordinate with TfL's approach to street furniture. Columns should be simple, may be straight or tapered but should always be consistent within their character area. In communal courtyards, column finishes

should be coordinated with other furniture or architectural details such as fenestration. Recessive colours such as grey and black should still be favoured, but colour elements may be picked put in detail as part of a coordinated strategy for colour.

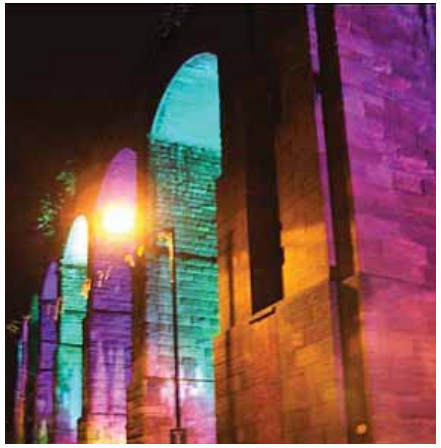
4.2.20.7 Glare from street lighting should be eliminated from habitable room windows, through the deployment of 'flat glass' fittings and adjustable optics. This approach also helps reduce glare in public areas. Bollard lighting can cause excessive glare, so where used, bollards should be fitted with appropriate baffles and should normally be supported by other ambient or overhead lighting. Bollard lights should match (or bear a strong 'family resemblance' to) the design of other bollards, and be finished in Grade 316 brushed stainless steel.

4.2.20.8 Care should always be taken to ensure consistency of source colour between different fittings.

4.2.20.9 Designers should consider the character of each space when determining the layout of lighting: Formal, linear routes demand regular, repeating patterns of light fitting, whereas less formal shared space streets can be less regular in their column layouts. In these streets the regularity and column locations can be locally adjusted to provide good uniformity of lighting, optimised around the layout of the street and trees.

4.2.20.10 Lighting presents major opportunities for artworks in NESB. Design teams should explore this opportunity collaboratively to avoid competition and promote coherence and unity. For further advice on arts commissioning, refer to the section 'Art in the public realm'.

4.2.20.11 Lighting is particularly important for safety and security in the viaduct arches. In these locations, existing artworks using light are attractive, but do not address low levels of light which make facial recognition difficult at any time of day or night. Artists' light projects (refer to the following section) should be supplemented by a full re-lighting project to address low light levels in the viaducts.



4.3 GREEN INFRASTRUCTURE AND 'SOFT' PUBLIC REALM

4.3.1 OBJECTIVES

4.3.1.1 A "Green Infrastructure approach" is required of all design teams with regard to the planning and design of green and open spaces. Planting and soft landscape design in the urban public realm must be multi-functional, rich, and robust. It is integral to the successful functioning of public realm through its roles in shade, shelter, habitat creation, dust and pollution control, visual screening, place-making, surface water attenuation, summer cooling and benefits to physical and mental health.

4.3.1.2 Planting should offer recognisable characteristics to help reinforce NESB's identity – using species that reflect the marshland origins and development of the area. Planting can reflect the niche that is being filled and the roles performed.

4.3.1.3 The colours, shapes, textures, seasonal changes, scents, movement and sounds of planting can evoke a strong sense of place, timelessness and natural well-being, even in the urban environment. This is attained through strong design, richness and diversity. Planting contributes a living, growing, dynamic layer to the urban landscape and its design and management should be aim to fulfil this role.

4.3.2 CONTEXT AND REFERENCES

4.3.2.1 The London Plan's "Policy 2.18 Green Infrastructure: The Multi-Functional Network of Green and Open Spaces" sets the overall parameters for the way in which the NESB's green spaces must address a range of issues that include recreation and amenity, healthy living, flood risk management, air and water quality, urban cooling, biodiversity, tourism and economic and cultural activity and general environmental resilience.

4.3.2.2 "All London Green Grid" (GLA, 2012) describes the overall green infrastructure for London. This SPG sets out the many functions of green space in London as well as the spatial planning of the Green Grid network.

4.3.2.3 "Green Infrastructure – An integrated approach to land use" (Landscape Institute, 2013) describes roles of green infrastructure

4.3.2.4 "The Canopy – London's Urban Forest: A guide for Designers, Planners and Developers" (TDAG/Mayor of London, 2011) describes the roles trees take in London's urban environment.

4.3.2.5 "Trees in Hard Landscape" (Trees and Design Action Group (TDAG), 2014, consultation draft) gives thoroughly researched and detailed good practice guidance on all aspects of urban tree selection, design and management. Chapters include technical guidance on integrating trees with load-bearing pavements and sustainable drainage systems.

4.3.2.6 The value of trees and planting is repeated in many Local Plan Policies, SPGs and SPDs covering topics as diverse as play, health, climate change, ecology and urban character.

4.3.2.7 "The Gro Green Roof Code – (Environment Agency, 2011) offers best practice guidance for green roofs.

4.3.3 BIODIVERSITY AND PLANT SELECTION

4.3.3.1 Gains in urban biodiversity across NESB will help restore London's relationship with nature and its value as habitat for wildlife and people alike. Flowering and fruiting plants provide colour and seasonal variety, but will also attract invertebrates (such as hover flies, and other pollinators) and songbirds which will animate the parks and gardens and for residents and visitors.

4.3.3.2 Planting strategies which give preference to species that might be found locally will often be better adapted and more likely to thrive in the long run. These native species should be supported by species which though not local, provide year-round food (especially nectar and pollen), cover and habitat to invertebrates and birds which may otherwise fail to thrive in the urban environment.

4.3.3.3 Landscape architects should establish a rich diversity of planting species and types which contribute to a range of habitat. Species should be selected to provide seasonal interest, colour, texture and form, scents, visual, and tactile appeal, flower and fruit at different times of the year.

4.3.3.4 In selecting core species, the following hierarchy of priorities should normally be followed (in order of priority):

1 Wildlife friendly UK native and locally provenant species

2 Other UK Native and wildlife friendly plants

3 Wildlife friendly varieties of UK native plants and related species

4 Other non-native wildlife friendly plants

5 Plants with only amenity merit.

4.3.3.5 Plants with high maintenance or water requirements are not favoured except where permanent water supply is available through surface water run-off regime.

4.3.3.6 Planting strategies should take advantage of the variety of niches that the development establishes. These range from low-lying aquatic and wetland niches at ground level (as part of the attenuation strategy), shrub and tree layers, and species-rich grassland through to sub-alpine and arid conditions on elevated rooftops. This hierarchy from "low-lying and wet" to "elevated and arid" should be developed as a universal visual

theme that can be deployed in planting designs to express NESB's character.

4.3.3.7 Inaccessible roof areas provide opportunities for highly arid "brown roof" habitats, which can be combined with rooftop plant areas or photovoltaic panels and attract the BAP targeted Black Redstart as well as attractive pied and yellow wagtails. Where roofs are to offer usable outdoor space, planting should be used to enhance habitat potential for invertebrates (especially pollinating insects) and birds.

4.3.3.8 An extraordinary range of bird species can be found even in central London. These include many attractive songbirds; wildfowl, including moorhen, ducks and swans; seabirds such as cormorant and black-headed gulls; and even birds of prey such as tawny owl and the spectacular peregrine falcon.

4.3.3.9 Designers should explore opportunities to build-in safe nesting sites for songbirds and London BAP target species such as swift, sparrow and peregrine where feasible. Planting can also encourage songbirds by providing localised cover and sources of food (berries and even aphids for small species such as blue tits and long-tailed tits).

4.3.3.10 The Linear Park and River Walk also present potential for bat foraging areas, and bat roost boxes should also be sought where project ecologists recommend provision is viable.

4.3.3.11 There may be new opportunities for apiary (bee-keeping) within NESB. Where planting can support new hives, proposals to explore beekeeping should be carried out in consultation with (LBKA), who may advise on appropriate hive numbers for the local environment at the time. At the time of writing the London Beekeepers' Association (LBKA) advise that the limiting factor to bee populations in London is the year-round availability of nectar and pollen sources rather than the number of hives. It is therefore advised that any proposals for apiary are carefully considered in the light of completed planting in the area and advice from LBKA.







4.3.4 TREES

4.3.4.1 Designers should ensure that retained trees are protected to the standards demanded by BS5837 (2012). Any work carried out within Root Protection Areas (RPA) should be undertaken only under the supervision and authority of a registered arboricultural consultant.

4.3.4.2 Trees must be given adequate rooting medium (soil) to thrive in the long term. Continuous tree trenches are often the best means of establishing root zones with sufficient space to interlink and seek out water and nutrients.

4.3.4.3 Designers should select tree species on the basis of local context and conditions. Care should be taken to ensure that rooting conditions are available for long term thriving of the trees with adequate rooting volume, aeration, moisture and drainage. It is recommended that best practice guidance from TDAG is implemented with regard to rooting conditions. Pavement support systems should be specified where this ensures soil volumes can be achieved, in paved areas.

4.3.4.4 Designers should target available growing medium volumes of 13m3 for a small street tree (canopy diameter up to 6m) up to 50m3 of for large trees (up to 12m canopy diameter). Volumes may be partially shared between adjacent trees. Where possible, systems should contribute up to 20% of their volume towards surface water attenuation measures as part of the sustainable drainage system.

4.3.4.5 In parks and new public spaces, large trees can provide focal points and height that is rarely achieved by most street trees. Within the Nine Elms Linear Park, species including English oak and lime are proposed, supported by other native multi-stemmed trees such as alder, cherry and birch.

4.3.4.6 Designers should explore opportunities for establishing large, native trees where space permits as part of the site's long term green infrastructure and to provide focal points within the green infrastructure.

4.3.4.7 Street conditions tend to rule out species such as native oak, but are well suited to other native trees (including hornbeam, rowan and alder), related species (such as red oak) or their varieties (such as 'fastigiate oak' or 'cut-leafed alder'). These species and their varieties still provide many of the ecological benefits of the 'true' native species.

4.3.4.8 Within the streetscape, trees should normally be single-stemmed to allow good through visibility and passage of pedestrians, cycles and vehicles. Preference should be given to native species (or their varieties) where appropriate.

4.3.4.9 In courtyards and other incidental spaces, smaller and more ornamental species are normally more suited to limited volumes for rooting and confined areas. These can thrive in potentially shady or constrained locations, and offer a variety of flowering times, lighter canopies and a variation in form and texture.

4.3.4.10 Within communal and non-adoptable areas, grouped and multi-stemmed trees may often be preferred – with low ground cover planting or permeable paving. This approach permits through-views, but gives strong spatial definition. Wherever feasible, species are selected for their capacity to support appropriate invertebrate and bird life.

4.3.5 SHRUBS, PERENNIALS, GROUND-COVER

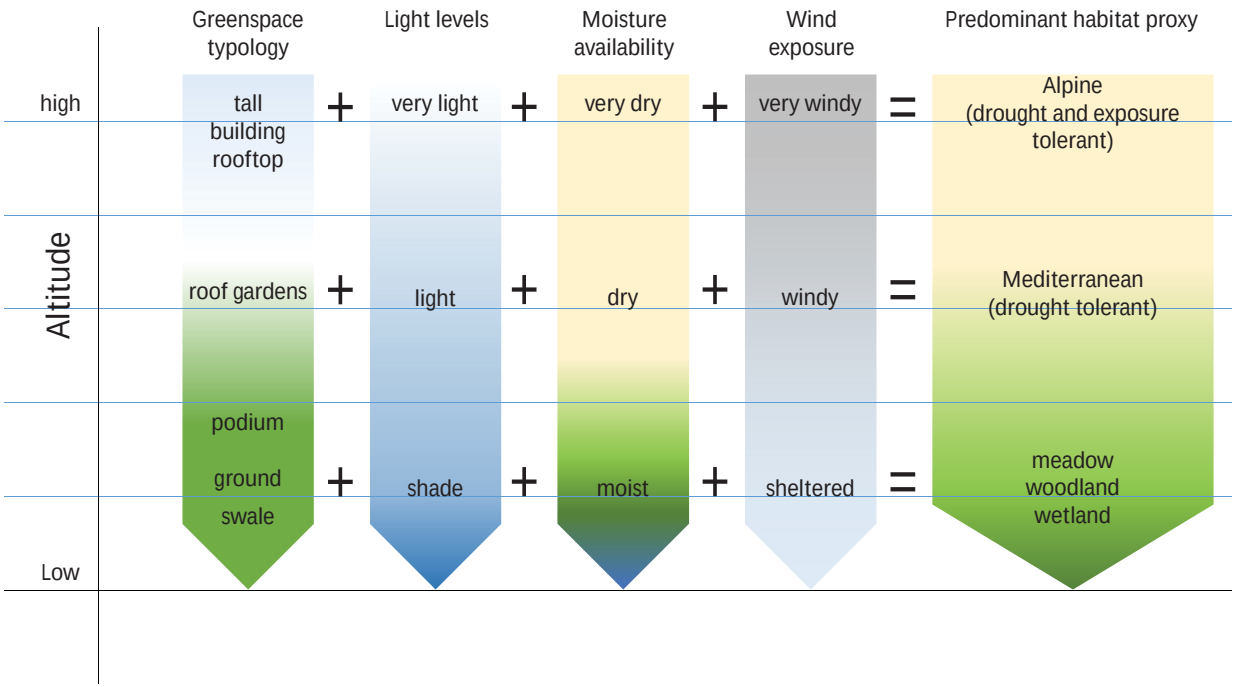
4.3.5.1 Shrub, perennial and ground-cover planting is vital in providing diversity of planting and habitat. In an urban environment designers should normally ensure species are low-growing to permit good through visibility between low and canopy level foliage, except:

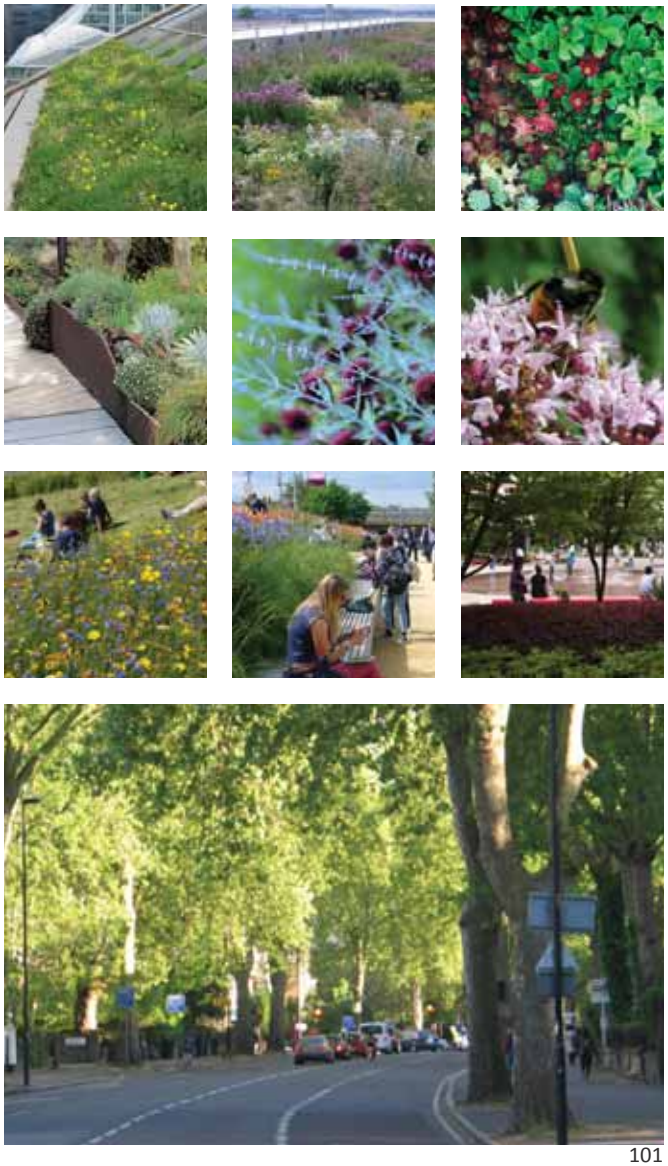
- Where planting is set-back from pavements and footpaths
- Around building perimeters and edges shrubs where more height may offer defensive benefits in line with 'Designing Out Crime' guidance.

Shrub planting should be both attractive and provide cover and forage for invertebrates and birds where possible.

4.3.5.2 Grass swards (even low mown grass) can include dwarf flowering species such as clover, daisy, yarrow, forget-me-not, self-heal and other low growing British wildflowers. This approach gives usable mown grass areas, but with the added interest of summer flowers and insects. The inclusion of nitrogen fixing species, such as clover and black medick can reduce the need for nitrate fertilisers and their green appearance in drought conditions can enhance the appearance of the sward during summer months. This approach is not however appropriate in intensively used, level games areas, where a highly robust and hard-wearing turf is needed.

4.3.5.3 Within the Linear Park and other suitable areas of meadow and mown grass, low-growing dwarf flowering plants should be added to grass swards to add interest and wildlife value. Specifiers should adjust mowing cut-heights and frequencies accordingly.


Greenspace typology
Light levels
Moisture availability
Wind exposure
Predominant habitat proxy
Altitude
high
Low
tall building rooftop
roof gardens
podium
ground
swale
very light
light
shade
very dry
dry
moist
very windy
windy
sheltered
Alpine (drought and exposure tolerant)
Mediterranean (drought tolerant)
meadow
woodland
wetland



4.3.6 VERTICAL LANDSCAPE

4.3.6.1 Design teams should explore opportunities for planting vertical surfaces of buildings, structures and retaining walls. Four principal options are available:

4.3.6.2 Climbing plants – twining species: Planted at the base of the wall and provided with a frame, trellis or wires to climb. This system includes pre-established panels of ivy which can achieve instant greening of up to 3m high. The system can also be layered up a higher wall.

4.3.6.3 Climbing plants – self-clinging species: Planted at the base of the wall and provided with a robust solid, textured surface to cling to. This may take some time to establish to the full height of the wall.

4.3.6.4 Trailing plants – trailing plants planted in irrigated troughs at the top (and intermediate intervals if needed) and allowed to hang down. The appearance can be 'loose'

4.3.6.5 Green-wall system – usually modular, pre-planted panels with integral irrigation. Expensive to install and maintain, but instant and highly effective. Best suited to northerly orientations to avoid high water-use.

4.3.6.6 Designers should select the most robust and sustainable type of green wall appropriate to the situation. Preference should not normally be given to systems with intensive maintenance requirements and high maintenance costs. Safety implications of installation and maintenance operations should be considered from the outset.

4.3.6.7 Planting species should be selected with the orientation and degree of shade and shelter.

4.3.7 ROOFTOP LANDSCAPE

4.3.7.1 Rooftops should offer usable green space or habitat opportunities where appropriate. Usable space may include private terraces, communal areas or public viewing areas. The Gro Green Roof Code categorises rooftop planting as:

- Extensive green roof: Extensive roofs serve as an ecological covering that provides society with environmental benefits and the building owner with life cycle cost benefits. A lightweight, low-maintenance roof system, typically with succulents or other hardy plant species (often sedum) planted into a shallow substrate (typically less than 100 mm) that is low in nutrients. Irrigation is not normally required.
- Biodiverse roof: A roof that is similar in composition to an extensive roof, but designed specifically to create a habitat that will attract a particular flora and fauna; whether replicating the original footprint of the building or enhancing the previous habitat. This category includes a brown roof, which is a non-vegetated version. The growing medium is purposely-selected to allow indigenous plant species to inhabit the roof over time.
- Semi intensive green roof: An intermediate green roof type that can include characteristics of both extensive and intensive roofs. Typically requiring a depth of substrate between 100 mm to 200 mm, a wider range of plants can be included, compared to extensive roofs, including shrubs and woody plants. Irrigation and maintenance requirements are dependent upon the plant species installed.
- Intensive green roof: A version of a green roof, often referred to as a roof garden, which provides benefits akin to a small urban park or domestic garden. Designed primarily for recreational use, intensive roofs are typically configured with 200 mm+ of substrate and often require regular maintenance and irrigation.

4.3.7.2 Design teams should explore ways of optimising roof space to establish useful amenity and habitat areas according to the four categories of green roof described in 'Gro'. Good practice described within Gro should normally be followed in the establishment and management of green roofs.

4.3.7.3 Installation and maintenance ease and safety should be considered from the outset.

4.3.8 IRRIGATION AND WATER USE

4.3.8.1 Grassy areas within the Nine Elms Linear Park and other suitable areas may be generally dished below the level of surrounding paths to aid surface water attenuation. This profile can also be deployed to reduce the need for irrigation by diverting run-off from local paved areas directly to planted areas.

4.3.8.2 Decorative gravel margins and other porous and permeable surface techniques can allow surface water to be fed into soakaways or directed into piped land drains for distribution to more distant planted areas.

4.3.8.3 Designers should explore means of utilising surface water drainage to irrigate planted and grassed areas while ensuring adequate sub-soil drainage to prevent water-logging and anaerobic soil conditions.

4.3.8.4 All planting over basements, on podium decks and roof gardens shall be supported by an irrigation system. Plants should be selected for their resistance to drought, do as to minimise the frequency of applications and water used. Where feasible water supply shall be from captured surface or roof run-off water. This shall be topped up by other non-potable supply (or potable supply if non-potable water is not available).

4.3.8.5 Remotely operated, computerised control systems will offer significant efficiency benefits and will be installed along with fail-safe alarms to alert the maintenance company to failures or loss of supply.

4.3.8.6 Systems shall be designed such that they optimise the use of water by implementing timed and controlled delivery of water to planter beds. Shrub and groundcover planting will be irrigated by drip emitters or 'leaky pipe' systems to minimise water lost to evaporation. Delivery will also be timed to ensure watering takes place at night and in controlled quantities.

4.3.8.7 Where grass areas are provided within courtyards (over basement) pop-up irrigation will normally be required, timed to operate in the late evening or early morning to optimise water efficiency.

4.3.8.8 Private garden terraces should be provided with outdoor taps to facilitate watering of any plants that occupants may wish to grow.

4.3.8.9 Street trees and trees with confined rooting areas should always be installed with watering and aeration pipes for manual watering during establishment and in the event of drought conditions.











4.4 ADAPTATION

4.4.1 SURFACE WATER MANAGEMENT OBJECTIVES

4.4.1.1 NESB is a low-lying area and its proximity to the Thames and origins as marshland make it difficult to drain especially at high tide. There are significant capacity constraints on the existing combined sewer network. To minimise flood risks, developments must minimise the water volumes entering the combined sewers, and ensure that residual flows are attenuated to ensure flow rates are manageable and surface water can be released into the Thames when the tide is low.

4.4.1.2 Sustainable drainage systems (often referred to as SUDS) promote the use of natural soakage into the ground to supplement (and where possible replace) direct discharge into mains drains. The approach helps recharge aquifers, cleanse water through natural filtration, and can be used to create habitat and maintain parkland requires less or no irrigation.

4.4.1.3 SUDS approaches and attenuation can be combined successfully into the public realm – especially in parks. The new areas of NESB may present opportunities to extend this principal to paved areas, using open-textured base-courses to roads, and pavements as attenuation.

4.4.1.4 Designers should ensure that site investigations accurately ascertain ground conditions to help identify the most appropriate form of SUDS for each site.

4.4.2 CONTEXT AND REFERENCES

4.4.2.1 GLA London Plan Policy 2.18 Green Infrastructure

4.4.2.2 London Borough of Wandsworth's Development Management Policies Document (adopted 2012) states in Policy DMS6 "all new developments should seek to incorporate Sustainable Drainage Systems (SUDS) or demonstrate alternative sustainable approaches to the management of surface water"

4.4.2.3 Lambeth Local Plan POLICY EN6 Sustainable drainage systems and water management imposes similar requirements "incorporating sustainable drainage systems (SuDS) in line with the London Plan drainage hierarchy and National SuDS Standards"

4.4.2.4 Surface Water Management Plans for Lambeth (2011) and Wandsworth (2012) identify significant areas within NESB as within "Critical Drainage Areas".

4.4.2.5 The VNEB OAPF includes a section relating to drainage, and a separate study is ongoing (2015) to produce an integrated Water Management Strategy.

4.4.2.6 "Trees in Hard Landscape: A Guide for Delivery" (Trees and Design Action Group (TDAG), 2014,) gives thoroughly researched and detailed good practice guidance on all aspects of urban tree selection, design and management. Chapters include technical guidance on integrating trees with load-bearing pavements and sustainable drainage systems.

4.4.2.7 The TDAG publication should be referenced by all design teams in detailing trees in relation to sustainable urban drainage, vehicle loading and planting within paved areas.

4.4.3 GENERAL DESIGN PRINCIPLES

4.4.3.1 The existing storm water drainage system in the NESB area requires additional attenuation capacity to cope with the demands of development. Capacity is needed to store surface water when the Thames is at high-tide, and to allow a managed rate of release.

4.4.3.2 Design teams should demonstrate how surface water run-off rates are slowed by green roofs, swales, soakaways or other features into the landscape in the creation of 'rain gardens' which may become partially or completely inundated in heavy rain.

4.4.3.3 Smaller areas of paving can drain directly into planting areas and French drains, and Permanent water features with variable water level are proposed in developments such as the US Embassy as part of their attenuation (and perimeter security) strategy. However grassed areas would quickly become muddy and unusable in prolonged spells of wet weather if used as the 'first line' of attenuation measures, and trees and planting may die from lack of soil aeration.

4.4.3.4 Normally, usable green space including grassed areas of the Linear Park should be profiled to accommodate only infrequent inundation in exceptional severe weather events for example, a 10 or 30 year storm event.

4.4.3.5 Where public realm is used for attenuation, this may be expressed through design and detailing of the surfaces and features. Design teams are encouraged to use rills, ephemeral pools, soakaways, gullies and channels to add delight in the public realm during wet weather.

4.4.3.6 Supplementary systems comprising underground tanks or 'open' pavement bases are likely to be required for most (if not all) development sites to ensure the park and other amenity landscape can function as a social resource in all but very rare occasions.





SEEK OUR




4.4.3.7 Where practicable, road and pavement sub-bases should be explored as options for attenuation. Where possible, opportunities should be identified to build UK precedent (in support of experience from the USA and Sweden) for combining the functions of permeable pavement bases with street tree rooting medium in a “structural soil” system. Such systems can include or combine the following:

4.4.3.8 Open-textured base-courses beneath permeable paving (permeable pavement systems may not offer a high quality appearance, so may be best suited for service areas.

4.4.3.9 Formed voids and structural “crate” systems beneath impermeable pavements which can also accommodate tree rooting. Various proprietary systems are available which are capable of withstanding full highway loadings.

4.4.3.10 Structural soil systems which combine carefully graded crushed stone with organic soil content to combine attenuation with extensive, long-term rooting zones for trees.

4.4.3.11 In some locations, rainwater from roofs of tall buildings may be possible to discharge directly into the Thames via a syphonic system, removing the need for its attenuation.

4.4.3.12 Design teams and artists may choose to explore the potential use of rooftop rainfall. It may be feasible to create impressive water features at ground level during or after rain which utilise the ‘head’ of water generated from tall buildings.Objectives

4.4.3.13 For most new large-scale developments, analysis of shade and wind speed implications of large buildings will be submitted with Environmental Assessments. Microclimatic impacts are particularly apparent with tall or large buildings which can accelerate wind speeds at street level and shade areas for long periods.

4.4.3.14 As a general principle, appropriate public realm functions should be identified which take account of microclimatic conditions, but wherever possible the function of the space should not be compromised by factors which can be mitigated through architectural design.

4.4.3.15 Areas for seating, and especially for outdoor dining and play should be located in comfortable conditions which benefit from sunshine and shade, and are sheltered from strong winds.

4.4.3.16 Where comfort is predicted to be impacted by long-periods of shade, it is likely that alternative functions should be sought within the public realm.

4.4.4 WIND-SPEED MITIGATION FOR TALL OR LARGE BUILDINGS

4.4.4.1 Where environmental assessment has identified wind-speed will adversely impact on use of public realm, architectural mitigation should normally be deployed (rather than landscape mitigation).

4.4.4.2 Except in marginal cases, trees should not normally be considered as primary wind-speed mitigation. Trees planted close to tall buildings will often struggle to establish successfully and lean away due to the directional light and the effects of accelerated winds. The mitigation provided by trees also tends to reduce in winter (deciduous trees) when it is most needed.

4.4.4.3 The use of screens at street level to mitigate wind speed is not normally acceptable. Where they are the only option to address a local acceleration, they must be designed as multi-functional elements integral to the public realm or architecture. For example, screens could be designed as artworks or planters integrated within the wider design proposals.

4.4.5 PUBLIC REALM FUNCTIONS

4.4.5.1 Use patterns in the public realm change throughout the day and through year depending upon the sun angle, wind direction and weather conditions.

4.4.5.2 When assessing the comfort of pedestrian spaces, consideration should be given to use the space will receive at different times of the day and year during which impacts are likely.

4.4.5.3 Shade studies should be undertaken to establish optimum designs for public realm throughout the year. Features such as seating areas and play facilities should be located in areas which benefit from sunshine and shade, but excesses of shade are likely to result in under-utilisation. Planting design is also influenced by available direct sunlight.

4.4.6 PLANTING AS MICROCLIMATIC MODERATOR

4.4.6.1 The benefits of planting and water features in summer include the evaporative cooling effect they exert on the surrounding area. Urban parks typically reduce the air temperature by approximately 1 degree C by comparison to adjacent paved areas.

4.4.6.2 Summer shading of paved surfaces will significantly reduce the heat absorbed and re-emitted into the air and the energy absorbed by glazed facades at street level. With this in mind, deciduous street tree planting should normally be located predominantly to the north and eastern side of streets to cast shade on south and west facing facades and pavements.

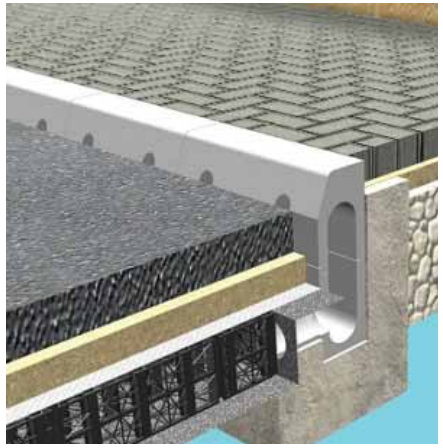
4.4.6.3 Design teams must consider the location of street trees and other planting in relation to the microclimatic moderation they can effect. Deciduous trees should be used to provide summer shading while allowing winter sunlight. Screen planting should

be used to create local shelter for seating and play areas where appropriate.

4.4.7 TALL BUILDINGS

4.4.7.1 As well as their impact on local wind-speeds, tall and large buildings may cast shadows or considerable periods, reducing the comfort and functionality of public spaces. Architectural façade materials can significantly change the perception and comfort of public realm by reflecting sunlight into otherwise shaded spaces. Following problems elsewhere in London in 2013, care should be taken to avoid concentrating reflected light into a focus. Design teams should also consider the scale and proportion of space adjacent to tall buildings which can become dominated by the mass of adjacent structures, especially when traffic is present.

4.4.7.2 Design teams should consider how architectural treatment of large buildings can be developed to reflect sunlight into north aspect public realm, and assess how this impacts on functionality and comfort. Through the use of massing models and visualisations, design teams should address the scale of public space around tall buildings to ensure it does not feel intimidating or under-scaled in relation to the adjacent buildings.



4.5 PUBLIC HEALTH AND ACTIVE LIFESTYLES

4.5.1 OBJECTIVES

4.5.1.1 Many of London's public parks and gardens originated as places to seek fresh air and exercise: They have been the setting for promenading, sports, and children's play for generations. Parkland promotes healthy lifestyles by encouraging activity, and safe, clean, traffic-free routes such as the Thames Path and Vauxhall Missing Link can encourage walking and cycling rather than public transport. Research projects now quantify the benefits to physical and mental health of outdoor exercise.

4.5.1.2 Greenspace also improves public health by filtering out airborne dust and pollution, and reducing the psychological impacts of noise and traffic.

4.5.1.3 Most of all green spaces are uplifting and restorative, inducing measurable reductions in blood pressure and stress hormones, with proven medical benefits in treating depression, heart disease, and other conditions. Public realm establishes the setting and inspiration for social interaction and cultural and creative activity - with all the associated benefits to mental and physical health

4.5.2 ACTIVE LIFESTYLES REFERENCES

4.5.2.1 "Improving the Health of Londoners" (TfL, 2014) sets out strategies for promoting public health through strategies for more active lifestyles including walking and cycling, and examining transport related air quality, noise, accidents and accessibility impacts on health.

4.5.2.2 "Public Health and Landscape – Creating Healthy Places" (Landscape Institute, 2014) sets out the health benefits of greenspace and recommendations for design.

4.5.2.3 Best Practice Guidance: Health Issues in Planning (GLA, 2007) is London-wide best practice guidance covering a wide range of health related issues. The Guidance includes a section on livability, open space and public realm.

4.5.2.4 "Lifetime Neighbourhoods" (DCLG, 2011) describes how good public realm design can promote activity and independence across all generations, but especially for older people and people with disabilities.

4.5.2.5 The "Active by Design" initiative by Design Council CABE offers a range of guidance, resources and a programme to aid in programming active environments.

4.5.2.6 Designers should also refer to further guidance from RIBA, RTPI, NHS (Healthy Urban Development Unit) among others.

4.5.3 GENERAL DESIGN PRINCIPLES

4.5.3.1 Designers should ensure proposals address the five benefits of designing healthy places listed in The Landscape Institute's position Statement "Public Health and Landscape: Creating healthy places" (2014) identifies:

- Healthy places improve air, water and soil quality, incorporating measures that help us adapt to, and where possible mitigate, climate change
- Healthy places help overcome health inequalities and can promote healthy lifestyles
- Healthy places make people feel comfortable and at ease, increasing social interaction and reducing antisocial behaviour, isolation and stress
- Healthy places optimise opportunities for working, learning and development
- Healthy places are restorative, uplifting and healing for both physical and mental health conditions

4.5.3.2 The public realm can actively promote public health interests. The Lifetime Neighbourhoods approach ensures that each aspect is covered for all age-groups. Design teams should ensure the following key considerations in the development of public realm are demonstrated:

- The inclusive design of outdoor spaces
- Creating walkable environments
- The importance of green-space for health and well-being
- Ways in which individuals are able to engage with their neighbourhoods
- Ways in which inter-generational and social contact are promoted through the public realm
- Ways in which the community are empowered to influence their public realm
- Ways in which developments and public realm can incorporate sports and active uses. These may include rooftop facilities (such as multi-storey sports pitches proposed as part of the New Covent Garden Market proposals).

4.5.3.3 Detailed guidance on how these over-arching considerations can be demonstrated is given in "Lifetime Neighbourhoods" (DCLG, 2011).

Nine Elms
On the South Bank

4.6 RECREATION, LEISURE AND PLAY

4.6.1 OBJECTIVES

4.6.1.1 Space and opportunities to play are a basic right for children, and outdoor play promotes learning, physical and mental health. Outdoor play space is particularly important in densely developed urban areas and for children without private outdoor space.

4.6.1.2 Play should be an everyday, integrated component of the public realm of NESB. Play value can be found in simple details and tiny personal spaces or in complex moving equipment and open grassy expanses. Within NESB, children and playable space should not be confined to fenced play areas: they should be centre-stage within parks and green spaces, as important as any other part of society.

4.6.1.3 New sports provision includes new games areas and pitches within CGMA's market site, but funding may also be diverted to existing facilities nearby, such as those in Battersea Park, to ensure good quality, well-used provision.

4.6.1.4 Parkland and linear routes such as the Thames Path should include outdoor gym facilities and circular routes created for running, walking and cycling.

4.6.1.5 Innovative play elements which double as interactive artworks can create stimulating environments for play with exciting visual appeal for adults and children. Sculptural play features at Riverlight are seen as 'Play on the Way' for everyday use.

4.6.2 CONTEXT AND REFERENCES

4.6.2.1 Best practice guidance for play is set out in Play England's "Design for Play: A Guide for Creating Successful Play Spaces (2008). Elements of 'Natural Play' should ensure that play provision is embedded within the environment rather than applied as a separate, discreet entity.

4.6.2.2 Standards for quantity, quality and accessibility of play provision in London are set out in "Shaping Neighbourhoods: Play and Informal Recreation" (GLA SPG, 2012).

4.6.2.3 This guidance advocates the provision of Playable Space – where children's active play is a legitimate use of the space. Playable spaces are not necessarily enclosed (and this may be a disadvantage), may be equipped, but should have inherent 'play value'. Children should feel welcome and not intimidated even where the space may have multiple recreational functions.

4.6.2.4 The SPG describes a hierarchy of provision:

- Doorstep Playable Space – close to home, engaging play features for young children under 5 (within 100m walking distance)
- Local Playable Space – landscaped space with landscaping and equipment so that children aged 0 to 11 can play and be physically active and they and their carers can sit and talk (within 400m walking distance)
- Neighbourhood playable space - Varied natural space with secluded and open areas, landscaping and equipment so that children aged 0 to 11 can play and be physically active and they and their carers can sit and talk, with some youth facilities for young people over 11 (within 400m walking distance)
- Youth space - A social space for young people aged 12 + to congregate together, socialise and participate in informal recreation or physical activity (within 800m walking distance)

4.6.2.5 Typical provision and minimum areas for each category is described in the SPG.

4.6.2.6 Requirements for play provision are based upon the GLA's child yield calculator which assesses anticipated numbers and ages of children based upon residential specifications and room numbers.

4.6.3 GENERAL DESIGN PRINCIPLES

4.6.3.1 Design teams must ensure play areas and Doorstep playable space is integrated in accordance with the GLA's SPG with reference to the anticipated child yield, proximity, available area and qualitative assessment. Doorstep Playable Space is to be provided within every residential development and available for use on completion of each phase. Where this is not feasible, consideration must be given to provision of temporary playable space until the permanent site is available.

4.6.3.2 Design teams must consult with the Local Planning Authority with regard to ensuring appropriate provision of Local and Neighbourhood Playable and Youth Space. Where provision is off-site, developers shall normally be expected to contribute to installation and/or management of these facilities. These spaces should be robust and of high quality to meet the demands of locals and in the case of the Linear Park, visitors from outside.

4.6.3.3 Design teams must locate playable space within easy reach of through-route footpaths where it is neither isolated nor hidden from passing pedestrians. Playable space should be located so as to promote inter-generational contact, and should be associated with cafes, seating, outdoor gym and other park and leisure amenities.

4.6.3.4 Design teams should aspire to implement the best practice guidance set out in Play England's "Design for Play: A Guide for Creating Successful Play Spaces (2008). Elements of 'Natural Play' should ensure that play provision is embedded within the environment rather than applied as a separate, discreet entity.

4.6.3.5 Design teams should integrate play so that activity can be located according to the criteria set out in the GLA and Play England Guidance, is well overlooked, accessible from footpaths, and can take advantage of the location to offer sunshine, shelter, shade and views where possible. Associated seating should have clear views to the play facilities.

4.6.3.6 In order to establish a coherent and robust palette of play features and equipment play equipment should be selected or designed to ensure coherence of appearance, design and materiality and to prioritise the following criteria:

- A common look and feel, but offering a range of fabricators to last the duration of the construction phase
- Durability and functionality – robust, damage-resistant materials (such as timber or stainless steel)
- Potential for repair and re-use rather than disposal in case of minor damage
- Efficiency and sustainability – embodied energy and carbon emissions, recycled content, reusable materials, recyclable materials
- Design life cycle – management/maintenance input, after-life
- Local reference and fit – with particular reference to the landscape of adjacent parkland or public
- Equipment or features which are open to interpretation, flexible in use, and offer opportunities for imaginative play

4.6.3.7 To ensure play is stimulating, avoids repetition, and encourages exploration of a range of activities to promote physical and psychological development of children, and to ensure that overtly designed play equipment does not reduce the visual and leisure amenity of parkland and courtyards for other users, play equipment should normally avoid excessive use of:

- Too many bright primary colours
- Sterile and/or non-recyclable 'moulded plastic' or glass fibre (or similar) materials
- Literal characterisations of objects (such as helicopters, chickens or buses)








4.6.3.8 Play equipment should be robust and multi-functional. Normally, it should be predominantly manufactured from natural timber to increase its visual and play appeal. Further detail on design for play is given in the site specific sections. Further detail is provided in the section 'Recreation, leisure and play'.

4.6.3.9 Designers should ensure Local and Neighbourhood playable space are accessible to children and carers who have physical, sensory or mental impairments. Wheelchair accessible play items should be provided and designs should be audited for accessibility. Doorstep Play areas should be fully accessible to wheelchair users, but play features and equipment need not be limited to those which are wheelchair accessible. Wheelchair access should be given to Youth facilities.

4.6.3.10 Designers should aspire to meet the following detailed accessibility targets set out below:

- Local and Neighbourhood playable space should be accessible available by foot and car and public transport (stop less than 400m) with accessible parking spaces within 250m
- Walking routes to play space should have smooth surfaces, wide paths (min 1.2m wide), gentle slopes (1:12 slope max), safe crossing points with dropped kerbs.
- Café/restaurant with publicly accessible toilets or independent public toilets should be located within 500m
- Changing facilities should be available at the toilets
- Text signage should be kept to a minimum and easy to read with Braille, symbols/pictorial images as well as text
- Signage should be located at wheelchair or child friendly height – i.e. 1m from ground
- A multisensory plan may be provided that shows users how to move around the space and where all items are located
- Information should include contact information for maintenance
- Firm surfaces should ensure ease of movement around the entire space and equipment, or a minimum 1.2m wide access pathway.
- All wheelchair accessible items, or items easily accessed by children who are physically disabled, should be designed with a clear, accessible pathway to them?
- Plants should be child safe - avoiding thorny and toxic species
- Lighting should enable use during winter and evenings
- At least 3 of the senses should be engaged and accessible from a seated and standing position:
- Sight/visual: Textures and shapes, Reflected light, Strong colour /contrast, pattern
- Sound: Movement and/or switch activated – by using large and small motor movements. This could be individual or cooperative activities like playing with water, sound makers/ instruments or electronically activated sound
- Scent: Planting
- Tactile: Carvings, range of materials, sand, water, loose parts, range of surface textures and materials
- Taste: Edible plants and herbs (with clear signage for identification and safety)
- Movement and balance: Exploring balance, coordination, strength, spatial awareness and dynamic movement

4.6.3.11 Designers should seek to promote imaginative, individual and social play through:

- Opportunities for children to play with natural materials
- Adequate open areas for children to play imaginative games together (i.e. space without equipment)
- Space offering play opportunities for family of all ages
- Smaller scale, private spaces to play and hide, for quiet play within the play space and near entrance points

4.6.3.12 Designers should seek to promote physical play through:

- Adequate space for group games, sports activities that can be accessed by all
- Fine motor play opportunities at a variety of heights, small scale play opportunities for individual play and turn taking, cause and effect, dexterity and co-ordination
- Gross motor play opportunities: landscaping and equipment for children to use in their own way using their upper body, lower body, developing their agility, co-ordination, and, dexterity by sliding, swinging, climbing, running, spinning etc.
- Opportunity for challenge and risk: Flexible play opportunities provided – where a child can experience challenge and risk at their own level of development– for example through large accessible play equipment or landscaping

4.6.3.13 Designers should make provision for seating that is:

- Adjacent to play equipment
- Accessible with arm and back rests
- Accommodating to wheelchairs users so they can sit between other people
- Located for sun and shade

4.7 ART AND CULTURE IN THE PUBLIC REALM

4.7.1 OBJECTIVES

4.7.1.1 The over-arching "Cultural Strategy and Action Plan – NESB A Place for Culture" (2013) establishes the framework for arts and cultural aspirations in NESB. Arts and culture, in all its forms, can help establish new destinations within London's cultural and tourist portfolio – promoting the area as a destination for locals, Londoners, and tourists.

4.7.1.2 By increasing the profile of NESB as a venue for, and producer of arts and culture, NESB will enhance the value of its iconic cultural destinations, such as Battersea Power Station, and Vauxhall's reputation as a host to some of London's liveliest night-clubs.

4.7.1.3 Existing development proposals will bring forward strategies for arts and entertainment at destinations including Battersea Power Station, the Food Quarter (CGMA), and other developments. However, these are developed on a site-by-site basis and opportunities for innovative and site responsive artwork and meanwhile programmes to develop common themes and procurement across the public realm need to be generated.

4.7.1.4 As well as the individual developers' proposals, separate studies and projects such as The Thames Path and Vauxhall Missing Link have a strong arts basis - in terms of both permanent and ephemeral (and events) based public realm interventions.

4.7.2 NESB CULTURAL STRATEGY

4.7.2.1 The over-arching Cultural and Arts Strategy for NESB sets the area's aspiration to be London's newest cultural destination. It incorporates arts development and cultural provision as core to place making and public realm. This ambition would be supported by work to collate, coordinate and integrate the existing strategies, artworks and creative happenings in the public realm, architecture and development process of NESB.

4.7.2.2 To extend this Strategy, options should be set out for selected artists, projects, procurement and implementation. It should detail and extend the role NESB can play in London-wide events such as London Fashion Week, Chelsea Flower Show and Fringe, major sporting events, Totally Thames and music and dance events. As well as exploring how to collaborate with local communities. This would support and guide developers in designing their own Cultural Strategies which will contribute to the whole.

4.7.2.3 The brief should include permanent and ephemeral artworks, as well as events, exhibitions and heritage interpretation. While respecting Arts and Cultural Strategies for each development, opportunities should be explored for art which crosses boundaries within the public realm.

4.7.2.4 Major cross-boundary arts led project opportunities, as proposed through the developing NESB 'Staging the Area' initiative, include :

- The west and east entrances to Nine Elms Linear Park
- Water and attenuation in the urban environment (refer to the following section).
- "Underneath the arches" (the railway arches and viaducts refer to the previous Section on Lighting)
- The Thames River, Path and Albert Embankment
- Play and a playful environment
- Community engagement activity
- Activating the area through e.g. Outdoor arts, dance and festival projects
- The Food Quarter and Covent Garden Market
- International relations and diplomacy
- The Vauxhall Missing Link project
- Vauxhall Cross culture and heritage
- NESB underground (lost rivers, infrastructure and engineering)
- Temporary and ephemeral art through the construction period (refer also to the section on "public realm during construction" and 'Meanwhile Improvements').
- Street furniture
- Lighting the public realm

4.7.2.5 Initiatives might explore these themes through a range of potentially artist led mechanisms which could include, but are not limited to:

- Repeating motifs colour or light effects
- In-setting graphic content into pavements, access covers and service cabinets
- Developing trails and sequences of related artworks
- Installing large-scale pieces establishing instantly recognisable icons in the urban landscape

4.7.2.6 Opportunities to collaborate with international, national and local artists are likely with the opening of the Newport Street Gallery, anticipated curation of art throughout NESB, and particularly at Battersea Power Station and other iconic locations.

4.7.3 ARTIST CONTRIBUTIONS

4.7.3.1 Artworks should aim to explore Vauxhall, Battersea and Nine Elms as the context for new development and to promote NESB as an attractive, vibrant and creative London city quarter. It may express the particular development or character area or wider themes or heritage. Developers should collaborate through NESB to ensure artists' designs are coherent, and compatible in terms of location and content and where possible seek to commission new work which is site sensitive and responds to the immediate public realm and community context.

4.7.3.2 Artist involvement can manifest in many and varied ways, including but not limited to:

- Input to design teams and concepts
- Embedded or stand alone artworks in the public realm
- Lighting strategies
- Creative design of temporary boundaries, hoardings, in between unused spaces
- Creative community engagement approaches
- Artist or Writer in residence
- Live outdoor arts such as dance, performance, festival, events
- Pop up theatre, film, community gardening

4.7.3.3 The arts commissioning process is key to successful and sensitive outcomes and should be led by experienced curators or creative producers, in collaboration with design teams, architects and the local authority as required.

4.7.4 MEANWHILE IMPROVEMENTS

4.7.4.1 Temporary creative projects, which have site specific relevance and local connection, can help promote, raise awareness and add value to development. Simple measures such as artistic treatment of hoardings have long been used to stimulate interest, intrigue and delight while also reducing the negative impacts on everyday users.

4.7.4.2 Design Teams should consider the opportunities for artist contributions to temporary site hoardings, boundaries or under utilised spaces, in prominent or long-lived locations as part of a rolling programme of art, consultation and communication. Teams should explore the opportunities of employing an 'artist in residence' to contribute to the public realm during construction. The consideration of an artists' contributions and best value should include an assessment of:

- The duration of the hoarding, artwork or intervention
- The visual impacts of the work on surrounding completed areas and through routes
- The environmental benefits (noise, dust, visual mitigation) it might afford to neighbouring areas
- Opportunities for community engagement
- Potential for new arts commissioning

4.7.5 DEVELOPERS' ARTS AND CULTURAL STRATEGIES

4.7.5.1 Creative approaches to public realm design and distinctiveness should be achieved through the submission of Cultural and Arts Strategies with each Planning Application. These strategies should reflect the over-arching Cultural Strategy and Action Plan "NESB A Place for Culture?" and be uniquely written for each site and often provide context, insights and ideas that can be transferred from one site to the next. It is important for each site to be analysed in its own right, but coherence is also needed to avoid clashes of ideas and competition between artworks installed as a signature element for one particular development.

4.7.5.2 Design Teams, together with the local authority and Arts and Cultural specialist providers, should identify opportunities for investment in artworks and cultural activities within the public realm as a means of enhancing that development's presence and profile and developing NESB's wider cultural offer and its reputation as a destination for events and tourism within London.

4.7.5.3 Cultural heritage is also a fundamental driver of separate public realm initiatives such as the two outlined below:

VAUXHALL "MISSING LINK"

4.7.5.4 Vauxhall BID's "Missing Link" project is acting as a trail-blazer for the cultural responses defined in this section. The project imagines a series of "Curiosities" that are inspired by the attractions in the original Vauxhall Pleasure Gardens.

4.7.5.5 "The Curiosities" will form a cultural trail to activate the backstreets of the Vauxhall Albert Embankment Character Area, helping support businesses and promote activity in the area.

4.7.5.6 The trail follows existing streets and will incorporate streetscape enhancements and urban greening initiatives which will connect Vauxhall to Lambeth High Street via the Pleasure Gardens, Pedlars Park, Newport Street Gallery and Old Paradise Gardens.

THE THAMES PATH

4.7.5.7 The project to enhance the Thames Path through NESB will embrace the different environments that can be found along its route. These include:

- Active wharfs and docks
- Waterfront cafes and restaurants
- Promontories formed as part of the Thames Tideway Tunnel
- Narrow footways
- Pocket parks and gardens
- Joseph Bazalgette's Albert Embankment

4.7.5.8 Initial proposals will look to build upon historic and new Dutch associations with part of the Nine Elms riverbank through a enhancements featuring bulb planting and Dutch clay pavers, as well as piloting use of these spaces through temporary creative projects.


MARSH
GATE
LANE

Nine Elms
On the South Bank

4.8 ACCESSIBILITY

4.8.1 OBJECTIVES

4.8.1.1 The National Planning Policy Framework describes inclusive design as "Designing the built environment, including buildings and their surrounding spaces, to ensure that they can be accessed and used by everyone."

4.8.1.2 Demonstrating best practice in inclusive design and equitable access should be a prerequisite of public realm design in this new quarter of a global city.

4.8.1.3 Current guidance describing universal standards across London are found in the GLA's SPG "Accessible London". These can be supplemented by best practice derived from the Olympic Delivery Authority's Inclusive Design Standards for the design of the Queen Elizabeth Olympic Park.

4.8.1.4 In drawing up proposals for the public realm, and in addition to Borough policies on equitable access, design teams should the ensure designs meet the requirements of "Accessible London" and should aspire to meet the standards of the Olympic Park wherever possible. In particular the Olympic standards should be applied throughout the new Linear Park and other busy and high profile areas at Battersea Power Station and Vauxhall.

4.8.2 CONTEXT AND REFERENCES

4.8.2.1 London-wide guidance is provided in the GLA's draft SPG "Shaping Neighbourhoods: Accessible London: Achieving an Inclusive Environment" (GLA, 2014 or as revised). This comprehensive guidance should inform design teams as to the principles and standards required. The high level principles are outlined in the following section.

4.8.2.2 Additional requirements in the approaches to buildings and routes to and from parking are found in Building Regulations (Part M) and "Lifetime Neighbourhoods" (DCLG, 2011) which describes how good public realm design can promote activity and independence across all generations, but especially for older people and people with disabilities.

4.8.2.3 The London Plan (p281) states that:

- Development should incorporate local social infrastructure such as public toilets, drinking water fountains and seating, where appropriate

Toilet and changing facilities are vitally important to many older people and people with disabilities. Developers should therefore consider the provision of these facilities as part of their offer to the community, especially in areas of high public use, such as the Linear Park, Vauxhall Centre and Battersea Power Station.

4.8.2.4 Further guidance relating to accessibility is given in this guide with regard to play facilities in the section relating to recreation, leisure and play.

4.8.2.5 Compliance with Wandsworth and Lambeth Local Plan policy objectives must be demonstrated. Specific advice on accessibility in the public realm can be obtained through the respective Borough.

4.8.2.6 Consultation with local advocacy groups is always recommended to help ensure local needs and aspirations are assimilated into the design of the public realm.

4.8.3 GENERAL DESIGN PRINCIPLES

4.8.3.1 Design teams should work with the principles, processes and standards set out in "Accessible London", using as the starting points for designing all aspects of the public realm the core themes of:

- Choice
- Independence
- Dignified
- Welcoming
- Flexible
- Convenient
- Easy
- Comfortable
- Safe

4.8.3.2 Design teams should implement the specific guidance on public realm design set out in "Accessible London"

4.8.3.3 Additionally, design teams should seek to implement the standards (below) which are best practice derived from "Accessible London" and the London Legacy Development Corporation Accessibility Standards are for gradients, ramps, steps, tactile surfaces, handrails, pedestrian surfaces, seating, street furniture and way-finding.

4.8.4 GRADIENTS

4.8.4.1 1:60 is considered ‘level’ and cross-falls should be no steeper than 1:50. Generally, public areas should have a maximum grade of 1:40

4.8.4.2 1:21 is the maximum gradient on principal routes, handrails may be required

4.8.4.3 Level landings should be provided for every 500mm rise. Landings should be a minimum of 1500mm long (3000mm preferred) and clear of an obstructions. Level breaks on steeper routes are essential to ensure wheelchair users and others with mobility impairments can recover without having to cross the flow of people to reach a rest area.

4.8.4.4 On gentle gradients, (1:30 or shallower), the level areas may be set off the main pathway

4.8.4.5 Gradient: Maximum length of footpath between level areas

- 1:60 50m
- 1:50 40m
- 1:40 30m
- 1:30 20m
- 1:21 10.5m








4.8.5 RAMPS

4.8.5.1 Ramps (gradients that are 1:20 or steeper) will not be provided on primary circulation routes. Where the change in level is greater than 300mm, a ramp and steps will be provided together. Where ramps are required they will:

4.8.5.2 Rise no more than 2m. Lifts should be provided for changes in level over 2m

- Have gradients in accordance with the table below (no steeper than 1:15)
- Be provided with adjacent stairs if over a 300mm rise
- Have a visually contrasting surface to indicate its presence
- Have handrails in accordance with Building Regulations Part M
- Be well lit artificially, with an illuminance at the top and bottom of each flight of the ramp of at least 100 lux
- Have suitable non-slip surfaces when wet and dry (wet Pendulum Test Value (PTV) of 45-50 depending upon gradient)

4.8.5.3 Gradient: Maximum length of ramp between level areas

- 1:20 10m
- 1:15 5m
- 1:12 2m

4.8.6 STEPS

4.8.6.1 Where steps are provided they will not have:

- Winders or be tapered
- More than twelve risers in a flight
- No less than three risers in each flight (any less than this is less safe as they will not be obvious on approach)

4.8.6.2 Where steps are provided they will:

- Have a minimum unobstructed width of 1200mm
- Have uniform closed risers of 150mm – 170mm and going of 250mm - 300mm
- Have riser with a recess of no less than 60°
- Have slip resistant treads in accordance with BS 5395-1
- Be clearly identifiable and contrast visually with their surroundings
- Have visually contrasting nosings extending the full width of the stair at the recommended depth of 55mm in both the tread and the riser
- Suitable warning at the top of stairs for visually impaired people. This might be through the combined use of visual contrast and surface materials or through tactile paving where appropriate (see Section 5)
- Have an unobstructed length of each landing (clear of any door swings) not less than 1200mm but 1800mm preferred (it is likely in this environment that the stairs will be greater than 1800mm due to the high volume of people movement expected)
- The depth of each landing, at the head and foot of stairways, and between flights, are to be not less than the width of the channel of the flight
- Resting places if there are successive flights of stairs. They will extend across the full width of the stair and beat least 1200mm long, preferably 1800mm
- Have handrails provided on both sides and on intermediate landings as detailed in Section 7 (a handrail is to be provided on both sides of the stair to allow people a choice as some people will only have strength on one side of their body)
- Have additional handrails where the width of stairway is greater than 1800mm to give people extra support (where a stairway is divided into channels, the approach is to be designed to ensure a uniform flow down each channel)
- Be well lit in accordance with CIBSE standards
- Be constructed from non-reflective material
- Ensure open areas under stairs are free from injury hazards by providing guarding or being closed off

4.8.7 TACTILE WARNING AND INFORMATION SURFACES

4.8.7.1 Ribbed corduroy paving shall be used at the head and foot of external steps in accordance with the diagrams in Building Regulations Part M

4.8.7.2 Blister paving shall be used at crossing points in accordance with TfL and Department for Transport standards

4.8.7.3 Shared Space Use:

- In shared space streets with a level surface, corduroy tactile paving should be used as a delineator strip between the shared area and the pedestrian-only footway. Textured setts may be acceptable, subject to consultation.
- Delineation should use a contrasting colour and be 800 mm wide to be reliably detected by blind and partially sighted people.
- Where corduroy paving is used as a delineator, it should change to blister paving at crossing points. Blister paving should not be used as a general delineator because of its specific meaning of indicating a crossing point.
- Over-use of blister paving can create instability issues for many disabled and older people.

4.8.7.4 Guidance Paving:

- Corduroy tactile paving may be used as guidance paving to assist people with a visual impairment to orientate themselves and navigate around large open spaces such as public squares.

4.8.7.5 Information surfaces should be provided to help people locate facilities such telephones with SMS keyboards, text-phones, internet access points, vending machines and ticket machines

4.8.7.6 Information surfaces shall:

- Have a matt finish and be slip resistant.
- Be non-bituminous and based on a neoprene rubber or similar elastomeric compound.
- Contrasting visually and tone to the surrounding surface
- Be level with the surrounding footway
- Have a maximum space of 400mm between the amenity and the start of the surface and extend across the full width of the amenity or for 800mm, whichever is greater

4.8.8 HANDRAILS AND GUARDING

4.8.8.1 Handrails shall be provided for all steps and ramps, designed in accordance with Building Regulations requirements (regardless of whether they are on approach to a building)

4.8.8.2 Slopes or drops at the back of a footway must have a pedestrian guard fence or barrier and a kerb with a 100mm upstand if the lower rail of the fence or barrier is greater than 300mm above ground level

4.8.8.3 Where landscaping slopes down to a ramp, no special precautions are necessary.

4.8.9 PEDESTRIAN SURFACES

4.8.9.1 Footways and footpaths are to:

- Have an even, firm, well drained surface that is non-slip in both wet and dry weather conditions, with a minimum slip-resistance coefficient of 50 (surfaces must be hard enough so that wheels do not sink into them, generally packed surfaces such as crushed rock, gravel, sand or grit surfaces are not suitable)
- Be installed with any necessary joints closed and flush to prevent small wheels, walking sticks and canes becoming trapped.
- Have a surface that is even and stable, with any variation of surface profile not exceeding ± 5mm (e.g. between paving, surface features or different surfaces)
- Have well defined edge treatments such as planting, a change of textures or by the use of kerbs (minimum 25mm) used to indicate to visually impaired people the extent of the path
- Have a visually contrasting surface to their surroundings
- Have a cross fall no greater than 1:50
- Use visual contrast to indicate level differences
- Be well lit
- Have consistent use of tone and surface when used as way-finding tools

4.8.9.2 Footways and footpaths are not to use:

- Busy patterned surfaces including stripes
- Highly reflective materials as they appear to be slippery even if they are not. Additionally they cause reflective glare
- Dished drainage channels which are trip hazards and therefore unacceptable on access routes (if this proves to be unreasonably difficult, then the use of covers on both gullies and drainage slots to be used with the slots turned to 90 degrees to the direction of travel)

4.8.9.3 Covers and gratings within walking areas are to:

- Be flush and non-slip
- Have openings no greater than 13mm wide
- Gratings or ‘slot’ type drainage are not to be used pedestrian areas and at pedestrian crossing points
- Integrated into the surrounding area, which includes tactile surfaces at controlled crossing points

4.9 DESIGNING OUT CRIME

4.9.1 OBJECTIVES

4.9.1.1 Anticipating the interactions between existing and new development and patterns of anti-social and criminal behaviour, can help make NESB safer and a more welcoming place to live, work and visit. Streetscape design should be developed help to reduce opportunities for criminal activity and ensure perceptions of criminal intent do not stifle normal activity and access to the public realm.

4.9.2 CONTEXT AND REFERENCES

4.9.2.1 Guidance in this section has been developed in consultation with a 'Designing Out Crime' (DOC) officer from the Metropolitan Police.

4.9.2.2 The Designing Out Crime initiative builds on theories about 'defensible space' and utilises passive surveillance (the natural presence and observations of everyday users) as a deterrent to anti-social and criminal behaviour. Guidance for NESB has been compiled in the context of London's 24 hour economy and well documented patterns of behaviour:

4.9.2.3 Like much of central London, NESB has a 24 hour economy. This economy will develop with the area, but trends in criminal and antisocial activity are known to vary throughout the day and depending upon the day of the week. In NESB current (2014) trends might include:

- 8-10am - street robbery, phone/bag-snatching). Likely victims: commuters and tourists targeted leaving busy areas around transport nodes
- 9am-4pm - car crime and personal crime. Locations: Quieter streets and public spaces
- 4-8pm – street robbery, phone bag snatching, cycle theft. Likely victims often children and youth returning from school.
- 10–4am – Likely victims, social drinkers + clubbers, alcohol / substance abusers, homeless people. Activity might include anti-social behaviour (street urination, noise, intimidation, drunkenness), thefts of property (phones, bags etc.). Accidents, misadventures and crime are most prevalent on a Friday and Saturday.

4.9.2.4 Trends in criminal and anti-social behaviour also change with location and in NESB can be expected to increase at or near:

- Transport interchanges
- The quieter streets leading from the busiest areas
- Tourist attractions
- Clubs and pubs
- Areas with bench seating, but poor natural surveillance and low footfall

4.9.2.5 As well as the permanent design of streetscape, it is very important to recognise that the build phase of any development present clear challenges: Temporary hoardings around building sites provide opportunities for street crime and anti-social behaviour, and partially occupied streets and districts often suffer from poor natural surveillance and low footfall. These problems are particularly prevalent in a large-scale redevelopment zone like Nine Elms.

4.9.2.6 Designers, developers and facilities managers of major developments are strongly advised to consult with Designing Out Crime officers, to obtain evidence-backed, site-specific advice on local issues, current and anticipated crime trends, insights into anti-social behaviour and methods for prevention.

4.9.3 GENERAL DESIGN PRINCIPLES

4.9.3.1 In response to documented trends, designers should demonstrate they have considered the following general principles:

4.9.3.2 Public transport interchange exits need open orientation spaces. These should be well over-looked and busy with plenty of space. Entrances should be set back from the road to give safe orientation space away from traffic.

4.9.3.3 Footpaths should be generous and zoned within the street. Widths should be maintained clear of obstructions – especially near transport nodes.

4.9.3.4 Passive surveillance is vital. Design should ensure that eye-level through visibility is maintained even where tree canopies and groundcover or shrub planting dominates. Taller shrubs should be set back from footways where possible.

4.9.3.5 CCTV systems can help reduce crime, identify criminal activity as it happens and assist in the identification of perpetrators. CCTV systems should be integrated between developments and developed in liaison with the London Boroughs of Wandsworth and Lambeth and the police. Where appropriate TfL, Network Rail and other agencies should also be consulted to ensure appropriate coverage and consistency. Where appropriate, transmissions should be fed to central control rooms at the Boroughs.

4.9.3.6 Tourism is likely to become an increasing feature of NESB. Allowing space in tourist areas so visitors are more aware if they are approached can help to reduce street robbery and pick-pocketing.

4.9.3.7 Users of outdoor restaurants, cafes and bars are often targets for theft of poorly attended bags, phones and wallets. Separating tables from footways reduces the possibility.

4.9.3.8 Seating should be located on well used routes and always well-lit at night.

4.9.3.9 Seating and other furniture should not be located near to ATMs. Clear space should be provided for queuing and pavement demarcation used to separate users from those

waiting. ATMs should be given a higher level of illumination than the surrounding street.

4.9.3.10 Furniture (such as bus stops, phone kiosks, control kiosks, way-finding signs, ATMs) should allow people standing on the far side to be visible and not present an obstruction to view or movement. Free-standing and bus stop end advertising at eye-level should follow the same guidance, or be omitted where possible.

4.9.3.11 Seating should provide comfort for sitting, but should not encourage lying and sleeping. It should ideally provide a location to tuck a bag or shopping behind the feet to reduce the potential for bag-snatching.

4.9.3.12 Youth provision should be integrated with cafes, outdoor-gyms, play areas and other public social infrastructure. It should not be isolated from other users of the public realm.

4.9.3.13 Street furniture design should be resistant to graffiti and either sufficiently robust to withstand or a deterrent to skaters 'grinding' raised edges. Providing areas where skating can be safely permitted within the general public realm will encourage integration between youths and the adult population.

4.9.3.14 Building site hoardings should, wherever possible, be set back from the footway to provide good forward visibility. They should not normally be permitted to encroach into the footpath or over-sail the path with scaffolding (except where this is for clear public safety benefit or unavoidable operational reasons).

4.9.3.15 Long unbroken lengths of hoardings should be avoided where possible. Where unavoidable, constructors should seek to identify means of activating hoardings through visibility panels, engaging artwork and graphics, or temporary / pop-up facilities such as cafes for construction workers etc. Consideration should be given to living (planted) hoardings, which offer robust, vandal-resistant site security. Temporary planted verges and trees all help to animate and activate hoarding lines.

4.9.3.16 On-street parking should be avoided on quiet streets with low footfall and poor natural surveillance.

4.9.3.17 Mobile catering facilities such as mobile cafes, food vans and street food stalls can be strategically located to increase passive surveillance of at risk areas. An example might be a mobile coffee stall on a lucrative morning commuter route located with views along a quiet street.

4.9.3.18 On-street bin storage promotes litter and fouling, increases fire risk and creates hiding places. Strategies for discrete bin storage must be provided for every development, and is particularly challenging for double sided buildings – such as the railway arches which run the length of the NESB site area.

4.10 COUNTER TERRORISM

4.10.1 OBJECTIVES

4.10.1.1 In NESB, CT is considered to be a high priority in some areas around potential target sites. The design of streetscape and public space, and in particular the control of vehicle access is essential to this.

4.10.1.2 Each individual development will require specific consideration in regard to CT mitigation. However, the overall security of the development needs to be integrated and taken into consideration for each individual site security regime. It is essential that each individual development consult with their Counter Terrorism Security Advisor (CTSA) so that proportionate and cost effective CT advice can be provided.

4.10.1.3 Many of the design objectives of preventative CT policing are shared with 'Designing Out Crime' initiatives, and where CT is an issue, the two should be considered together.

4.10.1.4 The best CT measures are invisible to everyday users, and utilise public realm and streetscape elements in an integrated and seemingly natural way wherever possible. Advice from the Centre for Protection of National Infrastructure (CPNI – refer to section below for references) lists key considerations as:

- Aesthetics
- Public Access
- Physical Constraints
- Health & Safety
- Cost
- Maintenance & Management

4.10.1.5 CT should neither stifle the quality of streetscape nor dominate its character and wherever possible, everyday streetscape elements can be used as CT deterrents.

4.10.2 CONTEXT AND REFERENCES

4.10.2.1 Advice on protective security and counter terrorism can be obtained from Metropolitan Police CTSAs. They can provide guidance based upon their understanding of the local area and strategies and protocols developed by the Centre for Protection of National Infrastructure.

4.10.2.2 Public realm design can be highly effective in preventing vehicle borne threats through Hostile Vehicle Mitigation (HVM)

4.10.2.3 Best practice guidance, "information and inspiration" for integrating HVM, is provided in 'Integrated Security: A Public Realm Design Guide for Hostile Vehicle Mitigation' (CPNI, 2011)

4.10.2.4 With regard to HVM the CPNI advises:

4.10.2.5 When specifying the nature of the vehicle-borne threat it is important to understand:

- Vehicle-borne threats to the national infrastructure
- Modus Operandi (MO) - includes both forceful, surreptitious or a combination of attack methods
- Threat vehicle(s) - there are a variety of standard and modified vehicle types each with specific capabilities
- Explosions and blast effects - especially if considering VBIED attack
- Blast stand-off distance - must be considered in conjunction with a variety of operational needs and the holistic security plan

4.10.2.6 Once the nature of threat is well understood, practitioners should take a methodical and carefully considered approach to determine project objectives and highlight security vulnerabilities:

- Operational Requirement (OR) - a Level 1 statement of the overall security need and a Level 2 OR specific to HVM (see Related Documents)
- User Requirement Document (URD) - addresses additional business needs e.g. stakeholder liaison, planning and design
- Practical site assessment - a layered approach studying the local area, blast stand-off, traffic management and access control
- Technical assessment - e.g. traffic analysis, vehicle swept path analysis or vehicle dynamics assessment, depending on the threat and OR
- Liaison with technical or security experts - e.g. CPNI or CTSA advisers, or Register of Security Engineers and Specialists (RSES) qualified professionals.

4.10.2.7 Based on the project objectives and a study of the location, a number of options can be incorporated into the design of a robust HVM strategy:

- Principles of hostile vehicle mitigation (HVM) - determine the aims of the HVM strategy and how it will integrate with other security systems
- Traffic management - define who, what, why, where, when and how traffic will access the site
- Traffic calming - can be used to limit maximum possible vehicle speeds to a manageable and safe level
- Vehicle Security Barriers (VSB) - maintain blast stand-off and provide proven vehicle impact protection e.g. bund, ditch, wall, gate, street furniture
- Access control - consider deployment of active VSB solutions, procedures, long term operations management and emergency access.

4.10.2.8 Further guidance can be obtained from CPNI.

4.10.2.9 Relevant standards include:

- Publicly Available Standard (PAS) 68: Impact test specifications for vehicle security barriers – includes

categorisation of resistance determined by vehicle size and speed.

- PAS 69: Guidance for the selection, installation and use of vehicle security barrier systems

4.10.3 GENERAL DESIGN PRINCIPLES

4.10.3.1 The requirement for security should be proportionate to the threat. If, in consultation with the Metropolitan Police Service CTSAs, the threat is assessed as insubstantial, no specific CT measures will be required. However designers must remain aware of potential threats to nearby areas and respond if required to do so.

4.10.3.2 Design teams for large and potentially sensitive developments must consult with the Metropolitan Police Service CTSAs to assess the level of threat, and if necessary, employ a specialist security advisor to liaise with police and others to develop strategy from the earliest stages.

4.10.3.3 Where a threat exists, designers should seek consultation with the Metropolitan Police Service CTSAs throughout the design process. Design teams should be aware that strategies will be in place in many areas of NESB to protect vital infrastructure, public transport nodes, diplomatic buildings and other potential targets.

4.10.3.4 The threat to some potential targets may extend well beyond their own site boundaries into areas which are not targets in their own right. Depending upon the assessment of threat, CT strategies may be required for retail areas, sites and buildings with iconic status (architectural or cultural), events venues and anywhere crowds may gather.

4.10.3.5 Hostile Vehicle Mitigation (HVM) is fundamental to restricting potential for large-scale terrorism from vehicle-borne improvised explosive devices (VBIEDs). Designers should respond in terms of CPNI advice, which lists five main types of vehicle-borne attack:

- Parked vehicles – unscreened vehicles underneath or adjacent to a target
- Encroachment – incomplete or incorrectly spaced countermeasures
- Penetrative attack – using a vehicle to ram or breach a perimeter or target
- Deception – stolen or cloned ID, verbal deception or disguised vehicle
- Duress – imposed upon the driver of a vehicle or the guard protecting a control point
- Layered attack scenario – a combination of the above

4.10.3.6 Where it is required, HVM must be designed to prevent unscreened vehicles approaching within a specified blast stand-off distance of the target. Designers must be aware that controlled vehicle access may cover significant areas, especially:

- Where clusters of targets exist
- If this helps in the management or integration of the HVM measures in the urban environment.

4.10.3.7 Design teams should seek to utilise a layered approach to HVM strategy to establish a hierarchy of access control. This can achieve differing levels of security depending upon the threat level at the time. A layered approach is likely to extend to the wider district, and may also protect specific assets (people, buildings, locations or equipment).

4.10.3.8 A layered approach may include ‘traffic calming’ measures to restrict the speed or line of attack of a hostile vehicle.

4.10.3.9 Design teams must demonstrate that overt HVM VSBs (bollards etc.) and integral VSBs (planters, walls, furniture etc.) are visually compatible and coherent with other nearby street furniture in terms of:

- Material, finish, colour
- Location and alignment
- Form and overall design aesthetic

4.11 DELIVERY AND MAINTENANCE

4.11.1 CONSTRUCTION OBJECTIVES

4.11.1.1 London is constantly redeveloping, renewing and replacing its building stock and construction impacts are well understood. However, the construction activity in NESB is much more comprehensive than any other recent initiative in London. During this long, phased construction the safety, quality, and perception of the public realm will be crucial in ensuring that completed developments are well integrated, functional and that they obtain the value that developers expect.

4.11.1.2 While works continue developers will need to consider how construction activity and closed sites can:

- Avoid isolation of communities from amenities and transport
- Treat temporary boundaries and barriers
- Be used to promote NESB and develop its identity through temporary landscape, artworks hoardings and interfaces
- Deal with temporary access arrangements
- Use temporary landscapes to activate sites awaiting development, boundaries
- Promote early completion of public realm and strategic routes
- Accommodate events such as exhibitions, markets, shows and concerts
- Communicate with nearby residents and businesses
- Minimise nuisance – especially dust, mud and noise

4.11.2 CONTEXT AND REFERENCES

4.11.2.1 Legislation and guidance on the many aspects of pollution, noise and nuisance control is supplemented by initiatives such as the Considerate Constructors Scheme (CCS). CCS sets out principles, a points scoring system for compliance, monitoring and an awards scheme for contractors.

4.11.2.2 Construction management plans must detail the control and routing of construction accesses and traffic in association with the Local Planning Authority and TfL where impacting on TLRN routes.

4.11.2.3 Anticipated phasing plans in Section 2.7 provide a guide to the anticipated completion of residential developments. These are intended to help in assessing where long-lived and prominent boundaries exist, where and when completed residential development may exist alongside vacant or construction sites

4.11.2.4 Design teams should ensure they are familiar with the content of any Environmental Assessment for their development, and ensure that design proposals can be implemented in accordance with the mitigation described. Designers should seek means of addressing impacts through design and programming, temporary public realm, enhanced hoardings, or changes in construction management.

4.11.3 CONSIDERATE CONSTRUCTORS

4.11.3.1 Though the Considerate Constructors Scheme (CCS) is aimed at contractors, the principles can be applied by designers to help eliminate, reduce, inform and control construction impacts. The core principles are:

- Considerate: Everyone affected by the project should be advised before work starts. Nuisance caused by deliveries, traffic and parking should be minimised. Diversions should be clearly signed with special attention paid to the needs of traders and those with sight, hearing and mobility difficulties.
- Environment: The potential environmental and ecological effects of site operations should be identified and evaluated, with appropriate action taken to minimise all forms of pollution. Every effort should be made to reduce, reuse and recycle waste. Materials should be obtained from sustainable sources, and local resources used where possible. The site should make a positive contribution to the natural environment.
- Appearance: The site should be doing all it can to create an image of which the industry can be proud. The site perimeter, the offices and all welfare facilities should be clean, tidy and well presented, and all materials stored neatly. Waste, rubbish and litter should not be allowed to accumulate. Dusty operations should be managed to prevent any inconvenience. Damage caused by graffiti should be repaired quickly.
- Good Neighbour: The site should have a positive influence on the local community. The site manager should interact pro-actively with residents, businesses, schools, etc throughout the project to inform them about site activity and to pre-empt and avoid complaints. Any complaint should be logged and handled positively to achieve a satisfactory outcome for all concerned.
- Respectful: Everyone on site should help to create a positive image and maintain respectable and safe standards of dress and behaviour. Improper conduct and language should be subject to severe disciplinary action. Pride in the management and appearance of the site, its temporary facilities and the surrounding area should be shown at all times.
- Safety: Systems should be in place so that construction work is carried out with care and consideration for the safety of the public as well as for those visiting and working on site. No site should be a security risk to others.
- Responsible: Considerate Constructors should be aware of their obligations to personnel, act in a professional and conscientious manner, and play a part in the development of the industry's future workforce.

- Accountable: The site manager should promote the Scheme's aim of 'improving the image of construction'. Everyone associated with the site should understand and comply with the Site Code of Considerate Practice. The training and development needs for all on site should be identified and addressed.

4.11.3.2 Public realm design teams should demonstrate how the design of public realm addresses the application of the CCS principles during the construction phase.

4.11.4 CONSTRUCTION SITE SAFETY

4.11.4.1 Strict adherence to best practice in construction site safety and management is, a requirement of all building sites. Almost all design and construction work is covered by the Construction (Design and Management) Regulations (2007) which are due to be updated in 2014-15. The risk control hierarchy acronym ERIC (Eliminate, Reduce, Inform, Control) process must be applied rigorously to all public realm design and management. A Code of Construction Practice should set out the standards and best practice for all significant construction projects, and ongoing maintenance operations. This must consider adjacent public realm and neighbouring developments.

4.11.4.2 Designers and Construction Managers must give full consideration to public access and safety around construction sites – with some developments completed and occupied nearby construction activity continues. Works programmes must demonstrate:

- How Health and Safety and nuisance (site traffic, dust, noise and pollution) issues are mitigated
- Cleanliness: Contractors must not allow works to adversely affect the cleanliness of the public realm and must provide adequate mitigation measures including wheel washing, and dust suppression where relevant. Any failures to comply must be dealt with by prompt and full remedial action.
- Road safety is addressed in relation to site vehicle movements for pedestrians and cyclists in particular, but also with regard to routes to and from public transport (rail, underground and bus stops) and local amenities (shops, schools, parks, play areas, Thames Path etc.)
- How site boundaries are phased and constructed, and how they address personal safety (which typically offer minimal passive surveillance especially during hours of darkness) and visual character (do public routes 'feel' safe to use).
- Configuration of site hoardings - open to the street. Covered (overhead) hoardings encourage street crime
- How construction works impact access for people of different ages and abilities.

4.11.4.3 Road traffic safety must always be considered in the areas around building sites as part of normal site management practices. All necessary approvals will be required for entrances, diversions, closures and highway work.

4.11.4.4 Risk assessments must consider the risks to pedestrians and cyclists using the roads and especially in hours of darkness and in poor weather. Emergency access, safe crossing points, direct routes and good forward visibility are essential.

4.11.4.5 Consideration must be given to site vehicles' routes to and from site – particularly with regard to minimising potential conflicts at junctions, and especially to the safety of cyclists.

4.11.5 TEMPORARY PUBLIC REALM

4.11.5.1 Public realm designers and developers should seek opportunities to positively activate areas which are awaiting development, for environmental, social or economic benefit. Temporary landscapes, habitats, events, exhibitions, markets and fairs can help engage the local and wider community and build the profile of NESB as a new and vibrant quarter of London.

4.11.5.2 Short-term pavement surfaces must meet the requirements for a solid, stable surface for accessibility, but may be of a lesser or temporary specification where later construction work is programmed.

4.11.5.3 Temporary materials should be reusable or recyclable wherever feasible.

4.11.5.4 Where Macadam base courses are used as a temporary surface for a period of more than 4 months, Consideration should be given to applying a bonded aggregate top-dressing (preferably with vegetable-based binder) to improve the visual amenity.

4.11.6 CONNECTIVITY

4.11.6.1 Designers should seek opportunities to improve permeability and establish safe pedestrian and cycle connections through the phased completion of sites. In some cases this could mean temporary opening or closure of routes in order to focus limited footfall onto safer and better activated routes. Diversions and temporary routes must be agreed in liaison with the Borough, police and in some cases TfL. Wherever possible, hoardings should be avoided on both sides of a road for reasons of overlooking and personal safety.

4.11.7 HOARDING LINES AND FOOTWAYS

4.11.7.1 Hoarding set-backs may be used to facilitate temporary planting which may include annual and 'meadow' planting, trees and shrubs in moveable planters, instant hedging, or climbing plants. Planting can be combined with hoarding artwork to create illusions of depth and greenery. Planted hoardings must be managed to be litter-free, regularly maintained and should normally be connected to temporary irrigation.









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4.11.7.2 Wherever possible, hoarding lines should be set-back and utilise permanent or temporary landscape to provide widened footpaths and better forward visibility alongside roads for reasons of comfort and personal safety.

4.11.7.3 Where footpaths are isolated alongside hoardings, or visibility is poor consideration should be given to temporary CCTV and other measures which may reduce potential for crime and increase personal safety.

4.11.8 PLANTING TO MITIGATE NUISANCE

4.11.8.1 Research, including Defra's Atmosphere and Local Environment Programme, has identified different ways in which planting responds to dust and gaseous pollutants. Research from Southampton University (2011) and Lancaster University (2013) has attempted to quantify the impacts of trees on airborne pollutants through modelling and field testing.

4.11.8.2 Trees have been shown very effective in removing particulates (PM1, PM2.5 and PM10), trapping them on leaf surfaces before being washed off in rain. Field trial evidence published in 2013 indicated that even a new planting of young birch trees placed between a busy highway and housing reduced PM10 concentrations inside houses by over 50% through a process of magnetic remanence. Birch and alder have been found to be particularly successful due to combinations of leaf biology, small leaf size and high leaf area. Pine offers the benefit of adding evergreen winter-period filtration.

4.11.8.3 Public realm design teams should demonstrate they have considered, and where applicable implemented strategies for mitigating and ameliorating urban air quality issues in both Construction and Occupation phases of developments. Strategies should consider their own developments but also, where applicable, dust and noise caused to neighbouring areas.

4.11.8.4 Planting and playing water can also help reduce the perception of nuisance, such as intrusive noise. The urban soundscape can be further enhanced by promoting habitat for songbirds, such as robins and blackbirds. The benefits to mental well-being of a natural soundscape are well documented.

4.11.8.5 Design teams should demonstrate means of acoustic attenuation where construction, road traffic, plant or other sources of temporary or permanent noise will cause nuisance or reduce quality of life within the public realm. Attenuation should be supplemented by perceptual techniques, in outdoor areas adversely affected by noise

4.11.9 TEMPORARY BOUNDARY PLANTINGS

4.11.9.1 Planted hoardings, screens and buffer areas can help reduce airborne particulates from building sites and traffic. Measures such as simple, pre-established ivy panels can occupy minimal area, be installed quickly and re-used in different locations throughout a build. Other opportunities include annual and 'meadow' planting, trees and shrubs in moveable planters, instant hedging, and vertical gardens (green walls and climbing plants).

4.11.9.2 Design teams, developers and contractors should consider planted hoardings for long-term site boundaries and prominent public areas. Where deployed, planted hoardings must be connected to an irrigation system and regularly maintained.

4.11.10 ADVANCED PLANTING AND PUBLIC REALM

4.11.10.1 Wherever feasible, developers and designers should seek to establish advanced areas of permanent landscape, public realm, play areas or other amenities that can be early wins for the existing community or visitors.

4.11.10.2 Hoardings designs should seek to provide a degree of visibility of the works to pedestrians through viewing windows, and through regularly updated communications informing of progress.

4.11.11 ARTIST ENGAGEMENT

4.11.11.1 Creative design of temporary boundaries and hoardings can help promote developments and raise awareness and add value to development. Simple measures such as artistic treatment of hoardings have long been used to stimulate interest, intrigue and delight while also reducing the negative impacts on everyday users.

4.11.11.2 Design Teams should consider the opportunities for artist contributions to temporary site hoardings in prominent or long-lived locations as part of a rolling programme of art, consultation and communication. Further guidance is given in sections regarding Cultural and Arts strategy.

4.11.12 MANAGEMENT OBJECTIVES

4.11.12.1 Good management and maintenance is essential to the success of public realm and landscape. High maintenance standards are mirrored by respectful and responsible public use. Conversely an area with the appearance of neglect can become a target for anti-social behaviour, fly-tipping and graffiti.

4.11.12.2 The overriding objective is therefore to ensure a virtuous cycle where good standards of cleaning, maintenance and upkeep lead to responsible use, which requires less intensive maintenance.

4.11.12.3 Management should pro-actively facilitate use and activity within the Public Realm. This is particularly so for the principal spaces such as Battersea Power Station Park, Nine Elms Linear Park and Vauxhall Pleasure Gardens. Cultural, arts, and socials events should be promoted as an aid to the economic and cultural development of NESB as a vibrant new London quarter.

4.11.12.4 Building servicing strategies must be aligned with public realm management – with deliveries and waste collection carefully designed-in and controlled so as not to impact on public realm management objectives.

4.11.12.5 Boroughs may require commuted sums from developers for the upkeep of materials that are within their demise and that are non-standard or higher quality than the Borough standard. The sum would be expected to cover the uplift in whole life cost for maintenance and replacement.

4.11.12.6 In order for reinstatement works to be carried out quickly and efficiently, it is likely that developers and, where relevant, the Highway Authority will need to maintain stocks of original paving materials. The funding of this requirement for publicly adopted areas is likely to be included within either a Section 278 Agreement or commuted sum.

4.11.13 GENERAL MANAGEMENT PRINCIPLES

4.11.13.1 It is vital that responsibilities, processes and budgets are clearly established and understood for every area. Where appropriate, common management organisations and standards should be established to ensure mutual benefit of adjacent landowners and protect each property's investment in the public realm. In all privately and collectively managed areas regular litter picking, cleaning and sweeping are minimum requisites for paved areas, with common standards for response times for repairs, removal of graffiti and other incidents.

4.11.13.2 Clarity of demise lines between public, communal and private areas is essential, with special attention given to maintaining these edges and interfaces. Landscape interfaces which are of value to the public or community should be in public or communal management. This applies particularly to front gardens where poorly maintained front gardens can ruin the continuity and appearance of an entire building frontage.

4.11.13.3 Management of public realm should, where appropriate and practical, be handled by a common agency setup by, and answerable to, a collective of developers. Management costs should be shared equitably and common standards established for cleaning, maintenance and repairs. Standards should include qualitative targets and response times.

4.11.13.4 Management Plans should ensure all areas are clearly identified and identifiable as either:

- Public
- Communal
- Private

4.11.13.5 Responsibilities and liabilities for all areas must be clearly communicated to the responsible parties.

4.11.14 MANAGEMENT OF THE LINEAR PARK

4.11.14.1 A collaborative approach to public realm and landscape management could be expected to be mutually beneficial to developers and users by ensuring both cost-effective management and increased value through the additional footfall that high quality public realm brings.

4.11.14.2 For the Nine Elms Linear Park, it is intended that a "Park Co" is formed as a company limited by guarantee with members representing the principal landowners. It is envisaged that other locations such as the 'Vauxhall Missing Link' and the Thames Path initiative may benefit from similar management arrangements.

4.11.14.3 Each member would have the right to appoint a director to the board of the Park Co. A nominated individual from London Borough of Wandsworth (Chief Executive/Leader) may also be appointed as an observer.

4.11.14.4 The phasing of the Linear Park adds complexity to the process of developing cohesive management strategies. The emerging management strategy for the Linear Park will therefore need to acknowledge that some sections of the park will be complete ahead of the whole. Phased completion will necessitate the establishment of individual management companies to run common parts of the park (and or developments) ahead of other land owners.

4.11.14.5 The Park Co would devise a strategy for on-going management and maintenance of the public areas of the park (i.e. those parts of the park that are fully accessible to the public at all times) and offer strategic direction and guidance to the developers around each of their individual management companies ("Man Co") where it directly relates to communal or private open space where it abuts the park. The Park Co will ensure that there is consistency of management and "look and feel" of the park across the ownership boundaries.

4.11.14.6 The Park Co will establish a series of management functions based on the following essential management services where there are benefits from economies of scale throughout the public areas:

- Grass cutting
- Weed control
- Tree maintenance
- Hedge cutting
- Litter collection
- Street and pavement cleaning
- Security
- Wildlife habitats
- Ponds and water courses, including SUDS
- Tree works
- Resurfacing footpaths and cycle lanes
- Replacement planting
- Street furniture
- Play areas









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