

Environmental Standards Statement

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Title: Environmental Standards Statement – Dean Brook Inn, St Marys Road, Newton Heath

Client: Mr Hashemi

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For the attention of Manchester City Council, Planning and Development Department.

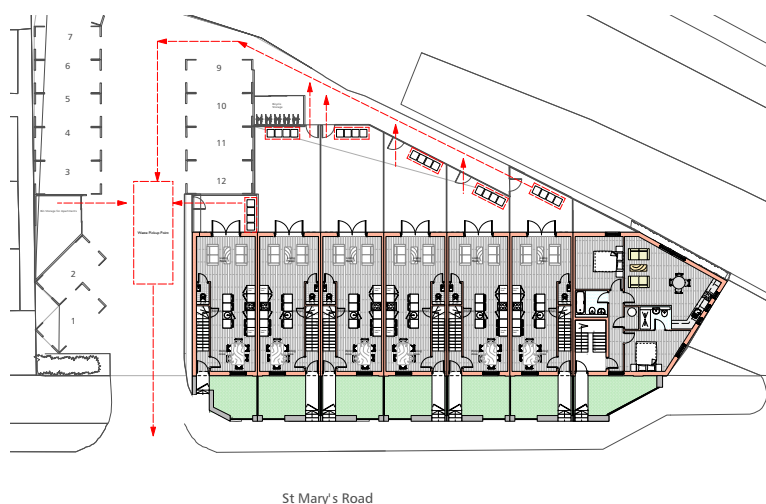


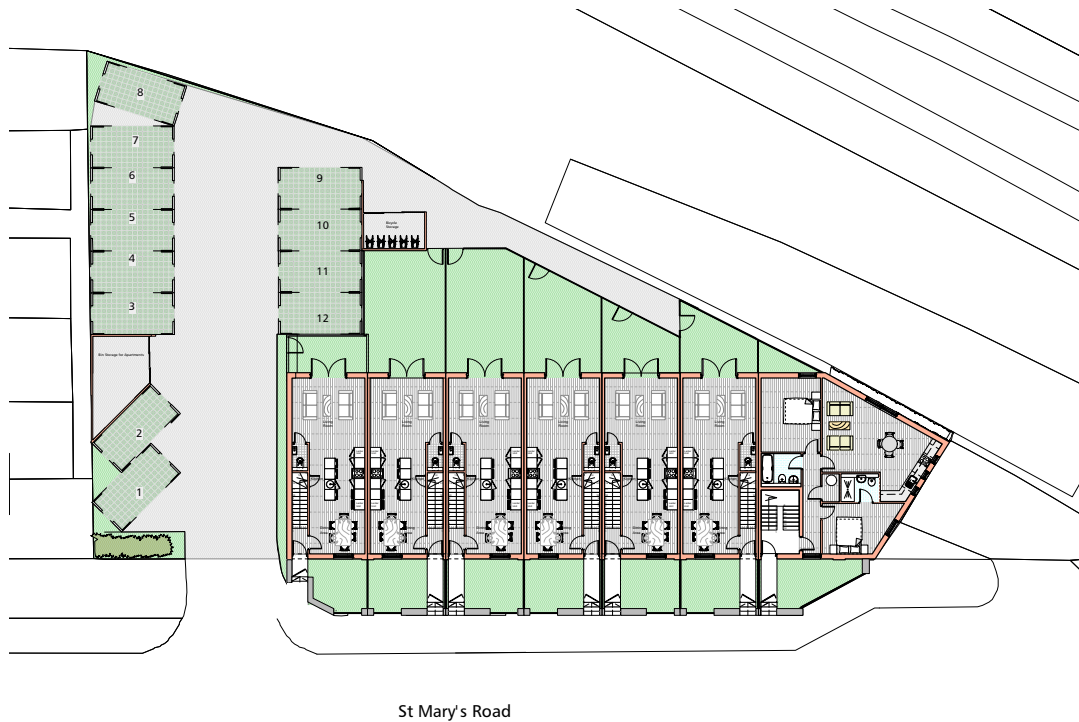
Fig.1 – Proposed Development, Ground Floor in Context

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1. Introduction

Dean Brook Inn is currently a vacant Building that over the past few years has been expanded and tailored to the contemporary requirements. However, as the site has been chopped and changed, the standard and quality of the building has deteriorated and fallen into disrepair.



The proposed site plan is shown above Fig.1, which illustrates the positioning of the building and Ground floor arrangement on site. The development will ensure ways to minimise CO2 emissions in both the construction and occupation performance of the development. This can be presented as the following measures –

- Ensuring quality in the thermal performance of the materials
- Avoiding Cold bridges in the initial design process
- Reducing the possibility of Infiltration
- Rigorous Site preparation in regard to efficiently phasing the construction of the development
- Ensuring quality services for the end user to reduce overall demand of CO2 emissions

- Increasing a reliance on public transport networks to reduce the overall use of motor vehicles
- Efficient landscaping to reduce the developments visual impact to the surroundings
- Greenery, planting of certain trees and shrubbery to improve health and well-being of inhabitants.
- Low-energy internal appliances to reduce overall pressure to CO2 emissions

2. Proposed Construction Specification

In this section we aim to further clarify the quality of certain elements to the proposed development, reviewing the materials U-value and ways in which the development will reduce overall CO2 emissions through quality design.

To determine the thermal performance of a building, a u-value is incorporated to evaluate the level of heat loss within a material. A low u-value within a material illustrates a slower transfer of heat resulting in a more efficient building product.

Heat loss generally occurs within the following construction elements –

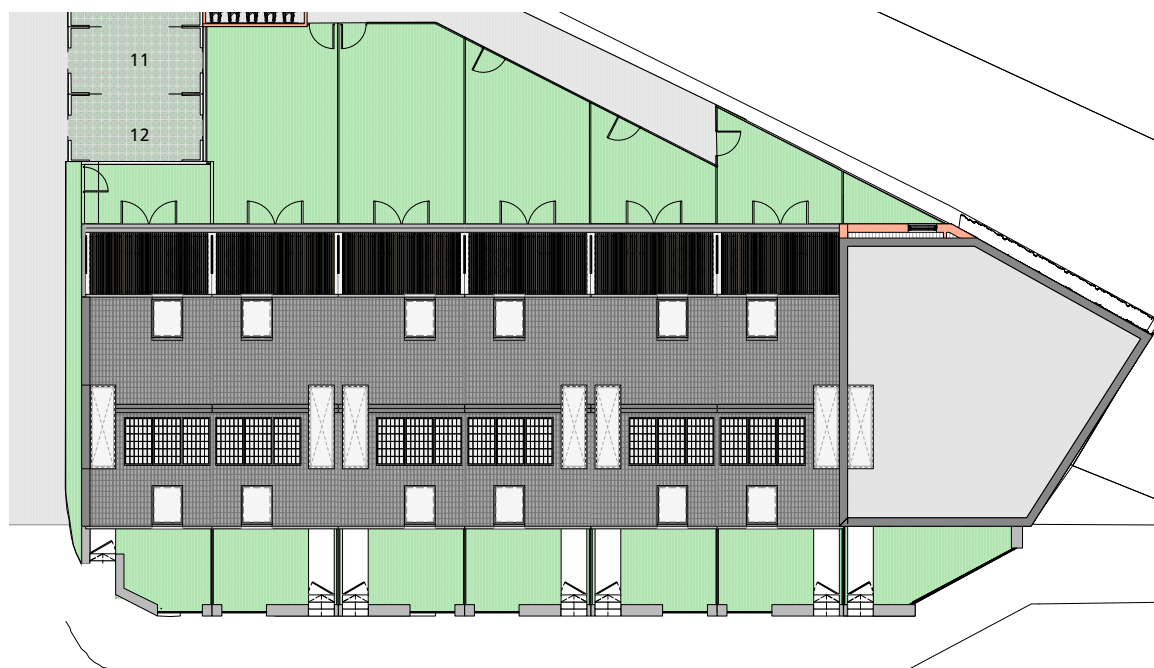
1. Lower floor levels
2. Externals walls
3. Roofs
4. Doors and window junctions
5. Uncontrolled Ventilation

The following tables concludes the ambitions in achieving an energy efficient building and ensuring quality in design. The resulting targets will exceed current building regulations –

Construction Component	Specification
Ground Floor	U=0.12 W/m2K
Exposed Top Floor	U=0.16 W/m2K
Wall	U=0.18 W/m2K
Communal area Walls	U=0.18 W/m2K
Roof Construction	U=0.16 W/m2K

Window Junction	U=1.2 W/m2K
Door Junction	U=1.1 W/m2K
Air Permeability	4m3/hm2 (@50Pa.)
Ventilation	Centralised Whole House Extract
Lighting	100% 'Low E'
Thermal Bridge	Certified details from Manufacturer
Space and Water Heating	Gas Combination Boiler
Heating Control System	Time and temp Control

3. Solar Panels



The image above demonstrates where Solar Panels will be located on the roof to help reduce the Electricity demand within each property and influence the occupants to closely monitor their energy usage. The Solar Panels are recently more affordable than ever and offers mitigation to reduce the overall carbon footprint of the development. Each dwelling will have suitable roof space and orientation to allow for solar panels to be used.