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# ENERGY STATEMENT

FEBRUARY 2024

**HOUSEHOLDER APPLICATION FOR CONVERSION OF  
EXISTING GARAGE INTO AN ANNEX**

AT

**MANOR FARM, CHURCH HILL, WASHINGBOROUGH**

by Framework Architecture and Urban Design Ltd

JA/ES/J1323

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**HOUSEHOLDER APPLICATION FOR CONVERSION OF EXISTING GARAGE INTO A RESIDENTIAL ANNEX  
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#### **1.0 Introduction**

This Energy Statement has been prepared by Framework Architecture and Urban Design Limited on behalf of the applicant Mrs. Applewhite to accompany a Householder Planning application and Listed Building Consent for the conversion of an existing double garage into a residential annex to be used in conjunction with the main dwelling at Manor Farm, Washingtonborough.

As the application site falls within the North Kesteven district it is subject to the policies stated within the Central Lincolnshire Local Plan (CLLP) [adopted April 2023]. Furthermore, the application is for the conversion of a building to residential purposes the proposals must adhere to the Local Plan's Energy Efficiency policies and therefore an Energy Statement must be supplied to demonstrate how the proposals meet these policies.

A Householder application for the development of a residential annex should seek to achieve the standards laid out in policies S7 where possible. It should also set out how the requirements of Policy S6 have been met or where they have not been possible to achieve and why.

#### **2.0 Policy S6: Design Principles for Efficient Buildings**

Policy S6 requires the applicant to consider 5 design criteria centred around improving efficiencies during the development of the proposals. The below outlines how the proposals fair against the criteria.

##### **S6.1 Orientation of Building**

The existing garage is positioned with its primary elevation facing south, the current large openings of the garage entrances will be retained and take advantage of their South facing direction. These two large openings will serve the two primary spaces, the bedroom and living area, allowing the spaces to benefit from natural solar gain, particularly in the winter months. The window openings are smaller elsewhere within the scheme so that daylight is afforded to the internal spaces without compromising on the thermal properties of the building thus minimising heat loss.

##### **S6.2 Form of Building**

The proposals utilise the existing form of the garage, a single storey rectangular volume with a dual pitched roof. No extensions are proposed as part of this application. The simple rectangular form of the building allows for a more energy efficient building due to the volume to surface area ratio. The internal ceiling will not be vaulted, further keeping volume to a minimum.

##### **S6.3 Fabric of Buildings**

The existing garage is currently constructed of a solid wall, comprising of an external limestone skin and blockwork to the internal skin. The external wall will be thermally upgraded on the internal face to minimise heat loss and provide an airtight envelope. This is expected to be achieved by using



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PIR rigid insulation board fixed to the internal face with their joints taped and sealed to provide airtightness. The roof void will be packed with at a minimum of 600mm of mineral wool insulation, providing a cost-effective solution to heat loss. The existing ground floor concrete slab will also be thermally upgraded with PIR rigid insulation board.

#### **S6.4 Heat Supply**

The development will explore air source heat pumps or electric as a primary supply to heat the annex without reliance on gas or oil. The existing Photovoltaic (PV) panels on the roof could be used in conjunction with a heat pump to power electric heaters and the hot water.

#### **S6.5 Renewable Energy Generated**

The roof of the dual-pitched garage already contains an array of PV's facing southwards towards the train line. These energy efficient features will help to offset the consumption of the building and will provide a valuable contribution to cutting greenhouse gas emissions in accordance with the CLLP policies.

### **3.0 Policy S7: Reducing Energy Consumption**

The existing structures current use as a garage and therefore its simple construction a conversion to a residential purpose will naturally increase the energy consumption of that structure.

The proposals set out within Policy S6, in particular; the Fabric of the Building and Heat Supply will guarantee the building will be of a more efficient construction, utilise green energy (PV)'s to generate electricity for heating and hot water purposes.

### **4.0 Policy S11: Embodied Carbon**

Policy S11 states the Local Authority favours the re-using and re-purposing of existing structures over the demolition and replacement of buildings.

This application proposes to re-use an existing structure and thermally upgrade it over replacing it with a new extension.

All materials used in the construction of the proposals will be sustainably sourced in an attempt to reduce the developments embodied carbon.

### **5.0 Policy S13: Reducing Energy Consumption in Existing Buildings**

Leading on from the above, it is noted that Policy S13 of the CLLP pertains to the desire to reduce energy consumption within existing buildings. Indeed, Policy S13 establishes an expectation that:

*“For all development proposals which involve the change of use or redevelopment of a building, or an extension to an existing building, the applicant is encouraged to consider all opportunities to improve the energy efficiency of that building (including the original building, if it is being extended)”.*



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Policy S13 does not mandate specific standards or targets by which any relevant application will be assessed. Rather, it indicates that proposals which achieve an improved EPC rating will, in principle, be supported. In this regard it is relevant to note that the Application would be constructed in accordance with the Building Regulation Standards applicable at that point in time, whilst a fabric first approach will be adopted as means to reduce energy consumption during the lifetime of the building. All relevant renewable energy solutions will be evaluated throughout the design process and consideration given to the integration and suitability of those options, as appropriate. PV solar panels are proposed on the roof of the new extension, and these represent a betterment over the existing baseline position when considering the merits of the Application against CLLP Policy S13. Accordingly, it is considered that the Application presents a genuine opportunity to reduce the energy consumption of the existing building and, as such, is consistent with the aspirations of Policy S13 of the CLLP.

