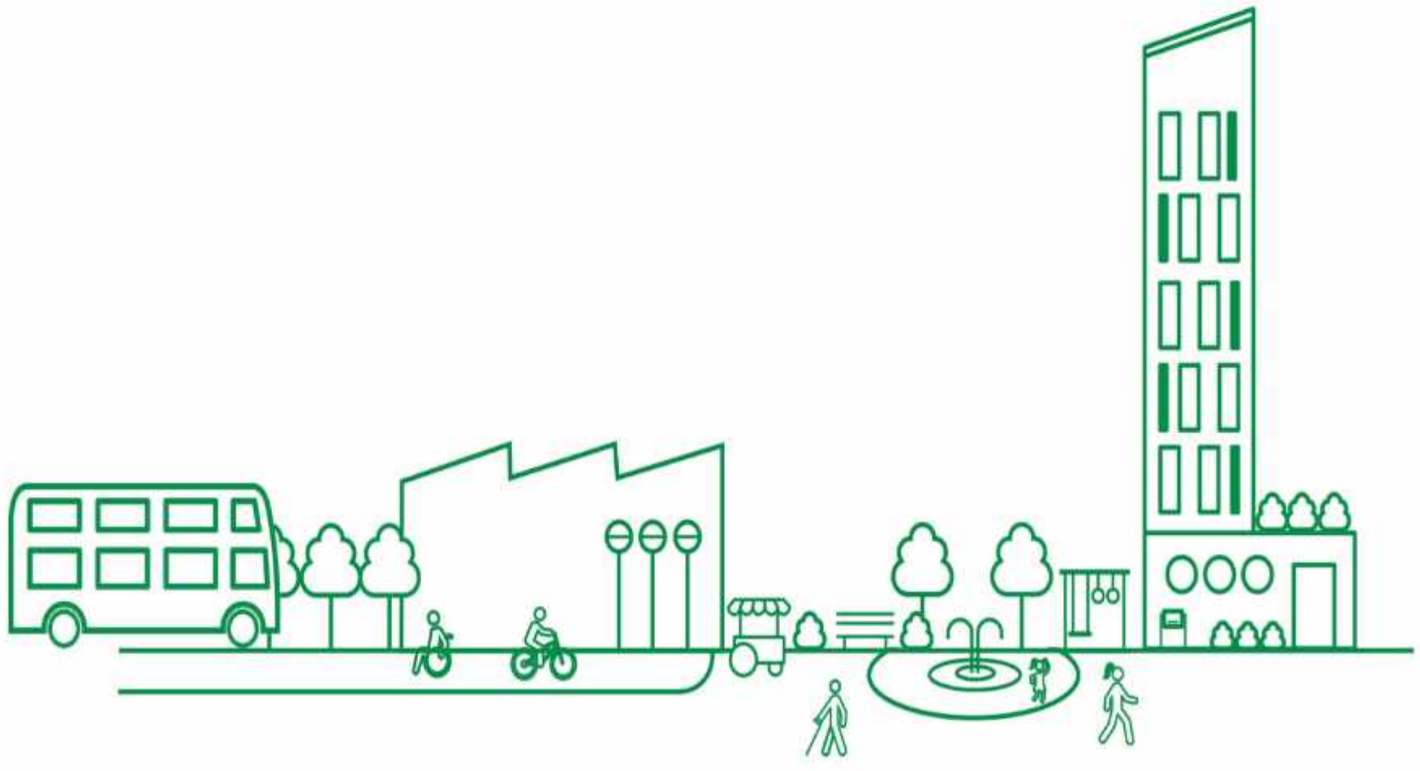
OPDC
OLD OAK AND
PARK ROYAL
DEVELOPMENT
CORPORATION

Public Realm and Green Infrastructure

Supplementary Planning Document

13 June 2024



MAYOR OF LONDON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Contents

0 Consultation information

What are you consulting on?

0.1. We are consulting on our draft Public Realm and Green Infrastructure SPD. The SPD is a planning document that provides more detailed guidance to our Local Plan policies that relate to Public Realm and Green Infrastructure across the OPDC area.

When is the consultation being carried out?

0.2. Public consultation runs from 1st February 2024 to midnight 14th March 2024.

What area does the Public Realm and Green Infrastructure SPD cover?

0.3. It will provide planning guidance for the whole of OPDC area.

How and where can I find out more?

0.4. All the consultation documents can be read and downloaded from our consultation website consult.opdc.london.gov.uk/prgi_spd . Paper copies can also be viewed at the following locations:

- OPDC Offices, 1st Floor, Brent Civic Centre, HA9 0FJ
- Wembley Library, Brent Civic Centre, HA9 0FJ
- Harlesden Library, 49A Craven Park Road, NW10 8SE
- Brent Hub Community Enterprise Centre, 6 Hillside, NW10 8BN
- The Collective Old Oak, Nash House, Old Oak Lane London NW10 6FF

0.5. Paper copies can be made available on request by contacting OPDC using the below contact details.

0.6. We can also provide copies of consultation documents in different languages and/or Braille. Please get in contact and we'll be happy to help.

How can I respond?

0.7. You can respond via a number of ways by:

- email to: planningpolicy@opdc.london.gov.uk
- at: consult.opdc.london.gov.uk/prgi_spd
- post to: PRGI SPD Consultation, Old Oak and Park Royal Development Corporation, 32 Engineers Way, Wembley, HA9 0FJ.

What happens to my response?

0.8. All responses will be considered by OPDC planning officers to help shape the final version of the Public Realm and Green Infrastructure SPD.

0.9. We will publish each individual comment and provide a specific officer response to each comment setting out whether or not it has resulted in a change to the SPD and the reasoning for the officer response. These will be published in a table within a Statement of Consultation and presented to both OPDC's Planning Committee and OPDC's Board for consideration in adopting the SPD.

0.10. It is envisaged that OPDC's Board will consider the SPD for adoption in later 2024.

1. Introduction

1 Introduction

Why is an SPD for public realm and green infrastructure needed?

1.1. High quality public realm and green infrastructure can deliver a multitude of benefits to people and nature and are critical components to the regeneration of Old Oak and Park Royal. They can help to improve people's mental and physical health and well-being, support and encourage active travel, reduce Urban Heat Island Effect, manage flooding and water run-off, improve microclimate, support climate change resilience, improve ecology through the diversity of flora and fauna, improve social value, social cohesion and sense of place.

1.2. The Old Oak and Park Royal Development Corporation (OPDC) is committed to transforming the Old Oak and Park Royal area into a welcoming, sustainable, green and inclusive high-density area with new and improved public realm and open spaces.

1.3. Plans for redevelopment in Old Oak and Park Royal present a unique opportunity to undertake a comprehensive approach to protecting, improving, delivering and connecting the natural environment. This approach will provide multiple benefits and diverse functionality for the local residential and business communities and to those visiting by enhancing built up areas, the Grand Union Canal, railway and other ecological corridors and open spaces. Enhanced connectivity and public open spaces that serve users through equitable design, will increase usability and safety, support health and well-being, add value to our green spaces and contribute towards climate resilience.

1.4. OPDC's Local Plan provides policies to deliver an urban environment that offers a high-quality public realm and green infrastructure. This Supplementary Planning Document (SPD) sets out detailed guidance to supplement Local Plan policies by providing principles and ambitions to achieve a coherent and high-quality response to the design and delivery of public realm and green infrastructure across the Old Oak and Park Royal area.

1.5. This approach will also encourage conformity at an early stage to inform development proposals thereby improving resilience and supporting local, Mayoral and national targets.

What is OPDC's Equity, Diversity and Inclusion Strategy?

1.6. OPDC has prepared an Equity, Diversity and Inclusion (EDI) Strategy which identifies, prioritises, enables and champions equitable and inclusive opportunities for everyone regardless of background, race, age, gender identity, gender expression, sexual orientation or ability. OPDC's EDI Strategy is about striving for equity, both within our organisation, the places we shape and with the communities we work with. The strategy looks at how OPDC can strive for equity in two areas: through our internal processes and through our external touchpoints. This combination of internal and external actions aims to create an enhanced understanding, targeted actions and further improvements.

1.7. Related to Public Realm and Green Infrastructure SPD, the strategy aims to ensure that the area's regeneration is accessible and inclusive which helps to create a more level playing field, presenting opportunities that enable everyone to flourish. OPDC has legal obligations related to EDI and the strategy sets out what actions OPDC is planning to undertake. This can be achieved through increasing understanding of our communities, champion and celebrate the area's rich diversity, ensure diverse and inclusive representation and plan for a welcoming, inclusive place.

1.8. Applicants should consider equity, diversity and inclusion throughout all the stages of the design and development process. Key EDI considerations that OPDC have identified whilst preparing the PRGI SPD are set out under relevant typologies and the accompanying EDI Statement.

What is Public Realm?

1.9. OPDC's Local Plan defines public realm as the space between and within buildings that is publicly accessible, including streets, squares, forecourts, parks and open spaces. Public Realm can be publicly or privately owned.

1.10. OPDC has developed a 'Street Family' that sets out a hierarchy of movement routes considering transport and place-based elements. This is based on Transport for London's Street Family and informed by local place and transport functions of streets. The Street Family is set out in Table 1. Generally, Transport for London (TfL) are the highway authority for primary streets, whereas the host boroughs of Brent, Ealing and Hammersmith and Fulham are the highways authority for all other streets.[1][3]

Table 1 OPDC Street Family

Street type	Definition
Primary Streets	Primary Streets support the flow of vehicular traffic including freight, give priority to buses where appropriate, address severance, mitigate the noise, air and vibration pollution on adjacent communities and deliver walking and cycling routes separated from carriageways by green infrastructure. There are two Primary Streets in the OPDC area, the A40 (Western Avenue) and A406 (North Circular).
Secondary Streets	Secondary Streets provide high quality routes for all modes of transport travelling medium and short distance journeys, giving priority to buses, walking and cycling where appropriate. Framed by active and positive frontages these routes provide coordinated green infrastructure and street furniture with the segregation of walking and cycling routes where possible. On-street car parking is provided along quieter locations.
Local Streets	Local Streets outside of Strategic Industrial Locations (SIL) provide quiet, green and sensitively lit spaces for play and enjoyment. Routes for walking and cycling are integrated into the design of streets alongside routes for lower levels of traffic at low speeds. There may be some restrictions on general vehicle traffic. Examples include future streets in Channel Gate and streets in existing residential neighbourhoods. Local Streets within the SIL provide well defined and coordinated routes with access to servicing and limited parking for vehicles alongside safe walking routes and space for cyclists framed by green infrastructure and active frontages. Examples include Steele Road and Disraeli Road.
Town Centre Streets	Town Centre Streets are the hearts of neighbourhoods providing spaces to enjoy and move through. They focus on providing space for town centre and employment uses with active frontages, green open spaces, pedestrians and cyclists while enabling the flow of buses and other vehicular traffic. Examples include Channel Gate Street south of the Grand Union Canal and Old Oak Street.
Local Centre Streets	Local Centre streets are quieter streets fronted by town centre uses providing spaces for these uses to spill out onto the street. These streets connect to Town Centre Streets or within clusters located off secondary streets and may involve restrictions on general vehicle traffic and/or shared surfaces. Examples include streets around the Park Royal neighbourhood centre and Union Way.
Walking and cycling routes	Walking and cycling routes provide space for both modes alongside Linear Open Spaces enabling access to nature for enjoyment and/or visual amenity. Walking and cycling routes, where relevant, are embedded in other typologies.

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What is Green infrastructure?

1.11. OPDC's Local Plan defines green infrastructure as the multifunctional, interdependent network of green and open spaces and green features (e.g., green roofs). It includes blue infrastructure and London's Blue-Ribbon Network but excludes the hard-surfaced public realm. It provides multiple benefits for people and wildlife including flood management; urban cooling; improving physical and mental health; green transport links (walking and cycling routes); ecological resilience, diversity and connectivity; and food growing. Green and open spaces of all sizes can be part of green infrastructure provided they contribute to the functioning of the network as a whole.

1.12. Public open spaces form core parts of OPDC's green infrastructure network. The SPD utilises the London Plan categorisation of public open spaces with the addition of communal and private space. These typologies are set out in Table 2.

What is the structure of the SPD?

1.13. The SPD utilises a typology-based structure and is not spatially specific. For each typology, thematic guidance is provided. This approach seeks to enable the guidance to be updated in the future to reflect emerging planning reforms and the introduction of design codes. The structure as set out below comprise:

- All Public Realm and Open Spaces
- Public Realm:
  - All Public Realm;
  - Primary Streets;
  - Secondary Streets;
  - Local Streets;
  - Town Centre Streets; and
  - Local Centre Streets.
- Open Spaces
  - All Open Spaces (excluding Wormwood Scrubs);
  - Local Parks, Small Open Spaces and Pocket Parks;
  - Linear Open Spaces; and
  - Communal and Private Open Spaces

1.14. The themes comprise:

- **Urban greening and ecology**
- **Heritage, character and design**
- **Movement routes and infrastructure**
- **Equity, Diversity and Inclusion**
- **Microclimate and pollution**
- **Environmental sustainability**

Table 2 Open Space Typology

Open space type	Definition
Regional, Metropolitan and District Parks	Regional, Metropolitan and District Parks cover an area of more than 20 hectares. These are large areas, corridors or networks of open space with a variety of natural features that are accessible by public transport. They provide facilities offering recreational, ecological, landscape, cultural or green infrastructure benefits. They also provide a wide range of activities, including outdoor sports facilities and playing fields, children's play for different age groups and informal recreation. Wormwood Scrubs is a Metropolitan Open Land. The guidance in this SPD does not apply to Wormwood Scrubs.
Local Parks	Local Parks cover an area of more than 2 hectares and provide space for court games, sitting out areas and nature conservation areas. There is an opportunity to deliver dedicated child play space, informal play space and elements of play for all ages. Examples include the future Old Oak South Local Park and Channel Gate Local Park.
Small Open Spaces and Pocket Parks	Small Open Spaces and Pocket Parks cover an area of under 2 hectares that can include public gardens, sitting out areas, areas of a specialist nature. There is an opportunity to deliver dedicated child play space for 0-5 years, informal play space and passive recreation. Examples include the Wesley Playing Fields and the Oaklands Rise green space.
Linear Open Spaces	These are open spaces and towpaths alongside the Grand Union Canal, paths, railways, nature conservation areas and other routes that provide opportunities for informal recreation and visual amenity. They can often be characterised by elements that are not public open space but that contribute to the enjoyment of the space. Examples include the Grand Union Canal and railway sidings.
Communal and Private Open Spaces	These are Private and Communal Open Spaces in the form of balconies, terraces, gardens and staff amenity spaces. Such spaces provide valuable outside space alongside visual amenity and can function as links to ecological corridors. Where appropriate, such spaces can be publicly accessible from the street.

1.15. Within the themes, guidance and information is set out in the form of:

- **Principles –** Principles provide guidance on things that must be considered in developing proposals.
- **Ambitions –** Ambitions set out more ambitious standards. They are not required in planning policy and will not be a material consideration when determining a planning application but have been provided as guidance to developers seeking to deliver best practice development.
- **Signposts –** Signposts direct readers to other relevant national, London or local guidance. Signposts are provided for Principles and Ambitions relevant to all public realm and/or open space.
- **Supporting text and information –** Supporting text and information are used to expand on and support Principles and Ambitions. It also includes best practice precedents.
- **Illustratiions –** are used to expand on and support Principles and Ambition. The illustrations are diagrammatic and not intended to represent specific planning proposals or sites. They are aiming to convey as much guidance as possible to optimise their usefulness. OPDC notes that individual sites will have different challenges, and any site-specific issues would be considered on a case-by-case basis.

1.16. Where relevant, the SPD also provide specific guidance to support the use of these spaces during the day and night. Cross cutting opportunities to support equity, diversity and inclusion (EDI) outcomes have been considered and embedded throughout the SPD. More information on how OPDC has considered EDI issues can be found in the EDI statement which is published alongside this SPD.

1.17. Principles include common topics which provide guidance through different lenses relevant to the chapter theme and/ or typology. For example, to provide a clear emphasis on EDI considerations, the EDI Principles provide guidance for lighting approaches specifically to meet the needs of different groups while the Design, Character and Heritage Principles provide more general guidance for lighting. There may be overlap between the two but it is important to ensure that lighting is appropriately considered from both perspectives. This is the same for a number of topics.

1.18. The structure is set in figure 1.2.

1 Introduction

Figure 1.2 Public Realm and Green Infrastructure SPD structure

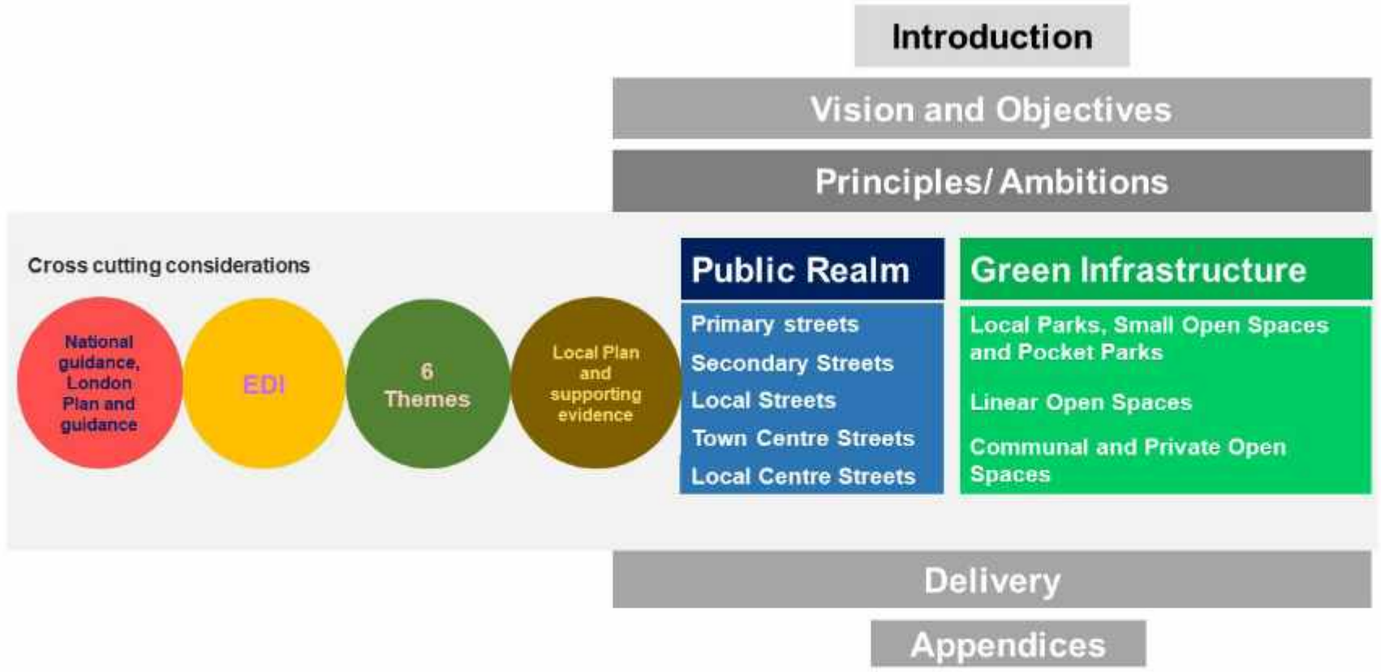

Figure 1.3 Adopted and emerging OPDC SPDs

How should the guidance apply ~~to existing streets~~?

1.19. The PRGI SPD does not cover anything that relates to the development of sites except for on-site public open space, on-site green infrastructure, public realm, communal and private open spaces. The guidance has been developed to apply to both new and existing streets and new and existing open spaces. The guidance applies to all large scale/ major developments. The guidance applies to minor developments and householder applications where biodiversity improvements and water management will be required ~~The guidance has been developed to apply to both new and existing streets~~. Where relevant, guidance recognises the context, opportunities and constraints of existing streets to provide a degree of flexibility. Where appropriate, OPDC will use Section 106 and Community Infrastructure Levy contributions towards the upgrade of existing streets in line with the guidance. (1/5, 1/6, 1/10)

Does this SPD apply to Wormwood Scrubs?

1.20. The guidance in this SPD does not apply to Wormwood Scrubs. As a Metropolitan Park and Metropolitan Open Land, Wormwood Scrubs benefits from existing policies within OPDC's Local Plan. Please see Local Plan Policy P12 for further information.

How does this SPD relate to other OPDC Supplementary Planning Documents?

1.21. ~~The PRGI SPD does not cover anything that relates to the development of sites except for on-site public open space, on-site green infrastructure, public realm, communal and private open spaces~~. The full suite of adopted and emerging SPDs is depicted in Figure 1.3. (1/5, 1/10)

- **Industrial SPD –** The Industrial SPD provides guidance for industrial development within and outside of Strategic Industrial Locations, including the design of industrial yards and forecourts which this SPD aligns with. For industrial proposals, both SPDs should be utilised.
- **Draft Old Oak West SPD –** OPDC is developing the Old Oak West SPD to provide spatially specific guidance for the Old Oak West area. This includes spatially specific guidance for open spaces and streets that reflects Local Plan policies and suggestions from the local community. For proposals in Old Oak West, both SPDs should be utilised.
- **Draft Revised Planning Obligations SPD –** the Planning Obligations SPD also provides detailed information on how OPDC will negotiate and secure delivery of and/or contributions. OPDC is revising the Planning Obligations SPD in light of the forthcoming adoption of a Community Infrastructure Levy.

What studies support the SPD?

- **Biodiversity and Urban Greening Strategy –** This provides supporting information and recommendations for how biodiversity and green infrastructure should inform the design of new buildings and public realm improvements in OPDC.
- **Landscape Primer –**This sets out the landscape vision for Old Oak and surrounding areas.
- **Landscape Strategy –**This takes a holistic view of the local landscape character, this establishes a set of common approaches for framing landscape development within the OPDC area.
- **Canal Placemaking Strategy –**This provides a strategic framework to support the creation of an active canal and how to make the best use of the canal's unique character.

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- **Equity, Diversity and Inclusion Statement –** This sets out how Equity, Diversity and Inclusion (EDI) considerations have been used to inform the production of the SPD.

What is the status of the SPD?

Legal status

1.22. The Public Realm and Green Infrastructure SPD is a Supplementary Planning Document. Part 5 of the Town and Country Planning (Local Planning) (England) Regulations 2012 ("the Regulations") sets out the procedure for the production of SPDs. This version of the SPD constitutes the consultation version required to be carried out under Regulation 12 of Part 5 of the Regulations.

Guidance status

1.23. The guidance in this SPD is a material consideration for the determination of planning applications alongside relevant policies in the OPDC Local Plan, the National Planning Policy Framework (NPPF), the London Plan, the West London Waste Plan, any 'made' neighbourhood plans and any other supplementary guidance. The SPD should be read in conjunction with these documents.

1.24. OPDC recognises that it might be more challenging to meet elements of the SPD guidance in certain circumstances, such as when proposals are responding to specific site issues and context (i.e., site size, configuration etc) and balancing different objectives outlined within Principles. Each site is different, and proposals will be judged on a case-by-case basis. To assess this, it will be important for applicants to clearly set out the site opportunities and constraints; provide information to demonstrate compliance with relevant planning policies, having regard to guidance in this SPD; communicate how this has informed the development proposal; and early engagement with OPDC is encouraged.

1.25. The SPD does not repeat policies or guidance within the NPPF, London Plan, Local Plan, West London Waste Plan or other SPDs. Therefore, this SPD should be read in conjunction with these other documents.

1.26. The guidance in the SPD is consistent with the NPPF and does not conflict with the policies in the London Plan or OPDC's Local Plan.

What period does the SPD cover?

1.27. The time period for the SPD is the same as OPDC's Local Plan period. This provides guidance for between 2018 and 2038.

2. Context overview

2 Context overview

Strategic context

2.1. The Old Oak and Park Royal Development Corporation (OPDC) was established by the Mayor of London on 1 April 2015. OPDC's aim is to ensure that the maximum benefits for London are achieved through the once in a generation opportunity presented by the development of a major new transport hub which will connect the Elizabeth Line with High Speed 2 and national rail services. The OPDC area covers the Old Oak and Park Royal Opportunity Area in the Mayor's London Plan (2021), which identifies the area as having the capacity to deliver a minimum 25,500 homes and 55,000 jobs, making it one of the largest regeneration projects in the UK.

2.2. Upon its establishment as a Mayoral Development Corporation, the OPDC also became the Local Planning Authority for its area, giving it responsibility for planning decisions, planning enforcement, the preparation of a Local Plan, Supplementary Planning Documents (SPDs), heritage guidance and the introduction of a Community Infrastructure Levy (CIL).

Local context

Heritage context

2.3. The area has a rich heritage including the identification of 64 Locally Listed assets and 1 Statutory Listed asset.

Socio-economic

2.4. In OPDC, 57% of the Lower Layer Super Output Areas (LSOAs) fall within the top 10% to 30% of most deprived LSOAs. The health of the community in the OPDC region is broadly in line with London average levels, with childhood obesity levels either falling just below or in line and nominally lower than average life expectancy. Access to amenities for the community varies across OPDC; and the lack of provision could affect the competitive position of the area.

2.5. The OPDC area is an ethnically diverse part of London, with a large Black and Asian community (21.7% and 21.5% respectively), with those identifying as White higher at 37.6%. Other ethnic groups, including mixed, account for around 19.3% combined.

2.6. The 2021 census revealed that 60.3% of all adults in a household within the OPDC boundary have English as a main language. 21.2% of households, however, have no adults speaking English as a main language; significantly higher than the London average which sits at just over 5%.

Environmental

2.7. The area today suffers from fragmented ecological networks, poor legibility and permeability of routes for walking and cycling, created by barriers such as rail and road corridors. The existing infrastructure and the phasing of development create long-term challenges in integrating the OPDC area with surrounding neighbourhoods.

2.8. The existing roads and railways create significant barriers for people walking and cycling. There are heavily trafficked and congested highways due to the high volume of through-traffic, on street parking and insufficient off-site servicing. Local Air Quality Focus Areas have been identified around A406.

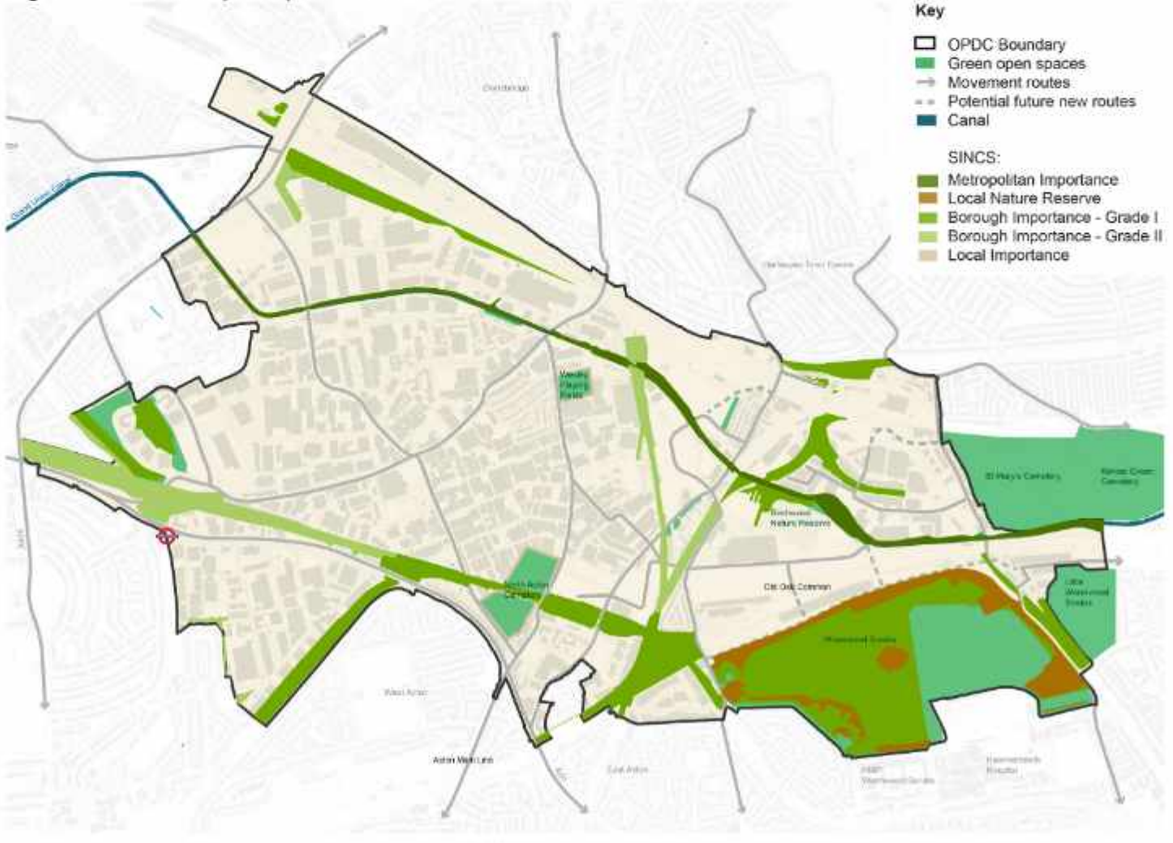
2.9. The OPDC area is covered by safeguarding zones associated with RAF Northolt, specifically aerodrome height and a bird strike safeguarding zone.

2.10. The area's main risk of flooding is from surface water.

2.11. OPDC hosts a number of Sites of Importance for Nature Conservation (SINC) which include the Grand Union Canal (Metropolitan Importance), part of the Wormwood Scrubs (Borough Importance- Grade I and Local Nature Reserve), Birchwood Nature Reserve and Diageo Lake (Borough Importance- Grade I), Railway line sidings (Borough Importance- Grade I and II) Wesley Playing Fields and the North Acton Cemetery (Local Importance) and other smaller local green assets.

2.12. Designated sites within Old Oak and Park Royal comprise a rich matrix of habitat, flora and fauna. Wormwood Scrubs encompasses mature woodland, shrubs, meadows, plants, flower rich grassland and wildlife. The Grand Union Canal is home to protected species, wildlife and plants. Built up areas in OPDC include grassland, hedgerows and trees that provide important habitats for wildlife such as bats and birds. The canal is an important blue and green habitat corridor which provides east-west ecological connectivity to trees, native hedgerows, plants, natural grassland and aquatic invertebrate. The railway corridors encompass the railway lines and associated infrastructure, including active tracks, rail-sidings, line-side, depots and compounds providing undisturbed environs to mature trees, scrubs grassland and wildlife.

Figure 2.1 Green open spaces and SINC in OPDC



2 Context overview

Local Plan Policies

2.13. The key Local Plan policies relating to the delivery of public realm and green infrastructure are set out below. There are also spatial or Place policies and an Infrastructure Delivery Plan that refer to specific opportunities to deliver different types of public realm and green infrastructure in certain areas. Summaries of the key Local Plan policies comprise:

Urban greening and ecology
- Policy SP8 Green infrastructure and open space: Delivery of new and enhanced green infrastructure and open spaces that provide for a range of functions, serving people and nature. Promotes effective and integrated management and maintenance.
- Policy EU1 Open space: Delivery of a high-quality green infrastructure and open space network that enhances the overall quality of the environment.
- Policy EU2 Urban greening and biodiversity: Delivery of an overall increase in green cover and a net gain in biodiversity

Public realm
- Policy D1 Public realm: Delivery of Healthy Streets and a high quality, inclusive, accessible and coordinated multi-functional public realm

Play space
- Policy D8 Play space: Maximise opportunities for high quality multifunctional and dedicated play and informal recreation for all ages.

Movement routes and infrastructure
- Policy SP7: Connecting people and places: Delivery of a highly connected, high quality and efficient transport network, which enhances local and strategic walking, cycling or public transport.
- Policy T1: Roads and streets, Policy T2 Walking, Policy T3 Cycling: Delivery of a new and improved street network that encourages and enables behavior and forms of travel in line with Transport for London's Healthy Streets approach.

Character and design
- Policy SP9 Built environment: Delivery of public realm and green infrastructure of the highest design quality and sustainable manner that positively responds to the local context, heritage and character.
- Policy TCC4: Culture and art: Provision of public art.

Health and wellbeing:
- Policy SP3 Improving health and reducing health inequalities: Enablement of active and healthy lifestyles, improves mental and physical health and wellbeing and reduces health inequalities.

Accessible and inclusive
- Policy D2 Accessible and inclusive design: Delivery of design that meets the requirements of all users at all stages of their lives and contribute positively to removing barriers.

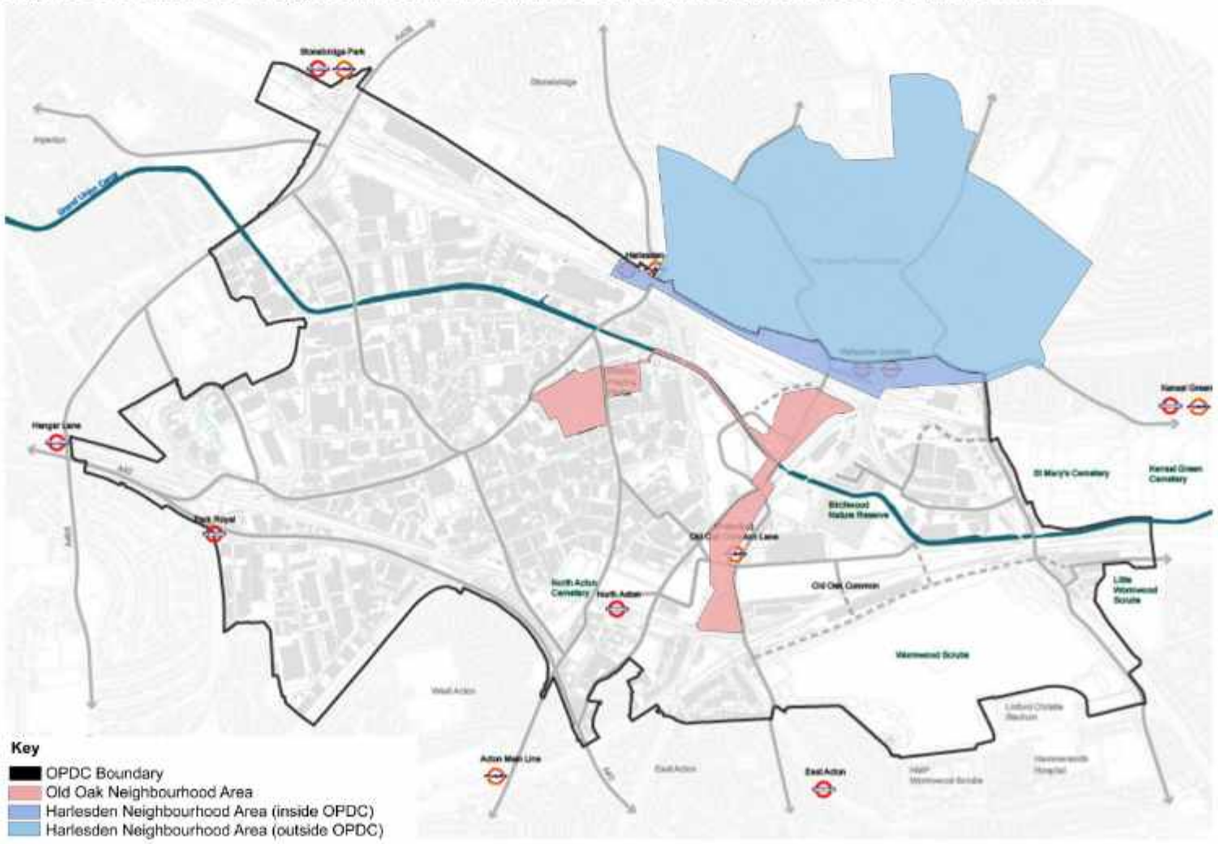
Environmental Sustainability
- Policy EU8 Sustainable materials: Use of high quality, durable and adaptable materials, finishes and details.
- Policy EU3 Water: Management of surface water and attenuation.
- Policy EU4 Air quality: Minimise exposure to pollution in buildings, civic spaces and open spaces.
- Policy D5 Amenity: Maximise the quality and availability of daylight and direct sunlight, minimizing urban heat island effects, mitigating overheating and excessive wind to the public realm and residential private and communal open space.

Neighbourhood plans

2.14. There are two neighbourhood forums in the OPDC's boundary. The Harlesden Neighbourhood Forum (HNF) covers the Harlesden Neighbourhood Area inside OPDC's boundary, and the Old Oak Neighbourhood Forum (OONF) covers the area within the Old Oak Neighbourhood Area, as shown in Figure 2.2.

2.15. The HNF have an adopted Harlesden Neighbourhood Plan (2019-2034) that sets out a vision of how Harlesden can develop and grow over the next fifteen years. The plan sets out to prioritise better transport access and sustainable modes of transport (Policy H2, T1, T3, T4), improving access to public open space and play facilities (Policies E1 and E3) and greening the environment (Policy E8).

Figure 2.2 Harlesden Neighbourhood Area and the Old Oak Neighbourhood Forum (OONF)



2 Context overview

Host boroughs' Local Plan policies summaries

2.16. Our host boroughs' Local Plans set out policies that will shape areas adjacent or near the OPDC boundary.

Brent Local Plan 2022

- Includes policies that seek to provide and improve the quality, accessibility, inclusivity, safety and usability of public realm and deliver a range of publicly accessible open spaces for a range of users;
- Seeks to deliver public open spaces in Alperton Growth Area (directly to the north west boundary) and areas of deficiency in wards such as Alperton, Harlesden & Kensal Green;
- Seeks to improve access points and connections to its waterways and the Grand Union Canal;
- Requires proposals to enhance biodiversity, achieve Urban Greening Factor, increase tree planting and integrate into existing green and blue infrastructure network; and
- Requires delivery of new or improved safe walking and cycling routes, delivery of the Healthy Streets principles, reflect the street hierarchy including accommodating for movement and the street as a place accordingly.

Ealing draft Local Plan 2022

- Includes policies that seek to protect and enhance parks, open spaces, recreation facilities and nature conservation;
- Ensures improved movement network and greater integration of green open spaces and canal network by connecting routes that are safe, accessible, activated, vibrant and inclusive;
- Enhances greening through biodiversity, achieve Urban Greening Factor and public realm greening initiatives; and
- Coordinated public realm improvements with North Acton south of the A40.

Hammersmith and Fulham Local Plan 2018

- Includes policies that seek to protect, enhance and increase provision of parks, public open spaces, recreational facilities for all ages;
- Seeks delivery of open spaces in areas of open space deficiency by improving connections and permeability to Little Wormwood Scrubs and the Grand Union Canal and provide green corridors on Scrubs Lane, Wood Lane and Old Oak Common Lane;
- Enhances greening of streets and the public realm through biodiversity, achieve Urban Greening Factor, increase tree planting and soft landscaping; and
- Holistic approach to design that considers place function, quality public realm, and movement patterns that produce attractive, inclusive, accessible, distinctive and safe areas that meets the needs of all users.

Opportunities and Challenges

2.17. Current challenges and opportunities to address these are set out below:

Public Realm

Challenges:

- Ensuring OPDC takes appropriate steps to identify and engage with groups seldom heard.
- Managing climate change, Urban Heat Island Effect and microclimate such as wind noise and air pollution.
- Providing sufficient space for to connections to existing cycling routes and footpaths
- Safety on movement routes, poor quality crossing environments, reducing severance for pedestrians and cyclists.
- Poor wayfinding, cluttered streets, uncoordinated materials, unnecessary railings and superfluous traffic signage.
- Insufficient space for footpaths and green infrastructure and spill out space for uses.
- Lack of street trees and planting.
- Providing space and infrastructure for electric vehicles and cycles.
- Anti-social behavior and safety.
- Poor or disjointed approach to maintenance.
- Surface water flooding.

Opportunities

- Collaboration and understanding local diversity.
- Resilient and adaptive green infrastructure that mitigates climate change.
- Utilise unused space and ensure adjacent development proposals step back.
- New and improved crossings, well defined junctions, clear space for cyclists and cycle signals where required, use of surface materials to delineate between different transport modes and other uses of the space.
- Use of Legible London wayfinging infrastructure signage and removal of railings and replacement with elements of coordinated positioned street furniture and planting.
- Use of coordinated, easy to maintain materials, tactile paving and dropped kerbs where required.
- Coordinated, obstacle free and inclusive public realm and requiring development to set back and/or align.
- Clear well defined signaled crossings.
- Variety of greening along the streets that serves as a green corridor, buffer between movement routes, improves microclimate, mitigates Urban Heat Island Effect and water management.
- Delivering essential infrastructure that supports movement with other street furniture.
- Improved active frontages, spill out spaces and lighting with regards to any impact on biodiversity.
- Use of planning conditions to secure management and maintenance plans.

Open Spaces

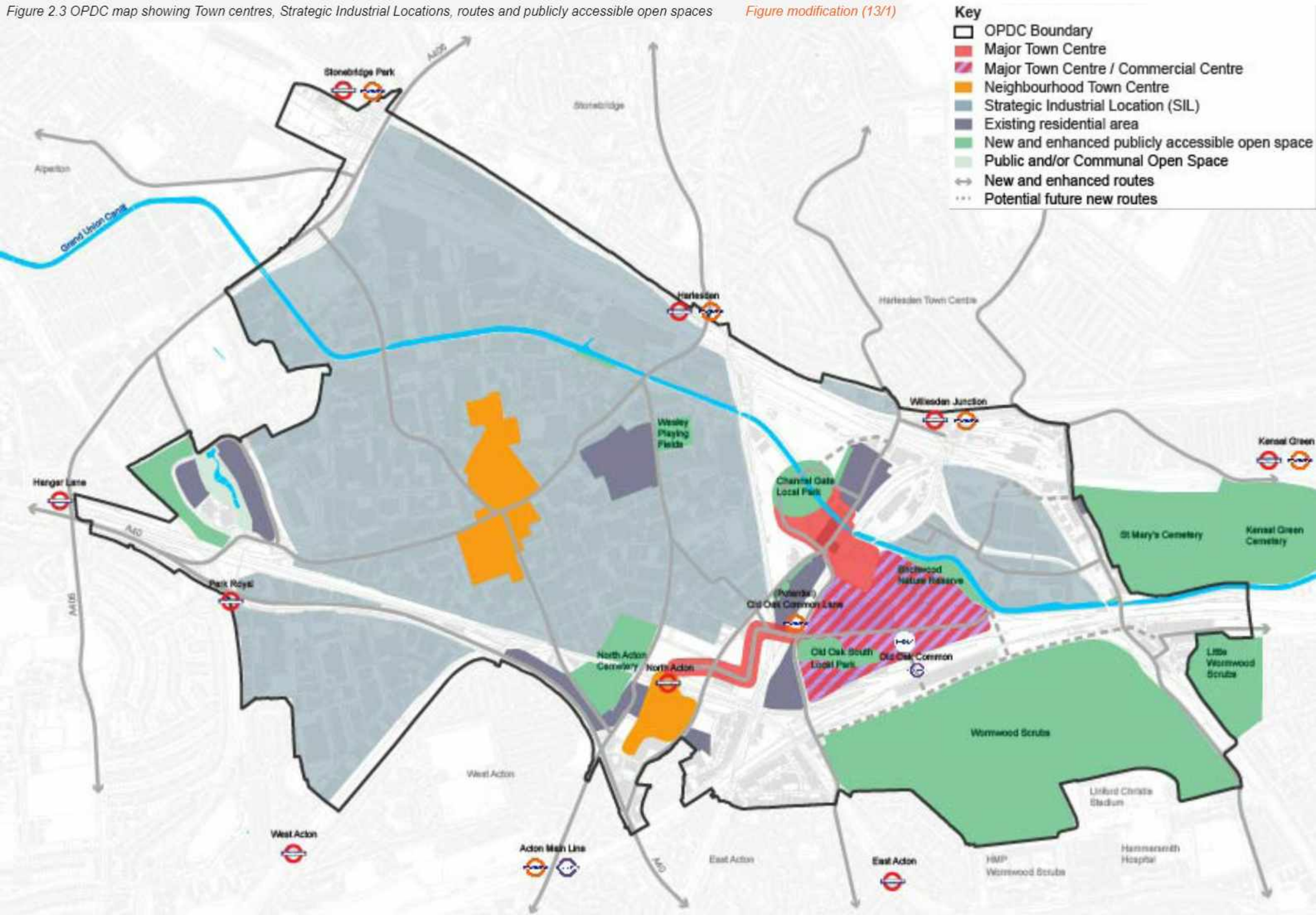
Challenges:

- Poor lighting, anti-social behaviour and safety.
- Management and maintenance of routes and spaces.
- Poor accessibility.
- Limited functionality.
- Lack of diverse open spaces.
- Poor ecological value and fragmented green network.
- Poor management and maintenance.
- Low level of usage and facilities that result in health inequality.
- Undesirable microclimates.

Opportunities

- Improved lighting with regards to any impact on biodiversity.
- Secure management plans with key stakeholders.
- Improved connections and routes.
- Equitable design elements
- Delivering variety of greening that can be used for recreation.
- Secure a diverse ecological network and high-quality open spaces that maximise opportunities to enhance biodiversity.
- Linking up green corridors and contribute to the area wide strategy for green and blue networks.
- Viable open space and landscaping that is easy to maintain and long-term management of green infrastructure and community ownership.
- Improve the quality of public open spaces, ensuring they are inviting and can support physical and mental health and wellbeing.
- Improved conditions including wind speeds, air pollution, light and shade, soils, water and temperature.

Figure 2.3 OPDC map showing Town centres, Strategic Industrial Locations, routes and publicly accessible open spaces *Figure modification (13/1)*



3. Spatial Vision

3 Spatial Vision

Our green streets, public realm and open spaces will weave together diverse industrial and mixed-use neighbourhoods by providing high quality, safe, diverse, equitable and robust spaces for living, working and travelling through for everyone to enjoy day or night. We envision an urban environment that enhances the well-being of our communities, both physically and mentally and promotes a sense of belonging. Green spaces, pedestrian-friendly streets and active transportation options will promote a healthier life for all.

Green infrastructure will be integrated across all streets, spaces and buildings to support enhanced biodiversity, nature recovery and health and well-being. Greening will contribute to climate change adaptation and create comfortable spaces that everyone can enjoy during all weathers.

Day-to-day quality of life will be enhanced for local people by enabling a sense of ownership, empowerment, respect, safety and provision of enhanced access to amenities, services, and open spaces. Our public realm and open spaces will be hubs for social gatherings, community events and activities that nurture social interaction.

Equity is addressed through designing a place that meets the needs of the community that ensures equality of opportunities, use and enjoyment. Providing equitable access, celebrating diversity and inclusivity ensures that our public realm and open spaces cater to the needs of all residents, employees and visitors.

Figure 3.1 Illustration how the spatial vision could be delivered in a mixed-use area

4. Outcomes and objectives

4 Outcomes and objectives

4.1. The key outcomes and objectives related to the delivery of public realm and green infrastructure delivery are set out in Table 3 below:

Table 3 Key outcomes and objectives

Theme	Outcomes	Objectives
Urban greening and ecology	• Green streets and spaces where wildlife can connect, thrive and people can engage with nature.	• Delivering trees and urban greening along all streets and delivering at least 30% of sites' developable areas outside of SIL as publicly accessible open space. • Delivering and meeting GLA/OPDC Urban Greening Factor and Green Points System scores. • Delivering and meeting DEFRA/NE 10% net-gain in biodiversity. • Connecting and plugging gaps between green infrastructure locations.
Heritage, character and design	• Spaces and streets with recognisable coherent identities during and after the completion of development that strengthen and enhance local character.	• Using coordinated, sustainable, durable and characterful materials and elements of design across different mixed-use and industrial character areas reflecting the hierarchy of streets and spaces.
Movement routes & infrastructure	• Safe and legible multi-modal routes and services enabling people to reach their destinations within and outside the OPDC area; and efficient and effective spaces and components to support the functioning of the area.	• Delivering modal routes that prioritise active travel and support the functioning of businesses. • Maximising connectivity within the OPDC area and to destinations outside the OPDC area. • Ensuring streets and routes achieve all Healthy Streets indicators. • Delivering coordinated, well designed and appropriately placed servicing, street furniture and transport related infrastructure.
Equity, diversity and inclusivity (EDI)	• Streets and spaces that everyone can access, use, feel welcome, be safe and enjoy day and night regardless of abilities, ethnicity, needs, beliefs, identities and self-expression; and that can support and promote health and wellbeing. • Streets and spaces that support everyone's mental, emotional and physical health and wellbeing. • Design process that engages with the community to address EDI.	• Ensuring all proposals submit information on how a scheme has considered inclusive design for all protected characteristics as part of Design and Access Statement (see EDI Statement). • Delivering streets and spaces that achieve inclusivity, equitable design and sensitively address any conflicting requirements. • Ensuring streets and spaces meet all Public London Charter principles. • Delivering elements of play across all streets and spaces. • Ensuring health, physical and mental wellbeing is taken into account. • Delivering appropriate shade, shelter, lighting and seating. • Delivering streets and spaces that cater to the needs of the community and add social value.
Microclimate and pollution	• Streets and spaces that provide a healthy and comfortable environment through design.	• Ensuring public realm and open space design contributes to mitigating the impact of microclimate and Urban Heat Island effect to deliver a comfortable environment. • Minimising the sources of pollutants to enable habitats to thrive and provide healthy spaces for people to enjoy.
Environmental Sustainability	• Streets and spaces that not only address and adapt to the impacts of climate change through sustainable design and material choices but also prioritise biodiversity, fostering resilient ecosystems, and strive to minimise the carbon footprint.	• Maximising sustainable urban drainage to mitigate surface water flooding events. • Utilising sustainable and resilient materials. • Implement sustainable design and construction practices to minimise carbon emissions, while enhancing resilience to climate change.
Management and Maintenance	• Well managed and maintained streets and spaces during and after construction phases; and communities engaged in design, delivery and maintenance.	• Supporting plans that involve the community. • Use low maintenance design. • Securing management plans and planning obligations contributions.

5. All Public Realm and Open Spaces

5 All Public Realm and Open Spaces

Introduction

5.1. This chapter sets out principles and ambitions applicable to all the streets and route types comprising the public realm and all types of open spaces depicted in Figures 5.1 and 5.2. The guidance relates to urban greening and ecology, character and design, movement routes and infrastructure, deliver equitable, diverse and inclusive places, microclimate and pollution, sustainability and general management and maintenance requirements.

Figure 5.1 Local Plan proposed open space network *Figure modification (13/1)*

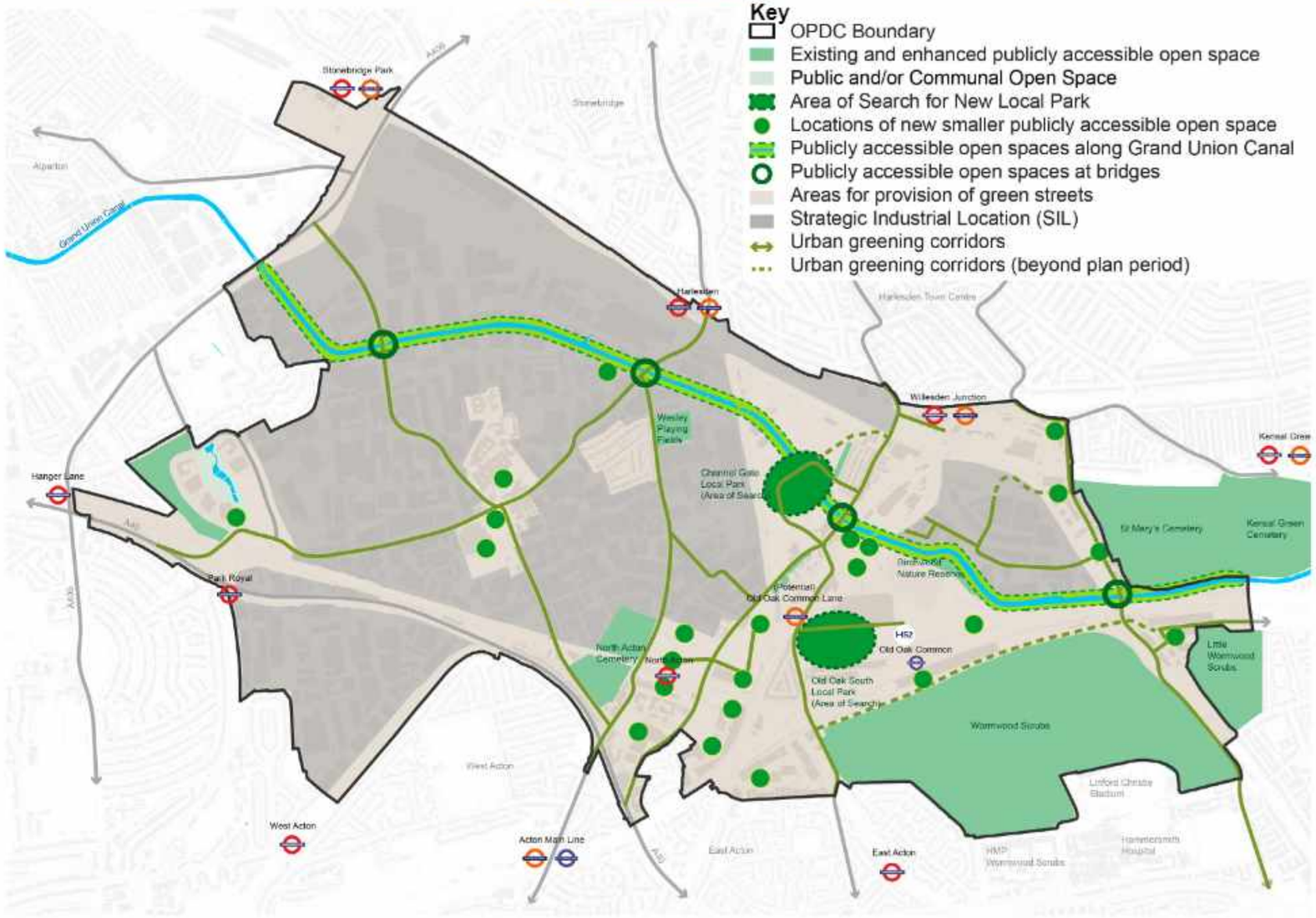
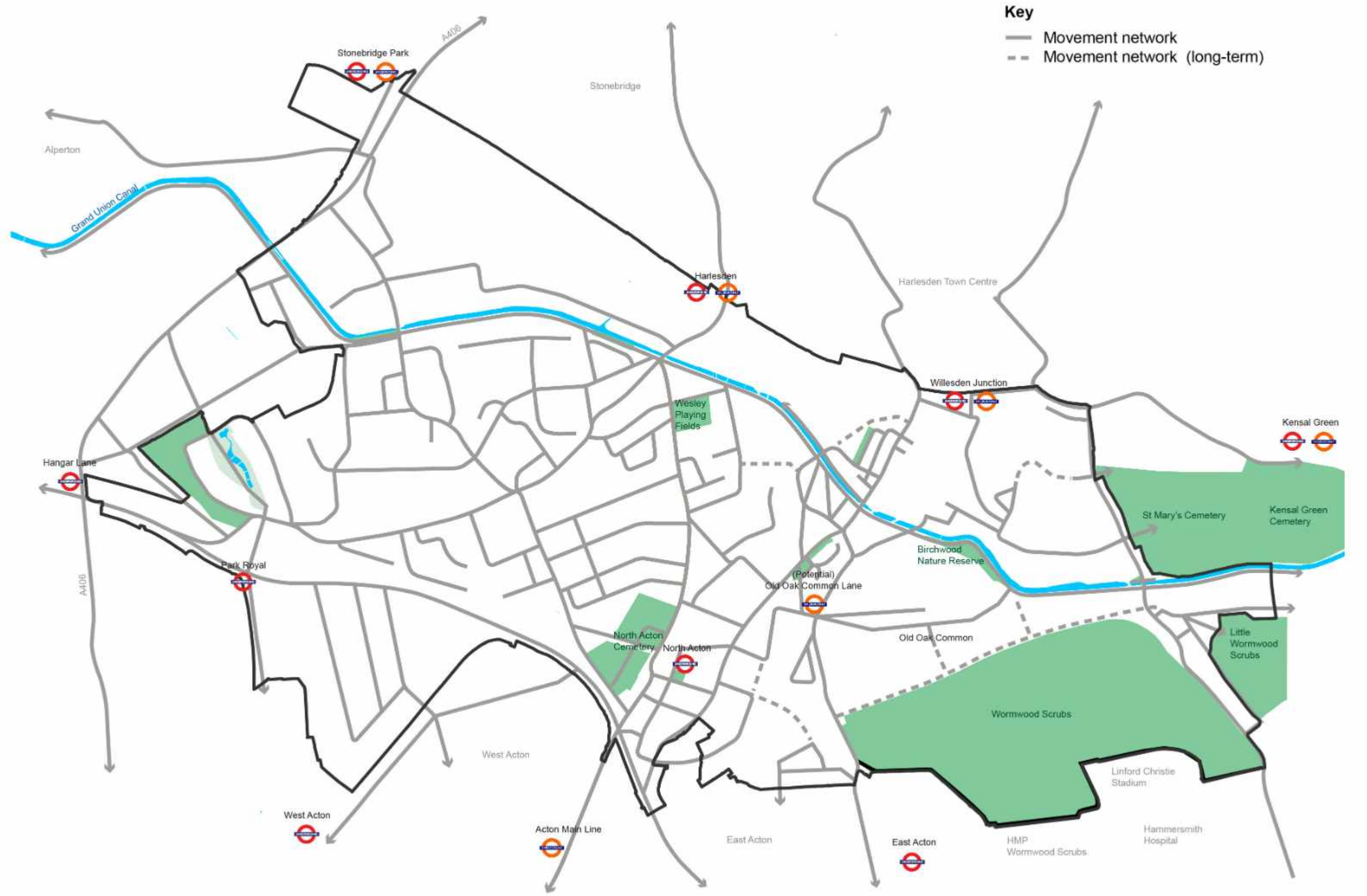


Figure 5.2 Local Plan proposed movement network *Figure modification (4/2, 3/1)*



5 All Public Realm and Open Spaces

Urban Greening and Ecology

Introduction

5.2. This section sets out principles for landscape design, including planting options and species types that can be used to optimise public realm providing functional green infrastructure and achieving net gain in biodiversity.

5.3. The Environment Act, 2021 (the Act), its associated secondary legislation and the Environmental Improvement Plan (also referred to as the EIP23) have built on delivering environmental improvements and strengthened the legal and planning policy framework. This legislation supports the incorporation of environmental improvements throughout the planning process with a goal to *"achieve a growing and resilient network of land, water and sea that is richer in plants and wildlife"*.

5.4. The London Environment Strategy sets out the Major's vision for how biodiversity should be protected and how Londoners are given the opportunity to enjoy and benefit from wildlife. The strategy sets out the opportunity offered by London's green infrastructure and the contribution that it can make to reducing the impacts of climate change, promoting healthier lives and improving biodiversity and ecological resilience. It recognises the value that environmental resources (green space, air, water, wildlife) provide and the role they have in supporting services such as flood protection or cleaner air, that benefit people and the economy.

5.5. The OPDC Biodiversity and Urban Greening Strategy (2020) forms part of the evidence base for this SPD. The Biodiversity and Urban Greening Strategy supports how biodiversity and green infrastructure should inform the design of new buildings and public realm improvements in Old Oak and Park Royal to enhance, protect and maximise opportunities to create a living natural network. The strategy also provides the baseline evidence to support pre-application discussions including consideration of viability, planning, ecology, landscaping and public realm improvements.

5.6. To further support the maximisation of enhancement opportunities, OPDC have produced a habitat map in collaboration with Green Space Information for Greater London (GIGL) using the Department for Environment, Food and Rural Affairs (DEFRA) Net Gain methodology that identifies the current habitat value. GIGL provides useful data related to supporting net gain, urban greening and nature recovery. Key habitats identified in OPDC comprise mixed deciduous woodland, mixed woodland and scrubs; grassland; open mosaic habitat, vegetated gardens and other protected species along the Grand Union Canal.

Figure 5.3 Illustration showing a Pocket Park and urban greening along a Town Centre Street

5 All Public Realm and Open Spaces

Principle GIBP1: Conserving, restoring, enhancing and delivering urban greening and biodiversity

All development proposals should conserve, restore, enhance and deliver:

a) a well-designed green infrastructure and open space network that is a biodiverse rich matrix, connected, functional and resilient to climate change in line with OPDC's Biodiversity and Urban Greening Strategy;
b) an integrated planning and design process for green infrastructure and ecology from the outset that includes early input from relevant experts such as an ecologist, arboriculturist and chartered landscape architect;
c) Biodiversity Net Gain is considered early in the design process and included in pre-application discussions to enable coordinated opportunities;
d) Urban Greening Factor, Biodiversity Net Gain and water attenuation requirements, to maximise the combined benefit;
e) an approach that demonstrates minimising on-site adverse impacts on biodiversity by applying the spatial mitigation hierarchy:
   i) retain valuable habitat(s) on-site;
   ii) mitigate loss on-site; and
   iii) where demonstrated that delivery on-site is not achievable, propose off-site compensatory measures delivered:
      A. within the OPDC area;
      B. within the host boroughs.
f) increase biodiversity and individual gains by identifying locations where green infrastructure provision is poor or there is a need to enhance green infrastructure, that is not limited to protected sites and species. For developments, other than major developments, the Design and Access Statement should set out how the development will:
   i) contribute to nature recovery;
   ii) create and restore wildlife rich habitats including, Local Nature Reserves or local Wildlife Sites; and
   iii) secure green infrastructure that is biodiverse rich; and
   iv) connect fragmented green infrastructure.
g) be designed in line with Healthy Streets principles.

All development proposals should conserve:

h) sites that are adjacent to Local Nature Reserves, Local Wildlife Sites or Sites of Importance for Nature Conservation (SINCs) by undertaking due care to avoid impacts on these sites;
i) habitats to ensure no net loss of priority habitats such as mixed deciduous woodland and open mosaic habitat, other wildlife rich habitats, and valuable trees and shrubs;
j) habitats by limiting the potential for soil compaction within a tree's existing and future rooting area;
k) priority and/or protected species to avoid any environmental disturbance; and ensure protection of wildlife networks and habitats supporting these species.

All development proposals should enhance:

l) sites that support improvement, in condition or distinctiveness, of existing Local Nature Reserves, Local Wildlife Sites, and SINCs;
m) enhance the biodiversity network by identifying new areas that may qualify as Local Nature Reserves, Local Wildlife Sites, and SINCs;
n) existing habitats including priority habitats, wildlife rich habitats including (but not limited to) woodland and grassland, hedgerows, watercourses (including the Grand Union Canal and Canal Feeder), railway corridors and trees;

All development proposals should deliver:

o) at least the relevant Urban Greening Factor of 0.3 for commercial-led, 0.4 for residential-led developments and optimising the Urban Green Factor score for industrial developments (see OPDC's Industrial SPD);
p) ≥10% Biodiversity Net Gain between baseline and post development scenarios through the creation of higher distinctiveness habitats, leaving the environment in a better state in line with the Environmental Improvement Plan 2023;
q) appropriate information within a Biodiversity Net Gain Statement, Biodiversity Gain Plan and Biodiversity Metric established within 12 months and commit to maintenance of habitats over a minimum of 35-year period. This should include information on how the following will be achieved:
   i) establishment and long-term viability of new habitats and trees; and
   ii) increase the diversity of habitats;
r) where possible, provide greening that acts as a noise and safety buffer between vehicles and pedestrians by incorporating trees, hedgerows, planters and linear planting strips;
s) an appropriate selection and mixture of trees, based on a clear justification and rationale for the particular species chosen, that:
   i) support the needs of local wildlife including through the prioritisation of native species, species of known conservation value, and species of local provenance;
   ii) provide long-lived varieties with known value to local wildlife, evergreen or deciduous trees for the street or route in question;
   iii) include planting that is at least 50%-70% native;
   iv) include mature or semi-mature trees so that benefits can be realised immediately;
   v) ensure planting location(s) avoid forming closed tree canopies above transport corridors, by tree forms and/or alternating planting on either side of the street;
   vi) mitigate microclimate by:
      A. providing shading;
      B. tolerant to air pollution; and
      C. acting as screens for air pollution.
   vii) deliver visual interest;
   viii) reflect the scale of adjacent buildings and available space;
   ix) are linked through linear planting strips;
   x) have connected tree pits;
   xi) include water management features by delivering:
      A. varieties that are tolerant to periodic flooding and drought;
      B. SuDS integrated through tree pits and linear planting strips; and
      C. permeable surfacing and soft landscaping above soil strata;
   xii) tree variety over hard surfacing that avoids heavy fruit drop;
t) where possible, a continuous green landscape character through hedgerows. Hedgerow planting should prioritise:
   i) native and/or climate change resilient species; and
   ii) edible species if located away from pollution sources.
u) habitat niches and housing to support recovery, for all life-stages, of the house sparrow, black redstart, swifts, robin, dunnock, blue tit, bats, wild bees (and those species listed in Schedule 2 of The Environmental Targets Biodiversity) (England) Regulations 2023;
v) features to support local wildlife across all life-stages which is not limited to nectar food;
w) new vertical and horizontal "stepping stones" on new roofs, podiums and bridges to allow movement at multiple levels;
x) to explore opportunities through meanwhile use and vacant sites for wildlife benefit. Where possible, these should be in the form of movable planters;
y) to maximise opportunities for 'naturalistic' or semi natural

5 All Public Realm and Open Spaces

urban greening where appropriate for the requirements of the route, space or site; and

z) the use of shading characteristics of trees and vegetation to improve building energy efficiency and reduce overheating including through planting of eastern and western aspects of buildings with deciduous trees.

aa) remove invasive non-native species during construction and ensure effective ongoing management and maintenance arrangements are in place to continually remove and manage invasive non-native species after developments have been completed. [7][12]

All development proposals are encouraged to support the users by:

ab) providing informal recreation that is integrated with green infrastructure where appropriate;

ac) involving the community in planting to enhance community ownership and support future maintenance; and

ad) using the shading characteristics of trees to protect from extreme, sun, wind and rain.

Ambition GIBA1: Optimising urban greening and biodiversity

All development proposals are encouraged to support habitat creation by:

a) aiming for at least 20% of the future tree canopy cover percentage to be above vegetation at ground level, based on the extent of mature tree canopies;

b) aim to incorporate ≥2 age classes of trees to add maturity to a development by specifying larger instant impact trees of 'heavy standard' or 'extra heavy standard' size.

All development proposals are encouraged to contribute towards monitoring and long-term measuring successes by:

c) sharing newly acquired natural environment data (e.g. habitats, species, green infrastructure features) with Greenspace Information for Greater London CIC (GiGL), London's environmental records centre, following GiGL's data standards.

Figure 5.4 Illustration showing urban greening along a Local Street

Figure 5.5 Grey to Green urban greening project, Sheffield

Principle GIBP2: Delivering resilience and high quality greening

All development proposals should support resilience by:

a) connecting sites and people to nature while ensuring the resilience of high-quality green infrastructure through the delivery of sufficient quantity, quality, access, capacity and functionality;

b) maintaining habitat extent and ensuring that proposed or retained habitat areas are of sufficient size and connectedness to support a wider range of species (as required by Biodiversity Metric: Principle 8);

c) ensuring the existing and future extent of mature tree crown spreads and tree root spread are planted to not conflict with existing and/or proposed buildings and structure or underground utility services;

d) designing for low maintenance, material reuse and reduced reliance on primary resources;

e) ensuring selected tree species take account of current and future site conditions to adapt to and help mitigate climate change chosen either through specialist input or using TDAG's Tree Species Selection for Green Infrastructure: A Guide for Specifiers;

f) including responsibly sourced biochar in roadside planting pits where required to remediate water and soil pollution and to contribute to carbon sequestration;

g) providing synchronised flowering times and/or autumnal colourings to lead to higher impactful streets defining seasons and sense of place;

h) using high pollution dispersion and tolerant plant species in free standing planters where these are required for security reasons;

i) using quantitative and qualitative aspects of lighting design that are sensitive to ecology and light pollution by:

  i) minimising the disruption of wildlife;

  ii) reflect best practice set out by the Bat Conservation Trust and the Institute of Lighting.

j) ensuring trees that die within 5 years are replaced at equal size having considered if an alternative species is appropriate.

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Principle GIBP3: Delivering replacement and compensation for greening

Compensatory reprovision of elements of biodiversity relating to all development proposals will only be considered in exceptional circumstances where:

a) any loss is considered necessary to facilitate the comprehensive redevelopment of the area;
b) there is a clear demonstration that the functions and benefits of the existing asset are being re-provided to an equal or greater amount;
c) habitat losses are replaced with an equivalent or improved type and quality of vegetation on site, or where this is not possible, make a financial contribution;
d) regarding trees, it has been agreed that the retention of trees is not possible. In this case, replacement trees should be provided taking into consideration the existing arboricultural and ecosystem value, species and soil suitability, and canopy cover;
e) regarding, newly created habitats, these should seek, where practical, to be within the OPDC area to address any impact and consider delivering strategically important outcomes for nature conservation (as required by Biodiversity Metric: Principle 7); and
f) habitat interventions are demonstrated to be deliverable within a relevant project timeframe (as required by Biodiversity Metric: Principle 6).

Signposts

National Legislation
- Environment Act 2021

National Planning Policy Framework
- 8. Promoting healthy and safe communities
- 14. Meeting the challenge of climate change, flooding and coastal change
- 15. Conserving and enhancing the natural environment

National Design Guide
- N1 to N3

London Plan 2021 / GLA guidance
- Policy G1 (Green infrastructure)
- Policy G4 Open space
- Policy G5 (Urban greening)
- Policy G6 (Biodiversity and access to nature)
- Policy G7 (Trees and woodlands)
- Policy G8 (Food Growing)
- Policy SI5 (Water infrastructure)
- Policy SI13 (Sustainable drainage)
- Policy D8 (Public realm)
- Urban Greening Factor guidance and calculator
- Using Green Infrastructure to Protect People from Air Pollution

Local Plan
- Policy SP8 (Green infrastructure and open space)
- Policy SP10 (Integrated delivery)
- Policy EU1 (Open space)
- Policy EU2 (Urban greening and biodiversity)
- Policy EU3 (Water)
- Policy EU13 (Land contamination)
- All Place and Cluster policies

OPDC supporting studies
- Biodiversity and Urban Greening Strategy
- Sites of Importance for Nature Conservation Statement
- Integrated Water Management Strategy (IWMS)
- Old Oak and Park Royal Landscape Primer

Other documents *(some technical signposts are only available by purchase)*
- Natural England Green Infrastructure Planning and Design Guide
- Natural England Biodiversity Metric
- The Environmental Targets (Biodiversity) (England) Regulations 2023
- HM Government (2018). A Green Future: Our 25 Year Plan to Improve the Environment
- HM Government (2023). Environmental Improvement Plan 2023 - First revision of the 25 Year Environment Plan
- Greater London Authority (2018). Environment Strategy
- Natural England and Defra (2022) Protected species and development: advice for local planning authorities
- 'Bats and Artificial Lighting in the UK' Guidance Note GN 08 23. Bat Conservation Trust, 2018
- United Kingdom Climate Projections 2018
- Natural England Green Infrastructure Planning and Design Guide 2023.
- Highway tree management: operations note 51
- British Standard BS 5837:2012 – Trees in relation to design, demolition and construction
- British Standard BS 8545:2014 – Trees from nursery to independence in the landscape
- British Standard BS 3998:2010 –Tree Work
- British Standard BS 3936:1992 Part1 – Nursery Stock specification for Trees and Shrubs
- British Standard BS 3882:2015 – Specification for Topsoil
- British Standard BS 42020:2013 – Biodiversity: Code of practice for planning and development
- British Standard BS EN 17037:2018 Daylight in Buildings Site layout planning for daylight and sunlight
- The London Sustainable Drainage Action Plan
- Transport for London's SuDS in London: A Guide
- CIRIA - SuDS Manual Item Detail
- Forest Research – Tools and Resources
- London Wildlife Trust and GLA - Urban Greening for Biodiversity Net Gain: A Design Guide
- Royal Horticultural Society (RHS)- Plants for Pollinators
- RHS – Prairie planting: creation and maintenance
- RHS – Plants for Bats
- Trees and Design Action Group (TDAG) - First Steps in Trees and New Developments; Trees in Hard Landscapes: A Guide for Delivery; Tree Species Selection for Green Infrastructure; First Steps in Urban Air Quality and Heat
- University of Birmingham: Green Infrastructure for Roadside Air Quality (GI4RAQ)
- Food Growing in Parks: A Guide For Councils (Sustain, 2018)

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Supporting text

5.7. The OPDC Local Plan requires development to conserve existing green infrastructure and open spaces (policy SP8), ensure the protection of Metropolitan Open Land (MOL) including Wormwood Scrubs (policy EU1) and ensure the conservation of existing Local Nature Reserves, Local Wildlife Sites and Sites of Importance for Nature Conservation (SINCs) (policy EU2). Where sites are adjacent to Local Nature Reserves, Local Wildlife Sites or SINCs, due care to avoid impacts on these sites should be taken. This may include avoidance of any light spill onto the SINC, the provision of appropriate buffer zones, and due consideration of root protection areas as well as standard practices to protect habitats during demolition and construction.

5.8. Newly provided urban greening and biodiversity habitats must be resilient to urban conditions and to a changing climate. At 2oC of global mean warming relative to 1981-2000 conditions, summer temperatures within Old Oak and Park Royal would be expected to increase by around 4°C, with anticipated wetter winters and drier summers. At 4°C of global warming, both mean summer temperatures and the hottest days could be expected to increase by 4-5°C with winters 20% wetter and summers up to 50% drier. Planting must be resilient to these conditions to survive in the long term.

Valuable ecology

5.9. Many species of plants and animals in England, and often their supporting features and habitats, are protected. Any development should assess whether a proposal would harm or disturb a protected species. Protected species are those listed under the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2017. Priority habitats and species of principal importance are defined by the UK Biodiversity Action Plan under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Key habitats of relevance to the OPDC area include lowland mixed deciduous woodland, open mosaic habitat on previously developed land and standing water.

5.10. Open mosaic habitat is at least 0.25 hectare in size, with a known history of disturbance where soil has been removed or severely modified by previous use(s) of the site and where new habitats have started to develop while the site has lain vacant. They are typically characterised by a mosaic of bare ground and other habitat types such as short, patchy grassland, taller weeds and wildflowers, scrub and wet areas, and are important reservoirs for wildlife.

5.11. Also of value is any standing open water and habitats listed within Schedule 1 of The Environmental Targets (Biodiversity) (England) Regulations 2023. Other habitats also provide value by supporting key species or enabling habitat connectivity, and new developments should consider providing larger canopied species, where suitable, as these provide a wide range of benefits.

5.12. Naturalistic or semi natural urban greening should be provided in carefully chosen locations that are well managed. They should consider locations that do not obstruct sightlines and crate unsafe environments.

Trees

5.13. Trees play a crucial role in urban greening and ecology as they provide a wide range of ecological, social, and economic benefits that contribute to the overall sustainability and well-being of urban communities. They contribute towards air quality improvements, mitigating Urban Heat Island Effect, biodiversity support, stormwater management, act as natural barriers to noise reduction, add aesthetic and recreation value, carbon sequestration and foster a healthier and more resilient urban ecosystem.

5.14. OPDC does not have a formal methodology for calculating tree canopy cover for replacement planting, however, it is recommended that:

- the individual canopy spread recorded on site as part of a BS 5837 Tree Survey can be used to calculate the overall percentage of canopy cover for the site and form the basis for a replacement; and/or
- if replacement planting is proposed, the crown spreads could be taken from the replacement trees, calculated as an area and evaluated against the replacement tree canopy target.

5.15. Valuable trees and shrubs should be determined not just by their arboricultural value (assessed under BS5837) but also for their capacity to support species and ecosystems. For example, trees in the latter stages of life may be valued lower in an arboricultural assessment but may provide key bat roosting sites and habitats for invertebrates. The value of trees and shrubs would therefore be expected to be demonstrated in reports presenting tree and ecology surveys. Valuation systems such as iTree and CAVAT can be used to assess value. iTree values ecosystem services of the proposed removed trees against replacement planting so that suitable mitigation can be achieved. In comparison the CAVAT value is the sum normally paid to a local authority as compensation for the removal of amenity trees.

5.16. Trees are valuable due to their biomass being located above

Figure 5.6 Trees along the Grand Union Canal

Figure 5.7 New marshland created on the edge of East Village, Stratford (credit: Rosie Whicheloe)

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head height. Tree canopies along roads may trap polluted air at street level). Generally plants with dense foliage and as tall as possible, with a diversity of tree and shrub species will help to ameliorate noise pollution, however vegetative barriers should be designed in accordance with the guidance offered in the Green Infrastructure for Roadside Air Quality (GI4RAQ) and the GLA's Using Green Infrastructure to Protect People from Air Pollution. Key considerations in designing a canopy that doesn't trap pollutants include street orientation relative to the prevailing winds, width of roads, and heights of surrounding buildings as well as the green infrastructure proposed.

5.17. Example of native evergreen species include English Yew, Juniper and Scots Pine. Beech trees will retain the first three metres of foliage through the winter and make an effective winter screen. An appropriate mixture of deciduous and/or evergreen street trees should be identified, considering the location. Key considerations are as follows:

- Noise and air quality: evergreen species are more effective at attenuating noise and protecting from air pollution; however, larch trees are sensitive to air pollution. Continuous canopies can, in some circumstances, where there is already a risk of street canyon effects, prevent air circulation and the dispersal of air pollutants. This needs to be considered where existing or potential street canyon effects are identified;
- Wind microclimate: where trees are planted to mitigate otherwise unsuitable or unsafe wind conditions, these will likely need to be evergreen trees at a height specified by a wind microclimate consultant;
- Daylight and sunlight: evergreen trees may create excessive additional shading to ground floor uses in internal spaces, where these spaces have expectations regarding daylight and sunlight, particularly for residential and education spaces;
- Biodiversity: a mixture of predominantly native species should be provided. Most native species are deciduous; and
- Visual interest: evergreen trees provide year-round greenery; however deciduous trees are more likely to provide spring blooms or autumn colour.

5.18. Some trees can drop high quantities of fruit. Where dropped onto blue or green infrastructure this may not be an issue; however, this can cause hazards when dropped onto hard surfaces. Species with high levels of autumn fruit drop include black walnut, apple and crab apple, quince and medlar, and fruiting cherry species. London Plane tree leaves can take longer than other species to rot down and may also cause a litter issue on hard surfaces. Consideration needs to be given where these trees are appropriate to plant.

Connecting biodiversity

5.19. Biodiversity enhancement can be achieved through ensuring high-quality greening of streets and open space. Some of the measures can include:

- long-lived street trees varieties with known value to local wildlife (see: TDAG guide);
- continuous planting strips that act as green corridors;
- creation of biodiversity 'stepping stones';
- Sustainable Urban Drainage (SuDS);
- barrier between people and vehicular traffic;
- underground connections through connected tree pits; and
- directional lighting.

5.20. In urban areas, connectivity can be achieved through the direct linking of adjacent habitats or by the creation of biodiversity 'stepping stones' to create continuous links for new habitats that reduce the distance between existing and more valuable habitats. This should be designed with careful consideration of the species being provided for, their desired habitat ranges and how they move around within a larger area, and their tolerance and sensitivity to disturbance while moving through urban areas between habitats. For example, 'dark corridors' can be of most use to bats and other nocturnal species, with linear hedges and trees of particular use to bats who prefer to follow these for foraging.

5.21. Connected open 'blue infrastructure' such as ditches, ponds, and swales can help provide larger connected habitat areas for amphibians. Busy roads can sever habitat areas for land dwelling animals especially mammals and reptiles and alternative crossing points, land bridges or tunnels should be provided to enable movement. Isolated stands of plants for pollinators provide substantially less value as pollinating invertebrates require a continuity of pollinating plants across their range.

Avoiding disturbance

5.22. Ground dwelling species such as ground nesting birds and reptiles are more likely to be disturbed by dog walking and can benefit from the creation of areas inaccessible to dog walkers. Retention or provision of any nesting or habitat opportunities such as bats and bird boxes, reptile hibernaculum and loggeries (sunken logs) should be located where they will not be accessed by people.

Figure 5.8 Greenway, Stratford providing a linear open space connecting habitats

Figure 5.9 Planters along public realm in Park Royal

5 All Public Realm and Open Spaces

Biodiversity Metric

5.23. The Biodiversity Metric is a biodiversity accounting tool that can be used for the purposes of calculating biodiversity losses and gains for habitats resulting in biodiversity net gain. The location and extent of the habitat parcel must be mapped following condition assessment and split according to their condition. The Biodiversity Metric User Guide sets out different 8 Metric Principles that should inform the use of the metric. See Table 4 that sets out Principle 6, 7 and 8:

Table 4 Biodiversity Metric user guide principles

Principle	Principle detail
Principle 6	Habitat interventions need to be realistic and deliverable within a relevant project timeframe.
Principle 7	Created and enhanced habitats should seek, where practical and reasonable, to be local to any impact and deliver strategically important outcomes for nature conservation.
Principle 8	The metric does not enforce a minimum habitat size ratio for compensation of losses. However, proposals should aim to: • maintain habitat extent (supporting more, bigger, better and more joined up ecological networks) and • ensure that proposed or retained habitat parcels are of sufficient size for ecological function

Adequate lighting

5.24. Species can vary in their sensitivity to environmental disturbance. For example, bats and other nocturnal species are sensitive to lighting. Lighting strategies should reflect best practice set out by the Bat Conservation Trust and the Institute of Lighting.

5.25. Ecologically responsible lighting should aim to minimise the negative impact of artificial lighting on the natural environment, as required, including wildlife, ecosystems, and night skies. Artificial lighting can disrupt natural processes, harm nocturnal animals, and contribute to light pollution. Lighting fixtures should be designed to reduce light pollution by directing light where it's needed and minimising upward and outward spill.

5.26. The lighting strategy should choose to minimise the disruption of natural everyday rhythms in wildlife and reduce attraction to insects. In such cases, motion sensors and timers can be used to activate lighting only when necessary, such as when a person or vehicle is present. Curfew lighting can be adapted for specific hours during which park or outdoor area lighting is reduced or turned off entirely to minimise the impact on nocturnal wildlife. Critical habitat areas that are sensitive to artificial lighting such as nesting areas or roosting sites for bats should also be identified.

Green connections

5.27. Diversity is important within and also between habitats. Having a variety of habitats can help achieve greater biodiversity overall, particularly where these habitats would typically coexist and especially where it is possible to mimic natural spatial successional stages or diversity such as from grassland through scrub to woodland.

5.28. Separating pedestrians and vehicles through the use of green infrastructure can reduce the risk of traffic injury to pedestrians. The design of building entrances onto streets should be informed by how people move outside on the street, and not just by the requirements of the building. Likewise, the location of green infrastructure should not adversely affect the flow of people, safety, or the use of spaces.

5.29. A number of Healthy Streets Indicators relate to urban greening. Trees can provide shade and shelter enabling comfort and social activities. Green visual amenity contributes to a feeling of relaxation. However, the continuous green character should not prevent the provision of places to stop and rest, seating can be incorporated into planters and the edges of rain gardens. Green canopies should not hinder natural surveillance to the extent that people do not feel safe. See Principle HCDP8: Street Furniture for further guidance on the designing and placement of street furniture.

5.30. Biochar is organic material that has been carbonised through pyrolysis at temperatures of 300-1000°C. The elemental carbon produced through these processes has been shown to reduce the bioavailability of chemical (organic and inorganic) pollution present in runoff from roads. Incorporation of biochar into soils provides carbon sequestration. The relatively high pH of most biochar can neutralise acidity and provide conditions suitable for plants preferring more alkaline conditions. Biochar used in landscaping should be sustainably sourced so that the origin of the material is traceable.

5.31. Developers should plant noise buffers with careful regard to sources of pollution and the areas to be protected. Generally

Figure 5.10 Planting with the community in Acton Cemetery

Figure 5.11 Bee n Beatle Bug Hotel, Millennium Square, Bristol

planting closer to the source will help to buffer noise pollution. By increasing the space between sources of noise and air pollution and by providing vegetation that can absorb air pollution and attenuate noise, pollution levels experienced by pedestrians are reduced. Interrupting views of traffic through the provision of green infrastructure can lead to a calmer pedestrian experience. A balance between screening traffic and delivering a safe environment will need to be considered. See Principle MPP1: Improving microclimate and pollution for further information.

5.32. A continuous green landscape character can be achieved through street trees or through hedgerows. Hedgerow planting should prioritise native and/or climate change resilient species. Edible species should be prioritised if located away from pollution sources. Space constraints can be overcome by planting trees within Sustainable Drainage Systems (SuDS) elements, which can assist with ensuring trees receive sufficient water – however trees will need to be tolerant of periodic flooding. Planting multiple trees in connected tree pits will increase total available soil volumes and allow tree roots to spread out; this also enables connections between trees through mycelium networks which may contribute to tree health and resilience.

5.33. The provision of artificial ~~refugia~~ refuges and nesting can help to support species and provide a continuous wildlife corridor. For streets, provision for flying species such as bats and birds is more appropriate as other hibernacula and nesting sites may be easily disturbed in busy thoroughfares. These can include installation of nesting bricks and nest boxes, bat boxes, green roof suitable for Black redstarts, flower planters that are nectar rich suitable for bees and butterflies. Boxes can be provided on buildings or on mature trees.[1/9]

5.34. Natural England Green Infrastructure Planning and Design Guide 2023 provides details on key considerations for the procurement, installation, and monitoring of artificial nesting features for species. This includes knowledge of the life cycle of the species targeted and careful selection of boxes such as:

- appropriate hole sizes for the species targeted. Bricks with a hole that do not conflict with building insulation requirements;
- appropriate boxes or refuges installed in suitable locations;
- best choice of features and material used;
- consideration of a ledge under the eaves that can provide nesting space for species such as house martin;
- pollinators can be provided for in many ways, for example by installing bee bricks on south-facing walls where there is a pollen source nearby;
- maintenance plan including safe access to installations;
- advice sought from suitably qualified and experienced specialists about the species to be targeted;
- selection and installation of integral nest boxes for birds should follow BS42021 (Integral nest boxes);
- for swifts and bats, 'built-in' nesting boxes are preferable as these have potentially more stable thermal qualities than boxes attached to the exterior of the new build;
- externally mounted boxes should be subject to an annual safety inspection in the winter months (November to January) to check they are securely mounted. General bird boxes will need to be cleaned annually, outside of bird nesting season, with removal of material and cleaning with boiling water as per RSPB guidelines;
- swift boxes need to be installed on the northern elevation of the buildings, at least 5m above the ground, and have unobstructed airspace in front of the box entrance to allow birds access in flight; and
- bat boxes/tubes should be positioned between 3-5m above ground level facing south east to south west, in a location that will not be lit by artificial lighting. Bat boxes have an entrance slit along the bottom and as such requires little maintenance as the accumulated bat waste can drop out of the boxes.

Figure 5.12 Swift nesting boxes

Principle GIBP4: Water management through greening

All development proposals should consider drainage and water resources:

a) ensuring that green infrastructure contributes to and makes use of water management elements, including using SuDS, to support establishment, supplement ongoing water requirements and mitigate the impacts of climate change;
b) delivering SuDS that include planting and features such as raingardens, tree pits and bioretention areas. These should be designed to
   i) fully accommodate both the required drainage capacity and planted material;
   ii) retain appropriate volumes of water to mitigate drought impacts;
   iii) be as interconnected as possible within the constraints of the site; and
   iv) respond to the anticipated uses of streets and open spaces;
c) ensuring surface water from streets is treated through SuDS and infiltration prior to any discharge into SINCs or surface waters and avoids any direct run off in accordance with Principle GIBP2: Delivering resilience and high quality greening;
d) ensuring street trees include SuDS features into the design of planting pits and use permeable surfacing and soft landscaping above soil strata; and
e) integrating retrospective installation of SuDS features in existing public realm and open space settings especially where street upgrades are planned liaising with the relevant Highways Authority.

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Signposts

National Planning Policy Framework
- 14. Meeting the challenge of climate change, flooding and coastal change

National Design Guide
- N2

London Plan 2021 / GLA guidance
- Policy SI5 (Water infrastructure)
- Policy SI13 (Sustainable drainage)

Local Plan
- Policy SP8 (Green infrastructure and open space)
- Policy EU3 (Water)

OPDC supporting studies
- Integrated Water Management Strategy (IWMS)

Other documents
- Natural England Green Infrastructure Planning and Design
- The London Sustainable Drainage Action Plan
- Transport for London's SuDS in London: A Guide
- CIRIA - SuDS Manual Item Detail

Supporting text

5.35. In the OPDC area, a minimum of 30% of the developable area outside of SIL should be publicly accessible open space as set out in Policy EU1 of OPDC's Local Plan. This, along with OPDC's commitment to ensuring an overall increase in green cover (Policy EU2) provides the opportunity to implement SuDS as well as improving the amenity of public realm. In accordance with Local Plan Policy EU3 developments should be achieving greenfield run off rates for water. Developments should minimise the demand for and promote the recycling of water, reduce the risk of flooding to on and off-site receptors and reduce the pressure on both the local and wider drainage networks. Areas of public realm are diverse in nature ranging from open grassed areas to hardstanding, and hence the range of SuDS which can be employed are equally diverse. In all instances, SuDS should be integrated into the design at an early stage, considering the likely impacts of climate change, topography, geology and drainage characteristics of the site and wider area. SuDS should be designed to mimic the natural catchment processes as closely as possible. Ecological benefits should be maximised through use of native trees planting, enhancing, or retaining natural drainage systems and creating a range of habitats. An appropriate maintenance and management plan should be included in applicants' Green Infrastructure and Open Space Strategy and Management Plans, which would be secured through conditions. The management plans should recognise the potential need to adapt a particular drainage regime if requirements change over time. (7/8)

5.36. Bio-retention strips or bioswales, designed to receive the polluted run-off from roads, are also sometimes described as rain gardens. These may include gravel layers, perforated under-drains and overflow drains. For advice on the planning and detailed design of these and other SuDS components see CIRIA Susdrain. When designing rain gardens, it is important to consider any constraints such as below-ground utilities, archaeology, contamination and drainage of water once storage capacity is exceeded. The most water-tolerant plants should be located near the inlet or in the lowest part of the rain garden and plants that can tolerate both wet and dry conditions elsewhere.

5.37. Planting a rain garden presents an opportunity to increase biodiversity by using native species or non-native species that attract pollinators. For suggestions on planting for rain gardens, see the UK Rain Garden Guide and the Natural England Green Infrastructure Planning and Design Guide 2023.

5.38. Raingardens can be more effective if linked together at the surface or alternatively interconnected beneath the surface at a shallow depth. The design of raingardens must consider how much water is being captured to prevent raingardens being overwhelmed and leading to localised flooding.

5.39. Raised planters, planter boxes, stormwater planters, or SuDS planters, which receive water directly from a downpipe are also sometimes described as rain gardens.

5.40. It is necessary to think about how the area immediately surrounding SuDS will be used, for example, whether there is a likely high footfall that might lead to people walking over any features. Conflicts should be addressed through design such as the location and nature of SuDS rather than through physical barriers.

5.41. Footpaths and highways should incline towards drainage features to support drainage. This may require further amendments to existing pavements such as the removal of kerb stones.

5.42. SuDS enable not just the management of water volumes but also water quality. For roads, in particular, there is a risk of oils and other pollutants entering SuDS. This can be dealt with by allowing run-off to infiltrate through soil into bioretention areas in open spaces or alternatively run-off can be channelled through silt interceptors. A SuDS management train is a series of stages that water can go through before reaching the final watercourse. It should start with prevention of run-off by avoiding impermeable areas and prevention of pollution through good housekeeping measures. This may be followed where needed by source control measures such as rain gardens, green roofs, and water harvesting. If extra water then needs to be moved elsewhere within the site this may be done through swales and channels, avoiding conventional pipe systems where possible in favour of SuDS options. Most water falling on a site should be addressed through the earlier stages of the SuDS management train to achieve greenfield run off rates in line with London Plan Policy 5.13. By increasing the number of steps that water can go through before reaching the final pipe or watercourse, the number of opportunities to intercept contaminants increases. However, some site uses can lead to contaminant levels too high for standard filtration, in such cases, barrier solutions may be required to prevent groundwater from moving from the contaminated land through to the SuDS train.

5.43. London is home to an existing network of green infrastructure referred to as the 'All London Green Grid'. The Green Grid includes several existing open spaces in the OPDC area including Wormwood Scrubs, the Grand Union Canal, Acton Cemetery and Wesley Playing Fields. Development proposals should consider the inter-connectivity of existing green infrastructure as well as water and drainage issues within the local and larger catchment area, to maximise the beneficial impacts.

5.44. Water is the main primary resource required by landscaping and the quantity and intensity of rainfall is being impacted by climate change. A number of native and naturalised tree and shrub species are currently experiencing severe issues with pests and diseases that are exacerbated by stress on species created by severe weather conditions resulting from climate change. These include box caterpillar, ash dieback, leaf mining moth, leaf blotch fungus and bleeding canker (all affecting horse chestnut), and Phytophthora species (including Phytophthora Ramorum, predominantly affecting sweet chestnut and larch).

5.45. The application of mulch can be highly effective in reducing evaporation from earth surrounding trees and therefore useful in protecting against drought. Grey and rainwater harvesting systems may also be used in place of other sources of water to reduce total water demand.

5.46. Native tree species most tolerant to waterlogging include common alder, black poplar, bird cherry, and bay willow. Native tree species tolerant to drought include hornbeam, hawthorn, spindle, holly, juniper, sessile oak, whitebeam, and yew. Food producing tree species tolerant to drought include quince, medlar,

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and plum. Selection of relevant tree species will need to consider a range of criteria including crown density, drought, waterlogging and shade tolerance, flowering and fruiting times and quantities, as well as other issues such as toxicity, allergenicity, thorns and common pests. As much as it is important to choose a species suitable to the site, even more importantly is an adequate soil volume size and post planting care and watering plan so will enable the trees to establish. It is only with established root networks that trees can withstand variable conditions. In each case, species should be selected with professional input or by consulting TDAG guide.

5.47. Landscaping can often be dependent on fertilisers, pesticides and applications of fresh compost. This can be minimised by choosing species that are more drought tolerant, including deep rooted species, and those that have fewer issues with pests.

Figure 5.13 Greening streets, retrofit rain gardens at SuDS Project in Ribblesdale Road, Sherwood (before and after)

Case study
Ribblesdale Road is a heavily modified watercourse with poor water quality due to numerous sources of pollution. Previous fluvial events have led to property flooding downstream. The SuDs project involved the construction of 21 linear rain gardens within the existing grass verge, designed to capture runoff from highway.

Plant selection were used in three combinations with Stipia arundinacea: Carex 'evergold', Miscanthus Yakushima Dwarf and Festuca blue fox.

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Heritage, character and design

Introduction

5.48. OPDC's Local Plan policies SP2, SP9, D1, D2, D3, D5, D6, D7 and D8 provide guidance to deliver high quality, inclusive, accessible, coordinated and multi-functional public spaces. Considering heritage, character and design in the public realm and open spaces is essential for celebrating cultural identity, contributing to a strong sense of place, enhancing aesthetics, promoting tourism and economic development and fostering community pride. These policies are accompanied by London Plan policies that recognise the importance of London's character, heritage and accessibility to ensure the public realm, and the buildings that frame those spaces, are attractive, engaging, accessible, designed for people and contribute to the highest possible standards of comfort, security and ease of movement.

5.49. In delivering high quality public realm and open spaces, the design, use and management of these routes and spaces needs to consider their different functions and roles across the day and night. These include movement functions, safety and the important place-based roles to support social interaction as well as adjacent buildings and different uses.

Figure 5.14 Torpedo Factory Locally Listed building in Park Royal

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Principle HCDP1: Heritage and locally distinctive public realm and open spaces

All development proposals should demonstrate how they are positively responding to the local cultural, social and economic heritage and character of the area to create a strong sense of place by:

a) having regard to OPDC and GLA heritage and character supporting studies and information to shape their design; using aspects of the local character and heritage to inform the design of the public realm and open spaces. This should be informed by:
   i) undertaking a Heritage Impact Assessment;
   ii) an early assessment of the character of the area identifying relevant positive elements of local character and heritage assets, within the Design and Access Statement; and
   iii) collaboration with the local community and having regard to local demographics.
b) ensuring the overall design and components of the public realm and open spaces preserve, enhance and/or better reveal the significance of any heritage assets;
c) celebrate aspects of local character in the layout of streets, spaces and landscaping through:
   i) reflecting the choice, placement and orientation of street furniture and planting;
   ii) using appropriate materials, surfaces and detailed design including the consideration of textures, tones, patterns and finishes;
   iii) creating opportunities to enable the story of a place to be told through public art, heritage plaques and signage;
   iv) seeking to reuse, repair and/or retain materials, surfaces and features that contribute positively towards local character as identified in part a) and other relevant supporting studies;
   v) collaborating with stakeholders to:
      A. name streets, spaces and places; and
      B. enable the use of appropriate public realm and open spaces to deliver heritage-led events and meanwhile uses.

Signposts

National Planning Policy Framework
- 12. Achieving well-designed and beautiful places
- 16. Conserving and enhancing the historic environment

National Design Guide
- C1, C2, I1 to I3

London Plan 2021
- Policy D8 (Public realm)
- Policy G5 (Open space)
- Policy HC1 (Heritage conservation and growth)

Local Plan 2022
- Policy SP9 (Built environment)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)
- Policy D7 (Heritage)

OPDC supporting studies
- Character Study
- Heritage Strategy
- Local Heritage Listings
- Conservation areas guidance
- Canal Place Making Study
- Landscape Strategy and Primer

Supporting text

5.50. OPDC has an extensive range of supporting studies and information to inform the design of proposed developments which are listed in the above signposts.

5.51. Local Plan Policy D7 identifies how heritage assets will play a key role in shaping local character across the OPDC area. The potential for public realm and open spaces to celebrate heritage character should be identified early in the design process. These should be reconciled with the requirements of adjacent land uses and anticipated uses, to ensure that latent heritage qualities contribute to the character of the place whilst co-ordinating the functional demands of the spaces. This information should be presented in an applicant's Design and Access Statement.

5.52. A Heritage Impact Assessment should be informed by a detailed analysis of the local context, including an assessment of the existing character and historic development of the place, to inform the design. It should evaluate the value and sensitivity of heritage assets, to enable the design of the public realm to respond appropriately. By undertaking a thorough assessment of the existing context, including physical and non-physical qualities, decisions can be shaped by a rich set of criteria to help create locally distinctive places. This could include:

- heritage influences, such as understanding how the existing context has been shaped by the railway infrastructure that is still in existence today;
- indirect or direct references to how the place has been shaped by its diverse communities; and
- the outcome of collaborations with local artists and communities to help tailor materials to be specific to the place.

5.53. The design of public realm and green infrastructure must create opportunities to celebrate the area's rich history by creatively expressing through physical and non-physical measures, to deliver vibrant and dynamic places, as set out below. This should consider material and recommendations provided by the Mayor's Commission for Diversity in Public Realm considering:

- Sensitive historic street surfaces, materials or furniture/features should be retained, repaired, and where appropriate reinstated.
- The design of new roads and other public areas should sensitively respond to the character of their surroundings in layout, detailing and materials.
- Material choice can offer opportunities to reveal heritage qualities of a place and should be based upon detailed research of the historic character, textures, tones and finishes, to inform an appropriate palette of materials for contemporary uses.
- The selection of soft landscape features can provide opportunities to celebrate hidden or lost qualities of the soft landscape character. The OPDC Landscape Strategy (2020) and associated OPDC Landscape Primer (2021) should be referred to, to help inform the choice of soft landscape features that can help celebrate the heritage qualities of the place.
- The naming of streets, spaces and places should seek to celebrate the non-physical heritage qualities of a place, such as by paying homage to historically significant events, people or other cultural references.
- Providing flexible spaces in the public realm and open spaces should offer opportunities to curate heritage inspired pop-up events or installations for example, by drawing upon the cultural or industrial heritage of the area to host outdoor food markets, community events or install artworks.
- The public realm and open space design can help tell the story of a place by directly communicating historic events, people or places. This could include adding to list of commemorative plaques, or through other means such as public art projects that utilise heritage inspired site specific installations.

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Principle HCDP2: Approaches, frontages and boundary treatments

All development proposals should support the function and character and create a strong sense of place by:

a) providing a sufficient setback width from the boundary line to the kerb line to define strong relationships between ground floor uses and the public realm. This should accommodate:
   i) areas for spill out activities;
   ii) walking, mobility aid, cycling movement and public transport infrastructure;
   iii) street furniture including planters; and
   iv) generous zones of soft landscaping that integrate a range of landscaping measures and provision for semi-mature or mature street trees (see Principle GIBP1: Conserving, restoring, enhancing and delivering urban greening and biodiversity).
b) maximising opportunities to deliver welcoming and comfortable spaces to support the creation of locally distinctive places, by:
   i) extending soft landscaping into the connecting streets / routes where appropriate;
   ii) exploring opportunities to enable the ground floor uses to spill out into the public realm to animate building frontages;
   iii) delivering high quality surface treatment and materials for pedestrian routes to ensure durability, safety and aesthetic appeal;
   iv) provide feature lighting to enhance architectural features and visibility;
   v) suitable shading structures (see Principle MPP1: Improving microclimate and pollution and Ambition MPA1: Improving microclimate and pollution);
   vi) high quality street furniture appropriate for the street and open space typology;
   vii) delivering high quality material finishes and colours that reflect local character (see Principle HCDP1: Heritage and locally distinctive public realm and Principle HCDP5: Choice of materials);
   viii) incorporate public art installations to add visual interest, support legiblity and create a sense of identity; and
   ix) ensure approaches, frontages and boundary treatments are accessible (see Principle EDIP2: Designing in and improving accessibility).
c) using landscape features to provide a degree of separation between pedestrians and residential ground floor uses to help maintain privacy, ensure safety and provide visual interest;
d) ensuring the street environment and open spaces are safe (see Principle HCDP3: Creating a safe environment and Principle EDIP4: Designing and improving 24hour safety);
e) where possible minimising blank facades within the public realm and open spaces and where not possible, incorporating greening and providing visual interest through lighting and/or artwork, to positively contribute to the street;
f) prioritising pedestrian and cycling safety through minimising conflicts with servicing requirements. Where conflicts are unavoidable, mitigating any potential safety concerns through appropriate measures (see Principle MIP3: Cycling);
g) configuring hard and soft landscape features to help delineate pedestrian and cycling routes, mark entrances, having regard to maximising sight lines into entrance lobbies and communal spaces;
h) using appropriate forms of boundary treatments between public realm, open spaces and private open space, to ensure:
   i) the requirement for any physical boundaries, takes into account the scale of the open space, its surroundings, and engagement with stakeholders and the local community. This may consider for example, the enclosure of children's play spaces, dog walking areas or the open space in general;
   ii) where they are required, the character of any boundary treatment requirements is compatible with the need to make the space welcoming and accessible. This may consider using soft landscaping features to create the boundary exclusively, or in conjunction with fencing;
   iii) it supports the activation of spaces and the connecting streets; and
   iv) they allow for features that help activate the edges of spaces such as seating and pop-up kiosks.
i) creating identifiable and accessible entrances into and out of public open spaces:
   i) considering how entry points are physically expressed or their appearance;
   ii) delivering the treatment of the hard landscaping at entry points, to help signify and celebrate their location through for example, incorporating feature 'entrance mats'; and
   iii) incorporating wayfinding and interpretation features within the entrance (See Principle EDIP2: Designing in and improving accessibility);
j) striking the optimum balance between providing a sense of enclosure and ensuring public realm and open spaces feel welcoming, are safe and provide a sense of tranquillity whilst also positively animating the pedestrian environment.

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities
- 12. Achieving well-designed and beautiful places

National Design Guide:
- C1, C2, I1 to I3, M2 and M3

London Plan 2021 / GLA Guidance
- Policy D5 (Inclusive Design)
- Policy D8 (Public realm)
- Sustainable Transport, Walking and Cycling LPG

Local Plan 2022
- Policy SP9 (Built environment)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)
- Policy D5 (Amenity)

OPDC supporting studies
- Canal Place Making Study
- Landscape Strategy and Primer

Figure 5.15 West Croydon Interchange Public Realm Project reflecting local character in boundary edges, East Architects

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Supporting text

5.54. Enhancing pedestrian and wheelchair user-friendly approaches to destinations, frontages and boundary treatments is important for creating attractive, welcoming, and functional public realm and open spaces. Integrating landscaping and greenery helps to soften the transition between public and private spaces. Active ground-level uses along frontages, such as retail spaces, cafes, and restaurants can create a vibrant and engaging public realm and open space.

5.55. This will require collaboration between urban planners, architects, landscape designers, local authorities and the community. When done thoughtfully and with a focus on the principles of placemaking, these enhancements can transform urban areas into inviting spaces that benefit residents, businesses and visitors alike.

Frontages and setback

5.56. The relationship between the public realm, open spaces and adjacent buildings or structures is crucial in achieving high quality amenity, community safety and visual interest. To maximise these qualities, it is important that the public realm and open spaces positively address a buildings' orientation and frontages. For example, coordinating the location of areas that enable spill out of activity into the public realm or can host events where appropriate, can create a strong sense of place and contribute to creating a safe and welcoming environment.

5.57. Where areas of blank facades are unavoidable, the design of the public realm and open spaces needs to respond appropriately as there is a risk that these areas could host antisocial behaviour and feel unsafe. For example, soft landscape features, lighting and/or public artwork could be placed in front of areas of blank façade to help visually 'ground' the building into the landscape. Selecting voluminous and characterful planting in combination with appropriate feature lighting can help transform an otherwise blank façade into the attractive backdrop to the street.

Servicing and access

5.58. Proposals should consider the location of vehicular accesses, parking, street furniture, transport related infrastructure and servicing areas early in the design process to create active and positive street frontages that do not conflict with operational requirements, especially in industrial areas where these can have significant negative impacts.

5.59. Vehicular crossovers onto and/or across pavements should be kept to a minimum and shared accesses should be utilised, where possible, by using surface treatments that prioritise pedestrian and mobility-aid user movements over vehicular traffic.

5.60. Early engagement with OPDC and third-party landowners is encouraged to seek to create shared accesses where possible to enable more efficient use of land to maximise the quantum and quality of public realm and open spaces.

5.61. Service entrances should be located to minimise impact on public realm and open spaces as these can interfere with pedestrian safety by potentially creating conflicts with operational requirements and creating areas of blank facades.

Boundary treatments

5.62. Thoughtful boundary treatments along the public realm and open spaces should improve visual connections and create a welcoming, accessible, and locally distinctive. Extending the hard and soft landscape character of the spaces into the surrounding context can bring out distinctive qualities into the street.

5.63. The relationship between the public space and the surrounding context should be evaluated to create the optimum degree of segregation/openness, considering the type of street, surrounding uses and environmental qualities to meet the needs of local stakeholders and the community

Approach

5.64. The approach to open spaces should prioritise pedestrian movements by considering traffic calming and slowing measures such as raised tables and increased provision of street furniture and lighting, to provide greater opportunities for animating and illuminating the place. Consideration should be given to supporting the activation of the approach through providing appropriate infrastructure, for example to accommodate pop up kiosks, so that the character of the open space can extend into the connecting streets.

Figure 5.16 Illustration showing how boundary treatments, frontages and setbacks can help to positively shape the public realm

Figure 5.17 Illustration showing how public realm design can support social interaction

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Principle HCDP3: Creating a safe environment

All development proposals should provide a safe environment integrated into the overall design of the public realm and open spaces, by responding to:

a) the location of destinations and public transport nodes by providing enhanced and well-considered lighting to contribute to create safe routes after evening and support the night time economy;
b) residential and employment locations by providing adequate night time lighting, levels of visibility and other safety measures, particularly along routes to and around entrances;
c) areas where there are inactive frontages by enhancing safety through delivering:
   i) natural surveillance opportunities and mitigating against any areas that do not benefit from natural surveillance;
   ii) ensuring public realm and open spaces located adjacent to areas of blank façade are visible and overlooked;
   iii) appropriate forms of boundary treatment to respond to the surrounding context in line with Principle HCDP2: Approaches, frontages and boundary treatments;
   iv) the design and placement of soft and hard landscape features to enable views into and through areas;
   v) integrating CCTV;
   vi) placing street furniture to orient towards destinations and support pedestrian and mobility aid user movement;
   vii) treatment of hard landscaping to incorporate accessible feature paving to help characterise the area positively; and
   viii) placement of any hard and soft landscape features to enable visual permeability towards entrances and active frontages to promote the feeling of safety.
d) using free standing planters where these are required for security reasons.

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities
- 12. Achieving well-designed and beautiful places

National Design Guide:
- M2, P2 and H1

London Plan 2021 / GLA Guidance
- Policy D5 (Inclusive Design)
- Policy D8 (Public realm)
- Public London Charter LPG
- Safety in Public Space - Women, Girls and Gender Diverse People

Local Plan 2022
- Policy SP9 (Built environment)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)

Supporting text

5.65. Providing a safe environment requires a holistic consideration of the treatment of public realm and open spaces with the design of buildings, structures, and enclosures. The design and uses of the ground floors are closely linked to the activation of the street in the day time and night time.

5.66. The design and layout of the public realm and open spaces should support the creation of safe places and respond to the variety of urban conditions created by varied uses and differing built form. Some conditions, such as those created by busier streets in the heart of town centres or locations that benefit from a collection of public transport services, lend themselves more easily to creating a sense of safety whilst other conditions, such as for example, quieter streets in industrial areas, require further consideration to support the creation of a safe environment for all.

Sight lines and natural surveillance

5.67. The design of the public realm and open spaces needs to enable clear optimal sight lines to support 24-hour safety and enable people to navigate to their destinations. This can include avoiding placing large structures, dense landscaping, or other visual barriers that may block visibility. Sight lines should reflect different heights and visual perceptions of users including wheelchair users, blind and partially sighted, deaf and neurodiverse people. Overgrown and overhanging branches or shrubs should be maintained so they are not obstructing pavements, public footpaths, sight lines or traffic signage. When considering sight lines for deaf people, it's important to focus on visual accessibility and communication. See EDIP2: Designing in and improving accessibility for further information.

5.68. Natural surveillance is where people can easily view and be viewed by others, providing a sense of safety. Within the design of streets, street furniture and planting should not be designed or placed to obscure views from adjacent buildings and unnecessarily obscure views from seating or dwelling areas.

Safety and security

5.69. Security measures need to strike a balance between aesthetics and perception of safety in the public realm and open spaces. Obstructive elements need to blend in with the surrounding environment. While bollards are often installed to enhance security, their presence can also create a perception of potential security threats or dangers. This can negatively impact the perception of safety in the area, especially if the need for bollards is not clearly communicated to the public. Planting beds, street furniture and raised verges should be prioritised over bollards, where possible, to provide elements of protection.

Figure 5.18 Illustration of how lighting, street furniture and planting help to create a safe environment along an industrial Local Street

5 All Public Realm and Open Spaces

Principle HCDP4: High quality and inclusive active destinations and meeting points

All development proposals should support the creation of inclusive, high-quality public realm and open spaces that serve as active destinations and meeting points by:

a) responding to the environmental qualities of the spaces to enable their optimum year round use across day and night where appropriate (see Principle MPP1: Improving microclimate and pollution and Ambition MPA1: Improving microclimate and pollution);

b) maximising flexibility to accommodate a range of different uses to meet the diverse requirements of the communities that use the spaces by:
   i) providing suitable utility points (e.g., power, water, WiFi) to enable spaces to be activated for a range of uses, which could include for example:
      A. pop up food and beverage stalls;
      B. markets and fairs;
      C. celebratory cultural events;
      D. performance spaces; and/or
      E. other ad hoc uses driven by community need.
   ii) providing controllable lighting to suit ambient conditions and event-based requirements;
   iii) utilising flexible, demountable street furniture, alongside permanent street furniture to allow outdoor spaces to be reconfigured to offer a range of diverse types of spaces;
   iv) utilising soft landscaping to safeguard flexible use of spaces; and
   v) futureproofing the servicing arrangements needed to activate spaces through defining locations for loading and unloading for events, that minimise disruption to pedestrian areas.

c) providing a variety of types of spaces to suit use by different groups by:
   i) considering how larger spaces could be configured with demountable furniture to create a range of spaces that could include for example, accommodate large gatherings, smaller groups, spaces for families, couples and spaces for individuals;
   ii) accommodating a range of types of flexible furniture to suit diverse needs;
   iii) creating personal-public spaces that allow for quieter activities, observation, relaxation and mindfulness (see Principle EDIP3: Designing and improving usability and comfort); and
   iv) allocating space within development proposals to accommodate the storage of furniture and other equipment that can enable inhabitation and use of the public realm and open spaces in a variety of ways;

d) considering how the character of the area can help enable open spaces feel attractive to enjoy, rather than just places to pass through, by:
   i) demarcating areas that offer potential for use and enjoyment from pedestrian routes, including using locally distinctive approaches to surface treatments;
   ii) utilising permanent features that offer recreational opportunities for social interaction; and
   iii) ensuring the character of the spaces are inclusive in the day and night time by considering their relationship to the surrounding context.

Signposts

National Planning Policy Framework:
- 7. Ensuring the vitality of town centres
- 8. Promoting healthy and safe communities
- 12. Achieving well-designed and beautiful places

National Design Guide:
- C1 and C2, I1 to I3, B3, P1 to P3, H2, H3

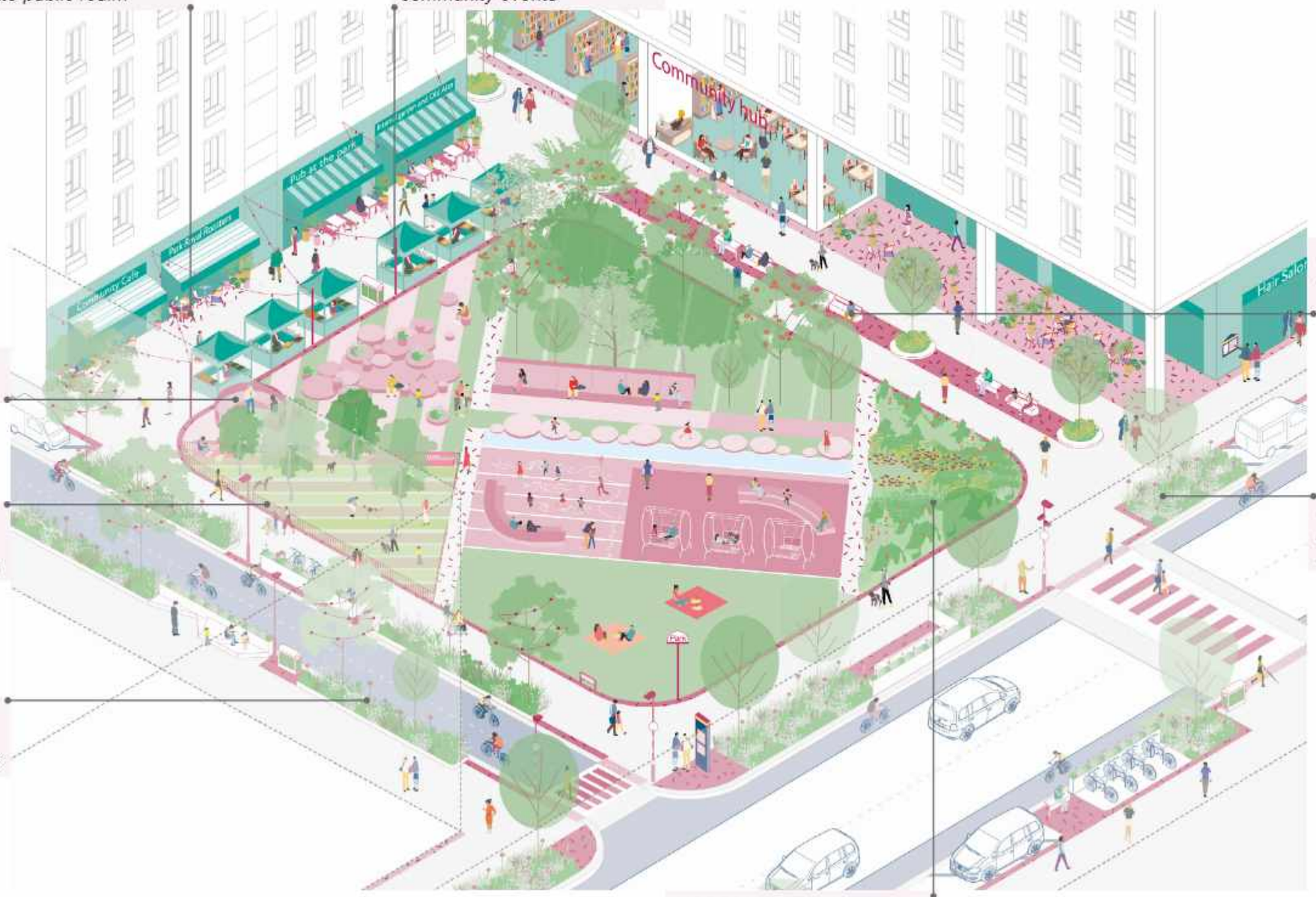
London Plan 2021 / GLA Guidance
- Policy D5 (Inclusive Design)
- Policy D8 (Public realm)
- Policy E9 (Retail, markets and hot food takeaways)
- Public London Charter

Local Plan 2022
- Policy SP9 (Built environment)
- Policy D1 (Public realm)
- Policy D5 (Amenity)

Figure 5.19 Fellowship Square, Walthamstow - a flexible civic space used for a variety of day and night time events. Image Credit Jim Stephenson

5 All Public Realm and Open Spaces

Figure 5.20 Illustration of how design principles could apply to a Pocket Park on a Town Centre Street



5 All Public Realm and Open Spaces

Supporting text

5.70. Local Plan Policy SP6 supports the creation of a range of locally distinctive places that celebrate the local context and provide a range of destinations for locals and Londoners. 'Active Destinations' and meeting points can include a variety of different opportunities, ranging from a Town Centre Street with spaces for outdoor activities or areas in parks. Creating comfortable outdoor spaces that can accommodate a range of different users requires a high level of engagement with environmental considerations early in the design process, to ensure the optimum conditions for full enjoyment.

5.71. Environmental testing and modelling should be undertaken early in the design process to ensure that the effects of wind, levels of daylight and sunlight, overshadowing, acoustics, temperature, humidity and precipitation are understood and fed into the design process to help shape the public realm and open spaces into successful destinations and/or meeting points. See Principle MPP1: Improving microclimate and pollution and Ambition MPA1: Improving microclimate and pollution for further information.

5.72. Where there are residual adverse microclimate conditions and these can be demonstrated to be mitigated with hard and soft landscaping features, consideration must be given to the overarching character of the place. For example, common measures to mitigate the effects of wind near taller buildings include physical screens, but these can be harmful to the overall visual and physical permeability of a place and can create barriers for visually impaired persons. A holistic approach is required to ensure that active destinations and meeting places can achieve good levels of comfort without reliance on features that could compromise its desired welcoming and accessible qualities.

5.73. To ensure active destinations and meeting places can be used flexibly, supportive infrastructure is required to allow spaces to be programmed for a multitude of uses. As well as providing services such as power, water and Wi-Fi, consideration needs to be given to the provision of appropriate infrastructure to create a range of characterful spaces that respond to changing needs of local communities. For example, providing flexible lighting solutions can contribute to creating atmospheric conditions that could suit a large cultural gathering or be adapted to suit a smaller, more intimate food tasting market.

5.74. The character of active destinations and meeting points should be distinct from general pedestrian routes to make them legible as places to pause, enjoy and enable social interaction rather than pass through. This can be achieved in a multitude of ways, including playful approaches to surface treatment of the hard landscape. This could celebrate local historical, cultural references and involve collaborations with local artists and the local community.

5.75. Consideration needs to be given to the type of furniture used in outdoor spaces to enable flexible use. Furniture that can be configured in different ways to accommodate a range of scenarios should be considered including for example, a singular large group, a multitude of smaller, informal groups and / or spaces for individuals. Appropriate storage facilities should be provided in a nearby location to store furniture when not in use.

Personal-public spaces and personal seating

5.76. 'Personal-public spaces' are areas that encourage social interaction and connection including the provision of seating while also offering options for solitude and quieter activities. They are key to creating inclusive and versatile public realm and open spaces. Providing seating in personal-public areas is a thoughtful way to enhance the usability of these spaces for individuals that cater to different social dynamics. Personal-public spaces can provide a comfortable and inviting place for people who prefer a quiet place while enjoying public realm and open spaces. They allow individuals, couples, or small groups to find a spot that suits their comfort level and privacy requirements.

5.77. Personal-public space seating serves an important role and finding the right balance between providing privacy and ensuring safety is crucial for the well-being of individuals. Such seating areas can improve safety and security by providing some level of separation or visual barrier through thoughtful design. This could include the arrangement of seating, creating intimate nooks or alcoves with seating arrangements or strategically placed planters, sculptures, or water features to create natural or artistic barriers. These elements can also provide visual interest and create a sense of place. This allows individuals or small groups to have a degree of privacy without feeling exposed. Well-placed seating that facilitates both socialising and peaceful reflection can strike this balance effectively.

5.78. Personal-public space seating is most effective when it is designed to be versatile and can accommodate various activities, including reading, eating, working on a laptop, or simply enjoying the outdoors. The flexibility of seating options makes public areas more accessible to diverse user needs.

Figure 5.21 Example of personal-public seating, Cieszyn Poland

Figure 5.22 Example of personal-public seating, Tianjin, PR China

Figure 5.23 Illustration of how seating design and planting can help to deliver personal-public areas

5 All Public Realm and Open Spaces

Principle HCDP5: Choice of materials

All development proposals should carefully curate the choice of materials in defining the character of a place. Proposals should demonstrate their contribution to characterising locally distinctive places by:

a) undertaking a comprehensive character assessment of the local context and wider area early in the design process, as part of their Design and Access Statement. This should include:
   i) identifying any patterns of specific material usage and evaluating how these patterns contribute to the prevailing identity of the place, paying regard to:
      A. current and historic material usage and storytelling potential of the material palette;
      B. physical qualities of those materials and the suitability of application for current and future use within the public realm and/or open space;
      C. potential for materials to be tailored to accommodate unique characteristics specific to the place, including expressing outcomes from collaborations with local artists and the local communities.
b) ensuring the selection and application of selected materials supports the prevailing attributes and functions of the OPDC Street Family, having regard to the character and function of each Place, and open space typologies that define the character of the local area;
c) ensuring material selection is durable and safe, minimising risks and potential hazards in various applications; and
d) determine the material's performance under various conditions.

Signposts

National Planning Policy Framework:
- 12. Achieving well-designed and beautiful places

National Design Guide:
- C1 and C2, I1 to I3, B3, P1, R2, L1

London Plan 2021 / GLA Guidance
- Policy D3 Optimising site capacity through the design-led
- approach
- Policy D8 (Public realm)

Local Plan 2022
- Policy SP9 (Built environment)
- Policy D1 (Public realm)
- Policy EU8 (Sustainable materials)

Supporting text

5.79. The OPDC Street Family (see Table 1) and Open Space Typologies (see Table 2) offer a method of organising different approaches for characterising the streets. Proposals should build upon this framework to identify key criteria that help define its general street character. In addition, specific opportunities for integrating locally distinctive features should be identified to diversify the qualities of the streets and avoid homogenising the public realm and open spaces.

5.80. For example, key criteria to consider for each street type within the OPDC hierarchy could include specific choices for:

- pedestrian route layout and kerb edges;
- surface treatment, considering the size, format, patterns, colours and road markings; and/or
- street furniture, including inspection chambers, drainage, light fittings, seating, planting, tree pits, cycle stands.

5.81. Locally distinctive features could take any of the key criteria and explore opportunities for diverging from a common, established material palette. For example, exploring subtle shifts in the colour for street lighting furniture or expressing specific patterns in the surface treatment to distinguish a particular street could be features that are inspired by a comprehensive character assessment and / or a collaborative project with the local community and local artists. Other locally distinctive features could include specific interventions within the common, established material palette, which offer unique moments, such as bespoke paving slabs that provide interpretation of heritage narratives or bespoke street furniture that celebrates local people. Proposals should identify opportunities for local communities to be involved in shaping locally distinctive features in the public realm and open spaces. OPDC can assist in connecting applicants to local community groups.

5.82. Material selection should thoroughly assess the requirements and intended purpose of the material. Different applications may demand specific properties, such as strength, corrosion resistance, or insulation. It is also important to consider the expected lifespan of the material under normal usage conditions. This is especially important where surfaces must stand up to long-term wear and tear. Before final selection, it would be useful to determine the material's performance under various conditions. This may include stress tests, environmental tests, and safety tests.

Figure 5.24 Use of materials reflecting local historic character, Borough Yards, Southwark

5 All Public Realm and Open Spaces

Principle HCDP6: Lighting

All development proposals should support lighting that creates inclusive, accessible, safe and welcoming public realm and open spaces in the daytime and night time, by ensuring:

a) lighting strategies are considered early in the design process and include in pre-application discussions to enable wider coordinated placemaking opportunities;
b) lighting strategies support place-making by:
   i) undertaking a detailed contextual analysis of the site and its surroundings to understand its relationship to the surrounding area including the connections to, from and through the place to determine how it can contribute to providing safe access for communities after dark. Where appropriate, this should be done in collaboration with the community;
   ii) considering the existing lighting provisions, identifying features that currently work well and areas that require improvement to maximise full potential to support key placemaking opportunities;
   iii) reflecting the specific needs of the space, the desired atmosphere, and the visual impact. It should involve selecting fixtures, colours, and light levels that complement the surrounding environment;
   iv) ensuring proposals accord with Principle GIBP1: Conserving, restoring, enhancing and delivering urban greening and biodiversity and Principle GIBP2: Delivering resilience and high quality greening to avoid impacting wildlife and habitats;
   v) enhancing the positive qualities of architecture, landscape, public realm and open spaces by:
      A. illuminating prominent features, such as heritage, cultural sites and public art to celebrate aspects of the built environment that contribute significantly to defining the character of the area;
      B. engaging with local artists to provide creative illumination installations that serve a distinctive and/or playful purpose;
      C. considering lighting as a way of assisting navigation providing clear visual cues and landmarks;
   vi) utilising lighting systems that are adaptable to changing needs and circumstances to support outdoor activities;
   vii) ensuring the location, consolidation, size and appearance of light fittings are well-integrated; and
   viii) minimise lighting pollution to help reduce the amount of light that spills over into the night sky and neighbouring properties.
c) lighting strategies should support the creation of safe and accessible places, especially for pedestrians and cyclists by:
   i) promoting the feeling of safety by considering qualitative and quantitative lighting criteria including but not limited to the illuminance of vertical and horizontal surfaces, colour appearance and colour rendering, uniformity and effectiveness of light source;
   ii) delivering enhanced lighting provision to key pedestrian and cycling routes that support the night time economy, enabling people to travel safely after dark;
   iii) reducing risks of accidents by:
      A. enhancing lighting where there could be conflicts between pedestrians/cyclists and vehicles;
      B. utilising appropriate light sources to help improve vision and legibility of spaces;
      C. illuminating areas where there are changes in levels, such as stairs;
   iv) ensuring lighting sources and application enable person-to-person recognition; and
   v) pay regard to the minimum lighting requirements to be effective for CCTV cameras.

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities
- 12. Achieving well-designed and beautiful places

National Design Guide:
- M2, P2 and H1

London Plan 2021 / GLA Guidance
- Policy D5 (Inclusive Design)
- Policy D8 (Public realm)
- Public London Charter LPG
- Safety in Public Space - Women, Girls and Gender Diverse People

Local Plan 2022
- Policy SP9 (Built environment)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)

Figure 5.25 Range of lighting approaches for seating, highlighting and navigation in John F Kennedy Square, Aalborg, Denmark

Figure 5.26 Illustration of how varied approaches to lighting and considered planting can help create a safe environment at night

5 All Public Realm and Open Spaces

Supporting text

5.83. A well-designed lighting strategy considers the architectural elements, landscape features, biodiversity considerations and functional requirements of the space. By undertaking lighting strategies early in the design and pre-application process, opportunities to support wider placemaking initiatives can be identified, to maximise accessibility to the public realm and open spaces after dark. To achieve this, an analysis of the existing lighting conditions is critical to identify dark spots and areas that could be regarded as unsafe, as these areas potentially exclude some user groups using these routes. As third parties may be responsible for light sources, early engagement can offer greater opportunities for liaising with relevant stakeholders to collaboratively approach opportunities to improve the lighting conditions and encourage a comprehensive, place led approach in developing a solution.

Lighting strategies

5.84. Lighting strategies should identify opportunities to illuminate architecture and landscapes by identifying key buildings, features and spaces that could help enhance the character of the streets after dark and assist in wayfinding along key routes.

5.85. Proposals should utilise high quality light fittings that are controllable and have the potential to create varying atmospheres to enable the public realm and open spaces to be programmed in a range of different ways to respond to changing community needs and desires. Dimmable or programmable lighting can be used to adjust light levels depending on the time of day or for specific events.

5.86. The appearance of the light fittings should be considered as part of the palette of finishes and materials of the other elements to define its role in creating a locally distinctive place. The relationship between light fittings and other street furniture and landscape features should be co-ordinated to avoid conflicts and support the creation of unobstructed, safe pedestrian routes. For example, lighting poles should pay regard to street tree positions to avoid obstructions from tree canopies causing unintended shadowing.

5.87. The spatial constraints of streets and open spaces should be a determining factor for the approach for lighting spaces. Shadows and blind spots should be minimised to ensure visibility and deter potential threats. For example, narrow streets may utilise building facades for installing light fittings, to avoid taking up space on the pavement. Lighting should be strategically placed on handrails, vertically hanging from buildings or combined into singular poles with CCTV, building or traffic signage.

5.88. Lighting strategies should consider a range of qualitative and quantitative measures for assessing lighting proposals to determine their effectiveness in supporting the creation of safe and accessible spaces. For example, consideration should be given to the ability for people to recognise faces after dark to promote the feeling of safety. It is important to choose lighting fixtures with a colour temperature that complements the associated space or amenity. Warmer temperatures tend to create a cosier ambiance, while cooler temperatures provide a brighter feel. Planning lighting installations should have input from lighting design consultants to ensure the best results for specific public realm and open spaces. Regulations and standards should be considered when planning lighting installations. The British Standards Design of road lighting – lighting of roads and public amenity areas (BS 5489-1:2020) provides guidance on lighting aesthetic, technical aspects, minimising energy consumption and impacts on the environment.

5.89. Traditional functional lighting should consider the primary activities that occur in the park after dark, such as seating areas, playgrounds, event spaces, walking, jogging, picnic areas and sports. Design of lighting solutions should cater to specific needs and different zones based on usage patterns and their lighting requirements. For example, high-intensity lighting may be required in active recreational areas, while softer, ambient lighting can enhance the ambiance in quieter zones. Collaboration with the community should support the proposals for lighting.

5.90. Feature lighting can be used to highlight features like sculptures, fountains, architectural elements and landmarks. This can add visual interest and enhance aesthetics to encourage usage.

5.91. Enhanced lighting provision should be provided along key pedestrian and cycling routes, especially considering areas that do not benefit from as many active or positive frontages, such as those found in industrial areas where people may be walking or cycling to travel to their place of work. Pathways and trails will need to be illuminated with evenly distributed lighting to ensure safe navigation. This can be in the form of in-ground lighting, or low-level pathway lighting to minimise glare and light pollution. In addition, Mayor of London's Making London Child-friendly highlights the importance of lighting that contributes to improving evening and night-time conditions along routes and play spaces to enable wayfinding and mobility for children and young people.

5.92. Enhanced lighting provision should also be considered for busier areas to support the night time economy. Consideration should be given to unintended negative consequences of enhanced lighting as the contrast to adjacent 'darker areas' could be heightened, potentially making those spaces feel unsafe. The impact of enhanced lighting provision to help support night time activation and promote safety should be measured to ensure light pollution is avoided, particularly to nearby residential properties. It is also essential to avoid any adverse impacts on local ecological systems. Consideration should be given to the impact of lighting to ecologically sensitive areas such as the canal and the railway corridors. Early engagement between ecologists and lighting specialist is encouraged to strike the optimum balance between creating an accessible, legible environment and avoiding any adverse impacts on ecological life.

Figure 5.27 Low level lighting that supports person-to-person recognition, Esperance Bridge Kings Cross Image credit Simon Kennedy

5 All Public Realm and Open Spaces

Case study

In September 2021, London Legacy Development Corporation (LLDC) launched a project to engage with women and girls on Queen Elizabeth Olympic Park and across the surrounding area.

Inconsistency of lighting was seen as the most crucial factor which influenced safety. The Park is designed as two distinct character areas. The south of the park is a destination which has consistent coverage of light with some variations in colour and configuration lighting features.

The north of the park primarily provides a varied and ecologically rich landscape with the River Lea at its centre. To protect nocturnal wildlife certain areas of the park are kept as 'dark corridors' at night associated with the waterways and inaccessible areas. Where dark corridors needed to be maintained, alternative approaches have been taken, in particular signposting people to alternative, lit routes. Elsewhere in the park, signs have also been installed to explain why some areas are deliberately kept dark for the benefit of wildlife.

The quality of the light output is more important than pure lux levels when illumination is low. The ability to distinguish a bush from a person, or the colours someone is wearing, is as important to feeling safe as the ability to see the face of an approaching person.

Figure 5.28 Well lit route in the Queen Elizabeth Olympic park

5 All Public Realm and Open Spaces

Principle HCDP7: Public art

All development proposals should deliver and/or support the delivery of public art by:

a) considering opportunities to integrate public art into the scheme design from early in the design process to scope out opportunities for integrated, collaborative artworks;
b) identifying local artists, or artists who demonstrate a connection or interest with the local area, to help collaboratively conceive, develop and implement artwork with local communities;
c) exploring opportunities for a range of approaches for integrating public art, including but not limited to:
   i) integrated artwork which could include whole or parts of bridges, hard landscape surface interventions, soft landscape interventions and lighting;
   ii) autonomous, standalone interventions that contribute to placemaking and wayfinding;
   iii) temporary structures to help activate public realm and open spaces;
   iv) community activities that celebrate local identities, character and heritage;
   v) adopting circular economy approach by re-using materials;
   vi) integrating heritage and diversity themes; and/or
   vii) event-based interventions that bring together groups of local stakeholders and communities to help shape interventions.

Figure 5.29 Comedy Carpet, Blackpool, LDA Landscape Architects

Signposts

National Planning Policy Framework:
- 12. Achieving well-designed and beautiful places

National Design Guide:
- C1 and C2, I1 to I3, L3

London Plan 2021 / GLA Guidance
- Policy D8 (Public realm)
- Commision for Diversity in the Public Realm

Local Plan 2022
- Policy SP9 (Built environment)
- Policy D1 (Public realm)

Supporting text

5.93. The integration of public art into proposals needs to be considered early in the design process and ideally at the start, to ensure that artwork is not an afterthought or an add on and is instead embedded in the development of the proposal from the outset. Identifying local artists or artists who have a connection to the area can bring local expertise to design teams, particularly working with artists who have experience and / or keen interests of working with local communities.

5.94. Public art should enable the community to engage with the process to shape the artwork and help express a collective identity of a place through temporary and permanent interventions in the built environment. Proposals for public artwork should contribute to local distinctiveness and foster a strong sense of community ownership.

5.95. A wide range of options should be considered for integrating artwork into proposals to offer a range of opportunities at varying scales and approaches and encourage different types of artists to be involved in the process. Proposals that involve local communities in the process of creating and implementing artwork can create a legacy and contribute to the cultural offer of a place.

5.96. Public art can enhance wayfinding as the integration of artworks can create locally distinctive landmarks and assist in orientation. Consideration should be given to the location of such works, taking a strategic approach to fill gaps in route connections to support wayfinding.

5.97. Some public art commissions may relate to temporary or meanwhile uses, on future parcels of land that have been identified for development. The integration of artwork into these commissions offers opportunities to engage with and build relationships with the community to continue their involvement in longer term plans for the area.

Principle HCDP8: Street furniture

All development proposals for street furniture should demonstrate how they support the creation of locally distinctive places that are legible, functional, inclusive and accessible by:

a) identifying the key characteristics, functions, opportunities and challenges of the public realm and open space by analysing the site and wider context against the OPDC Street Family and Open Space Typologies, delivering:
   i) for streets, cross sections through the street, identifying locations for street furniture that allows unobstructed pedestrian routes;
   ii) proximity to other zones such as spill out space for active ground floor uses and / or landscaped privacy buffers to sensitive ground floor uses;
   iii) paying regard to the need to minimise visual clutter by consolidating multi-functional elements, such as lighting poles with integrated vehicular charging points and CCTV;
   iv) ensuring street furniture supports the locally distinctive character of the street and/or open space, considering the type of furniture, appearance, scale and location of furniture;
   v) ensuring that seating and resting furniture:
      A. is provided at appropriate and regular locations that provide places to rest and dwell;
      B. are in clear sight lines and do not obstruct sight lines;
      C. offer playability as well as functionality;
      D. are integrated with greening where possible;
      E. enable social interaction;
      F. incorporates public art or cultural elements into seating designs that reflect the diversity and history of the community; and
      G. unassociated seating which are free to use.
b) supporting active travel, particularly on primary and secondary routes, by providing cycle stands adjacent to entrances in locations that are easily accessible and well overlooked;
c) reconciling security requirements with the need to create welcoming, accessible and inclusive places; and
d) mitigating the potential negative impacts by utilising security related planters and seating to ensure the objects have a positive benefit.

5 All Public Realm and Open Spaces

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities
- 12. Achieving well-designed and beautiful places

National Design Guide:
- C1 and C2, I1 to I3, B3, P1 to P3, H2, H3

London Plan 2021 / GLA Guidance
- Policy D5 (Inclusive Design)
- Policy D8 (Public realm)
- Public London Charter

Local Plan 2022
- Policy SP9 (Built environment)
- Policy D1 (Public realm)
- Policy D5 (Amenity)

Supporting text

5.98. Street furniture plays an important part of the everyday landscape and serves a range of practical, social and environmental functions. It includes traffic signals, bus stops, street lighting, litter bins, post boxes, charging points, seating, tables, leaning structures, public art, wayfinding infrastructure and traffic signage, toilets and drinking fountains. Well designed street furniture can make streets more welcoming, legible, equitable, sociable, functional and safer.

5.99. The provision of street furniture elements should support creating legible, locally distinctive and accessible places. Street furniture should be carefully designed with consideration to its proximity to other uses and other elements of street furniture, arrangement and location to support its use. For example, waste bins and water fountains for hydration should be placed where a larger quantity of seating is provided. Creating environments that are clutter free involves paying regard to the cross-section of the street to identify zones for street furniture that do not impede pedestrian flow and, selecting simple and refined, high quality street furniture in appropriate locations.

5.100. Guard rails or railings should be avoided as they can pose restrictions to pedestrian movement. In instances where mitigation measures are needed to protect pedestrians from vehicles, green buffer zones are encouraged as they deliver SuDS and reduce exposure to harmful vehicle emissions.

5.101. The design, location and requirements of utility boxes and telephone boxes is led by external agencies. A proactive approach should be taken from the early design stage in working closely with the relevant utility companies to ensure that a consistent approach is taken in determining their location and design.

Seating

5.102. Social seating in public realm and open spaces refers to the arrangement of seating and associated areas that promote social interaction, engagement, and connectivity among people. It involves designing seating configurations and arrangements in a way that encourages people to gather, converse, and connect with one another. This can have an open and inviting layout as a circular or u-shape that allows gathering and aids deaf and hard of hearing users to communicate comfortably. Social seating areas can benefit from flexible seating options that can be easily rearranged or adjusted to accommodate different group sizes or preferences.

5.103. The frequency and distribution of seating depends on various factors, including the specific context, user needs, and the intended use of the space. While there is no one-size-fits-all, the below considerations should guide provision of seating:

- Duration of stay can influence the demand: Spaces frequented by older adults or individuals with mobility challenges may require more seating to accommodate resting and comfort needs;
- The type of activities and functions intended for the public space: Spaces where people gather for relaxation, social interaction, or leisure activities should have an adequate number of seats to encourage longer stays and promote social engagement;
- Strategic placement to take advantage of shade and shelter; and
- Striking a balance between providing enough seating to accommodate users while maintaining an open and inviting atmosphere and supporting other functions and users.

5.104. In selecting materials for street furniture, several factors need to be considered, including texture, durability, weather resistance and aesthetics. This can include:

- wood such as hardwoods like teak or oak due to their durability, warmth, texture for grip and resistance to decay;
- elements of recycled plastic and other recycled materials that are resistant to rot, insects, and UV radiation, making it suitable for outdoor environments;
- elements of aluminium, stainless steel or cast iron that is durable, heat resistant, corrosion-resistant, and flexible; and
- natural stone which requires periodic maintenance to prevent staining and weathering.

Figure 5.30 Social seating in Exchange Square, City of London

Figure 5.31 Illustration of various seating design approaches include playful seating, personal-public seating, social seating and leaning structures

5 All Public Realm and Open Spaces

Equity, Diversity and Inclusion (EDI)

Introduction

5.105. While designing and improving the public realm and open spaces, it is important to recognise the diverse needs of the local community and design places that everyone can enjoy and benefit from. Factoring in age, gender identity, ethnicity, disability, language, culture, and socioeconomic status will result in equitable, diverse, and inclusive streets and public open spaces. It is an approach to designing environments that considers the needs and preferences of all users, regardless of their age, abilities, or background. It should represent a wide range of perspectives that not only reflects social and ethical values but also contributes to the well-being, safety, and vibrancy of communities.

5.106. Consideration of equity, diversity and inclusion (EDI) elements ensures that public realm and open spaces are accessible and welcoming to everyone. This promotes fairness and social justice, reducing inequalities and exclusion.

5.107. Public realm and open spaces that embrace EDI include elements that reflect the cultural, historical, and social diversity of the community. This helps individuals feel seen and valued, fostering a sense of belonging. Such places also have a positive impact on physical and mental health. Accessible parks, and recreational facilities, for example, promote physical activity and relaxation for individuals of all abilities and backgrounds.

5.108. Designing in EDI aspects is a holistic approach that goes beyond compliance with regulations. It aims to create an environment where everyone can participate fully and equally, fostering a more inclusive and accessible environment. As communities continue to evolve and diversify, designing public realm and open spaces with EDI in mind helps ensure they remain relevant and effective for generations to come.

5.109. Public spaces should be designed to respond to the diversity of the individuals and communities using these spaces. Public space features should allow users to customise their experience based on their preferences and abilities. This might include language options, adaptable play equipment and/or ramps and handrails that ensure physical spaces are accessible to individuals with mobility impairments.

Figure 5.32 Illustration showing a Pocket Park with a range of equitably designed features

5 All Public Realm and Open Spaces

Principle EDIP1: Delivering equitable, diverse and inclusive public realm and open spaces

All development proposals should:

a) demonstrate an understanding of local demographics;
b) be designed to support accessibility, equity, diversity and inclusion of all users at all stages of their lives;
c) submit information on how a scheme has considered inclusive design for both day and night as part of Design and Access Statements; [D5]
d) create a sense of ownership and belonging by:
   i) co-designing with the local community with groups and users identified and agreed by OPDC officers;
   ii) supporting community ownership and management approaches; and
   iii) creating an inviting and socially vibrant public space that offer passive observation and active participation.
e) design spaces that provide the opportunity for all users at all stages of their lives to take part in civic, physical, and social activity.

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities

National Design Guide:
- C1 and C2, I1 to I3, P1 to P3, L2 and L3

London Plan 2021 / GLA Guidance
- Policy GGI (Building strong and inclusive communities)
- Policy GG3 (Creating a healthy city)
- Policy D5 (Inclusive design)
- Policy D8 (Public realm)
- Policy D11 (Safety, security and resilience to emergency)
- Accessible London SPG
- Planning for Equality and Diversity in London SPG
- Safety in Public Space - Women, Girls and Gender Diverse People
- Women's Night Safety Charter (see toolkit)
- Rough sleeping Plan of Action
- Health Inequalities Strategy
- Exploring London's Public Realm
- Shaping Neighbourhoods: Play and Informal Recreation SPG
- Violence Against Women and Girls Strategy 2022-25

Local Plan 2022
- Policy SP2 (Good growth)
- Policy SP3 (Improving health and reducing health inequalities)
- Policy SP6 (Places and destinations)
- Policy SP7 (Connecting people and places)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)
- Policy D7 (Heritage)
- Policy EU8 (Sustainable materials)
- Policy TCC10 (Night time economy)

Other documents
- British Standard BS 8300-1:2018 Design of an accessible and inclusive built environment. External environment – code of practice
- PAS 6463 | BSI (bsigroup.com)
- Housing Autism Planning Design Guidelines 2018
- Inclusive Mobility (2021)
- LLDC Evening and night time economy SPD
- UN Women Safe Cities and Safe Public Spaces (global initiative)
- RTPI - Neurodiversity – Autism-friendly environments and good practice in planning
- Enabling Spaces — Neurodiversity Hub
- Queering Public Space: Exploring the relationship between queer communities and public spaces
- DeafSpace
- WELL - International WELL Building Institute | IWBI (wellcertified.com)
- UK Active's How to improve your services for women and girls
- Adaptability of Public Spaces and Mental Health Inequalities during COVID-19 -Journal of Urban Design and Mental Health Edition 6 - Centre for Urban Design and Mental Health (urbandesignmentalhealth.com)
- Arup - Cities Alive: a child friendly approach to urban design is vital
- Understanding child-friendly urban design: A framework to measure Playful Learning Landscapes outcomes (brookings.edu)
- Adapted parks for children with disabilities | Sunrise Medical
- Disability and Inclusion: Making Outdoor Play Accessible (firstdiscoverers.co.uk)
- ASD-Publics_Design-Handbook_ENG.pdf (uoc.edu)
- The queer city: how to design more inclusive public space (theconversation.com)
- Department of Transport's Inclusive mobility: A guide to best practice on access to pedestrian and transport infrastructure for wheelchair-accessible pathways.
- Make space for girls
- To design safer parks for women, city planners must listen to their stories (theconversation.com)

Supporting text

5.110. Proposals should demonstrate that they have an understanding of the community they are designing for. This can be achieved by identifying data and intelligence collated, for example, the Joint Strategic Needs Assessment or the Health and Wellbeing Strategy.

5.111. Successful public realm and open spaces should enable everyone to move through, enjoy and use spaces comfortably and safely. It should positively respond to peoples' physical, social, sensory and neurological needs. Addressing the needs of groups with protected characteristics, under the Equality Act 2010, and other disadvantaged or vulnerable groups can have holistic benefits and create an equitable environment for people to celebrate their identities and communities.

5.112. These principles and good practice seek to work with the range of other signposted guidance to support the delivery of streets and walking and cycling routes that are inclusive, safe and equitably designed to meet the needs of all users. London Plan Good Growth Objective GG1 Building strong and inclusive communities, Policy D5 Inclusive design and Accessible London Supplementary Planning Guidance requires to achieve the highest standards of accessible and inclusive design and collaborating with the local communities.

Co-design and management

5.113. Co-design with the community fosters a more inclusive, effective, and meaningful design process. It allows for the diverse perspectives and participation of individuals who are directly affected by the design, ensuring that their needs, preferences, and concerns are considered in the decision-making process. This promotes inclusivity, avoids marginalisation, and leads to more equitable outcomes. Co-design taps into lived and local knowledge and expertise on environment, culture, history, and social dynamics.

5.114. Enabling public realm and open spaces to benefit from community ownership and management approaches involves empowering local communities to take an active role in the planning, design, utilisation, and maintenance. This can be established through community-led management structures or partnerships with local organisations to oversee the day-to-day operations and maintenance of the public space. Capacity building can provide training, resources, and support to community members to build their skills in project management, maintenance, programming, and other relevant areas.

Figure 5.33 Co-Design workshops with local communities in early 2023

5 All Public Realm and Open Spaces

Principle EDIP2: Designing in and improving accessibility

All development proposals should design places that are accessible by all users to deliver equitable, diverse and inclusive spaces during the day and night. To achieve this, proposals should provide: (2/7)

a) a clear, uninterrupted, easy to navigate and predictable environment;
b) well-defined and sensitively designed pedestrian routes and resting spaces through the use of street furniture;
c) routes that are step free, level and minimise or avoid camber;
d) have gentle slope with maximum 1:20 gradient. Long slopes should be interspersed with flat level areas;
e) level surfaces that are free from obstacles; including:
    i) minimising uneven surfaces and gaps by delivering:
        A. covers and gratings to be flush with the footway;
        B. gullies and drainage slots positioned as far as possible from the main pedestrian flows.
f) firm, sealed and slip resistant surfaces;
g) appropriately textured surfaces to mark transitions between different routes and areas by providing tactile cues that can be tangibly felt by feet, through wheels and mobility aids;
h) simple, straight or gently curved pedestrian routes with tactile surfaces on edges and soft landscaping ahead of differentiation where there is a change in direction or topography;
i) where appropriate, greater width pedestrian routes of typically 3 meters, to:
    i) support varying speed of pedestrians and people with mobility aids; and
    ii) provide 'pause areas' in kerbside activity areas parallel to walking and cycling routes on secondary and town centre streets to provide spaces to stop, rest, communicate, allow visual assessment and provide a sensory buffer.
j) wider turning spaces and gentle curves for pedestrian routes to support mobility aid users;
k) level kerbs and ramps with minimal gradient at entrances and intersections for wheelchairs and mobility aid access;
l) clear and multi-sensory wayfinding infrastructure that can be updated as required that:
    i) accords with TfL's Legible London guide and considers placement and access to ensure these are accessible by individuals with mobility aids;
    ii) is within sightlines located to offer continuous peripheral vision and in prominent locations;
    iii) is well lit and avoids glare;
    iv) is legible with large print and strong colour contrast;
    v) uses plain language and clear communication to make information and instructions easily understandable for all users, regardless of their literacy level or language proficiency;
    vi) includes visual direction information that is not written;
    vii) provides information in braille, tactile signage and multiple languages;
    viii) provide emergency contacts numbers and instructions;
    ix) integrates smart technology in wayfinding infrastructure that facilitates use, connects to maps, audible guidance, and live information;
    x) important information located at a height that is physically accessible; and
    xi) where possible, provides relevant information for vulnerable groups.
m) crossings through, to and from destinations that:
    i) are adequately wide to accommodate a range of mobility aids on busier streets such as secondary and town centre streets;
    ii) are frequently placed aligning with desire lines; and
    iii) provide crossing signals and surface materials with a range of sensory cues;
n) clear traffic signage for e-scooters and bikes to be used off pedestrian routes; and
o) sufficient space for parking of mobility aids.

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities

National Design Guide:
- M1 to M3, P1 to P3, L2 and L3

London Plan 2021 / GLA Guidance
- Policy GGI (Building strong and inclusive communities)
- Policy GG3 (Creating a healthy city)
- Policy D5 (Inclusive design)
- Policy D8 (Public realm)
- Accessible London SPG
- Planning for Equality and Diversity in London SPG

Local Plan 2022
- Policy SP2 (Good growth)
- Policy SP3 (Improving health and reducing health inequalities)
- Policy SP7 (Connecting people and places)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)

Other documents
- OPDC Industrial SPD
- DfT Cycle Infrastructure Design LTN1/20
- TfL London Cycling Design Standards (2/8)

Supporting text

Pedestrian routes

5.115. TfL's Planning for walking Toolkit embeds seven design principles to ensure the public realm supports high quality experiences for all its users including users of different abilities. This includes wheelchair users, people with buggies and users with mobility aids and mobility scooters. As such, pedestrian routes need to support unhindered movement by providing sufficient space for varying speeds and mobility. Pedestrian routes should also incorporate pause areas which are designated spaces that provide opportunities to rest, gather, and take a break from walking. These areas aim to enhance the experience, create safe spaces and promote walkability. By incorporating seating, shade, greenery and amenities, these areas prioritise the well-being and comfort of all users.

5.116. Pedestrian routes are designated areas specifically intended for people to move safely from one place to another. This includes both road safety and personal safety. They are a crucial part of infrastructure design to accommodate and ensure the safety of pedestrians, including those who use wheelchair and other mobility aids. It comprises publicly accessible footways, crossings, bridges, underpasses, open space footways and physically permeable spaces. It involves horizontal movement access routes and vertical movement such as steps, stairs, ramps and lifts. (2/10)

5.117. Step-free access in public realm and open spaces ensures that places are welcoming and usable by all, regardless of their physical abilities. In some instances where a step-free access isn't possible, appropriate measures should be delivered and agreed with OPDC prior to finalising the design. Whenever possible, design of movement routes, slopes and ramps should be as level as possible. This helps reduce the effort required for wheelchair users and other mobility aid users. This includes minimising or avoiding camber in pathways is essential for ensuring accessibility and ease of use for manual wheelchair users. Camber refers to the slope or curvature of a surface and it can create challenges for wheelchair users.

5.118. Wide pedestrian routes are essential for ensuring accessibility and inclusivity for individuals who use mobility aids

such as canes, wheelchairs, scooters, walkers, and strollers. These pathways not only benefit people with mobility impairments but also families with young children, older people and joggers. Movement should be aided by continuous connections to key facilities and allow for easy passage and turning. Ensuring that the pathway surface is smooth yet not slippery, level, and free from obstacles such as tree roots, rocks, and debris will be required to prevent trips and falls.

5.119. Generally, pedestrian environments should be level and effort should be made to ensure that the route is smooth as small dips or gaps in paving joints might present trip or fall hazards. If a level route is not feasible, it is important to maintain gentle slopes and avoid steep gradients to make it easier for mobility aid users to navigate. A gradient of lower than 1:20 is recommended by Department of Transport's Inclusive mobility: A guide to best practice on access to pedestrian and transport infrastructure for wheelchair-accessible pathways. Flat level areas should be integrated where slopes are long to make it easier for wheeling.

5.120. Pedestrian routes with sealed surfaces, that are free of loose material such as sand or gravel, are typically smooth, level and offer better traction making them suitable for users with mobility aids like wheelchairs, walkers, or strollers. Such bounded surfaces could be made from recycled concrete, resin bound gravel or asphalt. It is important to note that the choice of material should consider the specific needs and characteristics of the public space, as well as local climate conditions. Surface materials should be selected based on their durability, longevity and accessibility qualities that are less prone to erosion or wear and tear over time, reducing maintenance costs. Environmental and character considerations should also inform material choice (see Principle HCDP5: Choice of materials and ESP1: Achieving environmental sustainability).

5.121. Wider turning spaces at key points and using gentle curves and turns in the pathways instead of sharp angles can support mobility aid users to move and navigate through spaces.

5.122. Accessibility topographies should also consider adding additional features such as curb cuts, handrails, and tactile warning strips at intersections and crossings.

Navigation

5.123. Wayfinding infrastructure is essential for helping visitors navigate and enjoy the space. Design plays a vital role in facilitating intuitive navigation and minimising the reliance on wayfinding systems for all users. By incorporating a visually distinct hierarchy, clear sightlines and wayfinding cues, the layout of public realm and open spaces can guide people naturally with all abilities.

5.124. Peripheral vision is an important component of visual perception, particularly for sign language users and contributes to overall situational awareness and safety. To detect objects, movement, and visual information outside of the direct line of sight, provision of visual references and alignments can help detect the wider field of view.

5.125. The movement network for pedestrian and cyclists needs to be permeable, accessible and legible to support use and safety. OPDC's Wayfinding Strategy (2019) supports consistent integration, clear orientation and improved navigability to surrounding communities and destinations. Where possible, street nameplates can be updated to include braille and placed at appropriate height while all wayfinding elements should offer information in languages that are commonly spoken in the OPDC area.

5.126. Wayfinding infrastructure including information boards should be visually prominent and physcially accessible to support ease of reading. It should include recognisable symbols for accessibility, high-contrast colours, large fonts, and braille or tactile signage to make public realm and open spaces accessible to visually impaired visitors. Multilingual information should be used to where appropriate and/or directions to utilise technology to translate information should be provided. They should also mark the locations of destinations and amenities such as toilets, picnic areas, playgrounds, drinking water fountains and walking and cycling paths.

5.127. Visual cues, such as symbols or directional indicators, can help guide individuals through the space and provide important information. These references can be created through eye-catching patterns in the landscape. Examples such as careful tree placement, colourful public art and sculpture can provide stimulation and ease navigation for younger age groups, users with partial visual impairment and visitors/tourists.

5.128. Information boards for open spaces providing staff assistance helpline and use guidance, as well as information on opening hours, safety tips and support to use and enjoyment of spaces. Smart technology can be incorporated for visitors to download information on the phone that offers maps, GPS coordinates, and real-time information. Interpretive signs can enhance the visitor experience that provide information about cultural history, wildlife, and ecological features. These should be based on the Legible London infrastructure design approach.

5.129. Neurodiverse users may want to avoid high volumes of pedestrian traffic and wayfinding infrastructure and information boards can assist with that by including accessible alternative routes. This can also assist users that don't feel comfortable using a certain route due to safety reasons.

Technology

5.130. The Mayor of London's Smarter London Together and OPDC's Local Plan Policy EU11 (Smart Technology) support the implementation of smart city technology that improves the quality of life of local people and Londoners. With the right services digitalised as an option, the public realm and open space can have a positive image and be inclusive. It can support in providing wayfinding information to those who need sign language assistance or audio description for blind or partially sighted.

5.131. Digitised information boards should provide information in different formats that provide data about an area. Real-time information can offer ways to quickly provide feedback about an area, display warnings that can make people aware of incidents and poor air quality and facilitate children play activities. Other digitally enabled areas can provide services such as free Wi-Fi and charging facilities. Utilising smart lighting systems can provide additional flexibility and efficiency. These systems can offer features such as motion sensors, dimming capabilities, remote control, and scheduling, allowing for dynamic lighting control and energy conservation. Smart technology should be used on balance, considering communities that may not have access to it.

Supporting vulnerable communities

5.132. Wayfinding infrastructure provides the opportunity to provide valuable information to benefit vulnerable people in accessible locations. Where possible, wayfinding infrastructure should provide relevant information directing those in need to support and resources. This could include how rough sleepers can access accommodation and other support services such as Mayoral rough sleeping services such as London StreetLink service, charity organisation such as St. Mungo's or peer-led outreach services.

Crossings

5.133. Vehicular movement routes can create significant barriers for those with hearing impairments and partially sighted. these barriers can limit their ability to navigate through the public realm and access open spaces safely. Where possible, traffic signals should be audible, positioned at appropriate heights and have sufficient volume and visibility.

5.134. The provision of frequent and well-designed crossings

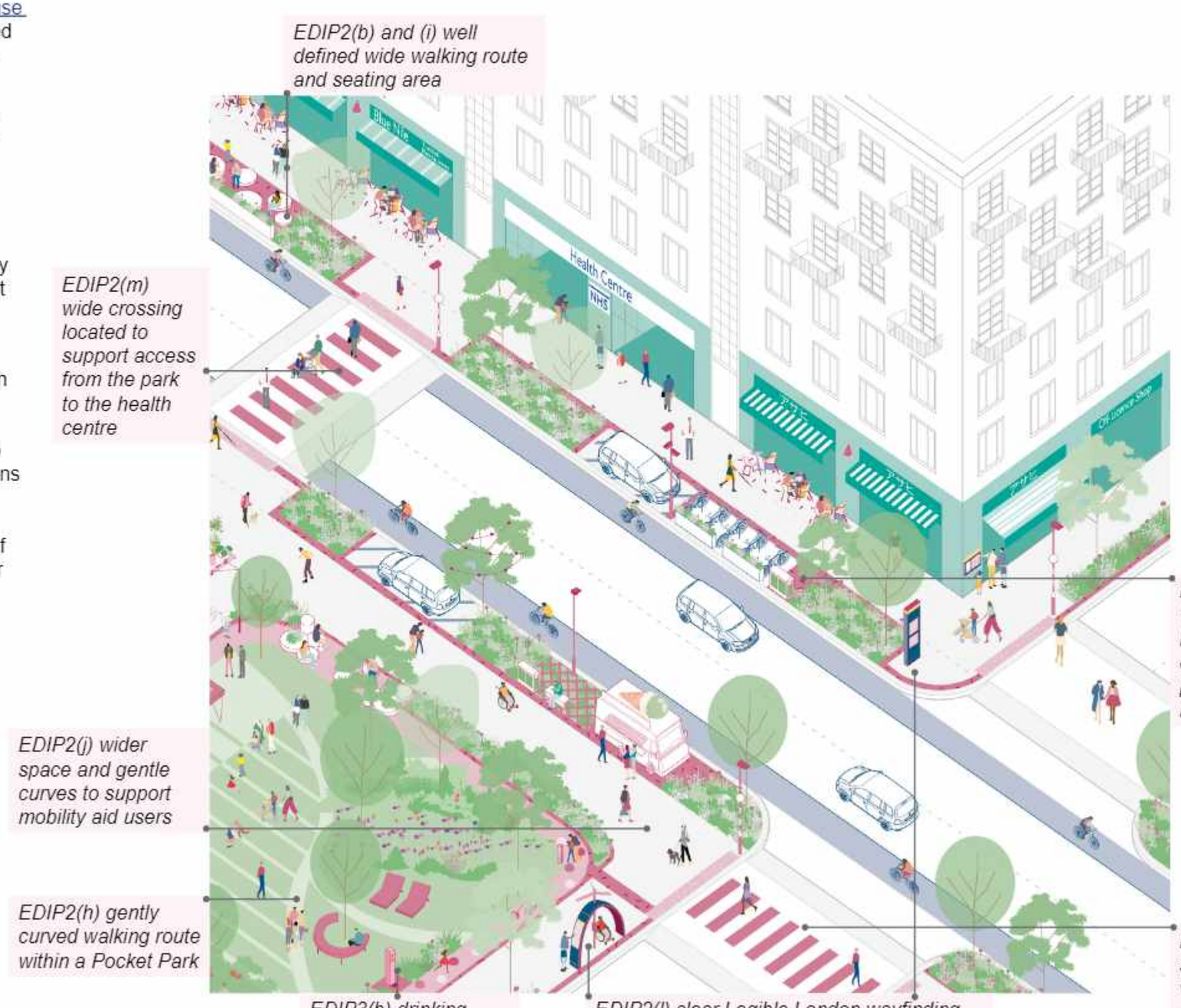
5 All Public Realm and Open Spaces

ensures a direct and safe journey if they are aligned with movement desire lines. The width and breath of crossings should ensure safety, comfort and unobstructed passage especially for individuals with varying mobility needs. DfT's Guidance on the use of tactile paving and TfL's Streetscape guidance provides detailed measures how this can serve various users with different needs and abilities. It includes measures such as advanced pavement markings through visual contrast, delineation through tactile paving, flashing lighting, adequate gradient of dropped kerb and proper vertical alignment.

5.135. The immediate experience and approach to public realm and open spaces should be accessible and safe for all users. Implementing safety traffic measures is crucial to ensure the safety of visitors, pedestrians, mobility aid users and cyclists. Any measures will need to be discussed and agreed with the relevant highways authority. Some common safety traffic measures to consider:

- clearly marked crossings should be installed to align with open space entrances to facilitate safe crossing for visitors;
- appropriately placed traffic signals, flashing beacons or pedestrian-activated signals and stop signs should be used to regulate traffic flow near park entrances and intersections. signs indicating the presence of a park should be clearly visible to motorists and cyclists;
- establish and enforce appropriate speed limits in the vicinity of the park. Calming measures can also include speed bumps or raised tables.

Figure 5.34 Illustration of how EDI principles could apply to a Town Centre Street



5 All Public Realm and Open Spaces

Principle EDIP3: Designing and improving usability and comfort

All development proposals should design usable and comfortable places that consider the needs and preferences of all users to deliver equitable, diverse and inclusive spaces. To achieve this, proposals should provide:

a) well-lit public realm and open spaces that:
   i) uses a range of direct and ambient sources to support visibility and safety;
   ii) supports navigation at night; and
   iii) supports visual assessment and communication to support sign language and lipreading;
b) ancillary amenities that cater to everyone's needs. This includes:
   i) design of drinking water fountains that:
      A. enable wheelchair and mobility aid accessibility and maneuvering;
      B. are installed in multiple areas with natural surveillance;
      C. provide the opportunity for bottle fillers;
      D. provide clean and safe water; and
      E. where possible, are sensor-activated;
   ii) public toilets that:
      A. are appropriately placed within direct sightlines to ensure easy access and safety including CCTV coverage;
      C. are free of charge;
      D. are easily identifiable;
      E. are accessible and usable by all;
      F. provide sanitation facilities;
      G. provide baby changing facilities and where possible provide private space for feeding; and
      H. cater to all gender identities.
c) provide a range of seating and leaning infrastructure that reflect OPDC's Street Family, open space typologies and their intended use that meet different needs including catering to a variety of different needs, abilities, communities and individual or group activities. This should include:
   i) a range of seating heights including armrests, backrests and standing supports to enable sitting and standing up;
   ii) contoured for ergonomic support;
   iii) appropriate angled surfaces of leaning perches to support less mobile people;
   iv) adaptable highchair seatings for early year age groups;
   v) adaptable seating and spaces for wheelchair users, mobility aid users, prams and buggies;
   vi) provision of a mix of social and personal-public spaces (See Principle HCDP4: High quality and inclusive active destinations and meeting points);
   vii) high-grip and easy to clean materials that consider seasonal changes and are comfortable to use in all weather conditions; and
   viii) placement of seating in areas with shade or shelters to provide relief from the sun, wind and rain, making it comfortable for users.
d) spaces that incorporate informal recreation and incidental play to engage all users of all ages (this excludes Primary Streets);
e) provide facilities and features for families to spend time together for longer (this excludes Primary Streets);
f) spaces that incorporate flexible spaces that are adaptable to user needs and abilities, ethnicities and backgrounds that enable activities that celebrate local culture to support a sense of belonging (this excludes Primary Streets);
g) enabling participation through gender-sensitive places by:
   i) incorporating specific interests of girls and young women and gender diverse people relating to games, sports, and other leisure-time activities;
   ii) celebrating heritage, represented through statues, memorials, plaques, temporary installations; and
   iii) addressing gender sensibility by ensuring that the needs of the community, involving women, gender diverse people, sociologists and protected characteristic groups are meaningfully engaged in the planning phase.
h) creating 360 degrees spatial awareness to expand sensory reach to improve orientation;
i) using materials and design approaches that reduce noise, glare and reverberation (see Principle GIBP1: Conserving, restoring, enhancing and delivering urban greening and biodiversity, Principle HCDP2: Approaches, frontages and boundary treatments and Principle MPP1: Improving microclimate and pollution); and
j) are designed to cater for neurodiversity in line with Bsi PAS 6463:2022 Design for the mind – Neurodiversity and the built environment – Guide.

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities

National Design Guide:
- C1 and C2, I1 to I3, B3, P1 to P3, H2, H3

London Plan 2021 / GLA Guidance
- Policy GGI (Building strong and inclusive communities)
- Policy GG3 (Creating a healthy city)
- Policy D5 (Inclusive design)
- Policy D8 (Public realm)
- Policy S6 (Public toilets)
- Public London Charter LPG
- Accessible London SPG
- Planning for Equality and Diversity in London SPG

Local Plan 2022
- Policy SP2 (Good growth)
- Policy SP3 (Improving health and reducing health inequalities)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)
- Policy D8 (Play space)

Supporting text

Lighting

5.136. Lighting for use and comfort in public realm and open spaces should be designed to enhance the overall experience of visitors during evening and night time hours. It should aim to provide adequate illumination for various activities, create a welcoming atmosphere, and fostering safety while also minimising light pollution. Adequate and well-designed lighting also ensures safety, prevents accidents, deters crime and creates a sense of security.

5.137. Lighting strategies should incorporate glare-reducing approaches, such as proper positioning of windows, using window treatments, and incorporating diffused lighting fixtures. Diffused lighting helps distribute light more evenly, reducing glare and enhancing visual comfort for individuals using assistive devices.

5.138. Wayfinding signs and maps should be illuminated to help visitors navigate spaces easily. Installation of emergency lighting at key locations, such as entrances and restrooms should ensure visitor safety in case of power outages or emergencies.

Facilities

5.139. Well-designed open spaces with facilities that accommodate

individuals, promote inclusivity and help to ensure that everyone can enjoy spaces. This can play a significant role in enhancing the overall experience and usability of spaces. This includes accessible and well-maintained sanitation facilities. When people have convenient facilities, they are more likely to spend time in the public realm and open spaces, socialise and engage in community activities. The importance of having facilities can vary depending on the specific needs of the community and the size of the open space. Facilities like toilets, and drinking fountains provide essential amenities that ensure visitors' comfort and accommodate everyone.

Toilets

5.140. Toilets should be usable by people of all ages, ethnicities, beliefs, gender identities and abilities. They are essential for individuals with specific needs, such as those with disabilities, the elderly, pregnant women, and parents with young children. Design aspects will need to consider:

- the placement of toilets in convenient locations, ensuring they are easily accessible from popular areas and amenities;
- aspects of safety including CCTV, direct sightlines and emergency helpline information;
- the needs of individuals with mobility challenges with accessibility features such as wide doorways, grab bars and sufficient space for manoeuvring wheelchairs and assistance devices;
- provision of sinks, countertops and urinals at varying heights to accommodate users of different heights and mobility levels;
- family friendly amenities such as nappy changing stations and feeding areas to support parents and caregivers of all gender identities;
- private stalls that accommodate individuals who may require assistance from a caregiver or family member;
- where possible, installing touchless fixtures to reduce the need for physical contact, enhancing accessibility and hygiene;
- providing emergency pull cords or buttons for individuals who may require assistance;
- gender-neutral toilet options that includes signs that promotes inclusivity and respect for all gender identities; and
- providing hooks or shelves within the cubicles for personal belongings can also enhance convenience.

Seating

5.141. Design of seating and table areas should provide a variety of seating options, considering the needs and preferences of individuals. Appropriate spacing and delivery of adaptable seating will provide safe spaces for wheelchair users, users of other mobility aids and prams to be positioned away from movement routes. Mayor of London's Expanding Public Realm design guide supports the design of seating that allow for wheelchairs users to join others easily. This can be achieved by providing benches clear of end arm rests that allow wheelchair users to transfer out of their wheelchair and onto the seating. Where tables are provided, these should be designed to be accessible to wheelchair users by incorporating an open area that is not blocked by fixed seating. Such provision should be situated on firm level ground/ sealed material that can be reached via a level path free of loose material. By incorporating inclusive design elements such as highchairs, appropriate seating dimensions and adjustable features will support accessibility for children, individuals with mobility impairments, and facilitate intergenerational socialising.

5.142. While public realm and open spaces are often associated with social interaction, it is important to recognise the need for private seating options where individuals can have some personal space for solitude, relaxation and personal reflection within a larger public setting. It can also benefit those with neurodiversity and LGBTQ+ individuals. These can offer a feeling of security and solitude for individuals who need a break from sensory stimuli or who prefer to have a private space. Usage of inclusive signage can communicate the purpose of these private seating areas. This seating can be provided in personal-public spaces which are strategically placed in quieter locations but provide a sense of enclosure and privacy for those needing or wanting it. The seating arrangements can resemble personal pods or cubicles with high backs or partial enclosures in the form of small benches, screens or dividers, quiet zones, canopies or alcoves while also enabling appropriate levels of natural surveillance. Everyone should be able to make use of spaces for social interaction.

Drinking fountains

5.143. Accessible and inclusive drinking water fountains provide an equal access to safe and clean drinking water for visitors, regardless of their abilities, backgrounds, or needs. This contributes to a more welcoming and equitable environment. Design aspects will need to consider:

- wheelchair-accessible heights and sufficient manoeuvring space for wheelchair users;
- installing in multiple areas and coordinated with other amenities, including near entrances, attractions, and picnic areas, to ensure that they are easily accessible to all visitors;
- providing opportunity for bottle fillers to accommodate different preferences and encourage the use of reusable bottles;
- planning for regularly testing and maintaining drinking fountains to ensure that they provide clean and safe water and display water quality certifications to reassure users about the safety of the water source;
- incorporate lower-level taps and bowls for pets;
- where possible, user-friendly controls that are sensor-activated models to minimise physical contact; and
- cultural preferences and sensitivities of the local community when designing and placing drinking fountains.

Inclusive and adaptable spaces

5.144. Cultivation of attractive, flexible and adaptable spaces can encourage a variety of activities from users with different ethnicities and religion. A flexible space to celebrate various cultural and religious events provides a sense of ownership. This includes perception of safety, cleanliness and the availability of space that gives people a choice of how to use it. This provision recognises diversity and the wealth of communities, needs and identities. In the short term, this can mean that spaces can adapt to different uses and activities, at different times of the day. These can be temporary uses, pop up events, markets, performing arts, health

Figure 5.35 Wheelchair accessible drinking fountain, Exchange Square, City of London

and well-being sessions.

5.145. Design of public realm and open spaces should offer girls, young women and gender diverse people a gender-sensitive place that addresses the male design bias. Girls and young gender diverse people should be motivated to use public areas more often by creating spaces and facilities that young girls, and women and gender diverse people can enjoy. This can include girls-only retreat spaces, opportunities for non-male sport, play areas and calm zones for socialisation such as swings, performing platforms, trampolines, secluded retreats, small structured common areas, outdoor reading areas.

5.146. Public art and cultural exhibits should reflect the diversity of the community and ensure that these installations are accessible to all, including those with visual or hearing impairments. Designing in components that represents local identities and heritage that have historically been under represented in the public helps to address long-standing design biases, supports inclusion and provide soft signals that spaces are inclusive and welcoming to groups with protected characteristics. Examples include celebrating local women, minority ethnicities and LGBTQ+ people through statues, memorials and plaques. Public realm and open spaces can also implement and display anti-discrimination policies to ensure that everyone feels safe and respected.

5.147. Creating clean and inclusive spaces for contemplation that cater to individuals of all religions and belief systems is a thoughtful approach to fostering diversity, inclusivity, and respect in public realm and open spaces. It demonstrates a commitment to respecting the diverse beliefs and backgrounds of the community. Such spaces can serve as symbols of unity and understanding, promoting a sense of belonging for all residents and visitors. Design aesthetics can use neutral and inclusive design aesthetics that do not favour any specific religious or cultural group and avoids using symbols or imagery that may be associated with one faith over another. It should be a multi-purpose contemplation space that is versatile, accommodating various forms of worship, meditation, or reflection. It should be adaptable to individual, and group needs and capable of accommodating a variety of seating options, including benches, cushions, or prayer rugs, to cater to different preferences and needs. Consider incorporating features that offer privacy, such as screens, curtains, or dividers, for individuals who prefer solitude during contemplation. The space should offer informational signage that explains the purpose of the space and emphasises its inclusivity for all faiths and belief systems.

5.148. Due to the function of Primary Streets, various elements of this principle are not considered to be appropriate to be delivered along this highly trafficked routes.

Materials

5.149. The careful selection of materials and design approaches can create a more inclusive and comfortable environment for individuals with mobility aids. Department of Transport's Inclusive Mobility Guide suggests that loose sand or gravel, woodchips and cobbles should not be used. Even though it may provide a natural finish or offers a permeable option, it can prove challenging for wheeling, particularly where sand and gravel may interfere with the brakes, castors and bearings. Materials used around street furniture and wayfinding infrastructure should also consider accessibility to wheelchair users without necessitating wheeling over grass, rough surfaces, cobbles or surfaces covered with loose material. Cobbles should generally be avoided as their uneven finish can be a hazard for wheeling. However, where they are proposed as a design feature, these should be smoothed over.

5.150. Choice of materials should also consider individuals using assistive devices, improving sound quality and reducing noise-related challenges. Noise sensitive uses should generally be avoided in noisy area. However, where this is unavoidable, to reduce noise, reverberation, echo and enhance sound for people who use assistive devices such as hearing aids and cochlear implants, materials and design approaches can be employed. This includes the use of:

- sound-absorbing materials to minimise reverberation and echo. These materials can include materials with high Noise Reduction Coefficient (NRC) ratings. Such materials help absorb sound waves, reducing background noise and enhancing speech intelligibility;
- sound-isolating partitions minimise noise transfer and create a barrier against external noise sources;
- landscaping elements to help mitigate external noise. Trees, shrubs, and green walls can act as natural sound barriers, reducing noise levels and enhancing the overall acoustic environment;
- assistive listening systems such as induction loops or infrared systems directly transmit sound to hearing aids or cochlear implants. These systems can enhance sound clarity and speech intelligibility for individuals with hearing loss.

5.151. Acoustic consultants should conduct an acoustic design analysis of the space to identify potential noise and sound-related issues. This analysis can help determine identify potential noise sources in order to optimise the overall acoustic environment.

Figure 5.36 Using playful features in a pedestrian route to guide movement by Design studio Europa

Figure 5.37 Performance area in public space with sound-absorbing materials to minimise reverberation and echo by Innovation, Urban Prototyping and You | SPUR by Sirgious

5 All Public Realm and Open Spaces

Principle EDIP4: Designing and improving 24hour safety

All development proposals should design and improve safety that considers the needs and preferences of all users to deliver equitable, diverse and inclusive spaces. To achieve this, proposals should:

a) design 24hour safety into a project's lifecycle, including design inception, construction, completion and post-occupation;
b) employ a balanced approach between the needs of diverse local communities of the area and wider placemaking;
c) ensure the safety for women and gender diverse people as part of a broader effort to promote inclusivity and equal access for all;
d) provide wayfinding signage, information boards and other design measures that encourage taking safe routes to schools, playgrounds and other children's infrastructure;
e) deliver unobstructed, clear and open sightlines allowing natural surveillance;
f) deliver lighting on streets and routes to:
   i) enhance evening and night-time use of social spaces; and
   ii) cover an adequate surface area to be lit that is spread evenly to cover various locations and heights.
g) install emergency call boxes and first-aid kits at regular intervals in Town Centre Streets, Local Centre Streets, Local Parks, Small Open Spaces and Pocket Parks;
h) liaise with relevant safety and security stakeholders and support and implement community policing programmes, neighbourhood watch programs and community safety initiatives;
i) support and signpost any technology such as safety mobile apps and alert systems; and
j) as part of open space management plans, commit to regular assessments and data-driven decisions to re-assess any unsafe areas.

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities
- 12. Achieving well-designed and beautiful places

National Design Guide:
- M1 to M3, P1 to P3, L2 and L3

London Plan 2021 / GLA Guidance
- Policy GGI (Building strong and inclusive communities)
- Policy GG3 (Creating a healthy city)
- Policy D5 (Inclusive design)
- Policy D8 (Public realm)
- Accessible London SPG
- Planning for Equality and Diversity in London SPG
- Safety in Public Space - Women, Girls and Gender Diverse People
- Women's Night Safety Charter (see toolkit)

Local Plan 2022
- Policy SP2 (Good growth)
- Policy SP9 (Built environment)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)

Supporting text

5.152. Designing and improving 24-hour safety requires a comprehensive approach that considers various aspects. It is a dynamic and ongoing process that requires the cooperation of law enforcement, local government, communities, and various stakeholders. Regular assessments, data-driven decisions, and community involvement are key elements in achieving and sustaining safety.

5.153. Ensuring that the public realm and open spaces are safe for all, regardless of gender identity, age, ethnicity or physical abilities, creates an environment where everyone feels safe and welcome during the day and evening. It is essential to approach safety in the public realm and open spaces for women and gender diverse people as part of a broader effort to promote inclusivity and equal access to the public realm and open spaces. Design can impact safety and spaces should be designed to have clear lines of sight and reduce the likelihood of concealed areas.

5.154. Design features can also consider additional aspects such as emergency call boxes at regular intervals that can be equipped with direct connections to local law enforcement or emergency services. In areas with a high volume of people, having access to first aid equipment such as defibrillator stations can provide quick medical assistance. Technology such as mobile apps and alert systems can allow visitors to report safety concerns and incidents quickly. These systems can also provide information on safe routes and offer safety tips.

5.155. Establishing channels for people to provide feedback on safety concerns can help management teams make necessary improvements. Along with CCTVs, smart technology can play an important role in understanding the user's perspective. Phone applications can be developed, and used to inform open space management plans, that allows visitors to overlay digital information of their surroundings, such as, safety alerts or uncomfortable spaces. This can also provide real-time views of different areas, helping both managers of open space and visitors to monitor activities. The use of these can be promoted through building management or information boards.

5.156. Supporting and implementing community policing programmes, neighbourhood watch and community safety initiatives can assist in additional support around enforcing safety. Using data statistics to identify high-risk areas and times can also assist in designing streets and spaces. Regular assessments and improvements in safety measures are necessary to ensure that the public realm and open spaces remain enjoyable and secure.

5 All Public Realm and Open Spaces

Principle EDIP5: Supporting and improving physcial, mental and emotional wellbeing

All development proposals should be designed to support the health and wellbeing of all users at all stages of their lives. To achieve this, proposals should:

a) for major proposals, submit Health impact assessments (HIAs) with planning proposals;
b) provide public realm and open spaces that supports mental health and well-being by:
   i) creating a welcoming and inclusive environment;
   ii) connecting to nature;
   iii) creating opportunities for solitude and reflection; and
   iv) promoting social connections and ensuring safety.
c) provide opportunity for physical well being and active lifestyle by facilitating:
   i) active travel in accordance with Principle MIP2: Pedestrian routes and Principle MIP3: Cycling;
   ii) physical activity for all ages and abilities, including:
      A. safe and accessible pedestrian routes to public open spaces and active destinations that are enjoyable and welcoming;
      B. designing formal and informal recreation along pedestrian routes; and/or
      C. outdoor gyms and provide space for other forms of group exercise.
d) provide protection from and help reduce impact of urban stressors on health by considering design of spaces and features;
e) ensure designs are inclusive and equitable by providing a range of landscaping and planting approaches to support diverse needs including:
   i) planting with sensory experiences benefit individuals with visual impairments;
   ii) memory gardens that assist in improving mental and emotional well being of older people;
   iii) avoiding the use of hyper-allergic and toxic plants; and
   iv) incorporating plants that hold cultural significance.
f) integrate artistic and cultural elements that positively impact people's emotional well-being; and
g) display information and resources to support mental health and emotional well-being.

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities

National Design Guide:
- I2, M2, N1 to N3, P1 to P3, H1

London Plan 2021 / GLA Guidance
- Policy GG3 (Creating a healthy city)
- Policy D5 (Inclusive design)
- Policy D8 (Public realm)
- Health Inequalities Strategy

Local Plan 2022
- Policy SP2 (Good growth)
- Policy SP3 (Improving health and reducing health inequalities)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)

Figure 5.38 Accessible food growing by Happy Gardens

Supporting text

5.157. By integrating health and well-being opportunities from the outset, designers can create a public realm and open spaces that provides features and amenities that promote physical activity, mental well-being, community health, social interaction, and access to nature. This can be addressed by identifying potential hazards or challenges early in the design process. Measures can be implemented to mitigate risks and create an environment that supports healthier behaviour and lifestyle.

5.158. Health equity can be promoted by addressing potential disparities in access to health-promoting resources and amenities. By designing inclusive and accessible public realm and open spaces, the needs of diverse populations, including individuals with disabilities, older adults, and marginalized communities, can be met, ensuring equitable access to health benefits. Collaborating with public health officials, landscape architects, and the community ensures that health considerations are appropriately addressed and incorporated into the design to maximise the potential for health gains. Health-focused public realm and open spaces provide opportunities for exercise, whether through walking, jogging, playing sports, or using fitness equipment.

Inclusive and equitable design

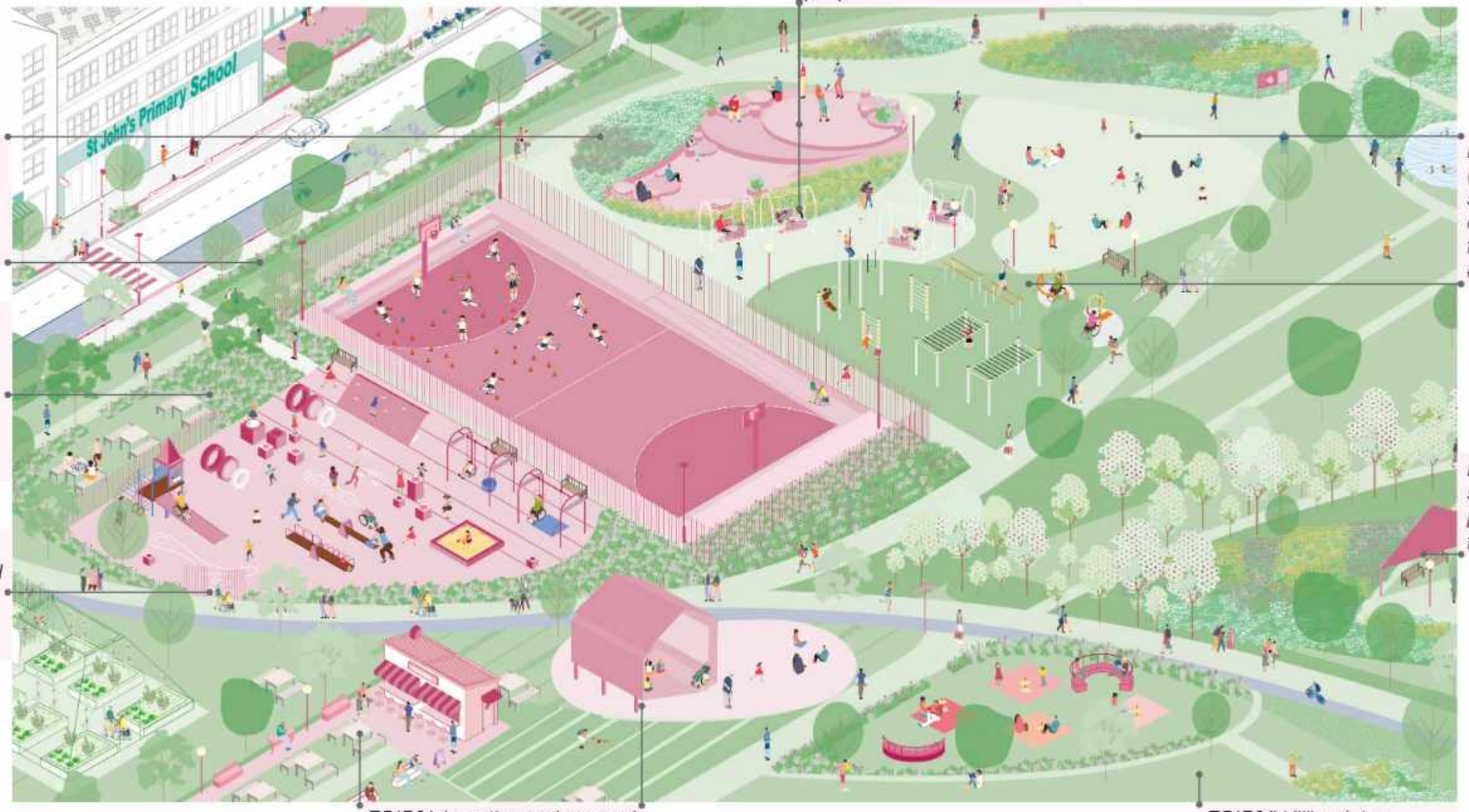
5.159. When promoting physical health in the public realm and open spaces, it is important to consider and address the needs of individuals with protected characteristics to ensure inclusivity and equal access. It needs to ensure that active spaces are designed to be accessible for individuals with disabilities by providing ramps, manoeuvring space, handrails, accessible parking, and designated pathways that accommodate mobility aids.

5.160. Natural green environments offer a serene and calming setting, promoting relaxation and stress reduction. Landscaping in the public realm and open spaces should incorporate greenery to create a calming and visually appealing environment. The choice of plants should reduce allergen exposure for individuals who suffer from allergies. This can include native and non-wind-pollinated plants such as native wildflowers, ornamental grasses, and insect-pollinated flowers that can help reduce allergens. Walking paths and trails that meander through natural areas allows visitors to connect with nature. Landscaping features can be inclusive that appeal to all senses through scent, colours, sounds, wildlife, edible fruit trees/plants.

5.161. Opportunities for community gardens should be provided, where possible, which can be therapeutic and educational.

5 All Public Realm and Open Spaces

Figure 5.39 Illustration of how EDI principles could apply to a Local Park or other public open spaces



EDIP3(g) gender-sensitive designed seating and spaces to support use by girls, young women and gender diverse people

EDIP5(d) planting used to separate sport court and play areas from traffic

EDIP3(d) / EDIP5(c)(ii)(C) informal spaces and dedicated locations for socialising and exercise

EDIP5(b)(ii)(iv) seating area located next to naturalistic plant for access to nature and social interaction

EDIP3(c)(i)(H) shaded seating providing respite from sun and rain

EDIP5(c) child playspace located near to walking and cycling route for easy access

EDIP3(e) seating and covered areas for family gatherings

EDIP3(b)(iii) quieter areas away from play and exercise facilities for solitude and rest

5 All Public Realm and Open Spaces

Physical wellbeing

5.162. Designing public realm and open spaces with health and well-being in mind can lead to positive health outcomes for communities. The quality, accessibility and type of equipment plays an important role in promoting physical activity among people. Providing amenities such as accessible jogging paths and walking trails to encourage people to exercise outdoors, dedicated and well-connected walking and cycling paths, outdoor fitness equipment that has accessibility features such as ramps and adaptable handrails to accommodate people of all abilities can encourage physical activity.

5.163. Including fitness equipment and exercise stations suitable for all ages and fitness levels will support healthy lifestyles and offer free exercise equipment for all. This may include outdoor gyms, space to use calisthenics equipment and balance activity (i.e., yoga, dance and Tai Chi) spaces. Informal recreation also has the ability to encourage activity. This can be achieved through providing adult fitness playgrounds or multi-generational play areas that encourage physical activity for all age groups, ethnicity and socio-economic groups. Passive recreational spaces can offer spaces for activities such as chess tables and ball games.

5.164. An approach to play and physical activity should be demonstrated in all designs, whether taking the form of dedicated outdoor equipment or by providing landscaping or other informal design features that supports playful, engaging and explorative behaviour. This will provide a range of options that will support diverse and inclusive programming that caters to varied interests in line with UK Active's How to improve your services for women and girls. This can include modified fitness classes, adaptive sports programmes, sensory-friendly activities, and culturally relevant activities that engage different communities. This will avoid outdoor facilities and recreation spaces to become overly dominated by one group of users.

5.165. The choice of a particular activity form may depend on different factors, the most important of which are: age, physical abilities, gender identities and family. Design of informal and formal play space should recognise these different needs. For instance, provision for adolescents typically defaults to group shelters, multi-use games areas, and skate parks, which can be dominated by boys and may not meet the needs of many girls and young gender diverse people. Gender-sensitive design may help reduce barriers to using these spaces by girls or adolescents with protected characteristics, allowing them to benefit from opportunities to enhance health and wellbeing.

Figure 5.40 Designing in spaces that cater to all age groups, Dordrecht

Figure 5.41 Samovar Space designed and created by apprentices as part of the London School of Economics (LSE) Apprenticeship in City Design and delivered in collaboration with Flanagan Lawrence

Mental and emotional wellbeing

5.166. Promoting mental and emotional well-being in public realm and open spaces is important for creating inclusive and supportive environments that positively impact the overall health of individuals.

5.167. Exposure to natural elements can reduce stress, improve mood, and enhance overall well-being. This can be achieved by creating community gardening or green spaces where people can relax, engage with nature, and experience a sense of tranquillity. These spaces should provide sensory experiences for individuals with visual impairments or other sensory needs, such as incorporating textured plants, fragrant flowers, or tactile elements.

5.168. Various things in the environment can provoke anxiety symptoms in public urban spaces. Common environmental factors include crowded spaces, poor lighting, litter and graffiti, lack of privacy, lack of facilities such as toilets, confusing or chaotic layouts and safety concerns particularly in response to perceived violence and crime. Design of the public realm and open spaces should include adequate open areas, wider walkways, illuminated areas, designated quiet zones, private and sheltered seating, spaces, intuitive layouts that are easy to navigate and reduce cognitive overload and enhanced security measures. Collaboration with mental health professionals and community stakeholders can help identify specific anxiety triggers in a given urban environment and implement appropriate strategies for mitigation. (15/1)

5.169. Integrating art installations, sculptures, murals, or cultural displays can inspire creativity, evoke positive emotions, and stimulate mental engagement.

5.170. Assessing the needs and consulting with communities in an important aspect of providing different spaces. Designated spaces for mindfulness and meditation practices, such as personal-public areas, quiet areas, meditation gardens, or dedicated yoga areas can promote relaxation, stress reduction, and emotional well-being. These zones should:

- be away from high-traffic areas or noisy facilities;
- have adequate room for movement and postures;
- use physical barriers or natural elements like hedges, trees, or water features to create a sense of separation and tranquillity;
- incorporate natural elements, such as plants, flowers, and water features, to create a visually appealing and relaxing environment;
- utilise materials like grass, smooth stones or wooden decks that enhance the sensory experience and contribute to a peaceful ambiance;
- consider providing shade structures or canopies to protect

practitioners from direct sunlight or rain; and
- integrate mindfulness features such as meditation circles, labyrinth paths, or reflection ponds.

5.171. Water features can contribute significantly to mental wellbeing. OPDC's Canal Placemaking Strategy identifies the Grand Union Canal as an asset for leisure and wellbeing. Any improvements should consider good natural surveillance, regular maintenance of street furniture, maintain cleanliness and provide adequate security measures that will contribute to creating a safe and enjoyable recreational environment along the canal side. Events and canal side activity should consider canal side neighbours, including boaters who live on the canal (at permanent or visitor moorings) and any impact on wildlife, including nocturnal wildlife. Opportunities can include: (B/10)

- a scenic route for exercise, leisurely strolls, or cycling. Consideration should be given to adding benches, resting areas, and water fountains along the paths for convenience and comfort. It should consider accessibility and inclusivity by ensuring there are wheelchair-accessible pathways, seating options, and amenities to accommodate individuals with disabilities.
- picnic areas and green spaces along the canal side for relaxation by installing picnic tables, providing grassy areas, and shade-providing trees where people can gather, have a meal, and enjoy the outdoors. This encourages social interaction and a sense of community.
- water activities such as boating, kayaking, canoeing, or paddleboarding by establishing boat docks or launch points where people can access the water and enjoy recreational activities.
- wildlife observation can provide numerous advantages to the well-being of individuals and promote feelings of relaxation and tranquillity. Where canals offer various wildlife species, designated areas or platforms for wildlife observation can be created where visitors can appreciate the natural habitat and observe birds, ducks, or other animals that inhabit the canal.
- outdoor exercise equipment along the canal side can offer fitness stations, yoga platforms, or sports courts. This allows visitors to engage in physical activities while enjoying the natural surroundings.
- events and festivals can include music concerts, art exhibitions, food festivals, or outdoor movie screenings. Such events promote community engagement, attract visitors, encourage walking and enhance the overall recreational experience.
- cafes and restaurants with outdoor seating areas that overlook the canal can provide visitors with the opportunity to relax, enjoy a meal or a cup of coffee while appreciating the canal's ambiance.

5.172. Displaying information and resources to support mental health and emotional well-being can include contact information for local support services, helplines, or mental health organisations. It can promote awareness and reduce stigma by providing educational materials that address common mental health concerns and offer guidance on seeking help.

5.173. Addressing user security adds to wellbeing and needs to be an essential aspect in encouraging them to undertake outdoor activities. This includes adequate and appropriate lighting in outdoor exercise areas such as in parks, trails and pedestrian routes. Careful consideration should also be given to access points and parking areas. Well-lit spaces increase visibility and make individuals feel safer, particularly during early morning or evening workouts. Implementing safety measures such as surveillance cameras, emergency call points, and well-marked emergency exits provides individuals with a sense of security and confidence.

Social interaction

5.174. Social interaction in the public realm and open spaces, however small, can ease the burden of routine everyday life, contribute to the sense of belonging in society, create opportunities to connect with other people and build morale. Community cohesion and interactions offer a welcome respite from the demands and monotony of everyday life, reducing stress and promoting mental well-being. Engaging in social interactions and volunteering opportunities within these spaces helps create a sense of belonging and connectedness to the larger community. Places designed for sitting, dwelling and social interaction should also receive a good level of sunlight and daylight. Shelter should also be considered where feasible. These places should be assessed and located in areas with minimum levels of noise and exposure to air pollutants (See Principle MPP1: Improving microclimate and pollution and MPA1: Improving microclimate and pollution). Soft landscaping can impact sense of belonging and harmony.

5 All Public Realm and Open Spaces

Microclimate and pollution

Introduction

5.175. The quality of the experience by users of public realm and open spaces can be strongly affected by the microclimate and pollution levels. Microclimate includes factors such as the levels of daylight and sunlight, wind speed, heat and glare. A favourable microclimate can enhance human health and comfort by regulating temperature, humidity, and air quality. It can reduce the risk of heat-related illnesses, cold stress, and air pollution-related health issues.

5.176. There are various types of environmental pollution but the pollution that is most likely to detract from the enjoyment of the public realm and open spaces is air and noise pollution. Light pollution may additionally impact building users and key species such as bats, and water pollution may impact both ecosystems and the enjoyment of waterways such as rivers and streams, lakes and ponds, and canals.

5.177. Microclimate and pollution should be considered in the design of new streets, routes and open spaces. Careful consideration should be taken when designing development adjacent to any streets, routes or open spaces to ensure enhancement of the current microclimate conditions. It is essential to avoid worsening the existing microclimate conditions and pollution levels experienced in these locations.

5.178. The Mayor's London Plan (Policy D3, D8, SI1, SI4 and D14) and OPDC's Local Plan (Policy SP8, D5, EU2, EU4 and EU5) requires development proposals not to create unacceptable risk of high levels of exposure to poor air quality and requires an air quality positive approach for large developments. It sets out a requirement for tall buildings to not compromise the enjoyment of open spaces and aid the dispersal of pollutants. In addition, all buildings should minimise overshadowing, provide areas of direct sunlight and maximise the usability of external amenity spaces. Policies also require the public realm to contribute towards active travel and provide appropriate shade and shelter so that people are encouraged to spend time in the public realm.

Figure 5.42 Illustration of a Pocket Park utilising green infrastructure to mitigate air pollution and climate conditions

5 All Public Realm and Open Spaces

Principle MPP1: Improving microclimate and pollution

All development proposals should improve and mitigate impacts of microclimate and pollution by:

a) undertaking Microclimate Assessments early in the design process to minimise the environmental impact of a development on public realm or open space;
b) considering a holistic approach and the collective impact of any mitigation measure proposed on daylight, sunlight, wind, thermal comfort, noise, and air pollution;
c) avoiding inhibiting the dispersion of pollutants by carefully considering the location and design of green infrastructure in the public realm and open spaces and ancillary buildings;
d) avoiding amenity near vents/outlets;
e) minimising changes in microclimate on ecological receptors;
f) minimising exposure to air pollutants through:
    i) the distance between sources of air pollution and sensitive receptors while ensuring the protection of the receptors from harmful airborne pollutants. Preferential treatment should be given to locating more sensitive human or ecological receptors such as health facilities, open spaces, schools and community hubs further and protected from the sources of pollution;
    ii) designing on-site green infrastructure in accordance with the GLA's 'Using Green Infrastructure to Protect People from Air Pollution' and 'Green Infrastructure for Roadside Air Quality' (GI4RAQ) guidance, where appropriate; and
    iii) delivering enhanced water infiltration SuDS designs.
g) minimising noise between noise sources and receptors through:
    i) use of green infrastructure, including the use of hedges, planters, appropriate height green screens (see Principle GIBP1: Conserving, restoring, enhancing and delivering urban greening and biodiversity);
    ii) physical separation by introducing acoustic screening either by use of noise barriers or building design/ orientation (see Principle EDIP3: Designing and improving usability and comfort);
    iii) ensuring proposals for open spaces are in line with British Standard: BS8233. Open spaces should be designed and located so that:
        A. external noise levels do not exceed 55 decibels (dB) $L_{Aeq,T}$ over a majority of the area;
        B. demonstrate how the development has been designed to achieve the lowest practicable noise levels.
h) achieving acceptable wind conditions in all pedestrian and cyclist thoroughfares through:
    i) careful consideration of the form and position of developments;
    ii) considering 'safe and suitable wind conditions' in line with the Lawson criteria;
    iii) preventing strong winds on pedestrian or cycling routes exceeding 15 m/s for more than 0.025% of the year;
    iv) considering the width of streets relative to existing and proposed building heights;
    v) use of naturalistic landscaping that is a combination of evergreen trees, shrubs, planters, pergolas or green canopies to break up wind flow; and
    vi) where appropriate, use of structures such as public art, solid canopies or screening with porosity and at an appropriate size to reduce wind funneling.
i) mitigating the Urban Heat Island effect by:
    i) making use of trees to provide shade and shelter to pedestrian routes and open spaces, particularly where seating is proposed. Trees that are lining pedestrian thoroughfares should be spaced to provide continuous or near-continuous shade;
    ii) using built environment elements such as colonnades or removable solar sails; and
    iii) reducing absorption of solar radiation and reflection by using suitable materials. This can include paving materials that are lighter coloured and non-reflective.

Ambition MPA1: Improving microclimate and pollution

All development proposals are encouraged to improve and mitigate impacts of microclimate and pollution by:

a) generally achieving acceptable wind conditions through targeting wind conditions suitable for strolling (or calmer) conditions in line with the Lawson Comfort Criteria; and
b) considering the soundscape of areas to maximise their suitability and promote the benefits to health and wellbeing. This can be achieved by:
    i) providing designated quiet spaces within noisy areas;
    ii) introduction of positive sound scaping tools such as water features and wild birds.

Signposts

National Legislation: Environment Act 2021
National Planning Policy Framework:
- 14. Meeting the challenge of climate change, flooding and coastal change
- 15. Conserving and enhancing the natural environment

National Design Guide:
- N1 to N3, P2

London Plan 2021 / GLA Guidance
- Policy D8 (Public realm)
- Policy D13 (Agent of change)
- Policy D14 (Noise)
- Policy SI1 (Air quality)
- Policy SI4 (Managing heat risk)
- Policy T2 (Healthy streets)
- Air quality positive LPG
- Air quality neutral LPG
- Using Green Infrastructure to Protect People from Air Pollution
- London Local Air Quality Management (LLAQM) Guidance
- The control of dust and emissions in construction SPG

Local Plan 2022
- Policy SP3 (Improving health and reducing health inequalities)
- Policy SP7 (Connecting people and places)
- Policy SP8 (Green infrastructure and open space)
- Policy D1 (Public realm)
- Policy D5 (Amenity)
- Policy EU1 (Open spaces)
- Policy EU2 (Urban greening and biodiversity)
- Policy EU4 (Air quality)
- Policy EU5 (Noise and vibration)
- Policy T2 (Walking)
- Policy T3 (Cycling)

OPDC supporting studies
- Air Quality Study 2018
- Environmental Standards Study
- Environmental Modelling Framework Study

Other documents
- Trees and Design Action Group (TDAG) - First Steps in Trees and New Developments; Trees in Hard Landscapes: A Guide for Delivery; Tree Species Selection for Green Infrastructure; First Steps in Urban Air Quality and Heat
- University of Birmingham: Green Infrastructure for Roadside Air Quality (GI4RAQ)
- BRE 209 Site layout planning for daylight and sunlight: a guide to good practice (latest edition)

5 All Public Realm and Open Spaces

Supporting text

5.179. As global temperatures rise due to climate change effects, improving microclimates can enhance local resilience to extreme weather events and temperature fluctuations. Improving local climate conditions also leads to the well-being of both the environment and the users of the area. A healthy microclimate supports diverse ecosystems and promotes biodiversity. It can help maintain habitats for various plant and animal species in urban areas.

5.180. Green infrastructure plays a crucial role in improving and maintaining favourable microclimates in urban areas. It involves the strategic use of greening elements to manage environmental conditions that can contribute towards providing shade from the sun, shelter from the wind, slowing wind speeds, cooling through transpiration, and dissipation of solar glare.

5.181. Greening features can also help mitigate extreme weather events such as heat waves, cold snaps and heavy rainfall. Trees, vegetation, and green spaces provide shade and cooling effects that helps lower ambient temperatures, making the microclimate more comfortable during hot weather.

Air Pollution mitigation

5.182. Policy EU4 of the Local Plan requires Air Quality Assessments where a sensitive use is proposed in close proximity to an existing source of air pollution (see OPDC Air Quality Study 2018). Therefore, where required, the distance between the source and receptor should be determined using detailed dispersion modelling and a well-designed air quality monitoring programme.

5.183. Greater attention should be given to areas with higher pedestrian traffic and areas where public exposure for lengthier periods of time is more likely, such as seating or play areas, rather than along footpaths where exposure to air pollution is likely to be more transient.

5.184. Maximising the separation distance between pollution sources and receptors supports health and well-being. Receptors are defined as more sensitive users/uses, including health facilities, schools, nurseries and care homes. London Local Air Quality Management (LLAQM) Guidance 2019 sets out Air Quality Objectives (pollutants and averaging periods). However, where local planning authorities have set their AQO's under the Environment Protection Act 1990, these should be adhered to. Priority should be given to maximising the separation of receptors and pollutants with long averaging periods of exposure. This should particularly be considered when the alignment of vehicular streets is being changed.

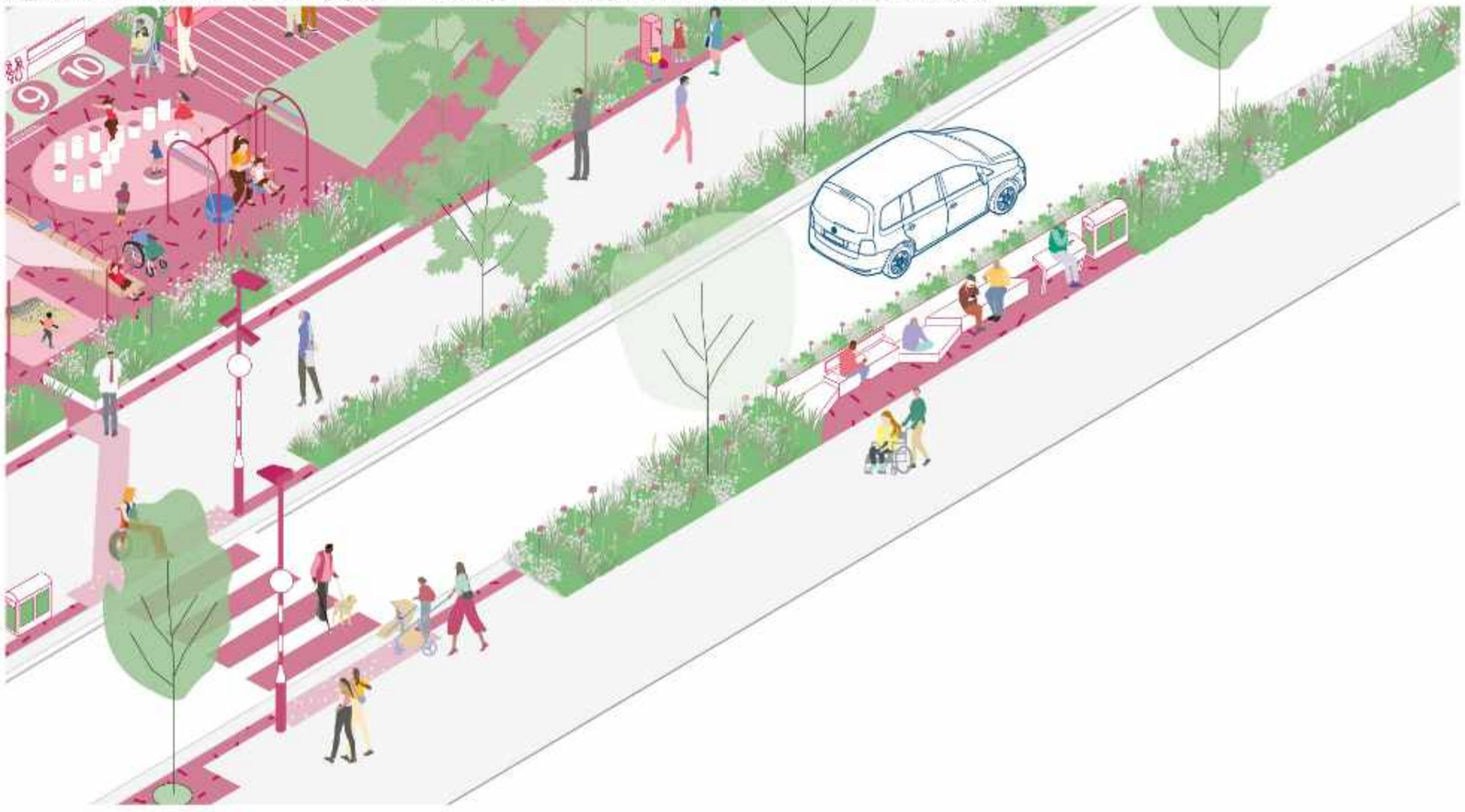
5.185. All types of green infrastructure can assist with facilitating the dispersion of pollutants away from sensitive receptors and have the capability to act as a pollution sink. The selection and location of greening should be carefully designed to manage pollutant dispersion. It encompasses the movement, distribution, and dilution of pollutants in the environment relative to the wind speed and direction, layout of the streets, height and location of buildings on either side of a road.

5.186. GLA's Using Green Infrastructure to Protect People from Air Pollution 2019 guidance indicates how green infrastructure can be used to facilitate dispersion inside and outside of street canyons, which arise where continuous buildings can modify pollutant dispersion along roads. This can be achieved through vegetation barriers such as avenue of trees, open spaces, row of hedges, green roof, or a combination of all. The details of its implementation are critical and should consider:

- vegetation barriers from ground level to a height of at least 2 meters;
- thickness and density to ensure effective blocking of air flow;
- where a combination of greening is used, it should form a continuous barrier taking into account sight lines and safety;
- tree species that provide year-round protection and unbroken canopy such as evergreen trees;
- where possible, consider larger, waxy and hairy leaf surfaces for deposition of pollutants;
- species that are resistant, non-invasive and non-allergen;
- suitably maintenance to remain effective; and
- advice from tree consultants in selecting the right species to ensure long term protection and growth.

5.187. The 'Green Infrastructure for Roadside Air Quality' (GI4RAQ) guidance (University of Birmingham et al., 2021) and First steps in urban air quality 2017 (Birmingham Institute of Forest Research and the School of Geography, Earth, and Environmental Science of the University of Birmingham, Lancaster

Figure 5.43 Illustration showing green infrastructure acting as pollution barrier for pedestrians



5 All Public Realm and Open Spaces

Environment Centre of Lancaster University, and TDAG) considers the influence of urban form and the distribution within the street, therefore providing advice on how green infrastructure should be used to disperse air pollutants upwind and downwind of air pollution at various locations adjacent to roads. Recommendations regarding the use of on-site green infrastructure to manage air quality are set out in section 4 and 5 of the guidance (flow chart and scientific evidence). Recommendations are based on factors such as whether receptors are predominantly parallel or perpendicular to the roads and the relative height of buildings compared to the width of the road.

5.188. SuDS capture pollutants and sediments from runoff, allowing them to settle out before the water is discharged into local water bodies. Various natural and engineered SuDS infiltration components like soil, vegetation, sediments and porous material act as filters, trapping pollutants and sediments from the runoff. See Principle GIBP4: Water management through greening and supporting text.

Microclimate and ecology

5.189. Ecological receptors may be sensitive to changes in microclimate caused by adjacent development. Microclimate Assessments should assess the impact of development on these sites at design stage, to demonstrate how potential impacts have been mitigated and/or minimised. This includes changes to wind speed and mixing potential (known as the canyon effect) which can influence local air quality and temperature, as well as the potential impact of increased overshadowing to sensitive habitats.

5.190. A consideration of the sensitivity to overshadowing of adjacent Sites of Importance for Nature Conservation (SINCs), including the Grand Union Canal and any priority habitats to the east, south, and west of any developments should be provided in any Preliminary Ecological Appraisal or Ecological Impact Assessment submitted with a planning application for such development. If any SINC or priority habitat is identified as particularly sensitive to overshadowing, it should be included as a receptor within the accompanying Daylight, Sunlight and Microclimate Assessment.

Noise mitigation

5.191. London Plan Policy D14 (Noise) and Local Plan Policy EU5 (Noise and Vibration) requires the reduction, management and mitigation of noise to improve health, quality and use of public realm and open spaces. Noise pollution refers to the excessive and unwanted noise. High levels of noise and vibration can impact on physical and mental health.

5.192. Preventing the generation of noise from new developments and reducing noise from existing sources should be considered early in the design process. Minimising noise in the public realm and open spaces is essential for optimising the peaceful enjoyment of these areas. Mitigation measures can include:

- appropriate placement of noise generating activities;
- quieter technologies;
- incorporation of green infrastructure, such as trees and vegetation can act as natural noise barriers by absorbing and reflecting sound;
- designating quiet zones can also provide residents and visitors with peaceful, noise-free spaces for relaxation and recreation;
- use of sound-absorbing materials;
- the installation of noise barriers for areas of sitting. Where perimeter screens are proposed, design should consider the use of green infrastructure, acoustic and visual aspects; and/or
- creation of buffer zones between noisy and quiet areas.

5.193. British Standard: BS8233:2014 provides noise targets for external areas such as amenity space on noise levels from road, rail and aircraft noise as well as construction and industrial noise. It states that it is desirable that noise levels do not exceed 50 dB $L_{Aeq,T}$ (the average sound level over a specific time period) with an upper guideline value of 55 dB $L_{Aeq,T}$. Preference will be given to achieving 50dB $L_{Aeq,T}$ over a majority of the area. Where it is not possible to achieve 55 decibels (dB) $L_{Aeq,T}$ throughout the public social space, achieving levels of 55 dB $L_{Aeq,T}$ should be achievable in some areas of larger spaces, and it should be stated how the development has been designed to achieve the lowest practicable noise levels.

5.194. However, it is recognised that this may not be achievable in all circumstances. In line with the OPDC Local Plan, play spaces should also be protected from areas that are exposed to noise pollution hotspots.

5.195. These limits apply only to noise, defined as unwanted sound. Sound levels exceeding the BS8233:2014 criteria may be considered acceptable where this contributes to a positive soundscape, for example where this masks unwanted noise such as traffic, or where sound is derived from a location's distinctive historical character, ecosystems or water bodies.

5.196. The introduction of positive sound scaping is encouraged as these sounds can help to mask noise from other sources. Sound scaping can take the form of things such as water features which have generally been demonstrated to be pleasurable to listeners. Similarly, wild birds can also be desirable as the sound of their bird song is generally perceived to be pleasant.

Wind mitigation

5.197. Adequate wind conditions in the public realm and open spaces refer to conditions that are conducive to the comfort, safety, and well-being of people using those areas. If social seating areas are being provided, then these locations should have conditions suitable for sitting. In many cases, a gentle breeze that flows through a public space is preferable. This can help disperse pollutants, provide natural ventilation, and create a pleasant, refreshing atmosphere. Understanding prevailing wind directions and speed in a given location can help in the design and usability of the space.

5.198. However, strong winds can impede the accessibility and pose safety risks. Creating adequate wind conditions in public realm and open spaces requires a thoughtful balance between natural elements, design, safety, and community preferences. It often involves a combination of windbreaks, landscaping, architectural design, and an understanding of the local climate and environment to provide a comfortable, healthy and enjoyable experience for those using the space.

5.199. The Lawson Wind Comfort Criteria sets out safe and suitable wind conditions. Under this approach, average wind speeds are categorised according to the type of activity that would be suitable under them. While different variants of the Lawson criteria exist and are acceptable to be used, in general calmer conditions will fall into 'suitable for sitting' categories, with progressively windier categories considered suitable for 'standing', 'strolling', 'walking' and then the windiest conditions considered uncomfortable for any use. Separately to this, the criteria set out a threshold for strong wind frequencies, expressed as the duration of time per year that winds over a certain speed are experienced, beyond which wind conditions at the given location would be considered unsafe.

5.200. Daylight, Sunlight and Microclimate Assessments should be undertaken using wind tunnel testing where tall buildings (over 15 storeys) are proposed or where there is reasonable expectation of the potential for strong winds. For example, where an initial Computational Fluid Dynamics (CFD) study demonstrates conditions suitable for 'walking' in line with the Lawson Wind Comfort Criteria. If this is not required, developers should use CFD, dependent on the level of risk of strong winds, and methodology should be agreed with OPDC. See Local Plan table 5.1 for further information.

5.201. Where a Daylight, Sunlight and Microclimate Assessment is undertaken to support any planning application, the wind locations tested must include any surrounding thoroughfares within the zone

5 All Public Realm and Open Spaces

of influence with a reasonable expectation of pedestrian or cyclist access. As well as demonstrating safety from strong winds and gusts, a Daylight, Sunlight and Microclimate Assessment should demonstrate suitable wind conditions applicable for the type of street or route, with quieter routes generally expected to target strolling, rather than walking, conditions in line with the Lawson Wind Comfort Criteria. Demonstrations of safety from strong winds should also consider roads and not just pavements, particularly where designated cycling routes are identified, as cyclists are considered sensitive receptors to strong winds. Where seating currently exists or is proposed along streets and routes, calmer conditions should be targeted, especially during the summer months.

5.202. Tall buildings close to waterways that aren't appropriately designed can cause adverse wind impacts on the towpath or water space that can affect navigation of boats. Developments along the Grand Union Canal should avoid creating a canyoning effect along its length.

5.203. Unacceptable wind conditions should be designed out wherever possible through careful consideration of the form and position of new buildings. Where further mitigation is required to achieve acceptable conditions, preference should be given to green infrastructure solutions such as evergreen trees, shrubs and planters over 'built' solutions such as canopies and screens.

5.204. The Daylight, Sunlight and Microclimate Assessment should specify the nature and location of any wind mitigation measures so that detailed design of any wind mitigation features can be secured by condition. Careful consideration should be given to the design of engineered wind mitigation measures from early in the design process. Built environment wind mitigation measures can also be incorporated into public art. In addition, Green Infrastructure and Open Space Strategy and Management Plans (GIOSSMP) should note which planting features are necessary to mitigate against unacceptable or unsafe wind conditions to ensure that trees, shrubs and planters are maintained and continue to support acceptable wind conditions.

Reducing Urban Heat Island effect

5.205. Urban Heat Island (UHI) effects refer to the localised warming of urban areas compared to their surrounding rural areas. UHI effects are primarily caused by factors such as the heat-absorbing properties of materials, reduced vegetation, waste heat from buildings and vehicles, and increased energy consumption for air conditioning and heating.

5.206. UHI effects can be mitigated and reduced through focus on minimising heat build-up and creating cooler, more comfortable urban environments. Solutions include; increasing trees and vegetation, green roofs, cool roofs, reflective and lighter-coloured pavements for streets, incorporate water features that can have a cooling effect through evaporation, energy-efficient building designs, reduce waste heat from buildings and industrial processes, maximise shading and minimise hard surfacing.

5.207. Creating wider pedestrian routes and boulevards of trees for shade have an important role to play in mitigating UHI effects and lowering thermal heat stress while outdoors with the focus on providing usable shade and shelter for summer months. Trees with a higher crown diameter are the most effective at providing shade; diameters are shaped by the size of tree pits; therefore, pits should be of a sufficient width and depth to support appropriate crown diameters. Shade is most effectively provided where minimal space exists between tree canopies, and this should be considered for pedestrian routes. Trees have a substantial advantage in reducing Urban Heat Island effects relative to other open spaces, with treeless urban green spaces providing a cooling effect between 2 and 4 times lower than urban trees .

5.208. Shelter from traffic, extreme rain, high wind speed and extreme sun is important to offer street furniture that is useful in different weather conditions. This can be in the form of canopies or under colonnades. When incorporating shading elements, it's important to consider the specific context, climate, and functional requirements of the space. Proper design, orientation, and material selection should be taken into account to ensure that the shading devices effectively soften the transition while harmonising with the overall design of the public space.

Paving materials and glare

5.209. Lighter colours have a higher albedo and reflect a greater quantity of light. This means that lighter coloured materials absorb less energy and therefore radiate less heat. This is shown in lighter colours used both in traditional Mediterranean architecture and retrofit trials in cities such as New York and Los Angeles. However, the reflectivity of high albedo materials leads to a greater risk of solar glare, and these requirements should be balanced appropriately. In particular, consideration must be given to avoiding reflection that would cause a risk to car or train drivers or pilots.

Figure 5.44 Project investigating the use of green screens to improve roadside air quality by Anja H Tremper (before and after)

Case Study
An ivy screen was installed adjacent to the railings separating a playground at Bowes Park Primary School, Enfield from the roadside. Once the ivy screen had matured, annual and hourly mean concentrations measured in the playground reduced relative to the roadside by 15µg/m3 (21.8%) and 18.3µg/m3 (22.5%).

5 All Public Realm and Open Spaces

Environmental sustainability

Introduction

5.210. To succeed in tackling climate change and achieve the net zero vision, environmental sustainability must be ingrained in design, delivery and management. Old Oak and Park Royal have an extensive network of streets, open spaces, and waterways, providing an opportunity for enhancement through sustainable development principles.

5.211. Regeneration of Old Oak and Park Royal will create new and improve existing public realm and open spaces and adopting a more circular economy approach could significantly reduce the amount of residual waste, provide economic opportunities and deliver benefits for local communities. A more circular economy where materials are retained at their highest value for as long as possible and then re-used or recycled, will support sustainable waste management. Resource conservation combined with sustainable waste management and a shift towards a more circular economy will be key to reducing waste, increasing material reuse and recycling, and reducing carbon emissions.

5.212. This chapter focuses on ensuring the sustainability of materials used within the public realm and open spaces. The below sets out guidance on the principles of re-use and recycled materials, modularity and disassembly, low embodied carbon, prioritising the use of local sources and promoting durability and adaptability that create resilient places.

Figure 5.45 Remade, material exchange hub in Park Royal

5 All Public Realm and Open Spaces

Principle ESP1 Achieving environmental sustainability

All development proposals should minimise environmental impacts by:

a) careful selection of materials considering carbon sequestration (long-term carbon capture), embodied energy, whole life cycle sustainability and circular economy;
b) promoting the local supply chain, employing local people, prioritising suppliers within the local area where possible and at a minimum, Greater London;
c) prioritising reclaimed aggregates over virgin materials by considering 100% of all aggregates derived from reused or recycled content through:
   i) zero waste from works associated with the proposal; and
   ii) a minimum of 20% of each material being derived from reused or recycled content.
d) using 100% timber that is FSC (Forest Stewardship Council) certified. This includes during construction works within the public realm (including temporary works such as hoardings);
e) installing concrete kerbs on non-primary streets using reclaimed material or as a minimum 65% recycled material;
f) using Rapidly Renewable Materials in the creation of borders across all public realm and open spaces.
g) considering street furniture that is robust through:
   i) prioritising re-use of recycled material meeting the baseline of a minimum 20% material that is recycled;
   ii) considering the use of modular elements so that interchangeable units are adaptable, offer optimum utility, versatile and provide retrofitting options;
   iii) creating street furniture that serves multiple purposes, maximising its utility and reducing the need for additional infrastructure;
   iv) where practicable and suitable, moveable planters are installed in hard landscaped spaces to allow flexibility of spaces;
   v) made from reclaimed wood and recycled steel;
   vi) ensuring materials used are durable, withstand weathering, selected for its longevity, low maintenance qualities and of a low embodied carbon;
   vii) using resources efficiently in the construction of street furniture to minimise whole-life carbon; and
   viii) taking into account seasonal changes and projected climate change where its use is not dependent on the weather.
h) integrating all public lighting installations as LED lighting including renewable energy sources;
i) installing waste bins that include both 'general waste' and 'recycling' segregations at a minimum;
j) where temporary structures are proposed:
   i) prioritise re-claimed or recycled materials;
   ii) prioritising the circular economy where the end re-use of each material is specified in planning applications; and
   iii) modularity and adaptability in design;
   iv) design for longevity; and
   v) low-toxicity finishes.
k) constructing public outdoor shelters and bike shelters with rapidly renewable material content.

Ambition ESA1 Achieving environmental sustainability

All development proposals should seek to minimise environmental impacts by:

a) re-using timber pallets considering longevity of their intended use;
b) using bamboo as a building material, where appropriate;
c) considering street furniture that is robust through:
   i) use of 100% reclaimed materials and recycled content;
   ii) where possible, incorporate smart technology to track energy use and waste data;
   iii) sourcing furniture from manufacturers with a commitment to sustainable and ethical production practices;
   iv) use information boards to educate the public about the sustainable features of street furniture and promote environmentally responsible behaviors.
d) constructing temporary structures from timber meeting 100% FSC certification or from 100% recycled and/or re-claimed content;
e) using recycled material in the construction of bike/e-scooter parking furniture at a minimum of 20%;
f) using materials that are sustainably sourced from ethical and responsible supply chains in accordance with relevant standards;
g) supporting community proposals contributing to sustainability initiatives, such as 'green team volunteers'; and
h) regularly assessing and updating sustainability initiatives based on feedback, evolving technology, and best practices.

Signposts

National Planning Policy Framework:
- 14. Meeting the challenge of climate change, flooding and coastal change
- 15. Conserving and enhancing the natural environment

National Design Guide:
- N3, L2

London Plan 2021 / GLA Guidance
- Policy D8 (Public realm)
- Policy SI10 (Aggregates)
- Policy SI2 Minimising greenhouse gas emissions
- Policy SI7 (Reducing waste and supporting the circular economy)
- Whole life carbon LPG
- Circular economy statements LPG

Local Plan 2022
- Policy D1 (Public realm)
- Policy EU8 (Sustainable materials)
- Policy EU7 (Circular and sharing economy)
- Policy EU9 (Minimising Carbon Emissions and Overheating)

OPDC supporting studies
- OPDC Environmental Standards Study

5 All Public Realm and Open Spaces

Supporting text

5.213. Environmental sustainability in the public realm and open spaces is an ongoing process that requires commitment, collaboration, and adaptability. Achieving environmental sustainability offers numerous advantages, not only for the natural environment but also for communities and individuals. It can stimulate local economies, mitigate the effects of climate change by reducing carbon emissions and lead to reduced energy consumption.

Sustainable materials

5.214. Local Plan Policy EU8 promotes local supply chains within the OPDC area. Suppliers within the OPDC area should be prioritised where practicable and at a minimum, materials must derive from the Greater London area. Reducing, shortening and sourcing from the local supply not only boosts the local economy but also reduces carbon emissions especially those related to transport. Where it is not feasible to source materials locally, development proposals must prioritise materials with low embodied carbon and consider sustainable transportation methods for their delivery.

5.215. In line with London Plan Policy SI10, development proposals within the OPDC area must prioritise the re-use and recycling of construction, demolition and excavation waste. The use of reclaimed or recycled aggregate has a number of sustainability benefits. Recycled aggregate uses less energy in production and often requires a considerably reduced travel distance lowering whole life carbon emissions. Where practicable, aggregates should derive from within the OPDC area. This may be possible following the demolition/retrofitting of existing buildings which will have a variety of aggregates and materials in-situ.

5.216. Local Plan Policy EU8 also requires 100% of timber to be FSC certified. Timber that is certified as 100% recycled/re-claimed content should be prioritised over the use of virgin material in public realm and open spaces. This can also be used during construction works, including temporary works such as hoardings, formwork etc. Using reclaimed materials reduces the embodied carbon associated with construction/ development and meets circular economy requirements set out in London Plan Policy SI 7 and Local Plan Policy EU7. This includes timber pallets that can be used in various ways to extend their lifespan and reduce waste. Where pallets are used for deliveries, these can be re-used to create temporary or short term play structures, furniture, garden projects, storage, event décor or temporary structures.

5.217. Kerbs and pavement blocks are generally bulk-concrete precast and made from natural aggregates. Concrete has a high embodied carbon, hence reclaimed or recycled material should be prioritised over virgin material, where practicable.

5.218. Rapidly Renewable Materials are made from agricultural products that are generally harvested within a 10 year or less cycle, thus having a lower environmental impact. Rapidly Renewable Materials can be used as building products and should be prioritised if virgin materials are to be used in the creation of public realm and open spaces. In particular, bamboo can be a suitable material for uses in both structures and borders due to its strength, flexibility and durability. These properties also allow it to be re-used at end-of-life in line with circular economy and sustainable materials policies.

Sustainable street furniture and play equipment

5.219. Sustainable street furniture refers to outdoor amenities and infrastructure in public realm and open spaces that are designed, manufactured, and maintained with a focus on environmental sustainability. London Plan Policy D8 and Local Plan Policy D1 support materials within the public realm that are durable and sustainable. Development proposals that propose street furniture should consider materials that are eco-friendly, durable, robust, have a low environmental impact and consider the associated whole life carbon. This can include using recycled materials, certified wood, and low-toxicity finishes.

5.220. Design and material selection of street furniture and play equipment should:

- be built to last, reducing the need for frequent replacements and minimising waste;
- be low maintenance that does not require regular upkeep and painting;
- easily modified or expanded to meet changing needs, reducing the need for entirely new installations;
- where necessary, consider 100% recycled plastic. This will reduce the whole life carbon cost by giving material a second life. Recycled plastic may also offer more durability wood or certain types of metal. Recycled plastic is free from rusting, does not require regular painting, does not rot and is also safer for its intended use, being anti-slip and not splintering.
- where wood is considered appropriate, be designed to avoid the risk of rotting. Wooden structures fixed to the ground need to make the connection between timber and foundations with drainage holes to let unwanted water escape;
- durable and adaptable to enable reconfiguration over time, avoiding resource intensive disposal when their location is no longer fit for use;
- carefully consider the design of street furniture and play equipment. For example, a design incorporating flat, horizontal surfaces encourages rainwater resulting in rotting and rusted fixings. Therefore, creating a design with carefully thought out details which include slopes, angles and gaps ensures that the rainwater runs off;
- easily disassembled and recycled at the end of its life cycle;
- implement energy-efficient features such as solar-powered lighting for benches, bus stops, or bike racks; and
- encourage recycling and reduce litter by installing recycling bins and waste separation systems at public furniture installations.

5.221. Careful consideration should be given to the material choice for mobile planters. Wood generally has more maintenance implications whereas recycled steel or UV resistant polyethylene planters may be used as an alternative, given the whole life carbon is assessed.

5.222. Where seating areas are incorporated, preference should be given to constructions from 20% reclaimed as a minimum and 100% reclaimed materials and/or recycled content over the use of virgin materials.

5.223. Energy-efficient lighting technologies like LED fixtures and solar-powered lighting should be considered to reduce the park's environmental impact and operating costs. LED lights consume up to 80% less energy than traditional incandescent lighting, lasting 25 times longer. Public lighting should use renewable sources such as photovoltaics (PV) installations to harness energy from sunlight, reducing the whole life carbon cost associated with the installation of main grid electricity.

Sustainable temporary structures

5.224. Local Plan Policy EU7 requires developers to design buildings and spaces to be highly adaptable to economic, demographic/ social, technical and commercial and environmental change. Easy re-design, temporary use and retrofitting reduces unnecessary construction, carbon emissions and waste.

5.225. Public realm and open spaces should offer spaces that can accommodate 'pop up' installations (e.g., Portobello Pavilion) in accessible locations. Such spaces can meet the growing demand of the community due to their flexible nature, revitalize underutilized or vacant spaces and can be easily relocated or repurposed. Pop-up structures should be designed with sustainability in mind, utilising eco-friendly materials. They are temporary, so they have a lower long-term environmental impact compared to permanent structures. Structures must be modular, and the end re-use of each material used must be specified in

applications. Where developments are required to state the re-use of materials, this ensures thought over circular economy principles which greatly reduces waste generated. In addition to this, where practicable, materials used to construct pop up structures across all public realm and open spaces should also be either re-claimed or recycled with planned re-use at end-of-life. They should also be designed for disassembly to prolong use. This should be feasible with certain material types which are durable and adaptable, such as bamboo and metal frames. Where this is not feasible, virgin materials must have their end-of-life re-use stated, preferably within the OPDC area.

5.226. Use of temporary street furniture should be considered to enhance the public realm and open space during certain times of the day and/or the year (e.g., Guildhall Yard tables and chairs). Street furniture within the OPDC could be a shared facility, for example furniture used during weekend markets or 'pop ups' could be moved to industrial areas and/or office areas for lunch time seating during weekdays, thereby reducing the materials required.

5.227. As with materials, no space within the OPDC area should be underutilised. Where developments are phased, applicants should state temporary use for vacant areas within their meanwhile feasibility studies required by Local Plan Policy TCC8, with public realm and open space prioritised. This could be in the form of moveable shrublands and green space, transferring around site as developments progress. This is not only beneficial visually but provides invaluable habitat to increase biodiversity and linkages between green spaces across the OPDC. This ambition looks to ensure that all of the OPDC's resources are maximised.

Sustainable transport structures

5.228. All bike and e-scooter parking and storage must be designed to be easily re-located within the OPDC area. This will allow developments within the OPDC to manage the 'desire lines' concept, in the event that it becomes clear an alternative parking location is more desirable to the local community. If structures are designed to be easily re-located, for example they may be modular, there should be no associated waste or additional material requirements for their relocation. Where practicable, all bike and e-scooter parking furniture should be constructed from recycled material, at a minimum of 20%.

Community

5.229. By engaging communities, public realm and open spaces across the OPDC area will have a greater chance of fulfilling their potential and maximising material lifespans. Support should be given for community volunteer groups to be set up. These groups may enact initiatives on biodegradable packaging, removal of single use plastic, maximising recycling, food growing or water initiatives. Support for performing arts and educational programmes should be considered during public realm and open space proposals. For example, this may include areas dedicated to public art, created from sustainable materials obtained as excess from construction activities or waste materials from local businesses.

Figure 5.46 Portobello Pavilion, Kensington and Chelsea by ArchitectureDoingPlace

Case study
A temporary pavilion utilised semi-skilled volunteers in its construction. The pavilion was designed with a circular economy in mind and was reinvented as an ice rink for Walthamstow Winter Wonderland.

Figure 5.47 Upcycling for Safer Streets in London's Brixton Market

Case study
Repurposed cargo pallets become jungle-themed curb extensions along Atlantic Road to help give people more space to socially-distance while shopping or simply passing bys.

6.Public Realm

6 Public Realm

Introduction

6.1. OPDC has developed a street family that sets out a hierarchy of movement routes considering transport and place-based elements. It is based on TfL's London Street Family while reflecting recommendations in the National Model Design Code and the local context.

6.2. This section sets out further guidance for All Public Realm relating to movement and further guidance specific to each OPDC Street Family typology. The typologies comprise:

- Primary Streets;
- Secondary Streets;
- Local Streets;
- Town Centre Streets; and
- Local Centre Streets.

6.3. The envisaged street types are depicted in figure 6.1 which shows the movement hierarchy as it is envisaged to be at the end of the Local Plan period in 2038.

6.4. Table 5 comprises the OPDC Street Family reference matrix. This sets out each street type and the relevant Principles and Ambitions relevant to the street type.

Figure modification (4/2, 13/1)

Figure 6.1 OPDC Street Family showing the component street types in 2038

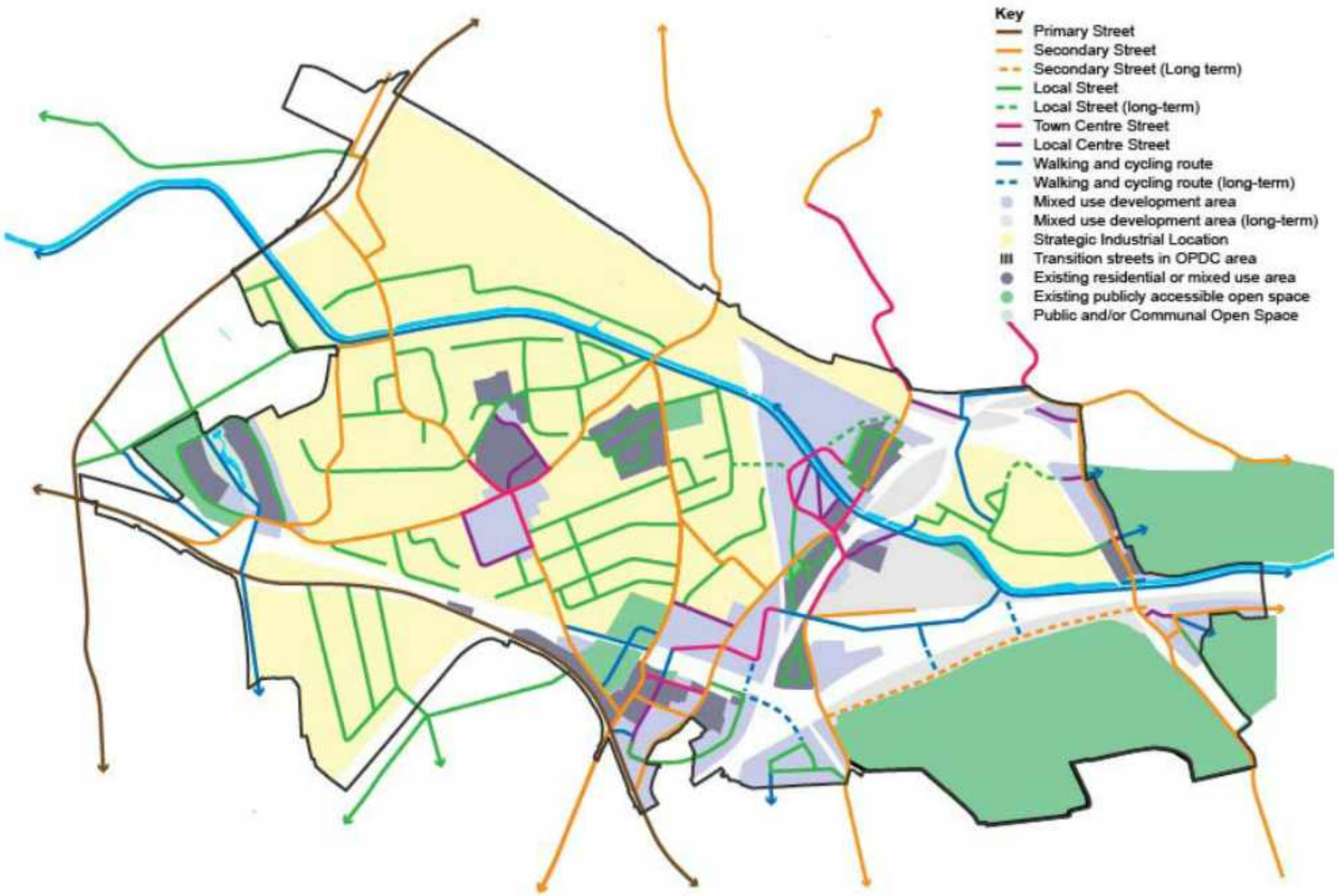


Table 5: OPDC Street Family reference matrix

	Greening			Design							EDI				Movement						Environment		Management
Guidance themes	Optimising greening	Resilient and high quality greening	Water management	Locally distinctive	Positive frontages and boundaries	Safe environment	High quality and inclusive destinations	Materials and finishes	Adequate lighting	Street furniture	Equity, inclusivity and diversity	Accessibility	Usability and comfort	Physical, mental and emotional well-being	Inclusive, safe and accessible movement	High quality pedestrian routes	High quality cycling routes	Improved public transport	Freight, Servicing and access	Parking and loading bays	Improved microclimate and pollution	Environmental sustainability	Long term maintenance and upkeep
Typologies																							
All Public Realm	GIBP1 GIBA1 PGIBP1	GIBP2	GIBP4	HCDP1	HCDP2	HCDP3 EDIP4	HCDP4	HCDP5	HCDP6	HCDP8	EDIP1	EDIP2	EDIP3	EDIP5	MIP1	MIP2	MIP3	MIP4	MIP5	MIP6	MPP1 MPA1	ESP1 ESA1	MMP1
Primary Streets	GIBP1 GIBA1 PGIBP1	GIBP2	GIBP4	HCDP1	HCDP2	HCDP3 EDIP4	HCDP4	HCDP5	HCDP6	HCDP8	EDIP1	EDIP2	EDIP3	EDIP5	MIP1 PMIP1	MIP2	MIP3 PMIP2	MIP4	MIP5	MIP6	MPP1 MPA1	ESP1 ESA1	MMP1
Secondary Streets	GIBP1 GIBA1 PGIBP1	GIBP2	GIBP4	HCDP1	HCDP2	HCDP3 EDIP4	HCDP4	HCDP5	HCDP6	HCDP8	EDIP1	EDIP2	EDIP3	EDIP5	MIP1 SMIP1	MIP2	MIP3 SMIP2	MIP4	MIP5	MIP6	MPP1 MPA1	ESP1 ESA1	MMP1
Local Streets	GIBP1 GIBA1 PGIBP1	GIBP2	GIBP4	HCDP1	HCDP2	HCDP3 EDIP4	HCDP4	HCDP5	HCDP6	HCDP8	EDIP1	EDIP2	EDIP3	EDIP5	MIP1 PMIP1 LMIP1	MIP2	MIP3 PMIP2 LMIP2	MIP4	MIP5	MIP6	MPP1 MPA1	ESP1 ESA1	MMP1
Town Centre Streets	GIBP1 GIBA1 PGIBP1	GIBP2	GIBP4	HCDP1	HCDP2 THCDP1	HCDP3 EDIP4	HCDP4	HCDP5	HCDP6	HCDP8	EDIP1	EDIP2	EDIP3	EDIP5	MIP1 PMIP1 TMIP1	MIP2	MIP3 PMIP2 TMIP2	MIP4	MIP5 TMIP3	MIP6	MPP1 MPA1	ESP1 ESA1	MMP1
Local Centre Streets	GIBP1 GIBA1 PGIBP1	GIBP2	GIBP4	HCDP1	HCDP2	HCDP3 EDIP4	HCDP4	HCDP5	HCDP6	HCDP8	EDIP1	EDIP2	EDIP3	EDIP5	MIP1 PMIP1 LC-MIP1	MIP2	MIP3 PMIP2 LC-MIP2	MIP4	MIP5 LC-MIP3	MIP6	MPP1 MPA1	ESP1 ESA1	MMP1

6 Public Realm

All Public Realm

Introduction

6.5. This section seeks to provide guidance on all streets and routes. However, in some circumstances, they may not be relevant to all street types. For these cases, we have noted where exclusions apply.

6.6. Generally, streets include all or some of the following component areas:

- **spill out space:** space related to adjacent uses;
- **footways:** the movement route for pedestrians, wheelchair users and/or other mobility aid users;
- **kerbside area:** located between footways and cycle route and/or the carriageway. The kerbside can include the following:
  - street furniture: equipment installed for public use for various purposes;
  - planting strips: narrow strip between footway and the carriageway, which is used to plant trees, grass, shrubs or provide SuDS;
  - pause areas: space along the footway where people can stop, rest, or take a break without obstructing the flow of traffic;
  - onstreet parking or loading bays.
- **cycle lane:** aside from Local Streets and Local Centre Streets, cycle lanes are generally segregated from the carriageway;
- **carriageway:** the route for vehicular traffic which may include dedicated bus lanes.

6.7. Figure 6.2 illustrates the potential layout of these components which will differ dependent on the street type based on the OPDC's Street Family.

Figure 6.2 Illustration of potential street components

6 Public Realm - All Public Realm

Urban greening and ecology

Principle PGIPBP1 Conserving, restoring, enhancing and delivering urban greening and biodiversity

All development proposals should conserve, restore, enhance and deliver greening and biodiversity. Proposals should:

a) maximise the length of linear planting strips separating carriageways and cycleways from pedestrian routes. Design should consider:
   i) planting pits that contain adequate soil volumes for proposed vegetation with a soil depth of at least 1m, a minimum volume of 1m3 that helps to ensure appropriate vegetation heights to maintain sightlines between pedestrian routes, cycle routes and the carriageway;
   ii) and
   iii) any trees included in the planting pits should be crown lifted to the minimum carriage height of 5m from the roadside;
b) select fastigiate or columnar tree species in areas of confined space; and
c) integrate raised planters with street furniture to allow for social seating, shading and responding to local needs (except Primary Streets).

Figure 6.3 Illustration of green streets across the OPDC area

Signposts

National Legislation
- Environment Act 2021

National Planning Policy Framework
- 14. Meeting the challenge of climate change, flooding and coastal change
- 15. Conserving and enhancing the natural environment

National Design Guide
- N1 to N3

London Plan 2021 / GLA guidance
- Policy G1 (Green infrastructure)
- Policy G5 (Urban greening)
- Policy G6 (Biodiversity and access to nature)
- Policy G7 (Trees and woodlands)
- Policy SI5 (Water infrastructure)
- Policy SI13 (Sustainable drainage)
- Policy D8 (Public realm)
- Using Green Infrastructure to Protect People from Air Pollution

Local Plan
- Policy SP8 (Green infrastructure and open space)
- Policy SP10 (Integrated delivery)
- Policy EU2 (Urban greening and biodiversity)
- Policy EU3 (Water)

OPDC supporting studies
- Biodiversity and Urban Greening Strategy
- Integrated Water Management Strategy (IWMS)
- Old Oak and Park Royal Landscape Primer

Supporting text

6.8. Continuous and connecting planting strips contribute to environmental sustainability and provide habitat. This can contribute to improved air quality and biodiversity in urban areas. Planting strips enhance the visual appeal and contribute to a more attractive and pleasant environment. They also provide a physical buffer enhancing pedestrian safety by creating a barrier between pedestrians and moving vehicles.

6.9. Lifting the crown to the specified height ensures that there is sufficient clearance for vehicles, preventing branches from obstructing traffic flow. It also creates a clear line of sight for pedestrians. Elevated crowns reduce the likelihood of branches interfering with infrastructure such as street lights, signs, and utility lines.

Right tree for the right location

6.10. Choosing tree species that are well-suited for locations with constrained space requires careful consideration to ensure the trees thrive without causing issues related to overcrowding, infrastructure damage, or maintenance challenges. It is a practical and effective approach to urban greening and improving the environment on these streets.

6.11. Choosing tree species with shallow root systems will prevent damage to sub-surface and surface infrastructure, such as juniper, cherry plum, hawthorn and crab apple. Smaller trees can enhance the aesthetics without overwhelming the space.

Integrated raised planters with street furniture

6.12. Integrated raised planters can serve a dual purpose by incorporating seating elements. This multi-functional design optimises the use of urban space, providing areas for both relaxation and greenery. These integrated spaces become natural focal points for social gatherings and foster a sense of community and belonging. Street furniture in combination with raised planters can provide shade and shelter, making the area more comfortable for residents and visitors, especially during hot weather or rain. Such features also allow for creative and customisable designs that can assist in tailoring these spaces to suit the unique character and needs of the community.

6 Public Realm - All Public Realm

Movement routes and infrastructure

Introduction

6.13. The movement function of streets refers to how people and vehicles travel through the urban environment. It is an important consideration for the public realm because it affects the accessibility, safety and efficiency of the city. Thoughtful design of movement routes for pedestrians and vehicles can enhance the overall aesthetic quality of the public realm. Well-designed landscaping, street furniture and architectural features can contribute to a visually appealing environment that supports their use and enjoyment. They facilitate connections to the places communities want to go, such as shops, offices, hospitals, schools, and parks. They also support local businesses and communities to function, allowing them to receive and deliver goods that support our daily needs and the local and London's wider economy.

6.14. Movement routes perform five principal functions: place-making, movement, access, parking, and providing transport related infrastructure. Place making is supported through street furniture which includes wayfinding infrastructure, seating and leaning structures. Transport infrastructure includes cycle and scooter parking, bus stops as well as electric charging points, vehicular parking and servicing bays. Streets that are designed to facilitate movement by active travel modes, public transport and efficient freight and logistics, while supporting lower use of private car transport, can enhance the connectivity and mobility of people and goods, support the health of our town centres, reduce congestion and pollution and support economic and social activities.

6.15. Streets that are designed only for vehicular movement can also create negative impacts on the public realm, such as noise, pollution, visual clutter and reduced opportunities for social interaction and placemaking. Therefore, it is essential to balance the movement function of streets with other place-based functions along with achieving the equitable, accessible and inclusive places that celebrate local character. It is important to create a holistic and integrated movement network.

6.16. The movement routes and infrastructure principles are based on the vision and policies set out in OPDC's Local Plan. The Local Plan sets out policies (T1, T2, T3, T4, T5, T6, T7, T8 and T9) that aim to create a vibrant, mixed-use and sustainable communities, that are well-connected and integrated with the local and strategic transport network and the surrounding areas.

Figure 6.4 Illustration of a Secondary Street in a Strategic Industrial Location

6 Public Realm - All Public Realm

Principle MIP1: Inclusive, safe and accessible movement

All development proposals should provide inclusive and accessible movement routes for all users by providing:

a) for the needs of all users with disabilities, including users of wheelchairs and mobility aids, blind and partially sighted people, by providing wide pedestrian routes with:
   i) in the majority of circumstances, a width of 2m; or
   ii) in exceptional circumstances, where a 2m width is demonstrated to not be deliverable, a minimum width of 1.5m so long as the extent of these are minimised;
b) steps and stairs at a minimum width of 1.2 metres between handrails;
c) tactile paving at surface differentiation between areas used by vehicles/cycles and pedestrian only areas;
d) street furniture that is:
   i) set back a minimum of 0.2m from the kerb;
   ii) delivered at frequent opportunities for people to rest. This can be achieved by incorporating:
      A. seating at maximum internals of 50m for people to rest; and
      B. pause areas at frequent intervals that do not obstruct the flow of pedestrian traffic.
e) clear sightlines to destinations for pedestrians, considering placement of trees, street furniture and meanwhile uses;
f) a minimum unobstructed height clearance of 2.3 metres where traffic signs are mounted on a pedestrian route;
g) an optimal kerb radius that balances the needs and safety of different road users, as well as considering the traffic volume, speed limit, road geometry, and visibility at each intersection;
h) safe, convenient and accessible crossing facilities by delivering:
   i) level crossings;
   ii) crossings positioned on identified desire lines where possible;
   iii) a minimum width of 3.2 metres;
   iv) provide raised kerbs of no more than 140mm in height to create an edge between the pedestrian route adjacent to cycle or carriageways;
   v) if level crossings cannot be delivered, delivering dropped kerbs that:
      A. incorporate ramps at pedestrian crossings to facilitate safe access;
      B. apply a gradient of 1 in 20 where space allows, and a maximum gradient of 1 in 12; and
      C. provide the flush portion of dropped kerbs to be levelled with the carriageway and have a minimum width of 1.2 metres.
   vi) pedestrian routes and ramps that
      A. apply the maximum recommended gradient of 1 in 20;
      B. provide landings at regular intervals where footways are sloped;
      C. ensure the length of landings are at least the width of the footway or ramp
      D. flat areas across driveways; and
      E. provide handrails on each side of a ramp.
i) where new carriageways are being delivered, (refer to Local Plan Policy T1 (f)) include traffic-calming measures, such as speed bumps, speed cushions, chicanes, and narrower road widths, to slow down vehicular traffic in consultation with the Highways Authority;
j) where there are enhancements to existing underpasses or delivery of new underpasses, ensure:
   i) underpasses for pedestrian and cyclists provide:
      A. adequate width to enable users to move easily;
      B. feeling of safety but ensuring security features such as CCTV cameras with full coverage of the underpass;
      C. maximise natural daylight and provide high quality lighting that provides a clear view from one end to the other;
      D. use of art to create a more welcoming space;
      E. step free access through a ramp at both ends to enable accessibility; and
      F. handrails on both sides of any ramp;
   ii) in addition to the above, underpasses for vehicles, pedestrian and cyclists provide:
      A. pedestrian routes on both sides; and
      B. clear traffic signage to avoid cyclists encroaching on pedestrian route;
k) where possible, a raised boarding area at bus stops by considering the transition gradient of no steeper than 1 in 20 and kerb height of 140mm in line with TfL's Accessible Bus Stop Design Guidance (2017); (2/16)
l) provide lighting and safety measures in line with Principle HCDP6 Lighting and Pinciple EDIP4: Designing and improving 24hour safety; and
m) where required, conduct a Road Safety Audit (RSA).

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities
- 9. Promoting sustainable transport

National Design Guide:
- M1 to M3, P2

London Plan 2021 / GLA Guidance
- Policy T2 (Healthy Streets)
- Policy T5 (Cycling)
- Sustainable Transport, Walking and Cycling LPG
- Mayor's Transport Strategy

Local Plan 2022
- Policy SP7 (Connecting People and Places)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)
- Policy T1 (Roads and streets)
- Policy T2 (Walking)
- Policy T3 (Cycling)

Other documents

Transport for London
- Streetscape Guidance
- Kerbside Loading Guidance
- Vision Zero for London
- Healthy Streets for London
- Access Control guidance note (2/15)

Department for Transport
- Manual for Streets (2007)
- Active travel: local authority toolkit

Standards for highways
- Design Manual for Roads and Bridges
- Design Manual for Roads and Bridges TD 501 – Road lighting design

Supporting text

6.17. All streets require the following basic ingredients for ease of movement. This includes adequate width of carriageways, transport related infrastructure such as parking, a buffer from the carriageway incorporating street trees and planting strips, kerbing, minimum pedestrian route widths, gentle crossover-slopes, adequate sight distances around corners and at driveways, adequate circulation around street furniture and space for on-street activities.

6.18. A pedestrian route should be coordinated with various other activities such as spill out space from adjacent uses, pause areas that serve as dwelling spaces, a clear path of movement, street furniture and street planting. These routes should be well designed by having have separation from traffic and offer clear sightline, be

continuous, well-maintained and have ramps at corners and flat areas across driveways. Pedestrian routes also require sufficient space at corners so that the predicted volume of pedestrians can gain access to and depart from signalised intersections in an orderly and efficient manner.

6.19. For guidance relating to the Grand Union Canal towpath, see Local Plan Policy P3.

Inclusive design

6.20. Streets should be designed for all users, which means creating streets that are safe and accessible for everyone, regardless of their age, gender identity, ethnicity, ability, or mode of movement. This includes active modes, public transport users, as well as motorists. It means creating streets that are designed to encourage walking, cycling and wheeling, travel by public transport and not just driving.

6.21. By creating streets that are safe and accessible for everyone, we can encourage more people to walk, cycle or wheel to work, school and local amenities. This can help reduce our dependence on cars and promote more sustainable modes of transportation. It means identifying and removing barriers that exclude particular groups of people and ensuring that people are given a voice at every stage of the design process.

Desirable footway width

6.22. The recommended minimum width is 2 metres for pedestrian routes in streets with low to moderate pedestrian flows and 3 metres in streets with high pedestrian flows, such as Town Centre Streets that create momentary stoppage. Widths of less than 2 metres are generally not considered suitable for many people with disabilities, such as wheelchair users. In certain circumstances, 1.5 metres may be acceptable as an exception where there are existing constraints.

6.23. In some areas, such as near schools, leisure centres, parks and town centres, the recommended minimum width is 3 metres. It is essential to work out the peak volumes of passenger flows near public transport stations, the likely leisure appeal of an area, and the influence of servicing vehicles when designing public spaces.

Steps and ramps

6.24. Where steps and ramps are introduced, these should be slip-free, easily detected, have a safe gradient, well-constructed and at an adequate gradient. Where these are steps, railings on at least one side should be provided. When a wide set of steps is created, such as at stations, rails on both sides and one or two in mid-stair areas should be considered. Applicants should avoid open risers and use a uniform grade with a constant tread to rise along the stairway length. All steps need to be obvious and should be lit at night. A minimum stairway width is 1.2 metres (to allow two people to pass). The forward slope should be 1 in 40 in order to drain water. Stairs in high nightlife pedestrian centres can be lit both above and at the side. Step free access in the form of ramps and lifts should be provided. Lifts should be signed properly and accommodate space for people, mobility aid and prams.

Adequate kerb radius

6.25. Kerb radii is an important consideration for pedestrians because it affects their safety, comfort and accessibility. Kerb radii refers to the curvature of the corner where two streets meet or where vehicular access points meet the street, and it determines how wide or narrow the crossing distance is for pedestrians. A smaller kerb radius means a shorter crossing distance, which reduces the exposure of pedestrians to traffic and the potential for conflicts with turning vehicles. A smaller kerb radius also means a tighter turning angle for vehicles, which forces them to slow down and improves the visibility of pedestrians.

6.26. A larger kerb radius, on the other hand, means a longer crossing distance, which increases the exposure of pedestrians to traffic and the potential for conflicts with turning vehicles. A larger kerb radius also means a wider turning angle for vehicles, which allows them to speed up and reduces the visibility of pedestrians. Therefore, kerb radii are an important consideration for pedestrians because it influences their safety, comfort and accessibility when crossing the street. Designing an optimal kerb radius requires balancing the needs and safety of different road users, as well as considering the traffic volume, speed limit, road geometry and visibility at each intersection.

Paving Materials

6.27. TfL Streetscape Guidance provides details on desirable materials. In some instances, bitumen macadam can be used for areas that require regular access to underground utilities or the placement of parking meters, hydrants, streetlights and other facilities. The material should be consistent across the whole footway section and should not be used to patch other paving materials. It should also fit with the local character.

Kerbside areas

6.28. A kerbside buffer area should be provided along streets for the safety of motorists, cyclists and pedestrians as well as for aesthetic and environmental reasons. The buffer area between the carriageway and the pedestrian footpath should be wide enough to serve several purposes, including provision of street furniture, pause areas, snow salt storage or an area for placement of underground utilities. It should include linear planting strips that serves as an area for environmental enhancement such as street trees, landscaping and SuDS. The border along kerbs should have continuous tactile paving with a recommended width of 200mm-400mm.

Placement of street furniture and sightlines

6.29. Walking comfort with essential sightline for pedestrians and wheelchair users is important for safety. Pedestrians and wheelchair users require an adequate distance from fixed objects, such as fences, wayfinding infrastructure, traffic signage, parked vehicles, parking meters and other features that may obstruct sight. In a retrofit situation, such fixed objects should be placed 2 metres away from crossings.

6.30. Conflicts between pedestrians, wheelchair users and cyclists can occur in various situations and locations, such as on pedestrian routes, crossings, shared paths, and junctions. Some of the factors that contribute to these conflicts are lack of awareness, obstructed sightlines, insufficient width, unclear instructions and inadequate infrastructure. Therefore, it is important to promote safe interactions between pedestrians and cyclists and to implement measures that can reduce the potential for conflicts. This includes clear sightlines, buffer zones and clearly identified cycle paths.(4/7)

Underpasses

6.31. While it is preferable to have at grade crossings, there are places within Old Oak and Park Royal where there are existing underpasses. Department for Transport's Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure (Underpasses) provides guidance on footbridge, tunnels and underpasses.

6.32. Underpasses for pedestrians and cyclists need to support the continuous flow of movement. Routes through underpasses should be designed to enable users to move side-by-side, comfortably overtake and pass other users travelling in the opposing direction. They need to be well-lit, well-maintained, utilise public art where appropriate and have good visibility to ensure safety. Suitable visibility should be provided to ensure the safety and inclusion of all users, especially on the approach to roads. They also need to provide ramps on either end of the underpass to be wheelchair and pushchair accessible.

6.33. Underpasses for all modes (vehicles, cyclists and

pedestrians) should in addition to the above, enable all users to move safely and efficiently. This includes having adequate clear height, enhanced security levels and wide routes for all modes. Where possible, pedestrian routes should be placed on both sides of vehicular bridges. In certain circumstances, where these routes are placed on only one side, they should be wider in order to accommodate larger volumes of pedestrian traffic.

Illuminating movement routes

6.34. Illuminating the public realm and open spaces is essential to reduce the risks of accidents and injuries. Well-lit streets help pedestrians and cyclists to feel more comfortable and confident and deter crime. See Principle HCDP6: Lighting and Principle EDIP3: Designing and improving usability and comfort.

Road Safety Audit (RSA)

6.35. The main objective of the road safety audit process is to provide an effective, independent review of the road safety implications of engineering interventions for all road users. Road safety audits will identify aspects of engineering interventions that could give rise to road safety problems and suggest modifications that could improve road safety.

6.36. Fundamental to the principle of an RSA, for or on behalf of TfL or the Local Highway Authority, is ensuring that consideration is given to the effects of any proposal on all road users and especially all vulnerable user groups, for example the very young, the elderly, people with a disability and generally, pedestrians, cyclists and riders of powered two wheeled vehicles. The procedure for RSAs is set out in Standards for highways Design Manual for Roads and Bridges (GG-119). It should be noted that RSAs are not a single procedure but are typically a series of assessments undertaken after the completion of specific stages of the design development of schemes.

Principle MIP2: Pedestrian Routes

All development proposals should provide safe, accessible, comfortable, legible, and well-connected spaces for pedestrians and mobility aid users. To achieve this development proposals should:

a) cater for existing and future pedestrian flows by providing footway widths consistent with pedestrian volumes;
b) ensure pedestrian routes are aligned with key desire lines;[14/4]
c) allow adequate space for street furniture that is positioned to leave at least the recommended minimum width for unobstructed footway;
d) provide suitable crossing facilities by delivering:
   i) the type of pedestrian crossings appropriate for the street family typology and the immediate street context;
   ii) connections to the existing and future pedestrian network and the surrounding area;
   iii) provide pedestrian crossing on all arms of junctions;
   iv) additional safety measures, such as refuge islands, signals, or traffic calming strategies. These would be subject to analysis of pedestrian and traffic volumes, speed, and carriageway width and configuration.
e) create new pedestrian routes through developments to improve permeability;
f) be designed with wayfinding elements at key decision points such as junctions and entry and exit points; and
g) embed the Healthy Streets approach and, where required, undertake relevant methods for assessing pedestrian comfort such as Active Travel Zone Assessment, Pedestrian Environment Review System or a Comfort Assessment. This includes:
   i) assessing footway comfort;
   ii) assessing pedestrian crossings; and
   iii) reviewing the impact on the scheme.
h) space for building entrances and commercial activity does not encroach on the recommended minimum widths of unobstructed footway.

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities
- 9. Promoting sustainable transport

National Design Guide:
- M1 to M3, P2

London Plan 2021 / GLA Guidance
- Policy T2 (Healthy Streets)
- Sustainable Transport, Walking and Cycling LPG
- Mayor's Transport Strategy

Local Plan 2022
- Policy SP7 (Connecting People and Places)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)
- Policy T1 (Roads and streets)
- Policy T2 (Walking)

Other documents

Transport for London
- Streetscape Guidance
- Healthy Streets for London
- Pedestrian Comfort Guidance for London, (2019)

Department for Transport
- Manual for Streets (2007)
- Active travel: local authority toolkit
- Traffic Advisory Leaflet 02/13 (as amended October 2017) - Bollards and Pedestrian Movement
- A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure

Supporting text

6.37. Movement through the public realm plays a vital role in promoting walking as a mode of transportation, recreation, and social interaction. Walking also complements efforts to revive high streets and create liveable and vibrant communities.

6.38. Designing streets for efficient pedestrian movement requires careful planning, analysis, and implementation. Some of the factors that affect pedestrian movement include the width, layout and surface. The goal of designing streets for efficient pedestrian movement is to create a comfortable, attractive and convenient environment that encourages walking as a mode of transportation and recreation, while minimising conflicts with other street users such as vehicles, cyclists, and public transit.

6.39. Pedestrian routes essentially comprise of:

- footways: a path or track for pedestrians;
- street furniture: equipment installed for public use for various purposes;
- planting strips: narrow strip between footway and the carriageway, which is used to plant trees, grass, shrubs or provide SuDS;
- pause areas: space along the footway where people can stop, rest, or take a break without obstructing the flow of traffic;
- kerbsides: area nearer to the edge of the footway that serves as a separation for pedestrians from vehicles and cycles. This can

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accommodate street furniture, pause areas and planting strips;
- kerbs: raised edge separating the carriageway from other surfaces; and
- dropped kerbs: an area of lowered footway and kerbstones that facilitates the access of people with pushchairs or wheelchairs to pass from the footway to the road.

Crossings

6.40. Pedestrian crossings fall into two categories: controlled and uncontrolled crossings. See TfL Streetscape Guidance:

- Controlled pedestrian crossings should have different designs and features, depending on the local context and needs. These consist of signal displays, line markings and lighting that indicate when pedestrians have the right of way to cross and when they have to wait for vehicles to pass. These often include zebra crossings, puffin crossings, pelican crossings. Signalised crossings are usually installed at locations where there is high pedestrian demand, such as near schools, shopping centres or public transport stations. They are also used to improve accessibility and mobility for people with disabilities, such as those who use wheelchairs or have visual impairments.
- Uncontrolled pedestrian crossings are crossing points where pedestrians do not have priority over vehicular traffic and decide when it is safe to cross. They are suitable for locations with low volumes of pedestrians and vehicular traffic. Uncontrolled crossings should be supported with dropped kerbs, tactile paving and pedestrian refuge island in the centre of the road, where demonstrated to be required, to provide a refuge for pedestrians who want to cross in two stages.

Comfort Assessment

6.41. An Active Travel Zone (ATZ) Assessment may be requested to audit key routes for active travel to provide targeted streetscape improvements following Healthy Streets indicators. Accommodating pedestrians from all walks of life and choosing walking, cycling and public transport are key indicators of the Healthy Streets Approach. TfL provides ATZ assessment instructions that set out a step by step approach to ATZ Assessment. TfL has also included a recommendation to undertake a night-time assessment in the ATZ.

6.42. TfL's Pedestrian Comfort Guidance for London and accompanying spreadsheet is aimed at anyone involved in the planning of London's streets, including, consultants assessing the impact of development proposals. It assists to improve the planning and design of the pedestrian environment and encourage walking through a clear and consistent process. It also provides recommended minimum widths in different environments in advance of a full comfort assessment.

6.43. A Comfort Assessment for existing sites will identify priorities for action or attention, the cause of these issues and help to identify mitigation measures to make the site more comfortable. For new schemes, it will identify any potential problems at an early stage and mitigation measures, such as the relocation of street furniture. The comprehensive approach:

- takes into account different user behaviour within a variety of area types;
- includes the real impact of street furniture and static pedestrians, for example, window shoppers;
- is based on comfort and takes into account user perceptions as well as observed behaviours.
- provides a standard approach for the assessment and review of comfort on footways and crossings; and
- provides a template for recording data and generating results.

Figure 6.5 Elephant Park showing well defined walking routes around a play space

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Principle MIP3: Cycling

All development proposals should provide safe, direct, comfortable, attractive, legible, well-connected routes and parking facilities for cyclists. To achieve this, development proposals should:

a) cater for cycle desire lines by considering connectivity, comfort, safety, and directness. This includes:
   i) delivering direct routes that align with desire lines;
   ii) implementing safety measures such as:
      A. traffic signals, traffic signage, and road markings specifically designed for cyclists;
      B. incorporating features like bike boxes on turning lanes;
   iii) where necessary, using different surface materials, road markings and colour to distinguish cycle lanes from the carriageway as set out in TfL Traffic Signs Manual and TSRGD (Traffic Signs Regulations and General Directions); (2/23)
   iv) ensuring consistency in the materials and colour within cycle routes to establish legibility and connectivity;
   v) ensuring smooth and well drained cycle routes that deliver:
      A. gullies and drainage slots positioned as far as possible for from cycle paths;
      B. flush covers and gratings;
   vi) providing physical barriers between cyclists and other travel modes where required, such as verges and planters.
b) delivering the recommended minimum cycle lane width of 2 metres for one-way lanes and 3 metres for two-way lanes;
c) ensure lighting provides adequate coverage of cycle routes;
d) provide a minimum unobstructed height clearance of 2.4 metres where signs are mounted;
e) delivering supporting infrastructure including bike racks and repair stations;
f) provide cycle hire schemes and cycle parking which cater for the demand generated by land use at all destinations. These should be delivered:
   i) in accordance with the space requirements for cycle parking as set out in TfL's London Cycle Design Standards (Chapter 8);
   ii) in areas which are clearly visible and with a high level of natural surveillance;
   iii) near key destinations such as stations, bus stops, social infrastructure and town squares;
   iv) they do not infringe onto the carriageway, cycle lanes or footways. This should consider:
      A. angled parking where space is constrained;
      B. delivery within kerbside areas with a minimum set back of 0.5m from the kerb; and
      C. parking away from pedestrian desire lines.
   v) to cater for different types of bicycles such as accessible bikes, adapted bikes, cargo bikes and child trailers;
g) use data from cycling apps, traffic counters, and surveys to gather insights into cycling patterns and preferences to regularly evaluate the effectiveness of the bicycle infrastructure and make adjustments based on feedback and changing needs.

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities
- 9. Promoting sustainable transport

National Design Guide:
- M1 to M3, P2

London Plan 2021 / GLA Guidance
- Policy T2 (Healthy Streets)
- Policy T5 (Cycling)
- Sustainable Transport, Walking and Cycling LPG

Local Plan 2022
- Policy SP7 (Connecting People and Places)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)
- Policy T1 (Roads and streets)
- Policy T3 (Cycling)

Other documents

Transport for London
- Streetscape Guidance
- Kerbside Loading Guidance
- Healthy Streets for London
- London Cycle Design Standards
- Cycleways Signage Guidance
- Cycling Quality Criteria
- Cycling Action Plan 2 - Strategic Cycling Analysis
- Access Control guidance note

Department for Transport
- Manual for Streets (2007)
- Cycle Infrastructure Design LTN 1/20
- Cycle Infrastructure Design
- Traffic Signs Manual
- TSRGD (Traffic Signs Regulations and General Directions) (2/23, 2/21)

Figure 6.6 Illustration of a Secondary Street with cycle parking facilities and cycle route

Figure 6.7 Accessible Cycle Parking by Wheels for Wellbeing

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Supporting text

6.44. One of the ways that public realm design can benefit cyclists is by creating a safe, comfortable, and attractive environment, including the provision of cycle infrastructure. Cycle infrastructure refers to the facilities and services that support cycling as a mode of transportation, such as cycle lanes, cycle parking and cycle hire schemes. Cycle infrastructure is therefore an important consideration for the design of streets because it can provide multiple benefits for urban mobility, sustainability, and public health.

6.45. Cycle-friendly infrastructure that accommodates various types of bikes can encourage more people to choose cycling as a mode of transportation, which can reduce traffic congestion, carbon emissions and air pollution. It can also improve the health and well-being of cyclists and the general public as a form of physical activity. Furthermore, the public realm can benefit cyclists by fostering a culture of awareness among different road users. This can be through educating the public about the rights and responsibilities of cyclists, enforcing the rules of the road, as well as good design. By creating a harmonious and inclusive public realm, cyclists can enjoy a more pleasant and safe experience.

6.46. Cycle routes should accommodate cyclists safely and comfortably by avoiding conflicts with other road users and related street layout. To make routes safer from obstacles, physical barriers, such as verges, bollards, or planters should be carefully placed.

6.47. Implementing cycle hire systems that allow people to rent and return bikes at convenient locations throughout the city can increase the accessibility and affordability of cycling. Dedicated parking spaces for cycle hires should be provided to ensure that bikes are not left in the pedestrian footway or cycle lanes. Similarly providing secure bike parking facilities at key destinations, such as workplaces, schools, shops, and train stations can prevent theft and vandalism, as well as reduce the need for cyclists to carry their bikes on buses or trains.

Kerbside cycle parking

6.48. Providing cycle parking alongside other street furniture can be a space-efficient way to accommodate cyclists' needs. Integrating cycle parking stands with existing street furniture such as benches, ~~bus shelters~~ planters and waste bins can make the most of available space. Design and location will need to ensure that the integration is safe, secure, visually pleasing and functional. Arrangement of cycle parking should optimise space without obstructing pedestrian routes or impeding access to other street furniture. Design will also need to ensure that there is sufficient space for cyclists to manoeuvre safely, including larger bikes. (2/25)

Principle MIP4: Public transport

All development proposals should provide safe, direct, comfortable and attractive routes to public transport facilities and support the efficiency of public transport services. To achieve this development proposals should:

a) support the provision of step-free public transport infrastructure which is accessible to all everyone;
b) ensure public transport infrastructure integrates with the surrounding context for easy access by coordinating with:
   i) other nearby public transport services;
   ii) nearby junctions to enable safe access to services;
   iii) cycle parking; and
   iv) elements of wayfinding to public transport services;
c) consider existing or planned public transport networks;
d) deliver and/or enable the delivery of bus stops that:
   i) deliver all traffic calming measures on bus routes in line with TfL guidance;
   ii) maximise space at bus stops to create suitable conditions for passengers to wait for, alight or board buses;
   iii) ensure that boarding and alighting points are coordinated with the location and functioning of street furniture;
   iv) are placed where they serve the greatest demand;
   v) are placed as close to train stations as possible;
   vi) provide live information on bus timings; and
   vii) provide adequate lighting at bus stops in accordance with Principle HCDP3: Creating a safe environment, Principle HCDP6: Lighting, EDIP2: Designing in and improving accessibility and EDIP3: Designing and improving usability and comfort.
e) provide bus shelters at all bus stops, where feasible. Bus shelters should:
   i) respond to the width of the footway in their type, size and style in accordance with TfL's Streetscape Guidance and Accessible Bus Stop Design Guidance;
   ii) be placed at a minimum distance of 0.5m from the kerb;
   iii) provide seating or leaning infrastructure;
   iv) accommodate the expected number of passengers;
   v) consider the use of cantilevered bus shelters which provide more space for pedestrians and buses; and
   vi) ensure adjacent street furniture is coordinated and appropriate facilities are provided such as bins, lighting and wayfinding information.
f) provide routes to rail stations which are:
   i) direct, safe, visible and legible;
   ii) step-free. Alongside step-free routes, where stairs are provided, these should have a minimum width of 3 metres;
   iii) accompanied by tactile paving at key locations such as at the tops and bottoms of stairs and on platforms;
   iv) coordinated with security barriers, providing a balanced approach between security and design of the public realm in accordance with Principle HCDP3: Creating a safe environment and HCDP8: Street furniture.

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities
- 9. Promoting sustainable transport

National Design Guide:
- M1 to M3, P2

London Plan 2021 / GLA Guidance
- Policy T2 (Healthy Streets)
- Policy T3 (Transport capacity, connectivity and safeguarding)
- Mayor's Transport Strategy

Local Plan 2022
- Policy SP7 (Connecting People and Places)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)
- Policy T1 (Roads and streets)
- Policy T6 (Buses)

Other documents

Transport for London
- Streetscape Guidance
- Kerbside Loading Guidance
- Accessible Bus Stop Guidance
- Healthy Streets for London

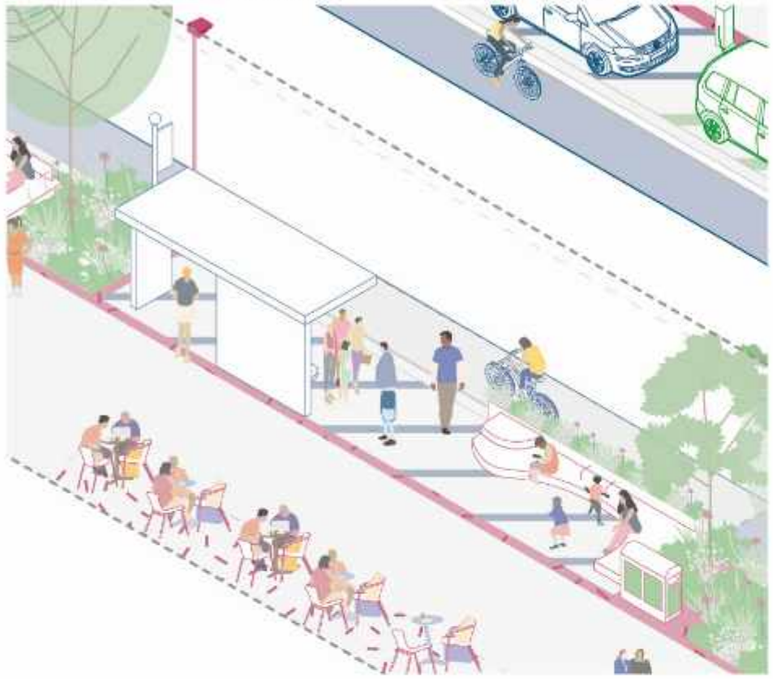
Supporting text

6.49. Public transport is a vital service that provides many benefits to individuals and society. Public transport improves mobility and accessibility economic development and social equity by connecting people to jobs, education, health care, and other amenities.

6.50. It is important to take account of the public realm surrounding public transport modes. This requires careful consideration of various factors, such as, travel demand, pattern of routes, the location of facilities and interchange with other modes. To plan for public transport in urban streets effectively, it is essential to adopt a holistic and integrated approach that considers all these factors and the interrelationships.

6 Public Realm - All Public Realm

Figure 6.8 Illustration of how a bus sheler could be integrated with adjacent features such as seating and planting



6.51. The location of public transport facilities should match the origin and destination of the potential users, as well as the capacity and the frequency of the public transport vehicles. The location of public transport facilities should facilitate the integration and connectivity of different public transport modes, such as buses and trains. Bus stops should be placed near junctions so that they can be accessed by more than one route on foot, but not so close as to impact on the safety and capacity of junctions. Bus stops should be placed as close to train stations as possible. The recommended maximum distance is 100m.

6.52. This can enhance the convenience and attractiveness of public transport for the users and reduce the need for transfers or excessive walking distances. Moreover, the location of public transport facilities should also consider the accessibility and availability of other modes of transport, such as car clubs, bicycles, pedestrians and avoid creating conflicts or barriers between them.

Bus Infrastructure

6.53. Bus systems can provide efficient, affordable, and environmentally friendly transportation options. However, planning bus infrastructure requires careful consideration of various factors, such as demand, supply, network design and integration. TfL's Streetscape Guidance and Accessible Bus Stop Design Guidance sets out requirements and guidance for the design of accessible bus stop environment.

6.54. The placement and surrounding environment of bus stops is a key factor. Bus stops should have adequate facilities and amenities, such as connected pedestrian routes, crossing facilities, shelters, seating, lighting, wayfinding infrastructure, information displays, bins, and cycle parking. Bus stops should also be integrated with cycle-hire systems, to facilitate intermodal transfers and improve mobility options for passengers.

6.55. Bus stops should be located where they do not interfere with the normal operation of other vehicles or create conflicts or hazards for drivers or pedestrians. Bus stops should be designed to allow buses to enter and exit smoothly and quickly, without causing delays or congestion for other traffic. Bus stops should also be located where they provide good visibility and sight distance for drivers and pedestrians.

Principle MIP5: Freight, servicing and emergency access

All development proposals should accommodate the safe, reliable and efficient delivery of goods and services, including emergency services. To achieve this, development proposals should:

a) support traffic signage for freight vehicles through:
   i) providing clear and visible directional, parking, weight limit and speed limit signage for freight vehicles that is coordinated with other street traffic signage;
   ii) positioning route information for freight vehicles at key decision points along freight routes. This can include:
      A. positioning weight and width limit signage on the approach to side roads; and
      B. positioning traffic signage where they do not obstruct vehicle turning and driver's views and sight lines for all users.
b) ensure designated routes for trucks and large vehicles are clearly marked to minimise traffic on residential streets;
c) deliver and/or enable delivery of compact junctions with safe turning speeds by minimising junction corner radius size;
d) where possible, provide off street loading bays. Where this is demonstrated to be undeliverable, provide on-street loading bays that are coordinated with other street functions, kerb side activities and spaces. This should consider:
   i) providing a minimum pedestrian clear zone of 2 metres in sections of footways adjacent to loading bays; and
   ii) locate loading bays where they do not obstruct drivers views and impact on sight lines.
e) include appropriate traffic management orders to prevent freight vehicles from parking in unsafe locations;
f) support a shift to cleaner freight by:
   i) providing on-street electric vehicle charging infrastructure for freight vehicles where required. Electric vehicle charging points should be integrated with other street furniture and should not obstruct drivers views or sight lines at junctions;
   ii) considering the requirements of e-van share or hire clubs; and
   iii) supporting a shift from vans to cargo bikes through the provision of cargo bikes parking and charging points in close proximity to industrial, employment and town centre uses;
g) minimise the impacts of vehicles on pedestrian and cycling routes by:
   i) positioning vehicular access points away from junctions;
   ii) ensuring surface materials and street furniture clearly demonstrate potential vehicle access across pedestrian and cycle routes;
   iii) avoiding vehicles queuing or waiting so that they dont block pedestrian areas or cycle routes; and
   iv) delivering small kerb radii, where possible, depending on the size of vehicles that the access point serves.
h) take into account the route of emergency vehicles by:
   i) designing junctions so that emergency vehicles can utilise the full area of the junction when turning; and
   ii) ensuring street layouts and furniture can accommodate emergency vehicles.

6 Public Realm - All Public Realm

Signposts

National Planning Policy Framework:
- 9. Promoting sustainable transport

National Design Guide:
- M3

London Plan 2021 / GLA Guidance
- Policy T2 (Healthy Streets)
- Policy T3 (Transport capacity, connectivity and safeguarding)
- Policy T7 (Deliveries, servicing and construction)
- Mayor's Transport Strategy

Local Plan 2022
- Policy SP7 (Connecting People and Places)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)
- Policy T1 (Roads and streets)
- Policy T7 (Freight, servicing and deliveries)

Other documents

Transport for London
- Streetscape Guidance
- Kerbside Loading Guidance

Supporting text

6.56. Freight is essentially the movement of goods from one place to another, usually by road, rail, air or water. It plays a vital role in London, as it supports economic activities, provides essential services, and enables the lifestyles of Londoners. The Mayor's Transport Strategy recognises the role of freight in London, stating that London's success is reliant on safe, reliable, sustainable and efficient delivery of goods and servicing. The Mayor's Transport Strategy recommends taking a Healthy Streets Approach to the design of streets, which requires fundamental changes to the way freight and servicing are managed and accommodated in streets. However, there is recognition that adequate provision for delivery and servicing is required. As part of the Mayor of London's Vision Zero Plan, HGVs should obtain TfL's Direct Vision Standard and HGV Safety Permit Scheme to improve safety of vulnerable road users, such as people walking and cycling.[4/12]

6.57. Freight relies on a good road network which has the capacity to properly accommodate the delivery of goods and the servicing for developments. This requires adequate on-street loading space where off-street provision is not available (see Local Plan Policy T7). However, streets can often be dominated by large lorries and vans, which contribute to environmental and social challenges, such as congestion, air pollution and noise, making streets less safe and pleasant for people to walk, cycle and use public transport. Therefore, the management of freight requires a balance to be struck between efficiency, sustainability, and liveability.

6.58. Balancing the needs of different modes of travel, such as pedestrians, cyclists, public transport users and motorists, is a major challenge for urban transport planning and the design and function of urban streets. On-street loading, which refers to the activity of loading and unloading goods or passengers from vehicles on the street, is an essential component of urban mobility and commercial activities, but it can also create conflicts with other road users and affect traffic flow, safety, and environmental quality. Therefore, it is essential to manage loading including through the design and management of on-street or off-street loading zones and regulations.

6.59. It is essential that emergency service vehicles can easily access locations without hinderance. A well-designed street should enable this through the provision of static and moveable elements such as seating and bollards.

Figure 6.9 Illustration of road markings with traffic signage on a Local Street in a Strategic Industrial Location

6 Public Realm - All Public Realm

Principle MIP6: Parking and loading bays

All development proposals should be car free or provide the minimum necessary car parking in line with Local Plan policies. Where on street vehicle parking is justified, ~~provide appropriate but limited levels of on-street parking designed to~~ it should address the specific needs of street users without detracting from the quality of the environment. To achieve this, development proposals should: (2/31)

a) balance the needs, safety and priorities of different users in the design of the pedestrian routes and activities on the kerbside by:
   i) accommodating parking and loading facilities that do not conflict with pedestrians and cycle desire lines;
   ii) denoting loading facilities on kerbside either by a marked loading bay or by lines with appropriate traffic signage;
   iii) ensuring on-street loading bays include appropriate traffic signage clearly defining any restrictions on use and dwell times;
   iv) introducing tactile paving along the kerbside for pedestrian safety;
   v) minimising the impacts of parked vehicles on requirements of bus infrastructure;
   vi) ensuring temporary vending or food trucks do not disrupt desire lines or pedestrian/cycle movement;
   vii) ensuring electric vehicle charging points (EVCPs) are delivered as part of other street furniture and/or placed in locations where they do not interrupt pedestrian and cycle desire lines and highway safety;
   viii) providing loading bays level with the footway;
   ix) providing parking for car clubs and other schemes in visible locations; and
   x) providing sufficient disabled persons parking in line with London Plan Policy T6 Car parking.

Signposts

National Planning Policy Framework:
- 9. Promoting sustainable transport

National Design Guide:
- M3

London Plan 2021 / GLA Guidance
- Policy T2 (Healthy Streets)
- Policy T6, 6.1 to 6.5 (Car parking)
- Policy T7 (Deliveries, servicing and construction)
- Mayor's Transport Strategy

Local Plan 2022
- Policy SP7 (Connecting People and Places)
- Policy D1 (Public realm)
- Policy D2 (Accessible and inclusive design)
- Policy T1 (Roads and streets)
- Policy T4 (Parking)
- Policy T7 (Freight, servicing and deliveries)

Other documents

Transport for London
- Streetscape Guidance
- Kerbside Loading Guidance
- Healthy Streets for London

Supporting text

6.60. Kerbside, which is the edge of the footway or carriageway, serves various functions and uses, such as parking, loading, cycling and temporary vending. Parking and loading at the kerbside are inherent, by modes such as taxis, bicycles, powered two-wheelers, coach, and freight vehicles. Different types of streets have different roles and demands for kerbside activities. For example, a street in Strategic Industrial Locations (SIL) or in town centre may need more space for loading and parking, while a residential street may need more space for landscaping and walking. The kerbside activities should match the street's character and purpose.

6.61. While it is recognised that these activities have potentially significant impacts on the safety, efficiency, and liveability of urban streets, a flexible approach should be taken when considering what activities on the kerbside are appropriate and should be allowed in streets within SIL and town centres.

Parking

6.62. Parking opportunities should also consider the trade-offs and impacts of allocating space and time for different uses. For example, dedicating more space for parking may reduce the space for cycling or walking, while restricting parking during peak hours may improve traffic flow or transit reliability.

6.63. Kerbside parking should provide a safe and comfortable environment, especially for the most vulnerable people, such as children, the elderly, and people with disabilities. It should also minimise conflicts and hazards between different users and modes. For example, providing adequate lighting and signage may improve the visibility and awareness of kerbside users.

6.64. The effect of parking on the capacity of the highway is an important consideration. There is a relationship between the width of the carriageway, on-street parking arrangements, the frequency of parked vehicles and the throughput of vehicles in all streets. Parking near junctions can significantly impact on capacity and safety.

6.65. Furthermore, parking problems manifest themselves in pavement parking, obstruction of driveways and accesses, hindrance to larger delivery vehicles and refuse vehicles and damage to soft landscaping and footways. In all instances, sustainable modes of transport should be given priority over on-street parking, consistent with OPDC's Local Plan policies.

6.66. The level of parking provision in streets can be used to manage travel demand by car and promote a shift to more sustainable transport modes. Restricting parking through the implementation of parking controls as part of an area-wide Controlled Parking Zone (CPZ) is an essential part of overall transport management.

Figure 6.10 Illustration of marked inset kerbside parking/loading bays on a Secondary Street in a mixed use area

6 Public Realm - Primary Streets

Primary Streets

Introduction

6.67. Primary Streets comprise the A40 and the A406 (North Circular) in the OPDC area. They have particular opportunities and constraints that need to be considered and addressed. These include the need to support high levels of vehicular, bus and freight traffic, the needs of businesses that rely on the flow of traffic, the poor environmental quality along the streets, high levels of air and noise pollution, lack of green infrastructure, the creation of severance for walking and cycling, and their potential role in celebrating the identity of an area.

6.68. Figure 6.11 shows an image of a street section of an example Primary Street. This illustrates how a Primary Street could reflect all the guidance in the SPD and other signposted guidance. This layout will need to respond to the existing context including land use designations, access roads and constraints such as existing buildings and open spaces.

Figure 6.11 Illustration of an example Primary Street street-section

6 Public Realm - Primary Streets

Movement routes and infrastructure

Principle PMIP1: Supporting inclusive, safe and accessible movement

All development proposals should provide inclusive and accessible movement routes for all users by providing:

a) any provision should reflect local circumstances while also needing to consider a London-wide approach led by TfL and DfT; (2/35)
b) where appropriate, at grade signalised pedestrian crossings that:
   i) support pedestrian desire lines;
   ii) are accompanied by guardrails, where a road safety audit confirms that pedestrian desire lines put people at risk;
   iii) supported with dropped kerbs with tactile paving for visually impaired and users with mobility aid;
   iv) provide a central refuge that is:
      A. minimum 2 metres wide;
      B. signalised;
      C. accompanied by guardrails (agreed with TfL); and
      D. adequately lit at night time.

Supporting text

6.69. Controlled signalised crossings in Primary Streets are important to maintain efficiency of vehicular flow, pedestrian traffic and pedestrian safety. For these crossings, traffic signals are synchronised with pedestrian signals. They are designed to provide a balance between the needs of different road users while promoting efficient and safe movement. Controlled signalised crossings should be designed with accessibility in mind. This includes the presence of dropped kerbs with tactile paving for visually impaired individuals and meeting relevant accessibility standards for users with mobility aid. Safety features such as countdown timers for pedestrian signals, pedestrian push-button stations, and central refuges ~~may be included~~ should be incorporated to enhance pedestrian safety. (2/36)

Principle PMIP2: Cycling

All development proposals should provide safe, direct, comfortable, attractive, legible, parking facilities and well-connected routes for cyclists. To achieve this, development proposals should:

a) any provision should reflect local circumstances while also needing to consider a London-wide approach led by TfL;
b) provide dedicated cycle lanes on both sides of the street, where possible;
c) for new cycle infrastructure, deliver:
   i) clear separation from the carriageway through level changes and/or robust boundary treatments;
   ii) raised or grade-separated crossings at side streets; and
   iii) the provision of bus stop bypass to minimise interruption to cyclists (see Department for Transport's Cycle Infrastructure Design).

Supporting text

6.70. Providing segregated cycle lanes on both sides of Primary Streets is an effective way to promote safe and convenient routes on busy roads. However, there may be locations where two-way lanes on one side of the street may be appropriate to enable cyclists to reach their destinations. The heavy traffic flow of Primary Streets requires a clear separation between the carriageway and cycle lanes. This may be in the form of robust edging between the routes and/or raising the level of the cycle lane above the carriageway. This also encourages cyclists with all skill levels to use dedicated cycle lanes. On Primary Streets, it can improve traffic flow for all road users. Installing raised or grade-separated crossings at driveways, side streets, and intersections can slow traffic and ensure accessibility for all users.

Bus stop bypass

6.71. Bus stop bypass (also known as floating bus stops) is a type of bus stop on an island where a cycle lane is taken around the rear of the passenger boarding area at a bus stop, separating the bus stop from the footway. The purpose of this design is to reduce conflicts between buses and cyclists and to improve the safety and efficiency of both modes of transportation. It is an arrangement that involves a marked cycle lane which should be separated by kerbs from the footway, with minor level difference. The cycle lane should be raised to footway level at the pedestrian crossing points so that cycle speed is reduced at these points of potential conflict. It may also be appropriate for the cycle lane to be narrower than 2m to slow cyclists down and make it safer for pedestrians. (2/35)

6.72. The island between the cycle track and the carriageway needs to be wide enough for people to stand and wait for a bus. The island should be a minimum of 2.5m wide, which will accommodate parents and buggies, visually impaired people with a guide dog or a person using a wheelchair to allow a bus wheelchair ramp to be deployed. For more details, see Department for Transport's Cycle Infrastructure Design.

Figure modification: (2/35, 4/15)
Figure 6.12 Illustration of a street-section with a bus stop bypass

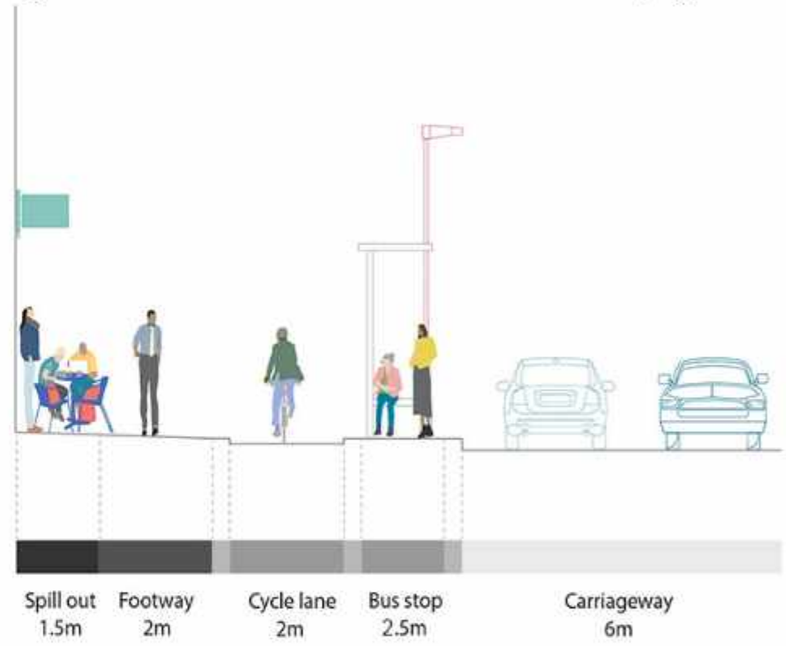
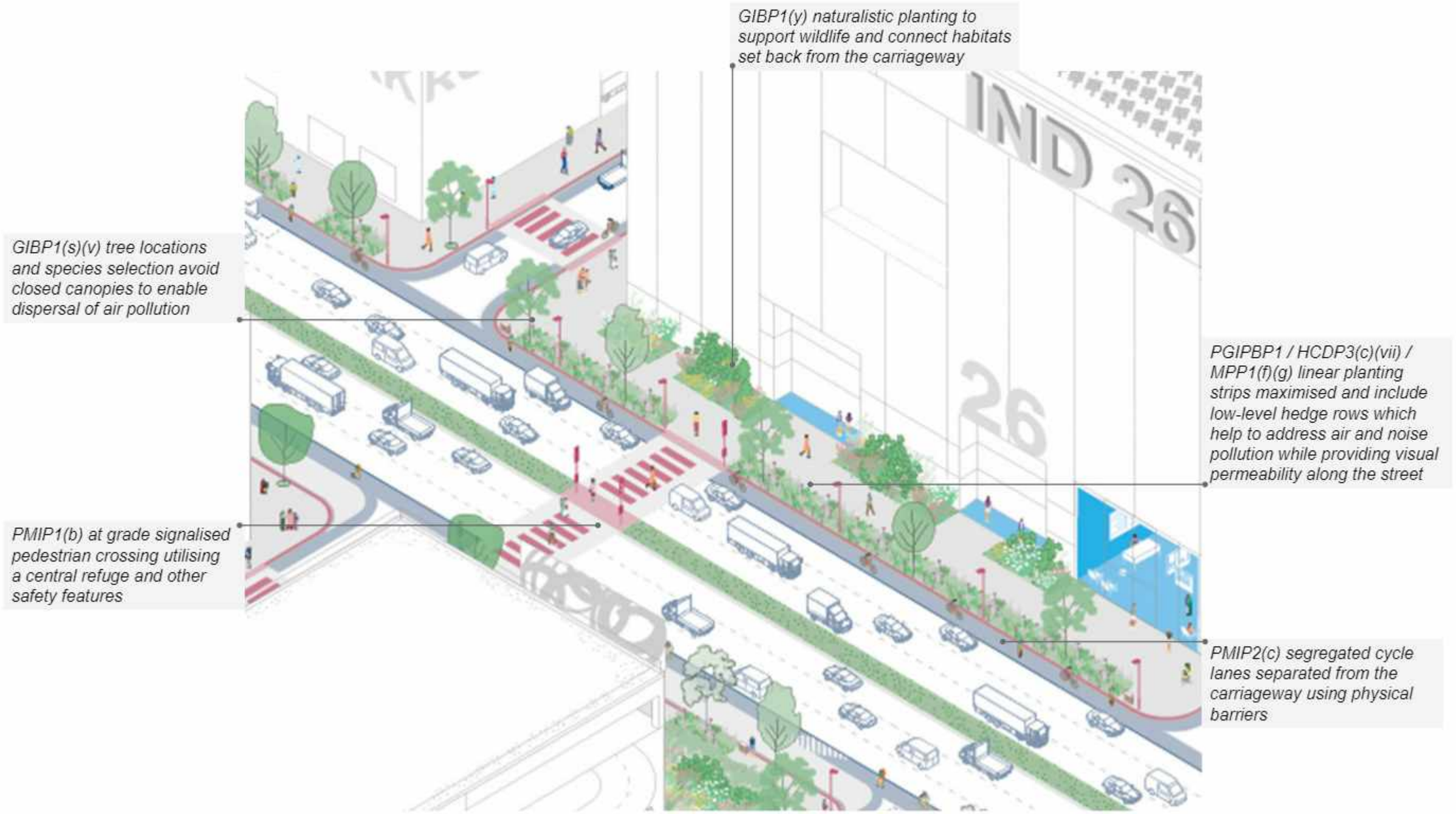


Figure 6.13 Bus stop bypass example, ~~West Sussex~~ London (2/36)

6 Public Realm - Primary Streets

Figure modification: (2/39)

Figure 6.14 Illustration of how principles could apply to a Primary Street within a Strategic Industrial Location



6 Public Realm - Secondary Streets

Secondary Streets

Introduction

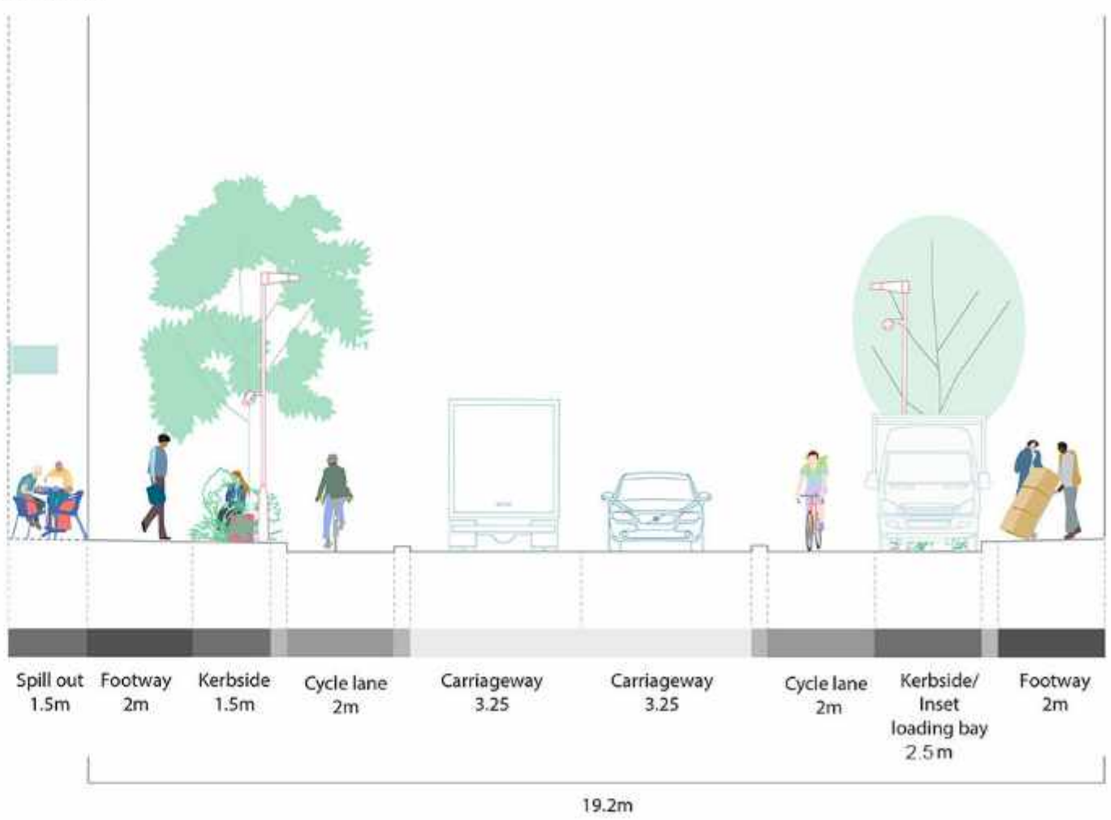
6.73. Secondary Streets provide high quality routes for all modes of transport travelling medium and short distance journeys, giving priority to buses, walking and cycling where appropriate. Framed by active and positive frontages these routes have the potential to coordinate green infrastructure and street furniture with the segregation of walking and cycling routes. On-street car parking may be appropriate along quieter stretches of certain streets.

6.74. Figures 6.15 and 6.16 show images of a street section of example Secondary Streets. This illustrates how a Secondary Street could reflect all the guidance in the SPD and other signposted guidance. This layout will need to respond to the existing context including land use designations, access roads and constraints such as existing buildings and open spaces.

Figure 6.15 Illustration of an example Secondary Street street-section in a mixed use area

Figure modification: (4/16)

Figure 6.16 Illustration of an example Secondary Street street-section in a Strategic Industrial Location



6 Public Realm - Secondary Streets

Movement routes and infrastructure

Principle SMIP1: Supporting inclusive, safe and accessible movement

All development proposals should provide inclusive and accessible movement routes for all users by providing at grade controlled pedestrian crossings that:

a) support pedestrian desire lines;
b) supported with dropped kerbs with tactile paving for visually impaired and users with mobility aid; and
c) adequately lit at night time.

Supporting text

6.75. Designing controlled crossings on Secondary Streets with a focus on enhancing pedestrian safety and accommodating various transport modes is a key element in creating more accessible environment. Secondary Streets have lower vehicular flow compared to Primary Streets. Depending on the local context and traffic flow, controlled crossings can be supported through signals, line markings and lighting that indicate when pedestrians have the right of way to cross. These can be in the form of zebra crossings, puffin crossings or ~~pelican crossings~~ PelX crossings. (2/40)

6.76. Signalised crossings may be considered in locations where there is high pedestrian demand. It is important to plan for multi-modal integration and consider the needs of all users to provide relevant infrastructure to accommodate various transport modes, including pedestrians, cyclists, and public transportation at controlled crossings.

Principle SMIP2: Cycling

All development proposals should provide safe, direct, comfortable, attractive, legible, parking facilities and well-connected routes for cyclists. To achieve this, development proposals should:

a) provide cycle lanes on both sides of the street where possible; and
b) be designed to give priority to pedestrians where pedestrians and cycle paths conflict.

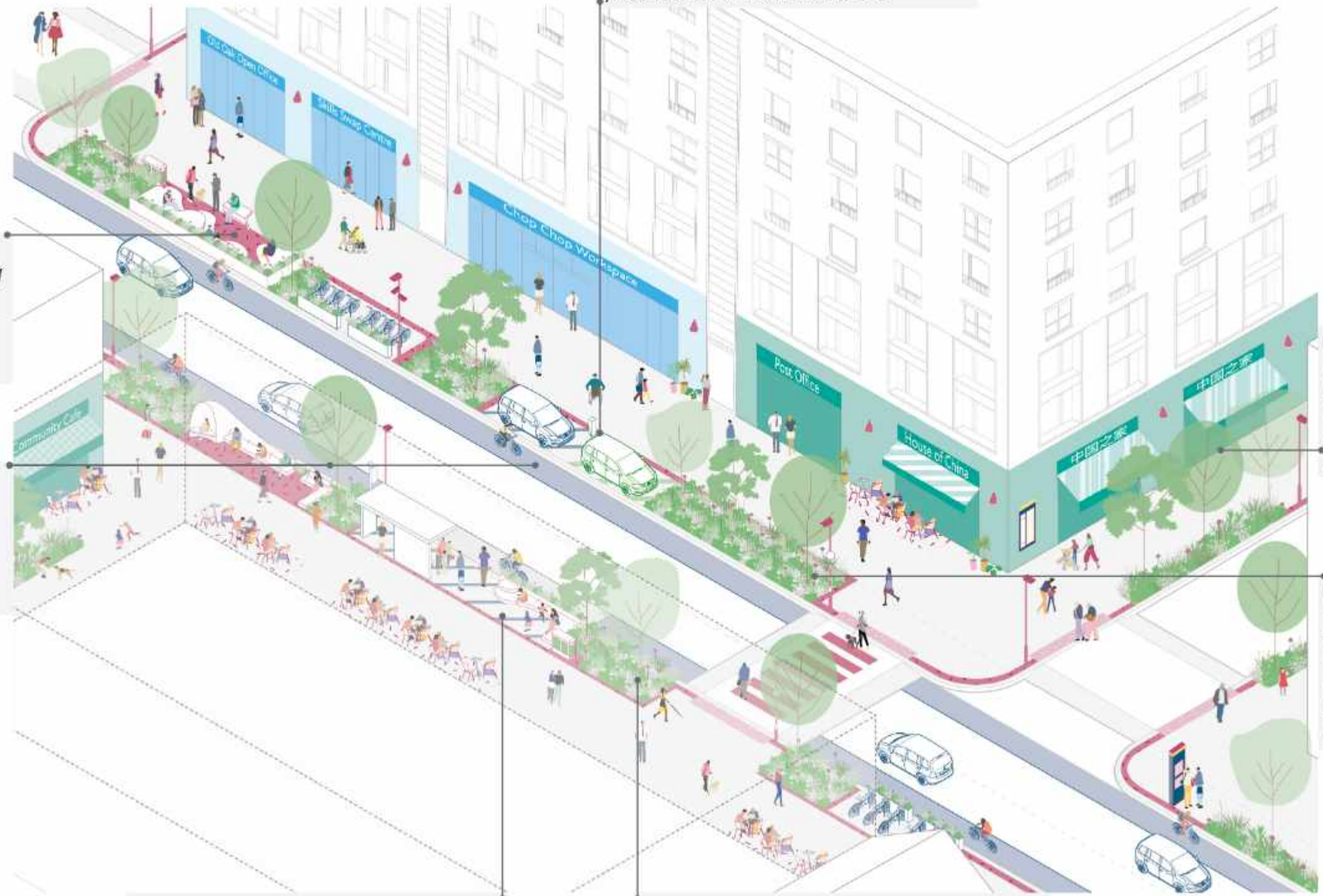
Supporting text

6.77. The provision of dedicated cycle lanes in Secondary Streets should consider the local context and adjoining uses along these varied streets. Determining whether the cycle lane should be one-way or two-way will depend on the street layout and traffic flow.

Figure 6.17 Forest Road, Walthamstow comprising street greening, SuDs, cycle lane and footway

6 Public Realm - Secondary Streets

Figure 6.18 Illustration of how principles could apply to a Secondary Street in a mixed use area



MIP6(vii) Electric vehicle charging point positioned to avoid interupting pedestrians or wheelchair users

EDIP3(c) and ESP1(g) varied seating and leaning infrastructure made from sustainable materials supports use and social interaction

SMIP2(a) segregated cycle lanes on both sides of the street supports access to commercial uses on both sides of the street

GIBP1(s)(ii)(iv)(z) / PGIPBP1(a) a mix of mature long-lived evergreen or deciduous trees that help to reduce overheating of nearby buildings

GIBP1(f) / GIBP2(g) / EDIP5(e) coordinated flowering planting that holds local cultural significance, provides visual interest and supports pollinators year round

HCDP8(a) / MIP4(e)(vi) street furniture in the kerbside area is coordinated with nearby spill out spaces, integrated with planting and bus shelter

GIBP4(a) planting forms part of water management infrastructure to prevent flooding, retain water to mitigate drought and filter any run off water

6 Public Realm - Local Streets

Local Streets

Introduction

6.78. In mixed use areas, Local Streets provide quiet, green and sensitively lit spaces for play and enjoyment. Routes for walking and cycling are integrated into the design of streets alongside routes for lower levels of traffic at low speeds. There may be some restrictions on general vehicle traffic.

6.79. In industrial areas, Local Streets provide well defined and coordinated routes with access to servicing and limited parking for vehicles alongside safe walking routes and space for cyclists framed by green infrastructure and active or positive frontages.

6.80. Figure 6.19 and 6.20 shows images of a street section of example Local Streets. This illustrates how a Local Street could reflect all the guidance in the SPD and other signposted guidance. This layout will need to respond to the existing context including land use designations, access roads and constraints such as existing buildings and open spaces.

Figure 6.19 Illustration of an example Local Street street-section in a mixed use area

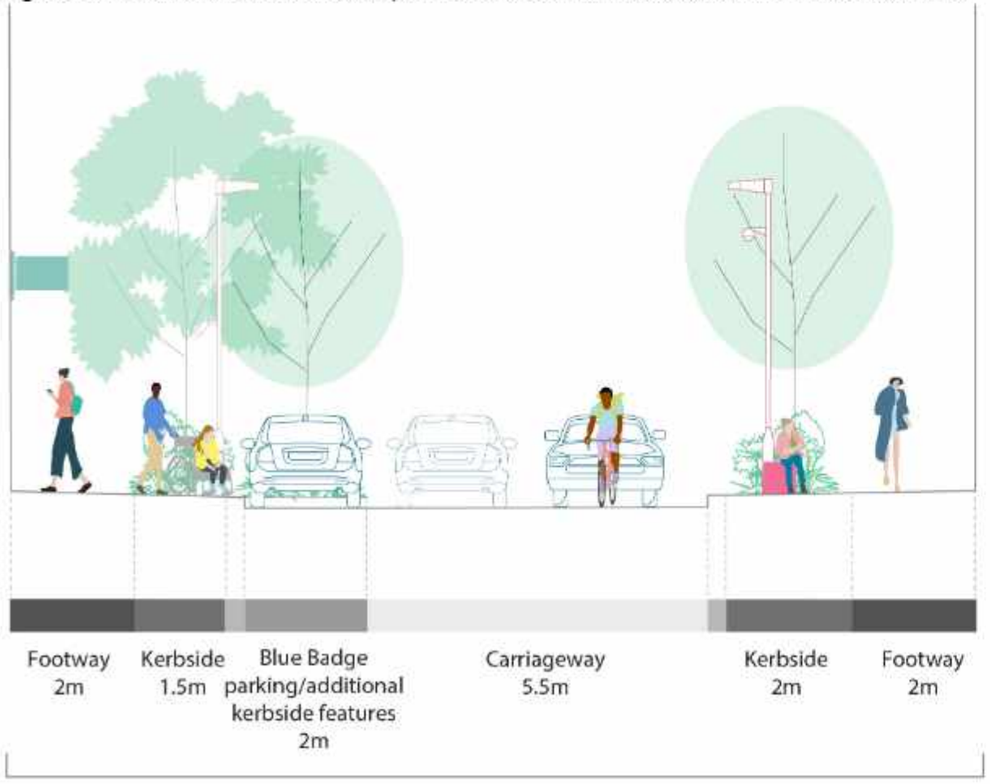
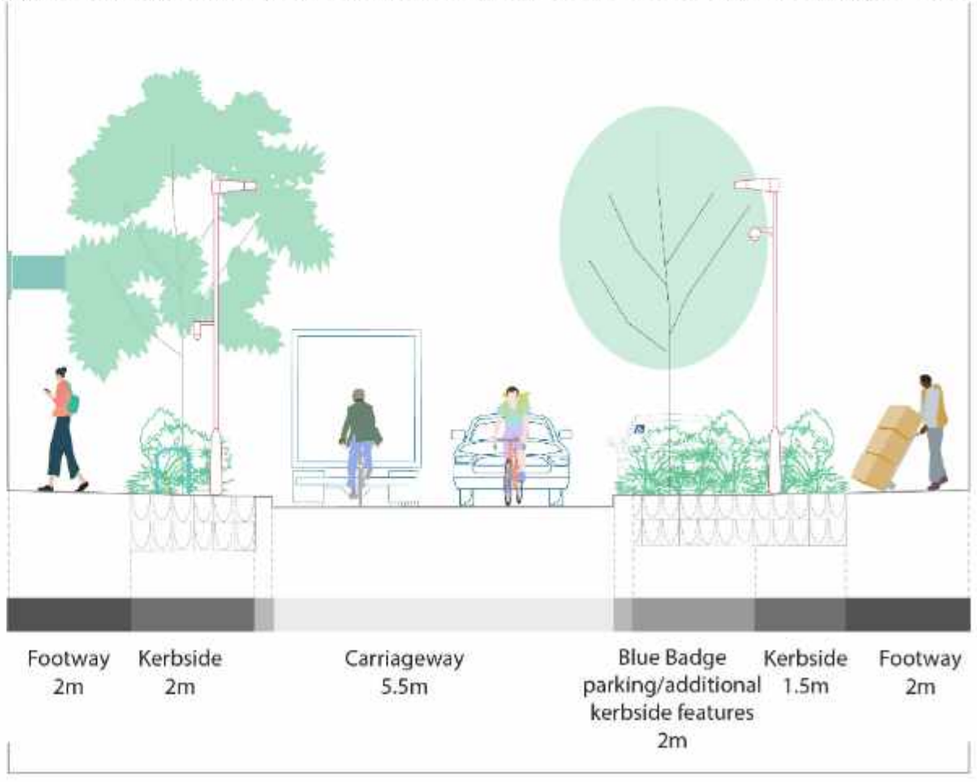


Figure 6.20 Illustration of an example Local Street street-section in a Strategic Industrial Location



6 Public Realm - Local Streets

Movement routes and infrastructure

Principle LMIP1: Supporting inclusive, safe and accessible movement

All development proposals should provide inclusive and accessible movement routes for all users by providing:
a) uncontrolled pedestrian crossings that consider:
   i) dropped kerbs with tactile paving;
   ii) adequate lighting during night time; and
   iii) clear sightlines.

Supporting text

6.81. In areas with low vehicular traffic on Local Streets, uncontrolled pedestrian crossings are a way to facilitate pedestrian movement. These crossings are designed to provide pedestrians with a convenient way to cross the road by providing dropped kerbs with tactile paving or central refuge. Dropped kerbs make it easy for pedestrians, including those with mobility aids like wheelchairs or strollers, to transition between the pedestrian route and the road.

6.82. Adequate lighting and visibility are important for safety, especially during low-light conditions. Installing adequate street lighting near uncontrolled crossings can help improve visibility for both pedestrians and drivers.

Principle LMI2: Cycling

All development proposals should provide safe, direct, comfortable, attractive, legible, parking facilities and well-connected routes for cyclists. To achieve this, development proposals should provide:
a) Residents' cycle parking:
   i) on carriage-ways, adjacent to the kerbside in existing streets, subject to agreement with local residents and the highways authority; and
b) carriageways which accommodate cyclists.

Supporting text

6.83. Integrating cycle parking alongside other street furniture can contribute to the overall streetscape, making the urban environments more attractive and functional for all residents and visitors.

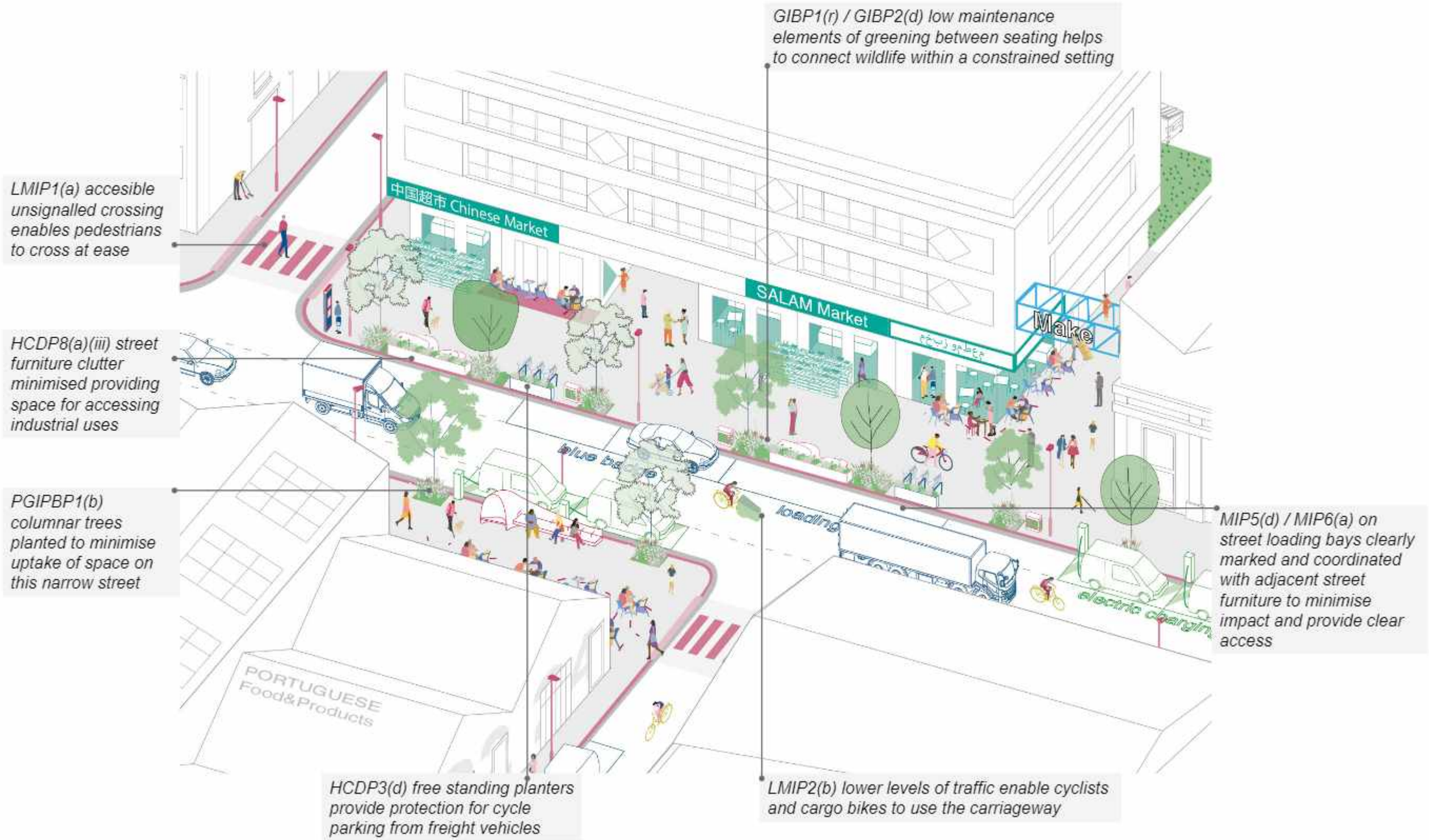
6.84. In some areas on Local Streets, residents' cycle parking can also be provided along the kerbside on carriageways in secure parking structures. This approach can help maximise the efficient use of space and promote cycling. This will involve identifying suitable on-carriageway parking bays for conversion into cycle parking areas. These may be located along streets with sufficient cycling demand or where it may be desirable to increase cycling. Location and design will need to ensure that cyclists can access the parking area safely and that they have clear sightlines when entering and exiting.

6.85. Reflecting the lower levels of vehicular traffic along Local Streets, segregated cycle lane are generally not required and carriageways should be designed to accommodate cyclists.

Figure 6.21 Street in Chobham Manor, Stratford exhibiting qualities of a Local Street in a mixed use area

6 Public Realm - Local Streets

Figure 6.22 Illustration of how principles could apply to a Local Street in a Strategic Industrial Location



6 Public Realm - Town Centre Streets

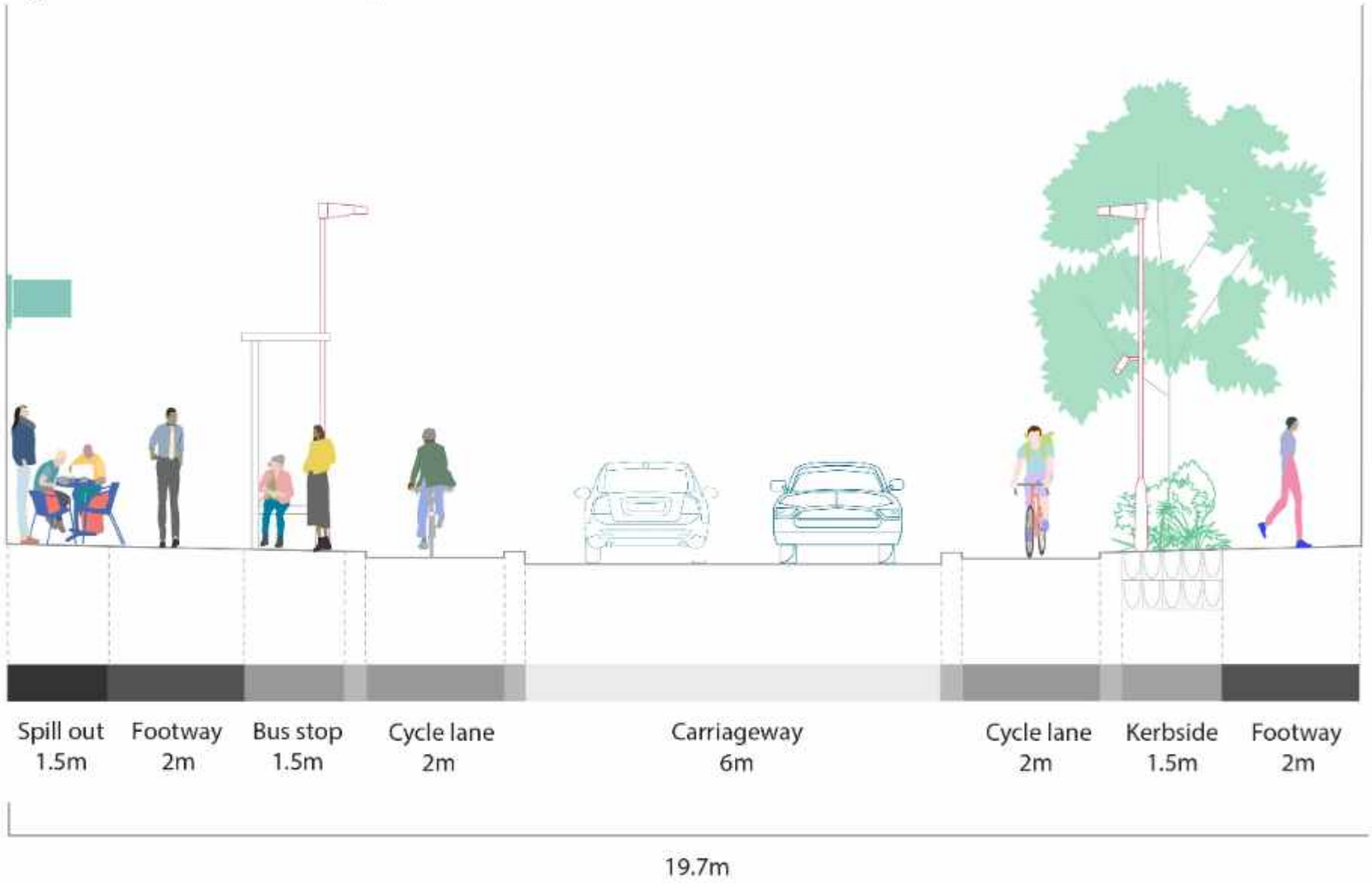
Town Centre Streets

Introduction

6.86. Town Centre Streets are the hearts of neighbourhoods providing spaces to enjoy and move through. They focus on providing space for town centre uses with active frontages, green open spaces, pedestrians and cyclists while enabling the flow of buses and other vehicular traffic. There is an opportunity for linear planting strips and street trees that are coordinated with seating and pause areas while not obstructing servicing or loading.

6.87. Figure 6.23 shows an image of a street section of an example Town Centre Street. This illustrates how a Town Centre Street could reflect all the guidance in the SPD and other signposted guidance. This layout will need to respond to the existing context including land use designations, access roads and constraints such as existing buildings and open spaces. The design for the street section layout would need to be informed by pedestrian and cyclist comfort analysis. (2/35)

Figure 6.23 Illustration of an example Town Centre Street street-section in a mixed use area



6 Public Realm - Town Centre Streets

Movement routes and infrastructure

Principle TMIP1: Supporting inclusive, safe and accessible movement

All development proposals should provide inclusive and accessible movement routes for all users by providing:

a) at grade controlled pedestrian crossings that:
   i) support pedestrian desire lines;
   ii) are supported with dropped kerbs with tactile paving for visually impaired and users with mobility aid;
   iii) where possible, a central refuge; and
   iv) adequately lit at night time.
b) footway widths should cater for a high volume of pedestrians by providing:
   i) a minimum footway width of 2.5 metres; and
   ii) provide space as pause areas where pedestrians are likely to stop for long periods.
c) consider raising the carriageway the full length of the street by:
   i) providing separation between the level of the footway and carriageway.
      A. a kerb upstand of 50 – 60mm should be provide a grade separation between footway and carriageway; and
      B. differentiate the footway and carriageway through the use of tonally contrasting colours, textures and materials.

Supporting text

Crossings

6.88. Similar to Secondary Streets, Town Centre Streets need to be designed with controlled crossings. Given the high volume of pedestrian flow and vehicular traffic, the focus should be to enhance pedestrian safety and accommodating various transport modes. Depending on the local context and traffic flow, controlled crossings can be supported through signals, line markings and lighting that indicate when pedestrians have the right of way to cross. These can be in the form of zebra crossings, puffin crossings or ~~pelican crossings~~ PelX crossings. (2/43)

6.89. Signalised crossings may be considered in locations where there is high pedestrian demand. It is important to plan for multi-modal integration and consider the needs of all users to provide relevant infrastructure to accommodate various transport modes, including pedestrians, cyclists, and public transportation at controlled crossings.

6.90. In some cases, central refuges can be included in controlled pedestrian crossings. These refuges are small, raised islands in the middle of the road, allowing pedestrians to cross one direction of traffic at a time. Pedestrians can wait in the central refuge if needed, making it easier to complete the crossing in multiple stages. Central refuges need to accommodate waiting pedestrians comfortably to minimise risks of crowding and consider all pedestrians including, those who are disabled, elderly, pregnant women and users with mobility aid. (2/43)

Wider footway

6.91. Wider footways can provide more space for pedestrians, reducing congestion and improving safety. This is especially important in busy town centres where pedestrian traffic can be high. It should accommodate multiple users especially those with disabilities, using mobility aids like wheelchairs or scooters, and parents with pushchairs. This helps create a more inclusive and accessible environment.

Pause areas

6.92. Pause areas in town centres are designed to provide a space for people to take a break. This can be used to rest, window shop or look at wayfinding signage while not obstructing pedestrian flow. See Principle EDIP2: Designing in and improving accessibility.

Principle TMIP2: Cycling

All development proposals should accord with Secondary Streets Principle SIMP2 Cycling.

Principle TMIP3: Freight, servicing and emergency access

All development proposals should accommodate the safe, reliable and efficient delivery of goods and services, including emergency services. To achieve this, development proposals should:

a) where appropriate, in Transport Assessments and Travel Plans, restrict freight and servicing activities to early mornings and late evenings to minimise conflicts with street users and adjacent uses.

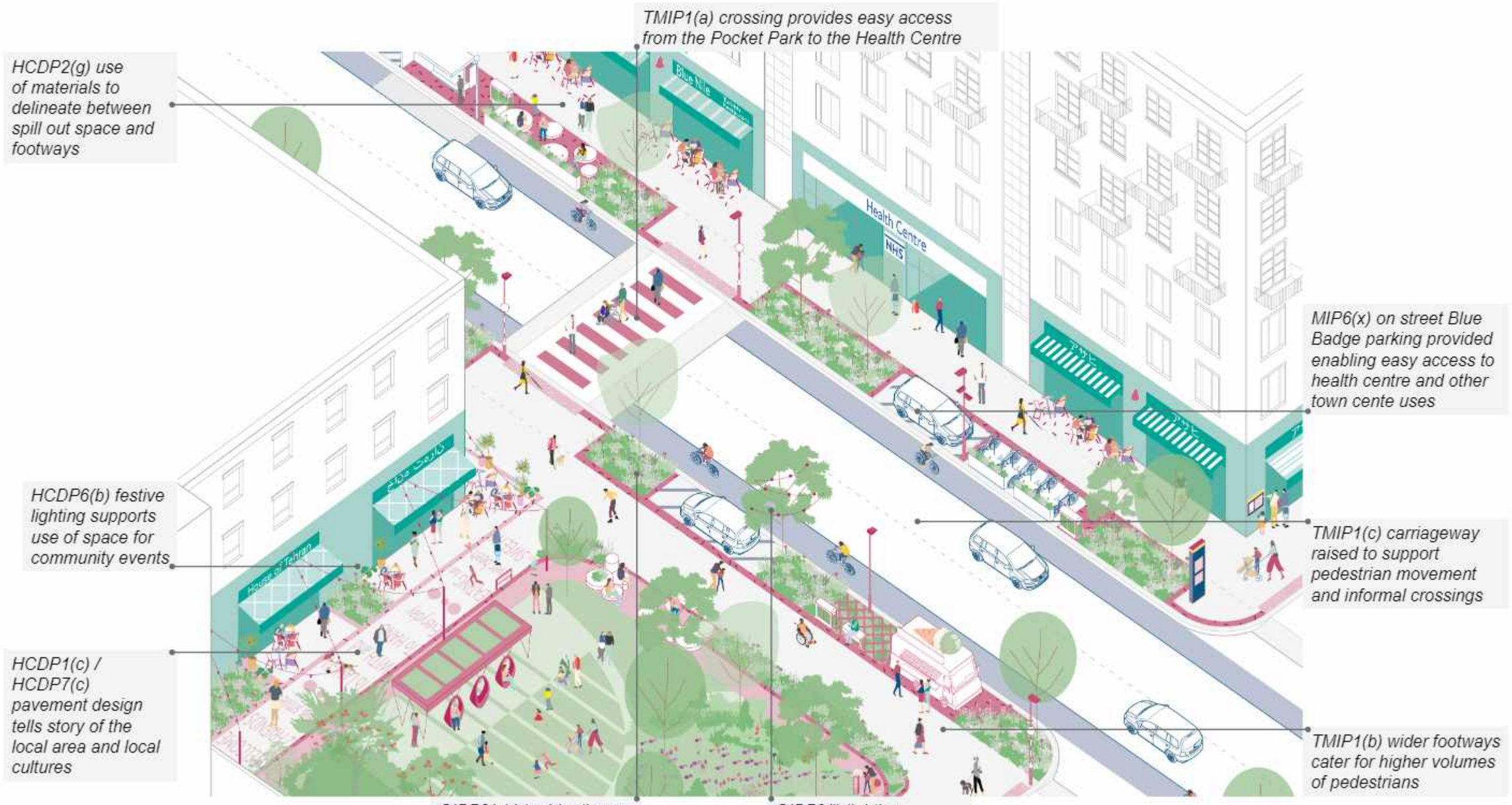
Supporting text

6.93. Restricting deliveries to early mornings and late evenings minimises conflicts among street users and adjacent land uses, particularly in densely populated areas. This approach can help reduce congestion, improve safety, and enhance the liveability of the community. Collaboration with local businesses and freight operators will ensure that the restrictions are feasible and effective. Establishing specific delivery time windows during which freight activities are allowed should align with the community's needs and preferences.

6.94. Flexibility in the scheduling of deliveries is important to accommodate businesses with different operational requirements.

6 Public Realm - Town Centre Streets

Figure 6.24 Illustration of how principles could apply to a Town Centre Street in a mixed use area



6 Public Realm - Local Centre Streets

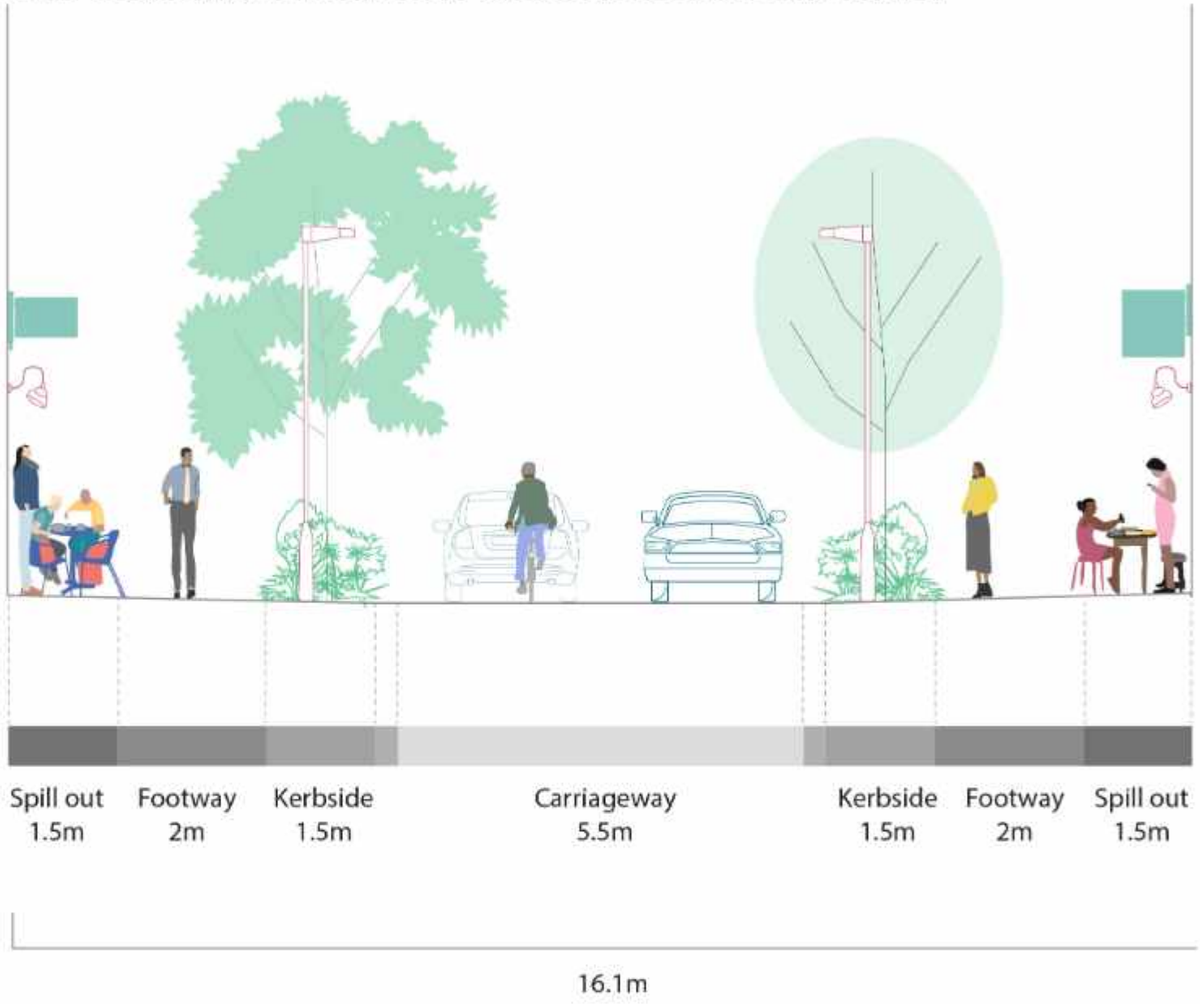
Local Centre Streets

Introduction

6.95. Local Centre Streets are quieter streets fronted by town centre uses providing spaces for these uses to spill out onto the street and locations for street markets. These streets may connect to Town Centre Streets or within clusters located off from Secondary Streets and may involve restrictions on general vehicle traffic and/or well-designed shared surfaces.

6.96. Figure 6.19 shows an image of a street section of an example Local Centre Street in a mixed use area. This illustrates how a Local Centre Street could reflect all the guidance in the SPD and other signposted guidance. This layout will need to respond to the existing context including land use designations, access roads and constraints such as existing buildings and open spaces.

Figure 6.25 Illustration of a Local Centre Street street-section in a mixed use area



6 Public Realm - Local Centre Streets

Movement routes and infrastructure

Principle LC-MIP1: Supporting inclusive, safe and accessible movement

All development proposals should accord with:
a) Local Streets Principle LMIP1 Supporting inclusive, safe and accessible movement; and
b) Town Centre Streets Principle TMIP1(c) Supporting inclusive, safe and accessible movement.

Principle LC-MIP2: Cycling

All development proposals should:
a) generally accord with Secondary Streets Principle SIMP2 Cycling; and
b) where appropriate, deliver carriageways which accommodate cyclists in accordance with Local Streets Principle LMIP2(b) Cycling.

Principle LC-MIP3: Freight, servicing and emergency access

All development proposals for should accord with Town Centre Streets Principle TMIP3 Freight, servicing and emergency access.

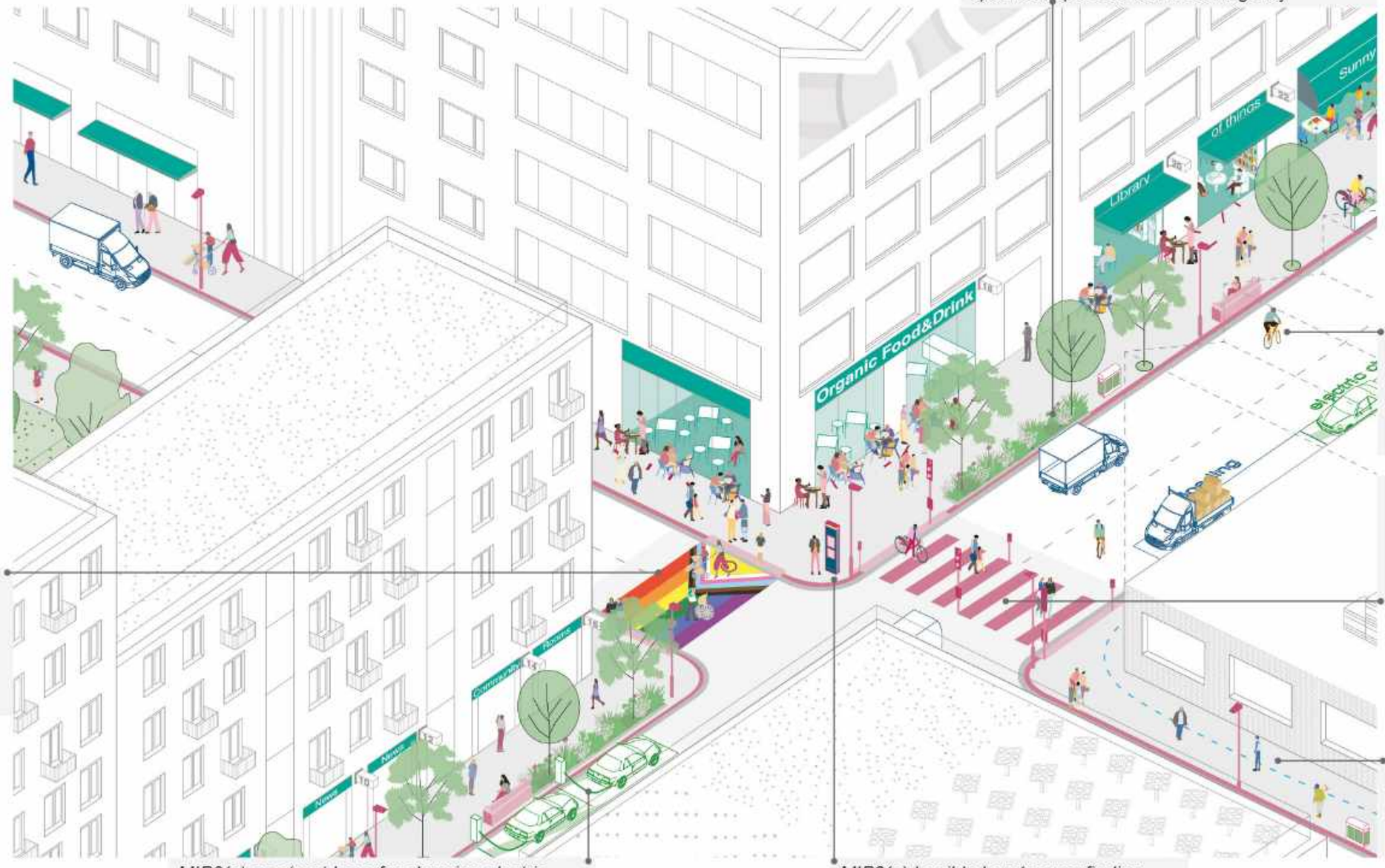
Supporting text

Reflecting their lower intensity of use, Local Centre Streets have the potential to deliver aspects of both Town Centre Streets and Local Streets. Flexibility will likely be required in implementing Principles to reflect their roles and potential for accommodating spill out uses onto the public realm.

Figure 6.26 CGI of a street in the Aberfeldy Village development in Poplar exhibiting qualities of a Local Centre Street

6 Public Realm - Local Centre Streets

Figure 6.27 Illustration of how principles could apply to a Local Centre Street located between a mixed use area and Strategic Industrial Location



GIBP2(e) / PGIPBP1(b) columnar trees that can adapt to climate change used to minimise uptake of space and ensure longevity

LC-MIP2(b) lower levels of traffic enable cyclists and cargo bikes to use the carriageway

MIP1(h) level crossing enables easy and safe access between town centre and industrial uses

EDIP5(f) LGBTQ+ Pride crossing celebrates local communities to support emotional well-being

HCDP2(a)(i) defined area for appropriate industrial spill out activities

MIP6(a) on street bays for charging electric vehicles clearly marked and coordinated with adjacent street furniture minimises visual impact

MIP2(e) Legible London wayfinding signage enables people to navigate to local workspaces in the Strategic Industrial Location

7.Open Spaces

7 Open Spaces

Introduction

7.1. Based on the London Plan open space categories, this SPD has set out Open Space Typologies for the various types of open spaces and parks based on their size and place-based elements. The typologies comprise:

- Local Parks, Small Open Spaces and Pocket Parks; and
- Linear Open Spaces.
- Communal and Private Open Spaces

7.2. The locations of open spaces set out in the Local Plan are depicted in figure 6.1 which shows the network of open as it is envisaged to be at the end of the Local Plan period in 2038.

7.3. Table 6 comprises the OPDC Open Space reference matrix. This sets out each open space type and the relevant Principles and Ambitions relevant to the open space type.

7.4. This guidance does not apply to Wormwood Scrubs Metropolitan Open Land and Metropolitan Park. Please refer to Local Plan policy P12 for specific guidance for Wormwood Scrubs.

7.5. Where meanwhile public open spaces are proposed, the guidance in this chapter and in the All Public Realm and Open Spaces chapter should also be utilised to inform their design, functioning and management.

7.6. The guidance in this chapter is supported by a range of robust supporting studies that provide recommendations regarding the quantity, location and qualities of open spaces to provide people access to nature and open spaces while also helping nature to thrive and respond to climate change.

Figure 7.1 Local Plan public open space network *Figure modification (13/1)*

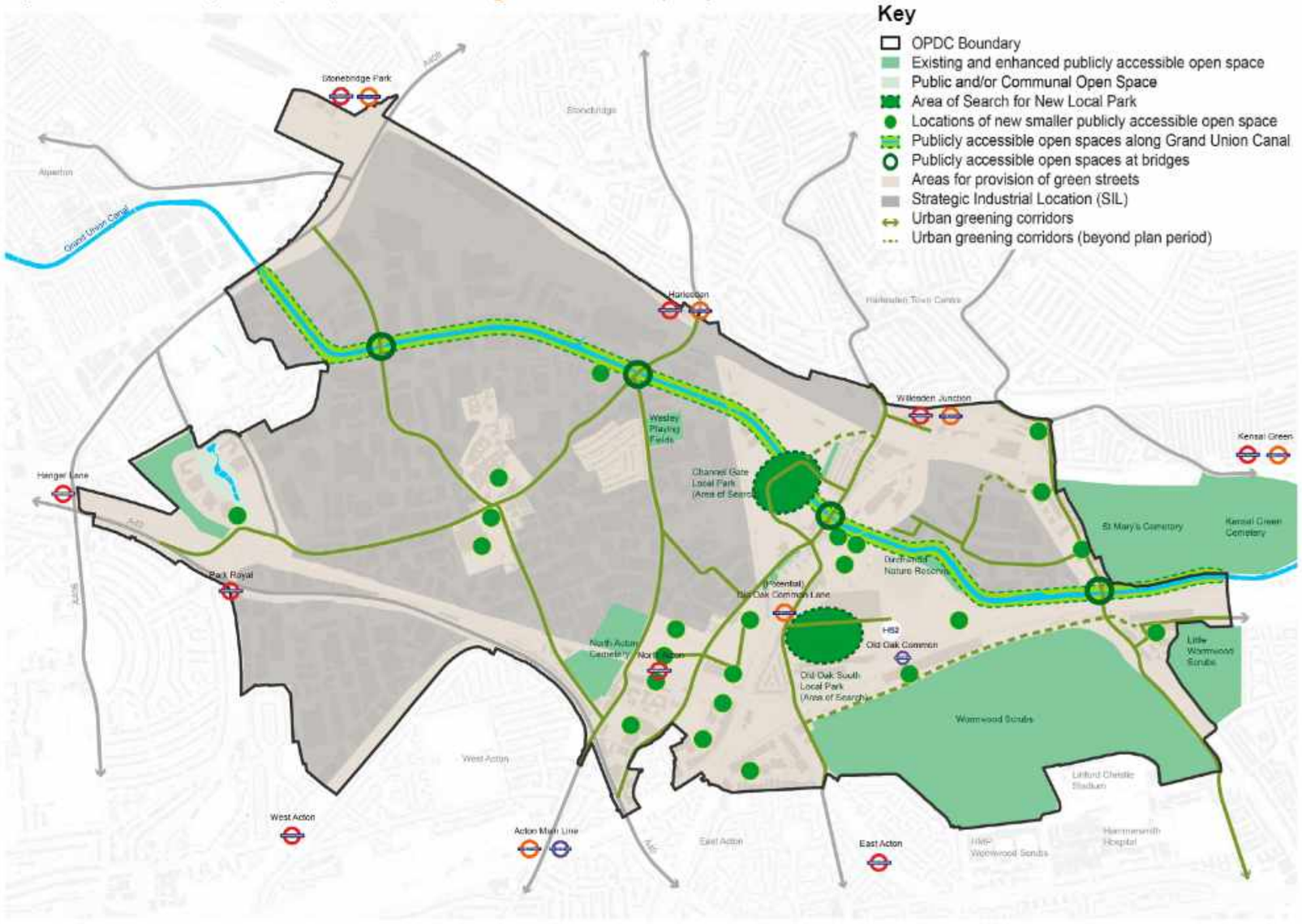


Table 6: OPDC Open Space reference matrix

	Greening			Design								EDI				Movement	Environment		Management
Ingredients	Optimising greening	Resilient and high quality greening	Water management	Locally distinctive	Positive frontages and boundaries	Safe environment	High quality and inclusive destinations	Materials and finishes	Adequate lighting	Open space views and sightlines	Street furniture	Equity, inclusivity and diversity	Accessibility	Usability and comfort	Physical, mental and emotional well-being	Inclusive, safe and accessible movement	Improved microclimate and pollution	Environmental sustainability	Long term maintenance and upkeep
Typologies																			
All Open Spaces	GIBP1 GIBA1 OS-GIBP1 OS-GIBA1	GIBP2	GIBP4	HCDP1	HCDP2	HCDP3 EDIP4	HCDP4	HCDP5	HCDP6	OS-HCDP6	HCDP8	EDIP1 OS-EDIP1	EDIP2	EDIP3	EDIP5	OS-MIP1	MPP1 MPA1	ESP1 ESA1	MMP1
Local Parks, Small Open Spaces and Pocket Parks	GIBP1 GIBA1 OS-GIBP1 OS-GIBA1	GIBP2	GIBP4	HCDP1	HCDP2	HCDP3 EDIP4	HCDP4	HCDP5	HCDP6	OS-HCDP6	HCDP8	EDIP1 OS-EDIP1 LSP-EDIP1	EDIP2	EDIP3	EDIP5	OS-MIP1	MPP1 MPA1	ESP1 ESA1	MMP1
Linear Open Spaces	GIBP1 GIBA1 OS-GIBP1 OS-GIBA1 LOS-GIBP1 LOS-GIBA1	GIBP2	GIBP4	HCDP1	HCDP2	HCDP3 EDIP4	HCDP4	HCDP5	HCDP6	OS-HCDP6	HCDP8	EDIP1 OS-EDIP1	EDIP2	EDIP3	EDIP5	OS-MIP1	MPP1 MPA1	ESP1 ESA1	MMP1
Communal and Private Open Spaces	GIBP1 GIBA1 OS-GIBP1 OS-GIBA1 CP-GIB1	GIBP2	GIBP4	HCDP1	HCDP2	HCDP3 EDIP4	HCDP4	HCDP5	HCDP6	OS-HCDP6	HCDP8	EDIP1 OS-EDIP1	EDIP2	EDIP3	EDIP5	OS-MIP1	MPP1 MPA1	ESP1 ESA1	MMP1

7 Open Spaces - All Open Spaces

Urban greening and ecology

Principle OS-GIBP1: Delivering urban greening and biodiversity in all public open spaces

All development proposals are encouraged to support high quality greening and biodiversity in public open spaces. Proposals should deliver:

a) greening connections to adjacent sites with existing and/or proposed green infrastructure layouts that are designed with a consideration of the flow of people through the space;
b) greening that engages people through:
   i) wild/natural features including rocks, logs, and water features that encourage unstructured play and exploration;
   ii) edible planting in locations away from pollution sources;
   iii) interactive planting that engages the senses, such as aromatic herb gardens or butterfly gardens;
   iv) installing information signs highlighting the park's flora, fauna, and history;
   v) art installations that incorporate natural features that enhance the park's aesthetic and cultural appeal;
   vi) spaces for picnics, meditation or contemplation;
   vii) opportunities for community learning including greening workshops that demonstrate gardening or other eco-friendly practices;
   viii) delivering bird feeders and baths to attract wildlife;
   ix) bird watching facilities;
   x) delivering local composting facilities that can be used to enrich the soil; and
   xi) providing options for appropriate arrangements for the management and maintenance of open space including providing opportunities for community involvement.
c) existing soil condition and underlying geology should be considered when choosing species. Planting should be:
   i) a mix of tree species that offer year-round visual amenity and climate resilience, including during winter months;
   ii) flowering plants that attract pollinators to help with pollination; and
   iii) predominantly native species.
d) provide dedicated and managed areas for nature and for public access to nature. This could include:
   i) low value amenity grassland managed for length and species diversity;
   ii) sensitive habitats designed to avoid high levels of pedestrian and use by pets; and
   iii) new habitats appropriate for local conditions such as aquatic habitats in locations close to the Grand Union Canal.
e) consider whether open water attenuation drainage features are suitable where play spaces are proposed. In these locations the space should:
   i) seek to utilise permeable surfacing with a suitable porous sub-base media which allows for storage and infiltration; and
   ii) where possible, incorporate water features in a safe, playful and educational manner;
f) boundary features around open spaces and/or component areas that provide positive visual amenity by being permeable or open. This can include:
   i) well maintained hedges at a low height;
   ii) where fencing and/or walls are necessary, the use of planting to soften appearance and increase biodiversity value; and/or
   iii) proviing food growing opportunities appropriate to the type of public realm or open space being delivered.

Ambition OS-GIBA1: Delivering urban greening and biodiversity in all public open spaces

All development proposals are encouraged to support high quality greening and biodiversity. Proposals are encouraged to deliver:

a) 70% native species;
b) wildlife stems ('snags') by retaining standing deadwood;
c) the inoculation of deadwood with edible fungi to increase habitat food provision;
d) plunge cuts into the stems of deadwood to increase habitat;
e) portable container gardens that can be moved to different areas of the open space, offering flexibility in design and seasonal planting; and
f) slow-growing or harder wood trees with lower lying branches, appropriate for tree climbing and other play.

Signposts

National Legislation
- Environment Act 2021

National Planning Policy Framework
- 8. Promoting healthy and safe communities
- 14. Meeting the challenge of climate change, flooding and coastal change
- 15. Conserving and enhancing the natural environment

National Design Guide
- N1 to N3, P1 to P3

London Plan 2021 / GLA guidance
- Policy G1 (Green infrastructure)
- Policy G4 (Open space)
- Policy G5 (Urban greening)
- Policy G6 (Biodiversity and access to nature)
- Policy G7 (Trees and woodlands)
- Policy G8 (Food Growing)
- Policy SI5 (Water infrastructure)
- Policy SI13 (Sustainable drainage)
- Urban Greening Factor guidance and calculator

Local Plan
- Policy SP8 (Green infrastructure and open space)
- Policy EU1 (Open space)
- Policy EU2 (Urban greening and biodiversity)
- Policy EU3 (Water)

OPDC supporting studies
- Biodiversity and Urban Greening Strategy
- Sites of Importance for Nature Conservation Statement
- Integrated Water Management Strategy (IWMS)
- Old Oak and Park Royal Landscape Primer
- Grand Union Canal Placemaking Study

7 Open Spaces - All Open Spaces

Supporting text

Naturalistic planting

7.7. Naturalistic planting, with multiple layers including trees, shrubs, herbaceous and ground cover planting and a variation of plants across seasons can retain a sense of 'wildness' as well as providing greater biodiversity value.

7.8. Landscaping should be resilient, aiding climate change adaptation while also being designed for longevity and adaptability. Open spaces have the capacity to provide attenuation spaces where stormwater can be stored temporarily in major storm events. Open spaces should be kept visually appealing throughout the year while fostering support for wildlife. Spring flowering and autumn foliage are particularly engaging; helping to denote the change in the seasons. Planting should be predominantly native species; however, some flexibility is provided to enable climate resilience, edible planting and other site-specific requirements.

7.9. The existing soil condition and underlying geology should be considered when choosing species. In general, deep-rooting tree varieties that can resist both flooding in winter and drought periods in summer can be more climate resilient, such as Scots pine and English oak.

7.10. Edible planting includes plants for both human and wildlife. Plants for human consumption can include fruits, nuts, herbs, spices and edible leaves and flowers. Information boards can include explanations of edible planting, biodiversity features, particularly those that might otherwise be dismissed as wild or 'scruffy'.

7.11. Short and intensively managed amenity grassland has limited ecological value, although some amenity grassland has value for public use. Where space allows for differing grassland management techniques, areas that are mown less frequently should be identified and retained. Diversity in flowering plants can be increased by sowing yellow rattle, a grass hemi-parasite, to control grass growth, by avoiding the use of fertilisers, and by removing cuttings when mowing to reduce soil fertility. Longer grassland provides significant benefits when it is retained through the spring and early summer when key wildflowers are in bloom with a hay-cut as appropriate after summer. Some long vegetation may be retained over winter as well, as seed heads can provide valuable food resources for birds.

7.12. High levels of pedestrian footfall and pet walking can reduce the success of habitat creation, particularly grassland. By providing a patchwork of amenity grassland, where pedestrians are encouraged to freely roam, and more valuable habitat, which can be buffered with scrub planting, pedestrians, especially dog walkers, can be encouraged to avoid sensitive grasslands.

7.13. Woodland and scrub are naturally complex habitats, with multiple layers of taller and smaller trees, shrubs, taller herbaceous plants and groundcover. These habitats naturally have high levels of decomposition that can be ensured in open spaces by avoiding the removal of dead wood and fallen leaves.

7.14. Due consideration should be given to local conditions including soil type, level of exposure and surrounding vegetation when designing more natural spaces, as this will determine effectiveness.

Natural play

7.15. Play spaces for all ages can be designed to incorporate natural features to better integrate into surrounding naturalistic landscaping. Materials can include logs and stumps for balancing/ climbing. By setting play spaces within natural ecosystems, particularly woodlands, natural play can be encouraged. Seasonal wetlands and rockpools may provide educational value but these must be delivered in a safe way.

7.16. Where space permits, the planting and management of trees to provide climbing opportunities once a tree reaches maturity is encouraged, even if this may not provide immediate benefit. Slower growing and harder wood trees such as oak trees have more durable wood for climbing, oak also provides lower spreading branches ideal for young climbers.

Food growing

7.17. Community food growing projects can provide opportunities for social interaction, exercise, nutrition education and improvements in wellbeing. Provision will depend on the demand, size, access and current/anticipated use of the open space. These projects need to incorporate raised garden beds that are accessible to people of all ages and abilities. These beds can be used for growing vegetables and herbs.

7.18. Development proposals should establish community garden plots where local residents can rent or share small spaces to grow their own fruits and vegetables. These spaces can promote community interaction and access to fresh produce. Different opportunities can be integrated. Such as:

- parks can designate permaculture zones within the park where perennial food crops and self-sustaining systems can be established, showcasing sustainable agriculture practices;
- food forests that mimic natural ecosystems and incorporate a mix of edible plants, shrubs, and trees. These can provide a diverse range of food options and support wildlife;
- dedicated garden plots within the park for local schools can enable students to learn about food production and gardening;
- establish "donation gardens" where surplus produce is harvested and donated to local food banks or community organisations.

Figure 7.2 The Lighthouse & Gardens - a meanwhile wellbeing community hub and community gardens, Stratford

7 Open Spaces - All Open Spaces

Heritage, character and design

Principle OS-HCDP1: Open space views and sightlines

All development proposals should support sightlines into and from open spaces by:

a) undertaking contextual analysis and identifying key sight lines that enhance ease of orientation and promote wayfinding and ensuring these are incorporated into proposals;
b) locating building lines to preserve key sight lines to and from open spaces;
c) locating hard and soft landscape features to frame key views;
d) undertaking topographical analysis of the context to ensure key views to open spaces that the impacts of proposals on key views to open spaces can be appropriately considered as part of the application process ~~are maintained once the levels have been accounted for~~; (5/18)
e) identifying and providing key viewing points that could offer opportunities to create places to pause; and
f) accommodating enhanced lighting provision to help mark the location as an active destination and support night time / evening activity.

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities
- 12. Achieving well-designed and beautiful places

National Design Guide:
- P1 to P3

London Plan 2021 / GLA Guidance
- Policy D5 (Inclusive Design)
- Policy D8 (Public realm)
- Policy G4 (Open space)

Local Plan 2022
- Policy SP8 (Green Infrastructure and Open Space)
- Policy D1 (Public realm)
- Policy D6 (Key views)
- Policy EU1 (Open Space)

OPDC supporting studies
- Views Study

Supporting text

7.19. The character of the streets that connect to open spaces and offer views of the wider context should be considered early in the design process, to demonstrate how they support the vitality of the open spaces as active destinations and encourage community cohesion.

7.20. The vitality of open spaces can be enhanced by considering the pedestrian experience of navigating the streets connecting to them. Framing views of open spaces can help promote wayfinding in streets by making it easier to orientate a place. Providing views can also help promote them as active destinations, help support community cohesion through enhancing access and support pedestrian safety.

7.21. By undertaking contextual analysis, including site photography and setting up street views, sight lines to open spaces can be identified to help inform the location of building lines to enable views to be unobstructed. Hard and soft landscaping features can be tailored to support those views, such as considering the height of tree canopies to ensure long views are maintained.

7.22. The topography of the streets should be considered as this may hinder views to open spaces in some locations and may offer advantageous viewpoints in other locations. For example, there may be locations where glimpse views of the London skyline are celebrated by creating viewing points.

Figure 7.3 Open space view, Wormwood Scrubs

7 Open Spaces - All Open Spaces

Movement routes and infrastructure

Principle OS-MIP1: Supporting inclusive, safe and accessible movement

All development proposals should provide inclusive and accessible movement routes for all users through and/or adjacent to public open spaces by providing:

a) connections with existing paths and trails;
b) paths and trails that follow desire lines and direct access to amenities such as public toilets and play areas;
c) depending on the surrounding context, controlled or uncontrolled pedestrian crossings to provide access to public open spaces that are:
   i) close to park entrances;
   ii) safe and child friendly; and
   iii) that are raised to the level of the pedestrian route.
d) where cycle routes are shared with pedestrians, provide:
   i) clear signage and marking confirming priority;
   ii) speed calming measures to encourage slower speed; and
   iii) where possible, a minimum width of 3 metres, or a suitable alternative which provides sufficient space for pedestrians and cyclists to move safely (8/13)
e) provide cycle parking in or adjacent to park entrances and in well-lit locations.

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities
- 9. Promoting sustainable transport

National Design Guide:
- M2, P1 and P2

London Plan 2021 / GLA Guidance
- Policy T2 (Healthy Streets)
- Policy T5 (Cycling)
- Sustainable Transport, Walking and Cycling LPG

Local Plan 2022
- Policy SP7 (Connecting People and Places)
- Policy SP8 (Green Infrastructure and Open Space)
- Policy T2 (Walking)
- Policy T3 (Cycling

Supporting text

7.23. Connecting open spaces with paths and trails enhances accessibility for pedestrians, cyclists, and other recreational users. It creates a network that allows people to move seamlessly between different public open spaces, promoting physical activity and outdoor enjoyment. Whether it's walking, jogging, cycling or enjoying nature, the interconnected trails can offer a range of activities for people of all ages and abilities.

Crossings

7.24. Well-designed crossings improve the accessibility of open spaces, making them easily reachable for people of all ages and abilities. This inclusivity encourages more individuals to enjoy and benefit from the recreational and social aspects of open areas. Crossings should be located near entrances to open spaces, ensuring that individuals can easily and safely access these areas without having to navigate long stretches of road. The design of crossings should consider factors such as the width of the road, pedestrian visibility, and the volume and speed of traffic. This includes appropriate signage, well-marked crosswalks, and, if necessary, features like flashing lights or pedestrian-activated signals to alert drivers to the presence of pedestrians. Features like raised surfacing, material or central refuge can also enhance safety.

Cycle routes

7.25. Open Spaces need to consider incorporating cycle routes as part of a broader strategy. Creating cycle routes through open spaces enhances the accessibility of these areas, connecting neighbourhoods, parks, and other destinations within a community. This provision should be considered in Local Parks, Small Open Spaces and Linear Open Spaces. It is important to ensure that cycle routes are designed with safety in mind. This includes well-marked paths and appropriate signage. Adequate lighting will be necessary for evening or night cycling. Where cycle routes must be shared with pedestrians, there must be sufficient width to provide space for both pedestrians and cyclists, ideally 3m. However, it is recognised that this may not always be possible. For example, The Grand Union Canal towpath is unlikely to be able to consistently achieve a 3m width due to a number of other constraints and operational functions that also need to be accommodated. (8/13)

7 Open Spaces - All Open Spaces

Equity, diversity and inclusion (EDI)

Principle OS-EDIP1: Delivering equitable, diverse and inclusive public open spaces

All development proposals for public open spaces should:

a) improve accessibility by providing:
   i) entry and exit points that:
      A. offer wide entries and exit points suitable for mobility equipment to pass through; and
      B. ensure routes leading to and from entrances/exits are direct and free of obstacles.
   ii) information boards that provide emergency assistance, safety tips and cater to local demographics; and
   iii) clear and multi-sensory wayfinding infrastructure and information to include amenities, routes, areas and attractions;
b) plant beds that have maintenance access to the centre of the bed from either side.

Supporting text

7.26. Ensuring that entries and exits are wide enough to accommodate various types of mobility equipment, including wheelchairs, non-motorised-scooters and pushchairs allows for comfortable passage without obstacles. Where gates are required within open spaces, such as to play spaces or pet-walking areas, automatic gates can be helpful for individuals with limited mobility who may find it challenging to operate manual gates.

7.27. Ensuring that the pathways leading to and from open space entrances/exits are free of obstacles is crucial for individuals to navigate easily and safely. Including information about the accessible entry and exit points on park maps and on park websites helps visitors plan their trips and ensures they are aware of the available accessibility features.

7.28. Where communities may be involved in maintenance of open spaces, having accessible planting beds to access the centre of the bed improves accessibility. This will also be helpful for maintenance teams who are involved in cleaning and maintaining the planting.

Signposts

National Planning Policy Framework:
- 8. Promoting healthy and safe communities

National Design Guide:
- C1 and C2, I1 to I3, P1 to P3, L2 and L3

London Plan 2021 / GLA Guidance
- Policy GGI (Building strong and inclusive communities)
- Policy D5 (Inclusive design)
- Accessible London SPG
- Planning for Equality and Diversity in London SPG
- Safety in Public Space - Women, Girls and Gender Diverse People
- Women's Night Safety Charter (see toolkit)

Local Plan 2022
- Policy SP2 (Good growth)
- Policy SP3 (Improving health and reducing health inequalities)
- Policy SP8 (Green Infrastructure and Open Space)
- Policy D2 (Accessible and inclusive design)
- Policy EU1 (Open Space)

Figure 7.4 Incredible edible project



Case Study
The Incredible Edible movement started in Todmorden, where the founders planted vegetables and other edible plants in smaller open spaces, encouraging the local community to take what they needed. There are now more than 100 Incredible Edible groups. They also developed Edible Activity Trail as a fun way to introduce children to the idea of growing food.

7 Open Spaces - Local Parks, Small Open Spaces and Pocket Parks

Local Parks, Small Open Spaces and Pocket Parks

Introduction

7.29. Local Parks are defined in the London Plan as spaces for recreation, sitting out areas and nature conservation areas. They cover an area of 2 hectares or more and should typically be located within 400m from homes. Local Parks should provide dedicated children's play, informal play space and elements of play for all ages.

7.30. OPDC envisions Local Parks to provide evening recreation and as such they should be lit and offer connections to surroundings areas. However, where there are areas of biodiversity a more sensitive lighting design will be required. Safety should be prioritised where recreation is offered to all age groups.

7.31. There are two Local Parks proposed in the OPDC area:

- Channel Gate Local Park which is located in the Channel Gate site allocation south of the Grand Union Canal (see Old Oak West SPD for more information).
- Old Oak South Local Park which is located in the Old Oak Common Station Adjacent Station Development site allocation, directly to the west of the future Old Oak Common Station.

7.32. Small Open Spaces are defined in the London Plan as public gardens, sitting out areas, children's play spaces and other areas of a specialist nature, including nature conservation areas. Small Open Spaces are under 2 hectares and, and are located less than 400m away from homes. Pocket Parks are also located less than 400m away from homes, and can provide natural surfaces and shaded areas for informal play and passive recreation, and they sometimes have seating and play equipment.

7.33. These parks are often more 'people focussed' with higher pedestrian footfall per given unit of space than Local Parks. As with streets, the design of these spaces should consider how people will move through the space, and trees can likewise be beneficial where their canopy is over head height.

7.34. Entrances to these spaces should be determined by the layout and use of these public spaces. Spaces should not be fenced off unless necessary, for example around a play space for small children. Boundaries should instead be created using landscape features, street furniture and/or trees.

Figure 7.5 Illustration of a Pocket Park

7 Open Spaces - Local Parks, Small Open Spaces and Pocket Parks

Urban greening and ecology

Principle LSP-GIBP1: Delivering urban greening and biodiversity in parks

All development proposals are encouraged to support high quality greening and biodiversity in Local Parks, Small Open Space and Pocket Parks. Proposals should deliver greening that engages the local community and visitors including:

a) green roofs and walls on park structures, including pavilions or toilets, to support wildlife.

Supporting text

7.35. By virtue of their size, open spaces and parks can provide opportunities for a range of functions including those that support nature through dedicated areas for biodiversity habitats, in combination with other more leisure focussed activities. The introduction of plants on structures enhances biodiversity within the park. Different plant species attract a variety of insects, butterflies, and birds, contributing to the overall ecological balance. Green roofs and walls help filter pollutants from the air, contributing to improved air quality in the park and its surrounding areas. They can add aesthetic value to park structures, making them visually appealing and blending them into the natural surroundings.

Figure 7.6 Planting with the community in Park Royal

7 Open Spaces - Local Parks, Small Open Spaces and Pocket Parks

Equity, diversity and inclusion (EDI)

Principle LSP-EDIP1: Delivering equitable, diverse and inclusive parks

All development proposals for Local Parks, Small Open Space and Pocket Parks should:

a) involve the local community in the design of open spaces to ensure local identities and demographics are represented;
b) deliver inclusive and equitable play spaces by providing:
   i) play and recreation spaces that ensure the play area is a space where everyone feels respected and valued. These should deliver:
      A. a mix of opportunities that cater to interests of all age groups with varied preferences including older children and teenagers;
      B. a variety of opportunities and features that are gender inclusive;
      C. a mix of opportunities for users with all types of abilities;
      D. engaging all senses through auditory, visual or tactile stimuli;
      E. incorporating cognitive, imaginative and creative play;
      F. dedicated spaces for tranquillity/mindfulness and meditation practices, such as quiet zones, meditation gardens, or yoga;
      G. incorporating outdoor gyms, wall climbing and other features that support informal physical activities for all ages and abilities;
      H. food growing and gardening that can be a space of sanctuary;
      I. entrance points to the play area that are fully accessible;
      J. nature-based solutions that give children the opportunity for wild play;
      K. opportunities for unstructured play that encourages playful learning;
      L. spaces that encourage independent and self-directed play;
      M. playful and educational art installations;
      N. associated spaces for social interaction such as for picnics and eating near to play spaces;
      O. designated play areas for pets;
      P. clear and inclusive signage with tactile and visual elements to guide users throughout the playground;
   ii) play equipment that delivers:
      A. adaptability and flexibility to support diverse users and age groups;
      B. gender-sensitive opportunities;
      C. mobility into play equipment to support individuals with disabilities;
      D. adequate spaces between equipment that offer sufficient room for wheelchair movement and parking to ensure accessibility in various settings;
      E. non-touch playing opportunities;
      F. safe surfacing materials beneath equipment that are impact-absorbing;
      G. protection from other activities such as ball games or dogs by using positive parameters and barriers such as greening;
      H. safety by structuring the type of activity that iseasy to navigate and clearly indicate the areas of movement and the areas for high-speed equipment such as swings and ziplines;
      I. enjoyable waiting time for popular play equipment by incorporating active/playful elements around it;
c) boundaries around play areas that consider security and positive parameters near busy streets through:
   i) integrate greening using hedges and/or landscaping instead of stand-alone fencing along the boundary edges;
   ii) if it is demonstrated that fencing is still required, proposals should:
      A. ensure the height is reduced as far as possible to maintain sightlines; and
      B. maintain appropriate visual permeability into play spaces;
d) parent and carer spaces should be near play areas and deliver:
   i) seating, tables and shelter;
   ii) ease for adults to survey and help children by ensuring:
      A. visibility and by minimising visual obstructions from adults' sitting areas/surveying space; and
      B. that adults can reach their child in elevated spaces and enclosed spaces.

Supporting text

Play spaces:

7.36. Creating inclusive and accessible play spaces that cater to all age groups, gender identities, and caregivers of all abilities is essential for fostering community engagement, promoting physical activity, and ensuring that everyone can enjoy the benefits of public open spaces.

7.37. Ensuring equitable opportunities in play spaces is crucial in creating environments where users and families can enjoy safe, inclusive, and engaging play experiences. It should be designed to promote longer dwell times, enable intergenerational activities and positive social contact.

7.38. Mayor of London's Play and Informal Recreation SPG identifies the importance of multifunctional play opportunities and spaces that offer a range of leisure and recreation opportunities for users of all ages. Creating lifetime neighbourhoods where people can, at all stages of their lives enjoy high quality environment. Similarly, this SPD's guidance updates and addresses the importance of creating equitable, diverse and inclusive play spaces that cater to all its users.

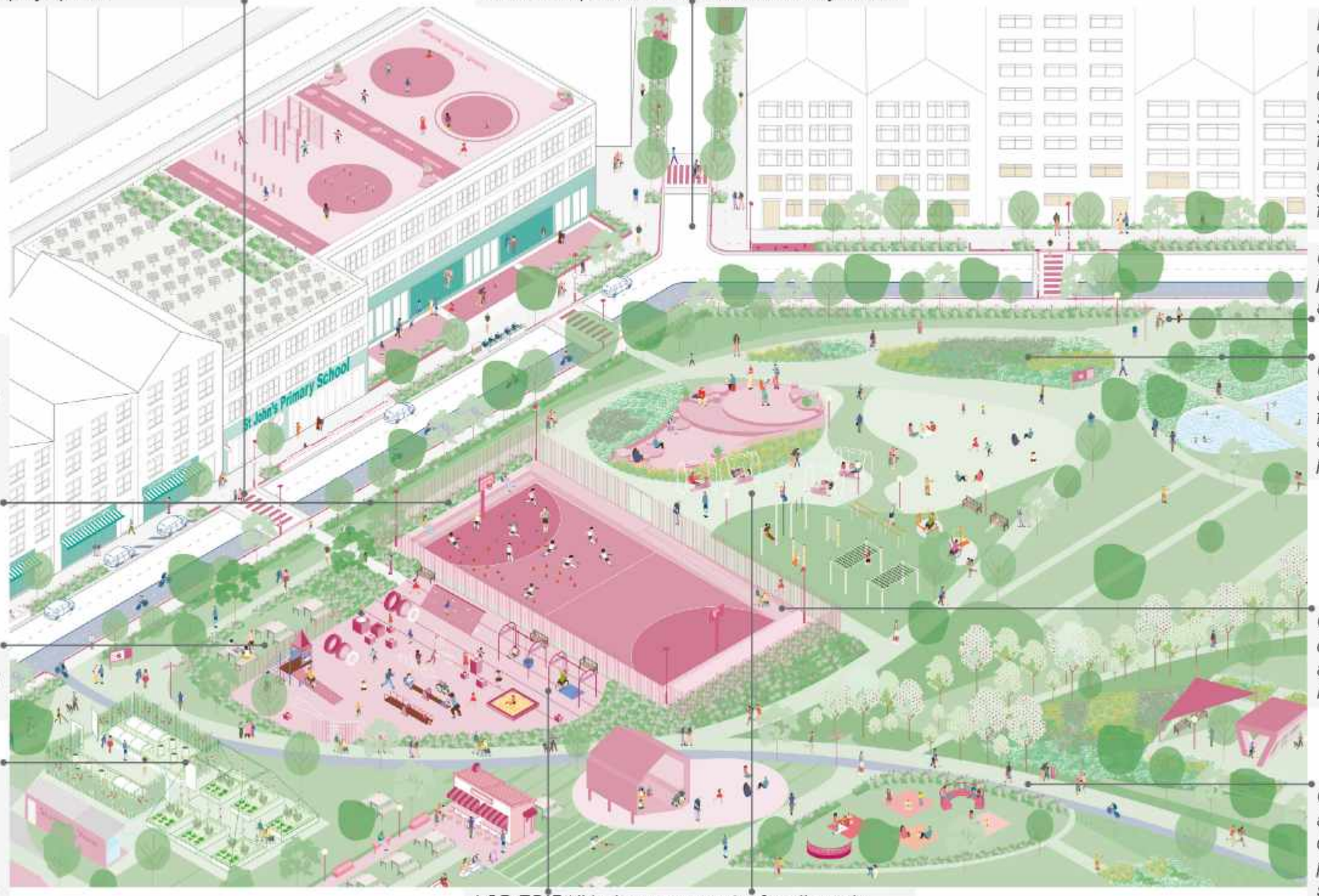
Diverse play offer

7.39. Designing playing activities that offers age-appropriate activities is crucial to creating play spaces that are inclusive, diverse and equitable. Their design should ensure a rich mix of play opportunities that encourages physical, cognitive, imaginative and creative play as well as places to socialise. All users benefit from an approach that caters to a wide variety of interests and abilities. The design should consider:

- educational play that promotes learning through incorporating reading, drawing and Science, Technology, Engineering and Maths (STEM) skills such as number line, measurement line or planting birthday trees.
- gender-sensitive features that cater to a broad range of interests and play styles;
- multi-sensory experience such as interesting textures, shapes, solidity, weight, pattern, colour, vibration or sound to create a stimulating and inclusive play environment;
- encourage natural play by including natural materials for wild play, weeping trees and sensory domes for dens, storytelling space and sensory plantings;
- designate quiet or calm areas within the play space where individuals with sensory sensitivities can take a break from stimulation and noise;
- unstructured play to support free play such as an area of paving or grass. This might include simply making a space such as a landing or first stair larger than it would otherwise be. Others may serve a specific function and be designed accordingly, such as a performing space. Such areas will need to consider options for trikes and wheelchairs.
- non-touch playing opportunities such as trees or logs for

7 Open Spaces - Local Parks, Small Open Spaces and Pocket Parks

Figure 7.7 Illustration of how principles could apply to a Local Park



OS-MIP1(c) raised crossing provides safe access from the Primary School to sport and play spaces

OS-HCDP1(b) building lines and street orientation provide direct views to activity areas

HCDP4(c) a range of different areas provided in the park including quiter personal-public spaces, playspace, flexible lawn space, nature areas, outdoor gyms and community food growing

OS-EDIP1(i) wide access point supports access for all and avoids congestion

OS-GIBP1(d) more wild areas provide spaces for nature to thrive and access to nature for people

OS-GIBP1(f) low level hedging and fencing, which can be easily seen through, safely define spaces while providing visual amenity from adjacent areas

OS-GIBP1(e) sport court acts as a water attenuation feature when needed

LSP-EDIP1(d) parent and carer seating located near to playspace

OS-GIBP1(b) / LSP-GIBP1 accessible community gardens provide sensory planting and opportunities for food growing and access to nature

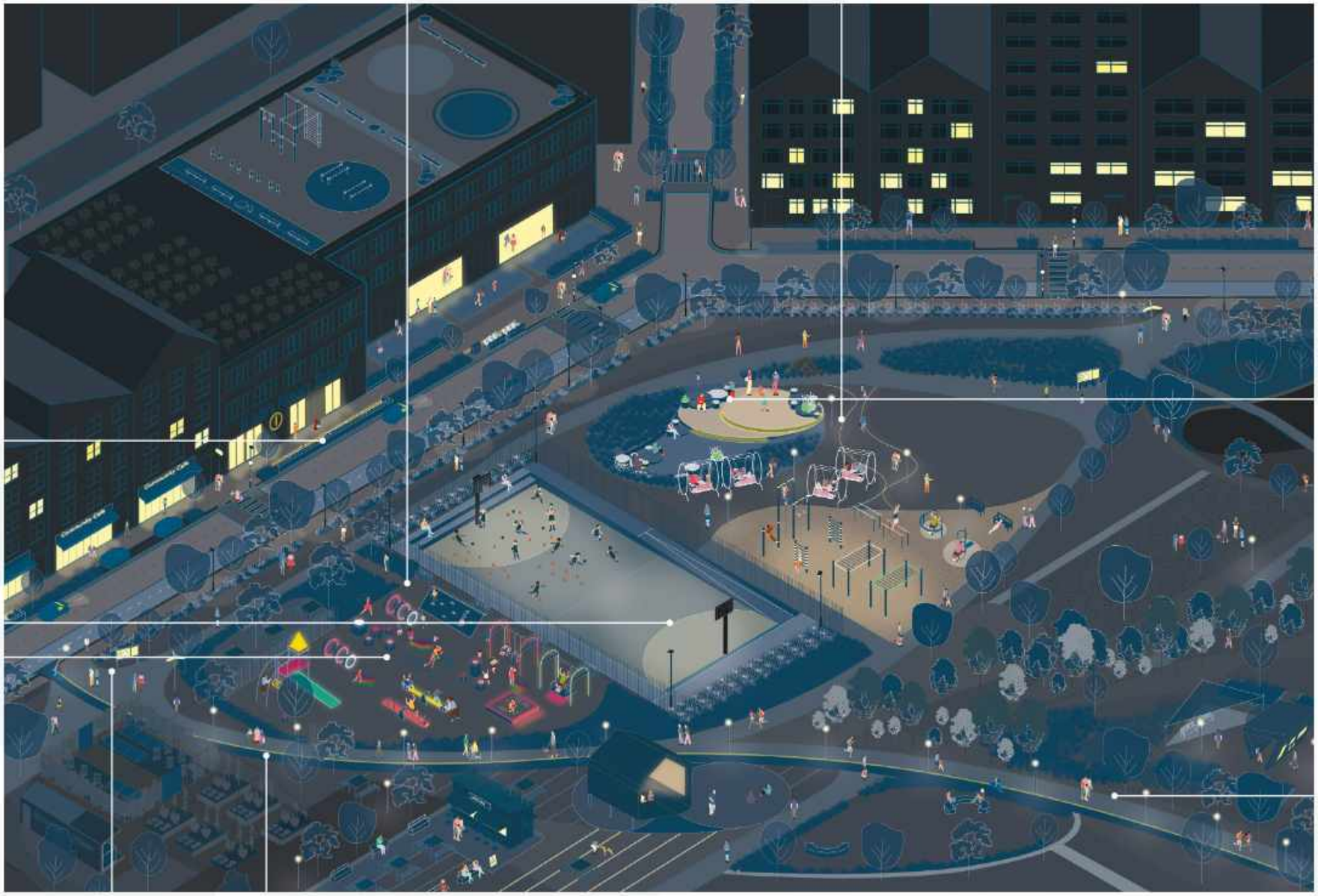
OS-MIP1(b) footways and cycle lane follow desire lines enabling people to reach place space and town centre uses

LSP-EDIP1(b) play spaces cater for all needs, ages, abilities, gender identities and preferences

7 Open Spaces - Local Parks, Small Open Spaces and Pocket Parks

Figure 7.8 Illustration of how principles could apply to a Local Park in the evening or night time

OS-HCDP1(f) range of lighting approaches to enable open air gym, stage area, play and sport areas to be used in evenings



EDIP3(a)(i)(iii) lighting approach in seating area has considered how direct and ambient lighting supports visual assessment visual commucation such as sign language and lipreading

HCDP6(c)(ii) lighting of street furniture contributes to highways lighting to support safe access to Primary School for evening activities

HCDP6(c)(i) lighting colour, apparence and intensity considered to ensure safe use and enjoyment of play and sport spaces

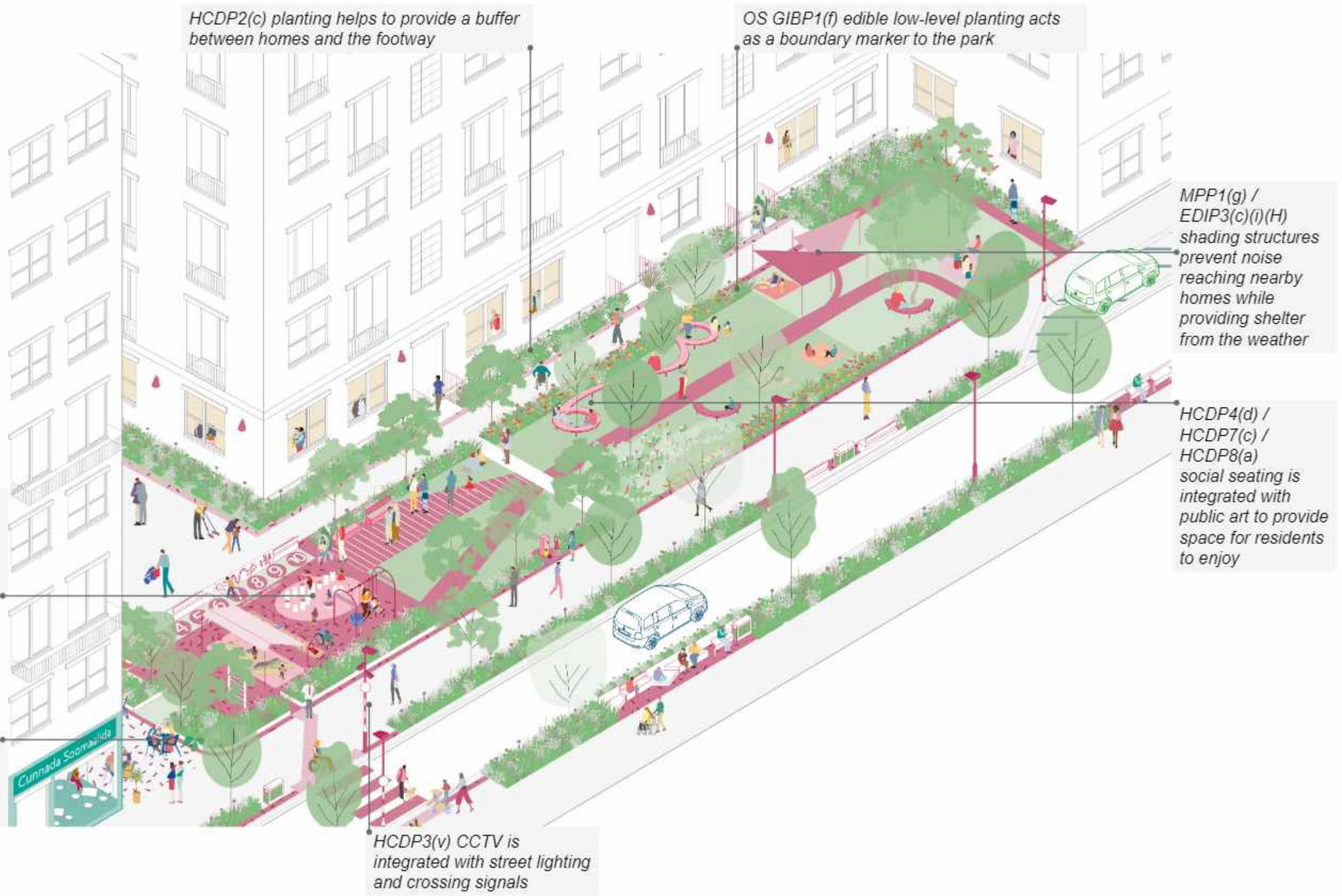
GIBP2(i) lighting along path designed to support ecology of adjacent dark areas and prevent light pollution

EDIP3(a)(ii) lighting of information board and signposts support navigation at night

HCDP6(c)(iii) addition of low level lighting along path enables person-to-person recognition supporting safety at night

7 Open Spaces - Local Parks, Small Open Spaces and Pocket Parks

Figure 7.9 Illustration of how principles could apply to a Pocket Park on a Local Street in a mixed use area



7 Open Spaces - Local Parks, Small Open Spaces and Pocket Parks

climbing and balance; a wall for ball games; open space for running/wheeling or markings for chalk games;
- ground-level play features and activities that do not require climbing, such as sandboxes, water play areas, or musical panels that can be accessed from a seated position;
- physical play areas need to offer a range of physical options, focused on different motor skills. For example, children with certain health conditions have reduced stamina or may need to avoid active play;
- design in visual or partial impairment by considering colours, contrasts and patterns;
- for toddlers, consider providing equipment that is low to the ground and incorporate safety features such as rounded edges;
- inclusive opportunities for young people (5-12 years) including arts and craft surfaces, board games, outdoor sports, DIY community projects or book clubs. Ensure that play elements are adaptable and age-appropriate in terms of height and complexity;
- inclusive opportunities for teenagers, that incorporate adventure, exploration and group play;
- inclusive opportunities for adults including outdoor adventure activities, places for socialising, space for performance/trivia quizzes, board games or food growing; and
- areas around popular play equipment can offer enjoyable waiting time by incorporating playful solutions for children who wait.

Gender inclusive

7.40. Creating play spaces that are inclusive and welcoming for all genders is essential to provide equitable and safe recreational opportunities for children and young people of all gender identities.

7.41. Creating inclusive play areas for young women, girls and gender diverse people is important to ensure that they have equitable access to enjoyable and empowering play experiences, that addresses their specific needs and preferences. This also involves creating safe and welcoming spaces where they can freely express themselves, learn, and engage in various activities. This approach is reflected and supported in the GLA's Safety in Public Space, Women, Girls and Gender Diverse People report.

7.42. An example of how gender inclusive play spaces can be designed and delivered is showcased by the Make Space for Girls campaign. Make Space for Girls adopts an intersectional approach that considers factors such as race, ethnicity, disability, sexual orientation, gender identity and socioeconomic background recognising that teenage girls have diverse identities, experiences, and needs. They advocate that teenage girls should be part of the decision making processes, encouraging active female participation in shaping the spaces and programmes designed for them. Design should respect and celebrate the cultural diversity and backgrounds of girls, valuing their unique contributions and perspectives. In turn, this approach benefits not only girls and young women but also gender diverse people, boys and young men.

Accessible and inclusive play area

7.43. Everyone benefits from being outside, interacting with their environment, learning from nature and developing through play. These experiences can be especially powerful for children with disabilities and inclusive play makes these opportunities available to all children, regardless of ability. Designing play areas that are specifically tailored for people with mobility challenges is crucial to ensure inclusivity, accessibility, and the enjoyment of outdoor recreational activities.

7.44. Diverse and flexible opportunities are needed where everyone is welcome to play and participate without barriers holding them back. Sensory Trust provides helpful approaches on inclusive interpretation of green space.

7.45. Playgrounds should be designed to be accessible to all age groups with mobility challenges and disabilities without the need for special modifications. This involves creating a barrier-free environment from the outset. Playground and play equipment should consider terrain, width, height and reach for different abilities and be equipped with accessibility features, such as wide transfer platforms, ground-level interactive panels, ramps, handrails and transfer stations to cater to users with mobility difficulties. Installation of adaptive swings designed for individuals with physical disabilities should be considered, including bucket swings with harnesses that accommodate infants or platform swings that can accommodate wheelchairs.

7.46. Creating spaces between equipment that offers sufficient room for wheelchair manoeuvring and parking is essential to ensure accessibility in various settings, such as outdoor gyms and playgrounds. The turning radius of a wheelchair, which is typically about 60 inches in diameter is recommended for easy movability.

Safety and positive perimeter

7.47. Ensuring that the surfacing of all play areas is safe is of paramount importance to protect from injuries during play. The choice of appropriate safety surfacing materials and proper installation are critical to achieving this goal. This can include using impact-absorbing surfacing, such as rubber mulch, engineered wood fibre, or poured-in-place rubber, beneath play equipment to cushion falls and reduce the risk of injuries.

7.48. Playgrounds should provide a smooth and accessible pathway for individuals with disabilities, including those using mobility devices like wheelchairs or walkers.

7.49. Active and moving play equipment such as zipline and swings should be indicated properly through eye-catching visual markers around the area. This will make it visually distinct to ensure the safety of all children and users in the vicinity. In such cases, queue management should ensure that children waiting for their turn are at a safe distance.

7.50. Creating safe and well-defined playgrounds with perimeters and appropriate fencing is crucial to ensure the well-being and security of children and their caregivers. Playgrounds should have positive perimeters with fenced-off spaces with a gate or when nearby a road or other dangerous elements. When designing and implementing fenced-off spaces in playgrounds, it is important to consider accessibility, visibility and aesthetics. Play spaces should be easily visible from multiple vantage points, including seating areas for caregivers or supervisors.

7.51. Designing in clear sightlines to enable adults to monitor children's activities without intrusive supervision. The entrance should provide wheelchair-accessible gates and pathways. Design of the fence should allow for visibility both into and out of the playground to enhance supervision. Fences can also serve as an opportunity of interacting, playing and resting.

Comfort

7.52. To maximise the usability of play spaces and comfort of accompanying parents and carers, play spaces should be accompanied by appropriate structures and green infrastructure to provide shelter from the weather, extreme climate events and the wider challenges of climate change. These may entail shade structures, such as pergolas, canopies, or natural shade, to protect children from the sun and make play areas comfortable during hot weather and shelters or pavilions for parents and caregivers to rest and supervise children in inclement weather.

Seating

7.53. Play spaces and immediately adjacent spaces should include comfortable seating for parents and caregivers encouraging them to stay and supervise their children. Such spaces should allow for clear sight line and minimise any visual obstructions where the children can sight their caregivers and feel safe.

7 Open Spaces - Linear Open Spaces

Linear Open Spaces

Introduction

7.54. Linear Open Spaces, particularly those alongside roads, railway sidings and the canal provide many benefits to people and nature. They can serve as a green corridor for habitats, visual amenity and recreational pathways. The key example of a publicly accessible Linear Open Space is the Grand Union Canal. The canal is a Site of Metropolitan Importance for Nature Conservation, and much of the surrounding habitat comprises native woodland and scrub vegetation.

7.55. Much of the Grand Union Canal features harder engineered canal edges, although there are locations where plant colonisation has already occurred. New reed beds and marginal planting can provide additional habitats for canal fauna as well as increasing the flora diversity. Sedge planting can support the sedge warbler, while nesting holes can be created for other species such as sand martin and kingfisher.

7.56. The Grand Union Canal is home to a number of residential moorings, for whom the canal side is their most adjacent open space. Maximising opportunities for community food growing alongside canal edges reflects and enables the increasing popularity of food growing within the canal boat community.

7.57. However, some Linear Open Spaces may be inaccessible such as the railway sidings and are not public open spaces. The majority of railway land in the OPDC area has been designated as Sites of Borough Importance for Nature Conservation. Inaccessible spaces should prioritise ecological benefit and may feature dense, layered habitats. Existing inaccessible spaces may be retained to provide undisturbed habitat, particularly key for breeding and nesting species. In such cases, self-colonisation and rewilding should be encouraged.

Figure 7.10 Illustration of the Grand Union Canal towpath

7 Open Spaces - Linear Open Spaces

Urban greening and ecology

Principle LOS-GIBP1: Delivering urban greening and biodiversity in linear open spaces

All development proposals should support high quality greening and biodiversity in Linear Open Spaces. Proposals should:

a) prioritise ecological benefit, with:
   i) retention of existing valuable habitats;
   ii) provision of denser, layered habitats; and
   iii) access for invasive species removal and management for safety purposes.
b) where possible, improve access to and extend the width of green corridors created by canals, rivers and rail sidings to provide new or enhanced connections between these green corridors for walking and cycling;
c) ensure rain gardens and swales are provided between the waterside and any nearby roads or car parks to intercept and clean up run off from hard surfaces ~~from~~ entering waterbodies such as the Grand Union Canal. Any new surface water discharges into the Grand Union Canal will need to be assessed and consulted with the Canal and River Trust; (9/15)
d) deliver minimal lighting along Linear Open Spaces to support commuting and foraging routes for bats. Where lighting is required adjacent to inaccessible green spaces, the luminosity, colour and direction should be designed in line with Bat Conservation Trust Guidelines;
e) development land within 10 metres of the Grand Union Canal will need to be accompanied by an assessment of the baseline condition of the watercourse and deliver a 10% net gain in watercourse biodiversity units. Landscaping within this area should be predominantly soft/planted landscaping. Early engagement with the Environment Agency and Canal and River Trust for appropriate setback should be agreed prior to design; and
f) where possible, provide a riparian zone between the interface between land and canal. This should consider:
   i) creating new reedbeds or marginal planting where navigation constraints allow;
   ii) the vegetation established within the riparian zone should be native and appropriate to the location and soil water regime to characterise the scenery; and
   iii) undertake a River Condition Assessment survey by accredited consultants.

Ambition LOS-GIBA1: Delivering urban greening and biodiversity in linear open spaces

All development proposals should support high quality greening and biodiversity in Linear Open Spaces. Proposals should consider:

a) where there is public or private access to linear green space, such as alongside the canals, development is encouraged to maximise opportunities for food growing.

Supporting text

7.58. Linear green spaces alongside canals can serve as a part of a city's green infrastructure network, improving water management, providing habitats for local wildlife and enhancing overall environmental quality.

7.59. The Biodiversity Metric supports enhancement measures along waterways. Where there is an adverse impact on the biodiversity of its waterways, the strong presumption should be that the impact is compensated for on its waterways. Development proposals should undertake pre-application discussions with the Environment Agency and Canal and River Trust to ensure that appropriate BNG requirements and opportunities are discussed earlier in the design process.

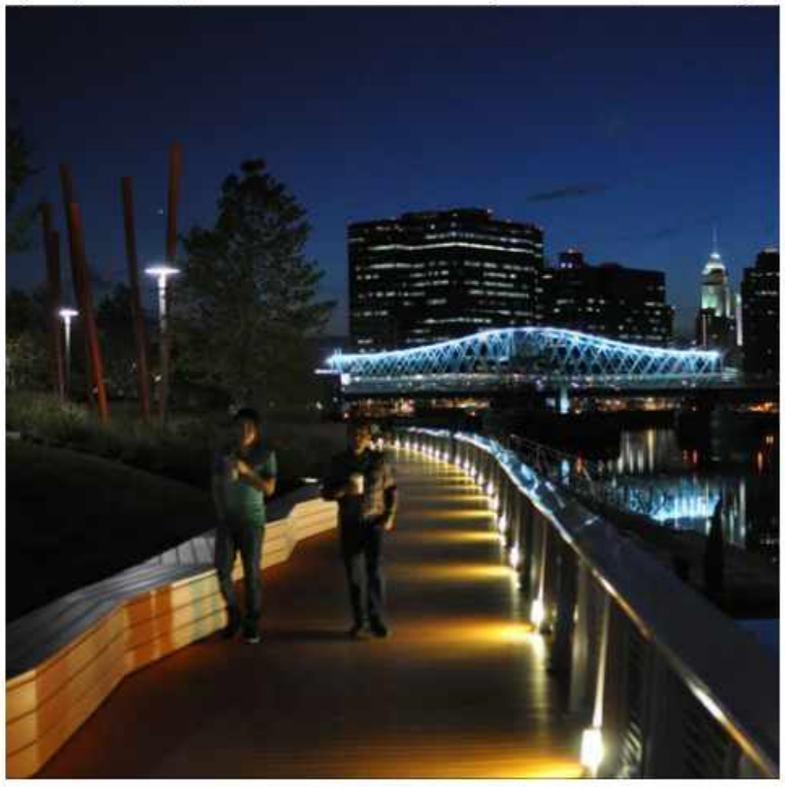
7.60. Given the appropriate setback, developments alongside linear green spaces like the Grand Union Canal have the opportunity to integrate food growing. Opportunities like these promote self-sufficiency and reduce the carbon footprint associated with food transportation. It can provide fresh, locally grown produce to residents along with canal. It can also serve as focal points for social interaction and skill-sharing, especially for those that live on canal boats.

Riparian zone

7.61. A riparian zone refers to the area of land that borders a body of water. This transitional area between aquatic and terrestrial ecosystems is influenced by the presence of water and plays a crucial role in maintaining the health of both aquatic and terrestrial environments. Plants in riparian zones are often well-adapted to periodic flooding and may include trees, shrubs, and herbaceous plants. Riparian zones can offer rich biodiversity as they provide habitat and food resources for a variety of plant and animal species. These areas serve as corridors for wildlife movement and connectivity. The proximity to water sources makes them important breeding and feeding grounds. The vegetation plays a crucial role in stabilising stream banks, preventing erosion, and filtering pollutants from runoff. This helps improve water quality by reducing sedimentation and filtering out contaminants before they reach the water body.

7.62. Reed bed proposals should be considered in consultation with the Canal and River Trust to ensure there are no potential adverse impacts on navigation, waterway walls, canal infrastructure or other canal operations and maintenance.

Figure 7.11 Newark River Front Park, New Jersey showing minimal lighting that supports wildlife while enabling use of the park at night



7 Open Spaces - Linear Open Spaces

Figure 7.12 Illustration of how principles could apply to open spaces along the Grand Union Canal in a Strategic Industrial Location

7 Open Spaces - Communal and private open spaces

Communal and private open spaces

Introduction

7.63. Communal and Private Open Space is often provided in residential and commercial courtyards, podiums, roof gardens and balconies. There are substantial benefits in terms of amenity, play and leisure for communities, staff, visual amenity in the wider area (where this can be seen from public spaces), and ecological connectivity. Please note that the Industrial SPD provides guidance for greening of industrial uses.

7.64. Courtyards in particular can often be visible from the street and therefore provide general visual amenity. These can provide a visual and ecological link between surrounding green spaces. Courtyards that are enclosed on only two opposite sides, not overly lit, and planted with trees and shrubs can provide commuting and foraging routes for bats and useful habitat for nesting birds. Even where courtyards areas are restricted to users, access from the street, particularly access from surrounding green areas, can help improve amenity.

Urban greening and ecology

Ambition CP-GIBA1: Delivering urban greening and biodiversity in communal and private spaces

All development proposals should support high quality greening and biodiversity in Communal and Private Spaces. Proposals should ensure these spaces:

a) serve as stepping stones for wildlife by integrating horizontal and vertical Communal and Private Open Spaces into the wider public realm through soft landscaping that serve as green corridors for ecological benefit;
b) provide a mix of tree species that offer year-round visual amenity, including during winter months with interesting bark, and flowering consistently throughout the year;
c) deliver spaces for food growing, where possible, that are designed to accommodate a range of small and medium plants through:
    i) balconies that are of sufficient size and able to support sufficient weight to enable residents to grow their own plants on balconies; and
    ii) on top of green roofs that also serve as green corridors;
d) ensures trees planted in, Communal and Private Open Space provide an element of privacy but should not restrict natural surveillance.

Supporting text

7.65. The integration of horizontal and vertical green spaces strengthens the overall public realm, creating a cohesive and interconnected urban green fabric. By integrating horizontal and vertical Communal and Private Open Spaces into the wider public realm through connected soft landscaping, a harmonious and inclusive urban environment can benefit both the community and the surrounding ecosystem. These pathways allow for the movement of wildlife and promoting biodiversity.

7.66. The addition of green corridors can contribute to microclimatic benefits by providing shade, reducing heat island effects, and improving air quality. This creates a more comfortable and sustainable urban environment.

Visual appeal

7.67. Enhancing visual amenity through greening initiatives has a range of positive effects, contributing to the overall attractiveness and well-being of a place. The addition of greenery enhances the visual appeal and softens the built environment.

Food growing

7.68. Food growing areas may be most successful in Communal Space as they will be less susceptible to vandalism and accidental damage. Key considerations in providing opportunities for food growing include ensuring the area provided is given sufficient light, that a sustainable source of water such as rainwater harvesting is provided, and that the soil is of an appropriate texture and free from contamination. In post-industrial land, raised planters are often more appropriate than providing growing areas which have contact with the surrounding earth due to the increased pathway for ingestion of contaminants that arises from food growing activities.

7.69. Food growing opportunities that make use of perennial plants such as community orchards and forest gardens require a lower level of involvement by the local community and may be more appropriate for more transient communities, particularly if they can be designed well at the start.

Figure 7.13 Natural play areas, Homa Architects

8. Management and maintenance

8 Management and maintenance

Introduction

8.1. Attractive and well-maintained public realm and open spaces improve the aesthetic appeal of an area, making it more inviting and enjoyable for residents and visitors. Achieving sustainability in the public realm and open spaces involves a combination of planning, design, and ongoing management practices that aim to minimise negative environmental impacts, enhance social well-being and ensure long-term resilience. Inclusivity is also enhanced when public realm and open spaces are accessible and well-maintained. People of all ages, abilities and backgrounds can participate in community life when spaces are designed with long-term maintenance, management and accessibility in mind.

8.2. Well-managed public realm and open spaces can deter anti-social behaviour. A sense of ownership and active use by the community can help keep such spaces safe.

8.3. London Plan Policy D8 (Public realm) requires that appropriate management and maintenance arrangements are in place for the public realm, which maximise public access and minimise rules governing the space to those required for its safe management in accordance with the Public London Charter.

8.4. Local Plan Policy SP8 requires arrangements for the management and upkeep of green infrastructure provision, including longer term revenue funding to be set out in a Green Infrastructure and Open Space Strategy and Management Plan (GIOSSMP).

Figure 8.1 Community gardening activities in Park Royal

8 Management and maintenance

Principle MMP1: Long term management and maintenance

All development proposals should plan for long term management and maintenance of public realm and open spaces, and demonstrate this in their Green Infrastructure and Open Space Strategy and Management Plan (GIOSSMP), by:

a) establishing regular inspections to ensure good condition;
b) including sustainable low maintenance practices, such as native planting, natural lawn care, efficient irrigation, re-use of plant waste and local compost;
c) ensuring plants and trees are maintained. Where their health is deteriorating, replacement is provided in line with Principle GIBP3: Delivering replacement and compensation for greening;
d) regularly monitoring the health and functionality of green infrastructure elements;
e) ensuring design and maintenance approaches are resilient and/or adaptable to climate change. This may include flood control measures, heat island mitigation, and the selection of climate-resilient plant species;
f) choosing materials and finishes that can withstand weather, vandalism, and wear and tear;
g) committing to addressing safety concerns promptly;
h) undertaking evaluation, taking into account regular assessment of the performance and safety of materials after implementation. This allows for adjustments or replacements if issues arise;
i) regular maintenance of lighting systems so they remain effective and safe;
j) maintaining security features, such as cameras, alarm systems, and emergency call boxes, to enhance safety;
k) ensuring that seating and play equipment are functional and in good condition;
l) maintaining toilets by implementing regular cleaning schedules;
m) during maintenance, controlling the use of chemicals that can be a health risk and use environmentally friendly cleaning products;
n) making provision for seasonal adjustments, such as snow removal in winter, leaf removal in the fall and planting or mulching in the spring and summer;
o) provide signage to make the public aware of who to contact if they spot management or maintenance issues which need addressing. [14/5]
p) providing opportunities for community involvement in management and maintenance;
q) securing a stable and adequate budget for long-term maintenance and management;
r) implementing an asset management system to track the condition and lifespan of infrastructure elements and plan for their replacement or refurbishment;
s) take up adaptive management by being adaptable and open to changes based on community needs, emerging technologies, and evolving trends; and
t) consult with professionals, such as landscape architects, arborists and maintenance experts, to ensure that public realm and open Spaces are managed effectively.

Signposts

National Design Guide:
- R2, R3, L1 to L3

London Plan 2021
- Policy D8 (Public Realm)

Local Plan 2022
- Policy SP10 (Integrated Delivery
- Policy D1 (Public Realm)
- Policy EU1 (Open Space)
- Policy DI1 (Balancing Priorities and Securing Infrastructure Delivery)

Supporting text

8.5. Long-term management and maintenance of the public realm and open spaces requires ongoing commitment and planning to ensure that these areas remain safe, attractive, and functional for the community. This includes engagement with the ~~local~~ Hhighways ~~A~~authority to understand maintenance arrangements along adopted streets. Establishing a routine schedule for inspecting and assessing the conditions should include checking for safety issues, wear and tear, and the need for repairs or upgrades.[1/3]

8.6. Using sustainable landscaping practices, including native planting, drought-resistant vegetation and environmentally friendly maintenance procedures reduces water usage and maintenance costs.

8.7. Repairing cracks, potholes and other damage to pavements and pathways will ensure smooth, safe and accessible movement within the public realm and open spaces.

8.8. Landscaping elements such as plants and shrubs should not encroach onto the pathways and maintenance regimes should ensure that branches are trimmed to provide sufficient clearance. Regular inspection and maintenance of pathways should repair any cracks, potholes or other damage that could pose a hazard to mobility aid users.

8.9. Avoiding or controlling the use of chemicals during maintenance is an important precaution when it comes to protecting the health of pregnant people and other vulnerable individuals. Chemicals used in maintenance activities can potentially pose risks to pregnant people as they release fumes or particles in the air. Management teams can limit the hours when chemicals are sprayed, choose less toxic alternatives when possible or put up precautionary warning signs where maintenance activities involving chemicals are taking place.

An Asset Management System

8.10. An Asset Management System (AMS) is a structured approach and set of tools used to track, monitor, and manage various infrastructure assets over their lifecycle. It involves collecting and analysing data related to the condition, performance, and lifespan of infrastructure. An effective AMS can result in cost savings, improved infrastructure reliability, extended asset lifespan, and reduced risks associated with unexpected failures. The primary goal of an AMS is to make informed decisions about when to repair, replace or refurbish these assets while optimising resource allocation and ensuring long-term sustainability. It can include:

- Data Collection and Inventory: creating a comprehensive inventory of all infrastructure assets, detailing their location, type, age and condition. This information serves as the foundation for the AMS.
- Condition Assessment: regularly assess the condition of assets through inspections, testing and data collection. This helps in identifying maintenance needs and planning for asset replacement or refurbishment.
- Risk Assessment: evaluate the risks associated with asset deterioration, including safety, environmental and financial risks. This informs prioritisation and decision-making.
- Lifecycle Analysis: analyse the expected lifespan of each asset and develop a clear understanding of how long each asset is likely to remain in service under current conditions.
- Budgeting and Funding: develop budgets and funding strategies to support asset management plans and ensure that sufficient resources are available for necessary maintenance and replacements.
- Compliance and Regulations: ensure that asset management practices comply with relevant regulations, and industry standards, particularly those related to outdoor gym equipment, play equipment, transportation, utilities, and public works.

9. Delivery

9 Delivery

Introduction

Introduction

9.1. OPDC Local Plan sets out the approach for improving the public realm and protecting, enhancing and increasing provision of public open spaces. Policy SP8 and Chapter 6 and 7 in the Local Plan explains the importance of a carefully designed and integrated approach with appropriate maintenance and management to unlock it benefits. OPDC, as the local planning authority, identifies the opportunities to proactively facilitate development and the regeneration within the OPDC boundary. The OPDC Local Plan policies and Infrastructure Delivery Plan (IDP) sets out further details on the key infrastructure required to unlock the comprehensive regeneration of the area. The IDP identifies funding sources, including from developers and planning contributions, to help to deliver the infrastructure needed in the OPDC area. See latest Infrastructure Delivery Plan (IDP).

9.2. OPDC has prepared an Equity, Diversity and Inclusion (EDI) Strategy and Vision: "to be an organisation which identifies, prioritises, enables and champions equitable opportunities for everyone – both staff and our communities – regardless of background, race, age, gender identity, gender expression, sexual orientation or ability and to ensure that the area's regeneration is accessible and inclusive which helps to create a more level playing field". The EDI Strategy explains what OPDC is planning to do and OPDC also has legal obligations related to EDI – but applicants should also consider EDI throughout all of the stages of the design and development process. EDI is a cross-cutting approach across the Public Realm and Green Infrastructure SPD (See EDI Matrix in the accompanying EDI Statement.

9.3. In the short term, OPDC is also taking a proactive role in improving the public realm and green infrastructure through a number of projects. The range of projects on the ground will change over time and information on this will be kept up to date on OPDC's website. Relevant current OPDC projects include Harlesden Canalside and Willesden Junction Station enhancements. Applicants are expected to explore opportunities to link up with these projects as this will provide an important mechanism to 'root' the proposal and demonstrate social value for local businesses and communities.

9.4. Applicants should engage with OPDC as early as possible so that the approach to delivery takes a holistic view of these issues and so that the OPDC team can support applicants to identify potential opportunities to deliver social value and support EDI linked to current projects and precedents.

9.5. Any public realm and public open space proposals are encouraged to consider additional Social Value and commitment to Equity, Diversity and Inclusion, beyond that which might be expected as a result of planning policy compliance, to enhance the wellbeing of local communities and the local area.

Ambition DA1 Social Value

Development proposals are encouraged to demonstrate additional Social Value, beyond that which might be expected as a result of planning policy compliance, to enhance the wellbeing of local communities and the local area.

Signposts

National Planning Policy Framework
- 8. Promoting healthy and safe communities

London Plan 2021 / Guidance
- GG1 (Building strong and inclusive communities)
- GG2 (Making the best use of land)
- GG3 (Creating a healthy city)
- GG4 (Delivering the homes Londoners need)
- GG5 (Growing a good economy)
- GG6 (Increasing efficiency and resilience)

Local Plan 2022
- Policy SP2 (Good Growth)

Other document
- OPDC Equity, Diversity and Inclusion Strategy 2022-2027

Supporting text

9.6. Social value is generated when environmental, economic and/or social benefits are delivered and, when experienced by individuals and local communities, this creates enhanced levels of wellbeing, a better quality of life and environment compared to business as usual.

9.7. The needs of communities, for example, accessible social infrastructure and amenities, adequate and sustainable green infrastructure, must be addressed. Social value should create additional benefits based on an approach that goes beyond policy compliance.

9.8. Social value is multi-layered and tied to the needs of local communities and the experiences of those with the least influence over development and regeneration processes. It can be generated in variety of ways and as a result of actions taken by different parties, both individually and in partnership with one another. For example, in the case of applicants, there is potential to contribute towards delivering social value during each stage of the development cycle from inception to post occupancy, and as:

- an employer and through the procurement of good and services;
- a stakeholder in the local community;
- a contributor to the local/sub-regional economy; and/or
- a steward of the environment.

9.9. The Public Services (Social Value) Act 2012 encourages commissioners to factor in economic, social and environmental well-being in connection with public services contracts. The GLA Group Responsible Procurement Policy ensures that Social Value is embedded within our supply chains, including using the policies to help us:

- work to improve our communities in partnership with local people and organisations to address their specific needs through relevant contract requirements and performance measures;
- break down barriers that restrict SMEs, community sector organisations and under-represented groups from tendering;
- under-represented groups from entering our supply chain to generate employment, skills and training opportunities;
- encouraging innovative approaches that advance London's competitiveness as a world-leading city for business, creativity and fairness;
- leading by example in the procurement of clean technologies and using resources efficiently;
- preserving and regenerating our natural environment and protected buildings/sites.

9 Delivery

9.10. The Local Plan already sets out wide ranging policy requirements that seek to deliver social value and as many public benefits as possible, with processes in place to support this, such as the OPDC Community Review Group. However, the Covid-19 pandemic highlighted the stark inequalities across the city which have led to significantly worse outcomes for the most disadvantaged communities, including those living within and surrounding the OPDC area. Applicants are encouraged wherever possible to go beyond the level of social value that would be expected as a result of policy compliance. Many of the Principles and Ambitions set out in this SPD illustrate ways that this could be done.

9.11. An Equalities Impact Assessment (EQIA) was prepared to inform the OPDC Local Plan and a supplementary EDI Statement forms part of this SPD consultation. The EDI Statement identifies potential issues that might be relevant to people with protected characteristics in the OPDC area. Based on this assessment, the SPD incorporates measures that seek to mitigate the identified issues. Proposals that comply with the Local Plan policies and SPD guidance should therefore help to promote equitable, diverse and inclusive outcomes. There is scope for applicants to demonstrate greater commitment towards achieving EDI, particularly through the internal processes and policies that they deploy when preparing and submitting a planning application, such as the commissioning of professional planning or architectural services. Approaches that demonstrate tangible benefits to local people and the area should be considered as early as possible at pre-application stage.

Ambition DA2 Design Codes

Design Codes submitted in line with the OPDC validation list should consistently cover and provide information that is aligned to the sections in this SPD.

Supporting text

9.12. OPDC's local validation checklist indicates the national and local validation requirements for full, outline, reserved matters, hybrid and variation of condition applications within the OPDC area. This has a local requirement for design codes, where these are submitted, they need to provide a good coverage of information. The way the SPD is organised provides a useful structure for design codes.

Glossary

Glossary

The glossary provides definitions specific to public realm and green infrastructure. For other wider definitions, please refer to the Local Plan and London Plan glossaries.

Word(s)	Definition
Build-outs	Build-outs are extensions of the footway into the traffic lane. They should be installed whenever on-street parking is present to increase visibility, reduce the crossing distance, provide extra waiting space, and allow for seating or landscaping.
Biodiversity Net Gain	Biodiversity Net Gain (BNG) is the concept that new development and/or land management should leave the natural environment in a measurably better state than it was before.
Carriageway	For the purpose of the Highways Act 1980 (Section 329 (1) "carriageway" means a way constituting or comprised in a highway, being a way (other than a cycle track) over which the public have a right of way for the passage of vehicles.
Dropped kerb	An area of lowered footway and kerbstones that facilitates the access of people with pushchairs or wheelchairs to pass from the footway to the road.
Footway	A dedicated and accessible pedestrian clear path ensuring a safe and adequate place to move.
Footpath	For the purpose of the Highways Act 1980 (Section 329 (1) "footpath" means a highway over which the public have a right of way on foot only, not being a footway.
Frontage	The frontage zone defines the section of the footway that functions as an extension of the building. The frontage zone consists of both the facade of the building fronting the street and the space immediately adjacent to the building.
Good Growth	Growth that is socially and economically inclusive and environmentally sustainable. It is the way in which sustainable development in London is to be achieved.
Kerb	Raised edge separating the carriageway from other surfaces.
Key routes	The principal streets and walking and cycling routes within Old Oak and Park Royal. They comprise the street Family.
Kerbside	Area nearer to the edge of the footway that serves as a separation for pedestrians from vehicles and cycles. This can accommodate street furniture, pause areas and planting strips.
Lifetime Neighbourhoods	A lifetime neighbourhood is designed to be welcoming, accessible and inviting for everyone, regardless of age, health or disability, is sustainable in terms of climate change, transport services, housing, public services, civic space and amenities making it possible for people to enjoy a fulfilling life and take part in the economic, civic and social life of the community.
Meanwhile uses	A catch all title adopted in recent years to describe a diverse range of temporary uses on land and property awaiting longer term development. Meanwhile uses could include shops, cafes, bars, business space and culture, sports and leisure space. They can also include hoardings or open space or food growing space.
Open Space Typology	The London Plan categorisation of public open spaces with the addition of communal and private space. These typologies comprise Regional, Metropolitan and District Parks, Local Parks, Small Open Spaces and Pocket Parks, Linear Open Spaces and Communal and Private Open Spaces.
Pause area	Space along the footway where people can stop, rest, or take a break without obstructing the flow of traffic.
Personal-public space	An area that encourages social interaction and connection including the provision of seating while also offering options for solitude and quieter activities
Social Value	Social value is generated when environmental, economic and social benefits are delivered from growth.
Street Family	A hierarchy of movement routes considering transport and place-based elements. This is based on Transport for London's Street Family and informed by local place and transport functions of streets. The Street Family comprise Primary Streets, Secondary Streets, Local Streets, Town Centre Streets, Local Centre Streets and walking and cycling routes.
Street Furniture	Serves a range of practical, social and environmental functions. It includes traffic signals, bus stops, street lighting, litter bins, post boxes, charging points, seating, tables, leaning structures, public art, signage, toilets and drinking fountains.
Urban Greening Factor	Urban Greening Factor (UGF) is a tool to evaluate the quantity and quality of urban greening provided by a development proposal. UGF only considers the proposed landscape plans, and not what was on the site before. See London Plan Policy G5.

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