



# Places for the Future - Supplementary Planning Document

Draft for Public Consultation

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**Councillor Timothy Huxtable**  
Chairman, Birmingham Environmental Partnership  
Cabinet Member for Transportation, Environment and Regeneration,  
Birmingham City Council

I am delighted to be endorsing this Supplementary Planning Document that provides developers with guidance on the city's future sustainable development.

Climate change poses one of the greatest challenges we all face both globally and locally. In a time of economic difficulty and diminishing resources we have to face up to energy insecurity and high, volatile fossil fuel costs, whilst improving the quality of life for all who live and work in this great city. It is essential that we balance our environmental, social and economic needs.

The City Council is committed to making Birmingham a greener, post-carbon-era city. Our aim is to achieve a significant city-wide reduction of 60% in carbon emissions by 2026 and reduce our total energy bill – over £1.5bn per annum – by improving the energy efficiency of the city's buildings and generating more sustainable energy, both of which will greatly help to address our over dependence on imported energy and so the impact of volatile energy prices.

Birmingham is already embracing the challenges of a sustainable future by the creation of City Centre district energy networks, electric vehicles through CABLED, the award winning Birmingham Energy Savers housing retrofit programme which has already had an impact with installations of solar panels on the city's social housing, and the recently completed BREEAM excellent City Council offices at Woodcock Street. With the strong and growing demand for a wholesale transformation of the way in which Birmingham addresses sustainability, these early successes must become the norm. Isolated action and individual projects are not sufficient in themselves.

I believe this Supplementary Planning Document reinforces and strengthens our aspirations by building upon the policies that deal with sustainability contained in Birmingham's draft Core Strategy 2026.

Implementing sustainable development will not happen over night, but this is no excuse for inaction. In fact, it should spur us on to take action now. This SPD is more than just a document. It will act as the catalyst to foster a new kind of relationship between developers, communities and the City Council to ensure we achieve our sustainability commitments together. This guidance will make it easier for developers, builders and investors to understand and apply new standards designed to reduce the city's overall energy bill and save money for the city's householders and businesses. Recognising the long term benefits of sustainable development, understanding the concerns of developers and communities, co-ordinating action and creating funding opportunities that support sustainable development are all at the heart of this SPD.

Placing Birmingham at the forefront of the global stage by selling it as a sustainable and resilient City is critical if we want to continue to compete and attract inward investment that drives the city's economy.

I am motivated by the strong steps that Birmingham is taking on this journey to a more sustainable future as everyone who works, lives and visits the City can benefit from the foundations we are laying today. The long term socioeconomic and environmental benefits of sustainable development mean that this SPD is truly capable of making Birmingham a Global City with a Local Heart.

# 1. Introduction

## Introduction

This draft Supplementary Planning Document has been produced as the basis for public consultation. Its purpose is to provide detailed guidance in support of the Sustainable Development policies (SP3 to SP11 and SP30, 35, 36, 42, 48, 49 and 50) of the Emerging Core Strategy.

Places for the Future consists of two parts:

1. The SPD
2. Detailed SPD Policy Guidance

## Vision

Birmingham's Sustainable Community Strategy and its Climate Change Action Plan set out a vision for the City's sustainable future.

In support of this vision, the Emerging Core Strategy has adopted the key requirement of achieving a 60% reduction in the City's overall carbon emissions by 2026 and has identified a suite of draft policies which are necessary to shape the future sustainable development of Birmingham that delivers this vision.

It is absolutely essential that the City reduces its overall energy consumption through accelerated energy efficiency measures, encouragement of renewable measures and ensuring the City is effectively adapting to the impacts of climate change and at the same time nurturing and maintaining the overall natural environment and historical heritage. These are the key elements of the SPD and sustainable development in Birmingham.

## // 'It's 2026...

Birmingham is the first sustainable global city in modern Britain.

It is a great place to live, learn, work and visit: a global city with a local heart.

Birmingham people are healthy and enjoy living together.

Birmingham is a safe, clean and friendly city tackling climate change and enhancing the local environment.

Birmingham people have aspirations, skills and the opportunities they need to succeed.

Birmingham is globally competitive, contributing fully to the thriving, prosperous and sustainable region.



## Policy Context

The Draft National Planning Policy Framework (NPPF) states that 'Sustainable development means development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It is central to the economic, environmental and social success of the country and is the core principle of planning.' Further national guidance and building regulations that are relevant to the SPD include:

- UK Sustainable Development Strategy
- Low Carbon Transition Plan
- PPS1: Delivering Sustainable Development
- PP1 Supplement: Planning and Climate Change
- PPS3: Housing
- PPS4 Planning for Sustainable Economic Growth
- PPS5: Planning for the Historic Environment
- PPS9: Biodiversity and Geological Conservation
- PPS10: Planning for Sustainable Waste Management
- PPG13: Transport
- PPS22: Renewable Energy
- PPS25 Development and Flood Risk
- Draft National Planning Policy Framework
- Code for Sustainable Homes
- The Building Research Establishment Environmental Assessment Standard (BREEAM)

This SPD supplements policies dealing with sustainability contained in Birmingham Core Strategy 2026 and provides additional guidance for applicants seeking to develop in the City. It will also be used by Birmingham City Council planners who are assessing development proposals.

The Core Strategy and Places for the Future SPD form part of the Council's Local Development Framework (LDF).

In delivering sustainable development the planning system will:

- Plan for prosperity (an economic role) – use the planning system to build a strong responsive and competitive economy.
- Plan for people (a social role)- use the planning system to promote strong, vibrant and healthy communities.
- Plan for places (an environmental role) – use the planning system to protect and enhance our natural, built and historic environment.

This SPD provides guidance on planning for people and places to help to create a Birmingham that:

- promotes healthy and vibrant communities;
- has a good quality built environment, with accessible local services that meet the needs of local people;

- conserves natural resources;
- is resilient and adapted to climate change and has a low carbon economy.

Existing policy documents that reinforce these aims include:

- Climate Change Action Plan 2010+ Cover
- Sustainable Community Strategy 2026
- Waste Management Strategy 2006-2026
- Draft Green Infrastructure Strategy
- Draft Low Carbon Transport Strategy
- Surface Water Management Plans

## SPD Status

As a Supplementary Planning Document to the Emerging Core Strategy, this SPD provides additional guidance on Sustainable Development Policies. It supplements (SP3 to SP11 and SP30, 35, 36, 42, 48, 49 and 50) and the full range of policies noted in Appendix A of the Detailed SPD Policy Guidance.

Once adopted this SPD will be a material consideration in the determination of planning applications for new development in Birmingham.

## SPD Content

- The Places for the Future SPD shows how developments can be shaped to be as sustainable as possible and contribute to achieving the vision for Birmingham and create places for the future. Developers will need to consider the following elements of sustainable development highlighted in Figure 1.1 below.
- These elements should not be considered in isolation, but as interlinked aspects of development.
- Developers should identify how these elements are linked and how they impacts on each other.
- Developers are expected to take a long term approach to development that considers the social, environmental and economic costs and benefits over the lifetime of the development, and considers the impacts of the development in the wider environment.



Figure 1.1 - Elements of sustainable development



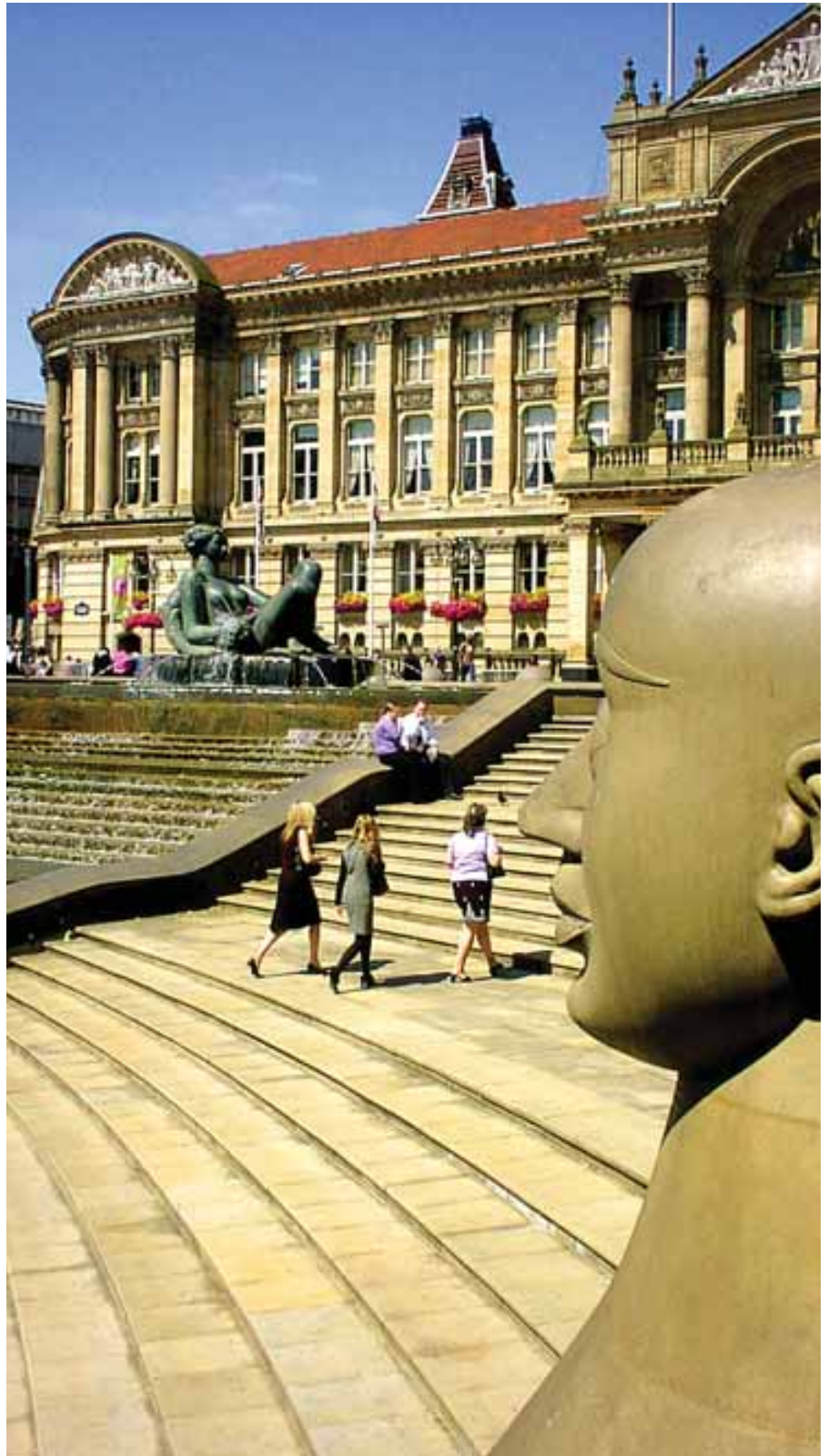
### What is included in the SPD:

The document includes advice on:

- How the planning process will ensure sustainable development and what is required of developers throughout the planning process, including the submission of Sustainability Statements, Design and Access Statements and Carbon Budget Statements
- Guidance for developers on how to plan and deliver sustainable developments to comply with the Council's policies and standards on sustainability.

### SPD Objectives

- To set out how national and strategic policy will be interpreted in detail in Birmingham's development
- To identify the elements of sustainable development which all future developments must consider
- To provide detailed guidance on these elements
- To ensure the City meets its agreed carbon reduction targets
- To ensure that the City adapts to future climate change
- To ensure that the City's overall natural environment, biodiversity, ecology and historical heritage are nurtured and maintained





Applicants are encouraged to consider the entire contents of the SPD but may find it helpful only to refer to relevant sections. The Sustainability Statement Checklist will help developers as they go through the planning process, providing prompts to help them shape their development proposals so that they are sustainable and consistent with the Council's Core Strategy policies.

This section also identifies what evidence developers will need to submit alongside their planning application. The proceeding sections (sections 2 – 7 of the full SPD) provide advice that developers can go to, as necessary, as a reference point to find more detail on developing sustainably and meeting policy requirements. At the beginning of each section is a list of policy requirements that developers will need to comply with followed by those elements that are encouraged where feasible. Case studies are used throughout the document to show how developments in the City have already implemented aspects of sustainable development

### **Sustainability in the Planning Process**

To ensure that the principles of sustainable development are implemented the Council will expect developers to consider sustainable development throughout the development process, from the pre-application design stage through to

implementation when building work is completed.

This section and the proceeding sustainability checklist identify the four key stages in the development process and sets out what the applicants should consider at each stage to ensure that they are complying with the Council's sustainability requirements.

#### **Pre-Application Stage**

Applicants should ensure that they have considered the sustainability of their development at the outset of the development process. This includes assessing whether the site is in a sustainable location, and whether there is an appropriate mix of uses. Developers will need to show that they have undertaken an analysis of site constraints (including issues such as the implications of climate change) and assets (including biodiversity, heritage etc) and have developed an approach to sustainable development that responds to these unique site issues.

Developers are strongly encouraged to engage in pre-application discussions with Birmingham City Council planning department to share knowledge and aspirations for the site. Discussions can help to shape initial proposals so that they better reflect community aspirations and address all the relevant sustainability issues. Developers are also encouraged to engage with

other stakeholders including the local community, to discuss their proposals. Community engagement is an important aspect of sustainable development, providing people with a sense of ownership, as well as identifying important issues that the development may need to address.

#### **Application Stage**

The applicant will need to demonstrate, as part of their planning application how they have addressed the Council's sustainability policy requirements and taken on board any pre-application advice. Information will be submitted in a sustainability statement or in the design and access statement (see below for advice on what should be included in a sustainability statement). Where development is considered to be acceptable in planning terms and permission will be granted, the Council at this stage will set out clear conditions of permission, these may relate back to the sustainability statement or design and access statement, to ensure that the development is built in line with the sustainability principles that have been agreed e.g. off site open space, community facilities, and access improvements.

#### **Planning Obligations**

The Council may use planning obligations to secure the provision and longer term management and maintenance of those aspects of a development required to ensure that sustainable development is achieved.

Where a planning agreement is considered necessary the Council may require the applicant to agree to do certain things during construction, and on the completion of the development.

Typical measures included in a planning agreement include:

- Affordable housing;
- Development to be connected to a decentralised energy system;
- Green infrastructure (including public open space);
- Community infrastructure (e.g. health centres);
- Jobs and training opportunities.

The Council would expect the developer to have submitted and agreed a green travel plan.

### Construction and Implementation Stage

Certain aspects of environmental construction are covered by Building Regulations legislation, where this is the case the Council will not seek to duplicate these through planning conditions. The Council will be proactive in ensuring that development is implemented in line with planning permission and any conditions attached to the planning permission to secure sustainable development.

During construction the Council would expect developers to:

- Source materials from sustainable sources (where possible).
- Re-use and recycle construction waste.
- Manage transportation of materials to site so as to reduce the number and length of trips to the site.
- Prepare a construction waste management plan.

The Council will require a construction completion certificate to demonstrate compliance with the relevant Code for Sustainable Homes and BREEAM certification. Following completion the developer will be expected to provide the management company and or occupiers with information to enable them to use sustainability features and to promote sustainable living. For example, this may explain how to use heating, electricity and water systems most efficiently, or details of local community facilities and sustainable transport options.

### Sustainability Checklist

The Sustainability Statement Checklist provides a guide to the issues that applicants should be considering at each stage of the planning process outlined above to embed sustainable development principles into their development. The checklist identifies the LDF sustainability policies setting out the policy requirements that developers must comply with and those requirements that need to be complied with 'where feasible'. The checklist provides references to relevant guidance in this SPD or other documents, where more detailed guidance on each issue can be found.

#### When are they required?

Sustainability Statements will need to be submitted alongside planning applications for the following types of development:

- Residential development where 15 or more dwellings are developed; or
- Residential development on a site of 0.5ha or more.
- All other developments of 1,000 sqm or more.

All development is required to be sustainable and applicants with proposals that fall below these thresholds are encouraged to submit a short statement to show how they have addressed sustainability principles.

#### What is the purpose?

For the applicant the Sustainability Statement:

- Should start to be compiled from the earliest possible stage in the planning process as a structured way to ensure that sustainability principles are integrated into the design of the development.
- Provides an opportunity to demonstrate that the proposed development is sustainable.
- Provides a useful tool to engage with stakeholders and members of the public about the sustainability benefits of the development.

For Birmingham City Council, the Sustainability Statement will be used to:

- Assess if the development is sustainable, as part of the process of deciding whether to grant planning permission.
- Formulate planning conditions and Section 106 Planning Obligations where applicable.
- Check that sustainability measures are implemented on site.

#### What should be included?

The Sustainability Statement is a written document, describing and justifying how the proposed development is sustainable. The document can include relevant photos, drawings and illustrations as necessary. The Sustainability Statement will need to:

- Explain which elements of sustainability are particularly relevant to the scheme.
- Confirm how the location, use, layout, and design of the development has incorporated the principles of sustainable development.
- Specify any sustainability features and the reason for the choice of a particular technology.
- Provide evidence that development is meeting any specific requirements (such as Code for Sustainable Homes).

The content of a Sustainability Statement is not prescribed, but applicants will need to include sufficient information to show that they have considered the issues identified in the sustainability checklist and Sections 2 to 7.

#### Links with Design and Access Statements

Applicants are required to submit Design and Access Statements alongside all applications except householder applications or changes of use.

Design and Access Statements:

- Provide information on the design and thinking behind a planning application setting out the rationale for the proposed design and access arrangements.
- Set out an analysis of the site and its context, (including local character, heritage assets, key buildings, trees and other significant features), design principles followed and how any standards that are required have been met.
- Describe the impacts of the proposed development on the natural, historic and built environment and how the design of the development responds to these impacts.
- Describe the design of the proposals such as the use, layout, design, amount, scale, landscaping and appearance;
- Information on access points and routes to the development, vehicular and transport links and information on inclusive access.



An applicant may also choose to include additional information that they think is relevant, this could be whether the buildings meet Lifetime Homes Standards or the energy performance of the building. Figure 2.2 below identifies the information that is required in Sustainability Statements and design and access statements. Those elements that could either be included in the Sustainability Statement or the Design and Access statement are shown in the shaded box.

### Carbon Budget Statement

The Carbon Budget Statement should be used to establish the potential for carbon emissions reduction from building performance and potential for deployment of low and zero carbon technologies.

The strategy to deliver carbon emissions savings should:

- Consider how improved building performance and sustainable construction can secure emissions savings;
- Consider how potential on and near site carbon reduction can be achieved;
- Demonstrate that costs and potential benefits have been considered accounting for viability including interaction with other policy requirements; and

- Demonstrate that full consideration has been given to the potential delivery options.

Where the development exceeds the thresholds contained within Policies SP7 and SP8 a carbon budget will be required as part of a Sustainability Statement. The Carbon Budget Statement should be considered during pre-application discussions in order to scope out potential carbon reduction options prior to the detailed design of proposals. This approach ensures that the range of options are not narrowed prematurely and that opportunities are incorporated early on in the design of the development.

### SUSTAINABILITY STATEMENT

### DESIGN AND ACCESS STATEMENT

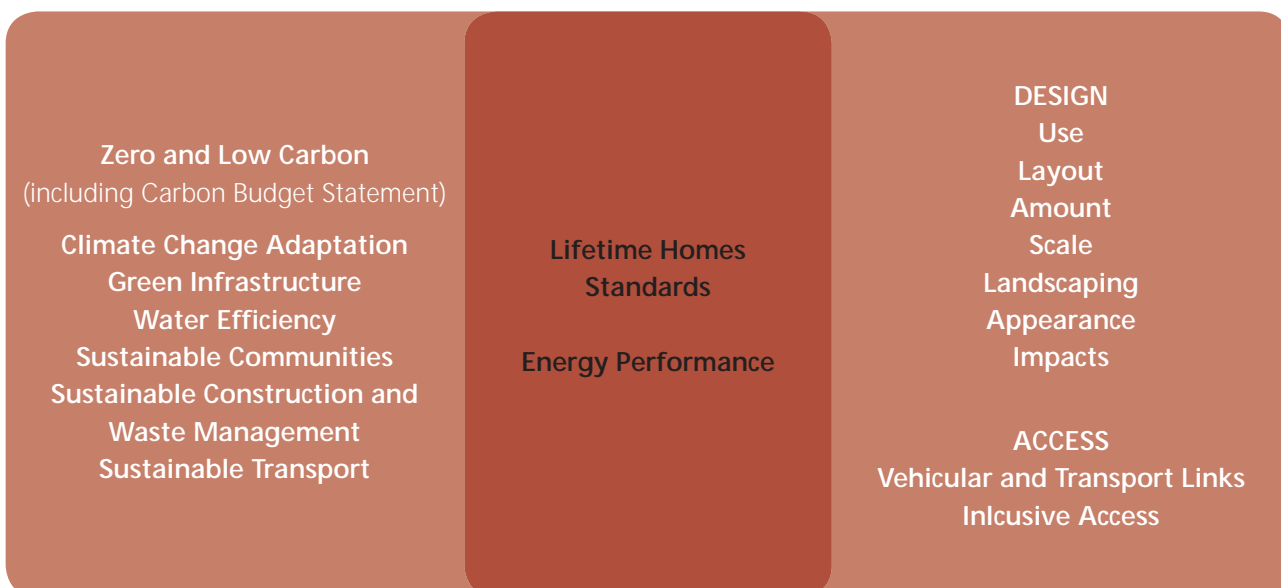


Figure 2.2 - Requirements for information in Sustainability Statements

# Sustainability Checklist

Stage in development Process

What should the applicant be doing at this stage?

LDF Core Strategy Policy Requirements

Requirement

Where feasible

SPD Guidance Reference

Pre-Application

Think about....

**Location of Development**

- Locate where there is access to local services, shops, employment opportunities
- Locate in areas accessible by walking, cycling public transport
- Locate away from areas at risk of flooding

- Consider the existing socio-economic conditions in the locality
- Consider the sites assets and constraints (including landscape, biodiversity, heritage, physical and community infrastructure etc)

**Layout of development**

- Incorporate decentralised energy production

- Incorporate natural lighting and ventilation
- Incorporate green infrastructure and biodiversity

- Incorporate existing site assets such as buildings, trees, wildlife habitat, water features

- Maximise natural lighting and ventilation through orientation of development whilst ensuring layouts comply with good urban design

- Incorporate sustainable urban design principles
- Incorporate home zone principles and sustainable modes of transport

**Design of development**

- Designed for energy efficiency and use of renewables / low carbon energy
- Designed to promote local character
- Designed to allow solar gain and natural ventilation
- Designed to save water / recycle greywater / harvest rainwater / mitigate site run off

- Designed to provide a mix of uses and or unit types and sizes
- Designed to enable sustainable waste management
- Designed to incorporate good urban design and respect local context

Provide evidence of....

**Zero carbon and energy efficient design**

- Development is meeting requirements for low or zero carbon
- Development includes energy efficiency measures

**Climate change adaptation**

- Layout and building design allow for climate change adaptation and resilience

**Water efficiency**

- Development is applying CFSH standards on water efficiency
- Development includes grey water recycling

**Sustainable communities**

- Development is meeting lifetime home standards
- Development is meeting decent homes standards
- Development is wheelchair accessible
- Development is designed to accord with the principles of secured by design
- Development has access to a full range of community and social infrastructure

**Sustainable waste management**

- Waste will be managed sustainably

**Sustainable transport**

- Development incorporates sustainable modes of transport

Application

**SP35: Sustainable Transport**  
**SP10: managing Flood Risk**  
FRAs required for all sites over 1ha located in flood zones 2, 3a and 3b. Also required for sites considered to be at risk from flooding this includes sites that are susceptible to surface water or groundwater flooding. Opening up of culverted streams and rivers is encouraged.

**SP50: Archaeology and the Historic Environment**  
Development proposals will be required to demonstrate a full understanding of historic environment assets affected Innovative design which integrates the historic environment into new development will be encouraged.

**SP8: Low Carbon Energy Generation**  
Over 50 units or 1,000sqm of floorspace - Combined Heat and Power or connection to District Heating Schemes. If CHP not utilised feasibility study must be provided to show that it is not efficient or viable or other energy reduction technologies are being used. Small developments (less than 50 units of less than 1,000sqm floorspace) should connect to Distrist Heating Systems.

**SP11: Green Infrastructure**  
Development that would affect the integrity of a linear corridor will be refused. New development should allow for tree planting in both private and public domains. New development is encouraged to create new GI such as green roofs.

**SP10: managing Flood Risk**  
Measures that increase wildlife and amenity value of natural water features are encouraged

**SP49: Biodiversity and Geology**  
Development that may directly or indirectly harm sites of national importance for biodiversity or geology will not be permitted. Development proposals should contribute towards objectives and targets in the LBAP, biodiversity enhancement measures should be appropriate to the nature and scale of the development proposed.

**SP48: Urban Design**  
Development proposals should follow principles of good urban design including: locating mixed use developments in centres or areas with good access; linking the development to existing networks of routes; creating places that are easily understood, safe and accessible; intergating landscaping into the development; retaining mature trees and planting new trees.

**SP5: Sustainable Neighbourhoods**

**SP10: Managing Flood Risk**  
Where possible natural drainage of surface water will be expected.

**SP42: Sustainable Management of the City's Waste**  
**SP48: Urban Design**  
Plans for development will be expected to: identify potential development assets and constraints; assess the character and context of the development site and surrounding area and buildings in order to interpret and emulate features and characteristics.

**SP8: Low Carbon Energy Generation**  
Developments required to reduce CO2 emissions. Developments are encouraged to include technologies that reduce energy consumption (such as SMART GRID).

**SP9: Low Carbon Economy**  
Development encouraged to use innovative technology to reduce carbon dioxide emissions including low carbon vehicles and (through installing recharging stations) and sustainable waste technologies such as anaerobic dlgestion and gasification processes.

**SP6: Adapting to Climate Change**  
Demonstrate how the design of development minimises overheating and reduces reliance on air conditioning systems. Demonstrates how the development integrates GI as part of the design. Provide accessible green roof to aid cooling and enhance biodiversity and promote sustainable drainage. Maintain and enhance the canal network to reflect the canals role in urban cooling.

**SP7: Sustainable Construction**  
All new residential development to meet at least CFSH Level 3, Code Level 4 by 2013, and Code Level 6 by 2016. All non residential development (over 1,000sqm or on site of 0.5ha +) should meet BREEM standard excellent.

**SP30: Design and Quality of New Housing and Residential Development**  
New housing should be designed to Lifetime Homes criteria.

**SP30: Design and Quality of New Housing and Residential Development**  
New housing should incorporate crime reduction measures. Proposals should achieve 'Secure by Design' accreditation.

**SP36: Accessibility Standards for New Development**  
New residential development should demonstrate that they are accessible to a range of local services such as GPs, primary schools and secondary schools. For major developments that individually or in combination will generate 500 person trips per day will require - an appropriate level of public transport provision; public transport stops within 80m of main focal point for the location; good cycle access with cycle stands and shelters; good pedestrian access.

**SP42: Sustainable Management of the City's Waste**

**SP35: Sustainable Transport**  
Measures that ensure sustainable modes choices are convenient such as greenways through new residential developments, information and communication technologies to facilitate modal interchange and the use of public transport.

✓

✓

Section 4

Section 3

✓

✓

Section 5

✓

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Section 3

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Section 3

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Section 2

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Section 4

Section 4

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Section 5

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Section 7

Section 2

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Section 3

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Section 7

Section 5

Section 2

Section 2

Section 2

✓

Section 2

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✓

Section 2

Section 7

✓

Section 7

Planning Obligations

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Construction & Implementation

What should the applicant be doing at this stage?

Agree the following....	
<b>For the construction phase</b>	
• Source materials from sustainable sources	
• Recycle / re-use construction waste	
<b>For when the development is complete</b>	
• Affordable housing	
• Decentralised energy system	
• On site / off site green infrastructure including community access agreements	
• Onsite / off site community and social infrastructure contributions	
• Green travel plan	
• Jobs / apprenticeships for local people	
Build it....	
<b>Construction</b>	
• Ensure materials are sourced sustainably	
• Ensure minimising Carbon emissions of construction process	
• Ensure construction waste is being re-used or recycled	
• Transport construction materials and waste sustainably	
<b>Implementation</b>	
• Ensure that development is built to sustainable standards (CfSH)	
• Ensure that development is built to other standards (Lifetime Homes etc.)	
• Ensure that other sustainability measures are built in prior to occupation	
• Ensure that green infrastructure and other community infrastructure is laid out / built and handed over	
• Provide scheme managers / occupiers with information on how to use / make best use of sustainability features e.g. energy saving devices	

LDF Core Strategy Policy Requirements

Requirement	Where feasible	SPD Guidance Reference
		Section 7
		Section 7
<b>SP43: New and Existing Waste Facilities</b> Maximised onsite recycling and construction and demolition waste.	✓	
<b>SP3: Quality of Life</b> Ensure that a choice of housing is available to meet all needs. Ensure that Birmingham's historic heritage is protected.	✓ ✓	Section 2
<b>SP8: Low Carbon Energy Generation</b> Developments required to reduce CO2 emissions.	✓	Section 5
<b>SP6: Adapting to Climate Change Integrate GI as part of design</b> <b>SP30: Design and Quality of New Housing and Residential Development</b> New housing to provide open space in accordance with Policy SP45.	✓	
<b>SP45: Open Space, Playing Fields and Allotments</b> 2ha of open space and 1.2ha of public or private playing fields per 1,000. All residents to have an open space within 400m. All residents to have a play ground within 400m.	✓	Section 3
<b>SP36: Accessibility Standards for New Development</b> New residential development should demonstrate that they are accessible to a range of local services such as GPs, primary schools and secondary schools.	✓	Section 2
<b>SP35: Sustainable Transport</b> Measures that ensure sustainable modes choices are convenient such as greenways through new residential developments, information and communication technologies to facilitate modal interchange and the use of public transport.		Section 4
		Section 7
		Section 7
		Section 7
<b>SP7: Sustainable Construction</b> Maximised onsite recycling of construction and demolition waste.	✓	Section 4
<b>SP7: Sustainable Construction</b> Developers will need to show how they accord with the standards and undertake a post construction review certificate.	✓	Section 7
<b>SP30: Design and Quality of New Housing and Residential Development</b> New housing should be constructed to the relevant CfSH level.	✓	
<b>SP30: Design and Quality of New Housing and Residential Development</b> New housing should be designed to Lifetime Homes criteria.	✓	Section 2
<b>SP36: Accessibility Standards for New Development</b> New residential development should demonstrate that they are accessible to a range of local services such as GPs, primary schools and secondary schools.	✓	Section 2



The key steps to be followed in preparing a Carbon Budget Statement are outlined below.

### Step 1: Project Assessment

Identify project details and development schedule. To establish the broad carbon emission reductions which may be secured. The nature of the proposed development and its location will impact on the technologies, costs and revenues associated with the project and its viability.

### Step 2: Estimated energy demand and carbon dioxide output:

Development emissions should be calculated by predicting the annual energy demand and CO<sub>2</sub> of each phase using CIBSE TM46 good performance benchmarks for the non-residential elements and full Standard Assessment Procedure (SAP) for the residential elements. Adjustments should be made for reductions in building energy demands reflecting the appropriate building regulations alongside the national and regional targets.

The energy and CO<sub>2</sub> benchmarks should be calculated using the expected energy demand and split between heating and electricity for the entire development phased by the year that each phase is completed.

### Step 3: Shortlist appropriate renewable technology

Based on considering aesthetics, design and any other constraints / opportunities that are specific to the development. Further details of the methods for exploring various technology options are set out in Section 5.

### Step 4: Evaluate technical feasibility study of shortlisted technologies

Energy demand and CO<sub>2</sub> emissions reduction can be met through the variety of energy-saving and renewable technologies. A technical feasibility study should be considered for a range of options relevant to the site including the costs of the technically feasible technologies including establishment, connection and finance costs. The lifetime cost per tonne of displaced CO<sub>2</sub> should be used to inform the baseline economic cost of the proposal.

The development may include technology solutions, which consider a split of the annual amount of electricity (kWhe) and/or heating kWhth which will be met by on-site and off-site through allowable solutions.

### Step 5: Project viability assessment and / or selection of alternative allowable solutions

Assess viability considering the effect of the overall construction costs including buildings, infrastructure and costs of low and zero carbon technology, other requirements of the Code for Sustainable Homes and planning obligations (e.g affordable housing).

As determined in step 4, the low and zero carbon technologies adopted should include the end-user benefits considering whole life costs, developer benefits, local benefits and environmental cost benefits.

A high level business case should demonstrate the long-term commercial viability of the proposals over the technology payback period demonstrating total indicative revenues and other benefits derived.

Potential revenue streams should be considered including the Renewable Obligations Certificates (ROCs), Feed-In Tariffs (FITs), Renewable Heat Initiatives (RHI) and other relevant Government incentives alongside the support available from targeted initiatives to reduce fuel poverty.

### Step 6: Carbon target and justification

The development would need to provide justification for the site wide CO<sub>2</sub> reduction which can be delivered and a comparison with the requirements of the Emerging Core Strategy Policies. This would need to be demonstrated in the Sustainability Statement supporting the Planning Application, including a review of technology selection and optimising project CO<sub>2</sub> reductions £ per tonne CO<sub>2</sub> saved.

Where developments are not able to meet the requirement of the Emerging Core Strategy, alternative allowable solutions would need to be proposed and justified.

## 3. Detailed Policy Guidance

The full SPD provides detailed guidance on various elements of sustainable development. A summary of this guidance is provided below.

### Sustainable Communities

The Council aims to create sustainable communities and neighbourhoods, that meet the needs of the community, provide high quality living environments, provide a choice of housing, community facilities and job, education and training opportunities.

Applicants will need to set out in their design and access statement or sustainability statement how their development helps to achieve sustainable communities. This should include details of how the development has responded to the following issues:

- Quality of life
- Adaptable buildings
- Healthy communities
- Safe and secure communities

Guidance on creating quality urban environments through following the principles of good urban design in new development and responding to the local context is set out at section 3 of the SPD.

The Council expects new homes to be built to lifetime homes standards to enable homes to adapt to the changing needs of occupants over their lifetime.

Applicants will need to show how their development is helping to tackle health issues and create healthy communities. This will require applicants to show that they have provided sufficient access to open space, created environments that are conducive to walking and cycling, and developed homes that are good quality and secure. Further advice on this is set out at section 3 of the SPD.

### Green Infrastructure and Climate Change Adaptation

The effects of climate change including temperature increases, changes to rainfall and more extreme weather, will impact on the City's population and built environment. This means that the Council requires new developments to be designed to incorporate climate change adaptation principles and ensure they are resilient to the impacts of climate change.

Applicants will need to set out in their sustainability statement how the development has been adapted to the impacts of climate change and designed to enable resilience to climate change impacts. This should include details of how the development has responded to the following issues:

- Site layout
- Building design
- Urban heat island
- Integration of Green Infrastructure (GI)
- Flood resilience

The Council expects new development to minimise overheating and reduce the reliance on air conditioning. Site layout and building design can help to reduce the urban heat island effect making developments more resilient to increased temperatures as a result of climate change. Guidance on these design issues is set out at section 4 of the SPD.

Applicants will need to show how their development integrates green infrastructure as part of the design and how this is contributing to climate change adaptation. This will require applicants to show that they maintained or enhanced existing open spaces on the site, integrated the site into the City's wider network of GI and contributed to filling gaps in the GI network. Further advice on this is set out at section 4 of the SPD.

The Council expects developments to reduce the risk of flooding. There is also an expectation that surface water will be drained naturally or through the use of sustainable urban drainage systems (SUDs). The approach to flood management and resilience and drainage is described in more detail at section 4 of the SPD.

### Sustainable Transport

Road transport is responsible for 24% of the City's CO2 emissions as well as being a source of various other harmful emissions. Transport measures will contribute to achieving

the City's CO2 reduction targets through the following four key principles:

- Smarter Choices
- Smarter Infrastructure
- Smarter Technology
- Effect Carbon Management

Birmingham has a significant ambition to be the UK's first 'walkable city', new development should make this their first transport consideration. Applicants will need to set out how the development has offers opportunities for on-site and off-site sustainable transport measures that promote walking and cycling.

The Council expects developments to include measures to ensure sustainable mode choices are convenient. Further guidance is provided on sustainable transport choices in section 5 of the SPD.

Applicants will need to prepare a transport assessment to set out likely trip generation and public transport accessibility and the impact of the development on the transport network. Developers are encouraged to produce these at an early stage in the development process. Further advice on this is set out at section 5 of the SPD.

Birmingham requires developers to produce Travel Plans that encourage sustainable modes of transport.

Developers should engage with the Council early on in developing their travel plan. The elements that should be covered in a travel plan are described in more detail at section 5 of the SPD.

### Low and Zero Carbon Energy

The Council will seek to maximise the opportunities for minimising energy use and securing carbon emission reductions in all new developments.

Sustainability statements should include an assessment of the suitability of different carbon reduction/renewable technologies for the proposed development, taking account of the particular characteristics of the site and the proposed use. This should include consideration of the following:

- Decentralised Energy Networks (CHP)
- Wind Turbines
- Solar Photovoltaics
- Solar Thermal Systems
- Biomass Heating
- Ground Source Heating and Cooling

Guidance on the applicability of these options to different circumstances is set out at section 6 of the SPD.

Where there are existing decentralised energy supply systems or firm proposals, the Council will expect proposed developments to connect to an identified system, or

be designed to be able to connect in the future.

In assessing the suitability of alternative systems account should be taken of the urban design, landscape and amenity impacts of particular solutions. In this respect it is recognised that some technologies may be inappropriate in certain circumstances (e.g. in relation to listed buildings or within conservation areas). Further advice on this is set out at section 6 of the SPD.

The Council also recognises that there may be additional costs associated with the use of these technologies. A carbon budget approach will therefore be adopted to provide a basis for determining the level of carbon emissions reductions and the viability of other sustainability requirements. This approach is described in more detail at section 6 of the SPD.

### Water Efficiency

Climate change will lead to changes in rainfall patterns (including summer water shortages) and temperature increases. These effects are likely to lead to greater pressure on the City's water resources. Population growth in the City will further increase these pressures, so new development will need to make efficient use of water resources.

The Council will expect developers to show that they have considered water use in their developments and have sought to reduce the amount of water that will be used in their development.

Guidance on making developments more water efficient is set out at section 7 of the SPD.

**Sustainable Construction and Waste**

The City's residential and commercial buildings contribute significantly to the City's CO2 emissions. By design new buildings that follow the highest standards of sustainable design and construction, the impact of new buildings can be significantly reduced.

Applicants will need to set out in their sustainability statement how the development has been designed to incorporate the principles of sustainable design and construction. This should include details of how the development has responded to the following issues:

- Sustainable construction standards
- Code for sustainable homes
- BREEAM
- Sustainable construction measures
- Sustainable waste management and recycling

Guidance on designing sustainable buildings is set out at section 8 of the SPD.

The Council requires all new residential development to meet the Code for Sustainable Homes Level 3, and will expect new residential developments to meet code level 6 by 2016. All non residential development (over 1,000sqm) should meet the BREEAM 'excellent' standard. Applicants will need to show how their development is meeting these standards, further guidance is set out in section 8 of the SPD.

The Council requires developers to maximise onsite recycling of construction and demolition waste. Developers will need to set out what proportion of building materials are from recycled sources, what proportion of construction waste will be recycled, and set out whether building materials have been sustainably sourced. Further advice on this is set out at section 8 of the SPD.

Sustainable waste management requires sufficient on site recycling and composting facilities, developers will need to show how waste will be managed sustainably in their developments. This approach is described in more detail at section 8 of the SPD.





