

Oaklands College & Land south of Sandpit Lane, St Albans

Climate Change Statement
(including Energy & Sustainability Strategy)
– Oaklands Blossom

October 2025



Oaklands Blossom

Taylor Wimpey North Thames

Climate Change, Energy and Sustainability
Statement

AES Sustainability Consultants Ltd

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This statement has been commissioned by Taylor Wimpey North Thames to detail the proposed approach to sustainable construction to be employed at Oaklands Blossom. It should be noted that the details presented, including the proposed specifications, are subject to change as the detailed design of the development progresses, whilst ensuring that the overall commitments will be achieved.

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Executive Summary

Prepared by AES Sustainability Consultants Limited on behalf of the applicant, this Climate Change, Energy and Sustainability Statement has been prepared in support of the Hybrid planning application at Oaklands Blossom, St Albans.

In addition to the application above, the development's sister site – known as the “Oaklands College” site are subject to a separate Climate Change, Energy, and Sustainability Statement.

This report demonstrates the indicative energy performance and carbon dioxide emissions of the proposed development and details the design measures that may be adopted to reduce energy demand, fossil fuel consumption and associated CO₂ emissions arising from the development.

The carbon emissions identified within this report adopts the methodology detailed with Part L1 & L2 utilising SAP and SBEM calculation procedures with reference to the energy hierarchy.

The proposed Oaklands Blossom development consists of the construction of up to 472 new homes (use class C3); new local centre and community facility (use classes E(a to f) and F); a children's home (use class C2), new extra care home dwellings (use class C2) and land for the construction of a new primary school (use class F.1).

The proposed strategy is as follows:

- All apartments will be electric only with space heating provided via electric panel heaters and hot water demand is to be met by connecting to Hot Water Heat Pumps (HWHP).
- The commercial areas are served by Air Source Heat Pumps.
- Renewables are maximised where practicably feasible, including solar PV to suitable roof spaces on the private/open market houses where gas heating is proposed.

The reserved matters residential units achieve a 25.86% reduction and the non-domestic units a 11.33% reduction in CO₂ emissions beyond a Part L compliant development through a combination of energy demand reduction, high efficiency air source heat pumps, and the inclusion of photovoltaic panels to suitable roof space, achieving a total site-wide saving for the reserved matters area of 139,848 Kg of CO₂ per year, equating to a 25.57% saving.

Water efficiency measures including the use of efficient dual flush WCs, low flow showers and taps and appropriately sized baths will be encouraged with the aim to limit the use of water during the operation of the development. Each new residential unit will minimise water usage to at least 110 litres/person/day.

1. Introduction

Preface

- 1.1. This Climate Change, Energy and Sustainability Statement has been prepared on behalf of Taylor Wimpey North Thames 'the Applicant' in support of the hybrid application for the proposed development at Oaklands Blossom.

Development Description

- 1.2. The site is located to the North-Eastern side of St Albans roughly 2 miles from the city centre and located to the North of Oaklands College, please see Figure 1a for the proposed illustrative master plan.
- 1.3. The proposed application is for a severable phase development comprising:
- Full planning application for the construction of homes (use class C3); new local centre and community facility (use classes E(a to f) and F); a children's home (use class C2); demolition and renovation of existing college buildings; construction of new college buildings (use class F1.); the creation of Active Travel Routes including footpaths for walking, cycling and equestrian activities; removal and planting of trees; along with the laying out of green infrastructure (including publicly accessible open space) and habitat creation; drainage infrastructure, earthworks, new means of access and alterations to existing access points.
 - Outline planning application (access only, all other matters reserved) for the construction new homes (use class C3); new extra care home dwellings (use class C2); land for the construction of a new primary school (use class F.1); demolition and renovation of existing college buildings; construction of new college buildings (use class F1.); the construction of new sports facilities and pitches; the creation of Active Travel Routes including footpaths for walking, cycling and equestrian activities; removal and planting of trees; new energy centre; new recycling facilities; new car parking facilities; along with the laying out of green infrastructure and habitat creation; drainage infrastructure, earthworks, pedestrian and cycle routes, alterations to existing access points.
- 1.4. The phasing of the development is indicative allowing different phases to commence at different times and independently (severable) from each other. The outline phases will be the subject of parameter plans and design codes.

Purpose and Scope of the Statement

- 1.5. The statement has been prepared to address relevant national and local policies relating to sustainable development for the B4 area only, please see figure 1b. Relevant policies within the St Albans Local Plan, Sandridge neighbourhood Plan and St Albans Draft new Local Plan will be addressed as well as taking into consideration any Supplementary Planning Documents (SPD).
- 1.6. This statement will demonstrate that by following a fabric first approach, the building will result in a reduction in CO₂ emissions beyond current Part L2 2021 Building Regulations standards whilst addressing a range of additional sustainable design considerations.
- 1.7. This report supports both the full and outline aspects for the hybrid application of the development. Each part will respectively be referred to as the reserved matters elements, and the outline elements within this report.

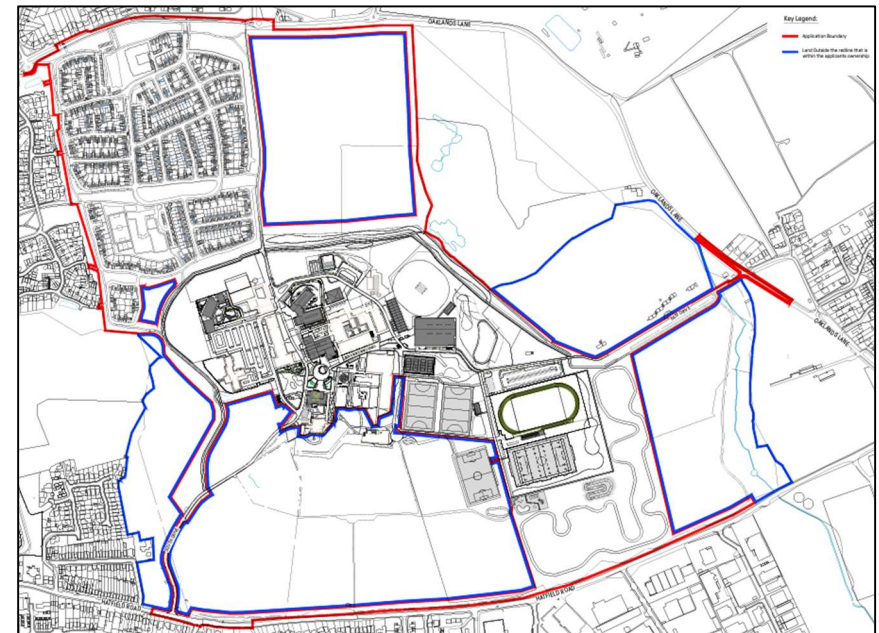


Figure 1a: Proposed site illustrative masterplan

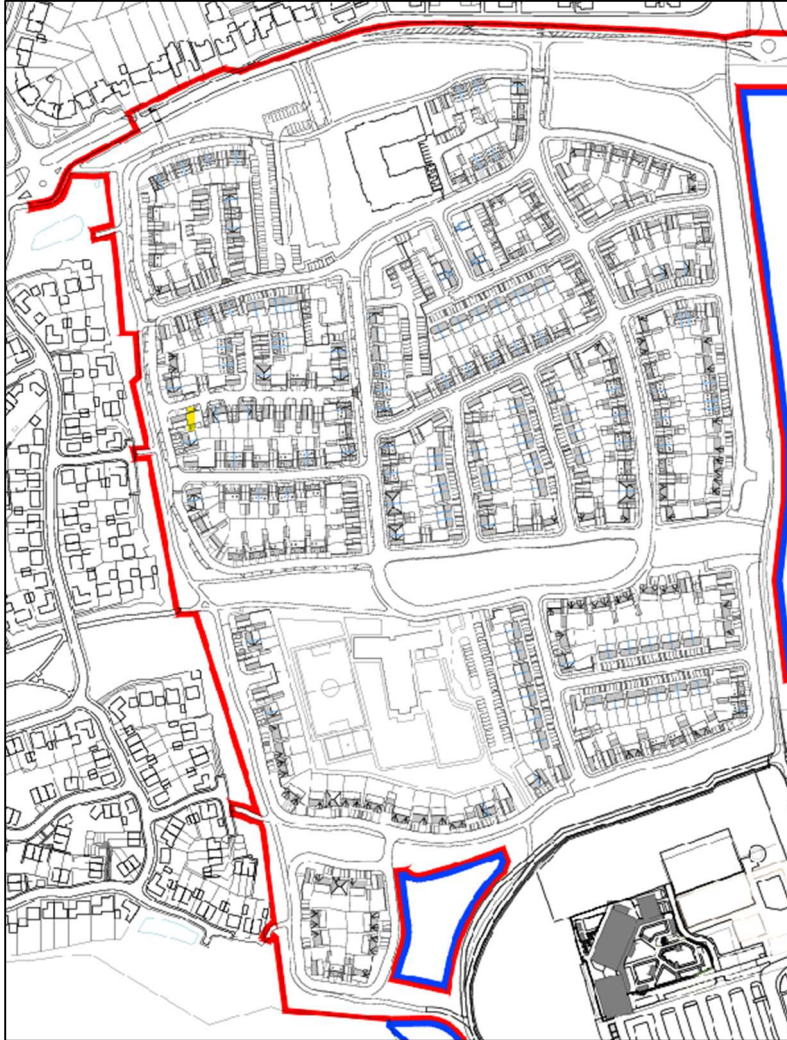


Figure 2b: Oaklands Blossom parcel on the illustrative masterplan

2. Planning Policy

National Planning Policy Framework

- 2.1. In February 2025, the Government published the updated National Planning Policy Framework (NPPF), which sets out the Government's planning policies for England and how these are expected to be applied.
- 2.2. The planning process has been identified as a system to support the transition to a low carbon future in response to climate change by assisting in the reduction of greenhouse gas emissions and supporting renewable and low carbon energy.
- 2.3. Paragraph 164 sets out what is expected from new developments when considering strategies to mitigate and adapt to climate change:

164. New development should be planned for in ways that:

a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and

b) can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards.

- 2.4. A ministerial statement published in December 2023 stated "The improvement in standards already in force, alongside the ones which are due in 2025, demonstrates the Government's commitment to ensuring new properties have a much lower impact on the environment in the future. In this context, the Government does not expect plan-makers to set local energy efficiency standards for buildings that go beyond current or planned building regulations."

Local Planning Policy

- 2.5. Local policy relating to the sustainable design and construction of buildings is contained within several planning documents: St Albans Local Plan, St Albans Draft new Local Plan, Sandridge neighbourhood Plan and Supplementary Planning Documents (SPD).

St Albans Local Plan

- 2.6. The current adopted Local Plan is The District Local Plan Review 1994 (adopted Nov 1994) with saved and deleted Policies version (July 2020). St Albans are currently developing a new local plan and therefore the policies listed in the List of Saved Policies are still operational. The relevant policies are 69 and 70:

- **Policy 69 – General Design and Layout** requires development to be in keeping with local character in terms of scale, height, density, siting and materials, while protecting neighbouring amenity.
- **Policy 70 – Design and Layout of New Housing** adds housing-specific requirements, including adequate private or communal amenity space, protection of privacy, safe access and circulation, and minimising pedestrian/vehicle conflict.

St Albans New Local Plan

- 2.7. The Council are currently in the process of producing a New Local Plan which establishes the Council's long term spatial planning strategy for delivering and managing developments to 2041. The draft Local Plan has finished the Regulation 19 consultation process, and the draft Local Plan was submitted to the Secretary of State for examination in December 2024 under Regulation 22. The target adoption date of the New Local Plan is circa. March 2026. The relevant policies to this Climate Change, Energy and Sustainability Statement are extracted below:

Strategic Policy SP2 – Responding to the Climate Emergency

The Council recognises the urgent need to respond to Climate Change through mitigation and adaptation. The Council will support proposals that help combat Climate Change where the proposals...

c) Are designed to improve resilience to Climate Change, including resilience to increasing temperatures, more frequent drought, more intense storms and wind speeds and heavy rainfall events...

e) Provide on-site renewables, high standards of energy efficiency, and low carbon energy...

Policy CE1 - Promoting Sustainable Design, Construction and Building Efficiency

New buildings should be designed and constructed to ensure efficient use of energy, water and materials. Energy efficiency and reduced use of energy within buildings is a key component to reducing greenhouse gas emissions within the District. Applicants must demonstrate sustainable design and construction and a high degree of resource efficiency through evidence supporting planning applications, to a degree proportionate to the proposal, through:

a) Ensuring all new build development minimises the carbon, pollution and energy impacts of their design and construction. Building conversions, refurbishments and extensions must also minimise carbon and energy impacts. Proposals must demonstrate that they are seeking to limit greenhouse gas emissions through location, building orientation, design, landscape and planting, taking into account any nationally adopted standards;

b) Including water conservation, greywater recycling and storage facilities to reduce household water consumption to under 110 litres per person per day including external

Policy CE2 – Renewable and Low Carbon Energy

The Council seeks to increase the use of renewable and low carbon energy in the District.

a) Developments proposals must demonstrate, where appropriate, that the use of renewable or low carbon energy has been maximised.

b) Major development proposals must set out at the planning application stage how they will make use of renewable or low carbon energy within the site through submitting and agreeing an Energy Statement with the Council. Agreed measure will be secured through conditions;

c) The Council will support a range of low carbon and renewable energy solutions including, but not limited to, the following:

- i. Solar power, including photovoltaic panels, solar thermal heaters, and maximising passive solar heating through south facing designs;
- ii. Wind turbines at different scales;
- iii. Decentralised District Heating and Energy Networks; and

Sandridge Neighbourhood Plan

- 2.8. The proposed site falls within the Sandridge Neighbourhood Plan boundary which formally designated the whole of the Parish of Sandridge as the relevant Neighbourhood Area in 2014. The Neighbourhood Plan (July 2021) supports the delivery of strategic policies contained in the Saved Policies of the St Albans District Local Plan Review 1994.
- 2.9. The proposed residential part of the site is allocated under Policy D7: East St Albans Broad Location (and Appendix 5) in the emerging local plan and has the across design requirements.

Policy D7 East St. Albans Broad Location

In addition to the conditions set out in the relevant emerging Local Plan policies, SADC Toolkit dated March 2020, (as amended) and relevant policies in this plan, all of the criteria set out below should be addressed as part of the master planning process. Sandridge Parish Council must be a major collaborator in the master planning process. (Appendix 5). Development proposals should:

1. Demonstrate good quality design and respect the character and appearance of the surrounding area, as set out in a design brief, which the local community should be consulted on...
3. Provide a mix of house types and tenures, including the requirement for at least 40% affordable housing to meet the needs of current and future residents, including staff at local educational establishments...
9. Provide fully operational electric vehicle charging points for each new home either individually or communally...
12. Include provision of community facilities to serve new residents without increasing demand on already overstretched adjacent neighbouring facilities, including:
 - a) Provision of pre-schools, primary and secondary schools to meet the needs of the new community in line with the education requirements stated in Policy S6 v) of the emerging Local Plan.
 - b) Healthcare provision within or close to the site.
 - c) Provision of community facilities, including a hall for community use and interdenominational use, public open space, including a children's play area.
 - d) Land for local retail outlet(s) to be classified as a 'local centre' within this Neighbourhood Plan...
14. Use and promote low carbon and renewable energy, including the consideration of district heating and/or local power generation.

This Policy shall be applicable to any Broad Location for development within the Parish.

- 2.10. The remaining relevant policies within the Sandridge Neighbourhood Plan are extracted below:

Policy D6 Sustainable Future Housing Design

...The Parish supports the principles of sustainability and adaptability so aims to encourage future proofing new development where possible, whilst retaining the special character of the areas. Applications meeting some or more of the following standards will be viewed more favourably.

A. ENVIRONMENTAL DESIGN

1. Provision of an enclosed porch or weather-protected main entrance.
2. Triple-glazed coated glass used throughout any new development.
3. Includes a glazed south-facing area.
4. Levels of insulation in the walls/floors and roof are higher than those recommended by Building Regulations and made of non-combustible materials.
5. Orientation and layout to minimise need for heating.
6. The incorporation of solar thermal panels/PVs where practical.
7. High thermal mass dwellings and the creation of sunspaces with high thermal mass floors.

St Albans Strategic Sites Design Guidance: SPD

- 2.11. Section 8 facing the climate crisis of the St Albans Strategic Sites Design Guidance contains the relevant design aims for this Statement to assist in building resilience to climate change into the development and design process, consideration will be given the below design aims.
- 2.12. To follow the energy hierarchy and follow a fabric first approach, as set out in the National Design Guide (R1).
- 2.13. To secure opportunities for carbon-free energy production within developments to meet on-site needs insofar as possible.
- 2.14. To maximise water efficiency, in order for the development to be more environmentally sustainable, while providing lower cost benefits to residents.
- 2.15. To make low-carbon building techniques and locally sourced sustainable materials the norm for all development in order to reduce energy use and embodied carbon emissions. To deliver carbon neutral where possible.

Proposed Strategy

- 2.16. This statement will establish the proposed approach towards sustainable construction and reduction in CO₂ emissions to be delivered at the Oaklands Blossom development to address Policies SP2, CE1, and CE2 of the new St Albans plan. And policies D6 and D7 of the Sandridge Neighbourhood Plan.
- 2.17. Oaklands Blossom will be constructed to meet and exceed Part L 2021. This statement will provide an indicative fabric specification and a strategy which would enable both the domestic and non-domestic elements of this scheme to meet these standards, with the precise strategy to achieve this being subject to change as detailed design of the development is progressed.
- 2.18. A range of potential energy supply options will be reviewed for the Oaklands Blossom development, including decentralised low carbon and renewable energy systems. These include varied systems for both parts of the hybrid application, outline and reserved matters, these technologies namely are:
- Air Source Heat Pumps – Affordable Houses (Reserved Matters)
 - Hot Water Heat Pumps – Affordable Apartments (Reserved Matters)
 - Photovoltaics – Private and Open Market Houses (Reserved Matters)
 - Air Source Heat Pumps – Local Centre & Children’s Home (Reserved Matters)
 - Communal Heating – Extra Care Self-Contained Apartments (Outline)
 - Air Source Heat Pumps / Photovoltaics – Remainder of Residential Units (Outline)
- 2.19. The site will therefore be using a combination of electric and gas heating strategies along with various types of renewable technologies, complying with local planning policies.
- 2.20. Furthermore, all domestic units will be using triple glazing, have decentralized mechanical extract ventilation, and be built to a fabric standard above Part L 2021 standards. Thus, it is in line with Policy D6 of the Sandridge Neighbourhood Plan.
- 2.21. Section 9 of this report will detail how a water target, as per Part G, of 110 l/p/d can be met by all domestic units on site. Thus, complying with Policy CE1 of the St Albans District new Local Plan.

3. Energy Consumption and CO₂ Emissions

- 3.1. As one of the key areas of ongoing impact of any development, the energy demand of the buildings to be constructed is a key consideration in the overall sustainability strategy.
- 3.2. As set out within the policy review section of this statement, it is considered that Building Regulations form the minimum requirement for new buildings in terms of energy performance,
- 3.3. With the introduction of every new set of new regulations more stringent targets for buildings are set. Table 1 demonstrates the CO₂ standards contained within Part L were increased in 2010, 2013 and 2021, which reduced the TER by approximately 31% for residential units and 27% for non-residential respectively.

Table 1. CO₂ emissions improvements from successive Part L editions

Building Regulations	CO ₂ emissions improvements preceding regulations – Part L1A	CO ₂ emissions improvements preceding regulations – Part L2A
L 2006	-	-
L 2010	25%	25%
L 2013	6%	9%
L 2021	31%	27%

Energy Reduction Strategy – Fabric First

- 3.4. The proposed construction specification and sustainable design principles to be applied to the development will ensure that each building meets the CO₂ reductions mandated by Part L of the Building Regulations through fabric measures alone.
- 3.5. It is proposed that the energy demand reduction strategy for the development incorporates further improvements beyond a Part L compliant specification and initially concentrates finance and efforts on reducing energy demand as the first stage of the Energy Hierarchy.

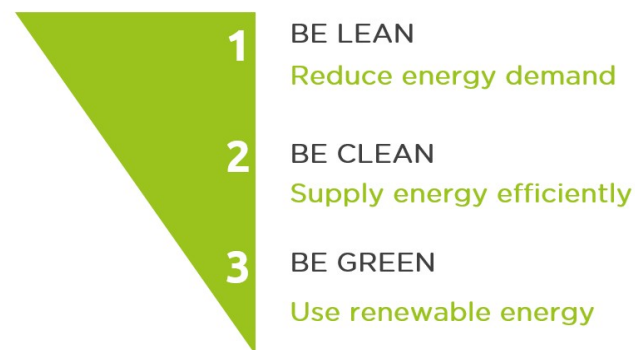


Figure 2. The Energy Hierarchy

Be Lean – reduce energy demand

- 3.6. The design of a development - from the masterplan to individual building design - will assist in reducing energy demand in a variety of ways, with a focus on minimising heating, cooling and lighting loads. Key considerations include:
 - Building orientation – maximise passive solar gain and daylight
 - Building placement – control overshading and wind sheltering
 - Landscaping – control daylight, glare and mitigate heat island effects
 - Building design – minimise energy demand through fabric specification

Be Clean – supply energy efficiently

- 3.7. The design and specification of building services to utilise energy efficiently is the next stage of the hierarchy, taking into account:
- High efficiency heating and cooling systems
 - Ventilation systems (with heat recovery where applicable)
 - Low energy lighting
 - High efficiency appliances and ancillary equipment

Be Green – use low carbon / renewable energy

- 3.8. Low carbon and renewable energy systems form the final stage of the energy hierarchy and can be used to directly supply energy to buildings or offset carbon emissions arising from unavoidable demand. This may be in the form of:
- Low carbon fuel sources – e.g., biomass
 - Heat pump technologies
 - Building scale renewable energy systems
 - Small-scale heat networks
 - Development-scale heat networks
- 3.9. As this hierarchy demonstrates, designing out energy use is weighted more highly than the generation of low-carbon or renewable energy to offset unnecessary demand. Applied to the development, this approach is referred to as ‘fabric first’ and concentrates finance and efforts on improving U-values, reducing thermal bridging, improving airtightness, and installing energy efficient ventilation and heating services.
- 3.10. This approach has been widely supported by industry and government for some time, particularly in the residential sector, with the Zero Carbon Hub¹ and the Energy Savings Trust² having both stressed the importance of prioritising energy demand as a key factor in delivering resilient, low energy buildings.
- 3.11. The benefits to prospective building owners of following the Fabric First approach are summarised in Table 2.

Table 2. Benefits of the Fabric First approach

	Fabric energy efficiency measures	Bolt-on renewable energy technologies
Energy/CO ₂ /fuel bill savings applied to all buildings	✓	✗
Savings built-in for life of building	✓	✗
Highly cost-effective	✓	✗
Increases thermal comfort	✓	✗
Potential to promote energy conservation	✓	✓
Minimal ongoing maintenance / replacement costs	✓	✗
Significant disruption to retrofit post occupation	✓	✗

Building Regulations Standards – Fabric Energy Efficiency

- 3.12. In addition to the CO₂ reduction targets, the importance of energy demand reduction was further supported by the introduction of a minimum fabric standard into Part L1A 2013, and carried over into Part L 2021, based on energy use for heating and cooling a dwelling. This is referred to as the ‘Target Fabric Energy Efficiency’ (TFEE) and expressed in kWh/m²/year.
- 3.13. This standard enables the decoupling of energy use from CO₂ emissions and serves as an acknowledgement of the importance of reducing demand, rather than simply offsetting CO₂ emissions through low carbon or renewable energy technologies.
- 3.14. The TFEE is calculated based on the specific dwelling being assessed with reference values for the fabric elements contained within Approved Document L. These reference values are described as ‘statutory guidance’ as opposed to mandatory requirements, allowing full flexibility in design approach and balances between different aspects of dwelling energy performance to be struck so that the ultimate goal of achieving the TFEE is met. The proposed approach and indicative construction specifications are set out in the following sections of this Strategy.

¹ Zero Carbon Hub, Zero Carbon Strategies for tomorrow’s new homes, Feb 2013

² Energy Savings Trust, Fabric first: Focus on fabric and services improvements to increase energy performance in new homes, 2010

4. Baseline CO₂ Emissions

- 4.1. The Oaklands Blossom development is to be designed and constructed to meet the requirements of Part L of the Building Regulations 2021, therefore compliance with these standard forms the first stage in the sustainable construction approach.
- 4.2. Energy performance and CO₂ emissions from new dwellings are calculated using the Standard Assessment Procedure (SAP). SAP assesses the characteristics of each specific dwelling to establish a maximum CO₂ emission rate - the target emission rate (TER) - expressed in kilograms of carbon dioxide per metre squared of total useful floor area per annum. Criterion 1 of Part L requires that the dwelling emission rate (DER) must meet or exceed this level of performance in order to achieve compliance.
- 4.3. Due to the stage of design for the outline portion of Oaklands Blossom, there are currently limited energy figures available. Figures based on previous developments with similar energy systems and fabric specifications have therefore been used to calculate the emissions and extrapolated over the estimated floor area. These dwellings have then been used to calculate a representative model of the site to establish overall energy demand and CO₂ emissions from the development as a whole.
- 4.4. In order to assess baseline CO₂ emissions for Building Regulations compliance for the commercial properties, Simplified Building Energy Model (SBEM) and Dynamic Simulation Modelling (DSM) calculations have been carried out using IESVE software to measure the energy demand of the building and assess the renewable energy provision required to meet the planning policy requirements.
- 4.5. SBEM is the methodology used by the Government to analyse the energy and environmental performance of non-residential buildings. Its purpose is to provide accurate and reliable assessments of buildings' energy performances that are needed to underpin energy and environmental policy initiatives.
- 4.6. SBEM assesses buildings against a target emission rate (TER), expressed in kilograms of carbon dioxide per metre squared of total useful floor area per annum, as the benchmark for Part L Building Regulations compliance. The building emission rate (BER) must meet or exceed this level of performance in order to comply with Part L requirements.
- 4.7. The energy uses regulated by the Building Regulations are those most directly influenced by the structure and design of the buildings. These are the energy used for space heating, water heating, lighting and ventilation. Unregulated energy uses are those in connection with the building user process/equipment small power loads.

- 4.8. The calculations and specifications detailed within this assessment are subject to change as detailed design of the site progresses, and figures detailed throughout the report are calculated with information available to date.

Part L 2021 Compliant Emissions

- 4.9. Tables 3 & 4 detail the calculated baseline CO₂ emissions of the Part L 2021 compliant development, for both the reserved matters elements and outline elements of the scheme.

Table 3. Site-wide baseline CO₂ emissions – Reserved Matters

Part L 2021 compliant development emissions	Part L 2021 Carbon dioxide emissions (kgCO ₂ /yr)
Residential	184,267
Non-residential	3,643
TOTAL	187,910

Table 4. Site-wide baseline CO₂ emissions – Outline

Part L 2021 compliant development emissions	Part L 2021 Carbon dioxide emissions (kgCO ₂ /yr)
Residential	297,578

- 4.10. The total regulated CO₂ figure of 187,910 kg CO₂/annum forms the baseline target against which Building Regulations 2021 Part L compliance must be met for the reserved matters elements of Oaklands Blossom. A total regulated CO₂ figure of 297,578 kg CO₂/annum forms the baseline target for the outline elements of the development.
- 4.11. Given the stage of design for the care home, the available communal amenities and their respective size have yet to be determined. Therefore, indicative calculations for the non-domestic elements of the outline proposal will be done at a later stage.

5. Be Lean – reduce energy demand

- 5.1. The sustainable construction strategy will initially prioritise improvements to the fabric of the proposed building in excess of Building Regulations requirements in order to reduce energy demand as far as is practically possible.

Passive Design Measures

- 5.2. In order to ensure energy use is minimised from the outset, where practical the buildings have been designed with regard to the principles of passive design, including consideration of building orientation and site placement to maximise the potential for solar gain.
- 5.3. Within the Oaklands Blossom layout, orientation and massing have been designed to maximise (within reason) passive solar gain, other design considerations have also been taken into account within the layout and orientation, minimising the overshadowing from adjacent buildings and vegetation to maximise solar gains where possible.
- 5.4. Glazing will be specified to strike a balance reducing the heating demand in winter by taking advantage of useful solar gain and reducing the cooling demand in summer.
- 5.5. Through optimising for solar gain, the building will additionally benefit from good daylighting levels, thereby reducing the use of internal lighting and promoting well-being.
- 5.6. Where possible, ventilation will be provided naturally, via a mixture of cross ventilation, stack effect and operable windows.

Proposed Fabric Specification

- 5.7. The first stage of demand reduction is ensuring an efficient thermal envelope of the buildings. The specification of materials and insulation will ensure that unwanted heat loss from the buildings is minimised, thereby limiting the required energy inputs to maintain comfortable internal temperatures throughout the year.
- 5.8. In order to deliver the energy demand reduction required to meet and exceed Part L 2021 compliance, improvements to the fabric forms the first stage of the energy hierarchy.

Residential

- 5.9. In order to ensure that the energy demand of Oaklands Blossom is reduced, the dwellings should be designed to minimise heat loss through the fabric wherever possible. Tables 5 & 6 detail the proposed fabric specification of the major building elements, with the first column in this table setting out the Part L limiting fabric parameters in order to demonstrate the improvements delivered.

Table 5. Proposed construction specification residential houses – main elements

	Part L Limiting Fabric Parameters	Proposed Specification – Residential Houses
External wall – U-value	0.26 W/m ² K	0.25 W/m ² K
Party wall – U-value	0.20 W/m ² K	0.00 W/m ² K
Plane roof – U-value	0.16 W/m ² K	0.09-0.11 W/m ² K
Ground floor – U-value	0.18 W/m ² K	0.10 – 0.14 W/m ² K
Windows – U-value	1.60 W/m ² K	0.86 – 0.89 W/m ² K
Doors – U-value	1.60 W/m ² K	1.20 W/m ² K
Air Permeability	8.0 m ³ /h.m ² at 50 Pa	4.0 - 4.5 m ³ /h.m ² at 50 Pa
Thermal Bridging	Y = 0.150 (default)	Y = ≤ 0.050 (calculated)

Table 6. Proposed construction specification residential apartments – main elements

	Part L Limiting Fabric Parameters	Proposed Specification – Residential Apartments
External wall – U-value	0.26 W/m ² K	0.20 W/m ² K
Party wall – U-value	0.20 W/m ² K	0.00 W/m ² K
Plane roof – U-value	0.16 W/m ² K	0.09-0.11 W/m ² K
Ground floor – U-value	0.18 W/m ² K	0.10 – 0.17 W/m ² K
Windows – U-value	1.60 W/m ² K	0.86 – 0.89 W/m ² K
Doors – U-value	1.60 W/m ² K	1.20 W/m ² K