

Our Ref: CB-70

Mr. S Michail

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27th March 2024

Dear Mr. Sofoklis,

Re: Conversion, 5 Flats, 142 Muswell Hill Broadway, London N10 3RY
Thermal Calculations - Part L of the Building Regulations

Further to your instruction and receipt of your Drawings, please find enclosed an Energy Statement together with supporting SAP Thermal Calculations.

We have assessed the Conversion for compliance against Part L1B ('Material Change of Use') of the Building Regulations 2021. Generally, the main requirement of Part L is for the exposed elements, including openings, to meet minimum thermal standards, and for the heating systems to meet minimum requirements for efficiency and heating controls.

We have also considered a reduction in CO₂ emissions due to better fabric performance, heating efficiency and an array of solar photovoltaic panels. These improvements will yield a 16 % reduction in emissions compared to a Baseline performance based on the Notional specification for existing buildings contained in the Energy Assessment Guidance of the London Plan.

Attached is a Construction Specification which details insulation levels to meet Part L1B thermal standards unless otherwise agreed with Building Control.

The SAP Calculations include the whole building thermal performance, and we use this data to produce the Energy Performance Certificates (EPCs) at completion. To produce the EPCs we will require at completion the following.

- a) Registered property addresses
- b) Confirmation of the insulation installed (we will send you an As-Built Construction Specification to check and sign)
- c) Confirmation of the make and model of the heating system
- d) If installed, make/size of hot water cylinder.
- e) Confirmation of the U-values of new windows and doors (from your window supplier).



Should you have any queries, or would like to discuss anything, please do not hesitate to contact me.

Yours sincerely

A handwritten signature in blue ink, appearing to read "C. Marshall", with a long, sweeping underline.

Colin Marshall
(SAP Assessor)

Construction Specification for Part L (Material Change of Use) Compliance			
Project:	Date:	Our reference:	Version :
Conversion, 5 Flats, 142 Muswell Hill Broadway, London N10 3RY	27th March 2024	CB-70	1
1. Construction and insulation			
Element			U-Value (W/m ² K)
<u>a) Exposed floor – Ground floor space to first floor Flats</u> Existing timber floor acoustically upgraded including 100mm acoustic quilt between joists, suspend ceiling with double layer plasterboard. The calculated U-value is divided by 2 to reflect a different heating pattern between the Flats and the commercial premises.			0.20
<u>b) External wall – solid brick</u> Circa 325mm brickwork, 13mm plaster finish, upgraded with thermal plasterboard e.g. 77mm Celotex PL4000. Comment: Meets Approved Document L recommended U-value for upgrading of retained thermal elements.			0.27
<u>c) External wall – room in roof</u> New walls in room in roof to have a U-value of 0.18.. Comment: Meets Approved Document L recommended U-value for new thermal elements.			0.18
<u>d) Party walls</u> <u>Between Flats - solid brick walls</u> <u>Between Flats and Common Areas</u> Walls acoustically/thermally upgraded.			0.00 0.30
<u>e) Roof - Exposed horizontal ceiling</u> 100mm mineral wool quilt between joists, 200mm mineral wool quilt cross-laid over joists, 12.5mm plasterboard finish. Comment: Meets Approved Document L recommended U-value for upgrading of retained thermal elements.			0.14
<u>f) Sloping roof</u> 120mm Ecotherm or similar between rafters, 62.5mm Ecoliner or similar below rafters. Comment: Meets Approved Document L recommended U-value upgrading existing thermal elements.			0.15

<u>g) Windows</u> New windows, to have a U-value of 1.4.		1.4
<u>h) External front doors</u> Solid type door.		1.4
<u>i) Roof lights</u> Velux or similar, double glazed, low-e glass.		1.4
2. Heating and Ventilation		
<u>a) Main Heating System</u> New mains gas combi boilers, 90% efficiency.		
<u>b) Water Heating</u> From the main heating.		
<u>c) Heating Controls</u> Programmer, room thermostat, TRVs to radiators. Delayed start thermostat .		
<u>d) Ventilation</u> System 1 - Background ventilators & intermittent extract fans, or passive stack ventilation (system 1 or 2 in Approved Document F (2021 edition)).		
3. Other energy related issues		
<u>a) Lighting (internal)</u> Lights to have a minimum luminous efficacy of 75 lumens per circuit-watt.		
<u>b) Electricity Tariff</u> Standard Tariff.		
<u>c) Solar photovoltaic panels</u> To south west or south east elevations. An installation of 3.6Kwp is assumed.		
4. As- Built SAP and EPC – 5 Flats, 142 Muswell Hill Broadway, London N10 3RY This section is to be completed when the final SAP and EPC are required upon completion of the dwelling(s).		
(1) Has there been any changes to the specification above (list changes above, or state '' no changes'')		
Signed : Name ;.		Date ; Job Title / Role :