

Mr J Turner
9 Templar Drive
Gravesend
Kent
DA11 7NS

15th December 2021

Our Ref: C0111/DSO

Dear Mr Turner,

9 Templar Drive, Gravesend, Kent, DA11 7NS – Daylight, Sunlight and Overshadowing Matters

The Chancery Group have been instructed to undertake a daylight, sunlight and overshadowing assessment regarding the proposed extension at 9 Templar Drive, Gravesend, Kent, DA11 7NS (“development”) and the potential impact that this could have upon the existing daylight, sunlight and overshadowing levels at 11 Templar Drive.

Our assessment has been undertaken in accordance with the Building Research Establishment (BRE) Report 209, Site Layout Planning for Daylight and Sunlight: A guide to good practice (Second Edition, 2011). Referred to herein as the “BRE Guidelines”.

We have undertaken a detailed daylight and sunlight assessment on the conservatory windows and bedroom within 11 Templar Drive. In addition, as the development is located due south of 11 Templar Drive, an overshadowing assessment (Sun Hours on Ground) has also been completed on the rear garden. The results of our technical assessment are provided in Appendix 01.

We have relied upon the 3D computer model of the development and neighbouring properties supplied by Blueline to undertake our assessments (see Fig 01).

All internal configurations and levels of the rooms within 11 Templar Drive have been based upon external inspections only.

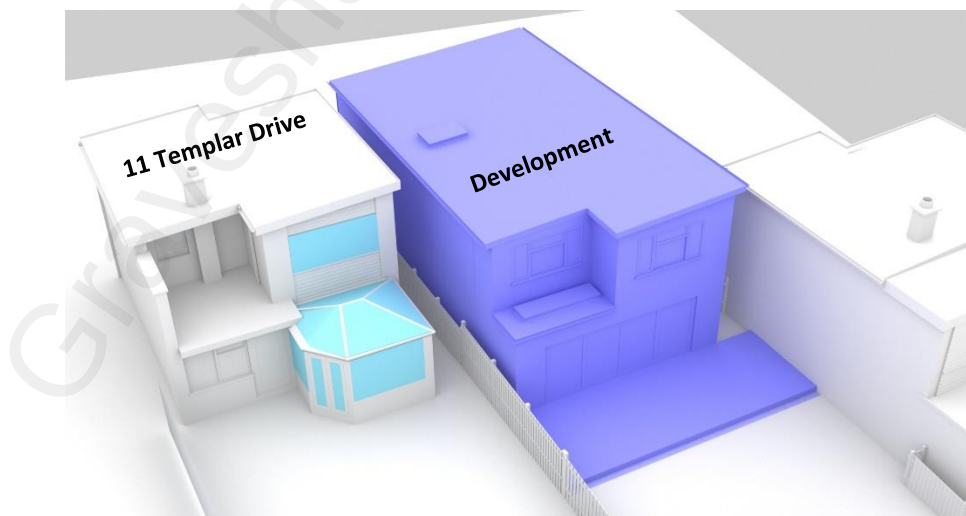


Fig 01 - Development and 11 Templar Drive

Daylight and Sunlight Methodology

Daylight

Where the internal arrangements are not known, the BRE Guidelines provide two methods of assessing daylight in the existing situation; the Vertical Sky Component (VSC), which assesses the quantum of skylight and the No Sky Line (NSL), which considers the distribution of light within a building. Each method is described in more detail below.

Vertical Sky Component (VSC)

The VSC test calculates the potential for daylight to a building and measures the amount of light available at the centre of the outside plane of a window using the Waldram method of analysis. The BRE Guidelines suggest that a noticeable impact would likely occur if the VSC with the development in place is both less than 27% and less than 0.8 times its former value.

No Sky Line (NSL)

The NSL test calculates the distribution of daylight at the working plane (i.e., 850mm above floor level) within a room. The NSL divides those areas of the working plane which can receive direct sky light from those which cannot. The BRE Guidelines suggest that a noticeable impact would likely occur if the area of a room that receives direct sky light is reduced to less than 0.8 times its former value.

Sunlight

Annual Probable Sunlight Hours (APSH)

The BRE Guidelines refer to the BS 8206-2:2008, which sets out the criterion for APSH and defines “probable sunlight hours” as:

“The total number of hours in the year that the sun is expected to shine on unobstructed ground, allowing for average levels of cloudiness for the urban location in question.”

The APSH calculation is assessed on the centre of a main window located within 90° of due south. The BRE Guidelines recommend windows should receive at least 25% APSH, with 5% APSH in the winter months. It is suggested that a noticeable impact would likely occur if the window receives less than 0.8 times its former sunlight hours and if there is a reduction in total APSH which is greater than 4%.

Overshadowing

Sun Hours on Ground

The BRE Guidelines recommend that at least half of a garden or amenity area should receive at least 2 hours of direct sunlight on March 21st. Furthermore, if the area which receives 2 hours of direct sunlight is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable. This assessment uses specialist software to track the path of the sun to determine the percentage of an amenity area which receives 2 hours of direct sunlight.

Daylight and Sunlight Results - 11 Templar Drive

Daylight

The results of the VSC and NSL assessment show that all windows and rooms assessed would be fully compliant with the BRE Guidelines.

Sunlight

All rooms relevant for assessment would be fully compliant with the APSH criteria.

Overall, the effect of the proposed development on this property is negligible.

Overshadowing

The results of the sun hours on ground assessment shows that the rear garden at 11 Templar Drive would be fully compliant with the BRE Guidelines.

Conclusion

The Chancery Group have undertaken a daylight, sunlight and overshadowing assessment regarding the proposed extension at 9 Templar Drive ("development") and the potential impact that this could have upon the existing daylight, sunlight and overshadowing levels at 11 Templar Drive.

The results of our daylight, sunlight, and overshadowing assessment show that there would be negligible impacts to 11 Templar Drive, following construction of the development.

Overall, the development meets the BRE Guidelines and is considered acceptable in daylight, sunlight and overshadowing terms.

Should you have any questions or require any further information, please do not hesitate to contact us.

Yours sincerely,



The Chancery Group

Appendix 01

Daylight and Sunlight Technical Analysis

Gravesham Borough Council

Surrounds – VSC and APSH Results

Floor Ref	Room Ref	Window Ref	VSC	Pr/Ex	Window Orientation	Annual	Pr/Ex	Winter	Pr/Ex	Total Room Annual	Total Room Winter
11 Templar Drive											
Ground	R1	W1	Existing	23.73	1.00	352°N					
			Proposed	23.73							
		W2	Existing	34.89	1.00	310°N					
			Proposed	34.89							
		W3	Existing	35.43	1.00	310°N					
			Proposed	35.43							
		W4	Existing	37.50	0.98	262°	49.00	0.88	14.00	0.71	
			Proposed	36.77			43.00		10.00		
		W5	Existing	67.62	1.00	354°N					
			Proposed	67.61							
		W6	Existing	85.21	1.00	313°N					
			Proposed	85.05							
		W7	Existing	87.41	0.96	262° Inc	67.00	0.84	16.00	0.63	
			Proposed	83.74			56.00		10.00		
		W8	Existing	61.19	0.88	172° Inc	51.00	0.76	10.00	0.60	
			Proposed	53.75			39.00		6.00		
		W9	Existing	1.77	0.99	262° Inc	7.00	1.00	3.00	1.00	
			Proposed	1.75			7.00		3.00		
										74.00	20.00
										68.00	14.00
First	R1	W1	Existing	38.02	0.97	262°	50.00	0.92	15.00	0.73	
			Proposed	36.86			46.00		11.00		
										50.00	15.00
										46.00	11.00

Surrounds – NSL Results

Floor Ref	Room Ref		Lit Area Existing	Lit Area Proposed	Pr/Ex
11 Templar Drive					
Ground	R1	Area m2	8.10	8.10	
		% of room	100%	100%	100.00%
First	R1	Area m2	10.56	10.56	
		% of room	100%	100%	100.00%

Amenity Area Results

Amenity Ref	Amenity Area	Lit Area Existing	Lit Area Proposed	Pr/Ex
11 Templar Drive				
A1	Area m2 Percentage	86.54 73.01 84%	72.70 84%	1.00