



Sustainability Statement

Sustainability Development Statement

Proposed Residential Development – Croft Works, Rustington

1. Introduction

This Sustainability Development Statement has been prepared to support the planning application for the proposed residential development at Croft Works, Rustington. It outlines how the development has been designed to achieve energy efficiency, reduce environmental impact, and meet the requirements of the National Planning Policy Framework (NPPF) and Part L of the Building Regulations, while maintaining practicality and cost-effectiveness.

2. Sustainable Design Principles

The development has been designed with sustainability in mind, focusing on:

- **Energy efficiency:** Minimising energy consumption through building fabric and services.
- **Resource efficiency:** Reducing water usage, waste, and material impact.
- **Low environmental impact:** Minimising emissions and integrating harmoniously with the local environment.
- **Practicality and affordability:** Ensuring technologies are reliable, maintainable, and cost-effective for residents.

3. Building Fabric and Energy Efficiency

3.1 Highly Insulated and Airtight Construction

- The dwellings will feature highly insulated walls, roofs, and floors to meet or exceed the minimum U-values required by Part L of the Building Regulations.
- Air-tight construction will minimise uncontrolled heat loss, improving energy efficiency and comfort.
- High-performance windows and doors will reduce thermal bridging and further enhance efficiency.

Appropriateness:

- This is a cost-effective, low-maintenance, and reliable method of improving energy performance without the need for specialist systems.
- It aligns with national policy and good practice guidance on energy efficiency.

3.2 Mechanical Ventilation with Heat Recovery (MVHR)

- Considered for maintaining indoor air quality in airtight buildings.
- **Decision:** Not proposed for this development due to cost, maintenance, and the small-scale nature of the development. Adequate natural ventilation and extract fans will be provided instead, in line with Part F of the Building Regulations.

4. Heating and Hot Water

4.1 Gas-Fired Boilers

- Each dwelling will be served by a high-efficiency gas-fired condensing boiler, providing heating and hot water.
- The system is reliable, widely understood, and easy to maintain, providing predictable running costs for residents.

Appropriateness: Gas boilers are an established, practical solution in areas with mains gas supply. While renewable heating options (e.g., heat pumps) were considered, they were not deemed suitable due to higher capital cost, space requirements, and the additional complexity of maintenance for future occupiers.

5. Renewable Energy Technologies – Considerations

Feature	Inclusion / Exclusion	Benefits	Justification
High-Performance Building Fabric (walls, roof, floor insulation, U-values to Part L)	Included	Reduces heat loss, lowers energy demand, improves comfort	Cost-effective, reliable, low-maintenance way to meet energy efficiency requirements without specialist technology
Airtight Construction	Included	Minimises uncontrolled heat loss, improves thermal comfort	Essential for energy efficiency; complements insulation strategy; low-maintenance
High-Efficiency Gas-Fired Boilers	Included	Reliable heating and hot water; low capital cost; predictable running costs	Practical solution in gas-connected areas; avoids complexities and costs of renewable heating systems
Mechanical Ventilation with Heat Recovery (MVHR)	Excluded	Would improve air quality in airtight buildings	Not cost-effective or necessary for small-scale development; natural ventilation and extract fans are sufficient
Solar Photovoltaics (PV)	Excluded	Reduces electricity demand, offsets carbon	Limited roof space and cost implications make PV less viable; passive measures prioritised
Solar Thermal	Excluded	Provides hot water, reduces gas usage	Roof space, maintenance, and cost constraints make it impractical; gas boilers more reliable for residents
Air / Ground Source Heat Pumps	Excluded	Highly efficient, renewable heating	High capital cost, space requirements, and specialist maintenance unsuitable for small residential development
Water-Efficient Fittings (low-flow taps, dual-flush WCs)	Included	Reduces potable water consumption	Simple, reliable, low-maintenance approach to water conservation
Material Selection (locally sourced, durable, low-embodied energy)	Included	Reduces environmental impact, improves longevity	Supports sustainability objectives without specialist systems
Waste Management Strategy (rear garden bin stores, recycling provision)	Included	Encourages recycling, reduces environmental impact	Practical, user-friendly, and compliant with local authority requirements

6. Water Efficiency

- The development will incorporate water-saving devices such as low-flow taps and dual-flush WCs.
- These measures reduce water consumption without requiring specialist systems.

7. Material Selection and Construction

- Locally sourced and responsibly manufactured materials will be prioritised where possible.
- Timber, insulation, and masonry products will be selected for durability, recyclability, and low embodied energy.
- Construction methods will aim to reduce waste and site disturbance.

8. Waste Minimisation and Recycling

- On-site construction waste will be segregated and recycled where possible.
- Residential waste management has been designed with rear garden bin stores and front driveway collection to encourage recycling and compliance with local authority requirements.

9. Sustainability Summary

The proposed development focuses on **passive, low-maintenance, and reliable measures** rather than specialist or high-maintenance technologies. Key sustainability features include:

- Highly insulated, airtight building fabric to reduce energy demand.
- High-efficiency gas boilers for practical, reliable heating and hot water.
- Water-efficient fittings to reduce potable water consumption.
- Thoughtful material selection and waste management to reduce environmental impact.
- Layout and orientation considerate of daylighting and street scene integration.

Rationale:

- The chosen approach prioritises long-term reliability, occupant comfort, and low maintenance.
- Renewable or specialist technologies were considered but are not appropriate due to cost, complexity, and scale.
- The strategy ensures compliance with Building Regulations Part L, promotes energy efficiency, and meets local planning expectations for sustainable development.