

Daylight and Sunlight

9-13 Grape Street

Prepared by: Daniel Maddox

Reference: 7356

Date: 05/04/2016

Contents Page

Client:	VBL Real Estate Limited
Issue Date:	5 th April 2016
Document References:	7356-dm-16-0405-(DaySun) Principles of Daylight and Sunlight Existing Drawings: 7356/01-03 (Rel01) Proposed Drawings: 7356/27-29 (Rel13) Transient Drawings: Rel10 Window Maps: 7356/WL-02/03 (Rel06) Daylight and Sunlight Results (Rel13)
Author for and Behalf of GIA:	Daniel Maddox
Authorisation for GIA:	

This report is intended solely for VBL Real Estate Limited and may contain confidential information. The Liability of this Report extends to VBL Real Estate Limited and their duly appointed advisors. No part or whole of its contents may be disclosed to or relied upon by any Third Parties without the consent of this Practice. This report is accurate as at the date of publication but does not take into account anything that has happened since the date of this report.

	Section	Page
1.0	Executive Summary	1
2.0	Instructions	2
3.0	Site History	3
4.0	Introduction	4
5.0	Sources of Information	5
6.0	Assumptions	6
7.0	The Site	7
8.0	The Proposal	8
9.0	Surrounding Properties	9-12
10.0	Overshadowing	13
11.0	Conclusions	14

Appended to this report:

Appendix 01 - Principles of Daylight and Sunlight

Appendix 02 - Existing, Proposed, Window Maps and Transient Overshadowing Drawings

Appendix 03 - Daylight and Sunlight Results

Appendix 04 - Floor Plans for King Edward Mansions

1.0 Executive Summary

We have undertaken a daylight and sunlight assessment for the proposed redevelopment of 9-13 Grape

Street London.

This report is an update to GIA report 7356-rol-jw-15-0129-aah(Daylight and Sunlight Report) - FULL

submitted in January 2015. We have reviewed the revised plans and can confirm that the external

envelope of the development does not differ from the scheme that received planning consent from

Camden Council in 2015 under application number 2015/0695/P.

Our research has located two residential buildings in the vicinity of the site;

> 6-18 Grape Street

> 14 West Central Street

Our analysis shows that the redevelopment of the proposed building will have no adverse effect on the

Daylight or Sunlight amenity of either residential building.

We have also undertaken an overshadowing assessment which demonstrates that the proposed

development will not cause any noticeable additional overshadowing to the surrounding area.

In previous planning submissions an internal daylight and sunlight assessment was undertaken to assess $% \left(1\right) =\left(1\right) \left(1\right) +\left(1\right) \left(1\right) \left(1\right) +\left(1\right) \left(1$

the quality of the amenity within the residential units provided by the development, however, as the

proposed scheme is now entirely commercial in nature this assessment is no longer required.

9-13 Grape Street (7356) Daylight, Sunlight and Overshadowing Report Survey Based Analysis 05/04/2016

2.0 Instructions

GIA have been instructed to provide you with a survey based report in respect of Daylight, Sunlight and Overshadowing for 9-13 Grape Street. This report is based on the scheme information received from Robin Partington & Partners on 23rd July 2014, there have been subsequent amendments to the internal layouts and use, however, the bulk and mass has not changed since the July 2014 assessment. This report covers the assessment of impact to existing residential properties, in accordance with the BRE Guidelines 2011.

We have reviewed the most recent drawings provided by Robin Partington & Partners on 1st of April 2016 and confirmed that there have been no amendments to the external massing that would affect the analysis contained within this report.

3.0 Site History

VLB Real Estate Limited have carefully noted the comments on Daylight and Sunlight from the previous

applications and the comments from meetings with the local residents and Planning Officers. In designing

the current proposal for 9 - 13 Grape Street, the aim was to have full regard to these comments and to

ensure that there was only a minimal effect on the daylight and sunlight levels to the surrounding

properties.

A historic planning application for alterations and erections of a two storey roof extension to be used for

office and residential purposes was made on 28th June 2001 but refused in March 2002 (PX0104247).

This application was also refused at appeal and one of the reasons for the dismissal was for Daylight and

Sunlight impacts to the adjoining residential building.

Looking at the Daylight and Sunlight report that was submitted with the 2001 application, it is clear that

the assessment undertaken was inaccurate and incomplete as it only considered the ground floor level

windows, which actually serve commercial spaces within 6-18 Grape Street. The relevant windows which

should have been assessed are the ones which serve habitable residential spaces which only starts at

first floor level. As there was an absence of any technical information in relation to the residential floors

above ground floor, the inspector relied on his own observations and judgement, not BRE based technical $\,$

assessments.

Following this decision, a revised planning application (2013/7894/P) was submitted in December 2013.

This application was accompanied by a full daylight and sunlight assessment which demonstrated that

the proposals were fully BRE compliant. In respect of daylight and sunlight, the planning officer noted

within the committee report that "The proposal therefore complies with guidance forming part of CPG6 $\,$

(Amenity) and DP26 (Managing the impact of development on occupiers and neighbours), thereby

overcoming the concerns raised within the appeal decision."

Following the refusal of this application, some minor adjustments were made to the scheme proposals

reducing the overall massing of the proposed scheme. This daylight and sunlight report provides an

assessment of the effect that this scheme, with the further modifications depicted on the current

drawings, will have on the daylight and sunlight of surrounding properties. The results of this assessment

can be found in Appendix 03.

9-13 Grape Street (7356) Daylight, Sunlight and Overshadowing Report Survey Based Analysis 05/04/2016 3

VBL Real Estate Limited

4.0 Introduction

Daylight and Sunlight

The technical analysis that forms the basis of this report has been predicated against the methodologies set out within the Building Research Establishment Guidelines entitled 'Site Layout Planning for Daylight and Sunlight - A Guide to Good Practice (2011). The guidelines in question are precisely that; guidelines which provide a recommendation to inform site layout and design. They are not mandatory nor do they form planning policy and their interpretation may be treated flexibility depending on the specifics of each site.

The BRE Guidelines provide three methodologies for daylight assessment, namely;

- The Vertical Sky Component (VSC)
- The No Sky Line (NSL); and
- The Average Daylight Factor (ADF)

There is one methodology for sunlight assessment, denoted as Annual Probable Sunlight Hours (APSH).

Appendix 01 of this report elaborates on the mechanics of each of the above assessment criteria, explains the appropriateness of their use and the parameters of each specific recommendation.

5.0 Sources of Information

In compiling this report, we have used the following information:

GIA

LAYOUTS, King Edward Mansions Building Layout, King Edward Mansions Layout 1D, King Edward mansions Layout 3A, SKonica GIA13070514320 Site Photography

MSA - IRO2

3744 - Ground - 280613, 3744 - SS-E-280613, 3744 - Third - 280613,

3744 -1s-Floor-280613

3744 - 2nd-Floor-280613

3744 - basement-280613

3744-E-280613, 3744-R-280613,

3744-ROL-E-280613

3744-Sec-280613, 3744-T-280613

Robin Partington & Partners

IR19-736 220714 140717_Updated Model

6.0 Assumptions

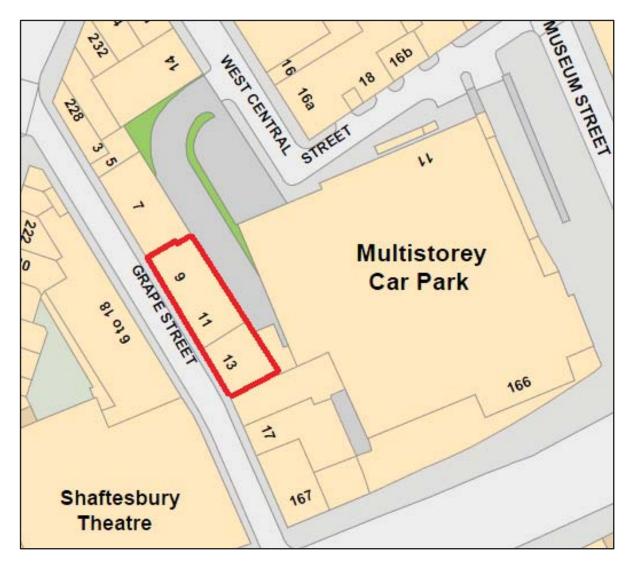
- a) Although we have had detailed measured survey for all of the key properties, where survey information has been lacking we have used site photographs and OS information to estimate as closely as possible the position of buildings and windows within their elevations.
- b) We have obtained access to 3A King Edwards Mansions, one of the flats in 6-18 Grape Street and have obtained detailed plans for all of the flats in the building (as shown in Appendix 04). As such, we have details showing the room sizes and uses and have incorporated these where possible. In the absence of these, we have made reasonable assumptions to the layouts and room uses from external observation.
- c) Floor levels have been taken from the plans for the adjoining properties at 6-18 Grape Street. This dictates the level of the working plane which is the point at which No Sky Line assessments are carried out.
- d) We have made best estimates as to the uses, which are carried out legally within the adjoining properties in terms of, commercial and residential. We have established these from the VOA website and external observation and the uses are identified in the report below.

7.0 The Site

The site is situated at 9-13 Grape Street. The building currently on site consists of Ground plus 3 stories.

The existing buildings on and around the site, are more particularly shown upon our drawings 7356-01, 02 and 03 contained within Appendix 02 of this report.

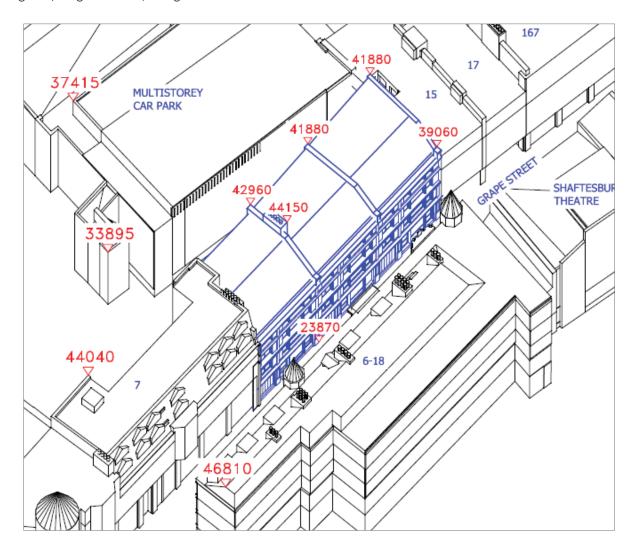
The extent of the site boundary for the development is shown indicatively on the site plan below.



Plan A: Indicative Site Boundary

8.0 The Proposal

The proposal assessed in this report is shown on the architects proposal plans listed above and depicted upon the GIA drawings 7356-27, 28 and 29 contained in Appendix 02 of this report and also includes the erection of a roof extension and change of use from office and photographic studios, gymnasium, and gallery (together comprising a Sui Generis Use), to offices (Class B1a) and associated works.



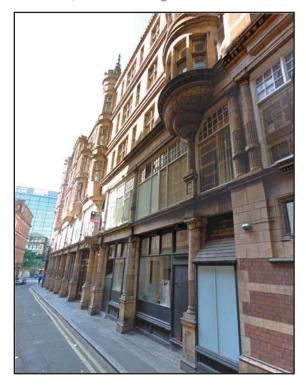
9.0 Surrounding Properties

We have only analysed the existing residential accommodation around the site. Our analysis of the VOA data has identified that there are two buildings around the site that contain residential accommodation. These are:

Address	Use
6-18 Grape Street, King Edwards Mansions	Residential above ground floor
14 West Central Street	Residential

The results of our analysis for the above properties are explained in more detail below. A set of our tabulated results can be found in Appendix 03.

6-18 Grape Street, King Edwards Mansions



This building is located to the West of the site, on the opposite side of Grape Street. The nature of the use of this building is residential above ground floor commercial units.

We have obtained plans to understand the internal layouts and room uses for this property which we have incorporated into our analysis. Furthermore, previous meetings have been held with residents in this building as part of the 2013 planning application to discuss daylight and sunlight matters and to gain a further understanding of their concerns. The plans can be found in Appendix 04.

It should be noted that most of these residential units are dual aspect and as such have habitable accommodation that looks away from the site as well as towards it.

Daylight

All of the relevant windows assessed achieve BRE compliance in respect of the VSC form of daylight assessment as all of the reductions which occur are well within the recommended 20% margin. There is a window map drawing in Appendix 02 which shows all of the windows we have tested and their relevant window references. These references can then be linked to the tabulated VSC results within Appendix 03, so that the actual VSC values, before and after, and the percentage change can be easily obtained for any window.

The No Sky Line (NSL) analysis again shows full BRE compliance with generally very small reductions and well under the 20% guidance level.

As there is VSC compliance and NSL compliance with the BRE guidelines, it can be concluded that there

will be no noticeable impact in daylight to any of the habitable residential rooms in this block of

apartments.

In addition, and for the sake of offering the fullest level of information possible, we have undertaken an

ADF analysis for the apartments. The ADF results show that there will be no noticeable change in the

existing ADF values. Where they do change they are very minor between 0.01% and 0.04%. This is not

perceptible to the human eye.

As such, we would advise that the daylight levels to this property will not be reduced by any material or

noticeable extent.

Sunlight

The analysis shows that all relevant windows (and there are not many as the elevation facing the site

principally faces within 90 degrees of due north) assessed within the property will be fully BRE compliant.

No window will experience any noticeable reduction in winter or total sunlight.

9-13 Grape Street (7356) Daylight, Sunlight and Overshadowing Report Survey Based Analysis 05/04/2016

14 West Central Street



This residential building is located to the North West of the development site. As we have not been able to source any current floorplans for this building we have made reasonable assumptions for the internal layouts.

Daylight

All of the relevant windows in this property meet the BRE Guidelines in respect of the VSC and NSL form of daylight assessment as all of the reductions which occur are within the recommended 20% margin.

Sunlight

The analysis indicates that there will be no impact on the existing sunlight levels. Full BRE compliance is demonstrated.

10.0 Overshadowing

The BRE Guidelines recommend that it may be appropriate to carry out a Transitory Overshadowing assessment for developments. However, this is most useful for assessing large scale developments and outline applications and where new development may cast shadows onto open amenity areas. The assessment of sunlight loss to buildings is undertaken by way of the BRE APSH test which is set out in detail in this report. The 9-13 Grape Street proposed scheme is not considered a large scale development and there is no private or public amenity areas that can be overshadowed by it. As such, this type of assessment is not considered to be relevant. However, we have been asked to undertake the overshadowing analysis and as such, our findings are set out below.

A Transitory Overshadowing assessment was submitted as part of the previous planning application submitted in 2013 (2013/7894/P) and is provided in Appendix 02. The assessment was undertaken in comparison between the existing building and the proposed scheme.

The previously submitted overshadowing assessment confirmed that any overshadowing to the surrounding properties from the proposal would move swiftly and would be temporary in duration. Furthermore, the extent of the shadow cast by the previous proposal was very similar to that of the existing building on site, regardless of what time of year the overshadowing is considered. It also only fell onto existing buildings or road ways or parking areas. No amenity area was impacted.

The current proposals for the site are smaller in scale than the 2013 scheme. Accordingly, the Transitory Overshadowing assessment will only show an improvement from the previously assessed position. Given that the previous assessment demonstrated no impact, it is not considered necessary to undertake an updated Transitory Overshadowing assessment.

11.0 Conclusions

In accordance with our instructions, GIA have prepared a survey-based report in respect of Daylight,

Sunlight and Overshadowing for 9-13 Grape Street prepared by Robin Partington & Partners received

on 1st April 2016.

In accordance with the BRE methodology set out in their handbook: Site Layout Planning for Daylight and

Sunlight (2011) we have considered all of those properties within the immediate vicinity of the site which

are residential in nature. It should be noted that the BRE Guidelines were written with a suburban context

in mind and should be interpreted flexibly as Grape Street is a very narrow street within an urban

environment.

This current daylight, sunlight and overshadowing report has carefully considered the relevant residential

surrounding properties and technical assessments have been undertaken for all the relevant habitable

rooms.

All of the windows within both surrounding properties meet the BRE Guidelines in respect of the VSC and

NSL. There will be no noticeable change in the daylight to the existing residential properties and

compliance with the BRE guidelines is demonstrated.

To provide the fullest positive assessment; we have also tested the ADF position. The results show that

for all of the surrounding properties, the change in ADF value is negligible with changes of 0.01% to 0.04%.

All of the properties surrounding the site will retain sunlight levels that comply with the BRE guidelines.

Given the above, the proposed development will have no material impact to the daylight and sunlight

levels to the surrounding residential accommodation by reference to the BRE guidelines.

In relation to the overshadowing assessment, we consider that the proposal will not cause any noticeable

additional overshadowing to the rest of the surrounding area.

9-13 Grape Street (7356) Daylight, Sunlight and Overshadowing Report Survey Based Analysis

05/04/2016

1

VBL Real Estate Limited

Appendix 01

Principles of Daylight and Sunlight



Background

The quality of amenity and open spaces is often stipulated within planning policy for protection or enhancement and is often a concern for adjoining properties and other interested parties.

Historically the department of environment provided guidance in the issues, and in this country, this role has now been taken on by the Building Research Establishment (BRE), the British Standards Institutions (BSI) and the charted institute of building services engineers (CIBSE). Fortunately they have collaborated in many areas, to provide as much unified advice as possible in the form of industry best practice.

Many local planning authorities consider daylight and sunlight an important factor for determining planning applications. Policies refer to both the protection of daylight and sunlight amenity within existing properties as well as the creation of proposed dwellings with high levels of daylight and sunlight amenities.

In terms of considering what is material local authorities typically refer to the BRE guidelines and apply their criteria set out within. The guidelines were originally produced out in 1991, but superseded by the BRE guidelines (2011) site layout planning for daylight and sunlight.

Where developers are seeking to maximise their development value, it is often in the area of daylight and sunlight issues that they may seek to push the boundaries. Particularly in London, there is a priority on the creation of more housing thus resulting in the densification of urban areas. Local authorities vary in their attitude of how flexible they can be with the degree of impact on the daylight and sunlight amenity enjoyed by neighbouring owners and it is one factor among many planning aspects considered when determining an application. In city centres where high density is common, the protection of amenity is more challenging and there are many factors that need to be taken into account: each case has to be considered on its own merits.

The BRE Guidelines

The guidelines are typically refereed to for daylight and sunlight amenity issues, however they were not intended to be used as an instrument of planning policy. In the introduction of 'Site Layout Planning for Daylight and Sunlight (2011)', section 1.6 (page 1), states that:-

"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 designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of many factors in site layout design (see Section 5). In special circumstances the developer or Planning Authority may wish to use different target values. 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 height and proportions of existing buildings".

Again, the paragraph 2.2.3 (page 7) of the document states:-

"Note that numerical values given here are purely advisory. Different criteria may be used, based on the requirements for daylighting in an area viewed against other site layout constraints".



The numerical criteria suggested by the BRE are therefore designed to provide industry advice/guidance to plan/design with daylight in mind. Alternative values may be appropriate in certain circumstances such as highly dense urban areas around London, for e.g. The approach to creating alternative criteria is detailed within Appendix F of the BRE.

Measurement and Criteria for Daylight and Sunlight as set out in the BRE Guidelines

The BRE guidelines state that they are;

"intended for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedroom. Windows to bathrooms, toilets, garages need not be analysed."

They are therefore primarily designed to be used for residential properties however, the BRE guidelines continue to state that they may be applied to any existing non-residential buildings where there may be a reasonable expectation of daylight including; schools, hospitals, hostels, small workshop and some offices.

Daylight

In the first instance, if a proposed development falls beneath a 25 degree angle taken from the centre point of the lowest window, then the BRE suggests that no further analysis is required as there will be adequate sky light (i.e. sky visibility). This rule is applied when considering the scope of any assessments.

The BRE guidelines provide two methods for calculating daylight to existing surrounding properties:

- Vertical Sky Component (VSC)
- No Sky Line (NSL) also refer4eed to as daylight distribution

A further method, the Average Daylight Factor (ADF) is provided for calculating daylight within proposed properties. However, it is sometimes applied as a supplementary assessment for exiting surrounding properties.

Each method is described below:

Vertical Sky Component

Methodology

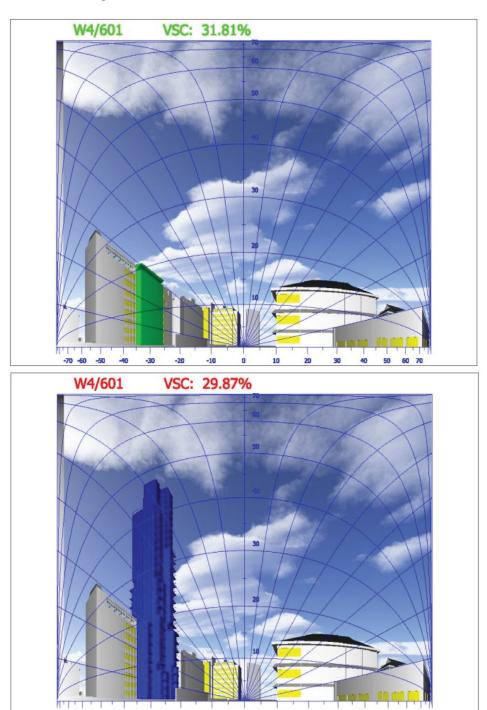
This is defined in the BRE as:-

"Ratio of that part of illuminance, at a point on a given vertical plane that is received directly from a CIE standard overcast sky, to illuminate on a horizontal plane due to an unobstructed hemisphere of this sky."

This statement means, in practice that if one had a totally unobstructed view of the sky, looking in a single direction, then just under 40% of the complete hemisphere would be visible. The measurement of this vertical sky component is undertaken using two indicators, namely a skylight indicator and a transparent direction finder.



Alternatively a further method of measuring the VSC, which is easier to understand both in concept and analysis, is often more precise and can deal with more complex instructions, is that of the Waldram diagram.



The point of reference is the same as for the skylight indicator, at the centre of the outward window face. Effectively a snap shot is taken from that point of the sky in front of the window, before and after the obstruction is put in place together with all the relevant obstructions to it, i.e. the buildings.



An unobstructed sky from that point of reference would give a vertical sky component of 39.6%, corresponding to 50% of the hemisphere, and therefore the purpose of the diagram is to discover how much sky remains once obstructions exist in front of that point.

Criteria

The BRE Handbook provides criteria for:

- (a) New Development
- (b) Existing Buildings
- (c) Adjoining Development Land

(a) New Development

Paragraph 2.1.21 of the BRE states that:

"Obstructions can limit access to light from the sky. This can be checked by measuring or calculating the angle of visible sky 'theta', angle of obstruction or Vertical Sky Component (VSC) at the centre of the lowest window where daylight is required. If VSC is:

- at least 27% ('theta' is greater than 65 degrees, obstruction angle less than 25 degrees) conventional window design will usually give reasonable results.
- between 15% and 27% ('theta' is between 45 degrees and 65 degrees, obstruction angle between 25 degrees and 45 degrees) special measures (larger windows, changes to room layout) are usually needed to provide adequate daylight.
- between 5% and 15% ('theta' is between 25 degrees and 45 degrees, obstruction angle between 45 degrees and 65 degrees) it is very difficult to provide adequate daylight unless very large windows are used.
- less than 5% ('theta' less than 25 degrees, obstruction angle more than 65 degrees) it is often impossible to achieve reasonable daylight, even if the whole window wall is glazed."

(b) Existing Buildings

Para 2.2.21 (page 11) of the BRE states:

"If any part of a new building or extension measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25 degree to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be the case if the vertical sky component measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value".

The VSC provide a quick and simple test which looks to give an early indication of the potential for light at the window face. However considered in isolation, it does not, in any fashion, indicate the quality of actual light within a space. It does not take into account the window size, the room size or room use. It helps by indicating that if there is an appreciable amount of sky visible from a given point there will be a reasonable potential for daylighting.



(c) Adjoining Development Land

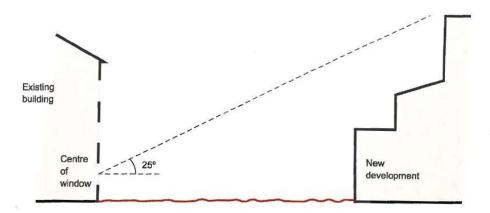
Paragraph 2.3.10 of the BRE guidelines states:

"in broad general terms, a development site next to a proposed new building will retain the potential for good diffuse daylighting provided that on each common boundary:

- (a) no new building, measured in a vertical section perpendicular to the boundary, from a point 1.6m above ground level, subtends an angle of more than 43 degrees to the horizontal:
- (b) or, If (a) is not satisfied, then all points 16.m above the boundary line are within 4m (measured along the boundary) of a point which has a VSC (looking towards the new building(s)) of 17% or more 2m above ground level are within 4m (measured sideways) of a point which has a vertical sky component of 27% or more.

Alternative VSC criteria as per Appendix F of the BRE guidelines

The 27% VSC target criteria is based upon a sub-urban type environment whereby a 25 degree line was taken from the centre point on a ground floor window as shown below:



However, in city centre locations and urban areas where density levels are increasing, these values may not be considered appropriate. The BRE guidelines provide that "different targets may be used based on the special requirements of the proposed development or its location" (paragraph F1).

Appendix F of the BRE suggests several approaches as to how alternative targets may be considered including:

- Consented scheme use of an extant planning permission to establish alternative benchmark criteria for VSC and APSH. It is not appropriate to treat a permitted scheme in the same manner as an existing building and allow a 20% reduction beyond this. if the levels of daylight and sunlight retained are similar to a previously consented scheme then it follows these levels should be considered acceptable again, notwithstanding other planning considerations.
- Mirror massing to ensure a development matches the height and proportions of existing buildings, the VSC and APSH targets could be set to those of a mirror image of the same height and size, an equal distance away from the boundary (paragraph F5).
- Consider surrounding context and existing obstruction angles as well as spacing to height ratios.



In addition, due to the requirements for external amenity space within local planning policies, many residential buildings are served by balconies. Balconies can restrict the view of the sky dome whereby even the modest obstruction may result in a large relative impact on the VSC. The BRE guidelines therefore provide that an assessment can be carried out comparing the levels of VSC with and without the balconies in place for both the existing and proposed scenarios, to establish whether it is the presence of the balcony or the size of the new obstruction that is the main factor in the loss of light (paragraph 2.2.11).

No Sky Line

Methodology

The NSL method is a measure of the distribution of daylight at the working plane within a room. The 'working plane' means a horizontal 'desktop' plane 0.85m in height for residential properties. The NSL divides those areas of the working plane which can receive direct sky light from those which cannot. If a significant area of the working plane lies beyond the NSL (i.e. it receives no direct sky light), then the distribution of daylight in the room will be poor and supplementary electric lighting may be required.

It is similar to the VSC approach in that a reduction of 0.8 times in the area of sky visibility at the working plane may be deemed to be noticeable. It is however, very dependent upon knowing the actual room layouts or having a reasonable understanding of the likely layouts.

It is assessed by plotting the area of a room which can see the sky and which cannot, referred to as the NSL contour or daylight distribution contour. The contours assist in helping to understand the way the daylight is distributed within a room and the comparisons of existing and limitations of proposed circumstances within neighbouring properties. Like the VSC method, it relates to the amount of visible sky but does not consider the room use in its criteria, it is simply a test to assess the change in position of the No Sky Line, between the existing and proposed situation. It does take into account the number and size of windows to a room, but does not give any quantitative or qualitative assessment of the light in the rooms, only where sky can or cannot be seen.

Criteria

BS 8206 Part 2 (para 5.7) that the:

"uniformity of daylight is considered to be unsatisfactory if a significant part of the working plane (normally more than 20%) lies behind the no-sky line".

Therefore, it is implied that an NSL of at least 80% would be considered satisfactory in regards to deep rooms which are lit by windows on one side, the BRE Guidelines state (para, 2.2.10):

In regards to the alteration as a result of a proposed development or obstruction the BRE provide that the daylight may be adversely affected if "the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value.".



Average Daylight Factor

Methodology

The Average Daylight Factor (ADF) is defined within the 2011 BRE Guidelines as:

'a ratio of total daylight flux incident on a reference area to the total area of the reference area, expressed as a percentage of outdoor luminance on a horizontal plane, due to an unobstructed sky of assumed or known luminance distribution'.

Whilst the BRE guidelines provide this measure as a tool to understand daylight within proposed dwellings not existing dwellings, if room layouts are known it can provide a useful supplementary measure of daylight and is often requested by many local authorities.

The ADF method of assessment considers:

- The diffuse visible transmittance of the glazing to the room in question (i.e. how much light gets through the window glass). A transmittance value of 0.8% is assumed for single glazing and 0.65% for double glazed windows;
- The net glazed area of the window in question;
- The total area of the room surfaces (ceiling, walls, floor and windows); and
- The angle of visible sky reaching the window(s) in question

In addition, the ADF method makes allowance for the average reflectance of the internal surfaces of the room and of external obstruction (assumed to be 0.5 unless otherwise stated).

Criteria

The criteria for ADF is taken from the British Standard 8206 part II which gives the following criteria based on the room use:

- Bedroom 1% ADF
- Living room 1.5% ADF
- Kitchen 2% ADF

Where a room has multiple uses such as a living kitchen diner (LKD) or a studio apartment, the highest value is taken so in these cases the required ADF is 2%.

Sunlight

Methodology

The BS 8206 part 2 (section 5.2) states that:

"Provided that the entry of sunlight is properly controlled, it is generally welcome in most buildings in the UK. Dissatisfaction can arise as much from the permanent exclusion of sunlight as from its excess. The provision of sunlight is important in dwellings, particularly during winter months. Sunlight is especially valued in habitable rooms used for long periods during the day."



Sunlight is measured using a sun indicator which contains 100 spots, each representing 1% of Annual Probable Sunlight Hours (APSH). Where no obstruction exists the total APSH would amount to 1486 hours and therefore each spot equates to 14.86 hours of the total annual sunlight hours.

The number of spots is calculated for both the whole year and also during the winter period (21st September to 21st March) prior to an obstruction and after the obstruction is put in place. This provides a percentage of APSH for each of the time periods for each window assessed. The 2011 BRE Guidelines note that:

- "In housing, the main requirement for sunlight is in living rooms, where it is valued at any time of day, but especially in the afternoon."
- "all main living rooms of dwellings...should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun": and
- "If the main living room to a dwelling has a main window facing within 90° of due north, but a secondary window facing within 90° of due south, sunlight to the secondary window should be checked."
- "...a south facing window will, in general, receive most sunlight, while a north facing one will receive it only on a handful of occasions. East and west facing windows will receive sunlight only at certain times of day".

When a room has multiple windows, not all may have a southerly orientation however, these windows may contribute to the levels of sunlight within a given room even if by 1–2% APSH. As well as the assessment on a window basis the BRE guidelines provide that an assessment can be undertaken on a room basis.

Whilst the emphasis of the BRE guidelines is in regards to living rooms, it is not always possible to determine the room uses within all of the properties assessed and therefore typically all windows or all rooms with windows facing within 90 degrees of due south and facing the site are assessed.

Criteria

The BRE provide that for existing buildings a window maybe adversely affected if a point at the centre of a window receives:

- Less than 25% of the APSH during the whole year, of which 5% APSH must be in the winter period; and
- Receives less than 0.8 times its former sunlight hours in either time period; and
- Has a reduction in sunlight for the whole year more than 4% APSH.

In terms of the assessment on a room basis the criteria applied is the same.

For proposed buildings the BRE provide (paragraph 3.1.15) that a dwelling or building which has a particular requirement for sunlight will appear reasonably sunlit provided:

• At least one main window faces within 90 degrees of due south; and



• Centre of one main living room window can receive 25% of APSH including 5% APSH in the winter months.

It continues that where groups of dwellings are planned the layout should aim to maximise the number of living rooms that meet the above recommendations.

Overshadowing

As well as daylight and sunlight amenity to neighbouring dwellings, planning policy often refers to the levels of overshadowing to amenity areas such as parks, public squares, playgrounds etc. The BRE guidelines provide two methods of calculation in regards to overshadowing which are as follows:

Sun Hours on Ground

Methodology

This method of overshadowing assessment uses the sun on ground indicator to determine the areas which receive direct sunlight and those which do not. This method applies to both new and existing areas of amenity space. The BRE Guidelines suggest that the Spring Equinox (21st March) is a suitable date for the assessment as this is the midpoint of the suns position throughout the year. Using specialist software, the path of the sun is tracked to determine where the sun would reach the ground and where it would not.

Criteria

The BRE guidelines recommend that at least half of an amenity space should receive at least 2 hours of direct sunlight on March 21st. In regards to existing spaces where the existing sunlit area is less than half of the area, the area which receives 2 hours of sunlight should not be reduced by more than 20% (it should retain 0.8 times its former value).

Transient Overshadowing

The BRE guidelines suggest that where large buildings are proposed which may affect a number of gardens or open spaces, it is useful to plot a shadow plan to illustrate the location of shadows at different times of the day and year. For the purpose of this assessment, shadow has been mapped at the following times of the year:

- 21st March (spring equinox)
- 21st June (Summer solstice)
- 21st December (winter solstice)

The September equinox is not assessed as this would provide the same results as those for March 21st.

For each of these dates the overshadowing is calculated at hourly intervals throughout the day however some images may not be present given the early sun set during the winter period.

The BRE guidelines do not provide any criteria for transient overshadowing. Therefore the analysis provides a description of where additional shadow is cast as a result of a development with professional judgement to determine the effect comparing the shadow resulting from the proposed development against that of the existing site.



Light pollution and Solar Glare

Light pollution is defined as any light emitting from artificial sources into spaces where it is not wanted for example from offices into neighbouring residential properties where it could cause a nuisance. The ILP Guidance notes provide details of how to measure light pollution and criteria based on the urban density of the respective area to determine the acceptability of the light levels.

Solar glare is particularly important at pedestrian and road junctions as well as along railway lines where the glare can cause a temporary blinding of drivers or pedestrians. Glare can occur from reflective materials such as glazed areas or metal cladding on the facades. This assessment is therefore undertaken from viewpoints surrounding the site at junctions and positioned at the drive's eye level. Focal points are dictated by the location of signals or oncoming traffic.

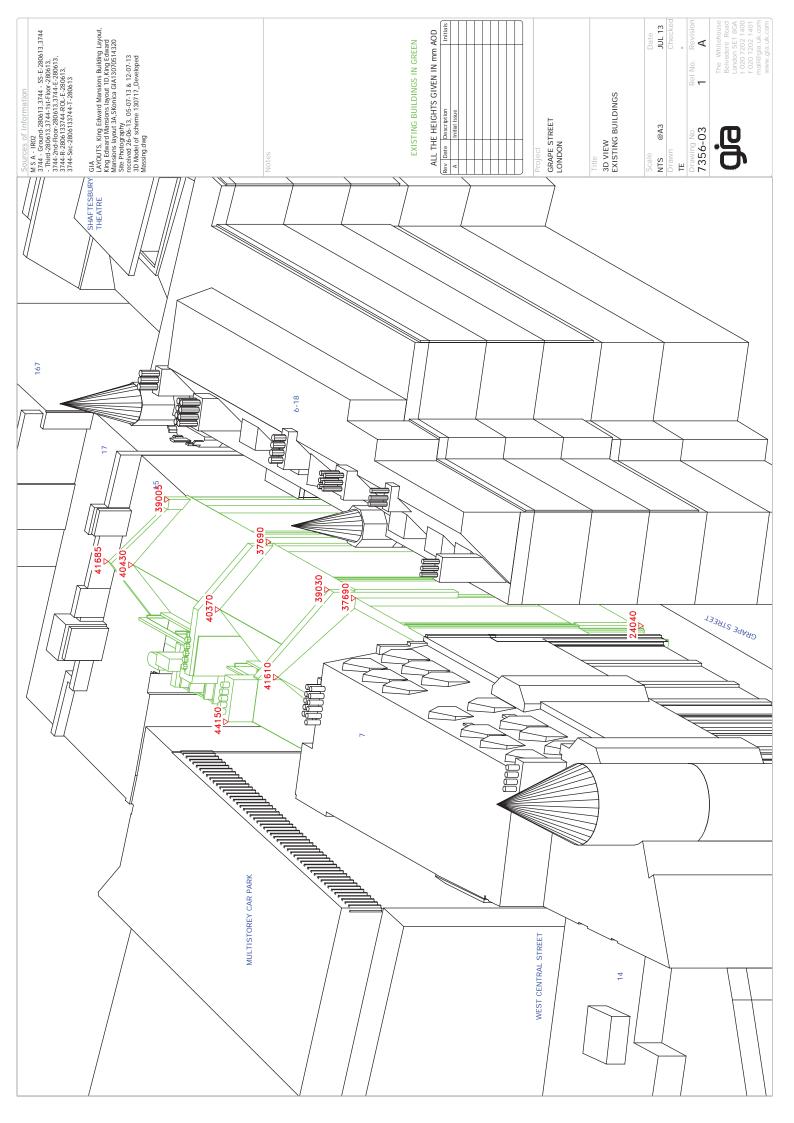
Other Amenity Considerations

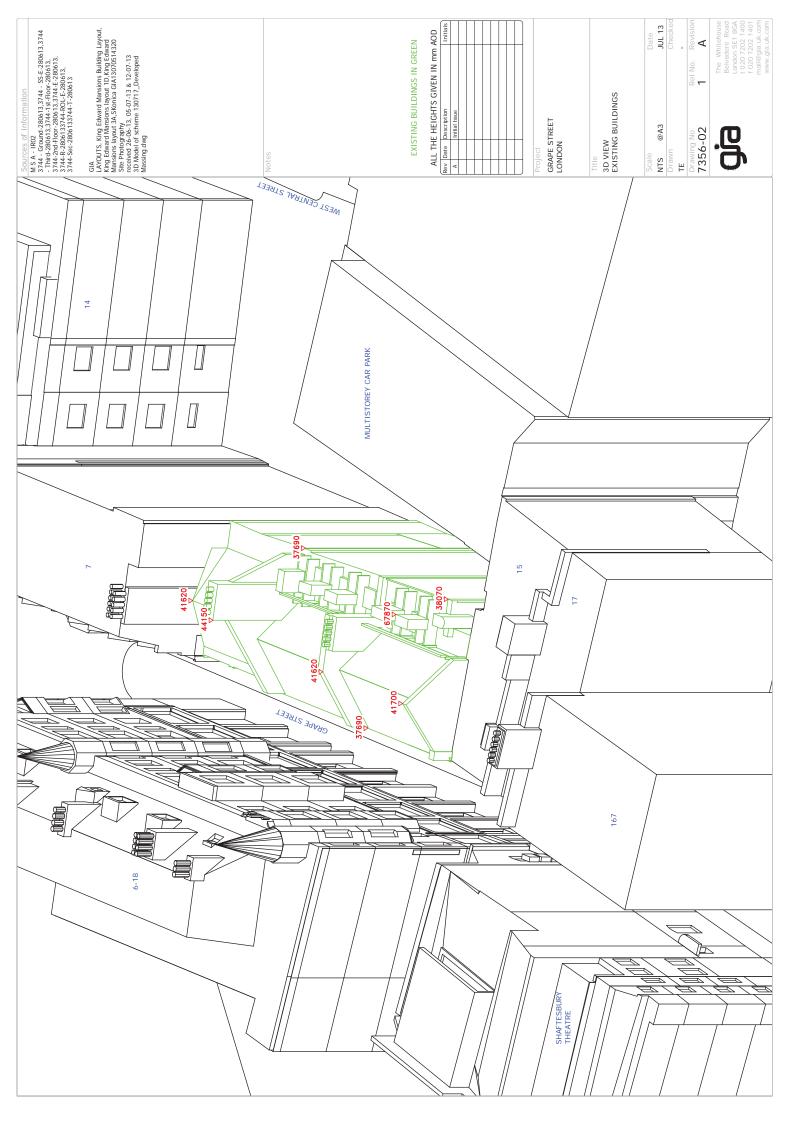
Daylight and sunlight is one factor among many under the heading of residential amenity considerations for any given development design or planning application; others include:

- outlook
- sense of enclosure
- privacy
- access to outdoor space e.g. balconies or communal garden/courtyard

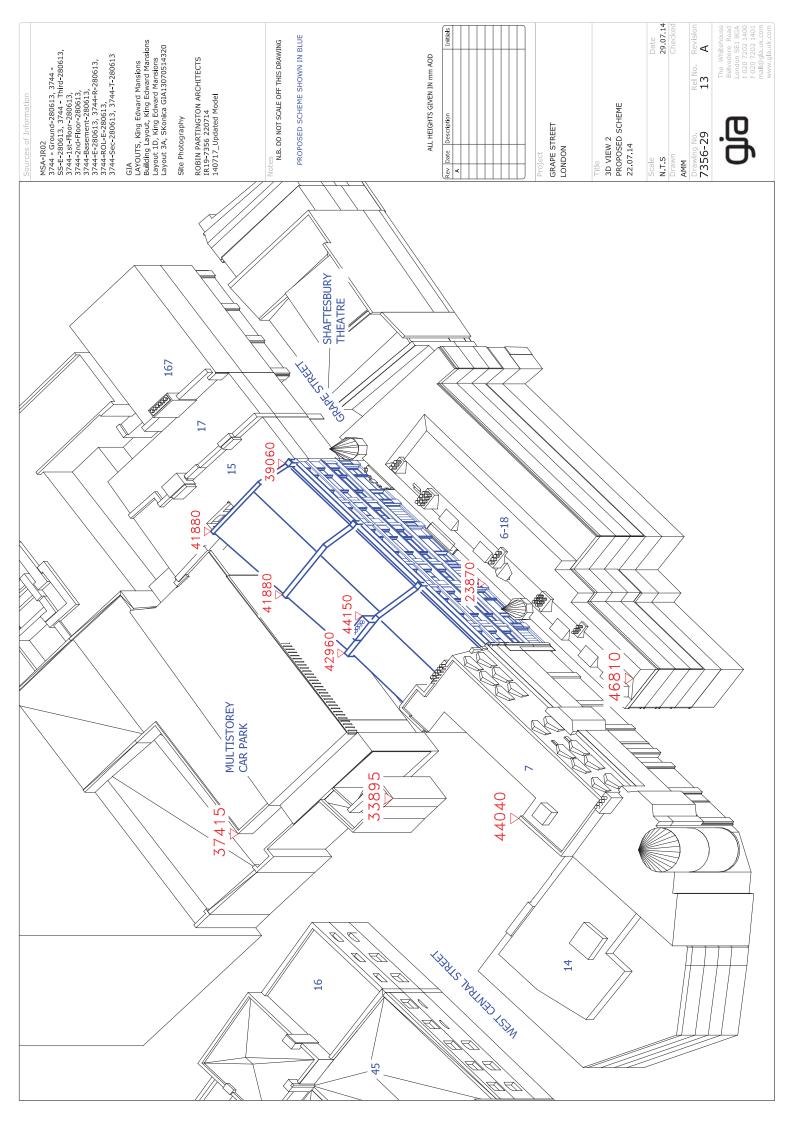
Appendix 02

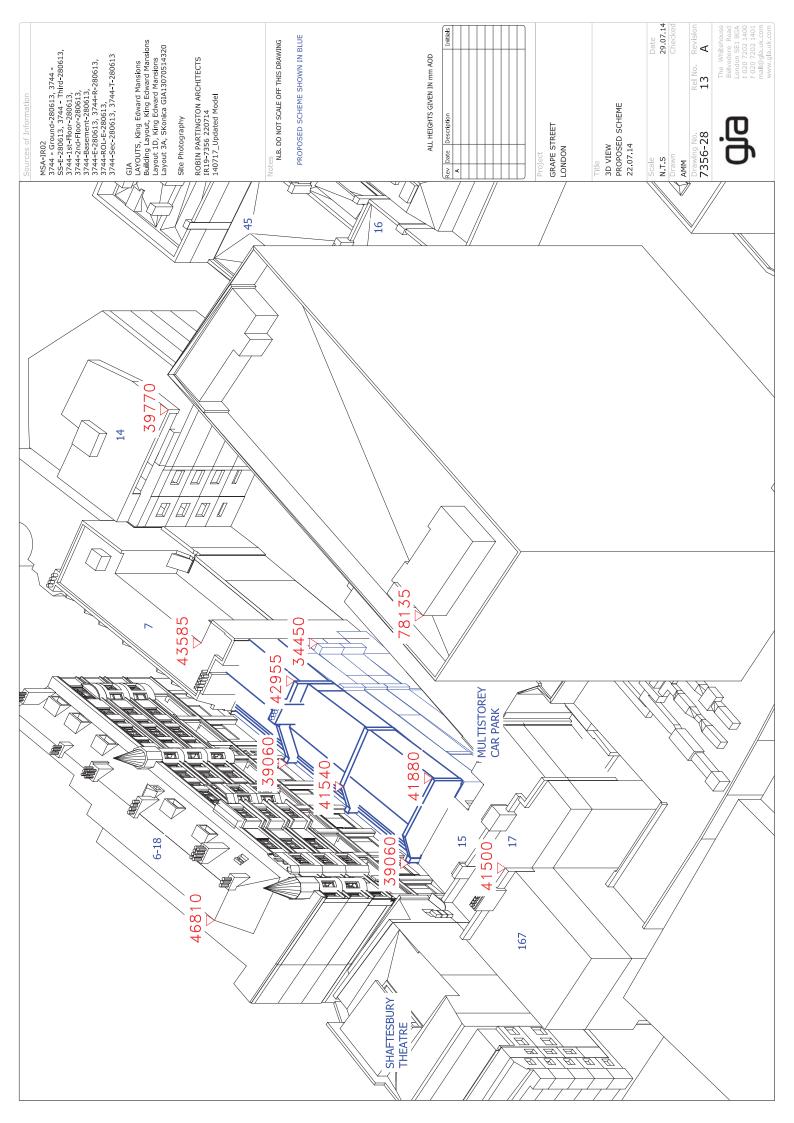
Existing, Proposed, Window Maps and Transient Overshadowing Drawings

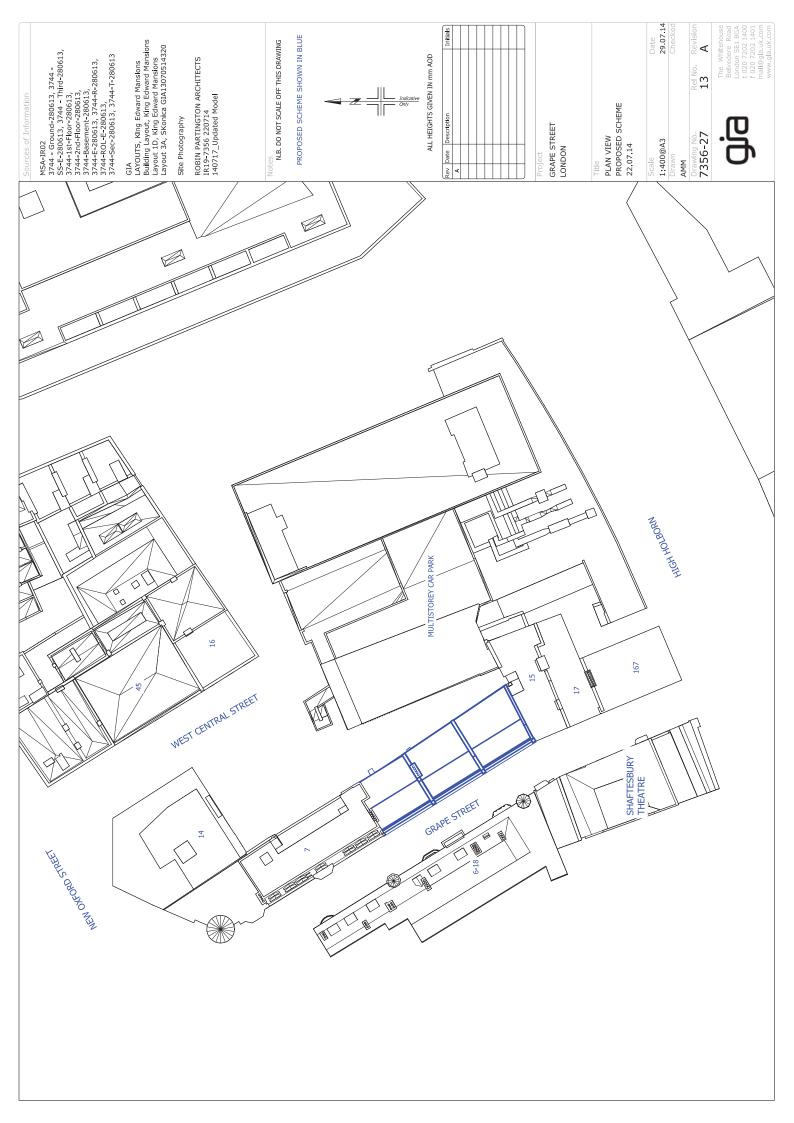










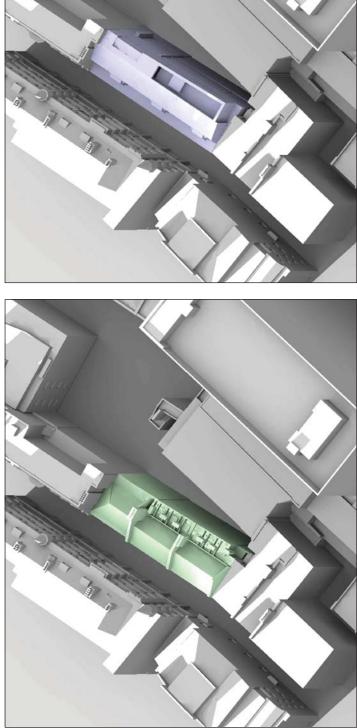


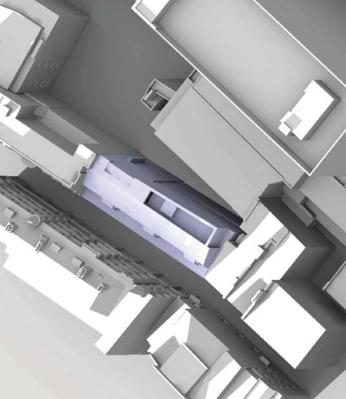
Window Maps





Transient Overshadowing



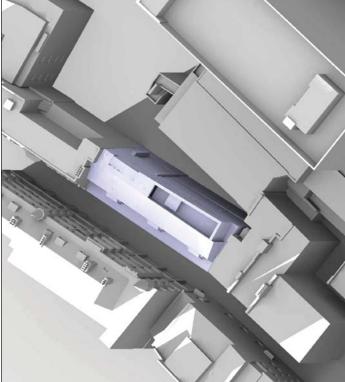


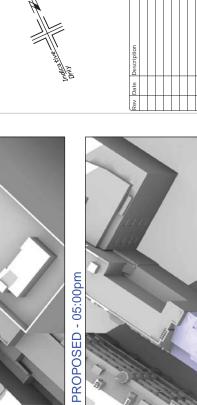
GIA
LATOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 1D, King Edward Wansions layout 3A, SKonica GIA13070514320
Site Photography
received 26-06-13, 05-07-13, 8, 12-07-13
3D Model of scheme 130717_Developed
Massing-dwy

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13

M S A - 1R02 TAT 4 - Gound-280613,3744 - SS-E-280613,3744 - Third-280613,3744-18-F0or-280613, 3744-274-Foor-280613,3744-E-280613, 3744-See-2806133744-ROLE-280613,

es of Information





March 21st (GMT)

EXISTING - 05:00pm

GRAPE STREET LONDON

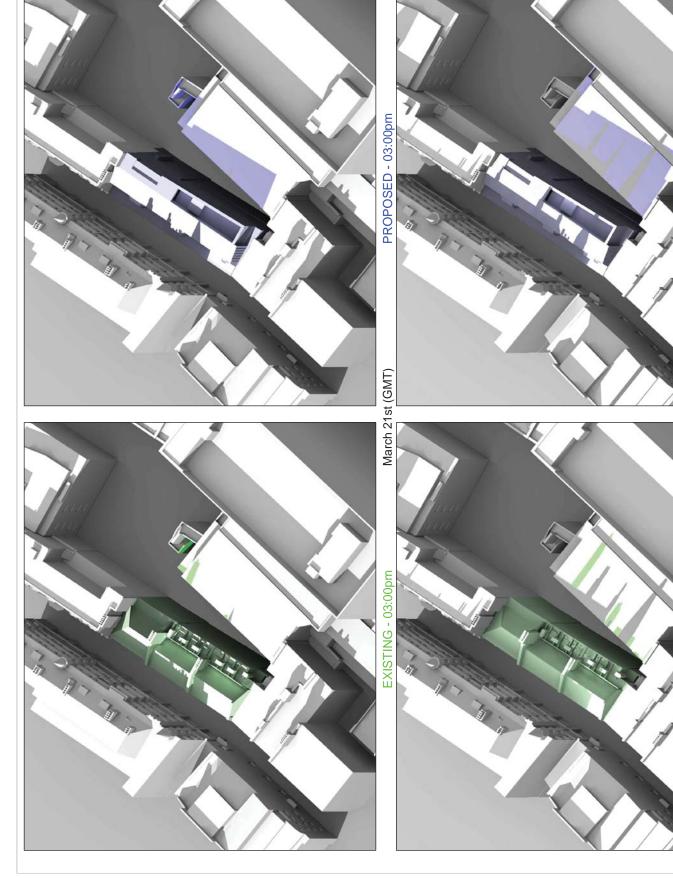
SITE PLAN TRANSIENT OVERSHADOWING

Date DEC 13 @A3 N/S

⋖ 10 7356/MAR/06 SDJ

EXISTING - 06:00pm

PROPOSED - 06:00pm



M S A - 1R02 TAAT - Grund-280613,3744 - SS-E-280613,3744 - Third-280613,3744-18,F0or-280613, 3744-274-274-274-19,280613, 3744-58-2806133744,F0O-E-280613, 3744-58-2806133744,FOO-E-280613

GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 1D, King Edward
Mansions layout 3A, Skonica GIA1307051 4320
Site Photography
received 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13

Initials					
Rev Date Description					
Date					
Sev.					

GRAPE STREET LONDON

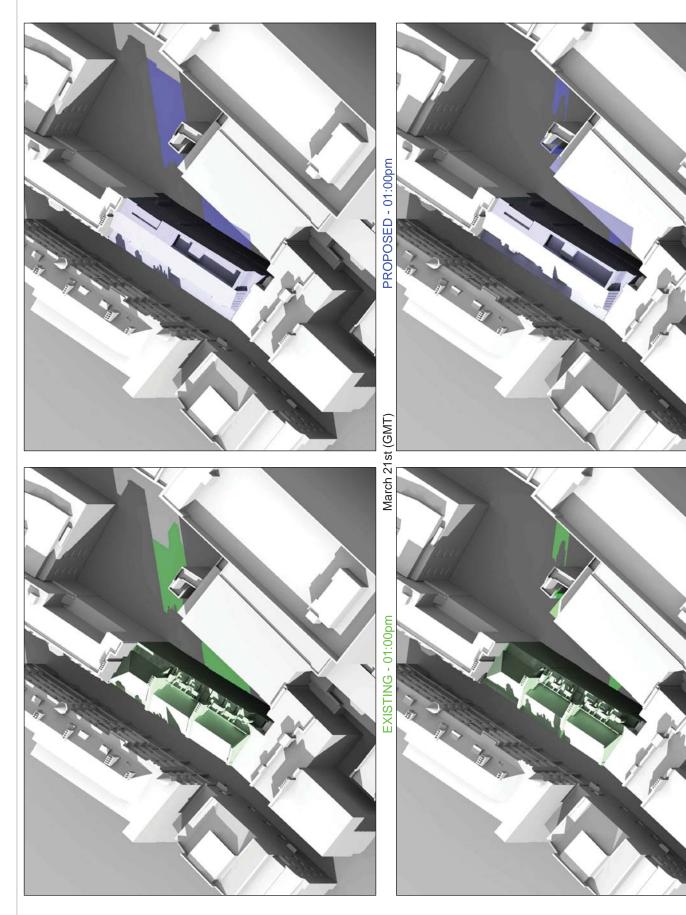
SITE PLAN TRANSIENT OVERSHADOWING

Date DEC 13 @A3 N/S SDJ

10 7356/MAR/05

EXISTING - 04:00pm

PROPOSED - 04:00pm



M S A - 1R02 TATA - Ground-280613,3744 - SS-E-280613,3744 - Third-280613,3744-181-Floor-280613, 3744-274-270-280613,3744-1280613, 3744-58-2806133744-ROLE-280613, 5745-58-2806133744-1280613

GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 1D, King Edward
Mansions layout 3A, Skonica GIA1307051 4320
Site Photography
received 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13



Initials					
Rev Date Description					
Date					
Sev.					

GRAPE STREET LONDON

SITE PLAN TRANSIENT OVERSHADOWING

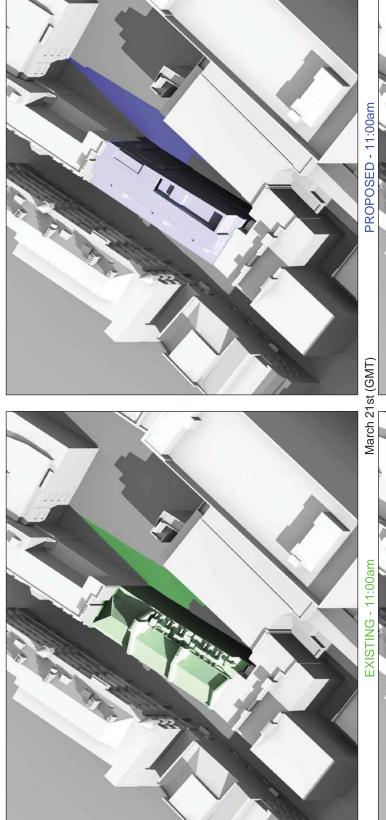
N/S

Date DEC 13 @A3 SDJ

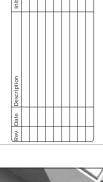
10 7356/MAR/04

PROPOSED - 02:00pm

EXISTING - 02:00pm







Project GRAPE STREET LONDON TITIE SITE PLAN TRANSIENT OVERSHADOWING

DEC 13	@A3	N/S
Date		Scale

Drawing No. Rel No. Rev 7356/MAR/03 10 A

The Whitehouss
Belvedere Road
London SE1 8G/
t 0.20 7.202 1400
f 0.20 7.202 1400
mail@qia.uk.con

EXISTING - 12:00am

PROPOSED - 12:00am

Sources of Information M S A - IR02

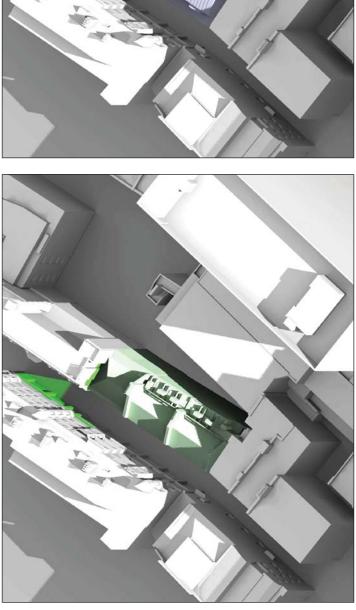
M S A - 1R02 TATA - Ground-280613,3744 - SS-E-280613,3744 - Third-280613,3744-181-Floor-280613, 3744-274-270-280613,3744-1280613, 3744-58-2806133744-ROLE-280613, 5745-58-2806133744-1280613 GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 10, King Edward
Mansions layout 3A, Skonica GIA1307051 4320
Site Photography
received 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

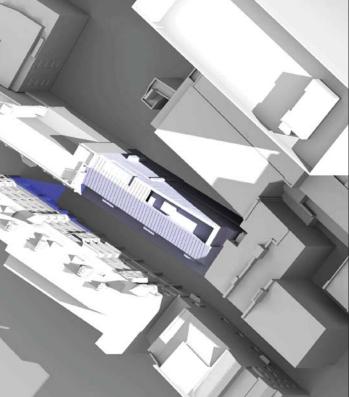
ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13

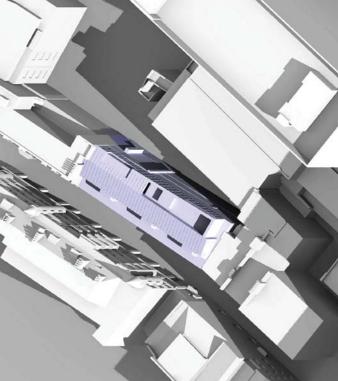
Notes

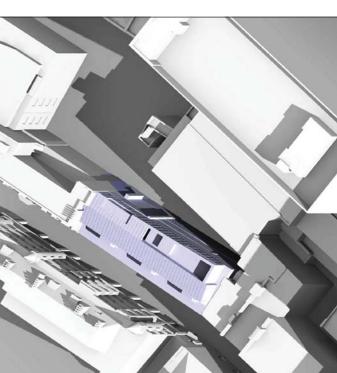














M S A - 1R02 1444 - Grund-280613,3744 - SS-E-280613,3744 - Third-280613,3744-184-184-180613, 3744-274-274-274-184-180613, 3744-58-2806133744 ROLE-280613, 3744-58-2806133744 FOLE-280613,

GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions iayout 10, King Edward
Mansions layout 3A, SKonica GIA13070514320
Sile Photography
reselved 26-60-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13



PROPOSED - 09:00am

March 21st (GMT)

EXISTING - 09:00am

Ξ					
Rev Date Description					
Date					
Rev					

GRAPE STREET LONDON

SITE PLAN TRANSIENT OVERSHADOWING

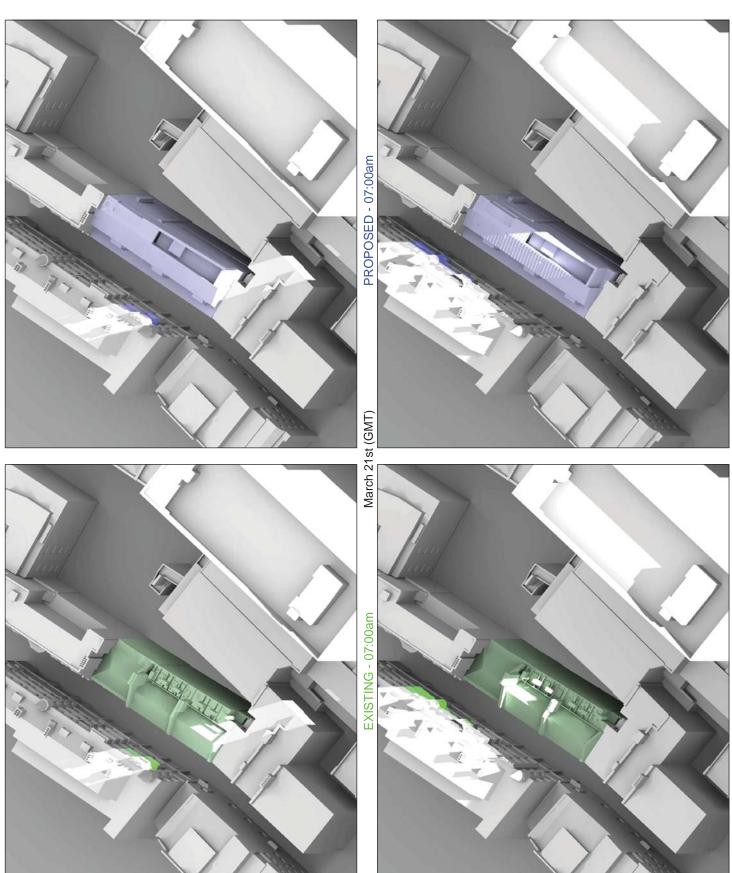
Date DEC 13 @A3 N/S

⋖ 9 SDJ

7356/MAR/02

PROPOSED - 10:00am

EXISTING - 10:00am



M S A - 1R02 1444 - Grund-280613,3744 - SS-E-280613,3744 - Third-280613,3744-184-184-180613, 3744-274-274-274-184-180613, 3744-58-2806133744 ROLE-280613, 3744-58-2806133744 FOLE-280613,

GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 1D, King Edward
Mansions layout 3A, Skonica GIA1307051 4320
Site Photography
received 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13



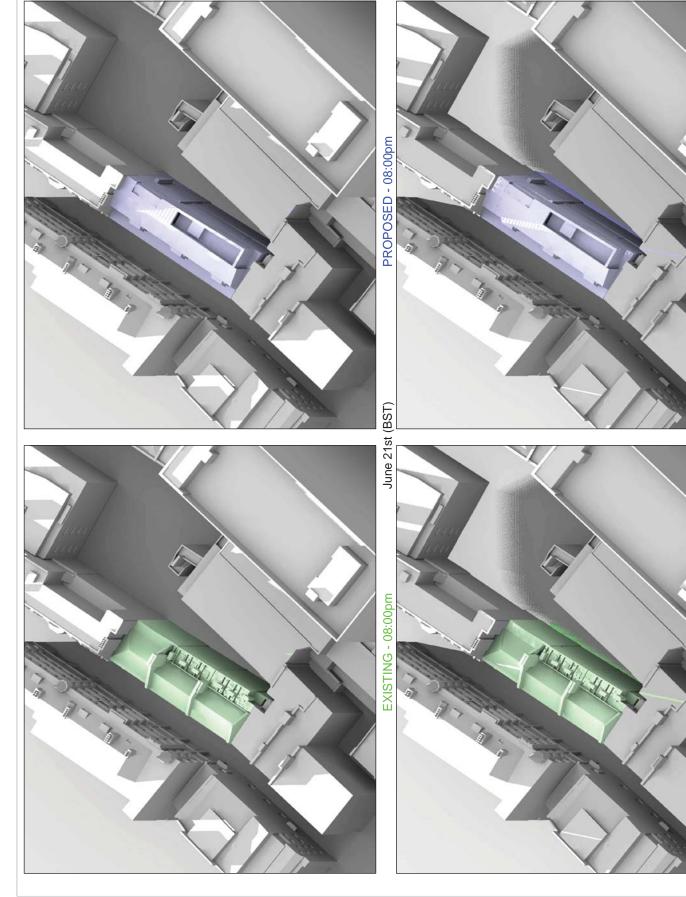
GRAPE STREET LONDON

SITE PLAN TRANSIENT OVERSHADOWING

Scale			Date
N/S	@A3		DEC 13
Drawn			Checked
SDJ			
Drawing No	o No	Pol No	Revision

PROPOSED - 08:00am

EXISTING - 08:00am



Information

M S A - 1R02 TATA - Ground-280613,3744 - SS-E-280613,3744 - Third-280613,3744-181-Floor-280613, 3744-274-270-280613,3744-1280613, 3744-58-2806133744-ROLE-280613, 5745-58-2806133744-1280613

GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 1D,King Edward
Mansions layout 3A, SKonica GIA1307051 4320
Site Photography
reselved 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13



Initials					
Rev Date Description					
Date					
Rev					

GRAPE STREET LONDON

SITE PLAN TRANSIENT OVERSHADOWING

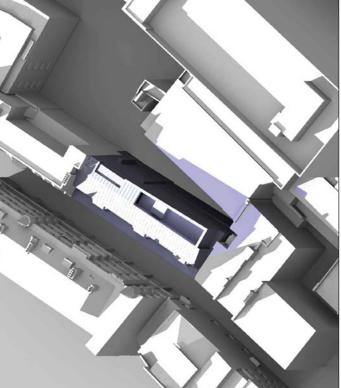
Date DEC 13 9 @A3 N/S SDJ



PROPOSED - 09:00pm

EXISTING - 09:00pm

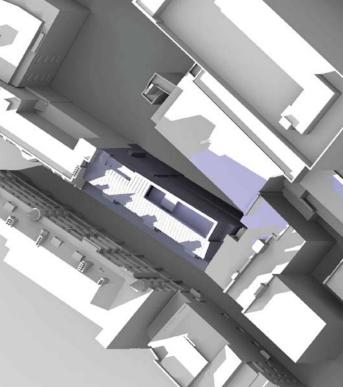




GIA LAYOUTS, King Edward Mansions Building Layout, King Edward Mansions layout 10,King Edward Mansions layout 3A, Skonica GIAT 3070514320 Site Photography streewed 2c-06-13, 05-07-13 a 3D Model of scheme 130717_Developed

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13

M S A - 1R02 TATA - Ground-280613,3744 - SS-E-280613,3744 - Third-280613,3744-181-Floor-280613, 3744-274-270-280613,3744-1280613, 3744-58-2806133744-ROLE-280613, 5745-58-2806133744-1280613



GRAPE STREET LONDON

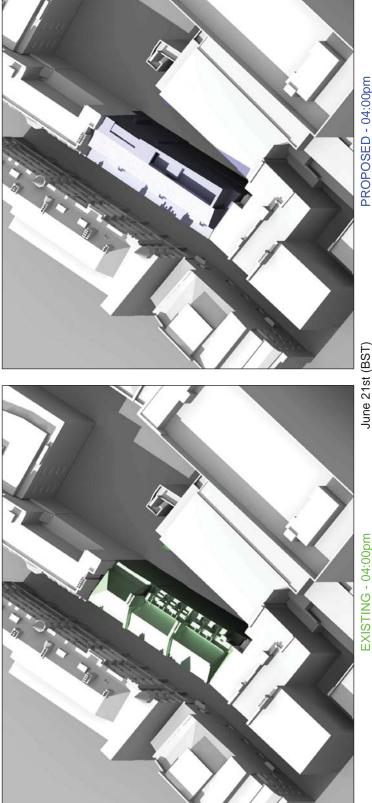
SITE PLAN TRANSIENT OVERSHADOWING

Date DEC 13 10 @A3 N/S SDJ

7356/JUN/07

PROPOSED - 07:00pm

EXISTING - 07:00pm

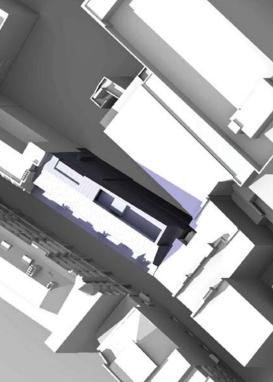


GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 1D, King Edward
Mansions layout 3A, Skonica GIA1307051 4320
Site Photography
received 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13

M S A - 1R02 TATA - Ground-280613,3744 - SS-E-280613,3744 - Third-280613,3744-181-Floor-280613, 3744-274-270-280613,3744-1280613, 3744-58-2806133744-ROLE-280613, 5745-58-2806133744-1280613





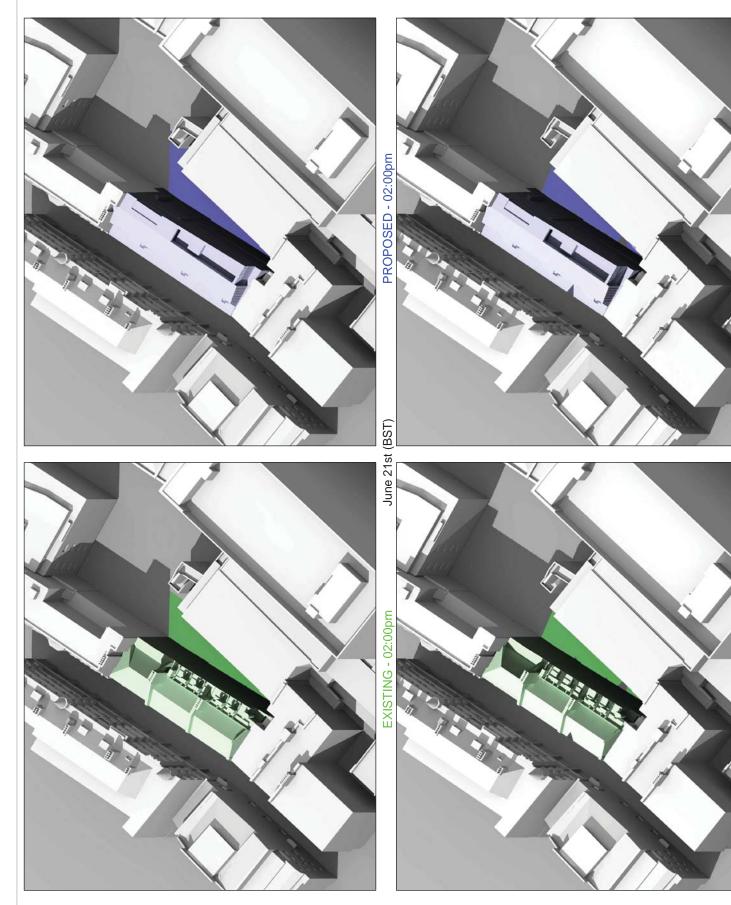
GRAPE STREET LONDON

SITE PLAN TRANSIENT OVERSHADOWING

§ **∠** 9 7356/JUN/06

EXISTING - 05:00pm

PROPOSED - 05:00pm



Information

M S A - 1R02 TATA - Ground-280613,3744 - SS-E-280613,3744 - Third-280613,3744-181-Floor-280613, 3744-274-270-280613,3744-1280613, 3744-58-2806133744-ROLE-280613, 5745-58-2806133744-1280613

GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 1D, King Edward
Mansions layout 3A, Skonica GIA1307051 4320
Site Photography
received 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13



Initial					
Rev Date Description					
Date					
Rev					

GRAPE STREET LONDON

SITE PLAN TRANSIENT OVERSHADOWING

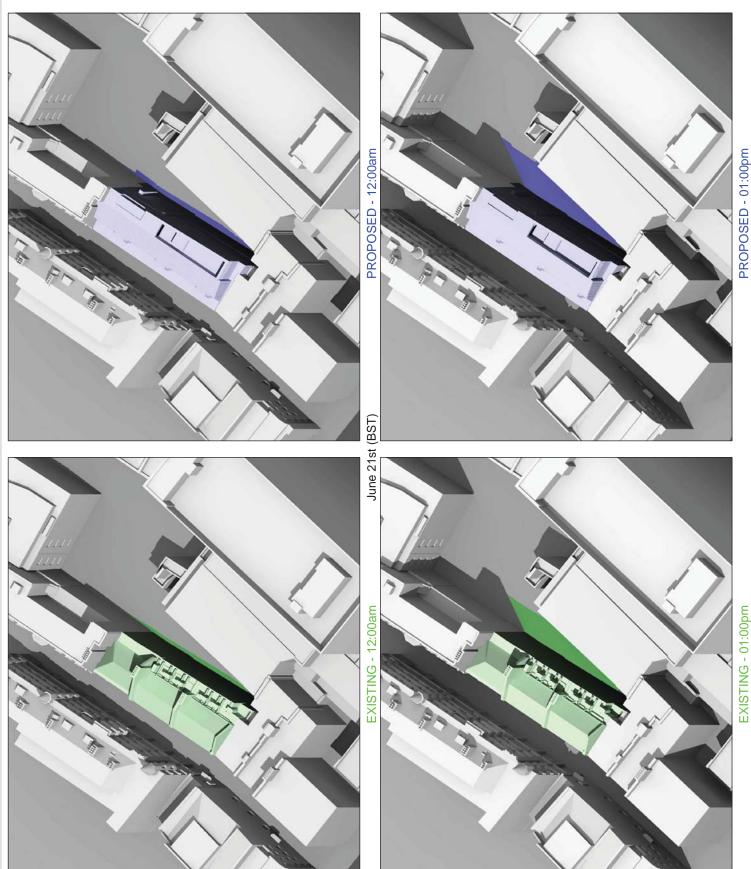
Date DEC 13 @A3 N/S

⋖ 10 SDJ

7356/JUN/05

PROPOSED - 03:00pm

EXISTING - 03:00pm



of Information

M S A - 1R02 TATA - Ground-280613,3744 - SS-E-280613,3744 - Third-280613,3744-181-Floor-280613, 3744-274-270-280613,3744-1280613, 3744-58-2806133744-ROLE-280613, 5745-58-2806133744-1280613

GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 1D, King Edward
Mansions layout 3A, Skonica GIA1307051 4320
Site Photography
received 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13

Initials					
Rev Date Description					
Date					
Rev					

GRAPE STREET LONDON

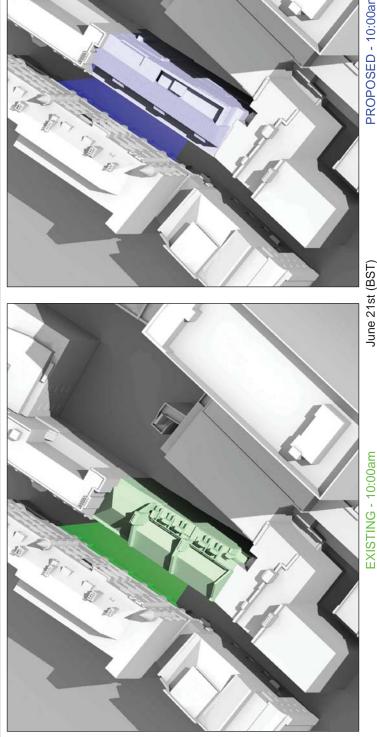
SITE PLAN TRANSIENT OVERSHADOWING

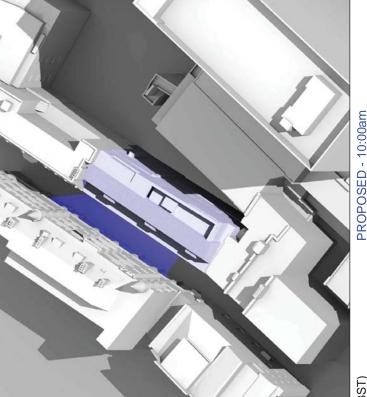
Date DEC 13 @A3 N/S SDJ

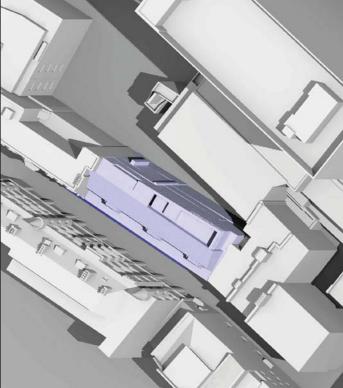
10 7356/JUN/04

⋖

EXISTING - 01:00pm







PROPOSED - 11:00am

Information

M S A - 1R02 TATA - Ground-280613,3744 - SS-E-280613,3744 - Third-280613,3744-181-Floor-280613, 3744-274-270-280613,3744-1280613, 3744-58-2806133744-ROLE-280613, 5745-58-2806133744-1280613

GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 1D,King Edward
Mansions layout 3A, SKonica GIA1307051 4320
Site Photography
reselved 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13



Ξ						l
Description						
Rev Date						
Rev					١.	

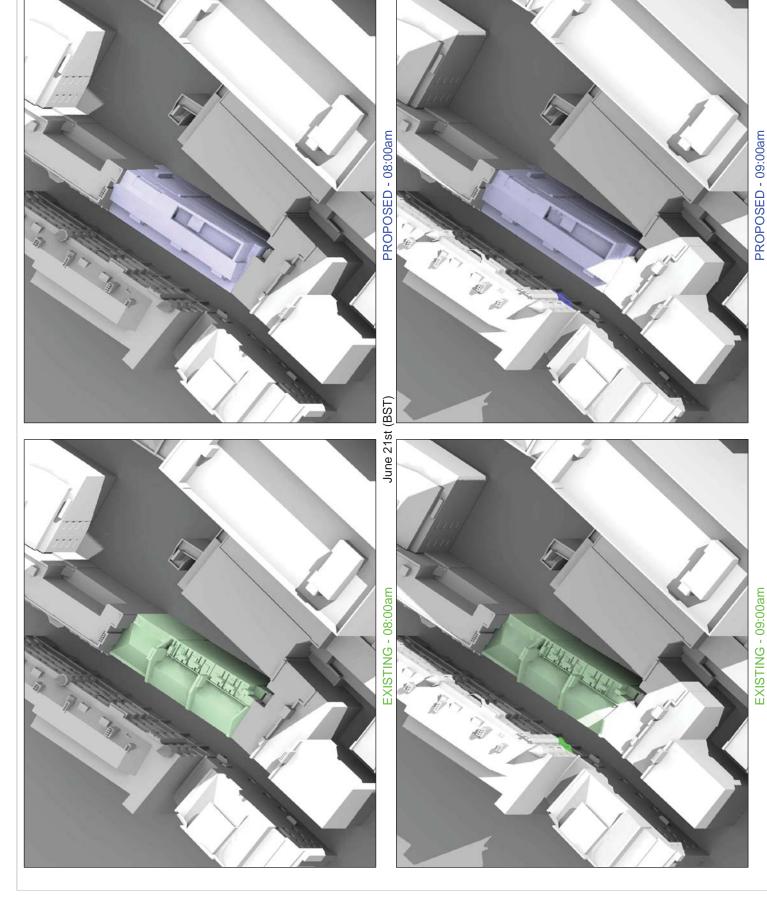
GRAPE STREET LONDON

SITE PLAN TRANSIENT OVERSHADOWING

Scale			Date
N/S	@A3		DEC 13
Drawn			Checked
SDJ			
Drawing No	g No.	Rel No.	Revision

10 7356/JUN/03

EXISTING - 11:00am



M S A - 1R02 1444 - Grund-280613,3744 - SS-E-280613,3744 - Third-280613,3744-184-184-180613, 3744-274-274-274-184-180613, 3744-58-2806133744 ROLE-280613, 3744-58-2806133744 FOLE-280613,

GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 1D,King Edward
Mansions layout 3A,SKonica GIAT 3070514320
Site Photography
Treebwed 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing Jung

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13



Initials					
le le					
Rev Date Description					
Date					
Rev					

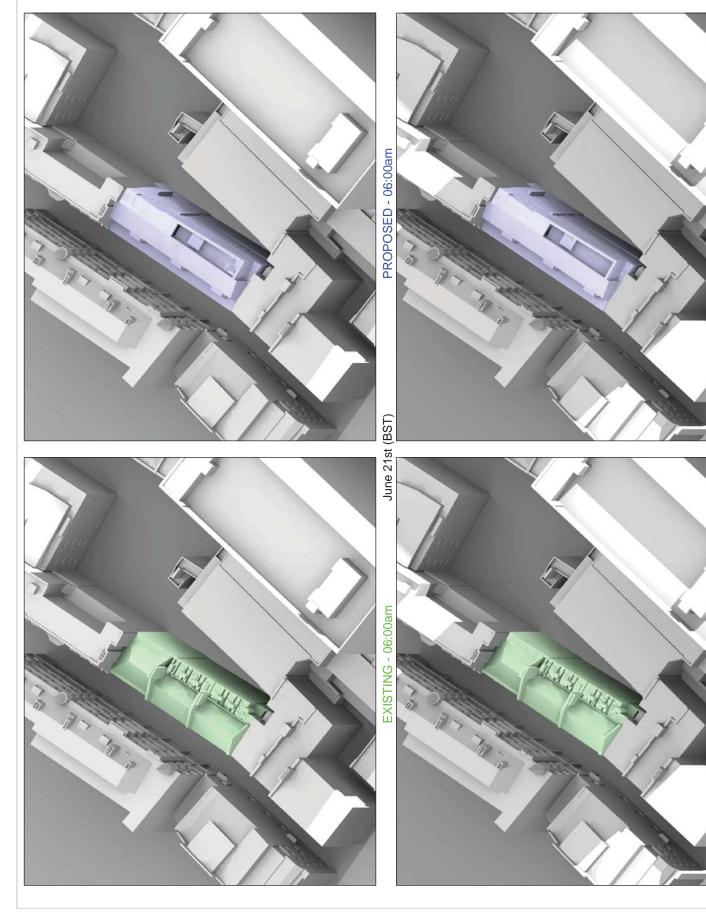
GRAPE STREET LONDON

SITE PLAN TRANSIENT OVERSHADOWING

Date DEC 13 9 @A3 N/S SDJ

7356/JUN/02

EXISTING - 09:00am



M S A - 1R02 TATA - Ground-280613,3744 - SS-E-280613,3744 - Third-280613,3744-181-Floor-280613, 3744-274-270-280613,3744-1280613, 3744-58-2806133744-ROLE-280613, 5745-58-2806133744-1280613

GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 1D,King Edward
Mansions layout 3A, SKonica GIA1307051 4320
Site Photography
reselved 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13



GRAPE STREET LONDON

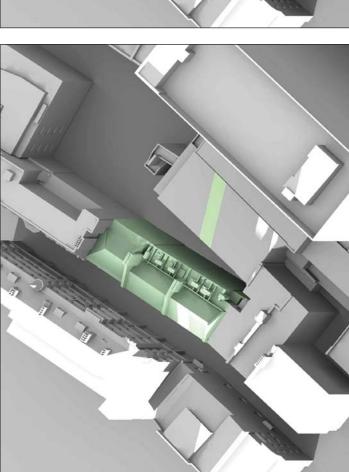
SITE PLAN TRANSIENT OVERSHADOWING

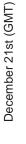
Ś	Scale			Date
Z	N/S	@A3		DEC 13
	Drawn			Checked
Ś	SDJ			
	Drawing No	No	Rel No	Revision

10

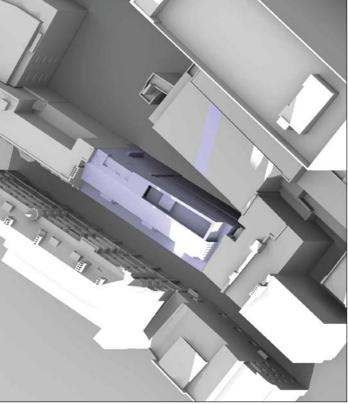
7356/JUN/01

PROPOSED - 07:00am





EXISTING - 03:00pm



PROPOSED - 03:00pm

of Information

M. S. A. - IROZ 1744. - Grund-280613,3744 - SS-E-280613,3744 - Third-280613,3744 - IS-Foor-280613, 3744. 270-Foor-260613,744-E-280613, 3744. R-2806133744-F0-E-280613, 3744-Se-2806133744-F0-280613

GIA
LAYOUTS, King Edward Mansions Building Layout,
LAYOUTS, King Edward Mansions layout 10 King Edward
Mansions layout 3A.5Koniea GIA1307051 4320
Sile Photography
received 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13

Initials					
_					
Rev Date Description					
ate D					
Rev [

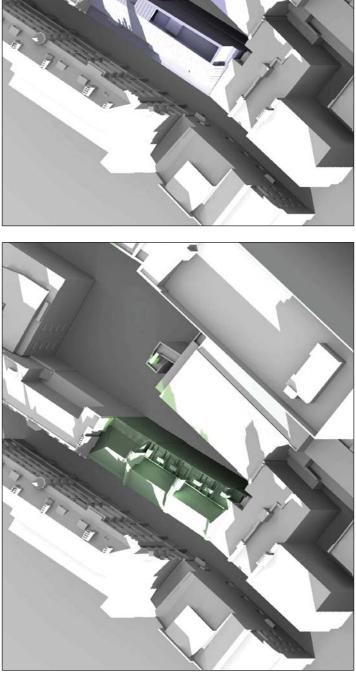
	Н	
	·RE	
	S	2
ect	APE	2
0	88	5

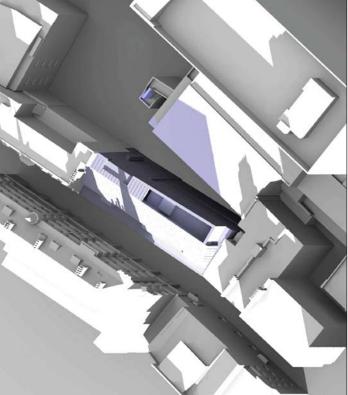
SITE PLAN TRANSIENT OVERSHADOWING

Scale		Date
N/S	@A3	DEC 1
Drawn		Check
SDJ		,

N/S	@A3		DEC
Drawn			Che
SDJ			,
Drawing No	J No.	Rel No.	Rev
7356	7356/DEC/04	10	⋖



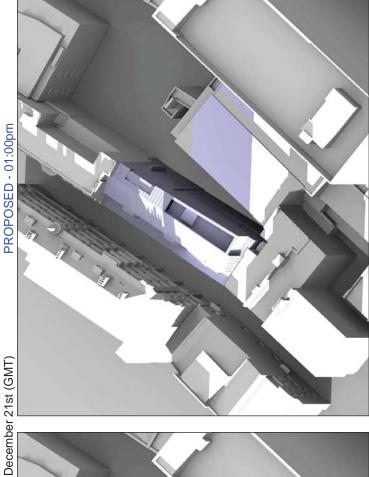


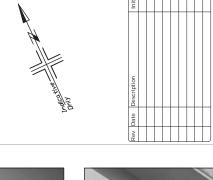


GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 1D, King Edward
Mansions layout 3A, Skonica GIA1307051 4320
Site Photography
received 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13

M S A - 1R02 TATA - Ground-280613,3744 - SS-E-280613,3744 - Third-280613,3744-181-Floor-280613, 3744-274-270-280613,3744-1280613, 3744-58-2806133744-ROLE-280613, 5745-58-2806133744-1280613





EXISTING - 01:00pm

GRAPE STREET LONDON

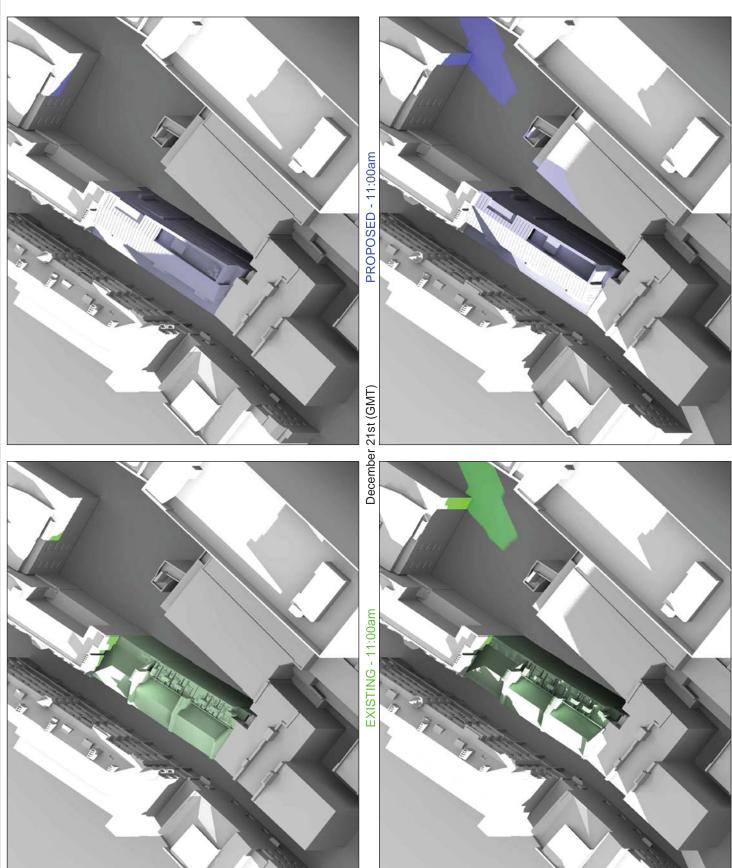
SITE PLAN TRANSIENT OVERSHADOWING

Scale			Date
N/S	@A3		DEC 13
Drawn			Checked
SDJ			
Drawing No.	g No.	Rel No.	Revision
1	707 71 77 71 70 70 70 70 70 70 70 70 70 70 70 70 70	(<

7356/DEC/03

EXISTING - 02:00pm

PROPOSED - 02:00pm



Information

M S A - IR02 TAT4 - Gound-280613,3744 - SS-E-280613,3744 - Third-280613, 3744-18-FDor-280613, 3744-704-FPor-280613,344-R-280613, 3744-58-2806133744-RQL-280613,

GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 10 King Edward
Mansions layout 3A. SKonica GIA/130/05/14320
Site Photography
Treehwed 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13



					_
Initials					
Rev Date Description					
Date					
Rev					

GRAPE STREET LONDON

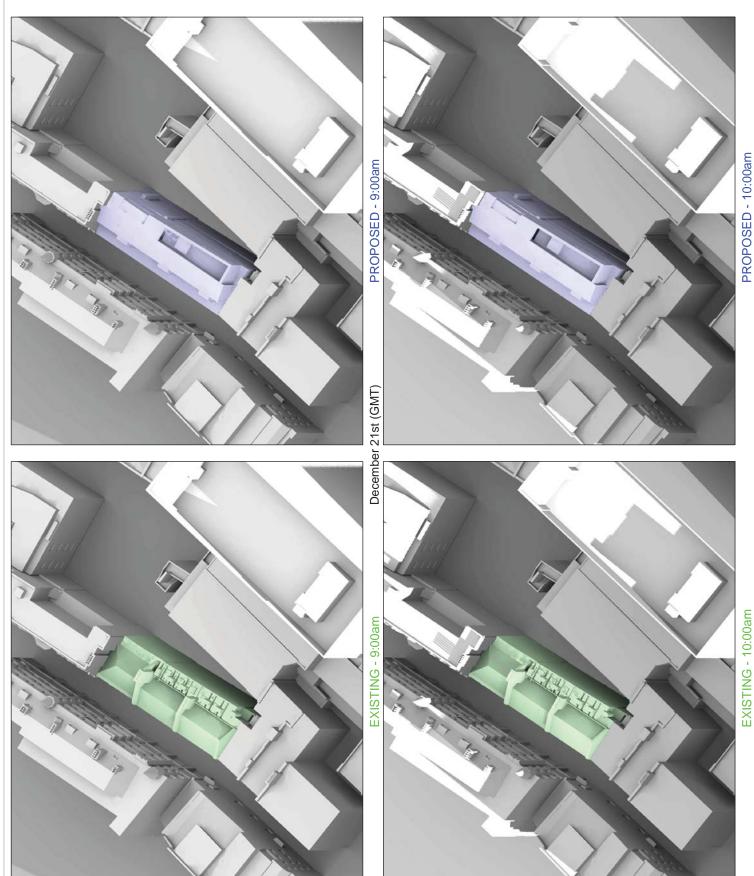
SITE PLAN TRANSIENT OVERSHADOWING

N/S	@A3		DEC 13
Drawn			Checked
SDJ			,
Drawing No.	g No.	Rel No.	Revision
7356	7356/DEC/02	10	⋖

7356/DEC/02

PROPOSED - 12:00am

EXISTING - 12:00am



M S A - 1R02 TATA - Ground-280613,3744 - SS-E-280613,3744 - Third-280613,3744-181-Floor-280613, 3744-274-270-280613,3744-1280613, 3744-58-2806133744-ROLE-280613, 5745-58-2806133744-1280613

GIA
LAYOUTS, King Edward Mansions Building Layout,
King Edward Mansions layout 1D,King Edward
Mansions layout 3A, SKonica GIA1307051 4320
Site Photography
reselved 26-06-13, 05-07-13 & 12-07-13
3D Model of scheme 130717_Developed
Massing dwg

ROBERT PARTINGTON ARCHITECTS IR15-7356 Scheme 31/10/13 131101_m_all_floors_v2.dwg scheme IR18-7356 Received 28/11/13



Initials					
Rev Date Description					
Date					
sev.					

GRAPE STREET LONDON

SITE PLAN TRANSIENT OVERSHADOWING

Date DEC 13 @A3 N/S

⋖ 10 SDJ

7356/DEC/01

Appendix 03

Daylight and Sunlight Results

Vertical Sky Component (VSC)

PROJECT NO: 7356 (rel_13_7356_cad) EXISTING v PROPOSED

	%		-0.03	-0.11	0.32	1.72	1.12	0.17	-0.08	0.00	1.21	66.0	0.58	0.29	0.35	0.89	
	Loss		00:00	00:00	0.01	0.04	0.03	0.01	0.00	0.00	0.01	0.01	0.01	00.00	0.0	0.01	
peso	Total		2.90	2.65	3.13	2.39	2.38	2.89	2.58	1.83	0.73	06:0	98.0	89.0	1.15	1.00	
Average Daylight Factor	ADF		2.90	2.65	3.13	2.39	2.38	2.89	0.70	1.83	0.11 0.27 0.10 0.25	0.00 0.20 0.23 0.23 0.09	0.00	0.06 0.16 0.07 0.17 0.07	0.07 0.15 0.07 0.07 0.19 0.08 0.06 0.06	0.13 0.36 0.14 0.37	0.05
Average Da	Total		2.90	2.65	3.14	2.44	2.40	2.89	2.58	1.83	0.74	0.91	0.86	0.69	1.16	1.01	
Fxic	ADF	EET	2.90	2.65	3.14	2.44	2.40	2.89	0.70	1.83	0.11 0.27 0.11 0.26	0.09 0.20 0.10 0.23 0.09	0.09 0.20 0.09 0.20 0.09	0.06 0.16 0.07 0.17 0.07	0.07 0.15 0.07 0.07 0.08 0.08 0.06 0.16	0.14 0.36 0.14 0.37	0.05
	Room Use	KING EDWARDS MANSIONS, 6-18 GRAPE STREET	LIVINGROOM	BEDROOM	LIVINGROOM	BEDROOM	LIVINGROOM	BEDROOM	LKD		LIVINGROOM LIVINGROOM LIVINGROOM	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM	LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM	DINING DINING DINING DINING DINING DINING DINING DINING	0 0 0 0 W.W.W.	BEDROOM
	Window	RDS MANSION	W1/21	W2/21	W3/21	W4/21	W5/21	W6/21	W7/21 W8/21	W9/21	W1/22 W2/22 W3/22 W4/22	W5/22 W6/22 W7/22 W8/22 W9/22	W11/22 W12/22 W13/22 W14/22 W15/22	W17/22 W18/22 W19/22 W20/22 W21/22	W23/22 W24/22 W26/22 W27/22 W28/22 W39/22 W31/22	W33/22 W34/22 W35/22 W36/22	W37/22
	Room	KING EDWA	R1/21	R2/21	R3/21	R4/21	R5/21	R6/21	R7/21 R7/21	R8/21	R1/22 R1/22 R1/22 R1/22	R2/22 R2/22 R2/22 R2/22 R2/22 R2/22	R3/22 R3/22 R3/22 R3/22 R3/22	R4/22 R4/22 R4/22 R4/22 R4/22	R5/22 R5/22 R5/22 R5/22 R5/22 R5/22 R5/22	R6/22 R6/22 R6/22 R6/22	R7/22
	%		0.00	-0.12	0.35	2.94	2.33	1.08	-0.30	-0.14	0.80 0.55 3.37 1.91	2.16 1.31 1.99 1.16 1.91	1.15 0.81 0.71 0.89 0.66	0.00 0.00 0.24 0.07 0.25	0.59 0.28 0.94 0.56 1.16 0.64 1.21 0.78 1.37	2.06 1.21 1.23 0.74	-0.17
	Loss		0.00	-0.01	0.04	0.24	0.18	0.10	-0.02	-0.01	0.07 0.07 0.25 0.21	0.25 0.19 0.24 0.18 0.18	0.13 0.12 0.10 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.01 0.01 0.00 0.13	0.17 0.13 0.08	-0.01
	Proposed		11.80	8.14	11.37	7.92	7.53	9.14	6.72 8.05	7.30	8.68 12.70 7.17 10.79	11.30 14.26 11.81 15.39 11.27	11.16 13.46 11.48 14.07 11.11	8.27 12.62 8.46 13.47 8.14	8.40 10.51 9.49 12.51 9.39 12.51 9.83 7.58 9.38	8.08 10.58 8.02 10.71	5.97
Vertical Sky Component	Existing		11.80	8.13	11.41	8.16	17.71	9.24	6.70 8.03	7.29	8.75 12.77 7.42 11.00	11.55 14.45 12.05 15.57 11.49	11.29 13.57 11.60 14.17 11.21	8.27 12.62 8.48 13.48 8.16 12.56	8.45 10.54 9.58 12.58 9.50 12.59 9.95 11.48 7.75 9.51	8.25 10.71 8.12 10.79	5.96
Vertic	Room Use Existing	-18 GRAPE STREET	LIVINGROOM	BEDROOM	LIVINGROOM	BEDROOM	LIVINGROOM	BEDROOM	LKD		LIVINGROOM LIVINGROOM LIVINGROOM	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM	LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM	DINING DINING DINING DINING DINING DINING DINING DINING DINING	wc c www.	BEDROOM
	Window	KING EDWARDS MANSIONS, 6-18 GRAPE STREET	W1/21	W2/21	W3/21	W4/21	W5/21	W6/21	W7/21 W8/21	W9/21	W1/22 W2/22 W3/22 W4/22	W5/22 W6/22 W7/22 W8/22 W9/22 W10/22	W11/22 W12/22 W13/22 W14/22 W15/22	W17/22 W18/22 W19/22 W20/22 W21/22	W23/22 W24/22 W26/22 W27/22 W27/22 W29/22 W30/22 W31/22	W33/22 W34/22 W35/22 W36/22	W37/22
	Room	KING EDWAR	R1/21	R2/21	R3/21	R4/21	R5/21	R6/21	R7/21 R7/21	R8/21	R1/22 R1/22 R1/22 R1/22	R2/22 R2/22 R2/22 R2/22 R2/22 R2/22	R3/22 R3/22 R3/22 R3/22 R3/22	R4/22 R4/22 R4/22 R4/22 R4/22	R5/22 R5/22 R5/22 R5/22 R5/22 R5/22 R5/22 R5/22	R6/22 R6/22 R6/22 R6/22	R7/22

PROJECT NO: 7356 (rel_13_7356_cad) EXISTING v PROPOSED

GRAPE STREET PROP220714 DAYLIGHT ANALYSIS

3	00.00	00.0	0.00	00.00	1.02	1.21	0.30	0.11	
	00.00	00.00	0.00	00.00	0.01	0.01	0.00	0.00	
sed	0.75	0.87	0.62	0.73	1.17	1.07	1.01	0.87	
light Factor Proposed	0.05 0.05 0.05	0.05 0.14 0.05 0.06 0.06 0.06	0.05 0.14 0.05 0.05 0.05	0.07 0.16 0.00 0.13 0.01 0.07	0.09 0.18 0.01 0.09 0.11 0.23 0.08	0.11 0.23 0.12 0.26 0.23	0.11 0.23 0.23 0.23 0.23	0.09 0.19 0.09 0.21 0.09	0.07 0.16 0.10
Average Daylight Factor	0.75	0.87	0.62	0.73	1.18	1.08	1.02	0.87	
Exist	0.17 0.14 0.05 0.04 0.11	0.05 0.14 0.05 0.06 0.06 0.06	0.05 0.14 0.05 0.05 0.05	0.07 0.16 0.03 0.13 0.01 0.07 0.07	0.09 0.18 0.21 0.09 0.11 0.03	0.24 0.24 0.12 0.27 0.11	0.11 0.23 0.11 0.23 0.11	0.09 0.19 0.09 0.21 0.09	0.07 0.16 0.10
:	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM				LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM	LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM	DINING DINING DINING
	W40/22 W41/22 W42/22 W43/22	W45/22 W46/22 W47/22 W49/22 W50/22 W51/22	W53/22 W54/22 W55/22 W56/22 W57/22	W59/22 W60/22 W61/22 W62/22 W63/22 W64/22	W1/23 W2/23 W3/23 W4/23 W6/23 W6/23	W9/23 W10/23 W11/23 W12/23 W13/23	W15/23 W16/23 W17/23 W18/23 W19/23	W21/23 W22/23 W23/23 W24/23 W26/23	W27/23 W28/23 W29/23
	R7/22 R7/22 R7/22 R7/22 R7/22	R8/22 R8/22 R8/22 R8/22 R8/22 R8/22 R8/22	R9/22 R9/22 R9/22 R9/22 R9/22	R10/22 R10/22 R10/22 R10/22 R10/22 R10/22	R1/23 R1/23 R1/23 R1/23 R1/23 R1/23	R2/23 R2/23 R2/23 R2/23 R2/23	R3/23 R3/23 R3/23 R3/23 R3/23	R4/23 R4/23 R4/23 R4/23 R4/23	R5/23 R5/23 R5/23
;	-0.33 0.00 0.00 0.00	0.15 0.12 0.14 0.11 0.09 0.09 0.00	000000000000000000000000000000000000000	0.00 0.00 0.00 0.00 0.00 0.01 0.00	1.36 1.03 0.18 0.23 2.75 1.97 2.89	2.24 1.85 2.04 1.73 1.70	0.51 0.90 0.38 0.65 0.33	0.15 0.11 0.15 0.16 0.16	0.56 0.38 0.95
	-0.04 -0.00 0.00 0.00 0.00	0.0000000000000000000000000000000000000	000000000000000000000000000000000000000	0.0000000000000000000000000000000000000	0.16 0.14 0.03 0.03 0.43 0.29 0.29	0.36 0.35 0.35 0.28 0.32	0.08 0.06 0.12 0.05 0.10	0.002	0.06 0.05 0.14
	12.34 10.34 6.37 5.39 6.69	6.47 8.20 7.00 7.44 7.73 10.70 7.18	6.21 7.84 6.55 8.82 6.97 9.30	8.87 10.61 1.19 7.40 1.39 7.82 8.82	11.59 13.44 16.65 13.06 15.22 17.91 9.74	15.68 18.62 16.35 19.91 15.49	15.51 17.68 15.81 18.34 15.17	13.02 17.38 13.32 18.31 12.74	10.72 13.01 14.65
Vertical Sky Component	12.30 10.34 6.37 5.39 6.69	6.48 8.21 7.01 9.45 7.74 10.71 7.19	6.21 7.84 6.55 8.82 6.97 9.30	8.87 10.61 1.19 7.40 1.39 7.83 8.82 11.26	11.75 13.58 16.68 13.09 15.65 18.27 10.03	16.04 18.97 16.69 20.26 15.77 18.78	15.59 17.84 15.87 18.46 15.22	13.04 17.40 13.34 18.34 12.76 17.14	10.78 13.06 14.79
Vertica	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM				LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM	LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM	DINING
	WH00W W40/22 W42/22 W43/22 W44/22	W45/22 W46/22 W47/22 W48/22 W50/22 W51/22	W53/22 W54/22 W55/22 W56/22 W57/22	W59/22 W60/22 W61/22 W62/22 W63/22 W64/22 W66/22	W1/23 W2/23 W3/23 W4/23 W5/23 W7/23	W9/23 W10/23 W11/23 W12/23 W13/23	W15/23 W16/23 W17/23 W18/23 W19/23	W21/23 W22/23 W23/23 W24/23 W25/23	W27/23 W28/23 W29/23
	R00m R7/22 R7/22 R7/22 R7/22	R8/22 R8/22 R8/22 R8/22 R8/22 R8/22 R8/22	R9/22 R9/22 R9/22 R9/22 R9/22	R10/22 R10/22 R10/22 R10/22 R10/22 R10/22	R1/23 R1/23 R1/23 R1/23 R1/23 R1/23	R2/23 R2/23 R2/23 R2/23 R2/23	R3/23 R3/23 R3/23 R3/23 R3/23 R3/23	R4/23 R4/23 R4/23 R4/23 R4/23	R5/23 R5/23 R5/23

PROJECT NO: 7356 (rel_13_7356_cad) EXISTING v PROPOSED

	%	0.58	0.15	00:00	0.00	0.00	0.00	0.37	0.33	
	Loss	0.00	0.00	00.00	0.00	0.00	00.00	0.01	0.00	
pesc	Total	1.36	1.31	86:0	1.31	0.93	1.08	1.35	1.20	
light Factor Proposed	ADF	0.21 0.10 0.21 0.10 0.19 0.08	0.21 0.45 0.20 0.45	0.07 0.15 0.08 0.18 0.09 0.07 0.07	0.10 0.20 0.11 0.22 0.11 0.25 0.10	0.09 0.19 0.10 0.22 0.10	0.09 0.19 0.06 0.18 0.06 0.19 0.11	0.10 0.21 0.10 0.23 0.13 0.27 0.20	0.13 0.26 0.14 0.29 0.12	0.12
Average Daylight Factor ting	Total	1.37	1.31	86:0	1.31	0.93	1.08	1.35	1.20	
Ave Existing	ADF	0.21 0.10 0.22 0.10 0.19 0.08	0.21 0.45 0.20 0.45	0.07 0.15 0.08 0.09 0.07 0.07	0.10 0.20 0.11 0.25 0.10 0.25	0.09 0.19 0.22 0.10	0.09 0.19 0.06 0.06 0.19 0.10	0.10 0.21 0.23 0.13 0.13 0.10	0.13 0.26 0.14 0.29 0.20	0.12
	Room Use	DINING DINING DINING DINING DINING	0000 888	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM				LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM	BEDROOM
	Window	W30/23 W31/23 W32/23 W34/23 W35/23	W37/23 W38/23 W39/23 W40/23	W41/23 W42/23 W43/23 W44/23 W45/23 W46/23 W46/23	W49/23 W50/23 W51/23 W52/23 W54/23 W56/23	W57/23 W58/23 W59/23 W60/23 W61/23	W64/23 W65/23 W66/23 W67/23 W68/23 W69/23	W1/24 W2/24 W3/24 W4/24 W5/24 W6/24 W7/24	W9/24 W10/24 W11/24 W12/24 W13/24	W15/24
	Room	R5/23 R5/23 R5/23 R5/23 R5/23 R5/23	R6/23 R6/23 R6/23 R6/23	R7/23 R7/23 R7/23 R7/23 R7/23 R7/23	R8/23 R8/23 R8/23 R8/23 R8/23 R8/23 R8/23	R9/23 R9/23 R9/23 R9/23 R9/23	R10/23 R10/23 R10/23 R10/23 R10/23 R10/23	R1/24 R1/24 R1/24 R1/24 R1/24 R1/24 R1/24	R2/24 R2/24 R2/24 R2/24 R2/24 R2/24	R3/24
	%	0.74 0.90 1.10 0.33 1.15 0.08	0.08 0.66 0.00 0.33	000000000000000000000000000000000000000	0.00 0.00 0.00 0.00 0.00 0.00	000000000000000000000000000000000000000	000000000000000000000000000000000000000	0.00 0.45 0.00 0.00 0.37 0.90 0.83	0.21 0.70 0.25 0.66 0.26 0.63	0.21
	Loss	0.00 0.13 0.00 0.00 0.00 19	0.01 0.00 0.05	000000000000000000000000000000000000000	0.0000000000000000000000000000000000000	0000000	000000000000000000000000000000000000000	0.00 0.00 0.00 0.00 0.00 0.03 0.11	0.04 0.05 0.05 0.05 0.05	0.04
.	Proposed	17.35 14.28 17.05 15.14 16.35 12.05	13.08 15.04 12.82 14.97	9.76 10.90 10.53 15.03 13.41 15.95 10.39	11.93 13.25 12.98 15.01 13.90 16.48 13.00	11.98 13.21 12.79 14.66 13.08	12.99 14.99 7.58 13.45 8.42 14.06 15.37	13.72 15.63 14.42 18.38 18.66 21.94 11.59	19.25 22.56 20.01 23.94 18.82 22.15	19.15
Vertical Sky Component	Existing	17.48 14.41 17.24 15.19 16.54 12.06	13.09 15.14 12.82 15.02	9,76 10,90 10,53 15,03 13,41 15,95 10.39	11.93 13.25 12.98 15.01 13.90 16.48 13.00	11.98 13.21 12.79 14.66 13.08	12.99 14.99 7.58 13.45 8.42 14.06 15.37	13.72 15.70 14.42 18.38 18.73 22.14 11.62	19.29 22.72 20.06 24.10 18.87 22.29	19.19
Verti	Room Use	D D IN IN C C D IN IN C C D IN IN C C C D IN IN C C C C C C C C C C C C C C C C C	0000 MC MC	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM				LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM	BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM	BEDROOM
	Window	W30/23 W31/23 W32/23 W33/23 W34/23 W35/23	W37/23 W38/23 W39/23 W40/23	W41/23 W42/23 W43/23 W44/23 W46/23 W46/23 W48/23	W49/23 W50/23 W51/23 W52/23 W53/23 W54/23 W56/23	W57/23 W58/23 W59/23 W60/23 W61/23	W63/23 W64/23 W66/23 W66/23 W67/23 W69/23 W70/23	W1/24 W2/24 W3/24 W4/24 W5/24 W5/24 W7/24	W9/24 W10/24 W11/24 W12/24 W13/24	W15/24
	Room	R5/23 R5/23 R5/23 R5/23 R5/23 R5/23	R6/23 R6/23 R6/23 R6/23	R7/23 R7/23 R7/23 R7/23 R7/23 R7/23	R8/23 R8/23 R8/23 R8/23 R8/23 R8/23 R8/23	R9/23 R9/23 R9/23 R9/23 R9/23	R10/23 R10/23 R10/23 R10/23 R10/23 R10/23	R1/24 R1/24 R1/24 R1/24 R1/24 R1/24 R1/24	R2/24 R2/24 R2/24 R2/24 R2/24 R2/24	R3/24

PROJECT NO: 7356 (rel_13_7356_cad) EXISTING v PROPOSED

0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 % Loss 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 Total 1.22 0.99 1.52 1.69 1.71 1.24 0.28 0.61 Proposed Average Daylight Factor ADF 0.29 0.57 0.28 0.56 0.10 0.18 0.09 0.12 0.12 0.23 0.14 0.26 0.15 0.28 0.16 0.31 0.15 0.61 **Existing**Total 0.99 1.52 1.22 1.71 1.24 0.28 0.61 0.26 0.12 0.26 0.12 0.25 0.12 0.24 0.10 0.10 0.28 0.12 0.24 0.21 0.29 0.57 0.28 0.56 0.10 0.18 0.09 0.12 0.12 0.23 0.11 0.14 0.26 0.15 0.28 0.16 0.31 0.15 0.13 0.25 0.15 0.29 0.14 0.28 0.14 0.26 0.11 0.11 0.30 0.26 ADF 0.11 0.22 0.11 0.24 0.11 0.61 LIVINGROOM
LIVINGROOM
LIVINGROOM
LIVINGROOM
LIVINGROOM
LIVINGROOM
LIVINGROOM
LIVINGROOM
LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM Room Use BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM WC W16/24 W17/24 W18/24 W19/24 W27/24 W28/24 W29/24 W30/24 W31/24 W32/24 W33/24 W51/24 W52/24 W53/24 W54/24 W55/24 W56/24 W57/24 W58/24 W59/24 W60/24 W37/24 W38/24 W41/24 W42/24 W43/24 W44/24 W45/24 W46/24 W47/24 W49/24 W50/24 N39/24 Window N36/24 N40/24 **N48/24** W1/25 W2/25 10/24 10/24 10/24 10/24 10/24 10/24 R9/24 R9/24 R9/24 R9/24 R9/24 R2/25 00.00 00.00 00.00 00.00 00.00 00.00 % 0.01 90.00 0.00000 0.00 Proposed 21.68 19.64 22.59 18.82 21.58 19.58 22.30 20.29 23.47 19.21 21.92 19.28 21.85 20.24 20.29 23.00 18.72 20.93 18.10 19.08 20.76 19.19 21.06 14.70 15.75 13.79 18.08 21.59 23.57 16.92 19.06 19.87 20.52 22.09 21.59 23.68 20.41 21.86 19.43 20.15 20.78 22.21 20.72 22.22 21.28 22.73 22.81 22.90 24.70 21.49 22.96 93 Vertical Sky Component Existing 21.74 19.68 22.64 18.85 21.62 19.59 22.31 20.30 23.48 19.22 21.94 19.28 21.85 20.24 20.29 23.00 18.72 20.93 18.10 19.08 20.76 19.19 21.06 14.70 15.75 13.79 18.08 21.59 23.57 16.92 19.06 19.87 20.52 22.09 21.59 23.68 20.41 20.41 19.43 20.15 20.78 22.21 20.72 22.22 21.28 22.73 22.81 22.90 24.70 21.49 22.96 LIVINGROOM
LIVINGROOM
LIVINGROOM
LIVINGROOM
LIVINGROOM LIVINGROOM
LIVINGROOM
LIVINGROOM
LIVINGROOM
LIVINGROOM
LIVINGROOM
LIVINGROOM
LIVINGROOM LIVINGROOM BEDROOM Room Use WC W27/24 W28/24 W29/24 W30/24 W31/24 W32/24 W33/24 W33/24 W36/24 W37/24 W38/24 W39/24 W40/24 W41/24 W42/24 W43/24 W44/24 W46/24 W48/24 W49/24 W50/24 W51/24 W52/24 W53/24 W53/24 W56/24 W57/24 W58/24 W59/24 W60/24 W62/24 W63/24 W64/24 W65/24 W66/24 W67/24 W21/24 W22/24 W23/24 W24/24 W25/24 Window W2/25 R10/24 R10/24 R10/24 R10/24 R10/24 R5/24 R5/24 R5/24 R5/24 R5/24 R5/24 R5/24 R5/24 R7/24 R7/24 R7/24 R7/24 R7/24 R7/24 R7/24 R8/24 R8/24 R8/24 R8/24 R8/24 R8/24 R8/24 R8/24 R9/24 R9/24 R9/24 R9/24 R9/24 R2/25 R6/24 R6/24 R6/24 R6/24

PROJECT NO: 7356 (rel_13_7356_cad) EXISTING v PROPOSED

		Vertical	Vertical Sky Component							A	Average Daylight Factor	ight Factor	3		
Room	Window	Room Use	Existing	Proposed	Loss	%	Room	Window	Room Use	Existing ADF T	Ing Total	Proposed ADF T	Total	Loss	%
R3/25	W3/25	BEDROOM	28.41	28.41	0.00	00.00	R3/25	W3/25	BEDROOM	0.85	0.85	0.85	0.85	0.00	0.00
R4/25	W4/25	WC	23.71	23.71	0.00	00.00	R4/25	W4/25	WC	0.21	0.21	0.21	0.21	00:00	0.00
R5/25	W5/25		29.85	29.85	0.00	00.00	R5/25	W5/25		1.19	1.19	1.19	1.19	0.00	0.00
R6/25	W6/25		30.51	30.51	0.00	00.00	R6/25	W6/25		1.03	1.03	1.03	1.03	00:00	0.00
R7/25	W7/25		30.88	30.88	0.00	00.00	R7/25	W7/25		1.06	1.06	1.06	1.06	0.00	0.00
14 WEST CENTRAL STREET	L STREET						14 WEST CE	14 WEST CENTRAL STREET							
R1/60	W1/60		11.28	11.17	0.11	0.98	R1/60	W1/60		0.16	0.16	0.16	0.16	0.00	1.86
R2/60	W2/60		14.05	13.79	0.26	1.85	R2/60	W2/60		0.20	0.20	0.20	0.20	0.01	2.94
R1/61	W1/61		12.61	12.49	0.12	0.95	R1/61	W1/61		09.0	09.0	0.59	0.59	0.00	0.67
R2/61	W2/61		15.64	15.43	0.21	1.34	R2/61	W2/61		0.73	0.73	0.72	0.72	0.01	96.0
R1/62	W1/62		14.02	13.94	0.08	0.57	R1/62	W1/62		0.64	0.64	0.64	0.64	0.00	0.31
R2/62	W2/62		17.58	17.45	0.13	0.74	R2/62	W2/62		0.79	0.79	0.79	0.79	0.00	0.50
R1/63	W1/63		15.83	15.81	0.02	0.13	R1/63	W1/63		69.0	69.0	69.0	69:0	0.00	0.14
R2/63	W2/63		20.05	20.01	0.04	0.20	R2/63	W2/63		0.87	0.87	98.0	98.0	0.00	0.12
R1/64	W1/64		22.61	22.61	0.00	00.00	R1/64	W1/64		2.33	2.33	2.33	2.33	0.00	00.00

No Skyline (NSL)

PROJECT NO: 7356 (rel_13_7356_cad) EXISTING v PROPOSED

GRAPE STREET PROP220714 DAYLIGHT DISTRIBUTION ANALYSIS

Room/		Whole	Prev	New	Loss	%Loss
Floor	Room Use	Room	sq ft	sq ft	sq ft	
KING EDWARDS N	KING EDWARDS MANSIONS, 6-18 GRAPE	APE STREET				
R1/21	LIVINGROOM	118.0	75.6	75.6	0.0	0.0
R2/21	BEDROOM	156.3	86.2	8.98	9.0-	-0.7
R3/21	LIVINGROOM	171.4	0.66	98.3	0.7	0.7
R4/21	BEDROOM	175.1	93.4	0.06	3.4	3.6
R5/21	LIVINGROOM	168.0	1.96	91.5	5.2	5.4
R6/21	BEDROOM	191.7	113.8	108.8	5.1	4.5
R7/21	LKD	295.3	126.9	126.1	0.8	9.0
R8/21		294.0	118.5	117.0	1.6	1.4
R1/22	LIVINGROOM	148.7	121.9	116.8	5.1	4.2
R2/22	BEDROOM	164.6	82.6	77.8	4.8	5.8
R3/22	BEDROOM	160.6	107.6	100.2	7.4	6.9
R4/22	LIVINGROOM	216.0	96.3	95.7	9.0	9.0
R5/22	DINING	191.7	131.5	115.5	16.0	12.2
R6/22	WC	52.7	48.3	46.8	1.6	3.3
R7/22	BEDROOM	178.6	73.5	73.5	0.0	0.0
R8/22		155.1	53.6	53.6	0.0	0.0
R9/22		159.3	51.8	51.8	0.0	0.0
R10/22		189.2	64.5	64.5	0.0	0.0
R1/23	LIVINGROOM	168.5	156.4	156.4	0.0	0.0
R2/23	BEDROOM	167.1	103.7	103.7	0.0	0.0
R3/23	BEDROOM	165.2	126.4	126.4	0.0	0.0
R4/23	LIVINGROOM	217.8	154.9	154.9	0.0	0.0
R5/23	DINING	207.0	200.9	200.9	0.0	0.0
R6/23	WC	50.9	47.4	47.4	0.0	0.0
R7/23	BEDROOM	184.0	110.0	110.0	0.0	0.0
R8/23		147.4	6.68	6.68	0.0	0.0
R9/23		159.1	97.0	97.0	0.0	0.0
R10/23		188.6	109.2	109.2	0.0	0.0
R1/24	LIVINGROOM	161.3	148.9	148.9	0.0	0.0
R2/24	BEDROOM	169.7	114.0	114.0	0.0	0.0
R3/24	BEDROOM	168.7	134.5	134.5	0.0	0.0
R4/24	LIVINGROOM	229.9	164.2	164.2	0.0	0.0
R5/24 DDPROP220714.xls 05/08/2014	LIVINGROOM	176.0	172.0	172.0	0.0	0.0

PROJECT NO: 7356 (rel_13_7356_cad) EXISTING v PROPOSED

GRAPE STREET PROP220714 DAYLIGHT DISTRIBUTION ANALYSIS

Room/ Floor	Room Use	Whole Room	Prev sq ft	New sq ft	Loss sq ft	%Loss
R6/24	WC	50.4	48.6	48.6	0.0	0.0
R7/24	BEDROOM	186.7	180.5	180.5	0.0	0.0
R8/24		149.5	147.3	147.3	0.0	0.0
R9/24		159.0	155.8	155.8	0.0	0.0
R10/24		172.3	170.5	170.5	0.0	0.0
R1/25	WC	55.4	44.4	44.4	0.0	0.0
R2/25	LIVINGROOM	227.7	168.5	168.5	0.0	0.0
R3/25	BEDROOM	146.1	109.2	109.2	0.0	0.0
R4/25	WC	56.5	30.7	30.7	0.0	0.0
R5/25		102.5	82.6	82.6	0.0	0.0
R6/25		127.1	108.2	108.2	0.0	0.0
R7/25		123.1	91.4	91.4	0.0	0.0
14 WEST CENTRAL STREET	. STREET					
R1/60		158.8	75.4	73.9	1.5	2.0
R2/60		144.2	83.7	80.8	2.9	3.5
R1/61		158.8	8.66	97.8	2.0	2.0
R2/61		144.2	113.0	110.0	3.0	2.7
R1/62		158.8	113.3	111.4	1.9	1.7
R2/62		144.2	125.8	125.8	0.1	0.1
R1/63		158.8	123.0	122.9	0.1	0.1
R2/63		144.2	132.5	132.5	0.0	0.0
R1/64		539.4	498.3	498.3	0.0	0.0

Annual Probable Sunlight Hours (APSH)

PROJECT NO: 7356 (rel_13_7356_cad) EXISTING v PROPOSED

				Window	woh					Room	mo			
			Existing	ting	Proposed	peso			Existing	ting	Prop	Proposed		
E C C	Window	Room	Winter	Annual	Winter	Annual	Winter %1055	Annual %1 oss	Winter	Annual	Winter	Annual	Winter %! occ	Annual %! nes
	2000	250		HOLE		HC H	/0F033	/0LU33			בוכוא		/0E033	/oFO33
KING EDV	VARDS MAI	KING EDWARDS MANSIONS, 6-18 GRAPE STREET 	PE STREET											
R5/22	W23/22	DINING	0	9	0	9	1	0.0						
R5/22	W24/22	DINING	0	7	0	7	,	0.0						
R5/22	W25/22	DINING	0	2	0	2	1	0.0						
R5/22	W26/22	DINING	0	2	0	2	,	0.0						
R5/22	W27/22	DINING	⊣	∞	1	∞	0.0	0.0						
R5/22	W28/22	DINING	Т	12	1	12	0.0	0.0						
R5/22	W29/22	DINING	0	0	0	0	1	1						
R5/22	W30/22	DINING	0	0	0	0	,	,						
R5/22	W31/22	DINING	0	1	0	1	1	0.0						
R5/22	W32/22	DINING	0	1	0	1	ı	0.0	1	12	1	12	0.0	0.0
R7/22	W37/22	BEDROOM	0	4	0	4	1	0.0						
R7/22	W38/22	BEDROOM	0	4	0	4	1	0.0						
R7/22	W39/22	BEDROOM	3	18	3	18	0.0	0.0						
R7/22	W40/22	BEDROOM	3	19	3	19	0.0	0.0						
R7/22	W41/22	BEDROOM	0	0	0	0	1	ı						
R7/22	W42/22	BEDROOM	0	0	0	0	1	1						
R7/22	W43/22	BEDROOM	0	0	0	0	1	ı						
R7/22	W44/22	BEDROOM	0	0	0	0	ı	ı	ĸ	19	က	19	0.0	0.0
20/07	CC/ CL77.			r L	r	r L	Ċ	(
K10/22	W59/22		n	T2	n	CT	0.0	0.0						
R10/22	W60/22		3	14	3	14	0.0	0.0						
R10/22	W61/22		0	0	0	0	1	ı						
R10/22	W62/22		0	0	0	0	1	1						
R10/22	W63/22		0	1	0	1	1	0.0						
R10/22	W64/22		1	∞	1	∞	0.0	0.0						
R10/22	W65/22		0	0	0	0	ı							

PROJECT NO: 7356 (rel_13_7356_cad) EXISTING v PROPOSED

PROP220714 SUNLIGHT ANALYSIS

GRAPE STREET

Winter Annual %Loss 0.0 0.0 0.0 %Loss 0.0 0.0 0.0 Winter Annual APSH 15 25 12 Proposed APSH α α \vdash Room Winter Annual APSH 15 25 12 Existing APSH 3 α \vdash Annual %Loss 0.0 0.0 0.0 0.0 Winter %Loss 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Annual APSH 9 9 25 24 0 0 5 5 20 20 0 0 9 5 5 8 8 0 Proposed Winter APSH 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 4 Window Annual APSH 9 9 24 24 0 0 12 118 20 0 0 0 8 2 2 0 0 Existing Winter APSH 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 4 4 0 0 LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM LIVINGROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM BEDROOM DINING Room Use Window **N27/23 N28/23** W29/23 N30/23 N31/23 **N32/23 N33/23** N34/23 **N35/23 W36/23** W41/23 **N42/23 N43/23 N44/23** N45/23 W46/23 **N47/23** W66/22 W1/23 W2/23 **W3/23 W4/23** W5/23 N6/23 W7/23 W8/23 R10/22 Room R5/23 R7/23 R1/23 R1/23 R1/23 R1/23 R1/23R1/23 R1/23 R5/23 R5/23 R5/23 R5/23 R5/23 R5/23 R5/23 R5/23 R5/23 R7/23 R7/23 R7/23 R7/23 R7/23 R7/23

PROJECT NO: 7356 (rel_13_7356_cad) EXISTING v PROPOSED

GRAPE STREET
PROP220714
SUNLIGHT ANALYSIS

			Fvieting	Window	dow	paso			Fvieting		Room	Promosad		
		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
R7/23	W48/23	BEDROOM	0	0	0	0		1	4	20	4	20	0.0	0.0
R10/23	W63/23		3	19	ĸ	19	0.0	0.0						
R10/23	W64/23		3	19	33	19	0.0	0.0						
R10/23	W65/23		0	4	0	4	,	0.0						
R10/23	W66/23		0	4	0	4	1	0.0						
R10/23	W67/23		0	9	0	9	ı	0.0						
R10/23	W68/23		Т	13	П	13	0.0	0.0						
R10/23	W69/23		0	0	0	0	,	1						
R10/23	W70/23		0	0	0	0	ı	1	æ	19	3	19	0.0	0.0
R1/24	W1/24	LIVINGROOM	0	10	0	10		0.0						
R1/24	W2/24	LIVINGROOM	0	10	0	10	1	0.0						
R1/24	W3/24	LIVINGROOM	3	24	33	24	0.0	0.0						
R1/24	W4/24	LIVINGROOM	3	25	3	25	0.0	0.0						
R1/24	W5/24	LIVINGROOM	0	0	0	0	1	1						
R1/24	W6/24	LIVINGROOM	0	0	0	0	,	,						
R1/24	W7/24	LIVINGROOM	0	0	0	0	,	1						
R1/24	W8/24	LIVINGROOM	0	0	0	0	1	ı	c	25	3	25	0.0	0.0
R7/24	W40/24	BEDROOM	\leftarrow	9	\leftarrow	9	0.0	0.0						
R7/24	W41/24	BEDROOM	Т	9	1	9	0.0	0.0						
R7/24	W42/24	BEDROOM	2	21	2	21	0.0	0.0						
R7/24	W43/24	BEDROOM	2	23	2	23	0.0	0.0						
R7/24	W44/24	BEDROOM	0	0	0	0	1	1						
R7/24	W45/24	BEDROOM	0	0	0	0	,	,						
R7/24	W46/24	BEDROOM	0	0	0	0	,	1						
R7/24	W47/24	BEDROOM	0	0	0	0	ı	1	2	23	2	23	0.0	0.0

PROJECT NO: 7356 (rel_13_7356_cad) EXISTING v PROPOSED

GRAPE STREET PROP220714 SUNLIGHT ANALYSIS

				Window	low					Room	om			
			Existing	ting	Proposed	pasc			Existing	ting	Prop	Proposed		
Room	Rooi Window Use	Room Use	Winter APSH	Annual APSH	Winter APSH	Annual APSH	Winter %Loss	Annual %Loss	Winter Annual APSH APSH	Annual APSH	Winter	Annual APSH	Winter %Loss	Annual %Loss
14 WEST	14 WEST CENTRAL STREET	EET												
R1/60	W1/60		2	15	2	15	0.0	0.0	2	15	2	15	0.0	0.0
R2/60	W2/60		2	19	2	19	0.0	0.0	2	19	2	19	0.0	0.0
R1/61	W1/61		8	19	က	19	0.0	0.0	æ	19	8	19	0.0	0.0
R2/61	W2/61		4	24	4	24	0.0	0.0	4	24	4	24	0:0	0.0
R1/62	W1/62		က	20	8	20	0.0	0.0	æ	20	33	20	0:0	0.0
R2/62	W2/62		5	28	Ŋ	28	0.0	0.0	72	28	72	28	0.0	0.0
R1/63	W1/63		4	21	4	21	0.0	0.0	4	21	4	21	0.0	0.0
R2/63	W2/63		∞	33	∞	33	0.0	0.0	∞	33	∞	33	0.0	0.0
R1/64	W1/64		10	47	10	47	0.0	0.0	10	47	10	47	0.0	0.0

Appendix 04

Floor Plans: King Edwards Mansions

No. Date Revision

ISHerwood

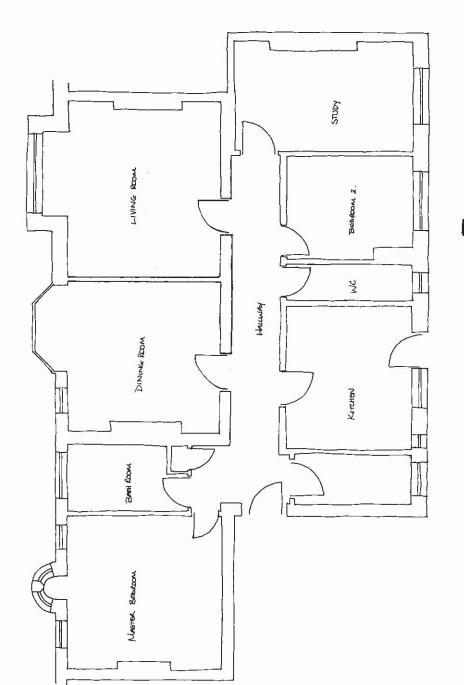
CLIENT HELEN STONE

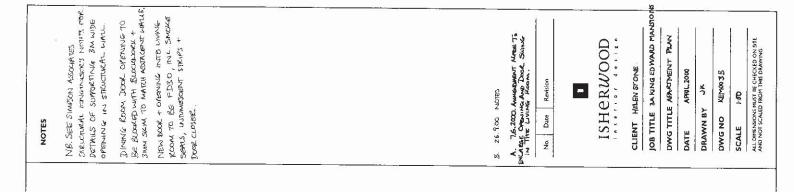
DWG TITLE APACTMENT PLAN ENSTANG JOB TITLE 34 KING EDWARD MINSIO

SCALE 1-50 (SKETCH)
ALL DIPENSIONS PLUST BE CHECKED ON SITE
AND NOT SCALED FROM THIS DRAWING

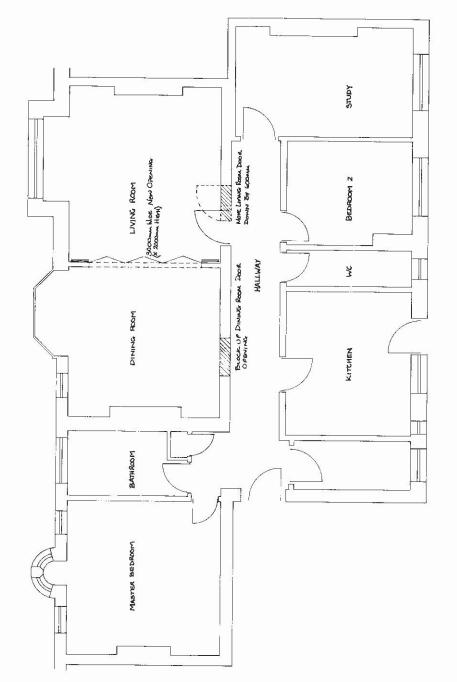
DRAWN BY JK DATE APPL 2000

PIF/11/A





PI4|11|A LSX6005137



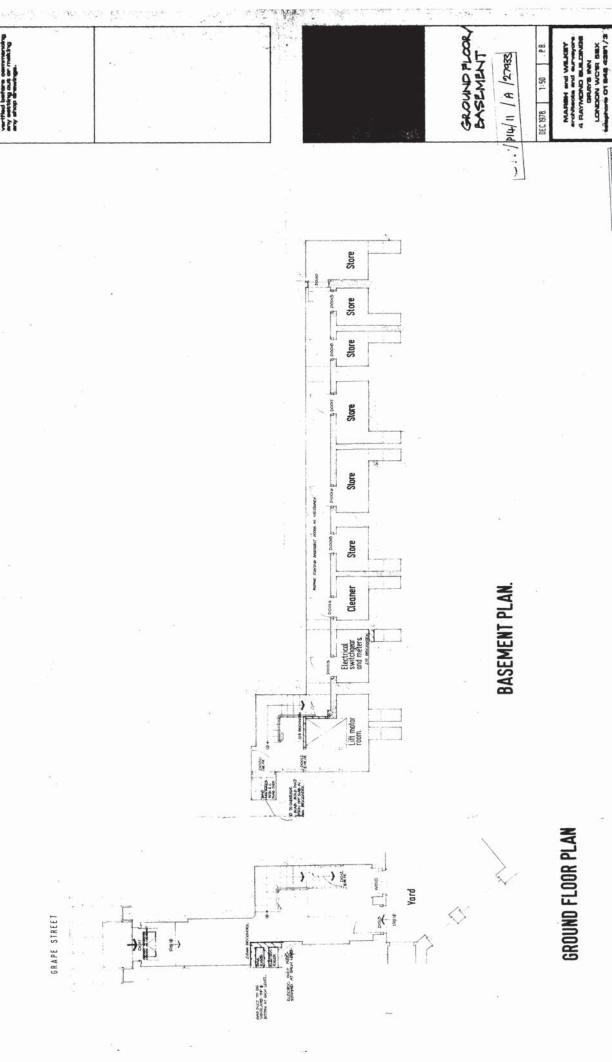
SECOND FLOOR (1) /AH/11 /A 27433

1:50

247/103

Bedroom 2. FLAT Nº 28 Bedroom 1 (Filtrance Living Room 로 9 0 NOTES AS FOR THIRD PLOOR, OLAND 247/104 Living Room Bedroom 3. **₹** Bedroom 2 FLAT Nº 2A Both

SECOND FLOOR PLAN.

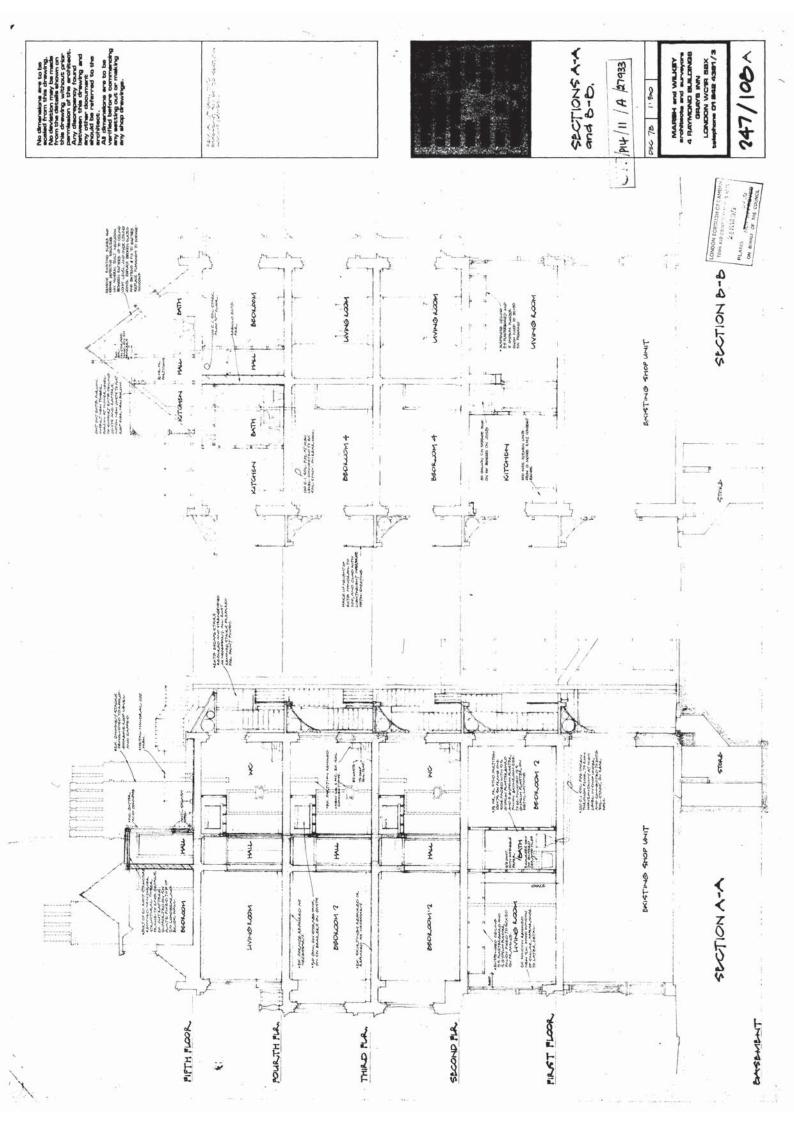


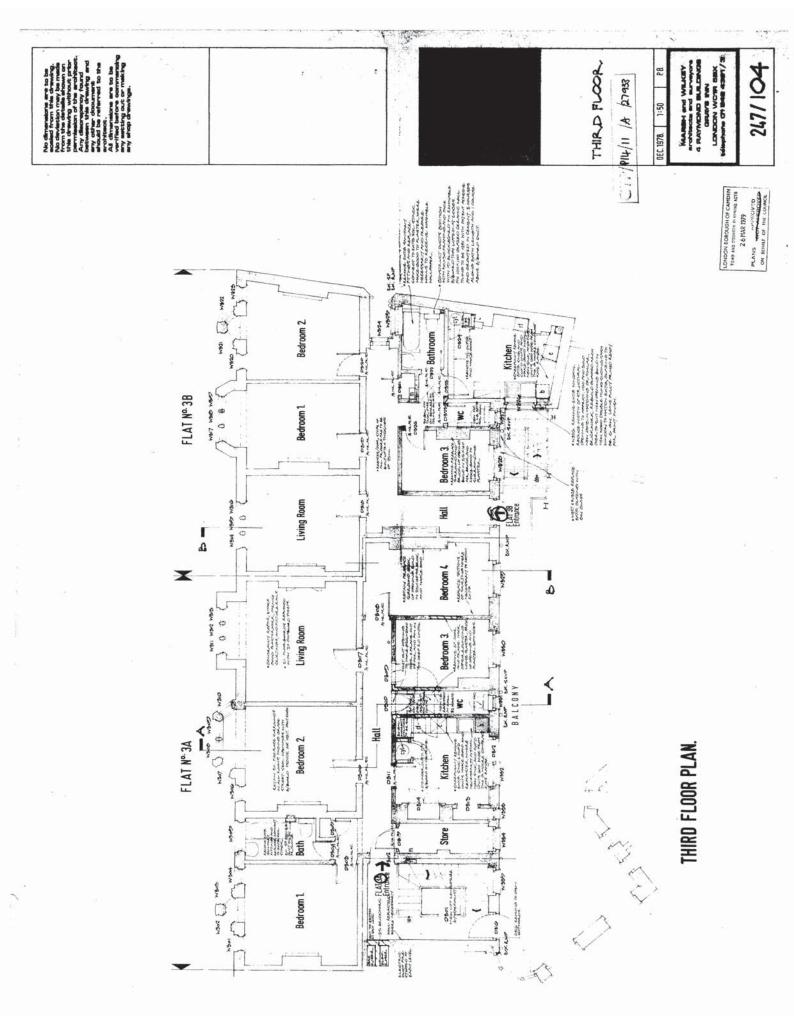
1

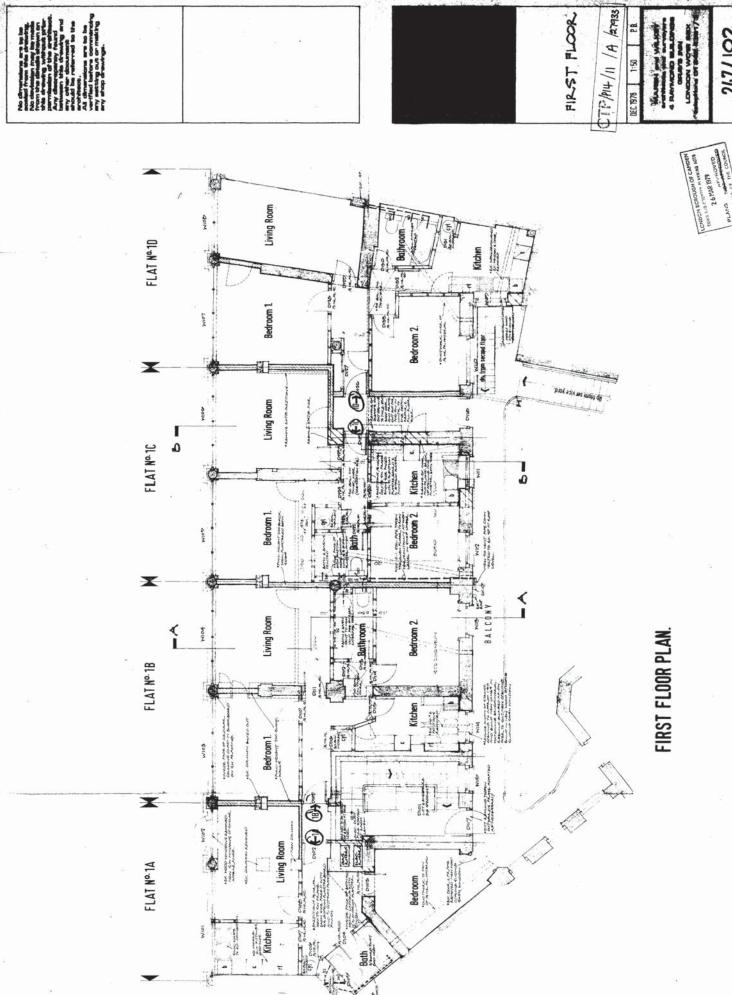
247/101

FORON BORDH OF CARRENT TOWN AND COUNTY BARNING KER AND AND COUNTY BARNING KER AND COUNTY BARNING KER AND COUNTY BARNING TO THE COUNTY BARNING THE COUNTY BARNING TO THE COUNTY BARNING THE

GROUND FLOOR PLAN







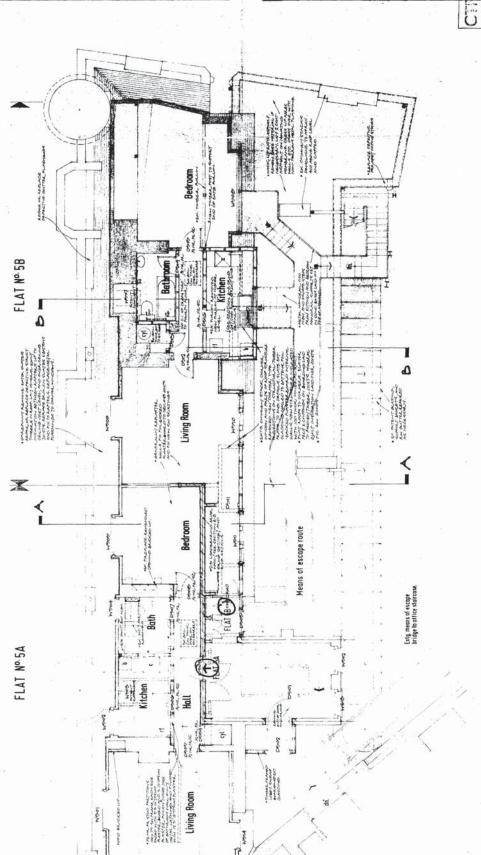
247/102

FIFTH FLOOR

FIRTH FLOOR

FIRTH FLOOR

FIFTH FLOOR



FIFTH FLOOR PLAN.

