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TECHNICAL NOTE

Project	Holborn Links Estate – Project 3 Norfolk House	**Date**	4th October 2021
Note	Energy Strategy	**Rev**	Rev 0
Author	JJ		

1 Introduction

This technical note is to outline the energy strategy to be adopted for the refurbishment (without extension) located at 13 Southampton Place in Camden. The property address is as below: -

- Norfolk House, 13 Southampton Place, London WC1A 2AL

Refer to architectural information from MICA Architects for details of alterations to listed elements/

The previous EPC during occupation (before strip-out) was as below.

Address	Class	NIA ft²	NIA m²	EPC	Cert Expiry date
Norfolk House 13 Southampton Place	B1	11,635	1,080	E125	22/07/2023

2 Camden Energy Policy

Camden Energy Efficiency and Adaption planning guidance encourages energy improvement of existing building and notes that a listed status should not prevent improvements being made. Sensitive improvements should be made to listed buildings without causing harm to the historic features.

Guidance on improvements to both existing and listed buildings included within the Camden Planning Guidance will be used to determine the best approach to sustainable improvements within the buildings.

3 Building Regulations

The buildings above are exempt from Building Regulations Approved Document Part L2B Conservation of fuel and power in existing buildings other than dwellings (including 2010, 2011, 2013 & 2016 amendments) due to their listed nature. However, Part L2B is to be used as guidance for the improvement to be made within the buildings.

4 Listed Buildings

All proposed works are subject to listed building consent before being carried out.

5 Energy Performance Certificate

Whilst listed buildings do not require an EPC the buildings have been assessed previously. An EPC rating of E is the minimum required for commercial rental properties. The existing ratings fall below this minimum. Whilst being listed means they can still be rented without meeting the minimum requirements they may be viewed unfavourably by renters. There is a notional target of a C rating set by the client subject to approval of the proposed energy improvements.

6 Proposed Improvements

The following outlines the proposed improvements. The works to be undertaken are minor in nature and do not include extensions, change of use or change of energy status as defined in Part L2B. Works do include renovation of thermal elements and works of controlled fittings and services.

6.1 Be Lean

The existing windows are to be refurbished to open for natural ventilation and to reduce leakage when closed.

The existing mansard roof extension to the property is currently uninsulated. As these areas are to be access for strengthening works and electrical wiring it is proposed these are to be insulated. The level of insulation provided will target the improved U-Values within table 5 of Part L2B but will be subject the existing joist depth. Final U-Value achieved will be subject to survey.

There are no plans to insulate any other part of the building fabric which is historic both in the external façade and also internally within a number of the rooms.

The buildings are to remain air conditioned, as per the ventilation strategy. Mechanical extract is proposed for the existing toilets, new showers and new kitchenettes/tea points in line with Building Regulations Approved Document Part F Ventilation. The exhaust from the fans through the façade and internal routing of ductwork, grilles and ancillaries is subject to listed building consent.

Electric heating is proposed to circulation areas, toilets and showers to minimise routing of pipework within these areas. Electric point of use water heaters will be provided to wash hand basin taps, kitchen taps and showers.

A gas fuelled heating system has not been proposed for the buildings as the existing gas supplies are to be removed to remove their reliance of fossil fuels. In addition the provision of a water heating system would require the doubling of emitters within each room as a separate cooling fan coil unit would also be required to maintain temperatures in summer.

New LED based lighting will be provided through-out.

Each building will be individually metered for electric and water.

6.2 Be Clean

There is no existing district energy network within proximity to these buildings which could be used for heating.

6.3 Be Green

Thus all occupied rooms are to be provided with heating and cooling fan coil units served from air source reversible heat pumps located at roof level or within the courtyards. As the office was previously configured for high level services within a ceiling zone, the refurbishment and replacement heat pumps are proposed in this configuration.

7 Conclusion

Subject to heritage approval of the above proposed energy improvements it is anticipated that a ‘B’ EPC rating should be achieved for the building. The final EPC rating will be subject to final U-Value achieved and equipment selections, but a draft is attached demonstrating B42.

8 APPENDIX – DRAFT EPC

Energy Performance Certificate
Non-Domestic Building

HM Government

Holborn Link_Norfolk House
Address 2
Address 3
Address 4
London
Postcode

Certificate Reference Number:
8154-8747-8168-2101-0634

This certificate shows the energy rating of this building. It indicates the energy efficiency of the building fabric and the heating, ventilation, cooling and lighting systems. The rating is compared to two benchmarks for this type of building: one appropriate for new buildings and one appropriate for existing buildings. There is more advice on how to interpret this information in the guidance document *Energy Performance Certificates for the construction, sale and let of non-dwellings* available on the Government's website at www.gov.uk/government/collections/energy-performance-certificates.

Energy Performance Asset Rating

More energy efficient

A+

Net zero CO_2 emissions

A 0-25

B 26-50

C 51-75

D 76-100

E 101-125

F 126-150

G Over 150

42 This is how energy efficient the building is.

Less energy efficient

Technical information

Main heating fuel:	Grid Supplied Electricity
Building environment:	Air Conditioning
Total useful floor area (m^2):	1416.083
Building complexity:	Level 5
Building emission rate ($kgCO_2/m^2$ per year):	24.62
Primary energy use (kWh/m^2 per year):	145.62

Benchmarks

Buildings similar to this one could have ratings as follows:

32 If newly built

85 If typical of the existing stock