

**Core Document 7**



**RE: Planning application number 2014/2037/P (22 Lancaster Grove, London NW3 4PB)**

Dear Jenna Litherland,

I am writing in reference to your request for further clarification on the daylight/sunlight report following comments received from the neighbours especially those raised by Barrie Tankel dated 16 May on the Council's website.

I would like to start by mentioning that, as stated in our report, our **"assessment is undertaken in accordance with "BRE 209 Digest: Site Layout Planning For Daylight and Sunlight – A Guide to Good Practice"**. Please find below further details in response to Barrie Tankel comments:

**5. Daylight/Sunlight**

- i. With regard to the sunlight study, all the tables from p.40 to p.67 state that **"The results are expressed as a percentage of area receiving direct sunlight on the 21<sup>st</sup> of each month"**.

With regard to the overshadowing study, from p.68 to 83, as stated by the BRE **"It is suggested that, for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21<sup>st</sup> March"** (p.10) Therefore all the tables and pictures have been done **on 21<sup>st</sup> March**.

- ii. **Direct Sunlight**
  - a. With regard to the sunlight study, as stated by the BRE **"A window may be adversely affected if a point at the centre of the window receives in the year less than 25% of the Annual Probable Sunlight Hours (APSH) including at least 5% of the APSH during the winter months (21<sup>st</sup> October to 21<sup>st</sup> March)"**. (p.11)

The impact on surface 3 (p.44-45) is considered negligible as the total APSH value with the proposed development is above the 25% criteria (i.e. 27.26%).

- iii. Same BRE criteria as ii. a.

Impact on surface 5 (p.48-49):

Existing APSH= 19.34%

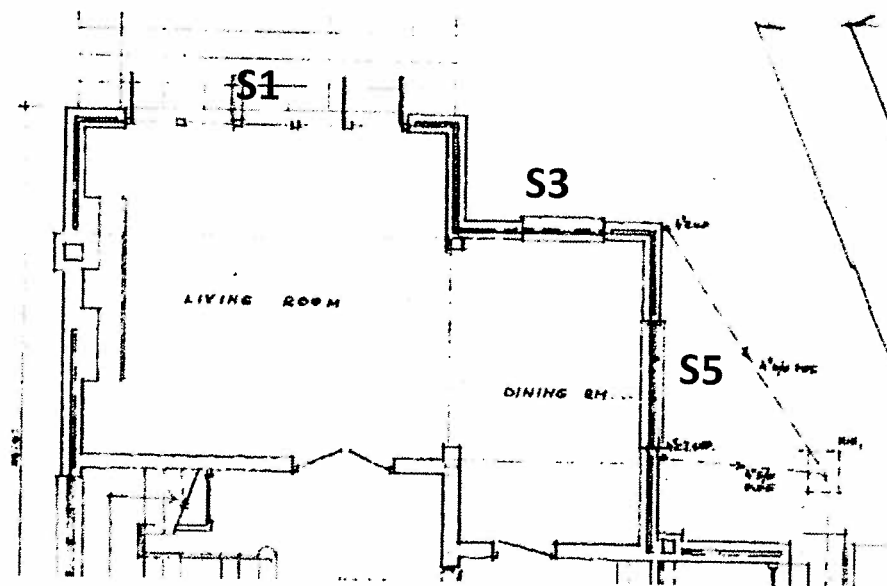
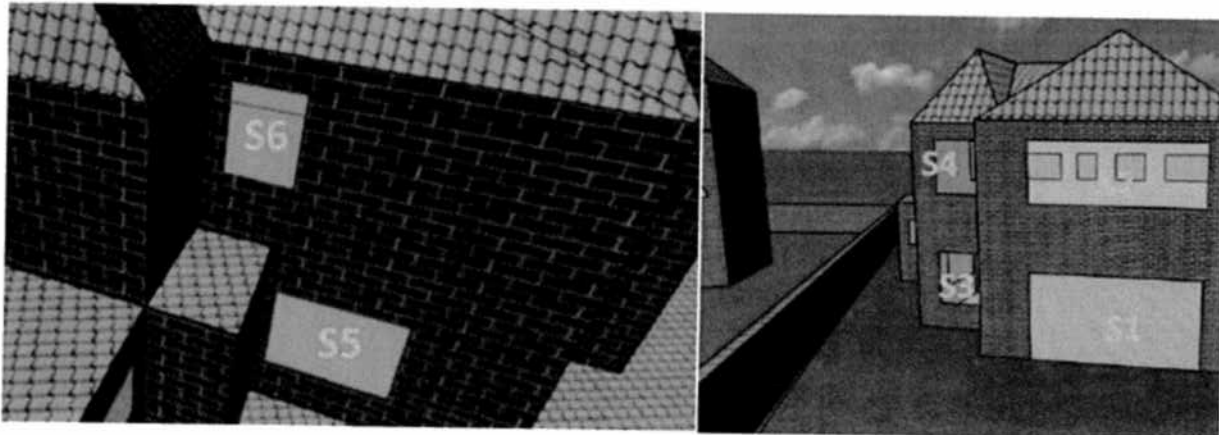
Proposed APSH=14.74%

Both APSH values are below the 25% criteria, however, as it can be seen below, the **window S5 is not the only window of the dining room**. The dining room includes the windows S3 and S5, the main window being the South facing window S3. Therefore the impact on S5 can be considered **negligible** because the main window of the room S3 will not be adversely impacted by the proposed scheme and achieve adequate levels of sunlight (total APSH=27.26% > 25%) as stated in a.



This can be found in the report p.16

*"a site visit was carried out on 06.03.14 and confirm that this surface is a secondary window into the rear living room. Therefore as the main window S3 is not impacted by the proposed scheme it can be concluded that the impact on S5 is negligible"*





iv. Same BRE criteria as ii. a.

The impact on surface 14 (p.66-67) is considered negligible as the total APSH value with the proposed development is above the 25% criteria (i.e. 25.39%) and more than 0.8 times its former values (i.e. 0.83).

The garden (p.70):

Existing:

	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
Mar	8.40	15.80	20.60	24.90	31.30	30.00	24.20	13.10	3.50	0.00	1.30	0.00

Proposed:

	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
Mar	8.40	15.80	20.60	24.90	31.30	30.00	23.90	9.70	3.00	0.00	0.30	0.00

The BRE states that "It is suggested that, for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21<sup>st</sup> March" As we can see above neither of the existing or proposed achieve an area > 50% during 2 hours.

The BRE states that "If as a result of new development, an existing garden or amenity area does not meet these guidelines, and the area which can receive two hours of sun on 21<sup>st</sup> March is **less than 0.8 times its former value**, then the loss of sunlight is likely to be noticeable".

The existing average on 21<sup>st</sup> March is 14.42% and the proposed average 14.00%, so a ratio of 0.97 which is above 0.8 times.

Please note that as mentioned in the report p.6 " the surroundings buildings (18-20 Lancaster Grove and 24 Lancaster Grove) will not be adversely impacted by the proposed development **provided that the following amendments are incorporated in the design:**

- setting the proposed building in 1m parallel with the garage of 24 Lancaster Grove
- and dropping the height of the pitch roof by 200mm on this side (towards 24 Lancaster Grove)
- REV.A includes a further height reduction of the roof (toward 24 Lancaster Grove) by 400mm.

I would like also to mention that any elements at ground floor level will have no impact upon the neighbouring properties.

Florian Cassandro  
Sustainable Design Engineer  
Syntegra Consulting Ltd

**Core Document 8**



19/08/14

London Borough of Camden  
Town Hall Extension  
Argyle Street  
London WC1H 8NG

For the attention of: Jenna Litherland

**RE: Planning application number 2014/2037/P (22 Lancaster Grove, London NW3 4PB)**

Dear Madam,

We are writing in reference to the comments received from Brooke Vincent + Partners (BVP) dated 9 August 2014 on our daylight/sunlight report. Please find below our response.

1. Generally

We agree that there are Camden policies which state amenity impact and daylight/sunlight levels, however, none of these policies mention methodology or give numerical values to assess the impact or levels. Camden Council follow the guidance as set out in the "**BRE 209 Digest: Site Layout Planning For Daylight and Sunlight – A Guide to Good Practice**" and this can be seen from this extract taken from Camden's website on 15/08/14:

**What information should be included in a daylight and sunlight assessment?**

A daylight and sunlight assessment should include the necessary information to meet the criteria outlined in the Site layout planning for daylight and sunlight: a guide to good practice published by the Building Research Establishment (BRE). The information included should be sufficient to determine:

- the existing and expected levels of daylight, sunlight and overshadowing on neighbouring properties
- the measures that will be taken to mitigate against the expected impact of the proposed development

<http://www.camden.gov.uk/ccm/content/environment/planning-and-built-environment/two/planning-applications/making-an-application/supporting-documentation/daylight-and-sunlight-assessment.en;jsessionid=BCC0114DC1F161C8C9FB14976435F894>

These are the criteria that the report has been determined against.

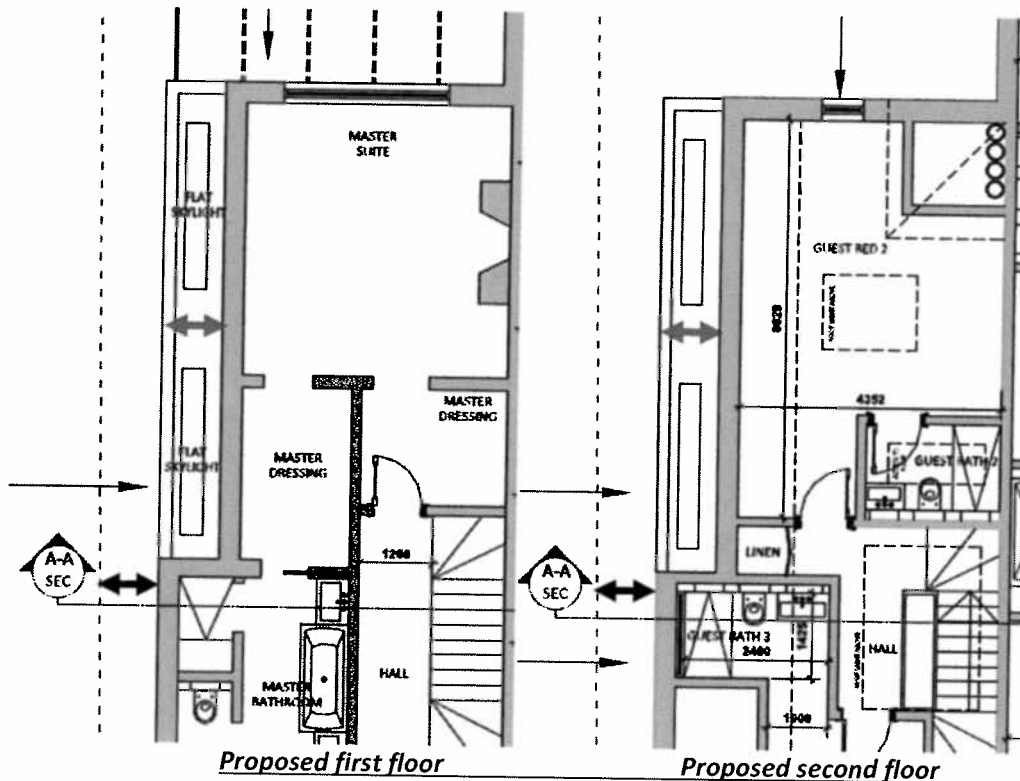
Regarding the internal levels of daylight within the proposed scheme at 22 Lancaster Grove no concerns from the Council were raised at any point during the application process. We believe that if the Council had any doubts with the internal levels of daylight they would have asked for a report.

The IES Virtual Environment modelling software utilised for the compilation of the report has been accredited by CIBSE and acknowledged by the BRE as a suitable software tool for undertaking daylight, sunlight and overshadowing assessments in accordance with the BRE Good Practice guidelines.



- f) In our model the whole building (22 Lancaster Grove) was pushed sideways as it was easier from a modelling perspective. What this means is that the proposed ground, first and second floors are circa 2 metres away from the boundary. We would like to point out that due to the height of proposed ground floor being below the level of the boundary wall, it will have no impact on the neighbour's property. Even if the proposed ground floor was next to the boundary it will still have no impact.

However, due to the first and second floors being higher than the boundary wall, these have been pushed sideways as shown on the architectural drawings.



- ↔ Ground floor boundary circa 1m  
↔ Additional separation at first and second floor circa 1m

Therefore it can be concluded that the distance between the boundary wall and the proposed scheme is 2 metres as the ground floor has no impact.



- g) With reference to the slight difference with the "breakfast room" and the boundary wall, this has now been amended and incorporated in this report with new values for surfaces S3, S5 and S14.
- h) As stated by BRE (Appendix H1.1), trees and hedges vary in their effects on skylight and sunlight. Most tree species will cast a partial shade; for deciduous trees this will vary with time of year. However, very little light can penetrate dense belts of evergreen trees, and the shade they cause will be more like that of a building or wall.

In our opinion and as shown on the picture below there is a presence of a dense belt of high trees. Hence they were included in the report in order to be as accurate as possible.



**Trees surrounding 22 Lancaster Grove**

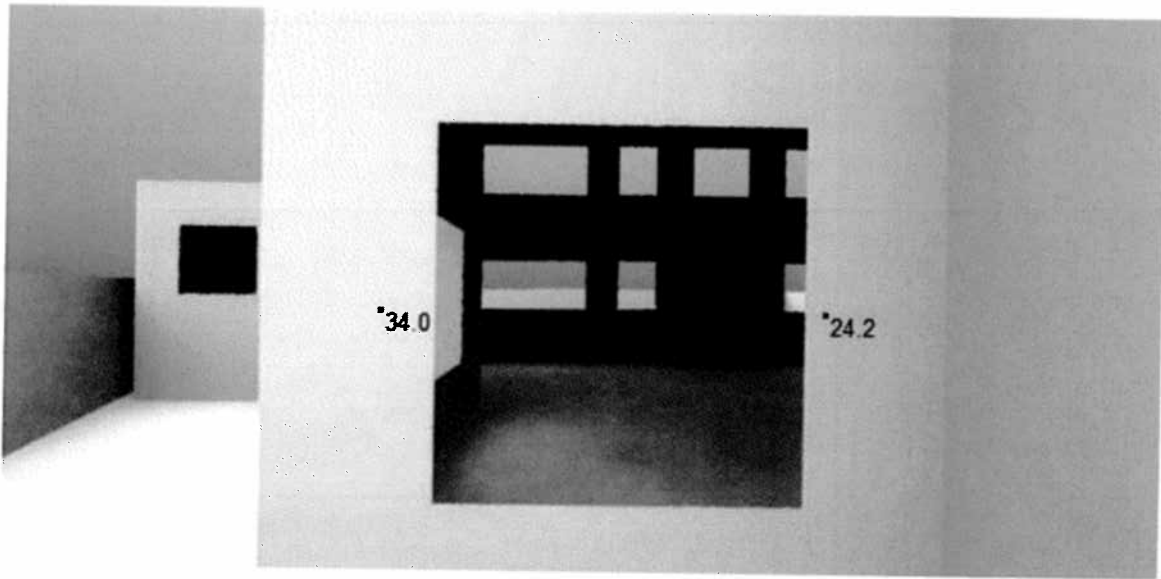
In response to Mr Carter's comments from BVP, we are happy to delete the trees if he believes that it will be more realistic and in accordance with BRE.

*Please note that the new values below include:*

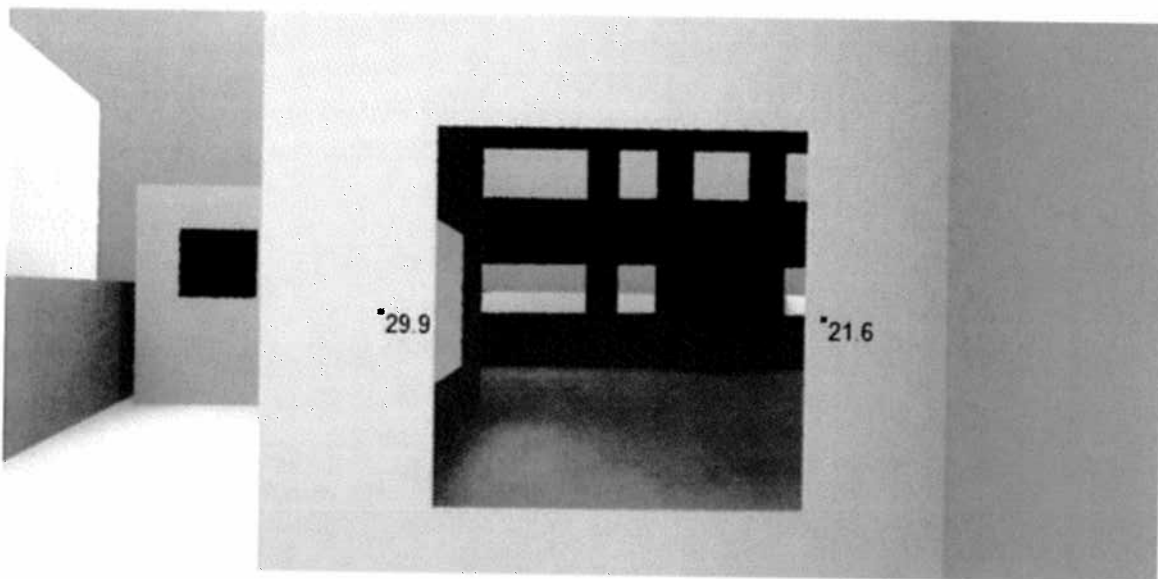
- *the amendment of the model concerning 22 Lancaster Grove and the breakfast room position*
- *the suppression of all the surrounding trees*



Surface 3 – 24 Lancaster Grove - GF



Existing Sample of VSC			
S3	34.0	24.2	Average 29.10

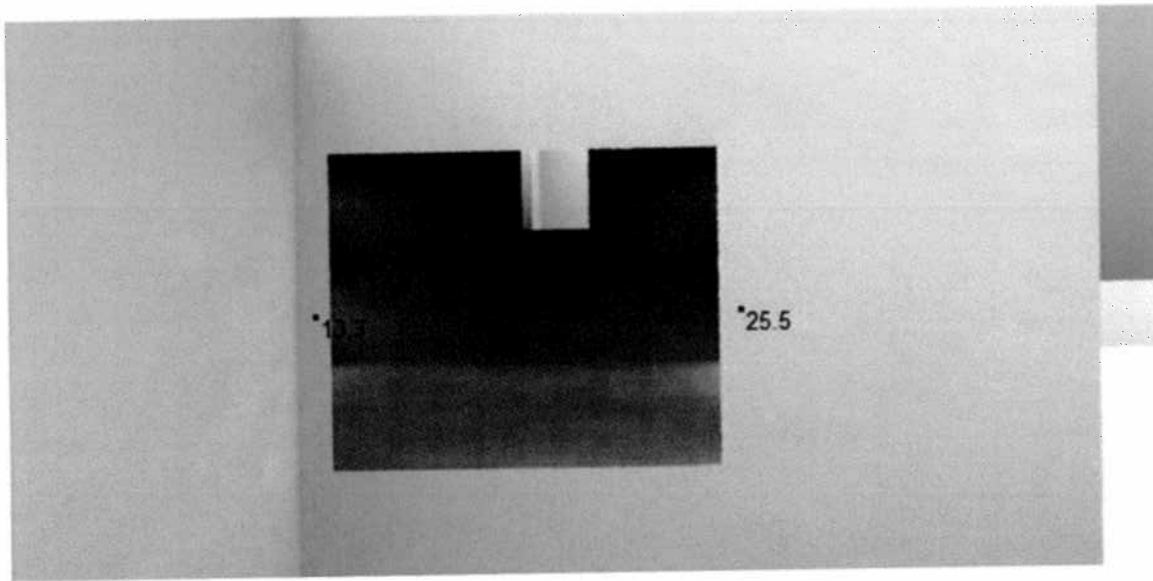


Proposed Sample of VSC			
S3	29.9	21.6	Average 25.75

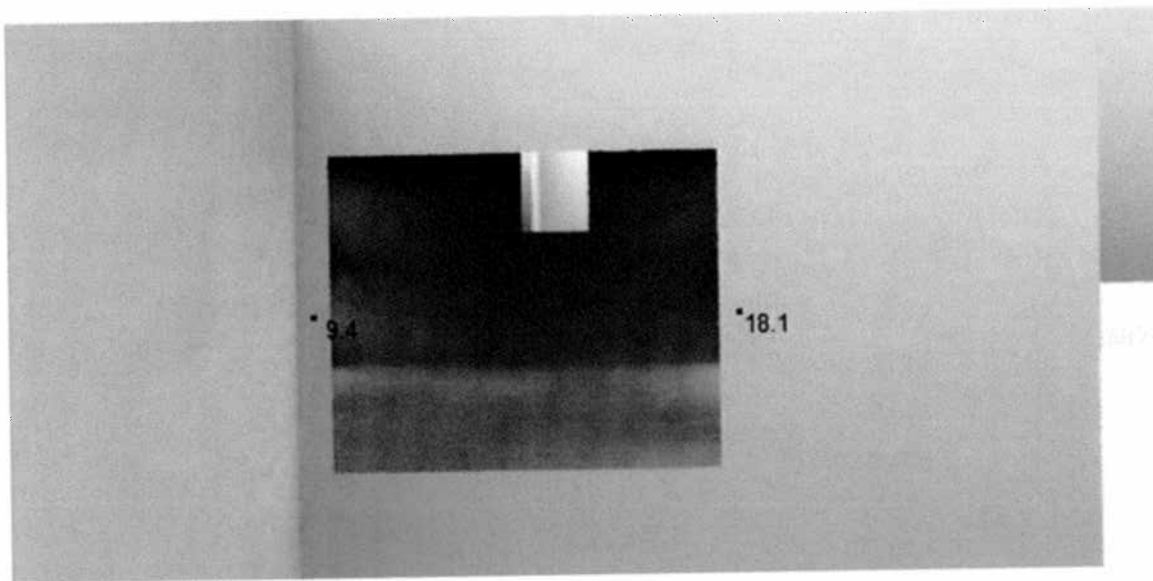
Ratio of 88.5% -> impact negligible



Surface 5 – 24 Lancaster Grove - GF



Existing Sample of VSC			Average
S5	13.3	25.5	19.40



Proposed Sample of VSC			Average
S5	9.4	18.1	13.75

Ratio of 71% -> minor adverse impact

However, S5 is considered as a secondary window to the dining room.

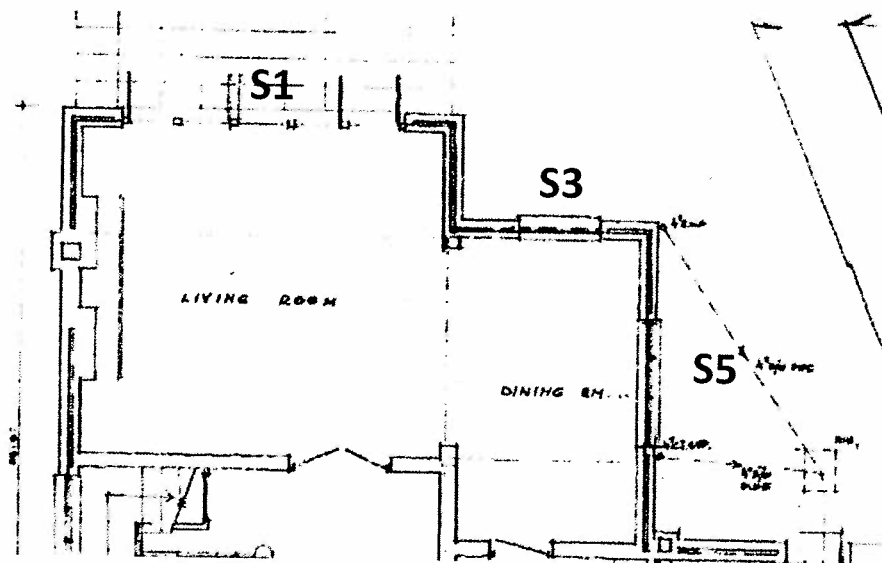
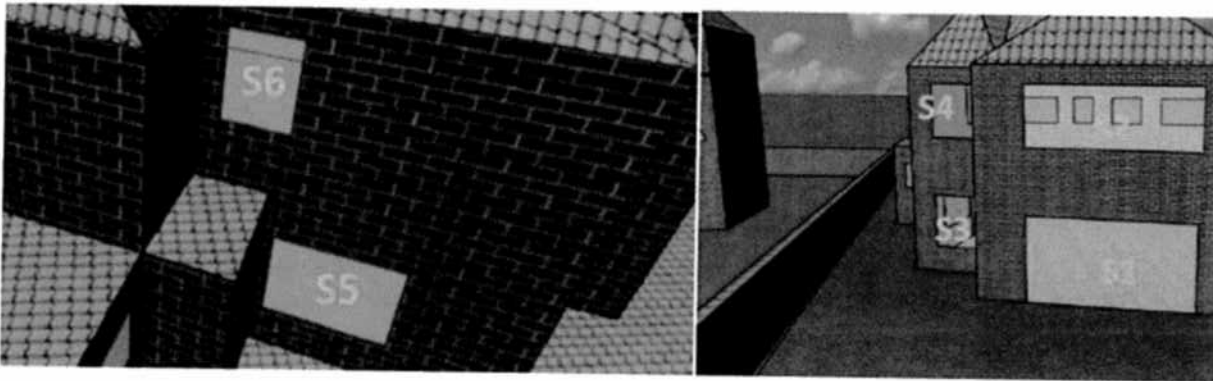


*"a site visit was carried out on 06.03.14 and confirm that this surface is a secondary window into the rear living room. Therefore as the main window which is facing South S3 is not impacted by the proposed scheme it can be concluded that the impact on S5 is negligible"*

The BRE guide states, (2.2.21) Summary: [...] then the diffuse daylighting of the existing building may be adversely affected. This will be the case if:

- the VSC measured at the centre of an existing main window is less than 27% **and** less than 0.8 times its former value

As the ratio for S3 is 0.88 the impact can be considered negligible.

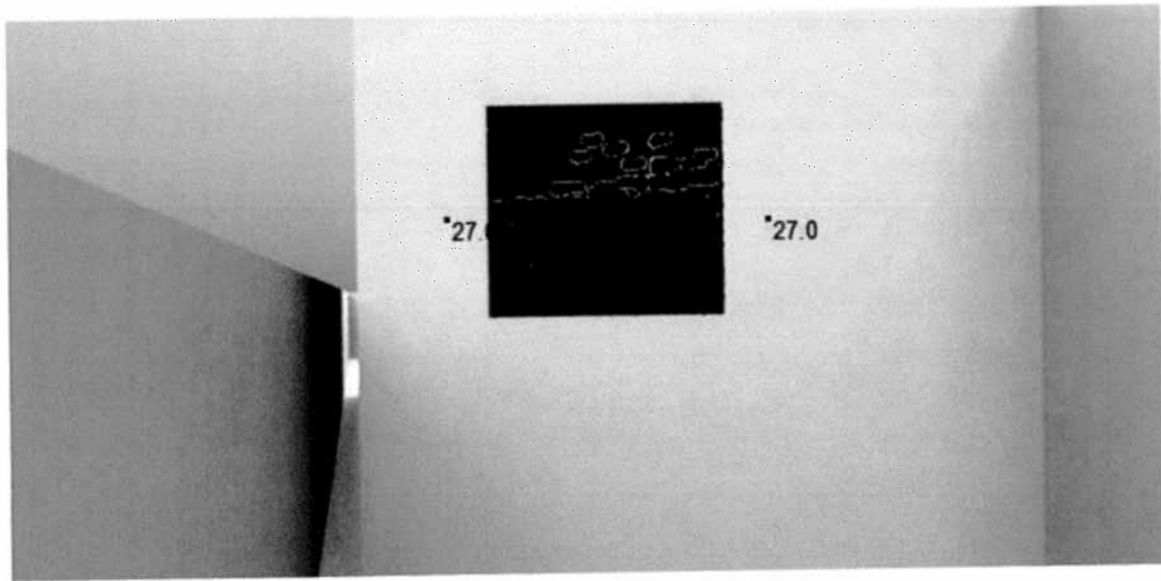


24 Lancaster Grove

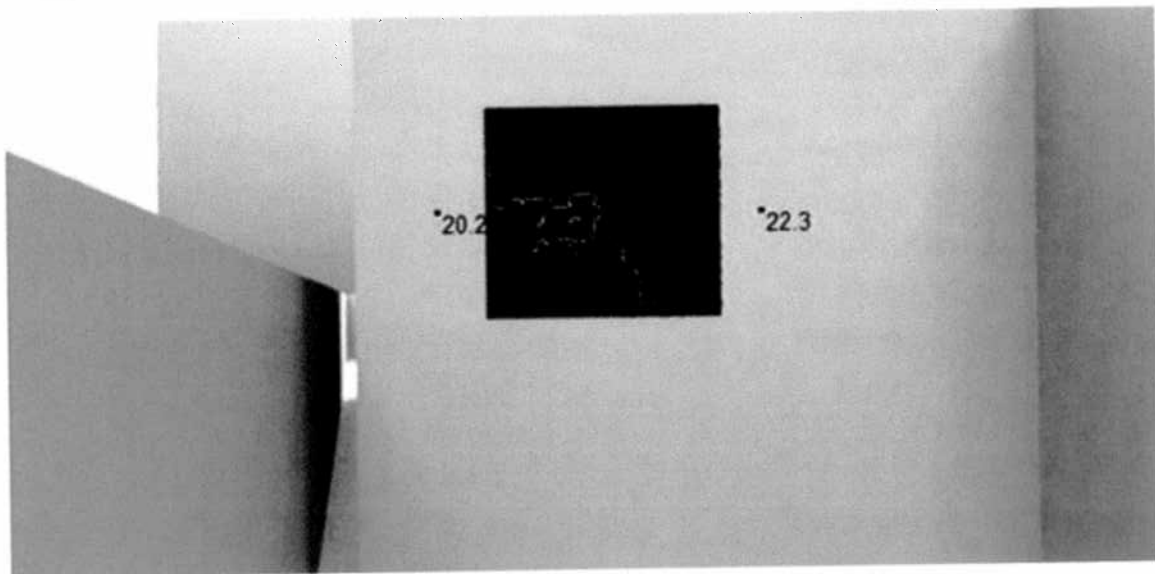
Furthermore, the above floor plan shows that the living and dining room are open plan. Therefore even if S5 loses some daylight levels, the room will still receive daylight from its main South facing window S3 and also from the large South facing sliding window S1.



Surface 14 – 24 Lancaster Grove - GF



Existing		Sample of VSC		Average
S14	27.0	27.0	27.0	27.00



Proposed		Sample of VSC		Average
S14	20.2	22.3	22.3	21.25

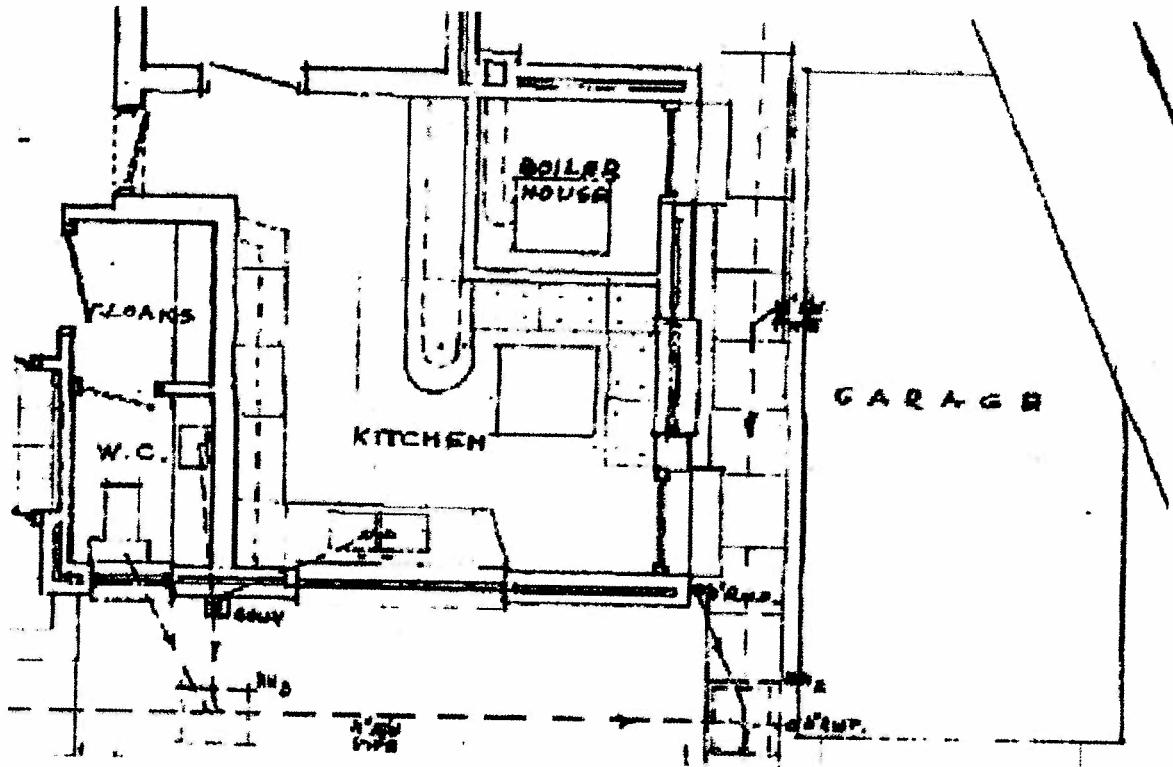
Ratio of 80% -> negligible

Furthermore S14 is referred to as a "breakfast room" by Mr Carter . As stated by BRE (2.2.2): *"The guidelines given here are intended for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedrooms. Windows to bathrooms, toilets,*



storerooms, circulation areas and garages need not be analysed. The guidelines may also be applied to any existing non-domestic buildings where the occupants have a reasonable expectation of daylight; this would normally include schools, hospitals, hotels and hostels, small workshops and some offices."

The habitable rooms listed by BRE are kitchen, living/dining room and bedrooms. As shown below the kitchen has a large front window which will not be impacted by the proposed scheme. It could therefore be argued that this "breakfast room" is not a main habitable room and does not require as much daylight as a kitchen or living/dining room.



24 Lancaster Grove



Picture of the "breakfast room" taken from the Kitchen area (24 Lancaster Grove)

The picture shows that the "breakfast room" is not a main habitable room of 24 Lancaster Grove. The main habitable rooms of the ground floor are the open plan living/dining room and the kitchen which are not adversely impacted by the proposed development.



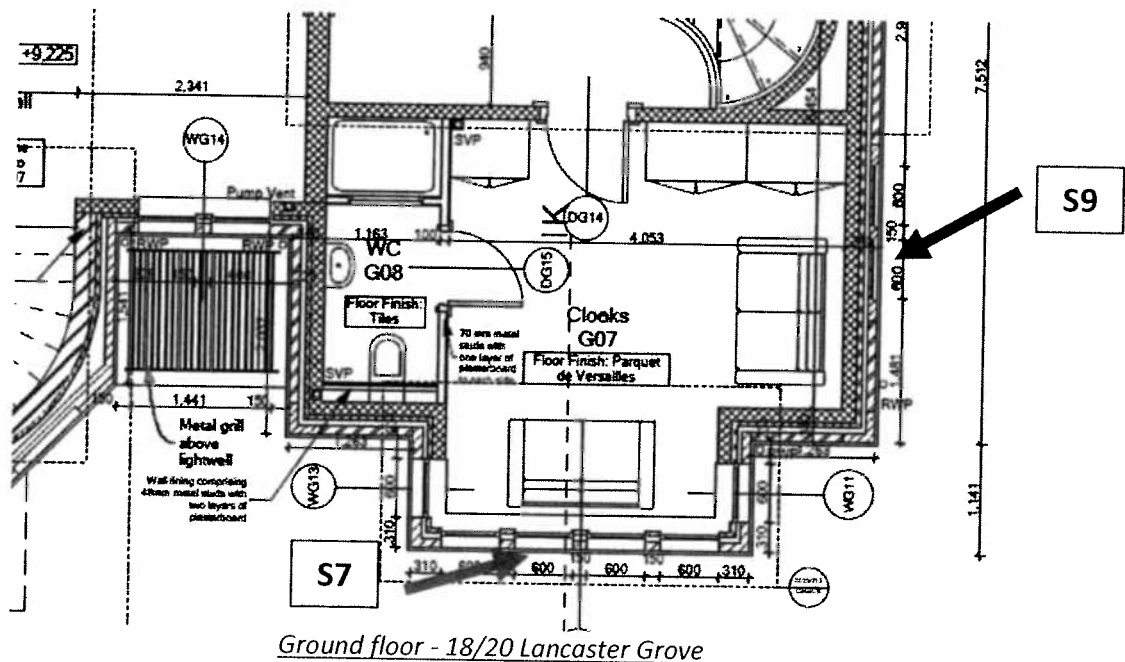
- i) The other surrounding buildings have been modelled to give a context to the site. Due to the long distance from the scheme these buildings are irrelevant in terms of daylight/sunlight/overshadowing. However, as mentioned, they are here to give a context to the site. For the sake of clarity, the site is not in the middle of the countryside surrounded by empty fields.

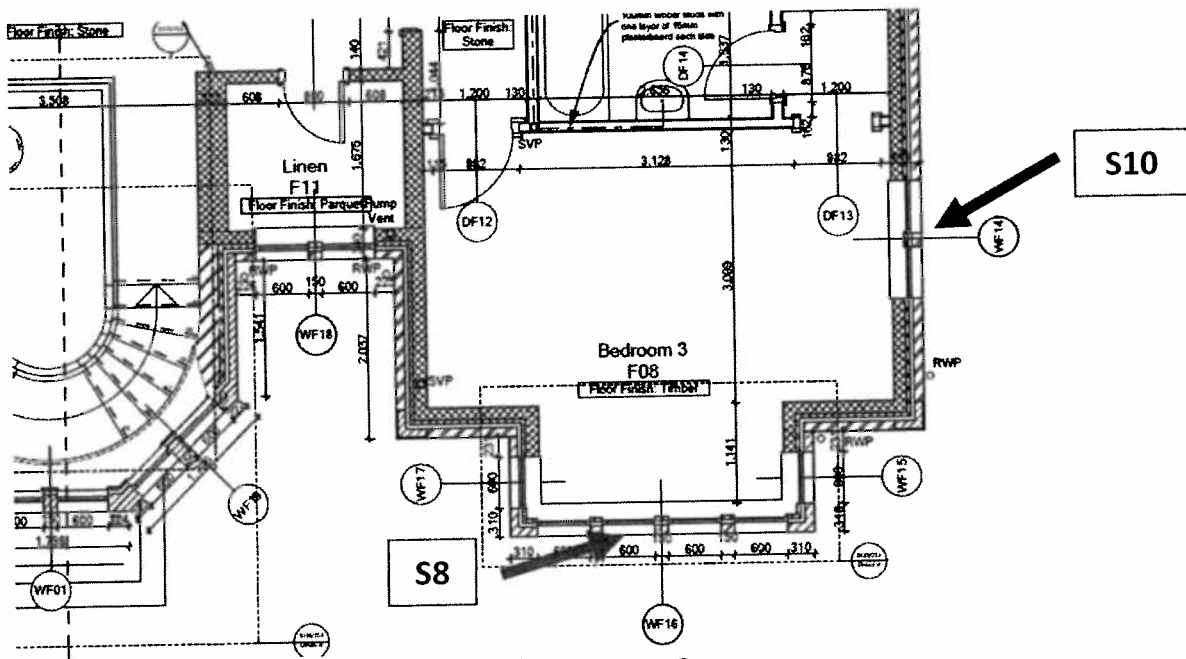
## 2. Daylight

In reference to surfaces 9 and 10, it is explained in the report why the results can be considered "negligible". That is why there is no mention of "moderate adverse" even if the ratio is below 0.7.

Page 14 of the report:

It has been found from the Camden Council website (planning application granted for 18-20 Lancaster grove, 2013/0955/P) that these 2 surfaces are secondary windows for a cloakroom on the ground floor and a bedroom on the first floor.





- The above drawings show that S9 and S10 are secondary windows and as the main windows S7 and S8 are not impacted by the proposed development it can be concluded that the impact on S9 and S10 is negligible. Furthermore the cloak room is not considered as a habitable room and the impact is therefore irrelevant on S9.



### 3. Sunlight

Surface 3 – 24 Lancaster Grove - GF

*The results are expressed as a percentage of area receiving direct sunlight on the 21<sup>st</sup> of each month.*

#### Existing

Month	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Jan						0.00	15.60	65.80	100.00	100.00	100.00	89.90	50.90				
Feb					0.00	0.00	0.00	57.30	100.00	100.00	100.00	100.00	88.00	6.40			
Mar			0.00	0.00	0.00	0.00	0.00	53.80	100.00	100.00	100.00	100.00	100.00	35.60	0.00		
Apr			0.00	0.00	0.00	0.00	0.00	50.90	100.00	100.00	100.00	100.00	100.00	46.80	0.00	0.00	
May		0.00	0.00	0.00	0.00	0.00	0.00	41.10	100.00	100.00	100.00	100.00	100.00	4.50	0.00	0.00	
Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.50	100.00	100.00	100.00	100.00	100.00	22.70	0.00	0.00	0.00
Jul		0.00	0.00	0.00	0.00	0.00	0.00	25.70	100.00	100.00	100.00	100.00	100.00	37.20	0.00	0.00	
Aug			0.00	0.00	0.00	0.00	0.00	46.00	100.00	100.00	100.00	100.00	100.00	79.60	0.00	0.00	
Sep			0.00	0.00	0.00	0.00	2.50	68.50	100.00	100.00	100.00	100.00	100.00	0.70			
Oct				0.00	0.00	0.00	30.60	81.00	100.00	100.00	100.00	100.00	99.50	65.90			
Nov					0.00	0.00	38.50	82.60	100.00	100.00	100.00	100.00	71.90				
Dec						0.00	31.60	76.00	100.00	100.00	99.70	66.00					

Syntegra Consulting Ltd, Syntegra House, 63 Milford Road, Reading, Berkshire, RG1 8LG

Registered Company No. 06408056

T: 0118 402 8520

E: [mail@syntegra-epc.co.uk](mailto:mail@syntegra-epc.co.uk)

VAT Registration No. 98001604



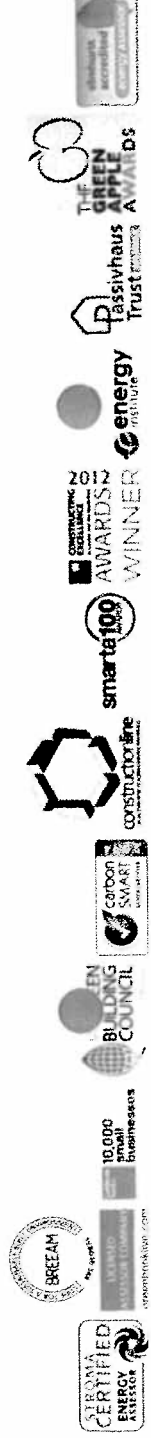


**Proposed**

Month	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Jan						0.00	15.60	65.80	100.00	100.00	100.00	85.60	10.90				
Feb					0.00	0.00	0.00	57.30	100.00	100.00	100.00	100.00	0.00	0.00			
Mar				0.00	0.00	0.00	0.00	53.80	100.00	100.00	100.00	100.00	8.20	0.00	0.00		
Apr			0.00	0.00	0.00	0.00	0.00	50.90	100.00	100.00	100.00	83.90	0.00	0.00	0.00	0.00	
May		0.00	0.00	0.00	0.00	0.00	0.00	41.10	100.00	100.00	100.00	99.90	0.00	0.00	0.00	0.00	
Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.50	100.00	100.00	100.00	100.00	20.50	0.00	0.00	0.00	0.00
Jul		0.00	0.00	0.00	0.00	0.00	0.00	25.70	100.00	100.00	100.00	100.00	3.90	0.00	0.00	0.00	
Aug			0.00	0.00	0.00	0.00	0.00	46.00	100.00	100.00	100.00	91.20	0.00	0.00	0.00	0.00	0.00
Sep			0.00	0.00	0.00	0.00	2.50	68.50	100.00	100.00	100.00	100.00	0.00	0.00			
Oct				0.00	0.00	0.00	30.60	75.80	100.00	100.00	100.00	99.50	0.00				
Nov					0.00	0.00	38.50	82.60	100.00	100.00	100.00	50.80					
Dec						0.00	31.60	76.00	100.00	100.00	99.70	44.70					

Sunlight assessment										Winter months APSH (%)							
Total APSH (%)										Existing		Proposed		Ratio		Existing	
Existing										46.91		38.66		0.82		58.30	
																51.40	

Ratio of 82% -> impact negligible





Surface 5 – 24 Lancaster Grove - GF

*The results are expressed as a percentage of area receiving direct sunlight on the 21<sup>st</sup> of each month.*

**Existing**

Month	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Jan						0.00	0.00	0.00	0.00	0.00	100.00	89.40	42.10				
Feb					0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	76.20	0.00			
Mar			0.00		0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00		
Apr		0.00	0.00		0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	49.00	0.00	0.00	0.00	
May		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	86.70	0.00	0.00	0.00	
Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	26.20
Jul		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	
Aug		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	64.50	0.00	0.00	0.00	
Sep		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	88.20	0.00	0.00	0.00	
Oct			0.00		0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	0.10				
Nov					0.00	0.00	0.00	0.00	0.00	100.00	100.00	72.00					
Dec						0.00	0.00	0.00	0.00	100.00	100.00	66.20					



**Proposed**

Month	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Jan						0.00	0.00	0.00	0.00	0.00	100.00	40.20	0.00				
Feb					0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.10	0.00	0.00			
Mar			0.00		0.00	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	0.00		
Apr		0.00	0.00		0.00	0.00	0.00	0.00	0.00	100.00	100.00	20.90	0.00	0.00	0.00	0.00	
May		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	
Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	15.60	0.00	0.00	0.00	0.00
Jul		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	0.50	0.00	0.00	0.00	
Aug		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	35.50	0.00	0.00	0.00	0.00	
Sep		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	98.90	0.00	0.00	0.00			
Oct			0.00		0.00	0.00	0.00	12.50	0.00	100.00	100.00	0.00	0.00				
Nov					0.00	0.00	0.00	0.00	0.00	100.00	100.00	0.00					
Dec					0.00	0.00	0.00	0.00	0.00	100.00	100.00	11.90					

Sunlight assessment										Winter months APSH (%)							
Total APSH (%)					Ratio		Existing			Proposed							
Existing							Proposed										
28.60					0.65		18.56			31.75			19.36				

Ratio of 65% -> moderate adverse impact  
However, as previously mentioned, S5 is considered as a secondary window of the dining room. **Therefore as the main window which is facing South S3 is not impacted by the proposed scheme it can be concluded that the impact on S5 is negligible.**





Surface 14 – 24 Lancaster Grove - GF

*The results are expressed as a percentage of area receiving direct sunlight on the 21<sup>st</sup> of each month.*

**Existing**

Month	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Jan						0.00	0.00	100.00	100.00	100.00	100.00	35.70	0.00				
Feb					0.00	0.00	0.00	89.80	100.00	100.00	100.00	52.90	0.00	0.00			
Mar				0.00	0.00	0.00	0.00	96.20	100.00	100.00	100.00	1.60	0.00	0.00	0.00		
Apr			0.00	0.00	0.00	0.00	38.10	100.00	100.00	100.00	100.00	68.30	0.00	0.00	0.00	0.00	
May		0.00	0.00	0.00	0.00	0.10	100.00	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	
Jun	0.00	0.00	0.00	0.00	0.00	6.20	100.00	100.00	100.00	100.00	100.00	100.00	3.90	0.00	0.00	0.00	0.00
Jul		0.00	0.00	0.00	0.00	0.00	97.40	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	
Aug			0.00	0.00	0.00	0.00	26.60	100.00	100.00	100.00	100.00	85.50	0.00	0.00	0.00	0.00	
Sep			0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00	
Oct			0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00			
Nov				0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00				
Dec					0.00	0.00	0.00	100.00	100.00	100.00	100.00	0.00					



**Proposed**

Month	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Jan						0.00	0.00	100.00	100.00	66.70	0.00	0.00	0.00				
Feb					0.00	0.00	0.00	89.80	100.00	91.40	0.00	0.00	0.00	0.00			
Mar				0.00	0.00	0.00	0.00	96.20	100.00	100.00	0.10	0.00	0.00	0.00	0.00		
Apr			0.00	0.00	0.00	0.00	38.10	100.00	100.00	100.00	80.10	0.00	0.00	0.00	0.00	0.00	
May		0.00	0.00	0.00	0.00	0.10	100.00	100.00	100.00	100.00	100.00	8.40	0.00	0.00	0.00	0.00	
Jun	0.00	0.00	0.00	0.00	0.00	6.20	100.00	100.00	100.00	100.00	100.00	46.90	0.00	0.00	0.00	0.00	0.00
Jul		0.00	0.00	0.00	0.00	0.00	97.40	100.00	100.00	100.00	100.00	29.80	0.00	0.00	0.00	0.00	
Aug		0.00	0.00	0.00	0.00	0.00	26.60	100.00	100.00	100.00	88.10	0.00	0.00	0.00	0.00	0.00	
Sep		0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
Oct				0.00	0.00	0.00	0.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
Nov					0.00	0.00	21.20	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Dec					0.00	0.00	0.00	100.00	100.00	100.00	28.90	0.00	0.00	0.00	0.00	0.00	

Total APSH (%)				Sunlight assessment				Winter months APSH (%)			
Existing		Proposed		Ratio		Existing		Existing		Proposed	
40.31		29.69		0.74		45.41		45.41		27.17	

Ratio of 74% -> minor adverse impact however considered negligible

As stated by the BRE "A window may be adversely affected if a point at the centre of the window receives in the year **less than 25% of the Annual Probable Sunlight Hours (APSH) including at least 5% of the APSH during the winter months (21<sup>st</sup> October to 21<sup>st</sup> March)" . (p.11).**

→ As surface S14 receives more than 25% (i.e. 29.69%) the impact can be considered negligible.





#### 4. Overshadowing

Amenity 2 - 24 Lancaster Grove - Garden (rear garden only)

*The results are expressed as a percentage of area receiving direct sunlight on 21<sup>st</sup> March.*

##### Existing

Month	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Jan						1.80	36.50	57.80	60.20	52.90	32.60	6.60	0.00				
Feb				0.00	0.00	29.00	52.90	68.70	73.20	68.90	53.10	33.30	5.20	0.00			
Mar			0.00	0.00	18.70	48.70	64.70	77.00	81.20	77.10	65.40	50.30	30.00	1.80	0.00		
Apr		0.00	0.00	7.70	32.50	56.60	71.70	82.80	86.80	82.40	73.40	62.00	47.40	27.10	0.00	0.00	
May		0.00	0.00	14.20	41.20	60.20	74.20	85.60	89.90	85.70	78.20	69.60	56.50	42.50	7.10	0.00	
Jun	0.00	0.00	0.00	14.00	41.00	60.40	74.30	85.70	91.00	87.50	80.50	72.80	60.20	48.20	16.30	0.00	0.00
Jul		0.00	0.00	11.00	36.50	58.00	72.00	84.20	90.00	87.00	79.60	71.30	58.60	45.70	14.10	0.00	
Aug			0.00	6.40	31.10	55.50	70.90	82.20	86.90	83.00	74.20	63.20	48.70	29.00	0.00	0.00	
Sep			0.00	0.10	27.50	53.70	68.10	79.90	80.70	74.40	62.10	46.00	23.50	0.00			
Oct				0.00	9.30	42.00	61.00	74.40	70.60	60.80	42.70	19.10	0.00				
Nov					0.00	15.80	45.80	62.60	57.00	44.20	22.60	0.00					
Dec						0.00	31.80	54.10	50.80	39.50	17.60	0.00					

Syntegra Consulting Ltd, Syntegra House, 63 Milford Road, Reading, Berkshire, RG1 8LG

Registered Company No. 06408056

T: 0118 402 8520

E: mail@syntegra-epc.co.uk

VAT Registration No. 98001604





**Proposed**

Month	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Jan						1.80	36.50	57.80	60.20	52.90	32.60	6.60	0.00				
Feb					0.00	29.00	52.90	68.70	73.20	68.90	53.10	33.30	5.20	0.00			
Mar			0.00	0.00	<b>18.70</b>	<b>48.70</b>	<b>64.70</b>	<b>77.00</b>	<b>81.20</b>	<b>77.10</b>	<b>63.40</b>	<b>49.30</b>	<b>29.90</b>	<b>1.50</b>	<b>0.00</b>		
Apr			0.00	7.70	32.50	56.60	71.70	82.80	86.80	82.40	70.20	59.00	46.30	13.40	0.00	0.00	
May		0.00	0.00	14.20	41.20	60.20	74.20	85.60	89.90	85.70	76.60	63.50	53.20	25.40	0.00	0.00	
Jun	0.00	0.00	0.00	14.00	41.00	60.40	74.30	85.70	91.00	87.50	80.30	66.80	55.70	30.30	2.50	0.00	0.00
Jul		0.00	0.00	11.00	36.50	58.00	72.00	84.20	90.00	87.00	79.00	65.50	55.40	32.00	1.50	0.00	
Aug			0.00	6.40	31.10	55.50	70.90	82.20	86.90	83.00	71.30	59.80	47.40	16.80	0.00	0.00	
Sep		0.00	0.00	0.10	27.50	53.70	68.10	79.90	80.70	74.40	59.70	45.50	23.40	0.00			
Oct				0.00	9.30	42.00	61.00	74.40	70.60	60.80	42.60	19.10	0.00				
Nov					0.00	15.80	45.80	62.60	57.00	44.20	22.50	0.00					
Dec						0.00	31.80	54.10	50.80	39.50	17.60	0.00					

Overshadowing assessment			
% of the amenity area receiving direct sunlight on 21 <sup>st</sup> March			
Existing	Proposed	Ratio	
42.91	42.62	0.99	

Ratio of 99% -> negligible impact  
The BRE states that "It is suggested that, for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21<sup>st</sup> March"



With reference to the comment from Mr Carter regarding "the use of impact criteria [...] has not always been used in an appropriate manner" we refute this and advise, the impact criteria used in this report are in line with the BRE guide moreover it is common practice to use a reduction factor to be able to assess the failure of each test. In terms of daylight and sunlight BRE considers that a reduction in daylight or sunlight of less than 20% is not likely to be materially noticeable to occupiers of buildings. Our report then uses 10% increments of exceedance above the relevant threshold to be able to make the difference between minor, moderate and major adverse impact.

	Reduction factor	Ratio
<b>Negligible</b>	Reduction between 0% and 20%	Between 1 and 0.8
<b>Minor adverse</b>	Reduction between 20% and 30%	Between 0.8 and 0.7
<b>Moderate adverse</b>	Reduction between 30% and 40%	Between 0.7 and 0.6
<b>Major adverse</b>	Reduction above 40%	Below 0.6

The new results obtained on the property at 22 Lancaster Grove confirmed that even if there are impacts they can be considered negligible. For the following reasons we believe that the proposed scheme is acceptable and in accordance with the BRE guidelines:

- Mitigation measures have been implemented into the proposed scheme in order to reduce the impact on the surrounding properties
- 22 Lancaster Grove: the open plan dining/living room is not adversely impacted neither in terms of daylight nor sunlight. One window is adversely impacted however it is a secondary window facing West. The main South facing windows are not impacted as per BRE criteria and the dining area will still receive daylight from the living space.
- 22 Lancaster Grove: the impact on the "breakfast room" is negligible and meets the BRE criteria even though in our opinion it is not a main habitable room and can be excluded from the assessment.

As per the above, the proposed scheme meets the BRE criteria in terms of daylight/sunlight/overshadowing. Although appointed by the client to undertake the assessment we have a significant experience and expertise in daylight and sunlight analysis specifically tailored to support planning applications for various Borough Councils. The assessment is taken from a professional point of view therefore any other company assessing the data would come to the same conclusions in this respect and as can be seen by the adjustments carried out throughout the process due to the additional information made available, had we felt further adjustments were required we would have highlighted this in our report and recommended these to the client.

Florian Cassandro  
Sustainable Design Engineer  
Syntegra Consulting Ltd

**Core Document 9**

