Cambridge Inner Green Belt Boundary Study

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^A 17 Minster Precincts Peterborough PE1 1XX United Kingdom

^T +44 (0) 1733 310 471

^F+44 (o) 1733 553 661

 $^{^{}m W}$ www.lda-design.co.uk

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This document has been prepared and checked in accordance with ISO 9001:2008.

0.0 Executive Summary

0.1. Appointment and Scope

- 0.1.1. Cambridge City Council and South Cambridgeshire District Council (jointly referred to as the Councils) commissioned LDA Design to undertake two pieces of work following the suspension of the Examinations of their respective Local Plans in May 2015: an assessment of the Inner Green Belt Boundary, and a review of the methodologies put forward by objectors in relation to the Inner Green Belt Boundary. This report covers the first of these two items; the second item is presented as an appendix.
- 0.1.2. There are many ways in which an area of land can be important to Green Belt purposes. If the importance of different areas of land is to be scored, it is necessary to quantify importance, which is due to different reasons in different locations. This necessarily results in weighting the degree of importance that arises from different reasons. A further consequence of scoring is that, if an area of land is identified as important, but less important than another area of land, it potentially becomes a focus for consideration for release from the Green Belt for development, notwithstanding that it has been assessed as being of importance to the Green Belt.
- 0.1.3. For these reasons, this study does not employ a scoring system. Rather, having assessed each area of land within the study area for its importance to Green Belt purposes, consideration is given as to whether there is potential to release land for development without significant harm to Green Belt purposes.

0.2. Green Belt Purposes

- 0.2.1. At the national level, paragraph 80 of the National Planning Policy Framework (NPPF) sets out five purposes for Green Belt (the National Green Belt purposes), as follows:
 - 1. To check the unrestricted sprawl of large built-up areas
 - 2. To prevent neighbouring towns merging into one another
 - 3. To assist in safeguarding the countryside from encroachment
 - 4. To preserve the setting and special character of historic towns
 - 5. To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 0.2.2. At a local level, three purposes have been defined for the Cambridge Green Belt (the Cambridge Green Belt purposes) in local policy (refer to Cambridge Local Plan 2014, Proposed Submission, July 2013, paragraph 2.50 and South Cambridgeshire Local Plan, Proposed Submission 'with illustrated changes', March 2014, paragraph 2.29). They are as follows:
 - 1. Preserve the unique character of Cambridge as a compact, dynamic city with a thriving historic centre
 - 2. Maintain and enhance the quality of its setting

- 3. Prevent communities in the environs of Cambridge from merging into one another and with the city.
- 0.2.3. This study takes account of both the National Green Belt purposes (with one exception, as below) and the Cambridge Green Belt purposes. For ease of reference, both sets of Green Belt purposes are numbered in this report, although they are unnumbered in the relevant policy documents.
- 0.2.4. National Green Belt purpose 5 appears from its wording to be equally applicable to all Green Belt land and, on a literal reading, it would be defeated by any release of Green Belt land for development. In considering the relative importance of different areas of land to Green Belt purposes and the implications of potential releases of Green Belt land for development, it would not be relevant in distinguishing one area of Green Belt land from another. Consequently, it is not considered further in this study.
- 0.2.5. In order to undertake a meaningful assessment of the importance of different areas of land to Green Belt purposes, it is necessary to identify the particular qualities of Cambridge and its surrounding landscape that contribute to the performance of Green Belt purposes. A number of policy documents and previous studies have identified relevant qualities, which are taken into account in this study. Whilst there is significant variation in the number of Green Belt qualities mentioned in the various studies and policy documents, there is notable consistency among those mentioned, with a number of qualities mentioned in several different documents. The up to date analysis undertaken in the course of the present study largely confirms the relevance of the previously identified qualities as criteria for the Green Belt assessment.

0.3. Methodology

- 0.3.1. This study draws significantly from the Green Belt Study undertaken by LDA Design in 2002 on behalf of South Cambridgeshire District Council. The 2002 study adopted a similar approach of identifying qualities in order to understand the role played by the Green Belt around Cambridge. It did not assess specific areas of Green Belt in detail other than land to the east of Cambridge, and its brief was to focus on the fourth National Green Belt purpose 4 rather than the full range of Green Belt purposes. Nevertheless it has considerable validity in informing the approach to the present study.
- 0.3.2. The methodology for the study is structured broadly as follows:
 - Stage 1: Agreement of study area
 - Stage 2: Identification of sectors and sub areas within the Inner Green Belt
 - Stage 3: Baseline studies and analysis
 - Stage 4: Identification of qualities relevant to Green Belt purposes
 - Stage 5: Assessment of sectors

0.4. Baseline Studies and Analysis

0.4.1. The studies and analysis presented in section 4 of the report enable a thorough understanding of aspects of Cambridge and its surrounding landscape which are

relevant to Green Belt purposes. The main findings arising from the various studies are summarised below and lead to the identification of qualities which directly contribute to the performance of Green Belt purposes, which are set out in section 5.

- 0.4.2. The main findings drawn from the studies and analysis contained in this section are:
 - From the 19th century onwards, Cambridge grew to the north, east and south but there was little expansion to the west.
 - Notwithstanding the 19th and 20th century expansion, Cambridge remains a compact city focussed around its historic core.
 - There are numerous environmental and cultural designations affecting the city and its surrounding landscape.
 - There is an extensive rights of way network with good links between the city and countryside in many places, though links are poorer in others.
 - The city has its origins at the meeting point of three landscapes which, in terms of topography and landscape character, are still readily apparent in the landscape surrounding the city at the present day.
 - Cambridge has a distinctive historic core with an important setting of open spaces including The Backs.
 - Green corridors, most particularly the River Cam corridor, extending from the countryside into the city contribute significantly to the character of Cambridge.
 - Key views of Cambridge from the surrounding landscape are important, particularly views across the city skyline with its distinctive landmarks. The rural landscape forms both a foreground and a backdrop in many views.
 - Many approaches into the city centre are green, treed and characteristic. From the
 west in particular, approaches from the countryside to the distinctive areas of the
 city are short, creating positive perceptions of the city on arrival.
 - There are significant areas of Distinctive and Supportive townscape surrounding (and including) the historic core. There are extensive areas of Supportive landscape surrounding the city to the west, south and east, reflecting the important role played by the landscape in the setting of the city.
 - The villages surrounding Cambridge are a notable feature, with their distribution reflecting the historic qualities of the landscape, and some villages very close to the city edge. The villages have varying and distinctive character, particularly where they avoided significant 20th century development.

0.5. Qualities Relevant to Green Belt Purposes

0.5.1. From the studies and analysis presented in section 4 of the report, it is apparent that the National Green Belt purposes and Cambridge Green Belt purposes are manifested and performed in various ways specific to Cambridge and its surrounding landscape. Section 5 defines and describes 16 qualities of Cambridge and its surrounding landscape which directly contribute to the performance of Green Belt purposes. They are used as the criteria for assessing the individual sectors of the Inner Green Belt and

are summarised below. The qualities are not listed in order of importance. They are all equally important and each contributes to the performance of Green Belt purposes.

- 1. A large historic core relative to the size of the city as a whole
- 2. A city focussed on the historic core
- 3. Short and/or characteristic approaches to the historic core from the edge of the city
- 4. A city of human scale easily crossed by foot and by bicycle
- 5. Topography providing a framework to Cambridge
- 6. Long distance footpaths and bridleways providing access to the countryside
- 7. Key views of Cambridge from the surrounding landscape
- 8. Significant areas of Distinctive and Supportive townscape and landscape
- 9. A soft green edge to the city
- 10. Good urban structure with well-designed edges to the city
- 11. Green corridors into the city
- 12. The distribution, physical and visual separation of the necklace villages
- 13. The scale, character, identity and rural setting of the necklace villages
- 14. Designated sites and areas enriching the setting of Cambridge
- 15. Elements and features contributing to the character and structure of the landscape
- 16. A city set in a landscape which retains a strongly rural character

0.6. Main Conclusions

- 0.6.1. 19 sectors of the Inner Green Belt are identified and assessed to understand their importance to the performance of Green Belt purposes. The 16 qualities identified above are used as the criteria for the assessment. Most sectors are divided into sub areas, where the assessment of one or more criteria differs between one part of the sector and another. The assessment shows that all areas of land within the study area (with the exception of one small area, sub area 8.2) are important to Green Belt purposes but the reasons differ from one area to another. For example:
 - West of the city, the Inner Green Belt plays a critical role in maintaining the
 impression of a compact city, with countryside close to the historic core. The rural
 character of the land emphasises this and is seen as the foreground in views from
 approaches to the city, the M11 and the countryside west of the M11.
 - South-east of the city, the rising land of the Gog Magog Hills is a distinctive
 element of the setting of Cambridge, and is visible in views from within and
 across the city. The foothills extend to the urban edge in places; elsewhere, flatter
 land at the foot of the hills is also important as the foreground to the city in views
 from the elevated land.
 - East of the city, the Fen and Fen Edge landscapes, while less visible than the Gog Magog Hills, are an equally close link to the historic origins of the city at the meeting point of three landscapes.

- East and south of the city, extensive areas of 20th century development have created an impression of urban sprawl. Significant further expansion in these directions could start to threaten Cambridge's identity as a city dominated by its historic core. The Inner Green Belt land in these areas plays a critical role in preventing further expansion of the city and increasing urban sprawl.
- Green corridors into the city have long been accepted as a key component of its character. It is very important that these green corridors are preserved.
- Areas of land on all sides of the city form the rural setting of necklace villages or contribute to separation between the villages and Cambridge or between the villages themselves. Areas surrounding the three innermost villages of Grantchester, Teversham and Fen Ditton are of particular importance but areas of the Inner Green Belt also provide separation from other villages such as Great Shelford, Fulbourn, Girton and Histon.
- 0.6.2. Whilst virtually all areas of land within the study area have been assessed as being of importance to Green Belt purposes, consideration has been given as to whether it may nevertheless be possible for certain areas of land to be released from the Green Belt for development without significant harm to Green Belt purposes. This has been assessed for each sector and a number of areas have been identified around the south and south-east of the city where limited development, if handled appropriately, could take place without significant harm to Green Belt purposes. In each case, parameters are set for any such development to avoid significant harm to the purposes of the Green Belt.

1.0 Introduction

1.1. Appointment and Scope

- 1.1.1. This study was commissioned jointly by Cambridge City Council and South Cambridgeshire District Council (jointly referred to in this report as the Councils) following the suspension of the Examinations of their respective Local Plans in May 2015.
- 1.1.2. In a letter dated 20 May 2015, the Inspectors examining the Local Plans set out their preliminary conclusions, which raised a number of issues. In relation to Green Belt, the letter stated:

The National Planning Policy Framework affords a high degree of protection to the Green Belt. The letter from Nick Boles MP to Sir Michael Pitt dated 3 March 2014 notes that it has always been the case that a local authority could adjust a Green Belt boundary through a review of the Local Plan. The letter goes on to state that it must always be transparently clear that it is the local authority itself which has chosen this path. In the case of Cambridge City and South Cambridgeshire District the two authorities have individually and jointly undertaken a review of the inner Green Belt boundary during the course of plan preparation and concluded that a very small number of sites should be released to meet housing and employment needs.

A number of respondents have questioned the methodology employed in the Green Belt Review and we have found it difficult, in some cases, to understand how the assessment of 'importance to Green Belt' has been derived from the underlying assessments of importance to setting, character and separation. For example, sector 8.1 is given a score of 'high' with regard to importance to setting, and 'medium' with regard to importance to both character and separation, but the importance to Green Belt is then scored as 'very high'. Sector 8.2 is given a score of 'low' for importance to both setting and character, and 'negligible' in relation to separation but yet is given an overall score of 'medium'. These areas are referenced only as examples of the methodology, not as any indication that we consider that they are suitable for development.'

- 1.1.3. In response to these comments, the two Councils commissioned LDA Design to undertake the following two pieces of work:
 - To undertake assessment of the Inner Green Belt Boundary and set out the methodology used. The assessment should provide a robust, transparent and clear understanding of how the land in the Cambridge Green Belt performs against the purposes of the Cambridge Green Belt.
 - 2) To review the methodologies put forward by objectors in relation to the Inner Green Belt Boundary.
- 1.1.4. This report presents the assessment of the Inner Green Belt Boundary as required under item 1. The review of the methodologies put forward by objectors (item 2) is presented as an appendix to this report.
- 1.1.5. The Inspectors' letter of 20 May 2015 also commented on the assessment of Green Belt in the context of paragraph 85 of the National Planning Policy Framework. Such an assessment is outside the scope of this study.

1.2. Structure of the Report

- 1.2.1. Section 2 summarises the policy background applicable to Green Belt purposes in the Cambridge context and reviews previous policy and studies that have identified specific elements or qualities of Cambridge and its surrounding landscape that are relevant to Green Belt purposes.
- 1.2.2. Section 3 describes the methodology used in carrying out this study.
- 1.2.3. Section 4 presents the results of baseline studies and analysis which enable Cambridge and its surrounding landscape to be understood in the context of Green Belt purposes.
- 1.2.4. Section 5 draws out qualities of the city and its surrounding landscape that contribute to the performance of Green Belt purposes.
- 1.2.5. Section 6 applies these qualities as criteria against which the Inner Green Belt is assessed, on a sector by sector basis, in terms of its importance to the performance of Green Belt purposes.
- 1.2.6. Appendix 1 contains a review of Green Belt studies submitted by five objectors who are promoting development within the Inner Green Belt.

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2.0 Policy and Previous Studies

2.1. Introduction

- 2.1.1. This report does not present a comprehensive review of planning policy relevant to the study, nor does it rehearse a full history of the Cambridge Green Belt as a planning concept. Rather, to set the context for the study, it reviews and identifies the applicable Green Belt purposes against which areas of land within the Inner Green Belt are to be considered.
- 2.1.2. Since several of the Green Belt purposes are broadly worded and others use concepts such as 'setting' which require further definition within the specific context of Cambridge, it is necessary to analyse the Green Belt purposes in greater detail, with specific reference to the Cambridge context, to identify specific criteria which can be used for the assessment. A review has been undertaken of relevant policy documents and previous studies to assist in the identification of criteria for assessment.

2.2. Green Belt Purposes

- 2.2.1. At the national level, paragraph 80 of the National Planning Policy Framework (NPPF) sets out five purposes for Green Belt, which are identical to those previously set out in Planning Policy Guidance Note 2 (PPG2). The five purposes are as follows:
 - 1. To check the unrestricted sprawl of large built-up areas
 - 2. To prevent neighbouring towns merging into one another
 - 3. To assist in safeguarding the countryside from encroachment
 - 4. To preserve the setting and special character of historic towns
 - 5. To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 2.2.2. These purposes are referred to in this report as the National Green Belt purposes. Although they are not numbered in the NPPF, they are numbered in this report for ease of reference.
- 2.2.3. At a local level, three purposes have been defined for the Cambridge Green Belt in local policy (refer to Cambridge Local Plan 2014, Proposed Submission, July 2013, paragraph 2.50 and South Cambridgeshire Local Plan, Proposed Submission 'with illustrated changes', March 2014, paragraph 2.29). They are as follows:
 - 1. Preserve the unique character of Cambridge as a compact, dynamic city with a thriving historic centre
 - 2. Maintain and enhance the quality of its setting
 - 3. Prevent communities in the environs of Cambridge from merging into one another and with the city.
- 2.2.4. These are referred to as the **Cambridge Green Belt purposes** in this report and have similarly been numbered for ease of reference, although they are unnumbered in the relevant policy documents.
- 2.2.5. National Green Belt purpose 5 appears from its wording to be equally applicable to all Green Belt land and, on a literal reading, it would be defeated by any release of Green

- Belt land for development. In considering the relative importance of different areas of land to Green Belt purposes and the implications of potential releases of Green Belt land for development, it would not be relevant in distinguishing one area of Green Belt land from another. Consequently, it is not considered further in this study.
- 2.2.6. The principal relationships between the Cambridge Green Belt purposes and the National Green Belt purposes are readily apparent from their wording. Cambridge Green Belt purpose 1 (character) and 2 (setting) derive from National Green Belt purpose 4. Cambridge Green Belt purpose 3 (merging) clearly relates to National Green Belt purpose 2 but, since the presence of necklace villages close to the outskirts of Cambridge is widely recognised as a key element of the city's character, it is also relevant to National Green Belt purpose 4. When the qualities that contribute to character and setting are considered in greater detail, other relationships between the Cambridge Green Belt purposes and the National Green Belt purposes become apparent. For example, various aspects of the character and setting of Cambridge also contribute to the performance of National Green Belt purposes 1, 2 and 3. These interrelationships are discussed more fully in section 5 of this report.
- 2.2.7. The historic development of the Cambridge Green Belt purposes is described in Appendix 6 to the Councils' Joint Matter Statement on Matter 6 Green Belt (January 2015). The Cambridge Green Belt purposes were stated in their current form in Policy P9/2a of the Cambridgeshire and Peterborough Structure Plan 2003. They were subsequently restated in the Adopted Cambridge Local Plan 2006 and the Adopted South Cambridgeshire Core Strategy 2007 and now appear in the Submission versions of both Councils' Local Plans, (which are currently subject to Examination) as well as East Cambridgeshire's Adopted Local Plan 2015 (paragraph 6.11.2). They have therefore been a constant of local planning policy for the last 12 years and their origins go back much further.

2.3. Qualities Relevant to Green Belt Assessment

2.3.1. In order to undertake a meaningful assessment of the importance of different areas of land to Green Belt purposes, it is necessary to identify the particular qualities of Cambridge and its surrounding landscape that contribute to the performance of Green Belt purposes. A number of policy documents and previous studies have identified relevant qualities, which are taken into account in this study.

Plan for Cambridge, Professor Sir William Holford and H Myles Wright (1950)

2.3.2. Holford and Myles Wright described Cambridge as 'one of the most pleasant places on earth in which to live' and identified the compactness of the city as being important. They suggested a 'green line' beyond which building should not be permitted, in order to prevent coalescence with Girton, Cherry Hinton and Grantchester, and which should be 'permanently safeguarded'. They added that the boundary would also maintain 'green wedges along the river, keep the open countryside near the centre of the town on its west side, and exclude development from the foothills of the Gogs.' (paragraph 299). Similarly it was recognised that villages near the city boundary would require 'Green Belts' between them and the town (paragraph 304).

The Cambridge Sub-Region Study, Colin Buchanan and Partners (2001)

2.3.3. This study was commissioned by the Standing Conference of East Anglia Local Authorities under Policy 21 of Regional Planning Guidance for East Anglia (RPG6) to

- carry out a review of the Sub-Region, appraising key options for development to inform the development strategy as an input to the Cambridgeshire and Peterborough Structure Plan Review and the plans of adjoining counties.
- 2.3.4. The study included a Green Belt Review, which established that the primary purpose of the Green Belt was 'to preserve the special character of Cambridge and to maintain the quality of its setting'. The secondary purpose was 'to prevent further coalescence of settlements'.
- 2.3.5. The study included the following definitions:

'Special Character, in addition to the City's historic core and associated university colleges, comprises:

- the green corridors and wedges connecting the city with the countryside; and,
- the separation between settlements to ensure their clear identity.

Setting comprises:

- views of the city; and,
- the placement and character of villages surrounding the city and the interface between the city and the countryside.'

Inner Green Belt Boundary Study, Cambridge City Council (2002)

- 2.3.6. This study was carried out to assist in identifying sites that could accommodate growth close to Cambridge, in preparation for the Examination in Public of the Cambridgeshire and Peterborough Structure Plan 2003. Although it is dated 2002, section 1.1 of the study states that the methodology received Committee approval on 18th March 2003. It is understood that the study was developed in parallel with the Cambridge Landscape Character Assessment (see below), which is dated April 2003.
- 2.3.7. The study assessed four 'key purposes of the Green Belt', as follows:
 - '1. To preserve the setting and special character of Cambridge
 - Provide green separation between existing villages and any urban expansion of Cambridge
 - 3. Ensure the protection of green corridors running from open countryside into the urban area
 - 4. A vision of the city and of the qualities to be safeguarded'
- 2.3.8. The study also refers to areas identified as 'Defining Character' and 'Supporting Character' in the Cambridge Landscape Character Assessment. The study does not itself describe or identify the areas identified as Defining Character and Supporting Character but draws from the Cambridge Landscape Character Assessment.

Cambridge Green Belt Study, Landscape Design Associates (2002)

2.3.9. This study was undertaken by LDA Design (under its former name of Landscape Design Associates) on behalf of South Cambridgeshire District Council to support its case at the Examination of the Cambridgeshire and Peterborough Structure Plan 2003. The study was undertaken in the context of Policy 24 of RPG6 which required a review of the Cambridge Green Belt to be undertaken which should 'start from a vision of the city and of the qualities to be safeguarded ...'. The brief required the study to focus on National Green Belt purpose 4, 'to preserve the setting and special character of historic

towns'. The study described and illustrated the factors that contribute to the setting and special character of Cambridge and then identified the qualities to be safeguarded in order to preserve the setting and special character. It then set out a vision of the city as required by Policy 24 of RPG6.

2.3.10. The introduction to the study states:

'This study of Cambridge and its setting is a strategic one, covering broad tracts of land but, nevertheless, considering some aspects in a fairly high level of detail. Being strategic, however, it is not concerned with a field-by-field analysis or with identifying, precisely, any recommended changes to the Cambridge Green Belt boundary, except for the inner Green Belt boundary in East Cambridge, as required by the brief. The study may have implications on the broad scope for development around the periphery of Cambridge, and might be used, in a strategic way, to influence the degree to which Green Belt releases may be used to meet the scale of development identified in RPG6. However, it is not intended that this study should be used to support or argue against housing development on any specific sites, except in the area of more detailed study in East Cambridge.'

- 2.3.11. A more detailed study was undertaken of land to the east of Cambridge in response to a proposal, which South Cambridgeshire District Council opposed, for a major release of Green Belt land for development east of Cambridge Way in the area around Teversham and north of Fulbourn.
- 2.3.12. The Structure Plan EiP Panel Report noted that there was a fundamental difference of opinion between Cambridge City Council and South Cambridgeshire District Council as to what the vision for the city should be. The Panel concluded (at paragraph 8.6) that the vision put forward by LDA Design on behalf of South Cambridgeshire District Council of a compact city with a necklace of villages was appropriate and adopted a number of the 'qualities to be safeguarded' identified in the LDA Design study.
- 2.3.13. In relation to the proposal affecting land to the east of Cambridge, the Panel supported key conclusions of the LDA Design study (paragraphs 8.48 8.50 of the Panel Report) and concluded (at paragraph 8.54) that there should be no release of land east of Airport Way from the Green Belt. In considering other proposed Green Belt releases, the Panel also supported the findings of the LDA Design study.
- 2.3.14. In light of the support of the EiP Panel for many of the findings of LDA Design's 2002 study, it is considered to provide a robust starting point for the present study.
- 2.3.15. The study identified the following 'Special Qualities' of the Green Belt which are described as finite and irreplaceable and should be safeguarded:
 - A large historic core relative to the size of the city as a whole
 - A city focussed on the historic core
 - Short and/or characteristic approaches to Cambridge from the edge of the city
 - A city of human scale easily crossed by foot and by bicycle
 - Key views of Cambridge from the landscape
 - Significant areas of distinctive and supportive townscape and landscape
 - Topography providing a framework to Cambridge
 - A soft green edge to the city

- Green fingers into the city
- Designated sites and areas enriching the setting of Cambridge
- Long distance footpaths and bridleways providing links between Cambridge and the open countryside
- Elements and features contributing positively to the character of the landscape setting
- The distribution, physical separation, setting, scale and character of necklace villages
- A city set in a landscape which retains a strong rural character.

Cambridgeshire and Peterborough Structure Plan 2003

2.3.16. In line with the recommendations of the EiP Panel, important qualities of the Green Belt are identified in paragraph 9.25 of the Structure Plan, which states:

'Apart from its unique historic character, of particular importance to the quality of the City are the green spaces within it, the green corridors which run from open countryside into the urban area, as indicated on the Key Diagram, and the green separation which exists to protect the integrity of the necklace of villages. All of these features, together with views of the historic core, are key qualities which are important to be safeguarded in any review of Green Belt boundaries.'

Cambridge Landscape Character Assessment, Cambridge City Council (2003)

- 2.3.17. In section 2.1, the assessment states that the approach it takes is similar to that used for (inter alia) the Winchester study (Winchester City and its Setting, Winchester City Council (1998)). The Winchester study was undertaken by LDA Design and established a methodology for the assessment of the role and function of landscape and townscape in historic towns and cities, which was subsequently described and implicitly endorsed by the Countryside Agency in its Landscape Character Assessment Guidance for England and Scotland (2002). LDA Design's 2002 study of the Cambridge Green Belt also applied the Winchester methodology.
- 2.3.18. The application of the Winchester methodology in the Cambridge Landscape Character Assessment is somewhat loose. It identifies elements which make up Defining Character that 'are regarded as so closely associated with Cambridge and what makes it distinctive, they are irreplaceable and should be regarded as 'sacrosanct''. Defining Character is identified as the following physical features of the city:
 - Buildings and historic core
 - Green fingers and corridors
 - Watercourses and bodies
 - Open green spaces within the city
 - Setting and views of the city skyline
 - Separation.
- 2.3.19. Other features and areas are identified as 'Supporting Character', which is described as 'very important to Cambridge and its character, but not so important that their removal or development would completely change the distinctive character of Cambridge'. These include:

- Edges
- Local open spaces
- Local views
- Archaeology
- Ecology and natural history
- Ancient woodland, tree cover, hedgerows and veteran trees.

Cambridge Local Plan 2006

2.3.20. The Adopted Cambridge Local Plan states the Cambridge Green Belt purposes at paragraph 4.5 but, other than referring to 'corridors which penetrate the built area and which are valuable for amenity and wildlife', does not describe any specific qualities of the Green Belt.

South Cambridgeshire Core Strategy (2007)

- 2.3.21. The Adopted Core Strategy states the Cambridge Green Belt purposes at paragraph 2.2. At paragraph 2.3, it refers to the special character of Cambridge as including:
 - 'Key views of Cambridge from the surrounding countryside
 - A soft green edge to the city
 - A distinctive urban edge
 - Green corridors penetrating into the city
 - Designated sites and other features contributing positively to the character of the landscape setting
 - The distribution, physical separation, setting, scale and character of Green Belt villages
 - A landscape which retains a strong rural character.'

Conclusion

2.3.22. Whilst there is significant variation in the number of Green Belt qualities mentioned in the various studies and policy documents, there is notable consistency among those mentioned, with a number of substantively the same qualities mentioned in several different documents. The up to date analysis undertaken in the course of the present study largely confirms the relevance of the previously identified qualities as criteria for the Green Belt assessment.

3.0 Methodology

3.1. Introduction

- 3.1.1. The principal requirement of this study is to assess how land in the Inner Cambridge Green Belt performs against Green Belt purposes. As described in section 2.2, both National Green Belt purposes (with the exception of purpose 5) and Cambridge Green Belt purposes are considered.
- 3.1.2. National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2 refer to character and setting. It is not possible to assess the performance of areas of Green Belt land in terms of the character and setting of Cambridge without first understanding the various qualities that make up the character and setting of the city. The approach taken in the study is to identify these qualities and then to assess various sectors of land within the Inner Green Belt against the identified qualities.
- 3.1.3. National Green Belt purposes 1 and 3 are concerned with sprawl and encroachment into the countryside. Similarly, it is necessary to identify the qualities of the city and its surrounding landscape that are relevant to sprawl and encroachment in order to assess the performance of Green Belt sectors against these qualities and thus their performance in relation to Green Belt purposes.
- 3.1.4. The merging of settlements, which is the subject of National Green Belt purpose 2 and Cambridge Green Belt purpose 3, is a simpler concept than setting, character, sprawl and encroachment and its assessment is more straightforward but it nevertheless comprises several aspects that require careful consideration and, in the case of Cambridge's necklace villages, is interlinked with character and setting.
- 3.1.5. This study draws significantly from LDA Design's Green Belt Study undertaken in 2002 on behalf of South Cambridgeshire District Council (see section 2.3.3). The 2002 study adopted a similar approach of identifying qualities in order to understand the role played by the Green Belt around Cambridge. It did not assess specific areas of Green Belt in detail other than land to the east of Cambridge, and its brief was to focus on National Green Belt purpose 4 rather than the full range of Green Belt purposes. Nevertheless it has considerable validity in informing the approach to the present study.

3.2. Methodology

- 3.2.1. The methodology for the study is structured broadly as follows:
 - Stage 1: Agreement of study area
 - Stage 2: Identification of sectors and sub areas within the Inner Green Belt
 - Stage 3: Baseline studies and analysis
 - Stage 4: Identification of qualities relevant to Green Belt purposes
 - Stage 5: Assessment of sectors
- 3.2.2. These stages are described in further detail below.

Stage 1: Agreement of Study Area

3.2.3. The study area is shown on Figure 1 and was agreed with the Councils. The study area was broadly similar to that used in the 2012 Inner Green Belt Boundary Study

undertaken by the Councils, but the following additional areas were included to ensure comprehensive coverage of all undeveloped Green Belt land around the edges of the city:

- Land south of the A14 and east of Huntingdon Road, including the site of Girton College
- All remaining Green Belt land between Huntingdon Road and Madingley Road
- The corridor of the River Cam flowing into Cambridge from Grantchester in the south west and Fen Ditton in the north east
- A small area of land east of Cherry Hinton Road to the south east of the city, to include the full extent of the site being promoted by an objector
- Small parcels of Green Belt land on the edges of Fulbourn, Teversham and Fen
 Ditton, as well as along Teversham Road between Fulbourn and Teversham,
 omitted from the Council's study.

Stage 2: Identification of Sectors and Sub Areas within the Inner Green Belt

- 3.2.4. The sectors and sub areas used for the assessment are shown on Figure 2. The sectors are defined on a simple spatial basis working around the perimeter of Cambridge, using radial routes and, where necessary, other roads, the river or occasionally field boundaries to divide one sector from another. This provides a clear and robust structure for presentation of the assessment. The sectors largely follow those used by the Councils in the 2012 Inner Green Belt Boundary Study, adjusted for the additions to the study area identified above, but the following further changes were agreed with the Councils for the reasons given:
 - Realignment of the boundary between sectors 1 and 2 so that all land between Huntingdon Road, Madingley Road and the M11 falls within sector 2, with sector 1 being the land south of the A14 and east of Huntingdon Road
 - Realignment of the boundary between sectors 4 and 5 so that the entire boundary with the M11 between Barton Road and the river falls within sector 5, with sector 4 being the land lying between Grantchester and the city
 - The boundary between sectors 12 and 13 was realigned to follow a continuous field boundary and avoid crossing open fields
 - The boundary between sectors 16 and 18 was realigned so that all land north of Newmarket Road and south of the A14 falls within sector 18, with sector 16 being the land south of Newmarket Road and east of Airport Way as far as Caudle Ditch
 - Sector 19 was added, following the inclusion of the river corridor on the north eastern side of the city within the study area.
- 3.2.5. The definition of the sectors on a simple spatial basis, as described in the previous paragraph, does not reflect variations in land use, character or context, which occur in the majority of the sectors. Most sectors were therefore divided into sub areas where there were clear changes in these characteristics which would affect the application of the assessment criteria to different areas of land. This enables a robust and transparent assessment of the various sub areas. The sub areas differ significantly from those used in the Councils' 2012 Inner Green Belt Boundary Study, which used different criteria

for sub division.

Stage 3: Baselines Studies and Analysis (Section 4 of this Report)

- 3.2.6. A series of studies were undertaken to build up an understanding of Cambridge and its surrounding landscape, in the context of the considerations which are relevant to the performance of Green Belt purposes. These cover a range of aspects which have a bearing on how the issues raised by Green Belt purposes (sprawl, merging, encroachment, setting and character) are manifested in Cambridge and its surrounding landscape or are perceived by residents or visitors to the city. They include matters relating to the physical form and scale of the city, its historical development, its relationship to its hinterland, townscape and landscape character, the experience of approaching and arriving at the city, and how the city is perceived from the surrounding landscape.
- 3.2.7. Townscape character assessment assists not only in identifying the historic core of the city but also in identifying other areas of townscape which are distinctive to Cambridge and contribute to its particular character. Its findings reflect the historical development of the city and contribute to an understanding of the nature of the urban edges which adjoin the Green Belt. Landscape character assessment assists in identifying important components of the landscape setting of the city, enabling it to be studied within its context, and the relationship between the city and its surroundings to be properly understood. These assessments are therefore of particular relevance to National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2.
- 3.2.8. The findings of the baseline studies are presented in section 4 of this report. Section 4 draws significantly from material contained in LDA Design's 2002 study. The material has been checked, validated and updated as necessary for the purposes of the present study.
- 3.2.9. The studies included in this stage include factual matters such as designations, rights of way and topography. They also include matters requiring assessment and analysis such as townscape and landscape character assessments, a visual assessment and analysis of the process of arrival at Cambridge through consideration of approaches and gateways.
- 3.2.10. The landscape and townscape character assessments in LDA Design's 2002 study followed the guidance set out in the Countryside Agency's Landscape Character Assessment Guidance for England and Scotland (2002). Subsequently, Natural England has published An Approach to Landscape Character Assessment (2014). However, much of the guidance contained in the new document directly relates to the 2002 Countryside Agency document so the approach to these assessments remained unchanged.
- 3.2.11. Section 4 concludes with an analysis of the role and function of townscape and landscape. This analysis follows the approach adopted by LDA Design in its study on Winchester and its Setting (1998) which was described in and implicitly endorsed by the Countryside Agency in its Guidance (page 70). The purpose is to identify, in a fully integrated way, the role of different areas of townscape and landscape in contributing to the distinctiveness and setting of a historic city.
- 3.2.12. Note the analysis of townscape and landscape role and function classifies areas of townscape and landscape as **Distinctive**, **Supportive** or **Connective**. These words are

- capitalised wherever they refer to this classification.
- 3.2.13. The word 'distinctive' (uncapitalised) is used throughout this report in its general sense of an aspect or feature that is notable, recognisable or particularly characteristic.
- 3.2.14. The findings of the baseline studies and analysis are presented on a series of drawings and photograph panels. Figures 3-11 show the entire city and Inner Green Belt, with some extending wider as necessary to convey the relevant information. Figures 12-14 show the east, south and west sides of Cambridge at larger scale to enable certain categories of information to be more clearly presented. Figures 15-19 are photograph panels showing a number of the key views identified on Figure 9.

Stage 4: Identification of Qualities Relevant to Green Belt Purposes (Section 5 of this Report)

- 3.2.15. This stage draws from the surveys and analysis work in stage 3 to define 16 qualities of the city and its surrounding landscape which directly contribute to the performance of Green Belt purposes. The qualities are largely similar to the Special Qualities identified in LDA Design's 2002 study but have been modified and expanded as necessary to address all relevant Green Belt purposes. Many of the qualities are relevant to more than one Green Belt purpose.
- 3.2.16. Whilst the identification of the qualities follows on from the findings of the baseline studies and analysis, many of them have been identified in previous studies by others or in policy documents relating to the Green Belt (as identified in section 2.3).
- 3.2.17. The identified qualities are described in section 5. For each of the 16 qualities, the text in section 5 explains the relevance of the quality to Green Belt purposes and how it manifests itself in Cambridge and its surrounding landscape. This establishes the 16 qualities as the criteria used for the assessment of the Green Belt sectors in stage 5.

Stage 5: Assessment of Sectors (Section 6 of this Report)

- 3.2.18. Section 6 of this report contains a detailed assessment of each of the Green Belt sectors in terms of its performance of Green Belt purposes. The 16 qualities identified in stage 4 are used as the criteria against which the sectors and sub areas are assessed. The assessments are presented in a tabulated format for each sector.
- 3.2.19. The assessments conclude with a summary of the importance of the sector to Green Belt purposes, drawing out the key points from the criteria-based assessment, followed by commentary on the implications of releasing land within the sector from Green Belt for the purposes of development.
- 3.2.20. Appendix 1 to this report is a review of studies undertaken by objectors of land within the Inner Green Belt. Several of these studies present their conclusions by scoring parcels of land for their importance to Green Belt purposes. The Councils' 2012 Inner Green Belt Boundary Study similarly scores parcels for their importance to Green Belt and the significance of development on Green Belt. The present study does not score land parcels.
- 3.2.21. As is apparent from the assessment presented in section 6 of this report, there are many ways in which an area of land can be important to Green Belt purposes, and one area of land can be important for different reasons than another area of land. If the importance of different areas of land is to be scored, it is necessary to quantify importance which is due to different reasons in different locations. This results in the

- necessity to weigh the degree of importance that arises for different reasons on different parcels of land, but there is no valid, objective means of doing so.
- 3.2.22. A further consequence of scoring is that, if an area of land is identified as important, but less important than another area of land, it potentially becomes a focus for consideration for release from the Green Belt for development, notwithstanding that it has been assessed as being of importance to the Green Belt.
- 3.2.23. For these reasons, this study does not employ a scoring system. Rather, having assessed each area of land within the study area for its importance to Green Belt purposes, consideration is given as to whether there is potential to release land for development without significant harm to Green Belt purposes.

4.0 Stage 3: Baseline Studies and Analysis

4.1. Introduction

- 4.1.1. As stated above, this section presents the findings of a series of studies, which were undertaken to build up an understanding of Cambridge and its surrounding landscape, focusing on considerations which are relevant to the performance of Green Belt purposes. These cover a range of aspects which have a bearing on how the issues raised by Green Belt purposes are manifested in Cambridge and its surrounding landscape or are perceived by residents or visitors to the city. They include matters relating to the physical form and scale of the city, its historical development, its relationship to its hinterland, townscape and landscape character, the experience of approaching and arriving at the city, and how the city is perceived from the surrounding landscape.
- 4.1.2. This section draws significantly from material contained in sections 4 and 5 of LDA Design's 2002 study. The material has been checked, validated and updated as necessary for the purposes of the present study, by means of desktop studies, site survey and analysis. However, some material, which aids contextual understanding but is not directly relevant to the outcomes of the present study, has not been fully updated. This includes the townscape character assessment and role and function assessment of areas within the interior of the city.
- 4.1.3. Key points are summarised at the end of each sub-section and inform the identification of factors relevant to Green Belt purposes in section 5.

4.2. Historical Development of Cambridge and the Villages

Cambridge

Landscape and Location

- 4.2.1. The varied landscape around Cambridge was fundamental to the location, development and character of the city.
- 4.2.2. The settlement which was to become Cambridge developed at a crossing point of the River Cam (formerly known as the River Granta). It was the meeting point of a number of trackways. It was also the meeting point of three landscapes: to the north and east the undrained wetlands of the Fens, a valuable source of wildfowl, fish and reeds for thatching. To the west were the densely forested Claylands, a source of timber and game. To the south and east a Chalk Ridge provided pasture and easily worked arable land. Cambridge was situated in a position to take advantage of all these resources, and was established on dry land adjacent to the river which was also easy to defend. Although the landscapes around Cambridge have been modified by man over the subsequent centuries, the position of Cambridge at a meeting point of different landscapes, which contribute different qualities to the setting of the city, remains unchanged.

Early Origins

4.2.3. The earliest archaeological finds from the Cambridge area date from the Neolithic period, although the earliest evidence for a settled community dates from the late Bronze Age. Evidence of metal working, trading and habitation from the Bronze and Iron Ages has been found in Cambridge, including a large Iron Age farm on the site of

the Addenbrooke's Hospital.

Roman Occupation

4.2.4. By 70AD the Romans had built a road from Colchester to Godmanchester, which crossed the River Cam close to the present Magdalene Bridge. A castle was constructed on Castle Hill and a small town developed adjacent to it. The construction of the fenland canal system by the Romans led to Cambridge becoming an inland port. Evidence of traffic has been found in the form of Peterborough pottery and Nottinghamshire stone.

Saxon and the Danelaw

- 4.2.5. The town remained occupied throughout the Dark Ages, but it is not known to what extent. It is likely that the town was on the front line of battles between the kingdoms of Mercia and East Anglia, until the East Angles' victory in 634. A new bridge over the river Cam was built in the eighth century, and the town began to revive.
- 4.2.6. However, in 871, invading Danes plundered and burnt the town. Later an Anglo-Danish settlement was established and Cambridge became within the control of the Danelaw until 921.
- 4.2.7. The town thrived in the latter part of the Saxon period. It was a port to boats coming down from the Wash, and traded with Ireland and the Continent. It established a mint in 975, and flourished as a business, military, administrative and legal centre.

The Medieval Period and the Following Centuries

- 4.2.8. William the Conqueror built a castle at Cambridge and quickly established control of the town. The town and county continued to prosper, and several churches, religious houses and a hospital were constructed, including the Round Church. Land was granted to the religious houses which has remained as open space within the city, such as Jesus Green and Midsummer Common.
- 4.2.9. Cambridge was already known as a centre of learning in 1209, when a group of scholars fleeing from riots in Oxford settled in the town. From this point, the University rapidly expanded in size and power, and gained royal support. Over the following 800 years, the colleges were established, including several on former monastic sites following the dissolution of the monasteries in 1536.
- 4.2.10. Between the 10th and 15th centuries, the town was rocked by events including uprisings by Hereward the Wake, the peasants' revolt, dispossessed barons marauding from the Fens, the Black Death, numerous plagues and civil disturbances. However, the town continued to thrive and grow, largely due to the increasing domination of the University. Development took place along the three main routes out of the town to the south-east and south, namely Trumpington Street, St Andrew's Street and Jesus Lane.

The Tudor Period

4.2.11. The university continued to expand, and to become increasingly powerful, with heightening tensions between town and gown. The colleges owned large areas of land within and adjacent to the town, some of which are still preserved as open spaces today. They displaced areas of wharves and housing adjacent to the river to make way for the building of colleges. The University also controlled rents, markets and food prices, and was politically opposed to the town in the Civil War.

4.2.12. By 1600 most of the major colleges had been established, and the town had expanded slightly on the eastern side. However, expansion of the town was restricted by the surrounding common fields. The result was that the built-up areas of the town becoming increasingly cramped, with many houses divided into tenements.

The Victorian Era

- 4.2.13. Cambridge did not expand much beyond its medieval limits until the 19th century, and in 1801 the population of the town was only approximately 9000. The southern limit of the town was extended in the early 19th century by the building of Downing College, but it was two further factors, the coming of the railways in 1845 and enclosure of land around the town from 1807 which enabled its large-scale expansion. During the 19th Century, the population of the town increased fourfold.
- 4.2.14. The railway station was sited approximately a mile south east from the centre of the town, as the University would not permit it any closer. Gradually, the land to the south and south east of the historic core was filled with terraced housing, much of which was constructed for railway workers. As the town grew, adjacent villages, such as Chesterton became amalgamated with Cambridge. Land to the west of the river, which had formerly been unsuitable for building, was drained and made available for development. Following a change in University policy allowing Fellows to marry, substantial family houses were built in this area.
- 4.2.15. When common land and fields were enclosed, they were subdivided and distributed between the people who had formerly used or had rights to the land. In Cambridge, these new landowners included the University, other institutions (such as Addenbrooke's Hospital) and private individuals. Therefore land, which had formerly been a single large field, could be developed by several different people, at different times and in different ways. Usually, land allocated to private individuals was sold relatively quickly to speculative builders, who constructed terraces, which were occupied by the working classes. The University generally did not develop their land immediately. When they did develop it, they generally constructed large detached villas in extensive gardens, which they sold leasehold to maximise profit. These neighbourhoods were occupied by the middle and upper classes, and are still attractive and exclusive residential areas.
- 4.2.16. Expansion of Cambridge to the north east did not take place until the middle of the 19th Century, when the common fields of Chesterton were enclosed. Relatively little development took place on the west side of the city, as the land was largely owned by the colleges. This has affected the development of Cambridge up to the present day and is largely why the historic core and the "city centre" is not centrally located within the urban area of the city.

The 20th Century

- 4.2.17. The 20th century saw the greatest growth of the city, including residential estates and new University buildings outside the old city limits.
- 4.2.18. Clare College Memorial Court (built after the First World War) was the first part of the University to cross Queen's Road. Other University buildings developed in this area to the west of the river, including the Library: the monumental tower of which is a landmark for many miles. In the 1960s, construction of faculty buildings took place close by at Sidgwick Avenue, including the Seeley history faculty.

- 4.2.19. Considerable development has taken place on the outskirts of the city. In addition to academic buildings such as the Institute of Astronomy, developments such as the new Addenbrooke's Hospital have had a strong impact on the plan of city. Since the Establishment of the Cambridge Science Park by Trinity College in the early 1970s, Cambridge has seen extensive developments of business and science parks, including the University's West Cambridge site.
- 4.2.20. Suburbs developed in the inter-war and post-war periods. To the south of the city are early mid 20th century leafy estates. Chesterton also developed as a suburb largely in the inter-war period. The Arbury and King's Hedges residential areas were developed to the north of the city later, in the 1960s and 1970s.
- 4.2.21. The establishment of the Green Belt between 1965 and 1992 effectively set a limit to the expansion of the city into the surrounding countryside. In the 1950s/60s, inner necklace villages were developed, before development moved to outer necklace villages such as Bar Hill.

Early 21st Century

- 4.2.22. Between 2006 and 2010 a number of Green Belt releases were made through the Cambridge Local Plan, a number of Area Action Plans and other plans making up the South Cambridgeshire Local Development Framework. These have resulted in a number of new developments around the peripheries of Cambridge, on most of which construction is ongoing. These are predominantly residential developments, with occasional mixed-use areas, and include Trumpington Meadows, Glebe Farm and Clay Farm, which are collectively known as Cambridge Southern Fringe and are located to the east and south of Trumpington; North West Cambridge, which will provide facilities and accommodation for Cambridge University as well as market housing; and Darwin Green (formerly known as NIAB) on the north western edge of Arbury. There is also additional ongoing expansion of the University's West Cambridge site, which provides additional educational and research facilities, and at Addenbrooke's Hospital, providing additional research and medical facilities, as well as residential development on the former Bell School site.
- 4.2.23. Within Cambridge itself there have also been some major redevelopment projects, which have included the Accordia residential development to the south of the Botanic Garden and the ongoing mixed use development around Cambridge station.
- 4.2.24. Despite the expansion of the city in the 20th and early 21st centuries, Cambridge remains a relatively compact city, with all suburbs well connected to the city centre, which is focussed on the medieval core.

Villages

Village Location

4.2.25. Within the Cambridge Green Belt there are a number of villages. These have developed in particular locations for a number of reasons. Some, such as Grantchester, are at crossing points of roads and rivers. In the southern part of the area, a line of villages including Haslingfield and Harlton are located on the spring-line at the base of the chalk ridge. In lower-lying fen areas, villages such as Cottenham were established on 'islands' to reduce risk of flooding.

General Historic Influences on the Form of Villages

- 4.2.26. The historic form of a village and the traditional building materials found within it are often associated with the landscape character area in which the village is located. These are described in greater detail in section 4.8. However, there are also historical factors which have influenced village form and which occur throughout the area.
- 4.2.27. The majority of villages within the Cambridge Green Belt are nucleated in form, often centred around a village green. Their development has been strongly influenced by open field systems which surrounded the village and kept houses and farm buildings concentrated in a single location. Expansion in the 14th Century led to the agglomeration of some villages such as Comberton, which incorporated the formerly separate settlement of Green End. Linear Villages such as Histon and Trumpington developed along routeways. In these linear villages, greenspace is usually located in front of buildings or at either end of the village.
- 4.2.28. The contemporary layout and density of housing is often closely related to historic patterns of agriculture and trade. Where pastures were retained on the edges of villages, they often gave the edge of the village a ragged appearance. The field patterns created following 19th century enclosure acts are often still visible in the street patterns of villages. Subtle historic features such as the remains of ditches or "lodes" which formerly linked villages with the navigable waterway network are also visible in the landscape.
- 4.2.29. The later development of villages has also been affected by the location of open space (e.g. the position of village greens, commons used for grazing, and sites of markets and fairs) both within and outside the village. A further factor which affected the development pattern of villages was population decline (particularly due to the Black Death) which reduced the density of some villages. Many villages were affected by this population decline.

Appearance of Villages within the Landscape

- 4.2.30. The location and features of some villages make them more prominent than others, although the majority of villages are visible within the wide sweeps of open arable landscape which form the Cambridge Green Belt. The most clearly visible feature of most villages is the church tower; many are visible in framed views from roads and footpaths. Mature vegetation such as trees on village greens or in gardens also stand out, particularly in the very flat landscapes of the fens and river valleys.
- 4.2.31. The distinctive character of many villages and the landscape features that they contain (such as churches and mature trees), are of fundamental importance to the setting of Cambridge.

4.2.32. Key points:

Location of Cambridge at a meeting point of several landscapes: Fens to the north and east, Claylands to the west, Chalk Ridge to the south and east.

- A small town until the 19th century.
- Substantial growth during the 19th and 20th centuries, continuing into the early 21st century.
- Little expansion west of the city.

- Varied local factors influencing the location and form of villages.
- Distinctive character of many villages and notable landscape features within them.

4.3. Environmental Designations

- 4.3.1. There are numerous environmental designations within Cambridge and the Green Belt, covering a range of habitats and with many different reasons for designation. These are shown on Figure 3 and at larger scale on Figure 12, which comprises three sheets covering the west, south and east sides of the city respectively.
- 4.3.2. There are a range of Sites of Special Scientific Interest and both County and City Wildlife Sites within the Green Belt, including ancient woodlands, chalk grassland, fen, ditches and streams. Sites of particular relevance to this study include the River Cam; common land at Midsummer Common, Stourbridge Common, Coldham's Common; and many localised features such as road verges and disused railway lines.
- 4.3.3. There are a number of Local Nature Reserve sites within or close to the Green Belt. Those closest to the city and the study area for this report include Coldham's Common and the adjacent Barnwell Road LNR; Sheep's Green, Coe Fen and Paradise along the River Cam; Byron's Pool south of Grantchester; Nine Wells south of Addenbrooke's; The Beechwoods east of Babraham Road Park and Ride; and East Pit/Limekiln Close/West Pit south of Cherry Hinton.
- 4.3.4. There are also two Ancient Woodlands in the Green Belt: Eversden Wood and Madingley Wood, although Eversden Wood is beyond the area shown on Figure 3.

4.3.5. Key points:

• Numerous designations including SSSIs, County and City Wildlife Sites and Local Nature Reserves affecting sites within the Inner Green Belt.

4.4. Cultural Designations

- 4.4.1. Figure 4 shows cultural designations within Cambridge and the Green Belt. They are also shown at larger scale on Figure 13, again on three sheets.
- 4.4.2. The majority of villages are wholly or partially covered by Conservation Area designations. These designations generally cover not only the buildings and their immediate setting within the Conservation Area boundary, but the open setting of the Conservation Area as well. Fulbourn Conservation Area has been expanded since LDA Design's 2002 study, joining two smaller separate areas to create a single Conservation Area. Additional Conservation Areas that were not shown on the plans for the 2002 LDA Design study include Church Farm south of Comberton, Biggin Abbey to the north of the A14, Romsey Town suburb on the south side of Cambridge, Cambridge University Colleges to the north of Madingley Road, Fen Ditton Meadows and Stourbridge Common, the southern part of Chesterton between Chesterton Road and the River, and the urban area between Huntington and Histon Road.
- 4.4.3. There are a number of registered parks and gardens within the Green Belt, including Anglesey Abbey, Madingley Hall and the American Military Cemetery north of Coton. Further registered parks and gardens are located within the city.

4.4.4. Scheduled Monuments are dispersed throughout the Green Belt and represent archaeological sites from Prehistory onwards. There are a number of medieval sites, including manors, moats and earthworks of abandoned villages.

4.4.5. Key points:

- Conservation Areas and numerous listed buildings in central and west side of Cambridge.
- Conservation Areas and listed buildings in most villages.
- Scheduled Monuments in rural areas, particularly south west, south and east of Cambridge.

4.5. Recreational Routes and Country Parks

- 4.5.1. Figure 5 shows recreational routes within and through the Cambridge Green Belt, as well as the locations of country parks close to edge of Cambridge. As with environmental and cultural designations, they are also shown at larger scale on three sheets, on Figure 14.
- 4.5.2. A network of public rights of way (footpaths, bridleways and byways) covers the Green Belt, although links from the city out to these countryside routes are sometimes poor. A number of initiatives have been implemented, particularly to the west of the city, which address access into the countryside. These include Coton Countryside Reserve and the Quarter to Six Quadrant initiative.
- 4.5.3. In addition, a number of long distance footpaths pass through the Green Belt. These include the Harcamlow Way, the Fen Rivers Way, the E2 European Long Distance Route and the Pathfinder Long Distance Route close to the north eastern boundary of the Green Belt.
- 4.5.4. There are a number of SUSTRANS routes and other cycleways within the city and extending out into the Green Belt. SUSTRANS routes include National Cycle Route 11, which links Harlow in Essex with Wigginhall St Germans (south of King's Lynn) in Norfolk, via Cambridge and Ely, and National Cycle Route 51, which passes through Oxfordshire, Buckinghamshire, Bedfordshire, Cambridgeshire, Suffolk and Essex and partly follows the guided bus route between Cambridge and Huntingdon. These have potential to connect with recreational attractions within the Green Belt, including the country parks at Coton Reserve, Milton and Wandlebury.

4.5.5. Key points:

- Rural rights of way network, though links into the city are poor in places.
- Ongoing initiatives to further enhance the network.
- Country parks in the rural landscape short distances north, west and south east of the city.

4.6. Topography and Geology

- 4.6.1. Figure 6 illustrates the topography of the Cambridge Green Belt and the surrounding area.
- 4.6.2. The drawing clearly shows Cambridge in its "bowl", surrounded by higher land to the east, west and south. The lowest land in the city lies below the 5 metre contour along

the River Cam. This narrow corridor of low land spreads out into the flat fens to the north of the A14. There is also a pocket of low lying fen 2 kilometres to the east of the city between Teversham and Great Wilbraham. The closest area of high ground lies just over 2 kilometres from the south east edge of Cambridge at Wandlebury, where the land rises to 74 metres AOD. 3 kilometres west of Cambridge, clay hills rise to 62 metres AOD south of Madingley. More distant areas of higher ground lie further to the south east and west of the city.

- 4.6.3. The topography closely reflects the underlying geology, which consists of flat and low-lying fen peat to the north, higher gault clay ridges to the west, and a broad chalk ridge to the south and east. The main rivers (Cam, Granta, Rhee and Bourn Brook) have eroded broad valleys through the chalk and/or clay to form the low-lying land to the immediate south and south east of Cambridge.
- 4.6.4. Section 4.2 of the report describes the historical evolution of Cambridge and how it developed at a crossing point of the River Cam. As well as being the confluence of a number of trackways, it was also the meeting point of three landscapes: to the north the undrained wetlands of the Fens (a valuable source of wildfowl, fish and reeds for thatching), to the west the densely forested Clayland hills (a source of timber and game), and to the south and east a Chalk Ridge (providing pasture and easily worked arable land). Cambridge was situated on dry land adjacent to the river, which provided important access by boat from the north east. This understanding of the location of Cambridge and how the settlement used the surrounding landscape in an economic sense is part of the understanding of the relationship between the historic city and its current setting.
- 4.6.5. Although the landscapes around Cambridge have been modified by man over the subsequent centuries, the position of Cambridge set within a framework of hills divided by the River Cam and its tributaries to the west, south and south east, and the open, flat fens to the north (with a small area to the east beyond Teversham) are a subtle but fundamental aspect of the setting of Cambridge.

4.6.6. Key points:

- Topography reflecting the three landscapes that surround Cambridge: Fens, Claylands and Chalk Hills.
- Foothills of the Gog Magog Hills extending to the edge of the city.
- River Cam valley running through the centre of the city.

4.7. Townscape Character

Introduction

- 4.7.1. Townscape character assessment assists not only in identifying the historic core of the city but also in identifying other areas of townscape which are distinctive to Cambridge and contribute to its particular character. Its findings reflect the historical development of the city, as described in section 4.2, and contribute to an understanding of the nature of the urban edges which adjoin the Green Belt.
- 4.7.2. The progressive historic development of the city in response to the river setting has resulted in a distinct pattern of townscape character areas. These areas range from the historic core of the city, with its complex stratification of historic layers, to the peripheral areas of residential development whose coherence is principally derived

- from the unity of housing style and period of development. The River Cam and the alignment of the principal approach roads into Cambridge, a number of which date back to the Roman and earlier periods, have also been influential in determining the distinctiveness of and boundaries to each of the townscape character areas.
- 4.7.3. A comprehensive townscape character assessment was undertaken as part of LDA Design's 2002 study and was a two-stage process. The first stage was a desk study, where the urban structure and preliminary definition of urban character types and character areas was determined using aerial photographs together with current and historic maps. In the second stage a field study was undertaken involving the visual analysis of the townscape, recording findings on Townscape Assessment record sheets, and confirming the transitions between townscape character areas. Updates have been incorporated into the townscape character assessment to reflect development that has occurred since 2002. Whilst townscape areas around the edge of the city abutting the Green Belt have been checked and updated as necessary, the assessment of areas within the interior of the city has not been fully updated as those areas are not directly relevant to the present Green Belt assessment.
- 4.7.4. With one exception, the major developments under construction on the edges of the city have been classified with the Townscape Character Type understood to reflect their ultimate use. The Addenbrooke's expansion is classified as Large Scale Commercial, Industrial and Service Development and the others are classified as 21st Century Mixed Use Development. The exception is Darwin Green, the majority of which has not been built as yet and remains as open, undeveloped landscape rather than a construction site. This site is therefore included in the adjacent Western Fen Edge landscape character area (see section 4.8).
- 4.7.5. The results of the townscape character assessment are shown on Figure 7, and described below. Two categories of information are recorded: Townscape Character Types and Townscape Character Areas. Townscape Character Types are generic types of townscape, which may repeat in the city studied and may occur in other cities. They contain broadly similar building types and street patterns. In contrast, Townscape Character Areas are geographically distinct parts of the city and may contain a variety of townscape types.
- 4.7.6. In addition, Townscape Character Types have been identified within the Necklace Villages as part of the update. The classification process largely followed the same steps as for the main urban area. Townscape Character Areas have not been created for the Necklace Villages.
- 4.7.7. The assessment was carried out at a broad scale and did not look at every area in detail. The results shown on Figure 7 are broad-brush and not accurate to every street, as that level of precision is not required for the purposes of this study.
- 4.7.8. There are eight townscape types described in section 4.7.2 and a total of 16 townscape character areas described in section 4.7.3.

Townscape Types

4.7.9. Townscape character types are shown as coloured areas on Figure 7.

Historic Core

4.7.10. Historic cores are defined as coherent pre-1810 settlement cores with medieval street patterns including the historic cores of Cambridge, Chesterton, Trumpington and

Cherry Hinton.

Bespoke Houses and Colleges

4.7.11. This townscape type is strongly influenced by the University and is characterised by large late 19th Century architect designed houses set in large gardens built for Fellows, and large colleges and university buildings with associated grounds and playing fields.

Green Space and Green Corridors

4.7.12. This townscape type includes green corridors following the River Cam and Vicar's Brook, and significant green spaces including Coldham's Common, the Botanic Garden, Parker's Piece and Christ's Pieces.

Victorian/Edwardian Terraced Housing

- 4.7.13. Nineteenth century building in Cambridge is characterised by unusual variety in architecture and close juxta positioning of working class and middle class housing. The variety in buildings is largely due to the fact that the land in the Common Fields was held by the university, colleges and private individuals. The university and the colleges were relatively slow and conservative in developing their lands compared to the private owners, and tended to build higher-class houses on long leases. The private owners were often more interested in shorter-term gains from selling their lands to speculative developers for higher density lower-cost housing. Because of the interweaving of different types of land-holdings, there are few areas of nineteenth century building which are monolithic in character.
- 4.7.14. The initial growth in the period up to about 1830 tended to be high quality housing largely contained within an arc to the south and east of the town which had a radius of three quarters of a mile from the town centre. These high quality houses tended to be built only on the frontage sites along the main roads, leaving significant areas undeveloped behind the frontages. Good examples are to be seen on Maid's Causeway, which date back to 1815-1825, Lensfield Road and the southern part of Trumpington Road.
- 4.7.15. Several of the major areas of expansion in the nineteenth century were recognised and named as new towns, namely Romsey Town, Sturton Town and New Town. New Town was, and still largely is, a microcosm of the variety of closely interwoven building types which occurred widely in nineteenth century Cambridge.
- 4.7.16. In the second half of the nineteenth century expansion continued with further building to the south and east but more equally balanced by developments north and west of the river. Building in this later period in the south and east was more compact, with substantial areas of geometric working class terrace housing being constructed. In the north and west of the town the new housing tended to be smaller in scale, less compact in their character and more varied in their design. The Victorian and Edwardian terraced housing areas built in this period generally have narrow streets with back of pavement development, grid-iron street pattern and small yellow brick terraced houses.

Commercial/Industrial/Service Development

4.7.17. Apart from the manufacture in small workshops of service goods for local consumption, the only distinctive industry the town had ever possessed had been

printing and bookbinding, stimulated by the presence of the University. The economic prosperity of the town depended mainly on its role as the town and county administrative, service, market and transport centre, and the university. The railways had relatively little impact in terms of initiating industrialisation because the town and East Anglia as a whole lacked the coal and raw materials on which nineteenth-century industry depended. Small brick and tile works developed at Cherry Hinton and Coldham's Lane, using the outcrop of Gault Clay in the valley of the Coldham's Brook. This accounts for the widespread use in suburban Cambridge houses of the characteristic yellow brick it produces. It was not until the late years of the nineteenth century and the early years of the twentieth that industry began to emerge which would have a significant effect on the growth and form of the town. This was the emergence of the scientific industries related to the expansion of science teaching and research at the university. University connections have played an important role in the development of a number of manufacturing organisations in the Cambridge area in fields such as chemicals, plastics, metallurgy and engineering, all with a strong research base underpinning their industrial output.

- 4.7.18. The growth of industry in the period up to 1939 did not bring about major changes in the physical structure of the city because most of the industrial growth was dispersed quite widely in premises which were generally small and often hidden away in back streets. Examples of this can still be seen in many of the streets leading off Mill Road. The south eastern side of the town near the railway has more industry than any other sector, but for present day manufacturers this tends to be the result of the availability of land and the general nature of the area rather than any particular pull of the railway. Since 2002 some of the areas of industrial land have subsequently been redeveloped for new housing and mixed-use developments.
- 4.7.19. This townscape type is characterised by medium to large-scale industrial, commercial and hospital buildings, often with closed facades, signage, security fencing and extensive areas of hard surfacing.

1900 - 1945 Suburban Housing

- 4.7.20. The housing expansion begun in the nineteenth century continued steadily, and suburban development led to growth in all directions, although it was considerably greater on the northern, eastern and southern sides than on the western. The majority of the 1900 1945 housing expansion was created by the filling in of land between main roads, especially in the angle between Huntingdon Road and Chesterton Road north of the river and between Newmarket Road and Hills Road south of the river. These areas were developed by a combination of private enterprise, housing associations and council building with detached or semi-detached properties, often with substantial gardens. Despite this expansion, the town remained very compact; for nearly the whole of its built up area was still within one and a half miles of the centre.
- 4.7.21. The inter-war suburban housing areas are generally composed of red brick and Arts and Crafts style rendered semi-detached houses with front and rear gardens. These residential areas are generally of low density with well-established planting and mature trees.

Post-war Suburban Housing

4.7.22. Growth of the city did not recommence after the Second World War until well into the 1950s. The character of the post-1950 housing development differed in a number of

ways from that of the pre-war period. It tended to include a much higher proportion of local authority building on planned estates such as North Arbury, in which the characteristics of both houses and blocks of flats were markedly different from the styles of pre-war housing. Most obviously many were pre-planned as 'self-contained' estates from the outset in terms of the layout of roads, public utilities, housing, schools, shops, libraries and other social amenities. The density of housing was higher than in pre-war areas, but the provision of quite large amenity areas and playing fields to some extent compensated for this.

4.7.23. The post-war housing estates comprise a range of building types including bungalows, low-rise flats, terraced houses, semi-detached and detached houses. The street pattern is generally curved with cul-de-sacs and the housing density is generally higher than the per-war housing areas.

Early 21st Century Mixed Use Development

- 4.7.24. Following the Green Belt Releases between 2006 and 2010, early 21st century development has been very varied. Within Cambridge, these developments have included the low-rise flats, terraced and linked houses and townhouses at Accordia, as well as the slightly higher rise residential and commercial developments at CB1 near the railway station. The street patterns within these developments are generally linear but fitted within the existing street pattern of the surrounding areas of the city.
- 4.7.25. The ongoing developments at Trumpington Meadows, Glebe Farm and Clay Farm, to the east and south of Trumpington, are largely rectilinear in form, with the exception of the emerging curved gateway to the developments on Hauxton Road. These developments are predominantly residential. Building types include low-rise flats, which increase in height close to the gateway to the development, terraced and linked houses and limited amounts of semi-detached and detached houses. Many of the housing areas are distinctive in appearance, not traditional house designs, and building materials are also modern.
- 4.7.26. The ongoing development at North West Cambridge, which will provide facilities and accommodation for Cambridge University as well as market housing, is being designed as a higher density development with taller buildings than some of the other new developments. The built form is being designed in a series of well defined blocks. Open space is an important element of this development.

Townscape Character Areas

4.7.27. Townscape character areas are shown with a black outline on Figure 7.

1A. Cambridge Historic Core

- 4.7.28. The historic core of Cambridge is very distinctive with grand college, civic and ecclesiastical buildings with towers and spires and an intact medieval street pattern of narrow streets and alleyways and small squares. A unique characteristic of the historic core is that it has retained a green setting. It is encircled and defined by an inner belt of open space, including The Backs and Midsummer Common along the River Cam, Christ's Pieces and Parker's Piece.
- 4.7.29. The historic city comprises two distinct areas divided by the River Cam and connected by the Magdalene Bridge. Castle Hill on the western side of the river is the site of the Roman settlement and medieval town with grand civic buildings such as Shire Hall. The larger eastern part dates from the late medieval period and is dominated by grand

college buildings with large internal courts built between 1300 and 1600. There are also many surviving medieval churches which add considerable character. The historic core is the main retail centre of Cambridge and contains a mix of uses including high street and speciality shops, markets, cafes, restaurants, offices, flats and colleges which contribute to the lively atmosphere of the city. Key landmarks include King's College Chapel, St John's College Chapel, Great Saint Mary's and All Saints Jesus Lane.

1B. Chesterton Village

4.7.30. Chesterton is an historic village located north east of Cambridge's historic core on the River Cam. The village merged with Cambridge in the late 19th century and is now surrounded by suburban development. Chesterton village is characterised by small scale Tudor and Victorian yellow brick cottages, back of pavement development and narrow winding streets and lanes.

2. West Cambridge

4.7.31. West Cambridge on the western side of the River Cam is a distinctive area of the city dominated by university and college buildings, with Grange Road functioning as the main spine road through the area. It comprises colleges, playing fields, large bespoke residential houses built for Fellows of the University, the residential area of Newnham and ongoing large-scale university development along Madingley Road. Several new colleges are located here including Fitzwilliam College and Murray Edwards College (formerly New Hall) along Huntingdon Road and Churchill College along Madingley Road. Most of the west side of the river was unusable for buildings before the river was controlled by locks and drainage around 1875. The scenery of The Backs was therefore preserved. The houses are set back from the road and have large gardens with mature trees giving the area a green, leafy character. A corridor of rural land penetrates the urban area, running in to the University rugby ground on Grange Road. A key landmark is the University Library tower.

3A. River Cam Corridor

4.7.32. The Cam Corridor is a distinctive feature of Cambridge and forms part of an unbroken green corridor through the city. The river corridor forms a landscape setting to the historic core unique to Cambridge. The river corridor comprises Sheep's Green, Paradise/Lammas Land and Coe Fen to the south, The Backs in the centre and Midsummer Common and Stourbridge Common to the north east. Along the river there are foot and cycle paths, including two long distance paths, Fen River Way and Harcamlow Way, linking Cambridge with the surrounding countryside. The Cam Corridor is characterised by water meadows grazed by cows, and the river is popular for rowing, boating, fishing and the Cambridge tradition of punting.

3B. Coldham's Common

4.7.33. Coldham's Common is an internal open space which follows Coldham's Brook and joins the Cam Corridor. It creates a gap between Romsey Town and the suburban area around Newmarket Road. The Ipswich railway line divides Coldham's Common into two separate areas linked by a footbridge. Playing fields dominate the eastern side while the western side is traditional grazed common. From the eastern side the hangar buildings of Cambridge Airport are visible.

4A. New Chesterton

4.7.34. The area north of Midsummer Common between Huntingdon Road and Elizabeth Way, known as New Chesterton, is characterised by narrow streets with small and medium sized Victorian brick terraces with small back yards. Many of the back streets have back of pavement development, creating an intimate scale. Most of this high density terrace housing was built in the second half of the nineteenth century. Along the main roads and along Oxford, Richmond and Halifax Road the terraced houses are larger and of higher quality with small front gardens with walls and the streets are wider. Most of the houses are built of brown and yellow brick and some are painted.

4B. Newtown, Mill Road, Barnwell and Romsey Town

4.7.35. The Victorian development on the eastern side of Cambridge is extensive and includes the areas of Newtown, Mill Road, Barnwell and Romsey Town. The Barnwell Field was the site for by far the greater part of Cambridge's 19th century expansion, starting early in the century and continuing all through it. The Barnwell and Newtown areas contain a variety of closely interwoven nineteenth century building types including middle class and working class housing. Significant slum clearance and post-1945 redevelopment has, however, occurred in both areas. The development of much of Romsey Town on the south eastern side of the railway bridge did not come until the 1880s/1890s. This area is characterised by long straight terraces of brick-built houses constructed by speculative developers and narrow streets in a gridiron pattern with back of pavement development. The somewhat isolated location accounts for the long run of shops down Mill Road which were established to serve the area. There are a number of schools and churches in the area. Key features of the area are the University Botanic Garden, opened in 1844 and Fenner's Cricket Ground. Key landmarks include the Roman Catholic Church Spire, the Rank Hovis Building and Carter Bridge across the railway line.

5A. Cambridge Science Park, St John's Innovation Park and Cambridge Regional College

4.7.36. Cambridge Science Park, St John's Innovation Park and Cambridge Regional College are located on the northern edge of the city off Milton Road adjacent to the A14. Cambridge Science Park, in particular, is a high quality business park with large-scale high quality commercial buildings in innovative styles housing mainly high technology companies. The buildings and car parks are partly screened by earth mounding and planting, giving it a very green and suburban character. The main spine road through the development is a meandering loop road. St John's Innovation Park also contains high quality commercial buildings, but has a more built-up character.

5B. Railway Corridor

4.7.37. The railway corridor is characterised by medium and large-scale commercial, light industrial and office development on both sides of the railway line. There are also extensive areas of hard surfacing for car parks and little vegetation. The approach to Cambridge along Newmarket Road has been particularly affected by commercial development with many closed facades to the street. The northern part of the railway corridor contains the railway sidings and the sewage works.

5C. Cambridge Airport

4.7.38. Cambridge Airport located on the eastern fringe of the city contains a number of large hangar buildings which are prominent in views towards the city from the east and from Coldham's Common.

6A. Trumpington Road and Hills Road

- 4.7.39. The residential area around Trumpington Road and Hills Road, south of the historic core, is a leafy suburb mainly comprising large detached and semi-detached houses with large gardens. The area contains a number of bespoke houses built around the turn of the century around Trumpington Road. The houses along Trumpington Road and Hills Road are set back from the road and are almost fully screened by hedges and trees. The area contains a number of schools and colleges with associated playing fields. Further south in the character area is the historic core of Trumpington, focused around its church and now subsumed within Cambridge. On the southern fringe of the character area and wrapping around the eastern side of Trumpington are the ongoing modern developments at Trumpington Meadows, Glebe Farm and Clay Farm. These developments are creating a distinctive new urban gateway at the edge of the city, on Hauxton Road.
- 4.7.40. This character area also includes Addenbrooke's Hospital, with its ongoing expansion, and Vicar's Brook. Vicar's Brook forms part of a green corridor providing an access link between the River Cam Corridor green corridor and the wider countryside (at Granham's Road near Great Shelford), along public and permissive footpaths. This green corridor also provides an open, rural setting to the approach along the railway line from London.

6B. South-eastern Suburban Estates

4.7.41. The south-eastern suburb of Cambridge is a relatively homogenous area containing mainly semi-detached and detached red brick houses with front and rear gardens built in the 1920s and 1930s. There is a large pocket of detached and semi-detached Victorian houses in the angle between Hills Road and Cherry Hinton Road built in the second half of the nineteenth century. The area east of Mowbray Road and south of Cherry Hinton Road mainly comprises post-war housing. The mature street trees and trees in front and rear gardens give the suburb a green, leafy character. There are several schools with playing fields and a few areas of allotment gardens.

6C. Newmarket Road Suburban Estates

4.7.42. The suburb around Newmarket Road, separated from Cambridge by Coldham's Common, consists mainly of red brick semi-detached houses with front and rear gardens built in the 1920s and 1930s. The character area also includes the City Cemetery, a post-war housing development and the Abbey Stadium.

7A. Northern Suburban Estates

4.7.43. The Northern Suburban Estates, including the Arbury and Kings Hedges estates and Chesterton, comprise inter- and post-war housing. 1920s and 1930s redbrick semidetached houses with front and rear gardens and Arts and Crafts style rendered houses were built along the approach roads (Huntingdon Road, Histon Road and Milton Road). Post-war housing development has been built between the approach roads and extends close to the A14, and surrounds the historic village of Chesterton. The largest post-war council housing estate, North Arbury, built in the 1970s, contains

a range of housing types including buff brick flats and terraced housing and the King's Hedges estate comprises high density two storey red brick terraced houses around courts. Orchard Park, between the King's Hedges estate and the A14, is a largely completed housing-led mixed-use development with flats, town houses and terraces.

7B. Cherry Hinton

4.7.44. Cherry Hinton, located on the western periphery of Cambridge, consists mainly of post-war housing estates around a village core and is separated from Cambridge by Cherry Hinton Brook, Cherry Hinton Hall and open space associated with the disused chalk pits. Few historic buildings remain in the village core. Although there are a range of different housing types most of the housing estates are cul-de-sac developments. Large scale commercial, industrial and service development is located in the west of the area at College and Coldham's Business Parks, on part of the former chalk pit and cement works site. Peterhouse Technology Park to the south of Cherry Hinton also falls into this Townscape Character Type.

8. North West Cambridge

4.7.45. North West Cambridge is located between the M11, A14 and the existing edge of Cambridge, predominantly to the south west of Huntingdon Road. The majority of the Townscape Character Area consists of the ongoing North West Cambridge development, but a number of bespoke buildings along the west side of Huntingdon Road also form part of this Character Area.

Townscape Character Conclusions

4.7.46. Although considerable development has taken place in Cambridge in the 20th and 21st centuries, the city has retained its special character as a historic university city and its relatively small scale. Much of the historic core remains intact with colleges built between 1300 and 1600, medieval churches and narrow medieval streets giving the core of the city its distinctive character. 20th century suburban housing development, primarily in the form of semi-detached brick built houses with gardens mainly occurred to the north, east and south of the city centre. The western side of Cambridge is less developed and is dominated by university buildings, colleges, large late 19th century houses and playing fields. The River Cam and associated commons and water meadows, which contribute greatly to the character of Cambridge, provide a green corridor through the heart of the city and a green setting to the historic core. The relationship between the city and its setting is especially strong along the River Cam Corridor.

4.7.47. Key points:

- Despite significant areas of 19th century housing, the city remained very compact at the start of the 20th century.
- Extensive areas of 20th century development north, east and south of the city core.
- Limited expansion to the west, predominantly comprising development related to the University.
- Green corridor of the River Cam and associated commons and water meadows.
- Intact historic core, relatively large in proportion to the overall size of the city.

4.8. Landscape Character

Introduction

- 4.8.1. The characterisation approach adopted for the built area of Cambridge has been extended into the landscape. Understanding landscape character is fundamental to understanding what gives a landscape its distinctive identity. Landscape character assessment assists in identifying important components of the landscape setting of a settlement. It enables the settlement to be studied within its context, and the relationship between the settlement and its surroundings to be properly understood.
- 4.8.2. The methodology used for the landscape character assessment of Cambridge within the 2002 LDA Design Study was based on the guidelines laid down in *Landscape Character Assessment: Guidance for England and Scotland*, published by the Countryside Agency in 2002. This guidance is also consistent with key aspects of the more recent document *An Approach to Landscape Character Assessment*, published by Natural England in 2014. The landscape character assessment was undertaken as a two-stage process. Firstly, desk studies were carried out, investigating factors such as geology, landform, settlement pattern and communication routes. This information was analysed to define areas of common character (landscape types and landscape character areas) that would be tested and validated in the field. Secondly, fieldwork was undertaken, involving the visual analysis of the landscape, recording findings on Landscape Assessment record sheets. The draft landscape types and character areas identified during the desk study were appraised and refined.
- 4.8.3. The results of this landscape character assessment are shown on Figure 8 and described below. Two categories of information are recorded: Landscape Character Types and Landscape Character Areas. Landscape Character Types are generic types of landscape, which may repeat throughout the country. They contain broadly similar combinations of geology, topography, drainage patterns, land use and vegetation. In contrast, Landscape Character Areas are geographically distinct parts of a particular landscape type. Each Landscape Character Area has its own character and identity because of its views, location and subtle variations, even though it shares the same generic characteristics as other places of the same landscape type. For example, within the Cambridge Green Belt, there are two Landscape Character Areas within the Fen Landscape Type: the Waterbeach-Lode Fen and Fulbourn Fen.
- 4.8.4. It should be noted that there is rarely an abrupt change between adjacent landscape types or character areas. For example, although a geology map may show a distinct line between underlying chalk and clay, this change may be less apparent on the ground, and form a gradual transition rather than a sudden change. For this reason, the lines showing landscape character area boundaries on Figure 8 should be read as indicative only.
- 4.8.5. There are six landscape types described in section 4.8.2, and within these there are a total of 13 landscape character areas described in section 4.8.3.

Landscape Types

1. Fen

4.8.6. The Fen landscape type is situated to the north east and east of Cambridge. It is the southern tip of a landscape type, which extends northwards up to the Wash. The Fen landscape is low-lying and flat. (A high proportion of the Fens are below sea level,

although in the vicinity of Cambridge they are just above sea level.) Dark peaty soils are clearly visible, and the vast majority of the land is in arable production. Much of the land was reclaimed through pumping of surface water, and there are numerous straight drainage ditches, which divide the regular fields. The landscape often has an artificial appearance, due to the recent and systematic draining of the land. Settlement is dispersed, and is restricted to scattered farms strung out on the higher land alongside roads. Most buildings are of brick construction and date from the draining of the land in the 18th and 19th centuries.

- 4.8.7. The Fen landscape type is found in two areas:
 - 1A. Waterbeach-Lode Fen Edge
 - 1B. Little Wilbraham Fen

2. Fen Edge

- 4.8.8. This is a transitional landscape type, situated between the Fens and the higher land beyond. It is relatively low lying, but not as low as the Fens. It still appears generally flat, and contains a variety of land uses, including arable and pastoral agriculture, roads and settlement. The Fen Edge has traditionally been an important location for settlement, as it is above the Fen floodplain, and has easy access to both the wetland resources of the Fens and the higher land which is suitable for agriculture. The land to the north-west, north and east of Cambridge can be described as Fen Edge, although the building of the A14 has severed the link between the city and the Fen Edge landscape to the north. The Fen edge villages were traditionally wealthy and contain several fine medieval churches. Building materials traditionally used in the fen edge villages include gault brick, render, and thatch. Only the wealthiest buildings were constructed of stone.
- 4.8.9. The Fen Edge landscape type is found in two areas:
 - 2A. Western Fen Edge
 - 2B. Eastern Fen Edge

3. Chalk Hills

- 4.8.10. The ridge of chalk hills which form an arc around Cambridge from the east to the south west are part of a much longer ridge of chalk. Their landform is gently undulating, with smooth slopes up to relatively high, rounded hills. The chalk ridge is adjacent to Cambridge to the south east of the city, where it forms the Gog Magog Hills. These contain the highest point in the vicinity of Cambridge. The predominant land use is arable agriculture on the chalky soils. There is relatively little settlement due to the shortage of water. Traditional building materials include flint, clunch and pale brick.
- 4.8.11. The Chalk Hills landscape type is found in four areas:
 - 3A. North East Chalk Hills
 - 3B. Gog Magog Chalk Hills
 - 3C. Newton Chalk Hills
 - 3D. Wimpole Ridge Chalk Hills

4. River Valleys

- 4.8.12. Cambridge is surrounded by river valley landscapes on its south west and southern edges. These valleys have been formed by rivers eroding the chalk or clay bedrock to create broad valleys, with a very gently undulating landform. There are numerous streams and tributaries. The alluvial sediment makes the land relatively fertile, allowing arable agriculture in higher areas, and pasture/ meadows in flood plains closer to watercourses. Numerous villages have developed in river valleys due to the proximity of fresh water. Many established at the crossing-points of watercourses and grew to become major settlements. Other villages have expanded in a linear form along the roads which follow the river valleys. Traditional building materials include render, stone, thatch, brick and tile. The relative ease of river transport made it relatively easy to import building materials from the surrounding areas.
- 4.8.13. The River Valleys landscape type is found in three areas:
 - 4A. River Cam Corridor
 - 4B. Granta Valley
 - 4C. Rhee and Bourn Valleys

5. Claylands

- 4.8.14. The section of Claylands to the west of Cambridge is the tip of a landscape type which covers most of East Anglia. Clayland landscapes are typified by a topography of gentle ridges and valleys. They are often well wooded (particularly on hill tops) and the main land use is arable agriculture. There are fairly evenly scattered villages, often containing timber framed, rendered and thatched cottages, although in many rural areas the population of the clayland areas is less dense now than it was in Medieval times. The historic importance of the area is often reflected in landscape features such as green lanes, trackways, moats, churches and deserted villages.
- 4.8.15. The Clayland landscape type is found on one area:
 - 5A. Western Claylands

6. Airport

- 4.8.16. Small airports can form landscapes which are neither urban nor rural. Their combination of extensive flat grassy areas, runways, lights and associated large-scale modern buildings create a distinctive landscape type which is instantly recognisable.
- 4.8.17. The Airport landscape type is found in one area:
 - 6A. Cambridge Airport

Landscape Character Areas

1A. Waterbeach- Lode Fen

4.8.18. The key characteristics of the Waterbeach-Lode Fen stem from the flatness of the landscape. These are the senses of space and openness, and the importance of the horizon and skyscapes in the panoramic distant views. It is a very regular landscape, with straight roads, ditches, shelter belts and field boundaries. The peaty soils are dark brown in colour, and support intensive arable agriculture. Lines of willows and poplars mark the course of the river Cam. Settlement is dispersed, and is restricted to scattered farms strung out on the higher land alongside roads. Most buildings are of

- brick construction and date from the draining of the land in the 18th and 19th centuries.
- 4.8.19. Views to Cambridge are restricted to the southern edge of the character area, where they are dominated by the hangars of the airport. Links with the city are through an extension to the Cam Corridor, which is a green corridor into the city, and contains a long distance footpath and a railway line.

1B. Little Wilbraham Fen

- 4.8.20. Little Wilbraham Fen is a small pocket of low-lying fen within the Eastern Fen Edge. A regimented pattern of flat arable fields and areas of wetland vegetation is divided by a network of straight droveways and drainage ditches, and the more sinuous path of Quy Water and Little Wilbraham River. Watercourses are often lined with hawthorn scrub or large willow trees. The willow trees are prominent features on the skyline. The Fen is generally quite open, with some enclosure provided by the tree and scrub vegetation, and the sloping landform outside the character area. In addition to Little Wilbraham Fen it includes two other named fens Teversham Fen and Fulbourn Fen. It contains one SSSI (Wilbraham Fens), which is made up of a large area of fen and neutral grassland with associated scrub and open water communities, with dense stands of common reed Phragmites australis. Settlement within Little Wilbraham Fen is limited to isolated farms. There are no surfaced roads within the area.
- 4.8.21. The Harcamlow Way long distance footpath passes through the Little Wilbraham Fen.

2A. Western Fen Edge

- 4.8.22. The Western Fen Edge landscape character area extends to the north and north west of Cambridge. It is a relatively low-lying landscape, and undulates very gently between 5 and 20m above sea level. It is slightly higher than the Fen proper. It is a flat and expansive landscape, where sky and horizons are dominant features. Arable agriculture is the principal land use, and the land is divided into medium-sized regular fields. Hedges and shelterbelts between fields, plus several orchards, add a distinctive pattern of vegetation into the landscape.
- 4.8.23. Views to Cambridge are restricted by the low-lying topography and the A14. Therefore the only key views to Cambridge from the western fen edge are from the A14 itself. The A14 also acts as an artificial edge to the city, and undermines the gentle transition between the city and the fen edge.
- 4.8.24. There are several villages within the western fen edge, the majority of which developed on "islands" of higher ground to reduce the risk of flooding. They display a variety of historic forms: Some, such as Landbeach developed along routeways and are linear in form, whilst others such as Histon are nucleated around a village green. The villages closest to Cambridge (Girton, Histon and Milton) have all expanded considerably in the 20th century, and are now often perilously close to being linked to Cambridge by suburban routes. However, each has retained its individual village character. The Fen edge villages were traditionally wealthy and contain several fine medieval churches. Building materials traditionally used in the fen edge villages include gault brick, render, and thatch. Only the wealthiest buildings were constructed of stone.

2B. Eastern Fen Edge

4.8.25. The Eastern Fen Edge is a transitional landscape between the Fenlands and the Chalklands. One of the key characteristics of this landscape character area is the

- pockets of Fen and Chalk landscapes around and within it, which contribute to the transition and bring different influences.
- 4.8.26. The Eastern Fen Edge is open in character, and is generally arable farmland, divided by hawthorn hedges. Views are generally long, and often include the surrounding landscape character areas. In the northern part of the area, variety in the landscape is achieved through designed landscapes at Anglesey Abbey and Bottisham Hall.
- 4.8.27. There is a gradual transition between the farmland of the Eastern Fen Edge and the chalk hills to the east and south. From this slightly higher land there are distant views to Cambridge, with the city set in a green landscape. There are immediate views to the edge of Cambridge from the western part of the landscape character area. The airport dominates many of these views.
- 4.8.28. Settlement in the Eastern Fen Edge includes scattered farms and a number of small villages separated by farmland. The villages are located on relatively high ground and their church towers are prominent in the landscape. Of these villages, only Fulbourn has expanded with significant areas of modern housing.

3A. North East Chalk Hills

- 4.8.29. This landscape character area consists of rolling chalk farmland on the eastern edge of the Green Belt. These chalk hills are lower and less wooded than the Gog Magog Hills, and do not have their recreational function. The transition between the North East Chalk Hills and the Eastern Fen Edge is very subtle and gradual, the main difference between the two landscapes being their elevation and topography.
- 4.8.30. The North East Chalk Hills are relatively inaccessible. The A14, A1303 and two minor roads pass through the area, but public access is limited to a few byways and footpaths.
- 4.8.31. The area contains distant views to Cambridge from the junctions between the A11 and Balsham Road, Mill Road and Little Wilbraham Road. There is also a key panoramic view of Cambridge within its rural setting from the A14 as it descends from Nine Mile Hill. Settlement is limited to a few scattered farms.

3B. Gog Magog Chalk Hills

- 4.8.32. The Gog Magog Hills are a distinctive chalk ridge, which form an area of high ground to the south east of Cambridge. They are a series of rounded hills, capped with beech, lime and sycamore woodland on their summits. It is an open, elevated landscape with a strong sense of time-depth due to the Iron-Age hill fort at Wandlebury and the Roman road to Cambridge, which runs along the ridge. The majority of land is used for arable crop production, but recreation also contributes to the character of the area, which contains a Country Park, Nature Reserve, picnic site and a golf course.
- 4.8.33. There are several elevated views to Cambridge, which give this landscape character area a strong sense of place. The southern edge to Cambridge, with its ongoing development, is strongly apparent in these views, and the Western Claylands also contribute to the green landscape surrounding the city. The summit of Wandlebury is a memorable feature which contributes to the character of the landscape and enriches the setting of Cambridge. Settlement on the Gog Magogs is limited to scattered farms, because of the shortage of water on the chalk.

3C. Newton Chalk Hills

4.8.34. This landscape character area is formed by a small outcrop of chalk between the valleys of the Granta and the Rhee. It is a typical chalk landscape, containing a series of gently rolling hills used for arable agriculture. Public access to the hills is limited, but there are good views of the Granta Valley landscape character area from the obelisk on St Margaret's Mount. The landscape is open and vegetation is limited to shelterbelts and blocks of woodland. The predominant species is beech. Settlement consists of a few houses and farms alongside roads, particularly between Harston and Newton.

3D. Wimpole Ridge Chalk Hills

- 4.8.35. The south west tip of the Cambridge Green Belt takes in a small part of the Wimpole Ridge Chalk Hills landscape character area. This is a chalk ridge, whose character is strongly influenced by the parkland of Wimpole Hall. This area is characterised by its elevated and rolling topography. On the northern face of the ridge (within the Green Belt), the parkland influence is less pronounced, and the slopes appear as open expanses of fields. However, the summit of the ridge is covered in dense deciduous woodland, including beech, oak, ash and lime.
- 4.8.36. There are distant views of Cambridge from the ridge, with the most famous from Chapel Hill (a view referred to in Rupert Brooke's poem "The Old Vicarage, Grantchester"). In these views, Cambridge is visible as a compact "island" of green, due to the mature vegetation within the city and its green edge. The historic landmarks of Cambridge are visible on the skyline, and the city can be seen set in a green landscape, with river valleys, chalk hills and clay ridges all contributing to the impression of the city.
- 4.8.37. Settlement of this character area within the Green Belt is restricted to a few scattered farms.

4A. River Cam Corridor

4.8.38. The River Cam Corridor Landscape Character Area runs through Cambridge, on a roughly south west to north east course. It is distinctive from other river valley landscapes because of its key views to the landmark towers and spires of Cambridge, and because of its rural and pastoral character, even close to the city centre. It forms distinctive approaches to Cambridge from the south west and the north east, along green corridors into the city via footpaths alongside the river. To the north, a long distance footpath provides a link between Cambridge and the open countryside, and a railway line also runs within the valley. The Cam Valley further enriches the setting of Cambridge through the historic association between the city and its river, and through the works of Rupert Brook, Byron, and other poets who described the Cam valley around Grantchester. Grantchester contains a very attractive historic core containing timber-framed and rendered buildings.

4B. Granta Valley

4.8.39. The Granta Valley is situated to the south of Cambridge. It has the low-lying, gentle topography of the River Valley landscape type, but its character is distinguished by its wooded appearance and by the relatively built-up and suburban character of its villages. The woodland within the landscape gives it a relatively enclosed character, increases the "greenness" of the landscape setting, and screens views. This restricts views to the villages, as well as more distant views to Cambridge.

4.8.40. Settlement comprises a relatively large proportion of the land area. Many villages have developed along key routes into Cambridge, including the A10 and the A1301. The majority of these villages (which include Sawston, Shelford and Harston) have expanded through cluster or ribbon development, and this has led to a more suburban feel on the approaches to the city through this area.

4C. Rhee and Bourn Valleys

- 4.8.41. These valleys form the landscape to the south west of Cambridge. The landscape is comprised of a repeating pattern of subtle ridges and dips which reflect the drainage pattern. However, their overall appearance is relatively flat. Views are long, and framed by the wooded ridges of the Western Claylands to north and the Wimpole Chalk ridge to the south. The Rhee and Bourn Brook valleys have an open and tranquil character. The low density of settlement and the relatively quiet roads give them a strongly rural feel, although the lines of radio telescopes are highly distinctive features that contribute positively to the character of the landscape. The majority of land is in arable production, although pastures are common alongside streams. Stream corridors are often visible within the landscape as lines of willow trees.
- 4.8.42. Villages are generally small, and separated by extensive tracts of countryside. There are small areas of modern housing on the edges of some villages, but generally the villages have retained their small scale and historic character, and are key features within the landscape. There is a distinctive line of villages (including Haslingfield and Harlton), which follow the line of the Icknield Way (an ancient trackway) along the base of the chalk ridge at the south-western edge of the landscape character area. They have developed where the Icknield Way crossed streams or springs.
- 4.8.43. The key views to Cambridge within this character area are seen from the M11. The landmarks of the historic core are clearly visible and form skyline elements. Low lying countryside forms the foreground to these views, and the high quality green edge of the city means that the city appears to merge gradually with the countryside.

5A. Western Claylands

- 4.8.44. To the west of Cambridge is the Western Claylands landscape character area. This area is characterised by a combination of open arable fields and mature vegetation. This vegetation includes deciduous woodland on ridge tops, and hedgerows along routes and field boundaries.
- 4.8.45. The overall impression is of a mature, peaceful rural landscape which enhances the topography of east-west ridges. There are some distant views of Cambridge from high points, including at Red Meadow Hill in Coton Countryside Reserve, but the majority of these views are screened by vegetation in the summer months. An important approach into Cambridge from Bedford passes through the Western Claylands. Adjacent to the road is the American Cemetery, a memorable feature within the setting of the city. Just beyond the American Cemetery is a key elevated view of Cambridge.
- 4.8.46. This is an area that has seen population decline since the medieval period and today it contains only scattered villages and farmsteads. Madingley is a particularly attractive village, with its hall and estate cottages.

6A. Cambridge Airport

4.8.47. Cambridge Airport is situated on the eastern edge of the city. It is essentially a large, flat grassy field, with associated hangar buildings to the north west. The airport

separates the city from the countryside beyond. It feels very open, with long views and a homogenous character, all traces of the historic landscape pattern having been removed. Visually, it functions as an open green space on the edge of the city, but it does not provide a public access link between the city and the open countryside.

Landscape Character Conclusion

4.8.48. There are a variety of landscapes within the Cambridge Green Belt. The diversity of landscapes within the setting of Cambridge is one of the city's defining characteristics.

4.8.49. Key points:

- Diversity of landscape character areas within the three main landscapes of Fens, Claylands and Chalk Hills.
- Extensive River Valley landscapes, particularly south and south-west of the city where watercourses have eroded the higher clay and chalk land.
- Extensive areas of Fen Edge landscape north and east of the city.

4.9. Green Corridors into Cambridge

- 4.9.1. Green corridors are widths of countryside or green space, with public access, penetrating from the open countryside into the urban fabric of Cambridge. They provide the settings for open approaches into the city, access for pedestrians and cyclists out into the countryside, corridors for wildlife, and a landscape setting to some edges of the city. They are shown on Figure 7. They can also be Distinctive or Supportive areas of landscape, as shown on Figure 11 and discussed in section 4.14.
- 4.9.2. The Cam corridor is the most important green corridor, and is a continuous corridor passing through the heart of the city. Part of it (The Backs) forms an element of the historic core. This green corridor has a number of qualities that are discussed in other sections of this report and is a key defining element of historic Cambridge and its setting.
- 4.9.3. The green corridor alongside Hobson's Brook provides the setting for an important open approach to the city, along the railway line from the south (see section 4.11). Links between the city and open countryside for pedestrians and cyclists through this green corridor are poor, a single footpath along Vicar's Brook being curtailed at Long Road.
- 4.9.4. On the west side of the city, agricultural land south of the West Cambridge site forms one of the closest areas of countryside to the historic core. A green corridor extends into the urban area as far as the University rugby club on Grange Road. It emphasises the proximity of the Grange Road area, part of the distinctive core of the city, to the countryside.
- 4.9.5. Coldham's Common is a significant green space, extending from the Cam corridor out towards the eastern edge of the city. It forms part of an identified green corridor extending southwards along Cherry Hinton Brook, but the airport severs it from the countryside to the east, around Teversham. If at some time in the future the airport is closed and its site redeveloped, it would be possible to connect Coldham's Common with a finger of retained Green Belt land across the airport site to create an additional green corridor into the city from the east.

4.9.6. Key points:

- The River Cam corridor is particularly important, passing uninterrupted through the heart of the city, a key defining element of historic Cambridge and its setting.
- Hobson's Brook corridor provides the setting for the southern rail approach to the city.
- The green corridor running into Grange Road emphasises the proximity of the countryside to the distinctive core of the city.
- Coldham's Common is currently severed from the countryside around Teversham, but could be reconnected through the future redevelopment of the airport.

4.10. Visual Assessment

- 4.10.1. Figure 9 shows the results of a visual assessment of Cambridge, with particular emphasis on the interrelationship between the city edge and the surrounding landscape.
- 4.10.2. Key viewpoints are shown, including distant and proximal views, both level and elevated. These have been updated from LDA Design's 2002 Study, to take account of changes to views as a result of new development and the growth of vegetation since 2002. The viewpoints marked are not intended to be exhaustive, but are considered to be the most significant. There are also many other locations from where parts of Cambridge and its setting can be seen. Also shown is the approximate area of the Green Belt from which Cambridge can be seen. There are potentially a small number of viewpoints from high land outside this area, but they are isolated points, and their views of the city are very distant.
- 4.10.3. Photographs showing a number of the key views of Cambridge and its setting are shown on Figures 15-19.
- 4.10.4. Key landmarks within Cambridge have been identified, which include historic and modern buildings and structures. They include buildings that form part of the historic core which would have been important landmarks historically, such as King's College Chapel, and more recent buildings of a modern style, which form recognisable elements of 21st century Cambridge, but which contrast with and in some cases detract from the historic buildings.
- 4.10.5. The key distinctive/memorable features in the landscape setting of the city have also been identified. In addition to the identified features and landmarks, the rural backdrop beyond the city is an important element in views across the city. For examples, in views from the west, the distinctive Gog Magog Hills south east of the city can be seen; in views from the south and east, the elevated Claylands form the backdrop.
- 4.10.6. Also shown is the interface between the city and surrounding landscape as observed in immediate views from routes around Cambridge. Four broad categories have been identified:
 - Level views, with a countryside foreground and a generally soft urban edge (the west side of Cambridge, the north east Cam corridor and east of Girton, including views from the M11, northern railway approach and sections of the A14)

- Elevated views with a countryside foreground and a mixed urban edge (from the Gog Magog Hills to the south east of Cambridge)
- Level views with a countryside foreground and a mixed urban edge (Parts of the eastern side of Cambridge and the rural fringes to Trumpington Meadows, Glebe Farm and Clay Farm)
- Level views with mixed foreground and a mixed urban edge (north west Cambridge (reflecting the disruptive effect of the construction site on the landscape), Cambridge Airport and Vicar's Brook, including views from the southern railway approach.
- 4.10.7. Outside the immediate surroundings of the city, the broader rural setting with scattered villages is shown, as it is important to the context of Cambridge, and fundamental to people's perception of the city as they approach and depart.

4.10.8. Key points:

- Various key landmarks within the city, many historic and some modern university-related buildings which strengthen the city's distinctive character.
- Other modern buildings which detract, particularly Addenbrooke's buildings and airport hangars.
- Key views to Cambridge from the surrounding landscape, including level views from east and west and longer range elevated views from east, west and south.
- Rural backdrop in views across the city.
- Varying character of the urban edge as seen from the countryside, with a
 generally soft, green edge to the west and more mixed edges elsewhere.
- Distinctive/memorable features in the surrounding countryside.

4.11. Approaches and Gateways

Introduction

- 4.11.1. The following section describes the approaches and gateways to Cambridge shown on Figure 10. Approaches to and within the urban area provide the viewpoints from which most visitors see the city and gain their perception of its scale. Distance and travel time between open countryside and distinctive Cambridge, and the character of the approaches, play an important role in determining people's perception of the character and scale of the city. The length of approaches therefore provides a fair representation of how people perceive the scale of Cambridge.
- 4.11.2. Both the length and character of the approaches were assessed as part of LDA Design's 2002 Study, with the assessment updated for this study to reflect development since 2002. The approaches were broadly characterised as green/treed, suburban or commercial. The length of the approach is determined by the distance between the urban gateway and the gateway to distinctive Cambridge.
- 4.11.3. Three categories of gateways were defined. The First View of Cambridge is the point along the approach route where the city of Cambridge first comes into view. The Urban Gateway is the point at which the character of the route becomes built-up and urban. The Gateway to Distinctive Cambridge is where the route enters the distinctive core of the city and, except when approaching along the river corridor, is the point at

which the traveller feels a sense of arrival.

Green/Treed Approaches

Huntingdon Road

4.11.4. The route to Cambridge from the north west follows Huntingdon Road, which is a historic Roman Road. Huntingdon Road is straight and wide and has a green treed character, with large detached and semi-detached houses set back from the road. The urban gateway is located to the south east of the 'Girton Gap', a narrow strip of open space, mostly consisting of sports pitches, that separates Girton village from the edge of Cambridge. The gateway to Distinctive Cambridge is defined by Fitzwilliam College and Victorian terraces on the northern side of the road. The route from the urban edge to Distinctive Cambridge is relatively short and green, which gives the traveller a perception of a compact city. The ongoing North West Cambridge development will be located to the south west of this route.

Madingley Road

4.11.5. From the west, Cambridge is approached along the historic route, Madingley Road. The first view of the city is an elevated panoramic view just before the turn-off to Coton. Development has occurred up to the M11, but the development is part of Distinctive Cambridge, emphasising the quality of Cambridge as a compact city. The urban gateway is close to the gateway to Distinctive Cambridge, near the M11 and defined by the Park and Ride and British Antarctic Survey Building. The development along Madingley Road at West Cambridge is mainly large-scale University buildings such as the School of Veterinary Medicine, Laboratories and the Observatory. The approach is green and treed along the length of Madingley Road to The Backs.

Barton Road

4.11.6. The south western approach along Barton Road is also a rural approach with only a short distance travelled through suburban development before reaching Distinctive Cambridge, contributing positively to the perception of Cambridge as a compact city. The rural section of Barton Road is largely enclosed by tall hedgerows and has limited views into the adjacent countryside.

Grantchester Road

4.11.7. Grantchester Road is also a historic route linking Cambridge and the historic village of Grantchester. The first view of Cambridge is just north of the village where the towers and spires of the city can be seen above the green fringe with the Grantchester Meadows in the foreground. A view from a field entrance off this road is shown as Photograph 3 on Figure 16. This is an open rural approach up to the urban gateway at Newnham, where Victorian cottages line one side of the road. The distance to the gateway to Distinctive Cambridge, defined by Lammas Land, at the Barton Road and Grantchester Street junction, is short. This approach route is where the link between historic Cambridge and its rural setting is strongest, and relatively unspoilt by suburban development. This is an important quality to be safeguarded.

Trumpington Road

4.11.8. The approach to Cambridge along Trumpington Road is a historic road and a distinctive route into Cambridge. The first view of the city comes approximately 1km west of the M11 junction. From the M11, there is a short stretch of open countryside

before the distinctive urban gateway of the ongoing development at Trumpington Meadows and Glebe Farm, this being the urban gateway to Trumpington rather than to Cambridge itself. The character of the route is suburban through Trumpington Meadows, Glebe Farm and Trumpington, and there are views to the historic village core. The character of the route is then green and treed up to Vicar's Brook and the Botanic Garden, where the urban gateway to Cambridge occurs. Before this point, the approach does not feel strongly urban because there are mature trees and tall hedges on both sides of the road, the houses are set back from the road on the eastern side and there is the occasional glimpse across fields and the golf course to the west. The gateway to Distinctive Cambridge is at the double roundabout with Fen Causeway and Lensfield Road, which defines the edge of the historic core. This approach is of particular note because the gateway to Distinctive Cambridge is very close to the second urban gateway, enhancing the perception of Cambridge as a compact city.

Hills Road

4.11.9. The south eastern approach to Cambridge along Babraham Road and Hills Road is another historic route, which passes over the Gog Magog Hills. The first view of the city is an elevated panoramic view from the top of the hill near the Haverhill Road junction. The urban gateway is marked by suburban housing and Addenbrooke's Hospital, which is a prominent landmark on the edge of the city. Hills Road is a green treed road with large detached and semi-detached houses set back from the road. The road passes over the railway across the Railway Corridor with medium and large-scale commercial and office buildings. The gateway to Distinctive Cambridge is at the junction with Lensfield Road and Gonville Place, which define the boundary to the historic core. Although this is a predominantly green approach there is scope for improvement through the Railway Corridor.

Suburban Approaches

Histon Road

4.11.10. The Histon Road approach from the north has a bland suburban character. The first view of Cambridge is from the A14 and the urban gateway is reached immediately afterwards due to the recent Orchard Park development that extends up to the edge of the A14. There is a mix of residential building types along the road including single storey terraces, small flats and red brick semi-detached houses. The busy junction with Huntingdon Road and Victoria Road defines the gateway to Distinctive Cambridge where there are views to Castle Hill.

Milton Road

4.11.11. Milton Road is both a commercial and suburban approach. The built-up area extends all the way up to the A14 at this point and the urban gateway is just off the A14 junction. Cambridge Science Park and St John's Innovation Park have a business park character with large-scale buildings. The buildings and landscape are, however, of high quality and add to the character of Cambridge as a city of technology and innovation. Beyond the Science Park, Milton Road has a suburban character. The street is wide with red brick semi-detached and Arts and Crafts style houses. This approach could be improved considerably with street tree planting. The gateway to Distinctive Cambridge is by the junction with Victoria Road and Chesterton Road where the traveller meets the traffic on the ring road and enters the Victorian development north of Midsummer Common.

Cambridge Road

4.11.12. Cambridge Road is a minor road which links Fulbourn village with Cambridge. This is a long suburban approach where the distance from the urban edge to the distinctive part of Cambridge is relatively far. The gateway to Distinctive Cambridge is at the Hills Road and Lensfield Road junction.

Commercial Approaches

Newmarket Road

4.11.13. Newmarket Road is a long approach with a predominantly commercial character. The first view of Cambridge is near the A14 junction, where the large hangar buildings of Cambridge Airport on the eastern fringe are in view. The urban gateway is marked by commercial urban fringe development, such as large car showrooms and the airport buildings. The road then passes through suburban development and the Railway Corridor with commercial and industrial development. The approach is generally unremarkable and sometimes unattractive, with many closed facades. There are two gateways to Distinctive Cambridge from this approach. Turning north up Elizabeth Way, the gateway is the bridge across the River Cam from which there are excellent views up and down the River. Turning south down East Road, the Gateway is marked by Parker's Piece.

River Approaches

4.11.14. The rural approaches to the city along the river corridor are particularly distinctive and differ markedly from the road approaches because of the close links between the pastoral Cam corridor and the historic core. The landscape of the Cam corridor with views of the landmark towers and spires is distinctive of Cambridge and therefore the gateways to Distinctive Cambridge are located where the first view of Cambridge appears, outside the urban area.

Fen River Way and Harcamlow Way

4.11.15. The first view of Cambridge when approaching the city along the River Cam from the north east or on the long distance footpaths, Fen River Way and Harcamlow Way, is from Ditton Meadows. From here, the towers and spires of Cambridge can be seen rising above the green edge of the city. The approach along the river is Distinctive because of its rural and pastoral character, even close to the city centre. The railway bridge over the river is a prominent landmark. The gateway to urban Cambridge is by the Elizabeth Way bridge where the approach route gains a built up urban character.

From Grantchester

4.11.16. The southern approach to Cambridge, along the public rights of way following the River Cam through Grantchester Meadows, is another Distinctive green approach. From Grantchester Meadows there are views to the towers and spires of Cambridge with the pastoral water meadows in the foreground. The gateway to Distinctive Cambridge is on the Grantchester Meadows close to Grantchester where the first view of Cambridge appears. The gateway to urban Cambridge is marked by the Fen Causeway bridge where the Cam corridor becomes more urbanised.

Railway Approaches

From the South (London)

4.11.17. The rail approach to Cambridge from the south is mainly green and rural in character, as the railway line passes through a green corridor alongside Hobsons Brook, although ongoing development at Addenbrooke's Hospital and Clay Farm are visible. The area between the urban gateway and the station is suburban in character but the effect on the quality of the approach is limited because the distance is short. Although the station is some distance from Distinctive areas of the city, it is an important disembarkation point for many people arriving in Cambridge. The short length of the approach, between the urban gateway and the point of disembarkation, contributes positively to the perception of a compact city in a rural landscape setting.

From the North (Ely)

4.11.18. The rail approach from Ely is mainly commercial and industrial in character and relatively long. The urban gateway is located at the A14 crossing, from where there are views to the sewage works, the railway sidings and business park. The railway bridge across the River Cam, from where there is a view to the river, Stourbridge Common and the spires of Cambridge, marks the gateway to Distinctive Cambridge. The character of the approach between the river corridor and the station is commercial and industrial.

From the East (Ipswich)

- 4.11.19. The rail approach from the east passes through Cherry Hinton, past Cambridge Airport, through Coldham's Common and through the commercial and industrial area along the railway line.
- 4.11.20. This approach is relatively long, but once past Cherry Hinton, the overall character of the approach is green, due to the screening vegetation alongside the line, the open landscapes associated with the disused pits and reclaimed land associated with the old cement works, and Coldham's Common. As the train passes across Coldham's Common, with its mature trees and grazing animals, the views from the train become more rural in character. The last part of the approach is through a commercial and industrial area, but the overall impression of this approach is of countryside almost to the station, contributing positively to the perception of a compact city in a rural landscape setting.

Pedestrian and Cycle Links Between the City and its Rural Hinterland

- 4.11.21. The countryside setting to Cambridge is within easy access of the city centre and many neighbourhoods, particularly those areas closest to green corridors and the edge of the city. This is true to the west, where the city centre is close to open countryside, and where the Cam corridor, with its good footpath network, penetrates through Cambridge along the River Cam. These links all enhance the perception that Cambridge is a compact city.
- 4.11.22. However, pedestrian links between much of the city and its rural hinterland are poor. To the north the A14 acts as a barrier between the city and the countryside. To the south east the city centre is separated from the countryside by 4 kilometres of urban development and footpath and cycleway links are limited. To the east links are poor, with the large inaccessible area of Cambridge Airport acting as a barrier between the city (including Coldham's Common), and the rural hinterland.

4.11.23. Since LDA Design's 2002 Study, there have been improvements to the links between the city and the countryside, particularly through the creation of additional long distance recreational routes and SUSTRANS cycle routes. These form nationally important routes through the city and into the countryside beyond. A number of initiatives have also been implemented, particularly to the west of the city, to address access into the countryside. These include Coton Countryside Reserve and the Quarter to Six Quadrant initiative.

4.11.24. Key points:

- Approaches from the west are generally shorter, giving a more immediate sense
 of arrival and the sense of a compact city. They are green or treed, making them
 more attractive.
- Approaches from the south are longer but are green or treed for a significant proportion of their length.
- Road approaches from the east and north are longer and generally suburban or commercial in character, giving little impression of the historic character of the city.
- Approaches along the Cam corridor from both north and south are attractive, green and distinctive.

4.12. Pattern of Distribution of Villages

- 4.12.1. Cambridge is surrounded by an open rural landscape containing a number of villages. Section 4.2.2 introduces the historical origins and forms of villages, section 4.8 describes the nature of settlements in different landscape character areas in the Green Belt and section 4.11 illustrates the importance of approaches from some villages, such as from Grantchester.
- 4.12.2. Villages are scattered throughout the Green Belt of Cambridge, with patterns related to their origins and development over time. Figure 8 shows landscape types and character areas, each with their characteristic settlement pattern. Within the Fen landscape type to the north east of Cambridge villages are limited and would have established on areas of slightly higher ground to reduce risk of flooding, with scattered farmsteads developing after the fens were drained. The Fen Edge landscape type to the north and east has traditionally been an important location for settlement, as it is above the Fen floodplain, and had easy access to both the wetland resources of the Fens and the higher land that was suitable for agriculture. Villages in the Chalk Hills landscape type south and east of Cambridge are relatively scarce due to the shortage of ground or surface water and settlement is often limited to a few scattered farms. Numerous villages have developed in the River Valley landscape type to the south due to the proximity of fresh water, many having been established at the crossing-points of watercourses. The Western Claylands landscape type contains only scattered villages and farmsteads and has seen a population decline since the medieval period.
- 4.12.3. Analysis has identified a circle of inner necklace villages, which are shown on Figure 7. These are villages that, due to their close proximity to Cambridge, play a particularly important role in the immediate setting of the city. More distant villages also play a role, particularly as people see them as they travel to and from Cambridge, and as they are seen in panoramic views of the city.

- 4.12.4. The rural landscape separating the inner necklace villages from each other and from Cambridge plays a critical role in preserving the separate identities of these villages and therefore the immediate landscape setting of the city.
- 4.12.5. The villages closest to the northern edge of Cambridge (Girton, Histon, Impington and Milton) have all expanded considerably in the 20th century, and are now often perilously close to being linked to Cambridge by suburban routes. Whilst each has retained its individual village character to a degree, it has in each case been significantly compromised. In addition, the north eastern edge of Cambridge has expanded very close to Fen Ditton at the suburban estates around Newmarket Road, narrowing the gap between the edge of the city and Fen Ditton to a very narrow strip.

4.12.6. Key points:

- Villages scattered throughout the Green Belt, with their distribution reflecting local landscape characteristics.
- Presence of villages close to Cambridge contributes significantly to the quality of the setting of the city.
- Maintaining separation between Cambridge and the inner necklace villages, and between the villages themselves is important to the setting of the city but is under threat in some instances.

4.13. Character and Identity of Villages

- 4.13.1. Each village possesses qualities which contribute positively to their character and identity and therefore to the quality of the setting of Cambridge. Some of the most common key attributes of villages have been identified (*South Cambridgeshire Village Capacity Study*, Chris Blandford Associates (1998)) as:
 - Wooded setting for village
 - River valleys and water meadows
 - Historic village cores and village greens
 - Strong linear form
 - Important open spaces
 - Parkland setting on village edge
 - Village scale
 - Areas of tranquillity
 - Enclosed pasture forming transition on edge
 - Long distance views from village
- 4.13.2. These illustrate some of the qualities that enhance people's experience and perception of the setting of Cambridge, particularly as they approach the city through and between villages, and view the city in its landscape setting from key viewpoints.
- 4.13.3. Section 4.2.2 considers the historical origins and forms of the villages in the Green Belt surrounding Cambridge, with Figure 7 identifying the patterns of this historical development. Figure 7 identifies that villages such as Grantchester and Fen Ditton, although very different in form, with the former being nucleated and the latter much

more linear, have remained very tight to their historic cores and have not had large areas of expansion in the 20th century. In contrast, the villages north of the A14, Girton, Histon, Impington and Milton, as well as Fulbourn and Great Shelford, contain extensive areas of 20th century housing development that have radically changed the scale and form of the villages and in two cases have caused adjacent villages to merge. This has altered the character and identity of these larger villages, making them much less distinctive.

4.13.4. Key points:

- Villages vary in their size, form and other qualities, so that each village has its own particular character and identity.
- Individual identity is most intact in villages which avoided large 20th century expansion but has been diluted in those which saw significant 20th century growth.
- Inner necklace villages enrich the setting of Cambridge and emphasise the rural character of the landscape surrounding the city.

4.14. Townscape and Landscape Role and Function

4.14.1. The assessment of the 'function' that townscape and landscape plays in contributing to the distinctiveness of Cambridge and its setting is based on a methodology established by LDA Design, and endorsed by the Countryside Agency (The Countryside Agency and Scottish Natural Heritage, 2002). This methodology was piloted in Winchester (Landscape Design Associates, 1998) and subsequently developed on other projects relating to historic towns and cities.

Definition of the Area that Contributes to the Distinctiveness of Cambridge and its Setting

- 4.14.2. The area of landscape that contributes to the distinctiveness of Cambridge and its setting includes areas of the surrounding landscape from where the city is visible, or where it forms part of the foreground in views from more distant isolated viewpoints. This area is then sub-divided into areas of townscape and landscape that play a greater or lesser role in defining or supporting the distinctiveness of the city and its setting.
- 4.14.3. Boundaries have been prepared at a broad scale by making judgements in the field, from easily accessible communication routes. They have not been defined as precise lines and, in some instances, are gradual transitions where views of the city become progressively less or more distinct as the viewer moves through the landscape, or where there is only a gradual change in the character of the townscape or landscape.

Relationship to Character

4.14.4. The distribution and pattern of townscape and landscape character within the city and its Green Belt has been described in sections 4.7 and 4.8 above. While all the character types and areas have an identifiable and coherent identity, their effect and relative influence on both the city and its setting is variable. An assessment of the contribution that these character areas make to the 'essence' of Cambridge and the unique sense of place, both within the city and its rural setting, can vary both within as well as between character boundaries. The land covered by townscape and landscape character types and areas will, therefore, often be different from the geographical definition of areas that contribute to the distinctiveness of the city and its setting.

Categories of Townscape and Landscape

- 4.14.5. The results of this study are illustrated on Figure 11 and described below. The townscape and landscape is classified in relation to the function it performs in contributing to the distinctiveness of the city and its setting. Classification categories established at Winchester have been used. Their principal characteristics and the areas of townscape and landscape falling within each classification are described below.
- 4.14.6. Although the visually cohesive Historic Core within the city is pivotal to the essential character, it is not in all respects necessarily of greater importance than the remaining areas of influence. The areas of Distinctive and Supportive landscape and townscape play a crucial role in the setting and perception of a city. They may include sites and features of premier importance that are comparable with elements within the historic core. The Connective areas may also include significant landscape and townscape features but will not share the strength of characteristics that contribute to the 'essence of the city'. The importance of this final category lies in linking between and forming a foil to areas of Distinctive and Supportive landscape and townscape. In addition, all these areas have an importance to local communities and the way they use and identify with 'their' part of the city.
- 4.14.7. The visually cohesive Historic Core, and Distinctive and Supportive townscape and landscape, are areas that are most characteristic of Cambridge, and that contribute most strongly to the distinctiveness of Cambridge and its setting. They are therefore the areas that are most essential to the setting and special character of the City.

Visually Cohesive Historic Core

- 4.14.8. This is the compact medieval core and associated green spaces comprising:
 - Townscape character area 1A Cambridge Historic Core described in section 4.7.3
 (see Figure 7), with its grand college, civic and ecclesiastical buildings with towers
 and spires and an intact medieval street pattern of narrow streets and alleyways
 and small squares
 - Areas of green space which play an integral role in defining the historic core, including The Backs, Christ's Pieces and Parker's Piece.
- 4.14.9. Of particular note is the compactness and cohesiveness of the Historic Core and its close visual and physical connection with the River Cam. Elements such as historic street pattern, building type, scale, architectural style, detailing and materials as well as historic green spaces all generate a strong sense of the story of the city. Whilst the area includes 19th, 20th and 21st century development, the depth of historic character and the street pattern remain clearly visible.
- 4.14.10. The visually cohesive Historic Core is a key element of the distinctiveness of Cambridge and its setting, and a fundamental quality of the setting and special character of the historic city. Areas of visually cohesive Historic Core also function as Distinctive townscape/landscape.

Distinctive Townscape/Landscape

4.14.11. These are areas defined as specifically recognisable and distinctive to the city. They include townscape and landscape components such as distinctive buildings, quintessential views, the interaction of buildings forming spaces or the setting to local events, topographical features, setting and backdrops to the city, areas of rich

biodiversity, historic approach routes and landmarks of distinctive character. These areas, frequently contiguous with the Historic Core, often borrow from or bestow character to it. Distinctive townscape / landscape is so distinctive to the city that similar areas or features are unlikely to be found in other historic towns and cities and it may well be unique.

4.14.12. The areas of Distinctive townscape/landscape comprise:

- The Fellows' houses, Colleges and University buildings west of the Historic Core, up to the edge of the city at the M11. This includes the ongoing University development at West Cambridge, which includes buildings of distinctive, high quality architecture and other buildings of significant historical and cultural importance, such as the Cavendish Laboratory.
- The green corridor west of Grange Road, which contains the closest area of rural landscape to the historic core and makes a unique contribution to the setting of the city
- The River Cam corridor, comprising water meadows and open land running from the historic core out towards open countryside to the south west and north east of the city.
- 4.14.13. The areas of Distinctive townscape and landscape are key elements of the distinctiveness of Cambridge and its setting, and a fundamental quality of the setting and special character of the historic city.

Supportive Townscape/Landscape

4.14.14. These are areas of townscape/landscape which support the character of the Historic Core and Distinctive areas of the city. They provide the backdrop and ambience, and bolster the sense of place of the city and its approaches. Supportive areas and features are of a kind that may be found in other towns and cities but, due to their particular location or the way they influence the character and setting of the city, they are locally distinctive, recognisable to those familiar with the city as important elements of its character and identity.

4.14.15. The areas of Supportive townscape/landscape comprise:

- Other green spaces within or on the edge of the city at Coldham's Common and along the River Cam west of Fen Ditton, which are less distinctive to Cambridge but perform important Supportive roles. Their roles in providing a setting to views of the city, and in providing green approaches to Cambridge, are an important element of the setting and special character of the city.
- Areas of townscape including Chesterton (characterised by small scale Tudor and Victorian buff brick cottages, back of pavement development and narrow winding streets and lanes), New Chesterton (characterised by narrow streets with small and medium sized Victorian brick terraces with small back yards), and Newtown, Mill Road, Barnwell and Romsey Town (characterised by narrow streets in a gridiron pattern with back of pavement development and small brick terraced houses with small yards).
- The modern Cambridge Science Park and St John's Innovation Park on the northern edge of the city, with large-scale high quality commercial buildings.

- The ongoing high quality developments at Trumpington Meadows and Glebe Farm, with their distinctive urban gateway on Hauxton Road.
- A large area of landscape to the west of the city, between the city edge and the visually detracting M11. This open area of countryside provides an important foreground in views of the city, including the clearest views of the colleges and the historic core from the landscape anywhere around Cambridge. This area also contains Grantchester, a small village close to the city, and surrounds the Grantchester meadows, an area of Distinctive landscape running south from the historic core along the River Cam. The area extends to wrap around the southern fringes of the Trumpington Meadows and Glebe Farm developments, forming the immediate rural foreground to those developments.
- The green corridor running into the city from the south between Trumpington and the Hills Road area. The railway line from London passes through this corridor, which provides an important open approach into the city for rail travellers.
- An extensive area of landscape south and east of the city, including the Gog Magog Hills, which lie close to the city and provide elevated vantage points for panoramic long distance views across open countryside in the foreground, the city in the middle distance, and the open landscape beyond including the flat Fens to the north and the clay hills to the west. This area also includes lower land between Fulbourn and Cambridge, and the village of Teversham and its surrounding landscape, which incorporates areas of true Fen landscape.
- The approach to Cambridge from the north east through Fen Ditton, where the rural context to the village is an important part of the approach from the A14.
- The approach from the west along Madingley Road, where the American War Cemetery forms a distinctive feature and there is a key view over Cambridge.
- North West Cambridge was identified as Supportive landscape in LDA Design's 2002 study and remains Supportive in the expectation that the new development, as with other recent developments, will be of a quality that strengthens and enhances the identity of Cambridge.
- 4.14.16. The areas of Supportive townscape and landscape are key elements of the distinctiveness of Cambridge and its setting, and a fundamental quality of the setting and special character of the historic city.

Connective Townscape/Landscape

- 4.14.17. These are areas of townscape/landscape which are an integral part of the city and its environs, but may lack individual distinction or do not make a significant contribution to the setting of the city. This does not signify that these areas are unimportant, or lacking in their own identity; they may have significant merit in their own right. Rather, they are often areas with little relationship to their landscape setting, or to landmarks within the Historic Core or its landscape setting. Due to their location or character, they may contribute little to views of the city or other elements of its setting. Generic development forms with little sense of place can also contribute to the loss of local identity.
- 4.14.18. Areas of Connective townscape/landscape include much of the large scale suburban development to the north, east and south of the city. These areas are not distinctive to

- Cambridge but act as a relatively modern urban framework to Supportive and Distinctive parts of the city and landscape.
- 4.14.19. Connective landscape forms the remainder of the landscape from where the city is visible, or where it forms part of the foreground to more distant isolated viewpoints, with the exception of the detracting features or areas shown on Figure 11.

Visually Detracting Townscape/Landscape

- 4.14.20. These are areas or elements which detract from the distinctive and special character of the city and its setting. They may include routes, edges, built elements or districts, or degraded landscapes.
- 4.14.21. In Cambridge and its setting, areas and features of visually detracting townscape and landscape include the M11 and A14, the railway corridor within the city, the hangar buildings at Cambridge Airport, parts of Addenbrooke's Hospital and to a lesser extent a line of pylons running across the Fen and Fen Edge landscape types east of Teversham.
- 4.14.22. Views from the landscape east and south east of Cambridge are adversely affected by the presence of large, industrial and service buildings and structures in the railway corridor, at Cambridge Airport and Addenbrooke's Hospital. They detract from the edge and skyline of the city, and dominate the more subtle profiles of historic buildings in the historic core.
- 4.14.23. The M11 and A14 are busy dual carriageway roads that provide fast bypasses to the city. These surround two thirds of the city and bear no relationship to its historical development or character, or to the historical pattern and character of the landscape. They have the effect of breaking up the landscape setting to the west and north of Cambridge and limiting the area of landscape that contributes most strongly to the distinctiveness of Cambridge. This contrasts with landscape to the east of the city, which spreads from the urban edge, unbroken by such major visual detractors.

Outer Rural Areas of the Green Belt

- 4.14.24. These are areas of landscape from which distinct views of the city are scarce or absent. The function of this landscape is in providing a backdrop to views of the city, and in providing a setting for approaches to Connective, Supportive and Distinctive areas of townscape and landscape.
- 4.14.25. The remaining areas of landscape within the Green Belt provide a broader rural context to Connective, Supportive and Distinctive areas of the city. These are areas from where distinct views of the city are scarce or absent. The function of this landscape is in providing a backdrop to views of the city and in providing a setting for approaches to Connective, Supportive and Distinctive areas of townscape and landscape. Land beyond the Green Belt boundary would also fulfil this role, to a gradually diminishing extent with increasing distance from Cambridge.

4.14.26. Key points:

 Extensive areas of Distinctive townscape and landscape including the historic core, the Grange Road and West Cambridge area, and the Cam corridor including the approaches from Grantchester and Fen Ditton.

- Supportive landscape around most of the west, south and east edges of the city, where the relationship of the city to the adjacent rural landscape is an important aspect of its setting.
- Areas of Supportive townscape including the Science Park and areas of Victorian/Edwardian housing.
- Areas of Connective townscape/landscape may still be important but, depending on individual circumstances, may have potential to accommodate change.

4.15. Summary of Baseline Studies and Analysis

- 4.15.1. The studies and analysis presented in this section enable a thorough understanding of aspects of Cambridge and its surrounding landscape which are relevant to Green Belt purposes. The main findings arising from the various studies are summarised below and lead to the identification of qualities which directly contribute to the performance of Green Belt purposes, which are set out in section 5.
- 4.15.2. The main findings drawn from the studies and analysis contained in this section are:
 - From the 19th century onwards, Cambridge grew to the north, east and south but there was little expansion to the west.
 - Notwithstanding the 19th and 20th century expansion, Cambridge remains a compact city focussed around its historic core.
 - There are numerous environmental and cultural designations affecting the city and its surrounding landscape.
 - There is an extensive rights of way network with good links between the city and countryside in many places, though links are poorer in others.
 - The city has its origins at the meeting point of three landscapes which, in terms of topography and landscape character, are still readily apparent in the landscape surrounding the city at the present day.
 - Cambridge has a distinctive historic core with an important setting of open spaces including The Backs.
 - Green corridors, most particularly the River Cam corridor, extending from the countryside into the city contribute significantly to the character of Cambridge.
 - Key views of Cambridge from the surrounding landscape are important, particularly views across the city skyline with its distinctive landmarks. The rural landscape forms both a foreground and a backdrop in many views.
 - Many approaches into the city centre are green, treed and characteristic. From the
 west in particular, approaches from the countryside to the distinctive areas of the
 city are short, creating positive perceptions of the city on arrival.
 - There are significant areas of Distinctive and Supportive townscape surrounding (and including) the historic core. There are extensive areas of Supportive landscape surrounding the city to the west, south and east, reflecting the important role played by the landscape in the setting of the city.
 - The villages surrounding Cambridge are a notable feature, with their distribution reflecting the historic qualities of the landscape, and some villages very close to

the city edge. The villages have varying and distinctive character, particularly where they avoided significant $20^{\rm th}$ century development.

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5.0 Stage 4: Qualities Relevant to Green Belt Purposes

5.1. Introduction

- 5.1.1. The baseline studies and analysis presented in section 4 were undertaken to gain a good understanding of the city and its surrounding, focussing on considerations which are relevant to the performance of Green Belt purposes. From this work, it is apparent that the National Green Belt purposes and Cambridge Green Belt purposes are manifested and performed in various ways specific to Cambridge and its surrounding landscape. This section draws from section 4, and particularly the summary in section 4.15, to define 16 qualities of Cambridge and its surrounding landscape which directly contribute to the performance of Green Belt purposes.
- 5.1.2. The qualities identified in this section are largely similar to the Special Qualities identified in LDA Design's 2002 study but have been modified and expanded as necessary to address all relevant Green Belt purposes (i.e. excluding National Green Belt purpose 5 see section 2.2 of this report). Many of the qualities have also been identified in previous studies by others or in policy documents relating to the Green Belt (as identified in section 2.3).
- 5.1.3. The 16 qualities are explained in the remainder of this section and are used as the criteria for assessing the individual sectors of the Inner Green Belt in section 6. The qualities are not listed in order of importance. They are all important and each contributes to the performance of Green Belt purposes.
- 5.1.4. The table on the following pages shows the relationship between each of the 16 qualities and the National Green Belt purposes and Cambridge Green Belt purposes. The analysis in section 4 focusses on matters relevant to Green Belt purposes. From this it is clear that many aspects of the city and its surrounding landscape are relevant to more than one Green Belt purpose. The analysis presented in this section distils from section 4 to identify the 16 qualities. Reflecting the aspects identified in section 4, the majority of these qualities contribute to the performance of more than one Green Belt purpose.

| Qualities Relevant to Green Belt Purposes | National Green Belt Purposes | | | | Cambridge Green Belt Purposes | | |
|--|------------------------------|---------------|--------------------|-----------------------------|-------------------------------|---------------|---------------|
| | 1. Sprawl | 2. Merging | 3. Encroachment | 4. Setting/ Character | 1. Character | 2. Setting | 3. Merging |
| 1. A large historic core relative to the size of the city as a whole | * | | | * | * | | |
| 2. A city focussed on the historic core | | | | * | * | | |
| 3. Short and/or characteristic approaches to the historic core from the edge of the city | * | | | * | | * | |
| 4. A city of human scale easily crossed by foot and by bicycle | * | | | * | * | | |
| 5. Topography providing a framework to Cambridge | | | | * | | * | |
| 6. Long distance footpaths and bridleways providing access to the countryside | | | | * | | * | |
| 7. Key views of Cambridge from the surrounding landscape | | | | * | | * | |

| 8. Significant areas of Distinctive and Supportive townscape and landscape | | | | * | * | * | |
|--|---|---|---|---|---|---|---|
| 9. A soft green edge to the city | | | * | * | | * | |
| 10. Good urban structure with well-designed edges to the city | * | | | | | | |
| 11. Green corridors into the city | * | | | * | * | * | |
| 12. The distribution, physical and visual separation of the necklace villages | | * | | * | * | * | * |
| 13. The scale, character, identity and rural setting of the necklace villages | | * | | * | | * | * |
| 14. Designated sites and areas enriching the setting of Cambridge | | | | * | | * | |
| 15. Elements and features contributing to the character and structure of the landscape | * | | | * | | * | |
| 16. A city set in a landscape which retains a strongly rural character | | | * | * | | * | |

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5.2. Qualities

1. A Large Historic Core Relative to the Size of the City as a Whole

- 5.2.1. This quality is concerned with compactness, identified by Holford and Myles Wright in their 1950 report (The Holford Report) as being an important characteristic of the city. Cambridge Green Belt purpose 1 refers to 'a compact, dynamic city with a thriving historic centre'. In addition to being a key part of the special character of the city, it is also relevant to the issue of urban sprawl, which would reduce the relative size of the historic core in proportion to the size of the entire city.
- 5.2.2. There are probably no towns in England which are 'historic' in the sense that they are completely ancient, unspoilt and without more modern development. Some small villages are almost entirely 'historic', but none of the classic historic cities, such as Durham, Bath, York or Cambridge are unaffected by modern development. Nevertheless, we still refer to such cities as 'historic' and it is reasonable to assume that the term 'historic towns' in the NPPF is intended to cover the settlements just mentioned, including Cambridge. Thus, a historic town, for the purposes of the NPPF, will have a significant area of historic development, typically the core, and additional areas of more recent development, typically on the peripheries. This is the pattern seen in Cambridge.
- 5.2.3. Many towns have older cores, sometimes so ancient that they could reasonably be described as 'historic'. However, where these historic cores are small in proportion to the town or city as a whole, few would argue that this would make the whole settlement 'historic'. For example, Peterborough has a historic core around the cathedral, but that city is dominated by more recent development, including large areas of 'new town'. Cambridge, by contrast, has a relatively large area within the historic core, compared with the size of the city as a whole, and is regarded as a historic settlement.
- 5.2.4. The contrasting examples of Peterborough and Cambridge explain the significance of the balance between the historic core and the non-historic periphery to the perception of a settlement and whether it could be described as a historic town. If a small historic core is swamped by more modern peripheral development, as at Peterborough, it is difficult to describe the settlement as a whole as historic.
- 5.2.5. In the case of Cambridge, its special historic character depends not only on the relatively large and intact historic core, but also on the fact that this has not been 'swamped' by more recent development. Despite the presence of business parks and post-war peripheral housing estates and other development, the scale of the historic core relative to the overall city is such that Cambridge still retains its historic character. If substantial peripheral development were to be permitted in Cambridge, more modern development would begin to dominate and, as the scale of the historic core is fixed, it would be inevitable that the overall historic character of the settlement would begin to be eroded. If Cambridge were to grow beyond a certain point, it would no longer have the character of a historic city, but rather would become merely a city with a historic core a very different character of settlement.
- 5.2.6. Cambridge has grown to the point where the balance of scale between the historic core and more modern peripheral development is approaching the threshold where it would become an ordinary city with a historic core, and one of the country's finest

- historic settlements would be irretrievably lost. This threat is greatest to the east and south of the city, where development has extended furthest from the historic core in a largely unstructured way that gives the impression of urban sprawl.
- 5.2.7. The issue of scale is, therefore, of vital significance to the protection of the special character of Cambridge. It needs to retain the feeling of being a small city, one still dominated by its historic core, if it is to retain its special character. The Green Belt has an essential role to play in this and the prevention of sprawl.

2. A City Focused on the Historic Core

- 5.2.8. This quality is also relevant to compactness and to Cambridge Green Belt purpose 1. The study by Colin Buchanan and Partners in 2001 (The Buchanan Report) emphasised the importance of the city's historic core and associated university colleges as part of the special character of Cambridge. The buildings and historic core are also identified as Defining Character in the Cambridge Landscape Character Assessment of 2003 (CLCA).
- 5.2.9. Section 4.2 of this report describes how Cambridge did not expand much beyond its medieval limits until the 19th century. Today, despite extensive expansion since that time, Cambridge is formed of a network of neighbourhood hubs and commercial areas or developments (such as industrial development around the railway and Cambridge Science Park) located around a single core, which is focused on the medieval area. The core is a vibrant social, cultural and economic focus to the city. There is a finite number of compact, single centred historic cities in the England and this aspect of Cambridge is an important quality that should be safeguarded. The Green Belt plays an important role in this.
- 5.2.10. There is a danger that, if the city expands much beyond its current size, the existing core will not be accessible to residents of the outer areas of the city due to the distance, and inconvenience of travelling, between residential areas and the centre. This might lead to the development of alternative urban cores that provide the economic and social focus for large areas of the city, competing with the historic centre and irretrievably altering the historic form and function of Cambridge.

3. Short and/or Characteristic Approaches to the Historic Core from the Edge of the City

- 5.2.11. This quality is again associated with compactness and sprawl and is also key to the perception of Cambridge as a historic city when approaching and arriving. The Holford Report identified 'open countryside near the centre of the town on its west side' as an important characteristic, which is reflected in short, characteristic approaches to the historic core from the west. The importance of a sense of arrival is also emphasised in the CLCA.
- 5.2.12. Approach routes into Cambridge provide the viewpoints from which most visitors see the city and gain their initial perception of it. The nature of the approach between the urban gateway and Distinctive Cambridge (for example whether it is short, attractive and characteristic of Cambridge or long and unremarkable) plays an important role in determining people's impression of the city, and whether they perceive it as a special, 'historic' city. Distance and travel time between open countryside and Distinctive Cambridge, and the quality and character of the peripheral development passed through, also contribute to people's perception of the scale of the city, and whether it is

- a historic city dominated by the historic core, or an ordinary city with a historic core dominated by modern development.
- 5.2.13. Short and/or characteristic approaches are shown on Figure 10. The shortest and most characteristic approaches between open countryside and distinctive Cambridge lie to the south and west. These are described in section 4.11 and comprise Madingley Road, Barton Road, Grantchester Road, Huntingdon Road and Trumpington Road, as well as the two rural approaches along the green Cam corridor. These routes, in particular, play an important role in the setting of the city.
- 5.2.14. Railway lines into Cambridge from the south and east (see section 4.11.6) pass through open countryside or green landscape almost to the station. Although the station is some distance from Distinctive areas of the city, it is an important disembarkation point for many people arriving in Cambridge. These approaches should be safeguarded.
- 5.2.15. It is also important that longer and unremarkable approaches into the city are not degraded further as they all play a role in contributing to people's perception of Cambridge. In particular, ribbon development along all routes into Cambridge should be avoided, especially where this would narrow the gap between the city and necklace villages.
- 5.2.16. Section 4.11.7 describes how the countryside around Cambridge and penetrating into urban areas is within easy access of many neighbourhood communities and the city centre. It is important that these links are preserved, and opportunities for the creation of additional links should be considered.

4. A City of Human Scale Easily Crossed by Foot and by Bicycle

- 5.2.17. This quality is also concerned with compactness and sprawl but is unrelated to Cambridge's historic character. It is concerned with how people living and working in the city perceive its compact scale in their day to day lives.
- 5.2.18. Cambridge has a tradition of cycling. Much of the population, particularly students, travel the city by foot or by bicycle. This is made possible by the relatively small size of the city. As Cambridge expands, so does the distance of travel between different parts of the city.
- 5.2.19. The average UK cycle journey in 2014 was 3.1 miles or 5km (National Travel Survey 2014, Department for Transport, 2015). The distances along certain routes between the city centre and current edges of Cambridge are:
 - Hills Road 4.6km, Fulbourn Road 5.5km, Newmarket Road 4.6km, Milton Road 4.9km, Histon Road 3.5km, Huntingdon Road, 3.7km, Madingley Road 3.3km, Barton Road 2.4km, Trumpington Road 5.5km.
- 5.2.20. The length of several of these approaches is close to or exceeds the national average cycle journey, implying that further expansion of the city in these directions could become a deterrent to cycling.
- 5.2.21. The centre and the west sides of Cambridge are of a small, human scale and easily crossed by foot and bicycle. This is a quality of Cambridge, in which the Green Belt plays an important part.
- 5.2.22. The north, east and south sides are much larger and the quality of Cambridge as a city of human scale, easily crossed by foot and by bicycle, has already been eroded. Further

erosion of this quality can be prevented by ensuring that Cambridge does not expand significantly further, and by creating and managing a good network of paths and cycleways.

5. Topography Providing a Framework to Cambridge

- 5.2.23. This quality is central to understanding the setting and history of the city, reflecting Cambridge's origins and location at the meeting point of three landscapes. Holford referred to the importance of excluding development 'from the foothills of the Gogs'. The significance of topography as a component of the setting of the city is recognised in the CLCA, which identifies 'high ground' as Defining Character.
- 5.2.24. The landform surrounding Cambridge is discussed in section 4.6 and illustrated on Figure 6. The importance of topography in contributing to the setting and special character of the city as seen from key viewpoints is discussed in section 5.2.7.
- 5.2.25. It is important that the historical relationship between built development and landform is understood and preserved. Cambridge was established on a bridging point of the River Cam and has expanded into surrounding low lying areas of landscape. It has not developed up onto the sides of hills to the west and south east, or onto floodplains of the River Cam, its tributaries, or the fens. The lack of development on the floodplain of the River Cam has led to the creation of a distinctive green corridor through the heart of the historic city, linking open countryside with the historic core. The relationship of the city to the topography is one of the key defining qualities of Cambridge. It is important that any future development respects the historical relationship between built development and landform so that this aspect of the setting and special character of Cambridge is preserved.

6. Long Distance Footpaths and Bridleways Providing Access to the Countryside

- 5.2.26. Once Green Belts have been defined, the NPPF states that they have positive roles to play, including "looking for opportunities to provide access" (paragraph 81). The accessibility of the countryside surrounding Cambridge is an important aspect of its setting, enabling people to appreciate the landscape setting and the relationship between the city and countryside.
- 5.2.27. Long distance footpaths and cycleways in the Cambridge Green Belt are discussed in section 4.5 and shown on Figure 5. They provide important recreational links between the city and its setting, and also viewpoints and approaches from which people gain a perception of Cambridge. These long distance routes, and also shorter, local footpaths and bridleways providing access into the countryside in the immediate vicinity of Cambridge, are important qualities of the setting and special character of the city that should be preserved and continue to be enhanced.

7. Key Views of Cambridge from the Surrounding Landscape

- 5.2.28. This quality is also an important element of the setting of Cambridge. Views of the historic core are one of the aspects stated in the Structure Plan 2003 to be of particular importance to the quality of the city. They are also identified as Defining Character in the CLCA and are identified in the South Cambridgeshire Core Strategy 2007 (SCCS) as an aspect of the special character of Cambridge.
- 5.2.29. Key views of Cambridge from the landscape are described in section 4.10 and illustrated on Figure 9. These views are limited, largely due to extensive areas of relatively flat topography, with only a few areas of high ground providing elevated

- viewpoints, but also due to the presence of extensive urban areas south and east of the city separating distinctive landmarks or features of the city from the landscape. Skyline views of University and College buildings, church spires and towers and other distinctive features are limited and often distant, and frequently disrupted by visually detracting buildings and structures and a framework of extensive, indistinct urban form.
- 5.2.30. There are, however, a number of viewpoints that are important and the qualities of these views should be preserved and, where possible, enhanced. The viewpoints identified on Figure 9 are the most important, as it is from these locations that people can best appreciate the various qualities of Cambridge. All viewpoints identified provide different views of landmark features or defining characteristics of the city.
- 5.2.31. The four best examples are Red Meadow Hill within Coton Countryside Reserve to the west of the M11, Chapel Hill on the Green Belt boundary south of Haslingfield and Magog Down and Worts' Causeway to the south east of the city, . From these viewpoints many of the qualities described in this section can be appreciated including the compact nature of the city, the rural landscape setting, the proximity and nature of surrounding villages, the green, treed appearance of much of the city and its urban/rural interface, landform providing a framework to Cambridge, and many of the elements and features of the townscape and landscape that contribute positively to its setting and special character. It is essential that the qualities of these and other key views be preserved.
- 5.2.32. Two views of Cambridge in 1688 appear on Figure 20, the lower image being the view from the west. Photograph 1 on Figure 15 taken from Red Meadow Hill shows that, because development has been limited on the west side of the city, the quality of views of that side of the historic city, with open countryside and a soft green edge, and landmark historic buildings clearly visible and largely unaffected by modern development, has remained substantially intact over the last 300 years (see also the cover photograph on this report). This is the perception that many people gain of Cambridge as they pass on the M11, and is therefore of great importance. The quality of views, and of the appearance of the city from the west, is a special quality of the setting and special character of the historic city that is important to safeguard.
- 5.2.33. The views of Cambridge from other sides of the city are very different and the historic buildings are either dominated by more modern peripheral development, or not visible due to the much greater distance between the historic core and the city edge. Views from the east at the present day have changed considerably from the top image on Figure 20 and, although there are some key views of the historic buildings from the countryside, they are more distant and dominated by a foreground of suburban and commercial development including massive elements on the city edge such as the hangar buildings at Cambridge Airport and Addenbrooke's hospital. The nature of these views can be seen from Photograph 9 on Figure 19. Although these views are spoilt by the mass of peripheral development, care must be taken to ensure any remaining key views are not degraded further by inappropriate peripheral development.
- 5.2.34. Many of the qualities of Cambridge can also be appreciated from other viewpoints that are not shown on Figure 9. Views of the whole city in its landscape setting are not possible from these locations but different qualities can be appreciated to a greater or lesser extent and it is important that they are preserved and, where appropriate,

- enhanced. The Green Belt has an important role to play in this.
- 5.2.35. Motorists passing on the M11 have views of Cambridge, seen across a rural foreground. The presence of agricultural land alongside the M11, across which landmark buildings in the core of the city are seen, gives the impression of a compact city in a rural setting and it is important that this is preserved. In contrast, views from the A14 are very different, with modern development extending out to the A14 in many places, relatively narrow areas of agricultural land remaining in others and the extensive northern suburbs screening views of most key landmarks.

8. Significant Areas of Distinctive and Supportive Townscape and Landscape

- 5.2.36. Section 4.14 demonstrates how areas of Distinctive and Supportive townscape and landscape contribute most strongly to the distinctiveness of Cambridge and its setting. They are, therefore, important areas to protect. However, as discussed in that section, these areas are not in every respect of greater importance than the remaining areas of influence (with the exception of Visually Detracting Townscape/Landscape), as all areas play a crucial role in the setting and perception of the city. The importance of Connective Townscape/Landscape and Outer Rural Areas lies in linking between and forming a foil to areas of Historic Core and Distinctive and Supportive townscape and landscape.
- 5.2.37. Figure 11 identifies Distinctive and Supportive townscape and landscape as the most essential areas to be safeguarded from the adverse effects of development. However, other areas should also be safeguarded from change which would cause adverse effects on the qualities of the setting and special character of Cambridge.

9. A Soft Green Edge to the City

- 5.2.38. The Buchanan Report referred to the interface between the city and the countryside as being an aspect of Cambridge's special character and the CLCA refers to edges as having the potential to be either Defining Character or Supporting Character. Soft green edges contribute significantly to the setting of the city, particularly on its west side. They also play a role in National Green Belt purpose 3 in reducing the urbanising influences of the built area on the adjacent countryside.
- 5.2.39. A distinctive feature of Cambridge is its appearance as a densely treed city with a soft, green edge merging into an agricultural landscape. Where new, and particularly large scale, development occurs on the edge of the city and forms a boundary that appears abrupt and predominantly hard (such as the A14, Cambridge Airport buildings and Addenbrooke's Hospital) it does not contribute positively to the setting and special character of Cambridge. Large scale developments currently under construction present hard or disrupted edges to the countryside at present. However, their masterplans indicate that significant planting is proposed along the new edges which will in time soften them.
- 5.2.40. It is important to preserve existing soft green edges and to seek opportunities for planting to improve existing or future city edges which lack this quality.

10. Good Urban Structure with Well Designed Edges to the City

5.2.41. This quality is of relevance to National Green Belt purpose 1. One of the factors that contributes to urban sprawl is poorly designed urban edges which do not create a well considered long-term edge to a city. Because the city edge does not appear 'finished', it can be easy to justify greenfield development beyond the existing edge, extending

- the city further and creating sprawl. Many of the edges around the east side of Cambridge are poorly designed, which may lead to pressure for future development in these areas.
- 5.2.42. From the available plans, developments currently under construction will have a good urban structure and provide well designed edges to the city that can be expected to endure for the long term. The Glebe Farm development along Addenbrooke's Road, where the new edge has been completed, meets this standard.

11. Green Corridors into the City

- 5.2.43. The Holford Report referred to 'green wedges along the river' as being an important quality and they are also identified as such in the Buchanan Report, the City Council's 2002 Inner Green Belt Boundary Study, the Structure Plan 2003, the CLCA and the SCCS. They are key components of the character and setting of the city and also play an important role in maintaining urban structure and thus reducing sprawl. They are the only quality to be specifically mentioned in the Cambridge Local Plan 2006.
- 5.2.44. Section 4.9 describes the importance of green corridors in providing green links between the city and the open countryside around Cambridge. These corridors should be safeguarded from development that would harm their character or compromise their function.
- 5.2.45. The Cam corridor is a key defining element of historic Cambridge and its setting and it is essential that it should be preserved. The Hobson's Brook green corridor should remain open and provides opportunities for enhanced access between the city and the countryside, as is beginning to occur as a result of the ongoing developments at Addenbrooke's Hospital and Clay Farm. The green corridor in West Cambridge emphasises the proximity of countryside to the distinctive core of the city and contributes to the green edge to the city as seen from the west; it is of great importance that it is preserved.

12. The Distribution, Physical and Visual Separation of the Necklace Villages

- 5.2.46. This quality is also mentioned in the Holford Report, the Buchanan Report, the City Council's 2002 Inner Green Belt Boundary Study, the Structure Plan, the CLCA and the SCCS. It has long been regarded as an important component of the character and setting of the city and is clearly related to National Green Belt purpose 2.
- 5.2.47. Section 4.12 discusses the spatial distribution of villages around Cambridge and the extent of their physical separation from the city. It is essential to preserve their pattern of distribution and their physical separation from other settlements. 20th century development led to coalescence between the villages of Histon and Impington and between Great Shelford and Stapleford. It also led to the coalescence of villages such as Cherry Hinton with Cambridge. The identity of each of these villages has been significantly compromised as a result. Trumpington is becoming absorbed into Cambridge but at present retains its own identity to a significant degree.
- 5.2.48. The proximity of Grantchester, Fen Ditton and Teversham to Cambridge, while all of them retain a strong sense of being villages in a rural landscape, is a very positive element of the setting of Cambridge. They are easily reached from nearby areas of the city, offering residents (and in the case of Grantchester, many visitors) the chance to experience a very different kind of environment.

5.2.49. The Green Belt provides protection for the countryside around and between settlements. Although all areas of open countryside in the Green Belt play a role to a greater or lesser extent in separating settlements, those areas of land that are considered to be most critical in separating settlements within the immediate setting of Cambridge must be protected. The role of individual areas in maintaining separation between settlements will require careful consideration of topography and vegetation, which can prevent intervisibility, and of land that is perceived as being part of the setting of a particular village and thus 'belonging' to that village rather than another.

13. The Scale, Character, Identity and Rural Setting of the Necklace Villages

- 5.2.50. The Buchanan Report specifically refers to the character of the villages surrounding the city, and the qualities of setting, scale and character of the villages are also referred to in the SCCS. The varying sizes and character of the villages, each with their own distinct identity, is an important component of the setting of the city.
- 5.2.51. Section 4.13 discusses the character, identity and setting of the necklace villages in broad terms. As discussed in relation to quality 12, their distribution and proximity to Cambridge also contribute to their identity and how they are perceived.
- 5.2.52. It is apparent that the villages that saw significant growth in the 20th century have become more generic and are less distinctive than those that saw little growth, where the historic character and the relationship between all parts of the village and the surrounding landscape remains largely intact. It is therefore essential that the smaller villages in particular retain their existing scale and their differing forms (e.g. the linear form of Fen Ditton, compared with the more nucleated forms of other villages).
- 5.2.53. The rural setting of villages is also a fundamental component of their character. Despite the proximity of Cambridge, all the villages within the study area retain an entirely or largely rural character and it is essential that this should remain the case.
- 5.2.54. The Green Belt has a critical role to play in protecting these qualities of the necklace villages.

14. Designated Sites and Areas Enriching the Setting of Cambridge

- 5.2.55. Designated sites are identified as Supporting Character in the CLCA or, in some circumstances, potentially Defining Character. The SCCS identifies them as a component of the special character of Cambridge.
- 5.2.56. All features, sites and areas covered by environmental, cultural and access designations (as discussed in sections 4.3-4.5 of this report and shown on Figures 3-5 and 12-14) are important elements that enrich the appearance of the landscape and people's experience of it. They are all part of the setting and special character of Cambridge that should be preserved.

15. Elements and Features Contributing to the Character and Structure of the Landscape

5.2.57. This quality is defined as Supporting Character or, on occasion, Defining Character in the CLCA and is identified in the SCCS as a component of the special character of Cambridge. In addition to contributing to the character and setting of the city, this quality is relevant to National Green Belt purpose 1 in that a strong landscape structure provides containment and natural barriers to inhibit urban sprawl.

- 5.2.58. There is a pattern of elements and features within the city and the landscape, ranging from large scale features such hills, rivers, woodlands and tall University buildings, to smaller scale elements such as hedgerows, farm buildings, and a network of smaller watercourses (e.g. ditches and streams in the Fen and Claylands landscape types, and spring fed streams in the Chalklands), that are fundamental to the character of different landscape character areas discussed in section 4.8, and also to the setting and special character of Cambridge. These are too numerous and widely spread to illustrate on a plan and many are identified as qualities to be preserved in other sections of this report. Some, such as the River Cam and its floodplain, or the open Gog Magog Hills, are fundamental to the setting and special character of Cambridge and should be preserved as a particular priority. Others, such as hedgerows or small watercourses, will need consideration as part of policy or management initiatives, or on an individual basis. As a general principle they should be preserved but, subject to detailed assessment, it might be possible to respect or preserve these smaller elements within new development.
- 5.2.59. There are some elements and features that are visually detracting to the setting and special character of Cambridge, such as the M11, the A14, the hangar buildings at Cambridge Airport, some parts of Addenbrooke's Hospital and to a lesser extent pylons running from Cherry Hinton across the landscape east of Teversham (see Figure 11). The adverse effects of these should, where possible, be mitigated against through landscape enhancement schemes.

16. A City Set in a Landscape which Retains a Strongly Rural Character

- 5.2.60. The 'open countryside near the centre of the town on its west side' is identified as important in the Holford Report, and the SCCS identifies this quality as a component of the special character of Cambridge. In addition to character and setting, it is also relevant to National Green Belt purpose 3, in that a strongly rural landscape indicates that encroachment on the countryside is being resisted, whereas countryside that is significantly affected by urban influences creates a perception of encroachment.
- 5.2.61. The predominant land use within the Green Belt is arable agriculture with local areas of livestock grazing on areas that include the water meadows beside watercourses. Other land uses are interspersed, and a variety of elements and features. The overriding character of the setting of Cambridge is rural, with a greater density of settlements in certain areas than others, as described in sections 4.12 and 4.13.
- 5.2.62. It is important that the landscape surrounding Cambridge retains this rural character. The rural nature of the landscape around Cambridge is a key quality of the setting and special character of the city, particularly in providing a setting to the urban form when seen from key views, in providing settings to necklace villages, and in contributing to people's perception of the city as they approach it along communication routes.
- 5.2.63. The rural setting of Cambridge is of great significance within the immediate vicinity of the city. It is here that the rural landscape should be most strongly preserved, or opportunities taken to restore or enhance the rural character. Soft green edges to the city contribute to this by reducing perception of the urban area from the adjacent countryside, thus reducing urbanising influences on the rural landscape.
- 5.2.64. The rural landscape setting is especially apparent in the area west of the city, where the presence of agricultural land immediately adjacent to Distinctive townscape areas and extending into the city close to the historic core is particularly important.

5.2.65. The rural landscape also plays a key role in the foreground and backdrop to views towards and across the city, and in the setting of the necklace villages.

Cambridge Inner Green Belt Boundary Study

Figures

November 2015

^A 17 Minster Precincts

Peterborough PE1 1XX United Kingdom

T+44 (0) 1733 310 471

F+44 (0) 1733 553 661

W www.lda-design.co.uk

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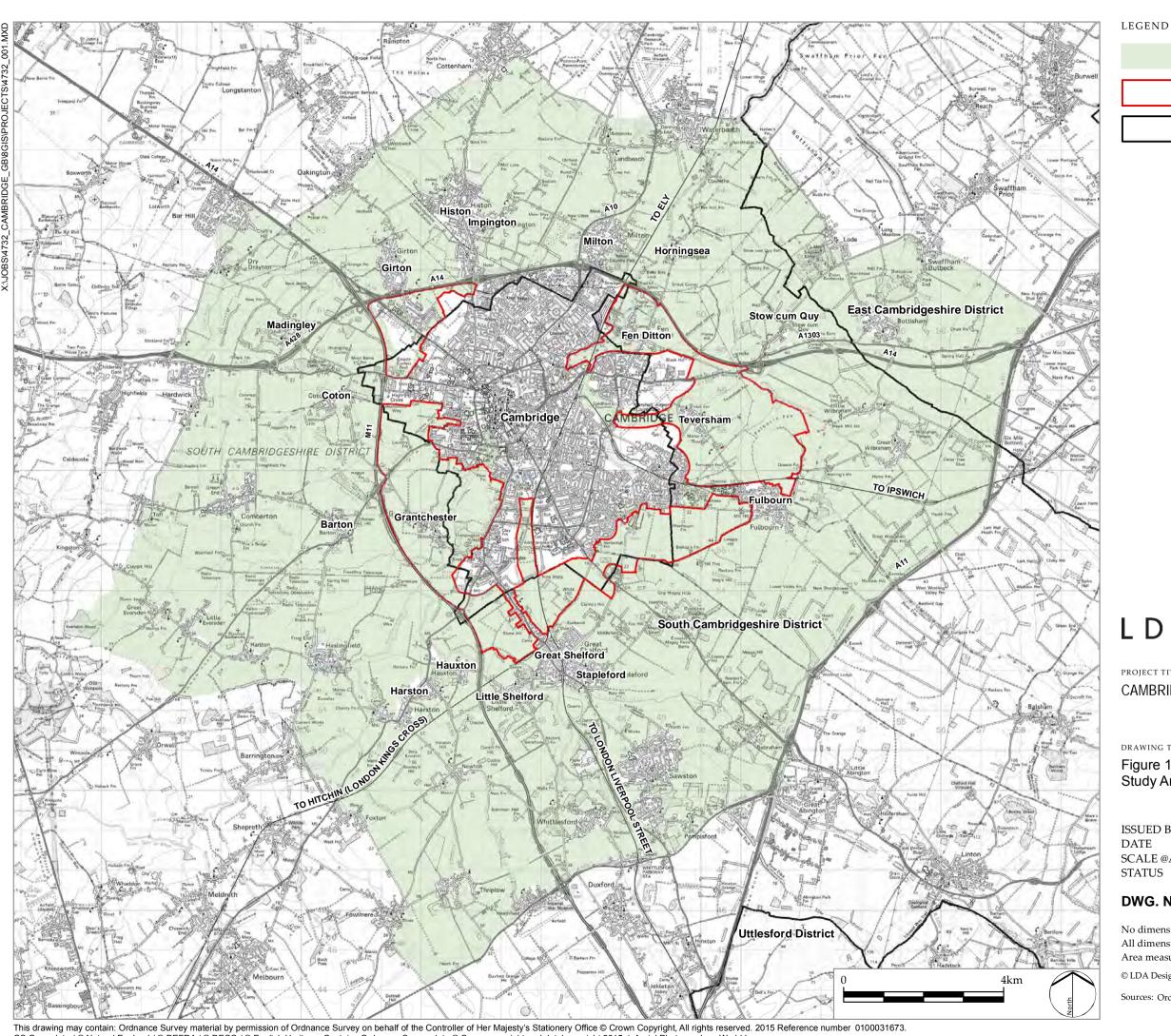
Figure 20: Historic Views

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Version date: 05 November 2015

Comment Fin

This document has been prepared and checked in accordance with ISO 9001:2000.



Green Belt

Study Area Boundary

District Boundary

PROJECT TITLE

CAMBRIDGE GREEN BELT STUDY

DRAWING TITLE

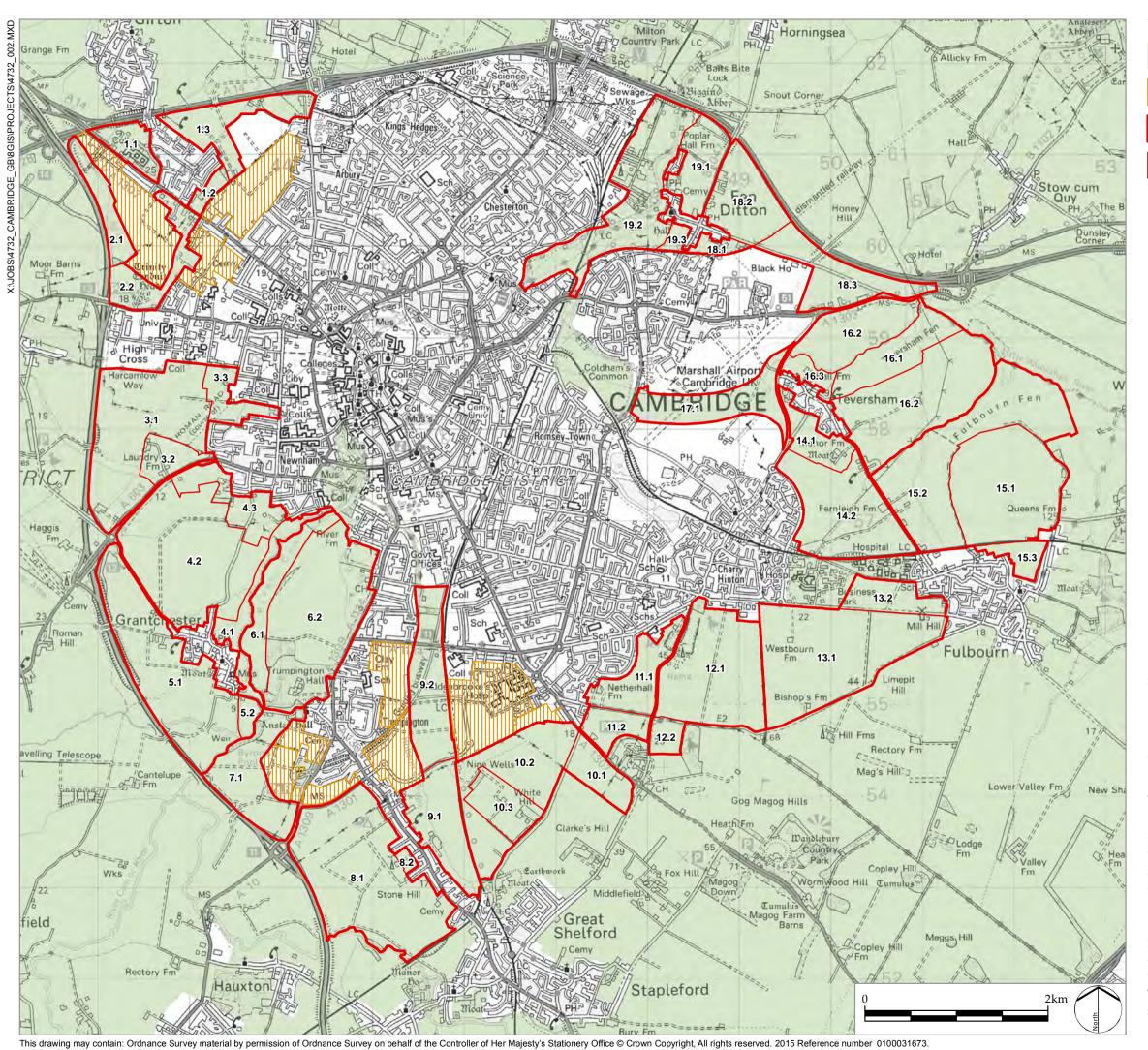
Figure 1: Study Area

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LEGEND Green Belt Developments under construction / permitted Assessment Sectors

Assessment Sub Areas

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Figure 2:

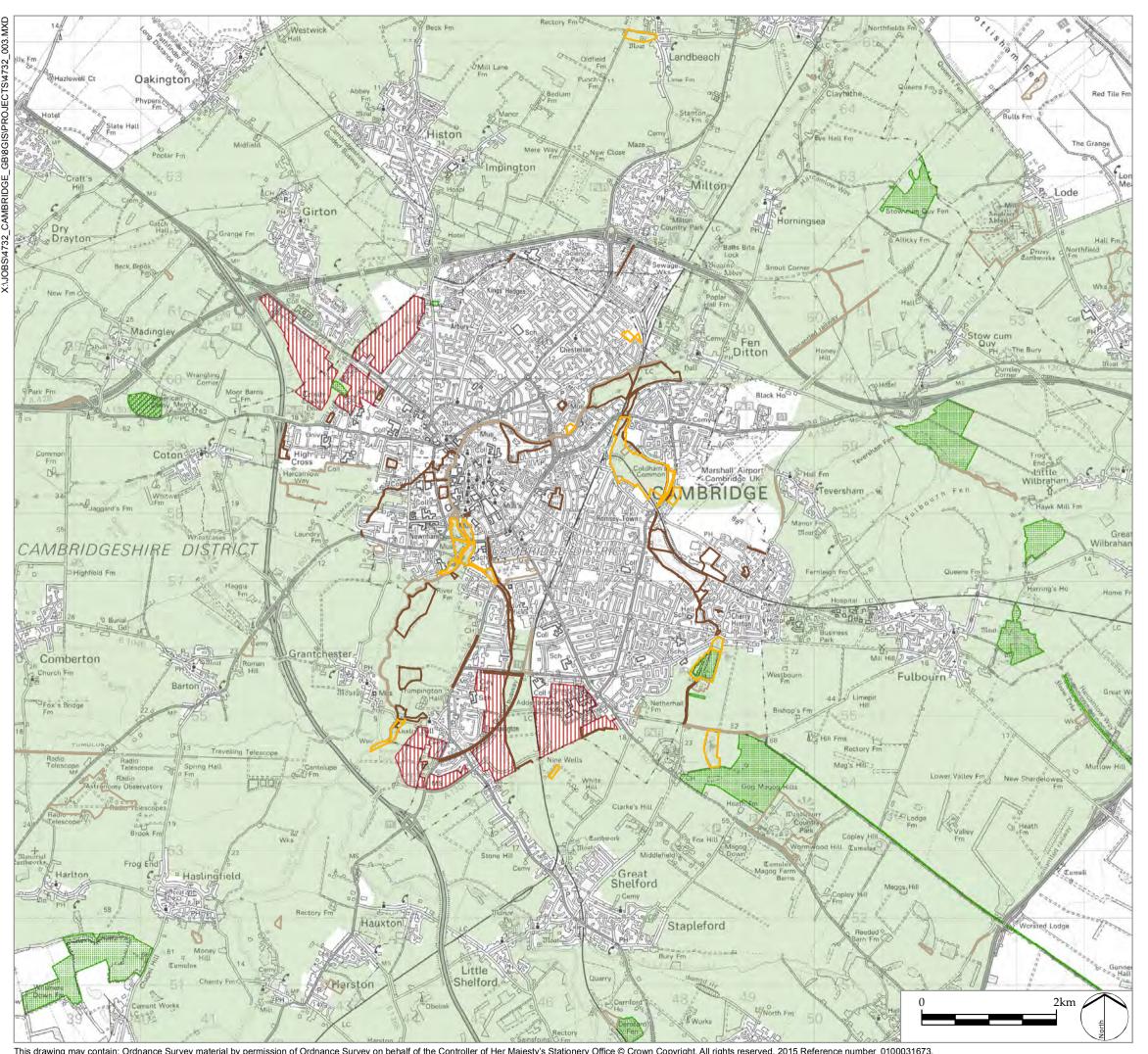
Assessment Sectors and Sub Areas

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PROJECT TITLE

LEGEND

Green Belt

Ancient Woodland

County Wildlife Site

Local Nature Reserve

City Wildlife Site

Developments under construction/permitted

Site of Special Scientific Interest

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Figure 3:

Environmental Designations

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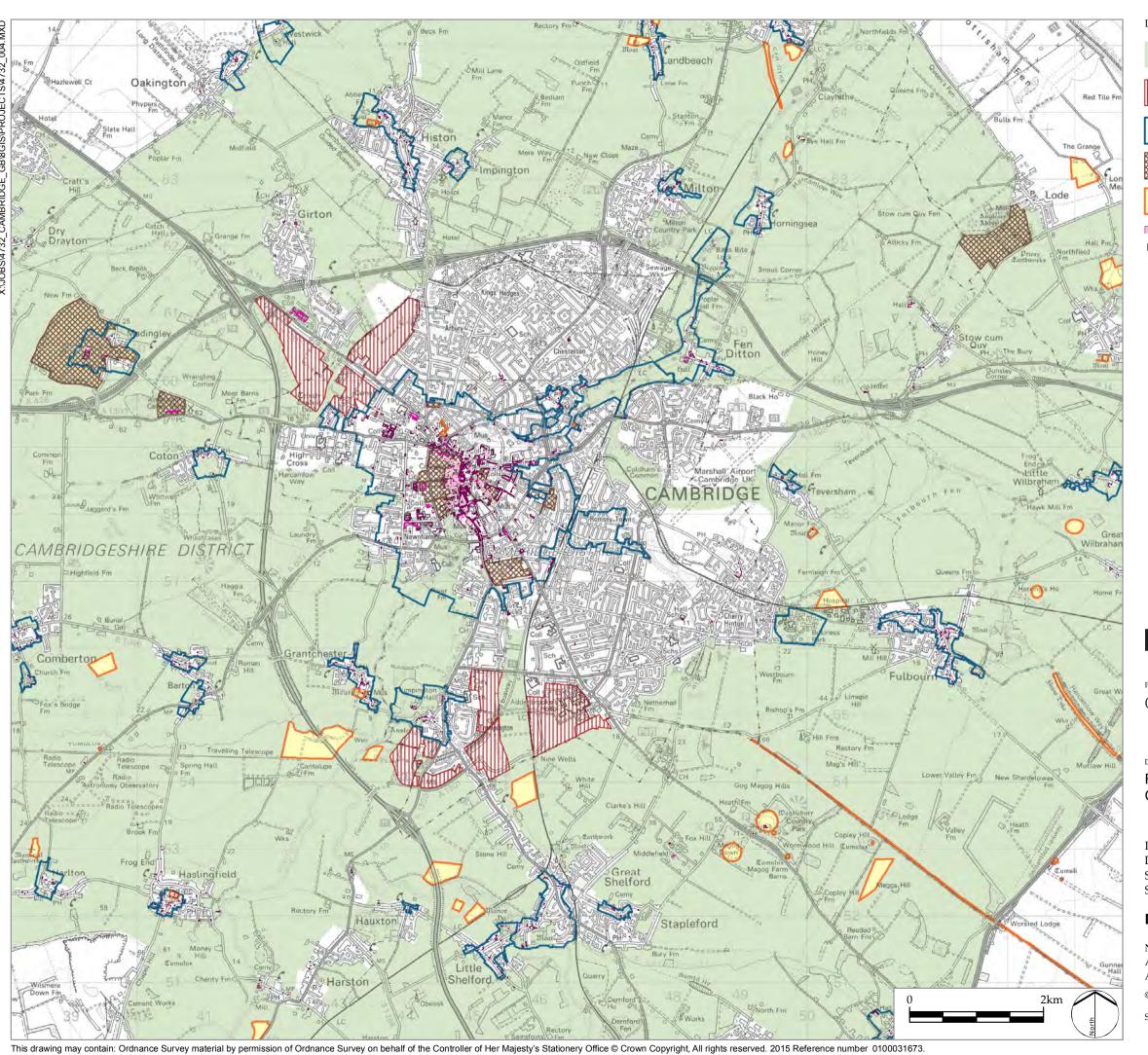
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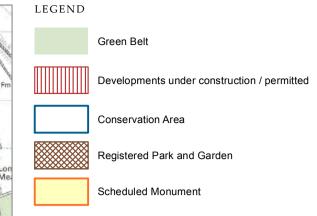
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Listed Building

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Figure 4: **Cultural Designations**

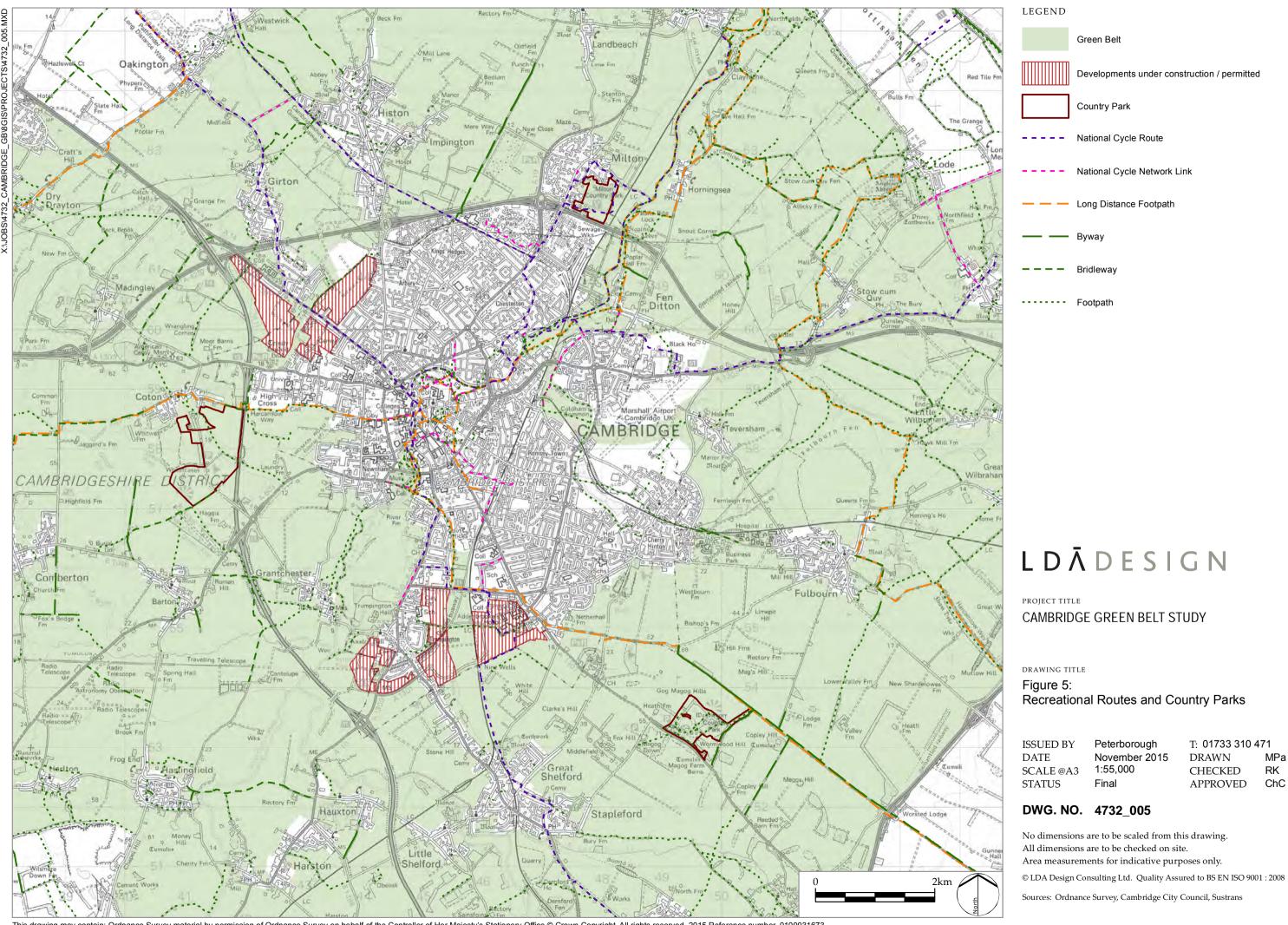
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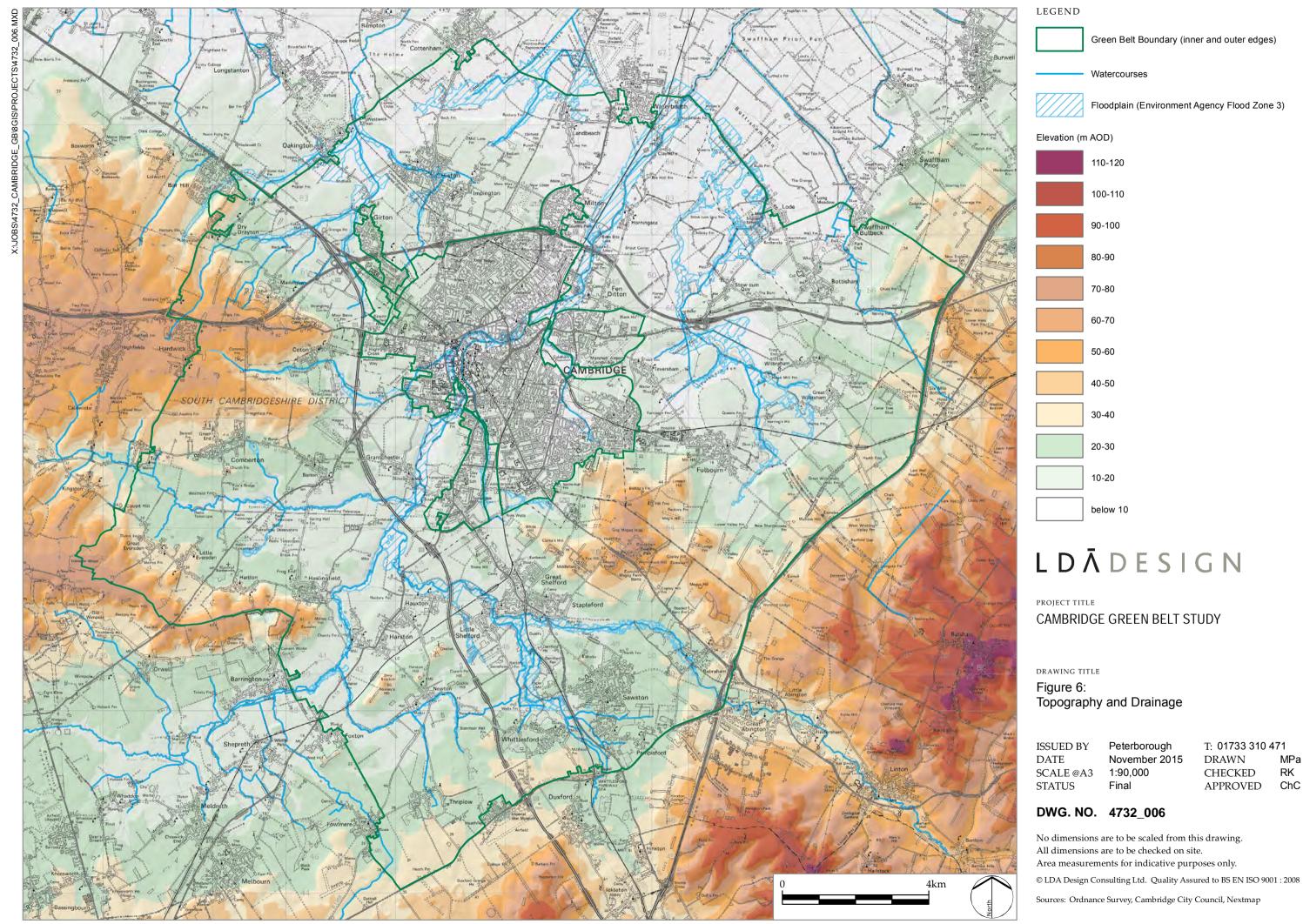
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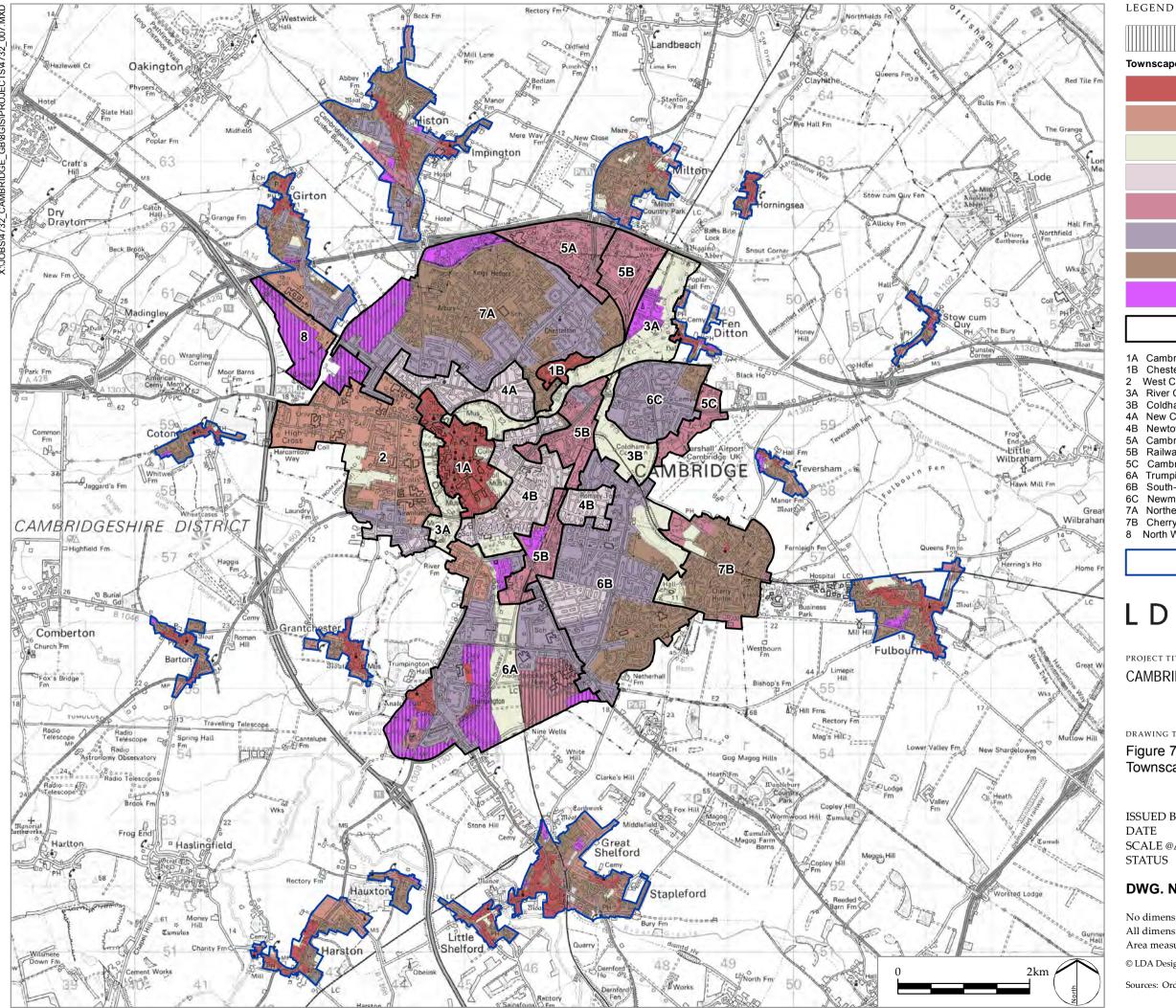
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- 1B Chesterton Village
- 2 West Cambridge
- 3A River Cam Corridor
- 3B Coldham's Common
- 4A New Chesterton
- 4B Newtown, Mill Road, Barnwell and Romsey Town
- 5A Cambridge Science Park and St Johns Innovation Park
- 5B Railway Corridor
- 5C Cambridge Airport 6A Trumpington and Hills Road
- 6B South-eastern Suburban Estates 6C Newmarket Road Suburban Estates
- 7A Northern Suburban Estates
- 7B Cherry Hinton
- 8 North West Cambridge
- Necklace Village

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Figure 7:

Townscape Character

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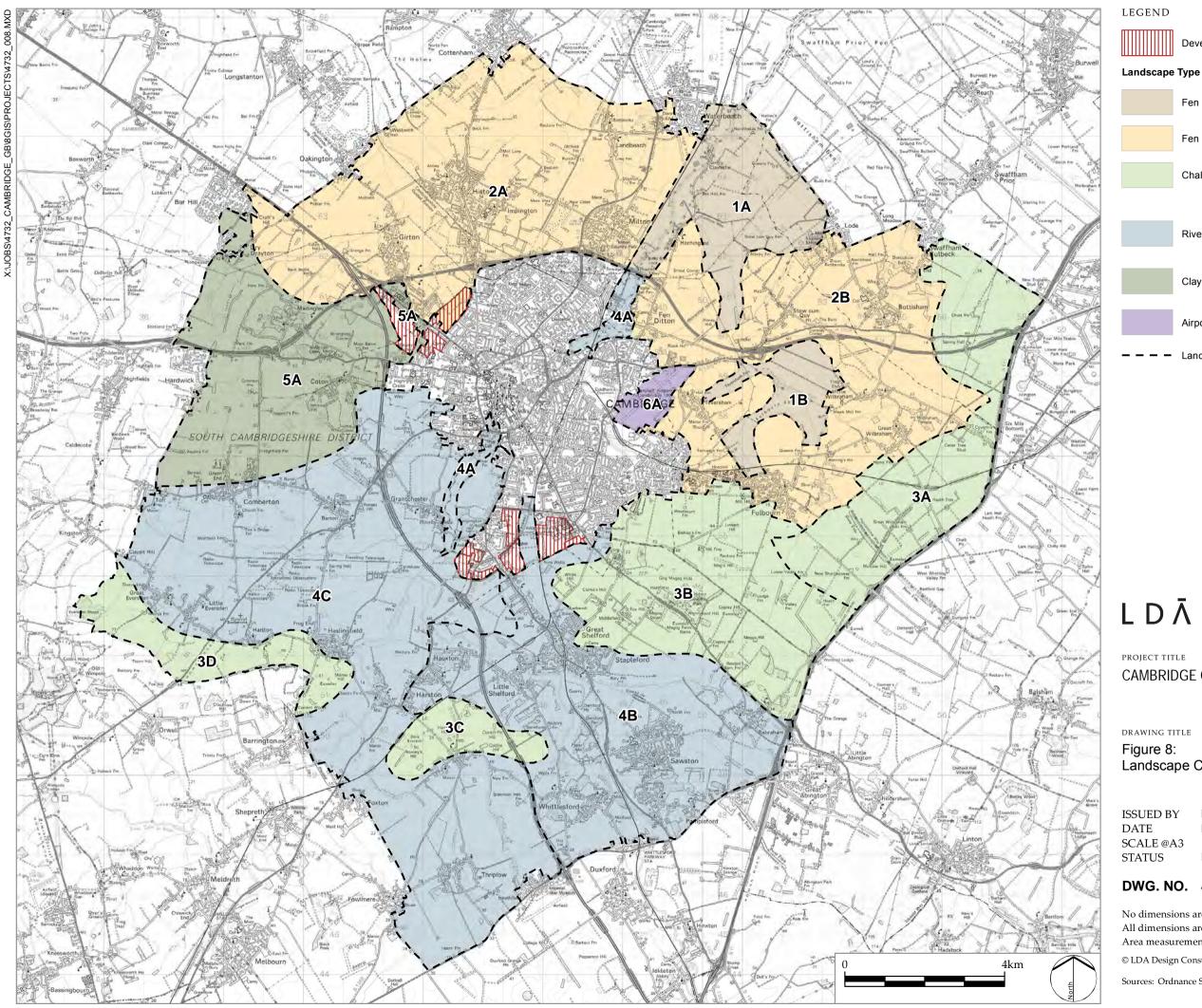
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LDĀDESIGN

Developments under construction / permitted

Fen

Fen Edge

Chalk Hills

River Valleys

Claylands

Landscape Character Area

1A. Waterbeach - Lode Fen1B. Little Wilbraham Fen

2A. Western Fen Edge2B. Eastern Fen Edge

3A. North East Chalk Hills

3B. Gog Magog Chalk Hills 3C. Newton Chalk Hills 3D. Wimpole Ridge Chalk Hills

4A. River Cam Corridor4B. Granta Valley4C. Rhee and Bourn Valleys

5A. Western Claylands

6A. Cambridge Airport

Landscape Character Area boundary

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CAMBRIDGE GREEN BELT STUDY

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Landscape Character

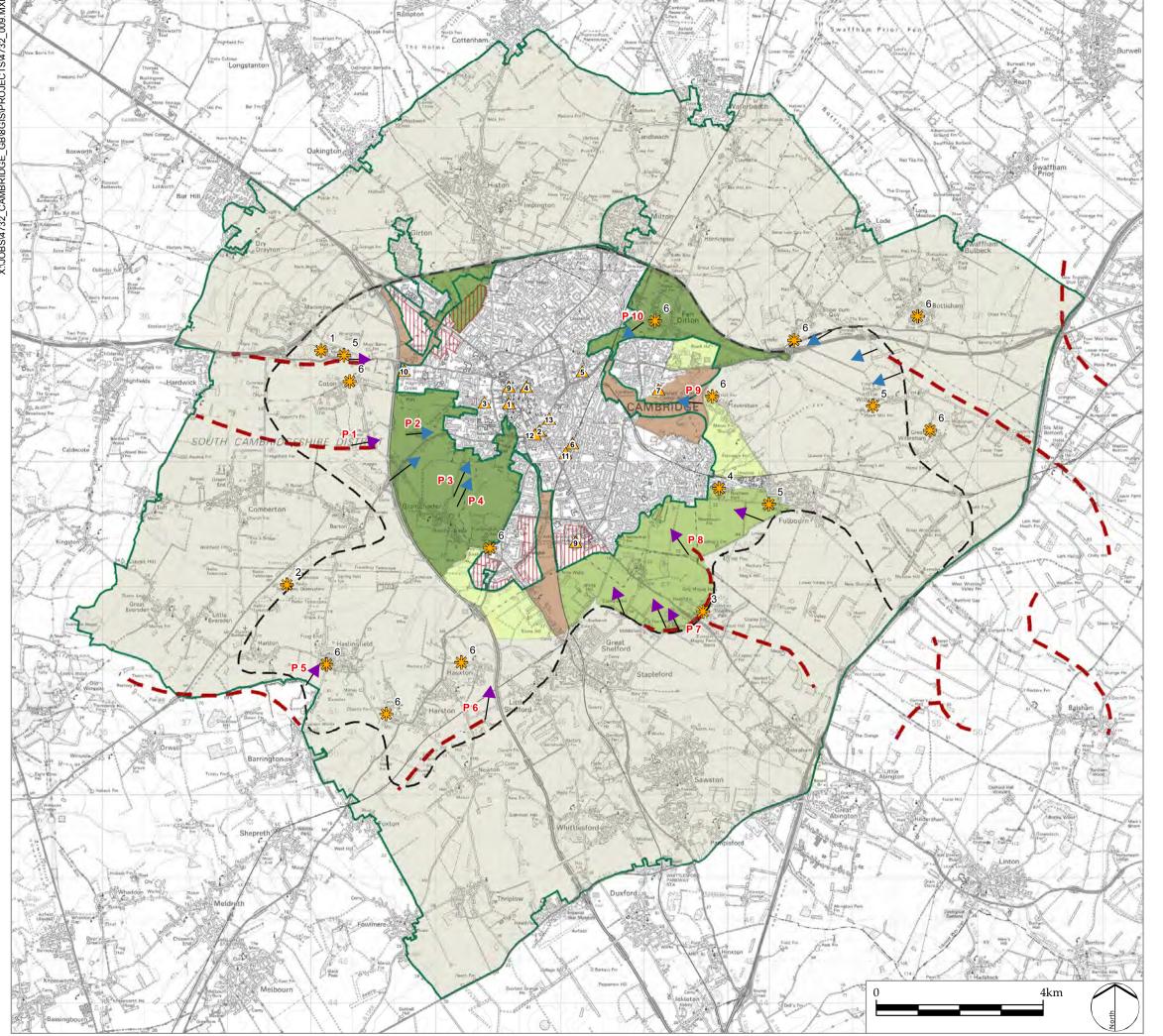
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LEGEND Green Belt Boundary (inner and outer edges) Developments under construction / permitted Approximate area of Green Belt from which Cambridge may be seen Key elevated view Key low level view Ridgeline Key Cambridge landmarks visible from the setting 1. King's College Chapel 8. Addenbrooke's Hospital 2. Roman Catholic Church spire 9. St John's College 10. Schlumberger Building 11. Foster Mill 3. University Library 4. All Saints Jesus Lane 5. Museum of Technology Chimney 12. Cambridge University Chemistry Building 6. Carter Bridge 13. Parkside Place 7. Cambridge Airport Hangars Distinctive / memorable features in the setting of Cambridge 4. Fulbourn Hospital 1. American Cemetery

Townscape / countryside interface - elevation, foreground character and built edge character as seen in immediate views from routes close to Cambridge

2. Radio Astronomy Observatory

3. Wandlebury woodland on hill top

Level views, countryside foreground, generally soft urban edge

Elevated views, countryside foreground, mixed urban edge

5. Windmills

6. Village churches

Level views, mixed foreground, mixed urban edge

Level views, countryside foreground, mixed urban edge

Rural setting with scattered villages

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Figure 9:

Visual Assessment

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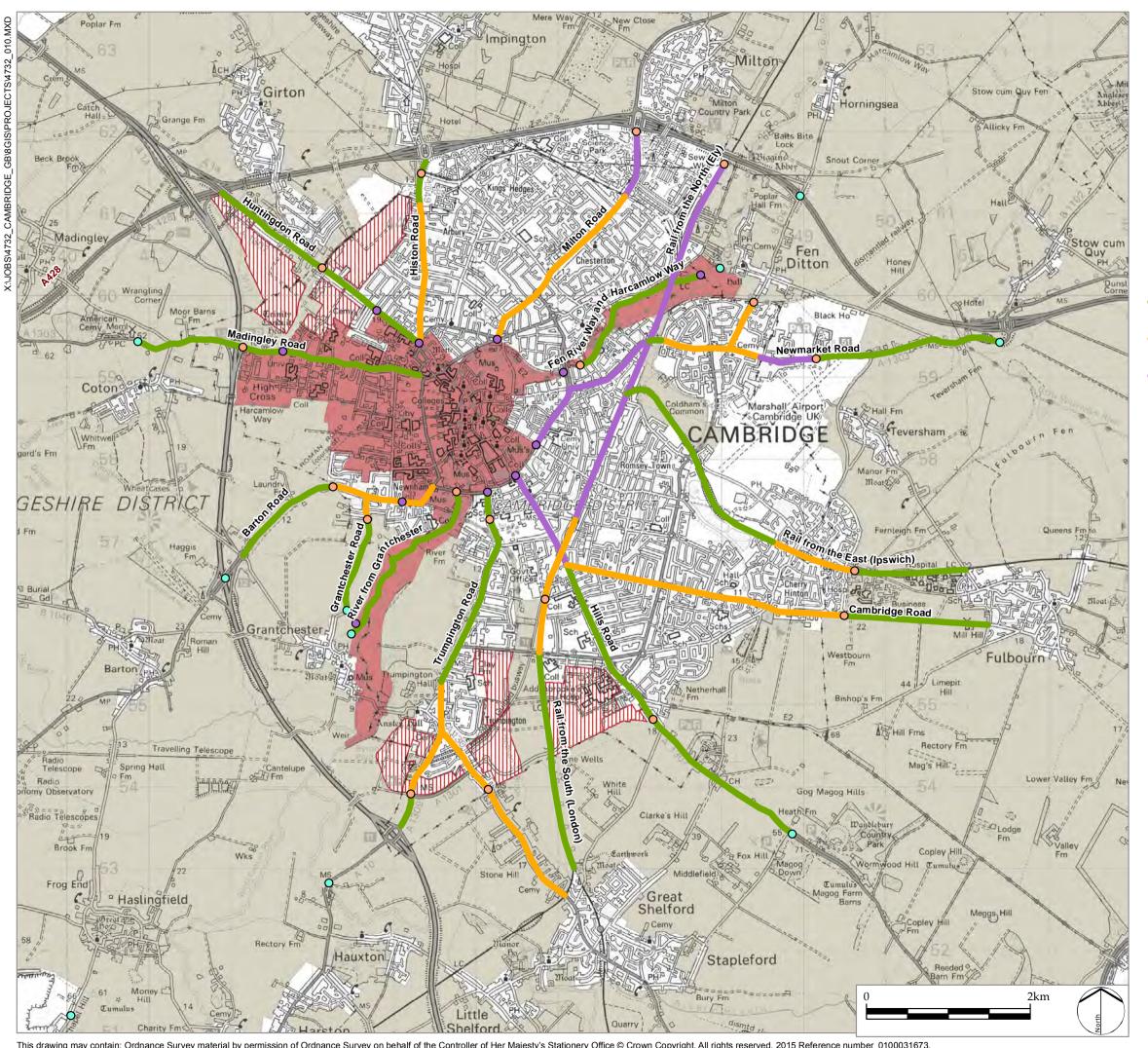
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Rural land within Green Belt

Developments under construction / permitted

Distinctive Cambridge

Gateways

Gateway to distinctive Cambridge

Urban gateway

First view of Cambridge

Character of Approaches

Green/treed

Suburban

Commercial

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CAMBRIDGE GREEN BELT STUDY

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Figure 10: Gateways and Approaches

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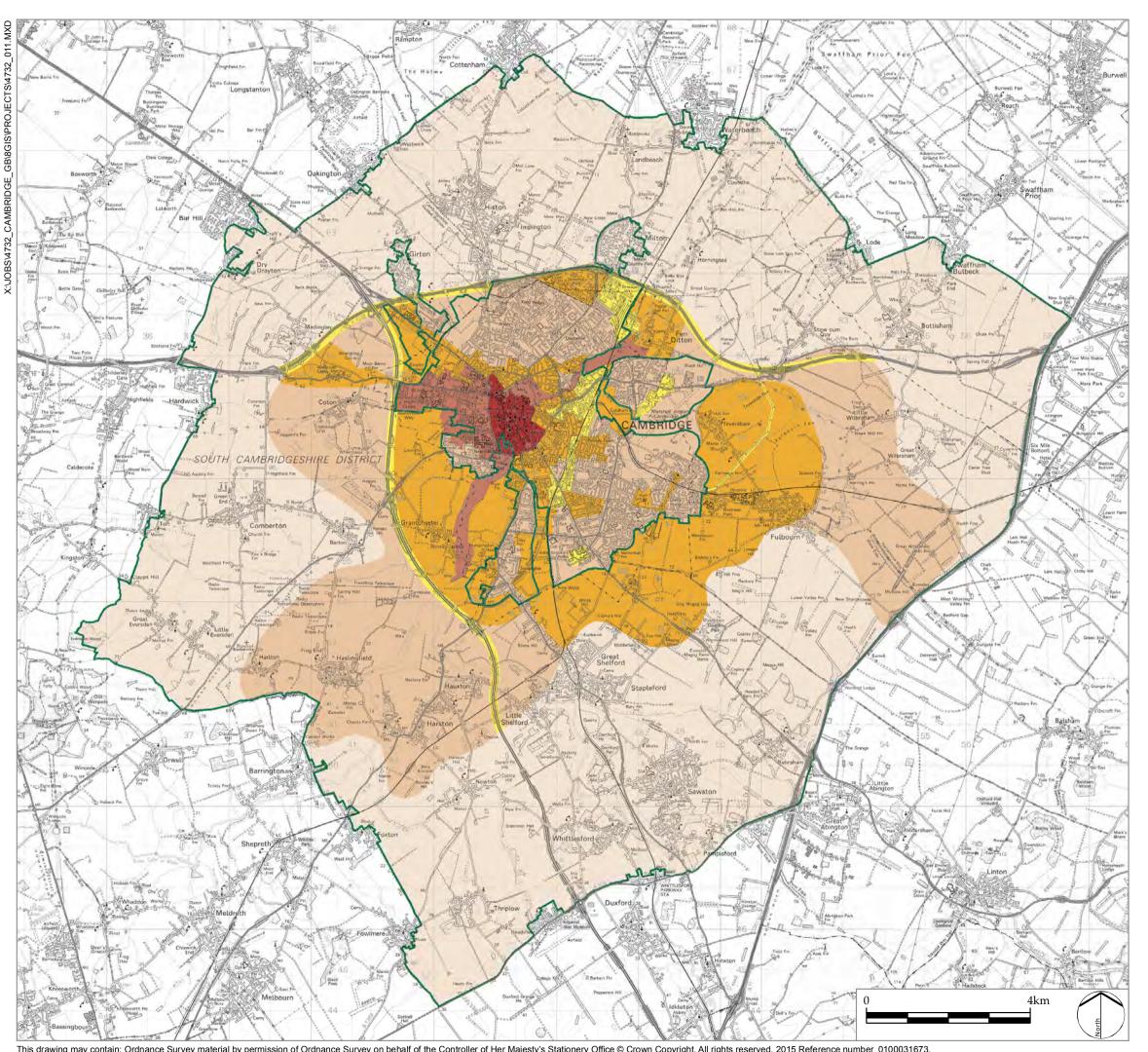
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No dimensions are to be scaled from this drawing. All dimensions are to be checked on site. Area measurements for indicative purposes only.

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Connective townscape/landscape

Visually detracting townscape/landscape

Visually detracting townscape/landscape

Outer rural areas of the Green Belt

LDĀDESIGN

PROJECT TITLE

CAMBRIDGE GREEN BELT STUDY

DRAWING TITLE

Figure 11:

Townscape and Landscape Role and Function

ISSUED BY Peterborough T: 01733 310 471

DATE November 2015 DRAWN MPa

SCALE @A3 1:90,000 CHECKED RK

STATUS Final APPROVED ChC

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Photograph 7: Magog Down

This elevated viewpoint on the edge of the Gog Magog Hills allows views across much of Cambridge. It demonstrates Cambridge's location within a bowl landform, surrounded by the Western Claylands and the Gog Magog Hills to the south. The soft green nature of the city is readily apparent from this location, with landmark features in the historic core rising above the vegetation. The reduced green edge at Addenbrooke's Hospital, as a result of ongoing development, seen across the rural landscape of Sector 10, is also noticeable from this viewpoint.



Photograph 8: Worts' Causeway

This viewpoint allows elevated views over Cambridge from the Gog Magog Hills. It shows the more sprawling expansion that has occurred to the east and south east of Cambridge, but also demonstrates, through the visibility of landmark features within the historic core, the compactness of the city centre. The lower slopes of the Gog Magog Hills form the rural foreground, with the undulating landform in Sectors 11 and 12 readily apparent.

ISSUED BY Peterborough t: 01733 310471

DATE Nov 2015 DRAWN MPa SCALE@A3 NTS CHECKED RK STATUS Final APPROVED ChC

DWG. NO. 4732 018



PROJECT TITLE

CAMBRIDGE INNER GREEN BELT BOUNDARY STUDY

DRAWING TITL

Figure 18: Photographs 7 and 8