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Surrey Energy Management
Energy Assessment Services

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ENERGY STATEMENT

for

Proposed Conversion of Existing Single, Detached Residence

81, Fordwych Road, West Hampstead. NW2 3TL

into

8 Self Contained Residential Apartments

1. Introduction

This Energy Statement will address the CO2 emission levels, that will result from the proposed above residential conversion, that are required by the local planning authority.

2. Outline Description of The Existing Residential Property

The existing detached residence, on 5 levels including the basement, is considered to have been built around 1900.

The existing Residential EPC for the property provides a breakdown of it's very high CO2 footprint. On the EPC, A – G scale it is Rated F-21, which from April 2018, eliminates it from the rental market.

Other key information from the EPC is:

- Annual CO2 emissions: 36,000kgCO2/annum
- Annual CO2 emissions per sq.m: 121 kgCO2/m2/annum
- External Wall u-value: 2.10 w/m2k
- Basement Floor u-value: 0.58 w/m2k
- Roof u-value: 2.30 w/m2k
- Single glazing u-value: 5.0- w/m2k

Table 1 shows the comparison of the above u-values with those that are required to be achieved under the current Part L1B of the Building Regulations, which will be applicable to the 8 proposed residential apartments of this project.

Perhaps the most readily understood comparison between this existing property and it's equivalent new build today is to compare the annual CO2 emissions:

Existing Building: 121 kgCO2/m2/annum
Target Emission Rate (TER) current Building Regulations: approx. 14.00 kgCO2/m2/annum

ie: 8.6 times current new build CO2 emission levels.

3. Proposed Development of 8 Residential Units.

At the time of this report, the detailed construction drawings and specifications have still to be produced. However the planning drawings 31-14 – Ex10/Ex11/Ex12 by Zyntax Chartered Architects indicate the outline proposals, showing the Flat arrangement, by floor as:

Lower G/F:	Flats 1 & 2
G/F:	Flats 2 & 3
F/F:	Flats 4 & 5
2/F:	Flats 6 & 7
3/F:	Flat 8

4. Requirements of Building Regulations Part L1B (2013)

The developer will be required to ensure that each apartment complies with Part L1B 2013 of the Building Regulations. Procedurally, this has two stage requirements:

- As Designed SAP Calculation
- As Built SAP Calculation and issue of SAP-EPC

It is the task of Building Control to ensure that compliance with Part L1B 2013, is achieved at both stages.

5. U-value Comparisons: Original Build v's Part L1B 2013

	Original Build (w/m2.k)	Part L1B 2013 (w/m2.k)
External Walls	2.10	0.30
Basement Floor	0.58	0.25
Roof	2.30	0.18
Windows	5.00	1.60

Table 1.

6. Proposed Thermal Specifications

Whilst the architect has not yet issued the detailed specifications, he advises that these are proposed as:

Basement Walls:	100mm Celotex insulation
External Walls:	50mm Celotex external insulation
Basement Floor:	100mm Celotex insulation
Pitched/Flat Roof:	100mm Celotex insulation between rafters, 50mm under rafters.
Windows:	Max. u-value 1.6 w/m2.k
Lighting:	100% LED
Space Heating:	Worcester Bosch 24i Junior, combi boiler.

7. Executive Summary

Part L1B 2013 of the Building Regulations does not specify a Target CO2 Emission Rate (TER) for change of use conversions. However, it is evident from the specifications required/proposed in Sections 5. & 6. that the CO2 emissions for the proposed project are going to be very much reduced, compared with the existing residence.

The ACTUAL CO2 emissions for each proposed apartment will be quantified when the As Designed SAP calculations are made – and then submitted to Building Control.

8. Attached Document

Energy Performance Certificate(EPC) for current residence.

9. General

Should clarification or further information be sought regarding this document, please contact the Accredited SAP Assessor & statement author.

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