

District Centre Nursery and Pre-school Arborfield, RG2 9GB Crest Nicholson Operations Ltd

Sustainability Report

10th August 2026

Revision 2

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Contents

1.	Introduction.....	3
2.	Planning Policy.....	4
3.	Climate Change Resilience	8
4.	Energy Consumption and CO ₂ Emissions	10
5.	Low Carbon and Renewable Energy	15
6.	Proposed Low-Emission Systems	22
7.	Indicative Emissions.....	24
8.	Resource Efficiency	27
9.	Water Efficiency	29
10.	Electric Vehicle Charging	31
11.	Conclusions	32
12.	Appendix.....	34

List of tables and figures

Figure 1. Proposed Site Layout	3
Table 1. CO ₂ Emissions improvements from successive Part L editions.....	10
Figure 2. The Energy Hierarchy	11
Table 2. Benefits of the Fabric First approach.....	12
Table 3. Proposed construction specification residential houses – main elements	13
Table 4. Indicative construction specification non-residential buildings- main elements	13
Table 5. Fabric Energy Efficiency of sample dwellings	14
Table 6. Individual Biomass Heating feasibility appraisal.....	16
Table 7. Solar Thermal systems feasibility appraisal	17
Table 8. Solar Photovoltaic (PV) systems feasibility appraisal.....	18
Table 9. Air Source Heat Pump systems feasibility appraisal	19
Table 10. Ground Source Heat Pump systems feasibility appraisal	20
Table 11. Sample dwellings as-designed regulated CO ₂ emissions - Part L 2021.....	24
Table 12. Estimated residential CO ₂ savings over Part L 2021	24
Table 13. Indicative non-residential buildings CO ₂ emissions - Part L 2021	25
Table 14. Estimated non-residential CO ₂ savings over Part L 2021.....	25
Table 15. Total site-wide estimated CO ₂ savings over Part L 2021.....	26
Table 16. Indicative typical Internal Water Demand Calculation.....	30

1. Introduction

Preface

- 1.1. Written by AES Sustainability Consultants on behalf of Crest Nicholson Operations Ltd (the Applicant), this Sustainability Statement has been prepared in support of the reserved matters application for the District Centre Nursery and Pre-school, Arborfield, RG2 9GB development.

Development Description

- 1.2. Arborfield Green is situated approximately four km to the south west of Wokingham town centre and five km south of the M4 motorway (junction 11). The settlements of Arborfield and Arborfield Cross lie to the north-west, whilst Barkham lies to the north east.
- 1.3. The proposals for the District Centre Area would deliver 6 residential units alongside a nursery and a preschool building. The application boundary and proposed site layout is shown in Figure 1.

Purpose and Scope of the Statement

- 1.4. The statement has been prepared to support the reserved matter application pursuant to Outline planning consent O/2014/2280, as well as relevant national and local policies relating to sustainable development, including policies within the Wokingham Borough Core Strategy.



Figure 1. Proposed Site Layout

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. Paragraph 164 sets out what is expected from new developments when considering strategies to mitigate and adapt to climate change:

164. New developments should be planned for 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 adaption measures, including through the planning of green infrastructure; and
- b) 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.

NPPF Consultation

- 2.3. In December 2025 the Government launched a consultation on a revised NPPF, which contains proposed Policy PM13. The draft policy states that local authorities should not set quantitative standards unless local variation is justified, or technical standards relating to matters covered by the Building Regulations, including energy demand and CO₂ emissions which are covered by Approved Document L.

Current National Policy Standards

- 2.4. Government policy in relation to the energy performance of buildings has been evolving over the past decade, following government commitments to reduce the emission of greenhouse gases – particularly CO₂. This obligation was enshrined in the Climate Change Act 2008, which commits the UK to achieving a mandatory 80% reduction in the UK's CO₂ emissions by 2050, compared with 1990 levels.
- 2.5. In 2016, the UK government ratified the Paris Agreement, which provides a framework for governments to pursue the target of limiting global warming below 2°C.
- 2.6. In June 2019, the Government announced it had set a new net zero greenhouse gas emission target for the UK by 2050, compared with the previous target of at least 80% reduction from 1990 levels.
- 2.7. The built environment has a key role to play in delivering these international commitments, as it accounts for approximately a third of overall CO₂ emissions. These commitments have been translated into national policies within the built environment driven by, amongst other mechanisms, the EU Energy Performance of Buildings Directive and the 2012 Energy Efficiency Directive.
- 2.8. Following the introduction of the 2021 edition of Building Regulations Part L, the successive updates now require regulated CO₂ emissions levels from new-build domestic buildings to be approximately 50% lower than 2006 levels. Similarly, non-domestic buildings have also seen significant updates with a 27% reduction in CO₂ emissions over Part L2A 2013 Building Regulations now being required.

- 2.9. The Government proposes that the Building Regulations are the appropriate mechanism to drive future standards with respect to energy consumption, with local authorities able to apply the optional requirements of the national technical standards with respect to water consumption and space.
- 2.10. As an acknowledgement of the challenge to the built environment in meeting future 'net-zero' targets, the Government published the next revision to the Building Regulations Approved Document L (Part L) in December 2021.

Future Homes Standard (FHS)

- 2.11. In 2019, the UK Government committed to making significant changes to the energy and emission targets required by Building Regulations for all new residential development.
- 2.12. As well as setting the foundations for new standards in energy efficiency and readiness to adopt a zero-carbon future, the policy also introduced objectives to:
- ensure new homes are comfortable to live in during spells of hot weather,
 - to be suitably ventilated with sufficient air flow to mitigate against damp or mould,
 - to remove the need for fossil fuels when heating homes, and
 - to ensure newly built homes do not have high running costs
- 2.13. Six years later, the introduced changes to Approved Documents Part L (conservation of fuel) and Part F (ventilation) and led to the creation of a new volume to Building Regulations - Part O - which sets mandatory requirements to limit the risk of overheating in new homes.
- 2.14. On 24th March 2026, the government confirmed the final stage of the Future Homes Standard (FHS).
- 2.15. For residential development in England, all new (non-high-rise) dwellings submitted to the Building Authority after 24th March 2027 will need to meet these requirements. Any homes not yet commenced by 24th March 2028 will need to be re-designed to achieve the FHS.
- 2.16. This reserved matters application is being progressed to meet Part L1 2021 (residential) and Part L2 2021 (non-residential) Building Regulations. On the basis of the anticipated submission and commencement programme, the residential units fall outside the scope of the Future Homes Standard set out above; this position will be kept under review against the transitional dates as the application progresses.

Local Planning Policies

- 2.17. This Energy Statement addresses local planning policy relating to sustainable design and construction, principally contained within the Wokingham Borough Local Development Framework Core Strategy, adopted in January 2010 and the associated Design and Sustainability Supplementary Planning Document (SPD). The relevant extracts from these documents are included below:

Local Plan - Policy CP1

12. Contribute towards the goal of reaching zero-carbon developments as soon as possible by:

- a) Including appropriate on-site renewable energy features; and
- b) Minimising energy and water consumption by measures including the use of appropriate layout and orientation, building form, design and construction, and to design to take account of microclimate so as to minimise carbon dioxide emissions through giving careful consideration to how all aspects of development form.

Design and Sustainability SPD

- 7.5 The Council therefore encourages all residential development schemes should seek to be built to full Code Level 4 or whatever the mandatory Code Level is higher. However, this is an aspirational (non-mandatory) target. Developments will need to be built in line with mandatory Code timetable. Local mandatory requirements for developments to exceed statutory requirements for sustainable buildings may be included within the emerging MDD DPD, as indicated in paragraph 4.8 of the adopted Core Strategy. Policy CP1 (Sustainable Development) of the Core Strategy requires development proposals to contribute towards the goal of reaching zero carbon developments as soon as possible.
- 7.6 The 10% renewable or low carbon energy requirement of Policy NRM11 of the South East Plan is required for major development. However, the Council considers that renewable energy/low carbon technology can be used as part of reaching the Code Levels. Zero Carbon Homes will be legally required by 2016.

- 2.18. The local Managing Development Delivery local plan builds on the strategy set out in the Core Strategy with more detailed policies relevant to this report extracted below:

Policy CC04: Sustainable Design and Construction

Planning permission will only be granted for proposals that seek to deliver high quality sustainably designed and constructed developments by:

1. In respect of all new homes:
 - a) Seeking to achieve the requirements of the full Code for Sustainable Homes Level 4;
 - b) Meet internal potable water consumption targets of 105 litres or less per person per day (as part of the requirement to meet full Code for Sustainable Homes Level 4).
2. All new non-residential proposals of more than 100 sq m gross non-residential floorspace shall at least:
 - a) Achieve the necessary mandatory Building Research Establishment Assessment Method (BREEAM) requirements or any future national equivalent
 - b) Meet or exceed statutory requirements for water resource management.
3. All development, including conversions, alterations and extensions shall incorporate suitable waste management facilities, including on-site recycling

Policy CC05: Renewable energy and decentralised energy networks

1. Local opportunities to contribute towards decentralised energy supply from renewable and low-carbon technologies will be encouraged
2. Planning permission will only be granted for proposals that deliver a minimum 10% reduction in carbon emissions through renewable energy or low carbon technology where the development is for:
 - a) Schemes of more than 10 dwellings (gross), or
 - b) Non-residential proposals of more than 1,000 sq m gross floorspace.
3. Proposals for renewable energy and decentralised energy works, including wind turbines, must demonstrate that:
 - a) They are appropriate in scale, location and technology type;
 - b) Are compatible with the surrounding area, including the impact of noise and odour;
 - c) Do not have a damaging impact on the local topography and landscape;
 - d) There is no significant impact upon heritage assets, including views important to their setting;
 - e) In the case of wind turbines, take account of their cumulative effect and properly reflect their increasing impact on the landscape and on local amenity

Proposed Strategy – Residential

- 2.19. This statement is intended to establish the proposed approach to sustainable construction and energy demand reduction to be delivered at the development.
- 2.20. It is proposed that the dwellings will be constructed following a fabric first approach to meet, and exceed the Part L1 2021 Building Regulations standards relating to energy performance and CO₂ emissions, with insulation standards, thermal bridging and air leakage all improved beyond the minimum compliance levels.
- 2.21. Renewable energy in the form of solar PV systems will be included to deliver further energy demand and carbon reductions in line with regulatory and policy requirements, as set out in the following sections of this statement.
- 2.22. Additional aspects of sustainability which relate to new housing development will be considered further within this statement, including water use and the environmental impacts of materials, construction and household waste.

Proposed Strategy – Non-Residential

- 2.23. The non-residential development will be designed to meet Part L2 2021, which with respect to carbon emissions will deliver greater than 27% reduction then when compared to 2013 Regulatory standards that were in place at the time of the Outline planning decision.
- 2.24. In addition, due to the proposal having over 100sqm of non-domestic space the buildings will be designed to have the potential to achieve a BREEAM rating of 'Very Good', in compliance with Sustainability issues 1 & 4.
- 2.25. Further details of the BREEAM assessment are detailed within the BREEAM Pre-Assessment Report prepared by AES Sustainability Consultants.
- 2.26. This statement provides an indicative fabric specification and a strategy which would enable the non-residential building to meet these higher standards, with the precise strategy to achieve this being subject to change as detailed design of the development is progressed.
- 2.27. Additional aspects of sustainability which relate to new housing development will be considered further within this statement, including water use and the environmental impacts of materials, construction and household waste.

3. Climate Change Resilience

- 3.1. Buildings constructed today may be operating in a substantially different climate over the coming decades and therefore should be designed to ensure that they are resilient to future climate change impacts such as increases in temperature, rainfall, wind, and sea level. Climate resilience is important to building owners against a backdrop of increasingly extraordinary weather events.
- 3.2. Passive design measures will be considered and incorporated to enhance resilience to climate change impacts throughout the lifetime of the development.
- 3.3. Key design decisions can affect the potential risk of overheating:
 - Poor consideration of orientation of large-glazed facades
 - High density development contributing to urban heat island effects
 - High glazing ratios contributing to excessive unwanted solar gain
 - Inadequate ventilation strategies
 - Very high levels of thermal insulation without considering heat build-up
- 3.4. Other factors which additionally contribute to heat build-up within homes and should be addressed where possible include:
 - High levels of occupation
 - Appliance use contributing to internal gains

Cooling Hierarchy

- 3.5. In common with sustainable heating strategies, it is possible to apply a sustainable 'cooling hierarchy' which sets out the priorities to ensure overheating risk is minimised:
 - Minimise internal heat gain
 - Manage heat through internal thermal mass and design of spaces
 - Passive ventilation strategies
 - Mechanical ventilation systems
 - Active cooling systems

Rising Temperatures and Overheating

- 3.6. With the risk of potentially higher summer temperatures and longer hot spells in the future, it is important to consider the thermal comfort of the dwelling. Passive design measures have been proposed in order to mitigate future overheating.

Approved Document O

- 3.7. In order to more robustly address overheating risk, the Government has introduced a new Approved Document, 'Part O', into the Building Regulations.
- 3.8. This document requires a more in-depth assessment of the risk of overheating, taking into account site location, dwelling orientation, glazing proportions and openable window areas for natural ventilation.
- 3.9. This assessment will need to be undertaken at the start of detailed design and any mitigation measures that may be required will be built in.

- 3.10. With reference back to Section 3: Climate Change Resilience, and the overview of the new Part O regulations, the following measures are proposed to be implemented at the site to demonstrate mitigation of dwelling overheating.
- 3.11. The development will use timber frame and masonry construction, timber frame has a relatively low thermal mass, compared with masonry construction. A construction with a high thermal mass can help to reduce overheating risk as it absorbs heat during the day and slowly releases it during cooler nighttime hours, effectively smoothing out temperature fluctuations within the property.
- 3.12. Within the development layout, orientation and massing have been considered to maximise useful passive solar gain. Glazing has been specified with a solar transmittance value (g-value) to strike the balance between useful solar gain in the winter and unwanted solar gain in the summer.
- 3.13. Most dwellings will be able to benefit from cross-ventilation to effectively purge warm air from the properties during periods of hot weather. Window opening areas will be considered and guided by the Part O assessment, with increased opening areas designed in as required.

Non-residential buildings - Part L2 2021

- 3.14. SBEM and DSM assessments for non-domestic buildings include a limiting solar gains check, which ensures that excessive solar heat gain does not necessitate over-reliance on air conditioning systems. When the scheme progresses the non-domestic units on this site will be assessed, to ensure all occupied areas are within compliant levels for solar gains.
- 3.15. To achieve this the glazing design will be reviewed, and suitable g-glazing values will be utilised and where needed the inclusion of blinds to strike the balance between useful solar gain in the winter and unwanted solar gain in the summer.