May 2024

# HOUNSLOW CHARACTER, SUSTAINABILITY AND DESIGN CODES SPD

## PART A2 COMMON CONSIDERATIONS

London Borough of Hounslow

Allies and Morrison
Urban Practitioners

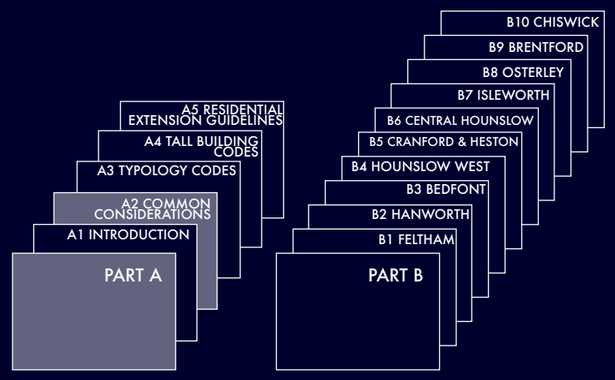
# A2 COMMON CONSIDERATIONS FOR ALL SITES

**Document structure**

This Character, Sustainability and Design Codes SPD is comprised of the following parts;

Part A: Introduction & Design Codes
Part B: Places

Within each part, there are individual chapters that must be opened separately to view. Use this diagram to help navigate the structure of the Character, Sustainability and Design Codes SPD.





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# Introducing common considerations & How to use this guidance

A2.1 Part A2 sets out common considerations and design guidance which applies to all site types, regardless of size or context, in relation to national design guidance.

A2.2 The common considerations are based on the Ten Characteristics of Well Designed Places featured in the National Design Guide (2019), which cover all aspects concerning good planning and design. These characteristics present a holistic set of principles and criteria that Council officers will use as a benchmark to assess planning applications. Therefore, it is important for applicants to consider and address each of these categories directly through their design proposals.

A2.3 The ten characteristics cover a range of development opportunities (such as infill, new-build or retrofit) at a number of spatial scales, from small and infill sites to major regeneration sites and Opportunity Areas. Further information on how the ten characteristics can be incorporated into new developments is set out in the National Model Design Code (2021).

A2.4 When embedding the common considerations into the design of new developments, particular attention should be paid to sustainability. Fig A2.2 displays a sustainable design journey; setting out how sustainability principles should be embedded into each stage of the design process to create developments that are zero carbon and adapted to a changing climate. The common considerations relevant to each stage are identified; some of these are associated with more than one stage. Design guidance related to building fabric and services (design stage 3) is contained within the Climate Change Mitigation and Adaptation SPD (see Fig A2.3 and A2.4).

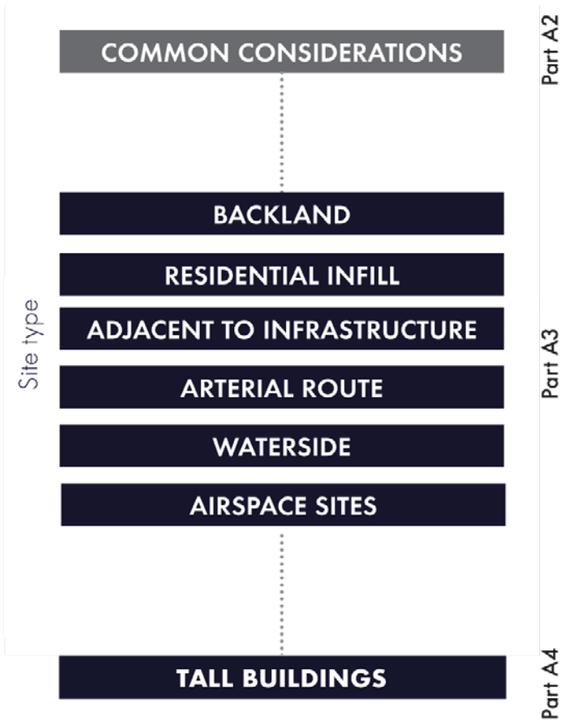



Fig A2.1 **The Ten Characteristics of Well-Designed Places**

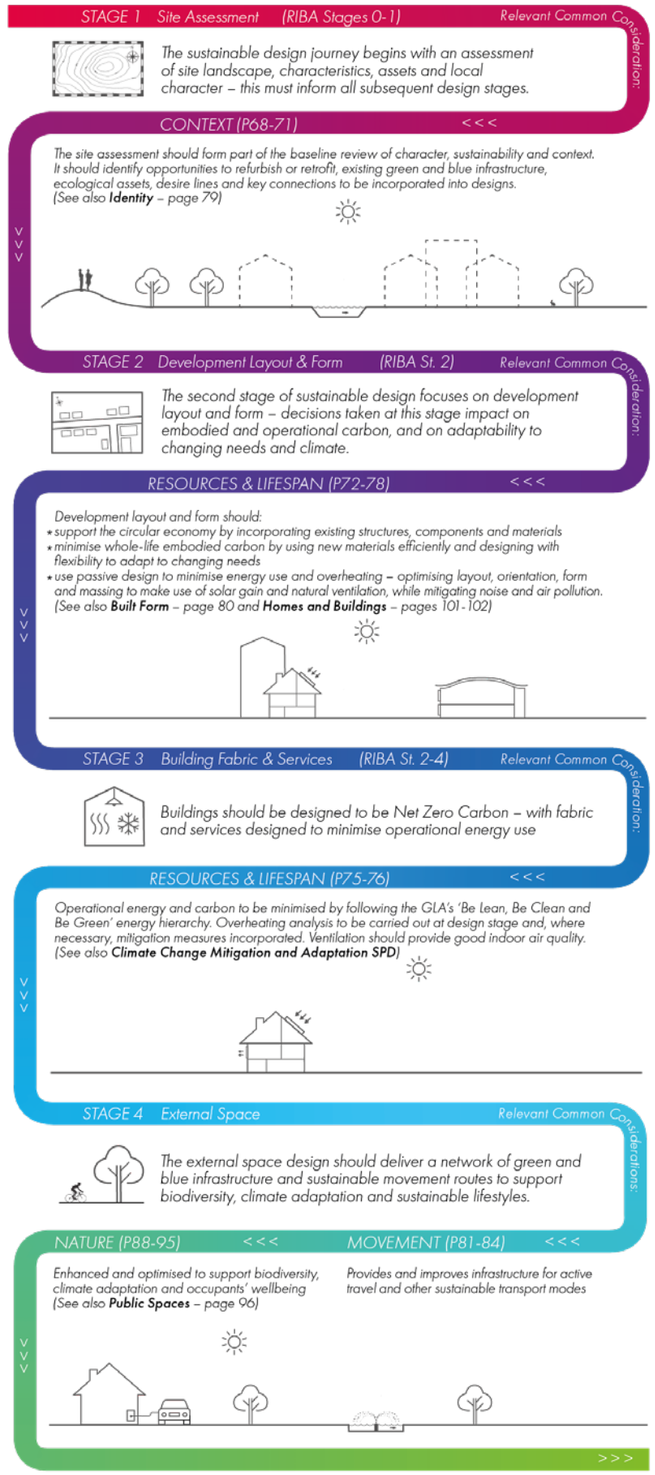



Fig A2.2 **Common Considerations in the Sustainable Design Journey**

A2.5 Following a consideration of Part A2 and the relevant Part B, the designer should look to part A3. Part A3 organises and classifies all potential sites according to one of six overarching site types which possess typical conditions that recur across the Borough. If the potential development on a site will contain tall buildings, then Part A4 should also be referred to.

A26 Design guidance and codes have been developed for common considerations and for each site type or typology. The design codes are based on best practice and reflect the Council's aspirations and expectations of good quality design.

A27 The design guidance and codes are not exhaustive and other useful material exists elsewhere - see useful references. The design guidance and codes are based on best practice and reflect the Council's aspirations and expectations of good quality design and achieve high levels of sustainable design.


Fig A2.3 **See Climate Change Mitigation and Adaptation SPD for more information on design Stage 3: Building Fabric & Services**

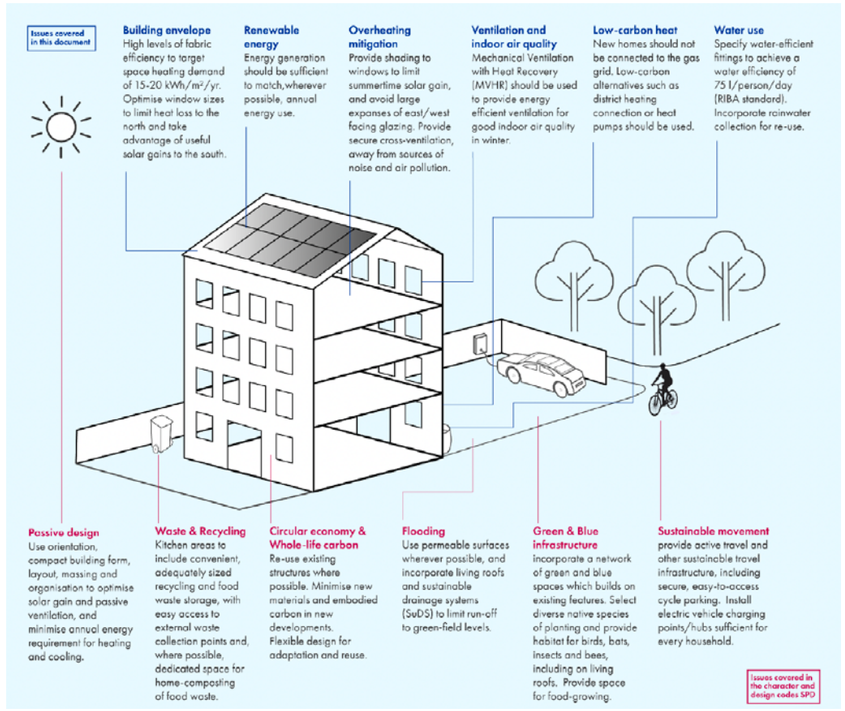



Fig A2.4 **The full range of sustainability issues which need to be considered in new developments are identified in Figure A2.4. The items in blue along the top are those relating to Design Stage 3 (Building Fabric & Services), which are covered in detail in the Climate Change Mitigation and Adaptation SPD. Along the bottom, in red, are the wider aspects of sustainable design, relating to Design Stages 1, 2, and 4 (covering development layout, orientation, form and the design of its external environment), which are explored in detail in this document.**

A2.8 The guidance and codes build on and complement the Borough design principles established in Part A1.

A2.9 The design codes are not exhaustive and other useful material exists elsewhere - see useful references. The guidance and parameters in this document are based on certain relationships between a site and its surroundings, creating the basis for proposals that are responsive to their setting, protect and enhance local character and amenity.

A2.10 Individual design codes should not be adopted in isolation nor do they guarantee planning consent. These codes have been prepared to add clarity and confidence to good growth. They do not represent a pre-determination of Development Management decisions, with each site and proposal judged on a case-by-case basis.

A2.11 All proposals will need to be developed in accordance with the policies in the London Plan, adopted Hounslow Local Plan and any emerging policies. Where proposals do not comply with design codes, applicants will need to provide robust justification. Applicants will need to demonstrate how the scheme meets exceptional design standards and does not adversely impact the local character nor compromise the privacy and amenity of neighbouring properties.

### Key policies and guidance

- National Design Guide (2019)
- National Model Design Code (2021)
- LB Hounslow Local Plan
- Climate Change Mitigation and Adaptation SPD (emerging)

# Context

## Baseline review: character, sustainability and context

A2.12 Every site in Hounslow sits within a distinctive local context and character and this should be considered from the start to inform the initial approach and evolution of proposals, as emphasised in the Borough-wide principles.

A2.13 In addition, it is essential for developers to consider the future sustainability of their scheme. This will require the consideration of the particular landscape and ecological assets present on a given site. This is the first step in integrating sustainable design principles within development

A2.14 Design proposals should begin with a baseline analysis of the local context, looking beyond the site red line and taking account of a minimum 400m radius (5 minute walk) for small sites (<0.25 Ha) and beyond 800m for larger sites. Baseline analysis should include:

- Landscape, existing green and blue infrastructure and public realm networks nearby and the presence of any ecological assets (trees, hedgerows, woodland, grasslands, wetlands, meadowland etc) and floodplains, local street hierarchy, routes, connections and desire lines;
- Movement analysis, including local street hierarchy, routes, connections and desire lines;
- Urban grain - whether fine or coarse;
- Block structure and the pattern of fronts and backs;
- Site orientation and topography, and how this influences solar gain, ventilation, and the impact of sources of air and noise pollution;
- Presence of existing buildings and other development or infrastructure on site (refurbishment and re-purposing must be explored first);
- Scale, height and massing, views and legibility;
- Use patterns and commercial hierarchy;
- Surrounding building types, palette and materials;
- The historic environment: necessitating consideration of heritage significance, irrespective of proximity.

A2.15 Information within this SPD and the Hounslow Characterisation and Growth Study can help to provide a starting point for baseline studies for schemes, but applicants will need to build on this further to show how they have considered the site surroundings in more detail. The breadth and depth of research should be proportionate to the size of the proposal.

## Positive response to context

A2.16 To draw value from this analysis, proposals should demonstrate how they respond to the local features and distinctiveness of the neighbourhood and aim to enhance these. Proposals should demonstrate how they have been influenced by constraints and opportunities.

A2.17 The starting point for proposals should be the consideration of how a building/buildings can contribute positively to a particular setting. Design parameters should be developed that communicate this approach. Designs should avoid establishing a simple mass as a starting point and merely subtracting from this according to local constraints. The most successful design and development outcomes will be delivered by engaging landscape and ecology consultants at an early stage.

## Design evolution and pre-application liaison

A2.18 For planning applications, it is strongly advised that pre-application engagement is undertaken early in the design process. Ideally these would be focused around the following stages:

1. Development and design principles: to present the analysis, response and building concept

and seek feedback and a steer from planning officers. Where sites have a potential to affect designated heritage assets, applicants are encouraged to liaise at pre-application stage with Historic England. This will aid a smoother process through the planning approvals system.

2. Approach to sustainable building design: to present the how sustainability is embedded in design principles.
3. Detailed design: Present the scheme evolution showing how different options were considered throughout the design process, why options were dismissed and how the scheme has improved. Present design parameters for the site which are based on the context analysis and have informed the scheme.

A2.19 Applicants are encouraged to submit written and graphic information prior to pre-application meetings to explain their proposals in as much detail as possible. This material could include:

- Location plan
- Block plan
- Green and blue infrastructure/habitat survey work
- Early life carbon analysis (for referable schemes)
- Opportunities for retrofit, reuse and refurbishment
- Existing and proposed elevations
- Existing and proposed floor plans
- Existing and proposed sections
- Existing and proposed roof plans
- Maximum envelope plan
- 3D visualisation of the proposal in its context
- Land use class plan
- Passive design strategy
- Daylight, sunlight and overshadowing study
- Development capacity schedule

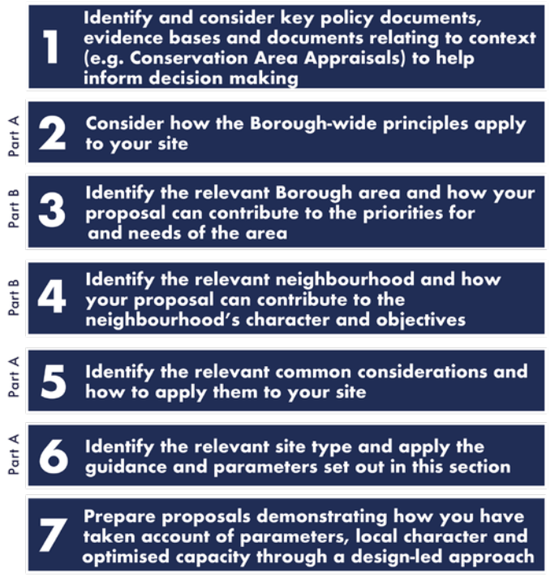



Fig A2.5 **Pre-application checklist for applicants**

## Design and access statement

A2.20 The Design and Access Statement (DAS) is a supporting document to a planning application. These documents provide a framework for applicants to explain how a proposed development is a suitable response to the site and its wider context, and demonstrate that it can be adequately accessed by future users.

A2.21 The measures set out above will help to make applications more consistent in terms of submission materials, and support officers in a quicker decision-making process.

A2.22 Applicants are strongly encouraged to employ the skills of an experienced and knowledgeable design team, and should not rely on non-accredited consultants. A skilled architect and design team will be able to steer the project ably through the principles required by this document. Applicants are encouraged to produce pre-application information in the form of a draft DAS to help in building the picture of the context and rationale for their proposal.

A2.23 To embed sustainable design, the design team may require competencies in ecology, heritage, whole-life carbon, energy planning, circular economy and passive design.

A2.24 The role of Hounslow's Design Review Panel is critical in the borough, and applicants are encouraged to make use of this resource and the opportunity to refine proposals.

## Full Planning Application Checklist

A2.25 This checklist covers the information required by LB Hounslow to be submitted to accompany a Full Planning Application (Major and Minor). A key requirement of major planning applications will be to provide Health Impact Assessments. For more information about the these assessments, please refer to the NHS London Healthy Urban Development's Rapid Health Impact Assessment Tool.

A2.26 The Council are due to update the validation checklist; this update is likely to include a sustainability checklist.

## Permitted development and prior approvals

A2.27 Permitted development does not require a planning application to be submitted. However, to qualify for permitted development, each 'Class' in the legislation has associated limitations and conditions that proposals must comply with.

A2.28 For some Classes, an application must be submitted to the local authority for Prior Approval and LB Hounslow will consider the proposals, their likely impacts on the local context and mitigation measures to address these.

A2.29 Design guidance within this document applies to applications for Prior Approval as it does for general planning applications and is intended to be a design tool for all landowners, developers and designers wishing to contribute positively to Hounslow's built environment.

## Historic assessment

- Applicants are required to demonstrate an in-depth understanding of a site and local area's context and history, undertaken as part of the baseline analysis and respond to the relevant Conservation Area Appraisal. Some properties in a conservation area may be subject to an Article 4 Direction .
- Historic assessment can identify and contextualise features of a site (including designated and undesignated assets and achaeological remains) that are characteristic to a local area or informed by its previous use and form.
- These features can be reinterpreted through the design process and used to inform proposals, such as reinstating historic grain, streets, landscapes, materials and place names. Archaeological remains can be used to underpin place-shaping and can inform future proposals.
- A site's heritage should not form part of a pastiche design response but rather an evolution of character that draws a link between the past and present.

## Heritage assets

- All development should take account of local heritage assets such as Conservation Areas, Statutory Listed Buildings, Locally Listed Buildings, Scheduled Monuments, Archaeological Priority Areas, other national or local designations and undesignated heritage assets.
- Development should respond positively to designated and undesignated assets wherever possible by protecting and enhancing their setting through careful consideration of scale, massing and choice of materials. Development should also consider physical impacts on undesignated and designated archaeological remains.
- The presence of heritage assets should be seen as a positive opportunity to further enrich local character, using historic vernacular and form as inspiration for the design process.
- Local views are particularly important in Hounslow owing to its riverside setting. Proposals that are likely to impact on designated views

should include a Townscape and Visual Impact Assessment in the application.

- Hounslow lies adjacent to Royal Botanic Gardens, Kew World Heritage Site (WHS). Applications that may impact the Outstanding Universal Value (OUV) of this WHS will be required to refer to the relevant Development Plan policy, the latest Royal Botanic Gardens, Kew World Heritage Site Management Plan and the UNESCO Guidance and Toolkit for Impact Assessments in a World Heritage Context.

### Green and Blue Infrastructure

- All development should survey green and blue infrastructure, including biodiversity, to form the basis for developing masterplan concepts that integrate existing assets into a comprehensive and good quality GI network. It should recognise that even where individual features are not of good quality (e.g some Category C trees), they may still make an important contribution to the site's green infrastructure. The survey should include consideration of:
- Green corridor connections to existing green spaces on the site or in neighbouring areas.
- Using existing and new green infrastructure- especially trees- to help buildings and surrounding areas to stay cool in the summer months, factoring in where shade will need to land in summer months and the space needed for planting that shade.
- Aligning and integrating the green infrastructure network with sustainable drainage, active travel routes which are convenient, pleasant, safe, accessible and useful and with other public realm. If a heat network is to be considered the necessity of a network of underground pipes to distribute heat can be integrated into the GI network, reducing installation and maintenance costs.
- Making use of existing site water features and natural drainage in the design of SuDS and the provision of water features. Nature-based drainage and flood risk solutions should be considered from conceptual design onwards, incorporating and enhancing existing features such as ephemeral and permanent ponds.
- Improving safe public access to and along existing blue infrastructure, including waterways, and canals.

### Maintaining Design Quality through to Construction

A2.30 In accordance with London Plan Policy D4(F), Hounslow will use Architect Retention Clauses to seek to retain design teams through the life of projects to ensure design quality and integrity is maintained through to construction.

A2.31 The specific approach will vary depending on the complexity and specifics of individual projects- for instance on hybrid applications, the application architect could be retained for the detailed phase and as the masterplan architect for the duration of the project. Other architects could be brought in for the detail of other phases subject to LPA approval.

A2.32 Value engineering (also known as value management) is the act of re-examining drawings, specifications, and product recommendations to find alternative, lower-priced solutions. The goal is to reduce the project's initial cost without sacrificing quality and functionality. This should not be confused with cost-cutting to increase profits, but can be a legitimate response to the current rise in material building costs and enable a scheme to go ahead when the financial climate worsens.

A2.33 Value engineering is a normal part of any building project. However, successful projects occur when a scheme is designed alongside robust cost consideration, is realistic about deliverability and is compliant with building regulations. Project teams should find ways throughout the design process to reduce costs, or plan and anticipate the need to change, rather than reacting to unforeseen costs during construction, which often reduces built quality.

**Relevant policies and guidance**

- LB Hounslow Local Plan – Policy CC4 Heritage
- London Plan (2021) Policies HC1, HC3, HC4, HC5, D4
- Historic England Understanding Place: Historic Area Assessments (2017)
- LB Hounslow Climate Mitigation and Adaptation SPD (emerging)



# Resources and lifespan

### Sustainable design

A2.34 Sustainable building design is about creating high-quality buildings and spaces which maximise the positive contribution to their context, avoid harmful impacts to the environment and minimise the depletion of resources. Developments need to be designed with the changing climate, to cope with changes happening in the climate now and to be further adaptable to future extremes. The Council will seek high standards of sustainability from new development, change of use, conversions and refurbishments.

A2.35 In addition to environmental sustainability, good building design should contribute positively to the social and economic vibrancy of existing neighbourhoods.

A2.36 Development should consider sustainable design principles from the very earliest stages of the design process as the potential environmental impacts are very significant.

A2.37 Circular economy thinking should be embedded from the outset, and a Circular Economy Statement provided for referrable schemes, per London Plan Policy S17. This includes looking at retrofit and re-use options for existing structures as a first step through to consideration of potential alternative uses for new build structures in the long term. We expect development to adopt the following circular economy hierarchy:

- Retain- typically the lowest carbon option, should be the starting point
- Refit and refurbish- prioritise before substantial demolition
- Reclaim/Reuse- on site/locally is best; otherwise off-site
- Re-manufacture- what cannot be re-used
- Recycle- should be the final option.

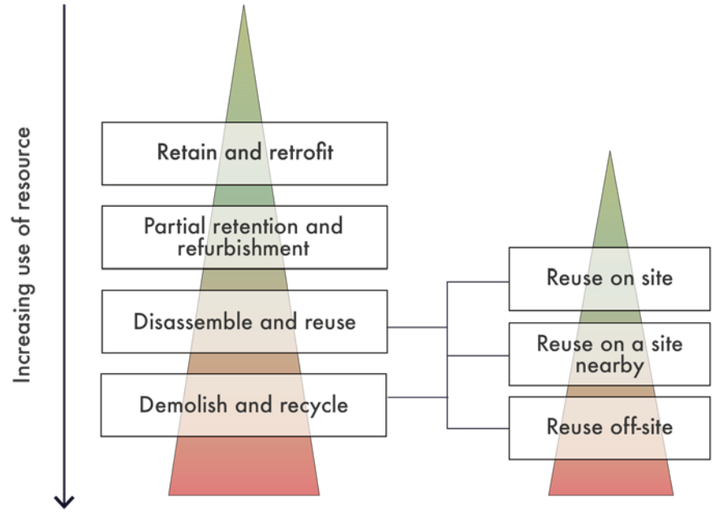



Fig A2.6 Decision tree for existing buildings/structures (adapted from London Plan fig 3.2, see also CES guidance sections 2.3-2.5

**Key policies and guidance**

- Mayor's Sustainable Design and Construction Supplementary Planning Guidance (SPG) (April 2014)
- WLCN-LETI, Net-Zero Carbon Buildings: www.leti.london/carbonalignment

**Key policies and guidance**

- Easi Guide to Passivhaus Design (2020)
- RIBA 2030 Climate Challenge (2021)
- LBH Green and Blue Infrastructure Strategy
- LBH Climate Change Mitigation and Adaption SPD (emerging)

## First principles

A238 Before considering any design concepts and solutions for a site, the first step is to take into account all opportunities to re-use or adapt the existing structures on site. This will almost always be the most sustainable solution. Opportunities to refurbish, adapt or extend should be thoroughly explored before any consideration of demolition and new build is made. Where re-use of the structure is deemed impossible, the re-use of the materials embodied in the existing structures will be strongly encouraged.

A239 For any new-build design, on-site passive design strategies must be considered from the outset. Passive or fabric first design uses orientation, topography, layout, fabric and form to eliminate or reduce the demand for mechanical heating, cooling, ventilation and lighting. Passive design strategies should be employed to:

- Understand the local climatic context in which a proposed residential building will be situated.
- Optimise orientation and form to control solar gains to minimise energy needed for heating, maximise daylighting and avoid overheating in summer.
- Manipulate building form and fabric to facilitate natural ventilation.
- Make effective use of thermal mass to help reduce peak internal temperatures.

## Whole life carbon approach

A240 This covers the operational carbon during a building's lifespan and also the embodied carbon associated with site preparation, construction and end of life demolition. Designers should take the steps set out in this section to ensure that they have sufficiently integrated a sustainable and whole life carbon approach to the energy hierarchy, efficiency and embodied carbon of new build residential buildings.

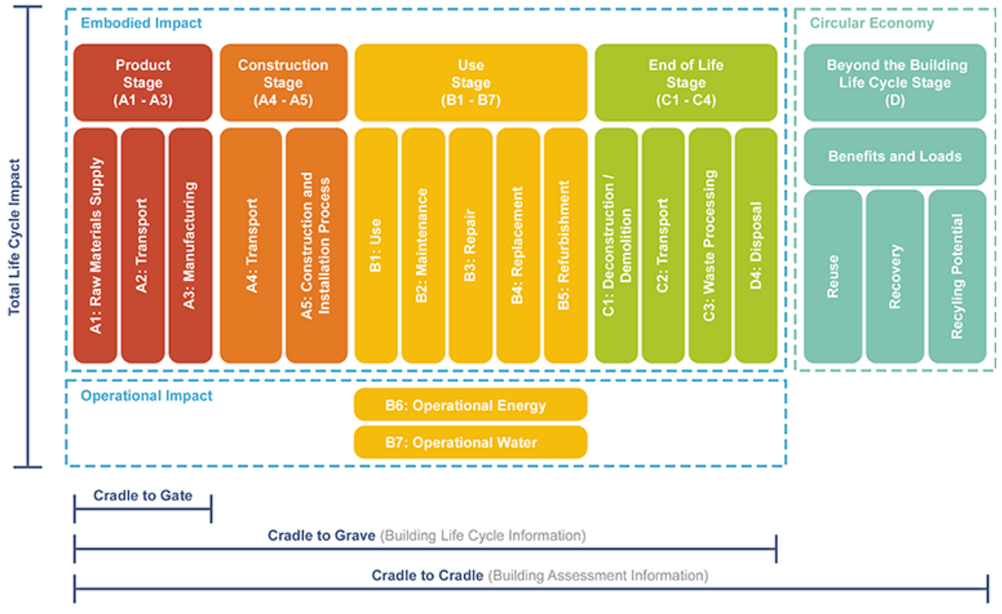



Fig A2.7 Modular reporting structure of BS EN 15978 as used in RICS PS

## Passive Design

A241 Proposals should seek to incorporate the ten principles of good Passive and zero-carbon design illustrated in the Easi Guide to Passivhaus Design; and

A242 Consider the ratio of external surface area to net internal floor area (form factor) in delivering compact building form to maximise energy efficiency. Form factor values between or less than 0.8 - 1.2 are considered best practice, however, if simplicity of form is pursued above all other considerations, it can lead to fewer cores, single aspect units in residential homes, reduced outdoor space and less architectural interest. A balanced approach is therefore required to ensure holistic solutions are achieved, including:

- Dual-aspect residential units
- Provision of ground floor outdoor space for residents without the use of stepped roofs, overhangs and inset balconies,
- Avoid vertical interruptions to the structure,
- Ensure designs are visually interesting, using alternative approaches such as bay windows and recessed doors,
- Carefully consider detailing and the selection of high-quality materials.

A243 Consider building orientation and window placements to balance daylight, space heating demand and overheating risk. The optimum glazing ratios for the UK climate are up to 25% glazed on the southern elevation and no more than 20% on the east/west elevations and as little as possible on the northern elevation.

A244 Optimised shading can be used on glazing to control overheating:

- Where a south-facing window does not require opening, further shading can be implemented in the form of horizontal louvres. The louvres should be integrated into the overall facade and window design and should be designed in a manner that does not interfere with internal views and that allows for adequate cleaning and maintenance. The angle, depth and spacing of the louvres should be optimised to ensure maximum solar shading in summer while still maintaining good internal daylight/sunlight levels.
- East and west facing windows will also benefit from vertical shading elements such as fins or other projecting building elements that provide shading from eastern or western solar exposure. These should be positioned and designed in a manner that optimises solar shading in summer.
- Setting the window as far back as possible from the external face of the wall to provide additional shading in the form of deeper window reveals. This approach should be balanced against the anticipated heat loss resulting from increasing the exposed surface area of the building.
- Other external building elements can also provide shading: extruded window frames, carefully positioned projecting elements such balconies and carefully designed bespoke shading solutions such as window hoods or perforated screens and meshes (which can provide shading while permitting ventilation). Commercial schemes will often offer opportunities for optimised high-performing solutions such as shading devices designed utilising parametric principles. These can often greatly reduce the solar heat gain of a window.
- Where other shading devices are not possible, treating the window glass with ceramic frit can improve solar control performance. Ceramic frit placement should consider internal daylight and sunlight levels, internal views and the overall design of the building façades.

A245 Ensure sufficient shading provision to east, south and west façades, to minimise overheating risk and mechanical cooling

A246 For large residential sites, maximise dual aspect homes, to enhance cross ventilation and mitigate overheating.

## Energy Efficiency and Hierarchy

A247 Developers are encouraged to go beyond Development Plan requirements in order to be consistent with the borough's climate change target and climate emergency declaration.

A248 In order to maximise the reduction of operational greenhouse gas emissions and reduce demand on site, proposals should minimise the energy and infrastructure needed for heating and cooling by ensuring good thermal performance, with a highly insulated, airtight building fabric and reduced thermal bridging – e.g., by adopting recognised and successful fabric first approaches such as Passivhaus.

A249 Developers are advised to develop a whole building airtightness strategy to limit facade air leakage. Maximum leakage of 1 m3/h/m2 at 50Pa is considered best practice

A250 As per the Mayor's Energy Assessment LPG, developers will need to calculate and disclose the Energy Use Intensity (EUI) and space heating demand, to evaluate on-site energy efficiency measures. EUI of 35 kwh/m2 per year and Space Heating Demand of15 kwh/m2 per year are considered best practice.

A251 In order to achieve the required on site reduction of 35% beyond Building Regulations, developers should ensure that cooking, heating and hot water generation are efficient and clean, without the use of fossil fuels, while also minimising the risk of fuel poverty. Speak with the council early in the process to understand any local energy sources, including potential connections to existing or planned heat networks. Where District Heating is not viable, heat pumps will usually be the next best option. The LETI Heat Decision Tree (p. 76 of the LETI Climate Emergency Design Guide) can assist in choosing the most appropriate heating system.

A252 Developers should consider incorporating mechanical ventilation with heat recovery (MVHR), and waste water heat recovery (WWHR) to reclaim waste heat from both space and hot water heating systems.

A253 Maximise the use of on-site renewable energy to cover residual energy needs (including for plug-in loads).

A254 Consider how to include measures to reduce peaks in energy demand e.g. through energy storage options such as PV cell related water cylinders and include active demand responsive appliances such as PIR controls.

A255 Limit development loading on the electrical grid. An average 4 kW peak demand per unit achieves this.

A256 Where residual emissions remain, these are to be offset through a payment to the Council's Carbon Offset Fund, however offsetting should be understood as acceptable only as a last resort. For more information on Carbon Offsetting, please see relevant section in the Climate Change Mitigation and Adaption SPD.

A257 For existing building adaptation, the Council encourages land owners to take the opportunity to reduce operational carbon emissions when refurbishment work is undertaken. For guidance on refurbishment please see relevant section in the Climate Change Mitigation and Adaption SPD.

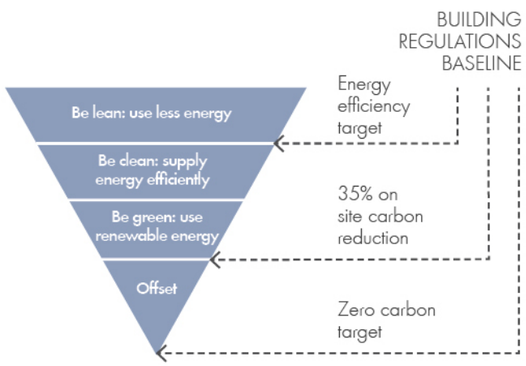



Fig A2.8 **The London Plan energy hierarchy standards and their relationship with Building Regulations. Hounslow standards seek to go beyond Building Regulations.**



## Overheating

A258 Overheating risk should be addressed first through the design of buildings. Major development proposals should demonstrate through an energy strategy how they will achieve this. For detailed guidance on the cooling hierarchy refer to guidance contained in the Council's Climate Change Mitigation and Adaptation SPD.

## Water

A259 The emerging Climate Change Mitigation and Adaptation contains guidance on reducing water use in development and information on internal consumption targets.

**Key policies and guidance**

- Chartered Institution of Building Services Engineers (CIBSE) Guidance Documents TM52 (non- domestic developments), TM59 (domestic developments), TM49.
- GLA Energy Planning Guidance
- LBH Climate Change Mitigation and Adaptation SPD (emerging)
- Mayor's Energy Assessment LPG

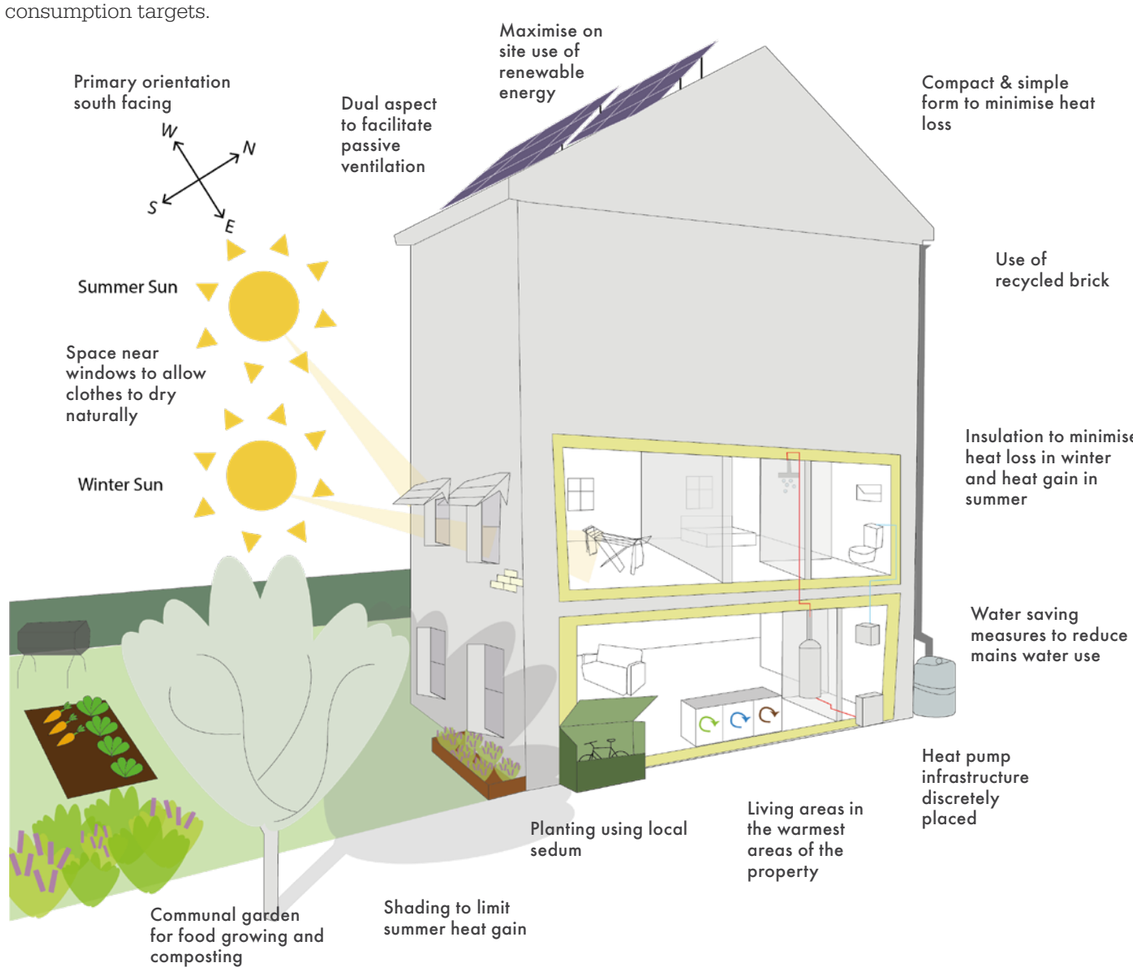



Fig A2.9 **Diagram showing elements of building design and retrofit to improve environmental performance and conserve resources.**

## Embodied carbon

A2.60 The Council encourages all development to investigate options to reduce life cycle emissions (including but not limited to, embodied carbon) in order to fully capture the carbon impact of a proposal and to achieve zero carbon development.. Applicants are encouraged to adopt the LETI Climate Emergency Design Guide and should;

A2.61 First consider retrofit of existing buildings or reuse of substructures / superstructures;

A2.62 Design buildings to be flexible so that they can adapt to users' needs over time with minimal re-fit, for example through internal reconfiguration or loft conversions in residential buildings;

A2.63 Consider how a building might adapt to a different use over a longer period and across retail, employment and residential uses;

A2.64 Limit excavation on site;

A2.65 Design and choose materials to limit embodied carbon. Using 30% from re-used sources is considered best practice, which can then themselves be re-used and recycled. Materials should be locally-sourced wherever possible to minimise transport emissions;

A2.66 Design 'light' structures to minimise the quantities of materials used and limit the need for repair and replacement. Substructures and superstructures account for 57% of small scale housing embodied carbon;

A2.67 Ensure longevity of materials to limit maintenance and replacement, repair and renewal over time. Mechanical and electrical services will typically need to be replaced every 20 years and so should be designed to allow easy recovery, reconditioning and reuse whilst also optimising performance and carbon emissions; and

A2.68 Manage waste produced on site sustainably and at the highest value: this includes construction, demolition & excavation waste, operation & municipal waste. This can be supported by adopting the Waste Hierarchy found in DEFRA Guidance;

A2.69 Provide Circular Economy Statements according to London Plan Policy SI7. Further guidance on Circular Economy Statements can be found in the GLA's Circular Economy Statments London Plan Guidance; and

A2.70 Comply with Hounslow's Local Plan existing policy EQ1 and EQ2 and any future update to these policies.

A2.71 The London Plan requires schemes referable to the Mayor to carry out a Whole Life Carbon (WLC) Assessment, however we aspire for all schemes to carry out a WLC Assessment and aim to achieve an up front embodied carbon target of that shown in the table (Fig. A2.12). Assessments should be undertaken both during the pre-application stage and after practical completion.

A2.72 Developments involving the change of use or conversion of an existing building will not be required to offset the carbon shortfall; this is to encourage the refurbishment of existing buildings. All development will be expected to maximise carbon savings on site towards the net-zero carbon target.

### Key policies and guidance

- LB Hounslow Local Plan – Policies EQ1/EQ2
- London Plan (2021) Policies SI2, SI3, SI4, SI7 and SI8
- LETI Climate Emergency Design Guide
- RICS Whole life carbon assessment for the built environment (2017)
- Due to the emerging nature of knowledge in this field, applicants should consult the latest guidance and technical toolkits available such as those by the UKGBC, RICS and the RIBA, as listed in Appendix 14 of the LETI Embodied Carbon Primer.
- For guidance on material selection see LETI Specification and Procurement Guide
- BREEAM Building Technical Standards
- GLA London Plan Guidance: Circular Economy Statements

## Modern methods of construction (MMC)

A2.73 Sustainable methods of construction should be considered at an early stage in the design process.

A2.74 Use MMC to limit carbon associated with transportation of materials from extraction to manufacturing to site and carbon associated with the construction and installation process; and

A2.75 Similarly MMC can be used to specify materials that can be re-used at the end of the building life. A 50% reuse rate is considered best practice, where this does not entail high embodied carbon emissions from transportation.

A2.76 Care should be taken that MMC does not result in bland architecture, single aspect units and difficulties in future adaptation.

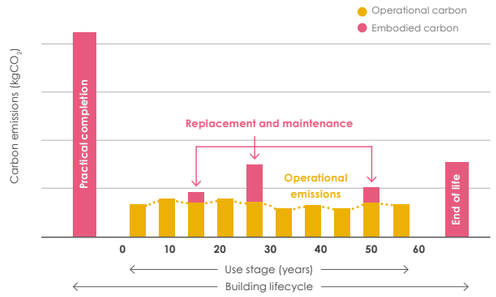



Fig A2.10 **The relationship between embodied energy and operational energy identified in the LETI climate emergency design guide.**

Fig A2.11 **Church Road, Leyton apartments heated through a large scale air source heat pump which feeds a communal ambient heat network © Osel Architecture**

| | Residential | Non-Residential |
|---|---|---|
| Best Practice 2020 | <500kg CO2/m2<br>30% materials from re-used sources<br>50% materials can be reused at end of life | <600 kg CO2/m2<br>30% materials from re-used sources<br>50% materials can be reused at end of life |
| Best Practice 2030 | <300 kg CO2/m2<br>50% materials from re-used sources<br>80% materials can be reused at end of life | <350 kg CO2/m2<br>50% materials from re-used sources<br>80% materials can be reused at end of life |
| Baseline | 800 kg CO2/m2 | 1000 kg CO2/m2 |

Fig A2.12 **Embodied Carbon Targets (LETI Climate Emergency Design Guide 2020)**

# Identity

## Placemaking

A2.77 An analysis of the local character and identity of the area must be undertaken to inform a characterful and place-specific proposal. Where a site has the potential to impact a Conservation Area, proposals should respond to the relevant Conservation Area Appraisals.

A2.78 Schemes should establish clear objectives or visions for the site beyond achieving a certain density of development. The placemaking vision that guides development should be made clear.

A2.79 Proposals should be rooted in a strong understanding of the area's socio-economic and cultural context. The site brief should draw on the cultural / social context of the area, and participation and engagement should be carried out early enough in the design process to genuinely influence the development proposals.

A2.80 All developments should invest in good quality materials and applications should include specifications for bricks and materials and studies for key details to ensure these are embedded in the proposal all the way through to construction.

### Key policies and guidance

- LB Hounslow Local Plan – Policies CC1 and CC2
- London Plan (2021) Policy D1

Fig A2.13 **Many of the borough's residential streets demonstrate how the attention to detail and the use high quality materials can support a strong and enduring identity. © Allies and Morrison**

Fig A2.14 **Civic buildings such as the new Council offices in Hounslow should be landmark features in the townscape. © Allies and Morrison**

# Built form

## Sustainable form

A2.81 Development proposals should be led by sustainability and landscape objectives, and the built form solution should emerge from this. It is recommended therefore that sustainability and landscape consultants are appointed at an early stage so these aspects can be fully considered rather than added on.

A2.82 Sustainability and passive design principles should strongly inform building form, orientation and form factor ratio (please see Resources section).

## Massing

A2.83 Early stage massing should be informed by daylight, sunlight and overshadowing concerns and the need to meet BRE requirements. Consideration at an early stage avoids the need to rethink designs once forms are fixed and then found to fail the test. This is particularly important for amenity spaces to ensure these are comfortable spaces that can be well used.

A2.84 Options for massing and the distribution of mass across the site should be tested iteratively throughout the development process. 3D models should be shared with officers to allow them to assess the impact of new development in the local context, in order to provide accurate feedback on the massing, scale and design of proposed development and understand the impact of proposals on heritage assets, views and neighbouring amenity. For major development applications and applications considered to have a significant impact on the townscape, models should be shared with planning officers during pre-application discussions and a final version should be submitted to support the planning application. Please refer to our webpage for more details on the requirements for 3D modelling.

A2.85 Design proposals must accommodate adequate separation distances, both with neighbouring properties and within developments. In general window to window distances between habitable rooms should be a minimum of 18m. In exceptional circumstances where there is no direct overlooking, lower separation distances may be acceptable. Balcony to balcony distances should be a minimum of 14-16m where they face each other.

A2.86 The location of plant (ASHPS, solar panels, lift overruns for example) should be considered and coordinated early enough in the design process to avoid amendments once planning has been submitted.

### Key policies and guidance

- LB Hounslow Local Plan – Policies SC3, SC4 and CC2
- London Plan (2021) Policies D1, D3 and D4
- Mayor of London Housing Design Standards LPG
- LETI Climate Emergency Design Guide

Fig A2.15 **Goldsmith Street, Norwich scheme demonstrates how passive design measures can deliver exceptional housing projects by Mikhail Riches © Tim Crocker**

# Movement

## Connectivity and sustainable transport

Proposals should:

A2.87 Demonstrate how they support the Mayor's or Transport for London's Vision Zero and the Healthy Streets Approach to deliver routes which are pleasant, safe and attractive to use, with benches, street trees and other green infrastructure, such that it becomes the default option for residents, including for children.

A2.88 Where new streets are proposed and enhancements are made to existing streets, the application should be supported by the Healthy Streets Check for Designers, available on TfL's website, and demonstrate how the Healthy Streets Indicators have been incorporated into the design.

A2.89 Facilitate carbon reduction and air quality improvement in relation to promotion of active and sustainable modes of travel, securing a modal shift away from reliance on motor vehicles.

A2.90 Prioritise Healthy Streets/Vision Zero through active travel and public transport connections by creating new foot and cycle routes that connect into existing networks, particularly those with access to public transport to contribute to walkable low-traffic neighbourhoods. Proposals must optimise their positive health and wellbeing impacts through designs which make walking and cycling attractive and actively encourage active travel and play. Sport England's Active Design Checklist provides guidance on how to incorporate active design principles into development.


Fig A2.16 10 Healthy Street Indicators. Source: Lucy Saunders / Transport for London

A2.91 Locating new development next to, and relying solely on, existing active travel infrastructure may not necessarily be satisfactory to justify a scheme's sustainability where the existing travel infrastructure does not meet current acceptable standards. Schemes may be required to contribute improvements to existing movement networks and public realm, such as footway widening or cycle lane upgrades and safety improvements.

A2.92 Where they are likely to generate significant amounts of vehicle movement, proposals will be required to submit a Healthy Streets Transport Assessment or Transport Statement and be supported by a Travel Plan. Travel plans are required for all major applications and will need to be approved in principle prior to determination, then approved in detail prior to occupation. Plans will be monitored to ensure developers deliver the specified actions.

A2.93 Consider site approach, access and location of entrances in relation to movement patterns and desire lines around and to and from the site.

A2.94 Allow ease of movement into and out of the site, particularly with regards to servicing and deliveries for mixed use schemes.

A2.95 Include provision of facilities for efficient deliveries and servicing, including provider agnostic parcel pick up/drop off facilities (e.g. locker banks). The location of servicing facilities must minimise/remove interaction with pedestrians, and be located so that delivery drivers do not have to make multiple trips to deliver within a development. Where such provision is required for the wider neighbourhood, facilities should also be accessible for non-residents.

A2.96 Consider co-locating short stay cycle parking and other micro-mobility sharing (e.g. e-bikes/ scooters, car clubs, EV charging), parcel delivery facilities with other infrastructure, including space for future services, to maximise their usefulness and convenience.

A2.97 Proposed delivery and servicing strategies should not compromise existing pedestrian and cycle movement.

A2.98 Create a legible movement hierarchy of primary and secondary routes that align with existing desire lines and movement patterns to maximise connectivity, minimise barriers to movement and provide good sight lines and visibility.

A2.99 Designs should ensure that vehicular access routes, entrances and servicing needs do not conflict with the ability to provide safe pedestrian and cycle routes and access. What works in terms of servicing is not always ideal for pedestrians.

A2.100 Innovative design solutions should be sought to minimise the number of trips by delivery companies and recipients within a site.

A2.101 Planning applications will be required to include Active Travel Zone Assessments where appropriate to ensure that proposals support Vision Zero and the Healthy Streets Approach. All major developments must undertake independent Healthy Streets and Active Travel Zone Assessments as part of a planning application and are expected to act on the results and address and/or contribute through S106 agreement to any improvements that are identified in the assessment, or identified by the council, to improve walking and cycling infrastructure (especially those in each area's vision diagrams and neighbourhood design guidance within section B of this document).

A2.102 The Council has a target for 71% of all trips to be made by sustainable modes by 2041. To assist in meeting this aim, contributions may also be sought from development to provide walking or cycle training and behaviour change programmes for future residents, including adults and in schools., ensuring that they have the necessary skills and confidence to use walking and cycling infrastructure. Such contributions will be sought in addition to improvements to public transport services and infrastructure, or its accessibility. This is in order to improve the compliance with Healthy Streets principles and Vision Zero and indicators within the existing and proposed spaces.

A2.103 The Council aspires to rebalance the use of the kerbside to adequately provide for active and sustainable travel. It is recognised that the kerbside mainly provides for car parking, however it could accommodate for many other uses, such as EV charging points, e-bikes, car clubs, mobility hubs, parklets and other uses. Development should refer to the Council's Parking, Kerbside and EV Charging Strategies to consider how different uses can be integrated in different contexts.

### Key policies and guidance

- LB Hounslow Local Plan – Policies EC1 and EC2
- LB Hounslow Transport Strategy 2019
- Healthy Streets for London, Transport for London (2017)
- Vision Zero Action Plan, Transport for London
- London Plan (2021) Policies T2, T3, T4
- Manual for Streets & Manual for Streets 2 and any successive update.
- LBH 10 point guide to development Travel Plans
- LBH School Travel Plan
- Sport England Active Design Checklist
- Hounslow Electric Vehicle Charging Strategy 2022/23-2025/26
- Hounslow Kerbside Strategy
- Hounslow Parking Strategy

## Cycle parking

A2.104 Developments should provide high quality cycle parking at least in accordance with the minimum numbers set out in the London Plan (2021) policy T5, with residential standards summarised as follows:

### Long-stay (residents / employees)

- Cycle standards for residential dwellings include:
- One space per studio or one person one bedroom dwelling
- 1.5 spaces per two person one bedroom dwelling
- Two spaces per all other dwellings

### Short-stay (visitors or customers)

- Five to 40 dwellings: two spaces
- Thereafter: one space per 40 dwellings

A2.105 There should be no more than 50 cycle spaces per store.

A2.106 All cycling parking should be designed in accordance with:

- the London Cycling Design Standards (2014), being fit for purpose, secure and well-located;
- the West London Cycle Parking Guidance, in particular with regard to spacing of stands to make them fully usable and accessible. This guidance recommends that at least 50% of the spaces are formed using single-tier Sheffield stands.

A2.107 Meeting the required numbers must not reduce the quality of stands.

A2.108 Full details about proposed cycle provision, including the layout of spaces within the cycle stores, should be submitted as part of the planning application and not dealt with by condition.

A2.109 All schemes should aim for at least 5% of the cycle parking facilities to be reserved for accessible spaces and cater for adapted cycles for disabled people;

A2.110 Proposals should also demonstrate how cycle parking facilities cater for larger cycles, such as hand cycles, tricycles, tandems, and cargo cycles;

A2.111 In a single-family dwelling, cycle parking should be provided externally, at entrance level. It is preferable that cycling provision does not require wheeling a cycle through the dwelling, and is not located behind car parking space in a garage. This cycle storage is in addition to conventional storage requirements;

A2.112 The Council aspires that all family units provide cycling parking spaces for more than the minimum number of people the dwelling is designed for- cycle parking for children must be provided as well as adults;

A2.113 High quality cycle parking should be integral to the building's footprint and accessed from the cores (to increase their convenience, highlight their presence, and give residents a greater sense of ownership). Conveniently locating cycle parking close to front doors can encourage everyday use and healthy lifestyles;

A2.114 Communal bike storage should be lit at night and provide a good level of natural surveillance;

A2.115 External secured cycle storage should only be provided when retrofitting or when integral stores are not possible, which should also be fully secure;

A2.116 Direct street access and internal access to storage areas should be provided to ensure they are easy to access. Access to storage areas should be kept to a minimum on street facing elevations in order to maximise active street frontages;

**Key policies and guidance**

- LB Hounslow Local Plan – Policy EC2
- London Plan (2021) Policy T5
- Housing Design Standards LPG (2023)
- London Cycling Design Standards, Transport for London (2014)
- West London Cycle Parking Guidance (2017)
- Emerging London Plan Guidance on Parking and Design Management Plans

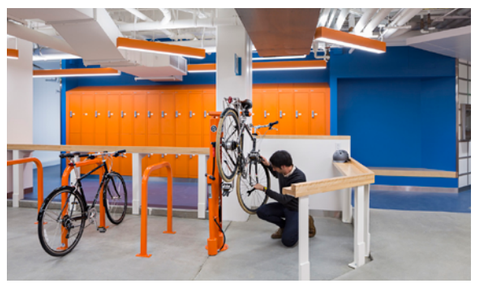


Fig A2.17 Secure indoor cycle parking, with changing rooms, showers, lockers and repair facilities within the same space. 100 California Street, Blitz Architecture © Office Lovin'

Fig A2.18 Sheffield parking stands - Parks two bikes, and the most cost effective cycle parking solution. Supports different types of cycles. Can lock both wheels © West London Cycle Parking Guidance, 2017.

Fig A2.19 Camden 'M' stand. Parks two bicycles and is a variation of the Sheffield stand and encourages locking the bicycle frame in two places © West London Cycle Parking Guidance, 2017.

Fig A2.20 Communal cycle hub in Edmonton Green, Enfield. External shelters should only be provided when retrofitting or where integral facilities are not possible. This facility provides good security for users. © Enfield Council

Fig A2.21 Allocated spaces for non-standard cycles at a cycle hub in Finsbury Park © Cyclehoop

Fig A2.22 Cycle parking conveniently located close to the front entrance of the building. Clissold Park Leisure Centre, Hackney. © See Around Britain

## Car parking

A2.119 All car parking for new developments should be accommodated on site and development proposals will be expected to limit car ownership and dependency by providing the necessary infrastructure to encourage carpooling and car sharing and for bicycle and other micro-mobility rental and sharing schemes.

A2.120 In circumstances where it is not possible to accommodate all parking on-site, developers are required to undertake assessments to determine on-street parking impact to the satisfaction of the council. Permits may not be issued to residents if the additional demand would be too great.

A2.121 Residential proposals should not exceed the London Plan (2021) maximum parking standards:

- Development in places highly accessible by public transport (PTAL 4-6) should be car-free. In such locations, this should include on-street parking restrictions in accordance with council policy not to issue parking permits to residents of new developments in this type of location. This also applies in areas where there is an existing CPZ. The Council may seek contributions towards consulting on amendments to existing parking and waiting restrictions, or to introducing them where not currently in existence;
- Elsewhere the starting point for proposals should be minimum necessary 'car-lite' parking, as per parking standards in the London Plan. Residential development in areas of PTAL1-3 may be issued with parking permits only if there is no reasonable prospect of accommodating all parking spaces on site and subject to undertaking a parking survey to demonstrate that there is spare capacity.
- Development in Controlled Parking Zones (CPZ) should not add to overnight parking stress. Planning conditions may be added to prohibit future residents from obtaining parking permits in the existing CPZ surrounding the planning site;
- Development in areas where there is currently not a CPZ may be required to make contributions towards a new or expanded CPZ if there is a reasonable prospect of one being supported and subject to consultation.
- Disabled persons' parking should be provided for new residential developments in accordance with the London Plan (2021). Car-free developments are expected to provide disabled person's parking;

**Key policies and guidance**

- LB Hounslow Local Plan – Policy EC2
- London Plan (2021) Policies T6.1, T6.2

A2.122 Any proposals for off-street parking in parking courts or front curtilage should maintain a strong defensible boundary to the street, however will not be supported where would lead to the removal of landscaping or front gardens to support environmental aims;

A2.123 In some cases providing car parking within a building's podium (or base) can be an effective solution particularly on constrained sites, but only if the edges are effectively dealt with.

A2.124 Parking standards for other uses (retail, office, hotel and leisure uses) are set out in the London Plan. The design guidance also applies to these uses;

A2.125 Where parking is required, it should be considered early in the design process and well-integrated into the proposed site layout and built form;

Fig A2.23 **Off - street car parking with strong defensible boundary to the street, Rochester Riverside. © Allies and Morrison**

A2.126 To support our environmental aims and response to the climate emergency, vehicular access and hardstanding along the main frontage of new developments is actively discouraged as this will worsen the aspect of new dwellings and reduce urban greening. The Council requires an assessment that vehicular access and hardstanding do not diminish highways safety;

A2.127 Parking accommodated within garages is actively discouraged, as they are often used for other means. Where approved, conversion to habitable space will not be supported.

A2.128 All residential car parking spaces must provide infrastructure for electric or other Ultra-Low Emission vehicles in accordance with minimum London Plan requirements. At least 20% of spaces must have active charging facilities (they must be fully wired and ready to use), all remaining spaces must be provided with passive EVCPs (for which the infrastructure has been installed but the electricity supply not activated and charging equipment not necessarily supplies). Sites providing passive EVCPs need a sufficient electricity supply to cope with future demand. It is the Council's aspiration that all new single-family dwellings provide active EV infrastructure.

## Emergency Services Access

A2.129 All developments need to be accessible to emergency vehicles, such as ambulances and firefighting vehicles. This should be considered early in the design process;

A2.130 All proposals should be developed in accordance with Requirement B5, Part B Volume 1, Building Regulations (2020). A summary of the parameters is as follows:

- All houses require access for a pumping appliance (fire engine) to be within 45m of all points inside the house;
- All flatted development requires the same maximum distance. Alternatively, fire mains can be provided to supply water to strategic points within the development;
- Backland sites with dead-end access routes require fire service vehicles not to reverse more than 20m from an access road or turning point, with routes no less than 3.7m in width (kerb to kerb); and
- Assuming there is no opportunity for fire service vehicles to turn within a dead-end backland site, the effective maximum distance to any point within a dwelling is 65m from the highway.

A2.131 Alternative solutions can include the installation of fire hydrants to supply water to parts of a development unreachable by a fire service vehicle. These require regular maintenance and can impact the viability of some sites.

A2.132 Notifiable developments above 18m will need to submit a fire safety report.

**Key policies and guidance**

- Requirement B5: Access and facilities for the fire service, Part B Volume 1, Building Regulations (2020)
- Independent Review of Building Regulations and Fire Safety (2018)

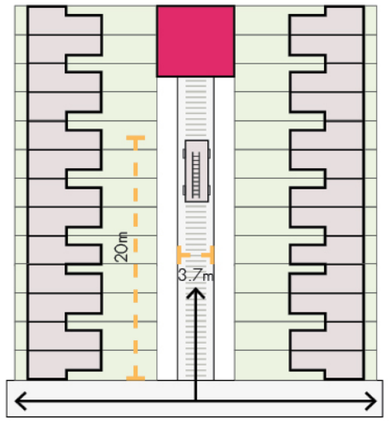



Fig A2.24 **Plan diagram illustrating a backland site and the need for fire service vehicles not to reverse more than 20m from an access road, turning circle or other point at which it can turn.**

## Waste and recycling

A2.133 All schemes should take account of how residents will recycle in their homes, get domestic waste and recycling out of their homes, as well as how waste operatives can easily access and collect this refuse waste. Servicing and refuse collection are key concerns on many sites that must be addressed at an early stage during the scheme's development and should be prioritised over car access and/or parking, if necessary. This is particularly important for typologies with communal storage, backland sites or where access is restricted by a narrow entrance;

A2.134 All waste and recycling storage should be accommodated on-site. On sites suited to kerbside collection, the waste collection operatives should not be expected to carry an individual recycling box/container or move a two wheeled bin for a distance greater than 15m nor manoeuvre a 4 wheeled bin more than 10m from the collection point to their vehicle. Where bins need to be moved close to a kerbside collection point in advance of collection day, the scheme should be designed so that are not placed on, and do not obstruct, the public highway;

A2.135 All bin store areas should be designed to accommodate the different types of bins required for different types of schemes, as set out in the Council's Recycling and Refuse Guidance. Bin store areas should be designed to encourage recycling, such as locating recycling facilities at the front / where they can be accessed most easily, with residual waste bins behind, and to include a dedicated reuse and bulky waste location;

A2.136 Bin store areas should be well integrated into the overall site layout and design, through the landscape and/or built form and should be well lit and ventilated;

A2.137 They should meet the needs of people with disabilities and, generally, no development front door should be more than 45m from the highway. Residents should not have to carry their waste and recycling no more than 30m to a collection point;

A2.138 Compliance with maximum parameters can result in bin stores in less than ideal locations. When alternative solutions are proposed these should be well resolved and integrated into the overall site design.

### Key policies and guidance

- LB Hounslow Local Plan – Policy EQ7
- British Standard: Waste management in buildings 5906:2005
- LB Hounslow Household Recycling and Waste Collection Policy
- Hounslow Recycling and Refuse Guidance for Architects and Planners submitting applications to Hounslow Council

A2.139 Proposals to move waste and recycling from close to homes to the street on collection days require a management plan.

A2.140 Temporary collection points may need to be considered in site design.

A2.141 Developers may also need to hire a management company to move waste.

A2.142 Design in space for domestic composting and opportunities to use this for local food production through the provision of allotments.

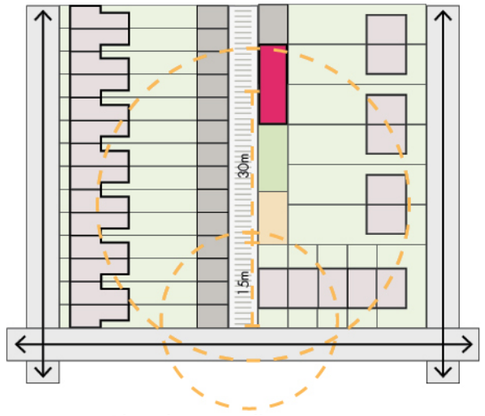



Fig A2.25 **Plan diagram illustrating a backland site and the need for refuse storage within 15m of the highway and 30m from the dwelling.**

Fig A2.26 **Examples of waste and recycling storage integrated into the overall built form of the development. © Allies and Morrison**

# Nature

## Network of open spaces

A2.143 All development should ensure that green and, where possible, blue features are designed into new development. Development should seek to contribute toward green and blue infrastructure improvements and accessibility enhancements, having regard to the opportunities, projects and proposals set out in Hounslow's Green and Blue Infrastructure Strategy.

A2.144 Developments should consider how the following spaces and natural features can help strengthen an area's green infrastructure network:

- Street trees, hedges, planted verges, ecological corridors, swales and rain gardens;
- Pocket parks for use by residents and the wider community;
- Communal gardens within a block at roof level;
- Front and rear private gardens that provide private amenity and encourage biodiversity;
- Balconies that provide external amenity space for apartments; and
- Green / brown walls and roofs provide opportunities for greenery and biodiversity.

A2.145 The following measures to make existing blue and green infrastructure more wildlife friendly are actively encouraged:

A2.146 Protect, enhance and restore existing natural and semi-natural environments, including any green or blue spaces neighbouring the site, with regard to its ecological or agricultural history and heritage.

A2.147 Naturalising rivers i.e. wetlands, de-channelising, reedbeds, riparian woodland, allowing existing river habitats to develop.

A2.148 Ecological management along railway lines: removing invasive species or planting wildflowers.

A2.149 Verges and underused grass to be shifted from mown grass to wildflowers, grassland, trees and SuDS where possible.

A2.150 Herbicides and pesticides should be avoided.

A2.151 Enhance or expand the green and blue infrastructure network, incorporating wildlife corridors i.e.. watercourses and railways to neighbouring habitats, linking them together to improve connectivity between green and blue spaces, promoting biodiversity and species resilience. The Council will seek improvements to routes between developments and open spaces, where appropriate. Examples of this include where sites are in close proximity to parks, or where there are limited on-site green spaces; improvements could include the provision of healthy streets infrastructure, such as street trees and benches, to encourage walking.

A2.152 This can be augmented with green walls and roofs for which the use of local seed and plant species in place of sedum is strongly encouraged, as these provide for wildlife and are likely to be hardier and therefore more resilient. Green walls can also help to insulate buildings and reflect solar radiation and grasscrete can improve drainage and greening of hard-standing areas.

A2.153 Green infrastructure as an appropriate buffer along the river corridors to provide improvements for biodiversity.

Fig A2.27 **A local sedum green roof (low growing, shallow root vegetation mix) requiring minimal maintenance. Photo credit: © Allies and Morrison**

A2.154 Use indigenous tree and plant varieties where possible, selected with local conditions in mine, to maximise their chances of survival and ecological usefulness. Consideration of the underlying soil type, geology and water table, and choosing drought-resistant tree varieties where necessary is advised.

A2.155 Incorporate infrastructure into development to support wildlife, such as swift bricks, bat bricks, bird-boxes and hedgehog holes in garden fences.

A2.156 Landscape architects should be appointed early enough in the design process, and be integral to the design team, influencing the site strategy from the outset.

A2.157 Designs should allow for realistic planter depths and locations and that sufficient space is provided for mature trees and hedges to flourish.

A2.158 Where proposals seek to incorporate measures which contribute to reconstructing or refurbishing the banks of riverside areas, these should be informed by the Estuary Edges Guidance co-ordinated by the Thames Estuary Partnership, which contains guidance on features that support wildlife and improve access.

### Key policies and guidance

- LB Hounslow Climate Emergency Action Plan 2020
- LB Hounslow Local Plan – Policies GB1/2/4/5/7, EQ3
- Hounslow Green and Blue Infrastructure Strategy
- Hounslow Nature Recovery Action Plan 2023-2028
- London Plan (2021) Policies G1, G4, G5
- LB Hounslow Flood Risk Management Strategy 2020 - consultation draft
- CIRIA Report: The SuDS Manual C753 (2015)
- Wildfowl & Wetland Trust report 'Creating Urban Wetlands for Wellbeing'
- London Wildlife Trust: Advice on green roofs
- Thames Estuary Partnership, Estuary Edges Guidance
- Centre for Urban Design and Mental Health: Mind the GAPS
- Thames Estuary 2100 Plan

## Social, Health and Wellbeing Benefits

A2.159 Given the important role of green spaces in improving physical and mental health and wellbeing and helping people to live more sustainably, designs for green and blue infrastructure should seek to:

- Integrate opportunities for play, social spaces, and art and heritage trails;
- Provide safe and attractive active travel routes, with trees to provide shading in summer;
- Improve air quality – e.g., tree-planting along road frontages to protect from, absorb or disperse dust and other pollutants, and the installation of green walls using plants known to be effective for capturing pollutants. This will also encourage active travel – a virtuous circle, as the resulting reduction in car use will further improve air and environmental quality, encouraging more walking and cycling;
- Incorporate large areas of planting to reduce heat capture by hard surfaces and provide localised cooling via evapotranspiration;
- Incorporate access to affordable activities such as outdoor gyms, sports and leisure facilities;
- Provide therapeutic landscapes and opportunities for food-growing (including community allotments and urban farming);
- Include other social benefits – such as supporting child development, older people's mobility and opportunities for social interaction, thus reducing isolation and contributing to postive mental health.

A2.160 Where feasible and appropriate, buildings may be designed to have active frontages onto green spaces to improve outlook and aid natural surveillance.

## Flood Risk and SuDS

A2.161 Applicants need to demonstrate an understanding of both fluvial (river) and pluvial (surface) Flood Risk and how their proposals actively contribute to mitigating the risk of flooding. Developers should incorporate flood mitigation measures appropriate to the level of flood risk associated with their site as per national policy and guidance and the Thames Estuary 2100 plan.

A2.162 SuDS are effective at reducing the rate of rainwater run-off, mitigating the risk of flooding elsewhere and should be considered early in the design process. All proposals should demonstrate how SuDS have been well integrated into the scheme design in order to maximise the benefits provided e.g. enhanced open space, biodiversity and habitat improvements, highways improvements etc.

A2.163 London Plan policy SI 13 and Local Plan policies EQ2 and EQ3 require developments to incorporate SuDS with the aim of achieving greenfield run-off rates on site. Applicants should have regard to the Surface Water Management Plan and ensure they are incorporating necessary mitigation measures in areas identified as being at high risk.

A2.164 Preference should be given to green over grey SuDS features in line with the drainage hierarchy (See fig A2.28). Applicants should also demonstrate how SuDS have been designed to be multi-functional and allow for water attenuation as well as improved water quality, increased water use efficiency, enhanced biodiversity and recreation; and

A2.165 SuDS measures could include green / brown roofs; permeable surfaces; swales; rain capture and gardens; soakaways and filter drains; retention tanks; street trees; rain gardens; basins and ponds; reedbeds and wetlands to act as buffers against urban run-off and help to improve water quality.

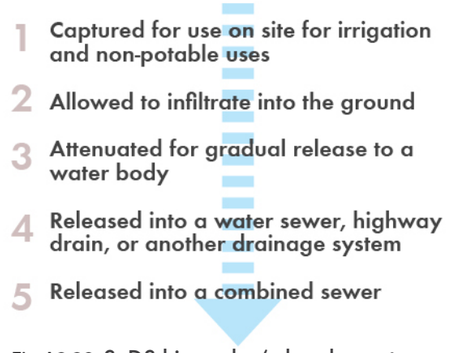



Fig A2.28 SuDS hierarchy 'whereby water is…'

### Key policies and guidance

- LB Hounslow Local Flood Risk Management Strategy 2022
- CIRIA Report: The SuDS Manual C753 (2015)
- Defra's Non-Statutory Technical Standards for Sustainable Drainage:
- GLA SuDS Guidance – published a series of sector specific sustainable drainage guidance for six sectors (Schools, Social Housing, Parks & Greenspaces, Hospitals, Offices and Retail) and has delivered training to more than 300 highways officers on sustainable drainage
- Environment Agency's Thames Estuary 2100 Plan
- The GLA's Infrastructure Mapping Tool can be used to coordinate street works, e.g., to facilitate SuDS delivery.
- Flood Risk mapping (including surface water flood risk): https://hounslow.statmap.co.uk/map/Aurora.svc/run?script=%5CAurora%5CSWMP_Metis%20Consultants.AuroraScript%24&nocache=39062550-d6b8-bd37-63c6-670f4345033c&resize=always&x=517344.037&y=176918.501&scale=131072

## Biodiversity and net gain

A2.166 All new development should take steps to protect and enhance biodiversity. Both the London Plan (Policy G6 clause D) and NPPF (paragraph 180) set out that development proposals should manage and minimise impacts and deliver net gains for biodiversity. This may involve habitat enhancement, including through landscaping and tree planting. Biodiversity and habitat improvement infrastructure such as swift bricks, bat boxes and hedgehog highways, are encouraged in new and retrofit development.

A2.167 Under the Town and Country Planning Act 1990 (as amended by the Environmental Act 2021), every grant of planning permission is deemed to have been granted subject to a general biodiversity gain condition to secure the biodiversity gain objective. The objective is to deliver at least a 10% uplift based on the pre-development value of habitats found on the development site. Exemptions for certain types of applications (such as householder applications, permitted development, etc.) are set out in the regulations. As mandatory BNG sits outside of the development plan, it is not appropriate to repeat Government guidance or regulations related to the statutory framework for BNG here. We would instead advise developers to follow the most up to date planning practise guidance relating to delivering mandatory BNG.

A2.168 It is highly advisable for developers to engage with Hounslow planning, design and ecology officers at pre-application stage to discuss possible approaches to securing BNG on a given site. Early discussions can help to fully embed BNG within scheme design, and may help to avoid potential issues in demonstrating that you can achieve the required 10% when discharging the general BNG pre-commencement condition (where applicable).

A2.169 We would also advise applicants to provide as much information as possible when submitting an application (over and above the minimum requirements) in order to identify potential issues and opportunities early in the design process in order to avoid delays to build out.

A2.170 Further details of the types of habitat which should be prioritised for enhancement and creation, and in which locations, will be outlined in a Local Nature Recovery Strategy (LNRS). It is anticipated that a LNRS will be developed by the GLA in collaboration with London Boroughs, and that this will cover all of Greater London. This will be informed by the LB Hounslow Green and Blue Infrastructure Strategy and the Nature Recovery Action Plan. Until the LNRS has been adopted, these Hounslow documents will be used in decision-making to help identify priority and notable habitats, and will be used to determine the 'strategic significance' score to be applied for certain habitat types the Biodiversity Metric scoring approach.

### Key policies and guidance

- London Plan (2021) Policies G1, G5, G6
- BS 8683 A process for designing and implementing biodiversity net gain
- Natural England - The Biodiversity Metric 4.0 (JP039) and The Statutory Biodiversity Metric User Guide
- Hounslow Biodiversity Action Plan 2011-2016
- Biodiversity net gain planning practice guidance
- Hounslow Green & Blue Infrastructure Strategy (2021)
- Hounslow Nature Recovery Action Plan (2022)

## Street trees

A2.171 Street trees deliver many benefits including habitat, climate resilience through shading and cooling, air quality improvements, direct carbon sequestration, drainage when paired with SuDS, carbon sequestration as well as adding to local character. Developments should seek to deliver street trees whenever possible;

A2.172 Where trees are found on site, proposals should seek to retain them wherever possible, taking them into account early in the design process.

A2.173 Sites with Tree Preservation Orders, located within Conservation Areas, or with restrictive conditions protecting trees, will need written authorisation from the Council before any works that will impact / harm the tree are undertaken.

A2.174 Street trees should be a mix of species to preserve Hounslow's varied and leafy character and to have specific benefits to native species. Applicants should demonstrate that they have selected the most appropriate species based on local character and environmental and biodiversity benefits in their applications;

A2.175 Street trees should be positioned to allow growth and maturation without interfering with property, infrastructure, street lighting or junction sightlines;

A2.176 Street trees may be positioned to shade key building façades in summer and oriented to catch cooling breezes; and

A2.177 Street tree planting strategies should seek to enhance the public realm and can be on median strips, verges or interspersed with parking bays but only on pavements where the mature tree will not block access.

Fig A2.29 **Street trees are intrinsic to Hounslow's leafy character as well as having rich biodiversity and well-being benefits. Photo credit: © Allies and Morrison**

## Urban greening

A2.178 Hounslow is a diverse borough - ranging from dense urban neighbourhoods to expansive suburban estates. But despite the wide spectrum of character and density, one aspect is surprisingly constant - its greenness. Whether in the heart of Chiswick or in the rural edge of Feltham, the landscape is strongly evident and contributes to the resilience of local neighbourhoods.

A2.179 This underlying green character provides a strong basis for adaptation to future climate change, and as such should inform context-led intensification closely. Achieving the right balance between intensification and resilience is crucial.

A2.180 As part of the Council's declaration of a climate emergency, it expects new developments and interventions to support and enhance green infrastructure. As such, all new developments are expected to increase the urban greening on site with minimum thresholds to be met for each type of site. Those locations where greening levels drop below the Borough average, such as town centres and urban neighbourhoods where street trees and front gardens have been lost, need to see improvements over and above the minimum thresholds.

A2.181 The Council's Green and Blue Infrastructure Strategy provides a comprehensive outline of the opportunities for greening in the borough and applications should be informed by these. In particular Figure 9.4 in the strategy identifies urban greening priority areas for neighbourhoods including Central Hounslow, Feltham, Gunnersbury, Brentford and Cranford.

A2.182 Applicants should use the local context to inform their landscape response on site. This might mean copying street sections to support planted verges and front gardens, or replacing street trees lost to previous layers of change. It should also steer new green interventions, ensuring green roofs or green walls are used meaningfully and in appropriate locations to support the nature of the local green network and reduce air pollutants.

A2.183 For more minor interventions like residential extensions it would be appropriate to require interventions to be paired with enhanced greening either within the plot through green roofs, walls, or planting or through contributions to new street trees. These interventions should look to either maintain an existing 0.5 Urban Greening Factor score or raise it to this level. This could prove a very effective way of balancing intensification and resilience on existing residential streets.

A2.184 Every development should seek to achieve or exceed the minimum UGF target scores. In addition, the Council will require larger developments and those addressing key streets to contribute to greening in the public realm outside of their site boundary.

**Borough-wide code: All developments should seek to deliver an uplift in urban greening on a site regardless of existing condition. A minimum Urban Greening Factor target score of 0.4 for residential-led schemes, and 0.3 on commercial-led schemes is recommended. Predominantly industrial development will be expected to set out measures taken to achieve urban greening on-site and quantify their UGF score as per Mayor's methodology.**

*These minimum scores reflect the Mayor's interim recommended UGF target scores set out in London Plan Policy G5 Urban Greening. As Local Plan policy is updated a locally defined set of targets will be established as per the Mayor's Urban Greening Factor LPG. Higher zonal targets by area could be developed but in the interim the emphasis in less green neighbourhoods should be on site developments contributing to additional greening in the public realm.

A2.185 This will require a considered analysis of existing green infrastructure and a landscape-led response to design. The introduction of new green elements must maximise their environmental performance and contribution with particular attention to sustainable drainage and biodiversity. The choice of planting and tree species must be well informed by historic and existing planting and the context to ensure the right tree or plant is chosen for the right place.

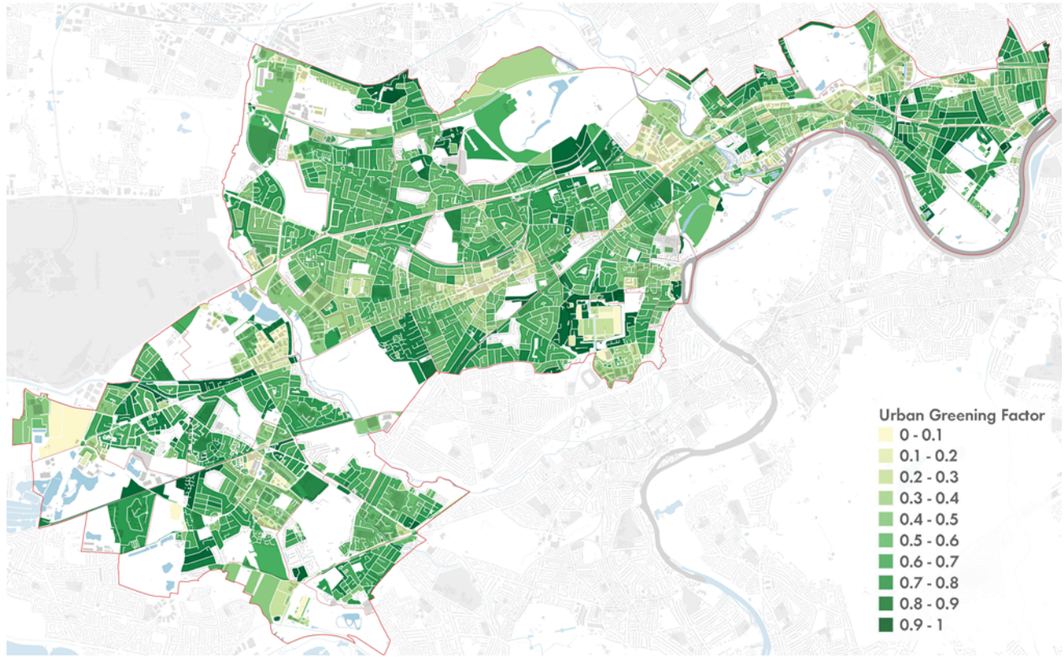



Fig A2.30 Plan showing an estimate at current Urban Greening Factor scores across the Borough, calculated by applying the Urban Greening Factor scoring mechanism to existing street blocks. This measurement includes the contribution of street trees and planting in the public realm as well as greenery within plots. The London Plan suggests new developments need to achieve minimum target scores in order to help support green infrastructure objectives and climate change adaptation. Many of the Borough's neighbourhoods exceed this minimum which suggests a character-led local target could be higher.

All opportunities to maximise greenery in and around sites should be harnessed despite constraints - this may mean generous planters on internal streets, roof gardens, SUDs stretches and protection for existing trees. Photo credit: © Allies and Morrison

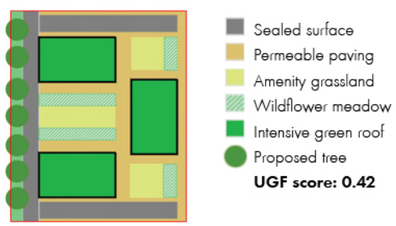



Fig A2.31 Diagram showing how different green surface cover types can affect the UGF score.

## External Lighting Impacts on Biodiversity

A2.186 Exterior lighting includes those on the external walls of dwellings, lighting in parks and other public spaces and lighting on pedestrian and cycle paths.

A2.187 The following mitigation measures minimise lighting impacts:

- Light levels should be kept to the minimum required;
- LED luminaires should be installed using the warm white or amber spectrum (<2700 K) and lack UV elements when manufactured;
- Luminaires should feature peak wavelengths higher than 550nm to avoid disturbing bats;
- Lighting should be directed to where it is needed, minimising upwards and horizontal spillage through the design of the fixture and by restricting the height of the lighting fixture to the lowest reasonable height;
- As a last resort, accessories such as baffles hoods and louvres can be uses to reduce light spill and direct it to where it is needed;
- Lighting mounted on dwellings should incorporate motion sensors and timers to minimise the duration of disturbance;
- Where homes are located adjacent to wildlife corridors, internal lights in proximity to windows should be recessed to avoid light spill;
- Dense planting located next to wildlife corridors can help to mitigate against lighting spillage from adjacent buildings.

Fig A2.32 LED street lights in La Citadella, Lile. The lights are of different colour temperatures between 2,200K and 2,700K and also have motion detectors. They are programmed to adapt to the seasonal behaviour of bats © Schreder

### Key policies and guidance

- Bats and Artificial Lighting in the UK Guidance Note 08/18



# Public spaces

A2.188 All proposals should consult the Hounslow Green and Blue Infrastructure Strategy and identify the priority actions for the area within which the site is located.

A2.189 Proposals should be landscape-led and informed by a good understanding of the existing green and blue infrastructure assets on and adjacent to the site as well as the wider area.

A2.190 Opportunities to enhance the role and contribution of existing green and blue assets should inform the landscape strategy from the outset.

A2.191 All schemes should consider how they can help:

- improve green spaces - both the quality of existing spaces and the introduction of new green spaces and planting;
- make existing green and blue assets more wildlife-friendly - this would include naturalising watercourses, ecological management of existing and new assets and increasing the connectivity between green spaces and corridors;
- support active travel and reduce pollution - through enhancing the quality and connectivity of walking and cycling infrastructure and introducing greening to help improve air quality; and
- 'green the grey' - through minimising the extent of hard landscaping and impermeable surfaces, transforming pedestrian routes into urban boulevards, maximising urban greening on site and implementing natural surface water run-off treatment through SuDS and wetlands adjacent to highly polluted roads.

A2.192 Proposals should positively consider the public realm at the edges of sites and street frontages. Opportunities may exist to set back building lines to create generous green streets or introduce new green infrastructure, and this needs to be balanced with the need to create coherent building lines with adjacent developments to create positive edges with streets.

A2.193 New spaces should be well located within developments, in places where there will be adequate footfall and will be vibrant.

Fig A2.33 Well integrated public space within a residential led regeneration scheme at Kings Crescent Estate, Hackney. Photo credit: © Studio Falaj

### Key policies and guidance

- LB Hounslow Climate Emergency Action Plan 2020
- LB Hounslow Local Plan – Policies GB1/2/4/5/7/8/9, EQ3
- LB Hounslow Greener Borough Framework (emerging)
- London Plan (2021) Policies G1, G4, G5
- LB Hounslow, Parklets: https://www.hounslow.gov.uk/info/20053/transport/2400/parklets

A2.194 The Council supports the creation of parklets, which repurpose a parking space on the street for uses other than the parking of cars. Successful parklets introduce greening and ensure sustainable drainage through elements such as rain gardens. Guidance on parklets can be found on the Council's website.

A2.195 It is important to ensure that these spaces are generous enough to meet the needs they are designed for and that there is a clear brief or aspiration for this space at the outset of a development.

A2.196 Where street furniture is introduced as part of a proposal, it should be ensured that this is arranged in a way that does not make it difficult for wheelchair users to navigate the public realm in that locality. The colour of street furniture should clearly contrast with the pavement and buildings to ensure it is visible by all.

A2.197 Accessible ramps should be carefully considered from the beginning of the design process in public realm schemes and ensure that they are integrated into the design.

Fig A2.34 **Bradford City Park- A successful example of a public space in a town centre location. Photo credit: © Bradford City of Film**

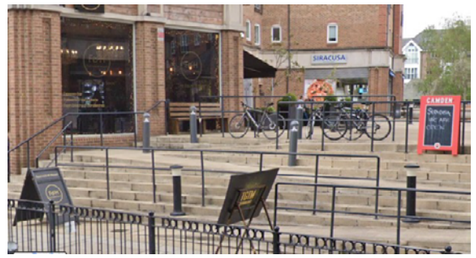


Fig A2.35 **Steps with an integrated wheelchair accessible ramp, Brentford Town Centre**



# Uses

A2.198 Consider servicing and access needs for retail / commercial spaces in mixed-use development early on and set out clearly how this will impact on the functionality of commercial units and the support the quality of residential routes and access.

A2.199 Undertake research with any existing commercial tenants and understand their needs if they are to be re-housed within the new development.

A2.200 Appropriately locate uses so they contribute to rather than detract from the enjoyment of residential or amenity space.

A2.201 The land-use mix should respond to the issues, opportunities and challenges in an area. For example, hot food takeaways should be avoided in areas with high obesity problems, and instead encourage uses that promote healthy lifestyles.

A2.202 The built form and building design should actively consider future uses and build in flexibility of uses to respond to changes in need over time. However, this should not undermine the first use intended as part of the proposal.

**Key policies and guidance**

- LB Hounslow Local Plan – Policies TC4, TC5, ED1, ED2, ED3, ED4 and CI1-5
- London Plan (2021) Policies SD6, S1-5, E1-4, E9, HC5/6

Fig A2.36 **Turnham Green Terrace Mews includes self-contained office/studio spaces in a variety of sizes embedding opportunities for flexible future uses Photo credit: © Allies and Morrison**


Fig A2.37 **Heston Pools & Fitness centre and new housing both contribute positively to Heston Park with attractive routes in and upgraded facilities to promote healthy lifestyles. Photo credit: © Allies and Morrison**

# Homes and buildings

## Residential space standards

A2203 Applicants are encouraged to, where possible, exceed the minimum space standards as set out in the London Plan, though excessive space (unless they are M4(3) wheelchair user dwellings) is discouraged due to the need to make efficient use of land;

A2204 All homes must comply with private internal space standards set out in Policy D6 of the London Plan;

A2205 Minimum floor to ceiling height in habitable rooms are encouraged to be 2.5m. Areas with a height of less than 1.5m are not usable space and cannot be counted within the GIA unless used solely for storage;

A2206 Built-in storage cupboards are essential with requirements of 1 square metre for one-person dwellings and 0.5 square metres for each additional occupant. Built-in storage areas are included within the overall GIA;

A2207 Proposals must demonstrate how internal layouts can support flexible use and future adaptation to meet changing needs and lifestyles, including working from home;

A2208 Proposed dimensions and proportions of rooms should be justified using drawings that illustrate suitable furniture arrangements that do not compromise circulation or views out - see furniture schedule in Building Regulations Approved Document M volume 1 (Appendix D);

A2209 If designing open plan layouts, proposals must illustrate clear and distinct areas for kitchen, dining and living without compromising circulate and/or views out. A minimum of 3.2m is recommended as the minimum principal width of the living space including a minimum 800mm for circulation

A2210 The Mayor's Housing Design Standards LPG requires all applications to include furniture on internal layout plans to allow for assessment of circulation and movement.

A2211 Subdivision of residential properties into two or more dwellings is only permitted where the net floor area of the original dwelling is more than 130 square metres.

A2212 The number of units per core should align with the Mayor of London's guidance to help support the quality of homes and a sense of community.

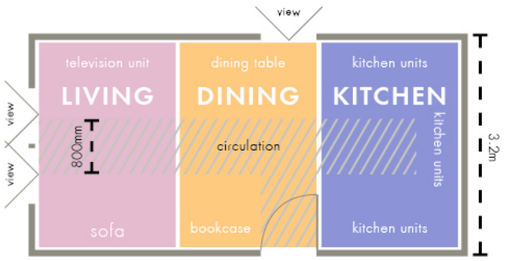



Fig A2.38 When designing open plan layouts, three distinct zones should be defined and able to accommodate appropriate furniture that does not compromise circulation or views out.

### Key policies and guidance

- LB Hounslow Local Plan – Policies CC2/SC5/SC6
- London Plan (2021) Policy D6
- London Plan Housing SPG (2016)
- National Space Standards (2015)
- Building Regulations Approved Document M - Volume 1 - Dwellings (2015 edition incorporating 2016 amendments)
- Mayor of London Housing Design Standards LPG

## Accessibility

A2213 Proposals must demonstrate how dwellings are accessible - easily reached, entered and used by everyone, regardless of age and physical ability - and adaptable - easily modified without the need for post-construction alterations;

A2214 A 10% minimum of M4(3) dwellings is required on all major schemes;

A2215 All new homes should be designed to meet standards set out in Approved Document M of the Building Regulations M4(2) - accessible and adaptable dwellings;

A2216 Some homes can be designed to meet standards set out in approved Document M of the Building Regulations M4(3) - wheelchair user dwellings;

A2217 Communal areas in apartment blocks should be accessible and designed to accommodate the highest category of dwelling (M4(2) or M4(3) within the development e.g. approach routes, circulation spaces;

A2218 M4(3) dwellings should be distributed throughout the ground floor to provide easy access to parking and a range of aspects, views and unit sizes;

A2219 Some sites may be inappropriate for delivering M4(2) or M4(3) homes due to site constraints that do not permit step-free access into dwellings. Design options should demonstrate how and why this cannot be overcome;

A2220 Where step-free access into dwellings cannot be achieved, ground floor dwellings would still require design that meets standards for M4(2) and M4(3) homes; and

A2221 New developments that include vehicular access must provide accessible, off-street car parking bay for Blue Badge holders even if no other general parking is provided as part of the development and also provide accessible routes, particularly for driveway parking, in accordance with Inclusive Mobility guidance.

A2222 Wheelchair-user dwellings should be distributed through development to provide real choice through a range of aspects, floor level locations, views and unit sizes.

A2223 Common spaces such as circulation areas should be designed to allow neighbours to easily visit one another.

### Key policies and guidance

- London Plan (2021) Policy D7
- Blue badge parking standards for off-street car parking, Mayor of London (2006)
- Building Regulations Approved Document M - Volume 1 - Dwellings (2015 edition incorporating 2016 amendments)
- Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport

## Security

A2224 All proposals must be designed in accordance with principles in the relevant Secured by Design Development Guides;

A2225 In particular, proposals should demonstrate how the following considerations meet Secured by Design principles:

- Front doors are preferable to communal entrances to properties at street level in order to activate spaces;
- Position windows in habitable rooms overlooking streets and shared access routes to animate façades and improve natural surveillance;
- Residential entrances are welcoming and well located;
- Entrances should be well lit, sheltered and safe;
- Defensible boundaries between the street and front door, using low walls, fences and hedges that keep frontages open and visible;
- Minimise blank frontage, particularly at end of terrace gable walls, through introduction of windows and where possible, entrances, to increase natural surveillance;
- Where vulnerable areas exist, such as exposed side and rear gardens, use walls or fencing to a minimum height of 1.8m and choice of thorny planting to act as a deterrent;
- 24-hour lighting to communal parts of blocks of flats e.g. communal entrance hall, lobbies, landings, corridors and stairwells and underground garaging facilities and all entrance/exit points;
- Improve security in poorly lit areas, including those with thoroughfares and pedestrian and cyclist routes where possible by seeking to include lighting (refer to External Lighting Impacts on Biodiversity section);
- Mail delivery via a secure external letterbox or delivery 'through the wall' into a secure area of the dwelling;
- Large developments sharing communal access points should have a visitor door entry system and access control panel, allowing controlled access via the management of a recognised electronic key system; and
- External communal areas, pocket parks and play space should be carefully situated within the site and overlooked through natural surveillance on windows and front doors.

**Key policies and guidance**

- LB Hounslow Local Plan – Policies SC5
- London Plan (2021) Policy D3, D11
- Secured by Design Homes Development Guide (2019)

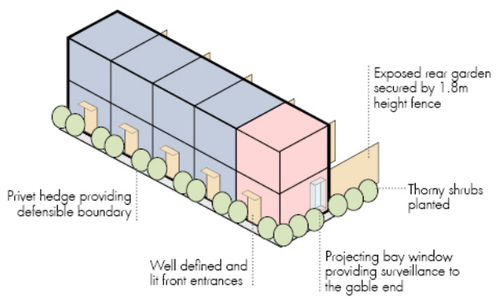



Fig A2.39 **Diagram illustrating some key Secured by Design principles in an end of terrace infill site**

## Gardens and balconies

A2226 A minimum of five square metres of private outdoor space is required for all two-person dwellings plus an extra one square metre for each additional occupant. This is a minimum threshold with higher dimensions encouraged;

A2227 For dwellings at ground floor, this should be provided as either courtyards or gardens with direct access from the dwelling; or in the form of balconies, terraces and/or communal spaces when within large apartments developments;

A2228 Private amenity space for each dwelling should be usable and have a balance of openness and privacy, eliminating the need for additional screening and appropriate for its outlook and orientation;

A2229 Site assessment should help inform the siting of gardens and balconies, locating them away from sources of noise or air pollution;

A2230 In large apartment block developments, positioning maisonettes at ground floor creates multiple entrances and front gardens that face the street and create a secure boundary. Planting shrubs and trees can mitigate air and noise pollution;

A2231 Where balconies overlook noise sources, solid parapets and absorbent soffit materials can improve acoustics. Amenity spaces exposed to high levels of noise or air pollution will not be supported;

A2232 Balconies or terraces must respect the amenity of neighbours through overlooking or overshadowing. Balconies must meet amenity space requirements and have a minimum depth and width of 1.5m;

A2233 Balconies should not be positioned adjacent to one another unless a full height privacy screen is integrated into design.

A2234 The underside of balconies should be carefully detailed as these will impact the overall visual appearance of the development.

A2235 Shelter and privacy can be achieved through insetting the balcony within the façade.

A2236 Winter gardens will be required when noise and air quality levels are unacceptable. The construction of winter gardens will need to comply with up to date fire regulations.

A2237 Applicants should submit drawings that demonstrate sufficient amenity space for either a meal around a small table, clothes drying, or for a seated family gathering.

A2238 On constrained backland sites there is often not an area available to provide the required amenity space so flexible approaches to outdoor amenity design should be explored.

**Key policies and guidance**

- London Plan (2021) Policy D6
- LBH Air Quality Technical Guidance
- LBH Noise Technical Guidance

Fig A2.40 **Semi inset and protruding balconies provide privacy and shelter for residents. Lock Keepers, Bow by Allies and Morrison architects. Photo credit: © Nick Guttridge**

## Mitigating Poor Air Quality

A2.239 Development proposals should use design solutions to prevent or minimise increased exposure to existing air pollution, and to make provision to address local problems of air quality. Development proposals should:

A2.240 Arrange the form and layout of development to increase separation distances from sources of air pollution, thus maximising opportunities for residents to use natural ventilation to dissipate heat and maintain good indoor air quality. For example:

- Siting residential accommodation away from busy roadsides, and using layout and massing to protect it from these and other sources of air pollution – with particular regard to the policy set out in the Great West Corridor Local Plan Review for development along the A4/M4 corridor.
- Avoid creating 'street canyons' which encourage pollution to build up.
- Avoid siting buildings with vulnerable users (e.g. schools, nurseries, social care settings such as care homes) in areas where pollution levels are likely to be higher.

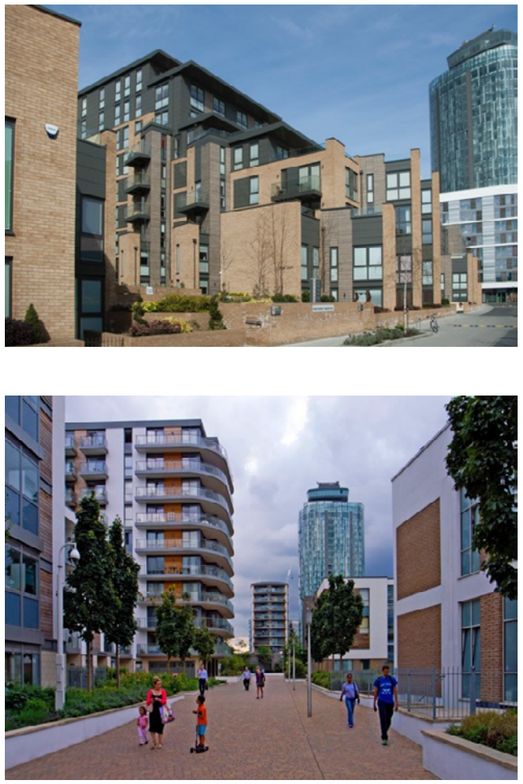


Fig A2.41 **These images are of Baltic Avenue in Brentford, where non-residential buildings have been placed along the A4/M4 corridor, screening the clean-air route and residential development behind it.**

**Key policies and guidance**

- LBH Air Quality Technical Guidance
- LBH LPR Noise and Air Quality Background Paper

## Daylight / sunlight and aspect

A2.241 All schemes should aim to propose massing that adheres to the 25° rule to avoid overshadowing of neighbouring properties (see BRE Site Layout and Planning for Daylight and Sunlight);

A2.242 Outdoor spaces should benefit from the availability of daylight, including at least two hours of sunlight on 21st March into 50% of space (BRE guidance);

A2.243 Internal layouts should aim to be designed so all habitable rooms have good outlook, levels of daylight and ventilation. All proposals must demonstrate an Average Daylight Factor target value of 1% for a bedroom and 1.5% for a living room;

A2.244 A minimum floor to ceiling height of 2.5m for at least 75 per cent of the GIA is required to allow adequate daylight penetration, ventilation and cooling;

A2.245 Conversion of commercial buildings to residential dwellings can be difficult due to the deeper plan and taller spaces. All converted dwellings must have demonstrable adequate access to daylight and ventilation;

A2.246 All proposals should be dual aspect in order to maximise cross ventilation, however, single aspect homes will be permitted in exceptional circumstances justified through a design-led approach that optimises site capacity. All family sized homes (2b4p and above) should be dual aspect;

A2.247 Any single aspect homes must demonstrate adequate passive ventilation, daylight and privacy, and avoid overheating without reliance on energy intensive mechanical cooling systems. North-facing single aspect homes will not be supported except in exceptional circumstances;

A2.248 The use of double banked typologies should be avoided as this results in a large number of single aspect dwellings. Deck access should be used instead;

A2.249 Where site constraints compromise the quality of daylight into the home, more generous floor-to-ceiling heights with increased window sizes can improve daylight levels, particularly at ground floors e.g. bay windows; and

A2.250 BRE guidance must be applied flexibly to ensure planning applications are in line with LB Hounslow's Local Plan and any Supplementary Planning Guidance.

**Key policies and guidance**

- London Plan (2021) Policy D6
- Housing Design Standards LPG (2023)
- BRE Site Layout and Planning for Daylight and Sunlight: A Guide to Good Practice (2011)

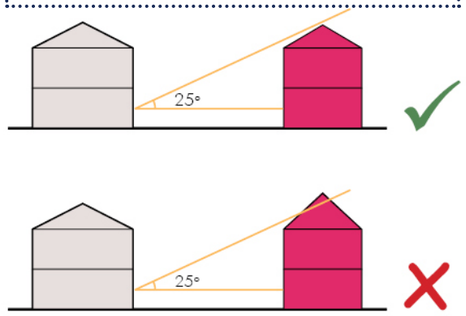



Fig A2.42 **Section diagram illustrating infill development that successfully (top) an unsuccessfully (bottom) falls within the 25o rule (from the centre of the lowest window in a habitable room on the existing neighbouring property).**

## Outlook and privacy

A2251 Proposals need to work hard to protect and achieve privacy and positive outlook for both neighbours and new residents;

A2252 A design-led approach should harness site opportunities e.g. views of open space, changes in level, retention of mature trees and shrubs, making a positive relationship with the street;

A2253 Early consideration of areas used for plant storage or parking is needed to avoid negative outlook of both existing and proposed dwellings;

A2254 Visual privacy has traditionally been achieved by separation distances of 18m between habitable room and habitable room, though this can seldom be achieved on smaller sites - particularly given Hounslow's urban and often compact character;

A2255 The following design responses can be used to overcome tighter distances:

- Stepped plan layouts that can achieve dual aspect into the proposed dwelling private amenity space e.g. courtyard;
- Careful orientation and arrangement of habitable rooms to avoid direct overlooking;
- Direct overlooking into circulation spaces such as entrance halls, stair wells and utility rooms;
- Non-standard window design such as angled, oriel, high level and roof lights to design oblique overlooking; and
- Position primary aspect of new buildings in backland sites away from existing neighbouring windows.

A2256 Maisonettes are preferable to flats at ground floor to provide better privacy and choice for residents;

**Key policies and guidance**

- London Plan (2021) Policy D6

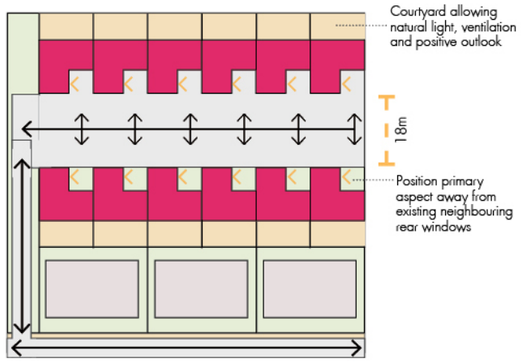



Fig A2.43 **A stepped L-shaped plan allows front to front separation distances to be achieved at intervals, whilst allowing each dwelling to look into its own amenity space at the first floor.**

A2257 Use of deep window reveals can create a better sense of privacy for residents whilst allowing natural surveillance to the street or open space;

A2258 Set back taller elements of the building massing from the street or open spaces to reduce overlooking and create a better sense of privacy for residents;

A2259 Flat roofs used as a terrace or balcony will only be acceptable when demonstrating a neighbour's amenity is not impacted from overlooking.

## Maintaining a sense of openness

A2260 Street facing garage sites, as well as backland sites, present a number of opportunities in the Borough. However, introducing a new built form into these sites can sometimes create a negative sense of enclosure;

A2261 Where design features that are employed to avoid overlooking and protect privacy give rise to large areas of unrelieved materials, design should seek to integrate decorative features through use of patterns, colours or contrasts in brickwork and other materials, as well as artwork or other appropriate design features, to prevent blank frontages.

A2262 Proposals should demonstrate how a design-led process has arrived at scale and massing solutions that maintain a sense of openness;

A2263 The height of development on street facing garden or garage sites should be subservient to the host building plot and neighbouring dwelling;

A2264 This can be best achieved by a lower height and articulated massing. Generally one storey lower is appropriate, though accommodation can be provided within the roof space;

A2265 Backland sites can accommodate development of a larger scale, though typically should be no greater than the surrounding buildings; and

A2266 Stepping the proposal footprint and massing can avoid a 'wall' of development help maintain a sense of openness within the block, neighbouring gardens and the development itself. Long views through a block and from neighbouring dwellings should be considered.

A2267 Hounslow's Local Plan Policy SC1does not require the development of back gardens to deliver housing growth.

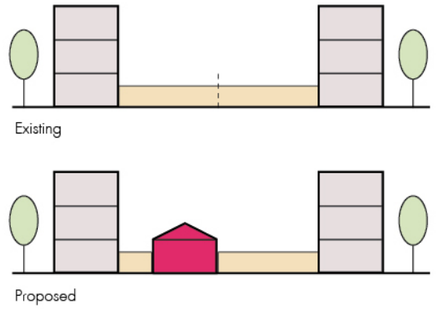



Fig A2.44 **Section diagram illustrating street facing garden site with proposals subservient in scale and roof form to the host building plot and neighbouring property.**

**Key policies and guidance**

- LB Hounslow Local Plan – Policy SC1
- London Plan (2021) Policy D6

# Shopfronts and Public Buildings

A2268 Shop front design and signage should make a positive contribution to the townscape with high quality, active façade design and maximise the delivery of positive frontages with particular attention paid to the design of corners, entrances and openings.

## Proportions

A2269 Doors, fascias & windows should all be in proportion with the building and steetscene. The diagram to the right displays the components of a traditional shopfront, however this guidance can also be applied to more modern shopfronts.

A2270 When refurbishing an existing shopfront, removal of the shopfront to create a completely open-fronted shop or the installation of large plate glass windows is not acceptable.

A2271 Glazing bars should be used to subdivide large windows giving them a sense of scale and proportion. Stall risers should be incorporated at the base of the window and should usually be between 0.4 and 0.7m in height.

A2272 ATMs are not appropriate in traditional shop fronts. Where appropriate, ATMs should be located to avoid obstructing pedestrians and should take up the minimum area of shopfront.

## Retention of Original Features

A2273 When refurbishing an existing shop front, decisions need to be informed by heritage significance. Original features should be retained such as pilasters, corbels and stall risers. New shopfronts and signage should not obscure, damage or destroy such features and the original proportions of the shop front should be maintained.

A2274 Where a shop is in a Conservation Area, particular care should be taken to retain the traditional features of an original shopfront.

**Planning permission is generally required for: new shopfronts; alterations to an existing shopfront including awnings, canopies & external security measures; change of use and demolition or removal of any part of a building within the conservation area.**

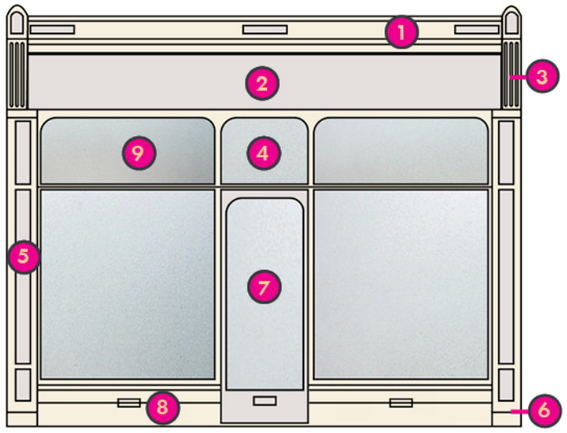



Fig A2.45 **Components of a shopfront**

1 Cornice
2 Fascia Board
3 Console Bracket
4 Fanlight
5 Pilaster
6 Plinth
7 Glazed door (recessed)
8 Stall Riser
9 Clerestory


Fig A2.46 **Retained original features, 183 Chiswick High Road (Grade II listed)**

## Fascia

A2275 Fascia should be sensitively positioned across the shopfront and should not:

In refurbishments:

- Obscure first floor windows or window sills
- Extend uninterrupted across a number of buildings
- Cover or ignore any architectural details such as corbels or pilasters

In refurbishments or new developments:

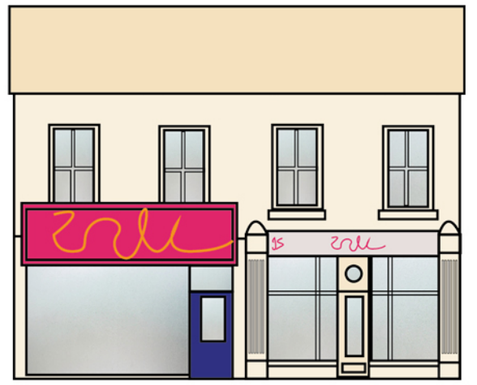
- Protrude out from the building further than a depth of 0.15m to 0.25m
- Form more than 20% of the overall height or surface area of the shop front
- Contain advertisements for other shops or products
- Lettering on fascia sign should be proportionate to the sign dimensions. Advertisement consent must be sought where lettering on fascia is over 0.75m in height. The fascia sign should state only useful details which relate to the premises (unit name and number).

A2276 In Areas of Special Advert Control, Local Plan policy will be updated to set out requirements for advertisements in this area.

## Materials

A2277 The materials used in a shopfront should consider the character of the existing building or new development, the adjacent buildings and the street scene. Appropriate materials for each area are detailed in Part B.

A2278 Shopfront materials should be in keeping with the wider existing building or new development, be of high quality and should not use many different materials. Synthetic materials such as anodised aluminium, plastic or fibreglass are rarely appropriate.



Excessive fascia covering architectural features

Modest, well proportioned fascia

Fig A2.47 **Fascia design**



Fig A2.48 **Well proportioned fascia and shopfront, 82 Turnham Green Terrace (left) and 42 Lampton Road (right).**


Fig A2.49 **Well proportioned shop front and fascia, retaining original door arrangement, 112 Chiswick High Road.**

A2279 Internal illuminated signs will not normally be permitted in Conservation Areas or on listed buildings. Illuminated signs should not damage the amenity of residential areas at night, cause glare to road users or have a negative impact on the street scene. Flashing signs will not normally be acceptable at any location.

## Canopies

A2280 Canopies or awnings of any type that obscure the shop front and cannot be fully retracted will not normally be acceptable. All canopies or awnings should be at least 2.4m above the footpath once fully extended; but should not be fixed to the building any higher than ground floor level. A width of at least 1m from the outer edge of the canopy or awning to the kerb line should be maintained at all times. Product advertisements on canopies or awnings will not normally be acceptable. Canopies or awnings made of plastic or PV materials will be discouraged.

## Shop Forecourt

A2281 A licence must be sought from the council's Licensing team for use of a public highway in front of a shop. Use of the shop forecourt will be acceptable where the use is appropriate for a public space, enhances the wider street scene, does not obstruct movement on the street or access into the shop. Canvas coverings around café or restaurant fronts will be discouraged where they clutter the foot way and/or shopfront.

## Retail Parking

A2282 New retail parking should avoid being car dependent and should make the most of existing parking provision in proximity to the site, such as shared parking with other uses and existing town centre car parks. As per the London Plan, car parking in high PTAL areas (PTAL 5-6) should be car free. As per the London Plan standards for Outer London,


Fig A2.50 **Appropriate canopies, 386 Chiswick High Road (left) and 53 Turnham Green Terrace (right). Photo credit: ©Allies and Morrison**

Fig A2.51 **Appropriate use of shop forecourt 94 Turnham Green Terrace (top left) and 495 London Road (top right), 88 Turnham Green Terrace (bottom). Photo credit: © Allies and Morrison**



within Opportunity Areas and within retail schemes below 500 sq.m, maximum car parking provision is up to 1 space per 75 sq.m gross internal area. In schemes that fall outside these areas, maximum provision is up to 1 space per 50 sq.m gross internal area. Disabled persons parking should be provided in accordance with London Plan standards. Where car parking is justified and provided, it should be publicly available and provide rapid EV charging.

## Accessibility

A2283 The public realm, shops and public buildings should be fully accessible to all, including people with disabilities and those with prams or push-chairs. Building Regulations must be followed in all cases. The following design guidance considers how internal layouts can be configured to ensure accessibility to all.

A2284 To ensure full accessibility:

- Entrance doors should be clearly marked out and distinguishable from the shop window. Good lighting and variation in materials can be used to aid visibility. Door furniture should be easy to use and contrasting in colour with the door itself.
- Minimum entrance-door widths should be 1m with at least 0.3m of space to the pull side of the door between the leading edge and the internal wall. Entrance doors should be light enough to manoeuvre open or incorporate automatic or button operated doors.
- The pavement and the shop floor should be one level, or an internal or external non-slip ramp should be installed if a change in level is unavoidable. A ramp must have a maximum gradient of 1:12 if its length is less than 2m, 1:15 at 5m or 1:20 at 10m. A sliding scale for ramps between 2m and 10m is acceptable i.e. 1.13 for 3m or 1.16 for 6m. Ramps should be retrofitted to all shops that currently do not have step-free access and should be included in any planning application to alter the shopfront.
- Split level areas should be linked by ramps.
- Separate doors to upper floors should be retained

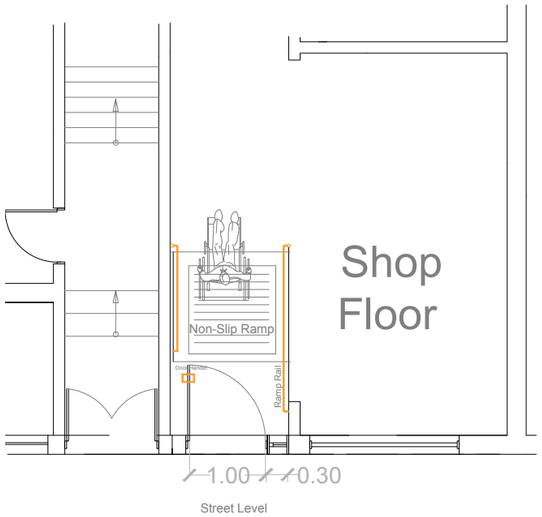



Fig A2.52 **Accessible shopfront design**

to allow independent and continued use of the upper floors.

A2285 Other elements require careful design to make shops and public buildings accessible to all users:

A2286 Counters, desks and checkouts:

- Counters, desks and checkouts should be a maximum of 800mm and at least 900mm wide in whole or at least in part;
- Till displays should be positioned at a height suitable for wheelchair use and the installation of induction loops may be appropriate;
- Aisles should have a minimum width of 1500mm to allow sufficient space for wheelchair users to turn.

A2287 Fitting rooms should:

- be a minimum size of 2000mm x 2200mm, incorporating 1500mm x 1500mm of wheelchair turning space,
- have a tip-up seat at a height of 480mm with appropriate grab rails,
- have a red panic cord that extends to within 100mm of the floor and has levers at 100mm, 800mm and 1000mm above floor level,
- have outward opening door or curtain provided diagonally opposite the seat,

- have clothes hooks at a height of 1250mm and 1400mm above floor level.

A2.288 Development proposals which include public conveniences should ensure provision of disabled conveniences is accounted for and wheelchair access is considered. Design guidance for which is found below.

## Accessible Toilets

A2.289 It is recommended that the design of accessible toilets in public buildings incorporates the following guidance (beyond Part M1/M3 of the building regulations):

- Be a minimum size of 2200mm x 2000mm, incorporating an activity space of a minimum of 750mm clear of the door swing;
- Have outwards opening doors light enough to manoeuvre open and closed, with a minimum clear opening width of 900mm, with at least 300mm clear space adjacent to the leading edge of the door;
- Hinged doors should be fitted with a grab bar at a height of 900mm to 1100mm above floor level, a lever style door handle and incorporate a kick plate to allow it to be nudged open using wheelchair footrests;
- Have a lock on the inside operable with a closed fist, and an emergency release facility on the outside. If an external lock is needed it should be RADAR;
- Fixtures and fittings, such a litter bins should be kept clear of the space needed for access into the cubicle and sideways transfer onto the toilet; to achieve this, the cubicle may need to be enlarged or the litter bin could be inset into the wall;
- Incorporate clothing hooks at a height of 1250mm and a shelf set at a height of 720-740mm;
- A mirror of width 400mm and height 1000mm, set 600mm above the floor should be provided.
- In addition to a shallow hand basin with tap located in the corner closest to the toilet, a soap dispenser, paper towel holder or automatic hand dryer should be provided within reach of the toilet (140-160mm) to allow someone to wash and dry their hands whilst seated.
- The toilet tissue dispenser should be fitted in place of toilet roll,
- Grab rails should contrast in colour from other sanitary ware,
- The toilet should be able to accept a toilet seat riser,
- A red panic cord should be provided in supervised facilities that extends to within 100mm of the floor and has levers at 100mm, 800mm and 1000mm above floor level.
- The floor surface should be non-slip.
- Preferably have a choice of a left handed and a right handed accessible toilet.

A2.290 Changing places toilets should be installed in large buildings and locations where large numbers of people visit, including train stations, shopping centres, entertainment venues, public buildings and town centres and must include:

- A height adjustable, adult-sized changing bench,
- Ceiling track hoist system,
- Adequate space for the disabled person and up to two assistants,
- Peninsular toilet with space both sides for assistants,
- Privacy screen,
- Wide paper roll,
- Large waste disposable bin,
- Height-adjustable washbasin,
- Backrest on toilet seat,
- Inclusion of a shower in leisure centres and transport hubs.

**Key policies and guidance**

- Changing Places: The Practical Guide

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