

# 06 – Sustainability Appraisal

PME-17613

**Proposal:** Retrospective application for a single-storey garden outbuilding used as a garden room and storage space

**Property:** 132 Hallowell Road, Northwood, HA6 1DU

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**Prepared by:** Plans Made Easy

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## Sustainability Appraisal – PME-17613

### 1. Introduction

This Sustainability Appraisal reviews the environmental performance and sustainability considerations of the retrospective outbuilding located within the rear garden of **132 Hallowell Road, Northwood**.

Although modest in scale, the development aligns strongly with local and national sustainability objectives by reusing existing materials where possible, minimising waste, and ensuring the structure functions efficiently within the domestic setting.

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### 2. Energy Efficiency & Carbon Reduction

The outbuilding supports sustainable and low-energy domestic use through:

- **Modern insulation standards** within the walls, roof, and floor to maintain stable internal temperatures.
- **High-efficiency glazing** in the garden-facing doors, reducing heat loss and improving natural light.
- **Use of LED lighting** and efficient electrical fixtures to minimise electrical demand.
- Small internal volume, resulting in very low heating requirements compared with a full extension.

The structure contributes minimally to carbon output and operates efficiently as a contained garden room.

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### 3. Materials & Construction

The development incorporates sustainable construction practices, including:

- Use of an **existing concrete base**, preventing demolition waste and reducing embodied carbon.
- Timber cladding and framing from **durable and responsibly sourced materials** where available.
- Limited use of high-carbon materials, with the majority of the building relying on timber—a low-carbon, renewable material.
- Straightforward assembly that reduces construction time, waste, and transport emissions.

The use of a long-established foundation ensures unnecessary ground disturbance was avoided.

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### 4. Water Efficiency & Drainage

Water management has been considered through:

- **Permeable pea shingle** paths and patio areas surrounding the building, promoting natural drainage.
- Rainwater directed away from boundaries and allowed to soak into permeable areas, preventing runoff concentration.
- No requirement for new hard drainage infrastructure, reducing environmental impact.
- Opportunities for the homeowner to utilise stored rainwater for garden use (e.g., water butts), if implemented.

These features ensure that the building does not increase surface water pressure on the local drainage network.

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### 5. Ventilation & Natural Light

The outbuilding makes efficient use of natural light and ventilation:

- Glazed double doors provide **ample daylight**, reducing reliance on artificial lighting.
  - Natural cross-ventilation is achievable via the main door, ensuring comfortable internal temperatures.
  - No reliance on mechanical ventilation systems, further lowering energy consumption.
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## 6. Future Adaptability & Long-Term Sustainability

The structure has been sensitively designed to ensure versatility and longevity:

- Simple layout allows for flexible future use (storage, workspace, hobby room).
  - The building's substructure and materials allow for ongoing maintenance and repair over its lifespan.
  - The modest height and timber construction ensure ease of adaptation without requiring significant structural change.
  - The project avoids overdevelopment, ensuring the garden remains functional and biodiverse.
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## 7. Conclusion

The outbuilding at 132 Hallowell Road demonstrates strong sustainability performance for a domestic garden structure. Through energy-efficient design, reuse of existing materials, natural drainage solutions, and long-term adaptability, the development contributes positively to local environmental objectives.

The project is therefore considered **fully compliant with sustainability principles** expected in small-scale residential development.