SANAA DESIGNS

Sustainability Assessment

30 CANTELUPE ROAD

EAST GRINSTEAD

RH19 3BJ

30 CANTELUPE ROAD

EAST GRINSTEAD

RH19 3BJ

Prepared For:

MATHU HOUSING LTD

Prepared By:

Sanaa Designs

February 2025

1. INTRODUCTION

1.1 This Sustainability Assessment has been prepared to accompany a planning application submitted on behalf of the applicant, Mathu Housing Ltd. The application seeks permission for the conversion of an existing commercial property, currently operating as a jeweller's shop, located at 30 Cantaloupe Road, East Grinstead, RH29 3BJ. The purpose of this document is to outline the proposed changes, including design considerations and how the development will maintain accessibility and functionality in line with local planning policies and regulations.

1.2 This document is intended to provide detailed background information about the Site, including its characteristics, surroundings, and broader context. It aims to offer a comprehensive understanding of the Energy-efficient measures used for the above proposal

2. ENERGY EFFICIENCY

2.1 The proposed conversion is designed to prioritize energy efficiency, reduce carbon emissions, and create a more sustainable living environment. The following measures will be implemented:

2.2 Enhanced Insulation & Thermal Performance: High-performance insulation will be installed in interior walls, floors, and ceilings to meet or exceed current building regulations. This will significantly improve energy retention, reducing heat loss in colder months and keeping interiors cooler in warmer months. By enhancing thermal efficiency, the development will lower heating and cooling demands, resulting in reduced energy consumption and cost savings for future occupants.

2.3 Energy-Efficient Appliances: All installed appliances will be A-rated (or equivalent) for energy efficiency, ensuring minimal electricity consumption while maintaining high performance. These appliances will help reduce overall household energy use and contribute to lower utility bills.

2.4 Sustainable Lighting Solutions: LED lighting will be used throughout the development due to its low energy consumption, long lifespan, and reduced maintenance costs. LED lights are significantly more efficient than traditional incandescent or fluorescent bulbs, providing both environmental and financial benefits.

2.5 Renewable Energy Integration: A feasibility study will be conducted to assess the potential for integrating renewable energy solutions, such as solar panels. If viable, photovoltaic panels may be installed to generate electricity or support water heating systems, further reducing reliance on non-renewable energy sources and enhancing the building's sustainability.

3. WATER EFFICIENCY

3.1 To promote sustainable water management and reduce overall consumption, the development incorporates the following measures:

3.2 Low-Flow Fixtures: High-efficiency water-saving taps, showers, and dual-flush toilets will be installed throughout the development to minimize water wastage. These fixtures significantly reduce water use per flush and per minute of operation, helping to lower overall consumption without compromising functionality or user experience.

3.3 Rainwater Harvesting: Where feasible, a rainwater collection system will be integrated to capture and store rainwater for non-potable purposes such as irrigation, landscaping, and potentially flushing toilets. This reduces reliance on mains water, contributes to water conservation efforts, and enhances sustainability by utilizing a natural resource that would otherwise go to waste.

3.4 Sustainable Drainage Systems (SuDS): Consideration will be given to incorporating permeable surfaces, bio-retention areas, or soakaways to manage surface water effectively, reduce runoff, and prevent excessive strain on the drainage network.

4. DRAINAGE & SURFACE WATER MANAGEMENT

4.1 As the proposal retains the existing footprint, the impact on local drainage will be minimal. However, additional measures will be implemented to enhance sustainability:

4.2 Sustainable Urban Drainage Systems (SuDS): Use of permeable paving materials where applicable to improve water infiltration.

4.3 Guttering & Runoff Management: Optimization of guttering systems to prevent excessive surface water runoff.

5. SUSTAINABLE CONSTRUCTION & MATERIALS

5.1 The development is committed to minimizing its environmental impact by incorporating eco-friendly construction practices and sustainable materials. These efforts aim to reduce carbon emissions, enhance energy efficiency, and promote responsible resource use.

5.2 Environmentally Conscious Construction Methods: The project will adopt sustainable building techniques that prioritize energy efficiency, waste reduction, and lower carbon emissions. This includes careful planning to minimize construction waste, optimizing material use, and employing best practices to reduce environmental disruption during the building process.

5.3 Use of Sustainable & Locally Sourced Materials: A strong emphasis will be placed on selecting environmentally responsible materials, including recycled, reclaimed, and low-carbon options. Whenever possible, materials will be sourced locally to reduce transportation emissions and support the local economy. Additionally, the use of non-toxic, renewable, and responsibly sourced materials, such as FSC-certified timber and eco-friendly insulation, will contribute to a more sustainable and durable built environment.

6. TRANSPORT & ACCESSIBILITY

6.3 The proposed residential flat is strategically located in a well-connected area, ensuring easy access to essential amenities and public transport options. This reduces reliance on private vehicles and promotes sustainable travel choices. Key transport and accessibility features include:

6.2 Proximity to Public Transport & Amenities: The development is within walking distance of high street shops, essential services, and key public transport links, including bus and rail services. This connectivity allows residents to travel efficiently without the need for a car, contributing to lower carbon emissions and a more environmentally friendly lifestyle.

6.3 Encouragement of Public Transport Use: With nearby access to frequent bus routes and rail services, the site offers convenient and affordable transport alternatives. This supports a shift toward more sustainable mobility options, helping to reduce road congestion and air pollution.

6.4 Secure Bicycle Storage: To further promote sustainable travel, dedicated and secure bike storage facilities will be provided on-site. This encourages cycling as a primary mode of transport, supporting active lifestyles while reducing environmental impact.

6.5 Electric Vehicle (EV) Charging Infrastructure: In alignment with emerging transport trends and the transition to greener mobility, the potential for integrating EV charging points will be explored. This ensures that the development remains future-proof and supports the growing adoption of electric vehicles.

7. BIODIVERSITY & GREEN SPACES

7.1 While the development maintains the existing building footprint, several measures have been implemented to enhance local biodiversity and create a greener environment:

7.2 Incorporation of Green Features: The project integrates various green elements, shrubs, bushes and grass turf to support local wildlife, and enhance the overall aesthetic of the site. These features have been incorporated into the proposed plans for the ground-floor flats, providing residents with dedicated garden spaces that promote biodiversity and natural well-being.

8. CONCLUSION

8.1 This Sustainability Assessment demonstrates that the proposed conversion aligns with sustainable development principles by maintaining the existing footprint, integrating energy and water efficiency measures, and minimizing environmental impact. The project will contribute to a more sustainable residential environment while preserving the character of the area