

Addendum Report

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Addendum Daylight & Sunlight Report

52-55 Friar Street, Reading RG1

AIPT

December 2016

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1. Introduction

- 1.1 GVA Schatunowski Brooks has been instructed by AIPT to provide an addendum report in follow up to our previous detailed Daylight and Sunlight Report dated November 2016.
- 1.2 The following Addendum Report is in response to the request from Reading Borough Council to address overshadowing matters in addition to Daylight and Sunlight.
- 1.3 A set of the Building Research Establishment's suggested assessments, commonly termed "two-hour time in sun" studies, were conducted.
- 1.4 All other assessments relating to Daylight and Sunlight remain unchanged from the previous report.

2. Executive Summary

- 2.1 The overall level of impact to existing neighbours is considered to be similar to that previously reported on in detail in the July 2015 report.
- 2.2 In limited locations, where these existing neighbours derive their light from the direction of the additional massing (circa 1.3m) added to Friese Green House, inevitably there will be a slight additional change in vertical sky component, which although relatively small, maybe slightly noticeable to occupants, as previously, and would however represent adequate retained values for a dense urban environment.
- 2.3 Within the proposed development, all habitable rooms would again continue to achieve Average Daylight Factor values in excess of the BRE/British Standard minimum target recommendations based on their room uses, with high levels of daylight distribution also being enjoyed.
- 2.4 The vast majority of living areas would have access to available sunlight amenity, which would be high enough to make a positive difference for occupants.
- 2.5 The updates to the proposed developments are not considered to have any additional material affects to daylight and sunlight amenity of existing neighbours or future occupants.

3. Daylight/Sunlight Planning Principles

3.1 The Building Research Establishment (BRE) guidelines – Site Layout Planning for Daylight and Sunlight: a guide to good practice (2011) (the guidelines) is the document referred to by most local authorities.

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3.3 The introduction to the guidelines states: -

"The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document should not be seen as an instrument of planning policy. Its aim is to help rather than constrain the developer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of the many factors in site layout design."

Permanent Overshadowing (Time In Sun)

3.4 The BRE Guidelines acknowledge that the spaces between buildings have an important impact on their overall appearance and ambience.

3.5 An unfavourable situation would be to have substantial areas on which the sun does not fall for a large part of the year. The BRE Guidelines state that the sunlight reaching these spaces is valuable for a number of reasons, namely to:

- Provide attractive sunlit views (all year);
- Make outdoor activities like sitting out and children's play more pleasant (mainly warmer months);
- Encourage plant growth (mainly spring and summer);
- To dry out the ground, reducing moss and slime (mainly in colder months);
- Melt frost, ice and snow (in winter); and
- Dry clothes (all year).

-
- 3.6 As can be seen from the above list, it is important to ensure good sunlight penetration throughout the year for various reasons.
- 3.7 The BRE Guidelines state that the availability of sunlight should be checked for all open spaces where it will be required. This would normally include:
- Gardens, usually the main back garden of a house;
 - Parks and playing fields;
 - Children's playground;
 - Outdoor swimming pools and paddling pools;
 - Sitting out areas such as those between non-domestic buildings and in public squares; and
 - Focal points for views such as a group of monuments or fountains.
- 3.8 The BRE Guidelines state that each of the above spaces will have different sunlighting requirements and therefore it is difficult to suggest a hard and fast rule for all. However, given that there is a need to ensure adequate sunlight penetration throughout the year, the BRE Guidelines state that the Equinox (21 March) can be chosen for a date in terms of conducting an assessment as this date represents average annual conditions.
- 3.9 The BRE Guidelines suggest that as a check for adequate sunlight penetration that as a recommendation at least half of the amenity areas listed above should receive at least 2 hours of sunlight on 21 March.
- 3.10 The BRE Guidelines state that it would be instructive to draw the '2 hours sun contour' which marks this area on plan, because the use of specific parts of a site can be planned with sunlight in mind.
- 3.11 The guidance applies both to new gardens and amenity areas as well as existing ones which are affected by new development. If an existing garden or outdoor space is already heavily obstructed then any further loss of sunlight should be kept to a minimum.
- 3.12 In this poorly sunlit case (i.e. where a space is already heavily obstructed), if as a result of new development the area which can receive 2 hours of direct sunlight on 21 March
-

is reduced to less than 0.8 times its former size, this further loss of sunlight would be considered significant. A garden or amenity area would tend to look more heavily overshadowed.

4. Report

- 4.1 Please refer to Appendix I for the detailed assessment drawings upon which the following report is based.
- 4.2 The BRE assessment was undertaken on the average annual conditions day of March 21st and also on the optimal annual conditions day of June 21st.
- 4.3 Drawing BRE37 shows the study for the proposed amenity space on March 21st and BRE38 on June 21st. There are no immediately adjacent existing amenity spaces which require assessment and therefore studies of this type were not conducted.
- 4.4 As can be seen from the study, the entire external space was assessed.

Results

- 4.5 The study for March 21st indicated that 15.74% of the proposed amenity area would achieve in excess of the default BRE recommendation of at least two hours of sun.
- 4.6 On June 21st, 91.27% of the amenity area would achieve at least two hours of sun.
- 4.7 As set out in the BRE guidance, when considering sunlight availability the two most influential factors are outside the control of the designer, namely the site orientation and degree of existing obstruction.
- 4.8 In this circumstance the site is roughly rectangular in shape, with a general north-south orientation. Directly to the south of the site is the busy Friar Street and the general context would be considered as dense and urban.
- 4.9 Whilst in ideal circumstances the southern part of the site would not be built upon in order to allow more sunlight into the courtyard, we understand that this was not possible as this forms an important noise barrier for future residents.
- 4.10 The March 21st results are below the default BRE recommendations, however given the prevailing weather conditions expected on this date the space would typically not be used for significant lengths of time. The June 21st results confirm that in the warmer

summer months the courtyard area would achieve excellent access to available sunlight.

- 4.11 By interpolating between the two results, it is clear that for the majority of the year and furthermore in the most important months i.e. late spring through to late summer there would be adequate sunlight availability.
- 4.12 The main reason for not achieving the BRE default target recommendation is due to the existing constraints and as set out in the BRE guidance the default targets cannot be met. The results are therefore considered commensurate with the BRE guidance.
- 4.13 When considering the overall annual conditions within the proposed courtyard as opposed to the arbitrary day chosen to represent average conditions it is considered on balance that given the context and existing site constraints that the sunlight availability in the proposed courtyard will be adequate.

5. Conclusion

- 5.1 Given the existing site constraints i.e. degree of existing obstructions and site shape/ orientation the sunlight availability to the proposed courtyard would be concluded as commensurate with the BRE guidance and therefore acceptable.

GVA Schatunowski Brooks.

GVA Schatunowski Brooks

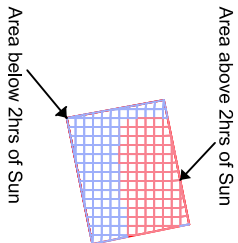


Appendix I

Drawings FR20/07 BRE37
and BRE38

Legend

Time in Sun



Sources of Information

SURROUNDING
The Gordon Tomalin Partnership,
Consultant Land Surveyors,
10010.01
10010.02
10010.03
10010.04
10010.05
10010.06
10010.07
10010.08
10010.09
10010.10
10010.12
10010.13

PROPOSED
LDA Architects
1509-PL3-21 Rev A
1509 LDA Issue 2016-10-11 3d Model
1509-PL3-11
1509-PL3-12
1509-PL3-13
1509-PL3-14



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Project Name
52-55 Friar Street
Reading

Client
Aviva Investors Property Trust

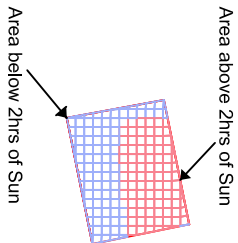
Drawing Title
Time in Sun Analysis for
March 21

Drawn By	Chkd By	Scale @ A3	Date
AH		N/A	11 NOV 2016

Project No.	Drawing No.	Revision
FR20-07	BRE37	

Legend

Time in Sun



Sources of Information

SURROUNDING
The Gordon Tomalin Partnership,
Consultant Land Surveyors,

- 10010.01
- 10010.02
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- 10010.04
- 10010.05
- 10010.06
- 10010.07
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- 10010.09
- 10010.10
- 10010.12
- 10010.13

PROPOSED

- LDA Architects
- 1509-PL3-21 Rev A
- 1509 LDA Issue 2016-10-11 3d Model
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- 1509-PL3-12
- 1509-PL3-13
- 1509-PL3-14



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Project Name
52-55 Friar Street
Reading

Client
Aviva Investors Property Trust

Drawing Title
Time in Sun Analysis for
June 21

Drawn By	Chkd By	Scale @ A3	Date
AH	N/A		11 NOV 2016

Project No.	Drawing No.	Revision
FR20-07	BRE38	