

Francis Gardner House, London

Energy and Sustainability Strategy Addendum

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1.0 Executive Summary

This report has been prepared as an addendum to the submitted Energy & Sustainability strategy report (prepared by MWL) for Francis Gardner House development (planning application reference: 2020/0928/P).

The scheme is a new non-domestic student accommodation development located at 89-91 West End Lane, in London.

The purpose of this report is to explain why the existing building could not be retained and renovated rather than demolished and rebuilt to create a new-build development.

The prospect of retaining the building has been explored during the planning application process and it has been discounted for the reasons presented in this report.

2.0 Introduction

The present Francis Gardner Apartment building can be identified on the Ordnance Survey maps of 1954. However, it is understood that sections of the building date back to the early 1900s but was subject to major renovations/ partial rebuilding following bomb damage during the Second World War. The building was converted into Carlton Mansions by 1953. A further rooftop extension was added in 2004.

As a result of these significant and often ad-hoc alterations the building has a complex internal layout with convoluted circulation and many rooms that have low quality outlook or aspect. The building does not provide access for all as there are changes in level on some floors that would prevent wheelchair users gaining ready access to some areas and there are no rooms that would be suitable for wheelchair users. The various alterations have significantly compromised the viability of the existing property for any further conversion and in its present form building cannot offer the quality of accommodation that is required.

3.0 Re-Use Consideration

Empiric acquired the building in August 2016.

The building currently has 16 cluster flats between the ground and third floor, with three self-contained penthouse flats on the fourth floor – a total of 67 bedspaces. There is limited amenity and only a modest communal space on the basement level to the rear of the property.

SSA were appointed in June 2017 to review the layout of the existing building and consider how the building could be reconfigured to align with the desire of ESP to provide high quality fit-for-purpose accommodation. SSA were initially tasked with providing a series of options for the redevelopment of the property, to include a low, medium and high intervention approach.

The Low Intervention approach was simply replacing furniture and redecorating. The Medium Intervention approach involved some internal reconfiguration to improve the quality of the accommodation where possible. The High Intervention approach was a new build option.

The Medium Intervention scheme concluded that there was potential to increase the total capacity of the building could to 69 bed spaces from 67. However, this scheme would not address some of the fundamental concerns and issues inherent with the existing building:

- There are bedrooms with poor daylight provision as reliant entirely on lightwell.
- There is limited daylight for some of unit arranged along the sides of the building.
- There is no bicycle storage provision.
- There is insufficient waste / recycling storage.
- The mix and type of accommodation the building provides (predominantly cluster-flats as opposed to self-contained studio flats) is not ideal.
- Many of the bedrooms are too small and poorly shaped and arranged.
- The circulation of the building is convoluted and does not provide for accessible access.
- The lack of accessible accommodation suitable for wheelchair users.
- The poor quality and amount of communal amenity / social space.

It was also estimated that a significant amount of costly work and disruption to residents and neighbours would be required to even make modest improvements to the existing poorly insulated building fabric, and existing services:

- Removal and replacement of all windows.
- Façade reclad throughout (including removals).
- Requirement for wholesale plant replacement and attendant builderwork.
- Upgrading of internal services generally.

In taking a longer-term view of the property Empiric concluded that reworking the convoluted internal layout of the building was not viable and could not deliver the required high quality of modern student residential accommodation particularly in relation to daylighting, ventilation, accessibility and comfort. Most importantly it was concluded that a new building would offer the only option to provide accommodation that meet and where possible exceed the demands of current Building Regulations.

4.0 Sustainability Performance

In this chapter, will be explained the benefit of creating a new-build development, rather than refurbishing the existing one, with regards to the produced regulated carbon emissions.

Refurbishment of the existing Francis Gardner House development:

The option to retain and refurbish the existing Francis Gardner House development creates limitations in the selected fabric and Mechanical & Electrical systems specification.

By considering this option the target for the development would be to comply with the suggested values of Part L2 of Building Regulations.

Therefore, considering also the limitations of the existing design, the achieved performance of the refurbished development is expected to be in line with the proposed Part L Baseline.

This means that the produced regulated carbon emissions (based on our thermal modelling calculations, as presented in the submitted Energy & Sustainability Strategy report) will be 108.75 CO2 tonnes per annum or else 30.2 kgCO₂/m² per annum.

Proposed New-Build Francis Gardner House development:

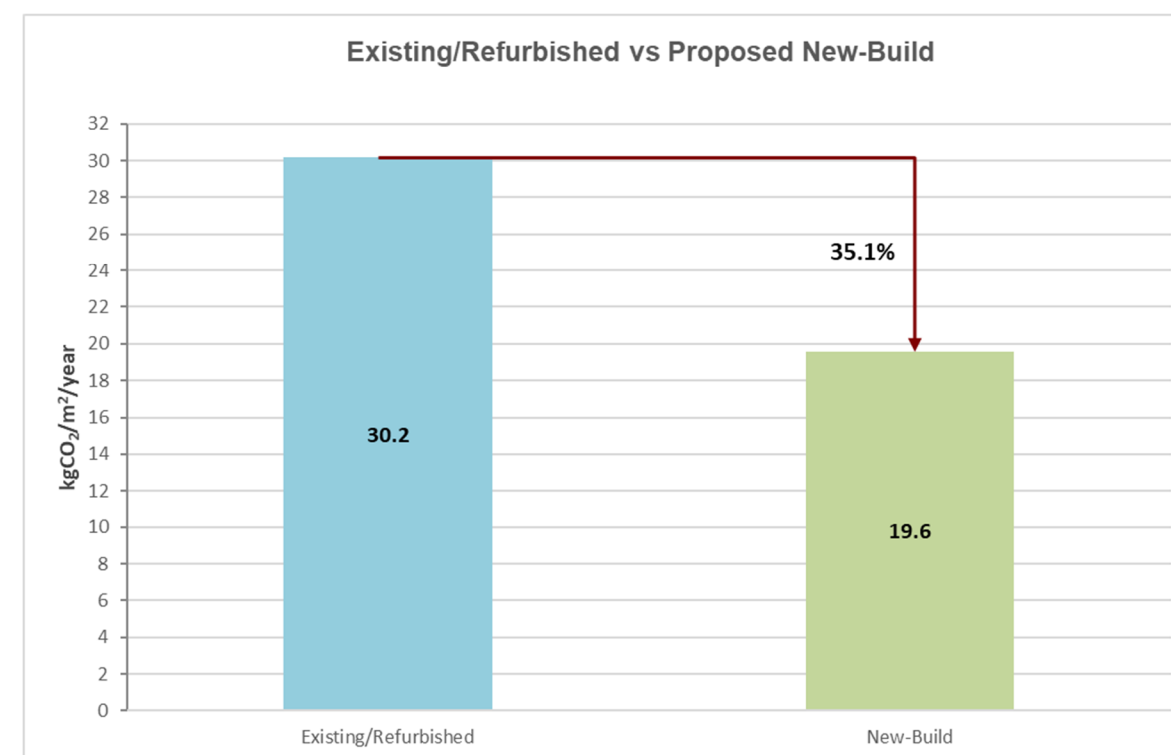
A new-build development will need to comply with strict targets as illustrated both in London Plan and Camden Council's policies and explained in the submitted Energy & Sustainability Strategy report.

With the proposed energy efficient design and the selected highly efficient fabric & systems specification (as presented in the submitted report), the new-build Francis Gardner House development has achieved a CO₂ (carbon dioxide) reduction of 35.1% over Part L Baseline.

The produced regulated carbon emissions of the proposed new-build development will be 70.58 CO2 tonnes per annum or else 19.6 kgCO₂/m² per annum.

The above result is illustrated in the following graph.

Comparison Graph:



Conclusion:

With creating the proposed new-build development and not refurbishing the existing development, **38.17 tonnes per annum or 10.6 kgCO₂/m² per annum of regulated carbon emissions have been saved.**

BREEAM Assessment:

Further to the above, the proposed Francis Gardner House development has been assessed against BREEAM 2018, the latest version of BREEAM UK New Construction (which is the world's leading and most widely used environmental assessment method for non-domestic buildings in UK). BREEAM 2018 introduces new requirements, methodologies, and up-front costs, and overall introduces a new more challenging direction for sustainable design and construction. Due to the relevant policy by Camden Council, the BREEAM rating considered appropriate for a new-build development is 'BREEAM Excellent', which is equivalent to better than the top 10% of UK non-domestic buildings.

A full BREEAM 2018 Pre-Assessment Strategy has been completed for the proposed new-build Francis Gardner House development and a BREEAM Excellent rating has been achieved, which justifies further that the proposed new-build development performs better than keeping & refurbishing the existing development.