

# Birmingham Design Guide

Principles Document

September 2022





# Contents

<p><b>1</b> Introduction <span style="float: right;">p3</span></p> <p style="padding-left: 20px;">Design themes <span style="float: right;">p7</span></p> <p style="padding-left: 40px;">Align or explain <span style="float: right;">p7</span></p> <p style="padding-left: 40px;"><span style="float: right;">p9</span></p> <p><b>2</b> Design themes <span style="float: right;">p10</span></p> <p style="padding-left: 20px;">■ The Birmingham ID <span style="float: right;">p13</span></p> <p style="padding-left: 40px;">Character assessment</p> <p style="padding-left: 60px;">• Birmingham’s historic environment</p> <p style="padding-left: 20px;">■ Streets and spaces <span style="float: right;">p16</span></p> <p style="padding-left: 40px;">Birmingham’s great streets <span style="float: right;">p18</span></p> <p style="padding-left: 40px;">Moving around the city <span style="float: right;">p20</span></p> <p style="padding-left: 20px;">■ Landscape and green infrastructure <span style="float: right;">p22</span></p> <p style="padding-left: 40px;">The role of landscape design in new developments <span style="float: right;">p24</span></p> <p style="padding-left: 40px;">Birmingham’s trees <span style="float: right;">p26</span></p> <p style="padding-left: 60px;">• Protection and retention of existing trees</p> <p style="padding-left: 60px;">• Tree planting in new development</p> <p style="padding-left: 40px;">Public open space <span style="float: right;">p30</span></p> <p style="padding-left: 40px;">Biodiversity and geodiversity <span style="float: right;">p32</span></p> <p style="padding-left: 60px;">• Birmingham’s natural environment</p> <p style="padding-left: 60px;">• Achieving enhancements and minimising impact</p> <p style="padding-left: 60px;">• Ecological and geological surveys</p> <p style="padding-left: 60px;">• Addressing ecological or geological impacts</p> <p style="padding-left: 60px;">• Biodiversity and geodiversity enhancements</p>	<p>■ Healthy living and working places <span style="float: right;">p34</span></p> <p style="padding-left: 20px;">Neighbourhoods <span style="float: right;">p36</span></p> <p style="padding-left: 40px;">• Mixed uses to create sustainable, vibrant neighbourhoods</p> <p style="padding-left: 40px;">• Building at densities appropriate to good, accessible place making</p> <p style="padding-left: 40px;">• Layout and orientation</p> <p style="padding-left: 40px;">• Residential privacy and overlooking</p> <p style="padding-left: 20px;">Buildings and their uses <span style="float: right;">p42</span></p> <p style="padding-left: 40px;">• Architectural quality</p> <p style="padding-left: 40px;">• Residential buildings</p> <p style="padding-left: 40px;">• Residential extensions</p> <p style="padding-left: 40px;">• Rooftop extensions</p> <p style="padding-left: 40px;">• Non-residential developments</p> <p style="padding-left: 40px;">• Tall buildings</p> <p style="padding-left: 40px;">• Developing with Birmingham’s water assets</p> <p style="padding-left: 40px;">• Lighting of buildings</p> <p style="padding-left: 40px;">• Creating safe buildings</p> <p style="padding-left: 40px;">• Design of waste storage</p> <p style="padding-left: 40px;">• Telecommunications infrastructure</p> <p>■ Efficient and future ready <span style="float: right;">p58</span></p> <p style="padding-left: 20px;">• Energy efficiency</p> <p style="padding-left: 20px;">• Conserving water resources and maximising water efficiency</p> <p style="padding-left: 20px;">• Decentralised energy generation</p> <p style="padding-left: 20px;">• Flexible and adaptable building designs</p> <p style="padding-left: 20px;">• Building re-use and sustainable materials</p> <p style="padding-left: 20px;">• Climate change adaptation</p>	<p><b>3</b> Fulfilling design quality <span style="float: right;">p63</span></p> <p style="padding-left: 20px;">Detailing drawings</p> <p style="padding-left: 20px;">• Robust materials and detailing</p> <p style="padding-left: 20px;">• Sample panels</p> <p style="padding-left: 20px;">Retaining design quality</p> <p style="padding-left: 20px;">Amendments and value engineering</p> <p style="padding-left: 20px;">• Construction quality</p> <p><b>4</b> Submitting a development proposal <span style="float: right;">p69</span></p> <p style="padding-left: 20px;">• Policy alignment</p> <p style="padding-left: 20px;">• Additional guidance and design tools</p> <p style="padding-left: 20px;">• Information to support applications</p> <p style="padding-left: 20px;">• Design and access statements</p> <p style="padding-left: 20px;">• Consents and pre-application engagement</p> <p style="padding-left: 20px;">• Building regulations</p> <p style="padding-left: 20px;">• Professional expertise</p> <p style="padding-left: 20px;">• Construction logistics</p> <p>Glossary <span style="float: right;">p76</span></p> <p>Contact <span style="float: right;">p84</span></p>
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# 1

## Introduction

# Introduction

1.1 Birmingham is at an important juncture in its evolution. As the need to address climate change becomes increasingly critical, the City Council has set an ambition to become net zero carbon by 2030 and for the city to be carbon neutral as soon as possible thereafter, as a 'just transition' allows.

1.2 As the city transitions to this zero carbon, clean air environment (via its Route to Zero and Clean Air Strategy), the role of future investment and growth will become increasingly important.

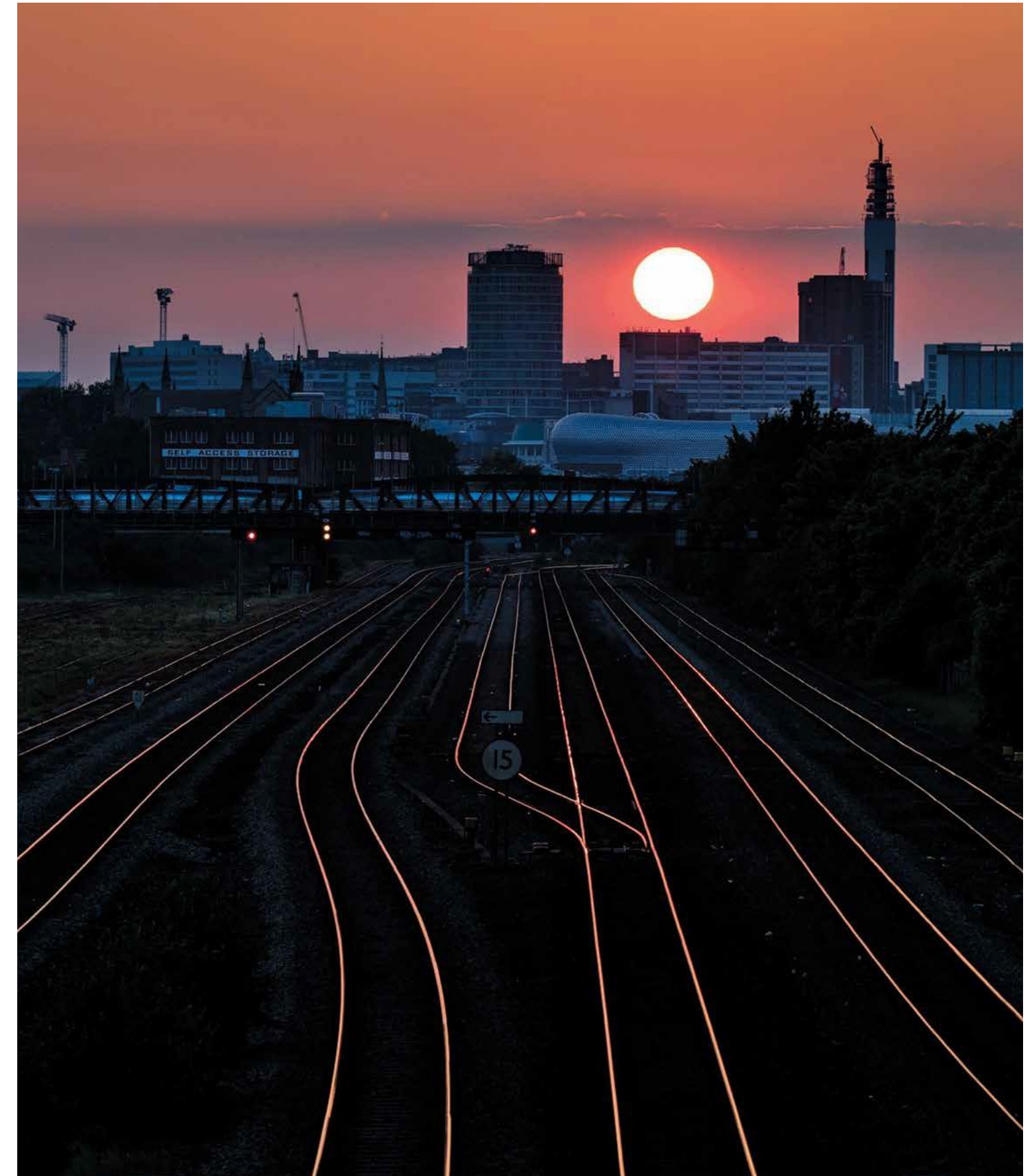
1.3 In helping deliver the city's growth agenda, it must build resilience and create future focused development that will deliver zero carbon, low pollution environments.

This Guide will be fundamental in delivering this, setting out the design aspirations of the city, with guidance to ensure developments create high quality, innovative and resilient places.

1.4 Through its implementation, the Guide will ensure development successfully responds to the varied needs of the city: homes to be adaptable and efficient; neighbourhoods to be welcoming, safe and attractive; places of work to compete with the best in the world; the built environment to reflect local distinctiveness and embrace creativity; leisure and recreation facilities to be diverse and modern; pervasive green infrastructure effectively integrated; and citizens to be part of healthy, happy and affordable communities.

1.5 The guidance within this document applies to all development that takes place across Birmingham; ensuring the delivery of resilient, low and zero carbon buildings and places that enhance their physical surroundings.

1.6 The Design Guide is a Supplementary Planning Document (SPD) to support the delivery of the Birmingham Development Plan (2017) and the Development Management in Birmingham Development Plan Document (DMB) (2021). It is a material consideration in the assessment of planning applications.







### Design themes

1.7 Good design comprises a number of interconnecting elements, which when successfully applied result in the creation of places and spaces that enhance the environment and enrich the physical, social, cultural, health and wellbeing of the people who use and interact with them.

1.8 The Design Guide has drawn these key elements under five Design Themes, each with a number of Design Principles and accompanying City Notes (within City Manuals) that interlink, collectively ensuring high quality, sustainable design is delivered across Birmingham.

#### Design themes

- The Birmingham ID.
- Streets and spaces.
- Landscape and green infrastructure.
- Healthy living and working places.
- Efficient and future-ready.

1.9 Development proposals must clearly demonstrate how they have incorporated, addressed and aligned with the five Design Themes and their relevant Design Principles (assisted by City Notes from the relevant City Manuals).

1.10 To help demonstrate and explain this, it is recommended design and access statements are framed around the Design Guide's five Design Themes.

#### Fulfilling design quality

1.11 Having successfully aligned with the Design Themes to help achieve planning permission, proposals must retain the quality of their design through to delivery. The Fulfilling Design Quality section outlines how the City Council will seek to ensure approved designs are realised.

### Align or explain

1.12 The primary role of this Guide is to highlight the importance Birmingham places on delivering high quality design. It presents Design Principles to assist and inspire developers and their design teams to achieve the high quality, innovative outcomes required.

1.13 Whilst some Design Principles are use or building specific, those relevant should be appropriately applied to a scheme. Proposals that fail to apply the relevant principles will not generally be supported.

1.14 If an applicant wishes to challenge a Design Principle, they should explain their rationale for this, with clear evidence to demonstrate how their proposal delivers good design, despite not aligning with the City Council's guidance.





## Design themes

- The Birmingham ID
- Streets and spaces
- Landscape and green infrastructure
- Healthy living and working places
- Efficient and future-ready



# Design themes

## The Birmingham ID

2.1 Birmingham’s unique identity is one of its key assets that must be celebrated, strengthened and positively utilised to help realise the city’s growth agenda.

2.2 The city’s diverse landscapes and townscapes comprise a range of characteristics and environments, which over time have created the Birmingham ID. This ID has evolved as the city has embraced numerous city plans and inherited centuries of development, each leaving their

own legacy, from the Georgian Colmore Estate, Regency housing of Edgbaston, industrial heritage in the Jewellery Quarter and modernism of the city centre; to the medieval Sutton Park, Victorian Botanical Gardens and Birmingham’s comprehensive canal network. This evolution continues today with the growth of modern housing developments across the city; the continued evolution of the city centre skyline; and the sensitive conservation and re-use of the city’s heritage assets.





2.3 Whilst the buildings, streets, art, canals and green spaces play a fundamental role in establishing the physical character of an area; the communities and users of these spaces are equally important. Birmingham benefits from a culturally diverse population; and is home to one of the youngest populations in Europe. These social characteristics enrich the city and play an instrumental role in its continued vibrancy. It is the relationship between the cultural diversity and the built environment that has created Birmingham’s ID, from its vibrant city centre quarters and productive employment areas; to its residential suburbs and diverse green assets.

2.4 As these environs continue to develop and evolve, it is important development positively responds and adds to the unique components of Birmingham, further diversifying the cultural, historic and green landscape to ensure the city’s finite

environments have a prominent role in its future; and introduce new developments into the city’s landscape that leave their own legacy on Birmingham’s ID.

2.5 To help continue the evolution of Birmingham’s ID, the City Council encourages developers (where appropriate) to include artists, facilitators, makers and curators within their design teams. Engaging these multifaceted professionals from the outset of a project can help inject creative thinking into all elements of a development, when encouraged to work collaboratively with architects, landscape architects, engineers and interior designers.

2.6 Commissioned as part of a design team, to either facilitate or create art in the built environment, artists and facilitators can work effectively within given constraints (financial, development) to create and promote innovative outcomes. Historic case studies

include an array of examples, demonstrating how artists have effectively delivered this, leading to an enhancement in the cultural quality and place specific characteristics of the development.

2.7 There are a range of site specific and responsive ways in which artists with different practices work, from engagement with existing communities; designing physical elements of the building or public realm; devising creative re-use of spaces or buildings; using sites or buildings for temporary uses; or developing on-going programmes of culture and arts post-development.

2.8 The value creative professionals can bring to a scheme, should not be underestimated in helping to create bespoke, quality developments that people enjoy.

<b>DESIGN PRINCIPLE</b>	1
Enhance and contribute to Birmingham’s ID	
BDP Policies: PG3, PG2, TP12, TP27.	
Development must positively add to Birmingham’s diverse identity, through the creation of designs that respond to the physical, cultural, historical and socially distinct characteristics of the surrounding area. This must lead to proposals that engage, enhance and celebrate the surrounding environment and community, whilst meeting the needs of all its occupants and users.	

**Character assessment**

2.9 In order for a new development to successfully contribute to Birmingham’s ID, design teams must have an appreciation and understanding of the surrounding character and land-uses.

2.10 Across Birmingham there are numerous character areas that cannot be detailed or assessed in this city-wide document. There are broad elements of commonality across some of the city’s residential communities, where character alignment may be particularly important, such as the distinct form and scale of terraced housing or the strong relationship between the house and its plot within a mature suburb. But each area is also likely to have individual common elements, which development must effectively understand and positively respond to.

2.11 Some character areas may have their own guidance or design codes, which development should respond to. But where this is not present, applicants must undertake a robust character assessment to understand the context into which they seek to add.

2.12 The character of an area comprises a number of elements and layers, often with a significant degree of harmony. From the function, style, materials, scale and detail of a specific building or group of buildings, up to neighbourhood level where street patterns, plot sizes, densities and environmental character are formed.

2.13 When creating new proposals, designers should have an understanding of, and embrace, the positive and common elements within the character area, ensuring schemes successfully acknowledge and interpret relevant characteristics into their proposal. Where proposals seek to ignore established character, there must be a clear design rationale for this divergence, resulting in character enhancement. It must not result in a negative impact on the established character area.

2.14 A character assessment will be an important tool in understanding the context of an area, the scope of which should be relative to the scale of the development and the nature of its surroundings. For example, developments involving tall buildings, those within the urban fringe or a conservation area may require an assessment that extends beyond their immediate hinterland.

2.15 Below are some of the elements design teams should assess within a character assessment, to help inform and inspire their design process.

- Neighbourhoods:
- Densities.
  - Streets, roads and routes.
  - Plot and building proportions and urban grain.
  - Land uses.
  - Topography/views/focal points/skyline.
  - Public realm/art/landscape.
  - Landscape character.
  - Cultural and social mapping.

- Buildings:
- Role of buildings.
  - Architectural styles and detailing.
  - Materials.
  - Form, scale, height and massing.
  - Roofscape.
  - Façade emphasis and rhythm.
  - Outdoor space and curtilage.
  - Boundary treatments.





**Birmingham’s historic environment**

2.16 The city’s historic environment is one of the key components of Birmingham’s ID, providing it with bespoke buildings, structures and environments unique to the city. These spaces and assets represent city’s history and can play an important role in its future. Productively used and incorporated, the inclusion of historic assets in development can help sustain the asset, whilst providing maturity, character reference and/or focal points for the wider development.

2.17 Birmingham’s historic assets fall under the four recognised national designations:

- Listed buildings and structures.
- Scheduled monuments.
- Registered parks and gardens.
- Conservation areas.

The city also contains several non-designated, local heritage assets.

2.18 The emerging Historic Environment SPD will provide detailed guidance for developments that directly and indirectly affect heritage assets (as listed).

**DESIGN PRINCIPLE 2**

Character assessment

BDP Policies: PG3, TP12 Historic Environment SPD.

The design of proposals must be informed by a clear understanding of the surrounding area’s character. A direct synergy between the proposed and the existing should be evident and explained; unless there is a clear justification for an alternative approach; that results in character enhancement.

Where the site or surrounding character area contains heritage assets, these must be key considerations in the design response

Where a site or area has adopted Design Codes or guidance, designs must be informed by these.

Further guidance on elements to consider and assess as part of a Character Assessment is presented City Note ID-1 of the Birmingham ID Manual.



# Design themes

## Streets and spaces

2.19 The city’s movement is enabled by a network of streets, paths, dedicated routes and public spaces which broadly comprise the city’s ‘public realm’. These routes and spaces provide a transport function whilst also playing a fundamental role in the quality of Birmingham’s built environment and how people use and engage with it, providing spaces for social interaction, arts and culture, leisure, exercise or to simply dwell.

2.20 To successfully fulfil these dual roles, the city’s public realm must balance demands from different users and uses, to create an accessible, safe and attractive network of routes and public spaces.

2.21 Allied with the visual and functional quality of these environments, reducing levels of air pollution and road noise will play a key role in the quality and functionality of spaces. The Clean Air Zone will aid this in the city centre, but these issues must be addressed across the city.

2.22 New development will play a fundamental role in helping the public realm and transport network evolve and improve, enhancing how people experience Birmingham’s ‘great streets’ and ‘move around the city’.



Paradise masterplan, Glenn Howells Architects.  
© Hufton + Crow.





**Birmingham’s great streets**

2.23 Development must contribute to the continued enhancement of the city’s network of public spaces and streets. This should be achieved through the physical enhancement of the public realm and the creation of buildings that engage with it.

2.24 The public realm should be shaped by the needs of pedestrians, cyclists and public transport users; with road traffic and parking carefully integrated to produce a liveable environment which minimises the negative impacts of vehicles such as high volumes of movement, fumes and noise.

2.25 Designers should ensure their proposals successfully engage and interact with their surroundings; with primary entrances and active internal space sited at key frontage (roads, canal-side, public spaces); and users and uses encouraged to spill into spaces (where appropriate). Informed by the surrounding context, buildings should overlook, activate and physically and visually connect with their surrounding public realm.

2.26 In enhancing the quality and functionality of the city’s public spaces, the City Council will seek to ensure a focus on creating environments for people to enjoy. This will require development proposals and projects to consider how people will interact with, experience and use the space. This should lead to the application of creative landscape architecture (allied with appropriate artistic intervention) that utilises a combination of elements such as high quality materials and furniture, art, lighting, green infrastructure and landscape features to help create accessible spaces that invite and encourage safe use by different users.

2.27 Where advertisements and service infrastructure is to be located within, or visible from, the public realm it should be designed and sited to not impact negatively on the amenity or safety of the surrounding space.

<b>DESIGN PRINCIPLE</b>	3
Creating great streets	
BDP Policies: PG3, TP12, TP27, TP37. DMB Policies: DM2, DM7.	
All development must positively acknowledge, enhance and interact with their surrounding public realm; adding to their vibrancy, safety and use.	
In designing proposals, developers shall:	
<ul style="list-style-type: none"> <li>• Integrate trees and soft landscape to environmentally enhance spaces, contribute to surface water management (via elements such as rain gardens), and aid air quality;</li> <li>• Create safe and inviting, inclusive spaces for people;</li> <li>• Ensure streets and public spaces are defined and enclosed by active building frontages;</li> <li>• Site principal entrances from primary streets and spaces;</li> <li>• Effectively integrate servicing requirements;</li> <li>• Ensure advertisements do not impact (cumulatively or individually) on character, movement, amenity and/or safety as a result of their location, size and/or illumination/ method of projection;</li> <li>• In large scale schemes, where appropriate, engage local artists in the design process to aid the creation of innovative, engaging, playful environments;</li> <li>• Where appropriate, provide spaces for community, cultural activities and facilities for exercise, sport and play and resident engagement;</li> <li>• Avoid street clutter; and</li> <li>• Incorporate appropriate anti-terror measures, where appropriate.</li> </ul>	
Further guidance on how to ensure designs positively contribute to great streets is presented in City Notes SS-1 to SS-8 of the Streets and Spaces Manual.	



**Moving around the City**

2.28 As Birmingham continues to evolve, it must have a transport network that can serve and support this change. The Birmingham Transport Plan (October 2021) sets out how transport in Birmingham must transform to meet the challenges of the next decade; sustaining economic success; supporting, empowering and connecting communities; reducing the negative impact of transport on the environment; and drastically reducing carbon emissions from transport. This will be achieved via the reallocation of road space, transforming the city centre, prioritising active travel in local neighbourhoods and managing demand through parking measures.

2.29 New development across the city will play an important role in helping to achieve the aspirations of the Transport Plan, whilst delivering and enhancing the city’s spaces; with design that enables safe, efficient movement; and effectively knits with existing routes and spaces.

2.30 The proposal’s character assessment will help establish existing and desired links, roads and routes that schemes should acknowledge and link to (canals towpaths, footpaths, roads). Within a development itself (relative to size) designs must utilise focal points and a clear hierarchy of streets to aid legibility; ensure car parking does not dominate public spaces; and incorporate appropriate infrastructure and layouts that encourage safe cycling and walking.

2.31 Developments should be sited and designed to minimise the need to travel by private car, and maximise opportunities for walking, cycling and public transport. To help achieve this, highway space should be used objectively to provide appropriate levels of service to different road users, whilst prioritising sustainable travel.

2.32 Developments that have the potential to generate significant volumes of road traffic, or may expose users to areas of known or likely high air pollution, must demonstrate consideration of the impacts and provide suitable mitigation.

2.33 The transport needs of disabled people must be considered within all development proposals and designs must make appropriate provision for these needs.

2.34 Commercial developments should undertake an initial Delivery and Servicing Plan to understand the logistics and

freight requirements of their proposal; and incorporate measures into the building’s design to help enhance the efficiency of these.

2.35 Levels of parking provision for disabled drivers, bicycles, motorcycles, cars, Ultra Low Emission Vehicles (ULEVs) and car clubs should adhere to current council parking standards. Design and layout of all types of parking, as well as supporting facilities such as charging infrastructure or storage lockers should be carefully considered and integrated into a development.

<b>DESIGN PRINCIPLE</b>	4
Transport needs of development	
BDP Policies: PG3, TP38, TP39, TP40, TP41, TP44, TP45. DMB Policies: DM2, DM14.	
<p>Transport needs must be an integral part of every development. Designs should ensure all users can access and utilise a range of transport modes to link with their surroundings and beyond in a safe and sustainable way.</p> <p>Designs must seek to:</p> <ul style="list-style-type: none"> <li>• Create safe, attractive, efficient walking and cycling environments;</li> <li>• Deliver a clear hierarchy of connected streets;</li> <li>• Make legible, accessible places that are easy to navigate;</li> <li>• Design efficient, safe servicing and loading facilities including refuse vehicle movements;</li> <li>• Allow for necessary lines of sight and visibility splays;</li> <li>• Support access to public transport;</li> <li>• Accommodate the transport needs of people with disabilities;</li> <li>• Provide appropriate levels of cycle and motorcycle parking and facilities that are convenient, safe and secure;</li> <li>• Minimise and manage car parking provision, and effectively integrate car parking in a scheme, ensuring it does not dominate; and</li> <li>• Provide well located and designed, electric vehicle chargepoints.</li> </ul> <p>Further guidance on providing and integrating the transport needs of a development are contained in City Notes SS-9 to SS-16 within the Streets and Spaces Manual.</p>	





# Design themes

## Landscape and green infrastructure

2.36 Birmingham’s varied green infrastructure contributes significantly to its character and environmental quality. The infrastructure comprises a diverse range of green and blue assets that often serve a multitude of roles including playing a part in the city’s adaptation to climate change. It also has an important role providing recreation and amenity space, transport routes and biodiversity networks. In turn, providing a number of health, social and cultural benefits to the city’s citizens and visitors of all ages.

2.37 Such assets are an intrinsic component of a sustainable city, and must develop and

grow with it; supporting and adapting to the future needs of Birmingham; serving its residents; and providing habitats to support a range of wildlife.

2.38 To aid this enhancement and growth, development must incorporate sustainable GI appropriate in scale and character to the context, within a complementary landscape scheme. This should include the retention of existing assets and the introduction of new features, creating environments which enhance the quality of place whilst achieving GI and biodiversity gains.







The role of landscape design in new developments

2.39 Birmingham encompasses a range of landscape character areas, from the hard paved urban realm in the city centre and the mature planting in its suburban streets and gardens, to the expansive green open spaces of its parks and countryside, and its diverse canal and river corridors. These environments comprise a range of features and components, that collectively contribute to an area’s distinctive and often unique landscape character.

2.40 Landscape character is a product of many diverse elements, including its openness and enclosure, topography, land use and ownership, as well as hard and soft landscape elements including its paving palette, furniture, planting, water assets and the diversity of flora and fauna. Its context and setting also play a part, including the surrounding urban grain and character of the built form around it.

2.41 High quality landscape architecture is a crucial part of all development, in the design of their public and private outdoor spaces.



Design should always be bespoke to the site, helping schemes integrate into their setting by understanding and responding to their surrounding environments and unique landscape characters. They can also have a role in reinforcing or repairing established landscapes. Equally, landscape schemes can sometimes be used to create a new character of outdoor spaces, particularly where the existing environment is poor, or in large developments or masterplans.

2.42 Landscape design should be considered at the outset, ensuring that sufficient space is allowed for, to create a setting which will balance with and complement the architecture. Where appropriate, proposals should seek to create soft landscape gains. Where a scheme has limited capacity for planting, green roofs and living walls should be integrated into the architecture. The Urban Greening Factor (UGF) is a useful method of assessing the size of these elements and their associated benefits. The use of which is supported by the City Council.

<b>DESIGN PRINCIPLE</b>	5
Landscape design in new developments	
BDP Policies: PG3, TP6, TP7, TP27, TP37, TP39. DMB Policies: DM4.	
<p>High quality landscape design shall be an integral part of all development, responding to and building on existing landscape characters where appropriate. Developments shall devote sufficient space to hard and soft landscape proposals, specifying soft and hard landscape elements and features which ensure that designs have sufficient resilience to endure.</p> <p>Where the context of a development has a poor quality landscape character, creating a new character for its outdoor spaces may be acceptable. In these cases, innovative, artistic, contemporary landscape design will be encouraged.</p> <p>In designing landscapes, developers must:</p> <ul style="list-style-type: none"> <li>• Protect existing landscape and heritage assets, using them positively within development proposals;</li> <li>• Respect existing character areas by designing appropriately in the context;</li> <li>• Allow space for soft landscape including planting;</li> <li>• Ensure landscapes are accessible;</li> <li>• Create outdoor spaces to support social and cultural activity and aid health and well-being;</li> <li>• Create outdoor spaces that make room for all ages and their needs;</li> <li>• Provide biodiversity net gain to accommodate the needs of flora, fauna and ecological function;</li> <li>• Create connections to existing green corridors to enhance and expand GI networks;</li> <li>• Collaborate with others to design out crime in outdoor spaces using landscape features and elements; and</li> <li>• Ensure that landscape designs are resilient and sustainable to stand the test of time.</li> </ul> <p>Where sustainable drainage systems are to be accommodated within the soft landscape areas of a development, these should be designed in collaboration with drainage specialists and the Lead Flood Risk Authority (LFRA) and should form a key feature of the design. They should be appropriately located, sensitively designed and well integrated into the overall landscape proposal. When located in public open space, they should not inhibit or replace traditional forms of recreational space in line with the City’s adopted guidance.</p> <p>Proposals must seek to integrate green elements into buildings, particularly where limited or no soft landscape is otherwise provided as part of a development scheme.</p> <p>Further guidance on landscape in new developments is contained in City Notes GI-1 to GI-7 within the Landscape and Green Infrastructure Manual.</p>	



**Birmingham’s trees**

2.43 The city’s trees are important components of a sustainable city, contributing significantly to it’s green infrastructure; a contribution the City Council wants to see increase with greater canopy coverage via appropriate retention and tree planting.

2.44 The benefits trees bring to Birmingham are threefold:

**Aesthetic** - trees enhance urban landscapes, softening environments, creating focal points, bring human scale and introduce colour, movement, life and seasonal change.

**Ecological** - existing trees, woodlands and hedgerows create habitats that help support a range of species, bringing wildlife into urban spaces and enabling it to move across the city.

**A practical city asset** - with careful species selection, a tree is by far the most cost-effective option for providing a wide range of essential urban services: slowing winds channelled by buildings, filtering air pollution (but this must not detract from tackling the sources of pollution), hydrating and cooling air, providing shade to control the ‘urban heat island’ effect, intercepting rainfall and evaporating ground water to reduce the load on surface water drainage.

**Protection and retention of existing trees**

*Protecting and utilising existing trees*

2.45 The benefits trees give to the city and its communities increase as they mature and establish which development proposals must recognise and acknowledge via the retention and integration of existing trees and hedgerows located within, or adjacent to, a site.

2.46 Trees should be retained that not only add to the wider character of an area (including trees statutorily protected by Tree

Preservation Orders (TPO) or located within conservation areas), but those that can add maturity and/or create focal points within the development.

2.47 Where existing trees are considered particularly important, the City Council may serve a TPO to help ensure they are retained by development.

2.48 If proposals are seeking to develop adjacent to a woodland, a minimum 15 metre eco-tone should be allowed to develop, or be planted, to provide a gradual transition between forest trees, woodland edge trees and woodland edge shrubs.

*Loss of trees*

2.49 The category a tree is allocated when surveyed (in accordance with BS 5837) may often guide the likelihood of its retention within the development, with a general assumption that:

- Category A trees should be retained unless there are exceptional circumstances for their removal.
- A design must give due consideration to the retention of B category trees and accommodate them wherever it is reasonably possible.
- C category trees should not be a constraint to development.
- U category trees are recommended for removal regardless of development plans.

2.50 However, assessments should be based on site specific circumstances and a consideration of what an existing tree could offer to the development, be it category A, B or C.

2.51 Where proposals are seeking to remove existing trees (of any category); justified losses must be appropriately compensated for by new tree planting, or via a commuted sum. To establish the appropriate level or value of compensation,

the City Council will use the Capital Asset Valuation of Amenity Trees method (CAVAT) to value the existing tree(s).

*Designing existing trees into development and infrastructure projects*

2.52 Generally, a tree may be considered to be within the potential effects of development if the works or access is within 5 metres of the full canopy spread of a typical tree or half the height of a cypress conifer. Designs must respond effectively to these parameters, to aid integration and mitigation.

*Tree surveys*

2.53 To help achieve these outcomes, proposals must apply the guidance and standards within British Standard 5837:2012 ‘Trees in Relation to Design, Demolition and Construction’. This is a complete procedural tool for designing with existing trees and successfully retaining trees throughout development. It is also a tool for assessing which trees are suitable for retention and which could, or should, be removed.

2.54 Use of the full standard must be applied where there are protected trees within or near a development and the best practice that it represents is expected of any development proposals or infrastructure projects where existing trees are present.

2.55 Proposals must clearly demonstrate how they have followed BS 5837:2012, with appropriate plans and assessments, details of protection to be used during construction and the construction methods to be followed during site preparation and build.

2.56 For small scale developments and householder developments, it may be sufficient to apply and address the basic tree survey principles detailed within CITY NOTE GI-9, with relevant information submitted with the application to demonstrate these principles have been applied.

*Canopy coverage*

2.57 In order to maximise the benefits trees can bring to the city they must be given sufficient space to grow and mature, enabling them to fulfil their environmental potential.

2.58 The canopy is one of the primary measures used to assess the maturity of the city’s tree stock and is something the City Council will seek to enhance, ensuring the benefits provided by trees endure with the city and help it adapt to and mitigate against the predicted effects of climate change.

2.59 It is widely recognised that canopy coverage of between 25% and 35% will be required to meet these challenges. Birmingham currently stands at around 18% canopy coverage (2019) by land area and seeks to increase this to 25% by 2030.

2.60 Development should contribute to the growth of this baseline through the retention of existing trees and the introduction of new.

2.61 In order to help achieve the 7% increase desired, the City Council will seek to retain and grow levels within existing high contributing uses such as residential; and increase coverage on uses that have historically provided low coverage levels (industrial and commercial).

<b>DESIGN PRINCIPLE</b>	6
<b>Integrating existing trees into development</b>	
BDP Policies: PG3, TP1, TP7, TP8, TP12. DMB Policies: DM4.	
Site layouts must be informed by a clear understanding of the tree assets within and adjacent to a site, with designs positively responding to these assets, through the retention, protection and integration of existing trees and/or hedgerows.  To help demonstrate and achieve this outcome, proposals should apply BS 5837, undertaking the sequential production of:  1. Tree Survey (TS). 2. Tree Constraints Plan (TCP). 3. Arboricultural Impact Assessment (AIA). 4. Arboricultural Method Statement (AMS). 5. Tree Protection Plan (TPP).  If a proposal seeks to remove existing trees and/or hedgerows, the rationale of this must be clearly justified, with appropriate compensation agreed with the City Council, based on the asset value of the existing trees (CAVAT). Where the rationale and justification does not warrant removal, proposals may be refused and a Tree Preservation Order served.  Where pruning is proposed to existing trees, details of this should be submitted, with works complying with best practice detailed in BS3998:2012.  Proposals must appropriately site the development and utilise building methods, to help protect and effectively integrate existing trees into a scheme; retaining existing canopy coverage and the associated landscape character of the site.  Further guidance on how to protect and integrate trees into development is detailed within City Notes GI-8 to GI-16 within the Landscape and GI Manual.	





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Tree planting in new development

2.62 Through their considered siting, appropriate species mix and maintenance; newly planted trees should successfully mature adding to the landscape quality of an area and contributing to the growth of Birmingham’s Forest.

2.63 Key to ensuring newly planted trees are able to mature is specifying the most appropriate species for the site. This will require arboricultural professionals and landscape architects to have a clear understanding of the ground conditions; the below and above ground constraints; topography; and adjacent uses. Consideration must also be given to how the trees proposed will effectively coexist with the development’s services, SuDS system and transport infrastructure; and the occupants of the development. To help achieve this, designers should ensure the landscape and tree planting proposals are conceived alongside the infrastructure requirements and general layout of the site. This will help ensure any potential conflicts with servicing infrastructure; on-site micro-climate created by development; excessive overshadowing; dropping of honeydew or fruit; or visibility splays and the kinematic envelope of vehicles, is reduced.

2.64 Having understood these site specific constraints and characteristics, an appropriate species mix should be specified that can successfully grow and mature within the site. These should be supported and aided by appropriate tree pit dimensions and surfacing (grilles are not generally supported), protection and on-going maintenance.

<b>DESIGN PRINCIPLE</b>	7
Tree planting in new development	
BDP Policies: PG3, TP1, TP7, TP8. DMB Policies: DM4.	
Landscape designs shall include the planting of new trees where there is appropriate space; soil availability; and climate to enable them to grow and mature. Where existing trees have been removed from the site, new provision must appropriately compensate for this loss and seek to deliver wider gains where there is scope to do so.	
Uses that currently contribute a low level of canopy coverage to the city (as detailed within City Note GI-15) should seek to introduce new tree planting above the baseline percentage coverage.	
Designers must have a clear understanding of the existing and proposed constraints of a site; and design tree planting layouts and species specifications that respond to these.	
This process should consider:	
<ul style="list-style-type: none"> <li>• Soil characteristics;</li> <li>• Root available soil volume;</li> <li>• Above and below ground constraints;</li> <li>• Tree pit dimensions and appropriate surfacing;</li> <li>• Ultimate height and spread;</li> <li>• Wildlife value;</li> <li>• Ornamental qualities;</li> <li>• Tolerance to exposure and climatic extremes;</li> <li>• Resistance to pests and diseases;</li> <li>• Nursery availability;</li> <li>• Reference to the local tree stock composition;</li> <li>• Planting/supports and guards; and</li> <li>• Aftercare and maintenance.</li> </ul>	
Further guidance on these elements is presented in City Notes GI-17 to GI-20 within the Landscape and GI Manual.	



**Public open space**

2.65 Multifunctional public open spaces (of all sizes) play an important role in the creation of sustainable developments, providing spaces that can encourage healthy, social and cultural activity; whilst also delivering biodiversity gains and contributing to the city’s green infrastructure network.

2.66 As future development helps the city respond to the economic and social needs of its population, it must also provide the public open space needed to support and serve this population. As such, the City Council will require new residential development (20+ dwellings in line with BDP Policy TP9) to provide or contribute towards the provision of public open space (including bio-diversity enhancements, health and wellbeing interventions, play, cultural and sports facilities) to meet the needs of residents and the wider environment.

2.67 The facility’s size and nature of the public open space will be informed by the type of residential development proposed; the requirements for which must be effectively integrated into the scheme’s design. In designing schemes, consideration should be given to the mix of people likely to be using the space, ensuring facilities and access to them serve these different users. Designs and facilities should also be informed by social and cultural mapping to help determine the wider demographic of potential users and the facilities they may wish to have.

2.68 Designs for new Public Open Space (POS) must be supported by robust and effective written specifications and attention to detail that will be translated into a high quality construction, delivery and maintenance.

2.69 In designing areas of POS, consideration must be given to user safety and potential for anti-social behaviour. But this should not result in featureless spaces than detract from their enjoyment or attractiveness to potential users. In consultation with the City Council, designers should develop creative responses to these challenges.

<b>DESIGN PRINCIPLE 8</b>
Design of public open space
BDP Policies: PG3, TP9, TP11, TP27, TP37. DM DPD Policies: DM2.
The City Council requires all Public Open Spaces (POS) to be multifunctional, inclusive, safe and attractive; to encourage use and activity by surrounding residents. It will welcome innovative designs and features that draw users into the space and expand the experiences and stimuli available within them, both mentally and physically. In doing so, the requirements and desires of different age and social groups must inform the design and facilities provided to ensure inclusive POS is created that can be used and accessed by all.
In order to design these spaces, design teams must successfully utilise existing site characteristics; align with relevant organisation guidelines; and provide facilities that help meet the open space needs of the local area.
New spaces and facilities must be supported by robust, effective and sustainable maintenance arrangements via dowry to the City Council, or a management plan attached to a planning application.
Designs that include the installation of play facilities for children and young people should refer to, and align with, the Birmingham Outdoor Play Facilities Policy 2020 <sup>1</sup> (or as updated).
Further guidance on developer contributions, specifications and public open space to be adopted by the City Council is detailed within the Public Open Space in New Residential Development Supplementary Planning Document (SPD <sup>2</sup> ) (or as updated).
<sup>1</sup> BCC Outdoor Play Facilities Policy 2020 <sup>2</sup> Public Open Space in new Residential Development





**Biodiversity and geodiversity**

**Birmingham’s natural environment**

2.70 Birmingham has a rich and diverse natural environment, which comprises semi-mature ‘core areas’, such as river corridors, woodlands, remnant agricultural landscapes and heathland; inter-connected with an array of other green assets including parks and public open spaces, watercourses, rail, road and canal corridors, churchyards and residential gardens.

2.71 This ecological network is a key asset for the city’s environment and its communities, for its intrinsic worth, but also as natural capital (value to people) associated with a range of economic, health and social benefits; and the city’s most recognised adaption facility to climate change.

**Achieving enhancements and minimising impact**

2.72 Development has the potential to change Birmingham’s natural environment, whilst also presenting opportunities for enhancement and the creation of new resources and connectivity, leading to net gains.

2.73 In designing their proposals, developers must utilise appropriate ecological and geological expertise, to understand the resources currently present on their site. This expertise and site specific information should then be used within the design process to minimise the impact on existing resources; whilst creating new resources that support habitat creation and species. The nature and scale of the resources created will be site specific, but should at least align with the city’s Enhancement Matrix. Proposals must also consider any air quality or environmental changes resulting from the development that may impact on the existing or proposed resources.

2.74 In order to demonstrate the proposal has undertaken the appropriate surveys and created a design that responds to the site specific resources, proposals must submit appropriately detailed ecological and/or geological reports. These must be submitted with a planning application and should contain:

**Ecological and geological surveys**

2.75 In assessing the development potential of a site, developers must determine whether the proposal is likely to affect biodiversity or geodiversity within the site or wider hinterland.

2.76 Surveys should comprise at least a two stage process, beginning with a Preliminary Ecological Appraisal to assess habitats and their potential to support protected or important species. The conclusions from this appraisal should then inform the need for a more detailed species survey to be undertaken, detailing the presence or absence of the suspected species.

2.77 Circumstances where an ecological appraisal and protected species survey (such as surveys for bats) will be required are described in the on the City Council’s website<sup>3</sup>.

**Addressing ecological and geological impacts**

2.78 Proposals must demonstrate how the design has been informed by the outcomes of the ecological and geological surveys. The objective should be to design a development that minimises harm and maximises benefits for biodiversity and geodiversity. In order to achieve these outcomes, development proposals must apply the sequential approach details in the mitigation hierarchy (as detailed at City Note GI-22).

<sup>3</sup> Guidance on Assessments  
<sup>4</sup> Ecological assessments for development

**Biodiversity and geodiversity enhancements**

2.79 Beyond any adverse impacts, almost all development provides opportunities to enhance existing biodiversity or geological assets; or create new resources, to go beyond ‘no net loss’ to deliver a ‘netgain’.

2.80 Enhancements should be appropriate to the scale, type and location of the development; and deliver sustainable, long-lasting benefits for biodiversity. The city’s requirements for incorporating biodiversity enhancements in new development are set out in the City Enhancement Matrix<sup>4</sup>.

2.81 In addition to the ecological and geological report, proposals must explain how the resources will be maintained and managed. This should be presented within a management plan for the site, detailing the techniques, periods and funding sources to be applied. Where this provision is secured as part of a planning obligation, the period of aftercare will be defined, and appropriate resources secured, as part of this legal agreement.

<b>DESIGN PRINCIPLE</b>	9
<b>Assessing and enhancing biodiversity and geodiversity assets</b>	
BDP Policies: TP7, TP8. DMB Policies: DM4.	
Development proposals likely to affect a protected or priority species or habitat must submit appropriately detailed ecological and/or geological reports presenting the site specific assessments undertaken; enhancement measures proposed; and management systems to be implemented:	
<b>Assessment</b> Development must undertake appropriate ecological surveys to understand the biodiversity and geodiversity assets present within the proposed development site and its surrounding area.  Proposals likely to affect any designated site, important habitat, species or geological feature must be supported by adequate ecological and geological information to assess the likely impact of the proposal. Any identified impacts must influence the design of a proposal, applying the sequential Mitigation Hierarchy; to avoid, mitigate or compensate the impacts. This process should inform a Mitigation Plan which will need to be submitted with a planning application (full or reserved matters), or be subject to condition.	
<b>Enhancement</b> All development must enhance existing biodiversity and geodiversity assets; and create resource that can help increase Birmingham’s ecological network.	
<b>Management and monitoring</b> Proposals must submit management plans outlining how existing and new assets will be managed and monitored during construction and through the proposals lifetime.  Further guidance on assessing and enhancing Biodiversity and Geodiversity is presented within City Notes GI-21 to GI-24 of the Landscape and Green Infrastructure Manual.	



# Design themes

## Healthy living and working places

2.82 The buildings and places interacted with on a daily basis have an important influence on the health and wellbeing of individual users and the wider visual perception of Birmingham. As the city continues to grow and respond to the changing needs of its citizens, it is vital development positively contributes to this. Birmingham needs inclusive, clean (air), zero carbon living and working places that reflect local distinctiveness and embrace creativity. This will help build healthy, active, communities and neighbourhoods; creating places that respond to the needs of people and the natural environment.

Achieving this requires:

- Understanding of, and response to, surrounding character (as detailed at Design Principle 2).
- A desire to enhance and innovate through the application of considered architecture, landscape architecture and urban design.
- The integration of infrastructure, facilities and measures to support health and wellbeing.





**Neighbourhoods**

Mixed uses to create sustainable, vibrant neighbourhoods

2.83 Allied with well-designed public spaces, living and working development across the city should contribute to the creation of sustainable, inclusive neighbourhoods and prosperous communities. Whilst the size and nature of development proposed may influence the scale of contributions possible, every proposal must seek to make a positive impact, meeting the everyday needs of people living, working or visiting. This may include retail, education, health, cultural, leisure or community facilities; considering the needs of the wider community.

2.84 Whilst providing a neighbourhood with a focus and sense of place, such facilities can also aid health and wellbeing, placing facilities within walking distance; whilst providing opportunities for social interaction, culture, exercise and relaxation. These benefits should not just be realised by residential and town centre developments. Neighbourhoods focused on employment uses should also be sustainable, containing ancillary uses and facilities (or walkable routes to them) for employees.

2.85 Allied with their social benefits, some of these ancillary uses can also help support day-long activity; and activate the ground floor of mixed use developments, helping to create safe, vibrant places.

2.86 The viability of such units and their targeted use mix will obviously be key to achieving the activation sought. Retail, office and leisure have often been the desired uses for these units, but the city has a number of examples where they lie vacant. Proposals are therefore encouraged to consider broadening the scope of potential occupiers of these spaces. Small scale, low noise manufacturing, or studios for creative industries could prove a viable alternative to the 'traditional' uses, introducing activity and interest to ground floor and street environments.

2.87 Where proposals are unable to directly contribute to providing ancillary uses, residential or business schemes should ensure local facilities are accessible to residents and employees (refer to BDP policies TP9 and TP45 for distances between homes and facilities). Larger developments that will generate additional demand for facilities in the local area should incorporate these within the development or in nearby

accessible locations, in accordance with planning policy.

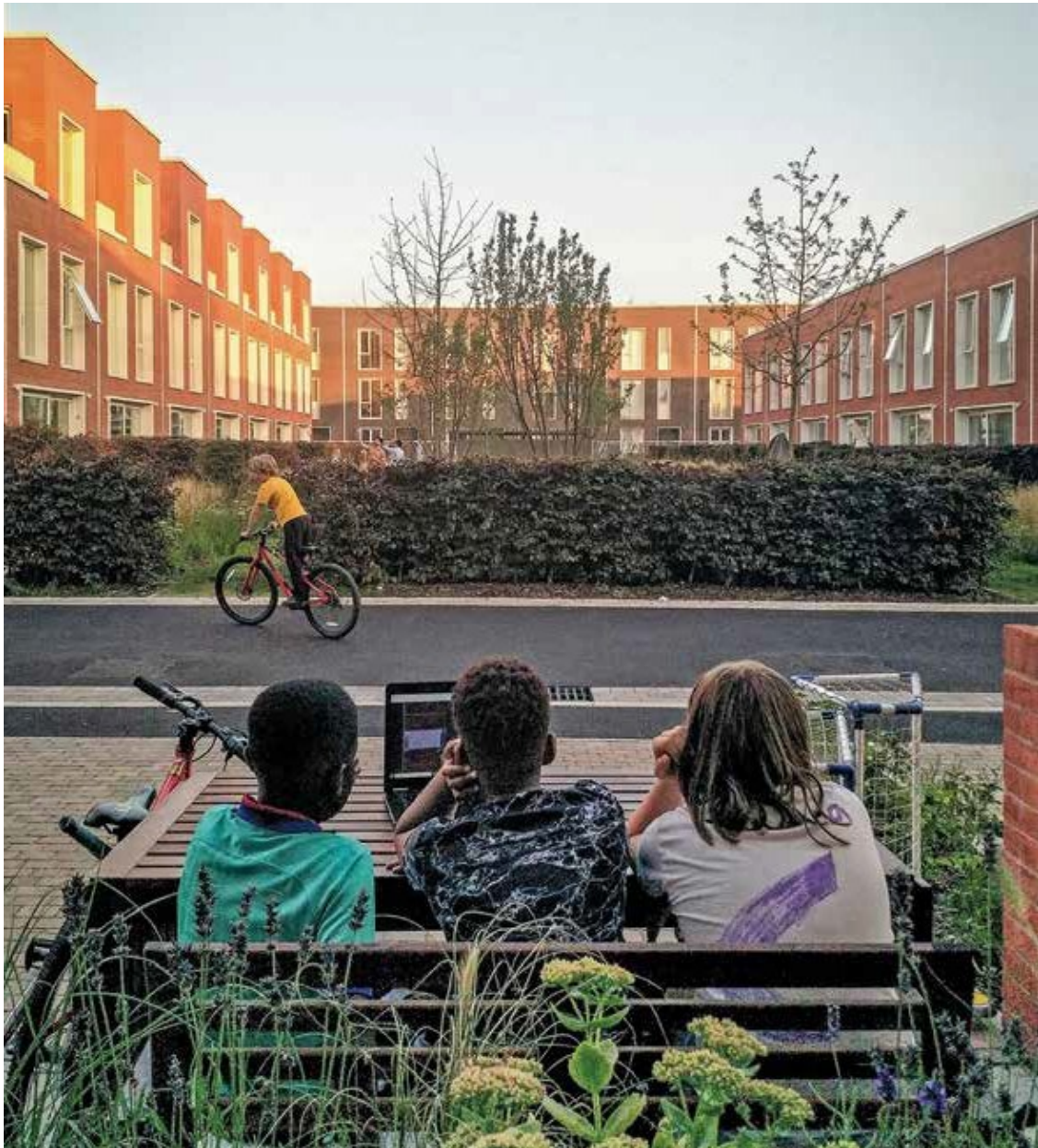
2.88 Residential-led proposals should respond to the housing needs of a neighbourhood, providing a range of modern homes that meet the varied requirements of the local population (in line with BDP Policy TP30); in turn helping to create a balanced, sustainable community with a mix of housing to meet different social and demographic needs of a community.

2.89 The Birmingham Transport Plan (October 2021) identifies that transport is a vital factor in unlocking the potential of both new and existing neighbourhoods and local centres. The plan seeks to ensure active travel is prioritised in local neighbourhoods, improving air quality and public health and reconnecting communities. Streets should be walkable, cycle friendly and the default speed limit should be 20mph, making them inclusive for all, including those with reduced mobility.

<b>DESIGN PRINCIPLE</b>	<b>10</b>
Creating sustainable neighbourhoods	
BDP Policies: PG3, TP21, TP24, TP27. DMB Policies: DM2.	
Development shall help support and contribute to the creation of sustainable, inclusive neighbourhoods that provide a range of viable services, uses and facilities to support and activate residential and employment environments.	







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Building at densities appropriate to good, accessible place making

2.90 In the context of development, density relates to the amount of development on an area of land: number of dwellings per hectare; or gross to net areas achieved. (In the context of this Design Principle, it also relates to buildings that are of a greater height, mass and/or scale than the surrounding context).

2.91 Increasing the density of development in the right location can make a significant contribution to place, introducing activity and intensifying primary uses, which in turn can help aid the vibrancy of neighbourhoods. The challenge is to deliver this successfully within the context of established character areas, where scale and mass can be important characteristics. In these scenarios, innovative architectural solutions will need to be developed to increase density, whilst acknowledging character. Not every existing character area will be able to accommodate increased densities; and the appropriateness of any design response will be considered on a site by site basis.

2.92 In creating architectural solutions, designs should ensure the quality of internal and external environments are not compromised as a result of density increase. Developers should use these opportunities to apply their skills and creativity to design buildings that respond successfully to these challenges; delivering new forms for living and working. If designs lead to an increased focus on shared amenity space and public realm (with less private space), these must be quality, functional, landscaped spaces that can respond to the competing health and wellbeing needs of users. Any proposed reductions in separation distances will be considered in the context of Design Principle 13: Protecting Resident Amenity.

2.93 Where a change in character is promoted or supported by the City Council (within policy or guidance), proposals must understand the role of the development site within the wider area of change and create designs that respond to this.

2.94 The City Council will not support schemes that merely seek to intensify development to the detriment of living or working environments; or the character of the wider area.

<b>DESIGN PRINCIPLE</b>	<b>11</b>
Increasing densities	
BDP Policies: PG3, TP27, TP30. DMB Policies: DM2, DM10.	
Proposals seeking to increase the density of buildings, resulting in a scale, height and/or mass above those that positively characterise the surrounding area, are unlikely to be supported, unless the proposal will not result in a negative impact on the surrounding character area.	
Where a change in character is supported or promoted by the City Council within an area or site specific policy or guidance, designs must deliver coherent outcomes that establish a justified scale and environment that can help redefine and enhance the character of a given area; and acknowledge the role of the development site in this wider context.	
The density of a proposal must not impact on the quality of residential amenity or place. Architects must create innovative designs that enhance their surroundings and deliver quality, functional internal and external environments that support health and wellbeing.	
Further guidance on increasing densities, whilst retaining quality is detailed in City Notes LW-1 and LW-2 of the Healthy Living and Working Manual.	



Layout and orientation

2.95 The layout and orientation of a development can play an important role in successfully integrating a proposal into its surroundings; and the quality of the internal and external environments created.

2.96 It is important proposals successfully engage with streets, canals and public spaces, and align with an established street pattern that contribute to the character of the surrounding area and supports low car, walkable neighbourhoods. To aid this, permeability between new developments and existing streets and neighbourhoods must be ensured.

2.97 The layout and orientation of a building(s) can play an important role in creating biophilic led environments that enhance the occupier and user experience. Appropriately considered, layout and orientation should lead to internal spaces that benefit from high levels of natural light, provide outlook for users and successfully connect to its public and private surroundings. If single aspect dwellings are proposed, levels of light and orientation must be a key consideration, with any north aspect units having large windows to maximise natural light.

2.98 Siting and layout should also be used to aid external environments, ensuring amenity spaces are sited in areas that are sheltered, benefit from a high level of sunlight, and have appropriate enclosure where desired. Gardens and landscapes should be viewed from key internal environments, giving users a visual connection to these areas.

2.99 Within multi-unit residential schemes, layouts should help encourage a sense of community amongst residents, promoting interaction through design features such as shared access points and courtyards, elements of communal amenity space and shared infrastructure such as laundry facilities, gyms and leisure space, or lounge space.

<b>DESIGN PRINCIPLE</b>	<b>12</b>
Building layout and orientation	
BDP Policies: PG3, TP37. DMB Policies: DM2, DM10.	
Orientation and layout must be informed by the characteristics of the site and its surroundings, leading to internal and external environments that maximise health benefits with high levels of natural light, functional layouts and a synergy between internal and external areas.	

Residential privacy and overlooking

2.100 Amenity, natural light and privacy play an important role in creating quality residential environments that help support the health and well-being of residents. New development must ensure it creates such environments; and does not unacceptably impact on those of existing residents.

2.101 To help create and protect residential amenity and privacy, the City Council discourages new proposals facing existing backs and will use the '45 Degree Code' and minimum privacy distance requirements<sup>5</sup> as a baseline for assessing the proximity of new development (non-residential uses to residential and residential to residential) to existing properties. These principles will also be used to help assess any potential amenity impacts of extensions to existing buildings (further guidance on this is provided in the Healthy Living and Working Manual).

2.102 Whilst these measures will form a useful tool, the City Council may allow flexibility in their implementation where it can be clearly demonstrated that residential amenity (natural light and outlook) and privacy is not compromised as a result of a lesser distance.

2.103 The acceptability of a lesser distance will be assessed on a case by case scenario, with issues such as impact on existing residents, location, local character, building height to street width ratio, levels, densities and/or architectural innovation being potential considerations.

2.104 Proposals that offer no architectural solution, using details such as opaque glazing or poorly considered angled bay

windows are unlikely to be acceptable, unless there is a justified architectural rationale for them.

2.105 In addition to the minimum distances, consideration will also be given to the impact of the proposed scale, height, mass and/or outlook on existing residential amenity.

<sup>5</sup> Details of the requirements are presented in City Note LW-3 and LW-4 of the Healthy Living and Working Manual.

<b>DESIGN PRINCIPLE</b>	<b>13</b>
Protecting residential amenity	
BDP Policies: PG3, TP37. DM DPD Policies: DM2, DM11.	
All new development must ensure it does not have an unacceptable impact on the amenity, outlook or privacy of existing or new residential properties. The City Council will assess the impact of form, scale, height, mass and/or outlook of a proposal; and apply minimum privacy distances and the 45 Degree Code as a base set of standards to help achieve this.	
Exceptions to these standards will be considered on a case by case basis, assessing the surrounding context, the distance from impacted residents (45 Degree Code only), orientation and degree of existing overshadowing, the architectural the quality of the proposal and/or the degree of change to existing residents; allied with the exceptions detailed in Policy DM10 of the Development Management in Birmingham Development Plan Document.	
Details of minimum privacy distances and 45 Degree Code are presented in City Notes LW-3 and LW-4 of the Healthy Living and Working Manual.	



**Buildings and their uses**

Architectural quality

2.106 As Birmingham continues to develop and grow, progression of the city's architecture will be fundamental to creating quality places and spaces that support the health and wellbeing of its residents and workers. This must lead to developments that deliver innovative, low carbon architecture; harness new technologies; utilise robust, sustainable materials; and apply biophilic design principles.

2.107 Across all sectors of development, architects must seek to progress their response to the demands and needs of the specific uses, creating solutions that in their form, language and associated detailing deliver a strong architectural concept that responds to the needs of occupants and enhances its surroundings.

2.108 It is recognised that stock book building types are often used by developers, but the City Council will expect these to be appropriately adapted, detailed, or new types designed to respond to the characteristics of the site and surroundings. Good urban design, with the creation of quality living and working environments must be the primary driver of all development. This must not be compromised by any shortcomings of stock book buildings.

<b>DESIGN PRINCIPLE</b>	<b>14</b>
Architectural cohesion and quality	
BDP Policies: PG3, TP37.	
<p>All new developments within Birmingham must deliver site-specific, coherent architecture that support the health and wellbeing of all occupants, positively responds to the site and enhances its surroundings; aided by:</p> <ul style="list-style-type: none"> <li>• The application of biophilic design principles;</li> <li>• A strong, creative architectural concept and rationale;</li> <li>• A form, scale and mass complementary of its surroundings;</li> <li>• Well-proportioned, balanced and articulated elevations;</li> <li>• Attractive composition and detailing of fenestration, roofs and other building features; and</li> <li>• A considered palette of good quality, durable materials.</li> </ul> <p>Submitted drawings and the Design and Access Statement must clearly demonstrate how the design fulfils the above.</p> <p>Development that seeks to apply stock book building types without regard to the local context and a desire to enhance, will not be supported.</p> <p>Further guidance on delivering architectural cohesion is presented within City Notes LW-5 to LW-9 of the Healthy Living and Working Manual.</p>	

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*Moss House, Glenn Howells Architects.  
© Greg Holmes.*



*Eleven Brindleyplace, Glenn Howells Architects.  
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*Salford Central, Glenn Howells Architects.  
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Residential buildings

2.109 Homes play a fundamental role in people’s lives and their quality should reflect this, with designs creating affordable, attractive and functional homes that fulfil the modern health and well-being needs of all residents.

2.110 The architectural style of the building will play an important role in achieving this quality, as will the internal layout and outdoor spaces. Internally designs must align with the Nationally Described Space Standards (as adopted by DMB Policy DM10), but this should not be the sole consideration in delivering internal layouts. Designs must also apply efficient and functional layouts within these parameters, ensuring the arrangement of internal space is driven by resident well-being and how they will use the rooms and spaces.

2.111 Beyond the internal elements of a home, designs must deliver functional outdoor amenity space, ensuring the quality and functionality of the home’s internal environment extends into its outdoor spaces. These spaces, whether integrated or external, individual or communal, must create private, functional areas where residents can relax and connect to the outdoor environment and nature (helping create biophilic led design). The City Council has minimum private amenity space requirements to help achieve these requirements, but recognises there may be bespoke designs that can deliver quality amenity space under these thresholds. Where a proposal is seeking to achieve this, it must demonstrate how their reduced

provision will deliver the quality, useable outdoor space needed to serve the residents.

2.112 Within apartments or other communal housing schemes, private balconies are encouraged; supported by appropriate lobby, communal and social spaces with layouts and spaces that support exercise, wellbeing and social activity.

2.113 In designing these internal and external environments, developers must also consider and effectively mitigate against any potential conflicts with adjacent uses. In helping to create sustainable communities, a mix of uses are encouraged, but the introduction of residential uses into areas of existing employment or leisure uses must not lead to unacceptable restrictions on these existing activities.

<b>DESIGN PRINCIPLE</b>	<b>15</b>
High quality homes	
BDP Policies: PG3, TP27, TP37. DMB Policies: DM2, DM10.	
<p>Homes will be expected to support residents’ mental and physical quality of life throughout their lifetime. This should be achieved through the creation of homes that fulfil the visual and physical needs of its occupants; ensuring proposals:</p> <ul style="list-style-type: none"> <li>• Create efficient, functional internal layouts;</li> <li>• Maximise levels of natural light;</li> <li>• Are located where adjacent uses will not negatively impact on resident quality of life (air quality, external noise, air pollution);</li> <li>• Are inclusive and accessible, with the potential to adapt to changing resident needs; and</li> <li>• Provide sufficient, usable indoor and outdoor space for all occupants.</li> </ul> <p>The city’s minimum requirements for outdoor residential amenity space are detailed within City Note LW-13.</p> <p>Further guidance on the delivery of high quality homes is outlined in City Notes LW-10 to LW-15 of the Healthy Living and Working Manual.</p>	

Residential extensions

2.114 Household extensions must effectively balance the desires of residents, with the need to create a design that complements or enhances its host building and the wider area; whilst not unacceptably impacting on the amenity (privacy and overshadowing) of neighbours.

2.115 To inform designs, architects and designers should undertake a character assessment of the host buildings and its surroundings (as detailed at Design Principle 2) to understand the constraints and inform potential design solutions. Where dwellings are located within the green belt, the size of extensions will be limited (as detailed in City Note LW-17) to help protected the openness of the green belt.

2.116 The resulting design must be of a form and design that complements the host building, and does not over-dominate or substantially alter its overall appearance, scale or mass of the building. If an acceptable balance cannot be achieved, it may not be possible to extend the property in the manner desired.

2.117 The architectural style of an extension does not have to match the host building (contemporary design responses are often preferred), but it must result in an addition that complements and effectively integrates with the existing building. This could be via a well designed contemporary or pastiche extension.

<b>DESIGN PRINCIPLE</b>	<b>16</b>
Residential extensions	
BDP Policies: PG3, TP27, TP37. DMB Policies: DM2, DM10.	
<p>The design of household extensions<sup>6</sup> must respond to, and complement the character of their host building and its surroundings.</p> <p>Proposals must align with the 45 Degree Code and minimum privacy distances<sup>7</sup> to help protect resident amenity of adjacent dwellings.</p> <p><sup>6</sup> Extensions include detached elements such as garages, car ports and workshops. <sup>7</sup> Resident amenity guidance detailed at City Notes LW-3 and LW-4 of Healthy Living and Working Manual.</p> <p>Further guidance on the design of household extension is presented in City Note LW-16 to LW-24 of the Healthy Living and Working Manual.</p>	



Rooftop extensions

2.118 To introduce a rooftop extension onto an existing building, designs must respond to the architectural style and scale of the existing building, ensuring proposals do not result in overbearing, out of proportioned elements that negatively impact on the host building. Proposals that visually alter the scale of the building must be of a design that enhances the building and its surroundings.

2.119 Designs that seek to create a statement in contrast to its host must demonstrate their rationale and create a response with a considered and well-articulated form that effectively delivers the quality and contrast desired.

2.120 Proposals will be assessed on a case by case basis, taking into account the particular architectural style and detailing of the host buildings and likely impact on the surrounding area.

2.121 The City Council will seek to resist the clustering of rooftop extensions that could lead to a collective terracing effect and/or negative change in character.

<b>DESIGN PRINCIPLE</b>	<b>17</b>
Rooftop extensions	
BDP Policies: PG3, TP27.	
The design of rooftop extensions must effectively respond to the existing building and its surroundings; acknowledging the architectural style and scale of the existing building, to create a proposal that is appropriate in scale and form to its host building.	
Note: Permitted Development Rights (PDR) allow certain existing residential and non-residential building to extend upward without requiring planning permission. Applicants are encouraged to check their PDR or contact the City Council to confirm whether planning permission needs to be obtained.	



Non-residential developments

2.122 The city’s mix of non-residential buildings contribute significantly to its diverse built environment, often having a prominent role in the character of an area. For the city’s citizens, these buildings play an important role in their lives, serving as places of work, leisure and cultural activity.

2.123 The experiences people have with these buildings will play a fundamental role on the success of the building and the use occupying it. Designs must positively respond to this, ensuring they deliver an external form that enhances and engages with its surroundings, with an internal environment that serves the use function and supports the health and wellbeing of users and employees.

2.124 Simple interventions such as the introduction of glazing can help enhance internal and external environments, forming a visual connection between the internal and external environments; whilst introducing natural light into spaces. Where this translates into a formal ‘shop front’, designs should acknowledge the architectural character of the host building. Equally it may be possible to accommodate appropriate ground floor uses that help engage and activate its surroundings.

<b>DESIGN PRINCIPLE</b>	<b>18</b>
Designing non-residential buildings	
BDP Policies: PG3, TP27. DM DPD Policies: DM2, DM8, DM9.	
Non-residential developments must introduce architectural solutions that effectively balance the operational needs of the use, with the wellbeing and health of its users, employees and customers; and the quality of the surrounding environment.	
In designing schemes to appropriately meet the needs of the use and its surroundings, further use-specific design guidance is presented in City Note LW-25 to LW-36 in the Healthy Living and Working Manual. This relates to:	
<ul style="list-style-type: none"> <li>• Accessible buildings (City Notes LW-25).</li> <li>• Community uses (City Notes LW-26).</li> <li>• Places of work (City Notes LW-27).</li> <li>• Warehousing and industrial (City Notes LW-28).</li> <li>• Retail and leisure (City Notes LW-29).</li> <li>• Extensions to non-residential uses (City Notes LW-30).</li> <li>• Shop front design (City Notes LW-31 to LW-36).</li> </ul>	





The Mercian, Glenn Howells Architects.  
© Greg Holmes.



Eastside Locks, Glenn Howells Architects.  
© Paul Miller.



Tall buildings

2.125 Tall buildings will play an increasingly important role in the future of Birmingham, optimising the city's land resource in key locations to provide homes, offices and leisure uses that support the city's growth. Through their efficient use of land, tall buildings will help the city respond to, and balance, the competing land use needs across the city centre; ensuring the housing and employment requirements are met, whilst enabling resilient transport and green infrastructure networks to be created.

2.126 In realising these opportunities, the architecture must be exemplar, applying a considered scale, form and façade to create a building that fulfils the needs of occupants; integrates with its streetscape; and positively adds to the city's environment and skyline.

2.127 Designs must also mitigate and prevent any potential adverse effect on the surrounding environment and uses in terms of wind turbulence, overshadowing, noise, reflected glare; or aviation, navigation and telecommunication interference.

2.128 Where a scheme proposes a shoulder building or surrounding cluster of buildings, these elements must be of an appropriate scale and mass to not detract from the tall building. They must be one element of a cohesive design; and be used to help the proposal integrate effectively with its surroundings, performing a transitional role between the tower and its surrounding context. Within this role, the shoulder must engage with and animate its surroundings.

2.129 The form and height of a shoulder will also influence the effectiveness of any transition, acknowledging the scale and character of the surrounding context and not eroding the prominence and elegance of the tower. Shoulder heights no greater than one third of the tower are considered to effectively balance these requirements; but the City Council will assess shoulder height and form on a case by case basis, considering the surrounding context and wider proposal.

Definition of a Tall Building

2.130 The city's definition of a tall building within the city centre is a building or structure of over 15 storeys; or that will result in a significant change to the city's skyline.

2.131 Outside the city centre, a building may be considered tall where it will result in a recognisable change to, or impact on, the character and/or skyline of the surrounding area.

DESIGN PRINCIPLE	19
Creating tall buildings	
BDP Policies: PG2, PG3, TP27. DMB Policies: DM2.	
Tall buildings must deliver 360° innovative architecture that responds positively to their surrounding; engaging and activating street environments, whilst introducing a silhouette, body and crown that enhances the citywide skyline and respects key views, existing landmarks and the city's historic environment.	
Proposals must represent deliverable outcomes, with equal focus given to the building's form, façade detailing and materials palette; leading to a slender, well-articulated building.	
Where proposals would lead to tall building clusters, developers must demonstrate the cluster will improve the quality of the surrounding environment and wider cityscape.	
Shoulder buildings or secondary clusters proposed with a tall building must be subordinate to the primary building; respect the scale and mass of the streetscape; and be appropriate to their context, with a justified height if greater than one third of the primary tower's height.	
Designs must be informed by appropriate micro-climate studies, ensuring any adverse impacts on the surrounding environment are effectively mitigated against.	
Applicants must engage early with Civil Aviation Authority (CAA) to identify any potential hazards to airport operations and establish whether an aerodrome safeguarding assessment is needed to support an application.	
Tall building proposals must be submitted as detailed applications.	
The siting of well-designed tall buildings will be assessed against the criteria set out in City Note LW-45 in the Healthy Living and Working Manual.	
Further guidance on designing tall buildings is provided by City Notes LW-37 to LW-45 in the Healthy Living and Working Manual.	





Developing with Birmingham's water assets

2.132 Birmingham's blue infrastructure (rivers, canals, streams, lakes and ponds) has played an important role in the historic development of the City; and remain vital environmental assets providing a range of functions and facilities to the City and its communities.

Acknowledged and utilised by development, these assets provide unique settings and character areas which have the potential to add substantially to the design of any scheme.

#### *Development adjacent to canals*

Birmingham's extensive canal network is a particularly important asset providing a multifunctional resource that can act as a catalyst for regeneration and provide a network of spaces serving as travel routes; locations for sports, leisure and cultural activities; and ecological and biodiversity habitats and corridors. The network also contributes to the city's historic environment; and is an important element of the city's water management system. Developments adjacent to these waterways present opportunities to enhance them and their functions; benefiting occupants and the wider users of the network. To help realise these opportunities, developments must actively engage with the water asset, creating outward looking developments that enhance connections with these spaces and contribute to their animation and use.

#### *Developments adjacent to rivers and watercourses*

Development adjacent to the City's three rivers (Tame, Rea and Cole), ordinary watercourses and other water assets<sup>8</sup>, create opportunities for their enhancement. But

unlike the managed nature of the city's canal network, a number of these assets have the potential to impact on fluvial flood risk. In some areas these may be classed as 'heavily modified water bodies' and may generate significant fluvial flood risk in the immediate surrounding area.

Where rivers and tributaries are totally culverted or canalised, opportunities should be used by development to daylight and naturalise these elements, enhancing their value, reducing the potential of fluvial flood risk and improving water quality.

Development adjacent to such assets must have an understanding of the potential flood risks related to the asset and how new development could impact on this. Direct flow to groundwater is the preferred approach, but further guidance on how development must respond to these potential risks is detailed with the city's 'Sustainable Management of Urban Rivers and Floodplains: Supplementary Planning Document' (SPD)<sup>9</sup>.

Designers should also consult with the appropriate agencies (such as the Environment Agency) during the early stages of the design process; and align with their relevant guidance.

Proposals must also consult and appropriately respond to the information contained within the Birmingham Strategic Flood Risk Assessment.

<sup>8</sup> Rivers are classified as Main River or Ordinary Watercourses, with many other forms of waterbodies, including reservoirs and canals. These features are often managed and/or maintained by multiple parties which include Environment Agency, Lead Local Flood Authority, Severn Trent Water, Canal and River Trust and Riparian Owners.

<sup>9</sup> SMURF SPD

DESIGN PRINCIPLE	20
Developing adjacent to water assets	
BDP Policies: PG3, TP7, TP12, TP27, TP37. DMB Policies: DM2.	
<p>Development adjacent to a canal, river or water course must positively relate to its character and setting; and utilise opportunities to deliver enhancement to the water side environment and its use. Proposals should<sup>10</sup>:</p> <ul style="list-style-type: none"> <li>• Use the water asset as a key focal point;</li> <li>• Overlook and engage with the water space and associated towpath or waterside environment;</li> <li>• Enable and enhance safe public and private access (including mobility impaired) to the waterside and wider route network;</li> <li>• Not restrict access to the riverside;</li> <li>• Not create blank elements or high (over 1.2m) non-permeable boundaries at waterside frontage;</li> <li>• Introduce active uses at water frontage and where appropriate, enable use spillage into public spaces;</li> <li>• Enhance public spaces, routes and towpaths to aid their multi-use function and wider environment quality;</li> <li>• Aid wayfinding of the city's canal towpath network, balanced against keeping spaces free of clutter;</li> <li>• Use opportunities to daylight and naturalise culverts and canalised elements;</li> <li>• Demonstrate how designs support flood risk mitigation measures and policies within the Local Flood Risk Management Strategy;</li> <li>• Keep the water margins as natural as possible, free from infrastructure and encourage native flora;</li> <li>• Provide or retain a natural buffer zone free from development of infrastructure adjacent to rivers, streams and brooks to make space for water, biodiversity and associated natural functions;</li> <li>• Remove existing structures that may be impeding the natural ecological function of a watercourse and not impose the construction of new structures that could be detrimental to natural functions;</li> <li>• Where appropriate, support and promote appropriate water-based travel (including freight) and exercise; and</li> <li>• Not lead to unacceptable shading of the water environment or contribute to a tunnelling effect.</li> </ul> <p>Development adjacent to the city's water assets should effectively mitigate against any potential fluvial or canal flood risk resulting from development.</p>	
<p><sup>10</sup> In consultation with Birmingham City Council Lead Local Flood Authority, the Canal and River Trust (planning@canalrivertrust.org.uk) and/or Environment Agency.</p>	
<p>Further guidance on developing adjacent to Birmingham's water assets are detailed within City Notes LW-46 to LW-48 in the Healthy Living and Working Places Manual.</p>	



Lighting of Buildings

*Illumination of buildings and spaces*

The effective lighting of public spaces and buildings is an important element of their design, ensuring places remain safe and usable beyond day-light hours. Appropriately considered and designed, lighting strategies can create dynamic and exciting night-time environments, providing spaces and buildings with an evening persona to help support safe activity. They can also enhance the night-time appearance of buildings, using light and shadow to punctuate architectural features and create focal points within their context.

The creation of a site specific, creative lighting scheme can be enhanced through the commissioning of an a professional artist, whose creative input as part of the design team, will help deliver greater gains from a pre-allocated budget.

In designing these evening environments, proposals must ensure the lighting and its associated infrastructure is appropriate to the character of the area and any host building; will not impact on wildlife habitats or activity; and is maintainable.

*Operational floodlighting*

Floodlighting can contribute to the security of sites and premises; and enable outdoor business operations, cultural and leisure facilities to run beyond daylight hours. In designing these systems, proposals must consider adjacent uses and ensure any potential for light spill is mitigated.

<b>DESIGN PRINCIPLE</b>	<b>21</b>
Lighting of buildings and spaces	
BDP Policies: PG3, TP27, TP37. DMB Policies: DM2, DM5.	
<p><b>Illumination of buildings and space</b> Development should apply external lighting designs that ensure public spaces remain safe during non-daylight hours. Where appropriate, projects should use professional artists to enhance the creativity and quality of lighting proposals.</p> <p>Façade lighting of buildings should seek to enhance the night-time presence of appropriate buildings, considering their architectural style, heritage value, stature, location and role within the city.</p> <p>The furniture and structures used to mount lighting must not contribute to street cluttering; and should serve dual functions where possible.</p> <p>The design and style of columns and mounting infrastructure must enhance the character of their surroundings and align with an established furniture palette, where appropriate.</p> <p>Lighting infrastructure attached to buildings, must not detract from the architectural quality of the host building.</p> <p>External lighting proposals must not damage or adversely affect the habitat or night-time activities of notable species.</p> <p><b>Floodlighting</b> The use of floodlighting to support the operation of a building or use during night-time periods, must be appropriately located and specified to ensure it does not impact on an adjacent residential use, transport infrastructure, wildlife habitat or area of nature conservation.</p> <p>Any lighting proposal must ensure it does not result in unacceptable levels light pollution that impact on adjacent uses or public spaces.</p> <p>Further guidance on floodlighting and the lighting of buildings and public spaces is within City Notes LW-49 to LW-54 within the Healthy Living and Working City Manual.</p>	





Creating safe buildings

Development proposals that have the potential to be viewed as a terrorist target must engage the West Midland’s Counter-Terrorism Unit at the early stage of their design process. This engagement will highlight any use specific recommendations related to the development that designs must effectively integrate.

Beyond any use specific requirements, the City Council supports the Counter- Terrorism Unit’s desire to increase the use of laminated glazing within developments at prominent locations.

Laminated glazing

The City Council encourages the installation of laminated glazing in all facades (up to the fourth storey) within the city centre retail core; and those that overlook primary streets, large public spaces, sports, cultural and leisure destinations, or transport hubs. Where laminated glass cannot be installed, blast film should be applied to standard glazing systems.

Laminated glass is a substantially more robust glazing system against blasts or explosions and reduces the potential for human injuries or fatalities caused by airborne glass.

Beyond its strength against an explosion, the properties of the glazing also lead to security gains for the building, reducing the potential for forced entry via

the glazed areas; and helping to reduce noise.

National guidance on counter-terrorism and crowded places can be sourced<sup>11</sup>.

<sup>11</sup> Crowded Places Guidance

<b>DESIGN PRINCIPLE</b>	<b>22</b>
Safe places - Anti-terror measures	
BDP Policies: PG3, TP27, TP37.	
Developments located within the city centre’s retail core and those that overlook city centre primary streets; large public spaces; sports, cultural, religious and leisure destinations; or transport hubs must introduce measures that help protect occupants and enhance the city’s resistance to terror activity.	

Design of waste storage

All development requires the appropriate management of waste, with storage being a primary consideration. To be effective and acceptable, waste stores must be secure, appropriately located and of a design that integrates with the development. It must also be of a sufficient size to accommodate the waste bins associated with the building’s use. Where communal facilities are to be provided in development such as apartments, the store should be supported by appropriate infrastructure (such as waste chutes and in-flat recycling bins) that enables ease of use. Movement of bins must also be considered, with at-grade or appropriate ramped access.

If the development is to be served by the City Council’s refuse collection service, the capacity of the store should reflect the bins and containers associated with this service.

<b>DESIGN PRINCIPLE</b>	<b>23</b>
Design of waste storage	
BDP Policies: PG3, TP13.	
<p>In designing waste storage, proposals must ensure they align with the following principles:</p> <ul style="list-style-type: none"> <li>• Waste bins must be stored in a bespoke store that does not have an adverse impact on its surroundings; or in a location not visible from the public realm, such as a rear garden;</li> <li>• Where possible, storage should be provided within the building;</li> <li>• Where independent stores are to be provided their design must complement the building, be constructed of robust materials, concealed from public view, secure and covered;</li> <li>• Communal facilities should be well located and supplemented by additional infrastructure to encourage use and promote recycling;</li> <li>• Mixed use development must have separate stores for the different uses;</li> <li>• Stores must have at-grade access and be large enough to accommodate the bins needed to serve the development; and</li> <li>• Locations must align with the pull distance and collection requirements of the City Council or waste collection service.</li> </ul>	





Telecommunications Infrastructure

The need to have modern, efficient telecommunications infrastructure is an essential element of life and it is important Birmingham’s communities and businesses are able to benefit and access these technologies as they continue to evolve.

Whilst the city wants to ensure it benefits from modern telecommunications, the associated infrastructure must be designed, sited and of a scale that minimises its visual and physical impact on the buildings they are attached to; and the character and amenity of their surroundings.

Having established a desired area to locate infrastructure, proposals must undertake a detailed assessment of potential sites (and specific locations within a site) and infrastructure options. This should result in a site and infrastructure that will have the minimum impact on its surrounding area (and uses) and building it will be attached to (if relevant). This assessment must include existing infrastructure that could accommodate the proposal via sharing of base or mounting equipment.

The city has a number of locations which are most sensitive to the installation of telecommunications infrastructure, such as listed buildings, conservation areas, historic parks and gardens, sites of nature conservation, scheduled ancient monuments, and the grounds of education and health institutions. New installations in these locations should be avoided and may only be acceptable if there is a demonstrated technical requirement; there are no more suitable less sensitive or more sensitive locations; and the specific siting and design pay sufficient regard to the high sensitivity of the setting.

More sensitive locations comprise residential areas and areas of high quality open space where new installations may be acceptable but should be carefully sited and designed to minimise the impact on the visual amenity of the area and on residential amenity.

Less sensitive locations comprise all other areas including commercial settings.

In all locations, the design, siting and scale of infrastructure must be a primary consideration. Whether located on a building or in landscape, the infrastructure and/or the cladding around it must complement its surroundings and not be a generic, utilitarian form. The overriding design ethos must be to limit the visual impact of the installation as much as possible and not detract from the visual amenity of the host site and surroundings.

<b>DESIGN PRINCIPLE</b>	<b>24</b>
Design of telecommunications infrastructure	
BDP Policies: PG3. DMB Policies: DM16.	
In the siting and design of telecommunications infrastructure, proposals must undertake a detailed assessment of all sites within the desired location area, ensuring the least sensitive site is selected. If the selected location is a ‘most sensitive’ or ‘more sensitive’ location (as detailed in City Note LW-55 of the Healthy Living and Working Manual), the assessment must clearly demonstrate and justify why a ‘less sensitive’ cannot be utilised.	
The design, location and size of the infrastructure must be a key consideration for all telecommunications infrastructure. The infrastructure proposed must be of a size appropriate to its surroundings; and be sited to minimise the visual and physical impact on the host building, character of the surrounding area and/or amenity of adjacent uses. This must be considered singularly and cumulatively, where existing infrastructure is present	
To help mask the visual presence of the infrastructure, proposals must create bespoke, non-utilitarian designs or utilise high quality cladding, art and/or landscape.	
Further guidance on the design and location of telecommunications infrastructure is detailed in City Note LW-55 to LW-57 of the Healthy Living and Working Manual.	



# Design themes

## Efficient and future-ready

The City Council has set an ambition to become net zero carbon by 2030 and for the city to be carbon neutral as soon as possible thereafter, as a 'just transition' allows. To aid this, the City Council wants development to deliver people focused architecture that endures; providing long term gains for the city and its citizens. In order to effectively achieve this, developers must create the most sustainable, efficient and futureproof buildings wherever possible, ensuring energy efficiency and climate adaptation measures are embedded in the design process.

Successfully achieved, this will create buildings and places that require less energy to build and operate, in turn helping the

city meet its carbon reduction targets, whilst reducing the energy burden for occupants. They should also enable users and occupants to adapt buildings; to respond to changes in climate and user needs.

To deliver these outcomes, sustainable principles must be applied from the outset of the design process to ensure potential passive gains are harnessed, appropriate build methods employed and technologies and infrastructure integrated.

Aided by international best practice, evolving technology and collaborative working, architects and designers should consider and integrate the following elements in their designs:







Energy efficiency

Design should seek to reduce the energy burden of all development, utilising build methods, materials and technologies to help reduce heat and lighting needs of a building; allied with a considered layout that utilises orientation to positively use solar gain in key spaces.

Conserving water resources and maximising water efficiency

In understanding the water needs of the building and its users; designs should introduce measures and technology that aid its efficient use. The efficiency of water infrastructure in the building will play a primary role in this; but designs should also consider the use of rainwater harvesting and the reuse of grey water wherever possible.

Decentralised energy generation

Proposals should utilise site specific characteristics, with appropriate technologies, to introduce low and zero carbon energy infrastructure (in line with BDP policy TP4) within the development. Where it is currently unviable to utilise such technology, the introduction of infrastructure to aid future installation should be appropriately considered.

Flexible and adaptable building designs

Through construction methods, layout, floor heights and division of space, designs must consider how buildings could be adapted in the future to meet the changing needs of uses and users. This is particularly relevant to residential units, ensuring internal spaces are designed to serve existing users effectively, whilst having the ability to respond and adapt to changing needs.

Building re-use and sustainable materials

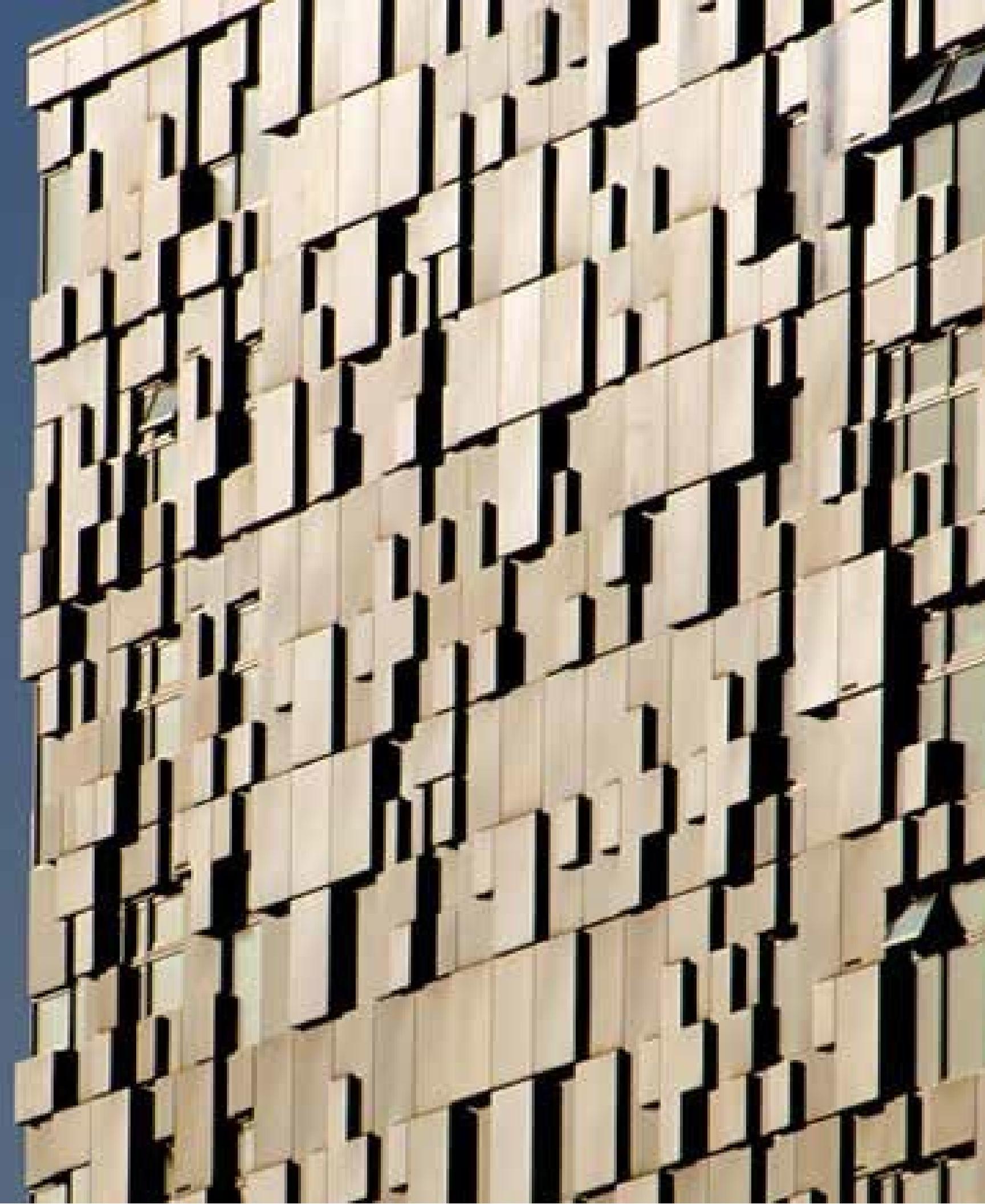
Allied with the efficient running of a building, due consideration must also be given to the sustainability of the construction process to be utilised. This should extend from an appropriate assessment of whether any existing buildings could be effectively re-used, to utilising off-site build methods and sustainably sourced materials.

Climate change adaption

Linked to elements of the above, designs must give appropriate weight to existing climate conditions and the likely effects of further climate change; specifying robust landscape, materials and installing infrastructure that can help the building manage and respond to the potential effects of climate adaption, increased rainfall and temperatures.

<b>DESIGN PRINCIPLE</b>	<b>25</b>
<b>Creating efficient and future-ready buildings</b>	
BDP Policies: TP1, TP2, TP3, TP4, TP5, TP37.	
<p>Allied with the policy requirements of the BDP (TP1 to TP5), where viable and appropriate, the design of development must effectively incorporate measures and infrastructure to help create buildings and spaces that reduce their environmental burden; and the long term financial burden for occupiers. In seeking to achieve this, proposals must demonstrate they have integrated or considered the following within their design process:</p> <ul style="list-style-type: none"> <li>• Energy efficiency - using technology, design elements and the site’s characteristics to create thermally efficient buildings;</li> <li>• Conserving water resources and maximising water efficiency - through water efficient infrastructure, harvesting of rainwater and use of greywater;</li> <li>• Decentralised energy generation - install low-carbon decentralised energy infrastructure appropriate to the site and surroundings where viable;</li> <li>• Flexible and adaptable buildings - create designs and use construction methods that could enable future alterations;</li> <li>• Building re-use and sustainable materials - utilising modular building methods, effectively integrating existing buildings into a scheme and using low carbon materials; and</li> <li>• Climate change adaption - ensure landscapes, materials, façade treatments and infrastructure are appropriate to existing and future climate.</li> </ul> <p>Further guidance on creating efficient and future-ready buildings is presented within City Notes EF-1 to EF-6 of the Efficient and future ready manual.</p>	







# Fulfilling design quality

The Design Guide’s Principles and accompanying City Manuals outline a framework of design cues to help ensure only high quality proposals receive approval. Whilst this is an important stage in achieving high quality design, it is the successful construction of these consents that will deliver the outcomes sought.

As the development process commences post-planning, it is important

the designs, details and concepts approved are physically delivered and not deteriorated during this process.

This design retention and delivery process should begin before and during the planning process, ensuring proposals being submitted for consent are physically and financially viable.





**Detailed drawings**

2.173 In order to make an informed planning judgement on a proposal, a number of detailed drawings and supporting information may need to be submitted (as detailed by the City Council’s Validation Checklist). This package of information should include appropriate construction drawings, which demonstrate how the design presented will be detailed and delivered.

These drawings should comprise a number of bay studies (sections, part elevations) at 1:20 scale to illustrate how the façade (such as key junctions, materials, windows, rainwater goods) details presented will be achieved. This information will provide clarity and confidence to the City Council and applicant their proposal can be achieved.

If such detail is not submitted with the planning application, the Planning Officer will request them during the determination period, which may cause delays. The City Council is unlikely to defer the submission of this information that is critical to design quality via condition.

Developments sited next to the canal network, in consultation with the Canal & River Trust, may need to submit foundation designs and construction methodology to understand any potential impacts on the canal network.

*Landscape proposals*

Equally detailed landscape drawings and rationale statement, allied with management plans (including future financial frameworks) should also be submitted to demonstrate how the landscape, SuDS, public realm and any public open space would be constructed. The submission of this information may be accepted via pre-commencement condition, where mutually supported. In relation to Public Open Space (POS) provision, written specifications alongside the detailed drawings will need to be submitted for approval pre-implementation.

Where appropriate, the City Council may condition the implementation of the submitted landscape/ecological plans and require a practical completion report to discharge of condition.

**Robust materials and detailing**

Material and detailing choices play an important role in successfully translating a design from concept to reality. In selecting materials and detailing, the City Council will seek to ensure they are durable and robust enough to withstand the British climate; ensuring they function correctly and weather well over time, retaining the design quality of the building through its lifecycle.

The selection of a small palette of quality materials may aid this process, reducing the need for junctions, abutments and flashing details; which can increase the potential for weather damage or degradation.

**Sample panels**

To assist the selection and approval of materials and façade detailing the City Council may condition the creation of sample panels to demonstrate how these elements will effectively work together. Panels may be requested to demonstrate façade detailing, window reveals, rainwater management, material joints and junctions. They may also be required to demonstrate the construction methods and workmanship to be applied to the building.

The request for such information will be at the discretion of the City Council.

*Retaining design quality - amendments and value engineering*

Whilst the City Council recognises that proposals may need to alter as a result of constraints identified post planning, the principle of actively up-designing for planning and then lowering quality post approval will not be accepted.

Value engineering will inevitably be applied through the construction process,

but it should not be used as a tool to deteriorate the quality of the building or landscape. Its role should be to resolve construction challenges, ensure best value and aid build efficiency.

The City Council will use non-material or minor amendment consent to manage alterations to approved schemes. However, where there is clear intent to reduce the quality of the building or landscape (including SuDS), such consents will not be supported.

If an applicant wishes to substantially alter the design of a scheme, a new application should be submitted.

**Construction quality**

The construction of the development will be the ultimate test of a scheme’s successful integration into the city’s landscape. Appointed contractors must ensure quality workmanship is applied across a scheme, delivering the design quality approved. The client should be confident the contractors appointed are capable of delivering the quality and finish sought. As detailed above, sample panels created by the appointed contractors, will aid this process.

To help manage design quality, the City Council supports the retention of a design team from concept through to completion. This helps retain a clear understanding of how and why the proposal’s design has evolved; and should help ensure the design concept and integrity is maintained.

On large development schemes the City Council recommends developers appoint an experienced clerk of works to manage the quality of the work being undertaken.



<b>DESIGN PRINCIPLE</b>	<b>26</b>
Fulfilling design quality	
BDP Policies: PG3, TP27, TP37.	
<p>Development proposals submitted for full planning permission must be appropriately detailed and financially assessed to ensure the architecture and landscape design presented is realised. To help support this, applicants will be required to provide on submission or via condition (subject to the type of application submitted):</p> <ul style="list-style-type: none"> <li>• A number of detailed drawings, including bay studies;</li> <li>• A quality, robust palette of materials and detailing, with relevant written specifications (material intent to support application, with details confirmed via condition);</li> <li>• Via condition, sample panels of materials and detailing panels, created by the appointed contractors, as requested; and</li> <li>• A financial appraisal that reflects the design quality proposed.</li> </ul> <p>Where an applicant is seeking to amend their proposal post-approval, this must not lead to a reduction in quality.</p>	





# 4

## Submitting a development proposal



# Submitting a development proposal

### Policy alignment

The Design Guide is a material consideration in the determination of planning applications, joining the hierarchy of documents used to assess development proposals across Birmingham. It builds on the core design policies within the National Planning Policy Framework (NPPF), the National Design Guide and the Birmingham Development Plan Policy PG3: Place making.

Beyond these core national and local design policies, different elements of the Guide will also supplement other Birmingham Development Plan (BDP) and Development Management in Birmingham Development Plan Document (DMB) policies, references to which are given under the individual Design Themes.

### Additional guidance and design tools

Some areas of the city have their own focused planning guidance (statutory and non-statutory) in the form of Area Action Plans (AAPs), Supplementary Planning Documents (SPDs), Design Codes, Neighbourhood Plans, Frameworks, Masterplans and Conservation Area Character Appraisal and Management Plans. These place specific documents contain detail and design requirements that should be considered and implemented in conjunction with guidance in this document.

These guidance documents are located on the Council’s website<sup>12</sup>.

<sup>12</sup> Approved Planning Policies

### Information to support applications

In order to help explain and illustrate how the design of a proposal has successfully aligned with the Design Themes, applicants should submit sufficient information and drawings to explain the rationale behind the design and accurately present the development proposal sought.

The nature and scale of the development being proposed may dictate the level of detail an applicant will need to submit in support of their application; this will be at the discretion of the City Council.

The City Council’s submission requirements are detailed within the adopted submission checklist, present on the City Council’s website<sup>13</sup>.

<sup>13</sup> Planning application checklists

### Design and access statements

Developers and designers should use their Design and Access Statement (DAS) to clearly explain the rationale for their design.

The City Council recommends framing DAS around the Design Guide, with sufficient written and drawn information to demonstrate how proposals will successfully align with the Design Guide’s five Design Themes and associated Design Principles.

As detailed within the Birmingham ID, understanding the context and characteristics of the surrounding area should play an important role in influencing the design of a scheme. The design story told in the DAS should begin with a character assessment, leading to an identification of key characteristics that have been utilised and acknowledged by the scheme’s design.



Consents and pre-application engagement

The City Council encourages applicants to contact and engage with the Council prior to undertaking any works or submitting an application for consent. This will help ensure the correct consents are sought and initial advice and feedback can be given to the applicant to assist with their proposals.

More information on what developments require planning consent can be sourced on the City Council website<sup>14</sup>.

It should be noted that specific consents may be required for works, alterations or repairs to heritage assets; and for any works to trees (pruning or removal) within conservation areas or covered by Tree Preservation Orders (TPOs). Confirmation should be sought from the City's Conservation or Arboricultural Officer

to establish what consents are required prior to any works taking place.

Works undertaken without consent may lead to enforcement action being taken.

*Formal pre-application advice*

The City Council operates a formal pre-application service open to all sizes of development. This service enables constructive feedback to be given on development proposal, highlights key policy considerations and potential constraints prior to proposals entering the planning process. It also enables initial consultation to take place with other City Council Departments, such as Highways, Ecology, Arboriculture, Leisure and Regulatory Services, to establish the information and assessments they will require to support the application.

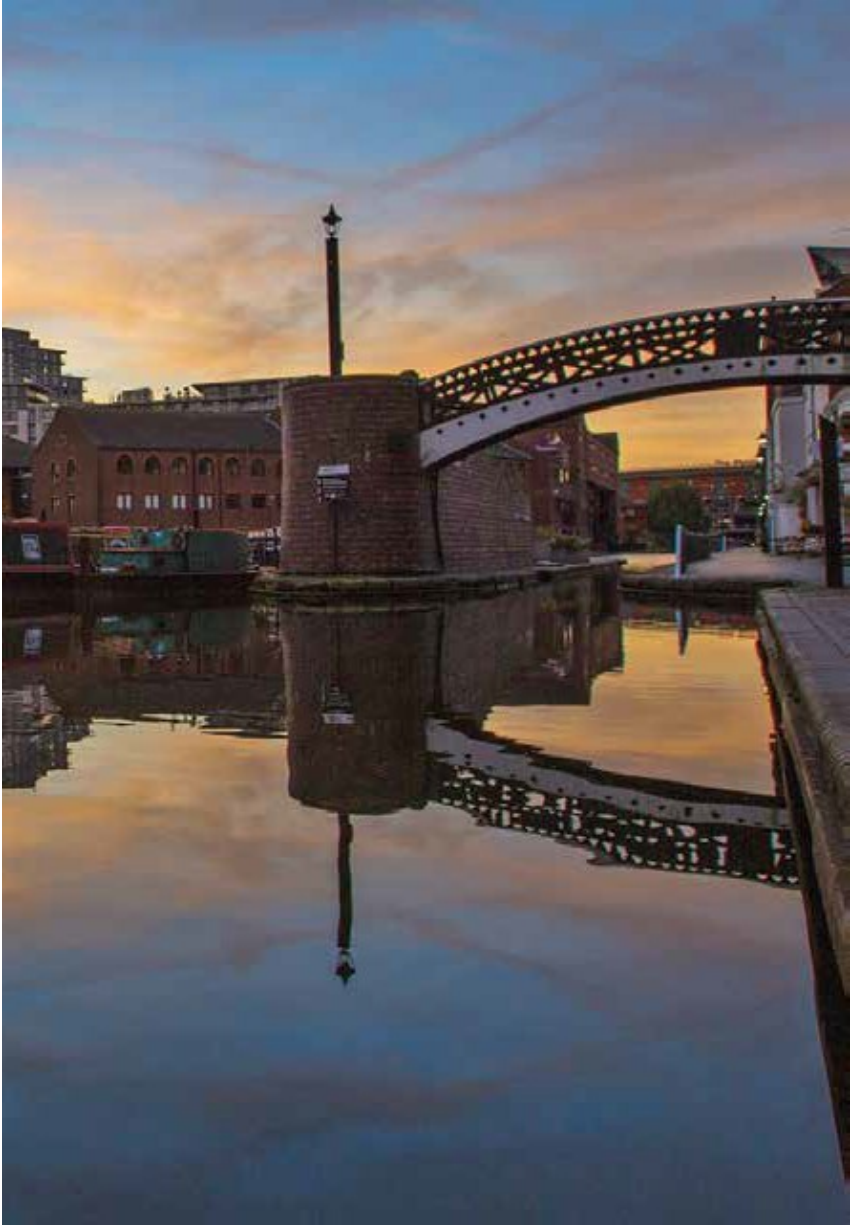
For major schemes in the city centre, proposals are encouraged to submit 3D models that can be sited in the city's virtual city centre model, enabling informed feedback to be shared on scale, mass and siting of proposals.

Used constructively, this service can enable proposals to travel through the planning process more efficiently. However, it cannot guarantee the outcome of a planning application.

Further information on the pre- application service and costs can be sourced on the City Council website<sup>15</sup>.

<sup>14</sup> Planning applications

<sup>15</sup> Pre Application Advice Link







**Building regulations**

It is likely building regulations approval will be needed even if planning permission is not required. Separate application forms and approvals will need to be sought.

Building regulations are the national minimum building standards that provide acceptable levels of health and safety for people who occupy or visit buildings. The regulations are also concerned with energy conservation and making buildings more accessible for all disabled people. Most building work must be checked to ensure it complies with the regulations.

**Professional expertise**

The City Council recommends appointing appropriate professional expertise to design a proposal, support it through the planning process and successfully deliver the outcome.

The size, location and nature of development is likely to dictate the scale of professional expertise required, but as a minimum it is recommended an architect

or architectural technologist and planning agent be appointed to design a proposal and gaining planning permission and building regulations.

More complex developments (due to the size of development or characteristics of the site) may require additional professional expertise, such as a building conservation specialist, archaeologist, ecologist, arboriculturist, transport engineer, landscape architect, professional artists, town planner, drainage and flood risk engineer and building surveyor.

**Construction logistics**

Beyond the design of a development proposal, applicants should consider any impacts the construction of their proposal will have on the city's transport network; and highway consents that may be necessary. Within the road network, consideration needs to be given to the movement of construction traffic and how this may impact on existing vehicle movement, parking and air quality.

Demolition and construction have the potential to generate significant air

pollution in the form of particulate emissions (dust) as well as the use of construction plant that emit high levels of nitrogen dioxide. Furthermore, these activities have the potential to cause noise complaints. Developments must demonstrate how these impacts will be mitigated through a Construction Environmental Management Plan (CEMP).

Schemes also need to consider and effectively mitigate against any disruption construction will cause to existing pedestrian and cycle routes. Where disruption will occur, developments need to install temporary measures that where possible, retain the efficiency of a route and not introduce additional obstacles or compromise safety. A plan of the temporary route shall be clearly displayed. These temporary measures should avoid exposing pedestrians and cyclists to sources of air pollution caused by the development or surrounding environment.

Developers and contractors should liaise with the Highways Development Management Team to develop appropriate solutions for their construction site.



# Glossary

**Active frontage**

Activity within a building that is visible from the surrounding street. This includes entrances taken from street frontage, building uses engaging and spilling into the street (cafes, bars), primary rooms and uses located at building frontage to provide surveillance over the street and activity visible from the street.

**Active street**

Streets and public space environments that benefit from human activity within the street and from buildings that overlook them.

**Active travel**

Making journeys by physically active means, such as walking, running or cycling.

**Amenity (residential)**

Residential amenity relates to the quality of the internal and external residential environment. A number of factors can contribute to amenity such as noise, outlook, levels of natural light, enclosure, overlooking from adjacent uses and internal space and layout.

**Arboriculture**

The cultivation, management, and study of individual trees, shrubs, vines, and other perennial woody plants. Arboricultural officers (BCC Tree Officers) are responsible for managing and protecting the city’s trees and promoting the planting of new trees.

**Articulation**

The breaking down of a building’s form and façade in order to create interest and reduce the mass of a building. Materials, architectural detailing, recesses and projects are often used to help achieve this.

**Avenue**

A broad road in a town or city, typically having trees at regular intervals along its sides.

**Balance**

The arrangement of visual elements so that their visual weight is in harmony with one another. Within buildings this can relate to the proportions of the building and its different parts. It can also relate to the façade of the building and how the windows, doors and architectural details are applied to create balance, a pattern and/or symmetry.

**Bay**

The space between architectural elements, or a recess or compartment.

**Biodiversity**

The variety of plant and animal life in a particular habitat.

**Biophilic**

Biophilic design is an approach to architecture that seeks to connect building occupants more closely to nature. Biophilic designed buildings incorporate things like natural lighting and ventilation, natural landscape, use of natural products and other elements.

**Biosecurity**

Biosecurity refers to a set of precautions that aim to prevent the introduction and spread of harmful organisms in trees and plants. These include non-native tree pests, such as insects, and disease-causing organisms, called pathogens, such as some bacteria and fungi.

**Block**

An area bounded by streets and occupied by buildings and/or spaces.

**Blue infrastructure**

Water elements such as rivers, canals, ponds, and wetlands.

**Body (tall building)**

The main part of a tall building. The central element between the base and the crown.

**Boulevard**

A wide street in a town or city, typically lined with trees.

**Break-out space**

Within a building, a space where occupants can go to relax, eat and interact with other building users. Building uses sometimes break-out on to a street or square - for example a café with seating inside and out.

**Core (building)**

A vertical space used for circulation and services. A core may include staircases, elevators, electrical cables, water pipes and risers. Cores can also be used to provide structural stability.

**Building line**

The actual or apparent line created by a building’s front wall along a street. A consistent building line in a street can visually unify diverse building types and forms, and can assist new buildings to fit in with the surrounding context. The building line, whether set back or situated on the street edge, is an important aspect of character.

**Business Improvement District (BID)**

A geographical area in which the local businesses have voted to invest together to improve their environment. BIDs provide additional or improved services, identified by the local businesses. This could include extra safety, cleaning or environmental measures.

**Cantilever**

A cantilever is a rigid structural element that extends horizontally and is supported at only one end.

**Car club**

A car sharing scheme.

**Carport**

A carport is a covered structure used to offer limited protection to vehicles from rain and snow. The structure can either be free standing, attached to a wall or integrated within a building.

**Catenary lighting**

The use of structural cables to suspend lights above a street or space in contrast to light columns installed in the ground.

**Character**

The distinct appearance and feel of a place, often derived from the buildings and landscape found in the surrounding area.

**Circulation**

The spaces and routes within a building that allow people to move between different rooms and areas. Examples include corridors, hallways and stairwells.

**Clean Air Zone (CAZ)**

Defined geographic area that requires drivers of high polluting vehicles to pay a charge to travel within the defined area (zone).

**Colonnade**

A series of columns set at regular intervals.

**Planning condition**

A condition placed on the granting of planning permission which allows development to go ahead only if certain conditions are satisfied.

**Conservation area**

An area designated to manage and protect the special architectural and historic interest of a place.

**Crown (tall building)**

The top section of a tall building.

**Cul-de-sac**

A street or passage closed at one end.

**Curtilage**

An area of land attached to, or associated, with a house (the rear garden). It can also include ancillary buildings and structures, such as sheds, outbuildings or garages.



### Defensible space

An area between public spaces (streets or walkways) and a residential building, providing a physical buffer to aid the security of the resident. This ‘area’ can often be a front garden or space and/or a boundary treatment to help define the difference between public and private areas.

### Density

The measure of development on a specific site or within a specified geographical area. For residential uses the number of residential units per hectare is often used as a measurement.

### Design and Access Statement (DAS)

Design and Access Statements are prepared as part of the documentation to support a planning application. They explain the design principles and concepts that have been applied to the proposed development.

### Design code

A design code is a set of simple, concise, illustrated design requirements that are visual and numerical wherever possible to provide specific, detailed parameters for the physical development of a site or area.

### Designation

The action of choosing a geographical area, place or building for a special purpose or giving it a special status within planning policy.

### Detailing

The exterior placement and/or construction of architectural features including all horizontal or vertical surfaces.

### Dormer

A window that projects vertically from a sloping roof.

### Vehicle Dynamics Assessment (VDA)

Profiles the vulnerabilities to penetrative impact by a vehicle along each approach route.

### Eave

The part of a roof that meets or overhangs the walls of a building.

### Eco Tone

A transition area between two biological communities, where two communities meet and integrate.

### Ecological Impact Assessment (EcIA)

The process of identifying, quantifying and evaluating the potential impacts of defined actions on ecosystems or their components.

### Embodied energy

The sum impact of all greenhouse gas emissions attributed to a material during its life cycle. This cycle encompasses extraction, manufacturing, construction, maintenance, and disposal.

### Façade

The principal frontages of a building, that face on to a street or open space.

### Fauna

The animals of a particular region or habitat.

### Fenestration

The arrangement of windows in a building.

### Flank wall

The exposed wall of a property which is not the front or rear wall.

### Flora

The plants of a particular region or habitat.

### Fluvial flood risk

When the water level of a river rises due to significant rainfall over an extended period to the point where it exceeds capacity and overflows onto surrounding land.

### Gable

The triangular upper part of a wall at the end of a ridged roof.

### Geodiversity

The abiotic (physical) equivalent of biodiversity. Describes the variety of geological, geomorphological, pedological and hydrological features and processes in an area or region.

### Glazing bar

A bar or rigid supporting strip between adjacent panes of glass.

### Green/brown roof

A green roof (or a living roof) is a roof partially or completely covered with selected plants on top of a growing medium. Roofs can be planted with a focus on biodiversity and/or an amenity facility for building users. A brown roof is a variation of the green roof which is left for nature to populate/self-vegetate, like a brownfield site.

### Green Belt

A planning policy tool to prevent urban sprawl by keeping land permanently open around major conurbations within England. Land within a green belt is subject to specific (nationally defined) development restrictions. The designation is not related to biodiversity or the landscape quality of the land.

### Green Infrastructure (GI)

Green infrastructure is a network of multi-functional green space and other green features, urban and rural, which can deliver biodiversity and quality of life benefits for people.

### Green wedge

Open areas around and between parts of settlements, which maintain the distinction between the countryside and built-up areas, prevent the coalescence (merging) of adjacent places and can also provide recreational opportunities.

### Grey water

The waste water from baths, sinks, washing machines, and other kitchen appliances.

### Habitable room

Habitable rooms include living rooms, dining rooms, bedrooms, kitchens and conservatories but not bathrooms, utility rooms, halls, landings or garages.

### Heritage asset

A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest.

### Hierarchy (architecture)

The articulation of spaces and forms in order of importance.

### Hipped roof

A roof with a sharp edge or edges from the ridge to the eaves where the two sides meet. A hipped roof has no gables or other vertical sides to the roof.

### Historic parks and gardens

These are parks, gardens, and other planned open spaces that have special historic interest or significance. A Register of Historic Parks and Gardens is maintained by Historic England. Being a part of this register is something that must be considered during any planning application process, to assess the impact of any development on the landscape’s special character.

### Hostile Vehicle Mitigation (HVM)

The integrated deployment of security processes, procedures and physical obstructions to counter vehicle borne threats.

### House of Multiple Occupation (HMO)

Residential property rented to at least three people who are not from one ‘household’ (eg. a family) but share facilities such as a bathroom and kitchen. Planning use classes distinguish between ‘small’ HMOs of up to six people (C4 use class), and ‘large’ HMOs of seven or more occupants which are Sui Generis.

### Hydroponics

The process of growing plants in sand, gravel, or liquid, with added nutrients but without soil.

### In situ

Work carried out on the construction site, often in the finished position, instead of an off-site location as with prefabrication or pre-assembly techniques.

### Kinematic envelope

The outline of the space occupied by a vehicle when in motion, including the effects of tilt, sway, etc.

### Landscape (hard)

The non-plant elements of a landscape, including paths, roads, steps, walls and structures constructed from materials such as brick, gravel, rock or stone, concrete, timber, bitumen, glass, or metals. It also includes street furniture such as signs, benches, bins, planters, bollards, etc.

### Landscape (soft)

The planting within a landscape such as shrubs, trees, grasses, etc.

### Landscape character

The different elements that compose a landscape. This is likely to include the hard and soft elements, together with topography and geology, and land management practices. Landscape Character Assessments is the process of identifying and describing variation in character of the landscape.

### Listed building

Listing marks and celebrates a building’s special architectural and historic interest, and also brings it under the consideration of the planning system, so that it can be protected for future generations.



**Living wall (or green wall)**

A wall covered with plants growing in containers or on structure attached to the wall.

**Local List**

A Locally Listed Building is a building, structure or feature which, whilst not listed by the Secretary of State, has been designated an important part of Birmingham’s heritage due to its architectural, historic or archaeological significance.

**Mass**

Mass refers to the size or physical bulk of a building or urban block, and can be understood as the actual size, or size relative to context.

**Mature suburb**

Any group, area or estate of dwellings (which can also include ancillary buildings such as local shops, public houses, community and health services, and possibly business premises and workshops) that has a generally homogeneous and identifiable suburban and residential character, and which has been developed more in a planned layout rather than in an ad hoc manner.

**Mews**

Narrow, intimate streets of houses or flats which have historically been converted from stables. The streets usually have shared surface with building frontages directly onto the street, creating a pedestrian focused environment.

**Microclimate**

The climate of a very small or restricted area (street or section of street), especially when this differs from the climate of the wider surrounding area.

**Mitigation**

To make less severe or serious.

**Mullion**

A vertical bar between the panes of glass in a window.

**Nationally Described Space Standard (NDSS)**

This standard deals with internal space within new dwellings. It sets out requirements for minimum Gross Internal (floor) Areas for different dwelling sizes (number of bedrooms and storeys) and dimensions for key parts of the home.

**Natural light**

The light from the sun.

**Natural ventilation**

The process of supplying air to and removing air from an indoor space without using mechanical systems.

**Biodiversity net gain**

An approach to development that aims to leave the natural environment in a measurably better state than it was beforehand, via avoidance, mitigation and compensation for biodiversity losses as a result of development.

**Parapet**

A low protective wall along the edge of a roof, bridge, or balcony.

**Parking deck**

A floor of a building used as a parking place for vehicles.

**Party Wall Act**

A procedure for resolving disputes between owners of neighbouring properties, arising as a result of one owner’s intention to carry out works which would affect the party wall, involve the construction of a party wall or boundary wall at or adjacent the line of junction between the two properties or excavation within certain distances of a neighbour’s structure and to a lower depth than its foundations.

**Passive solar design**

Designing to optimise the use of the sun to heat the internal environment, whilst avoiding unwanted heat gains.

**Pastiche**

Architecture which imitates that of another work, architect, or period.

**Pitch**

The steepness a roof.

**Plant**

The equipment required to provide or supply building services such as ventilation, electrical distribution, water etc.

**Plinth**

The base course of a building, or projecting base of a wall.

**Plot**

An area of land that has been measured or marked out for a special purpose, such as building housing or other types of development.

**Podium**

An elevated platform or base (often consisting of a single or multiple storeys) which is clearly differentiated from the buildings and spaces above it by its physical form and mass. Can be associated with tall buildings, with the podium extended across a site at lower floors, beyond the footprint of the tall building above.

**Prefabrication**

The creation of a building’s components offsite, generally in a factory.

**Private outdoor amenity**

Outdoor space for the private use of a building’s occupants. For residential developments this is often provided by rear gardens, roof terraces and balconies.

**Public Open Space (POS)**

Public open space is open space, including playing fields, owned by the City Council or to which there is a public right of access, used by the public primarily for recreation purposes. It does not include private or education playing fields, nor does it include municipal or private golf courses, cemeteries, or open areas within housing estates which substitute for private gardens.

**Public realm**

All publicly accessible space between buildings, whether public or privately owned, from alleyways and streets to squares and open spaces, including routes alongside waterways. Some internal or elevated spaces can also be considered as part of the public realm, such as markets, shopping malls, sky gardens, viewing platforms, museums or station concourses.

**Rainwater goods**

All the components of a rainwater disposal system - gutters, hoppers, swan-necks, downpipes, drainpipe shoes, and gullies, and their fittings.

**Rainwater harvesting**

The technique of collecting filtered water that falls on to the roof of a building and storing it for re-use.

**Wing (building)**

A wing is part of a building that is subordinate to the main, central structure. An example are the outriggers often found on terraced houses.

**Re-naturalising / daylighting (river)**

Opening up and restoring buried watercourses to more natural conditions.

**Rhythm**

In a streetscape context, the overall pattern of buildings and building elements and the extent to which they are harmonious or conflicting.

**Ridgeline**

The top of a roof at the junction of two sloping sides.

**Rooflight**

A light-permitting structure or window, usually made of transparent or translucent glass, that forms all or part of the roof space of a building for daylighting and ventilation purposes.

**Roofscape**

A scene or view of roofs, especially when considered in terms of its aesthetic appeal.

**Scheduled Ancient Monument (SAM)**

A ‘nationally important’ archaeological site or historic building, given protection against unauthorised change.

**Section 106 Agreement**

A mechanism which makes a development proposal acceptable in planning terms, that would not otherwise be acceptable. They are focused on site specific mitigation of the impact of development. S106 agreements are often referred to as ‘developer contributions’ along with highway contributions and the Community Infrastructure Levy.

**Services**

Physical plant including but not limited to pipes, valves, conduits, cables, terminals, transformers, used for the provision of electricity, water, gas and digital infrastructure to buildings.



### Shared space

Shared space is an urban design approach that minimises the segregation between modes of road user. This is done by removing features such as kerbs, road surface markings, traffic signs, and traffic lights.

### Site of Special Scientific Interest (SSSI)

Designation to indicate an area of particular interest to science due to the rare species of fauna or flora it contains and/or important geological or physiological features that may lie within its boundaries.

### Sites of Importance for Nature Conservation (SINCs)

Designation used by local authorities in the United Kingdom for sites of substantive local nature conservation and geological value.

### Sites of Local Importance for Nature Conservation (SLINCs)

Designation across Birmingham and the Black Country in accordance with the same published criteria as SINCs. SLINCs do not receive statutory protection but are protected from damaging development by local and national planning policy. This category of sites receives a lesser level of protection than either SSSIs or SINCs.

### Solar gain

The increase in temperature in a space, or structure that results from solar radiation.

### Solar panels

Solar electricity panels, also known as photovoltaics (PV), capture the sun's energy and convert it into electricity. Solar thermal panels absorb the sun's heat and use it to heat up water.

### Storey

A storey of a building is one of its different levels or floors.

### Street hierarchy

The relative importance of different streets. For example, a high street might be considered a primary street, a side street a secondary street and a more intimate mews street a tertiary street.

### Street pattern

The arrangement of streets in an urban area.

### Streetscape

The appearance or view of a street.

### Supplementary Planning Document (SPD)

A document which builds upon and provides more detailed planning guidance on policies in an adopted local plan.

### Sustainable Urban Drainage Systems (SuDS)

Sustainable drainage systems (SuDS) are designed to manage stormwater locally (as close to its source as possible), to mimic natural drainage and encourage its infiltration, attenuation and passive treatment.

### Terracing effect

When two neighbours decide to extend at two storey level over their driveways up to the common boundary a 'terracing effect' can happen. The result is that the two houses lose their 'semi-detached' or 'detached' appearance and appear as terrace houses.

### Thermal mass

A property of the internal mass of a building which enables it to store heat, providing 'inertia' against temperature fluctuations.

### Tolerances

Tolerances are defined as the accepted amount of variations of materials and components from nominal values or design specifications.

### Topography

The forms, level changes and features of land.

### Townscape Visual Impact Assessment (TVIA)

An assessment of townscape and visual effects arising from development proposals with guidance on potential mitigation measures.

### Transom

A transverse horizontal structural beam or bar, or a crosspiece separating a door from a window above it.

### Tree Preservation Order (TPO)

A Tree Preservation Order is made by a local planning authority in England to protect specific trees, groups of trees or woodlands in the interest of amenity.

### Typology

The classification of (usually physical) characteristics commonly found across groups or types of buildings and places. The typology can often be associated to the wider context and/or an architectural period, such as terraced housing, high rise tower blocks or industrial units.

### Urban Green Factor (UGF)

A tool that evaluates and quantifies the amount and quality of urban greening that a scheme provides to inform decisions about appropriate levels of greening in new developments.

### Urban heat island

An urban area that is significantly warmer than its surrounding rural areas due to the built form and human activities.

### Use class

Planning use classes are the legal framework which determines what a particular property may be used for by its lawful occupants.

### Utilitarian

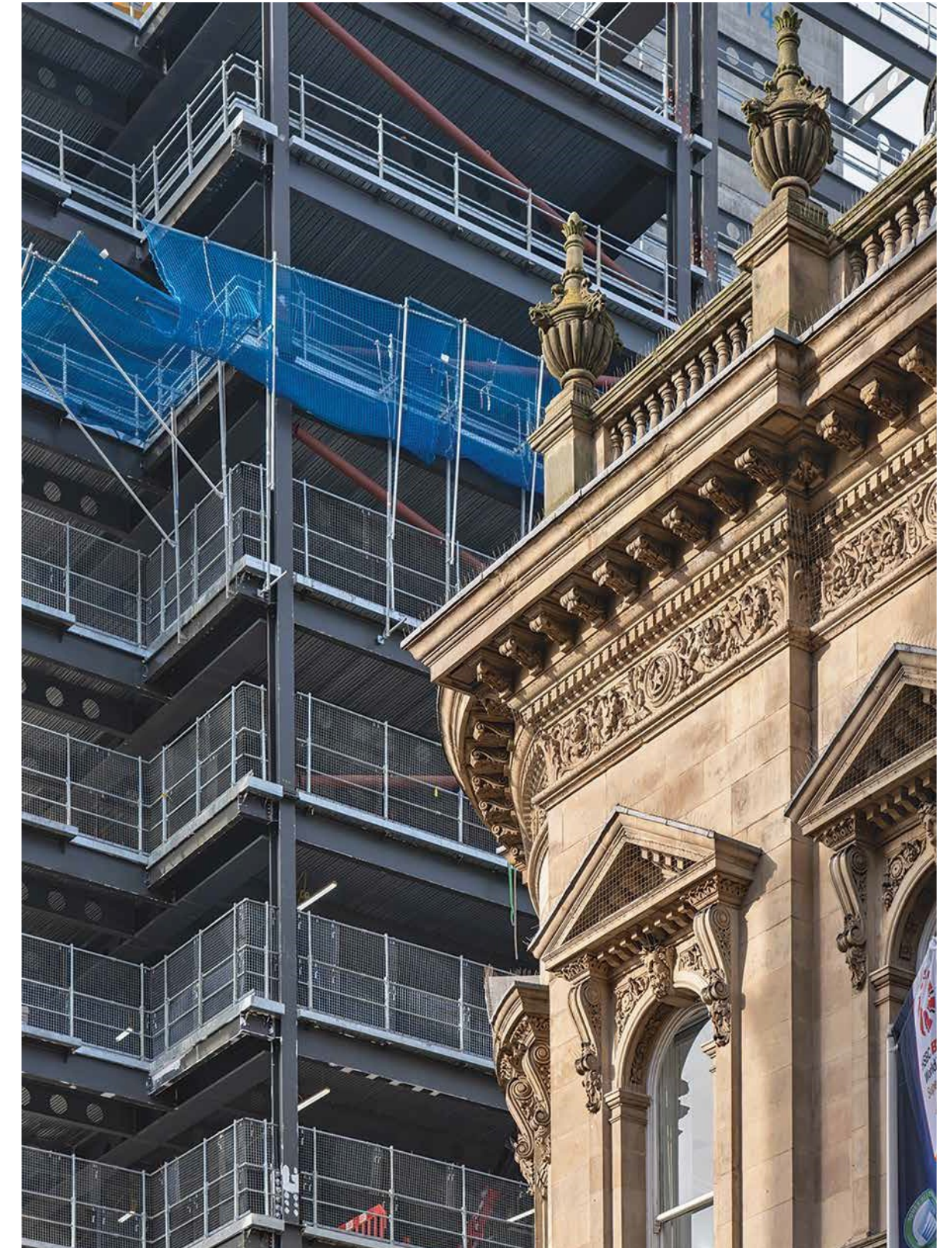
Designed to be useful or practical rather than attractive.

### Vernacular

A type of local or regional construction language, using traditional materials and resources from the area where the building is located.

### Village estate area

A residential area wholly within and part of a private estate. An example is Bournville.





## Contact

Web:  
Birmingham City Council website

Email:  
DesignGuide@birmingham.gov.uk

Post:  
City Design Team  
Birmingham City Council  
PO Box 28  
Birmingham  
B1 1TU

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Tim Cornbill ([www.timcornbillphotography.com](http://www.timcornbillphotography.com))  
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John Killock  
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