



DAYLIGHT & SUNLIGHT

IMPACT ON NEIGHBOURING
PROPERTIES REPORT

Pope's Road, Brixton

AG Hondo Pope's Road BV

20 July 2020

GIA No: **13866**

PROJECT DATA:

Client **AG Hondo Pope's Road BV**
Architect **Adjaye Associates**
Project Title **Pope's Road, Brixton**
Project Number **13866**

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Prepared by **Harry Hummerstone-Pope**
Checked by **Jerome Webb**
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1 EXECUTIVE SUMMARY

GIA have assessed the proposed Adjaye Associates scheme “Proposed Scheme” for the Pope's Road, Brixton site “the Site” to understand the potential changes in light to the relevant surrounding properties.

- 1.1 GIA have been instructed by AG Hondo Pope's Road BV to provide daylight, sunlight and overshadowing advice in relation to the Pope's Road, Brixton development in Brixton, London. The Site currently comprises of retail use occupied by Sports Direct and a car park, bound railway viaducts to the north and south.
- 1.2 This daylight and sunlight report supersedes our previous daylight and sunlight report dated 27th March 2020 in full.”
- 1.3 GIA have undertaken a technical Daylight, Sunlight and Overshadowing Assessment of the Adjaye Associate’s scheme at Pope’s Road, Brixton “the Site” to understand the potential effect of the Proposed Scheme on the daylight and sunlight amenity of the relevant neighbouring properties, as well as an overshadowing assessment of surrounding open spaces.
- 1.4 The requirement in London boroughs for significantly more living and working spaces necessitates higher density development. The Site is located within Brixton town centre, close to both the Victoria Line tube station and National Rail train station.
- 1.5 Policy 7.6 of the London Plan (2016) states that buildings and structures should “not cause unacceptable harm to the amenity of surrounding land and buildings, particularly residential buildings”. The policy acknowledges that new development may cause some degree of “harm” to neighbouring amenity. The question asked by the policy, however, is whether the harm would be “unacceptable”.
- 1.6 The daylight, sunlight and overshadowing analysis has been considered by reference to the criteria and methodology within the Building Research Establishment Guidelines (2011), which when published, recognised that it should not form a mandatory set of criteria, rather it should be used to help and inform design.
- 1.7 This report has addressed alterations in daylight and sunlight to neighbouring residential properties in two stages:
 - 1 Whether there is any “harm” to the receipt of daylight and sunlight to neighbouring properties; and
 - 2 Whether the level of “harm” is unacceptable.
- 1.8 In order to answer stage one, the strict numerical guidelines outlined within section 2.2.21 and 3.2.11 of the BRE Guidelines can be applied. In answering stage two, wider amenity and contextual considerations are taken into account in arriving at a balanced judgement.
- 1.9 This approach has been accepted in two Appeal decisions, Buckle Street (APP/ E5900/W/17/3191757) and Graphite Square (APP/N5660/W/18/3211223).
- 1.10 Upon successful implementation of the Proposed Scheme, 11 of the 19 (57.9%) properties assessed will meet the national numerical values identified in paragraphs 2.2.21 and of the BRE handbook for daylight and sunlight. Overall, in relation to daylight, there will be an 86.7% compliance rate for VSC and a 90.7% compliance rate for NSL. In terms of daylight overall, 578 of the 702 rooms assessed achieve BRE compliance for both NSL and VSC (82.3%). In relation to sunlight, 99.5% of windows and 99.7% of rooms assessed will achieve compliance for APSH. Each of these overall figures is considered to be high, given the urban context of the Site. We are therefore of the opinion that overall, unacceptable harm is not caused to the surrounding residential properties and the daylight and sunlight impacts are commensurate for the surrounding urban context.

1.11 It is our opinion, that the Proposed Scheme is appropriate in its context and the changes in daylight and sunlight levels to the surrounding residential properties are commensurate and in-line with the surrounding area. The existing Site is predominantly vacant and as such, any meaningful massing implemented on the Site is likely to give rise to daylight impacts beyond those suggested as acceptable by the BRE guidelines. Given the scale of the Proposed Scheme, we believe that the daylight and sunlight impacts are isolated for the most part and where these do arise, they are justifiable and overall, do not cause unacceptable harm.

1.12 In terms of overshadowing, upon successful implementation of the Proposed Scheme, all open spaces surrounding the Site either retain levels of sun hours on ground that meet or exceed the BRE recommendation or experience alterations less than 20% and are therefore in line with BRE guidelines. Therefore, implementation of the Proposed Scheme does not materially effect the enjoyment of the surrounding amenity areas.

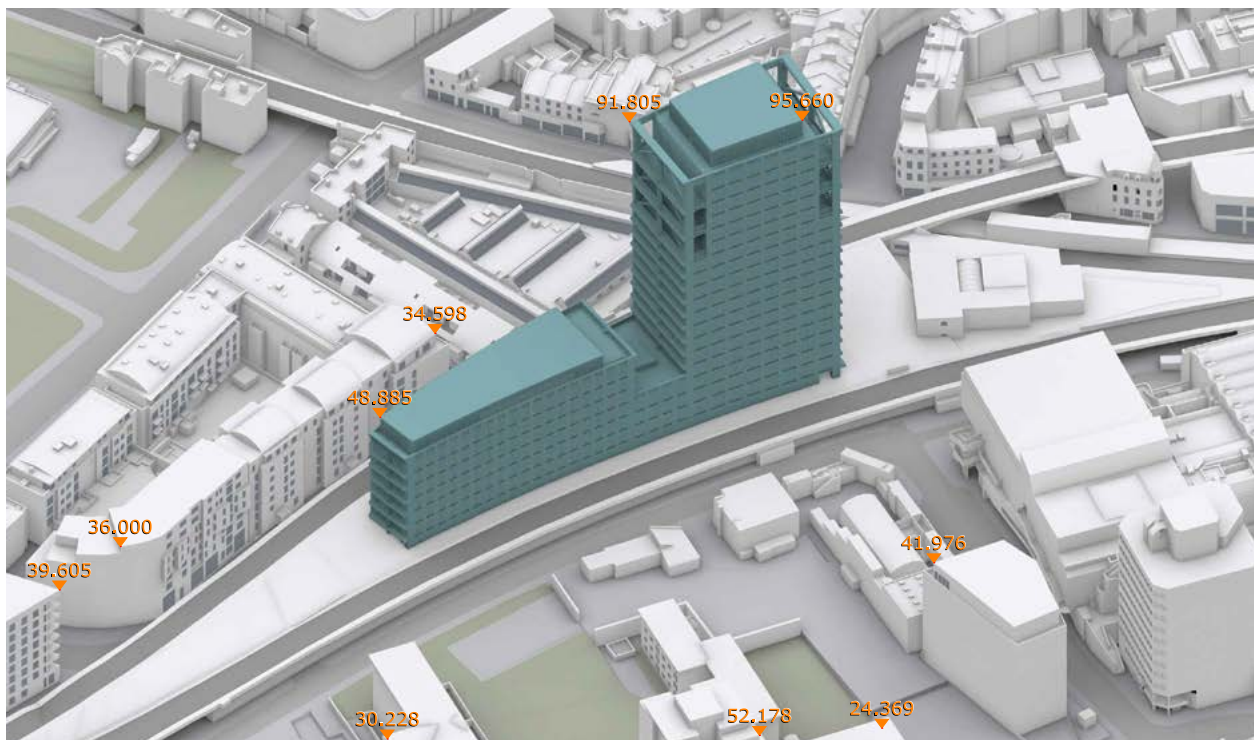


Figure 01: Proposed Scheme

2 EXISTING SITE

GIA have been instructed to review and advise on the daylight and sunlight impacts associated with the implementation of the Proposed Scheme at Pope's Road, Brixton.

THE SITE

- 2.1 The Site is located in the London Borough of Lambeth and currently comprises of retail use occupied by Sports Direct and a car park, bound railway viaducts to the north and south.
- 2.2 Figure 02 below illustrates the Site as it exists in present day. Further drawings of the existing Site condition are located within Appendix 03 of this report.

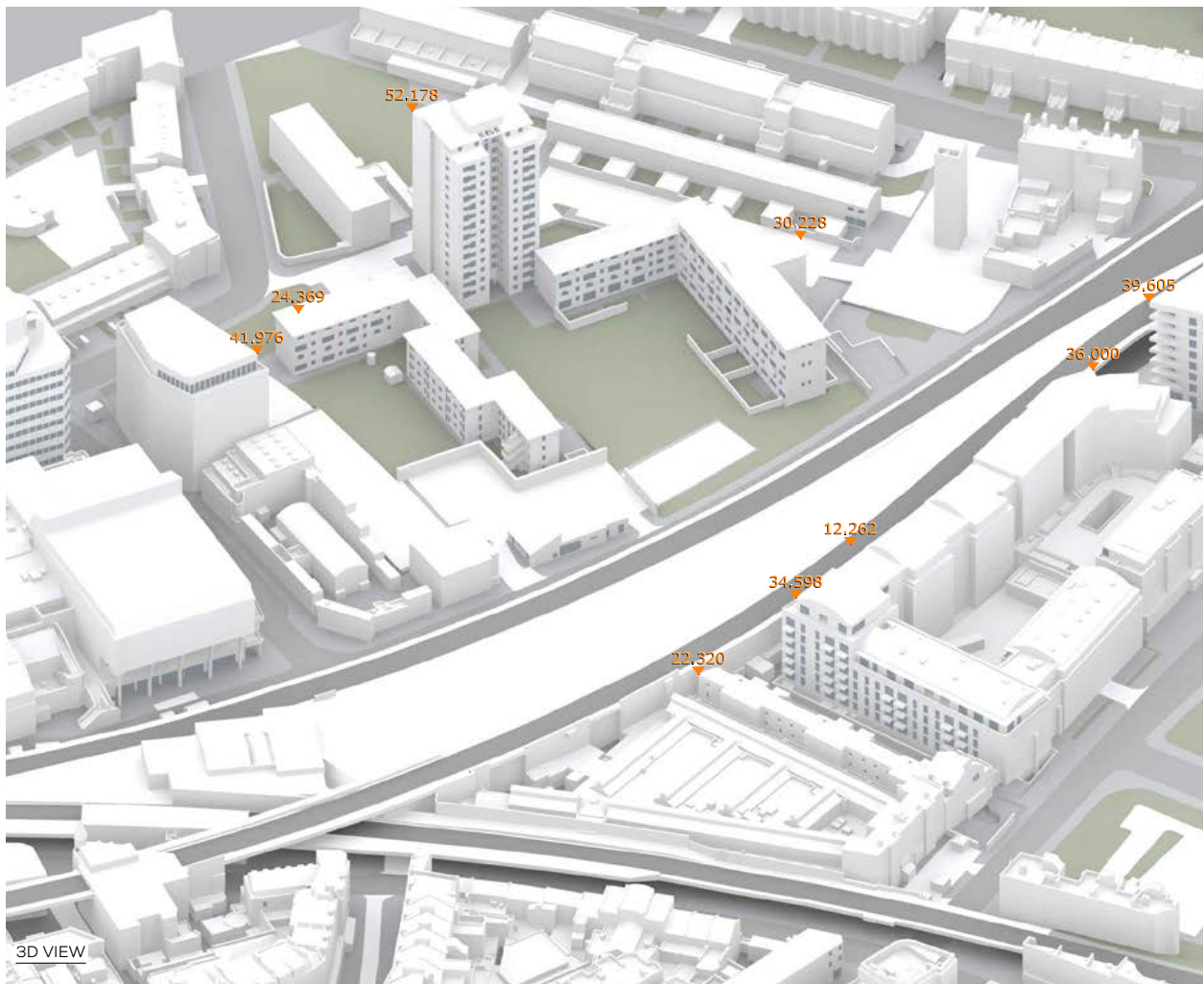


Figure 02: Existing Site

PROPOSED SCHEME

2.3 The Proposed Scheme comprises of the demolition of existing building and erection of a part G + 19, part G + 8 storey building comprising flexible A1/A3/ B1/D1/D2 uses at basement, ground and first floor, restaurant use (A3) at floor 8 and B1 accommodation on floors 2 to 19, with plant enclosure at roof level, and associated cycle parking, servicing and all necessary enabling works.

2.4 We prepared this daylight and sunlight report for the planning application ref. 20/01347/FUL. The Applicant, in consultation with the local planning authority is amending the planning application and the key changes are:

- Set back of Western Elevation by 2.5m to provide additional public realm
- Connection of eastern and western blocks on fourth floor

- Adjustments to design of central block in-between West and East block
- Inclusion of dedicated community space

2.5 This daylight and sunlight report supersedes our previous daylight and sunlight report dated 27th March 2020 in full. In light of the revised scheme, we have assessed the updated Proposed Scheme for daylight and sunlight and reported on the position. In our professional opinion, we do not consider that the revised scheme will materially alter the conclusions of our previous daylight and sunlight report, submitted to the local planning authority.

2.6 GIA's understanding of the Proposed Scheme is illustrated in Figure 03 below. Further drawings are located within Appendix 03 of this report.



Figure 03: Proposed Scheme

3 POLICY & THE WIDER CONTEXT

3.1 Below we have detailed sections from the following documents as they are, in our opinion, the most pertinent in relation to daylight and sunlight matters and how we have approached the effects of the Proposed Scheme on the relevant neighbouring properties:

- **National Planning Policy Framework (NPPF) (June 2019) (Ministry of Housing Communities and Local Government (MHCLG));**
- **National Planning Practice Guidance (NPPG) (updated October 2019) (MHCLG);**
- **The London Plan – The Spatial Development Strategy for London Consolidated with Alterations Since 2011 (March 2016) (Greater London Authority);**
- **The London Plan – Intent to Publish (December 2019)**
- **Sustainable Design and Construction Supplementary Guidance (2014);**
- **Lambeth Local Plan (September 2015)**
- **Building Research Establishment Guidelines 2011**

NATIONAL PLANNING POLICY FRAMEWORK (JUNE 2019)

3.2 The NPPF (June 2019) states that local planning authorities should refuse applications which they consider fail to make efficient use of land. The discussion in relation to daylight and sunlight highlights the Government’s recognition that increased flexibility is required in response to the requirement for higher density development.

“When considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards)”

3.3 It is acknowledged that the paragraph makes specific reference to application for housing but nonetheless, we consider that it is a relevant principle point that policies and guidance on daylight and sunlight can inhibit the efficient use of land if applied rigidly and mechanistically.

NATIONAL PLANNING PRACTICE GUIDANCE (UPDATED JULY 2019)

3.4 In light of the update to the Government’s Planning Practice Guidance, we have considered the relevant paragraphs on daylight and sunlight.

3.5 Paragraph 6 of the NPPG (Ref ID: 66-006-20190722) acknowledges that new development may cause an impact on daylight and sunlight levels enjoyed by neighbouring occupiers. It requires local authorities to assess whether the impact to neighbouring occupiers would be “unreasonable”.

THE LONDON PLAN (MARCH 2016)

3.6 The London Plan was adopted in March 2016 and sets out the strategic plan for London providing a socio-economic, environmental and transport framework for a 20-25-year period.

3.7 Policy 7.6 of the London Plan states that buildings and structures should “not cause unacceptable harm to the amenity of surrounding land and buildings, particularly residential buildings”.

THE LONDON PLAN- INTENT TO PUBLISH (DECEMBER 2019)

3.8 The Intent to Publish London Plan 2019 considers the spatial development strategy for Greater London.

3.9 Policy D6 Housing Quality and Standards paragraph D notes;

“the design of development should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space.”

SUSTAINABLE DESIGN & CONSTRUCTION SUPPLEMENTARY PLANNING GUIDANCE (2014)

- 3.10 Section 2.3 of the SPG provides guidance on key areas such as site layout and micro-climate in relation to site layout and building design.
- 3.11 With regard to site layout, paragraph 2.3.6 refers to measures to reduce carbon dioxide emissions “include enabling access to daylight and sunlight for uses that require [light].” In addition, the guidance states that “site planning can minimise the impact of the shadow created by the new buildings to protect existing features such as open space and renewable solar technologies on roofs.” It goes on to say that “developers should ensure the layout of their site and buildings maximises the opportunities provided by natural systems, such as light.”
- 3.12 Paragraph 2.3.8 of the SPG continues with effects on the micro-climate caused by new buildings which include “overshadowing and reducing access to sunlight.”
- 3.13 The guidance states that the above effects should “be considered during the design of a development and assessed once the designed is finalised.”

LAMBETH LOCAL PLAN (SEPTEMBER 2015)

- 3.14 The Lambeth Local Plan 2015 policies replaces the previous for the borough, which were the Core Strategy 2011 and Saved UDP policies. The pertinent policy within the Lambeth Local Plan 2015 which relates to daylight and sunlight is.
- 3.15 Local Plan Policy Q2 (Amenity) supports development if:
 - iv. *it would not have an unacceptable impact on levels of daylight and sunlight on the host building and adjoining property; (my emphasis)*
- 3.16 Local Plan Policy Q26 (Tall and Large Buildings) supports tall buildings where:
 - vi. *it does not have an unacceptably harmful impact on its surroundings including microclimate...*
- 3.17 Supporting text for Policy Q2 states that Lambeth will use the BRE Guidelines and any other relevant documents when assessing schemes.
- 3.18 However, as is made plain by the recent Appeal Decisions on Graphite Square (PINS Refs: APP/N5660/W/18/3211223 & APP/N5660/W/19/3225761) (CD-E6), the key to the policy approach is the use of the terms “unacceptable” and “adequate”. In that case, the Inspector refers to the Rainbird Judgement and that daylight and sunlight should be approached in a certain way i.e. a two-stage process should be followed when assessing the impacts. Stage one is a calculation and the question to ask is whether there is a noticeable impact. Stage two is a matter of judgement and it is necessary to consider whether any noticeable impact is “unacceptable”.

4 BRE GUIDELINES & CONTEXT METHODOLOGY

The Building Research Establishment (BRE) have set out in their handbook '*Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice (2011)*', guidelines and methodology for the measurement and assessment of daylight and sunlight.

BUILDING RESEARCH ESTABLISHMENT GUIDELINES 2011

- 4.1 The BRE Guidelines note that the document is intended to be used in conjunction with the interior daylight recommendations found within the British Standard BS8206-2:2008 and The Applications Manual on Window Design of the Chartered Institution of Building Services Engineers (CIBSE).
- 4.2 The BRE Guidelines provides three methodologies for daylight assessment of neighbouring properties, namely;
 - 1 The Vertical Sky Component (VSC);
 - 2 The No Sky Line (NSL); and
 - 3 The Average Daylight Factor (ADF).
- 4.3 For daylight to be compliant (in accordance with figure 20 of the Guide), both the VSC and NSL tests have to be met.
- 4.4 The BRE Guidelines suggest that the ADF assessment should only be used to "check that adequate daylight is provided in new rooms", rather than existing buildings. We have not undertaken an ADF assessment in this instance.
- 4.5 There is one methodology provided by the BRE Guidelines for sunlight assessment, denoted as Annual Probable Sunlight Hours (APSH).
- 4.6 It is an inevitable consequence of the built-up urban environment that daylight and sunlight will be more limited in dense urban areas. It is well acknowledged that in such situations there may be many planning and urban design matters to consider other than daylight and sunlight.
- 4.7 Appendix 02 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.

ALTERNATIVE TARGET VALUES (ATV)

- 4.8 The suggested parameters and target values set-out in the BRE guidelines are based upon a suburban context. The guidelines also state that "the developer or planning authority may wish to use different target values. For example, in a 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."
- 4.9 Given the advice set-out above; our own professional experience; and the retained daylight levels attributed to many recently consented schemes within London, we have set Alternative Target Values that we believe are commensurate for the Site and the surrounding context:
 - A window is considered to retain a reasonable VSC value, if it achieves 15% or more, following the implementation of the Proposed Scheme.
 - A room is considered to retain a reasonable NSL value, if it achieves 50% or more, following the implementation of the Proposed Scheme.

5 DAYLIGHT & SUNLIGHT IMPACTS TO NEIGHBOURING PROPERTIES

This section details the daylight and sunlight impacts in relation to the relevant properties neighbouring the Site.

5.1 A three-dimensional computer model of the Site and surrounding properties was produced to carry out the relevant technical studies. All relevant assumptions made in producing this model can be found in Appendix 01.

SURROUNDING PROPERTIES

5.2 GIA have identified the following properties as relevant for daylight and sunlight assessment:

- **Canterbury Arms**
- **Southwyck House**
- **Granville Court**
- **12 Black Tree Mews**
- **Valencia Place – 1 Coal Lane**
- **360-366 Coldharbour Lane**
- **2-7 Valencia Place**
- **368-372 Coldharbour Lane**
- **Northgate Court**
- **Chilham Court**
- **Westgate Court**
- **Wincheap Court**
- **22-26 Atlantic Road**
- **48 Atlantic Road**
- **46 Atlantic Road**
- **28 Atlantic Road**
- **378 Coldharbour Lane**
- **Walton Lodge**

5.3 The following properties adhere to the numerical values set out within the BRE Guidelines and are not discussed further:

- **Canterbury Arms**
- **Southwyck House**
- **12 Black Tree Mews**
- **360-366 Coldharbour Lane**
- **2-7 Valencia Place**
- **Northgate Court**
- **Chilham Court**
- **22-26 Atlantic Road**
- **48 Atlantic Road**
- **46 Atlantic Road**
- **378 Coldharbour Lane**

5.4 Where changes in daylight and sunlight occur to the remaining properties, the impacts are fully discussed in the following sections. All results can be found in Appendix 04.

DISCUSSION OF RESULTS

Granville Court

- 5.5 This property is located directly to the south of the Site, on the opposite side of the railway viaduct.
- 5.6 Floor plans have not been obtained for this property, therefore reasonable assumptions have been made within our technical analysis (see Appendix 01).
- 5.7 This property will achieve 100% BRE compliance for NSL, following the implementation of the Proposed Scheme. In addition, as this property has no Site-facing windows orientated within 90 degrees of due-south, it has not been assessed for APSH.
- 5.8 In relation to VSC, 21 of the 25 windows assessed within this property will achieve BRE compliance (84.0% overall), following the implementation of the Proposed Scheme. Four windows located at first and second floor level will experience percentage reductions ranging between 20.0% to 30.0%, which we would consider to be only marginally beyond the 20% reduction suggested as acceptable by the BRE guidelines. However, as each of these windows will achieve retained VSC values in excess of 15% and the rooms they serve will achieve BRE compliance for NSL, we are of the opinion the daylight impacts to this property are acceptable.
- 5.9 To confirm, we do not believe the Proposed Scheme will cause unacceptable harm to this property's daylight and sunlight amenity.
- 5.10 Overleaf, GIA have summarised the daylight results in table format:



Figure 04: Image of Granville Court

RELATIVE IMPACT SUMMARY (EX. VS PR.)			
VSC + NSL (ALL PASS)			
ROOM			
	TOTAL	PASS	COMP.(%)
GRAVILLE COURT	15	12	80.0%

Table 01: Existing v Proposed VSC + NSL (All Pass) Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)															
VERTICAL BY COMPONENT															
	WINDOW			DOOR			DETACHED WALL			ROOM					
	TOTAL	PASS	COMP(%)	NSL-3%	NSL-4%	NSL-1	DOE	30-30	30-40	TOTAL	PASS	COMP(%)	NSL-3%	NSL-4%	NSL-1
GRAVILLE COURT	25	8	32%	4	0	0	0	0	0	15	12	80%	0	0	0

Table 02: Existing v Proposed VSC Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)						
NO SKY LINE						
ROOM						
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+
GRAVILLE COURT	15	15	100.0%	0	0	0

Table 03: Existing v Proposed NSL Results

DISCUSSION OF RESULTS

Valentia Place – 1 Coal Lane

- 5.11 This property is located directly to the south of the Site, on the opposite side of the railway viaduct.
- 5.12 Floor plans have not been obtained for this property, therefore reasonable assumptions have been made within our technical analysis (see Appendix 01).
- 5.13 This property will achieve 100% BRE compliance for both NSL and APSH, following the implementation of the Proposed Scheme.

5.14 In relation to VSC, 54 of the 56 windows assessed within this property will achieve BRE compliance (96.4% overall), following the implementation of the Proposed Scheme. One window located at first floor level and one window located at second floor level will experience percentage reductions of 35.1% and 24.1% respectively. It should be noted that both of these windows experience extremely low VSC values in the existing condition (3.7% and 5.8% respectively), due to the fact that the railway viaduct restricts their sky visibility. As such, they experience disproportionate percentage reductions, following the implementation of the Proposed Scheme. However, as the rooms these windows serve will achieve BRE compliance for NSL, we are of the opinion the daylight impacts to this property are acceptable.

5.15 To confirm, we do not believe the Proposed Scheme will cause unacceptable harm to this property's daylight and sunlight amenity.

5.16 Overleaf, GIA have summarised the daylight results in table format:



Figure 05: Image of Valentia Place

RELATIVE IMPACT SUMMARY (EX. VS PR.)			
	VSC + NSL (ALL PASS)		
	ROOM		
	TOTAL	PASS	COMP.(%)
VALENTIA PLACE - 1 COLE LANE	28	26	92.9%

Table 04: Existing v Proposed VSC + NSL (All Pass) Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)																
	VERTICAL SKY COMPONENT															
	WINDOW			LOSS			RETAINED VALUE			ROOM						
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	0-15	15-20	20-27	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	
VALENTIA PLACE - 1 COLE LANE	56	54	96.4%	1	1	0	2	0	0	28	28	100.0%	0	0	0	

Table 05: Existing v Proposed VSC Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)						
	NO SKY LINE					
	ROOM					
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+
VALENTIA PLACE - 1 COLE LANE	28	28	100.0%	0	0	0

Table 06: Existing v Proposed NSL Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)									
	ANNUAL PROBABLE SUNLIGHT HOURS								
	WINDOW			ANNUAL			WINTER		
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	20%-30%	30%-40%	40%+
VALENTIA PLACE - 1 COLE LANE	42	42	100.0%	0	0	0	0	0	0

Table 07: Existing v Proposed APSH Window Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)									
	ANNUAL PROBABLE SUNLIGHT HOURS								
	ROOM			ANNUAL			WINTER		
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	20%-30%	30%-40%	40%+
VALENTIA PLACE - 1 COLE LANE	28	28	100.0%	0	0	0	0	0	0

Table 08: Existing v Proposed APSH Room Results

DISCUSSION OF RESULTS

368-372 Coldharbour Lane

- 5.17 This property is located directly to the south of the Site, on the opposite side of the railway viaduct.
- 5.18 Floor plans have been obtained for this property and have been applied within our computer model, where possible.
- 5.19 This property will achieve 100% BRE compliance for APSH, following the implementation of the Proposed Scheme.
- 5.20 In relation to VSC, 132 of the 205 windows assessed within this property will achieve BRE compliance (64.4% overall), following the implementation of the Proposed Scheme. A further 34 windows will still retain at least 15% VSC with the Proposed Scheme in-situ. As such, these retained levels comply with the Alternative Target Value we have set within our report. This therefore leaves a total of 39 windows that will not achieve BRE compliance for VSC and will not achieve retained values of at least 15%, following the implementation of the Proposed Scheme. All but eight of these 39 windows serve bedrooms and the BRE guidelines explicitly state that daylight to bedrooms is less important.
- 5.21 In terms of the remaining eight windows, seven of these serve rooms which will achieve BRE compliance for NSL, following the implementation of the Proposed Scheme. As such, we are of the opinion that the daylight amenity to these rooms will not be harmed.
- 5.22 This therefore leaves a single window serving a living room located on the ground floor of the property that will not achieve BRE compliance for either VSC or NSL. This window and room experience extremely low VSC and NSL levels in the existing condition, making it a sensitive daylight receptor. Due to the fact that the window directly overlooks the Site, following the implementation of the Proposed Scheme, the window and the room it serves experiences disproportionate percentage reductions, following the implementation of the Proposed Scheme.
- 5.23 In terms of NSL overall, 143 of the 196 rooms assessed within this property will achieve BRE compliance (73.0%). A further nine rooms will continue to retain NSL values in excess of 50%, following the implementation of the Proposed Scheme, which we would consider to be reasonable values and in-line with the Alternate Target Values set-out in Section 4.0 of this report. Of the remaining 44 rooms, all but two serve as bedrooms and the BRE guidelines explicitly state that daylight to bedrooms is less important
- 5.24 This leaves one Living Room / Kitchen / Dining Room on the sixth floor and one living room located on the ground floor of this property that will not achieve BRE compliance for NSL.
- 5.25 Overall, although there are daylight impacts beyond BRE guidance to this property, the majority will retain levels of VSC and NSL that we believe are in line with the urban context of the Site. There is only an isolated number of windows and rooms that would experiences losses beyond what we deem an acceptable figure. We do not believe the Proposed Scheme will cause unacceptable harm to this property's daylight and sunlight amenity, in relation to the Current Baseline.
- 5.26 Overall, although there are daylight impacts beyond BRE guidance to this property, the majority will retain levels of VSC and NSL that we believe are in line with the urban context of the Site. There is only an isolated number of windows and rooms that would experiences losses beyond what we deem an acceptable figure. We do not believe the Proposed Scheme will cause unacceptable harm to this property's daylight and sunlight amenity, in relation to the Current Baseline.
- 5.27 Below, GIA have summarised the daylight results in table format:



Figure 06: Image of 368-372 Coldharbour Lane

5 DAYLIGHT & SUNLIGHT IMPACTS TO NEIGHBOURING PROPERTIES (Continued)

RELATIVE IMPACT SUMMARY (EX. VS PR.)			
	VSC + NSL (ALL PASS)		
	ROOM		
	TOTAL	PASS	COMP.(%)
368-372 COLDHARBOUR LANE	196	119	60.7%

Table 09: Existing v Proposed VSC + NSL (All Pass) Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)															
	VERTICAL SKY COMPONENT														
	WINDOW			LGSS			RETAINED VALUE			ROOM					
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	0-15	15-20	20-27	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+
368-372 COLDHARBOUR LANE	205	132	64.4%	15	11	47	89	34	10	196	125	63.8%	15	12	44

Table 10: Existing v Proposed VSC Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)						
	NO SKY LINE					
	ROOM					
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+
368-372 COLDHARBOUR LANE	196	143	73.0%	6	4	43

Table 11: Existing v Proposed NSL Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)									
	ANNUAL PROBABLE SUNLIGHT HOURS								
	WINDOW			ANNUAL			WINTER		
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	20%-30%	30%-40%	40%+
368-372 COLDHARBOUR LANE	88	88	100.0%	0	0	0	0	0	0

Table 12: Existing v Proposed APSH Window Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)									
	ANNUAL PROBABLE SUNLIGHT HOURS								
	ROOM			ANNUAL			WINTER		
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	20%-30%	30%-40%	40%+
368-372 COLDHARBOUR LANE	85	85	100.0%	0	0	0	0	0	0

Table 13: Existing v Proposed APSH Room Results

DISCUSSION OF RESULTS

Chartam Court

- 5.28 This property is located directly to the north of the Site, on the opposite side of the railway viaduct.
- 5.29 Floor plans have not been obtained for this property, therefore reasonable assumptions have been made within our technical analysis (see Appendix 01).
- 5.30 This property will achieve 100% BRE compliance for APSh, following the implementation of the Proposed Scheme.
- 5.31 In relation to VSC, 162 of the 177 windows assessed will achieve BRE compliance, which equates to an overall compliance rate of 91.5%. The remaining of 15 windows will experience VSC reductions of between 20%-30%, which we would consider to be only marginally beyond the 20% reduction suggested as acceptable by the BRE guidelines. It should be noted that each of these windows experience low VSC values in the existing condition, ranging from between 4.4% and 13.6% absolute. As such, they are extremely sensitive daylight receptors.
- 5.32 In terms of NSL, 176 of the 177 rooms assessed will achieve BRE compliance (99.4%), following the implementation of the Proposed Scheme. A single room located at first floor level will experience a 38.8% reduction in NSL, following the implementation of the Proposed Scheme. However, this room will continue to enjoy sky visibility to 56.9% of its area in the proposed condition and as such, will exceed the ATV we have set in Section 4.0 of this report.
- 5.33 To confirm, we do not believe the Proposed Scheme will cause unacceptable harm to this property's daylight and sunlight amenity.
- 5.34 Below, GIA have summarised the daylight results in table format:



Figure 07: Image of Chartam Court

RELATIVE IMPACT SUMMARY (EX. VS PR.)			
	VSC + NSL (ALL PASS)		
	ROOM		
	TOTAL	PASS	COMP.(%)
CHARTHAM COURT	177	161	91.0%

Table 14: Existing v Proposed VSC + NSL (All Pass) Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)															
	VERTICAL SKY COMPONENT														
	WINDOW			LGSS			RETAINED VALUE			ROOM					
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	0-15	15-20	20-27	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+
CHARTHAM COURT	177	162	91.5%	15	0	0	15	0	0	177	161	91.0%	15	1	0

Table 15: Existing v Proposed VSC Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)						
	NO SKY LINE					
	ROOM					
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+
CHARTHAM COURT	177	176	99.4%	0	0	1

Table 16: Existing v Proposed NSL Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)									
	ANNUAL PROBABLE SUNLIGHT HOURS								
	WINDOW			ANNUAL			WINTER		
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	20%-30%	30%-40%	40%+
CHARTHAM COURT	135	135	100.0%	0	0	0	0	0	0

Table 17: Existing v Proposed APSH Window Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)									
	ANNUAL PROBABLE SUNLIGHT HOURS								
	ROOM			ANNUAL			WINTER		
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	20%-30%	30%-40%	40%+
CHARTHAM COURT	135	135	100.0%	0	0	0	0	0	0

Table 18: Existing v Proposed APSH Room Results

DISCUSSION OF RESULTS

Westgate Court

- 5.35 This property is located directly to the north of the Site, on the opposite side of the railway viaduct.
- 5.36 Floor plans have not been obtained for this property, therefore reasonable assumptions have been made within our technical analysis (see Appendix 01).
- 5.37 This property will achieve 100% BRE compliance for NSL, following the implementation of the Proposed Scheme.
- 5.38 In relation to VSC, four of the 12 windows assessed within this property will achieve BRE compliance (33.3% overall), following the implementation of the Proposed Scheme. Of the remaining eight windows, seven will retain VSC values in excess of 15%, following the implementation of the Proposed Scheme. These retained values are therefore in excess of the ATV we have set in Section 4.0 of this report and therefore we believe the daylight impacts to these rooms are acceptable. One window located on the ground floor of this property will experience a 31.0% VSC reduction, however we would consider this to be only marginally beyond the 20% suggested as acceptable by the BRE guidelines. Furthermore, this window will experience a retained VSC value of 14.5% with the Proposed Scheme in-situ, which is only 0.5% below the ATV we have set in Section 4.0 of this report.
- 5.39 In relation to APSH, two windows located on the ground floor will experience annual losses of 23.9% and 21.7% respectively. We would consider these annual reductions to be only marginally beyond the 20% reduction suggested as acceptable by the BRE guidelines. Furthermore, it should be noted that the room one of these windows serves will achieve BRE compliance for APSH. As such, we do not consider the Proposed Scheme to have an adverse impact on the sunlight amenity of this property.
- 5.40 To confirm, we do not believe the Proposed Scheme will cause unacceptable harm to this property's daylight or sunlight amenity.
- 5.41 Below, GIA have summarised the daylight results in table format:



Figure 08: Image of Westgate Court

Figure 09: Site plan

5 DAYLIGHT & SUNLIGHT IMPACTS TO NEIGHBOURING PROPERTIES (Continued)

RELATIVE IMPACT SUMMARY (EX. VS PR.)			
	VSC + NSL (ALL PASS)		
	ROOM		
	TOTAL	PASS	COMP.(%)
WESTGATE COURT	8	0	0.0%

Table 19: Existing v Proposed VSC + NSL (All Pass) Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)															
	VERTICAL SKY COMPONENT														
	WINDOW			LOSS			RETAINED VALUE			ROOM					
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	0-15	15-20	20-27	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+
WESTGATE COURT	12	4	33.3%	2	2	4	2	7	0	8	0	0.0%	5	2	0

Table 20: Existing v Proposed VSC Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)						
	NO SKY LINE					
	ROOM					
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+
WESTGATE COURT	8	8	100.0%	0	0	0

Table 21: Existing v Proposed NSL Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)									
	ANNUAL PROBABLE SUNLIGHT HOURS								
	WINDOW			ANNUAL			WINTER		
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	20%-30%	30%-40%	40%+
WESTGATE COURT	12	10	83.3%	0	0	0	0	0	2

Table 22: Existing v Proposed APSH Window Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)									
	ANNUAL PROBABLE SUNLIGHT HOURS								
	ROOM			ANNUAL			WINTER		
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	20%-30%	30%-40%	40%+
WESTGATE COURT	8	7	87.5%	0	0	0	0	0	1

Table 23: Existing v Proposed APSH Room Results

DISCUSSION OF RESULTS

Wincheap Court

- 5.42 This property is located directly to the north of the Site, on the opposite side of the railway viaduct.
- 5.43 Floor plans have not been obtained for this property, therefore reasonable assumptions have been made within our technical analysis (see Appendix 01).
- 5.44 This property will achieve 100% BRE compliance for NSL, following the implementation of the Proposed Scheme.
- 5.45 In relation to NSL, 29 of the 30 rooms assessed within this property will achieve BRE compliance (96.7% overall), following the implementation of the Proposed Scheme. A single room located on the first floor of this property will experience an NSL reduction of 31.8%, with the Proposed Scheme in-situ. The room in question will however continue to retain sky visibility to 47.8% of its area, following the implementation of the proposed scheme, which is only 2.2% below the ATV we have applied, as detailed in Section 4.0 of this report.
- 5.46 To confirm, we do not believe the Proposed Scheme will cause unacceptable harm to this property's daylight or sunlight amenity.
- 5.47 Below, GIA have summarised the daylight results in table format:



Figure 10: Image of Wincheap Court

Figure 11: Site plan

5 DAYLIGHT & SUNLIGHT IMPACTS TO NEIGHBOURING PROPERTIES (Continued)

RELATIVE IMPACT SUMMARY (EX. VS PR.)			
VERTICAL SKY COMPONENT			
VSC + NSL (ALL PASS)			
ROOM			
	TOTAL	PASS	COMP.(%)
WINCHEAP COURT	30	29	96.7%

Table 24: Existing v Proposed VSC + NSL (All Pass) Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)															
VERTICAL SKY COMPONENT															
	WINDOW			LGSS			RETAINED VALUE			ROOM					
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	0-15	15-20	20-27	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+
WINCHEAP COURT	30	30	100.0%	0	0	0	0	0	0	30	29	96.7%	0	1	0

Table 25: Existing v Proposed VSC Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)						
NO SKY LINE						
ROOM						
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+
WINCHEAP COURT	30	29	96.7%	0	1	0

Table 26: Existing v Proposed NSL Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)									
ANNUAL PROBABLE SUNLIGHT HOURS									
	WINDOW			ANNUAL			WINTER		
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	20%-30%	30%-40%	40%+
WINCHEAP COURT	30	30	100.0%	0	0	0	0	0	0

Table 27: Existing v Proposed APSH Window Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)									
ANNUAL PROBABLE SUNLIGHT HOURS									
	ROOM			ANNUAL			WINTER		
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	20%-30%	30%-40%	40%+
WINCHEAP COURT	30	30	100.0%	0	0	0	0	0	0

Table 28: Existing v Proposed APSH Room Results

DISCUSSION OF RESULTS

28 Atlantic Road

- 5.48 This property is located directly to the south-west of the Site, on the opposite side of the railway viaduct, along Atlantic Road.
- 5.49 Floor plans have not been obtained for this property, therefore reasonable assumptions have been made within our technical analysis (see Appendix 01).
- 5.50 This property will achieve 100% BRE compliance for both NSL and APSH, following the implementation of the Proposed Scheme.

5.51 In relation to VSC, 16 of the 18 windows assessed will achieve BRE compliance, which equates to an overall compliance rate of 88.9%. The two remaining rooms which do not achieve BRE compliance will experience deductions of 20.8 and 20.5 respectively, which are only marginally beyond the 20% reduction suggested as acceptable by the BRE guidelines. Furthermore, these windows will retain VSC values in excess of the 15% ATV set in Section 4.0 of this report, those ranging from 24.1%–25.1%. We would consider these retained values to be high, given the urban context of the surrounding area. Furthermore, as the rooms these windows serve achieve BRE compliance for NSL, we do not consider the Proposed Scheme to have an adverse impact to the daylight amenity of this property.

5.52 To confirm, we do not believe the Proposed Scheme will cause unacceptable harm to this property's daylight and sunlight amenity.

5.53 Overleaf, GIA have summarised the daylight results in table format:



Figure 12: Image of 28 Atlantic Road

5 DAYLIGHT & SUNLIGHT IMPACTS TO NEIGHBOURING PROPERTIES (Continued)

RELATIVE IMPACT SUMMARY (EX. VS PR.)			
	VSC + NSL (ALL PASS)		
	ROOM		
	TOTAL	PASS	COMP.(%)
28 ATLANTIC ROAD	9	8	88.9%

Table 29: Existing v Proposed VSC + NSL (All Pass) Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)															
	VERTICAL SKY COMPONENT														
	WINDOW			LGSS			RETAINED VALUE			ROOM					
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	0-15	15-20	20-27	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+
28 ATLANTIC ROAD	18	16	88.9%	0	0	0	0	0	0	9	9	100.0%	0	0	0

Table 30: Existing v Proposed VSC Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)						
	NO SKY LINE					
	ROOM					
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+
28 ATLANTIC ROAD	9	9	100.0%	0	0	0

Table 31: Existing v Proposed NSL Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)									
	ANNUAL PROBABLE SUNLIGHT HOURS								
	WINDOW			ANNUAL			WINTER		
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	20%-30%	30%-40%	40%+
28 ATLANTIC ROAD	9	9	100.0%	0	0	0	0	0	0

Table 32: Existing v Proposed APSH Window Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)									
	ANNUAL PROBABLE SUNLIGHT HOURS								
	ROOM			ANNUAL			WINTER		
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	20%-30%	30%-40%	40%+
28 ATLANTIC ROAD	6	6	100.0%	0	0	0	0	0	0

Table 33: Existing v Proposed APSH Room Results

DISCUSSION OF RESULTS

Walton Lodge

- 5.54 This property is located directly to the south of the Site, adjoining the railway viaduct.
- 5.55 Floor plans have been obtained for this property and have been applied within our computer model, where possible.
- 5.56 This property will achieve 100% BRE compliance for APSH, following the implementation of the Proposed Scheme.
- 5.57 In relation to VSC, 36 of the 52 windows assessed within this property will achieve BRE compliance (69.2% overall), following the implementation of the Proposed Scheme. Of the remaining 16 windows, five will retain VSC values in excess of 15%, following the implementation of the Proposed Scheme. These retained values are therefore in excess of the ATV we have set in Section 4.0 of this report and therefore we believe the daylight impacts to these windows are acceptable. There are 11 windows within this property which will experience retained VSC values of less than 15% with the Proposed Scheme in-situ. However, all but one of these windows serve bedrooms and the BRE guidelines explicitly state that daylight to bedrooms is less important. This therefore leaves one window serving a Living Room / Kitchen / Dining Room located on the first floor of this property. However, it must be noted that this LKD will experience a 23.9% VSC reduction, which is only marginally beyond the 20% reduction suggested as acceptable by the BRE guidelines. Furthermore, it should be noted that the room this window serves achieves BRE compliance for NSL, following the implementation of the Proposed Scheme. As such, we do not believe that the daylight amenity to this room will be adversely impacted.
- 5.58 In terms of NSL, 19 of the 29 rooms assessed (65.5% overall) will achieve BRE compliance, following the implementation of the Proposed Scheme. One further room will continue to receive sky visibility to more than 50% of its area, with the Proposed Scheme in-situ, which therefore exceeds the ATV set for NSL in Section 4.0 of this report. Of the remaining nine rooms, all but one serve as bedrooms and the BRE guidelines explicitly state that daylight to bedrooms is less important. One LKD located on the first floor

of this property will not achieve BRE compliance for NSL, nor will it meet the ATV set in Section 4.0 of this report. However, as this room experiences a reduction of 22.3% which is only marginally beyond the 20% suggested as acceptable by the BRE guidelines, we do not believe that the daylight amenity to this LKD will be adversely impacted.

- 5.59 To confirm, we do not believe the Proposed Scheme will cause unacceptable harm to this property's daylight or sunlight amenity.
- 5.60 Below, GIA have summarised the daylight results in table format:



Figure 13: Image of Walton Lodge

RELATIVE IMPACT SUMMARY (EX. VS PR.)			
	VSC + NSL (ALL PASS)		
	ROOM		
	TOTAL	PASS	COMP.(%)
WALTON LODGE	29	13	44.8%

Table 34: Existing v Proposed VSC + NSL (All Pass) Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)															
	VERTICAL SKY COMPONENT														
	WINDOW			LGSS			RETAINED VALUE			ROOM					
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	0-15	15-20	20-27	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+
WALTON LODGE	52	36	69.2%	5	3	6	11	3	2	29	17	58.6%	4	3	5

Table 35: Existing v Proposed VSC Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)						
	NO SKY LINE					
	ROOM					
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+
WALTON LODGE	29	19	65.5%	2	3	5

Table 36: Existing v Proposed NSL Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)									
	ANNUAL PROBABLE SUNLIGHT HOURS								
	WINDOW			ANNUAL			WINTER		
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	20%-30%	30%-40%	40%+
WALTON LODGE	17	17	100.0%	0	0	0	0	0	0

Table 37: Existing v Proposed APSH Window Results

RELATIVE IMPACT SUMMARY (EX. VS PR.)									
	ANNUAL PROBABLE SUNLIGHT HOURS								
	ROOM			ANNUAL			WINTER		
	TOTAL	PASS	COMP.(%)	20%-30%	30%-40%	40%+	20%-30%	30%-40%	40%+
WALTON LODGE	11	11	100.0%	0	0	0	0	0	0

Table 38: Existing v Proposed APSH Room Results

6 OVERSHADOWING IMPACTS TO SURROUNDING OPEN SPACES

This section details the overshadowing impacts in relation to the relevant open spaces, both communal amenity and private gardens surrounding the Site.

- 6.1 A three-dimensional computer model of the Site and surrounding context was produced to carry out the relevant technical studies.
- 6.2 A transient overshadowing assessment was undertaken hourly for the 21st March (spring equinox), 21st June (summer solstice) and 21st December (winter solstice). Where relevant, BRE Sun Hours on Ground assessment has also been undertaken.
- 6.3 The two communal amenity areas serving Wincheap Court, Westgate Court, Northgate Court and Chilham Court, one communal play space on Canterbury Crescent and 21 private gardens surrounding the Site are considered relevant for overshadowing assessment. As evidenced by the Transient Overshadowing assessment shown in Appendix 05 all other open spaces surrounding the Site would not experience noticeable overshadowing from the Proposed Scheme. These are identified in Figure 14 below.
- 6.4 Where changes in overshadowing occur to the remaining open spaces, the impacts are fully discussed in the following sections. All results can be found in Appendix 05.

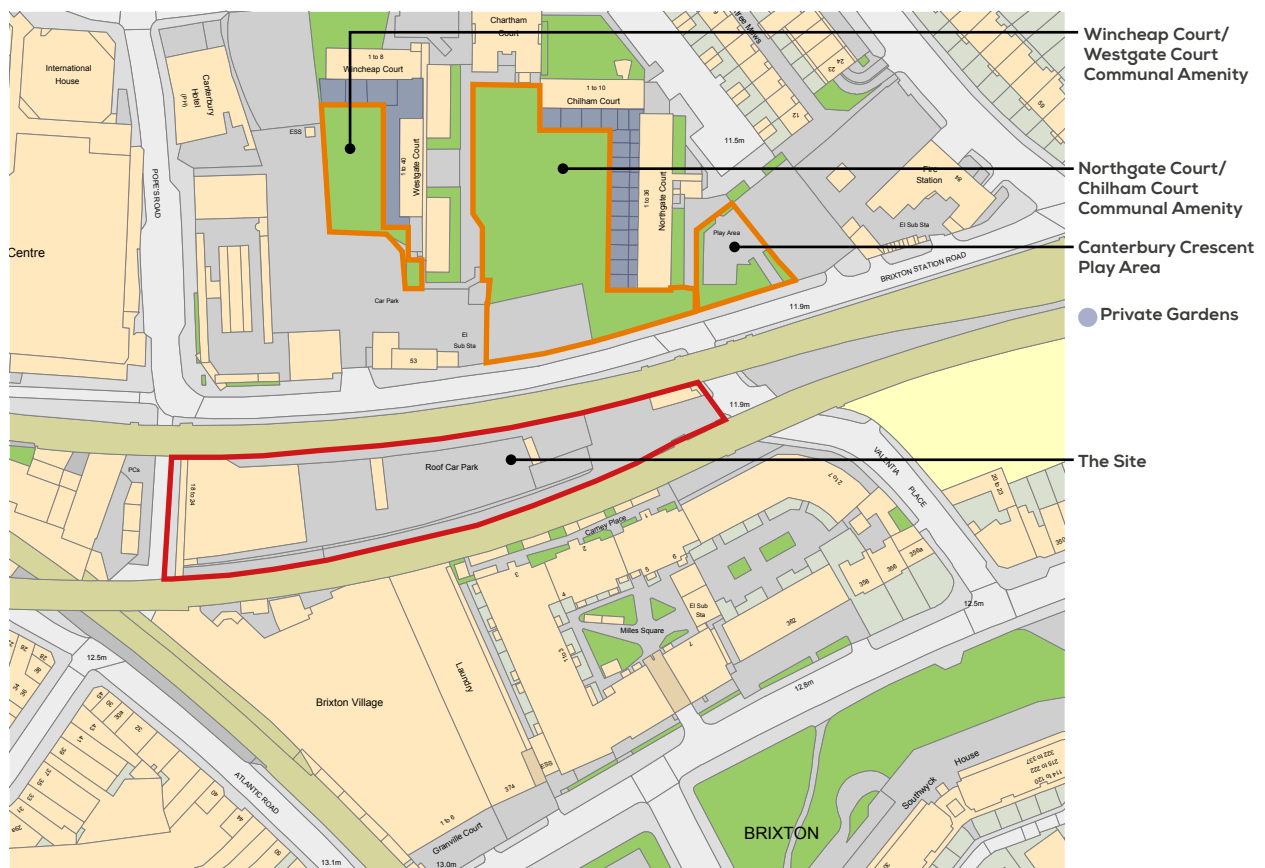


Figure 14: Surrounding Open Spaces

DISCUSSION OF RESULTS

Wincheap Court/Westgate Court Communal Amenity

- 6.5 This communal amenity area is surrounded by Wincheap Court to the north, Westgate Court to the east and car parking directly to the south and west, thus enjoying uncharacteristically high levels of sun exposure from midday through the afternoons. The Site is located almost due south from this amenity space on under-utilised land.
- 6.6 The Transient Overshadowing assessment shows additional shadow cast by the Proposed Scheme within this amenity area on the 21st March and 21st December. No shadow would be cast by the Proposed Scheme upon this communal amenity area on the 21st June.
- 6.7 On the 21st March, the additional shadow enters the area at approximately 12:15 GMT and increases to peak overshadowing at approximately 13:00 GMT, where the majority of the amenity area would be shaded by the Proposed Scheme. The shadow then decreases up to 14:00 GMT where just a small portion would remain in the south-eastern corner. By 14:15 GMT the shadow from the Proposed Scheme would have passed.
- 6.8 On the 21st December, a small area of additional shadow should be experienced within the amenity area at 10:00 GMT. The area of shadow from the Proposed Scheme would gradually increase up to 11:00 GMT and then reduces to a small portion of additional shadow at 12:00 GMT. Between 12:00 GMT and 13:00 GMT the shadow would again increase, however by 14:00 the majority of the amenity area would be shaded by existing buildings surrounding the amenity space.
- 6.9 The BRE Sun Hours on Ground assessment shows 73% of the communal amenity area would see two or more hours of direct sunlight on 21st March and it is therefore fully BRE compliant.
- 6.10 Therefore, whilst additional shadow would be cast by the Proposed Scheme within this amenity area from the mid-seasons through winter months, it remains in line with BRE Guidelines and the additional overshadowing is considered acceptable.



Figure 15: Sun Hours on Ground (Current Baseline)

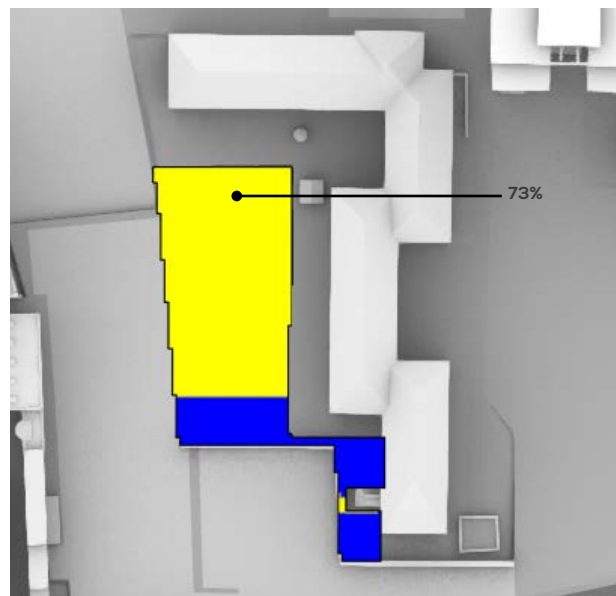


Figure 16: Sun Hours on Ground (Proposed)

Northgate Court/Chilham Court Communal Amenity (including basketball court)

- 5.61 This communal amenity area is surrounded by Chatham Court and Chilham Court to the north, Northgate Court to the east, Westgate Court to the west and Brixton Station Road to the south, thus enjoying uncharacteristically high levels of sun exposure from midday through the mid-afternoons. The Site is located almost due south/south-west from this amenity space on under-utilised land.
- 6.1 The Transient Overshadowing assessment shows additional shadow cast by the Proposed Scheme within this amenity area on the 21st March and 21st December. No shadow would be cast by the Proposed Scheme upon this communal amenity area on the 21st June.
- 6.2 On the 21st March, a small area of shadow would be cast on the western end of the basketball court from 09:30 GMT, the shadow cast upon the southern end of the amenity area (comprising mostly of the basketball court) would increase in scale up to 11:00 GMT however during this time the majority of the amenity space would not be affected by overshadowing. The shadow remains unchanged up to 14:00 GMT when additional shadow would enter the centre of the amenity area, the addition shadow within the centre of the amenity area would increase and peak at 15:00 GMT. By 16:00 GMT, the majority

of shadow cast by the Proposed Scheme would have passed, with just a small area of shadow in the southern portion of the amenity area remaining. By 17:00 GMT, all shadow from the Proposed Scheme would have passed.

- 6.3 On the 21st December, shadow cast by the Proposed Scheme would enter the north-western portion of this amenity area at approximately 10:30 GMT. The area of shadow cast by the Proposed Scheme would increase between 10:30 and 12:00 GMT, and remains until 15:00 GMT when the majority of the amenity area is shaded by existing surrounding buildings.
- 6.4 The BRE Sun Hours on Ground assessment shows 99% of the communal amenity area would see two or more hours of direct sunlight on 21st March and it is therefore fully BRE compliant.
- 6.5 Therefore, whilst additional shadow would be cast by the Proposed Scheme within this amenity area from the mid-seasons through winter months, it remains in line with BRE Guidelines and the additional overshadowing is considered acceptable.

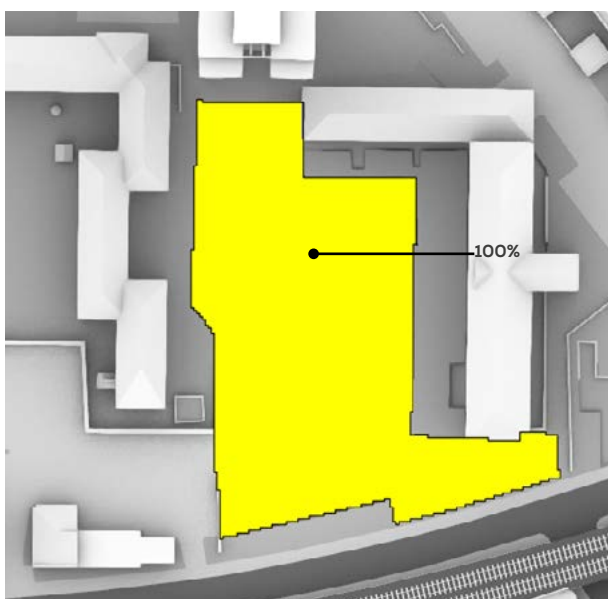


Figure 17: Sun Hours on Ground (Current Baseline)

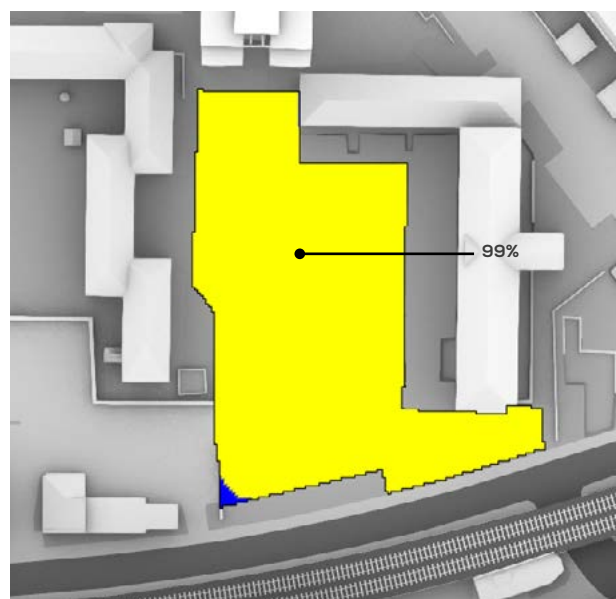


Figure 18: Sun Hours on Ground (Proposed)

Canterbury Crescent Play Space

- 6.6 This communal play space is surrounded by Northgate Court to the west, Canterbury Crescent to the north, a car park to the east and Brixton Station Road to the south, thus enjoying uncharacteristically high levels of sun exposure from early morning through the mid-afternoons. The Site is located to the south-west from this amenity space on under-utilised land.
- 6.7 The Transient Overshadowing assessment shows additional shadow cast by the Proposed Scheme within this amenity area on the 21st March. No shadow would be cast by the Proposed Scheme upon this communal amenity area on the 21st June or 21st December.
- 6.8 On the 21st March, shadow would be cast by the Proposed Scheme onto this play space from just after 14:00 GMT and would increase up to 15:00 GMT at which point approximately half the play space is overshadowed by the Proposed Scheme. At 16:00 GMT the overshadowing by the Proposed Scheme remains and by 17:00 GMT it has passed.

- 6.9 As evidenced by the Transient Overshadowing assessment for 21st March, only small areas of shadow within this play space from existing surrounding buildings would be present between 08:00 and 09:00 GMT. From 10:00 until 14:00 GMT the play space does not experience any shadow, therefore, the play space sees two or more hours of direct sunlight within 100% of its area and is therefore fully BRE compliant.
- 6.10 Therefore, whilst additional shadow would be cast by the Proposed Scheme within this amenity area in the mid-seasons, it remains in line with BRE Guidelines and the additional overshadowing is considered acceptable.

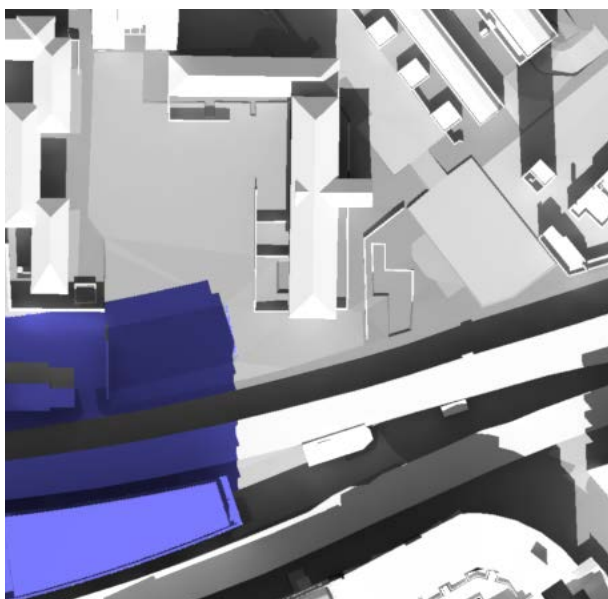


Figure 19: Transient Overshadowing (Proposed) @ 12:00 GMT on 21st March

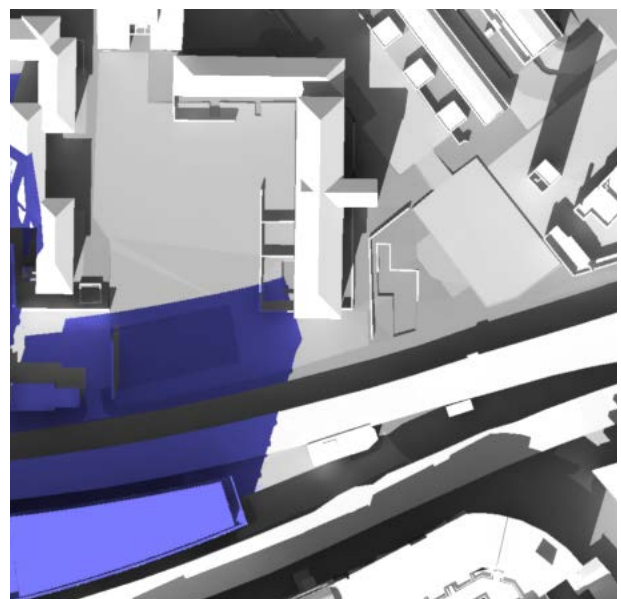


Figure 20: Transient Overshadowing (Proposed) @ 13:00 GMT on 21st March

Wincheap Court Private Gardens

- 6.11 Three rear private gardens serving the ground floor flats of Wincheap Court have been assessed for overshadowing. These gardens are located to the the south of Wincheap Court, with Westgate Courtyard to the east, a car park to the west and the Wincheap Court/Westgate Court communal amenity area to the south.
- 6.12 The BRE Sun Hours on Ground assessment shows all three gardens retain in excess of the recommended minima of 50% with 87%, 82% and 69% of their areas see two or more hours of direct sunlight on 21st March. Therefore these gardens are fully in line with the BRE Guidelines.

Westgate Court Private Gardens

- 6.13 The division between the rear private gardens serving the ground floor flats of Westgate Court are unknown, there they been assess as one area for overshadowing. These gardens are located to the the south of Wincheap Court, with Westgate Courtyard to the east, the Wincheap Court/Westgate Court communal amenity area to the west and a car park to the south.
- 6.14 The BRE Sun Hours on Ground assessment shows that combined gardens retain in excess of the recommended minima of 50% with 52% of the areas seeing two or more hours of direct sunlight on 21st March. Therefore these gardens are fully in line with the BRE Guidelines.

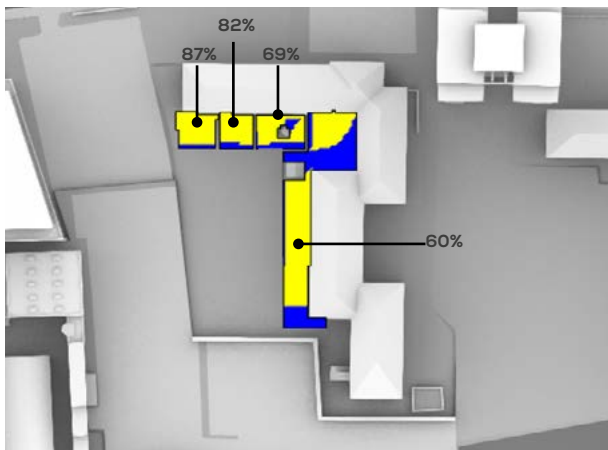


Figure 21: Sun Hours on Ground (Current Baseline)



Figure 22: Sun Hours on Ground (Proposed)

Northgate Court Private Gardens

- 6.15 12 rear private gardens serving the ground floor flats of Northgate Court have been assessed for overshadowing. These gardens are located to the the west of Northgate Court, with Chilham Courtyard to the north and the Northgate Court/Chilham Court communal amenity area to the south and west.
- 6.16 The BRE Sun Hours on Ground assessment shows 11 of the 12 gardens retain in excess of the recommended minima of 50% with between 50% and 64% of their areas see two or more hours of direct sunlight on 21st March. The remaining garden retains 47% of its area with two or more hours of direct sunlight on 21st March, marginally below recommendation. This area would not experience any alteration owing to implementation of the Proposed Scheme, therefore the overshadowing of the Northgate Court private gardens is considered acceptable.

Chilham Court Private Gardens

- 6.17 Five rear private gardens serving the ground floor flats of Chilham Court have been assessed for overshadowing. These gardens are located to the the south of Chilham Court, with Westgate Courtyard to the west, Northgate Court to the east and the Northgate Court/Chilham Court communal amenity area to the south.
- 6.18 The BRE Sun Hours on Ground assessment shows all five gardens retain in excess of the recommended minima of 50% with between 63% and 76% of their areas see two or more hours of direct sunlight on 21st March. Therefore these gardens are fully in line with the BRE Guidelines.

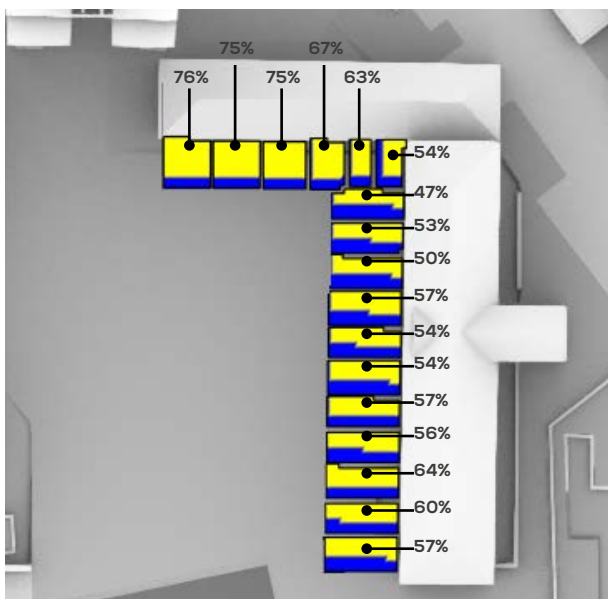


Figure 23: Sun Hours on Ground (Current Baseline)



Figure 24: Sun Hours on Ground (Proposed)

7 CONCLUSIONS

GIA have undertaken a daylight, sunlight and overshadowing assessment in relation to the Proposed Development at Pope's Road, Brixton. The technical analysis has been undertaken in accordance with the BRE Guidelines.

- 7.1 Throughout the design process, the scheme has been subjected to extensive testing to minimise the daylight and sunlight impacts to the surrounding residential properties.
- 7.2 We prepared this daylight and sunlight report for the planning application ref. 20/01347/FUL. The Applicant, in consultation with the local planning authority is amending the planning application and the key changes are:
- Set back of Western Elevation by 2.5m to provide additional public realm
 - Connection of eastern and western blocks on fourth floor
 - Adjustments to design of central block inbetween West and East block
 - Inclusion of dedicated community space
- 7.3 In light of the revised scheme, we have assessed the updated Proposed Scheme for daylight and sunlight and reported on the position. In our professional opinion, we do not consider that the revised scheme will materially alter the conclusions of our previous daylight and sunlight report, submitted to the local planning authority.
- 7.4 When constructing buildings in an urban environment, alterations in daylight and sunlight to adjoining properties are often unavoidable. The numerical guidance given in the BRE document should be treated flexibly, especially in dense urban environments such as Brixton.
- 7.5 Our technical analysis shows that, following the implementation of the Proposed Scheme, some surrounding properties will experience reductions beyond the parameters and target values suggested as acceptable by the BRE guidelines.
- 7.6 Based on the Current Baseline scenario, upon successful implementation of the Proposed Scheme, 11 of the 19 (57.9%) properties assessed will meet the national numerical values identified in paragraphs 2.2.21 and of the BRE handbook for daylight and sunlight. Overall, in relation to daylight, there will be an 86.7% compliance rate for VSC and a 90.7% compliance rate for NSL. In terms of daylight overall, 578 of the 702 rooms assessed achieve BRE compliance for both NSL and VSC (82.3%). In relation to sunlight, 99.5% of windows and 99.7% of rooms assessed will achieve compliance for APSH.
- Each of these overall figures is considered to be high, given the urban context of the Site. We are therefore of the opinion that overall, unacceptable harm is not caused to the surrounding residential properties and the daylight and sunlight impacts are commensurate for the surrounding urban context.
- 7.7 In terms of overshadowing, upon successful implementation of the Proposed Scheme, all open spaces assessed either retain levels of sun hours on ground that meet or exceed the BRE recommendation or experience alterations less than 20% and are therefore in line with BRE guidelines. Therefore, overshadowing of surrounding open spaces following the implementation of the Proposed Scheme is considered acceptable.
- 7.8 As mentioned throughout this report, when redeveloping sites in an urban context, it is inevitable that some transgressions beyond the parameters and target values suggested by the BRE guidelines is unavoidable. It must be remembered that the site forms part of the adopted Local Plan 2015 and part of the Brixton Creative Enterprise Zone (Draft Revised Lambeth Local Plan Proposed Submission – January 2020). As such, these factors must be considered when assessing whether or not unacceptable harm is caused to surrounding properties in respect of daylight and sunlight.



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DAYLIGHT & SUNLIGHT

IMPACT ON NEIGHBOURING
PROPERTIES REPORT:
APPENDICES

Pope's Road, Brixton

AG Hondo Pope's Road BV

20 July 2020

GIA No: **13866**

PROJECT DATA:

Client **AG Hondo Pope's Road BV**
Architect **Adjaye Associates**
Project Title **Pope's Road, Brixton**
Project Number **13866**

REPORT DATA:

Report Title **Impact on Neighbouring Properties Appendices**
GIA Department **Daylight & Sunlight**
Dated **20 July 2020**
Prepared by **Harry Hummerstone-Pope**
Checked by **Jerome Webb**
Type **Final Report**

Revisions	No:	Date:	Notes:	Signed:

SOURCES OF INFORMATION:

Information Received **IR31-20-0611-Adjaye Associates-Revised Massing Model for Planning**
Issue Number **Rel_13_13866_IS01**
Site Photos **GIA / Google Maps**
3D models **Adjaye Associates / GIA Surveyors / VU.CITY**
OS Data **FIND Maps**



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APPENDIX 01 ASSUMPTIONS

APPENDIX 01

ASSUMPTIONS

01

A.1.1 The following survey information was obtained for the Site:

- IR15-13866 (11.06.2019) - Recap Point Cloud
- IR16-13866 (11.06.2019) - GIA Survey Model_IS01
- IR18-13866 (15.06.2019) - VMapsTech_RevA

A.1.2 This information has been used to understand the base levels and heights of the surrounding buildings and the location and size of those apertures that surround and face the Site. This survey information was received by GIA on the dates detailed above. Any change to the surrounding environment since these surveys were undertaken has not been captured.

A.1.3 Where buildings were beyond the scope of the surveys or were unable to be scanned due to foliage or inherent site constraints, GIA have used a mix of site photographs and OS information to estimate as closely as possible the position of buildings and windows within the relevant elevations.

02

A.1.4 The context model also contains massing data obtained from our VU.CITY platform. GIA have extracted the required area, creating a 3D model with an overall building tolerance of up to 150mm.

03

A.1.5 GIA have sought to create the most accurate 3D model possible based on the data available, however, a degree of tolerance should be applied.

04

A.1.6 The scope of buildings assessed has been determined as a reasonable zone which considers both the scale of the Proposed Scheme and the proximity of those buildings which surround and face the Site. There may be properties outside of the considered scope that are affected by the scheme, however, no significant effects are anticipated.

05

A.1.7 The property uses have been ascertained by reference to a Valuation Office Agency search and from site observation.

06

A.1.8 GIA have obtained full or partial floor plans for the following properties:

- Canterbury Arms
- Valentia Place – 1 Cole Lane
- 360-366 Coldharbour Lane
- 2-7 Valentia Place
- 368-372 Coldharbour Lane
- 22-26 Atlantic Road
- 378 Coldharbour Lane
- Walton Lodge

A.1.9 These layouts have been incorporated into our 3D computer model. It is reasonable to assume that these layouts have been implemented, however, GIA would require access to confirm this.

07

A.1.10 Where GIA have not been able to source detailed internal floor-plans reasonable assumptions as to the internal layouts of the rooms behind the fenestration have been made. This is normal practice where access to adjoining properties is undesirable in terms of development confidentiality. Unless the building form dictates otherwise, we assume a standard 4.2m deep room (14ft) for residential properties.

08

A.1.11 Floor levels have been assumed for adjoining properties as access has not been obtained. This dictates the level of the working plane which is the point at which the No Sky Line assessments are carried out.

09

A.1.12 GIA have discounted rooms that appear to be or are confirmed to be bathrooms, hallways, circulation space etc. These rooms are not considered to be habitable and thus do not require assessment in accordance with the BRE Guidelines.

APPENDIX 02

PRINCIPLES OF DAYLIGHT, SUNLIGHT & OVERSHADOWING

The Building Research Establishment (BRE) have set out in their handbook 'Site Layout Planning for Daylight & Sunlight: A Guide to Good Practice 2nd edition (2011)', guidelines and methodology for the measurement and assessment of daylight and sunlight.

BACKGROUND & CONTEXT

- A 2.1 The quality of amenity and open spaces is often stipulated within planning policy for protection or enhancement and is often a concern for adjoining owners and other interested parties.
- A 2.2 The BRE Guidelines provide advice on site layout planning to determine the quality of Daylight and Sunlight within open spaces between buildings.
- A 2.3 The BRE Guidelines note that the document is intended to be used in conjunction with the interior Daylight recommendations found within the British Standard BS8206-2:2008 and The Applications Manual on Window Design of the Chartered Institution of Building Services Engineers (CIBSE).
- A 2.4 The BRE Guidelines are typically referred to for daylight and sunlight amenity issues, however, they were not intended to be used as an instrument of planning policy, nor were the figures intended to be fixedly applied to all locations.
- A 2.5 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".¹*
- A 2.6 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".²*
- A 2.7 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. The BRE approach to creating alternative criteria is detailed within Appendix F of the Document.
- A 2.8 The BRE Guidelines state that they are;
- "intended for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedrooms. Windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed."³*
- A 2.9 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.
- A 2.10 It is important to note, however, that this document is a guide and states that its aim *"is to help rather than constrain the designer"*⁴.
- A 2.11 The document provides advice, but also clearly states that *"it is purely advisory and the numerical target values within it may be varied to meet the needs of the development and its location."*⁵
- A 2.12 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 amenity.
- A 2.13 In terms of considering what is a material deterioration in light, Local Authorities typically refer to the BRE Guide. Although Local Authorities will look to the BRE Guide to understand impacts it is their Planning Policies that will determine whether the changes in light should be a reason for refusal at planning.
- A 2.14 It is an inevitable consequence of the built up urban environment that Daylight and Sunlight will be more limited in dense urban areas. It is well acknowledged

that in such situations there may be many other conflicting and potentially more important planning and urban design matters to consider other than just the provision of ideal levels of Daylight and Sunlight.

A 2.15 The following sections extract relevant sections from the Guide.

DAYLIGHT

A 2.16 The BRE Guidelines provide three methodologies for daylight assessment, namely;

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

Vertical Sky Component (VSC)

A 2.17 The Vertical Sky Component (VSC) method is described in the BRE Guidelines as the;

“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 illuminance on a horizontal plane due to an unobstructed hemisphere of this sky. Usually the ‘given vertical plane’ is the outside of a window wall.

The VSC does not include reflected light, either from the ground or from other buildings”⁶

A 2.18 Put simply, the VSC provides an assessment of the amount of skylight falling on a vertical plane (generally a window) directly from the sky, in the circumstance of an overcast sky (CIE standard).

A 2.19 The national numerical value target “ideal” for VSC is 27%. The BRE Guidelines advise that upon implementation of a development, a window should retain a VSC value of 27% or at least 0.8 of its former value (i.e. no more than a 20% change).⁷

A 2.20 This form of assessment does not take account of window size, room use, room size, window number or dual aspect rooms. The assessment also assumes that all obstructions to the sky are 100% non-reflective.

A 2.21 The VSC calculation has been undertaken in both the existing and proposed scenarios so as to make a comparison.

A 2.22 The image in Figure 01 depicts a waldram diagram which is used to calculate the VSC. The existing buildings are solidly pictured with the proposed scheme semi-transparent in the foreground.

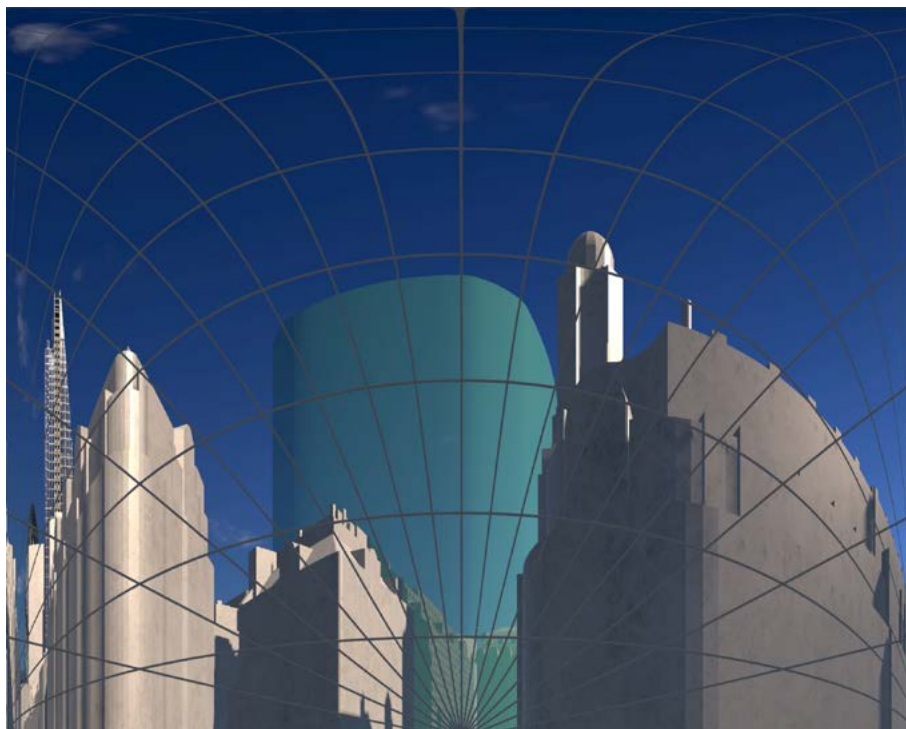


Figure 01: Waldram diagram

No Sky Line (NSL)

A 2.23 The BRE recommends the No Sky Line (NSL) method where internal layouts are known.

A 2.24 The No Sky Line (NSL) method is described as “the outline on the working plane of the area from which no sky can be seen.”⁹

A 2.25 In summary, the NSL calculation assesses where the sky can and cannot be seen from inside a room at the working plane, “in houses the working plane is assumed to be horizontal and 0.85m high”.⁹

A 2.26 The change in position of the NSL between the existing and proposed scenario is then calculated. This change can be illustrated on a contour plot, an example of which can be found in Figure 02.

A 2.27 The BRE Guidelines state at paragraph 2.2.9 that;

“If, following construction of a new development, the no sky line moves so that the area of the existing room, which does receive direct skylight, 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. This is also true if the no sky line encroaches on key areas like kitchen sinks and worktops.”¹⁰

A 2.28 If the NSL experiences more than a 20% change from the existing situation then, in accordance with the strict application of the national numerical values, the change in daylight would be noticeable to the occupants.

A 2.29 This assessment takes the number and size of windows serving a room into account however, there is no qualitative assessment of the light in the room, only where sky can or cannot be seen.

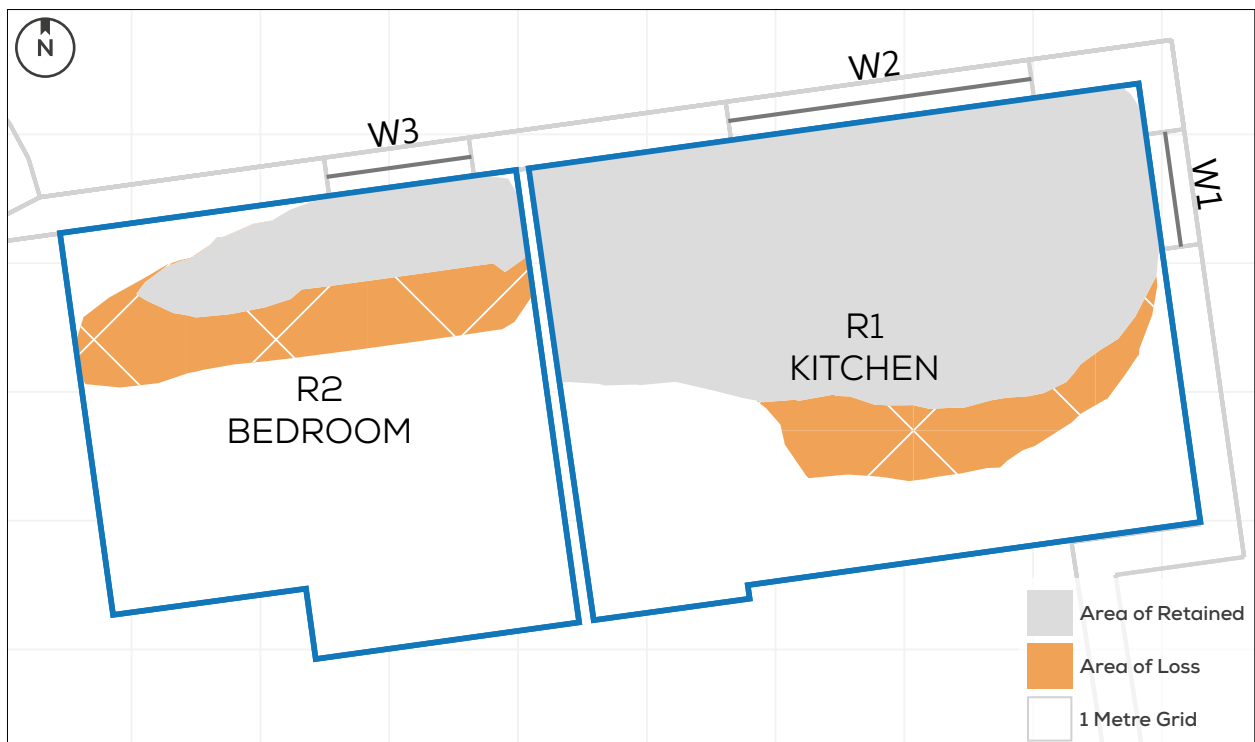


Figure 02: Example NSL diagram

Decision Chart (Figure 20 of the BRE Guide)

A 2.30 The flowchart in Figure 03 illustrates the steps and criteria outlined within the BRE Guidelines to understand whether the daylighting (VSC and NSL) may be significantly affected.

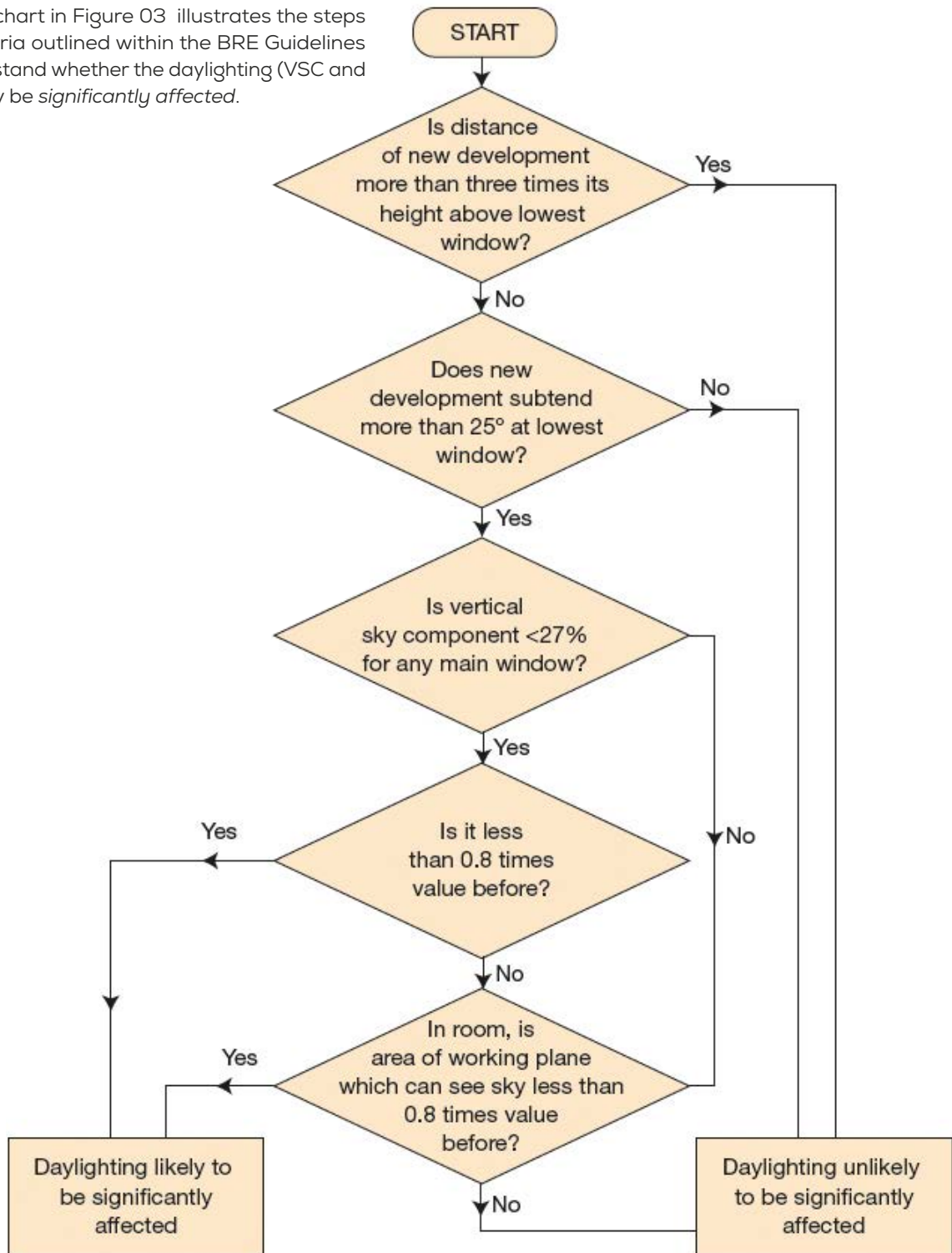


Figure 03: BRE Decision Chart (Figure 20): diffuse daylight in existing buildings. This does not include an assessment of rights to light issues, which a developer may need to consider separately

Average Daylight Factor (ADF)

- A 2.31 The Average Daylight Factor (ADF) is defined within the 2011 BRE Guidelines as the 'ratio of total daylight flux incident on the working plane to the area of the working plane, expressed as a percentage of the outdoor illuminance on a horizontal plane due to an unobstructed CIE standard overcast sky. Thus a 1% ADF would mean that the average indoor illuminance would be one hundredth the outdoor unobstructed illuminance'.¹¹
- A 2.32 This calculation considers not only the amount of skylight falling on the vertical face of the window, but also the glazing size, transmittance value, average reflectance, room area and room use. It is therefore a more detailed analysis of the daylight levels within a room.
- A 2.33 British Standard 8206-2 quotes a number of recommended ADF levels based on room use. The ADF criteria is the prescribed methodology for evaluating the Daylight within proposed accommodation and the values referenced by the BRE Guidelines can be found in the British Standard document BS8206 Part II. The values for those rooms that are most relevant for our assessments are:
- Bedrooms 1% ADF
 - Living rooms 1.5% ADF
 - Kitchens 2% ADF¹²
- A 2.34 Where one room serves more than one purpose, the minimum ADF should be that for the room type with the highest value.
- A 2.35 As per the *British Standard Lighting for buildings - Part 2: Code of practice for daylighting* the ADF value should be 5%+ for a well daylight space:

*"It is considered good practice to ensure that rooms in dwellings and in most other buildings have a predominantly daylight appearance. In order to achieve this the average daylight factor should be at least 2%. If the average daylight factor in a space is at least 5% then electric lighting is not normally needed during the daytime, provided the uniformity is satisfactory. If the average daylight factor in a space is between 2% and 5% supplementary electric lighting is usually required."*¹³

- A 2.36 Appendix F of the BRE guidance states that, though

not being generally recommended, the use of the ADF for loss of light to existing buildings can be appropriate in some situations:

- where the existing building is one of a series of new buildings that are being built one after another;
- where the existing building is proposed (i.e. consented) but not built;
- where the developer of the new building also owns the existing nearby building and proposes to carry out improvements to the existing building;
- where the developer also owns the existing nearby building and the affected rooms are either unoccupied or would be occupied by different people following construction of the new building.¹⁴

SUNLIGHT

Annual Probable Sunlight Hours (APSH)

- A 2.37 The BRE Guidance suggests that to understand sunlight impacts to a property an assessment
- A 2.38 of Annual Probable Sunlight Hours (APSH) is undertaken. The APSH is defined as:
- "the long-term average of the total number of hours during a year in which direct sunlight reaches the unobstructed ground (when clouds are taken into account)"*¹⁵
- A 2.39 In interpreting the results, the BRE Guidance states that the Sunlight to a window may be adversely affected if a point at the centre of a window:
- receives less than 25% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21 March, and
 - receives less than 0.8 times its former sunlight hours during either period, and
 - has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.¹⁶
- A 2.40 To understand the potential sunlight impacts therefore, all windows facing within 90 degrees of due south and overlooking the development have been assessed for APSH.

A 2.41 The image in Figure 04 depicts the APSH sun spots on a waldram diagram. The existing buildings are solidly pictured with the proposed scheme semi-transparent in the foreground. The yellow spots indicate summer sun and the blue spots indicate winter sun.

A 2.42 The number of sun spots is calculated for both the whole year and during the winter period (21 September to 21 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.

A 2.43 The BRE Guidelines note that:

“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.”¹⁷

A 2.44 The BRE Guidelines set out the overall methodology and criteria for the assessment of Sunlight in

Chapter 3. The BRE Guidelines state:

“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.

A point at the centre of the window on the outside face of the window wall may be taken.

If this window reference point can receive more than one quarter of Annual Probable Sunlight Hours [25%], including at least 5% of APSH in the winter months between 21 September and 21 March, then the room should still 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 during the winter months (21 September - 21 March), then the occupants of the existing building will notice the loss of sunlight; if the overall annual loss is greater than 4% of APSH, the room may appear colder and less cheerful and pleasant.”¹⁸

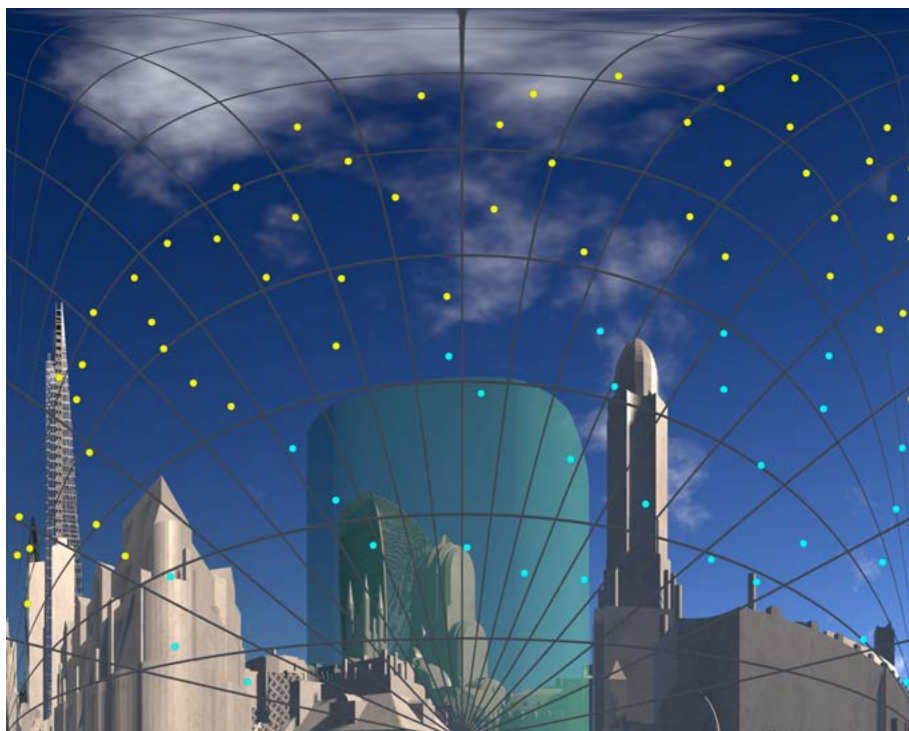


Figure 04: Waldram diagram

OVERSHADOWING

A 2.45 The BRE guidance in respect of overshadowing of amenity spaces is set out in section 3.3 of the handbook. Here it states as follows:

“Sunlight in the spaces between buildings has an important impact on the overall appearance and ambiance of a development. It is valuable for a number of reasons:

- *To provide attractive sunlit views (all year)*
- *To make outdoor activities, like sitting out and children’s play more pleasant (mainly during the warmer months)*
- *To encourage plant growth (mainly in spring and summer)*
- *To dry out the ground, reducing moss and slime (mainly during the colder months)*
- *To melt frost, ice and snow (in winter)*
- *To dry clothes (all year)”¹⁹*

A 2.46 It must be acknowledged that in urban areas the availability of sunlight on the ground is a factor which is significantly controlled by the existing urban fabric around the site in question and so may have very little to do with the form of the development itself. Likewise, there may be many other urban design, planning and site constraints which determine and run contrary to the best form, siting and location of a proposed development in terms of availability of sun on the ground.

Sun Hours on Ground & Transient Overshadowing

A 2.47 The Sun Hours on Ground (SHOG) method of overshadowing assessment uses a simulation software to determine the areas which receive direct Sunlight and those which do not.

A 2.48 The BRE Guidelines suggest that the Spring Equinox (21 March) is a suitable date for the assessment as this is the midpoint of the sun’s 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.

“It is recommended that for it [an amenity space] to appear adequately sunlit throughout the year at least half of a garden or amenity area should receive at least two hours of sunlight on 21 March. If as a result of new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21 March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable.”²⁰

A 2.49 The Transient Overshadowing study is recommended where large buildings are proposed which may affect a number of gardens or open spaces. For the purpose of this assessment, the shadow is mapped at hourly intervals (from sun rise to sun set) on the following dates:

- 21 March (Spring equinox)
- 21 June (Summer solstice)
- 21 December (Winter solstice)

A 2.50 The September equinox is not assessed as this would provide the same results as those for 21 March.

A 2.51 The BRE guidelines do not provide any criteria for Transient Overshadowing.

BRE GUIDELINES: ADDITIONAL DAYLIGHT AND SUNLIGHT TESTS

Daylight - VSC and APSH to Rooms

A 2.52 As outlined within the BRE Guidelines the VSC value is calculated for each window; however –

“If a room has two or more windows of equal size, the mean of their VSC’s may be taken.”²¹

A 2.53 Although not strictly in accordance with the BRE methodology, where a room is served by two or more windows of the same or different sizes, the VSC value to the room can be calculated by applying an average weighting calculation to understand the VSC value to the room. The formula used is as follows;

$$\frac{\sum(Vn \cdot A_n)}{\sum A_n}$$

Where:

V = window VSC

A = window area

n = the number of windows

A 2.54 The BRE provide a methodology to calculate APSH in relation to the room and window.

“If a room has multiple windows on the same walls or adjacent walls, the highest value of ASPH should be taken. If a room has two windows on opposite walls, the ASPH due to each can be added together.”²²

A 2.55 The above extract of the BRE is in relation to proposed units rather than existing buildings. It does, however, make sense to apply this methodology to existing rooms. A room served by multiple windows could receive the benefit of Sunlight entering from all of them and not just one.

A 2.56 GIA calculate the APSH room assessment in the following way:

- 1 The sunlight hours (both winter and annual) are calculated for each window. Instead of simply returning the overall per cent pass rate, i.e. one figure for winter, and one for the whole year, the yes/no result of each of the 100 sun spots is tracked. For this accounting to work, each sun dot needs to be assigned a unique identifier, e.g. from 1 to 100;

- 2 The sets of 100 sun spots are combined for each room using Boolean logic, i.e. conjunctions of yes/no values. The outcome of this step is a set of 100 yes/no values corresponding to the 100 sun spots, but on a per-room basis. Each per-room dot is counted if it is unobstructed for at least one of its windows; and
- 3 The unobstructed sun dots for the room are summed up and expressed as a percentage of the total number of annual and winter spots. This returns the per-room pass rate consistent with Section 3.1.10 of BR 209.

Balconies/Overhangs

A 2.57 The BRE recognises that existing architectural features on neighbouring buildings such as balconies and overhangs inherently restrict the quantum of skylight to a window. The BRE Guidelines note on page 5, paragraph 2.1.17 and page 8, paragraph 2.2.11:

“This is a particular problem if there are large obstructions opposite; with the combined effect of the overhang and the obstruction, it may be impossible to see the sky from inside the room, and hence to receive any direct skylight or sunlight at all.”

“Existing windows with balconies above them typically receive less daylight. Because the balcony cuts out light from the top part of the sky, even a modest obstruction opposite may result in a large relative impact on the VSC, and on the area receiving direct skylight. One way to demonstrate this would be to carry out an additional calculation of the VSC and the area receiving direct skylight, for both the existing and proposed situations, without the balcony in place.”²³

A 2.58 As noted by the BRE Guidelines, where there are existing overhanging features larger reductions in skylight and sunlight may be unavoidable and alternative criteria can be used. The guidance suggests that in such situations a calculation is carried out that excludes the balcony or the obstruction.

DAYLIGHT - MIRROR MASSING & ADJOINING DEVELOPMENT LAND

Alternative target Values for Skylight and Sunlight Access “Mirror Massing”

A 2.59 The BRE Guidelines provide a calculation for the VSC and APSH analysis to quantify an appropriate alternative value based on the context of an environment. This approach is known as the ‘mirror image’ analysis (see Figure 05).

A 2.60 The BRE notes:

“where an existing building has windows that are unusually close to the site boundary and taking more than their fair share of light. Figure 3 shows an example where side windows of an existing building are close to the boundary. To ensure that new development matches the height and proportions of existing buildings, the VSC and APSH targets for these windows could be set to those for a ‘mirror-image’ building of the same height and size, an equal distance away on the other side of the boundary.”²⁴

A 2.61 This analysis is used to understand the levels of Daylight (VSC) and Sunlight (APSH) that would be experienced by an extant neighbouring property if there were a building of the same height and extent opposite.

A 2.62 The mirror image assessment is fairly simplistic and is not, therefore, easily applied to large and complex site footprints which are not all built at equal distances from the site boundary or of the same footprint.

Adjoining Development Land

A 2.63 The “Adjoining Development Land” analysis provided within the BRE Guidelines is a simple test to ensure that a proposal is a reasonable distance from the boundary so as to “enable future nearby developments to enjoy a similar access to daylight.”

A 2.64 The BRE comments that:

“The diffuse daylight coming over the boundary may be quantified in the following way. As a first check, draw a section in a plane perpendicular to the boundary (Figure 21). If a road separates the two sites then the centre line of the road should

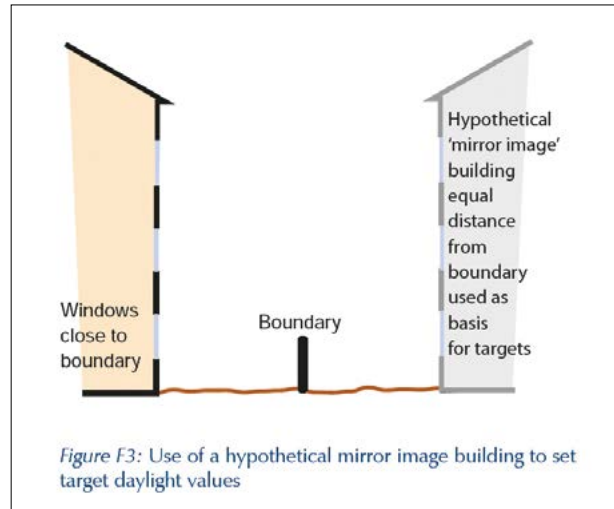


Figure 05: Littlefair, P. (2011). Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: HIS BRE Press p 64 Figure F3

be taken. Measure the angle to the horizontal subtended at a point 1.6 m. above the boundary by the proposed new buildings. If this angle is less than 43 ° then there will normally still be the potential for good daylighting on the adjoining development site (but see Sections 2.3.6 and 2.3.7).²⁵

“The guidelines above should not be applied too rigidly. A particularly important exception occurs when the two sites are very unequal in size and the proposed new building is larger in scale than the likely future development nearby. This is because the numerical values above are derived by assuming the future development will be exactly the same size as the proposed new building (Figure 22). If the adjoining sites for development are a lot smaller, a better approach is to make a rough prediction of where the nearest window wall of the future development may be; then to carry out the ‘new building’ analysis in Section 2.1 for this window wall.”²⁶

“The 43° angle should not be used as a form generator, to produce a building which slopes or steps down towards the boundary. Compare Figure 23 with Figure 22 to see how this can result in a higher than anticipated obstruction to daylight. In Figure 23 the proposed building subtends 34° at its mirror image, rather than the maximum of 25° suggested here. In cases of doubt, the best approach is again to carry out a new building analysis for the most likely location of a window wall of a future development.”²⁷

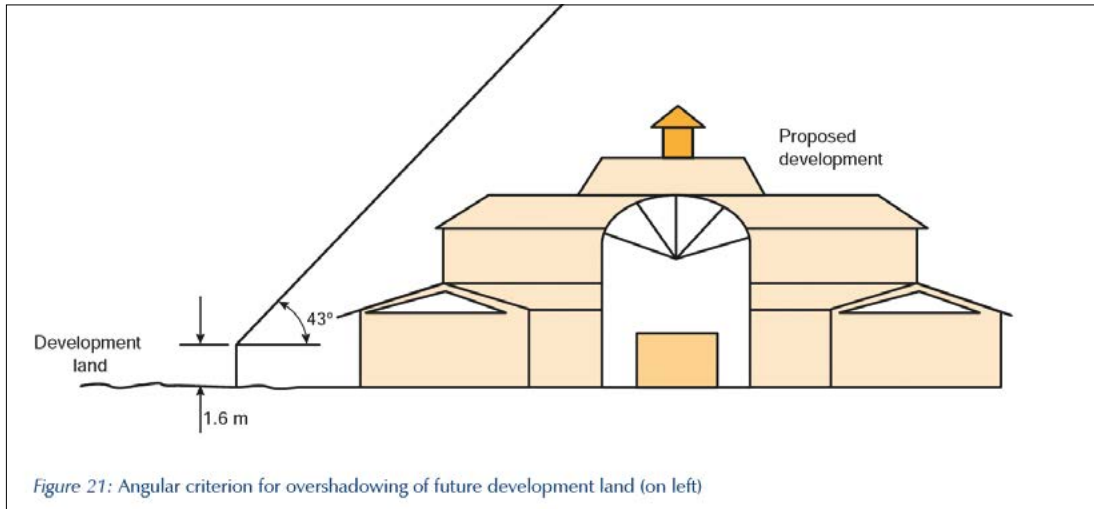


Figure 06: Littlefair, P. (2011). Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: HIS BRE Press p 11 Figure F21

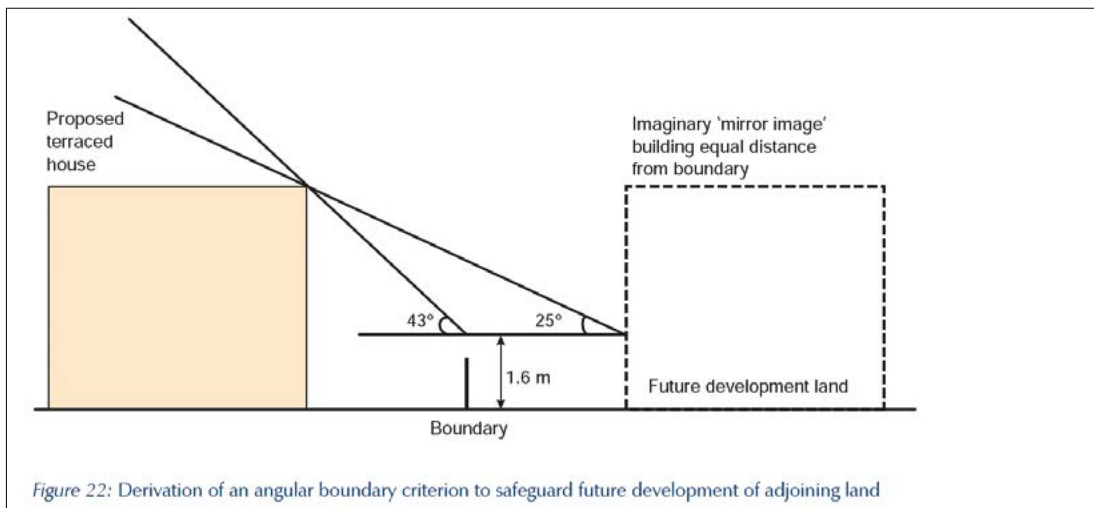


Figure 07: Littlefair, P. (2011). Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: HIS BRE Press p 12 Figure 22

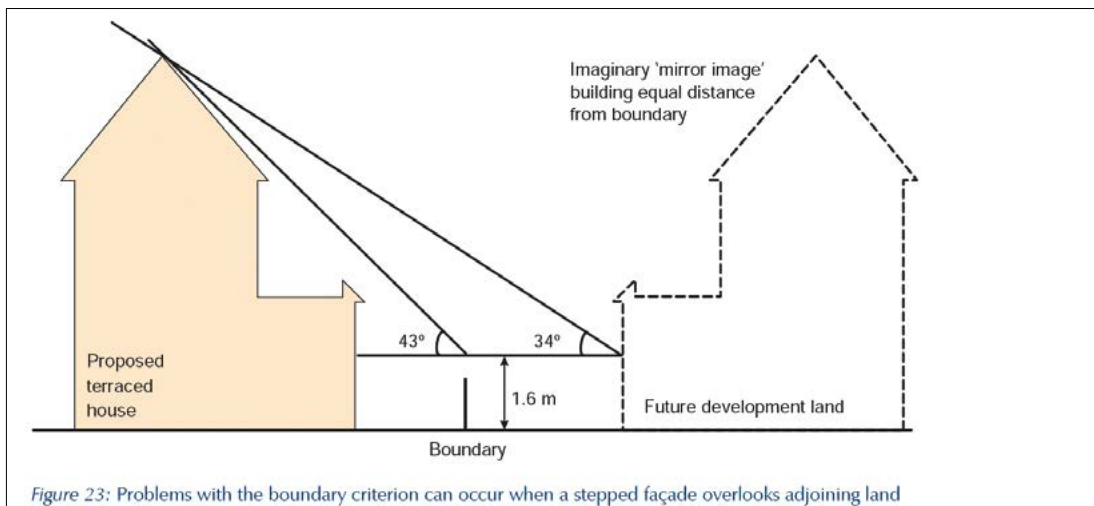


Figure 08: Littlefair, P. (2011). Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: HIS BRE Press p 12 Figure 23

A 2.65 As is outlined above the Adjoining Development Land analysis is predicated on ensuring that a proposal next to future development land is not negatively impacting the ability to develop in consideration of light matters.

Other Amenity Considerations

A 2.66 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.

CONTEXT METHODOLOGY

A 2.67 In May 2019 the British Standard (BS8206-2:2008) was superseded by the new European Standard on daylight "*BS EN 17037:2018 Daylight in buildings*" but this standard is only applicable for assessing the levels of light within proposed developments. Until and unless it is revised, therefore, BR209 remains the basis for assessing impacts to neighbours and the new European Standard is not relevant for this report.

ENDNOTES

- 1 Littlefair, P. (2011). Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 1, paragraph 1.6
- 2 Littlefair, P. (2011). Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 7, paragraph 2.2.3
- 3 Littlefair, P. (2011). Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 7 paragraph 2.2.
- 4 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 1, paragraph 1.6
- 5 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page v
- 6 Littlefair, P. (2011). Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page viii
- 7 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 7, paragraph 2.2.7
- 8 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page viii
- 9 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 7, paragraph 2.2.8
- 10 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 8, paragraph 2.2.9
- 11 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page viii
- 12 British Standard 8206-2:2008, page 10, paragraph 5.6
- 13 British Standard 8206-2:2008, page 9-10, paragraph 5.5
- 14 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 64, paragraph F8
- 15 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page viii
- 16 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 17, paragraph 3.2.11
- 17 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 16 paragraph 3.2.3 and paragraph 3.2.4
- 18 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 16 paragraph 3.2.3, paragraph 3.2.4 and 3.2.5 and page 17 paragraph 3.2.6
- 19 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 18, paragraph 3.3.1
- 20 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 20, paragraph 3.3.17
- 21 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 7, paragraph 2.2.6
- 22 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 16, paragraph 3.1.12
- 23 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 5, paragraph 2.1.17 and page 8, paragraph 2.2.11
- 24 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 62, paragraph F5
- 25 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 11, paragraph 2.3.3
- 26 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 11, paragraph 2.3.6
- 27 Littlefair, P. (2011). Site layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: IHS BRE Press, page 11 paragraph 2.3.7

APPENDIX 03
DRAWINGS

APPENDIX 03
DRAWINGS:

EXISTING

SOURCES OF INFORMATION

GIA
SURVEY
IR15-13866 (11.06.2019) - Recap Point Cloud
IR16-13866 (11.06.2019) - GIA Survey Model_I501
IR18-13866 (05.06.2019) - VtopoTech_REVA
PHOTOS
VERTEX
IR12-13866 (17.05.2019) - VERTEX
Planning documents

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY AND THE INFORMATION IS NOT TO BE RELIED UPON FOR ANY PURPOSES WITHOUT THE RELIABILITY OF THE DISPLAYED DATA. SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

NOTES:
EXISTING SCENARIO SHOWN IN SEPIA
ALL HEIGHTS AND DIMENSIONS GIVEN IN m AOD

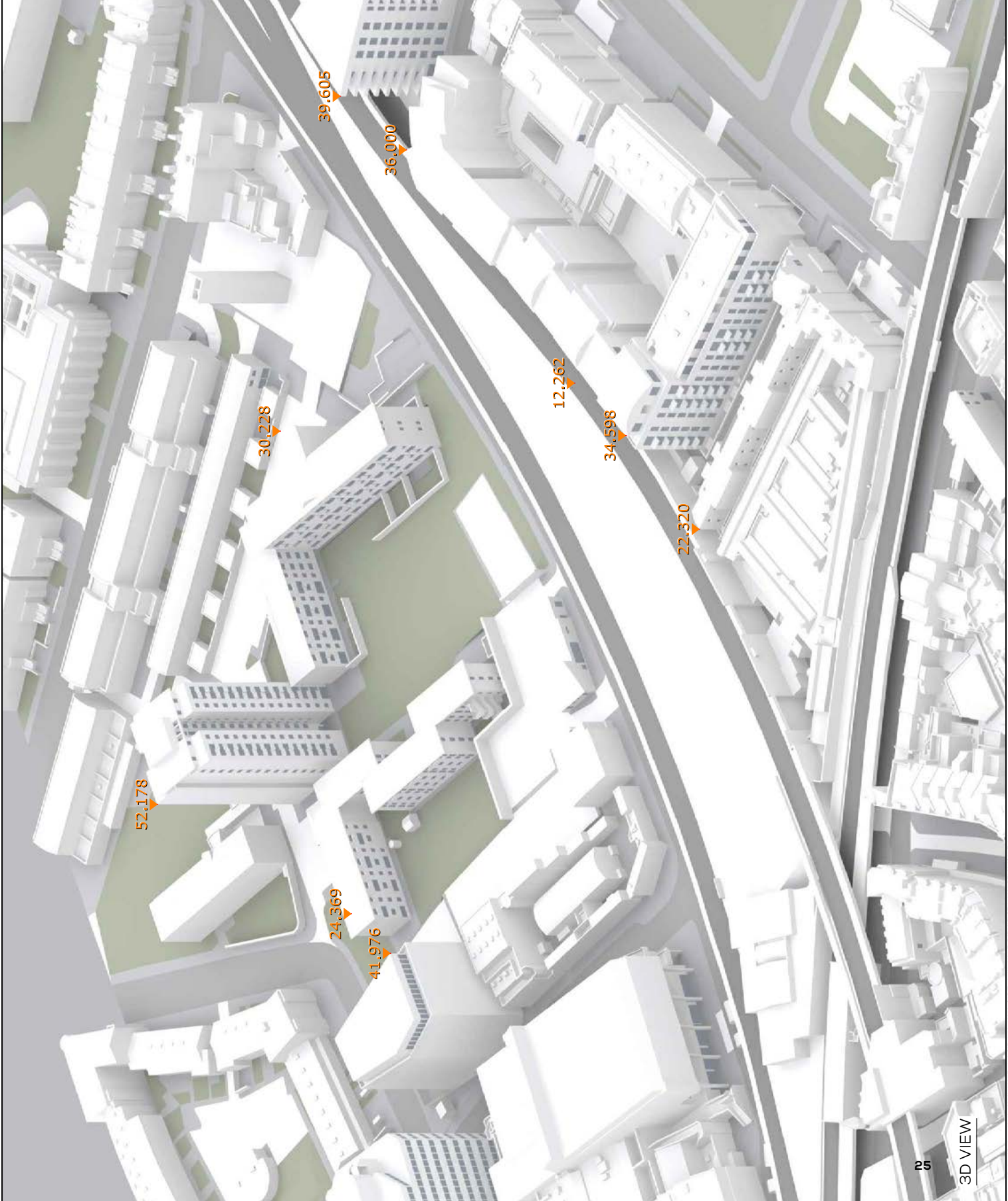
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POPE'S ROAD BRIXTON

DRAWING NAME:
3D VIEW EXISTING

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CRC	N15043		02.03.20	A
PROJ No.	REL No.	ADDR No.	IS No.	DWG No.
13866	09	-	01	02

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APPENDIX 03
DRAWINGS:

PROPOSED

SOURCES OF INFORMATION

GIA
 SURVEY
 IR15-13866 (11.06.2019) - Recap Point Cloud
 IR16-13866 (11.06.2019) - GIA Survey Model_IS01
 IR18-13866 (05.06.2019) - VMMapstch_RevA

PHOTOS

VERTEX
 IR12-13866 (17.05.2019) - VERTEX

Planning documents

NOTES:
 PROPOSED SCHEME SHOWN IN TEAL

N.B. DO NOT SCALE OFF THIS DRAWING

PROJECT:
POPE'S ROAD BRIXTON

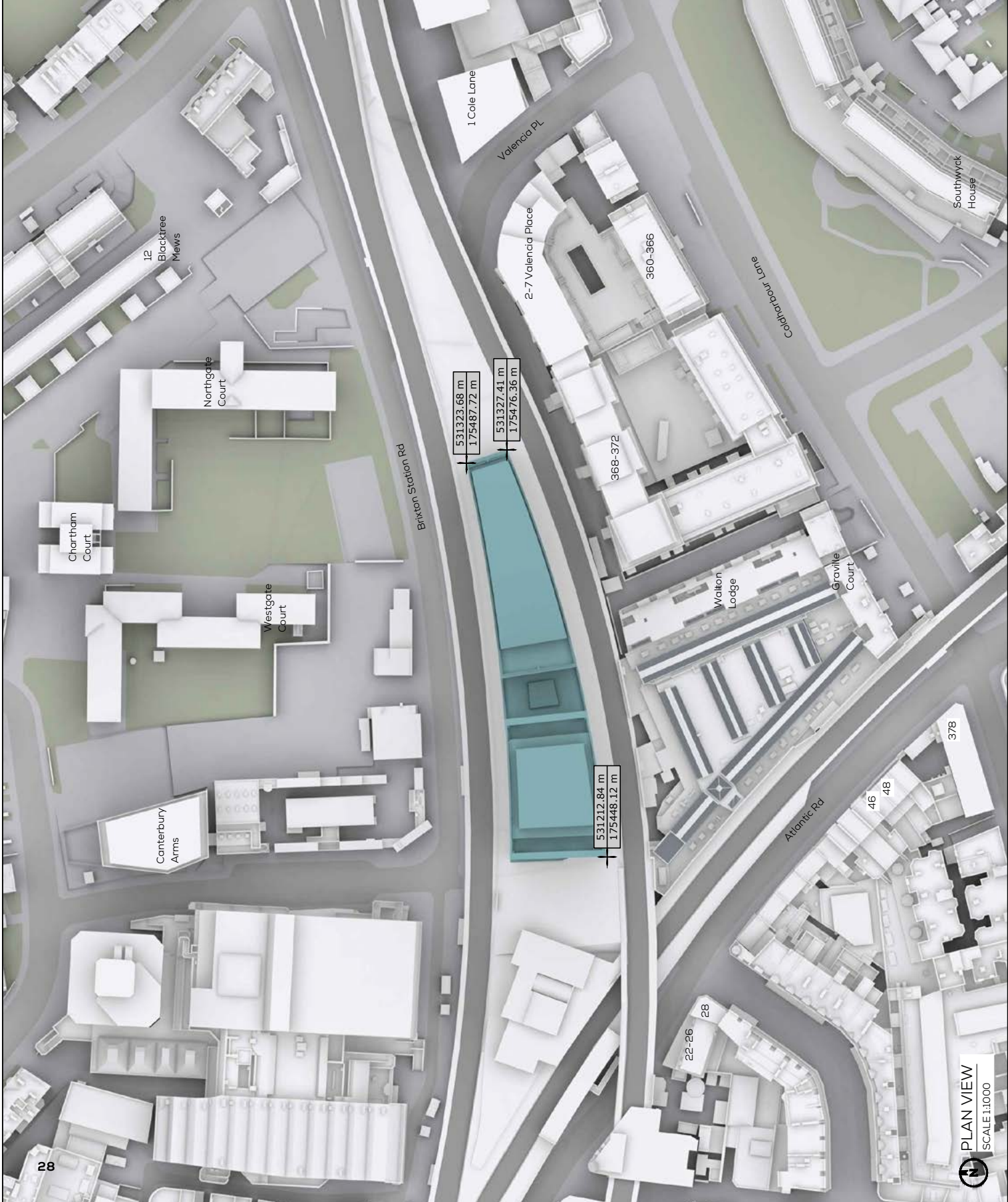
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 PROPOSED IR231
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PROJ No.	REL No.	ADDR No.	IS No.	DWG No.
13866	09	-	01	01

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PLAN VIEW
 SCALE 1:1000

SOURCES OF INFORMATION

GIA SURVEY
 IR15-13866 (11.06.2019) - Recap Point Cloud
 IR16-13866 (11.06.2019) - GIA Survey Model_IS01
 IR18-13866 (05.06.2019) - VMapsTech_RevA

PHOTOS

VERTEX
 IR12-13866 (17.05.2019) - VERTEX

Planning documents

NOTES:
 PROPOSED SCHEME SHOWN IN TEAL
 ALL HEIGHTS AND DIMENSIONS GIVEN IN m AOD

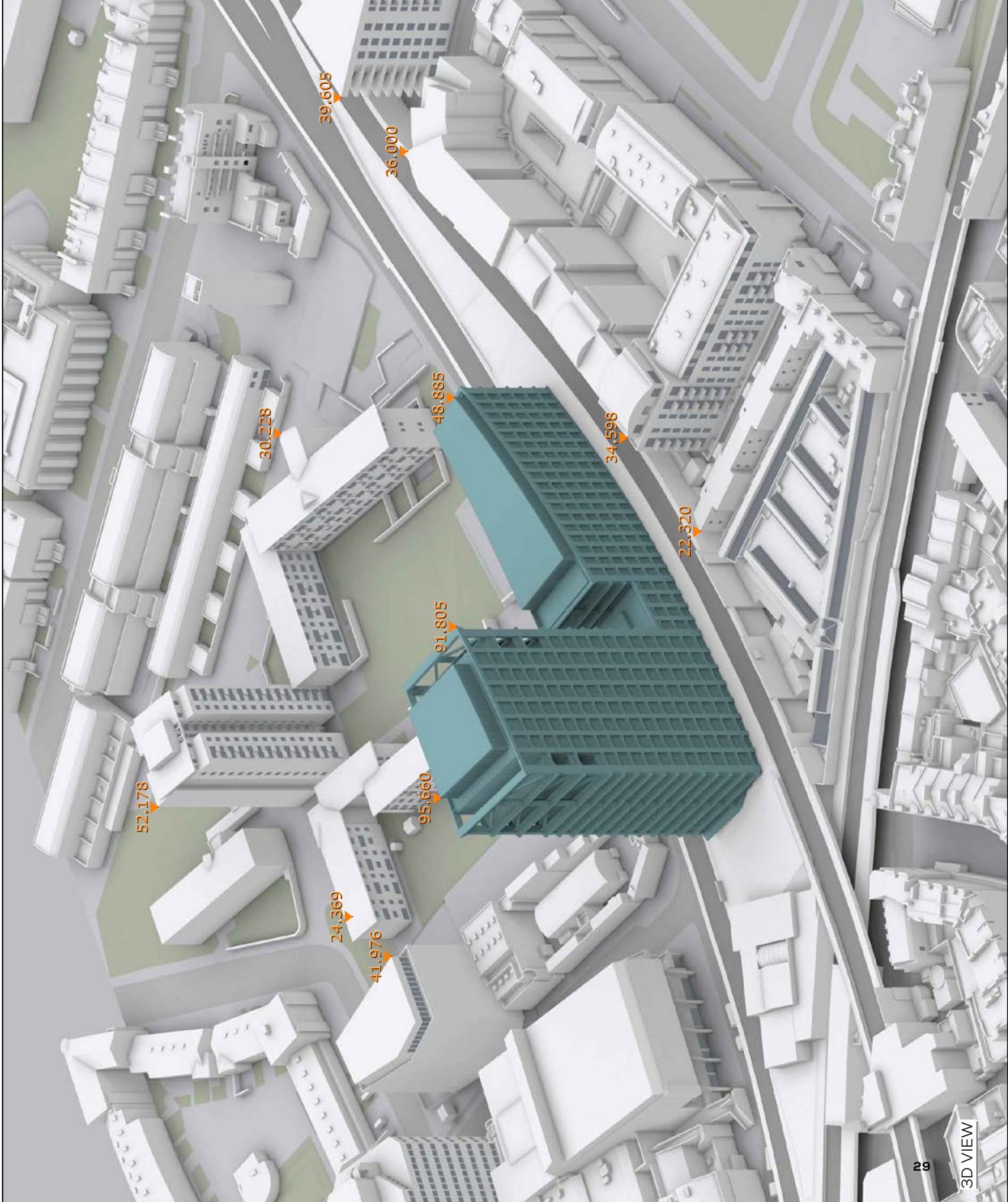
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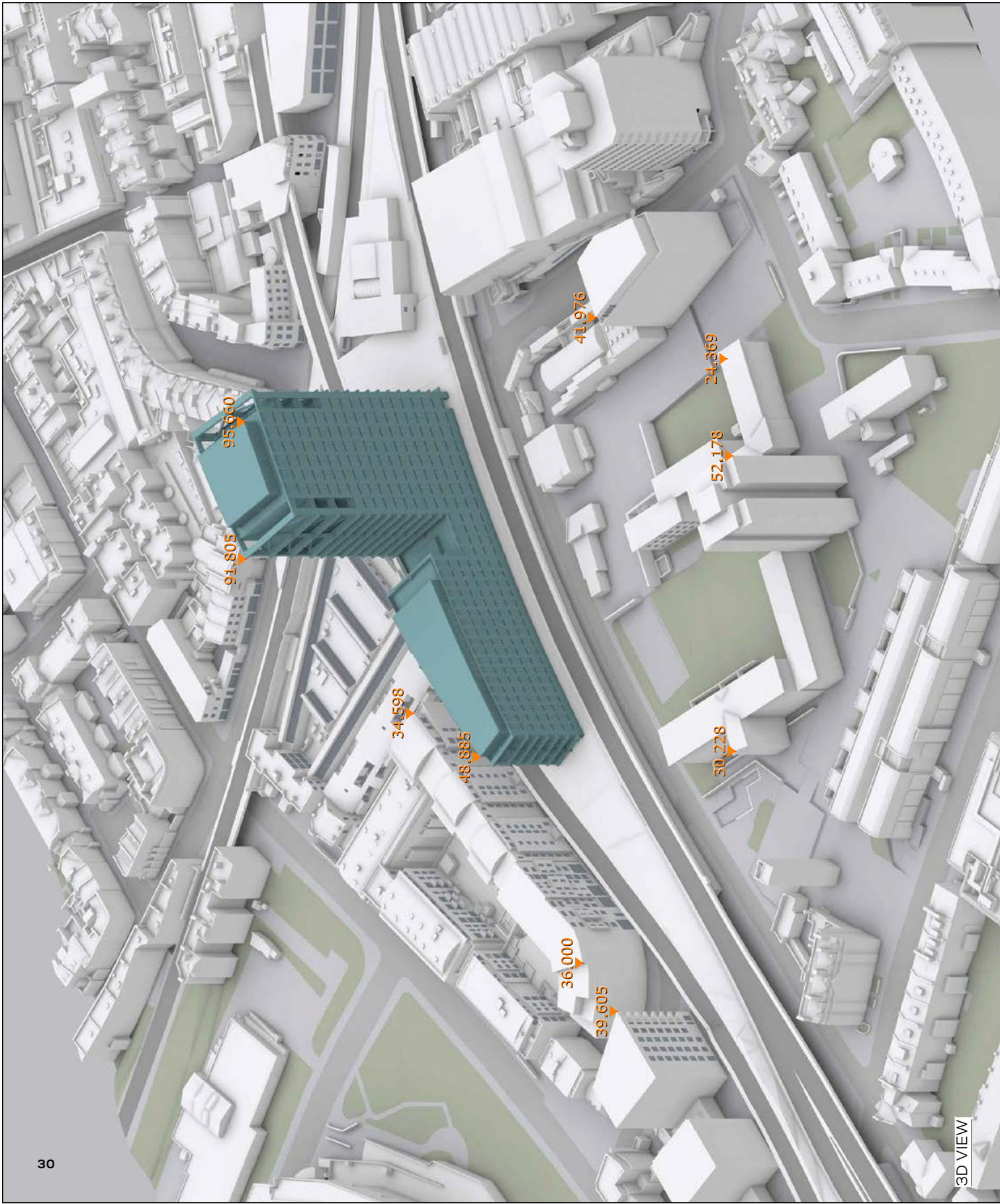
PROJECT:
POPE'S ROAD BRITXON

DRAWING NAME:
 3D VIEW PROPOSED
 PROPOSED IR31
 RECEIVED 10.06.20

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EVVE	1:1000	CRC	JUN.20	A
PROJ No.	REL No.	ADDR No.	IS No.	DWG No.
13866	09	-	01	02

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SOURCES OF INFORMATION

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 SURVEY
 IR15-13866 (11.06.2019) - Recap Point Cloud
 IR16-13866 (11.06.2019) - GIA Survey Model_IS01
 IR18-13866 (05.06.2019) - VMMapaTech_RevA

PHOTOS
 VERTEX
 IR12-13866 (07.05.2019) - VERTEX

Planning documents

NOTES:
 PROPOSED SCHEME SHOWN IN TEAL
 ALL HEIGHTS AND DIMENSIONS GIVEN IN m AOD

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PROJECT:
POPE'S ROAD BRITXTON

DRAWING NAME:
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 PROPOSED IR31
 RECEIVED 10.06.20

DWN BY	SCALE	CHK BY	DATE	REV No.
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PRCJ No.	REL No.	ADDR No.	IS No.	DWG No.
13866	09	-	01	03

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APPENDIX 04
**RESULTS OF BRE COMPLIANT
PROPERTIES**

FLOOR	ROOM	PROPERTY TYPE	ROOM USE	ROOM NOTES	VSC (WINDOW)				VSC (ROOM)				NSL				VSC (WINDOW)				VSC (ROOM)				APSH (WINDOW)				APSH (ROOM)										
					EX	LOSS	RR	LOSS %	EX	LOSS	RR	LOSS %	EX	LOSS	RR	LOSS %	EX	LOSS	RR	LOSS %	EX	LOSS	RR	LOSS %	EX	LOSS	RR	LOSS %	EX	LOSS	RR	LOSS %	EX	LOSS	RR	LOSS %			
					%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
P27 VALENCIA PLACE																																							
F01	R1	RESIDENTIAL	BEDROOM	W1/F01		259	287	12	4.0%	259	287	12	4.0%	975	975	0.0%	0.0%																						
	R2	RESIDENTIAL	LND	W2/F01	ASSUMED	309	291	18	5.8%	309	291	18	5.8%	964	964	0.0%	0.0%																						
	R3	RESIDENTIAL	LND	W8/F01	ASSUMED	321	295	26	8.1%	322	294	28	8.7%	972	972	0.0%	0.0%																						
			LND	W9/F01		323	292	31	9.6%																														
P28 VALENCIA PLACE (CONTINUED)																																							
	R4	RESIDENTIAL	BEDROOM	W10/F01	ASSUMED	321	285	36	11.2%	316	277	39	12.3%	995	995	0.0%	0.0%																						
			BEDROOM	W11/F01		287	251	36	12.5%																														
			BEDROOM	W12/F01		341	297	44	12.9%																														
	P5	RESIDENTIAL	LND	W13/F01	ASSUMED	323	273	5	15.5%	323	273	5	15.5%	986	986	0.0%	2.1%																						
F02	R1	RESIDENTIAL	BEDROOM	W1/F02	ASSUMED	308	295	13	4.2%	308	295	13	4.2%	974	974	0.0%	0.0%																						
	R2	RESIDENTIAL	LND	W2/F02	ASSUMED	331	312	19	5.7%	331	312	19	5.7%	984	984	0.0%	0.0%																						
	R3	RESIDENTIAL	LND	W5/F02	ASSUMED	369	341	28	7.6%	366	336	3	8.2%	972	971	0.0%	0.3%																						
			LND	W6/F02		362	329	33	9.1%																														
	R4	RESIDENTIAL	BEDROOM	W7/F02	ASSUMED	281	222	59	21.0%	315	272	43	13.7%	995	995	0.0%	0.0%																						
			BEDROOM	W8/F02		353	308	45	12.7%																														
			BEDROOM	W9/F02		32	277	43	13.4%																														
	P5	RESIDENTIAL	LND	W10/F02	ASSUMED	305	255	5	16.4%	305	255	5	16.4%	985	954	0.7	3.1%																						
F03	R1	RESIDENTIAL	LIVING ROOM	W1/F03	ASSUMED	37	353	17	4.6%	322	313	9	2.8%	966	966	0.0%	0.0%																						
			LIVING ROOM	W2/F03		276	276	0	0.0%																														
	R2	RESIDENTIAL	LIVING ROOM	W3/F03	ASSUMED	376	354	22	5.9%	377	351	26	6.9%	978	978	0.0%	0.0%																						
			LIVING ROOM	W4/F03		375	35	25	6.7%																														
	R3	RESIDENTIAL	LND	W8/F03	ASSUMED	376	346	29	7.4%	374	351	23	6.1%	962	962	0.0%	0.0%																						
			LND	W9/F03		373	352	21	5.6%																														
	R4	RESIDENTIAL	LND	W10/F03	ASSUMED	375	351	24	6.4%	334	297	37	11.1%	989	989	0.0%	0.0%																						
			LND	W11/F03		32	278	42	13.3%																														
			LND	W12/F03		323	283	4	12.4%																														
	P5	RESIDENTIAL	LND	W13/F03	ASSUMED	36	327	33	9.2%	365	33	35	9.6%	976	976	0.0%	0.0%																						
			LND	W14/F03		373	336	37	9.9%																														
F04	R1	RESIDENTIAL	LND	W1/F04	ASSUMED	378	362	16	4.2%	333	325	8	2.4%	971	971	0.0%	0.0%																						
			LND	W2/F04		287	287	0	0.0%																														
	R2	RESIDENTIAL	LND	W3/F04	ASSUMED	381	361	2	5.2%	38	359	21	5.5%	973	973	0.0%	0.0%																						
			LND	W4/F04		38	357	23	6.1%																														
	R3	RESIDENTIAL	LIVING ROOM	W8/F04	ASSUMED	382	357	25	6.5%	38	359	21	5.5%	964	964	0.0%	0.0%																						
			LIVING ROOM	W9/F04		378	36	18	4.8%																														
	R4	RESIDENTIAL	LIVING ROOM	W10/F04	ASSUMED	381	359	22	5.8%	351	316	35	10.0%	989	989	0.0%	0.0%																						
			LIVING ROOM	W11/F04		327	289	38	11.6%																														
P29 VALENCIA PLACE (CONTINUED)																																							
	P5	RESIDENTIAL	LIVING ROOM	W12/F04		356	319	37	10.4%																														
	R5	RESIDENTIAL	LIVING ROOM	W13/F04	ASSUMED	373	343	3	8.0%	377	345	32	8.5%	992	992	0.0%	0.0%																						
			LIVING ROOM	W14/F04		38	346	34	8.5%																														
F05	R1	RESIDENTIAL	LIVING ROOM	W1/F05	ASSUMED	387	376	11	2.8%	387	376	11	2.8%	97	97	0.0%	0.0%																						
	R2	RESIDENTIAL	LIVING ROOM	W2/F05	ASSUMED	387	373	14	3.6%	387	373	14	3.6%	99	99	0.0%	0.0%																						
	R3	RESIDENTIAL	LND	W4/F05	ASSUMED	386	364	22	5.7%	386	364	22	5.7%	978	978	0.0%	0.0%																						
			LND	W5/F05		387	361	26	6.7%																														
	R4	RESIDENTIAL	LND	W6/F05	ASSUMED	387	358	29	7.5%	386	355	31	8.0%	993	993	0.0%	0.0%																						
			LND	W7/F05		385	351	34	8.6%																														
			LND	W8/F05		387	355	32	8.3%																														

(1) KITCHEN SMALLER THAN 10m²
 (2) INCL. Z - SKY COMPONENT (INCL. HORIZONTAL WINDOWS)
 (3) SINGLE ASPECT ROOM DEEPER THAN 5m

FLOOR	ROOM	PROPERTY TYPE	ROOM USE	ROOM NOTES	WINDOW	VSC (WINDOW)			VSC (ROOM)			NSL			APSH (WINDOW)			APSH (ROOM)				
						EX	LOSS %	PR	EX	LOSS %	PR	EX	LOSS %	PR	EX	LOSS %	PR	ANNUAL	WINTER	PERCENTAGE	ANNUAL	WINTER
F06	R5	RESIDENTIAL	LAD	ASSUMED	W9/F05	386	3.9	10.1%	347	3.9	386	347	3.9	10.1%	97	0.0%	0.0%					
	R1	RESIDENTIAL	LAD	ASSUMED	W1/F06	389	37.9	2.6%	369	37.9	1	0.0%	971	0.0%	971	0.0%	0.0%	N/A	N/A	N/A	N/A	
	R2	RESIDENTIAL	LAD	ASSUMED	W2/F06	389	37.6	3.3%	389	37.6	1.3	0.0%	988	98.8	0.0%	0.0%						
	R3	RESIDENTIAL	LIVING ROOM	ASSUMED	W4/F06	389	369	2	5.1%	388	368	2	5.2%	978	97.8	0.0%	0.0%					
	R4	RESIDENTIAL	LIVING ROOM	ASSUMED	W5/F06	389	366	2.3	5.9%													
	R4	RESIDENTIAL	LIVING ROOM	ASSUMED	W6/F06	389	384	2.5	6.4%	389	359	3	7.7%	988	98.8	0.0%	0.0%					
					W7/F06	388	357	3.1	8.0%													
					W8/F06	389	36	2.9	7.5%													
					W9/F06	389	355	3.4	8.7%	389	355	3.4	8.7%	973	97.3	0.0%	0.0%					
NORTHCATE COURT																						
F06	R1	RESIDENTIAL	UNKNOWN		W1/F00	219	19.5	11.0%	219	195	2.4	11.0%	993	99.3	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	
	R2	RESIDENTIAL	UNKNOWN		W2/F00	255	22.9	10.2%	255	229	2.6	10.2%	998	99.8	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	
	R3	RESIDENTIAL	UNKNOWN		W3/F00	275	24.7	10.2%	275	247	2.8	10.2%	998	99.8	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	
	R4	RESIDENTIAL	UNKNOWN		W4/F00	269	25.9	10.4%	269	259	3	10.4%	999	99.9	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	
	R5	RESIDENTIAL	UNKNOWN		W5/F00	298	266	3.2	10.7%	298	266	3.2	10.7%	999	99.9	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A
F01	R6	RESIDENTIAL	UNKNOWN		W6/F00	307	27.2	11.4%	307	272	3.5	11.4%	999	99.9	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	
	R7	RESIDENTIAL	UNKNOWN		W7/F00	313	27.6	11.8%	313	276	3.7	11.8%	999	99.9	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	
	R8	RESIDENTIAL	UNKNOWN		W8/F00	319	27.9	12.5%	319	279	4	12.5%	999	99.9	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	
	R9	RESIDENTIAL	UNKNOWN		W9/F00	323	28	13.3%	323	28	4.3	13.3%	999	99.9	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	
	R10	RESIDENTIAL	UNKNOWN		W10/F00	327	28.1	14.1%	327	281	4.6	14.1%	999	99.9	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	
F02	R11	RESIDENTIAL	UNKNOWN		W11/F00	331	28.1	15.1%	331	281	5	15.1%	999	99.9	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	
	R12	RESIDENTIAL	UNKNOWN		W12/F00	333	28	15.9%	333	28	5.3	15.9%	999	99.9	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	
	R1	RESIDENTIAL	UNKNOWN		W1/F01	213	19.9	11.3%	213	189	2.4	11.3%	963	94.6	0.3	1.7%	N/A	N/A	N/A	N/A	N/A	
	R2	RESIDENTIAL	UNKNOWN		W2/F01	23	20.4	11.3%	23	20.4	2.6	11.3%	71	0.0%	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	
	R3	RESIDENTIAL	UNKNOWN		W3/F01	25.6	22.9	10.8%	25.6	22.9	2.7	10.8%	985	98.5	0.0%	0.3%	N/A	N/A	N/A	N/A	N/A	
F03	R4	RESIDENTIAL	UNKNOWN		W4/F01	271	24.1	11.1%	271	241	3	11.1%	987	98.7	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	
	R5	RESIDENTIAL	UNKNOWN		W5/F01	277	24.6	11.2%	277	246	3.1	11.2%	99	98.8	0.0%	0.2%	N/A	N/A	N/A	N/A	N/A	
	R6	RESIDENTIAL	UNKNOWN		W6/F01	287	25.3	11.6%	287	253	3.4	11.6%	989	98.9	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	
	R7	RESIDENTIAL	UNKNOWN		W7/F01	288	25.1	12.8%	288	251	3.7	12.8%	974	91.2	1.1	6.4%	N/A	N/A	N/A	N/A	N/A	
	R8	RESIDENTIAL	UNKNOWN		W8/F01	291	25.2	13.4%	291	252	3.9	13.4%	942	94.2	0.0	0.0%	N/A	N/A	N/A	N/A	N/A	
F02	R9	RESIDENTIAL	UNKNOWN		W9/F01	296	25.4	14.2%	296	254	4.2	14.2%	973	87.3	1.7	10.4%	N/A	N/A	N/A	N/A	N/A	
	R10	RESIDENTIAL	UNKNOWN		W10/F01	299	25.4	15.3%	299	254	4.5	15.3%	953	95.3	0.0	0.0%	N/A	N/A	N/A	N/A	N/A	
	R11	RESIDENTIAL	UNKNOWN		W11/F01	303	25.3	16.5%	303	253	5	16.5%	972	81.7	2.7	16.0%	N/A	N/A	N/A	N/A	N/A	
	R12	RESIDENTIAL	UNKNOWN		W12/F01	305	25.2	17.4%	305	252	5.3	17.4%	949	94.9	0.0	0.0%	N/A	N/A	N/A	N/A	N/A	
	R13	RESIDENTIAL	UNKNOWN		W13/F01	319	26.3	17.8%	319	263	5.6	17.8%	994	98.4	0.0	0.0%	80	22	68	13	15.0%	40.9%
F02	R4	RESIDENTIAL	UNKNOWN		W14/F01	318	26.5	16.7%	318	265	5.3	16.7%	993	99.3	0.0	0.0%	80	22	69	13	13.8%	40.9%
	R1	RESIDENTIAL	UNKNOWN		W1/F02	252	22.9	9.1%	252	233	2.3	9.0%	997	99.7	0.0	0.0%	N/A	N/A	N/A	N/A	N/A	
	R2	RESIDENTIAL	UNKNOWN		W2/F02	269	24.6	2.3	8.6%													
	R2	RESIDENTIAL	UNKNOWN		W3/F02	284	25.9	2.5	8.6%	284	264	2.4	8.3%	999	99.9	0.0	0.0%	N/A	N/A	N/A	N/A	N/A
					W4/F02	29	26.5	2.5	8.6%													
	R3	RESIDENTIAL	UNKNOWN		W5/F02	301	27.4	9.0%	302	275	2.7	8.9%	999	99.9	0.0	0.0%	N/A	N/A	N/A	N/A	N/A	
					W6/F02	306	27.9	2.7	8.6%													
	R4	RESIDENTIAL	UNKNOWN		W7/F02	311	28.9	2.8	9.0%	313	285	2.8	8.9%	999	99.9	0.0	0.0%	N/A	N/A	N/A	N/A	
					W8/F02	314	285	2.9	9.2%													
	R5	RESIDENTIAL	UNKNOWN		W9/F02	32	29	3	9.4%	32	29	3	9.4%	999	99.9	0.0	0.0%	N/A	N/A	N/A	N/A	
				W10/F02	32.3	29.2	3.1	9.6%														
	R6	RESIDENTIAL	UNKNOWN		W11/F02	32.7	29.5	3.2	9.8%	32.8	29.6	3.2	9.8%	999	99.9	0.0	0.0%	N/A	N/A	N/A	N/A	

(1) KITCHEN SMALLER THAN 19m2
 (2) INC/LAZ - SF COMPONENT (INCLUDED HORIZONTAL WINDOWS)
 (3) SINGLE ASPECT ROOM DEEPER THAN 5m

FLOOR	ROOM	PROPERTY TYPE	ROOM USE	ROOM NOTES	WINDOW	WINDOW NOTES	VSC (WINDOW)				VSC (ROOM)				APSH (WINDOW)				APSH (ROOM)													
							EX	PR	LOSS %	LOSS	EX	PR	LOSS %	LOSS	ANNUAL	WINTER	ANNUAL	WINTER	EX	PR	LOSS %	LOSS	ANNUAL	WINTER	ANNUAL	WINTER						
							%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%							
R2	RESIDENTIAL	UNKNOW			W2/F02		36	30	6	16.7%	36	30	6	0.2%	991	989	0.0	0.2%														
SFS COLHARBOUR LANE																																
F01	R2	RESIDENTIAL	KITCHEN (1)		W4/F01		34.4	31.5	2.9	8.4%	34.3	31.5	2.8	0.3%	96.2	96.1	0.0	0.3%														
			KITCHEN (1)		W5/F01		34.4	31.4	3	8.7%																						
R3	RESIDENTIAL	BEDROOM			W1/F01		24.2	24.2	0	0.0%	27.9	27	0.9	0.0%	988	987	0.0	0.0%														
			BEDROOM		W2/F01		24.5	24.5	0	0.0%																						
			BEDROOM		W3/F01		34.3	31.6	2.7	7.9%																						
F02	R6	RESIDENTIAL	KITCHEN (1)		W2/F02		35.9	30.7	5.2	14.5%	35.9	30.7	5.2	0.0%	98	98	0.0	0.0%														
			BEDROOM		W3/F02		36.2	33.3	2.9	8.0%	31.8	30.7	1.1	0.0%	100	100	0.0	0.0%														
			BEDROOM		W4/F02		29.2	29.2	0	0.0%																						
			BEDROOM		W5/F02		29.2	29.2	0	0.0%																						

(1) KITCHEN SMALLER THAN 19m²
 (2) INC/IZ - SF COMPONENT (INCLUDED HORIZONTAL WINDOWS)
 (3) SINGLE ASPECT ROOM DEEPER THAN 5m

APPENDIX 05
OVERSHADOWING STUDY



DAYLIGHT & SUNLIGHT
OVERSHADOWING ASSESSMENT

Pope's Road, Brixton

18 June 2020

GIA No: 13866

PROJECT DATA:

Client **AG Hondo Pope's Road BV**
Architect **Adjaye Architects**
Project Title **Pope's Road, Brixton**
Project Number **13866**

REPORT DATA:

Report Title **Overshadowing Assessment**
GIA Department **Daylight & Sunlight**
Dated **18 June 2020**

Prepared by **ERLA**
Checked by **KST**
Type **Planning**

Revisions	No:	Date:	Notes:	Signed:

SOURCES OF INFORMATION:

Information Received **IR-31-13866**
Release Number **Rel_14_13866_DSD**
Issue Number **06**
Site Photos **GIA**
3D models **VERTEX**
OS Data **FIND Maps**



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OS 100047514

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3	SUN HOURS ON GROUND ASSESSMENT - CURRENT BASELINE V PROPOSED	26

1 SITE OVERVIEW

Current Baseline v Proposed

CURRENT BASELINE SCENARIO



Fig. 01: Top view - Current Baseline Scenario



Fig. 02: Perspective view - Current Baseline Scenario

PROPOSED SCENARIO



Fig. 03: Top view - Proposed Scenario

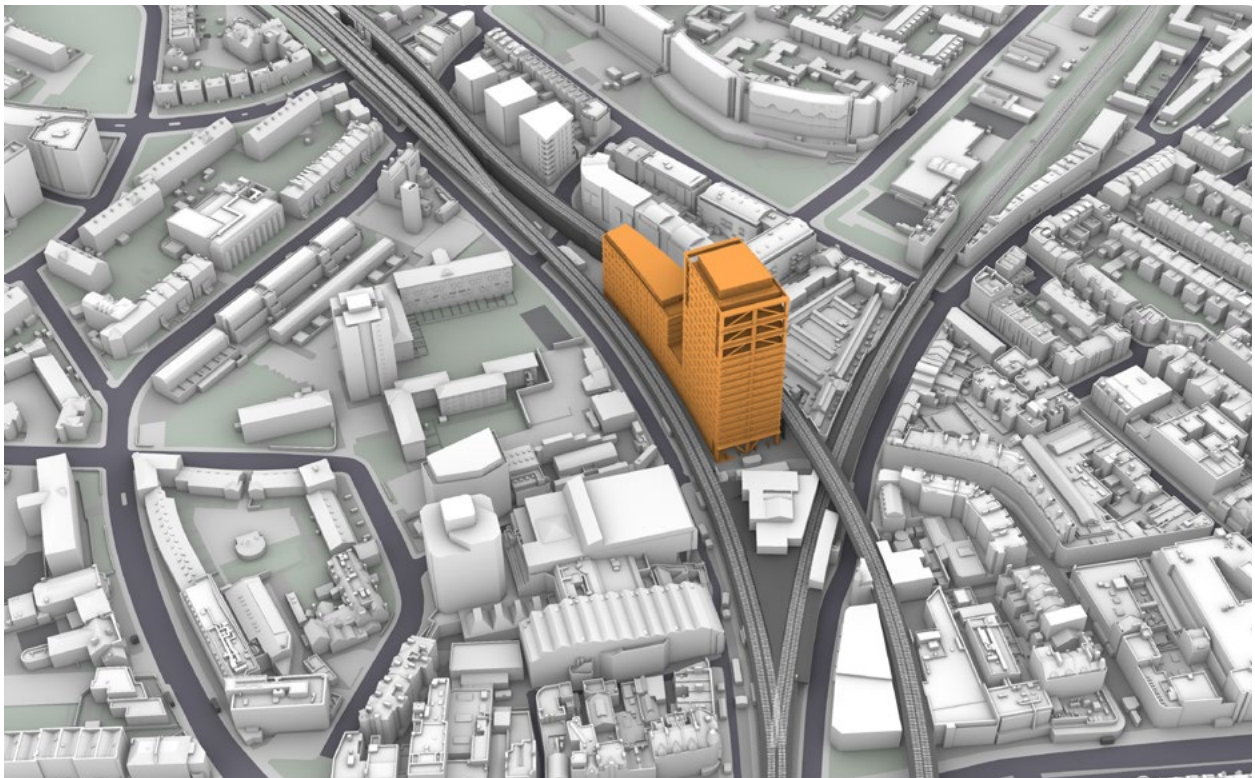


Fig. 04: Perspective view - Proposed scenario

2 CURRENT BASELINE V PROPOSED SCENARIO

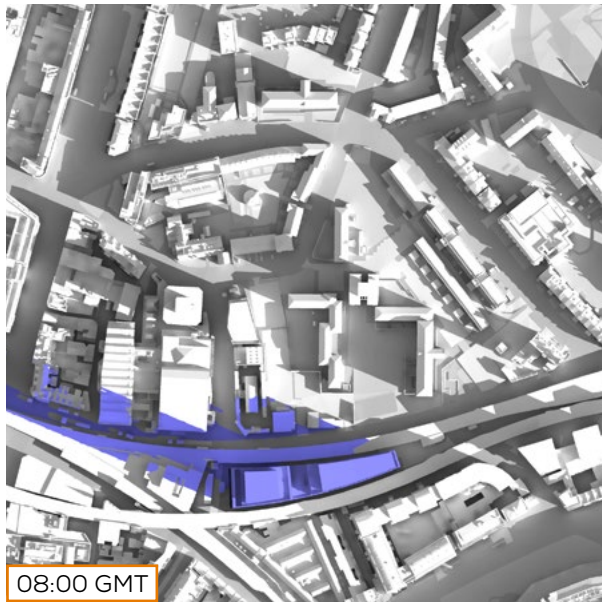
TRANSIENT OVERSHADOWING ASSESSMENT

TRANSIENT OVERSHADOWING ASSESSMENT
21ST MARCH (08:00 - 11:00 GMT)

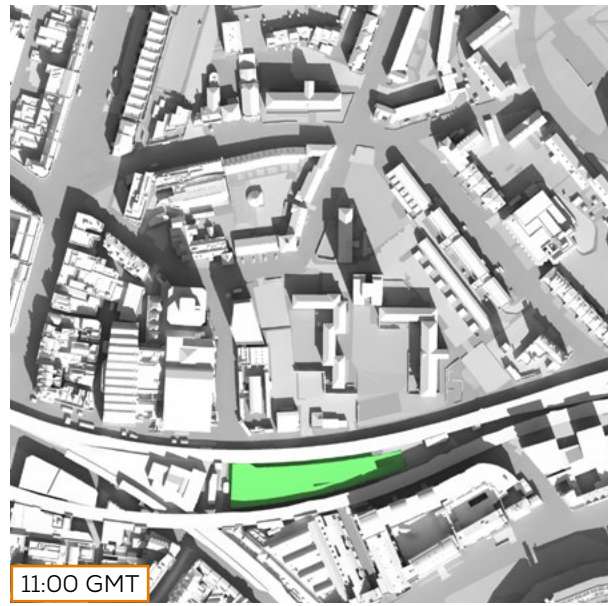
EXISTING



PROPOSED



EXISTING



PROPOSED



TRANSIENT OVERSHADOWING ASSESSMENT
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EXISTING



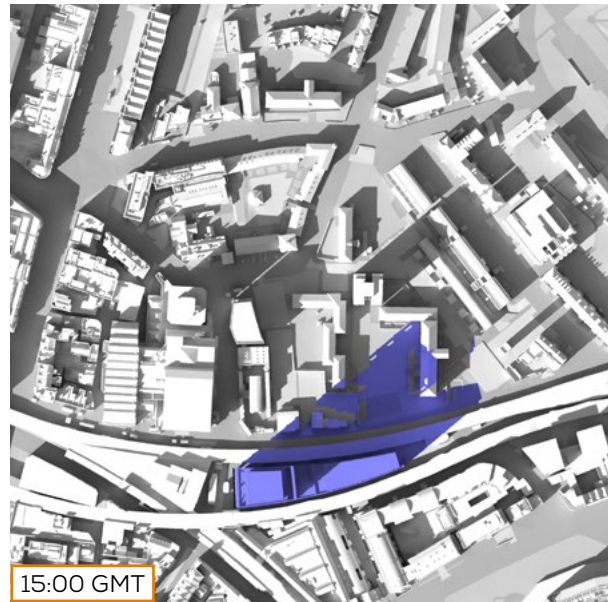
PROPOSED



EXISTING



PROPOSED



TRANSIENT OVERSHADOWING ASSESSMENT
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EXISTING



PROPOSED

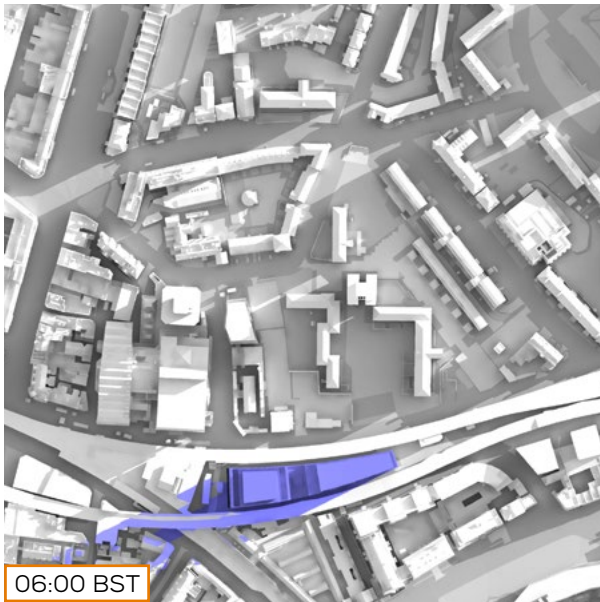


TRANSIENT OVERSHADOWING ASSESSMENT
21ST JUNE (06:00 - 09:00 BST)

EXISTING



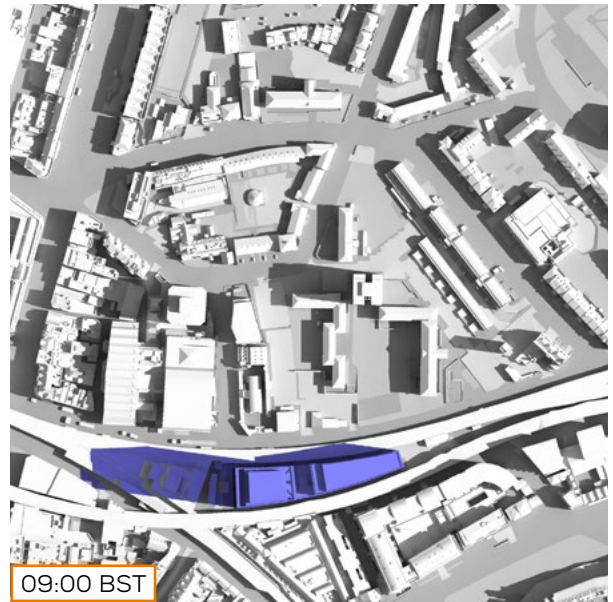
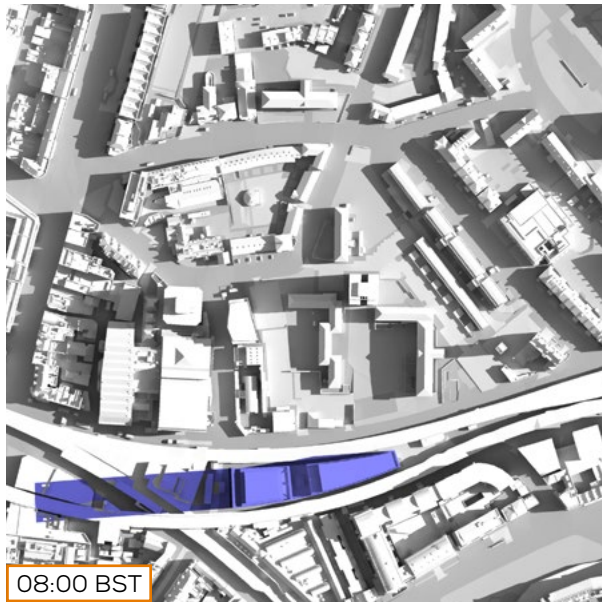
PROPOSED



EXISTING



PROPOSED

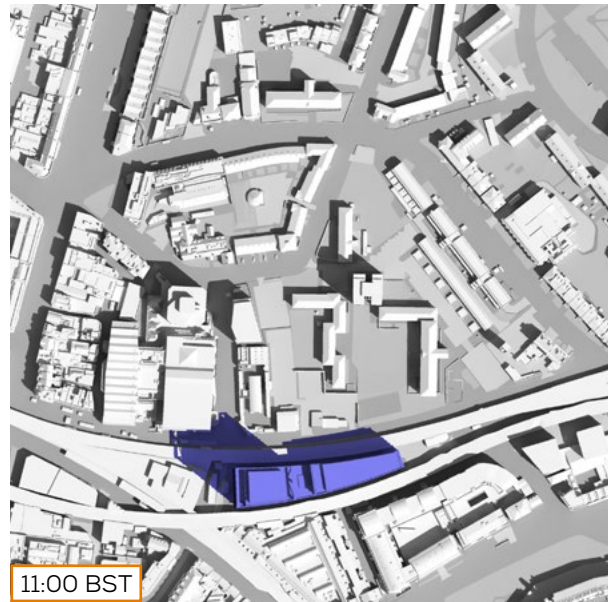


TRANSIENT OVERSHADOWING ASSESSMENT
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EXISTING



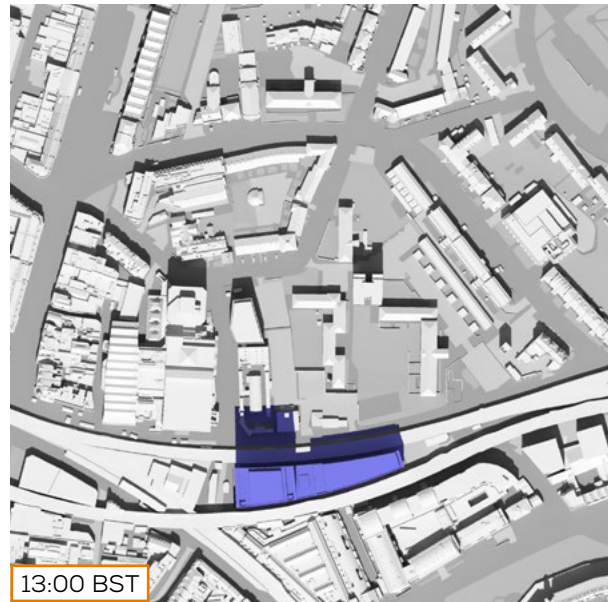
PROPOSED



EXISTING



PROPOSED

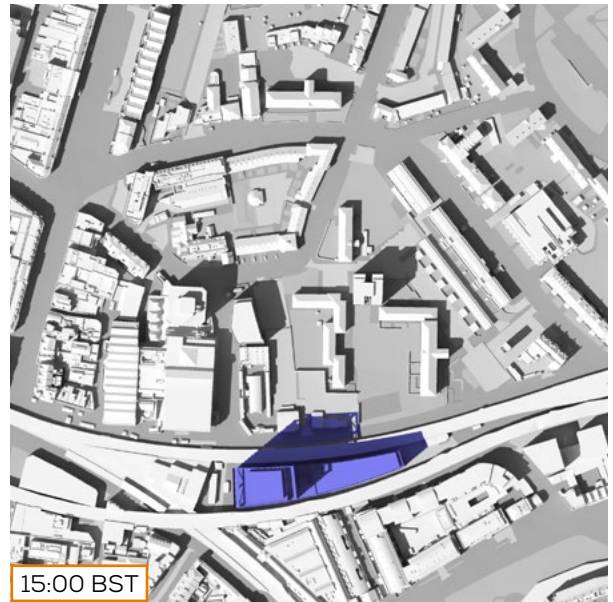


TRANSIENT OVERSHADOWING ASSESSMENT
21ST JUNE (14:00 - 17:00 BST)

EXISTING



PROPOSED



EXISTING



PROPOSED

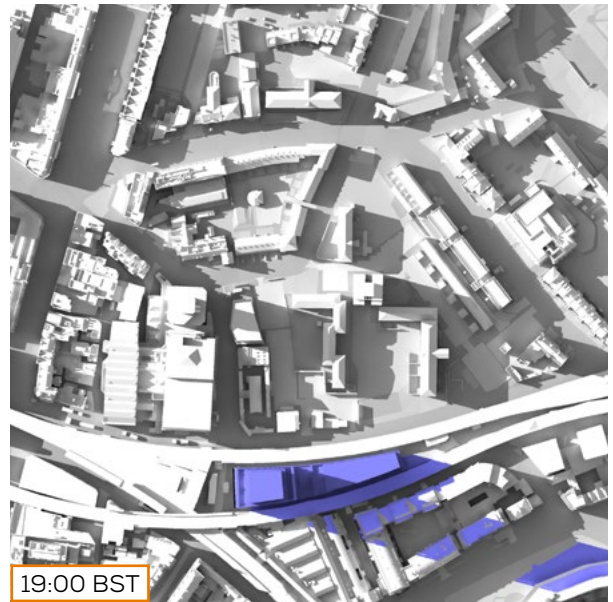
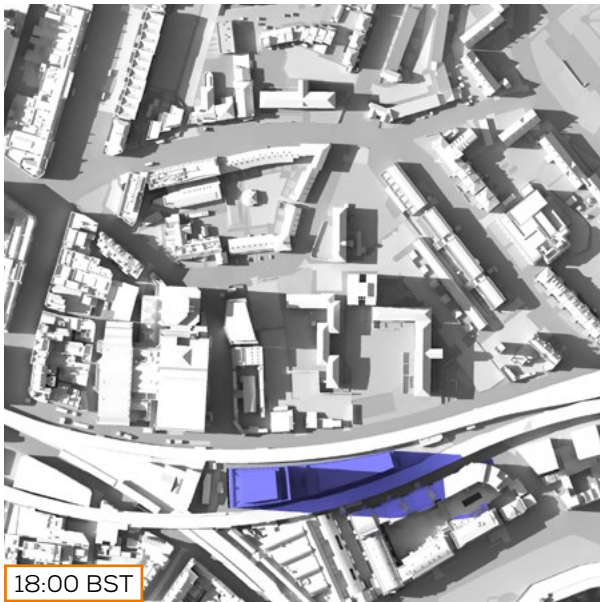


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EXISTING



PROPOSED



EXISTING



PROPOSED

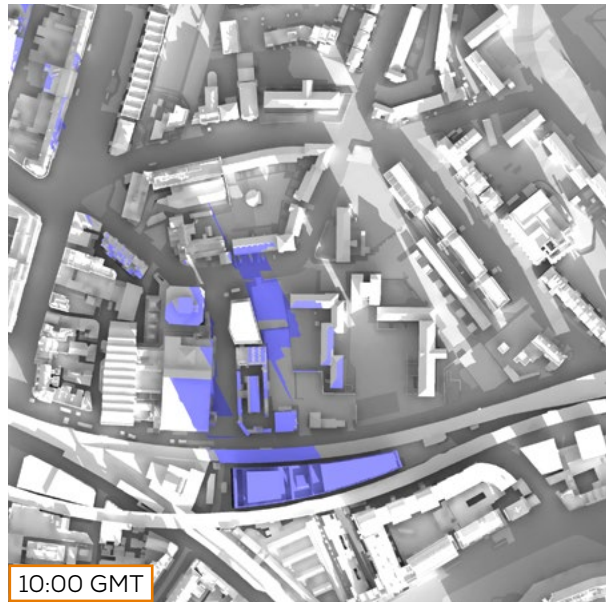


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21ST DECEMBER (09:00 - 12:00 GMT)

EXISTING



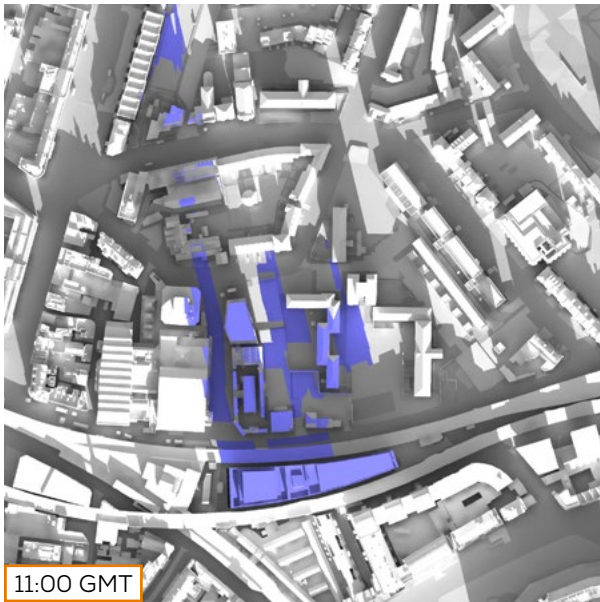
PROPOSED



EXISTING

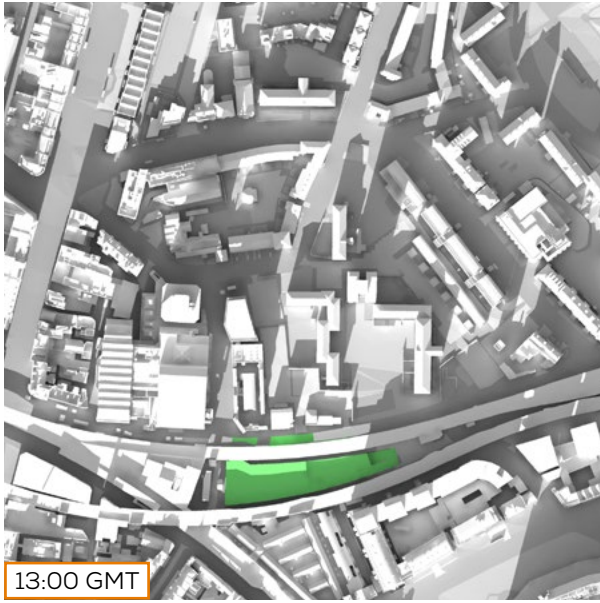


PROPOSED

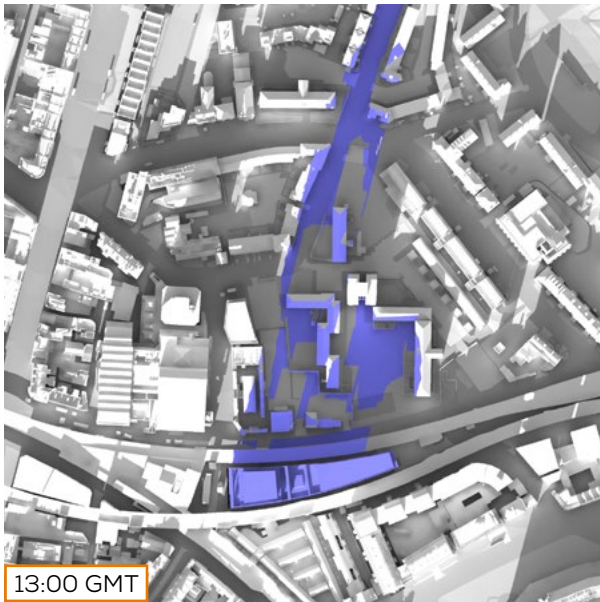


TRANSIENT OVERSHADOWING ASSESSMENT
21ST DECEMBER (13:00 - 15:00 GMT)

EXISTING



PROPOSED



EXISTING



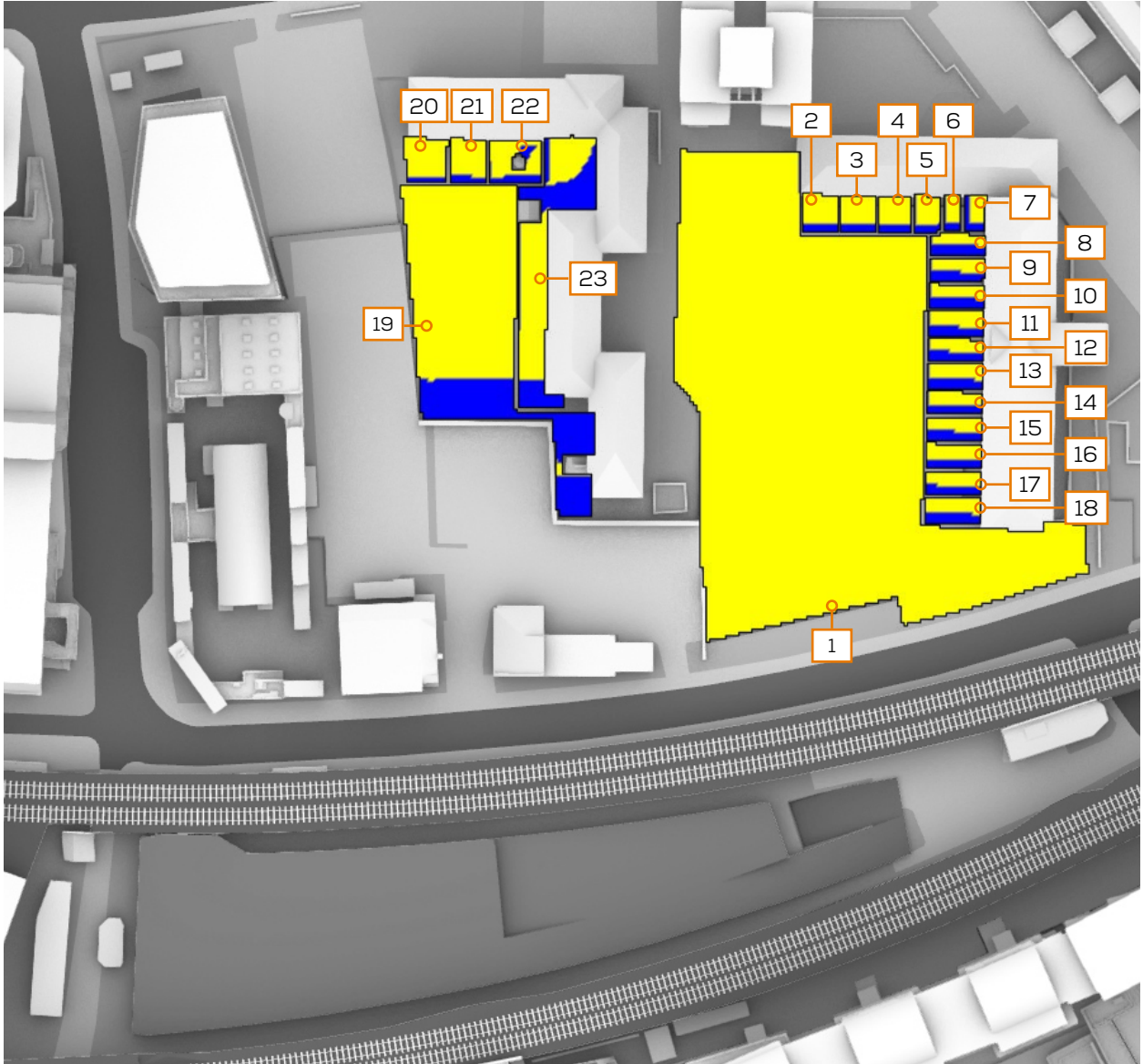
PROPOSED



3 CURRENT BASELINE V PROPOSED SCENARIO

SUN HOURS ON GROUND ASSESSMENT

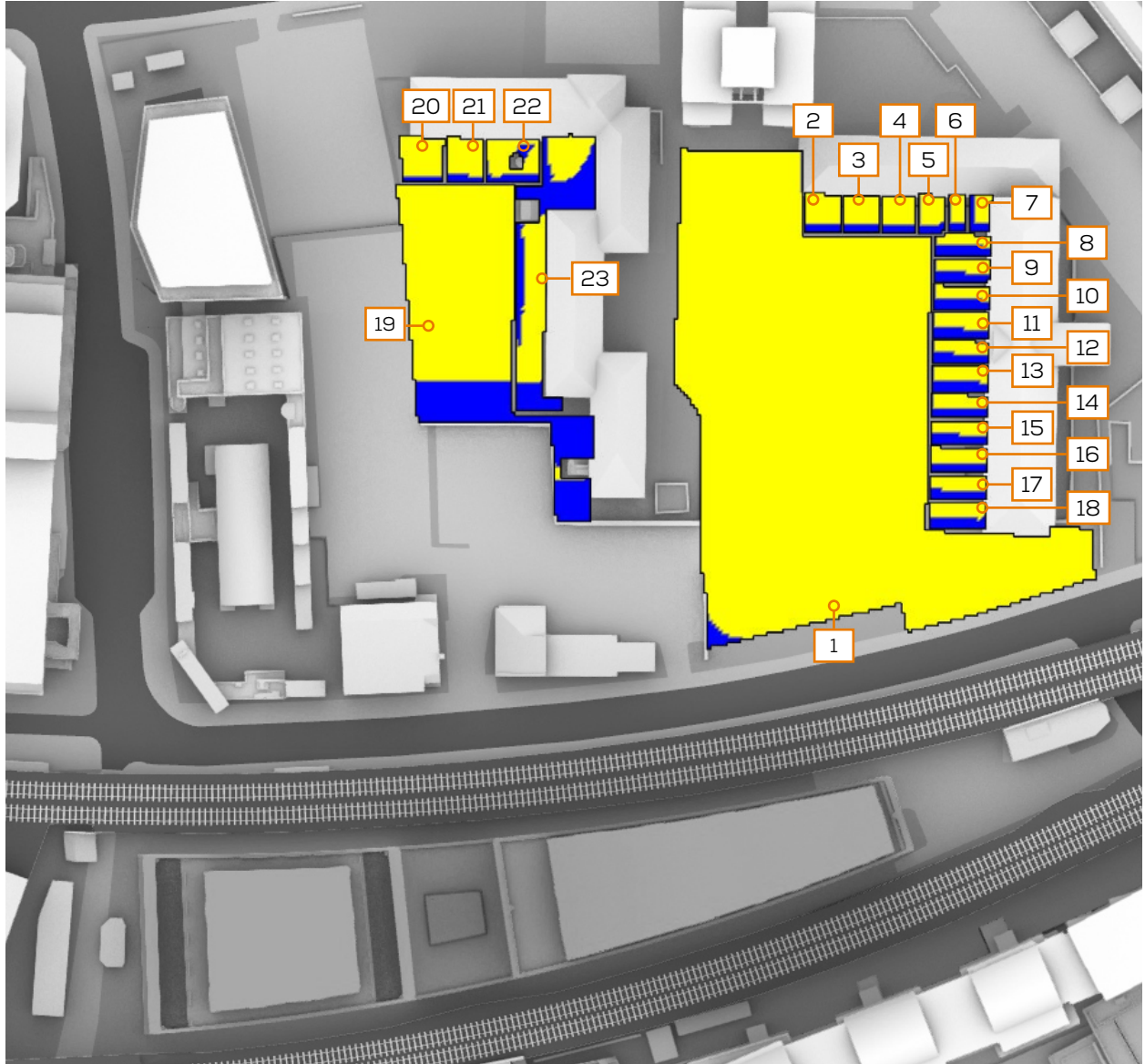
**OVERSHADOWING ASSESSMENT - CURRENT BASELINE SCENARIO
SUN HOURS ON GROUND - BRE TEST**



(BRE RECOMMENDS 2+ HOURS OF SUNLIGHT ON 21ST MARCH FOR AT LEAST 50% OF THE OPEN SPACE)

AREA	1	2	3	4	5	6	7	8	9	10	11	12
EXISTING	100%	76%	75%	75%	67%	63%	54%	47%	53%	50%	57%	54%
PROPOSED	99%	76%	75%	75%	66%	63%	54%	47%	53%	50%	57%	54%
LOSS	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
AREA	13	14	15	16	17	18	19	20	21	22	23	
EXISTING	54%	57%	56%	64%	60%	57%	73%	87%	82%	69%	60%	
PROPOSED	54%	57%	56%	64%	60%	56%	73%	87%	82%	69%	52%	
LOSS	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%	13%	

OVERSHADOWING ASSESSMENT - PROPOSED SCENARIO
SUN HOURS ON GROUND - BRE TEST



SUN HOURS ON GROUND
BRE TEST - 21ST MARCH



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