

MEMORANDUM

From:	Úna Haran, Lead Sustainability Planning Officer	To (Case Officer):	Kieran Neumann
Service	WBC Sustainability	App No:	242665
Address:	Land west of Kingfisher Grove, Three Mile Cross.		
Type of Development:	Major Dwellings (10+)		
Proposal:	Application for approval of Reserved Matters pursuant to Outline Planning Consent 201002 (approved under appeal ref. APP/X0360/W/22/3304042 dated 31/01/2023) for the erection of 49 no. affordable dwellings with associated drainage and attenuation, open space and landscaping. Details of appearance, landscaping, layout and scale to be considered, plus details for discharge of conditions 11, 12, 13, 15 and 16 from the Outline permission.		
Site Visit Made:	No		

Summary Of Recommendations

- ☒ Recommend approval but with condition(s) & reason(s) **stated below**;
- ☐ Recommend approval with no conditions
- ☐ Recommend refusal for the reason(s) **stated below**;
- ☐ Negotiate the amendments **stated below**; or
- ☒ Request further information before determination as **stated below**.

Comments On Proposal

1. Response to evidence submitted. **Response to revised plans submitted February 2025 highlighted in yellow.**
 - 1.1. Since application 242655 deals with development of 49 new homes, a detailed sustainability statement is required per the Wokingham Borough Council Sustainable Design and Construction Supplementary Planning Document 2010.¹
 - 1.2. The following comments are based on the information provided in the Energy & Sustainability Statement prepared by consultants AES alongside the Design and Access Statement authored by DWC Architecture and associated drawings.
 - 1.3. This note specifically examines the application's approach to LDF policies on sustainable development, energy including any provision of renewables

¹ Wokingham Borough Council. 'Sustainable Design and Construction Supplementary Planning Document'. 2010. p.10

on site, and water use.

2. Response to WBC Core Strategy Policy CP1

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

2.1.1. *"a) Including appropriate on-site renewable energy features; and"*

2.1.2. *"b) Minimising energy and water consumption by measures including the use of appropriate layout and orientation, building form, design and construction, and design to take account of microclimate so as to minimise carbon dioxide emissions through giving careful consideration to how all aspects of development form."*

2.2. Renewable energy and low carbon technology. The Energy & Sustainability Statement states that a 56.3% reduction in emissions is achieved through a combined strategy of reducing energy demand and provision of air-source heat-pumps (ASHP) to provide heating to all homes.²

2.2.1. The ASHP strategy as shown in the Energy Resource Plan proposes one ASHP unit located at the rear of each home. The model proposed is not specified, and no comment is made on capability for reverse operation.

2.2.2. Baseline DER emissions rate for the site are stated as 46,068 kgCO₂ yearly. Modelled emissions based on the ASHP strategy are stated as 20,124 kgCO₂ per year – a difference of 56.3%.

2.2.3. The proposals for the use of ASHP in to supply domestic hot water are feasible and represent a very positive response to compliance with Policy CP1 12) a).

2.2.4. The revised Energy Resource plan submitted in February 2025 shows that photovoltaic panels are now proposed on all rooves, in addition to the previously specified ASHP.

2.2.5. The addition of photovoltaic panels (PVPs) is viewed as contributing positively to operational decarbonisation and supporting the overall sustainability of the development.

2.2.6. **Any preliminary changes to the modelled quantum of carbon reduction resulting from the proposed array should be provided in information with the revised plans.**

2.2.7. Full details of ASHP and PVP specification and outputs should be provided at Reserved Matters stage once a fixed technical design has been developed, in accordance with the On-site Renewables planning condition as suggested below.

2.3. Passive design measures

2.3.1. Glazing

2.3.1.1. No CIBSE TM52 analysis is provided therefore the design will be appraised for potential overheating risk through Part O of the Building Regulations only. These regulations provide limits on the amount of hours during which a space is permitted to exceed maximum temperatures for indoor thermal comfort. The comments on potential risks and mitigating factors for overheating provided in this note do not seek to anticipate the outcome of Part O analysis

² AES on behalf of Sovereign Housing Association, Energy & Sustainability Statement, Land West of Kingfisher Grove. October 2024, P.18 N.B. fuel source for baseline not specified, assumed to be gas boilers.

but rather to identify the degree to which passive design measures have been implemented as part of the overall approach to operational energy demand reduction.

2.3.1.2. No calculated glazing ratios are provided, however the Energy & Sustainability Statement describes a general approach to solar gain and natural lighting *“Glazing specification... has been considered to balance the requirements for useful solar gain with unwanted summer gain.”*³ No sun-path studies are provided therefore the following analysis is based on inspection of the drawings provided.

2.3.1.3. Houses are predominantly oriented either Southeast or Northwest. East-West orientation increases risk of unwanted solar gain in morning and evenings during the summer. It is noted that most first floor elevations include larger vertical glazing areas which can also increase overheating risk, however in general the proposals do not appear over-glazed.

2.3.1.4. G values of glazing are not provided so no comment can be made on solar transmittance of glass.

2.3.2. Passive ventilation. The Energy & Sustainability Statement states that *“All houses 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 being designed in as required.”*⁴ This is supported by the plans which show openings on multiple aspects in living areas and some bedrooms.

2.3.3. Passive cooling from landscape measures. Dwellings are arranged in short streets with soft landscaping and gardens surrounding. The soft landscaping proposed will help to reduce the reflection of solar energy back into buildings.

2.3.4. Heat loss form factor. In general the homes are relatively simple in form. This is beneficial to the building performance and helps to mitigate the risk of an energy performance gap caused by heat loss through cold bridges in a complex architectural form. The need to minimise thermal bridging is noted in the Sustainability and Energy Statement.⁵

2.3.5. Thermal mass. The Sustainability and Energy Statement notes that traditional masonry construction will be used, and will contribute to internal thermal regulation of the buildings due to its greater thermal mass than lighter equivalent construction types.⁶

2.3.6. Thermal performance of building elements (dwellings).

Building element	Unit	Part 2021 limiting value	Best practice value	Proposed Specification (maximum)
External	W/m ² .K	0.26	0.12	0.18

³ AES on behalf of Sovereign Housing Association, Energy & Sustainability Statement, Land West of Kingfisher Grove. October 2024, P.19

⁴ Ibid. p.19

⁵ Ibid. p.10

⁶ Ibid. p.19

wall				
Roof	W/m2.K	0.16	0.10	0.10
Floor	W/m2.K	0.18	0.10	0.13
Vertical windows	W/m2.K	1.60	0.80	1.30
Air permeability	m3/h.m3 @ 50 Pa	8.0	<1.0	4.0

2.3.6.1. The proposed thermal performance of building elements is within the legal limits set in Part L of the Building regulations. In the case of the roof, a best practice value is proposed. This is noted as positively contributing to the sustainability of the development.

2.4. Active building systems. As above, all homes will be supplied with air-source heat pumps.

2.4.1. The Energy and Sustainability Statement notes that low energy lighting should be used wherever possible but no commitment is made, meaning this cannot be weighed as contributing to the sustainability of the proposed development.⁷

2.5. Whole life impacts. *“choices will be made in order to reduce the consumption of primary resources and using materials with fewer negative impacts on the environment, including but not limited to the following; use fewer resources and less energy through designing buildings more efficiently. Specify and select materials and products that strike a reasonable balance between social, economic and environmental factors. Incorporate recycled content use resource-efficient products and give due consideration to end-of-life uses. Influence, specify and source increasing amounts of materials which can be reused and consider future deconstruction and recovery.”*⁸

2.5.1. This statement lacks any defined or verifiable goals or absolute commitments and as such has limited impact on the sustainability of the proposed development.

3. Response to WBC MDD Local Plan Policy CC04

3.1. The commitment to a deliver a reduction in regulated operational GHG emissions of 56.3% for the development overall through the use of air-source heat-pumps confers a significant benefit and is favourably viewed.

3.1.1. Application of the standard condition ensuring that the provision for onsite renewable energy is delivered at the level described is recommended.

3.2. A basic speculative water efficiency calculation for new dwellings is provided, demonstrating how the maximum domestic consumption rate of 105 L per capita per day required to comply with MDD Policy CC04 might be achieved.⁹

3.2.1. A condition is recommended to ensure compliance with this part of Policy CC04.

4. Conclusion

4.1. In summary, the Sustainability and Energy Statement and its appendices show that an acceptable approach to sustainable development is taken.

⁷ Ibid. p.11

⁸ Ibid. p.20

⁹ AES on behalf of Sovereign Housing Association, Energy & Sustainability Statement, Land West of Kingfisher Grove. October 2024,P.21

4.2. The level of operational energy displacement through the use of improved building fabric performance and on-site renewable and low carbon technologies is a particular benefit of this scheme.

4.3. Any preliminary changes to the modelled quantum of carbon reduction resulting from the addition of PVPs should be provided in information in support of the revised plans.

4.4. No objection is raised to approval of this application subject to the below conditions.

Conditions & Reasons (if required)

Domestic water consumption

Prior to the commencement of development, a scheme achieving a maximum domestic water consumption of 105L per capita per day for the residential portion of the scheme shall be submitted to and approved in writing by the local planning authority. The approved scheme shall be implemented before the development is first occupied and shall remain operational for the lifetime of the development.

Reason: To ensure developments contribute to sustainable development. Relevant policy: NPPF Section 14 (Meeting the Challenge of Climate Change, Flooding and Coastal Change), WBC Climate Emergency Action Plan, Core Strategy policy CP1, Managing Development Delivery Local Plan policy CC04 & the Sustainable Design and Construction Supplementary Planning Document.

On-site renewables

Prior to the commencement of development, a scheme for achieving a 10% reduction in the predicted carbon emissions arising from operation of the development through the use of decentralised renewable and/or low carbon sources (as defined in the glossary of Planning Policy Statement: Planning and Climate Change (December 2007) or any subsequent version) shall be submitted to and approved in writing by the local planning authority. The minimum 10% reduction shall be achieved in addition to the levels of reduction in carbon emissions required through the Building Regulations in force at the time of the submission of planning application. The approved scheme shall be implemented before the development is first occupied and shall remain operational for the lifetime of the development.

Reason: To ensure developments contribute to sustainable development in accordance with NPPF Section 14 (Meeting the Challenge of Climate Change, Flooding and Coastal Change), WBC Climate Emergency Action Plan, Core Strategy policy CP1, MDDL policy CC05 & the Sustainable Design and Construction Supplementary Planning Document.

Date:

21/03/2025

Signed:



Úna Haran
BSc (Hons), MArch
Lead Sustainability Planning
Officer