

**By Email**

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Dear William,

**Re: The Redevelopment of 1 Triton Square and St Anne's Church (2016/6069/P)  
Daylight, Sunlight and Overshadowing**

GIA have had the opportunity to review the planning objections submitted by Emma Gorman of 4 Laxton Place (received 29.11.16), and Louise Morton of Quadrant Town Planning Ltd on behalf of the Westminster Kingsway College (received 25.11.16). I am writing to address the various concerns raised in relation to the potential Daylight and Sunlight and Overshadowing issues associated with the above mentioned redevelopment.

**4 Laxton Place**

The objection raises concerns regarding the potential overshadowing to the rear of 4 Laxton Place. GIA have undertaken a Sun Hours on Ground ("SHOG") assessment in accordance with the Building Research Establishment (BRE 2011) Guidelines. This assessment measures the area of the amenity space which receives more than two hours of sunlight on the 21st March (Spring Equinox). If this is more than 50% of the area then it is considered acceptable.

It is key to note, however, that the BRE Guidelines are exactly that, guidelines that are designed to help inform good site layout and design. It is acknowledged that the BRE Guidelines are predicated upon a sub-urban model involving 2-3 storey buildings within reasonable separation distances. As such, the recommendations within the BRE document are intended to be treated flexibly in more urban locations such as inner-city London.

GIA acknowledge that on the 21st March, the amenity space to the rear of 4 Laxton Place will fall short of BRE guidance in that less than 50% of the area will see more than 2 hours of direct sunlight. Notwithstanding this, our analysis indicates that circa 80%+ of the garden at 4 Laxton Place will experience at least 1.8 hours of sunlight against the 2 hour recommendation. What is crucial, however, is that in the summer solstice, 21st June, when the space is most likely to be used, virtually the entire area will experience between 4 and 8+ hours of direct sun, which is up to four times the minimum amount of sunlight noted within the BRE for 21st March. GIA feel is an excellent proposition considering the built urban location and should be considered acceptable when considering the intention and application of the BRE Guidelines.

It is also worth noting that all of the windows and rooms within this terrace of properties will demonstrate 100% BRE compliance to all three daylight and sunlight tests within the BRE Guidelines.

**DATE / REF**

06/01/2017

KF/5615

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## **Westminster Kingsway College**

The objection raises concerns regarding the potential overshadowing to the amenity space in front of the college building and also on the potential for good daylight and sunlight amenity to the receptors within the building.

### *Overshadowing*

Similar to 4 Laxton Place, GIA's SHOG analysis indicates that the majority of the amenity space in front of the college building will fall below BRE Guidance on the 21st March. Again, however, given the sun's higher position in the sky, the majority of the amenity space will enjoy 8+ hours of direct sun in the summer months, which GIA feel is an excellent quantum of sunlight given the location of the amenity space.

I note that the objection alludes to the fact that students will be away from the college building during these months and for the most practical parts of the year, the area will be in shadow. It is a material point that GIA's analysis has been carried out assuming the hypothetical scenario that nothing exists on the amenity space. In reality, however, it is clear from our site visit and Google Maps that there will be a dense belt of trees and vegetation which limit the ability for sun to penetrate the grass surfaces (see figure 01 and 02 below). The point is raised within the objection that students work better in "light and airy spaces". Whilst GIA do not contest this point, it is our view that the proposed scheme does not compromise this space any more so than the presence of existing natural obstructions.



**Figure 01 – Ariel View of College Gardens**



**Figure 02– Street view of College Gardens**

The BRE Guidelines place greater emphasis on the daylight and sunlight enjoyment to residential properties over commercial properties, given the latter's reliance on artificial lighting. Consideration, therefore, is usually only given to the surrounding residential properties. The objection notes that the College falls within Use Class D1 and should therefore be considered within GIA's Daylight and Sunlight report. GIA would argue that this should not be the case given that this property, with its educational use, is likely to be predominantly lit via artificial strip lighting traditionally found in classrooms. Furthermore, the presence of frosted glazing on the lower levels would suggest that more importance is placed on the privacy rather than the ability for daylight and sunlight to penetrate the rooms. Notwithstanding the above and in response to the request by Quadrant Town Planning Ltd, GIA have run an additional assessment in order fully understand the potentially reduction in daylight and sunlight as result of implementing the proposed scheme.

By way of a summary of our findings, GIA have considered 80 windows serving 35 rooms for assessment within the college building. When assessed against the primary daylight methodology, the Vertical Sky Component (VSC), 58/80 (72.5%) of windows demonstrate total BRE compliance. The remaining 22 windows which fall short of the VSC criterion are said to serve 12 rooms. When assessed against the secondary daylight methodology, the No Sky Line (NSL), 8/12 (66%) of rooms demonstrate BRE compliance. The remaining four rooms which fall short of guidance are all served by windows which demonstrate VSC transgressions of between 20%-22% (against a 20% target value). GIA are of the opinion that such transgressions are minor and should be considered within the intention and application of the BRE document.

In relation to sunlight, GIA have carried out an Annual Probable Sunlight Hours ("APSH") assessment to understand the potential reduction in sunlight as a result of the proposed scheme. GIA's analysis suggests that 20/26 rooms will demonstrate total BRE compliance to the APSH criterion. The six rooms which fall short do so in the winter months, when the sun trajectory is lower in the sky. Crucially, however, 100% of the rooms continue to enjoy Annual APSH levels which far exceed the BRE recommendations. It is noted that 20/26 rooms will enjoy Annual APSH of at least double BRE recommended standards.

In consideration of the above analysis, the clear presence of artificial lighting and the transient nature of the college's use GIA would consider the impacts to this property and the amenity space in front to be wholly in keeping with the flexibility and application of the BRE document.

### **Conclusions**

GIA are of the opinion that in order for meaningful development to occur on these sites, some degree of Daylight, Sunlight and Overshadowing alterations will be inevitable. This is a consequence of the built urban location which restricts the ability for light to penetrate buildings and spaces from oblique angles. The advice and guidance provided within the BRE document recognises this point and advocates for a flexible interpretation of its guidance and target values.

With regards to overshadowing at 4 Laxton Place and the College Gardens, it is clear that the tested amenity spaces do not meet BRE guidance on the 21st of March. Notwithstanding this, our analysis clearly demonstrates that on the whole, the amenity spaces will continue to have the ability to enjoy a high quantum of sunlight in the warmer months of the year. Given the presence of a dense belt of trees and vegetation on the College Gardens, GIA are of the view that the additional shadow resulting from the proposed redevelopment will not unduly compromise the current enjoyment of these spaces.

With regards to Daylight and Sunlight, the terrace at 1-4 Laxton Place will demonstrate total BRE compliance to all of the required assessments. The Westminster Kingsway College will continue to enjoy high daylight and sunlight potential to the majority of its rooms.

Where transgressions to BRE guidance occur, these are minor in nature and considered to be wholly within the flexibility and application of the BRE document and in GIA's view should be considered acceptable.

Yours sincerely  
For and on behalf of GIA

A handwritten signature in black ink, appearing to read 'Kevin Francis', with a stylized, flowing script.

Kevin Francis  
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