



# South Cambridgeshire Local Development Framework

## Orchard Park Design Guidance

### Supplementary Planning Document

### Sustainability Appraisal / Strategic Environmental Assessment

### Adoption Statement

#### Introduction

South Cambridgeshire District Council adopted the Local Development Framework (LDF) Orchard Park Design Guidance Supplementary Planning Document (SPD) on 8 March 2011.

This statement has been prepared in accordance with the Environmental Assessment of Plans and Programmes Regulations 2004 (16) (3) and (4), which require a statement to be produced on adoption of a plan or programme, to detail:

1. How environmental considerations have been integrated into the plan or programme;
2. How the Environmental Report has been taken into account;
3. How opinions expressed through public consultation have been taken into account;
4. The reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with;
5. The measures that are to be taken to monitor the significant environmental effects of the implementation of the plan or programme.

Planning Policy Statement 12 widens these considerations from environmental, to broader sustainability issues, so that this statement provides information on the wider sustainability appraisal process.

This statement examines each of these points in turn.

## 1. How sustainability considerations have been integrated into the plan

The LDF aims to improve the overall quality of life for residents of South Cambridgeshire in a way, which will also benefit future generations. Taking a sustainable approach to economic, social and environmental issues is at the heart of the plan and will be closely related to the national strategy for sustainable development, which has four objectives:

- Social progress which recognises the needs of everyone;
- Effective protection and enhancement of the environment;
- Prudent use of natural resources; and
- Maintenance of high and stable levels of economic growth and employment.

### Policy Context

The national context is set out in Planning Policy Statements (the replacement to Planning Policy Guidance Notes), Circulars and other advice from Government. Whilst some of those national policies require local interpretation, a great number do not.

The regional context is set out in the East of England Plan that was published by the Secretary of State in May 2008. It continues the strategy that was set out in the Regional Planning Guidance for East Anglia (RPG6). It aims to focus a higher proportion of Cambridgeshire's growth into the Cambridge Sub-Region and proposes a sequential approach to the planning of development, with much of the development concentrated into and on the edge of Cambridge (subject to a review of the Cambridge Green Belt), including development in South Cambridgeshire, and into a new town beyond the outer boundary of the Green Belt.

The East of England Plan 2008 replaced the Cambridgeshire and Peterborough Structure Plan when it was published in its final form by the Secretary of State in May 2008. A number of Structure Plan policies were 'saved' after September 2007 and remain valid until they will be superseded by policies in LDFs as these plans are adopted across the County.

### Orchard Park Design Guidance SPD Policy Approach

Orchard Park is addressed in Policy SP/1 of the Site Specific Policies DPD (2010). Policy SP/1 carries forward proposals from the earlier South Cambridgeshire Local Plan 2004 for a sustainable housing-led urban extension to Cambridge providing 900 dwellings, employment provision and supporting community facilities and open space.

The Orchard Park Design Guidance SPD sets out the design principles for the remaining land parcels at Orchard Park that the Council expects to be addressed by developers in any planning

application, to ensure the creation of a high quality desirable 'place'. The SPD provides a clear framework that will assist the assessment of applications. The SPD provides design guidance that will apply to any development proposals that may come forward and is not land use specific.

## 2. How the Sustainability Appraisal had been taken into account

The Sustainability Appraisal has contributed to plan development by providing an independent assessment of the sustainability of the Council's proposed options and policies as they were developed. It demonstrates that sustainability considerations have been incorporated into the development of the LDF and subsequently that of the SPD from an early stage and provides a formal statement and audit trail of the assessment.

The Sustainability Report is a key output of the plan preparation process. It reflected and supported the draft plan on which formal public consultation and participation was carried out.

The SPD is adding detail to policies to assist the implementation of adopted Development Plan Document policies and therefore the process had begun with the preparation of a Sustainability Report for these DPDs. The policies in these DPDs were therefore subject to Sustainability Appraisal.

It was decided not to do a Sustainability Appraisal for the SPD as recent changes to planning legislation makes it clear that government no longer requires an SA to be undertaken for SPDs. The Town and Country Planning (Local Development) (England) Regulations 2004 were amended in 2008 and 2009. Following the 2009 amendments there is no longer a requirement to undertake a SA of SPD. The European Union Strategic Environmental Assessment (SEA) Directive (2001/42/EC) only requires assessment of those LDDs likely to have a significant effect. As SPDs are not able to create new policy and the parent policies, upon which the SPD expands, have already been fully appraised through the SEA / SA process, the Council considers that there is no need to undertake further assessment of the SPDs. The SA for the parent policies can be viewed on the Council's website: [www.scambs.gov.uk/ldf](http://www.scambs.gov.uk/ldf).

One of the requirements of the SEA Directive is to monitor the significant environment effects of the implementation of plans to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action. Although there are not anticipated to be any significant impacts beyond any identified in the SA of the parent policies, the impact of the SPDs can be monitored through the LDF Annual Monitoring Report.

### 3. How consultation taken into account (draft plan and the Environmental Report)

In this statement the Council is required to detail how opinions expressed in response to consultation have been taken into account.

#### Key Environmental Bodies

The Strategic Environmental Assessment Directive requires that authorities referred to in Article 6(3) shall be consulted when deciding on the scope and level of detail of the information, which must be included in the Environmental Report. In England, the key bodies are the Environment Agency, English Heritage and Natural England.

Consultation on a draft of the LDF Sustainability Appraisal Scoping Report with these key bodies was carried out in June 2004. The consultation enabled these bodies to comment on the appropriateness of the objectives, indicators, baseline assessment and issues / problems. A report on the outcome of these consultations is included in Appendix 7 of the Scoping Report. The consultation resulted in a number of changes to the Scoping Report, including changes to the sustainability objectives and questions, new issues for the area being identified, new plans and strategies being analysed in the report, and revised and new monitoring indicators.

#### Public Participation

The Strategic Environmental Assessment Directive requires early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying Environmental Report before the adoption of the plan or programme or its submission to the legislative procedure.

The Council consulted the public on the SPD and its Sustainability Appraisal Statement. Full details can be found in the Statement of Consultation – Regulation 18(4)(b), available to view on the Council's website. This outlines the main issues raised in the representations received and how they have been addressed in the SPD, which is to be adopted.

#### Consultation under Regulation 17

The public consultation on the draft SPD and Sustainability Appraisal Statement was carried out over a 6-week period, which was in accordance with Regulation 17 of the Town and Country Planning (Local Development) (England) Regulations 2004 as amended.

There were in total 99 representations received: 1 was in support, 33 making comments and 64 objecting to the draft SPD. No representations were received on the Sustainability Appraisal Statement.

The main issues raised include:

- The document should be robust and comprehensive with strengthened vision and objectives, and past mistakes should not be repeated.
- The identification of various factual errors in the document and requests for clarity.
- The validity of Policy SP/1 to allow up to an additional 220 residential units on Orchard Park was questioned in light of the intended revocation of the Regional Spatial Strategy.
- Concerns were raised over the possible location of residential premises on sites alongside the A14, in close proximity to the sources of noise and poor air quality arising from the traffic on the A14.
- Issues around the noise barrier; that it could not be fully funded through developer contributions and other sources of funding should be sought; and clear design principles should be stated for any replacement barrier. There was also both support and opposition to screening the A14 embankment with landscaping.
- Criticism the Council is not seeking sufficiently high levels of sustainability on new developments and should also address climate change issues.
- Concern about the problem of on-street car parking, as the roads in Orchard Park have not been adopted and criticism of car parking standards and how it is addressed.
- Suggestions that cycle parking and storage should be well located and secure; and garages should be designed to allow cycle parking in them as well as car parking.
- Requests for a high quality public realm, with minimal street clutter, linkages to adjacent developments and with pedestrians and cycles having priority, support for the provision of public art and that reference should be made to the importance of green spaces and play spaces.
- Various detailed comments on section 6 concerning specific land parcels.
- Requests for greater detail of landscape requirements, especially breaking up car parking areas with landscaping, but mixed views on the reference that up to 20% of a site to be landscaping.
- Objections to the use of green walls, concerned about the difficulty of establishing them. There were both objections and support for the use of green roofs.
- Requests that bin storages be accessible, practical and suitable to accommodate the Council's requirements for bins.

- Objection that the SPD gives no recognition of the Government's aim of 'localism' and how the existing community will help the Council achieve the vision for Orchard Park and another that localism and involving the existing community should be an objective.

The consultation resulted in a number of changes to the SPD; these are listed in Appendix A.

#### 4. Reasons for choosing the document as adopted in light of other reasonable alternatives.

The Environmental Assessment of Plans and Programmes Regulations 2004 (12) (2) requires environmental reports to examine reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme.

This statement is required to set out the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with.

PPS12 makes clear that full regard should be had to the chain of conformity to avoid duplication of assessment.

The alternative to having an SPD was to have no SPD at all and to carry out "Business As Usual" implementing the adopted Development Control Policies DPD without published detailed guidance. The Orchard Park Design Guidance SPD, once adopted will provide further guidance on the implementation of the Council's adopted policies in relation to the development of the remaining land parcels at Orchard Park. As such, it is considered more likely to result in the submission of better quality planning applications, which will fully address all of the design principles to better integrate development with the existing community, than existing policies alone.

#### 5. Monitoring

The Environmental Assessment of Plans and Programmes Regulations 2004 requires authorities to set out the measures that are to be taken to monitor the significant environmental effects of the implementation of the plan or programme.

Details of the monitoring measures envisaged are summarised in Appendix 7 of the Final LDF Sustainability Report.

The indicators created in the Sustainability Appraisal Scoping Report, will continue to be monitored annually. They have been utilised as 'significant effect indicators', to be collated in

the LDF Annual Monitoring Report. This report includes an analysis of the implications of the results, and should a need arise a review of LDF documents could be triggered by this information.

The South Cambridgeshire Annual Monitoring Report is available to view on the Council's website.

## Appendix A – Amendments made to the SPD as a result of the public consultation

### Orchard Park Design Guidance Supplementary Planning Document

- In addressing the representations every opportunity has been taken to strengthen the document structure and remove unnecessary repetition.
- Amend and add to paragraphs 1.4. - 1.6. to read:
  - 1.4. The specific purpose of this SPD is to set out the design principles the Council expects to be addressed by developers in any planning application, to ensure the creation of a high quality desirable 'place', for the remaining undeveloped land parcels at Orchard Park. The SPD will provide a clear framework that will assist in the assessment of applications. The land parcels as referred to on the approved masterplan for Orchard Park are COM 2a, COM 2b, COM 3, COM 4 and L2, along the northern boundary adjacent to the A14, K1, at the eastern end of Orchard Park fronting onto Kings Hedges Road, and Q and HRCC, in the south-west corner of Orchard Park fronting Kings Hedges Road and Cambridge Road. Land parcels E3, E4, G and H1, although currently vacant, are not included in this SPD as development on these land parcels is addressed in the existing guidance set out in the Arbury Camp design Guide.
  - 1.5. The SPD provides design direction that is not land use specific and will apply to any development proposals that may come forward for these land parcels. Appropriate land uses for the remaining parcels will be determined having regard to the planning policy framework and the design principles. It is for the developer to undertake the necessary studies to adequately demonstrate that the development proposals being presented are fully appropriate for their location.
  - 1.6. Based on the requirements of the Site Specific Policies DPD (2010) and good practice design principles the future development of the sites at Orchard Park presents an opportunity to:
    - assist in meeting the demand for housing in South Cambridgeshire;
    - integrate new development with the existing community and development;

- introduce sustainable design solutions to address the social, economic, transportation, construction and landscape issues pertinent to Orchard Park; and, create high quality development to ensure viable and vibrant buildings and spaces.
- In Section 1 add a new paragraph to read:
 

1.9. The Secretary of State has indicated the Government's intention to revoke the Regional Spatial Strategy, however they remain part of the statutory development plan until such time as they are formally abolished when the Localism Bill becomes law, assuming that is the case. The Council's Local Development Framework including the Core Strategy, 2007 and Site Specific Policies DPD 2010 are statutory documents and the Core Strategy sets the development strategy for the area and the housing target to 2016.

They were independently tested through public examination and concluded to be sound as adopted, having regard to the evidence supporting them. All Councils in the Cambridge sub-region, including South Cambridgeshire, have reaffirmed their shared commitment to the development strategy for the area that underpins the LDF and was contained in the Structure Plan 2003 and carried forward to the East of England Plan to address the identified needs of the sub-region.
- In Section 1 add a new paragraph to read:
 

1.10. The Council's Core Strategy, adopted January 2007, states "taking a sustainable approach to economic, social and environmental issues will be at the heart of the plan and will be closely related to the national strategy for sustainable development which has four objectives:

  - Social progress which recognises the needs of everyone;
  - Effective protection and enhancement of the environment;
  - Prudent use of natural resources; and
  - Maintenance of high and stable levels of economic growth and employment."
- A new paragraph 1.11. has been added to read:
 

1.11. Planning Policy Guidance 13 (PPG13) Transport was updated on 3rd January 2011, with amendments to paragraph 51 Parking Standards. PPG13 still requires parking standards to be set locally through development plans and the emphasis remains on the efficient use of land and promoting sustainable transport choices. However, the change allows Councils to set appropriate standards for their area, rather than being specifically required to set a maximum standard. South Cambridgeshire District Council will, as part of the review of the Core Strategy / Development Control Policies DPD that will begin in 2011, review the standards



included in the Development Control Policies DPD, and consider what types of standard, and what levels of parking, are appropriate for the district. In the meantime, Development Control Policies DPD Policy TR/2 'Car and Cycle Parking Standards', (with standards set out in appendix 1), remains the adopted policy of the Council.

- In Section 1 add a new paragraph to read:

1.12. During the preparation of the SPD full regard has been taken to the recommendations made by the "Arbury Park Scrutiny Review Final Report October 2008". The preparation of this SPD is in accordance with recommendation 1e of the "Arbury Park Scrutiny Review Final Report October 2008" to provide design guidance for "design aspects not covered in the main Design Guide".
- In Section 1 add a new paragraph to read: Working in Partnership

1.13. The preparation of the Orchard Park Design Guidance SPD has been undertaken in consultation with the Council's primary partners, the Orchard Park Community Council, who formally took on local parish responsibilities for the new community on 1st April 2009, the land owners, Gallagher Estates, Unex Holdings Limited and Cambridge City Council and with local residents.

The Council intends to continue to work with its partners, generally and specifically, to facilitate the completion of the development at Orchard Park. South Cambridgeshire District Council urges developers to fully embrace the partnership approach and engage with the Council, and the Orchard Park community through the Orchard Park Community Council, from the outset of formulating development proposals.
- Delete paragraph 2.5 and replace it with the following paragraph:

2.3. The Government's proposed A14 Ellington to Fen Ditton Improvement scheme had been identified as an opportunity to upgrade the noise barrier fence when it was being moved as part of the scheme, using developer contributions. However, the Government's decision as a result of the Comprehensive Spending Review in autumn 2010 not to take forward the scheme in its proposed form removes an identifiable means of implementing a change in the noise barrier at the time of writing, although work is in hand to explore alternative measures to deal with the congestion problems on the A14, which may provide similar opportunities. The policy objective to seek the upgrading of the noise barrier remains the policy for the barrier, with or without improvements to the A14.
- Amend the original paragraph 2.13 to read:

2.8. An application for commercial B1 uses of 4,180sqm was granted consent by planning committee in November 2009 on COM2b and COM3, reference S/0621/08/RM. Subsequently an application for an hotel was granted permission for

COM3 on 29th September 2010, reference S/0428/10/F, for which work commenced on site in late 2010.

- Amend Section 3 to read: Vision

3.1. The overall vision for Orchard Park was set out in the Arbury Camp Design Guide 2007, which established the structure of Orchard Park, together with establishing the character areas and the design parameters for buildings, public realm and open spaces. The vision for this SPD relates specifically to the design and appearance of the remaining vacant land parcels at Orchard Park, excluding Land Parcels G and H1, to address the changes in the context of further development since 2007, within the established masterplanned structure and hierarchy of sites at Orchard Park and the objective of achieving a sustainable housing-led mixed-use development.

3.2. The vision is for the remaining developments to contribute to making Orchard Park an attractive, vibrant and contemporary new neighbourhood for Cambridge. New development should take its inspiration from the "unique Cambridge context, by linking high quality public open spaces and buildings that are formal, with fine grain and domestic scale streets" (Arbury Camp Design Guide, 2007), in order to create opportunities for a high quality of life and living for site users.

3.3. New development should reinforce the distinct character areas established by the Arbury Camp Design Guide 2007, see Figure 2.

- The vision for Arbury Park is for a cluster of uses, with integrated facilities and amenities, designed holistically and incorporating high quality accessible open spaces and providing a 'gateway'.
- The vision for the Circus, is the active heart of Orchard Park, centred on the avenue linking Kings Hedges Road to Unwin Square via the Circus, with mixed-use development around Unwin Square. The formality of this route should direct the design of development along its length.
- The Square is a predominantly residential area.
- The Hedges character area comprises residential, commercial and mixed-use, oriented around open spaces. Residential development is designed around the streets and mews pattern, with a clear distinction between public and private space.

3.4. Of key importance is the creation of a place that is safe, accessible and easy to move around. The development of pedestrian and cycle connections into and through developments will encourage walking and cycling in support of a healthy lifestyle, will increase opportunities for connectivity with neighbouring developments to increase social cohesion in support of the development of the wider Orchard Park community.

3.5. Embedded within the design approach for all developments, from initial concepts through to the detailed design, should be measures to address the range of environmental sustainability issues and to address climate change to ensure the development remains viable throughout its lifetime. The strategy for sustainable development for Orchard Park includes the use of mixed-use walkable neighbourhoods, supported by appropriate and efficient residential densities, energy efficient site layout and the impact of building orientation in relation to microclimate, and access to green infrastructure. The Developer's Sustainability Action Plan, submitted in support of the original outline planning application, provides guidance on building design and the Code for Sustainable Homes and BREEAM environmental certification schemes, renewable energy and waste. "Developers are encouraged to promote these environmental measures and exploit their market potential and value to respond to the rising demand for sustainable residential and commercial buildings. Further advice regarding the delivery of a sustainable biodiversity and ecology can be found in the Biodiversity and Ecology Management Plan." (Arbury Camp Design Guide, 2007). General direction on sustainability and climate change can be found in Planning Policy Statement (PPS) 1: Delivering Sustainable Development, and Planning and Climate Change - Supplement to PPS1; the Local Development Framework Core Strategy and Development control Policies Development Plan Documents and District Design Guide: High Quality and Sustainable Development in South Cambridgeshire Supplementary Planning Document.

#### Objectives

3.6. The primary objective for the development of Orchard Park as a whole, as set out in the policy for the new neighbourhood, is to provide a high quality sustainable housing-led mixed-use development.

3.7. New developments should reinforce the character area for Orchard Park in which it is located:

- for Arbury Park, development should be located within high quality accessible open spaces, provide an appropriate 'gateway' to Cambridge and Orchard Park and should integrate with existing developments;
- for the Circus, development should encompass the active heart of the new community and reflect the formality of the avenue route from Kings Hedges Road to Unwin Square via the Circus, terminating in the civic space of Unwin Square;
- the Square character area influences only Plot COM3 and it is envisaged that the hotel under construction there, will be successfully completed; and

- for the Hedges character area, development should comprise a mix of uses oriented around open spaces; with residential development embracing the streets and mews form.

3.8. Additionally all developments should:

- embed within their design proposals the principles of sustainable design and construction and to address climate change and in so doing maximise the standards of sustainability achieved;
- from the outset, through careful site planning and the design of individual buildings, incorporate preventative measures to create a safe and hospitable environment for the site occupants in relation to the issues of noise and air quality emanating from traffic associated with the A14;
- allow for the adequate provision of high quality amenity space to serve the needs of the development, designed in a manner to reinforce the quality of public open space and play areas already established;
- complete and complement the townscape of Orchard Park;
- create strong positive closure to views along streets;
- provide strong containment of public realm areas;
- provide natural surveillance of all adjacent public realm areas;
- provide a clear delineation between public and private space;
- ensure private space is secure from unwanted access from public areas.

3.9. Developments alongside the A14 should, through careful site planning, screen the unsightly embankment for the benefit of both individual sites and the existing developments.

- Increase the emphasis on the vision and objective for sustainable housing led development. [refer to changes to paragraphs 3.5, 3.6 & 3.8].
- Amend paragraph 4.2. to read:

4.17. The restrictive depth of the northern boundary land parcels means that developments that offer active frontages to the streets and spaces to their south, will present their backs to the A14 to the north. Parts of the backs of these buildings will be visible from the A14, either over the noise barrier, or through the clear Perspex panels, therefore the backs of these buildings should be designed in a manner that presents a positive aspect to any views from the A14 to the north to contribute to the retention of an attractive urban edge to Cambridge, as required under Policy SP/1 of the Site Specific Policies DPD. The height of the noise barrier varies in relation to ground level of the sites therefore designs need to be considered on an individual site basis.

- Amend paragraph 4.8. to read:  
4.9. The overall form of Orchard Park in accordance with the masterplan is of residential or mixed-use streets, squares and mews. The scale and massing of existing developments fronting the main streets and spaces, in terms of frontage treatment and building design follows the form and hierarchy set out in the Arbury Camp Design Guide. Many of the vacant land parcels front directly onto the existing road network, and the Arbury Camp Design Guide considers them a key opportunity to provide an active frontage and a positive streetscape to enclose the road and public realm network, and respond positively to the existing neighbouring residential developments.
- Amend paragraph 4.20 to read:  
4.20. The A14 embankment and acoustic barrier acts as the backdrop to development on the land parcels along the northern edge of Orchard Park. The Government in its Comprehensive Spending Review in November 2010 withdrew the funding for the A14 Ellington to Fen Ditton Improvements scheme for the foreseeable future. The existing A14 noise barrier alongside Orchard Park will therefore remain in place for the foreseeable future. In the event that a scheme is brought forward for improvements to the A14, Policy SP/1 of the Site Specific Policies DPD establishes South Cambridgeshire District Council's requirements in relation to the appearance and functionality of any replacement noise barrier, or of any development. The impact of the long-term setting of Cambridge will be taken into account in determining planning applications.
- Reword paragraphs 4.26. to 4.42 to read:  
Noise  
4.27. The ambient noise environment of the Orchard Park vacant land parcels is dominated by traffic noise from the A14. Noise can have a significant effect on the environment and on the quality of life experienced by individuals and communities.  
4.28. Being located alongside the A14 embankment, Orchard Park has always been vulnerable to issues of noise disturbance, addressed during the course of the original outline planning approval, resulting in the erection of an acoustic barrier, originally intended as a temporary measure but which will remain in place for the foreseeable future following the indefinite postponement of the planned A14 improvements. The acoustic impact of traffic noise emanating from the A14 is therefore a major influence for development choices on sites and developers should plan for the worst-case scenario.  
4.29. The control of noise to an acceptable level is a key design issue, and a requirement of the original design brief is to address the exposure to noise levels, highlighting that it is essential that the detailed design of built form within the study area achieves a maximum 'screening' affect from traffic noise emanating from the A14.

4.30. The SPD provides general advice about how acoustic challenges could be addressed but the quality of development should not be compromised in addressing issues of noise attenuation in response to any future acoustic studies. Each application for development will need to undertake further noise assessments and plan development based on the worst-case scenario. In particular the key issue for these land parcels will be addressing impact on worker or residential amenity and the health and wellbeing of future residents in terms of providing acceptable noise levels both internally and in any external amenity areas.

4.31. Noise implications of the A14 for the study land parcels should be assessed in accordance with the Noise Exposure Categories (NECs) for new residential dwellings in Planning Policy Guidance 24: Planning and Noise. For non-residential uses British Standard 8233: 1999 'Sound Insulation and Noise Reduction for Buildings Code of Practice' identifies specific internal noise level guidance that should be achieved within developments. The World Health Organisation "Guidelines for Community Noise" and "Night Noise Guidelines for Europe" should also be consulted.

4.32. Acceptable internal noise levels shall be achieved whilst meeting background and purge ventilation requirements at all times. The opening of any glazing / windows shall not compromise acceptable internal noise levels. Of particular concern is noise in relation to any rooms facing the A14.

4.33. Full consideration shall also be given to ensuring noise levels to external amenity spaces are also acceptable in accordance with the guidelines stated above.

#### Air Quality

4.35. Most of the proposed development land parcels at Orchard Park lie within the SCDC Air Quality Management Area (AQMA) for nitrogen dioxide (NO<sub>2</sub>) and fine particulate matter (PM<sub>10</sub>) as shown in Figure 16. The two main issues relating to air quality at this location are discussed in more detail below.

4.36. SCDC has a duty to protect future residents from the health effects of poor air quality. Such development should only take place if air quality objectives are being met and are likely to be met in the future or if adequate mitigation can be implemented.

4.37. With this in mind, if residential development is considered, appropriate mitigation measures may need to be sought by the developer to protect residents from emissions emanating from the A14. In addition, given the closeness of the land parcel to the carriageway of the A14, prospective developers may reasonably be asked to carry out air quality monitoring for a duration of no less than 6 months, which will aid in the determination of appropriate detailed design and mitigation measures.

4.38. Given the locations detailed within the design brief, aspect and orientation are unlikely to have a significant effect on air quality although certain layout designs will pose a greater risk in terms of air quality than others, such as:

- \* Open/amenity space close to the carriageway upon which residents could reasonably spend 1 hour or more;
- \* Layouts that create courtyards or "canyons" where pollutants may settle rather than disperse.

4.39. Any new development adjacent to or within the AQMA should not cause a worsening of the air quality conditions predicted in the original assessment for the Orchard Park development. It is expected and advised that the developer will have regard to low emissions development and enters into early discussion with SCDC to agree the terms of a Low Emissions Strategy and ensure that LDF Policy NE/16 (Emissions) is achieved.

4.40. It is essential that if these locations are considered for residential development, early pre-application discussions take place in order that air quality assessments and consequently any monitoring, modelling and mitigation measures are discussed and agreed prior to the granting of planning consents. Development should only take place if air quality objectives are being met and are likely to be met in the future, or if adequate mitigation can be implemented.

- Add an additional paragraph to read:

4.34. Any considerations for the replacement of the noise barrier should ensure that any reflective noise is minimised to protect the villages of Histon and Impington to the north of the A14.

- Add a new paragraph to read:

Drainage

4.41. The land beneath Orchard Park experiences a high water table. Resultantly, a drainage strategy was devised for Orchard Park, with holding tanks constructed to reduce the discharge rate from the area into the river system. The high water table and the existence of a drainage infrastructure will impact on drainage considerations for the remaining land parcels at Orchard Park.

- Figure 16 - The vehicular route arrow has been corrected to point in the correct direction.
- Figure 16 and 18 have been corrected to include a vehicular access to Plot L2.
- Amend paragraphs 5.7 and 5.8 to read:

5.7. The road network to access the vacant land parcels is already in existence, therefore development proposals will have to address the capacity and characteristics of those access routes. Proposed site access to land parcel COM2a will predominantly be from

Unwin Square upon the key approach to the Local Centre, which is a key arrival space and destination. Land parcel COM2b/3 is approached from one of the main access routes, Chieftain Way. The movement connections in this area of Orchard Park are intended to create a lively and accessible area, in keeping with the character area proposals. New development proposals will be expected to demonstrate the efficient management of traffic and reduce highway hazards through a well thought out layout and car parking design. The Council will not support development proposals that fail to meet the adopted standards.

5.8. Careful treatment of the public realm should enhance the east-west connection along the commercial frontage, encouraging pedestrian and cycle movement to permeate through the site. This can be achieved by proposing active frontages, usable entrances and shared surfaces.

- Amend paragraph 5.9. to read:

5.9. Access to land parcels Q and HRCC is via Ring Fort Road. Cambridgeshire County Council, as the County Highway Authority, has expressed 'in principle' preference for an access adjacent to the Orchard Park Primary school boundary to serve any development uses on the site, with a second access for vehicles, pedestrians and cyclists via the cul-de-sac at the western end of Ring Fort Road. However, it will be up to the applicants to demonstrate that such a provision is satisfactory in highways terms, especially as all traffic exiting these sites will have to pass the entrance to the Orchard Park Primary School. Provision of level access over the 'Iron Age' ditch is also to be adequately addressed by design proposals. Of key importance, however, is the creation of a place that is safe, accessible and easy to move around.

- Add a new paragraph 5.15 to read:

5.15. Careful attention should be paid to the orientation of habitable rooms in relation to the noise and air quality issues pertaining to Orchard Park. Of particular concern are land parcels COM2a, COM2b/3, COM4 and L2, where no habitable rooms facing the A14 should be provided for any residential properties adjacent to the A14. Care should also be taken in the design of the built form to ensure air flows through all external areas to prevent pockets of poor air quality collecting.

- Amend paragraph 5.26. to read:

5.26. The public spaces and play areas for the original 900 dwellings at Orchard Park have already been constructed. Additional open space and play areas are required for development associated with the additional 220 residential units permitted under Policy SP/1. All landscape design schemes should include appropriate planting to provide an attractive setting to the buildings, enhance facades and to define the edges of the public



realm and public open spaces they abut. All landscape design, both hard and soft, should respect its location and integrate with its surroundings, be they existing or proposed to ensure that the interface between sites and uses is handled carefully and sensitively.

- Amend paragraphs 5.28 and 5.29 to read:

5.28. The A14 embankment and noise barrier do not present an attractive aspect for users of the land parcels adjacent to the A14. Development proposals for land parcels adjacent to the A14 should include tree and shrub planting to improve the view towards the A14 for the benefit of the sites' users.

5.29. To break up hard landscaped parking areas, soft landscaping should be used to create an attractive environment. Parking for no more than 6 cars should be provided in individual parking bays, with planting between bays of a size no less than one standard car-parking space and preferably at least the size of two standard car-parking bays. Shrub planting species should be selected to attain a height of 1.5m, except in locations where visibility is required for vehicular movement where species of 1m height should generally be used. Tree planting should be undertaken in each planting bed, with multiple trees planted in larger areas.

- Reword paragraphs 5.30 and 5.31 to read:

5.30. The landscape design scheme for the southwest corner site should include appropriate planting to provide an attractive parkland setting to the buildings, in accordance with the Arbury Camp Design Guide. Of particular concern are the views of and into the site from the surrounding areas. The developer should incorporate an attractive buffer along the western edge of the site to merge with that existing along the highway embankment.

5.31. Views are afforded down into the site from the elevated interchange over the A14 and from Cambridge Road as it rises to the interchange. This increases the visibility of land parcel Q and creates the potential for views of development from a higher elevation, other than that expected at the development's ground level. The layout and design of the development should therefore provide adequate planting and explore the possibility of incorporating green roofs or brown roofs and green walls to address the elevated views of the development. Similar consideration should be given to the provision of green roofs or brown roofs and green walls on the parts of development on the land parcels alongside the A14, where they will be seen above the noise barrier or through the Perspex panels. Particular attention should be paid to the design of green roofs, brown roofs and green walls, where used, in relation to their ongoing management and maintenance to ensure their successful establishment and retention.

- Amend paragraph 5.34 to read:  
5.34. Land parcel COM2b/3 provides an opportunity to create an active development frontage contributing to an active streetscape (key frontage 2) responding sensitively to the residential development opposite. This should be achieved by treatment of the public realm, varied articulation of built form, and entrances addressing the street. Should the approved Travelodge proposals on land parcel COM3 fail to be constructed, any subsequent proposals for development must address this issue. The undeveloped eastern end of land parcel COM2b is visible from Chieftain Way and this issue is applicable to that area.
- Amended paragraph 5.35. clarifies:  
5.35. Figure 19 - Design Principles identifies an opportunity for a public realm connection between Chieftain Way and the public open space POS5. To ensure development on land parcel COM4 does not overbear on the existing residential development on land parcel P, which presents its side and the core of the block to COM4, the Arbury Camp Design Guide sets the face of development on COM4 (key frontage 3) back from the boundary with land parcel P. This would allow the creation of a footpath connection along the boundary without any loss of developable land, a varied townscape and sense of transition along the predominant east west elevations.
- Figure 18 - The key has been amended to ensure full readability.  
Figure 18 has been amended to remove the long distance view across land parcel Q.
- Amend paragraph 5.42 to read:  
5.42. The design of the public realm should be of a high quality, throughout Orchard Park with the aim of achieving a visually interesting development and undertaken in a manner to ensure compatibility with the design and materials selection for adjoining sites. The design of the public realm should be undertaken in a well-considered manner that ensures the necessary street furniture is located appropriately to avoid street clutter.  
5.43. Public art can contribute to the quality of place and should be used to add to, but is not a substitute for, the design of a high quality public realm. For further guidance on Public Art Strategy and Public Realm details refer to the Arbury Camp Design Guide. For all Public art proposals developers are expected to refer to the Public Art SPD (2009).
- Reword paragraphs 5.43. to 5.45. to read:  
5.44. Issues of car parking and traffic movement, form a key aspect of good design with a strong desire to reducing the dominance of the car. The District Council looks to encourage the creation of good streetscape within modern developments that provides its users with a sense of pride. Appropriate and alternative means of parking provision need to be tested to achieve the above on the South West Corner land parcel, which is

more visible from the adjacent elevated A14 junction and its ramped access road. To provide appropriate well-designed proposals for parking within developments, developers should refer to the English Partnerships guidance "What Works Where". However, the car parking principles established in the Arbury Camp Design Guide should form the foundation of the design for car parking, on the vacant land parcels, which advocates a maximum of 1.5 spaces per dwelling (a standard that will be reviewed in the light of the changes to Planning Policy Guidance 13 (PPG13) Transport, following its update on 3rd January 2011, see paragraph 1.11.). Where lower levels of car parking provision are appropriate, they will be encouraged. To assist in reducing dependence on private motorcars, developers are encouraged to consider providing at Orchard Park, an extension of the existing 'car club' provision in Cambridge, which is a rapidly expanding facility within the city. Careful consideration should be given to assessing the detailed development proposals to ensure they function appropriately for the development proposed and are fully integrated with it. Where development proposals fail to meet the adopted standards, they will not be supported by the Council.

5.45. Indicative car parking areas are shown on Figure 19. Car parking and servicing within the land parcels immediately adjacent to the A14 is generally indicated on the north side of buildings, to enable amenity space, especially for any residential properties, to be located in more favourable locations to the south of the buildings and enable stronger frontages to the adjacent public realm and land parcels. The design of buildings should define and address these rear spaces appropriately to provide secure, overlooked parking where the opportunity for crime is minimised. The opportunity also exists to incorporate undercroft parking as part of the proposals, to assist in increasing the height of buildings to better enable them to act as noise barriers for the development.

5.46. To break up hard landscaped parking areas, soft landscaping should be used to create an attractive environment. Parking for no more than 6 cars should be provided in individual parking bays, with planting between bays no less than the size of one standard car-parking space and preferably at least the size of two standard car-parking bays. Shrub planting species should be selected to attain a height of 1.5m, except in locations where visibility is required for vehicular movement where species of 1m height should generally be used. Tree planting should be undertaken in each planting bed, with multiple trees planted in larger areas.

5.47. The Council's "District Design Guide: High Quality and Sustainable Development in South Cambridgeshire" states that garages should be provided of an adequate size for car parking and to allow circulation past the vehicle; advising the minimum size should be 3.3m X 6.0m and should have an additional allowance along one side or at the end for

storage. Garage provision provides an opportunity to incorporate cycle storage, but for it to be effective the additional storage and circulation space within the garage is essential.

5.48. Higher levels of cycle parking are required due to the location of Orchard Park, close to the city centre and on bus routes, potentially reducing car dependency.

Adequate levels of cycle parking, which is convenient to access and use, is covered and secure and afforded high levels of natural surveillance, should be incorporated within the design and layout of individual land parcels, as set out in the South Cambridgeshire District Council's parking standards. See also The "District Design Guide: High Quality and Sustainable Design in South Cambridgeshire". Cycle parking for employees should also be convenient, covered, secure and afforded high levels of natural surveillance. Public cycle parking should be of the "Sheffield" type to ensure cycles can be parked conveniently and securely.

5.49. Developers should make the necessary arrangements with Cambridgeshire County Council to ensure the speedy adoption of highways.

- Reword paragraphs 5.46. and 5.47. to read:

5.50. All new development, whether residential commercial or mixed use, should be energy efficient in terms of design, density, location and orientation. The "District Design Guide: High Quality and Sustainable Design in South Cambridgeshire" states that "sustainability should be at the heart of good design" and provides further guidance on sustainability. Careful consideration should be given in the design of developments to maximise daylight and solar gain to premises to reduce the need for artificial lighting and heating, whilst preventing overheating that might result in a need for the mechanical cooling of buildings. Consideration should also be given to addressing the effects of the urban heat island.

5.51. Developers are encouraged to construct properties that attain the highest standards of sustainable design and construction and address the issues of climate change, for the lifetime of the development. Residential properties should exceed the minimum standards prescribed by the Government under the Code for Sustainable Homes and non-residential buildings should exceed a minimum BREEAM rating of 'Good'. Developers are encouraged to promote suitable environmental measures through building design to reduce the amount of CO<sub>2</sub>m<sup>3</sup> / year emitted by 10%, compared to the minimum Building Regulations requirement; and comply with District Council's policy to provide at least 10% of the development's predicted energy requirements through the use of renewable energy technologies (Policies NE/1, NE/2 and NE/3, LDF). Developers are also encouraged to design and construct premises with greater standards of water efficiency. To assist developers in preparing to meet the Code for Sustainable Homes

Level 6 requirements in 2016, they are encouraged to set a target for water consumption in residential properties of between 80 litres and 105 litres per person per day i.e. the equivalent to Code Levels 4 or 5.

- Amend paragraph 5.48. to read:

5.52. Developers are encouraged to consider all options of achieving 10% of provision of energy from renewable sources. However, whilst biomass is a cost-effective method of achieving 10% provision of energy from renewables, it may have an impact on local air quality due to NO<sub>x</sub> and PM<sub>10</sub> emissions. The developer should explore biomass technologies such as pyrolysis, gasification and anaerobic digestion, which have been acknowledged to have a lesser air quality impact. Developers will be expected to justify the chosen technologies.
- Reword paragraphs 5.49. to 5.54 to read:

5.53. The control of noise and air quality should be the starting point for good design. Residential development is inappropriate where national standards on noise and air quality cannot be met.

5.54. It would be beneficial for buildings on the northern land parcels to be designed and placed in such a way so that they act as a noise barrier reducing the impact of noise from the A14 on the rest of the site, even with the retention of the A14 acoustic barrier. Not only should building location act as a screen to reduce noise from the A14, but also provide adequate noise mitigation to the occupiers of any residential development that may be proposed for the edge of the site.

5.55. Residential properties should be located a minimum distance of 25m from the edge of the A14 carriageway.

5.56. Any forthcoming proposals will have to respond to future air and noise assessments resulting from proposed improvements to the A14 and set out the measures required to achieve satisfactory mitigation. The level of impact and required response is dependent on the land use proposed.

5.57. Any proposed development should address, through building design and architectural detailing, acoustic attenuation. This provides a significant opportunity to develop imaginative architectural responses to the acoustic demands of the site. As part of any noise insulation scheme, good noise mitigation measures such as appropriate configuration and layout of noise sensitive rooms should be designed into the overall development to avoid mechanical and whole house ventilation systems and acoustic glazing and ventilation schemes should be a last resort.

5.58. It should be noted that The London Mayor's Ambient Noise Strategy provides some useful advice on sound-conscious urban design and the following practical noise reduction issues / measures are viewed as relevant to the various plot options:

- \* Façade continuity and 'quiet side' - Buildings can be designed not only to protect their occupants, but to screen other areas from noise. High-density development following traditional street blocks can reduce noise on the 'quiet side' by 10 to 20 dB(A).
- \* Spaces between buildings - Although enclosed spaces can often be tranquil, tightly-enclosed spaces can also 'trap' sound, including from poorly designed, installed or maintained ventilation plant, waste facilities, vehicle manoeuvring, neighbours, or aircraft. The balance of advantage between contained and more open layouts will depend on the relative contributions of different noise sources. In noisy areas, acoustic absorbency within 'courtyard' areas should normally be maximised, especially from dense vegetation and soft ground.
- \* Rooftop planting may be useful on lower level roofs. In quieter spaces, sound reflection can help people sense where they are. Paving design should consider noise not just from road vehicles, but trolleys, and, particularly over or near bedrooms, footfall. 'Solar pergolas' with photovoltaic panels, could modify sound propagation.
- \* Façade reflectivity - Multiple reflections between opposing, acoustically hard building surfaces increases noise levels. Façades at the wrong angle can reflect sound into quiet areas, as can curved and outward sloping buildings.
- \* Sound absorbing panels, deep acoustic profiling, 'absorptive banners' and other elements should be considered. A wider choice of acoustically absorptive materials needs to be developed, ideally using recycled materials.
- \* Noise and height - High buildings, with less shielding from other buildings, may receive noise from a wider area. Stepping-back of upper floors, canopies and other projections can offer screening. Acoustic balconies, with high imperforate parapets and absorptive linings to the soffit of any projection above, can reduce noise at a window by 5 dB. The predictive capabilities of noise models need to be improved.
- \* Vehicle access and parking - Waste storage and collection should be located away and/or screened from noise sensitive uses. Car parking and service areas should be screened, enclosed, or buffered with less sensitive uses.
- \* Enclosed car parks and bays should be designed to minimise sound reverberation and breakout. Lockable gates to residential courtyards at night can reduce

disturbance from vehicles and on-street revellers, especially in mixed-use areas, while avoiding the sort of exclusion associated with the 24- hour gated enclave.

- \* Features of soundscape interest - Many sounds may be positive or negative depending on context (e.g. active water, wind in trees or rushes, loose surfaces, gratings, reverberant spaces).
- \* Balancing needs - Passive solar design, in which homes need to face roughly south, may make it difficult to create a 'quiet side'. Noise screening could increase shading. More linking of buildings to reduce noise propagation may mean accepting some change in local character, although visual monotony can be avoided by setbacks and many other design features. The balance between noise reduction and other needs should take account of potential changes in noise sources, and in competing needs, over the lifetime of the development.

(Reference / Source: "Sunder City, The Mayor's Ambient Noise Strategy, Mayor of London, March 2004", downloadable from:

[http://www.london.gov.uk/mayor/strategies/noise/docs/noise\\_strategy\\_all.pdf](http://www.london.gov.uk/mayor/strategies/noise/docs/noise_strategy_all.pdf))

5.59. Any replacement noise barrier alongside the A14 should provide greater visual interest for both those travelling past on the A14 and for those viewing it from within Orchard Park. In so doing the noise barrier should provide noise attenuation equal to or greater than the minimum standards required by the Highways Agency, for the protection of premises in Orchard Park. Care should be taken to ensure the design and the selection of materials do not result in an increase in reflective noise and thereby increase the level of nuisance for the villages of Histon and Impington.

- Amend original paragraph 5.55. to read:

5.60. Adequate storage provision and separation for trade and domestic waste is also an important design consideration. Waste and recycling provision should be in accordance with RECAP Waste Management Design Guide 2008, which has been adopted as Council Policy. Adherence to this guidance will ensure that waste storage and collection will be accessible, practical and convenient for daily use by residents and / or business premises and complies with the Council's current requirements.
- The tables in Section 6 have been amended to ensure they clearly identify the essential criteria and other criteria omitted.
- Paragraph 6.2 - The references to providing up to 20% landscape on plots have been removed.
- Make the following amendments to the table for land parcels Q/HRCC: Generally a 9m building height for primary frontages; not necessarily a continuous built frontage; should not have a continuous eaves line; but should appear as a three story built form.

- Plot Q & HRCC - The text is amended to state, "Development adjacent to the school boundary should not exceed 2 storeys."  
The text is amended to state, "Integrate parking appropriately into the design for development."  
The text is amended to state, "Pedestrian and cycle connections with POS1 should be created."  
The text is amended to state, "Provide open space provision in accordance with the Council's policy requirements."
- Plot Q & HRCC, Plot Com2a, Plot Com2b/3, Plot Com4, Plot L2, Plot K1 - The figure title has been amended to state, "Key Design Principles."
- Plot Com2a, Plot Com2b/3 - Replace the requirement for up to 20% of each plot to be landscaped, with the statement "Provide open space provision in accordance with the Council's policy requirements."
- Plot Com4 - The error has been corrected to refer to COM4 fronting onto POS3 and Topper Street.  
The proposals have been amended in relation to the sewerage pumping station.  
The reference for up to 20% of each commercial plot to be landscaped has been removed.  
Amend the proposed building heights to reflect those in the Arbury Camp Design Guide.
- Plot K1 - The text has been amended to clarify that this development should be a high quality development built to the highest possible standards of environmental performance.