

John Paleomyllites
LPPL Property (UK) Ltd
1 Wedderburn Road
London
NW3 5QR

4th April 2022

Dear John,

Re: 18 Silver Street, Durham, DH1 3RB
Daylight-Sunlight Analysis

Following your instructions, I am writing to confirm our analysis of the Daylight-Sunlight levels in Studio 002 at the above development.

For context, the development is located in a dense urban area, amongst commercial, retail and residential properties. It is also immediately adjacent to the grounds of Durham Castle, with the bedroom windows facing directly onto the castle's embankment.

To assess the levels of daylight within the proposed unit we have calculated the Average Daylight Factor ("ADF") in accordance with *BR 209: Site layout planning for Daylight and Sunlight*. This recommends that for new developments, kitchens should receive an ADF of 2%, with living rooms and bedrooms having a recommendation of 1.5% and 1% respectively.

Our detailed results are appended. They demonstrate that the LKD area of the unit will meet the recommended daylight levels for a kitchen, with an ADF of 2.03%. In regards to the bedroom, that space will achieve an ADF of 0.93%, which is marginally below the recommended value of 1%. In consideration of its context however, and with the result being only fractionally beneath the recommended target for new developments, this result is considered to be a positive outcome.

To assess the levels of sunlight within the unit, we have calculated the Annual Probable Sunlight Hours ("APSH") again in accordance with the above document. The results show that the LKD receives a significantly greater amount of sunlight throughout the year than is recommended by the guidelines. As the bedroom faces within 90 degrees of due north, this calculation has not been applied to those windows, as per the guidelines.

Overall, the proposed unit receives a good amount of daylight in both of the proposed habitable rooms. The levels of sunlight within the LKD are also positive.

The results can be found overleaf. If you have any queries please let me know.

Yours sincerely,



James Hargreaves

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Results

Average Daylight Factor Calculations
18 Silver Street, Durham

Floor Ref	Room Ref	Property Type	Room Use	Window Ref	Glass Transmittance	Maintenance Factor	Glazed Area	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Proposed	Target Value
Studio 002													
Ground	R1	Residential	Bedroom	W1-L	0.68	0.92	0.69	22.88	83.56	0.69	0.15	0.03	
				W1-U	0.68	0.92	1.12	27.06	83.56	0.69	1.00	0.43	
				W5-L	0.68	0.92	0.69	22.83	83.56	0.69	0.15	0.03	
				W5-U	0.68	0.92	1.12	27.31	83.56	0.69	1.00	0.44	
												0.93	1.00
Ground	R2	Residential	LKD	W2	0.68	0.92	0.92	56.42	83.20	0.69	1.00	0.74	
				W3	0.68	0.92	1.02	64.41	83.20	0.69	1.00	0.93	
				W4	0.68	0.92	0.56	44.68	83.20	0.69	1.00	0.36	
												2.03	2.00

Annual Probable Sunlight Hours Calculations
18 Silver Street, Durham

Floor Ref.	Room Ref.	Property Type	Room Use	Window Ref.	VSC	Annual	Winter
Studio 002							
Ground	R1	Residential	Bedroom	W1	6.47	N/A	N/A
				W5	6.62	N/A	N/A
	R2	Residential	LKD	W2	23.09	46.00	8.00
				W3	27.98	26.00	4.00
				W4	15.54	27.00	6.00