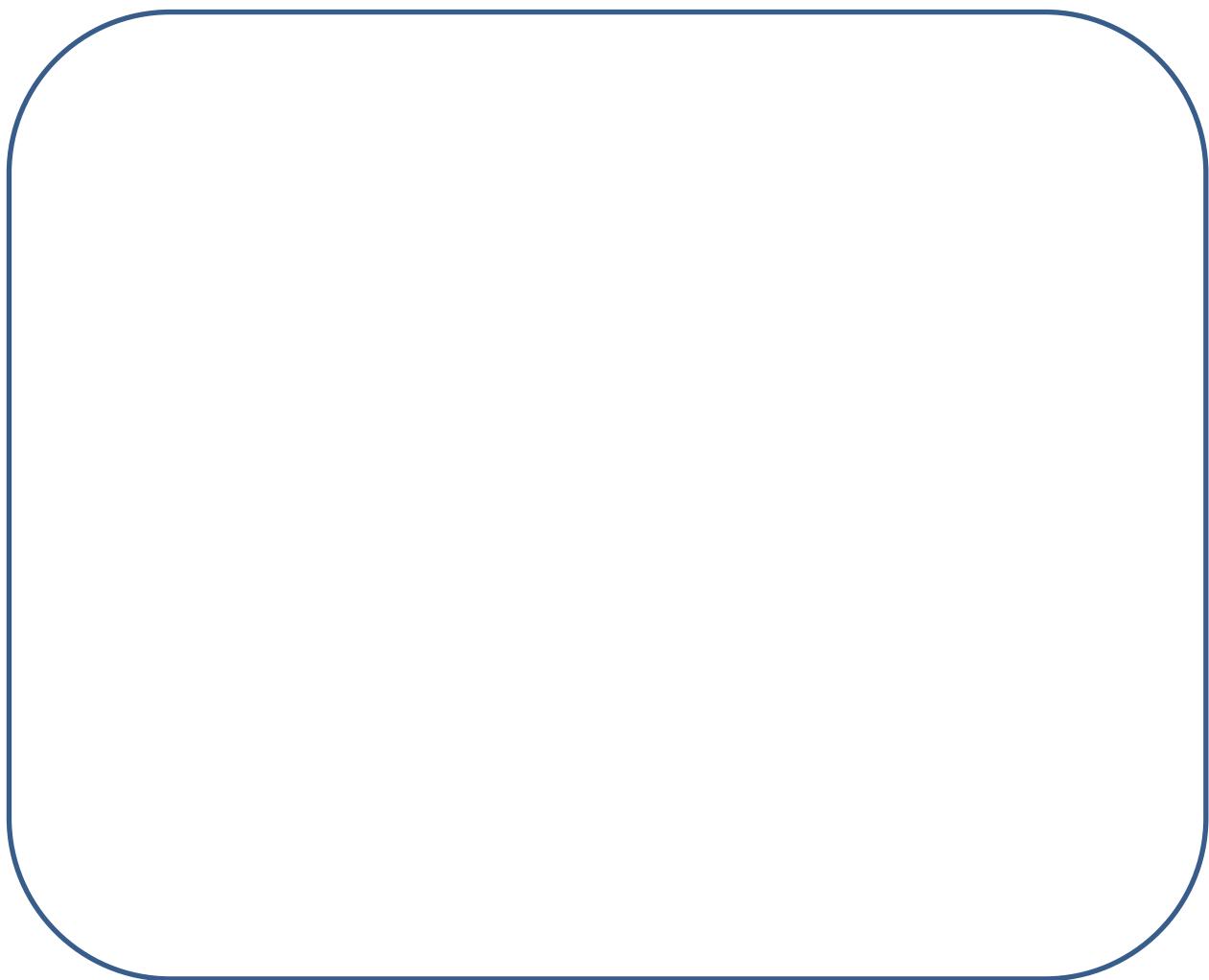


Greater Cambridge Sustainable Design and Construction Supplementary Planning Document



Consultation Draft July 2019

Contents

Forewords	10
Section 1: Introduction	12
Context.....	12
What is sustainable design and construction?	12
What are the benefits of sustainable design and construction?.....	12
Sustainable design and construction as part of the holistic design process	13
Legislative and Policy context.....	14
National Policy	15
Local Policy.....	16
How to use this SPD and submission requirements	17
Table 1.2: Summary of requirements for applications in Cambridge	18
Table 1.3: Summary of requirements for applications in South Cambridgeshire	21
Status of this document.....	24
Section 2: The importance of urban design.....	25
2.1 Introduction	25
2.2 Achieving more sustainable development forms	26
Walkable neighbourhoods	26
Movement framework.....	26
Land use and ‘activity nodes’	27
Density profile.....	27
Development blocks	27
Mixing uses	28
Robust and adaptable places and buildings	29
2.3 Transport, Movement and Accessibility	31
Further guidance	36
Section 3: Policy Implementation	37
3.1 Introduction	37
Viability considerations.....	37
3.2 Energy and Carbon Reduction	38
Carbon reduction in new development - Cambridge	38
Policy overview	38
Submission requirements – residential development.....	39
Submission requirements – non-residential development	41
Energy efficiency in existing homes in Cambridge.....	42

Policy overview	42
Submission requirements	44
Further guidance.....	45
Renewable and low carbon energy in new developments in South Cambridgeshire	45
Policy overview	45
Submission requirements	46
3.3 Water Efficiency	52
Water efficiency in residential development.....	52
Policy overview	52
Submission requirements	52
Water efficiency in non-residential developments - Cambridge.....	53
Policy overview	53
Submission requirements	53
Further guidance.....	54
Water efficiency in non-residential development – South Cambridgeshire	54
Policy overview	54
Submission requirements	54
Further guidance.....	54
3.4 Climate change adaptation.....	55
Policy overview	56
Submission requirements	56
Adaptation Strategies – Overheating.....	57
Adaptation Strategies – The role of green infrastructure	59
Adaptation strategies – the role of materials.....	64
3.5 Biodiversity	65
Policy overview	66
Submission requirements	66
Securing biodiversity net gain.....	68
Further guidance.....	72
3.6 Pollution	74
Light Pollution	74
Policy overview	74
Will a Lighting Scheme Require Planning Permission?	76
Submission requirements	77

The Design of the Lighting Proposed (General lighting requirements)	77
The role of planning conditions	82
Further guidance	83
Contaminated Land.....	84
Policy overview	84
Submission requirements	84
Further guidance	85
Noise Pollution (including vibration)	87
Policy overview	87
Existing Business and Agent of Change Principle.....	91
Submission requirements: Noise Sensitive Development (NSD).....	92
Stage 1 – Initial Site Noise Risk Assessment	93
Initial Site Noise Risk Assessment - Guideline “Absolute” Sound Levels for “anonymous noise”	94
Initial Site Noise Risk Assessment - Guideline “Absolute” Sound Levels for “anonymous noise”	94
Stage 2 – Internal Design Noise Levels	95
Stage 3 – Design Noise Levels for External Amenity Spaces.....	96
Stage 4 – Assessment of Other Relevant Issues	97
Ventilation and Cooling Design.....	98
Submission requirements: Outline Planning Permission for NSD	99
Other Noise Sensitive Development.....	99
Submission requirements: Noise Generating Development (NGD)	100
NGD and Creeping Background /Ambient Noise Levels	104
Specific Noise Generating Development Uses - Industrial, Trade / Commercial or Business	105
Good Acoustic Design	106
Vibration	107
Construction and Demolition Work.....	109
Noise and Vibration Demolition and Construction Environmental Management Plans	109
Further guidance	110
Air Quality - Cambridge.....	111
Policy overview	111
Submission requirements	114
What air quality information is required to support a planning application?.....	115
Air Quality Statements.....	115
Table 3.14: Air Quality Statement template for minor developments	117

Table 3.15: Air Quality Statement Template for major development	117
Detailed Air Quality Assessment.....	119
Cumulative Impact.....	119
Dust.....	119
Smoke.....	122
How to approach improving air quality in Cambridge.....	122
Further guidance	126
Air Quality – South Cambridgeshire.....	126
Policy overview	126
Submission requirements	127
Further guidance.....	133
Odour and Other Fugitive Emissions to Air.....	134
Policy context.....	134
Submission requirements	135
Content of an odour impact assessment for planning	136
Submission Requirements - Level of Odour Assessment / Risk Assessment Required: Low to Medium Risk Developments - Hot Food Premises	137
Submission Requirements - Level of Odour Assessment / Risk Assessment Required: Medium to Higher Risk Developments	139
Odours – Planning and Industrial Pollution Prevention and Control Regimes	139
Odour Control Mitigation	140
Further guidance.....	142
3.7 Sustainable Drainage Systems and flood risk	143
Policy context.....	143
Submission requirements	145
Further guidance	147
3.8 Construction Standards (BREEAM)	148
Policy context.....	148
Submission requirements – new build non-residential development.....	150
Further guidance	150
3.9 Sustainable Show Homes	151
Policy context.....	151
Submission requirements	151
3.10 Works to a heritage asset to address climate change	153
Policy context.....	153

Submission requirements	153
Further guidance	154
3.11 Construction waste and recycling and waste facilities	155
Policy context.....	155
Submission requirements – Construction waste	156
Further guidance.....	156
Submission requirements: occupational phase waste management.....	156
Further guidance	157
Section 4: Further approaches to sustainable design and construction	158
4.2 Health and wellbeing	159
Further guidance.....	164
4.3 Modern Methods of Construction	165
4.4 Food growing as part of new developments	166
Technical and practical considerations.....	166
4.5 Smart technologies	168
Further guidance	169
4.6 Responsible sourcing of building materials and embodied carbon.....	170
Further guidance	171
Appendix 1: Sustainability Checklist	172
1a –Sustainability checklist for applications in Cambridge.....	172
1b – Sustainability checklist for applications in South Cambridgeshire.....	184
Appendix 2: Carbon reduction template for inclusion in Carbon Reduction Statement for residential development – Cambridge developments only.....	194
Appendix 3: Gas Fired Combined Heat and Power (CHP).....	195
Advice note for developers in Cambridge and South Cambridgeshire on reducing the impact on Air Quality	195
Background	195
Minimising Emissions.....	196
Type and Design of the Plant	197
Dispersion of Emissions	198
Conclusion.....	199
Appendix 4: Home Energy Questionnaire.....	200
Appendix 5: Carbon Reduction Proformas for applications in South Cambridgeshire.....	204
Carbon Calculation Proforma (Outline Application)	204
Carbon Calculation Proforma (Reserved Matters/Full Application)	205

Appendix 6: Requirements for Specific Lighting Schemes.....	206
Advertisements.....	206
Security Lighting.....	206
Commercial and Industrial Developments	206
Decorative Building Lighting	207
Agricultural/Horticultural Uses	207
Lighting railway stations and road/rail Interchanges	207
Mineral Extraction.....	208
Petrol Filling Stations	208
Car Parks	208
Appendix 7: The Development of Potentially Contaminated Sites in Cambridge and South Cambridgeshire: A Developers Guide.....	210
Introduction	210
Planning Policy	210
The Planning Procedure.....	211
Role of the Developer	211
Role of the Greater Cambridge Shared Planning Service	212
Role of the Environment Agency	212
The Contaminated Land Risk Assessment Procedure.....	213
The Phase 1 Desk Top Studies.....	214
The Phase 2 Intrusive Site Investigation	216
Phase 3 Remediation Strategy	217
Phase 4 Verification/Validation Report	219
Unexpected Contamination	219
Materials Management Plan.....	219
Key Points.....	220
Contacts	220
Annex A: Examples of Potentially Contaminating Site Uses	221
Annex B: Information for Compiling a Site History.....	223
Annex C: Contaminated Site Assessment Reports – suggested content/format	225
Annex D: Material Management Plan (MMP) Explanatory Note	228
Appendix 8: Further technical guidance related to noise pollution	231
Annex A: Quick reference guides – When is an acoustic report required?	231
Annex B: General Requirements for Acoustic Reports and Assessments	234
Assessment by Suitably Qualified and Competent Person	237

Annex C: Summary of Noise Effect Levels and Planning Outcomes / Advice for “Absolute anonymous noise” and “Relative non-anonymous noise”	238
Annex D: Specific Noise Generating Development Uses - Industrial, Trade / Commercial or Business – Noise Requirements.....	243
Sound Insulation between Commercial and Residential Development - General	243
Delivery and Collections.....	244
Places of Entertainment (Food Restaurants, Clubs, Pubs and Bars).....	245
Multi Use Games Areas and Artificial Grass Pitches	247
Gyms	248
Nurseries / Childcare Facilities.....	250
Wind Turbines / Farms.....	251
Agricultural buildings	252
Annex E: Good Acoustic Design	253
Noise Sensitive Development – Good Acoustic Design	254
Good Acoustic Design Critical Steps.....	254
Noise Generating Development – Good Acoustic Design and Noise Control Measures.....	255
Good Acoustic Design Critical Steps.....	256
Acronyms	257
Glossary.....	258

Forewords

To follow

Section 1: Introduction

Context

- 1.1 In the period to 2031, Greater Cambridge has plans to grow significantly, supporting the nationally important economic contribution the area makes. The Cambridge and South Cambridgeshire Local Plans set out proposals for 33,500 new homes and seeks to ensure that sufficient land is available to allow the forecast of 44,100 new jobs. Set against this context of a growing and highly successful area is the need to ensure that growth is implemented as sustainably as possible. This will help ensure that Greater Cambridge reduces its environmental impact – minimising carbon emissions, flood risk, pollution and pressure on resources such as water. In order to achieve this, the Cambridge and South Cambridgeshire Local Plans (2018) set out visions and objectives for the Greater Cambridge area to 2031 for new development to help support the transition to a more environmentally sustainable and successful low carbon economy and respond to the challenges posed by our changing climate.

What is sustainable design and construction?

- 1.2 Buildings are responsible for almost half of the UK's carbon emissions, half of the water consumption, about one third of landfill waste and one quarter of all raw materials used in the economy. The construction industry therefore has an important role to play in delivering sustainable development, which lies at the heart of the planning system.
- 1.3 Sustainable design and construction seeks to lower consumption of resources, both in the construction of new buildings and in their use, providing a means of implementing sustainable development at the scale of individual sites and buildings. It takes account of the resources used in construction, and of the environmental, social and economic impacts of the construction process itself and how buildings are designed and used. It is increasingly recognised that one of the most important factors in delivering a successful development scheme is ensuring that the principles of sustainable design and construction form a key part of development briefs, and are therefore integrated into the design from the outset.

What are the benefits of sustainable design and construction?

- 1.4 In helping to protect the environment, sustainable construction also has goals of creating a healthier environment. As such, the benefits of sustainable construction run across the three dimensions of sustainable development, as summarised in Table 1.1 below.

Table 1.1: Sustainable development and the benefits of sustainable design and construction

SUSTAINABLE DEVELOPMENT ROLE	BENEFITS
Environmental	Sustainable design and construction contributes to the protection and enhancement of the natural, built and

SUSTAINABLE DEVELOPMENT ROLE	BENEFITS
	<p>historic environment by:</p> <ul style="list-style-type: none"> • Using natural resources prudently, ensuring that materials are responsibly sourced, consumption of resources such as energy and water are minimised and enabling the reuse and recycling of resources at the end of a buildings life cycle; • Minimising waste and pollution and enhancing air quality; • Ensuring the implementation of climate change mitigation measures to reduce greenhouse gas emissions as part of new developments; • Ensuring that new and existing communities are capable of adapting to our changing climate.
Social	<p>The integration of the principles of sustainable design and construction into construction projects can lead to many social benefits including:</p> <ul style="list-style-type: none"> • Helping to reduce fuel bills and tackle fuel poverty through the construction of highly energy efficient new homes and retrofitting existing buildings, which can have subsequent impacts on peoples' health and wellbeing, overcoming health issues associated with buildings that have inadequate levels of insulation, heating control and ventilation; • By ensuring that new and existing communities are capable of adapting to our changing climate, health risks associated with extreme weather events can be minimised.
Economic	<ul style="list-style-type: none"> • Ensuring that new development contributes to the development of Greater Cambridge as an environmentally sustainable area will help us make the transition towards a zero carbon economy that is more resilient to energy market fluctuation and our changing climate. The more prudent use of resources will also secure the long term sustainability of growth. • Enabling business to improve productivity, enhance the rental and investment value of their buildings and demonstrate performance against Corporate Social Responsibility aims.

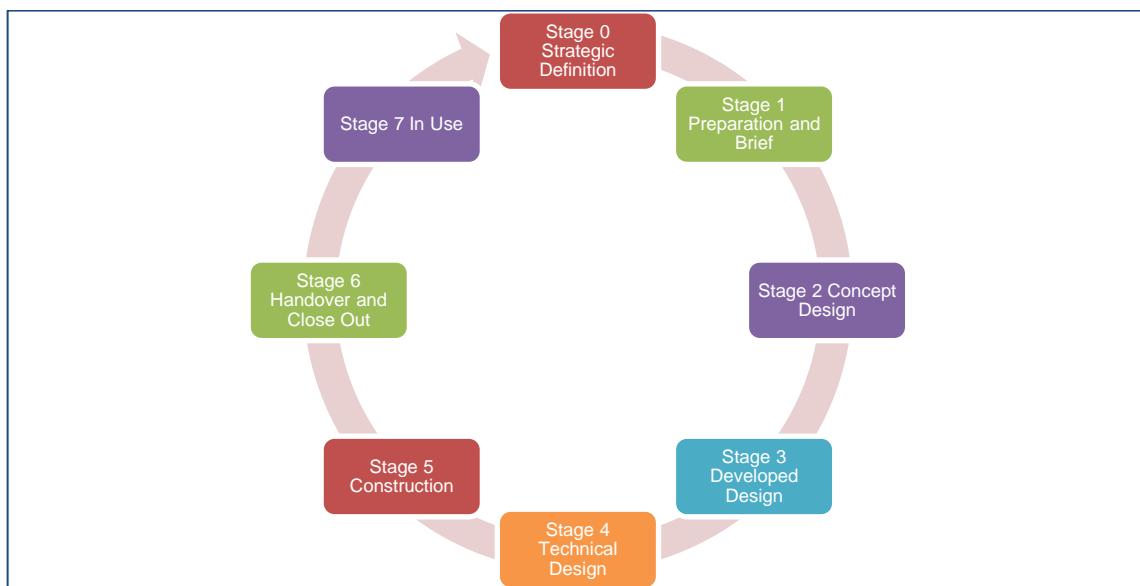
Sustainable design and construction as part of the holistic design process

- 1.6 The guidance set out in this Supplementary Planning Document (SPD) should form an integral part of the design process so that minimum policy requirements are met, and where possible exceeded, in the most elegant, timely and cost effective way possible. It is therefore recommended that the guidance set out in this SPD is referred to from the

very start of the design process, including in early discussions with the client. If sustainable design is not fully considered from the outset, then problems, delays and increased costs can result. For example, if overheating analysis is left until late in the design process and the analysis then reveals that overheating will occur, it is often too late to integrate architectural responses into the proposals to mitigate this risk. Subsequent amendments to proposals could lead new planning or design issues. Similarly, meeting the BREEAM requirements outlined in section 3.8 of this SPD requires early consideration in order for a range of credits to be achieved.

- 1.7 The RIBA Plan of Work 2013 organises the process of briefing, designing, constructing, maintaining, operating and using building projects into 8 key stages, as illustrated in figure 1 below. Within each of these key stages are a series of sustainability checkpoints, helping to ensure sustainable construction is integrated into the design process from Stage 0 (Strategic Definition) through to Stage 7 (In Use). The guidance within this SPD should be used to inform these sustainability checkpoints, particularly in relation to stages 0 through to 4, which are of particular relevance to town planning.

Figure 1: Stages in the RIBA Plan of Work 2013 (adapted from RIBA (2013) RIBA Plan of Work 2013 Overview)



Legislative and Policy context

- 1.8 Climate change is the greatest long-term challenge facing human development. The Stern Review (2006) outlined the economic impacts of climate change and concluded that “the benefits of strong, early action considerably outweigh the costs”. Spatial planning can make a major contribution to tackling climate change in shaping both new and existing communities in ways that reduce carbon emissions and enable these communities to adapt to a changing climate. Spatial planning has the potential to deliver the right development in the right place; development that integrates the principles of sustainable design and construction.

- 1.9 The Climate Change Act 2008 contains a statutory target of securing a reduction in carbon dioxide levels of 80% below 1990 levels by 2050, with an interim target of a 34% reduction by 2020. Half of all the country's carbon emissions come from the energy used in constructing, occupying and operating buildings. A high standard of construction is therefore vital if these targets are to be achieved. Section 182 of the Planning Act 2008 introduced a duty on local planning authorities to include policies that make a contribution to both climate change mitigation and adaptation in their plans. This sets a clear legal framework for the role of planning and local policy in responding to climate change.
- 1.10 The UN Paris Agreement on climate change sets out that in order to avoid climate change's worst impacts, it is vital to secure climate stabilisation at less than 2°C global temperature increase above pre-industrial levels. However, the latest science indicates that 1.5°C is a more realistic target to avoid these worst extremes, and even then there will still be significant impacts through severe weather incidents and sea level rise. Above all, the latest IPCC report¹ illustrates the vital need to reduce climate change emissions now by transforming our energy systems, reducing emissions by 45% by 2030 and ultimately achieving net zero emissions by 2050. This report has led to the Committee on Climate Change recommending Government adopts a new emissions target for the UK: net zero greenhouse gas emissions by 2050². The built environment has a clear role to play in helping to deliver these national targets.

National Policy

- 1.11 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced, with section 14 of the Framework giving consideration to the role of planning in responding to our changing climate. This sets out a clear role for planning in supporting "the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure"³.
- 1.12 Crucially, the revised NPPF retains the key link between planning policy and the provisions of the Climate Change Act 2008. This means all local plans have a duty to reduce the carbon emissions associated with new development, contributing to England's carbon reduction targets as set out in the Climate Change Act.

¹ IPCC (2018). Global Warming of 1.5°C – Summary for Policymakers. Available online at: <https://www.ipcc.ch/sr15/chapter/summary-for-policy-makers/>

² Committee on Climate Change (May 2019). Net Zero: The UK's contribution to stopping global warming. Available online at: [https://www.theccc.org.uk/publication/netzero-the-uks-contribution-to-stopping-global-warming/](https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/)

³ MHCLG (February 2019). National Planning Policy Framework. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf

- 1.13 Further guidance on the policies contained in the NPPF is provided in the National Planning Guidance (NPPG), which has been taken into consideration in the production of this SPD.

Local Policy

- 1.14 In order to support the achievement of sustainable development, sections 4 and 7 of the Cambridge Local Plan (2018) and chapters 4, 6 and 9 of the South Cambridgeshire Local Plan (2018) contains a series of policies related to the role of planning in responding to climate change and managing resources. These policies seek to ensure that Greater Cambridge develops in the most sustainable way possible, delivering our social and economic aspirations without compromising the environmental limits of the area for current and future generations.

- 1.15 This SPD specifically provides guidance on the implementation of the following policies:
- Cambridge Local Plan (2018):**

Section 4: Responding to climate change and managing resources

- Policy 28: Carbon Reduction, Community Energy Networks, Sustainable Design and Construction and Water Use
- Policy 30: Energy Efficiency Improvements in Existing Dwellings;
- Policy 31: Integrated water management and the water cycle;
- Policy 32: Flood Risk
- Policy 33: Contaminated land
- Policy 34: Light pollution control
- Policy 35: Protection of human health from noise and vibration
- Policy 36: Air quality, odour and dust

Section 7: Protecting and enhancing the character of Cambridge

- Policy 63: Works to a Heritage Asset to Address Climate Change
- Policy 69: Protection of sites of biodiversity and geodiversity importance
- Policy 70: Protection of priority species and habitats
- Policy 71: Trees

South Cambridgeshire Local Plan (2018):

Chapter 4: Climate Change

- Policy CC/1: Mitigation and Adaptation to Climate Change
- Policy CC/3: Renewable and Low Carbon Energy in New Developments
- Policy CC/4: Sustainable Design and Construction
- Policy CC/5: Sustainable Show Homes.
- Policy CC/6: Construction Methods

Chapter 6: Protecting and enhancing the Natural and Historic Environment

- Policy NH/4: Biodiversity Clause 7 of the policy relates to climate change impacts on biodiversity.
- Policy NH/15: Heritage Assets and Adapting to Climate Change

Chapter 9: Promoting successful communities

- Policy SC/10: Lighting proposals
- Policy SC/11: Noise Pollution
- Policy SC/12: Contaminated Land

- Policy SC/13: Air Quality
 - Policy SC/15: Odour and Other Fugitive Emissions to Air
- 1.16 For the full text of the above policies please see:
- Cambridge Local Plan (2018). Available online at:
<https://www.cambridge.gov.uk/local-plan-2018>
 - South Cambridgeshire Local Plan (2018). Available online at:
<https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/the-adopted-development-plan/south-cambridgeshire-local-plan-2018/>
- 1.17 In addition to planning policy, both Cambridge City Council and South Cambridgeshire District Council have set out their aspirations for the areas to be net zero carbon by 2050. Corporate policies supporting this aspiration are either in place, or are in the process of being developed and wider policies around issues such as fuel poverty, tackling inequality and protecting and enhancing biodiversity are also in place. The Local Plans (2018) and the guidance contained within this SPD support these corporate policies. On the issue of net zero carbon, while the guidance in this SPD will help to support the transition towards this goal, further detail will be considered as part of work on the Joint Greater Cambridge Local Plan.
- ## How to use this SPD and submission requirements
- 1.18 The guidance in this SPD should assist applicants in producing their **Sustainability Statement**⁴ and associated **Sustainability Checklist** as well as other documents required to support planning applications. Each of the sections of the SPD contains guidance on the integration of sustainable design and construction into the design of new developments and the information that should be submitted with applications to demonstrate compliance with adopted policy in the 2018 local plans. The SPD is divided into the following sections:
- Section 2 – outlines the importance of integrating sustainable design and construction with urban design to ensure the delivery of high quality new development and to maximise the opportunities to enhance the environmental performance of new development. This section is applicable to schemes in both Cambridge and South Cambridgeshire. This section also gives consideration to the role of new development in promoting sustainable modes of transport.
 - Section 3 policy implementation – provides technical guidance on the information that needs to be submitted alongside planning applications to demonstrate compliance with the policies. Colour coding has been applied to this section of the SPD to denote which guidance relates to which area, as detailed in paragraph 1.18 below.
 - Section 4: further approaches to sustainable design and construction - The purpose of this section is to encourage developers to go further than current policy requirements, particularly for strategic sites and new settlements that have policy requirements to demonstrate excellence in sustainable development and exceed

⁴ As required by Policy 28 of the Cambridge Local Plan 2018 and policy CC/1 of the South Cambridgeshire Local Plan 2018

baseline policy requirements. This section is applicable to schemes in both Cambridge and South Cambridgeshire.

- Appendices – the SPD provides a series of appendices including the sustainability checklist, proformas for the submission of carbon calculations and guidance on environmental health matters such as emissions standards for gas Combined Heat and Power.
- 1.19 The **Sustainability Checklist** (see Appendix 1) provides the questions that applicants need to respond to in their **Sustainability Statement** and other relevant documents. Where the scheme is utilising the Councils pre-application discussion service, the **Checklist** will be provided to applicants after the first pre-application meeting in order that the requirements can be integrated into the design of the proposals from the earliest possible stage. It should be submitted alongside the **Sustainability Statement** as part of the planning submission. Applications are unlikely to be registered if these documents have not been submitted.
- 1.20 The **Sustainability Statement** should take the form of a report with accompanying plans and drawings to illustrate and expand upon the information contained in the **Sustainability Checklist**. Applicants are advised to:
- Structure the report in the same order and with the same themes headings as the **Checklist**;
 - Be succinct when describing the nature of technologies or measures being proposed, providing a summary of proposals and cross referencing to information contained in other more detailed technical reports where appropriate;
 - Concentrate on demonstrating and quantifying what impact implementing the proposed measures is likely to have on the overall impact of the development
 - Reference how measures have been integrated into the design of the development.
- 1.21 For developments in Cambridge, the **Sustainability Statement** should be integrated into the **Design and Access Statement** for all major developments. For developments in South Cambridgeshire, the **Sustainability Statement** should form a stand-alone document.
- 1.22 In addition to the Sustainability Checklist and Sustainability Statement, tables 1.2 and 1.3 below provide a summary of the requirements for applications in Cambridge and those in South Cambridgeshire. Where each authorities have similar policies, shared guidance on policy implementation has been provided, denoted by purple sub-headings throughout section 3 of the document. Where guidance only applies to policies in Cambridge, sub-headings are in green, and for guidance for South Cambridgeshire, sub-headings are in orange.

Table 1.2: Summary of requirements for applications in Cambridge

TOPIC	REQUIREMENT	EVIDENCE REQUIRED	SECTION OF SPD
Energy and carbon	Policy 28: 1. All Residential development – 44% reduction on Part L 2006	1. Residential development – Carbon Reduction	1. Section 3.2, paragraphs 3.2.2 – 3.2.7 plus

TOPIC	REQUIREMENT	EVIDENCE REQUIRED	SECTION OF SPD
reduction	(19% reduction on Part L 2013) 2. All Non-residential – mandatory requirements for Ene01 associated with BREEAM ‘excellent’ Policy 30: 3. Householder application – home energy questionnaire	Statement 2. Non-residential development – BREEAM Pre-Assessment 3. Householder applications – home energy questionnaire	carbon reduction template in Appendix 2. 2. Section 3.2, paragraph 3.2.8 3. Section 3.2, paragraphs 3.2.9 – 3.2.13 plus the Home Energy Questionnaire in Appendix 4
Water	Policy 28: 1. All Residential development – 110 litres/person/day 2. All Non-residential development – maximum BREEAM credits for Wat01	1. Residential development – Water Conservation Strategy 2. Non-residential development – BREEAM pre-assessment	1. Section 3.3, paragraphs 3.3.2 – 3.3.3 2. Section 3.3, paragraphs 3.3.4 – 3.3.6
Climate change adaptation	Policy 28: All development should integrate measures into the design of developments to enable adaptation to climate risks including: <ul style="list-style-type: none">• Overheating• Flood risk	<ul style="list-style-type: none">• Sustainability Statement• Design and Access Statement• Surface Water Drainage Strategy	Section 3.4, paragraphs 3.4.6 – 3.4.40
Biodiversity	Policies 69 and 70: All development proposals should seek to conserve and enhance biodiversity	<ul style="list-style-type: none">• Preliminary Ecological Assessment; and• Protected Species Scoping Survey	Section 3.5, paragraphs 3.5.3 – 3.5.16
Pollution: light pollution	Policy 34: All development proposals including external lighting or changes to existing lighting should reduce the potential impacts of that lighting	<ul style="list-style-type: none">• An Assessment of the Need for Lighting• Lighting Impact Assessment	Section 3.6, paragraphs 3.6.2 0 3.6.36 plus Appendix 6
Pollution: contaminated land	Policy 33: All major development and any development proposals on land subject to contamination or land that is suspected to be contaminated. Developers are responsible for ensuring that a proposed development will be safe and ‘suitable for use’ for the purposes for which it is intended.	<ul style="list-style-type: none">• Contaminated land assessment	Section 3.6, paragraphs 3.6.37 – 3.6.42 plus Appendix 7
Pollution: Noise	Policy 35: Development will be permitted	<ul style="list-style-type: none">• Noise Impact Assessment or	Section 3.6, paragraphs 3.6.43 –

TOPIC	REQUIREMENT	EVIDENCE REQUIRED	SECTION OF SPD
	<p>where it is demonstrated that:</p> <ul style="list-style-type: none"> a. it will not lead to significant adverse effects and impacts, including cumulative effects and construction phase impacts wherever applicable, on health and quality of life/amenity from noise and vibration; and b. adverse noise effects/impacts can be minimised by appropriate reduction and/or mitigation measures secured through the use of conditions or planning obligations, as appropriate (prevention through high quality acoustic design is preferable to mitigation). 	<p>Acoustic Assessment/Report</p> <ul style="list-style-type: none"> • Acoustic Design Statement 	3.6.132 plus Appendix 8
Pollution: Air Quality	<p>Policy 36:</p> <p>Development must ensure that it does not adversely impact on air quality or expose sensitive users to poor air quality and does not lead to significant adverse effects on health, amenity and the environment from polluting or malodorous emissions, or dust or smoke emissions to air.</p>	<ul style="list-style-type: none"> • Air Quality Statement (for all development other than householder) • Air Quality Assessment 	Section 3.6, paragraphs 3.6.174 – 3.6.173
Pollution: Odour and other fugitive emissions	<p>Policy 36:</p> <p>Development must ensure that it does not adversely impact health, amenity and the environment from polluting or malodorous emissions, or dust or smoke emissions to air</p>	<ul style="list-style-type: none"> • Odour Impact Risk Assessment or Detailed Odour Impact Assessment 	Section 3.6, paragraphs 3.6.182 – 3.6.206
Sustainable Drainage Systems and Flood Risk	<p>Policies 31 and 32:</p> <p>All scales of new development needs to utilise SuDS in order to reduce the rate of discharge into watercourses and mitigate the risk of surface water flooding.</p> <p>A Site Specific Flood Risk Assessment is required:</p> <ul style="list-style-type: none"> • For proposals of 1 ha or greater in Flood Zone 1 • For all proposals for new development (including minor 	<ul style="list-style-type: none"> • Surface Water Drainage Strategy • A Site Specific Flood Risk Assessment • Surface Water Drainage Pro-forma (Appendix F) of the Cambridgeshire Flood and Water SPD 	Section 3.7, paragraphs 3.7.1 – 3.7.13 and the Cambridgeshire Flood and Water SPD

TOPIC	REQUIREMENT	EVIDENCE REQUIRED	SECTION OF SPD
	<p>development and change of use) in Flood Zones 2 and 3; or</p> <ul style="list-style-type: none"> • In an area within Flood Zone 1 which has critical drainage problems; or • Where proposed development, or a change of use to a more vulnerable class, may be subject to other forms of flooding 		
Construction Standards (BREEAM)	<p>Policy 28:</p> <p>All new non-residential development to achieve BREEAM 'excellent'</p>	<ul style="list-style-type: none"> • BREEAM Pre-Assessment 	Section 3.8, paragraphs 3.8.1 – 3.8.7
Heritage Assets	<p>Policy 63:</p> <p>Where works to improve the environmental performance of a heritage asset are proposed, evidence is required to demonstrate that the works will not harm the building's integrity or significance.</p>	<p>Information can be included in the Design and Access Statement or Heritage Statement</p>	Section 3.10, paragraphs 3.10.1 – 3.10.7
Construction waste and occupation phase waste management	<p>Policy 28:</p> <p>All new development should include measures to reduce construction waste and ensure that provision is made for storage capacity for waste, both internal and external</p>	<p>Construction waste: Site Waste Management Plans (secured via conditions)</p> <p>Occupation phase waste management:</p> <ul style="list-style-type: none"> • Recap Waste Management Design Guide Toolkit (as required by Policy CS28 of the Cambridgeshire Minerals and Waste Core Strategy). • Proposals in Cambridge should also submit Cambridge City Council's Waste and Recycling Provision Checklist. 	Section 3.11, paragraphs 3.11.1 – 3.11.10

Table 1.3: Summary of requirements for applications in South Cambridgeshire

TOPIC	REQUIREMENT	EVIDENCE REQUIRED	SECTION OF SPD
Energy and carbon	<p>Policy CC/3:</p> <p>10% onsite renewable or low</p>	Energy Statement	Section 3.2, paragraphs 3.2.14 –

TOPIC	REQUIREMENT	EVIDENCE REQUIRED	SECTION OF SPD
reduction	carbon energy for all new residential development and major non-residential development		3.2.38 plus the Energy Statement Form in Appendix 5
Water	Policy CC/4: 1. All residential development – 110 litres/person/day 2. Non-residential development – 2 BREEAM credits for Wat01	1. Residential development – Water Conservation Strategy 2. Non-residential development – BREEAM pre-assessment	1. Section 3.3, paragraphs 3.3.2 – 3.3.3 2. Section 3.3, paragraphs 3.3.7 – 3.3.9
Climate change adaptation	Policy CC/1: Integrate measures into the design of developments to enable adaptation to climate risks including: <ul style="list-style-type: none">• Overheating• Flood risk	<ul style="list-style-type: none">• Sustainability Statement• Design and Access Statement• Surface Water Drainage Strategy	Section 3.4, paragraphs 3.4.6 – 3.4.40
Biodiversity	Policies NH/4 and NH/5: All development proposals should seek to conserve and enhance biodiversity	<ul style="list-style-type: none">• Preliminary Ecological Assessment; and• Protected Species Scoping Survey	Section 3.5, paragraphs 3.5.3 – 3.5.16
Pollution: light pollution	Policy SC/10: All development proposals including external lighting or changes to existing lighting should reduce the potential impacts of that lighting	<ul style="list-style-type: none">• An Assessment of the Need for Lighting• Lighting Impact Assessment	Section 3.6, paragraphs 3.6.2 0 3.6.36 plus Appendix 6
Pollution: contaminated land	Policy SC/12: All major development and any development proposals on land subject to contamination or land that is suspected to be contaminated. Developers are responsible for ensuring that a proposed development will be safe and ‘suitable for use’ for the purposes for which it is intended.	<ul style="list-style-type: none">• Contaminated land assessment	Section 3.6, paragraphs 3.6.37 – 3.6.42 plus Appendix 7
Pollution: Noise	Policy SC/11: Development will be permitted where it is demonstrated that: a. it will not lead to significant adverse effects and impacts, including cumulative effects and construction phase impacts wherever applicable, on health and quality of life/amenity from	<ul style="list-style-type: none">• Noise Impact Assessment or Acoustic Assessment/Report• Acoustic Design Statement	Section 3.6, paragraphs 3.6.43 – 3.6.132 plus Appendix 8

TOPIC	REQUIREMENT	EVIDENCE REQUIRED	SECTION OF SPD
	<p>noise and vibration; and</p> <p>b. adverse noise effects/impacts can be minimised by appropriate reduction and/or mitigation measures secured through the use of conditions or planning obligations, as appropriate (prevention through high quality acoustic design is preferable to mitigation).</p>		
Pollution: Air Quality	<p>Policy SC/13:</p> <p>Development must ensure that it does not adversely impact on air quality or expose sensitive users to poor air quality and does not lead to significant adverse effects on health, amenity and the environment from polluting or malodorous emissions, or dust or smoke emissions to air.</p>	<ul style="list-style-type: none"> • Air Quality Assessment • Low Emission Strategy 	Section 3.6, paragraphs 3.6.174 – 3.6.181
Pollution: Odour and other fugitive emissions	<p>Policy SC/14:</p> <p>Development must ensure that it does not adversely impact health, amenity and the environment from polluting or malodorous emissions, or dust or smoke emissions to air</p>	<ul style="list-style-type: none"> • Odour Impact Risk Assessment or Detailed Odour Impact Assessment 	Section 3.6, paragraphs 3.6.182 – 3.6.206
Sustainable Drainage Systems and Flood Risk	<p>Policies CC/7, CC/8 and CC/9:</p> <p>Refer to the Cambridgeshire Flood and Water SPD</p> <p>A Site Specific Flood Risk Assessment is required:</p> <ul style="list-style-type: none"> • For proposals of 1 ha or greater in Flood Zone 1 • For all proposals for new development (including minor development and change of use) in Flood Zones 2 and 3; or • In an area within Flood Zone 1 which has critical drainage problems; or • Where proposed development, or a change of use to a more vulnerable class, may be subject to other forms of flooding 	<ul style="list-style-type: none"> • Surface Water Drainage Strategy and Adoption Statement • Site Specific Flood Risk Assessment • Surface Water Drainage Pro-forma (Appendix F) of the Cambridgeshire Flood and Water SPD 	Refer to the Cambridgeshire Flood and Water SPD
Sustainable	Policy CC/5:	<ul style="list-style-type: none"> • Sustainability 	Section 3.9,

TOPIC	REQUIREMENT	EVIDENCE REQUIRED	SECTION OF SPD
Show Homes	For residential development where a show home is being provided, measures to enhance the environmental performance of homes should be installed and made available to new home buyers to enhance the specification of their new home	Statement	paragraphs 3.9.1 – 3.9.4
Heritage Assets	Policy NH/15: Where works to improve the environmental performance of a heritage asset are proposed, evidence is required to demonstrate that the works will not harm the building's integrity or significance.	Information can be included in the Design and Access Statement or Heritage Statement	Section 3.10, paragraphs 3.10.1 – 3.10.7
Construction waste and occupation phase waste management	Policies CC/6 and HQ/1: All new development should include measures to reduce construction waste and ensure that provision is made for storage capacity for waste, both internal and external	Construction waste: Site Waste Management Plans (secured via conditions) Occupation phase waste management: <ul style="list-style-type: none">• Recap Waste Management Design Guide Toolkit (as required by Policy CS28 of the Cambridgeshire Minerals and Waste Core Strategy).	Section 3.11, paragraphs 3.11.1 – 3.11.10

Status of this document

- 1.23 This is the draft version of the Greater Cambridge Sustainable Design and Construction SPD, agreed for consultation at Cambridge City Council’s Planning and Transport Scrutiny Committee by the Executive Councillor for Planning Policy and Open Spaces on 26 June 2019, and at South Cambridgeshire District Council’s Cabinet on the 1 July 2019.
- 1.24 Once adopted, the SPD will be a material consideration in the determination of planning applications.