ENERGY

11.9 Sustainable development principles are embedded within the proposals. The development at Land North of Cherry Hinton has been designed and built in accordance with the energy hierarchy of reducing energy demand in the first instance (Be Lean), using energy efficiently (Be Clean) and, only then, supplying clean renewable and low carbon energy, where it is appropriate to do so (Be Green). Where supplying energy, the development will integrate low and zero carbon technologies to meet the local energy and carbon targets and following objectives:

- To reduce the amount of CO2 m³ / year emitted by 10% compared to the minimum Building Regulation requirement
- To provide at least 10% of the development’s predicted energy requirements from on-site renewable energy technologies
- To include exemplar projects in sustainable development, including energy efficiency measures
- To reduce internal water consumption to 110 litres per person per day or lower.

11.10 To achieve these targets, Land North of Cherry Hinton seeks a reduction in energy demand and to use energy efficiently. Reduction in energy demand will be achieved through careful consideration of site layout and by adopting a “fabric-first” approach to building design. The proposal seeks to reduce potential overheating and reliance on air condition systems

11.11 The generation of Clean Energy will be achieved through adoption of low carbon and renewable technologies. Suitable options for the site include:

- Photovoltaic solar panels (PV)
- Solar water heating systems
- Air source heat pumps.
01 Introduction
02 Vision
03 The site and its context
04 Character analysis
05 Design evolution and response to consultation
06 The proposed development
07 Access and movement
08 Urban form and character
09 Community infrastructure
10 Landscape, open space, ecology and public art
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12 Character areas
13 Implementation
12.1 Land North of Cherry Hinton will contain a series of character areas, each with its own distinct sense of place. The character areas respond principally to the character of the adjoining edge. This section provides further detail on these character areas, including indicative layouts.

12.2 The six proposed character areas are:
- Parkside
- Green
- Gateway
- Core
- Garden
- Village
Character Area 1: Parkside

12.3 Responding to the airport edge, this area will be of a medium-density character, with landscape and drainage features integral to its design. The building design and landscape will mitigate the impact of the airport. This areas will benefit from views of the airport and proximity to the linear park.

Form

- Repetition of built form and regular building line as seen across Cambridge creates a harmonious environment
- Views to airport maintained through block structure
- There is also potential to use building mass along this edge to mitigate noise further to the homes beyond

Height

- Up to 4 storeys (up to 15m)

Density

- Medium to high density

Landscape

- Views of and proximity to the linear park create an attractive setting for new homes
- Pocket parks with play areas and views towards the airport
- Multi-functional public open spaces incorporating attenuation features form part of the linear park and follow the trim trail
- Trim trail with integrated public art and outdoor gym equipment create an attractive place for the community

Movement

- Comprehensive network of car free cycle and pedestrian routes
- Private drives, side streets and side streets with integrated urban rills (to be designed in accordance with future safeguarded land design)
- The linear park forms part of the movement network and incorporates the PRoW

Figure 12.2: Indicative layout (Parkside)
Character Area 2: Green

12.4 This area will respond sensitively to its edges which include the green belt edge, the secondary school site and the airport. The master plan in principle ensures views towards the countryside, airport and Teversham are retained where possible.

Form

- Built form to provide a sensitive edge to the green belt
- Built form to ensure views towards countryside and Teversham are maintained
- Built form to respond appropriately to airport edge and school edge in terms of height, scale and fabric

Height

- Up to 3 storeys (up to 12m)

Density

- Medium density

Landscape

- Strong landscape framework that respects green belt edge
- Allotments provide a green buffer between built form and green belt
- Trim trail incorporated into landscape framework
- Pocket park brings extends the linear park into the development parcel

Movement

- Comprehensive network car free cycle and pedestrian routes
- Tertiary streets and private drives
- Streets to reflect residential character of area

Example characteristics of green character area
Character Area 3: Gateway

12.5 The gateway to the site will be defined through built form and landscape. The secondary school and open green spaces will create an attractive and distinctive welcome.

Form

- Marker buildings articulated through height / materials / design help define gateway to site
- Secondary school as a landmark building
- Landscape to contribute create a green gateway to site

Height

- Predominately 3 storeys (up to 12m) however buildings along the vehicular gateway may be higher

Density

- Medium density

Landscape

- Strong landscape edge providing attractive edge to development and green gateway to the site
- Multi-functional public open spaces create an attractive setting for new homes

Movement

- Cycle and pedestrian links to the wider area
- Secondary street incorporating cycle and bus route
- The green link to the secondary school from Cherry Hinton will incorporate traffic calmed streets

Example characteristics of gateway character area

Figure 12.4: Indicative layout (Gateway)
Character Area 4: Core

12.6 This character area represents the core of the community, comprising medium density residential dwellings and the local centre, which will be an accessible and attractive place for the community to come together.

Form

- Core defined through building height
- Shared space design within local centre
- Triangular widening of urban form leading to local centre, reflecting the existing character of Cherry Hinton
- Overlooked public spaces and connected green links
- Central green open space contributes to the creation of an attractive space for community activity
- Community heart
- Primary school to contribute to primary frontage of local centre

Height

- Predominately 3 storeys (up to 12m) but with 4 storeys (up to 15m for residential use; 16.5m for local centre) along primary street

Density

- Medium density dwellings; higher density around the centrally located local centre

Landscape

- Allotments provide a green buffer between built form and green belt
- Multi-functional public open spaces create an attractive setting
- Level access for all (details to be agreed at detailed design stage)
- Local centre green space to include a NEAP and small park overlooked by the community facilities and residential dwellings

Movement

- Off road cycle and pedestrian routes
- Primary street, secondary street, tertiary streets and side streets
- The primary street (designed with 20mph speed limit) will pass through the local centre and accommodate the new bus route and cycle links

Example characteristics of core character area

Figure 12.5: Indicative layout (Core)