

MEMORANDUM

From:	Úna Haran, Lead Sustainability Planning Officer		
Service	WBC Sustainability	App No:	250494
Address:	Oak Dale, Lower Wokingham Road, Crowthorne, Wokingham, RG45 6BX.		
Proposal:	Application for submission of details to comply with the following condition of planning consent 223256 (APP/X0360/W/23/3336000) dated 26/09/2024. Condition 12 relates to carbon neutrality.		
Type of Development:			
Site Visit Made:	No		

Summary Of Recommendations

- ☐ No comment
- ☒ No objection
- ☐ No objection subject to conditions (and reasons) **stated below**
- ☐ Request further information before determination as **stated below**
- ☐ Objection due to the reason(s) **stated below**

Comments On Proposal

Revised application materials are assessed against the following Sustainable Development Condition pursuant to appeal decision APP/X0360/W/23/3336000:

“12. The development hereby permitted shall not progress beyond base course level until a report demonstrating whether it is practicable and viable to provide carbon neutral accommodation is submitted to the local planning authority. Where it cannot be demonstrated that carbon neutrality could be achieved in the development, measures to bring the development closer to this target shall be submitted to and approved in writing by the local planning authority before the development progresses beyond base course level. The development shall be constructed in accordance with the approved targets and maintained as such thereafter.”

1. Carbon emissions.

1.1. The Energy Strategy Report authored by Harniss on behalf of Barchester Healthcare¹ partially describes the strategy for carbon emission reduction.

1.2. Baseline emissions are estimated as 24.30 kg/CO₂/m²/year or 77,980 kg/year cumulatively for the site. The baselines are set using the Building

¹ Energy Strategy Report, Crowthorne, Harniss. May 2025

Regulations 2021 Target Emission Rate (TER).²

- 1.3. Solar photovoltaic panels (PVPs), solar thermal water heating and air source heat pumps (ASHP) are noted as feasible low and zero carbon technologies for the site.^{3 4}
- 1.4. A⁵SHP and PVPs are proposed for the site.⁶ ASHP will provide space heating, while a 251m² PVP array will supply renewable electricity. Water heating will be provided by gas boilers.⁷
- 1.5. The modelled capacity of the proposed array is not defined in the Energy Strategy Report, meaning it cannot be compared with the previously proposed 92kWp array which was secured by Condition 36 on Application 223256 (Condition 17 pursuant to appeal decision APP/X0360/W/23/3336000): *"Prior to the first occupation of the development hereby permitted, the photovoltaic array of minimum delivery capacity 92kWp, as stated in the energy statement by Hoyle Dean dated 30th September 2022 and shown in approved drawing ref Proposed Roof Plan 3210-HIA-01-XX-DRA-0231 P3, shall be installed in accordance with this approved plan and details and retained thereafter."*
- 1.6. The Energy Strategy Report states that *"A 92kWp PV array is not feasible within the spatial constraints of the proposed development. The PV array would be in the order of 161-217no panels given available panels on the market. The above HIA roof drawing only details 104 panels with a number of these needing to be omitted to accommodate roof mounted plant and equipment relating to the ventilation, comfort cooling and air source heat pumps."*⁸
- 1.7. The previously submitted Harniss Carbon Neutrality Report specified that the array had been resized to 34kWp from the originally proposed 92kWp.
- 1.8. It is stated that the energy hierarchy (Be Lean, Be Clean, Be Green, Be Seen) is used to reduce the operational emissions associated with the development. Measures mentioned in the Energy Strategy Report include consideration of building form and orientation, a glazing specification which balances mitigation of overheating risk with optimisation of natural daylighting and provision of natural ventilation complimented by MVHR. It notes that *"The ventilation strategy will be reviewed and developed as the design progresses to ensure compliance with all the relevant regulations and standards."*⁹ And *"Implementing these (or similar) building fabric standards will help to deliver substantial reductions in CO2 emissions compared with the current building performance and regulations. The proposed specification should be viewed as guidance."*¹⁰
- 1.9. Provision of an indicative suggested specification rather than a fixed

² Energy Strategy Report, Crowthorne, Harniss. May 2025. P.7

³ Ibid. Pp.13-14

⁴ At an operating efficiency of 300% as stated, an air source heat pump can be considered a renewable energy technology.

⁵ Energy Strategy Report, Crowthorne, Harniss. May 2025. P.8

⁶ Energy Strategy Report, Crowthorne, Harniss. May 2025. P.18

⁷ Ibid. P.21

⁸ Ibid. P.4

⁹ Ibid. P.8

¹⁰ Ibid. P.9

specification for both the low and zero carbon technology strategy and the building fabric specification provides for the possibility that changes to the intended approach will follow during detailed design. This limits the weight that can be attributed to the sustainable development measures indicated.

1.9.1. Fabric performance:

Building element	Unit	Part L2 2021 limiting value	Best practice value	Proposed specification Superseded revised
External wall	W/m2.K	0.26	0.12	0.21 0.19
Roof	W/m2.K	0.16	0.10	0.14 0.13
Floor	W/m2.K	0.18	0.10	0.13 0.15
Vertical windows	W/m2.K	1.60	0.80	1.40 0.80
Doors	W/m2.K	1.60	1.00	1.40 unknown
Air permeability	m3/h.m3 @ 50 Pa	8.0	<1.0	5.0 5.0
G value of glass	absolute	none	0.4 – 0.3	0.4 assumed unknown

Table 1: comparison of proposed specification with Part L2A 2021

1.9.2. Table 1 illustrates the assumed thermal performance of building elements as provided in the 2025 Energy Strategy Report with those in the superseded 2022 Hoyle Dean Energy Statement, the Part L limiting values and best practice values. Some elements of the specification have been improved in the 2025, notably the U-values of the windows are now in alignment with best practice triple glazing.

1.10. A revised feasibility study for low and zero carbon technologies to provide heat and/or power is provided in the Energy Strategy Report. This concludes that a strategy consisting of an air-source heat pump (ASHP) and photovoltaic panels (PVPs) is proposed, with gas fired boilers providing water heating and an electrically powered variable refrigerant flow (VRF) cooling system installed to assist with summer regulation of internal temperatures. The previous Carbon Neutrality Report suggested that one air source heat pump will be installed to provide space heating to the development, and this will be powered by the photovoltaic array.

1.11. The total energy displaced by the PVP array is modelled as 13.23 kWh/m².¹¹

1.12. A final TER versus BER summary concludes that through the combined approach of improvements to the building fabric, and incorporation of low and zero carbon technologies, a reduction of 12.7% relative to the regulated emissions baseline is predicted.¹²

2. Conclusion

2.1. It is noted that the development will not achieve carbon neutrality per the requirements of Condition 12. The evidence assessed above is submitted to demonstrate that measures to bring the

¹¹ Energy Strategy Report, Crowthorne, Harniss. May 2025. P.42 (P.14 of Appendix A)

¹² Ibid. P.42 (P.14 of Appendix A)

development closer to the target of carbon neutrality have been applied per the secondary requirement of the Condition.

- 2.2. For carbon neutrality to be achieved, 100% of regulated operational emissions from the development would need to be displaced by energy demand reduction through fabric performance improvements, generation of renewable energy on-site or offsetting elsewhere.
- 2.3. The indicative strategy described in the Energy Strategy Report indicates that a reduction of 12.7% in regulated operational emissions is expected.
- 2.4. This reduction is 87.3% smaller than it would need to be to achieve carbon neutrality.
- 2.5. While measures are proposed to assist with reducing energy demand and operational emissions, these measures could go further, for example by providing fossil fuel free water heating and enhancing the building fabric and passive design measures to reduce space heating and cooling loads.
- 2.6. A reduction of 12.7% relative to the TER is sufficient to comply with WBC MDD Local Plan Policy CC05, although it confers a reduced benefit to the sustainability of the scheme compared with carbon neutrality as sought by Condition 12.
- 2.7. The status of the proposed measures and specification as detailed in the Energy Strategy Report is understood to be provisional and indicative only, meaning that the measures described cannot be treated as part of a fixed specification which will be delivered. This should be taken into consideration when determining whether Condition 12 is discharged by the evidence contained within the Report.
- 2.8. It is noted that Condition 16 (as varied by Non Material Amendment Application 250353) requires that the development achieves BREEAM 'Very Good' rating, to be evidenced by a Post Construction Certificate submitted to and approved in writing by the Local Planning Authority within twelve months of the first occupation of the development. BREEAM 'Very Good' certification will ensure that good practice sustainable development measures are in place, rating the building among the top 25% of UK new non-domestic buildings.

Conditions & Reasons (if required)

Date:

22.05.2025

Signed:



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Officer