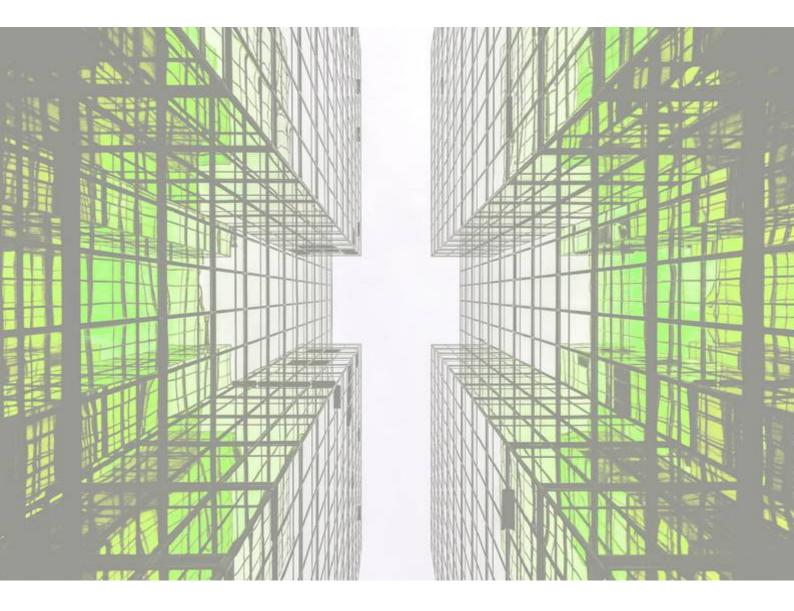
# Sustainability Statement

## Land at Hall Place Farm

Prepared for the Sulham Estate December 2018





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## **1** INTRODUCTION

1.1 This sustainability statement has been produced by Envision Sustainability Ltd, on behalf of the Sulham Estate, to explain the opportunity to deliver a sustainable development on the land at Hall Place Farm. This statement is prepared as a supporting document to the Vision statement, demonstrating how best practice sustainability principles have been incorporated within the scheme proposals, and how this would continue during the design, construction and operation of the proposed development, in accordance with relevant national and local planning policies and best practice sustainability principles.

## **Drivers of Sustainable Development**

- 1.2 Sustainable development is the longstanding, internationally recognised concept that it is fundamental to consider the impact on future generations when developing plans, programmes and projects to meet current needs, considering all impacts and opportunities from an economic, social and environmental perspective to achieve the best outcome possible.
- 1.3 In September 2015, the UK pledged commitment to the achievement of 17 Sustainable Development Goals (SDGs) and associated targets by 2030, as defined in the United Nations 'Transforming Our World – the 2030 Agenda for Sustainable Development'. These 17 goals cover issues from poverty and gender equality to waste reduction and achieving sustainable consumption and production patterns. This latest commitment builds upon the existing UK Sustainable Development Strategy, "Securing the Future", published in 2011, which identified five guiding principles of "living within environmental limits; ensuring a strong, healthy and just society; achieving a sustainable economy; promoting good governance and using sound science responsibly". This strategy also identified four main priorities: sustainable consumption and production; climate change; natural resource protection and sustainable communities.
- 1.4 Drawing this UK commitment into national planning policy, the National Planning Policy Framework (NPPF), most recently updated July 2018, sets out a presumption in favour of sustainable development, identifying three overarching objectives to sustainable development which are interdependent and need to be pursued in a mutually supportive way:
  - An economic objective to help build a strong, responsive and competitive economy, by ensuring that sufficient land if the right type is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
  - A social objective to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
  - An environmental objective to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve



biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change including moving to a low carbon economy.

- 1.5 Planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development. In paragraph 131, the NPPF explains that "great weight should be given to outstanding and innovative designs which promote high levels of sustainability, .... so long as they fit with the overall form and layout of their surroundings". The NPPF does not include detailed measures on sustainable design codes and standards to apply, although expects that when setting any local requirement for a building's sustainability, local planning authorities should do so in a way consistent with the Government's policies and adopt nationally described standards.
- 1.6 West Berkshire's current Core Strategy Policies CS14 and CS 15 are drivers for good sustainable design, although the latter is recognised in the Local Plan Review Scoping Report as being out of date, since the abolition of the Code for Sustainable Homes and needs to be brought in line with current national policy requirements. Policy CS14 promotes high quality and sustainable design and it is anticipated that this would be taken forward in the emerging Local Plan to 2036.
- 1.7 The emerging Local Plan will need to embrace the changes introduced by the NPPF and is likely to require applicants to clearly demonstrate how sustainability is fully integrated into their proposals.

### The Sulham Estate's Approach to Delivering Sustainable Development

- 1.8 The landowner and promotor of the Land at Hall Place Farm, Tilehurst is the Sulham Estate. As a landowner for many generations, the Sulham Estate understands the importance of thinking of future occupants as well as the current, and delivering developments that respect the environment and the local community.
- 1.9 The Sulham Estate has a clear vision of the Land at Hall Place Farm, to design and build a new community based on the recognition that individual and communal wellbeing results from thoughtful design of the built environment. The Estate intends to retain a high proportion of the dwellings within its rental portfolio, thus maintaining the Estate's custodianship of the land, and facilitating a long-term approach to achieving the Estate's social and environmental aims.
- 1.10 From a sustainability perspective, in developing the vision and masterplan for Land at Hall Place Farm, the Sulham Estate intends to meet, and where feasible, exceed the requirements of existing and emerging local planning policies (including CS14 and CS15 of existing Core Strategy) and be in line with NPPF's presumption in favour of sustainable development. As demonstrated in this report, the principles of the development have been developed to provide a positive response to West Berkshire Local Plan Review Sustainability Appraisal Objectives, and have adopted best practice principles of sustainable masterplanning, taking guidance from BREEAM Communities, One Planet Living and Sustainable Development Goals.



## **Report Structure**

- 1.11 This report is structured as follows:-
  - Chapter 1 introduces the report and sets the context of the sustainability statement;
  - Chapter 2 establishes the sustainability framework for the proposed development based on local planning policy sustainability appraisal framework, and the scope of best practice sustainable assessment methodologies.
  - Chapter 3 describes how sustainable best practice features have been incorporated into the proposed vision for land at Hall Place Farm, and how these could be delivered in the design, construction and operation of the proposed development.
  - Chapter 4 provides an overall conclusion on the opportunity to deliver a sustainable development on land at Hall Place Farm.



## **2** ESTABLISHING A SUSTAINABILITY FRAMEWORK

- 2.1 In order to establish a suitable framework for evaluating how sustainable the proposals for development on land at Hall Place Farm are, and identify opportunities for delivering best practice and innovation, consideration has been given to relevant sustainability goals and objectives from a range of sources.
- 2.2 As already set out in the overarching principles above, the vision is to ensure, as a minimum, it is possible to provide a positive response to the Sustainability Appraisal Objectives set out in the West Berkshire Local Plan Review to 2036 Sustainability Appraisal/Strategic Environmental Assessment Scoping Report (February 2018). These sustainability appraisal objectives set out the scope against which the local plan policies will be reviewed as well as the review of potential sites for development. These sustainability appraisal objectives are shown in the diagram on page 6.
- 2.3 In addition, the sustainability framework has been developed based on a review of sustainable development goals agreed at an international level, with a review of the United Nations Sustainable Development Goals and guidance set out in Bioregional's "Build a Better Future with the Sustainable Development Goals a practical guide for construction and property companies" (DATE). These goals, as illustrated in the diagram on page 6, where established by the UN as the "plan to transform our world into one where people everywhere can have a decent life, properity can be shared and our planet is protected". The 17 goals, and 169 targets, are all meant to be achieved by 2020.
- 2.4 Finally, a review of best practice sustainability assessments relevant to masterplanning identified two methodologies of relevance – BREEAM Communities and One Planet Living. Both are designed to help guide the development of masterplans with sustainability at their core, setting out best practice principles to be incorporated where feasible into new development proposals.
- 2.5 BREEAM Communities, published in 2012, is part of the 'BREEAM family' of sustainable assessment methodologies developed over the last 15 years by the Building Research Establishment (BRE), with the focus of BREEAM Communities on issues and opportunities that affect sustainability at the earliest stage of the design process for a development, addressing key environmental, social and economic objectives that have an impact on large-scale development projects. The methodology divides the issues and opportunities into three steps of development design, as set out in the diagram overleaf.
- 2.6 One Planet Living is an alternative framework development by Bioregional to help organisations collaborate on their sustainable strategy. In developing the sustainability framework, reference has been made to guidance in 'One Planet Goals and Guidance for Communities and Destinations' (Bioregional, September 2016), which explains the ten guiding principles of One Planet Living and the associated One Planet Goals, as illustrated on the diagram overleaf.
- 2.7 As would be expected, there is considerable overlap between the appraisal objectives and best practice principles referenced above. To define a suitable bespoke sustainable framework for the proposed development on land at Hall Place Farm, the objectives, principles and goals of all the identified guidance have been incorporated into a set of 8 guiding principles that form the Sustainability Framework for Hall Place Farm, as illustrated in the diagram overleaf. The principles



have then been used in an iterative review and development process as the Vision for Hall Place Farm has been developed.





### West Berkshire Local Plan Review Sustainable Appraisal Objectives

1. To enable provision of housing to meet identified need in sustainable locations
2. To improve health, safety and wellbeing and reduce inequalities
3. To improve accessibility to community infrastructure
4. To promote and maximise opportunities for all forms of safe and sustainable travel
5. Ensure that the character and distinctiveness of the natural, built and historic environment is conserved and where possible, enhanced
6. To protect and improve air, water and soil quality, and minimise noise levels throughout West Berkshire
7. To promote and improve the efficiency of land use
8. To reduce consumption and waste of natural resources and manage their use efficiently
9. To reduce emissions contributing to climate change and ensure adaptation measures are in place to respond to climate change
10. To support a strong, diverse and sustainable

economic base which meets identified needs

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## Hall Place Farm Sustainability Framework

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Meeting Identified Local Need

Creating a Sense of Community

**Promoting Health and Wellbeing** 

Supporting the Local Economy Promoting Sustainable Transport

Maximising Opportunities to Improve Biodiversity

Minimising Natural Resource Use and Reducing Waste

Minimising Impact on and Adapting to Future Climates

## **BREEAM**<sup>®</sup> Communities

Step 1: Establishing the principle of development	Step 2: Determining the layout of the development		Step 3: Designing the details	
GO 01 – Consultation Plan	GO 02 – Consultation and engagement	SE 12 – Local parking	GO 04 – Community management of	
SE 01 – Economic Impact	GO 03 – Design review	SE 13 – Flood risk management	SE 14 – Local vernacular	
SE 02 – Demographic needs and priorities	SE 05 – Housing provision	LE 03 – Water pollution	SE 15 – Inclusive design	
SE 03 – Flood risk assessment	SE 06 – Delivery of services, facilities and	LE 04 – Enhancement of ecological	SE 16 – Light pollution	
SE 04 – Noise pollution	amenities	value	SE 17 – Labour and skills	
RE 01 – Energy strategy	SE 07 – Public realm	LE 05 – Landscape	RE 04 – Sustainable buildings	
RE 02 – Existing buildings and infrastructure	SE 08 – Microclimate	TM02 – Safe and appealing streets	RE 05 – Low impact materials	
RE 03 – Water strategy	SE 09 – Utilities	TM 03 – Cycling network	RE 06 – Resource efficiency	
LE 01 – Ecology strategy	SE 10 – Adapting to climate change	TM 04 – Access to public transport	RE 07 – Transport carbon emissions	
LE 02 – Land use	SE 11 – Green infrastructure		LE 06 – Rainwater harvesting	
TM 01 – Transport assessments			TM 05 – Cycling facilities	
			TM 06 – Public transport facilities	





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Health and happiness	Encouraging active, social, meaningful lives to pramate good health and wellbeing
Equity and local economy	Creating safe, equitable places to live and work which support local prosperity and international fair trade
Culture and community	Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living
Land and nature	Protecting and restoring land for the benefit of people and wildlife
Sustainable water	Using water efficiently, protecting local water resources and reducing flooding and drought
Local and sustainable food	Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein
Travel and transport	Reducing the need to travel, encouraging walking, cycling and low carbon transport
Materials and products	Using materials from sustainable sources and promoting products which help people reduce consumption
Zero waste	Reducing consumption, reusing and recycling to achieve zero waste and zero pollution
Zero carbon energy	Making buildings and manufacturing energy efficient and supplying all energy with renewables

of facilities

## **3** HALL PLACE FARM – A SUSTAINABLE DEVELOPMENT?

3.1 Using the eight guiding principles of the Sustainability Framework for Hall Place Farm, this chapter describes how sustainable best practice features have been incorporated into the proposed vision for land at Hall Place Farm, and how these could be delivered in the design, construction and operation of the proposed development. This includes identifying opportunities for further design development in areas of sustainable design innovation. The design of the Land at Hall Place Farm masterplan is at its very earliest stage, and the aim is continually drive incorporation of sustainable best practice throughout the development's lifecycle.

### **Meeting Identified Local Need**

- 3.2 Delivering developments that meet the needs of current generations whilst respecting future generations means understanding, firstly, what the current need is. A review of the demographic need for new housing and the type of housing has been undertaken by West Berkshire prior to commencing the review of their Local Plan. By engaging at this early stage of West Berkshire's Local Plan Review, the Sulham Estate is responding to West Berkshire's 'call for sites', demonstrating how the Land at Hall Place Farm could help deliver the identified need for new housing within West Berkshire in a sustainable location.
- 3.3 The size of dwellings within the proposed development is yet to be decided, but will take into account the needs identified within the emerging planning policies. In addition, the needs of all parts of society will be considered, with provision of dwellings that meet the needs of people with disability where considered appropriate. The intention is that the majority of the housing will be retained under the Sulham Estate ownership, within its rental portfolio. Consideration is also being given on the most appropriate method to ensure the provision of some affordable rental properties within the development. The range of unit types and flexibility of renting will enable the Sulham Estate to meet the evolving needs of residents, facilitating moves within the development during their lifetime to different sized accommodation, with the aim of creating a well-established community that lives within Hall Place Farm, albeit in different dwellings, throughout their life.
- 3.4 In line with best practice principles, the vision and masterplan concepts for Land at Hall Place Farm have evolve through initial informal consultation with the local community. Specific ideas about the provision of the farm shop, allotments and the office space have all evolved from conversations about what would be desired on a development of this type. The Sulham Estates intends to carry out further consultations on the evolving masterplan to ensure the development is responsive to identified needs of the local community.

## **Creating a Sense of Community**

3.5 Sustainable developments are designed to encourage neighbourliness and social interaction, to create a sense of community and become a place where residents feel they belong and want to live for the long term. Improving accessibility to community infrastructure, either existing within the surrounding area or within the proposed new development, is fundamental to this.



- 3.6 Land at Hall Place Farm is the located on the edge of Tilehurst, in close proximity to the existing community hall, as well as a reasonable walking distance from local primary schools and other community facilities within Tilehurst, providing good access to existing community assets.
- 3.7 The development's concept masterplan, as explained in the vision document, has been developed to ensure the new community will be centred around communal spaces designed to encourage engagement amongst residents including opportunities to socialise and cooperate in a range of activities available. Development blocks will have homes facing both the street and communal courtyards with amenity areas. Allotment gardens and a community orchard will be the gelling components of the community. A park will be centrally located to provide for children play activities and also offers considerable enhancement to the setting of the existing Listed Building in the site. The aim is to establish a sense of long-term community belonging, centred around active community engagement. The opportunities to move within the development, responding to long term changing needs of residents, will help to enhance this sense of belonging.
- 3.8 A farm shop and workshop units will occupy the existing barn along Sulham Hill, providing a benefit to the local community. With the active involvement of the Sulham Estate, the opportunities for volunteering will be explored within the site to further enhance the sense of community belonging.

### **Promoting Health and Wellbeing**

- 3.9 Linked with creating a sense of community, sustainable developments provide the opportunity to promote the health and wellbeing principles and potential to improve health, safety and wellbeing and reduce inequalities.
- 3.10 Land at Hall Place Farm has an inherent opportunity to encourage interaction with nature, in a manner that is respectful of the biodiversity value and ensures protection of habitats and species in line with relevant legislation. The northern and western boundaries of the site are formed by well-established mixed native woodland, designated as Ancient Woodland. Opportunities to promote managed access through this woodland into the wider rural areas is being considered as part of the development of the masterplan.
- 3.11 The evolving concept masterplan has been developed to improve the ecological connectivity through the site and provide opportunities for interaction with nature within the site through provision of the community orchard and natural drainage systems.
- 3.12 The site is designed to encourage walking and cycling through the site, with safe walking and cycling routes and streets designed with a pedestrian focus, to encourage healthy and sustainable methods of transport, further explained in the section on sustainable transport below. The provision on site of the farm shop and potential work spaces and the close proximity to the existing community hall should help to encourage active travel through the site. Furthermore, there is the opportunity to promote healthy diets through the provision of space for people to grow their own food and the proposed farm shop on site.
- 3.13 As the design develops, consideration will be given to safe and inclusive design principles to ensure the provision of safe access routes, natural surveillance opportunities and design of individual dwellings meets the requirements of all future residents.



- 3.14 Initial guidance on designing dwellings to maximise solar gain, considering the thermal comfort of future occupants and best practice principles to ensure good daylight levels in occupied rooms, has already been given some consideration in the evolving concept masterplan, considering the orientation of properties and stepping of heights to reflect the sun path. This will be developed further as the design evolves, along with adopting high quality design principles to improve the indoor air quality of the new dwellings.
- 3.15 During construction, best practice site management principles would be adopted to minimise impacts on local communities and the local environment, ensuring protecting the air, water and soil quality and minimising noise levels.

#### **Supporting the Local Economy**

- 3.16 One of the objectives within West Berkshire's Sustainability Appraisal is to support a strong, diverse and sustainable economic base which meets identified needs, with the aim of encouraging developments that are able to support sustained growth in the local economy.
- 3.17 Furthermore, sustainability best practice principles encourage developers to consider opportunities throughout the lifetime of a development to achieve higher levels of economic prosperity.
- 3.18 Hall Place Farm is located close proximity to a range of employment opportunities, within Tilehurst and with good access, including by public transport, to the centre of Reading.
- 3.19 Incorporated within the masterplan is the provision of office space for start-ups, as well as ensuring provision of sufficient broadband capacity to support homeworking.
- 3.20 During construction, opportunities to use local suppliers and contractors would be explored and encouraged, as well as engaging with contractors that support best practice sustainable economic principles e.g. paying all workers the living wage and running apprenticeship programmes.

### **Promoting Sustainable Transport**

- 3.21 Encouraging the use of sustainable methods of transport provides numerous sustainable benefits which overlap with other principles identified here, including promoting health and wellbeing, creating a sense of community and minimising the impact on future climate through reducing carbon dioxide emissions.
- 3.22 To promote and maximise opportunities for all forms of safe and sustainable travel, the proposed concept plan for Land at Hall Place Farm includes a range of access routes through the site and to the surrounding area to provide attractive walking and cycling routes.
- 3.23 The proposals include a new pedestrian footpath to be provided along the development frontage facing Little Heath Road. This will facilitate pedestrian movement from the site to the existing bus stop at Little Heath Road and PRoW along the western boundary of the site.
- 3.24 The bus service operating on Little Heath Road is a frequent service, providing public transport to Reading city centre and the railway station. Reading railway station then provides access to numerous destinations across London and nationally. The site is also located in close proximity to local services and schools.



3.25 Recognising the growth in the electric car market as a sustainable alternative to diesel- and petrolpowered cars, the utilities assessment has included a review of the current electric capacity of the network and the proposals include for the installation of electric car charging points on the site to ensure all dwellings have access.

## **Maximising Opportunities to Improve Biodiversity**

- 3.26 Conservation and enhancement of the natural environment is a fundamental principle of sustainable development and is embedded in the vision for Land at Hall Place Farm. Initial ecological desk top surveys have been undertaken to identify the current ecological value of the site and its surroundings and, based on this, advice provided on how to minimise impact and maximise the opportunities to improve biodiversity.
- 3.27 Based on this advice, the evolving masterplan now includes a corridor through the site to improve ecological connectivity, as well as providing a suitable buffer between the proposed dwellings and the Ancient Woodland and Local Wildlife Site. The wetland features that form part of the drainage strategy and the community orchard add further enhancements, and there are more opportunities e.g. nesting opportunities, that are to be considered as the design develops.
- 3.28 Improving the biodiversity of the site is recognised to have multi-functional benefits, with improvements to water management, health and wellbeing and thermal comfort. Maximising all these benefits will be considered as the design of Land at Hall Place Farm develops.

### **Minimising Natural Resource Use and Reducing Waste**

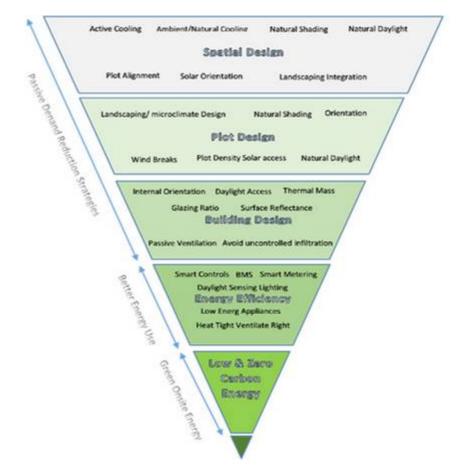
- 3.29 Focusing on finite resources, a good sustainable development looks to minimise their use and reuse materials where feasible in order to reduce waste being disposed in landfill. This includes reuse of whole buildings and development sites, through to efficient use of materials and reducing waste during the construction and operation of a development.
- 3.30 At Hall Place Farm, there is the opportunity to retain existing buildings within the site, with the existing barn located on Sulham Hill being retained in its entirety to accommodate a farm shop, and the adjacent brick building being renovated and extended to provide a range of small workshop units for local use.
- 3.31 As the design develops, consideration will be given to principles of waste minimisation, including offsite manufacture, to reduce the volume of construction waste generated, as well as implementing best practice procedures for reusing and recycling construction waste. Consideration will also be given to the specification of recycled content within construction materials, where feasible. This will form part of a sustainable procurement strategy, which would also include commitments to the procurement of sustainable materials, including timber products from certified sustainably managed forests.
- 3.32 The detailed design will also look to ensure appropriate facilities are included to support waste recycling during the occupation of the development. There will be a good opportunity to encourage composting on site, for use in the allotments and community orchard.



3.33 The opportunities for residents to move within the development, into dwellings of different sizes to meet their current needs, will have a positive impact on the use of natural resources, enabling efficient use of the space.

## **Minimising Impact on and Adapting to Future Climates**

- 3.34 Fundamental to delivering of sustainable developments is the consideration of the future climate and the impact the development will have on it. The focus from a master planning perspective is on reducing the carbon dioxide emissions associated with new developments and ensuring the developments are able to adapt to future changes in the local climatic conditions.
- 3.35 Work has already commenced on considering the energy design principles to reduce the demand for carbon dioxide for Land at Hall Place Farm, as set out in the Energy Design Principles document. This includes considerations of Solar Design Principles as well as looking at a range of options for energy efficient design of the new dwellings. The energy strategy is only at its earliest stage of development but the aspiration is to deliver a Zero Net Carbon development.
- 3.36 The approach to designing in carbon reductions in new developments that is being adopted is illustrated in the diagram below.



3.37 An optioneering exercise has been undertaken to consider a range of low carbon strategies, with each option presenting progressively reducing CO<sub>2</sub> emissions. This is set out in the Energy Design Principles document. Following this exercise, a commitment has been made to achieve a Net Zero



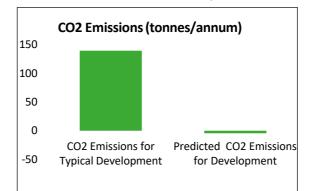
Carbon target for the new development, focused on regulated carbon emissions associated with the energy use within the new dwellings.

3.38 Each new dwelling on-site will be designed and constructed to reduce the demand for energy and resultant CO2, specifically;

- Considered location of openings to maximise passive solar gain;
- High performance building fabric;
- Efficient heating and hot water through the use of heat pumps;
- Photovoltaic (PV) solar panels across all roofs to generate enough electricity to offset all CO2 on-site, making the site zero carbon.
- 3.39 An initial appraisal of PV requirements has been undertaken for the development with the following quantum of PV proposed:

Unit	Total PV Area (m²)	Total PV Electrical Generation (kWh/annum)
1 Bed Flats	236	35,569
2 Bed Flats	246	37,051
2 Bed Houses	295	44,461
3 Bed Houses	469	70,643
4 Bed Houses	84	12,597
Total	1,330 m²	200,321 kWh

- 3.40 During the development timeline of this project, there will be expected updates to Building Regulations, specifically Part L and the carbon factors used to assess energy use in new buildings. Currently Part L uses an outdated carbon factor which is not reflective of the current energy mix of the grid. The progressive 'decarbonisation' of the grid means there is now much more renewable and clean energy online much less coal being burned. The decarbonisation of the credit and these expected changes have influenced the proposed energy strategy, focusing on future low carbon electricity use.
- 3.41 As seen in the chart below, a typical development of this size and nature, based on standard design and current Part L compliance, would be expected to emit 140 Tonnes of CO<sub>2</sub> in 1 year. Owing to the proposed energy strategy for Hall Place Farm, the development will be able to reduce its CO<sub>2</sub> emissions to 0, owing to the significant on-site PV generation, delivering an exemplar large scale zero carbon residential development.



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- 3.42 Consideration will also be given to 'unregulated' energy uses, that aren't accounted for in the Building Regulations calculations, e.g. use of energy within the home for electrical equipment, as well as considering the embodied energy of the materials used to construct the dwellings. Selection of materials with long-life spans and minimal maintenance requirements will be preferred, reducing the need to use more materials in the whole lifetime of the development.
- 3.43 On a wider basis, consideration has already been given to reducing transport related carbon dioxide emissions through the measures set out for sustainable transport above. This will be further explored as the design develops.
- 3.44 As well as designing buildings to minimise their impact on future climates, further consideration will also be given to ensuring the buildings will be resilient to future changes in climate without increasing demand on active heating or cooling. At a masterplanning level, consideration has already been given to ensuring the risk of flooding is low, as well as reductions to the urban heat effect by maximising the amount of green space within the development.



## 4 CONCLUSIONS

- 4.1 The evolving masterplan for Land at Hall Place Farm provides significant opportunities to deliver a sustainable development, addressing all sustainability principles set out in the sustainability framework.
- 4.2 These sustainability principles would be delivered by monitoring against a defined set of key performance indicators (KPIs), with aspirational targets where identified. The main target already confirmed is Net Zero Carbon, based on the proposed energy strategy. The defined set of KPIs and targets are still under development, but are likely to include the following:-
  - Meeting Identified Local Need
    - Number of houses / proportion available at affordable rental prices;
    - % of local community supporting the development proposals;
  - Creating a Sense of Community
    - Inclusion of space within the development that aids community engagement;
  - Promoting Health and Well Being
    - Size of open space for informal recreation;
    - Size of food growing space;
    - Thermal comfort level of new dwellings;
    - Daylight factor of bedrooms, kitchens and living space within new dwellings;
    - % of local community satisfied with construction site management;
  - Supporting the Local Economy
    - % of construction value sourced from local suppliers/contractors;
    - Size of office space provided on site / successful take up by start up businesses;
  - Promoting Sustainable Transport
    - Length of safe walking and cycling routes through the site;
    - Number of dwellings with direct access to electric car charging point
  - Maximising Opportunities to Improve Biodiversity
    - % improvement in ecological value of site
    - Value of ecosystem services
  - Minimising Natural Resource Use and Reducing Waste
    - % of demolition/construction waste sent to landfill (Target Zero Waste to Landfill)



- Minimising Impact on and Adapting to Future Climates
  - % reduction in predicted carbon emissions compared to current Building Regulations (Target – Net Zero)
  - Embodied energy within construction materials
  - Whole development carbon footprint