

ENERGY EFFICIENCY STATEMENT

38 Wantage Road, Reading, RG30 2SF
Planning Application Reference: PL/26/1131

1. Introduction

This Energy Efficiency Statement has been prepared in support of planning application **PL/26/1131** at **38 Wantage Road, Reading, RG30 2SF**, in response to Reading Borough Council's request for additional information regarding the energy and carbon performance of the proposed refurbishment and conversion.

The statement should be read alongside the submitted architectural drawings and Planning Statement Addendum.

2. Proposed Development

The proposal involves the conversion and refurbishment of the existing Class C4 House in Multiple Occupation to provide two self-contained Class C3 residential units.

The development principally involves the adaptation and reuse of the existing residential building rather than demolition and new-build redevelopment.

No extension or increase in the existing building footprint is proposed.

3. Sustainability Approach

The energy strategy follows a proportionate approach appropriate to the conversion and refurbishment of an existing residential property.

The primary approach is to:

- retain and reuse the existing building and structure;
- minimise unnecessary demolition and construction waste;
- improve affected elements of the existing building fabric where reasonably practicable;
- utilise energy-efficient lighting and building services;
- provide appropriate heating and hot-water controls;
- incorporate water-efficient sanitary fittings where these are renewed; and
- undertake the works in accordance with the applicable Building Regulations requirements.

This approach seeks to reduce both operational energy consumption and the embodied environmental impact associated with the development.

4. Retention and Reuse of Existing Building

The existing principal structure and building envelope are to be retained.

Reuse of the existing building avoids the significant material consumption, demolition waste and embodied carbon that would be associated with demolition and replacement.

Internal alterations will be limited to those necessary to facilitate the proposed residential conversion and to provide suitable independent accommodation.

Where existing materials and building elements remain serviceable, these will be retained wherever reasonably practicable.

5. Building Fabric and Thermal Performance

Where existing building elements are affected by the proposed works, opportunities will be taken to improve their thermal performance where technically feasible and proportionate to the nature of the refurbishment.

This may include appropriate improvements to insulation and reduction of uncontrolled air leakage where relevant elements are opened or upgraded as part of the works.

Any new or replacement thermal elements forming part of the works will be designed to satisfy the applicable requirements of the Building Regulations.

Detailed insulation specifications and thermal performance requirements will be established during the Building Regulations and technical-design stage.

6. Heating and Hot Water

Heating and domestic hot-water installations associated with the conversion will incorporate appropriate energy-efficient equipment and controls.

Where existing systems require alteration or replacement to serve the individual dwellings, the resulting installations will comply with the applicable Building Regulations requirements.

Appropriate heating controls will enable occupiers to regulate internal temperatures and reduce unnecessary energy consumption.

7. Lighting and Electrical Energy

New or replacement fixed lighting installed as part of the refurbishment will utilise energy-efficient lighting, including LED fittings where appropriate.

The proposed accommodation also makes use of the property's existing window openings to provide natural daylight to principal habitable spaces, reducing dependence upon artificial lighting during daylight hours.

8. Water Efficiency

Where sanitary fittings are replaced or newly installed as part of the conversion, consideration will be given to water-efficient fittings.

These may include:

- dual-flush WCs;
- water-efficient taps; and
- water-efficient shower fittings.

The final sanitary specification will be developed as part of the detailed technical design.

9. Ventilation and Indoor Environment

Appropriate ventilation will be provided to the proposed dwellings in accordance with the applicable Building Regulations requirements.

Existing window openings will continue to provide natural daylight and ventilation where appropriate.

Mechanical extract ventilation will be provided to relevant kitchens, bathrooms and other wet areas where required by the technical design and Building Regulations.

The ventilation strategy will seek to provide suitable internal environmental conditions while avoiding unnecessary energy consumption.

10. Materials and Construction Waste

The development prioritises the retention of the existing building fabric and therefore limits the amount of new construction material required.

Where new materials are necessary, materials will be selected having regard to durability, suitability and long-term performance.

Waste generated during the conversion works will be appropriately managed, with reusable or recyclable materials separated where reasonably practicable and remaining waste disposed of through authorised waste-management routes.

11. Climate Resilience

The retention and improvement of the existing building provides an opportunity to enhance its performance while maintaining the established residential form of the property.

Measures relating to thermal performance, ventilation, efficient building services and water use will contribute towards improving the resilience and long-term environmental performance of the accommodation.

12. Building Regulations

Detailed energy calculations, U-values, ventilation rates, heating-system specifications and other technical matters will be developed as part of the Building Regulations stage.

The works will be required to satisfy the applicable requirements of the Building Regulations, including requirements relating to conservation of fuel and power, ventilation and water efficiency.

13. Conclusion

The proposed development adopts a proportionate energy-efficiency strategy appropriate to the conversion and refurbishment of an existing residential property.

The strategy is based on:

- retention and reuse of the existing building;
- minimising unnecessary demolition;
- improving affected building fabric where reasonably practicable;
- energy-efficient lighting and building services;
- appropriate heating and hot-water controls;
- water-efficient fittings where renewed;
- suitable ventilation; and
- compliance with the applicable Building Regulations requirements.

The proposed conversion therefore seeks to improve the environmental and energy performance of the property while making efficient use of the existing building and infrastructure.