

MEMORANDUM

From:	Úna Haran, Lead Sustainability Planning Officer		
Service	WBC Sustainability	App No:	243124
Address:	Land At Bridge Farm, Bridge Farm Lane, Twyford, Berkshire.		
Proposal:	Application for the approval of reserved matters pursuant to outline planning consent 212720 for the erection of 200 dwellings with associated infrastructure, open space, biodiversity enhancements, landscaping and green infrastructure (Appearance, Landscaping, Layout and Scale to be considered).		
Type of Development:	Major Dwellings (10+)		
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

The application materials are assessed against the following sustainable development Conditions imposed on Outline Planning Permission 212720 granted in July 2023:

41. The reserved matters application for the development shall be accompanied by a sustainability and energy efficiency report to be approved in writing by the Local Planning Authority. The report shall include details to demonstrate how the development will achieve the sustainability targets of the Future Homes Standards. The development shall be carried out in accordance with the approved details and shall be installed and functional before first occupation of the buildings they are intended to serve. Reason: In the interests of promoting sustainable forms of developments. Relevant Policies: Core Strategy policies CP1, and CC04 and CC05 of the Managing Development Delivery Local Plan (Feb 2014), the Sustainable Design and Construction Supplementary Planning Document (2010).

43. The development shall include provision for all dwellings with a garden with: a. A water butt of an appropriate size installed to maximise rainwater collection; and b. Space for composting Reason: To reduce, reuse, and enable the efficient use of water and organic household waste in accordance with NPPF, Wokingham Borough Core Strategy Policy CP1, the Managing Development Delivery Local Plan Policy CC04, the Sustainable Design and Construction Supplementary Planning Document (2010).

1. Carbon emissions.

1.1. The Energy Statement authored by Stroma on behalf of Croudace Homes¹ sets out the strategy for carbon emission reduction. This reduction is measured against the baseline of maximum permissible emissions per Approved Document L1 of the UK Building Regulations 2021.

1.2. This baseline is confirmed to be 277,710 kgCO₂ per annum for the development as a whole.²

1.3. It is confirmed that passive measures to reduce energy demand through specification of a thermally efficient building fabric were prioritised, followed by provision of on-site renewable and low carbon energy generation.³ This approach follows the Energy Hierarchy.

1.3.1. Fabric performance:

Building element	Unit	Part L 2021 limiting value	Best practice value	Proposed specification
External wall	W/m ² .K	0.26	0.12	0.17
Dormer cheeks	W/m ² .K	0.26	0.12	0.19
Party wall	W/m ² .K	0.20	0.10	0.00
Roof (horizontal)	W/m ² .K	0.16	0.10	0.11
Roof (slope)	W/m ² .K	0.16	0.10	0.20
Roof (dormer)	W/m ² .K	0.16	0.10	0.20
Floor	W/m ² .K	0.18	0.10	0.11-0.14
Vertical windows	W/m ² .K	1.60	0.80	1.30
Doors	W/m ² .K	1.60	1.00	1.00
Air permeability	m ³ /h.m ³ @ 50 Pa	8.0	<1.0	3.50

G value of glass	absolute	none	0.4 – 0.3	Not specified
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Part L1A 2021 Dwellings

1.3.2. Table 1 illustrates the proposed thermal performance of building elements as specified in comparison with Part L1A limiting values and best practice. While most elements are within the allowable limits and some approach best practice values, ensuring a reduction in operational emissions from space heating compared with the Notional Building, both the sections of roof to dormers and above sloping ceilings are specified with U-values which exceed the allowable maximum set by the Building Regulations. The SAP calculation supplied as an appendix to the statement appear to show that only the sections of the roofs having U-value 0.11 W/m².K (compliant) have been included in the heat loss and heat loss parameter calculations.⁴

1.3.3. This could cause the homes to be non compliant at Building Control stage and should be addressed, with an improved insulation specification to these sections of the roofs.

1.4. The Energy Statement outlines a LZC technology strategy consisting of air source heat pumps (ASHPs) to provide space heating and domestic hot water to each home individually.

1.4.1. MVHR will also be provided to compliment the enhanced airtightness.

1.4.2. Low energy fixed lighting will be installed.

1.4.3. The Energy Statement confirms that the site wide regulated emissions will be reduced by 60.33% relative to the Part L 2021 Notional Building baselines.⁵

1.4.4. This reduction is achieved through the combination of fabric performance improvements and adoption of low and zero carbon technologies including ASHP, enhanced airtightness with MHVR and low energy lighting. This combined approach reduces the operational energy demand of the development while contributing to decarbonisation of the residual energy demand through on-site low carbon heat delivery.

2. Domestic water consumption

2.1. Section 8 of the Energy Statement sets out a strategy which will limit domestic water consumption to 110L per person per day, including a 5L allowance for external water use. This level of consumption is compliant with Policy CC04 of the WBC MDD Local Plan.

Fitting type	Specified consumption	Non low-flow typical consumption	Best practice consumption
WC	4/2.6 L (dual flush)	5 - 9 L	< 4 L
Shower	8 L / minute	13 L / minute	6 L / minute

¹ Energy Statement, Land at Bridge Farm, Twyford, Stroma. November 2024.

² Ibid. p13

³ Ibid. p10

⁴ Full SAP calculation printout, property references PO-D320 P3ADMI to OP-D320 P2TIGE, Elmhurst Energy, November 2024.

⁵ Energy Statement, Land at Bridge Farm, Twyford, Stroma. November 2024, p.14

Handwash basin taps	4 L / minute	8 L / minute	2 L / minute
Sink taps	6 L / minute	10 L / minute	4 L / minute
Dishwasher	1.25 L / place setting	1.25 L / place setting	< 0.7 L / place setting
Washing machine	8.17 L / kg	14 L / kg	6 L / kg

2.2. Table 2 demonstrates the specified water consumption rates of fixtures within the homes in comparison with typical and best practice values. Most specified fixtures demonstrate reductions against typical water consumption for the fixture type. These measures will contribute to maintaining a sustainable level of water consumption during the operation of the buildings.

2.3. An illustrative water consumption calculation is provided within the application materials and demonstrates the specification achieves a consumption rate of 104.90 L per person per day, which is compliant with WBC policy.⁶

2.4. Positions of water butts and composting facilities for all dwellings with gardens are provided on the Amenity Space Layout provided in support of the application.

3. The following sustainable development Conditions are discharged:

3.1. Condition 41 relating to reduction of operational carbon emissions is partially discharged by the evidence provided. To fully discharge this condition it should be shown that the building fabric performance specification is compliant in all areas with the requirements of Part L 2021. This should include improvements to the thermal performance of the dormer cheeks and sloped ceiling sections of roof, unless it can be shown by alternative means that these noncompliant areas have been included in SAP assessment and will not cause penalties or failures at Building Control Assessment stage.

3.2. Condition 43 relating to water resilience and waste reduction is fully discharged by the evidence provided.

Conditions & Reasons (if required)

Condition 41 as above partially retained pending further information.

Date:

19/02/2025

Signed:



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

⁶ Ibid. p12