

SUSTAINABILITY STATEMENT

Planning Application Supporting Document

59–61 Southampton Street

Reading RG1 2QP

Conversion of existing building to 8 residential dwellings (Use Class C3)
with associated rear extension, internal reconfiguration, and landscaping

Prepared by: José Antonio Barba Gómez, Co-Founder & CEO, Sustainability Consulting Group | Laura Daniela Hernandez, Senior Sustainability Consultant

On behalf of: Imran Hussain

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Drawing References: 002 132 02, 002 133, 002 134

1. Introduction

This Sustainability Statement supports the planning application for the conversion of 59–61 Southampton Street, Reading RG1 2QP from commercial/mixed use to eight residential dwellings (Use Class C3). It is submitted in accordance with the [Reading Borough Local Plan \(November 2019\)](#) and the [Sustainable Design and Construction SPD \(December 2019\)](#), responding to policies CC2, CC3, CC4, CC5, EN18, and H5.

The proposal comprises:

Eight self-contained dwellings: two 2-bed/4-person units (101.5 m² and 94 m²), four 1-bed/1-person units (37–40 m²), one 2-bed/3-person unit (67 m²), and one 1-bed/2-person unit (55 m²). The scheme retains and upgrades the existing building envelope, introduces a rear extension, and includes landscaped amenity space with boundary planting, climbers, and mixed native hedging.

This is a residential conversion (material change of use under Building Regulations Regulation 5(a)), not a new-build development. This distinction is significant: conversions follow the element-based thermal upgrade route under Part L Volume 1, Section 11 rather than the whole-building SAP compliance route, and are governed by Policy CC2 (BREEAM) rather than the new-build-specific carbon and space standards of Policy H5. Where H5 aspirations can be met — particularly on water efficiency — the scheme does so voluntarily.

Reading Borough Council declared a climate emergency in February 2019 and has committed to achieving a net zero carbon Reading by 2030. This statement demonstrates how the proposal aligns with that ambition at a level proportionate to the scale and nature of the development.

2. Policy Framework

The table below summarises how each relevant Local Plan policy applies to this scheme and where it is addressed in this document. As a minor residential conversion (below the 10-dwelling major threshold), several policy requirements are reduced or do not apply.

Policy	Requirement for This Scheme	Where Addressed
CC2	BREEAM 'Very Good' as minimum for minor conversions; efficient use of energy, water, materials	Sections 3, 4, 5, 7
CC3	Climate adaptation: orientation, shading, thermal mass, green infrastructure, surface water management. Applies to all development.	Sections 5, 6, 8
CC4	Decentralised energy: on-site provision triggers at 20+ dwellings, network connection at 10+. Below threshold — not applicable.	Noted in Section 3
CC5	Waste minimisation in construction and operation; adequate recycling/composting storage. Applies to all development.	Section 7
EN18	Flood risk and SuDS. Site is in Flood Zone 1; SuDS mandatory for majors only but encouraged for all development.	Section 6

Policy	Requirement for This Scheme	Where Addressed
H5	New-build housing standards (space, carbon, water, accessibility). Does not directly apply to conversions, but 110 L/p/d water target adopted voluntarily.	Section 4

The [Local Plan Partial Update](#) (submitted for examination May 2025) proposes strengthened sustainability standards including net zero carbon requirements and extended SuDS provisions. This statement is prepared against the adopted 2019 policies, which remain the statutory development plan, but the design approach is consistent with the direction of travel signalled by the Partial Update.

3. Energy Efficiency and Fabric-First Design

The energy strategy follows fabric-first principles: minimising heat loss through the building envelope before relying on active systems. As a conversion, the scheme follows the element-based compliance route under [Approved Document L, Volume 1, Section 11](#), which requires thermal elements to be upgraded to prescribed U-value targets rather than demonstrating compliance through a whole-building SAP model.

Retained Elements — Thermal Upgrade Targets

The existing building is of traditional masonry construction. Retained external walls (assumed solid brick, approximately 225 mm) have an estimated existing U-value of around 2.1 W/m²K, well above the 0.70 W/m²K threshold that triggers mandatory upgrade under Part L Table 4.3. These walls will be upgraded to a target of 0.30 W/m²K through internal wall insulation.

Internal wall insulation will be specified to achieve the target U-value, with the insulation system and build-up confirmed at detailed design stage in accordance with Part L and best practice for solid masonry construction.

Retained roof elements will be insulated to achieve 0.16 W/m²K. For the mansard and pitched slate roof areas, insulation will be installed between and below rafters, with a continuous layer to reduce thermal bridging at junctions. Rafter depth will be increased where necessary to accommodate the required insulation thickness.

New Elements — Rear Extension and New Openings

New-build elements (rear extension walls, new roof sections, floors, and all new windows) must meet the tighter Part L Table 4.2 standards for new thermal elements:

Element	Target U-value (W/m ² K)
New external walls	0.18
New floor	0.18
Pitched/flat roof (new sections)	0.15
Windows, glazed doors, roof windows	1.4 (or WER Band B)
Rooflights	2.2

All new windows will be dark grey thermally broken aluminium frames (as shown on the approved elevations) with low-emissivity double glazing and argon gas fill, achieving whole-window U-values of approximately 1.2–1.4 W/m²K. Juliet balcony doors with glass balustrades will meet the same standard. New sash windows (front elevation) will be specified to match the thermal performance of the replacement programme.

Airtightness

Formal pressure testing is not mandatory for conversions under Regulation 43 (which applies to newly erected buildings). However, reasonable measures will be taken to limit air infiltration throughout: draught-stripping to all windows and external doors, sealing of service penetrations through the thermal envelope, and continuous vapour/air barrier layers within the insulation build-up. These measures are expected to achieve air permeability significantly better than the default assumption.

Ventilation

Each dwelling will comply fully with [Approved Document F, Volume 1](#). The base ventilation strategy is decentralised mechanical extract ventilation (dMEV) with continuous low-energy extract fans in wet rooms and background ventilators (trickle vents) in habitable rooms. Extract rates will meet AD F Table 1.1 minimums: 13 L/s for kitchens adjacent to hob, 8 L/s for bathrooms. Whole-dwelling ventilation rates will meet Table 1.3 requirements (13 L/s for 1-bed units, 17 L/s for 2-bed units, or 0.3 L/s per m² of floor area, whichever is greater). Purge ventilation of 4 air changes per hour will be achievable in every habitable room via openable windows.

Heating and Hot Water

The heating and hot water system will be energy-efficient and compliant with Approved Document L. The final system selection will be confirmed at detailed design stage to allow flexibility in the Building Regulations process. All lighting throughout the development will be 100% low-energy LED.

Decentralised Energy (Policy CC4)

Policy CC4 requires developments of more than 20 dwellings to consider on-site decentralised energy, and developments of 10 or more dwellings to consider connection to existing networks. At 8 dwellings, this scheme falls below both thresholds. No district heating networks are currently operational in the immediate vicinity of the site. The individual heating strategy described above is appropriate for this scale of development.

Performance Summary

Although conversions are not required to demonstrate a whole-building percentage improvement over Part L 2013 (that requirement applies to new-build under Policy H5), it is worth noting that a scheme meeting the element U-value targets above, combined with efficient heating systems and LED lighting, will deliver thermal performance substantially exceeding the 2013 Building Regulations baseline. The fabric-first approach ensures the building's energy demand is minimised before any active system selection.

4. Water Efficiency

All dwellings will be designed to achieve a maximum water consumption of 110 litres per person per day, meeting the optional standard under [Building Regulations Approved Document G, Requirement G2](#). Although Policy H5's water target formally applies to new-build housing, the scheme adopts the 110 L/p/d standard voluntarily as a commitment to responsible water use and alignment with Reading's sustainability objectives.

Compliance will be achieved through the fittings approach (AD G Appendix A) using the following specifications:

Fitting	Maximum Specification
WC (dual flush)	4 / 2.6 litres
Basin taps	5 L/min
Kitchen taps	6 L/min
Showers	8 L/min
Baths	170 litres to overflow

A Regulation 37 notice confirming the achieved water consumption standard will be submitted to the Building Control Body within five days of completion of each dwelling.

Rainwater collection via water butts on accessible downpipes will be provided for landscape irrigation, reducing mains water demand for external use. Full greywater recycling is not proposed as it is neither energy-efficient nor cost-effective at this scale, consistent with the SPD's requirement for such systems only "where systems are energy and cost effective."

5. Climate Change Adaptation and Overheating

Policy CC3 requires all development to demonstrate how it has been designed to adapt to climate change. UKCP18 projections for South East England under a high-emissions scenario indicate mean summer temperatures rising by 3–5°C by the 2070s, with peak temperatures exceeding 40°C becoming plausible. Reading recorded 37.6°C during the July 2022 heatwave, and urban heat island effects amplify temperatures in the town centre relative to surrounding areas. Winters are projected to become milder and wetter, with increased peak rainfall intensity relevant to drainage design.

Passive Cooling and Overheating Mitigation

Approved Document O (Overheating) does not formally apply to conversions; it applies to new residential buildings only. However, the scheme has been designed with reference to Part O benchmarks to ensure robust overheating performance under Policy CC3:

Thermal mass: The retained masonry walls provide significant thermal mass, absorbing heat during the day and releasing it slowly, which moderates internal temperature swings — a significant advantage of conversion over lightweight new-build construction.

Glazing: Window sizes and positions have been designed with regard to the Part O simplified method glazing-to-floor-area ratios for Reading (a moderate-risk location). South- and west-facing glazing is managed to avoid excessive solar gain. The dark grey aluminium frames and low-e coatings will be specified with appropriate g-values to balance daylight, winter solar gain, and summer overheating risk.

Cross-ventilation: Dual-aspect units are prioritised where the building form allows, enabling cross-ventilation for effective passive cooling. All habitable rooms will have openable windows providing purge ventilation capacity of at least 4 air changes per hour.

Shading and orientation: Deep window reveals in the retained masonry provide natural solar shading. New rear dormers and rooflights are positioned to limit direct west-facing solar exposure. The conservation-style dormers on the front elevation sit within the existing roofline, limiting excessive glazing area at upper levels.

Green Infrastructure for Climate Adaptation

The landscaping strategy contributes directly to climate adaptation. Climbing plants on boundary walls and building elevations reduce surface temperatures, provide evapotranspirative cooling, and attenuate rainfall. Mixed native planting and hedging at ground level provides shading to the patio and amenity areas, absorbs rainwater, and contributes to local microclimate moderation. Plant species will be selected for resilience to projected climate conditions, favouring drought-tolerant native and pollinator-friendly varieties.

Winter Resilience

The fabric-first approach described in Section 3 is the primary defence against cold weather. Insulation upgrades to retained walls (0.30 W/m²K), new elements (0.18 W/m²K), and roof (0.15–0.16 W/m²K), combined with airtightness improvements and efficient heating, will ensure comfortable internal temperatures with minimal energy input during cold spells.

6. Flood Risk and Sustainable Drainage

The site lies within **Flood Zone 1 (Low Probability)**, as confirmed by the [Environment Agency Flood Map for Planning](#). This is the lowest-risk classification, with less than 0.1% annual probability of river or sea flooding. Southampton Street sits on higher ground between the Thames and Kennet corridors, well outside mapped fluvial flood extents. The [Reading Level 1 Strategic Flood Risk Assessment \(November 2024\)](#) confirms this position. No Critical Drainage Area has been identified covering this location. A formal site-specific Flood Risk Assessment is not required (site area is below 1 hectare and the site is in Flood Zone 1).

Surface Water Management

The existing site is predominantly impermeable (building footprint and hardstanding). The development will achieve no net increase in impermeable surface area, and will reduce surface water runoff rates where practicable through the following proportionate SuDS measures:

Permeable paving for all new and replacement hardstanding at ground level, including the patio area and pedestrian paths shown on the ground floor plan.

Water butts on accessible downpipes, providing rainwater attenuation and reuse for landscape irrigation.

Green/blue roof consideration for the new single-ply flat roof areas (rear extension), subject to structural feasibility. Even a lightweight sedum system provides meaningful attenuation and reduces peak runoff.

Soft landscaping: the mixed planting, hedge, and climbing plants all contribute to rainfall interception and infiltration, reducing runoff compared to the existing hardstanding.

Roof drainage will be directed to an appropriate discharge point. Where ground conditions permit infiltration (to be confirmed by a soakaway test at detailed design stage), drainage will be directed to soakaways. Otherwise, attenuated discharge to the public surface water sewer will be proposed, with flow rates limited as close to greenfield rates as reasonably practicable.

7. Materials, Construction, and Waste Management

Materials Strategy

The design retains and reuses the existing building structure wherever possible, which is inherently the lowest-carbon approach to development — avoiding the embodied energy of demolition and full reconstruction. New materials are specified to complement the existing building character:

Red brick to match existing (as detailed on elevation drawings), sourced from regional suppliers where possible to minimise transport emissions. Slate roofing to match the existing roof covering. Conservation-style dormers and new sash windows designed to be sympathetic to the local streetscape. Zinc cladding to new dormer elements. All structural and finish timber will be FSC or PEFC certified from sustainably managed sources. Where choices exist between comparable products, preference will be given to those with lower embodied carbon and, where available, verified Environmental Product Declarations (EPDs).

Construction Waste Management

A Site Waste Management Plan (SWMP) will be implemented, following the waste hierarchy: prevent, prepare for reuse, recycle, recover energy, and dispose as a last resort. The target is a minimum 90% diversion from landfill by weight. Key waste streams — timber, metals, plasterboard, brick and concrete, and packaging — will be segregated on site for recycling. A pre-demolition/strip-out audit will identify materials with reuse potential before any internal demolition begins.

Operational Waste and Recycling Storage

Communal waste and recycling storage is provided at ground floor level (see drawing 002 132 02, ground floor plan). The bin store is designed in accordance with [Reading Borough Council's Waste Management Guidelines](#):

Provision includes 1100L Eurobins (1,295 × 1,118 × 1,370 mm) for general waste and mixed recycling, with separate communal food waste bins and individual 5-litre kitchen caddies per dwelling. The store is sited within 30 m walking distance of all dwelling front doors and within 10 m of the collection vehicle access point. The bin store will be ventilated, lit, fitted with an impermeable washable floor with drainage, and secured with combination/keypad locks (access codes shared with RBC waste operations). Additional space has been allowed for future kerbside glass collection anticipated under forthcoming Simpler Recycling reforms.

Early engagement with Reading Borough Council Waste Operations (01189 373 787) is recommended to agree the final communal bin arrangement appropriate to the site's access constraints.

8. Biodiversity and Green Infrastructure

This conversion is likely exempt from mandatory Biodiversity Net Gain (BNG) under the Environment Act 2021 through the de minimis exemption: the site is predominantly sealed surfaces and developed land with negligible existing biodiversity value, and the development does not impact priority habitat or affect more than 25 m² of non-priority habitat.

Regardless of BNG exemption, [Local Plan Policy EN12 \(Biodiversity and the Green Network\)](#) requires that development does not result in a net loss of biodiversity and provides a net gain wherever possible. Given the site's current condition (hardstanding-dominated with no meaningful habitat), the proposed landscaping represents a clear net gain:

Climbing plants on boundary walls and building elevations, providing nesting habitat, insect forage, and green corridor connectivity. Research confirms green walls can support over 100 invertebrate species.

Mixed native planting and hedge at ground level, using pollinator-friendly and climate-resilient species. Native hedging (such as hawthorn, blackthorn, and holly) provides year-round habitat value and food sources for birds.

Amenity landscaping with benches set within planted areas, contributing to the green infrastructure network identified in the [Reading Biodiversity Action Plan \(2021\)](#).

The following additional measures are recommended for integration during detailed design:

Swift bricks: minimum three units integrated into new brickwork, north- or east-facing at 5 m+ height. Swift bricks are a priority action in local biodiversity strategies and have no maintenance requirement.

Bee bricks or insect hotels: within garden boundary walls or planting beds.

Bat-sensitive lighting: warm white LEDs ($\leq 2700\text{K}$), directional and downward-facing, avoiding light spill onto boundary vegetation and potential bat commuting routes.

9. Summary of Commitments

The table below summarises all measurable commitments made in this statement, cross-referenced to the relevant policy and delivery mechanism.

Policy	Commitment	How Confirmed
CC2	Design aligned with BREEAM 'Very Good' criteria for minor conversions	BREEAM assessment or design compliance confirmation at Building Regs stage
CC2	Retained walls upgraded to ≤ 0.30 W/m ² K; new walls to ≤ 0.18 W/m ² K	Building Regulations submission (Part L)
CC2	Roof: retained ≤ 0.16 , new ≤ 0.15 W/m ² K	Building Regulations submission
CC2	Windows/glazed doors ≤ 1.4 W/m ² K (low-e, argon fill)	Product specification at procurement
CC2	100% LED lighting throughout	Electrical design specification
CC2	Internal wall insulation to achieve ≤ 0.30 W/m ² K, system confirmed at detailed design stage	Construction specification
CC3	Overheating mitigated via thermal mass, managed glazing ratios, cross-ventilation, shading	Design drawings; Part O benchmarks referenced
CC3	Climate-resilient native planting; climbers on walls	Landscaping condition / detailed planting plan
CC4	Below 10-dwelling threshold — not applicable	N/A
CC5	Construction waste: 90% diversion from landfill target	Site Waste Management Plan
CC5	Communal bin store per RBC Waste Management Guidelines	Ground floor plan (Dwg 002 132 02)
EN18	Flood Zone 1 confirmed; no net increase in impermeable area	EA Flood Map; drainage strategy
EN18	Permeable paving, water butts, soft landscaping for SuDS	Detailed landscape and drainage design
H5 (vol.)	Water consumption ≤ 110 L/person/day via efficient fittings	Fittings specification; Regulation 37 notice at completion
EN12	Biodiversity net gain through planting, climbers, hedge on currently sealed site	Landscaping plan; ecological enhancement details
EN12	Swift bricks, bee bricks, bat-sensitive lighting recommended	Detailed design / planning conditions

Items marked as subject to Building Regulations or detailed design stage are not yet fixed but represent the design intent and performance targets that this application is committed to achieving. Planning conditions may be applied to secure these commitments.

References

The following documents and sources have informed this statement:

Reading Borough Local Plan (adopted November 2019):
images.reading.gov.uk/2019/12/Local_Plan_Adopted_November_2019.pdf

Sustainable Design and Construction SPD (adopted December 2019):
[democracy.reading.gov.uk/.../Sustainable Design and Construction SPD](https://democracy.reading.gov.uk/.../Sustainable_Design_and_Construction_SPD)

Local Plan Partial Update — Submission Draft (May 2025):
images.reading.gov.uk/.../Local-Plan-Partial-Update-Submission-Draft

Reading Climate Emergency Strategy 2020–25: [readingcan.org.uk/.../Reading Climate Emergency Strategy](https://readingcan.org.uk/.../Reading_Climate_Emergency_Strategy)

Reading Biodiversity Action Plan (March 2021): images.reading.gov.uk/.../Reading-Biodiversity-Action-Plan-2021.pdf

Validation Checklist for Planning Applications (November 2021):
images.reading.gov.uk/.../Validation-Checklist-2021

Level 1 Strategic Flood Risk Assessment (November 2024):
images.reading.gov.uk/.../Strategic-Flood-Risk-Assessment-Level-1

RBC Waste Management Guidelines for Developers: reading.gov.uk/.../waste-management-guidelines

Approved Document L, Volume 1 — Conservation of Fuel and Power: Dwellings (2021 edition): gov.uk/.../conservation-of-fuel-and-power-approved-document-l

Approved Document F, Volume 1 — Ventilation: Dwellings (2021 edition):
gov.uk/.../ventilation-approved-document-f

Approved Document G — Sanitation, Hot Water Safety and Water Efficiency:
gov.uk/.../sanitation-hot-water-safety-and-water-efficiency

Approved Document O — Overheating (2021 edition): gov.uk/.../overheating-approved-document-o

Environment Agency Flood Map for Planning: flood-map-for-planning.service.gov.uk

CIRIA C753 — The SuDS Manual (2015) and **CIRIA C713 — Retrofitting to Manage Surface Water** (2012)

UKCP18 Climate Projections: metoffice.gov.uk/research/approach/collaboration/ukcp