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22 LANCASTER GROVE Expert Witness Statement Daylight, Sunlight & Shadow

DIRECTOR: DATE: PROJECT: Barry Hood February 2015 P382

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1 INTRODUCTION

- 1.1 The professional advice in relation to the effect of the proposed development for 22 Lancaster Grove is provided by Barry Hood.
- 1.2 Barry Hood is a Director and Co-Founder of Point 2 Surveyors Ltd (Point 2). Point 2 is a Surveying Practice, based in Central London, which specialises in undertaking technical analysis and providing advice in relation to Daylight, Sunlight, Shadow, Light Pollution and Solar Glare. Barry Hood has specialised in this field for the last nine years, and was formerly a Partner and Head of Department at GIA, the largest specialist central London daylight practice.
- 1.3 Barry has worked on numerous residential schemes, as well as large urban development sites, providing detailed technical analysis and professional advice in relation to daylight, sunlight and shadow, including:

The Commonwealth Institute for Chelsfield 122 Leadenhall Street for British Land The American Embassy for the US Government Victoria Circle for Land Securities Wood Wharf for The Canary Wharf Group Bishopsgate Goodsyard for Hammerson London Dock for Berkeley Homes Columbus Tower for CEG & now The Chinese Government London Wall Place for The City of London Old Bailey for Land Securities One Hyde Park for Candy and Candy Vauxhall Square for CLS Middlesex Hospital for Candy and Candy The Earls Court Masterplan for Capco Chelsea Barracks for Qatari Diar; amongst many others.

- 1.4 Point 2 have been consulted to review the original Syntegra daylight and sunlight report and to provide independent advice in relation to the redevelopment of 22 Lancaster Grove and its effect upon the neighbours daylight and sunlight amenity, and any over-shadowing to neighbours private amenity space/gardens.
- 1.5 The original Syntegra technical work was summarised in a report entitled *Daylight, Sunlight & Overshadowing Report* dated April 2014. This was supplemented with an Addendum dated 19.8.14 in response to queries provided by an Independent Consultant Brooke Vincent + Partners (BVP).
- 1.6 The Syntegra report employed the Building Research Establishment methodology in arriving at its findings and responded to queries from a third party reviewer (BVP) which related to i) suitability of software employed, ii) accuracy of computer modelling, iii) appropriateness of including vegetation, iv) status of the rooms analysed.



- 1.7 Point 2 have undertaken new technical analysis to arrive at an entirely independent opinion. To do so Point 2, mindful of BVP's former observations which related to the Syntegra work, have employed the following approach; i) Employed our proprietary, market leading SOL software being the most sophisticated product available for the measurement of light and which has been employed on the majority of major schemes in the UK over the last 20 years; ii) undertaken a laser scan survey of the site and neighbours to accurately locate buildings and apertures, iii) removed all vegetation for the purposes of technical analysis, iv) undertaken research to determine the use and dimensions of neighbouring rooms.
- 1.8 The objective of this approach is to arrive at a technically very robust set of analysis which is independently verifiable and provides both the Local Planning Authority, developer, neighbours and independent third party with confidence as to the technical output, and from which a professional opinion can be arrived at.
- 1.9 Technical analysis was undertaken within a 3-dimensional computer model of the development site and neighbouring properties. In order to ensure accuracy the three dimensional computer model was constructed with the benefit of a laser scan based measured site survey. This means that neighbouring buildings are laser scanned to precisely define the location of the building relative to the site and location of windows in order to heighten accuracy of the technical output. In addition and where possible floor layout plans have been obtained for relevant neighbouring buildings, and is important because the BRE Guidelines state that only certain habitable rooms are material for consideration and it is also necessary for the calculation of the No Sky Line/daylight distribution methodology.
- 1.10 Appendix A contains all of the source data which has been relied upon in the production of the technical information and which has under-pinned the opinion contained in this report.
- 1.11 The basis for the technical analysis and methodology employed is derived from The Building Research Establishment Guidelines entitled *Site Layout Planning for Daylight and Sunlight A Guide to Good Practice* 2011 by P J Littlefair (*The BRE Guidelines*).
- 1.12 The BRE Guidelines are the principle source of guidance in this area. LB Camden cite daylight and sunlight matters in Section DP26 of the Camden Development Policies document 2010. In which it states at: 26.1 Policy DP26 – Managing the impact of development on occupiers and neighbours: *"The Council will protect the quality of life of occupiers and neighbours by only granting permission for development that does not cause harm to amenity. The factors we will consider include: ...b) overshadowing and outlook, c) sunlight, daylight and artificial light levels...." And at 26.3 "To assess whether acceptable levels of daylight and sunlight are available to habitable spaces, the Council will take into account the standards recommended in the Building Research Establishments Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice".*
- 1.13 The BRE Guidelines are <u>not</u> mandatory, and they state in the Introduction on Page 1 that:

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



layout design. In special circumstances the developer or planning authority may wish to use different target value. For example, in an historic City Centre or in an area with modern high rise buildings a higher degree of obstruction may be unavoidable if new developments are to match the heights and proportions of existing buildings".

- 1.14 Additionally, on Page 7 at 2.23 the BRE again states "note that numerical values given here are purely advisory. Different criteria may be used based on the requirements for daylight in an area viewed against other site layout constraints. Another important issue is whether the existing building is itself a good neighbour standing a reasonable distance from the boundary and taking no more than its fair share of light".
- 1.15 Additionally on Page 61, in Section F1, the BRE states that "these values are purely advisory and different targets may be used based upon the special requirements of the proposed developments or its location".
- 1.16 There are various points at which the BRE Guidelines allude to or suggest how those alternate target values may be arrived at depending upon site context:
 - i. At 2.3.5 on page 12 of the BRE it advises upon designing in anticipation of future development on adjoining sites and in which it states that "Overall the adjoining development site should normally retain the potential for good daylighting if every point is within 4m of a point with a VSC of 17% or more. This corresponds to the value for a continuous obstruction subtending the 43 degree angle above."
 - ii. At Appendix F2 on page 62 the BRE sets out the methodology for comparing a new scheme proposal with that of an extant planning consent and the resultant daylight values in each case.
 - iii. At Appendix F5 on page 62 the BRE sets out the methodology for comparing a new scheme proposal with that of a theoretical 'mirror image' scheme.
- 1.17 The reason that the BRE target values need to be considered flexibly is three fold:
 - i. The BRE target values do not incorporate any consideration of context or particular site circumstances.
 - ii. The BRE recommended level of daylight at the window face is 27% VSC. A VSC of 27% requires that there is no obstruction in front of the window that is higher than 25 degrees from the window centre analysis point. This target value is predicated upon a suburban model of 2-storey dwellings facing one another across a reasonable width road but more challenging where outlook is more restricted.
 - iii. The BRE methodology permits up to 20% change in both VSC and NSL tests which it considers unnoticeable to the occupant, but beyond that it considers the alteration potentially noticeable. This approach is a helpful guide but fails to consider the quality of retained light.
- 1.18 These inherent limitations are recognised by the BRE Guidelines and hence recommend a flexible approach to their application and the numeric values suggested.



1.19 The BRE Guidelines identify two principle methods for analysing the effect of construction of a scheme upon a neighbours daylight amenity and 1 method for analysing the effect upon sunlight.

1) The Vertical Sky Component (VSC)

This analysis is undertaken at the window face. It is the ratio of the direct sky illuminance falling on the vertical wall at a reference point (usually the centre of the window) to the simultaneous horizontal illuminance under an obstructed sky. The standard CIE overcast sky is used, and the ratio is usually expressed as a percentage. The maximum value is almost 40% for a completely unobstructed vertical wall. If, after a development is constructed, the VSC is greater than 27% then enough sky light should still be reaching the window of the existing building. Any reduction below this level should be kept to a minimum. If the VSC with a new development in place is both less than 27% and less than 0.8times is former value, occupants of the existing building will notice the reduction in the amount of sky light.

The limitation of the VSC form of analysis is that it relies solely upon the extent to which sky visibility is obstructed at the window face only. It takes no account of window size, of reflected light, of room size behind the window, or light received by the same room from other sources. It is then a very simplistic method of evaluating daylight or more accurately sky visibility.

2) No Sky Line/ Daylight Distribution (NSL)

The effect upon the daylight distribution within a room can be found by plotting the No Sky Line. For houses this would include living rooms, dining rooms and kitchens. Bedrooms should also be analysed although they are less important. If following construction of a new development, the No Sky Line moves so that the area of the existing room which does receive direct sky light is reduced to less than 0.8 times its former value, this will be noticeable to the occupants and more of the room will appear poorly lit.

The limitation of the No Sky Line technical analysis is that where neighbours have very deep rooms and are lit by a window in only one wall they may, by virtue of their design, have poor sky visibility to begin with and therefore be more and possibly unreasonably sensitive to alterations in sky visibility.

- 1.20 The BRE also states on page 8 at 2.2.10 that "The guidelines above need to be applied sensibly and flexibly. There is little point in designing tiny gaps in the roof lines of new development in order to safe guard No Sky Lines in existing buildings. If an existing building contains rooms lit from one side only and greater than 5m deep, then a greater movement of the No Sky Line may be unavoidable."
- 1.21 The BRE also acknowledges on page 8 at 2.2.12 that "A larger relative reduction in VSC may also be unavoidable if the existing window has projecting wings on one or both sides of it, or is recessed into the building so that it is obstructed on both sides as well as above."



Sunlight to Existing Dwellings

1.22 The BRE identifies one method of analysing the effect of construction of a scheme upon a neighbours sunlight amenity:

Annual Probable Sunlight Hours (APSH)

- 1.23 To assess loss of sunlight to an existing building, it is suggested that all main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90 degrees of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun. For technical analysis purposes a point at the centre of the window wall may be taken. If this window point can receive more than one quarter (25%) of APSH including at least 5% of APSH in the winter months between 21 September and 21 March, then the room should receive enough sunlight. Any reduction in sunlight access below this level should be kept to a minimum. If the available sunlight hours are both less than the amount above and less than 0.8 times their former value, either over the whole year or just in the Winter months (21 September to 21 March) then the occupants of the existing building will notice the loss of sunlight; if the overall annual loss is greater than 4% APSH the room may appear colder and less cheerful and pleasant.
- 1.24 The BRE methodology therefore distinguishes between the amount of sunlight that a window can experience during the course of the entire year (Annual) and that portion during the winter months.
- 1.25 Finally the BRE Guidelines note at 2.3.1 on page 11 that "From a daylight standpoint it is possible to reduce the quality of adjoining development land by building too close to the boundary. A well designed building will stand a reasonable distance back from the boundaries so as to enable the future nearby developments to enjoy a similar access to daylight. By doing so it will also keep its own natural light when the adjoining land is developed."

2 THE SYNTEGRA WORK

- 2.1 The Syntegra technical work differs from the Point 2 technical work in detail but arrives at the same conclusion.
- 2.2 The reason for this variation is that the Point 2 technical work has had the benefit of a laser scanned measured site survey, which heightens accuracy in the technical output and employed a more accurate software solution to measure daylight and sunlight levels within neighbouring properties.
- 2.3 Furthermore the Point 2 Technical work considers two methods of daylight assessment (VSC and NSL) which gives a deeper understanding of any effect upon the neighbours daylight.
- 2.4 Whilst there is a statistical difference between the Syntegra work and the Point 2 technical work, having reviewed the opinion reached by Syntegra based upon their data I would have arrived at the same conclusion.
- 2.5 In order to aid comparison of the 2 technical reports the following window labels are equivalent:



- 24 Lancaster Grove
- Window W4/10 (Point 2) = S14 (Syntegra page 23)
- Window W3/10 (Point 2) = S5 (Syntegra page 22)

3 <u>THE SITE</u>



SITE PLAN P382/01



SITE PLAN P382/02

3.1 To turn to the specifics of the site the 22 Lancaster Grove site is located in a suburban residential area of London (Swiss Cottage) typified by other 2 to 4-storey dwellings.



- 3.2 The site is located on the western side of a bend in the Lancaster Grove thoroughfare. This is relevant as the neighbour to the East (24 Lancaster Gate) occupies the site on the bend and therefore has a narrow wedge shaped triangular plot oriented toward the development site and therefore reliant upon light across the development site to some extent. This is best seen in drawing P382/01 located in Appendix B, and on the image above.
- 3.3 Our understanding of the existing building (and neighbours) which occupies the development site is illustrated in drawings P382/01 to 03 inclusive. Our understanding of the proposed scheme for the 22 Lancaster Grove site is illustrated in drawings P382/04 to 06 inclusive. All of which are located in Appendix B.
- 3.4 The Point 2 technical work extends to a consideration of 5 neighbouring residential properties:

18-20 Lancaster Grove (Consented Scheme under construction)47 Lancaster Grove49 Lancaster Grove24 Lancaster Grove30 Eton Avenue

- 3.5 It has been possible to obtain floor layout plans for 18-20 Lancaster Drive from planning drawings and thereby 3d-model and analyse that building to a high level of accuracy.
- 3.6 It has been possible to determine room usage and define reasonable dimensions for rooms within 24 Lancaster Grove to enhance accuracy. In the process of which a cellularised room arrangement has been adopted, in which this neighbours rooms can mainly only derive natural light across the development site, in order to consider a worst case position.
- 3.7 A total of 93 windows and 44 rooms within the aforementioned 5 properties have formed the focus of technical analysis. In this instance these properties have formed the universe of analysed buildings as they are closest to the development site and therefore most likely to experience an effect. If there is a material effect upon a particular neighbour within this universe and therefore there is potential for additional buildings to be effected then, under those circumstances, the universe of analysed properties is expanded.
- 3.8 In this instance and based upon the technical output there is no need to expand the universe and the technical data contained in the Appendices to this report capture all potentially affected properties.
- 3.9 A full set of technical work can be found within Appendix B.
- 3.10 Of the 5 buildings detailed above there are 3 neighbouring residential properties, being 47 Lancaster Grove, 49 Lancaster Grove and 30 Eton Avenue which are either entirely unaffected or negligibly affected in daylight and sunlight terms by construction of the proposed 22 Lancaster Grove development.
- 3.11 There are 51 windows and 33 rooms within these 3 buildings which will fully and comfortably satisfy BRE Guidance. The effect of construction of the proposed scheme for 22 Lancaster Grove will be unnoticeable to these neighbouring properties in terms of their daylight and sunlight amenity. These 3 properties are not dealt with further in this Statement.



3.12 There are 2 out of the 5 neighbouring residential properties which contain some windows and rooms which are in breach of BRE recommended levels of change in their daylight and sunlight, these are:

18-20 Lancaster Grove (demolished – Consent under construction)24 Lancaster Grove

- 3.13 18-20 Lancaster Grove is located to the immediate West of the development site. The buildings which formerly occupied 18-20 Lancaster Grove have been demolished and a planning Consent is currently being constructed. It has been possible to obtain and computer model this building to a high degree of accuracy from plans.
- 3.14 24 Lancaster Grove is located to the immediate East of the development site. It occupies a triangular wedge-shaped plot on a bend in Lancaster Grove. This is material in that the rear of 24 Lancaster Grove is angled toward and enjoys light across the 22 Lancaster Grove development site.
- 3.15 Both 18-20 Lancaster Grove and 24 Lancaster Grove are dealt with in more detail below.

4 ASSESSMENT RESULTS

- 4.1 This section summarises the effect of construction of the 22 Lancaster Grove development Proposal upon the 2 neighbours (18-20 Lancaster Grove and 24 Lancaster Grove) in terms of:
 - A) Daylight (both VSC and NSL)
 - B) Sunlight (APSH)
 - C) Shadow

A) DAYLIGHT

18-20 LANCASTER GROVE

- 4.2 Located to the West of the development site this property is currently under construction in accordance with a Planning Consent. It has been possible to 3d computer model and analyse this property based upon the Consented Planning drawings. Our understanding of which is illustrated in drawing P382/WL/02 in Appendix B.
- 4.3 Of the total 37 windows assessed there are 34 windows which will satisfy the VSC window face daylight test, this being 92% of the total. Of the 8 rooms analysed for daylight distribution (No Sky Line) within the room, all 8 (100%) will satisfy BRE Guidance.
- 4.4 There are 3 windows (8%) out of 37 within the building which do not satisfy the BRE VSC window face daylight test in that they are altered by more than 20%. These are highlighted in drawing P382/WL/02 in Appendix B.
- 4.5 Each of the 3 affected windows serves a different room. Each room is served by 7 separate windows. There are therefore 6 other entirely unaffected or trivially affected windows serving each room. As a result in each instance the daylight distribution around the room is barely, if at all, affected.



- 4.6 There will be a reduction in sky visibility to 3 windows serving 3 separate rooms. However due to the fact that each room enjoys light from 6 other windows there will be barely any alteration in sky visibility or harm to the amenity of the room.
- 4.7 It is material that there is a band of dense, largely deciduous trees located on the boundary. These trees have NOT been considered within the context of the Point 2 technical work and the analysis is undertaken with no vegetation on the boundary. However the practical effect of the presence of the trees will be to screen the scheme proposal for 22 Lancaster Grove from this particular neighbour, and therefore alterations in daylight illustrated in our data is overstated for the spring and summer months when trees are in leaf.
- 4.8 The minor technical breaches of BRE Guidance to this currently under construction building are not considered material or noticeable. Further the presence of a dense belt of deciduous trees on the boundary will, for part of the year, entirely screen the proposed 22 Lancaster Grove development from view.

24 LANCASTER GROVE

- 4.9 Located to the immediate East of the development site, 24 Lancaster Grove is a 2-storey residential house our understanding of which is illustrated in drawing P382/WL/01 in Appendix B.
- 4.10 24 Lancaster Grove is located to the immediate East of the development site. It occupies a triangular wedge-shaped plot on a bend in Lancaster Grove. This is material in that the rear of 24 Lancaster Grove is angled toward and enjoys light across the 22 Lancaster Grove development site. This can be seen in drawing P382/01 in Appendix B.
- 4.11 The 24 Lancaster Grove property by virtue of a relatively small plot has built at or very close to the site boundary, in particular at its western edge where it confronts the 22 Lancaster Grove development site. In doing so it does not fall within the BRE description at 2.3.1 of a "well designed building" which "stand a reasonable distance back from the boundaries".
- 4.12 On the boundary facing toward the development site No 24 Lancaster Grove has a garage which has been converted to residential accommodation under what I understand to be permitted development rights. The Converted Garage room has no window at the front of the property where it faces on to Lancaster Grove but contains a single window at the rear which faces across the development site and is blinkered in its outlook by the presence of a tall boundary wall and the flank elevation of 24 Lancaster Grove. In accordance with BRE section 2.2.12 as a result of this configuration "a larger relative reduction in VSC may also be unavoidable..."
- 4.13 There are 5 windows within 24 Lancaster Grove material for consideration. 3 out of 5 windows will satisfy the VSC daylight analysis test.
- 4.14 2 windows (W3/10 and W4/10) will breach the VSC window face daylight test, 1 of which serves a ground floor Dining Room (W3/10), and the other (W4/10) serves the Converted Garage and therefore the alteration is minimal and unnoticeable.



- 4.15 The Dining Room on the ground floor then contains 1 window (W3/10) which directly faces the development site and which breaches the VSC window face daylight test. However, it is also served by a second window (W2/10) which faces the garden and is not materially affected by the proposed scheme. The site facing window (W3/10) will retain a VSC at the window face of 13.68% in absolute terms, whilst the garden facing Dining Room window (W2/10) will retain a VSC of 25.47% and is only slightly reduced on its current daylight levels. (Compared to a BRE recommended VSC of 27%). Additionally the 2nd daylight analysis method, the daylight distribution (NSL) test confirms that the dining room is barely affected in terms of the penetration of light into the room.
- 4.16 Whilst there is a change in the daylight to the Dining room because i) the window (W3/10 in drawing P382/W2/O1) looks directly at the development site, ii) is restricted in its current outlook by being flanked by the return of its own building, iii) is at a narrow separation distance from the development site, the fact that it has a second window which looks across the garden means that the retained quality of daylight will be good and is considered satisfactory.
- 4.17 The converted garage has a single window (W4/10) which will breach the window face VSC daylight test. The alteration in the VSC daylight is 37.18% compared to a permitted level of change of 20% which the BRE considers unnoticeable. The window will retain an absolute VSC of 16.54%.
- 4.18 The fact that the converted garage relies upon light solely at the rear and across the development site, and that is does so at or very close to the site boundary, places a burden upon the 22 Lancaster Grove development site which could be considered unreasonable.
- 4.19 The BRE anticipates that "a larger relative reduction in VSC may also be unavoidable…" where a window is located in a tight location in which it is flanked by a projecting wing as is the case here. The outcome of the technical work therefore accords with this anticipated BRE condition.
- 4.20 The window will however retain a VSC of 16.54% which is very close to the 17% VSC which the BRE advises at 2.3.5 on page 12 will mean that there is "the potential for good daylighting if every point 1.6m above the boundary line is within 4m of a point with a VSC of 17% or more. This corresponds to the value for a continuous obstruction subtending the 43 degree angle...."
- 4.21 Not only then is there the potential for good daylighting but also the Converted Garage will also satisfy the NSL daylight distribution test and in that sense light into the room will not be noticeably affected.
- 4.22 Therefore whilst the proposed scheme for 22 Lancaster Grove does effect 2 of the windows within this neighbouring property beyond BRE Guidance, in part this is a function of i) its construction and/or conversion at or very close proximity to the boundary, ii) its orientation which derives light across the development site, and iii) its design which locates windows in a way which means that they are flanked by projecting wings of its own building and which means that a larger reduction in VSC daylight as anticipated by the BRE Guidance "may be unavoidable".
- 4.23 Given the good or reasonable retained level of daylight I consider that, whilst there are isolated beyond BRE Guidance reductions in daylight, the alterations in daylight do not amount to material harm to the amenity of the property in question.



4.24 It is worth noting that in relation to the converted garage served by window W4/10 there are a number of viable mitigation measures which would improve the position. For example the addition of a window facing on to Lancaster Grove would provide this space with an additional source of natural light; introducing a glazed panel into the currently solid rear door would admit more light into the room, or the addition of roof lights would also provide a better solution for the room rather than it being entirely dependent upon a single window which faces a tall wall and derives light across the neighbouring property.

B) SUNLIGHT

18-20 LANCASTER GROVE

- 4.25 Of the total 37 windows assessed there are 36 windows which will satisfy the APSH window face sunlight test, this being 97% of the total.
- 4.26 There is 1 window (3%) out of 37 within the building which do not satisfy the BRE APSH window face sunlight test in that it is altered by more than the BRE permitted 20%.
- 4.27 The room is served by 7 separate windows. There are therefore 6 other entirely unaffected or trivially affected windows which will satisfy BRE guidance.
- 4.28 The sunlight which will be experienced by the room will remain exceptionally good at 77% annually of which 27% will be during the winter months (compared with the BRE recommendation 25% annually of which 5% are during the winter months).
- 4.29 This property will remain very well sunlit and the proposed scheme for 22 Lancaster Grove will not cause a noticeable change.

24 LANCASTER GROVE

- 4.30 Of the total 5 windows assessed there are 4 windows which will satisfy the APSH window face sunlight test, this being 80% of the total.
- 4.31 There is 1 window (20%) out of 5 within the building which will not satisfy the BRE APSH window face sunlight test in that it is altered by more than 20%.
- 4.32 The window (W3/10) is one of 2 windows which serve the same dining room on the ground floor. The second window will not be materially affected.
- 4.33 The dining room window (W3/10) will retain an annual APSH of 18% and winter ASPH of 6%.
- 4.34 The sunlight which will be experienced by the room (including both windows W3/10 and W2/10) will remain exceptionally good at 51% Annually of which 22% will be during the Winter months (compared to a BRE recommended 25% Annually of which 5% are during the Winter months)
- 4.35 This property will remain very well sunlit irrespective of the proposed scheme for 22 Lancaster Grove.



C) SHADOW TO AMENITY SPACE

- 4.36 BRE Guidance in relation to shadow and sun-on-ground states at 3.37 "...that at least half of the amenity space should receive at least 2 hours of sunlight on March 21st"
- 4.37 All neighbouring amenity areas within 18-20 Lancaster Grove and 24 Lancaster Grove have been analysed. No vegetation has been included within the Point 2 technical work.
- 4.38 In circumstances such as these technical analysis to define the area of garden which achieves more than 2 hours of sunlight on March 21st is uninformative and therefore we have broken down our analysis into 15 minute intervals.
- 4.39 There is no alteration in the time in the sun experienced by 18-20 Lancaster Grove.
- 4.40 There is a small but imperceptible alteration to the time in sun experienced by the garden of Lancaster Grove as indicated in drawing P382/SH/01 in Appendix B. This is within a permitted level of change within the BRE Guidance.
- 4.41 Both 18-20 and 24 Lancaster Grove comfortably satisfy BRE Guidance in relation to shadow and sun-on-ground.

5 <u>CONCLUSIONS</u>

- 5.1 The Point 2 opinion and technical analysis has been undertaken accurately relying upon a laser scanned measured site survey and in accordance with BRE methodology.
- 5.2 The BRE guidelines are not mandatory and the BRE document repeatedly states that it is intended to be applied flexibly where considered appropriate and that local Authorities may prefer to adopt alternate target values to those set down within the BRE. Breaches of BRE Guidance are therefore not uncommon and are simply one of the matters which the Planning Authority will need to balance.
- 5.3 The circumstances in which it would be appropriate to consider alternate target values for daylight and sunlight include:
 - i. Architectural features specific to neighbouring properties which inherently inhibit the penetration of light e.g. restricted location or "projecting wings" which may make changes in daylight beyond guidance unavoidable.
 - ii. Whether the neighbour itself has been reasonable in its development setting back a reasonable distance from the boundary.
- 5.4 In daylight terms 3 out of 5 neighbours will entirely satisfy BRE guidance. 2 of the immediate neighbours to the east and west will experience isolated breaches of one BRE daylight guidance test which is undertaken at the window face though all rooms when tested internally will satisfy the NSL daylight test.
- 5.5 The breaches experienced by the currently under construction 18-20 Lancaster Grove are considered minor given the volume of glazing (6/7ths) which is unaffected and which serves the same rooms. As a result there is barely any alteration in daylight penetration into the room, and there will be no harm to amenity.



- 5.6 The breach in daylight experienced by 24 Lancaster Grove is considered reasonable in relation to the ground floor dining room given that there are 2 windows which serve the same room and barely any change in daylight penetration to the room. The 1 affected window (W3/10) will retain a reasonable amount of sky visibility, despite the fact that it looks directly at the development site and is restricted in its outlook by virtue of its inherent building design. On balance the breach of guidance is not considered to cause material harm.
- 5.7 The breach in daylight to the converted garage is also considered reasonable for similar reasons though the room looks obliquely across the development site and retains a VSC of 16.54%. This being close to a level which the BRE considers capable of providing a reasonable level of daylight.
- 5.8 In sunlight terms there are no breaches of guidance which are considered material. All neighbours will retain good sunlight.
- 5.9 In relation to shadow/sun-on-ground to neighbours gardens, there is no meaningful change and the proposed scheme is BRE compliant.
- 5.10 Of the 93 windows and 44 rooms analysed, the vast majority will be barely, if at all, affected in terms of daylight and sunlight by the proposed scheme for 22 Lancaster Grove.
- 5.11 There are 2 windows within 24 Lancaster Grove which experience breaches of daylight beyond BRE Guidance. However, theses breaches are not considered material or harmful, and are anticipated in BRE Guidance because:
 - The windows are close to the boundary and derive light across the development site, thereby placing an unreasonable burden on it (BRE 2.3.1).
 - The inherent design of the neighbours building makes breaches "unavoidable" (according to BRE 2.2.12).
 - The windows retain adequate or good levels of daylight (VSC) (BRE 2.3.5).
 - The rooms behind the windows both satisfy the daylight distribution (NSL) test, and are in fact barely affected.
 - There are viable mitigation measures which would improve the natural light to the converted garage, including glazed panels in the solid door, a window at the front or roof lights
- 5.12 There are no breaches of sunlight, or sun-on-ground/shadow which constitute material harm.



Appendix A – Source Data



22 LANCA LONDON	ASTER GROVE					
Room	Room Use	Window	EXISTING VSC	PROPOSE VSC	D LOSS VSC	%LOSS VSC
18 - 20 LA	ANCASTER GRO	/E				
R1/60 R1/60 R1/60 R1/60 R1/60 R1/60	LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM	W1/60 W2/60 W3/60 W4/60 W5/60 W6/60	16.88 33.25 32.97 34.10 20.57 3.79	10.50 30.88 31.10 32.28 20.57 3.79	6.38 2.37 1.87 1.82 0.00 0.00	37.80 7.13 5.67 5.34 0.00 0.00
R1/60 R2/60 R2/60 R2/60	LIVINGROOM DINING DINING DINING	W7/60 W8/60 W9/60 W10/60	2.93 9.95 10.42 9.96	2.93 9.95 9.99 9.56	0.00 0.00 0.43 0.40	0.00 0.00 4.13 4.02
R3/60 R3/60 R3/60 R3/60 R3/60 R3/60 R3/60	KITCHEN KITCHEN KITCHEN KITCHEN KITCHEN KITCHEN	W11/60 W12/60 W13/60 W14/60 W15/60 W16/60 W17/60	2.59 3.31 19.44 34.29 33.09 33.42 18.54	2.26 2.30 18.13 33.92 32.76 33.14 18.54	0.33 1.01 1.31 0.37 0.33 0.28 0.00	12.74 30.51 6.74 1.08 1.00 0.84 0.00
R1/61 R1/61 R1/61 R1/61 R1/61 R1/61 R1/61	DRESSING DRESSING DRESSING DRESSING DRESSING DRESSING	W1/61 W2/61 W3/61 W4/61 W5/61 W6/61 W7/61	22.71 35.94 36.07 36.16 24.77 28.11 22.84	15.70 33.84 34.42 34.81 24.77 28.11 22.84	7.01 2.10 1.65 1.35 0.00 0.00 0.00	30.87 5.84 4.57 3.73 0.00 0.00 0.00
R2/61 R2/61 R2/61	BEDROOM BEDROOM BEDROOM	W8/61 W9/61 W10/61	29.75 34.32 29.32	29.75 33.97 28.90	0.00 0.35 0.42	0.00 1.02 1.43
R3/61 R3/61 R3/61 R3/61 R3/61 R3/61	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM	W11/61 W12/61 W13/61 W14/61 W15/61 W16/61	23.86 23.66 36.63 36.66 36.70 26.79	22.94 22.53 36.38 36.44 36.50 26.79	0.92 1.13 0.25 0.22 0.20 0.00	3.86 4.78 0.68 0.60 0.54 0.00
R1/62		W1/62	37.39	36.35	1.04	2.78
R2/62BEDROOMR2/62BEDROOMR2/62BEDROOM		W2/62 W3/62 W4/62	37.67 34.98 34.57	37.53 34.60 34.57	0.14 0.38 0.00	0.37 1.09 0.00
47 LANC	ASTER GROVE					
R1/40 R1/40 R1/40		W1/40 W2/40 W3/40	31.70 34.75 33.01	30.82 33.77 32.11	0.88 0.98 0.90	2.78 2.82 2.73

22 LANC	ASTER GROVE		DAYLIGH PROPOSE DATED	T ANALYSIS ED SCHEME 0 09/12/14		
Room	Room Use	Window	EXISTING VSC	PROPOSE VSC	D LOSS VSC	%LOSS VSC
R2/40		W4/40	19.09	18.49	0.60	3.14
R3/40		W5/40	32.16	31.27	0.89	2.77
R3/40		W6/40	33.03	32.31	0.72	2.18
R3/40		W7/40	13.08	13.01	0.07	0.54
R1/41		W1/41	36.81	36.50	0.31	0.84
R2/41		W2/41	29.18	28.92	0.26	0.89
R3/41		W3/41	35.43	35.14	0.29	0.82
R3/41		W4/41	36.04	35.81	0.23	0.64
R3/41		W5/41	18.36	18.33	0.03	0.16
R1/42		W1/42	38.62	38.61	0.01	0.03
R2/42		W2/42	37.82	37.80	0.02	0.05
R2/42		W3/42	39.02	39.02	0.00	0.00
R1/51		W1/51	2.48	2.43	0.05	2.02
R1/52		W1/52	6.01	6.01	0.00	0.00
49 LANC	ASTER GROVE					
R1/20		W1/20	32.64	31.98	0.66	2.02
R1/20		W2/20	35.01	34.00	1.01	2.88
R1/20		W3/20	17.01	16.39	0.62	3.64
R2/20		W4/20	15.35	14.43	0.92	5.99
R3/20		W5/20	28.42	27.61	0.81	2.85
R1/21		W1/21	35.45	35.15	0.30	0.85
R1/21		W2/21	37.69	37.23	0.46	1.22
R1/21		W3/21	30.71	30.43	0.28	0.91
R2/21		W4/21	36.25	35.94	0.31	0.86
R3/21		W5/21	33.84	33.61	0.23	0.68
R1/22		W2/22	37.37	37.35	0.02	0.05
R2/22		W1/22	38.96	38.95	0.01	0.03
24 LANC	ASTER GROVE					
R1/10	LIVINGROOM	W1/10	32.55	31.44	1.11	3.41
R2/10 R2/10	DINING DINING	W2/10 W3/10	29.13 24.88	25.47 13.68	3.66 11.20	12.56 45.02

LONDON	l		PROPOSED SCHEME DATED 09/12/14										
			EXISTING	PROPOS	ED LOSS	%LOSS							
Room	Room Use	Window	VSC	VSC	VSC	VSC							
R3/10	CONVERTED	G/W4/10	26.33	16.54	9.79	37.18							
R1/11	BEDROOM	W1/11	34.68	34.07	0.61	1.76							
30 ETON	I AVENUE												
R1/70 R1/70 R1/70		W5/70 W6/70 W7/70	30.73 35.66 25.41	30.13 34.92 25.00	0.60 0.74 0.41	1.95 2.08 1.61							
R2/70		W10/70	30.88	30.19	0.69	2.23							
R3/70 R3/70		W3/70 W4/70	35.28 36.08	34.38 35.29	0.90 0.79	2.55 2.19							
R4/70		W2/70	32.61	31.84	0.77	2.36							
R5/70		W1/70	36.56	35.84	0.72	1.97							
R6/70 R6/70		W8/70 W9/70	32.58 35.61	31.89 34.93	0.69 0.68	2.12 1.91							
R1/71 R1/71 R1/71		W1/71 W2/71 W3/71	33.89 37.72 37.05	33.78 37.59 36.96	0.11 0.13 0.09	0.32 0.34 0.24							
R1/72		W1/72	38.93	38.93	0.00	0.00							
R2/72		W2/72	37.43	37.43	0.00	0.00							
R1/81 R1/81		W1/81 W2/81	35.83 34.58	35.50 34.28	0.33 0.30	0.92 0.87							
R1/82		W1/82	38.64	38.62	0.02	0.05							
R1/91		W1/91	34.44	34.34	0.10	0.29							
R1/101		W1/101	37.99	37.85	0.14	0.37							
R1/102 R1/102		W1/102 W2/102	37.98 38.02	37.98 38.00	0.00 0.02	0.00 0.05							

DAYLIGHT ANALYSIS

22 LANCASTER GROVE

DAYLIGHT DISTRIBUTION ANALYSIS PROPOSED SCHEME DATED 09/12/14

Room/		Whole	Prev	New	Loss	%Loss
Floor	Room Use	Room	sq ft	sq ft	sq ft	
18 - 20 LANCA	STER GROVE					
R1/60	LIVINGROOM	517.2	512.8	509.0	3.8	0.7
R2/60	DINING	395.6	385.6	385.4	0.2	0.1
R3/60	KITCHEN	358.7	351.6	351.6	0.0	0.0
R1/61	DRESSING	517.2	506.5	506.4	0.0	0.0
R2/61	BEDROOM	395.6	391.4	391.4	0.0	0.0
R3/61	BEDROOM	211.9	208.0	208.0	0.0	0.0
R1/62		167.8	136.8	136.8	0.0	0.0
R2/62	BEDROOM	167.9	167.9	167.9	0.0	0.0
47 LANCASTE	R GROVE					
R1/40		164 4	164.0	164.0	0.0	0.0
R2/40		95 3	88 9	88 9	0.0	0.0
R3/40		249 9	247 6	247.6	0.0	0.0
R1/41		133.1	128.8	128.8	0.0	0.0
R2/41		87 1	84.2	84.2	0.0	0.0
R3/41		249 9	247.9	247.9	0.0	0.0
R1/42		156.7	155.1	155.1	0.0	0.0
R2/42		221.2	215.3	215.3	0.0	0.0
R1/51		92.1	16.4	16.4	0.0	0.0
R1/52		92.1	40.1	40.1	0.0	0.0
49 LANCASTE	R GROVE					
R1/20		324.3	322.9	322.9	0.0	0.0
R2/20		81.2	81.1	81.1	0.0	0.0
R3/20		147.2	141.1	141.1	0.0	0.0
R1/21		324.3	323.3	323.3	0.0	0.0
R2/21		64.7	63.8	63.8	0.0	0.0
R3/21		147.2	142.0	142.0	0.0	0.0
R1/22		161.5	151.2	151.2	0.0	0.0
R2/22		224.1	200.3	200.3	0.0	0.0
24 LANCASTE	R GROVE					
R1/10	LIVINGROOM	247.3	246.6	246.4	0.1	0.0
R2/10	DINING	86.2	84.7	82.4	2.3	2.7
R3/10	CONVERTED	(133.2	131.1	122.8	8.4	6.4
R1/11	BEDROOM	228.8	226.3	226.0	0.3	0.1
30 ETON AVE	NUE					
R1/70		255.0	254.8	254.8	0.0	0.0
R2/70		132.7	130.9	130.9	0.0	0.0
R3/70		120.4	118.8	118.8	0.0	0.0
R4/70		133.4	129.9	129.9	0.0	0.0
R5/70		138.9	129.0	129.0	0.0	0.0
R6/70		126.2	126.2	126.2	0.0	0.0

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DAYLIGHT DISTRIBUTION ANALYSIS PROPOSED SCHEME DATED 09/12/14

Room/		Whole	Prev	New	Loss	%Loss	
Floor	Room Use	Room	sq ft	sq ft	sq ft		
R1/71		255.0	255.0	255.0	0.0	0.0	
R1/72		209.8	207.4	207.4	0.0	0.0	
R2/72		196.0	193.1	193.1	0.0	0.0	
R1/81		184.4	182.2	182.2	0.0	0.0	
R1/82		166.4	164.2	164.2	0.0	0.0	
R1/91		232.1	229.4	229.4	0.0	0.0	
R1/101		169.3	167.5	167.5	0.0	0.0	
R1/102		169.3	72.8	72.8	0.0	0.0	

			Window				Room							
			Exi	isting	Pro	posed			Exi	isting	Pro	oosed		
		Room	Winter	Annual										
Room	Window	Use	APSH	APSH	APSH	APSH	%Loss	%Loss	APSH	APSH	APSH	APSH	%Loss	%Loss
18 - 20 L	ANCASTER	GROVE												
R1/60	W1/60	LIVINGROOM	7	31	6	22	14.3	29.0						
R1/60	W2/60	LIVINGROOM	27	79	27	71	0.0	10.1						
R1/60	W3/60	LIVINGROOM	27	79	27	72	0.0	8.9						
R1/60	W4/60	LIVINGROOM	28	82	27	76	3.6	7.3						
R1/60	W5/60	LIVINGROOM	20	48	20	48	0.0	0.0						
R1/60	W6/60	LIVINGROOM	10	12	10	12	0.0	0.0						
R1/60	W7/60	LIVINGROOM	8	8	8	8	0.0	0.0	28	83	27	77	3.6	7.2
R2/60	W8/60	DINING	19	20	19	20	0.0	0.0						
R2/60	W9/60	DINING	20	21	18	19	10.0	9.5						
R2/60	W10/60	DINING	18	20	18	19	0.0	5.0	21	23	21	22	0.0	4.3
R3/60	W11/60	KITCHEN	5	6	5	5	0.0	16.7						
R3/60	W12/60	KITCHEN	6	12	6	10	0.0	16.7						
R3/60	W13/60	KITCHEN	9	38	9	37	0.0	2.6						
R3/60	W14/60	KITCHEN	27	85	27	82	0.0	3.5						
R3/60	W15/60	KITCHEN	24	81	24	78	0.0	3.7						
R3/60	W16/60	KITCHEN	24	81	24	79	0.0	2.5						
R3/60	W17/60	KITCHEN	14	44	14	44	0.0	0.0	27	89	27	87	0.0	2.2
R1/61	W1/61	DRESSING	9	39	7	30	22.2	23.1						
R1/61	W2/61	DRESSING	29	86	27	78	6.9	9.3						
R1/61	W3/61	DRESSING	29	86	27	79	6.9	8.1						
R1/61	W4/61	DRESSING	29	87	27	80	6.9	8.0						
R1/61	W5/61	DRESSING	20	51	20	51	0.0	0.0						
R1/61	W6/61	DRESSING	19	49	19	49	0.0	0.0						
R1/61	W7/61	DRESSING	18	46	18	46	0.0	0.0	29	91	27	84	6.9	7.7
R2/61	W8/61	BEDROOM	25	62	25	62	0.0	0.0						
R2/61	W9/61	BEDROOM	26	72	25	70	3.8	2.8						
R2/61	W10/61	BEDROOM	19	57	19	57	0.0	0.0	27	80	27	80	0.0	0.0
R3/61	W11/61	BEDROOM	9	37	9	37	0.0	0.0						

			Window				Room							
			Exi	sting	Pro	posed			Exi	sting	Prop	oosed		
Room	Window	Room Use	Winter APSH	Annual APSH	Winter APSH	Annual APSH	Winter %Loss	Annual %Loss	Winter APSH	Annual APSH	Winter APSH	Annual APSH	Winter %Loss	Annual %Loss
R3/61	W12/61	BEDROOM	9	41	9	40	0.0	2.4						
R3/61	W13/61	BEDROOM	29	88	29	87	0.0	1.1						
R3/61	W14/61	BEDROOM	29	88	29	87	0.0	1.1						
R3/61	W15/61	BEDROOM	29	88	29	88	0.0	0.0						
R3/61	W16/61	BEDROOM	20	54	20	54	0.0	0.0	29	95	29	95	0.0	0.0
R1/62	W1/62		30	89	28	85	6.7	4.5	30	89	28	85	6.7	4.5
R2/62	W2/62	BEDROOM	30	89	30	89	0.0	0.0						
R2/62	W3/62	BEDROOM	10	42	10	42	0.0	0.0						
R2/62	W4/62	BEDROOM	20	57	20	57	0.0	0.0	30	99	30	99	0.0	0.0
47 LANCASTER GROVE														
R1/40	W1/40		24	66	24	66	0.0	0.0						
R1/40	W2/40		26	73	26	73	0.0	0.0						
R1/40	W3/40		25	70	25	70	0.0	0.0	28	84	28	84	0.0	0.0
R2/40	W4/40		16	37	16	37	0.0	0.0	16	37	16	37	0.0	0.0
R3/40	W5/40		26	69	26	69	0.0	0.0						
R3/40	W6/40		28	75	28	75	0.0	0.0						
R3/40	W7/40		17	38	17	38	0.0	0.0	28	77	28	77	0.0	0.0
R1/41	W1/41		30	78	30	78	0.0	0.0	30	78	30	78	0.0	0.0
R2/41	W2/41		27	63	27	63	0.0	0.0	27	63	27	63	0.0	0.0
R3/41	W3/41		28	76	28	76	0.0	0.0						
R3/41	W4/41		30	77	30	77	0.0	0.0						
R3/41	W5/41		18	41	18	41	0.0	0.0	30	84	30	84	0.0	0.0
R1/42	W1/42		30	80	30	80	0.0	0.0	30	80	30	80	0.0	0.0
R2/42	W2/42		30	80	30	80	0.0	0.0						

			Window				Room							
			Exi	sting	Pro	posed			Exi	sting	Pro	posed		
Room	Window	Room Use	Winter APSH	Annual APSH	Winter APSH	Annual APSH	Winter %Loss	Annual %Loss	Winter APSH	Annual APSH	Winter APSH	Annual APSH	Winter %Loss	Annual %Loss
							/02000	/02000					/02000	/02000
R2/42	W3/42		30	84	30	84	0.0	0.0	30	84	30	84	0.0	0.0
R1/51	W1/51		6	13	6	13	0.0	0.0	6	13	6	13	0.0	0.0
R1/52	W1/52		8	19	8	19	0.0	0.0	8	19	8	19	0.0	0.0
49 LANCASTER GROVE														
R1/20	W1/20		26	75	24	73	7.7	2.7						
R1/20	W2/20		28	78	27	77	3.6	1.3						
R1/20	W3/20		17	40	16	39	5.9	2.5	28	86	27	85	3.6	1.2
R2/20	W4/20		19	28	19	28	0.0	0.0	19	28	19	28	0.0	0.0
R3/20	W5/20		21	55	21	55	0.0	0.0	21	55	21	55	0.0	0.0
R1/21	W1/21		28	77	28	77	0.0	0.0						
R1/21	W2/21		29	80	29	80	0.0	0.0						
R1/21	W3/21		20	52	20	52	0.0	0.0	30	89	30	89	0.0	0.0
R2/21	W4/21		27	70	27	70	0.0	0.0	27	70	27	70	0.0	0.0
R3/21	W5/21		25	67	25	67	0.0	0.0	25	67	25	67	0.0	0.0
R1/22	W2/22		30	78	30	78	0.0	0.0	30	78	30	78	0.0	0.0
R2/22	W1/22		30	84	30	84	0.0	0.0	30	84	30	84	0.0	0.0
24 LANC	ASTER GR	OVE												
R1/10	W1/10	LIVINGROOM	26	75	26	69	0.0	8.0	26	75	26	69	0.0	8.0
R2/10 R2/10	W2/10 W3/10	DINING DINING	24 12	60 35	22 6	51 18	8.3 50.0	15.0 48.6	24	60	22	51	8.3	15.0
			I						1					

				Window						Ro				
			Exi	Existing		Proposed			Exi	sting	Proj	oosed		
		Room	Winter	Annual	Winter	Annual	Winter	Annual	Winter	Annual	Winter	Annual	Winter	Annual
Room	Window	Use	APSH	APSH	APSH	APSH	%Loss	%Loss	APSH	APSH	APSH	APSH	%Loss	%Loss
R3/10	W4/10	CONVERTED G	18	52	10	31	44.4	40.4	18	52	10	31	44.4	40.4
R1/11	W1/11	BEDROOM	27	76	27	75	0.0	1.3	27	76	27	75	0.0	1.3

Appendix B – Drawings





Sources: Site Photography	Key: All Heights in mm AOD	Project: 22 Lancaster Gro	ove		Ti
CAD Files: 091214 Kat Somers 22 Lancaster Grove Proposed P1rev C.dwg 22 Lancaster Grove Sections and Elevations P1-REVD.dwg Laser Scanner Point Cloud Data					
		Drawn By: CGC/JCA	Scale: NTS	Date: DEC 14	D







<image/>	<image/>	Tojet: 22 Lancaster Gr			
Sources. Sile Filologiaphy		1 10ject. 22 Lanuaster Gr			11
CAD Files: 091214 Kat Somers 22 Lancaster Grove Proposed P1rev C.dwg 22 Lancaster Grove Sections and Elevations P1-REVD.dwg Laser Scanner Point Cloud Data					
		Drawn By: CGC/JCA	Scale: NTS	Date: DEC 14	D









<image/>	<image/>	Project: 22 Lancaster Gru			Title
CAD Files: 091214 Kat Somers					
22 Lancaster Grove Proposed P1rev C.dwg					
22 Lancaster Grove Sections and Elevations P1-REVD.dwg					
Laser Scanner Funit Giudu Dala					
		Drawn By: CGC/JCA	Scale: NTS	Date: DEC 14	Dwg





Fource: Site Photographi	<image/>	Project: 22 Lancaster Gr			Tit
CAD Files: 091214 Kat Somers	Window not Meeting VSC Pass Value				
KAS Architecture Received 20/01/15					
22 Lancaster Grove Proposed P4 new survey.dwg P4-10-002-100-103 Proposed PDF's					
Laser Scanner Point Cloud Data					
		Drawn By: CGC	Scale: NTS	Date: FEB 15	Dv



Appendix C – Data Comparison



Data Comparison

24 Lancaster Grove

Ref:	Existing VSC	Proposed VSC		Existing VSC	Proposed VSC
Syntegra S14	25.75	22.50	Point 2 W4/10	26.33	16.54
Syntegra S5	23.70	30.25 (Typo 20.25?)	Point 2 W3/10	24.88	13.68
Syntegra S3	25.90	25.65	Point 2 W2/10	29.13	25.47
(See page 13, 22 % 23 Syntegra Consulting April 2014)		(See Point 2 Appendix X this document)			

