

Sustainability Statement

176 Northumberland Avenue, Reading, RG2 7PU

Proposed extensions and alterations to create 2 family sized flats (1-3 bed & 1-4 bed), with associated parking, cycle storage and refuse storage

1. Introduction

This Sustainability Statement supports a full planning application for extensions and alterations to an existing residential building at 176 Northumberland Avenue, Reading.

The property is currently arranged as two flats, and the proposal seeks to improve and enlarge the accommodation to provide two family-sized residential units (1 × 3-bed and 1 × 4-bed) while retaining the same number of dwellings.

The development has been designed to reflect national and local policy objectives for sustainable development, including the Reading Borough Local Plan (2019), particularly:

- CC1: Sustainable Design and Construction
- CC2: Sustainable Design and Construction – Water
- CC3: Adaptation to Climate Change
- CC4: Decentralised Energy
- CC5: Waste Minimisation

This statement sets out the applicant's approach to improving energy efficiency, reducing environmental impact, managing water responsibly, and supporting sustainable living through the refurbishment and extension of the existing building.

2. Energy and Carbon Emissions (Policies CC1 & CC4)

The proposal represents a sustainable form of development through the retention and enhancement of an existing residential building, which reduces embodied carbon compared

with demolition and rebuild.

The extensions and alterations will incorporate a fabric-first approach, improving thermal performance beyond the existing building condition through:

- Upgraded wall, roof and floor insulation where construction is altered
- High-performance double-glazed windows and doors
- Improved airtightness standards
- Energy-efficient heating and hot water systems
- LED lighting throughout
- Energy-efficient appliances

Where feasible, the scheme allows for the future installation of low-carbon technologies such as solar photovoltaic panels or heat pumps.

The improvements will ensure the refurbished dwellings perform significantly better than the existing building and will meet or exceed current Building Regulations (Part L).

3. Water Conservation (Policy CC2)

Water efficiency measures will be incorporated to achieve a target consumption of 110 litres per person per day, including:

- Dual-flush toilets
- Low-flow taps and showers
- Water-efficient appliances
- Flow restrictors where appropriate

These measures support responsible water use and compliance with Reading Borough Council policy.

4. Climate Change Adaptation (Policy CC3)

The development incorporates measures to improve climate resilience and environmental performance:

- Use of permeable or semi-permeable external surfaces where practicable
- Improved building insulation to reduce overheating risk

- Natural ventilation through window placement and internal layout
- Retention of garden areas to support drainage and cooling
- Opportunities for additional landscaping and planting

Surface water drainage will be managed through appropriate on-site measures and connection to existing drainage infrastructure where required. The site lies within Flood Zone 1 and is therefore considered at low risk of flooding.

5. Waste Minimisation and Pollution Control (Policy CC5)

During Construction

The project involves extensions and refurbishment rather than full redevelopment, which significantly reduces construction waste.

Measures will include:

- Responsible sourcing of materials
- Recycling and reuse of demolition materials where possible
- Waste segregation on site
- Efficient delivery management

Post Construction

Dedicated refuse and recycling storage is provided within the site layout to serve the two flats.

Residents will have access to local kerbside recycling services in accordance with Reading Borough Council requirements.

6. Materials and Sustainable Construction

External materials are proposed to match the existing building, including:

- Brickwork to match existing
- Interlocking roof tiles to match existing
- uPVC windows and doors to match existing

This approach supports sustainability through compatibility with the existing structure and reduced material waste.

The reuse and extension of the existing building fabric significantly reduces embodied carbon compared with new construction.

7. Sustainable Transport

The site is located within an established residential area of Reading with access to local services and public transport.

Sustainable transport measures include:

- Four secure cycle parking spaces
- Retention of four on-site car parking spaces
- Walkable access to local facilities and bus routes

These measures support sustainable travel choices and align with local policy objectives.

8. Overall Sustainability Benefits

The proposal delivers sustainability benefits through:

- Reuse and enhancement of an existing building
- Improved energy efficiency compared with the current property
- Family-sized accommodation within an urban area
- Sustainable transport provision
- Responsible water and waste management

The scheme represents an efficient and environmentally responsible use of an established residential site.

9. BREEAM and Emissions Rate Calculations

The proposed development comprises extensions and alterations to an existing building in lawful C3 residential use, retaining two dwellings with no change of use and no net increase in unit numbers. The proposal does not constitute new residential development or a conversion to residential use.

BREEAM

Policy requirements relating to BREEAM assessments are generally intended to apply to new

build development or major refurbishment schemes where a formal sustainability certification process is proportionate to the scale and nature of the proposal.

In this case, the works relate to extensions and improvements to an existing residential property, and therefore a formal BREEAM assessment is not considered applicable or proportionate.

Notwithstanding this, the proposal incorporates sustainability measures consistent with the objectives of the Reading Borough Local Plan policies, including:

- Fabric energy efficiency improvements
- Water efficiency measures
- Responsible material selection
- Waste minimisation
- Sustainable transport provision

The development therefore aligns with the sustainability principles underpinning BREEAM without requiring formal certification.

Emissions Rate Calculations

Detailed emissions rate calculations (such as SAP Dwelling Emission Rate and Target Emission Rate comparisons) are typically required for new build dwellings or schemes involving a material change of use.

As this proposal involves extensions and alterations to an existing C3 residential building rather than new construction or conversion, detailed emissions modelling at planning stage is not considered necessary or proportionate.

Energy performance improvements will be secured through compliance with the Building Regulations, including Part L (Conservation of Fuel and Power), which will ensure that the extended and altered elements of the building achieve appropriate energy efficiency standards.

The proposal will therefore deliver improved energy performance compared with the existing building through upgraded fabric insulation, modern building services and efficient fixtures.

Should the Local Planning Authority consider further energy information necessary, this can be provided at Building Regulations stage.

10. Conclusion

The proposed extensions and alterations at 176 Northumberland Avenue will deliver two improved, energy-efficient family homes within an existing residential plot.

The development aligns with Reading Borough Local Plan Policies CC1–CC5 through:

- Fabric-first energy improvements
- Reduced embodied carbon through refurbishment
- Water efficiency measures
- Climate resilience considerations
- Waste minimisation and sustainable materials

The proposal therefore represents sustainable development and should be supported in planning terms.