CROYDON PUBLIC REALM DESIGN GUIDE 2012
1.0

INTRODUCTION
WHAT IS PUBLIC REALM?
Public Realm incorporates all areas to which the public has open access such as streets, squares, pathways, right of ways, urban parks and open spaces. Public realm is always considered in a wider urban context which include interacting elements of streetscene, movement, surrounding buildings and the activities they contain.

WHAT IS A DESIGN GUIDE?
It is a primer and a menu. Primer, because it encompasses a set of elementary principles to be followed when implementing new streetscape and public realm. Menu, because it details the palette of elements that are approved for use. The Guide is a supplementary document to the relevant European and British standards, national and regional policies.
WHY A DESIGN GUIDE?
Croydon is a unique settlement situated in Greater London. The borough is socio-economically diverse, with rich and varied local character. Its sustainable communities are created through a distinctive urban and suburban townscape, landscape and public realm. In many areas of Croydon street scene, parks and open spaces appear tired and in need of renewal.

A growing population will place greater demands on the borough’s physical infrastructure and attract opportunities for investment to improve existing and create new areas of public realm in Croydon. The existing and emerging masterplans and strategic developments have a range of different timetables and sources of funding, and present different opportunities for

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**Required public realm improvements in Croydon Opportunity Area**

**KEY:**

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<tr>
<th>SPACES</th>
<th>CONNECTIONS</th>
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<td>new provision</td>
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<td>transformation</td>
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<td>gradual upgrade</td>
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Each place has its own local distinctiveness reflecting on natural and build environment.
investment in Croydon’s public realm. Equally the public realm and streetscene associated with existing and new developments in Croydon, District Centres and the Croydon Opportunity Area needs to be improved and will be implemented in phases. Similar processes will gradually lead to renewal of Croydon’s urban parks and open spaces.

Flexibility in the programme of implementation will be required to maximize the benefit from available resources; but without compromising quality. This will be achieved by developing a simple, fit for purpose and timeless palette of materials and street furniture that is robust, low maintenance, easily repairable and replaceable, vandal resistant and affordable.

Public realm improvements can be delivered through a phased approach which will join up in time, thus connecting very different projects with disparate uses and tenures. To achieve this, the Council has developed *The Croydon Public Realm Design Guide* which sets out rules to support the regeneration and transformation of Croydon’s public realm for all users.

The Council expects the design approach to public realm development to be of a high quality, which respects and enhances Croydon’s distinctive qualities, identity and topography. Design approaches must integrate with the historic environment of the relevant ‘Places of Croydon’ in order to create a vibrant and dynamic public realm that can be enjoyed by residents and visitors alike that celebrates Croydon’s diversity and future.
WHAT IS ITS STATUS?
*Croydon Public Realm Design Guide* is formally adopted Corporate Guidance for all interventions within the public realm. The application of this guidance will be monitored and, if necessary, the Guide will be reviewed in order to accommodate emerging best practice and ongoing continuous improvement through the delivery of the Connected Croydon Programme.

WHO IS IT FOR?
*Croydon Public Realm Design Guide* should be used by all those who are involved in either shaping or looking after Croydon’s public realm: Croydon Council units involved in design, delivery and maintenance of public realm projects; developers and their consultants. It is obligatory for all Council projects.

The Council will work with partners (including private landowners), to improve public realm within the borough.

It is essential for all public realm projects to respond to the local character of the area and it is a requirement that special consideration be given to the use of materials from Croydon’s palette appropriate to the area.
HOW TO USE THIS GUIDANCE
Croydon Council will use the Public Realm Design Guide as a tool to steer the practical application of improvements to Croydon’s public realm. Through the Connected Croydon Programme, Croydon Council will deliver a large proportion of the planned improvements to the public realm in Croydon Opportunity Area; complemented by schemes delivered by public and private sector partners. Conformity to this guidance will be verified through processes of project and development management.

The intention of this document is to inform and assist these projects and other schemes around the Borough. The guide provides principles for public realm developments and guidelines for design (Chapter 2), sets out a palette of materials (3), and describes application processes (4). Also a list of key terminology and key references is included (5).

WHERE DOES IT APPLY?
The Guide applies to the entire borough. It sets out a standard approach for the public realm, including private sector and third party developments, with special tailored guidance provided for the Croydon Opportunity Area, District and Local Centres, Conservation Areas and Transport for London Strategic Routes.
2.0 DESIGN GUIDELINES
The following chapter sets out specific public realm design guidelines. It is split into eight sections, each covering design principles related to a specific theme. Themes highlighted within this chapter are: design principles, definition of special areas, accessibility and sustainability followed by more specific issues relating to temporary arrangements in public realm, play and art.

Key issues and specific Croydon guidelines are listed for each theme. General policy references can be found in the last chapter of this document.
2.1 PRINCIPLES

Croydon’s Public Realm Design Guide is underpinned by a set of core principles. It is important that anyone involved in shaping or looking after Croydon’s public realm understands and follows these principles in the work that they do.
THE PUBLIC REALM WILL BE WELL DESIGNED

- Croydon’s public realm will be designed for people, express the heritage, local character and sense of place.
- Design will create a more vibrant, modern and distinct local character for the Places in the borough.
- Maintenance needs will be integrated with design needs.
- Professionals involved in design of public realm should always cooperate to ensure the appearance is in keeping with structural and functional design concepts. Skillset of Landscape Architect should always be an integral part of the design team.

THE PUBLIC REALM WILL BE MAINTAINED TO HIGH STANDARDS

- Streets will be cleaned to a high standard.
- Enforcement and improved maintenance will be used to encourage appropriate behaviour, to deter people from creating litter and detritus, and other negative environmental actions.
- Maintenance programmes will be developed to ensure incremental improvement over time.

THE PUBLIC REALM WILL BE LESS POLLUTED

- Design will prioritise pedestrian movement over car use reducing the need for people, to travel by car by creating more areas for pedestrians and cyclists.
- Better public transport integration will reduce car use in urban centres, and link to outlying suburban zones.
- Noise pollution will be tackled, using data from the Government’s noise mapping UK project.

THE PUBLIC REALM WILL BE SAFER AND FEEL SAFER

- Design will incorporate space for all people to socialise and interact.
- High visibility patrols by police and council staff will continue to be deployed reassure the public.
• Effective enforcement will reduce crime and anti-social behaviour through, for example, Fixed Penalty Notices and Dispersal orders.
• Street lighting will be improved.

THE PUBLIC REALM WILL BE ATTRACTIVE
• Public realm and its maintenance will be considered jointly with hard and soft landscaping, street furniture and lighting projects as well as in the early stages of planning new developments.
• A simple palette of quality materials will be delivered through high quality workmanship.
• More open space will be sought in urban centres, and existing open space will be protected.
• Public art will be sensitively incorporated; in high quality architecture or public space settings.
• Public spaces will make provision for cultural activities which express the vibrancy and diversity of the borough.
• Play will be included as an essential dimension for the public realm and design for flexible use.

THE PUBLIC REALM WILL BE SUSTAINABLE
• We will minimise use of energy, ensure energy-consuming products are energy efficient, and that we source as much material as possible from sustainable, reclaimed, recycled or renewable supplies.
• Open space will be conserved and protected for example to encourage biodiversity and improve natural habitats.

THE PUBLIC REALM WILL BE ACCESSIBLE TO ALL
• Cultural interface in public spaces will give space to all the communities in the borough.
• Access for older and disabled people, and those with mobility impairments will be stipulated in new design and regeneration.
• Community involvement in the design, maintenance and retrofitting of the public realm will be encouraged.
2.2 PUBLIC REALM AREAS

This Public Realm Design Guide sets out a consistent approach and the palette of materials and street furniture for the entire borough. In addition to this Borough-wide guidance, four distinct area types are identified where a more tailored approach is required in order to respond to very specific circumstances. These four area types are: the Croydon Opportunity Area, District and Local Centres, Conservation Areas and Transport for London Road Network.
BOROUGH WIDE GUIDANCE
The Croydon Public Ream Design Guide applies to the whole borough. It provides guidance on ten aspects of creating public spaces and should be followed across Croydon. The Borough-wide standard aims to ensure consistency, ensure an attractive and tidy appearance and to simplify the design process.

In order to allow for design that reflects local character and emphasises its distinctiveness, guidelines are provided for place-specific palettes in District and Local Centres as well as in the Croydon Opportunity Area. In addition, Conservation Areas require an appropriate tailoring of the Croydon palette. The specific boundaries of the Croydon Opportunity Area, District and Local Centres and Conservation Areas are provided in the Proposals Maps of the Core Strategy and relevant policies.

Urban parks and open spaces are included in specific public realm areas and should conform to relevant palettes. Design of natural and semi-natural landscapes as woodlands or heathlands are managed through overarching, specific habitat action plans and green space management plans.

CROYDON OPPORTUNITY AREA
The guidelines for the Croydon Opportunity Area set the highest performance requirements due to the exceptionally high footfall levels, the important role as a regional and national transport interchange and to create a Metropolitan Centre that people will choose to live, work, play and invest in. The guidelines for the Opportunity Area are purposefully narrow in order to achieve strict consistency across the town centre.
DISTRICT AND LOCAL CENTRES
District and Local Centres have a palette that provide for intensive usage and to reflect their individual distinctive local character. Therefore guidelines indicate a different range of materials and furniture, under the condition that they should be applied consistently across the particular District or Local Centre.

CONSERVATION AREAS
Conservation Area guidelines are intended to ensure that the public realm integrates appropriately with the historic environment. Croydon’s Conservation Area Management Plans provide further place-specific design guidance that aims to preserve and enhance those particular areas.

TRANSPORT FOR LONDON ROAD NETWORK
The only exceptions to the application of Croydon’s own guidelines are the streets in the borough that are a part of Transport for London Road Network (A22, A23, A232), which should be designed in full compliance with TfL’s Streetscape Guidance. Where areas are adjacent to Transport for London Road Network, the single approach needs to be agreed.

ADDITIONAL INFORMATION:
STREET LIGHTING SPECIAL AREAS
There are specific areas in the Streetlighting PFI where uplift in streetlighting specifications have been identified. Further details are included in Croydon Lighting PFI documentation and in PFI Developer’s Pack provided individually to developers.
2.3 ACCESSIBILITY

Croydon is committed to inclusive design in accordance with the London Plan: public realm should be accessible for all regardless of age or ability. Design solutions including form, textures, colours and light will create safe environments which will encourage people to use outdoor facilities and shift towards sustainable modes of transport. The review of existing public realm facilities will help to remove barriers and ensure coherence in the whole network.
MOVEMENT

- Croydon’s public realm should enable free and convenient pass and re-pass for all members of the public.
- Pedestrian and cycle routes should be continuous and seamlessly integrated into the urban fabric.
- Pedestrians should have a possibility of at grade movement, without clutter and architectural barriers e.g. in the form of steps, stairs, street clutter or poor quality surfaces.

- Dropped kerbs are a primary means of providing level crossings.
- The minimum footway width should be 1.5m to allow for safe and unimpeded passage of people with special mobility needs such as wheelchair users or parents with children in buggies. Where narrower paths exist suitable alternative routes need to be provided.
- If the minimum width is not achievable, and if there is no suitable alternative route, the street surface should be shared with all users.
- Lamp columns must be placed at least 800mm from the edge of the carriageway. Otherwise street lighting should be located at the rear of the footway and should relate to the building and property boundary.
• Wayfinding for visually impaired people should be supported by changes in texture, colour contrast and by information provided through Braille lettering and/or sound.

INTERCHANGE
• The design of public realm should support wayfinding and accessibility to public transport facilities.
• The Legible London system will be implemented in Croydon Opportunity Area and District Centres.
• Kerbs and pavement levels along public transport facilities should be elevated in order to enable level access to vehicles such as buses or taxis.
• Waiting facilities should be designed and located in an unobtrusive way on the pavement, allowing for minimum 1.5m clear pedestrian zone.
• All key interchanges should be supported with cycle storage infrastructure.

SAFETY
• The public realm network should be well connected, continuous with high levels of natural surveillance secured by active frontages and mixed use developments including housing. Wherever possible creating cul-de-sacs, blind corners and other forms of secluded space should be avoided.
• Public realm should be lit to appropriate levels where appropriate to encourage safe and proper use of the public space. Lighting should preferably be integrated within the landscape and assist wayfinding. If intelligent lighting systems are used, these should adhere to basic levels of safety and security when in a low power mode.
• Excessive lighting will not be acceptable in green areas. The negative impacts of lighting on wildlife in natural and semi-natural landscape must be considered as well as the potential for promoting anti-social behaviour.
• Street furniture and play facilities should be integrated with landscape and cater for as wide a group of users as possible. It is extremely important to apply durable, vandal-proof materials and technologies.

**SOCIAL INTERACTIONS**

- Public realm should create a network of well connected, continuous spaces which should positively support all social interactions: from informal meetings to large events.
- Spaces for events should have the necessary infrastructure for electrical power points or water supply integrated into the public realm and allow for safe operation in a crowded environment.
- Leisure space should include an infrastructure that encourages healthy living and wellbeing for people of all ages and abilities.
- The design of public spaces should support social inclusion and therefore any aspect that prevents users from its benefits should provide a suitable alternative.
- Provision of toilets and baby changing facilities should be considered as an integral part of public spaces.
2.4 SUSTAINABILITY

Selecting designs and materials for the public realm that endure will save both money and carbon. In addition to mitigating against climate change, it is also important to adapt the environment to prepare for higher temperatures that may come about as a result of climate change. This means designing both soft and hard landscapes to accommodate cooling; incorporating various species with greenery and water features where possible. It is also important to design environment that will encourage sustainable behaviour, for example by providing recycling bins.
SOCIO-ECONOMIC SUSTAINABILITY
Social and economic aspects should be considered in the design of public spaces to ensure that places and connections will support local economic development, equality and diversity; as well as being safe and helping to prevent anti-social behaviour. In line with these aims the design of the public realm should:
• consider the wider urban context to identify key uses of the relevant spaces;
• create a sense of ownership;
• strive to enhance and support local economic activities;
• support diversity of use by taking into account the needs of all ages and physical abilities;
• recognise the multiplicity of overlapping land uses that occur in urban areas;
• accommodate change;
• be in line with relevant British Standards and Croydon’s Supplementary Planning Documents.

CLIMATE CHANGE ADAPTATION AND RESILIENCE TO EXTREMES OF WEATHER
All public realm projects should respond to climate change. Adequate measures should be put in place to manage higher temperatures and reduce impact of weather extremes, including:
• the provision of street trees, small open spaces and green or living roofs and walls;
• the use of water features, with special attention to protection and upgrade of natural water resources such as ponds, rivers, flood balancing lakes;
• wider application of low water use planting and landscaping reducing or eliminating the need for supplementary water from irrigation;
• paving roadways and parking areas with cool material: reflective, permeable and not accumulating heat; parking areas for over 10 places should be shaded by trees.
FLOOD AND WATER MANAGEMENT
Special attention is required to reduce flood risk and maximise opportunities for management of water resources, including:

- a wide application of sustainable urban drainage in accordance with relevant standards, including replacement of existing impermeable surfaces, increasing capacity for surface water attenuation and storage through increased soft landscape areas, construction of swales, creation of water storage areas as infiltration ponds in parks and green spaces;
- increasing of rainwater drainage capacity by widening existing network components and designing new ones for bigger capacity;
- provisions for managing flood pathways and removing ‘pinch points’ should be considered so that heavy rains can drain away;
- the provision of facilities and wider use of harvesting, reclaiming and recycling water for reuse in public realm e.g. building underground storage tanks into landscaping/under semi-permeable surfaces to supply water.

MATERIALS
The selection of materials for public realm projects should primarily be based on their whole life costing. Consideration should be given to supply, durability, longevity and ease of replacement or replication. Preference should be given to materials with a low embodied energy and, wherever possible, materials should be locally sourced. The Mayor of London’s Green Procurement Code must be followed. Furthermore, when considering the suitability of materials in proposed developments, it is necessary that a Whole Life Costing methodology is applied.
WASTE MANAGEMENT
Both during construction and over the lifetime of all future developments suitable measures must be taken to minimise unnecessary energy use, and reduce pollution and waste. Wherever possible, materials should be re-used either on site or in another location.

Development of local networks to manage waste generated in public realm improvement projects will be supported.

CARBON FOOTPRINT
Croydon has a target to achieve a 34% reduction in carbon dioxide emissions on 2005 levels by 2025. To support this reduction, public realm projects should:

• reduce energy consumption by using intelligent infrastructures powered from renewable energy sources and wider application of energy efficient lighting;
• facilitate the development of walkable land use patterns that support low levels of energy use;
• where possible, eliminate the need for power supply for street furniture and technical devices included in schemes;
• maximise the provision of soft landscaping, green walls and green roofs;
• integrate public recycling facilities into the design to form a part of a coherent streetscape;
• provide infrastructure for sustainable transport including continuous walking and cycling routes; wayfinding and cycle parking facilities; infrastructure for electric vehicles and providing more space for car clubs.
• work in partnerships to convert arisings from tree works into either useable millable timber, cord wood or woodchips for use in power stations.

Welcome to ReIY
ReIY - short for ‘Reuse It Yourself’ - is a UK-wide not-for-profit enterprise which collects surplus construction material in the USA model. They bring many benefits including:
• creating new jobs and helping economic regeneration
• reducing waste to landfill, disposal costs and fly tipping
• reducing CO2 emissions.

BioRegional support the development of a UK-wide reuse material. This aims to complement community wood re-use activities to be co-located at one site, as in ReIY. Contact us to find out more about existing stores and how you can help.

If you are interested in setting up a building material centre:
• The Business Plan - which provides analysis on how reuse could be replicated in the UK
• General Guidelines - guidance pack to support reuse enterprises.
• Case Study: Croydon - contains information and process of experience attempting to set up a building material centre.

Living wall
www.reiy.net
2.5 ACTIVATING THE PUBLIC REALM

Croydon’s public realm is more than just the space with unlimited access for all. It is a shared place to be actively used and enjoyed by everyone. Croydon’s public realm should create the conditions to facilitate diverse uses, during the day and evening, weekdays and weekends, summer and winter. The design of the public realm should consider how it can enable activity, for example by providing lasting infrastructure such as power, water or access facilities to support temporary events. Proposed uses should build on existing activities, and work with what is already there.
MAKING THE SPACE
• Croydon’s public realm should provide a variety of spaces that can host a diverse range of activities.
• The scale, size and form of spaces should be designed with future uses in mind, to complement rather than replicate the surrounding offer.
• Design considerations should include how public realm can support adjacent occupiers, for example by providing space for outdoor eating, performances, or play.

PROVIDING THE INFRASTRUCTURE
• The infrastructure necessary to host activities or hold events should be integrated into public realm schemes from the start. This should range from stages and shelters to power and water supplies.
• Access to and use of utilities should be integrated with into management and maintenance plans.

PROGRAMMING USES
• The public realm should be programmed to give a platform for Croydon’s community groups and local businesses and accommodate opportunities for enterprise.
• Proposed activities should be socially sustainable, self-sufficient, and viable. They should respond to existing needs and build on established initiatives.
• Public realm should open up opportunities for small entrepreneurial ventures by activating social networks such as markets, music.

CASE STUDIES - GOOD EXAMPLES
• Croydon’s successful Outer London Fund scheme for Central Parade, New Addington includes a distinctive temporary surface that facilitates new activities and enterprises and
acts as a ‘productive precursor’ to regeneration. Enabling works include a public pavilion, picnic plot seating and shelters, pop-up power points and stall pitches, illuminations and recycling bins. A series of temporary events provided the necessary tests to inform the design proposals. They demonstrated to local people how with a few changes the area could be transformed into a newly functioning space. The events included an iceskating rink, an open air cinema and dance classes which encouraged communities to engage with, play in and simply enjoy the public realm.

- Brixton Village is a Grade II listed 1930s indoor market hall in South London. By mid-2009, a large number of its shops were standing empty. With funding from the market’s owners and the support of hundreds of local people and organisations, the empty shops were filled with new community-driven businesses, creative projects and a rolling festival of weekend and late night events. www.facebook.com/brixvill
• The community-led renewal of Arnold Circus in Bethnal Green embedded key utilities for enabling future events in the landscape design. These included power supply for feature lighting and amplified music, as well as water for community gardening projects and a drinking fountain to be installed at a later date. www.foac.org.uk

• Making Space in Dalston is a series of 76 micro-projects drawn up in close collaboration with community organisations, the local neighbourhood, the Council, creative industries and the third sector. The resultant projects range from the creation of a new green space with a programme of community engagement and events on a previous derelict piece of railway land, outdoor play equipment in a mirrored storage container, new signs and lighting and improved paving. www.dalstongarden.com
2.6 TEMPORARY PUBLIC REALM

Significant areas of Croydon’s public realm are set to be transformed through regeneration. But it is just as important that areas awaiting transition contribute positively to the public realm in the interim. The provision of temporary public realm both before and during construction is encouraged where it acts as a stepping stone to something more permanent, potentially with high value for urban biodiversity.
FORGOTTEN SPACES
Croydon’s public realm includes a number of undefined and underused spaces often left over from larger scale infrastructure, such as verges, undercrofts, subways, or car park roofs. Their detrimental impact on perceptions of the environment can be countered by small-scale or light-touch interventions, for example street art commissions or community growing projects.

VACANT SITES
Where sites have latent potential for food growing development, temporary public realm can nurture appetites, build capacity, and act as a catalyst for regeneration. Introducing new public uses that establish regular access boosts the visibility of a site, and can help raise income and build usership. Holding strategies might include recreational facilities such as 5-a-side football pitches or cricket nets.

DEVELOPMENT SITES
Where sites anticipate development, early uses can establish aspects of the public realm that take longer to mature, and help integrate developments with their surroundings. For example trees for future landscaping could be grown on site as a temporary urban nursery.

CONSTRUCTION SITES
Where development is phased over long periods, interim solutions are an opportunity to test and refine options, limiting risk for the completed project. Hoardings should do more than advertise, by for example testing building lines or becoming usable features for seating, play or as an opportunity for temporary public art installations.
VACANT BUILDINGS
Vacant buildings, particularly ground floor retail units, can impact negatively on perceptions of Croydon’s public realm. Bringing these spaces back into use restores active frontages, makes a positive contribution to the public realm, and invigorates retail areas. ‘Standard Meanwhile Use Leases’ are a simple means of arranging temporary uses, particularly for projects in retail units. Cultural, enterprise and educational uses are encouraged in partnership with existing local organisations.

CASE STUDIES

• The Union Street Urban Orchard regenerated a disused site in Bankside to create a place for exchange between local residents and visitors during summer 2010. The garden was built with the help of Bankside Open Spaces Trust and other volunteers. When dismantled all the trees were given to local estates and other community gardens. www.unionstreetorchard.org.uk
• South Kilburn Studios is an apprenticeship scheme where free studio space is given to start up businesses in return for their providing training and workshops for local residents. Studio space was offered to people within the creative industries who had transferable skills that would be relevant to the jobs market. Each tenant works one to one with their trainee for at least two days a week. Free public workshops are held weekly. www.southkilburnstudios.org

• Folly for a Flyover is a temporary structure built in the undercroft of the A12 beside the Lea Navigation Canal. The folly was built in a month by a team of volunteers using local, reclaimed and donated materials costing £20,000. It hosted a six week programme of workshops, events and boat trips exploring the surrounding waterways. www.follyforaflyover.co.uk
2.7 PLAY

The public realm is for everyone and therefore provision should be made for play in the public realm. This can be through formally designating spaces for play or the informal provision integrated into public spaces to encourage interaction between people of all ages. Play provision should be inviting, imaginative and stimulating for children. Street furniture can be designed to double-up as play equipment which itself can be part of the fun. Natural objects and planting should be integrated into play space so children are given the chance to enjoy their shapes, colours and textures.

When designing play area, the maintenance responsibility and adequate inspection and repair budgets should be always identified.
EDUCATION AND WELLBEING
• Play is fun and good for people as it involves physical and mental exertion, socialising and getting some fresh air if it occurs outside.
• Forms of physical play should encourage experiences of swinging, jumping, climbing, balancing and the built environment.
• Play areas should also incorporate education elements related to local heritage and natural resources.

INCLUSIVE EXPERIENCE
• The public realm is for people of all ages and therefore provisions should be made to encourage a variety of play options within the public realm.
• A significant proportion of play equipment should be suitable for the physically impaired.

FORMS TO PLAY
• Natural objects and planting should be integrated in to play space so children are given the chance to enjoy their shapes, colours and textures and also increase the visual attractiveness of play spaces for all to enjoy.
• This can be through formally designating specific areas only for play – as occurs in most parks - or designing play opportunities in to other public spaces and seating areas – which can be more convenient for families to visit than parks.
• It is recognised that sometimes boundaries to playspaces are necessary to increase their security - for example to prevent potentially dangerous dogs from entering them. However, boundary treatments should be minimised to assist the integration of a playspace in to its surroundings.
• The integration of natural features and materials into playscapes – such as logs, planting, sand and rocks - is encouraged.
Playspaces that appeal to children of all ages should be designed to provide a variety of play opportunities from the more physically demanding to the more gentle and intellectual.

Reasonable safety standards apply to all play provisions. It is important that, within reason, playspaces are designed to provide challenging physical experiences for children and that children should be able to make their own risk assessments when it comes to using play equipment. Appropriate impact absorbing surfaces should be installed where required.

Outdoor gyms that test balance and strength, designed for youth and adults should be considered in parks. Their provision is recommended as a way of promoting healthy living.

When providing tables in the public realm, top patterns enabling playing for chess and other board games should be considered in order to encourage people of all age and mobility to spend time outdoors, socialise, have some fun and gain some mental stimulus.

AREA SPECIFICS

Playspace should be integrated into the landscape so that it makes a positive contribution to the character of the surrounding area and is attractive to look at as well as stimulating to interact with.

Natural materials and surfaces are preferred in play areas Borough wide.

Multifunctional play objects integrated in the built environment are preferred in Croydon Opportunity Area, district and local centres.

Integration of street art and play is especially encouraged in urban centres.
2.8 ART

Art plays the role of enriching the public realm. Through visual expression, it can stimulate the mind and surprise and delight the senses. Public art should be commissioned sensitively so that it sits appropriately within the context of public spaces. However those who commission it should be prepared for the fact that for art to achieve a depth of expression, it sometimes must break with convention.
ART IN PUBLIC REALM EXPERIENCE

• Art in the public realm should enhance the visual experience of the public realm and stimulate the imagination.

• Public art is a means of bringing art to everyone so that it is not just experienced by people who visit museums but becomes part of everyday life with no financial charge.

• Good public art contributes towards the local character and distinctiveness of areas. Art, final outcomes as well the process or creation, provides opportunities for the communities to strengthen sense of place and belonging.

• For public art to make a positive contribution towards the public realm it is important that it is designed to respond to the context of a local area and integrated in to the built environment.

• Art involves expression – saying something so its scope is vast. Art cannot be prescribed as this could limit creativity and the capacity of art to surprise and delight passers-by.
FORMS OF ART EXPRESSION

- Art in the public realm should be robust. It can be two or three dimensional and can appeal to the visual sense through imaginative use of colour, light, proportions, texture, visuals and movement.
- Croydon supports art innovative creations through use of sound, movement and the encouragement of interactivity.
- Public art should be multifunctional.
- Public art can be a permanent or temporary feature of the urban realm. Temporary pieces of public art can enliven the public realm and provide welcome variation to the norm.

• The status of the piece of art must be clearly stated in the brief. Temporary features will be removed after their agreed lifespan comes to an end.

ENGAGEMENT IN DELIVERY, MANAGEMENT AND MANITENANCE

- Public Art is encouraged in new developments and Croydon Council supports the introduction of art components in public realm schemes.
- The Council encourages the use of recycled materials in the public realm to minimise the impact on the environment.
• Local people can get engaged in the design and construction of public art, which, as well as being a fun experience in itself, can increase the sense of ownership and pride in public art and the place in which it is located.
• Art features should conform to Council’s standard cleaning regime.
• When planning art features, it should be assumed that Council will not be responsible for maintenance.
3.0 PALLETTE OF MATERIALS
The following chapter sets out the specific public realm material components by: describing each individual element, addressing its need, suitable location, specification (including technical parameters) and maintenance requirements.

Where specific tailored palettes and approach to common details must be applied in particular areas, this is clearly set out. Lists of preferred products are summarised and presented in tables. These elements are critical to achieving a consistent and high quality public realm in Croydon. The recommendations were informed by Transport for London Streetscape Design Guide and detailed feedback provided by practitioners who are currently involved in the design, delivery and maintenance of Croydon’s public realm.

All schemes should conform to the palette of materials set out in this Design Guide.
3.1 SURFACE MATERIALS

Surface materials are the canvas upon which our city- and land- scapes are formed. Its treatment plays an important role in reinforcing perceptions and encouraging active civic guardianship of place. Surface materials should be seen as an integral element of creating, regenerating and revitalising places and spaces, ensuring cohesion and continuity. In order to achieve this, a limited palette with materials that are simple, robust, appropriate to the local character and fit for purpose should be used.

Wherever possible, replaced surface materials should be reused on site or recycled.
GENERAL GUIDELINES

• High quality design and workmanship are essential to ensure the Council’s required quality standards are maintained and, with the use of clear detailing, to minimise the cutting of paving units. The selection of surface material should support a place’s local identity and choice should take into account safety, security and coherence with a wider public realm context.

• Variations in colour and texture should be kept to a minimum. No more than two different types of surface materials should be used within a single area.

![Common Detail: Paving a Street Corner](image)

**PREFERRED**

**NOT ACCEPTABLE**

- In general, all footways and cycle paths in urban areas should have hard surfacing that enables water to permeate. As an exception, areas above subways should use non-permeable and adequately sealed paving.
- Bound dust or bound gravel surfacing on footways is preferred in urban parks and other urban green areas, as well as in some Conservation Areas, provided that a suitable alternative route for people with mobility difficulties is available.
- Standard sizes of paving materials and butt joints should be used.
- In areas where vehicular overrun is possible, reinforced materials and adequate technical
solutions should be applied, such as: reinforced paving, widened kerbs, an increased flag thickness, mortar joints or an alternative bedding and jointing type, mesh reinforcement and reinforcing grass cells in urban parks and open spaces.

- Where mortar infill is applied, natural sand and cement, free from dye, should be used. Cutting should be very precise and kept to minimum to avoid large infills.
- Mortar bedding should be used for edgings, drainage channels, ramps, gradients steeper than 1 in 10 and where paving is continuously wet.

Pedestrian crossings should be straight, subject to safety audit.
- Where appropriate, skid resistance should be assessed, for example when using natural stone on trafficked areas.
- Where private forecourts have been repaved, the boundary between public and private space should be subtly demarked.
- To ensure footway materials, from the back of the kerb to the building edge, are unified, resurfacing schemes should include areas of private forecourt where the public are able to walk across freely. Future maintenance will accord with the Council’s model.
NATURAL STONE PAVING

- Standard sizes: 600 x 400, 600 x 200, 400 x 200 and sets 200 x 100 100 x 100; tactile 400 x 400.
- Granite paving is particularly well suited in feature public spaces and its use should be focussed to Croydon Opportunity Area, some District Centres and Conservation Areas.
- Minimum flags’ thickness: 65 mm. In areas with vehicular overrun thickness should be set individually, but not less than 80mm.
- Preferred granite colours: Ravens Wing, Mid Grey and Silver Grey. Finish on footways: flamed; on carriage way: fine picked.
- Yorkstone paving can be used in some

![Silver Grey Granite sample](silver-grey.png)  ![Mid Grey Granite sample](mid-grey.png)  ![Ravens Wing Granite sample](ravens-wing.png)

<table>
<thead>
<tr>
<th>400 mm</th>
<th>600 mm</th>
<th>200 mm</th>
<th>400 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="standard-sizes.png" alt="Standard sizes for natural stone slabs" /></td>
<td><img src="standard-sizes.png" alt="Standard sizes for natural stone slabs" /></td>
<td><img src="standard-sizes.png" alt="Standard sizes for natural stone slabs" /></td>
<td><img src="standard-sizes.png" alt="Standard sizes for natural stone slabs" /></td>
</tr>
</tbody>
</table>
circumstances in Conservation Areas in the context of specific heritage assets.

CONCRETE / ARTIFICIAL STONE PAVING
- Where concrete paving is used, high quality pavers such as a Conservation flag (or equivalent) should be used.
- Preference will be given to the use of larger size flags such as 600x450.
- Minimum flag thickness: 65mm. In areas with vehicular overrun thickness should be set individually, should be no less than 80mm; and fibre reinforced slabs should be used.
- Preferred ASP flags: Charcoal and Silver Grey colour, smooth finish.

Conservation Paving Smooth Silver Grey sample
Conservation Paving Smooth Charcoal sample
Conservation paving in situ

600 mm
400 mm
450 mm

Standard sizes for ASP slabs
BITUMINOUS SURFACES

- Asphalt may be used for footway in areas outside Croydon Opportunity Area.
- Where the use of bitumen on footways is being considered, its use should be limited and only laid where contextually appropriate.
- The asphalt specification (flexible / rigid) should match the existing context. Colour variations should be avoided.

COMMON DETAIL:
PATCHING BITUMINOUS SURFACES
Cuts should match natural divisions on pavement to blend in existing surfaces

- When repairing or carrying out partial reinstatements to sections of bituminous surfaces, e.g. following servicing underground utilities, careful consideration should be given to the wider street context. Cuts should be neat and discrete. To prevent unsightly scarring areas, larger than an immediate patch may require resurfacing.
- A wearing course of Stone Mastic Asphalt (SMA) should be used for all carriageways.

POURED CONCRETE

- The use of poured concrete should be limited to situations where the use of other materials in the palette is not possible or appropriate.
- Appropriate joints should be applied to prevent cracking. Joints should be integrated with the surface structure or pattern.
- Trowel and broom finish is encouraged to prevent slipping and to introduce texture.
NATURAL AGGREGATES
• Fully permeable surfacing such as bound dust (limedust aggregate) or bound gravel is preferred in parks and other urban green areas. Aggregate paths should be edged with timber pressure treated softwood 200mm x 25mm fixed with galvanised nails to 400mm x 50mm x 50mm long softwood pegs driven into the ground.
• Clear resin bound rounded gravel should be used for tree surrounds. Preferred colour is a mix of mid grey and buff such as 10mm Pearl.
• A contrasting colour with minimum 20% of luminance difference should be used for tree surrounds, to aid the partially sighted, for example if silver grey paving is used contrasting grey resin bound gravel may be used.

TACTILE PAVING
• Standard size of tactile paving: 400x400mm.
• At controlled crossings tactile paving should be applied in a contrasting colour with minimum 30 points of luminance difference and should be the same material as the surrounding paving.
• At uncontrolled crossings tactile paving must not be red and can match or be in a contrasting tone to the paving surface within which they are located, but should be the same material as the surrounding paving.
• Colours and materials that are more compatible to the character of the particular public realm scheme such as granite tactile paving or grey and charcoal concrete tactile paving should be used in the Opportunity Area, Conservation Areas and District and Local Centres.
• The use of metal stud tactile paving is discouraged. Metal studs are uncomfortable to walk on and they become slippery when wet.
KERBS
- Silver grey or mid grey, fine picked granite kerbs should be used.
- Precast concrete kerbs should not be mixed with granite kerbs and should be replaced with granite kerbs when they have reached the end of their useful life.
- Where flags are used, kerbs should be mid-grey or silver granite 300mm wide and of 300mm deep on radiuses.
- In areas where asphalt has been used 150mm wide silver grey kerbs should be used.

WHERE FLAGS ARE USED, KERBS SHOULD BE MID-GREY OR SILVER GRANITE 300MM WIDE AND OF 300MM DEEP ON RADIUSES.

COMMON DETAIL: REUSE OF GRANITE KERBS
Reused kerbs should be consolidated, never mixed with new ones. The kerb width should be continuous.

SURFACE DRAINAGE
- Linear, open channels are the Council’s preferred means of surface drainage.
- The number of manholes and junctions should be kept to the required minimum.
• Gullies and channels should be incorporated into the paving design.
• Concealed drainage with gullies or channels and necessary maintenance / inspection chambers should be provided in open spaces and in primary pedestrian routes.
• Recessed tray service and inspection chamber covers to allow for uninterrupted paving patterns should be used where practicable and in agreement with utility companies.
• Appropriate crossfalls: away from the buildings and draining to gully or linear channels, should be applied to paving.

**COMMON DETAIL:**
**SURFACE DRAINAGE**
Open channels, simple and easy to maintain are preferred means of surface drainage

**PREFERRED**

**NOT ACCEPTABLE**

**INSPECTION & UTILITY COVERS**
• Decorative ductile steel covers may be used in lower profile areas.
• Inspection/utility covers should be laid square to the pavement coursing to enable close cutting, avoiding messy infills.
• Preference is given to the use of inlaid / recessed inspection covers.
• Inspection covers must be clearly labelled to identify the relevant utility company.
• In areas which are vulnerable to vehicular over-run highway specification inlays should be used.
• Preference will be given for the retention, restoration and maintenance of cast iron heritage covers, including coal hole covers, fire hydrants and drain and vale covers.
VEHICULAR SURFACES AND CAR PARKS

- In Croydon Opportunity Area, District and Local Centres, and in Conservation Areas consideration should be given to choosing vehicular surfaces such as parking bays which are flush with the footway or granite entry treatments with materials that complement the pedestrian surface.

- Road markings should be integral to the paving pattern and not a painted finish. Marker blocks in contrasting colour should be used to achieve an integrated finish.

- It is recommended to use 50mm or 100mm Primrose yellow paint colour lining on Stone Mastic Asphalt in Conservation Areas.

- Where possible and in line with Croydon Local Plan (Core Strategy), the use of coloured surfaces (bus and cycle lanes) should be minimised. Where coloured surfaces cannot be avoided, a coloured bound surface should be used.

- Where complementary materials are used, care should be taken to ensure that the colour chosen do not easily show oil staining.

- Where parking bays are integrated into the footway, to ensure visual continuity, a flushed kerb should be laid across the entrance to the bays.

<table>
<thead>
<tr>
<th>CARRIAGEWAY</th>
<th>COA</th>
<th>DISTRICT &amp; LOCAL CENTRES</th>
<th>BOROUGH - WIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stone Mastic Asphalt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KERBS</td>
<td>COA</td>
<td>DISTRICT &amp; LOCAL CENTRES</td>
<td>BOROUGH -WIDE</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----</td>
<td>--------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Granite 300x150mm (squared)</td>
<td>✓</td>
<td>✓</td>
<td>✗*</td>
</tr>
<tr>
<td>Granite 300x300mm (squared)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Granite 150x150mm (squared)</td>
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<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Concrete Conservation Kerbs</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
</tr>
</tbody>
</table>

* unless like for like replacement

<table>
<thead>
<tr>
<th>FOOTWAY MATERIALS</th>
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<th>DISTRICT &amp; LOCAL CENTRES</th>
<th>BOROUGH -WIDE</th>
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<tbody>
<tr>
<td>Yorkstone (Flags &amp; Setts)</td>
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<td>✓</td>
<td>✗*</td>
</tr>
<tr>
<td>Granite (Flags &amp; Setts)</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Natural Stone Tactile (Yorkstone / Granite)</td>
<td>✓</td>
<td>✓</td>
<td>✗*</td>
</tr>
<tr>
<td>Artificial Stone Paving (high quality – large element flags)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Artificial Stone Tactile</td>
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<td>✓</td>
<td>✓</td>
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<tr>
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<tr>
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<tr>
<td>Inspection Covers – Ductile Steel</td>
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<td>✓</td>
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<tr>
<td>Inspection Covers on footways – Recessed</td>
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<td>✓</td>
<td>✗</td>
</tr>
</tbody>
</table>

* may be considered in Conservation Areas in context of specific heritage assets
<table>
<thead>
<tr>
<th>ITEM</th>
<th>DIMENSIONS</th>
<th>CONSIDERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Granite Kerbs</td>
<td>w: 300 mm x h: 150mm w: 300 mm x h: 300mm Lengths variable</td>
<td>squared Colour: Silver grey / Mid grey Finish: fine picked</td>
</tr>
<tr>
<td>Stone Mastic Asphalt</td>
<td>N/A</td>
<td>Carriageway application only</td>
</tr>
<tr>
<td>Yorkstone Flags (including Planks)</td>
<td>600mm x 400mm 600mm x 200mm 400mm x 200mm</td>
<td>Not to be used on carriageways</td>
</tr>
<tr>
<td>Yorkstone Setts</td>
<td>200mm x 200mm 100mm x 100mm</td>
<td>Site conditions and vehicular over-run to determine size and depth</td>
</tr>
<tr>
<td>Granite Flags (including Planks)</td>
<td>600mm x 400mm 600mm x 200mm 400mm x 200mm Standard depth: 65 mm; where vehicular over-run is possible, fibre reinforced slabs</td>
<td>Site conditions and vehicular over-run to determine size and depth. Standard colours: Ravens Wing, Mid-Grey, Silver Grey (or equivalent) Finish: flamed</td>
</tr>
<tr>
<td>Granite Setts</td>
<td>200mm x 200mm 100mm x 100mm Standard depth: 65 mm; where vehicular over-run is possible, fibre reinforced slabs</td>
<td>Site conditions and vehicular over-run to determine size and depth. Standard colours: Ravens Wing, Mid-Grey, Silver Grey (or equivalent) May be used for entry treatments / tree pit detailing</td>
</tr>
<tr>
<td>Natural Stone Tactile (Yorkstone / Granite)</td>
<td>400mm x 400mm</td>
<td>Tactile must be in a contrasting hue of the same colour to the surrounding paving. Tactiles must have a difference in light reflective value of at least 30 points. (BS8300)</td>
</tr>
<tr>
<td>Artificial Stone Paving:</td>
<td>600 mm x450 mm Standard depth: 65 mm; where vehicular over-run is possible, minimum depth is 80mm</td>
<td>Site conditions and vehicular over-run to determine size and depth. Standard colours: Charcoal and Silver Grey Smooth finish for Conservation flags (or equivalent)</td>
</tr>
<tr>
<td>Artificial Stone Tactile</td>
<td>400mm x 400mm</td>
<td>Colour: Charcoal Contrasting colour with a difference in light reflective value of at least 30 points. (BS8300)</td>
</tr>
</tbody>
</table>
## DISTRICT & LOCAL CENTRE GUIDELINES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DIMENSIONS</th>
<th>CONSIDERATIONS</th>
</tr>
</thead>
</table>
| **Granite Kerbs** | w: 300 mm x h: 150mm  
w: 300 mm x h: 300mm  
w: 150 mm x h:150mm  
Lengths variable | squared  
Colour: Silver grey / Mid grey  
Finish: fine picked |
| **Stone Mastic Asphalt** | N/A | To be used for carriageways and footways |
| **Yorkstone Flags (including Planks)** | 600mm x 400mm  
600mm x 200mm  
400mm x 200mm | Not to be used on carriageways |
| **Yorkstone Setts** | 200mm x 200mm  
100mm x 100mm | Site conditions and vehicular over-run to determine size and depth |
| **Granite Flags (including Planks)** | 600mm x 400mm  
600mm x 200mm  
400mm x 200mm  
Standard depth: 65 mm; where vehicular over-run is possible, fibre reinforced slabs | Site conditions and vehicular over-run to determine size and depth.  
Standard colours: Ravens Wing, Mid-Grey, Silver Grey (or equivalent)  
Finish: flamed |
| **Granite Setts** | 200mm x 200mm  
100mm x 100mm  
Standard depth: 65 mm; where vehicular over-run is possible, fibre reinforced slabs | Site conditions and vehicular over-run to determine size and depth.  
Standard colours: Ravens Wing, Mid-Grey, Silver Grey (or equivalent)  
May be used for entry treatments / tree pit detailing |
| **Natural Stone Tactile (Yorkstone / Granite)** | 400mm x 400mm | Tactile must be in a contrasting hue of the same colour to the surrounding paving.  
Tactiles must have a difference in light reflective value of at least 30 points. (BS8300) |
| **Artificial Stone Paving: Conservation or equivalent** | 600 mm x 450 mm  
Standard depth: 65 mm; where vehicular over-run is possible, minimum depth is 80mm | Site conditions and vehicular over-run to determine size and depth  
Standard colours: Charcoal and Silver Grey Smooth finish for Conservation flags (or equivalent) |
| **Artificial Stone Tactile** | 400mm x 400mm | Colour: Charcoal  
Contrasting colour with a difference in light reflective value of at least 30 points. (BS8300) |
<table>
<thead>
<tr>
<th>ITEM</th>
<th>DIMENSIONS</th>
<th>CONSIDERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Granite Kerbs</td>
<td>w: 150 mm x h:150mm</td>
<td>squared Colour: Silver grey / Mid grey Finish: fine picked</td>
</tr>
</tbody>
</table>
| Concrete Conservation Kerbs  | w: 300 mm x upstand:150mm  
  w: 150 mm x upstand:150mm | squared Colour: Silver grey / Mid grey Finish: fine picked                                                                                  |
| Stone Mastic Asphalt        | N/A                 | To be used for carriageways and footways                                                                                                    |
| Artificial Stone Paving:    | 600 mm x 450 mm     | Site conditions and vehicular over-run to determine size and depth Standard colours: Charcoal and Silver Grey Smooth finish for Conservation flags (or equivalent) |
| Conservation or equivalent  | Standard depth: 65 mm; where vehicular over-run is possible, minimum depth is 80mm                                                                 |
| Artificial Stone Tactile    | 400mm x 400mm       | Colour: Charcoal Contrasting colour with a difference in light reflective value of at least 30 points. (BS8300)                               |
3.2 STREET FURNITURE

Street furniture, both contemporary and historic, is an integral part of the public realm. It is representative of a place and its individual identity. Consolidation of street furniture and its use for multiple functions at the same time, will help declutter Croydon’s places, making a more efficient use of space and creating a more attractive public realm.

Croydon’s palette consists of a restricted range of street furniture that is simple, usable, durable and easy to maintain. It is important that the selection of street furniture makes a positive contribution to each area, does not impede access or add to visual clutter, and reflects its distinctive local character.
GENERAL GUIDELINES
• Bespoke street furniture should not be used and simple designs should be specified.
• All street furniture should be stainless steel or painted in black.
• Street furniture should be located within assigned zone (see page 15 and 16), so as to not cause an obstruction, towards the front of the footway.
• An absolute minimum clear footway width of 1.5m should be left to allow unobstructed pedestrian use.
• Street furniture should be orientated parallel to paving to avoid awkward junctions and cutting.
• Where possible historic street furniture, such as benches (including memorial seating), water troughs, bell bollards, telephone kiosks and post boxes, should be refurbished and retained in its original location.

BOLLARDS
• The use of bollards should be kept to an absolute minimum. Bollards may be designed only in places where it is essential to protect pedestrian areas from motor traffic.
• Bollards should not be used in situations where regulatory solutions should be found through enforcement.
• Historic iron cast bollards should be retained in their original locations or re-sited close by if they are now obstructing the movement.
• Alternative design approaches to bollards should be explored, for example: raising kerb heights (to at least 150mm) or using trees or cycle stands to prevent motor vehicles accessing pedestrian areas.
• To avoid creating additional street clutter, bollards should be installed at a minimum width of 1.6m apart to allow for the passage of

Typical bollard
wheelchairs, trolleys, cycles and pedestrians while restricting passage of motor vehicles.

- Vehicle access to pedestrian areas should be controlled with drop or removable bollards.
- Gates should not be used to control vehicular access to pedestrian areas.
- To ensure bollards can be clearly seen by reversing vehicles, bollards should be at least 1m in height.
- Surrounding paving should be cut to fit around the base of each bollard
- Illuminated bollards should be avoided. It is recommended to use reflector strips as appropriate.

LITTER BINS

- The need for bins varies between areas subject to the density of pedestrians. Clean, litter free routes are more pleasant to use.
- When bins are installed adjacent to seating, the interaction between the two should be carefully considered and appropriate space to be provided.
- Bins should have a standard capacity of 120l and appreture of at least 450 mm.
- Street litter bins should allow for mixed recycling. General recycling bins should be located on the side of general waste ones and have a distinct marking.
- Stainless steel stub plates should be provided to extinguish cigarettes.
• Bins should have a slam shut door with a robust low maintenance lock.
• Bins should have galvanised steel pull out liners and a hood to prevent litter from being blow out of the bin. Liners should be able to withstand high pressure water cleaning for a period of up to 5 years without degradation.
• Bins should be securely fixed to the ground and preference is given to the use of flush fittings to prevent fixings becoming a trip hazard if a bin is re-sited.

CYCLE STANDS
• It is important that adequate and usable facilities for cyclists are provided.
• Cycle stands should always be located in safe and easily accessible areas
• A footway of width 1.6 – 2m is required to enable cycle stands to be installed perpendicular to the kerb.
• Sheffield stainless steel type cycle stands must be used across the borough.
• Where existing black painted cycle stands remain on site, an annual repaint should be anticipated. They should be replaced when have come to end of their serviceable life.
• At each entIt is not necessary for cycle stands to have any signage incorporated.

Cycle stands in furniture zone  Pedestrian guardrail removal in Croydon: Roman Way  Guard rails in situ
GUARD RAILS
• Croydon Council is committed to removal of pedestrian guardrail where possible, subject to safety audit. Preference will always be given for traffic schemes that design-out the need for guard rails.
• A simple profile post and rail system should be considered. To better enable drivers to see people obscured by the guard rail, visibility should be specified; the choice of type will be dependant upon site conditions and requirements.

An example of basic street bench with armrests  Basic bench in situ  Basic street bench mounted on granite base

SEATING
• Seating is an important positive contributor to the street scene. Opportunities to provide seating integrated with other street furniture or positioned opposite to heritage assets should be explored, for example public art which doubles as seating or the creation of informal seating such as steps or low walls.
• Seating should always be carefully located in the furniture zone and integrated with the streetscene. Seats can be located in areas where at least 1.5 clear way for pedestrians is available as to not restrict the footway.
• Care should be taken to locate seating in sunny positions, however close to shade and away from windy areas.
• Seats should be inclusive, functional, durable and robust. To aid mobility impaired users seating should be located close to waiting places and places with high pedestrian flows.
• Seats should have intermediate arm rests to aid mobility impaired users and prevent rough sleeping.
• Seats should be at least 0.5m above floor level with backrest at 0.75m above floor level.

![Sample Conservation type of bench](image1)
![Contemporary memorial bench](image2)
![Traditional memorial bench](image3)

• They should be fixed to the ground.
• Seating main structure should be of metal construction. Wood construction can be considered exclusively in green spaces and parks.
• Metal framed seating with wooden slats for seating and backrest are preferred. Metal seating may only be considered in areas where persistent vandalism is an issue.
• Seats should be easily maintainable and economical to replace.
• The location of seats should enable wheelchair users to pull up next to them and to be able to have a conversation with the seat’s user without obstructing the passage.
• The number of structural legs should be kept to a minimum so as to limit the need for cleaning the areas around the base of seats.
LIGHTING
• The quality of urban lighting has a major bearing on the perception and attractiveness of a place. A good light level promotes a sense of security within the public realm and helps to stimulate the night time economy. Urban lighting also plays an important role in reducing vandalism, crime and other anti-social behaviour.

Sample of a standard street light in centres: Rio Windsor
Sample of a standard suburban streetlight: Ely Windsor
Sample of a standard Conservation Area street light: DW Windsor

• As part of Croydon’s streetlighting PFI agreement, all footway and highway lighting will be provided with columns and lamps to replicate daylight conditions and enhance colour recognition. Implementation details are provided in PFI Developers Pack distributed by the Council on request.
• All lighting on public highways, including illuminated street furniture have to conform to Croydon Lighting PFI.
• All public realm projects should be consulted with the Council’s unit responsible for lighting PFI in order to coordinate implementations. There is provision in PFI agreement to either bring forward the implementation to conform a specific public realm delivery project or to enable the delivery of lighting through a public realm project to be in compliance.
CCTV

- The provision of CCTV in public areas should be balanced against other aspects of public realm. It should not determine the design but discretely blend in the context of places.
- Preference is given to cameras being mounted on buildings. Where mounting on buildings is not possible, cameras should be integrated into lighting columns.
- Preference will be given to accommodating CCTV control cabinets inside buildings. Where this is not possible, they should be accommodated below ground. If CCTV cabinets need to be located above ground, they should be placed in an unobtrusive location.
- Cameras should be as small and discrete as modern technology allows.
- CCTV associated facilities such as columns or cabinets should be black.
- Associated signage should be kept to a minimum and either mounted on buildings or on other existing poles.
- Lighting requirements should be carefully considered. For instance, too little light or glare from adjacent lighting will affect the recording quality.

BUS SHELTERS

- The design and location of bus shelters is decided by external agencies such as Transport for London (TfL). The Council will work with external agencies to ensure a more cohesive approach is taken to the design and location of bus shelters within the borough.
- Where footway space is restricted, preference will be given to open sided bus shelters with a cantilevered roof, located at the rear of the footway.
- Where footway width allows for at least 1.5 m wide clear zone, bus shelters can be closed
and should be located to the front of the footway within the street furniture zone.

- Lighting should be incorporated into the design to enable safe use during evenings and at night.
- Careful consideration should be given to the relationship between bus shelters and existing trees in order to mitigate potential adverse impacts. Bus shelters should be located at least 15 m from the nearest existing trees.

![Bus stop waiting facilities at the edge of a wide footway](image1)
![Bus stop waiting facilities at the rear of a narrow footway](image2)
![Utility cabinet located at the rear of the street, painted black](image3)

**UTILITY CABINETS (CONTROL BOXES)**

- The design and location of these cabinets are decided by external agencies. The Council will take a proactive approach in working closely with external agencies to ensure that a consistent approach is taken in determining their location and design.
- There is a preference that cabinets are black.
- There is a desire to install cabinets underground, particularly in Conservation Areas. This should be explored as new technologies become available.
- Where an underground location is not possible, cabinets should be located to the rear of the footway, preferably against a solid vertical feature such as boundary wall.
• Consideration should be given to designing-out posting, for example by incorporating fluting into the design of the cabinets.

TELEPHONE KIOSKS
• The Council will work together with payphone operators to identify underused and excess boxes for removal and to ensure that existing kiosks are kept in good repair, free from graphitti and fly-posting.
• Any remaining listed or historic telephone kiosks should be retained, regardless of their location.

POST BOXES
• The Council will work with external agencies to ensure post boxes are kept in good repair.
• There is a presumption to retain any remaining listed or historic post boxes.
• Preference is given to post boxes integrated into buildings and walls.
• Detached post boxes should be located within the street furniture zone.
<table>
<thead>
<tr>
<th>STREET FURNITURE</th>
<th>COA</th>
<th>DISTRICT &amp; LOCAL CENTRES</th>
<th>BOROUGH-WIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ductile iron litter bin such as HC2057 or equivalent</td>
<td>✔</td>
<td>✔</td>
<td>✗</td>
</tr>
<tr>
<td>Recycling ductile iron litter bin such as HC2057 or equivalent</td>
<td>✔</td>
<td>✔</td>
<td>✗</td>
</tr>
<tr>
<td>Conservation Area cast iron litter bin such as iron cast litter bin BX 2319 or equivalent</td>
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<td>✔</td>
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</tr>
<tr>
<td>Basic street bench such as Citysquared basic street bench or equivalent</td>
<td>✔</td>
<td>✔</td>
<td>✗</td>
</tr>
<tr>
<td>Iron Cast memorial bench such as Eastgate Cast Iron Framed Seat BX 2020</td>
<td>✗</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Wooden memorial bench</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Sheffield type cycle stand (or equivalent)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Cannon style bollard such as Sineu Graff or equivalent</td>
<td>✔</td>
<td>✔</td>
<td>✗</td>
</tr>
<tr>
<td>Concrete bollard</td>
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## CROYDON OPPORTUNITY AREA GUIDELINES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DIMENSIONS</th>
<th>CONSIDERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bollard – Cannon Style or equivalent</strong></td>
<td>Minimum of 1000mm</td>
<td>Buried Colour: Black stainless steel bollard, with stainless steel machine polished top.</td>
</tr>
<tr>
<td><strong>Ductile iron litter bin: HC2057 (or equivalent)</strong></td>
<td>Volume 120 litres 100 litre metal liners</td>
<td>With small stainless steel stubber plate Litter bins for recycling; with caps and plaques allowing to identify their purpose Colour: Graphite black</td>
</tr>
<tr>
<td><strong>Recycling ductile iron litter bin: HC2057 (or equivalent)</strong></td>
<td>Volume 120 litres 100 litre metal liners</td>
<td>Colour: black with green stripe and plaque White text in CAs Colour coded printed text in other areas</td>
</tr>
<tr>
<td><strong>Conservation Area cast iron litter bin such as iron cast litter bin BX 2319 or equivalent</strong></td>
<td>Volume. 80 or 100 litres</td>
<td>Colour: Graphite black</td>
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<tr>
<td><strong>Cycle Stand</strong></td>
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<td>Stainless steel Sheffield type or equivalent</td>
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<tr>
<td><strong>Seats: Citysquared basic street bench or equivalent</strong></td>
<td>Length: 1800mm Depth: 510mm Height above the ground: 775mm</td>
<td>With intermediate armrests stainless steel with iroko hardwood slats</td>
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<tr>
<td><strong>Seats: Wooden Memorial Benches</strong></td>
<td>Length: 1800mm Minimum seat height: 430mm</td>
<td>Seating with intermediate armrests</td>
</tr>
<tr>
<td><strong>Bus Shelters</strong></td>
<td>for TfL’s decision</td>
<td>Colour: Black</td>
</tr>
<tr>
<td><strong>Utility Cabinets</strong></td>
<td>for Utility Company’s decision</td>
<td>Colour: Black where possible</td>
</tr>
<tr>
<td><strong>CCTV</strong></td>
<td>to CCTV Operator’s decision as small as possible</td>
<td>Colour: Black</td>
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<tr>
<td>ITEM</td>
<td>DIMENSIONS</td>
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</tbody>
</table>
3.3 SIGNAGE AND WAYFINDING

Though not always immediately obvious, many of Croydon’s key destinations are within easy walking distance. The addition of carefully sited signage and wayfinding can play an important role in ensuring Croydon’s streets and footways are safe, accessible and legible. Elements of signage and wayfinding can range from road traffic signs and street name plates to “A” Boards and other temporary signage.

However, overuse, inappropriate siting and outdated information or signage can result in street clutter, can detract from the quality of the public realm and can confuse wayfinding and attract graffiti.
GENERAL GUIDELINES
• Signs and Wayfinding should only be permitted when a strong justification for their need is provided.
• To reduce the possibility of creating clutter and avoid ‘sign fatigue’ careful consideration should be given to the location of signs. The rule of ‘Less is More’ should be applied.
• All signage delivered by the Council should follow Croydon’s corporate branding.
• Consideration should also be given to ensuring that new or replacement signs are discrete in size whilst effective and legible.
• Whenever possible preference will be given to the use of reflective rather than illuminated signs.
• Where it is necessary to have internally illuminated signs, consideration should be given to combining signs with lighting columns or to locate signs on an existing illuminated post.
• The use of new posts to erect new signs will require strong justification.
• In order to reduce street clutter, wherever possible, signs should be redesigned to combine new with existing ones. The street lighting columns’ attachment protocol provides some opportunity to mount items to lighting columns.
• In areas such as the Croydon Opportunity Area, District Centres preference will be given to implementing Legible London wayfinding signs.
• The rear of signs, posts and backing boards should be colour co-ordinated in black to match other street furniture.
• Signage should be securely fixed.
STREET NAME PLATES
• When proposing new street name plates the Council should always be consulted.
• Preference will be given to street name plates being located on buildings.
• Where this is not possible, name plates should be mounted on walls and other boundary structures, subject to the necessary consents.
• To aid wayfinding and ensure street name plates are easy to read, they should be located in close proximity to street corners.
• Where name plates have been mounted on posts, with the exception of those located within the TLRN, the posts should be black and not extend too far above the name plate.
• The design of street name plates should consist of black lettering on a white background. To aid wayfinding a postal code and/or an indication of building numbers may also be included.
• Historic street name plates (for example pre-1965 Metropolitan Borough name plates) should be preserved wherever possible.
• The font and color scheme of all new street name plates should match existing ones.

TRAFFIC SIGNS
• Traffic signals should be determined by Transport for London.
• To minimise the number of signals required, wherever possible, the design of junctions should be kept as simple as possible.
• The Council will seek to use the smallest size legal traffic signal head that technology allows.
• Traffic signs will be lit in accordance with Traffic Regulations.
• The use of cranked signal poles will be avoided and will only be used as a last resort in areas where footway space is restricted.
• Opportunities should be sought to incorporate more than one sign on each post.
• Preference will be given for traffic signs to be mounted on existing street furniture rather than install an additional post.

DIRECTIONAL SIGNAGE – LEGIBLE LONDON
• All map based directional signs located within Croydon Opportunity Area and District Centres will conform to TfL’s Legible London wayfinding and signage scheme.
• Legible London signage should be included on public realm components of private developments in Croydon Opportunity Area.
• Finger posts outside this area should be black and in keeping with the character of the area. They should be located within the street furniture zone or in a location where they do not obstruct the footway and, in areas of high pedestrian flow.
• Historic finger posts and way markers should be retained, restored and maintained.
• Redundant directional signage should be removed.

ADVERTISING
• Preference will be given to advertising which is integrated into bus shelter panels.
• The Council will discourage advertising on footways within high footfall areas.
• Where “A” boards have been permitted, this should be limited to only 1 per premises and an unobstructed footway width.
• “A” boards should be located where they do not block the footway, for example located on a forecourt close to the building line, or within the allocated street furniture zone.
• Preference will be given to integrating signage into premises frontages rather than the use of “A” boards.
WELCOME SIGNS & INFORMATION BOARDS
- New welcome signs will only be permitted if integrated in urban landscape e.g. public art.
- Where they have been permitted they should coordinate with surrounding street furniture and be coloured black.
- Information boards should be in a style that co-ordinates with the style of the adjacent street furniture.
- Where permitted ‘welcome’ signs and Information boards should be located in areas where they will not obstruct the footway.
- Historic information boards should be retained, restored and maintained.
- Enforcement will be taken to eliminate ‘A’ boards in Conservation Areas, Croydon opportunity Area, District and Local Centres.

Information board as public art, City of London
Selsdon Clock
Decorative house plate Wellesley Road, Croydon
<table>
<thead>
<tr>
<th>SIGNAGE AND WAYFINDING</th>
<th>COA</th>
<th>DISTRICT &amp; LOCAL CENTRES</th>
<th>BOROUGH -WIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legible London Wayfinding Signs (includes map based liths, finger posts, and wall mounted units)</td>
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<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>Retention of historic signs &amp; information boards</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Street name plates mounted on buildings or boundary structures where possible</td>
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<td>✓</td>
</tr>
<tr>
<td>Traffic Signs (with black backing boards)</td>
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<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Advertising – “A” Boards (only permitted where minimum of 1.2m clear footway width is provided and only 1 per premises)</td>
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<td>✓</td>
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</tr>
<tr>
<td>‘Welcome to’ Signs</td>
<td>×</td>
<td>×</td>
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</tr>
<tr>
<td>Information Boards</td>
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<td>✓</td>
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</tbody>
</table>
3.4 TREES AND SOFT LANDSCAPING

Croydon is proud of a significant wealth of green spaces and parks, streets lined with beautiful trees, gardens and green corridors amongst a number of many other green assets. Trees and soft landscape form a fundamental part of Croydon’s public realm; enhancing sense of place and local identity, offering seasonal character, providing habitats for a rich array of urban and suburban wildlife and creating valuable summer shade for the public as well as for adjacent buildings.

It is critical that we look after the green spaces, trees and planting that already make up part of Croydon’s public realm, and important that we seek to introduce new trees and soft landscape in urban areas.
GENERAL GUIDELINES

• Refer to relevant British Standards and Croydon Council’s Supplementary Planning Guidance on the design of soft landscape and the specification of planting.

• Careful consideration should be given before any loss of soft landscape and trees, especially those protected by tree preservation orders and within Conservation Areas.

• Before any proposals to plant new trees are progressed, a full survey of underground services and utilities should be undertaken.

• Consideration should be given at the design stage to the future growth of any trees planted, especially when in proximity to lighting, signage, buildings, structures, street furniture or other trees. Regular pruning should be planned in locations where trees interact with signage, street lighting and CCTV and furniture.

• Consideration should be given to future maintenance requirements and costs associated with any proposed tree planting.

• New trees should be semi-mature specimens, 20-25mm girth with a clear stem of 2m.

• New trees should be planted in tree pits, not tree planters.

• Trees should be specified to suit and enhance the conditions, character and local distinctiveness of the area. Where possible varieties of native species will be planted as replacement trees.

• All proposed works and queries related to trees or proposals to plant new trees should be referred to Croydon Council.

• Any queries, works and issues in relation to the protection of private trees and trees under Tree Preservation Orders should be directed to Croydon Council.
DETAILED RECOMMENDATIONS
Trees should be specified to suit and enhance the conditions, character and local distinctiveness of the particular area. Native species are recommended borough wide in natural and semi-natural green areas.

The following trees are preferred when specifying trees for urban public realm schemes around the borough:
• Plantanus x Hispanica (London Plane)
• Acer Saccharum (Silver Maple)
• Acer campestre (Field Maple streetwise)
• Alnus glutinosa (Common Alder)
• Alnus cordata (Italian Alder)
• Betula pendula (native Birch)
• Carpinus betulus (Hornbeam)
• Corylus colurna (Turkish Hazel)
• Fraxinus angustifolia
• Liriodendron tulipifera (Tulip Tree)
• Prunus Avium ‘Plena’
• Prunus Snow Goose ‘Umineko’
• Prunus ‘Ichiyo’
• Pyrus calleryana ‘Chanticleer’.
• Sorbus aria (Whitebeam)
• Sorbus aucuparia Asplenifolia.

The following trees are preferred when specified in public realm areas of Croydon Opportunity Area, District and Local Centres:
• Plantanus x Hispanica (London Plane)
• Alnus glutinosa (Common Alder)
• Lime -Tilia Cordata ‘Greenspire’

Gravel and natural soft landscaping is preferred for tree surroundings Borough wide. Resin bound gravel should be used for tree surrounds in Croydon Opportunity Area.
<table>
<thead>
<tr>
<th>PLANTING</th>
<th>COA</th>
<th>DISTRICT &amp; LOCAL CENTRES</th>
<th>BOROUGH -WIDE</th>
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<td>Plantanus x Hispanica (London Plane)</td>
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<td>Acer Saccharum</td>
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<tr>
<td>Acer Campestre (Streetwise)</td>
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<td>Fraxinus Angustifolia</td>
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4.0 APPLYING THE GUIDE
To help ensure that new public realm in Croydon is constantly delivered and cared for, the following chapter establishes a series of processes for delivery, management and maintenance programmes.

It is recognised that greenspaces are managed through dedicated management plans. Their details are included in documents referenced in Chapter 5.
4.1 DELIVERY OF PUBLIC REALM

Croydon transforms its existing public realm and delivers new streets and spaces through its planning framework and coordinated programming. Improvements are delivered by the Council as well as by private developers and other public sector partners. Procedures have been put in place in order to ensure longevity, high quality, connectivity and coherence of public realm.
PROJECT INITIATION
Investments in the urban public realm are initiated either by private entities, other public agencies or by the Council.

Project in the borough’s greenspaces are identified and delivered through Risk Management and Biodiversity Programmes. Improvements on street trees are initiated and managed through Highway Tree Replacement Programme.
SHARING EXPERIENCE
In order to build up a continuously improving body of knowledge, Croydon Council will initiate a shared archive of public realm projects. Data will have a standard format and include visuals before and after implementation. Also key project management information will be retained.

PROJECT MANAGEMENT AND MAINTENANCE:
- Schemes initiated and delivered by Croydon Council will be managed and maintained by the Council unless negotiated otherwise.
- The cost of long term maintenance of a scheme needs to be estimated, when allocating capital funding for delivery.
- Schemes delivered by private parties will be managed and maintained by these parties unless adapted by the Council.
4.2 MANAGEMENT AND MAINTENANCE OF PUBLIC REALM

The management and maintenance of Croydon’s public realm is fundamental to its success. Consideration of future management and maintenance should be at the heart of all public realm projects. This helps engender and communicate a sense of civic pride and belonging.
GENERAL GUIDELINES

• For public highway, new schemes will need to be designed so that they are consistent with Croydon Council’s management and maintenance regime.

• For parks and greenspaces including natural and semi-natural landscapes a site Management Plan of maintenance and development schemes will be designed so that they provide appropriate positive outcomes for users, play value, biodiversity and formal and informal recreation.

• Consideration should be given to the opportunity schemes provide to make future savings on maintenance and management costs.

• Consideration should be given to storage of materials for future repair and replacement works.

• Opportunities should be explored for including in schemes supporting income-generating activities that could assist supplement management and maintenance budgets.

• For schemes in Croydon Opportunity Area, local and district centres, a stepped change in the quality of public realm will be matched by an enhanced and dedicated management and maintenance regime that will ensure that the highest standards are met and maintained.

DESIGNED FOR SUSTAINABILITY

• Materials and construction methods should be designed to ensure durability and ease of cleaning. Where possible, self-cleaning materials should be used.

• The lifetime costs of any public realm scheme need to be identified and considered satisfactory by the Council before any investment decision is made.

• Costs of management and maintenance regimes need to be understood and
secured in advance of new schemes being implemented.

- The teams responsible for management and maintenance of public realm are integral to the design of any new scheme.
- Durability, longevity and future management and maintenance should be a fundamental consideration in specification of all materials.
- Consideration should be given to the maintenance and management of highways, footways and carriageways in all seasons and weather conditions.
- Management of vegetation for ecological / sustainability purposes as well as resourcing, including grass cutting, weeding and planting should be considered as part of the design process.
- Tree maintenance including thinning and periodic replacement should be considered as part of the design process.
- The type of impact absorbing surface in play areas should take account of maintenance requirements. Loose fill material should be used only where daily maintenance is available.
- Measures that reduce litter, and ease of litter removal, including removal of chewing gum, should be considered as part of the design process.
- Minimising the potential for graffiti, flytipping, vermin, illegal advertising including A-boards and flyposting should be considered as part of the design process.
- Natural surveillance, reduce the need for CCTV and an open, diverse and unintimidating public realm should be promoted through the design of the scheme.
SHARED RESPONSIBILITIES
• Schemes on private land will be required to establish their own maintenance management regimes that meet necessary minimum standards.
• Opportunities for community and third party funding, management and maintenance of spaces should be explored.
• Wherever possible cohesive public realm schemes will be delivered, including extension to private forecourts. management and maintenance responsibilities will remain with the land owner unless confirmed otherwise.
• Future running costs of activities and uses envisaged to enliven and activate the public realm such as markets, cafes, street performance stages and potential funding mechanisms should be considered.

MAINTENANCE ROUTINE
• Future maintenance of street signs including cleaning, repair and replacement, either due to damage or to keep information up to date.
• Special consideration should be given to how materials will withstand regular cleaning and periodic deep cleaning.
• When power washing is applied on paving, the process should include reinstatement of joints if required.
• Consideration should be given to any scheduled and likely future streetworks.
• Future re-application and changes to road markings should be considered.
4.3 WHOLE LIFE COSTING

Whole life costing seeks to determine the total cost of ownership of an asset. It involves a structured approach to identify the direct and indirect costs that may occur during its lifecycle. It provides a basis for comparing alternative capital investment strategies in order to identify the most economically advantageous option over a defined period. A whole life cost approach ensures that consideration is given to the maintenance requirements throughout the lifecycle as well as the initial investment install the new asset or upgraded street environment.

A robust whole life costing methodology should be used when designing schemes or specifying any materials for the public realm.
THE APPROACH
This ensures that the most beneficial treatments are applied at the most opportune time in order to maximise value. The benefits of adopting a whole life costing approach are:
• It provides a mechanism to evaluate competing maintenance options over a defined period of time.
• It ensures an increased awareness of the life-cycle costs of different maintenance options.
• It enables the demonstration of the long-term performance and economic implications of alternative treatment strategies and funding levels.

By basing investment decisions on a whole life costing approach, those responsible for designing and delivery schemes can demonstrate an integrated approach to long term value for money benefits.

THE PROCESS

There are six elements to whole life costing:
• Determine the cost of initial installation including material, plant and labour. For footways this would look at capital cost of
different paving options. For street furniture this would seek the total cost of placing an element in the street scene.

- Determine preferred maintenance strategy. Looking at maintenance costs and intervention option over agreed asset lifecycle.
- Determine supplementary costs. Examples such as cleaning footway surfaces, emptying bins all have incidental revenue cost to ownership.
- Estimate risk factor and major refresh costs.
- Estimate the cost of disposal and possible savings or revenue generation through reuse or recycling.
- Calculate the total cost of ownership accross the agree lifecycle time base and assess for the best whole life solution.

From these calculations a robust process is in place to fully understand the cost of ownership of new assets and ensure monies are available to maintain the expected standards.
5.0
KEY REFERENCES
GENERAL REFERENCES
All schemes should conform relevant British Standards and overarching national legislation. At the time of publication the following documents create framework for public realm improvements in Croydon:

- Croydon Local Plan (Core Strategy) 2012; http://www.croydon.gov.uk/planningandregeneration/croydons-planning-policy-framework/core-strategy/
- Supplementary Planning Document No3: Designing for Community Safety; http://www.croydon.gov.uk/planningandregeneration/croydons-planning-policy-framework/adoptedspds
- Supplementary Planning Guidance No12: Landscape Design; http://www.croydon.gov.uk/planningandregeneration/croydons-planning-policy-framework/spgs/supplementary
- Homes and Communities Agency; Urban Design Principles, Urban Design Compendium (UDC1); http://www.
Homes and Communities Agency; Delivering Quality Places - Urban Design Compendium (UDC2); http://www.homesandcommunities.co.uk/urban-design-compendium?page_id=5542&page=179

Better Streets

DETAILED REFERENCES:

Accessibility

• Inclusive Design Policy 7.2 of the London Plan 2011
• Designing Out Crime Policy 7.3 of the London Plan 2011
• Department for Transport, Local Transport Note 1/11 October 2011; http://www.dft.gov.uk/publications/local-transport-notes
Sustainability
• *The Mayor of London’s Green Procurement Code*; available on: http://www.greenprocurementcode.co.uk/
• *The Interim Code of Practice for Sustainable Drainage Systems*; http://www.ciria.org.uk/suds
• Local United; *Community-led Reuse of Resources*; http://www.nef.org.uk/communities/documents/Local_United_Reuse_Of_Resources_Diffusion_Pack_Apr2011c.pdf
• Institution of Civil Engineers, *Demolition Protocol 2008*; http://www.ice.org.uk/knowledge/specialist_waste_board.aspand
• Reuse It Yourself network: http://www.reiy.net
Play

Trees and soft landscaping:
• *Code of practice for general landscape operations (excluding hard surfaces):* British Standard 4428;

Signage and wayfinding: