Climate Change & Sustainability Statement

Property Address: 32 Radcliffe Hill Road, Huddersfield

Document Purpose: Supporting Statement for Planning Application

Focus Areas: Passive Solar Gain, Low-Carbon Materials Procurement, Transport & Operational Emission Reduction

1. Executive Summary

This statement demonstrates how the proposed development at 32 Radcliffe Hill Road incorporates climate change adaptation, carbon reduction, and energy efficiency principles into its fundamental design and construction strategy. By prioritizing passive solar design strategies and low-carbon construction logistics, the proposal seeks to minimize both operational energy demand and embodied carbon emissions throughout its lifecycle.

2. Passive Solar Design & Daylight Strategy

2.1 Optimizing Solar Gain

- **Glazing Specification & Placement:** The design incorporates high-performance, large-format double/triple glazing strategically positioned to optimize natural light penetration into key living spaces.
- **Reduction of Artificial Lighting Demand:** Maximizing daylight ingress significantly diminishes the reliance on daytime artificial illumination, lowering base electrical loads.
- **Thermal Mass Integration:** Internal thermal mass (heavyweight flooring and masonry wall construction) works synergistically with passive solar gains by absorbing ambient solar energy during peak daylight hours and releasing heat during cooler evenings, reducing active space heating demands.

3. Sustainable Procurement & Supply Chain Logistics

3.1 Local Merchant Sourcing

- **Reducing Transportation Carbon (Miles):** Construction materials will be sourced directly through local builder merchants in the Kirklees / West Yorkshire region. Sourcing locally drastically reduces vehicular transport distances and fossil fuel consumption associated with heavy haulage.
- **Supporting Regional Circularity:** Priority will be given to local timber, aggregate, and masonry suppliers holding chain-of-custody environmental certifications (FSC/PEFC for timber; ISO 14001 for merchant operations).

3.2 Bulk Ordering & Consolidating Deliveries

- **Consolidated Freight Strategy:** Construction logistics will enforce bulk ordering practices to consolidate deliveries into fewer, scheduled runs rather than frequent, smaller deliveries.

4. Construction Phase Mitigation & Waste Management

- **Waste Minimization:** Bulk purchasing reduces individual product packaging waste (plastics, shrink wrap, single-use pallets).
- **Site Management:** Construction will strictly follow site environmental management controls, including dust suppression, controlled material storage, and a Site Waste Management Plan (SWMP) aiming for a minimum 90% diversion from landfill through recycling and reuse.