

ENERGY EFFICIENCY STATEMENT

Application Site: Three Fives Fish & Chips

555 Oxford Road

Reading

RG30 1HL

This Energy Efficiency Statement has been prepared in support of the proposed change of use from commercial (Use Class E – takeaway) to residential use (Use Class C3), together with modest extensions and internal alterations to form a single five-bedroom dwelling.

The statement demonstrates how the proposal accords with the energy and sustainability objectives of the Reading Borough Local Plan (Adopted November 2019), particularly Policies CC2 (Sustainable Design and Construction) and EN14 (Energy and Low Carbon Development).

Development Overview

The proposal involves:

- Reuse and refurbishment of an existing Victorian end-of-terrace building
- Modest side and rear extensions
- Internal reconfiguration
- Consolidation into a single residential dwelling

The approach prioritises retention of the existing structure, thereby minimising embodied carbon and material waste.

Energy Strategy Overview

The energy strategy follows the principles of:

1. Be Lean – Reduce energy demand through fabric efficiency
2. Be Clean – Use efficient building services
3. Be Green – Consider low-carbon technologies where feasible

Given the modest scale of development (single dwelling conversion), a proportionate improvement-led approach has been adopted.

Fabric Energy Efficiency (Be Lean)

The refurbishment provides an opportunity to enhance the thermal performance of the building through:

- Upgrading roof insulation to current Building Regulations standards
- Improving wall insulation where feasible without harming the building's character
- Upgrading floor insulation where practicable

- Installation of high-performance double-glazed windows (where replacements are required)
- Improved airtightness measures

All works will comply with Building Regulations Part L (Conservation of Fuel and Power).

These improvements will significantly reduce heat loss compared to the existing condition.

Efficient Building Services (Be Clean)

Energy-efficient systems will be incorporated, including:

- High-efficiency condensing boiler or equivalent low-energy heating system
- Thermostatic radiator controls and programmable heating controls
- Energy-efficient LED lighting throughout
- Water-efficient sanitary fittings

These measures will reduce operational energy consumption and associated carbon emissions.

Low Carbon Considerations (Be Green)

Due to the small scale of the development and the constraints of converting an existing building, large-scale renewable installations are not proposed.

However:

- The refurbishment approach significantly reduces embodied carbon compared to demolition and rebuild.
- The building's improved fabric performance reduces long-term carbon emissions.
- Future installation of renewable technologies (e.g. photovoltaic panels) could be accommodated subject to planning and design considerations.

The proposal therefore contributes to carbon reduction in a proportionate and practical manner.

Sustainable Reuse and Embodied Carbon

The retention and adaptation of the existing structure:

- Avoids demolition waste
- Minimises use of new materials
- Preserves embodied carbon within the building fabric
- Reduces overall lifecycle environmental impact

This approach aligns with sustainable construction principles and Policy CC2.

Overheating and Ventilation

The proposed layout ensures:

- Adequate natural daylight

- Cross-ventilation where possible
- Openable windows to all habitable rooms

These passive design measures help prevent overheating and reduce reliance on mechanical cooling.

Conclusion

The proposed development at 555 Oxford Road adopts a sustainable and proportionate energy strategy by:

- Retaining and refurbishing an existing building
- Upgrading insulation and thermal performance
- Installing energy-efficient systems
- Complying with Building Regulations Part L
- Reducing operational and embodied carbon

The proposal is therefore compliant with Policies CC2 and EN14 of the Reading Borough Local Plan (Adopted November 2019) and represents an energy-efficient and environmentally responsible form of development.

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