



eb7 Ltd  
4<sup>th</sup> Floor Holborn Tower  
137-144 High Holborn  
London, WC1V 6PL  
+44(0)20 7148 6290  
info@eb7.co.uk  
www.eb7.co.uk

Jon Murch  
Davies Murch  
3rd Floor  
86-90 Paul Street  
London  
EC2A 4NE

14 October 2019

Dear Jon,

**Re: 265 Burlington Road, New Malden – Daylight, Sunlight and Shading to Raynes Park High School.  
Introduction**

This practice (eb7 Ltd) has been instructed to provide an assessment of the daylight and sunlight implications of the proposed development at 265 Burlington Road. A detailed assessment and report detailing both the external effects of the proposal as well as shading and internal daylight levels within the proposed scheme was produced dated 22nd May 2019 and submitted alongside the planning application for the proposals.

This addendum report has been produced to address queries raised by the Children, Schools and Families Department of L.B. Merton. In particular there were concerns that the effects to both the classrooms and open space of Raynes Park High School, across Pyl Brook to the north of the proposed scheme, were not covered in our study of May 2019.

Daylight and sunlight assessments are required as part of most planning applications, where the proposals may cause impact to neighbours' light (generally only residential), or where the proposed development includes new residential dwellings that have a requirement of daylight and sunlight. The guidance and methodology for the assessment of daylight, sunlight and overshadowing in relation to new developments is provided by the building research establishment's (BRE) guidance 'site layout planning for daylight and sunlight: a guide to good practice.'

**Sunlight Amenity / Overshadowing Study**

The BRE guide defines criteria by which to assess the impact of a proposed development on neighbouring open spaces using the sunlight amenity test. This test quantifies the area of each space that receives at least two hours of sunlight on 21st March, in both the existing and the proposed situations. The 21st March is chosen as it represents the mid-point of the sun's position throughout the year.

The guidance suggests that, for a space to appear well-sunlit, at least 50% of its area should receive two or more hours of sunlight on the 21st March. If the space fails to meet the above, then the area receiving at least 2 hours of sunlight should not be reduced to less than 0.8 times its former area.

We have undertaken a Sunlight Amenity test in respect of the open spaces immediately to the south and west of the school buildings in closest proximity to the proposals. These areas predominantly appear to be parking spaces but they have been assessed as the closest open school land to the proposed development. The main amenity and sports facilities situated even further to the north and north west such that they will be unaffected by the proposals.

The results of the sunlight amenity study are attached at appendix 1. The results show that virtually all of the open land assessed will achieve in excess of 2+ hours of sunlight on Mach 21st and, as such, will be well-sunlit throughout the year. There is virtually no change in the area that is considered well-lit as a result of the proposal and no significant permanent shading. Overall the shading effects of the scheme in respect of the school land fully meet the BRE targets.

## **Daylight & Sunlight**

The school classrooms are lit by multiple large windows to ensure good daylight and sunlight availability within the rooms. To illustrate the overall quality of retained daylight and sunlight levels within the scheme we have considered both the Average Daylight Factor (ADF) which considers overall daylight quality within the space as well as the Annual Probable Sunlight Hour (APSH) assessment which considers sunlight availability to the classroom windows. The BREEAM credit HEA01 for visual comfort when considering daylighting within buildings proposes an ADF target of 2.0% for school classrooms. The BRE guidelines suggest that well sunlit rooms should receive at least 25% ASPH throughout the year with at least 5% of this enjoyed during the winter months.

The results of these assessments are located at appendix 2 alongside a 'window' map illustrating the windows that have been considered for assessment. The results of our study show that, whilst there are some reductions in daylight levels, average daylight factors remain high with all but one space retaining ADF levels meeting and, in many cases, significantly exceeding the 2.0% ADF level. A single space, identified as room R3 at ground floor level, is marginally more sensitive due to having smaller windows than the wings to either side. Whilst it is not clear whether this space is a classroom it achieves 1.9% ADF. This 0.1% deviation would be unnoticeable to the users and is not considered to be material. In terms of direct sunlighting all of the spaces receive over 60% APSH with high levels of winter sunlight well in excess of the 5% winter target. The school therefore will remain very well sunlit and fully meet the BRE guidance.

## **Conclusions**

This practice has undertaken a detailed assessment of the potential shading and daylight / sunlight effects of the proposed 265 Burlington Road development upon the land and classrooms of Raynes Park High School situated to the north of the site. Our studies show no material shading to the most proximate open

space neighbouring the school with almost 100% of the open space continuing to achieve in excess of 2+ hours of sunlight on the assessment date.

In respect of daylight and sunlight to the classrooms all spaces retain high Average Daylight Factor levels in line with or exceeding the targets for educational buildings. Direct sunlight levels to the spaces also remain high significantly exceeding the BRE target values.

I trust the above is useful in demonstrating the limited effects of the proposal upon the school buildings. Please feel free to contact me should you need anything further in this regard.

Yours sincerely

A handwritten signature in black ink, appearing to read 'J.A. Lonergan', with a long, sweeping flourish extending to the right.

Jonathan Lonergan

Director

For and on behalf of EB7 Ltd



## Appendix 1

### Sunlight Amenity (Overshadowing) Study



Existing Scenario



Proposed Scenario

Area	Total Area (sq.m)	Existing area more than 2 hours (sq.m)	Existing % more than 2 hours	Proposed area more than 2 hours (sq.m)	Proposed % more than 2 hours	Retained (Pr/Ex)
1 - A1	1204.6	1204.6	100	1204.6	100	1.00
2 - A2	779.5	779.5	100	773.2	99.2	0.99

Sources of information

**Survey SOLUTIONS**

- 22753se-01.dwg
- 22753se-02.dwg
- 22753se-03.dwg
- 22753se-04.dwg
- 22753se-05.dwg
- 22753se-06.dwg
- 22753se-07.dwg
- 22753se-08.dwg
- 22753UG-01.dwg
- Received 05/10/2018

**TP BENNET Architecture**

- E1180\_X\_LVL 01.dwg
- E1180\_X\_LVL 02-05.dwg
- E1180\_X\_LVL 06.dwg
- E1180\_X\_LVL 07.dwg
- E1180\_X\_LVL 08.dwg
- E1180\_X\_LVL 09.dwg
- E1180\_X\_LVL 10.dwg
- E1180\_X\_LVL 11.dwg
- E1180\_X\_LVL 12.dwg
- E1180\_X\_LVL 13.dwg
- E1180\_X\_LVL 14.dwg
- E1180D6300P1.dwg
- E1180D6301P1.dwg
- E1180D6302P1.dwg
- E1180D6303P1.dwg
- E1180D6304P1.dwg
- E1180D2201P1.dwg
- E1180D2204P1.dwg
- Received 20/05/2019

**EB7 Ltd**

- Site Photographs
- Ordnance Survey
- Key:

Hours of sunlight on 21st March

— Area of assessment

■ More than 2 hours of sunlight

■ Less than 2 hours of sunlight

NORTH



Project 265 Burlington Road,  
New Malden

Title Sunlight Amenity Study  
21st of March

Drawn BA Checked --

Date 10/10/2019 Project 3130

Rel no. 05 Prefix SA01 Page no. SA1



## Appendix 2

Daylight / Sunlight Results to Raynes Park High School



Sources of information

**Survey SOLUTIONS**

- 22753se-01.dwg
  - 22753se-02.dwg
  - 22753se-03.dwg
  - 22753se-04.dwg
  - 22753se-05.dwg
  - 22753se-06.dwg
  - 22753se-07.dwg
  - 22753se-08.dwg
  - 22753UG-01.dwg
- Received 05/10/2018

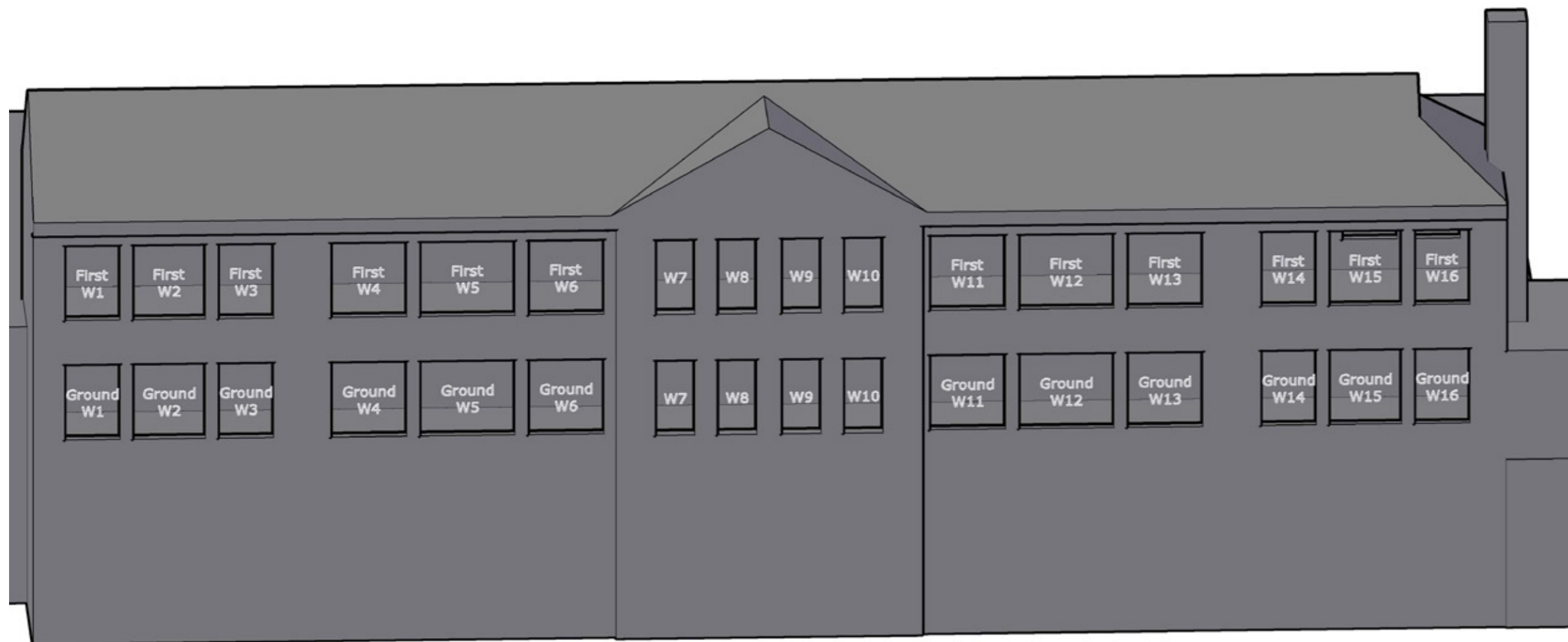
**TP BENNET Architecture**

- E1180\_Beverley Way NM\_Main Model.skp
  - E1180A6110P1.dwg
  - E1180A6111P1.dwg
  - E1180A6113P1.dwg
  - E1180A6108P1.dwg
  - E1180A6107P1.dwg
  - E1180A6105P1.dwg
  - E1180A6102P3.dwg
  - E1180A6101P2.dwg
  - E1180A6100P3.dwg
- Received 19/10/2018

E1180\_265 Burlington Road NM\_Main Model.skp  
Received 13/11/2018

**EB7 Ltd**

Site Photographs  
Ordnance Survey



Project Land at Tesco  
New Malden  
KT3 6HP

Title Raynes Park High School  
Window Map

Drawn MC Checked --

Date 14/10/2019 Project 3130

Rel no. 03 Prefix DS01 Page no. WM01

Address	Room	Window	Room Use	Existing ADF		Proposed ADF		Loss	Existing APSH		Proposed APSH		Total Retained	Winter Retained
				Window	Total	Window	Total		Total	Winter	Total	Winter		
<b>School</b>														
Ground	R1	W1	Class Room	1.1		0.7								
	R1	W2		1.4		1.0								
	R1	W3		1.1	3.6	0.7	2.5	1.2	84	28	61	13	0.7	0.5
Ground	R2	W4	Class Room	1.3		0.9								
	R2	W5		1.7		1.2								
	R2	W6		1.3	4.3	0.9	3.0	1.3	85	29	67	18	0.8	0.6
Ground	R3	W7	Class Room	0.7		0.5								
	R3	W8		0.7		0.5								
	R3	W9		0.7		0.5								
	R3	W10		0.7	2.7	0.5	1.9	0.8	85	29	68	19	0.8	0.7
Ground	R4	W11	Class Room	1.3		1.0								
	R4	W12		1.7		1.2								
	R4	W13		1.3	4.3	1.0	3.2	1.2	86	30	66	17	0.8	0.6
Ground	R5	W14	Class Room	1.1		0.8								
	R5	W15		1.4		1.1								
	R5	W16		1.1	3.6	0.8	2.7	0.9	86	30	67	15	0.8	0.5
First	R1	W1	Class Room	1.1		0.8								
	R1	W2		1.5		1.0								
	R1	W3		1.1	3.8	0.8	2.5	1.2	86	30	63	14	0.7	0.5
First	R2	W4	Class Room	1.4		0.9								
	R2	W5		1.7		1.2								
	R2	W6		1.4	4.4	1.0	3.1	1.4	86	30	69	19	0.8	0.6
First	R3	W7	Class Room	0.7		0.5								
	R3	W8		0.7		0.5								
	R3	W9		0.7		0.5								
	R3	W10		0.7	2.8	0.5	2.0	0.8	86	30	72	21	0.8	0.7
First	R4	W11	Class Room	1.4		1.0								
	R4	W12		1.7		1.3								
	R4	W13		1.4	4.5	1.0	3.3	1.2	86	30	70	19	0.8	0.6
First	R5	W14	Class Room	1.1		0.8								
	R5	W15		1.4		1.1								
	R5	W16		1.1		0.8								
	R5	W17		1.1		1.1								
	R5	W18		1.1	5.8	1.1	4.9	0.9	99	30	81	16	0.8	0.5



