

Daylight and sunlight report for the proposed
development at

**86-87A Broad Street,
Reading RG1 2AP**



Prepared for: Bankfoot APAM Ltd
Prepared by: Desrine Oak BSc (Hons) MRICS
Date: 27 August 2021
Reference: 92807/PL

Hollis, 140 London Wall, London, EC2Y 5DN
T +44 20 7622 9555 **hollisglobal.com**

Regulated by RICS

Malcolm Hollis LLP, a Limited Liability Partnership. Registered in England and Wales number OC314362.
Registered office: Battersea Studios, 80-82 Silverthorne Road, London SW8 3HE.
VAT number 863 8914 80. A list of members is available from our registered office. Regulated by RICS.

Contents

1.	Executive summary	3
1.1.	Scope	3
1.2.	Background	3
1.3.	Assessment criteria	3
1.4.	Summary of analysis of daylight, sunlight and overshadowing for the new development	3
1.5.	Overall	4
2.	Introduction	6
2.1.	Scope	6
2.2.	Planning policy	6
2.3.	Assessment criteria	6
2.4.	Limitations	7
3.	Assessment results – daylighting, sunlighting & overshadowing amenity of the new development	8
3.1.	Internal daylight	8
3.2.	Internal sunlight	9
3.3.	Overshadowing	10

Appendices

Appendix A Assessments to be applied

Appendix B Context drawings

Appendix C Window/room reference drawings

Appendix D Daylight study

Appendix E Sunlight study

Appendix F Overshadowing study

1. Executive summary

1.1. Scope

- 1.1.1. We have been instructed by Bankfoot APAM Ltd 86-87A Broad Street, Reading RG1 2AP, and to comment on the adequacy of the levels on amenity that will be attained.

1.2. Background

- 1.2.1. From discussions with Bankfoot APAM Ltd, and from reviewing Sutton CA Architects' drawings, we note that the development under consideration entails alteration and extension of the existing mixed-use retail premises, with the construction of residential flat accommodation with associated amenity areas.

1.3. Assessment criteria

- 1.3.1. To ensure that this assessment can be appropriately evaluated against Reading Borough Council's planning policy, daylight and sunlight calculations have been undertaken in accordance with the Building Research Establishment Report 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice' 2nd Edition, 2011(the "BRE guide") and also British Standard 8206 – 2: 2008 – 'Lighting for Buildings – Part 2: Code of Practice for Daylighting', to which the BRE guide refers. The standards and tests applied within this assessment are briefly described in Appendix A.

1.4. Summary of analysis of daylight, sunlight and overshadowing for the new development

Internal daylight

- 1.4.1. Of the 38 rooms assessed for ADF, all but four will meet, or exceed, the target values as set out in the BRE guide. One of the four rooms that does not meet the target will serve a LKD, two will serve studios and the other will serve as a bedroom. The main contributory factors accounting for these shortfalls are the proposed location and orientation of each room's windows in relation to the surrounding context.
- 1.4.2. Of the 38 rooms assessed for Daylight Distribution, all but 11 will meet, or exceed, the BRE criteria for daylight distribution. Eight of the eleven rooms in the proposed accommodation that will fall marginally short of the numerical target, will serve bedrooms. The BRE guide states that living rooms and kitchens require more daylight than bedrooms and this, coupled with the minor nature of this deficiency, leads us to conclude that the proposed development in general is compliant with the BRE guide in terms of daylight amenity.
- 1.4.3. Given the infill nature of the site, we consider that the proposed flats, when taken collectively, will achieve a very high level of daylight amenity against the BRE guide's recommended targets.

Internal sunlight

- 1.4.4. Of the 38 rooms with windows assessed for sunlight (Annual Probable Sunlight Hours (APSH)), 14 will meet, or exceed, the target values as set out in the BRE guide, with 24 rooms falling short of the recommended target.
- 1.4.5. Each of these rooms contain windows which are oriented within 90° of due north, meaning that they will rarely receive any direct sunlight. The BRE guide recognises that site constraints can sometimes limit the ability to place windows in south-facing elevations and this must be taken into consideration when evaluating the proposed development as a whole.
- 1.4.6. Moreover, the BRE guide states that sunlight is mainly required within principal living rooms within a dwelling, and as such the shortfalls noted to the 16 bedrooms should be seen as minor.
- 1.4.7. The remaining rooms that will fall short of the BRE's APSH targets serve as studios and LKDs, and are facing predominately north, and therefore, as highlighted in the BRE guide, are unlikely to achieve the BRE recommended values.
- 1.4.8. Given the nature of this town centre site, it would be very difficult to satisfy the criteria with regards to winter sunlight hours and a flexible approach to applying the BRE target criteria may be deemed appropriate.

Overshadowing

- 1.4.9. We have assessed the proposed shared and private amenity areas for permanent overshadowing. Our results show that ten of the fourteen areas will comply with the BRE guide, as over 50% of their area will receive at least 2 hours of direct sunlight on March 21 at ground plane level.
- 1.4.10. The four of the amenity areas that fall short of the recommended sunlight exposure are located within the courtyard between the two proposed wings, which in turn has an effect on the amount of sunlight amenity able to reach the lower amenity areas on March 21.

1.5. Overall

- 1.5.1. The results of our assessments show that the vast majority of rooms within the proposed development will achieve good levels of daylight and sunlight amenity.
- 1.5.2. The application of guidance contained in the BRE guide is not mandatory and should not be used as an instrument of planning policy. It offers guidelines to architects and building designers on how to optimise daylight and sunlight through site layout planning and design. The BRE guide notes that certain sites will have constraints that inhibit access to daylight and sunlight, particularly for flats that are located in dense urban environments, such as this.

- 1.5.3. Overall, the proposed development has been well-designed and great care has been taken to maximise the potential for both daylight and sunlight within the proposed units, as well as ensuring that the majority of the proposed outdoor amenity spaces will receive good levels of sunlight throughout the year. Furthermore, considering the results of the internal daylight, sunlight, and overshadowing analysis, it is evident that the proposed units have been thoughtfully designed so as to provide new housing units required, whilst also respecting the daylight and sunlight amenity of new occupiers.
- 1.5.4. As such, we consider that the proposed development is broadly in line with the recommendations set out in the BRE guide for daylight.

2. Introduction

2.1. Scope

- 2.1.1. We have been instructed by Bankfoot APAM Ltd to undertake an internal daylight and sunlight assessment to determine whether the proposed development at 86-87A Broad Street, Reading RG1 2AP itself will receive sufficient daylight and sunlight.

2.2. Planning policy

- 2.2.1. Reading Borough Council's Local Plan refers to the following documents as those being used to review adequacy of daylight and sunlight. This Report is therefore based on the following publications which contain the accepted standards for assessing daylight and sunlight:

- Building Research Establishment (BRE) Report "Site Layout Planning for Daylight and Sunlight – a guide to good practice, 2nd Edition, 2011" ("the BRE guide")
- BS8206 – Part 2: 2008 Code of Practice for Daylighting.

- 2.2.2. Reading Borough Council's Local Plan's, adopted in November 2019 contains the following policy guidance under CC8: Safeguarding Amenity:

Development will not cause a detrimental impact on the living environment of existing residential properties or unacceptable living conditions for new residential properties, in terms of:

- Access to sunlight and daylight;

2.3. Assessment criteria

- 2.3.1. To ensure that the proposed development can be appropriately evaluated against Reading Borough Council's planning policy, daylight and sunlight calculations have been undertaken in accordance with the 'BRE guide' and also on BS8206-2: 2008 to which the BRE guide refers. The methods of analysis and targets for light applied are briefly described in Appendix A.

2.3.2. The proposed development site is shown on the site plan (see below):



2.4. Limitations

2.4.1. Our assessment is based on the scheme drawings provided by Sutton CA Architects as listed below:

Title	Date
<u>Sutton CA Architects</u>	
1316 2000D GA Ground Floor Plan.dwg	13 August 2021
1316 2001C GA First Floor Plan.dwg	13 August 2021
1316 2002C GA Second Floor Plan.dwg	13 August 2021
1316 2003C GA Third Floor Plan.dwg	13 August 2021
1316 2004C GA Fourth Floor Plan.dwg	13 August 2021
1316 2005C GA Roof Plan.dwg	13 August 2021
1316 2100-03 Proposed Elevations.dwg	13 August 2021
1316 2104-05 Proposed Elevations.dwg	13 August 2021
<u>Accucities 3D Mapping</u>	
001839_Broad Street, Reading _HD_MASTER.dwg	28 April 2021

3. Assessment results – daylighting, sunlighting & overshadowing amenity of the new development

3.1. Internal daylight

3.1.1. Average daylight factor (ADF) assessments have been undertaken for all of the principal habitable rooms within the proposed development. The ADF results are shown in full in Appendix D. Below is a summary of our findings:

Building Address	No. of Rooms Analysed	BRE Compliant		Total Percentage BRE Compliant
		Yes	No	
Proposed Development	38	34	4	90
TOTAL	38	34	4	90

3.1.2. Of the 38 rooms assessed for ADF 90% (all but 4) will meet or exceed the target values set out in the BRE guide. One of the four rooms that does not meet the target will serve a living/kitchen/dining room (LKD), two will serve studios and the other will serve as a bedroom.

3.1.3. The main contributory factors for these shortfalls are the location and orientation of the LKD and the bedroom windows within the proposed site in relation to the existing surrounding urban town centre context. However, it should be noted that whilst the BRE guide recommends an ADF of 2% for LKDs, and that room Ref R7 will achieve 0.8%, nevertheless the remaining habitable rooms within this 2-bedroom unit will experience high ADF levels.

3.1.4. The remaining room falling marginally below target is a bedroom (room Ref R4), which will achieve an ADF of 0.85%, marginally below the BRE recommended target of 1% for bedrooms. However, as suggested in the BRE guide, bedrooms are considered to have a lesser requirement for daylight amenity due to their nocturnal use.

3.1.5. Given the ADF results derived, and the conversion nature of the proposed development, we consider that the proposed flats, when taken collectively, will achieve a very high level of ADF compliance against BRE guide's recommended targets.

3.1.6. The Daylight Distribution (DD) assessment results are shown in full in Appendix D. Below is a summary of our findings:

Building Address	No. of Rooms Analysed	BRE Compliant		Total Percentage BRE Compliant
		Yes	No	
Proposed Development	38	27	11	71
TOTAL	38	27	11	71

3.1.7. Of the 38 rooms assessed for Daylight Distribution (DD), 71% (all but 11) will meet or exceed, the BRE criteria for daylight distribution. The eleven rooms in the proposed development that will fall short of the numerical target, 8 will serve as bedrooms. The BRE guide states that living rooms and kitchens require more daylight than bedrooms and this, coupled with the marginal nature of the deficiencies, leads us to conclude that the proposed development, in general, is compliant with the BRE guide in terms of daylight amenity.

3.1.8. The remaining three rooms (of the eleven) serve two Studio units and a large open plan LKD area. The shortfalls in all cases is as a consequence of each room's large open-plan multi-use function, achieving DD results of 62% and 78%, which is marginally below the 80% target. That said, the main living areas within all three of the rooms have been designed/positioned within the areas of the rooms receiving adequate DD levels.

3.2. Internal sunlight

3.2.1. The Annual Probable Sunlight Hours (APSH) assessments have been undertaken to the principal habitable rooms within the proposed development. The APSH results are shown in full in Appendix E. Below is a summary of our findings:

Building Address	No. of Rooms Analysed	BRE Compliant		Total Percentage BRE Compliant
		Yes	No	
Proposed Development	38	14	24	37
TOTAL	38	14	24	37

3.2.2. Of the 38 rooms assessed for APSH, 14 (37%) will meet, or exceed, the BRE recommended targets for sunlight. All the 24 rooms which fall short of the targets have material mitigating factors.

3.2.3. Firstly, each of these rooms contains windows which are oriented within 90° of due north, meaning that they will rarely receive any direct sunlight. The BRE guide recognises that site constraints sometimes limit the ability to place windows in south-facing elevations and this must be taken into consideration in evaluating the proposed development as a whole.

3.2.4. Secondly, 16 of the 24 rooms that fall short on the APSH target are bedrooms, the further remaining rooms serving as LDs, LKDs or studios spaces. The BRE guide states that sunlight is mainly required within principal living rooms within a dwelling and as such, the deficiencies noted to the bedrooms should not be viewed as concerning. It should also be born in mind that bedrooms do not need sunlight to enable normal use.

3.2.5. The studios spaces, LD and LKDs, that will fall short of the BRE's APSH targets, all contain windows facing within 90° of due north, and their ability to obtain sunlight will therefore be limited. Given the nature of the development, which involves infilling of land and conversion of existing property, and bearing in mind the town centre location of the application site, it will be very difficult to satisfy the criteria with regards to winter sunlight hours and a flexible approach by the local planning authority to applying the BRE guide's target criteria should be considered.

3.3. Overshadowing

3.3.1. We have assessed the shared and private external amenity spaces proposed in the development for permanent overshadowing in accordance with the BRE guide's methodology.

3.3.2. The locations of the proposed amenity spaces within the development are shown on the reference plan in Appendix F. A total of fourteen amenity spaces have been considered. The table below summarises the results of the permanent overshadowing assessment space-by-space.

Building Ref	Floor Ref	Amenity Ref	Proposed Lit Area	Proposed %
Proposed Development	First	A1	11.39	9.72
	First	A2	10.93	2.21
	First	A3	12.73	0
	First	A4	14.48	0.12
	First	A5	8.13	6.7
	First	A6	15.37	13.18
	Second	A1	5.97	5.97
	Second	A2	5.97	1.74
	Second	A3	8.13	8.1
	Second	A4	16.49	16.48
	Third	A1	8.32	8.32
	Third	A2	6.58	6.58
	Third	A3	8.18	8.17
	Fourth	A1	15.83	15.83

3.3.3. The results of our analysis show that ten of the amenity areas will comply with the BRE guide's target for overshadowing, because over 50% of their area will receive at least 2 hours of direct sunlight on March 21.

3.3.4. The four amenity spaces that fall short of the recommended exposure to sun are located within the courtyard between the two proposed wings of the development. This clearly has an effect on the amount of sunlight amenity able to reach the lower amenity areas on March 21.

3.3.5. The proposed development contains 10 further amenity areas, all of which will comfortably meet the BRE's numerical criteria. These provide an alternative external amenity area which will be well sunlit throughout the year. Therefore, a planning balance needs to be struck, given the nature of this town centre redevelopment scheme.

Appendix A

Assessments to be applied

Introduction

The main purpose of the guidelines in the Building Research Establishment Report “Site Layout Planning for Daylight and Sunlight – a guide to good practice 2011, 2nd Edition” (“the BRE guide”) is to assist in the consideration of the relationship of new and existing buildings to ensure that each retains a potential to achieve good daylighting and sunlighting levels. That is, by following and satisfying the tests contained in the guidelines, new and existing buildings should be sufficiently spaced apart in relation to their relative heights so that both have the potential to achieve good levels of daylight and sunlight. The guidelines have been drafted primarily for use with low density suburban developments and should therefore be used flexibly when dealing with dense urban sites and extensions to existing buildings, a fact recognised by the BRE Report’s author in the Introduction where Dr Paul Littlefair says:

‘The Guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design..... In special circumstances 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.....’

In many cases in low-rise housing, meeting the criteria for daylight and sunlight may mean that the BRE criteria for other amenity considerations such as *privacy* and *sense of enclosure* are also satisfied.

The BRE guide states that recommended minimum privacy distances (in cases where windows of habitable rooms face each other in low-rise residential property), as defined by each individual Local Authority’s policies, vary widely, from 18–35m¹. For two-storey properties a spacing within this range would almost certainly also satisfy the BRE guide’s daylighting requirements as it complies with the 25° rule and will almost certainly satisfy the ‘Three times height’ test too (as discussed more fully below). However, the specific context of each development will be taken into account and Local Authorities may relax the stated minimum, for instance, in built-up areas where this would lead to an inefficient use of land. Conversely, greater distances may be required between higher buildings, in order to satisfy daylighting and sunlighting requirements. It is important to recognize also that privacy can also be achieved by other means: design, orientation and screening can all play a key role and may also contribute towards reducing the theoretical ‘minimum’ distance.

A sense of enclosure is also important as the perceived quality of an outdoor space may be reduced if it is too large in the context of the surrounding buildings. In urban settings the BRE guide suggests a spacing-to-height ratio of 2.5:1 would provide a comfortable environment, whilst not obstructing too much natural light: this ratio also approximates the 25° rule.

Daylight

The criteria for protecting daylight to existing buildings are contained in Section 2.2 and Appendix C of the BRE guide. There are various methods of measuring and assessing daylight and the choice of test depends on the circumstances of each particular window. For example, greater protection should be afforded to windows which serve habitable dwellings and, in particular, those serving living rooms

¹ The commonest minimum privacy distance is 21m (Householder Development Consents Review: Implementation of Recommendations – Department for Communities and Local Government – May 2007)

and family kitchens, with a lower requirement required for bedrooms. The BRE guide states that circulation spaces and bathrooms need not be tested as they are not considered to require good levels of daylight. In addition, for rooms with more than one window, secondary windows do not require assessment if it is established that the room is already sufficiently lit through the principal window.

The tests should also be applied to non-domestic uses such as offices and workplaces where such uses will ordinarily have a reasonable expectation of daylight and where the areas may be considered a principal workplace.

The BRE has developed a series of tests to determine whether daylighting levels within new developments and rooms within existing buildings surrounding new developments will satisfy or continue to satisfy a range of daylighting criteria

Note: Not every single window is assessed separately, only a representative sample, from which conclusions may be drawn regarding other nearby dwellings .

Daylighting Tests

'Three times height' test – If the distance of each part of the new development from the existing windows is three or more times its height above the centre of the existing window then loss of light to the existing windows need not be analysed. If the proposed development is taller or closer than this then the 25° test will need to be carried out.

25° test – a very simple test that should only be used where the proposed development is of a reasonably uniform profile and is directly opposite the existing building. Its use is most appropriate for low density well-spaced developments such as new sub-urban housing schemes and often it is not a particularly useful tool for assessing urban and in-fill sites. In brief, where the new development subtends to an angle of less than 25° to the centre of the lowest window of an existing neighbouring building, it is unlikely to have a substantial effect on the diffuse skylight enjoyed by the existing building. Equally, the new development itself is also likely to have the potential for good daylighting. If the angle is more than 25° then more detailed tests are required, as outlined below.

VSC Test – the VSC is a unit of measurement that represents the amount of available daylight from the sky, received at a particular window. It is measured on the outside face of the window. The 'unit' is expressed as a percentage as it is the ratio between the amount of sky visible at the given reference point compared to the amount of light that would be available from a totally unobstructed hemisphere of sky. To put this unit of measurement into perspective, the maximum percentage value for a window with a completely unobstructed outlook (i.e. with a totally unobstructed view through 90° in every direction) is 40%.

The target figure for VSC recommended by the BRE is 27%. A VSC of 27% is a relatively good level of daylight and the level we would expect to find for habitable rooms with windows on principal elevations. However, this level is often difficult to achieve on secondary elevations and in built-up urban environments. For comparison, a window receiving 27% VSC is approximately equivalent to a window that would have a continuous obstruction opposite it which subtends an angle of 25° (i.e. the same results as would be found utilising the 25° Test). Where tests show that the new development itself meets the 27% VSC target this is a good indication that the development will enjoy good daylighting and further tests can then be carried out to corroborate this (see under).

Through research the BRE have determined that in existing buildings daylight (and sunlight levels) can be reduced by approximately 20% of their original value before the loss is materially noticeable. It is for this reason that they consider that a 20% reduction is permissible in circumstances where the existing VSC value is below the 27% threshold. For existing buildings once this has been established it is then necessary to determine whether the distribution of daylight inside each room meets the required standards (see under).

Daylight Distribution (DD) Test – This test looks at the position of the “No-Sky Line” (NSL) – that is, the line that divides the points on the working plane (0.7m from floor level in offices and 0.85m in dwellings and industrial spaces) which can and cannot see the sky. The BRE guide suggests that areas beyond the NSL may look dark and gloomy compared with the rest of the room and BS8206 states that electric lighting is likely to be needed if a significant part of the working plane (normally no more than 20%) lies beyond it.

In new developments no more than 20% of a room’s area should be beyond the NSL. For existing buildings the BRE guide states that if, following the construction of a new development, the NSL moves so that the area beyond the NSL increases by more than 20%, then daylighting is likely to be seriously affected.

The guide suggests that in houses, living rooms, dining rooms and kitchens should be tested: bedrooms are deemed less important, although should nevertheless be analysed. In other buildings each main room where daylight is expected should be investigated.

ADF Test – The ADF (Average Daylight Factor) test takes account of the interior dimensions and surface reflectance within the room being tested as well as the amount of sky visible from the window. For this reason it is considered a more detailed and representative measure of the adequacy of light. The minimum ADF values recommended in BS8206 Part 2 are: 2% for family kitchens (and rooms containing kitchens); 1.5% for living rooms; and 1% for bedrooms. This is a test used in assessing new developments, although, in certain circumstances, it may be used as a supplementary test in the assessment of daylighting in existing buildings, particularly where more than one window serves a room.

Room depth ratio test – This is a test for new developments looking at the relative dimensions of each room (principally its depth) and its window(s) to ensure that the rear half of a room will receive sufficient daylight so as not to appear gloomy.

Sunlight

Sunlight is an important ‘amenity’ in both domestic and non-domestic settings. The way in which a building’s windows are orientated and the overall position of a building on a site will have an impact on the sunlight it receives but, importantly, will also have an effect on the sunlight neighbouring buildings receive. Unlike daylight, which is non-directional and assumes that light from the sky is uniform, the availability of sunlight is dependent on direction. That is, as the United Kingdom is in the northern hemisphere, we receive virtually all of our sunlight from the south. The availability of sunlight is therefore dependent on the orientation of the window or area of ground being assessed relative to the position of due south.

In new developments the BRE guide suggests that dwellings should aim to have at least one main living room which faces the southern or western parts of the sky so as to ensure that it receives a reasonable amount of sunlight. Where groups of dwellings are planned the Guide states that site layout design should aim to maximise the number of dwellings with a main living room that meet sunlight criteria. Where a window wall faces within 90° of due south and no obstruction subtends to angle of more than 25° to the horizontal or where the window wall faces within 20° of due south and the reference point has a VSC of at least 27% then sunlighting will meet the required standards: failing that the Annual Probable Sunlight Hours (APSH) need to be analysed. APSH means the total number of hours in the year that the sun is expected to shine on unobstructed ground, allowing for average levels of cloud for the location in question. If the APSH tests reveal that the new development will receive at least one quarter of the available APSH, including at least 5% of APSH during the winter months (from 21 September to 21 March), then the requirements are satisfied. It should be noted that if a room has two windows on opposite walls, the APSH due to each can be added together.

The availability of sunlight is also an important factor when looking at the impact of a proposed development on the existing surrounding buildings. APSH tests will be required where one or more of the following are true:

- The 'Three times height' test is failed (see 'Daylight' above);
- The proposed development is situated within 90° of due south of an existing building's main window wall and the new building subtends to angle of more than 25° to the horizontal;
- The window wall faces within 20° of due south and a point at the centre of the window on the outside face of the window wall (the reference point) has a VSC of less than 27%.

Where APSH testing is required it is similar to the test for the proposed development. That is to say that compliance will be demonstrated where a room receives:

- At least 25% of the APSH (including at least 5% in the winter months), or
- At least 0.8 times its former sunlight hours during either period, or
- A reduction of no more than 4% APSH over the year.

The Guide stresses that the target values it gives are purely advisory, especially in circumstances such as: the presence of balconies (which can overhang windows, obstructing light); when an existing building stands unusually close to the common boundary with the new development and; where the new development needs to match the height and proportion of existing nearby buildings. In circumstances like these a larger reduction in sunlight may be necessary.

The sunlight criteria in the BRE guide primarily apply to windows serving living rooms of an existing dwelling. This is in contrast to the daylight criteria which apply to kitchens and bedrooms as well as living rooms. Having said that, the guide goes on to say that care should be taken not to block too much sun from kitchens and bedrooms. Non-domestic buildings which are deemed to have a requirement for sunlight should also be checked.

Sunlight – Gardens and Open Spaces

As well as ensuring buildings receive a good level of sunlight to their interior spaces, it is also important to ensure that the open spaces between buildings are suitably lit. The recommendations as set out in the BRE guide are meant to ensure that spaces between buildings are not permanently in shade for a large part of the year. Trees and fences over 1.5m tall are also factored into the calculations.

The BRE guidelines state that:

- For a garden or amenity area to appear adequately sunlit throughout the year, at least 50% of the area should receive at least two hours of sunlight on 21 March;
- In addition, if, as result of new development, an existing garden or amenity area does not reach the area target above and the area which can receive two hours of direct sunlight on 21 March is reduced by more than 20% this loss is likely to be noticeable.

Appendix G of the BRE guidelines describes a methodology for calculating sunlight availability for amenity spaces.

Appendix B

Context drawings





Proposed Site Plan

SOURCES OF INFORMATION:
SUTTON CA ARCHITECTS
1316 2000D GA Ground Floor Plan.dwg
1316 2001C GA First Floor Plan.dwg
1316 2002C GA Second Floor Plan.dwg
1316 2003C GA Third Floor Plan.dwg
1316 2004C GA Fourth Floor Plan.dwg
1316 2005C GA Roof Plan.dwg
1316 2100-03 Proposed Elevations.dwg
1316 2104-05 Proposed Elevations.dwg
Received 13th August 2021

ACCUCITIES 3d MAPPING
001839_Broad Street,Reading _HD_MASTER.dwg
Received 28th April 2021

- Surrounding Properties
- Proposed Site

Rev.	Date	Amendments	Initial
------	------	------------	---------

HOLLIS SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES.
ALL DIMENSIONS ARE IN METRES ONLY

TITLE
Proposed Site Plan

CLIENT
Bankfoot APAM Ltd

PROJECT
**86-87A Broad Street,
Reading,
RG1 2AP**

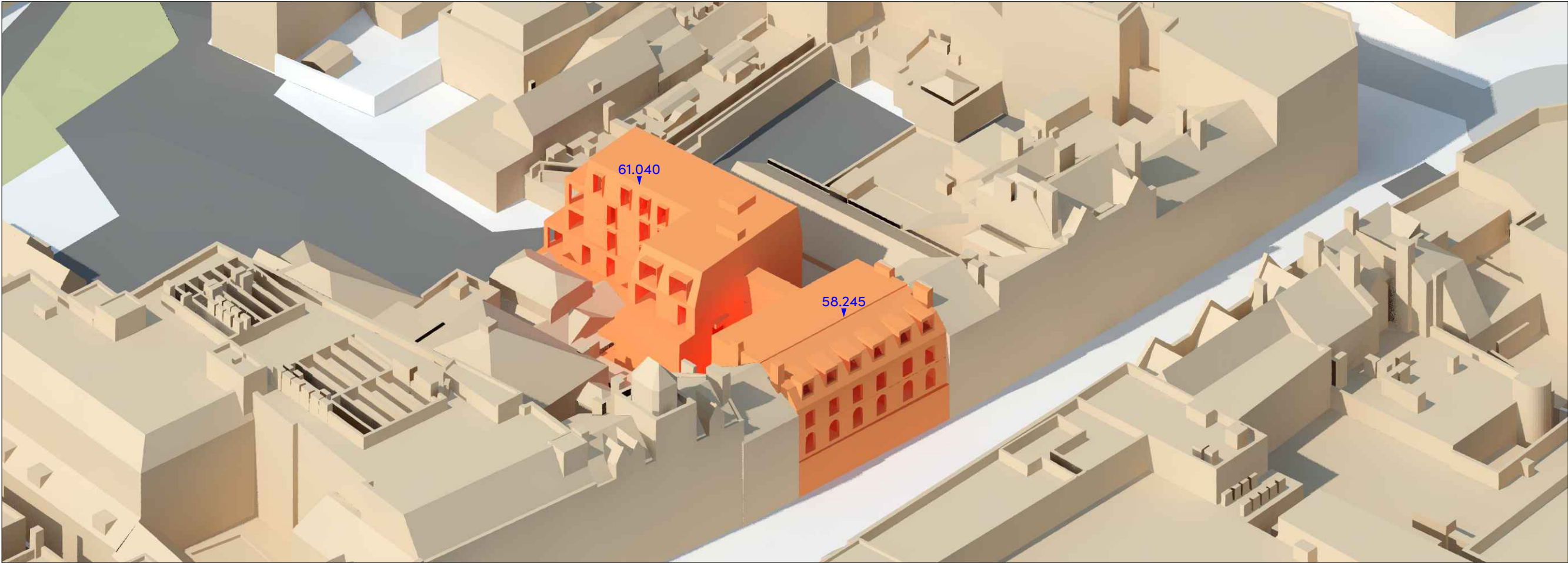
DRAWN BY	CHECKED
SL	DO
SCALE	DATE
NTS@A3	August 2021

HOLLIS

80-82 Silverthorne Road
London
SW8 3HE

T 020 7622 9555
F 020 7627 9850
W hollisglobal.com

DRAWING NO.	RELEASE NO.
92807_CTXT_03	3



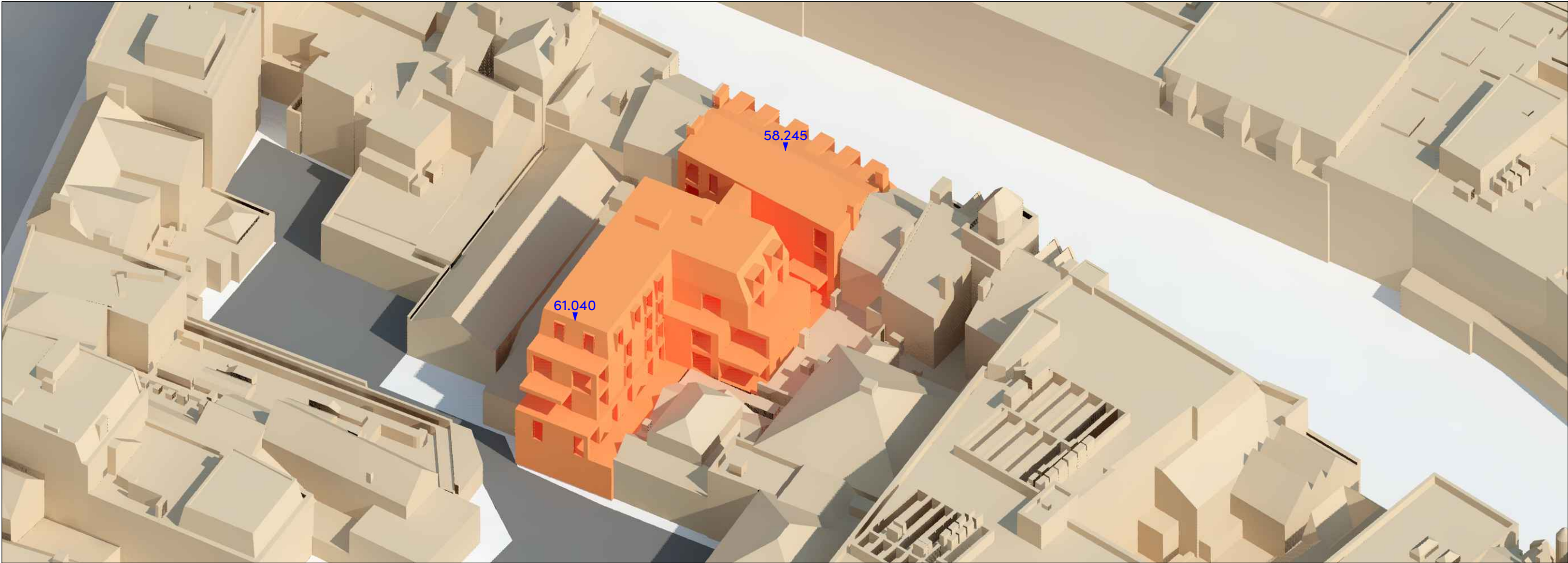
3D Context View - View from North East (Proposed)

SOURCES OF INFORMATION:
SUTTON CA ARCHITECTS
1316 2000D GA Ground Floor Plan.dwg
1316 2001C GA First Floor Plan.dwg
1316 2002C GA Second Floor Plan.dwg
1316 2003C GA Third Floor Plan.dwg
1316 2004C GA Fourth Floor Plan.dwg
1316 2005C GA Roof Plan.dwg
1316 2100-03 Proposed Elevations.dwg
1316 2104-05 Proposed Elevations.dwg
Received 13th August 2021

ACCUCITIES 3d MAPPING
001839_Broad Street,Reading _HD_MASTER.dwg
Received 28th April 2021

ALL HEIGHTS IN METRES AOD

- Surrounding Properties
- Proposed Site



3D Context View - View from South East (Proposed)

Rev.	Date	Amendments	Initial
HOLLIS SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES. ALL DIMENSIONS ARE IN METRES ONLY			

TITLE
3D Views
Proposed Site

CLIENT
Bankfoot APAM Ltd

PROJECT
86-87A Broad Street,
Reading,
RG1 2AP

DRAWN BY	CHECKED
SL	DO

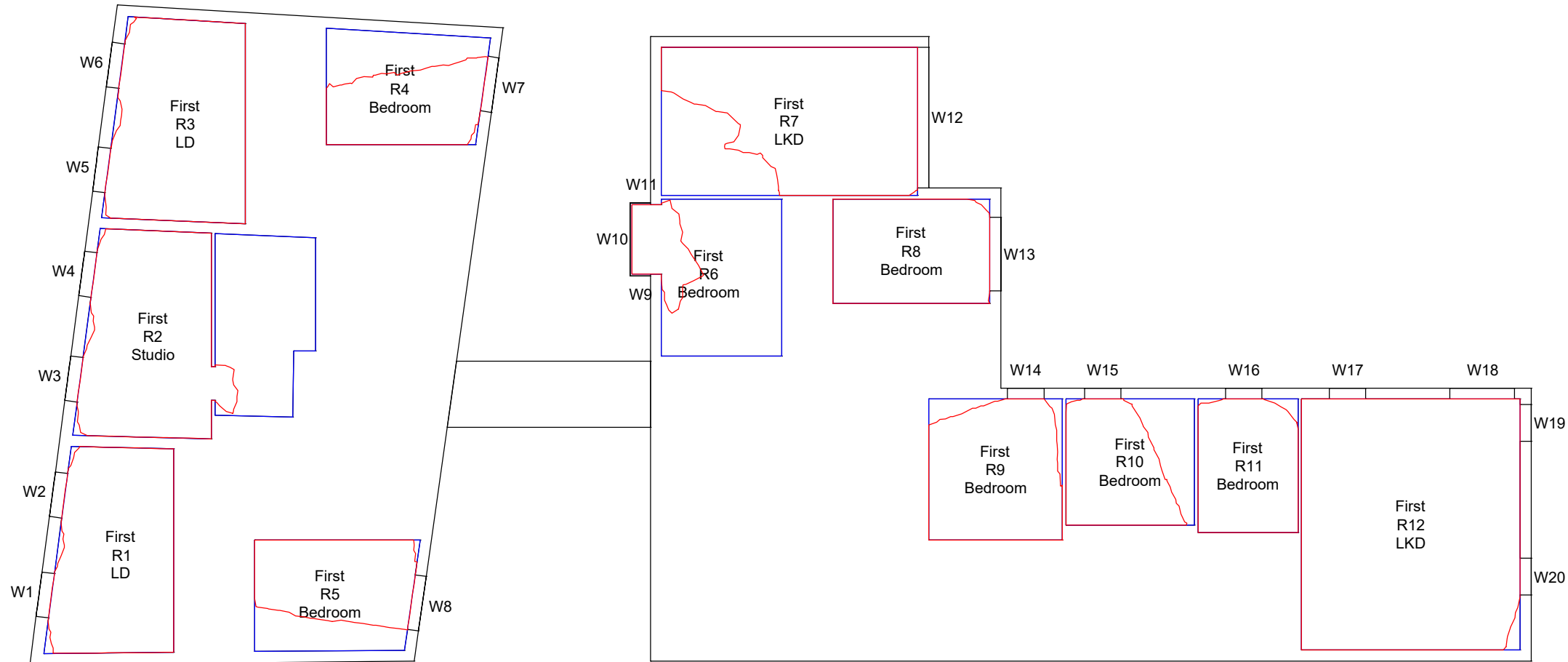
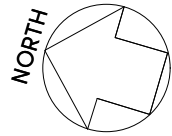
SCALE	DATE
NTS@A3	August 2021

HOLLIS
80-82 Silverthorne Road
London
SW8 3HE
T 020 7622 9555
F 020 7627 9850
W hollisglobal.com

DRAWING NO. 92807_CTXT_04	RELEASE NO. 3
------------------------------	------------------

Appendix C

Window/room reference drawings



SOURCES OF INFORMATION:
SUTTON CA ARCHITECTS

1316 2000D GA Ground Floor Plan.dwg
1316 2001C GA First Floor Plan.dwg
1316 2002C GA Second Floor Plan.dwg
1316 2003C GA Third Floor Plan.dwg
1316 2004C GA Fourth Floor Plan.dwg
1316 2005C GA Roof Plan.dwg
1316 2100-03 Proposed Elevations.dwg
1316 2104-05 Proposed Elevations.dwg
Received 13th August 2021

ACCUCITIES 3d MAPPING

001839_Broad Street,Reading _HD_MASTER.dwg
Received 28th April 2021

Rev.	Date	Amendments	Initial
------	------	------------	---------

HOLLIS SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES.
ALL DIMENSIONS ARE IN METRES ONLY

TITLE

**Daylight Distribution
Contours/Referencing Plans
Proposed Development**

CLIENT

Bankfoot APAM Ltd

PROJECT

**86-87A Broad Street,
Reading,
RG1 2AP**

DRAWN BY	CHECKED
SL	DO
SCALE	DATE
1:150@A3	August 2021

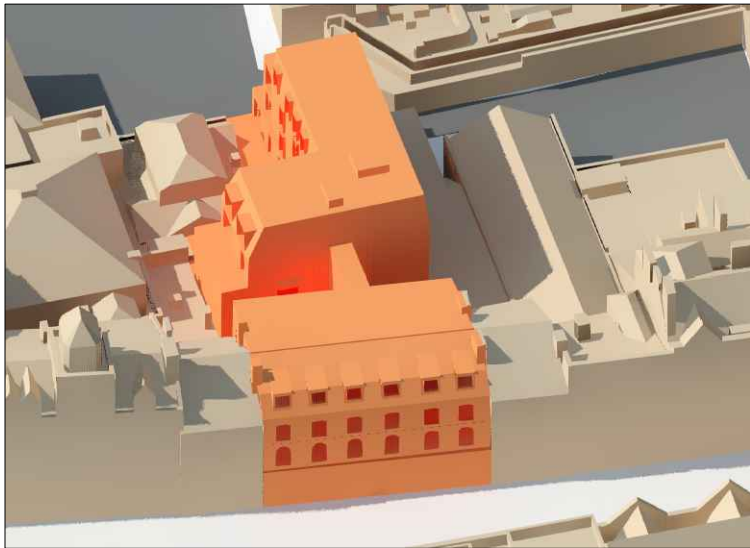
HOLLIS

80-82 Silverthorne Road
London
SW8 3HE

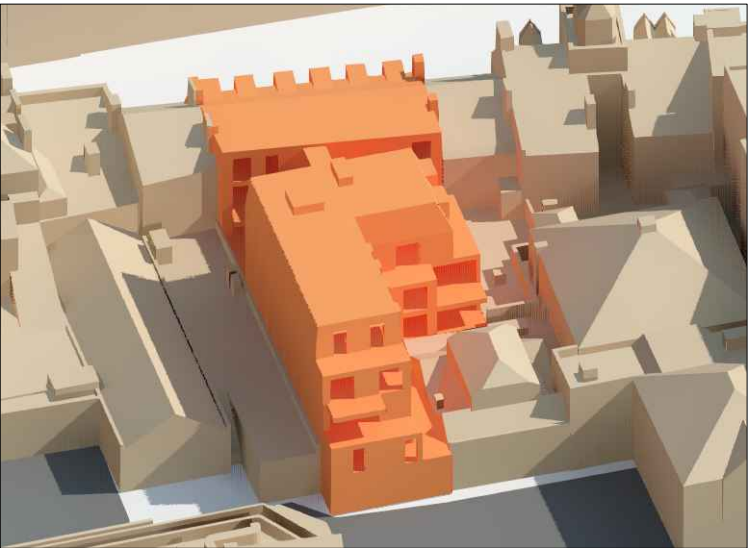
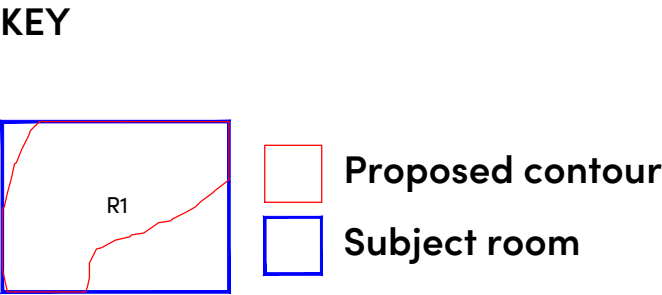
T 020 7622 9555
F 020 7627 9850
W hollisglobal.com

DRAWING NO.	RELEASE NO.
92807_DD_01	3

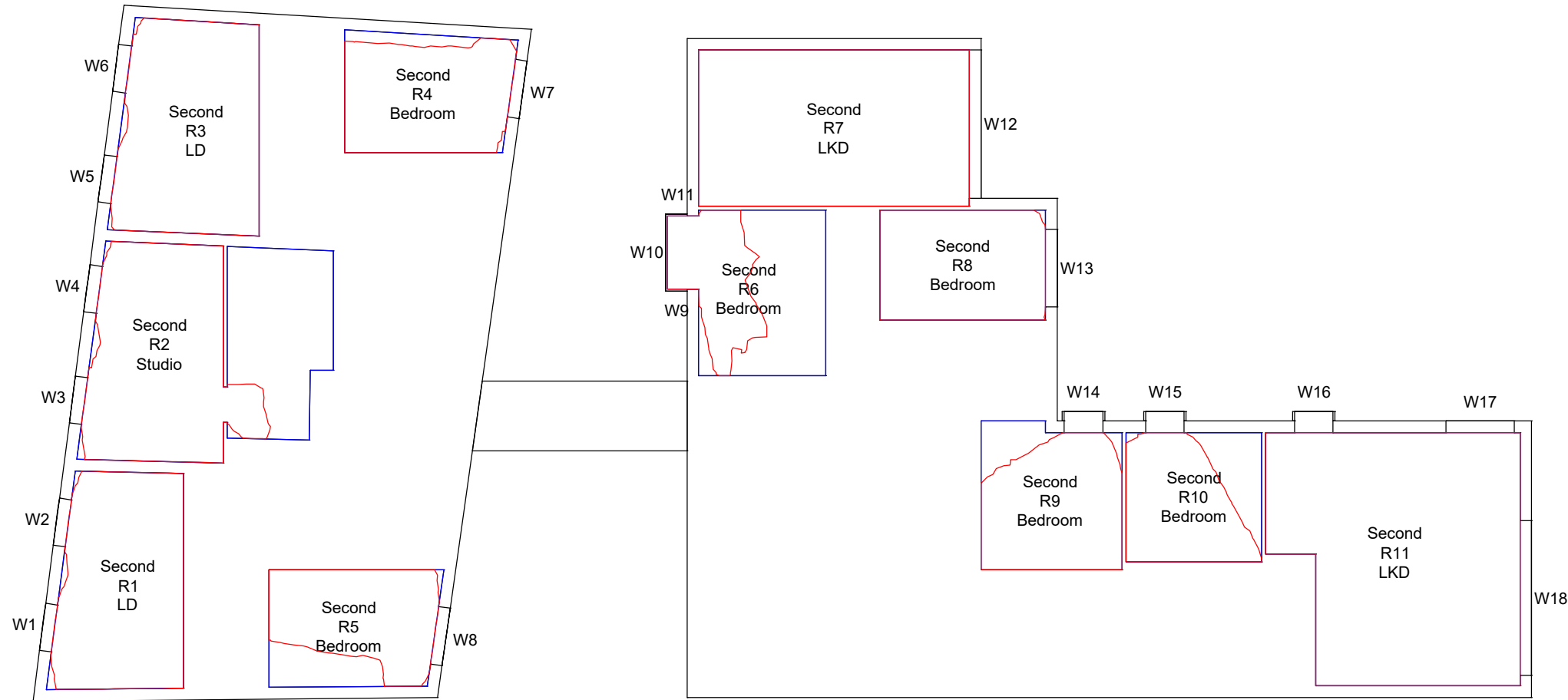
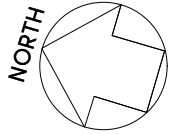
Proposed Development - First Floor



3D Context View - North



3D Context View - South



SOURCES OF INFORMATION:
SUTTON CA ARCHITECTS

1316 2000D GA Ground Floor Plan.dwg
1316 2001C GA First Floor Plan.dwg
1316 2002C GA Second Floor Plan.dwg
1316 2003C GA Third Floor Plan.dwg
1316 2004C GA Fourth Floor Plan.dwg
1316 2005C GA Roof Plan.dwg
1316 Z100-03 Proposed Elevations.dwg
1316 Z104-05 Proposed Elevations.dwg
Received 13th August 2021

ACCUCITIES 3d MAPPING

001839_Broad Street,Reading _HD_MASTER.dwg
Received 28th April 2021

Rev.	Date	Amendments	Initial
------	------	------------	---------

HOLLIS SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES.
ALL DIMENSIONS ARE IN METRES ONLY

TITLE

**Daylight Distribution
Contours/Referencing Plans
Proposed Development**

CLIENT

Bankfoot APAM Ltd

PROJECT

**86-87A Broad Street,
Reading,
RG1 2AP**

DRAWN BY	CHECKED
SL	DO

SCALE	DATE
1:150@A3	August 2021

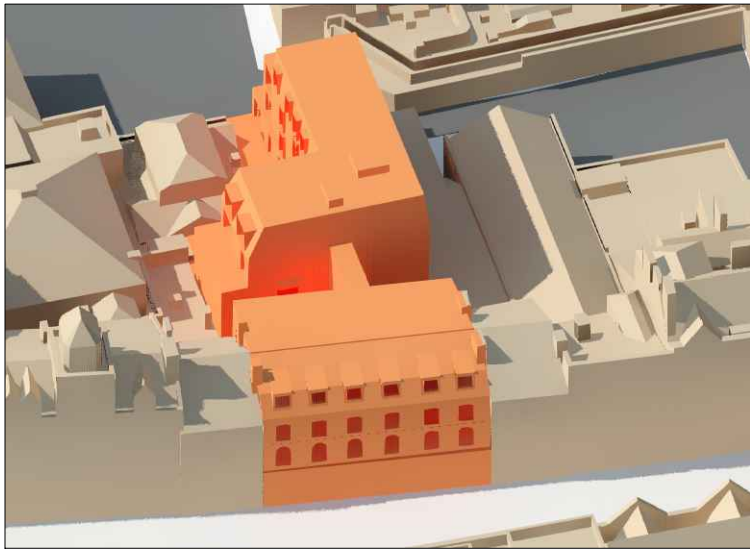
HOLLIS

80-82 Silverthorne Road
London
SW8 3HE

T 020 7622 9555
F 020 7627 9850
W hollisglobal.com

DRAWING NO.	RELEASE NO.
92807_DD_02	3

Proposed Development - Second Floor



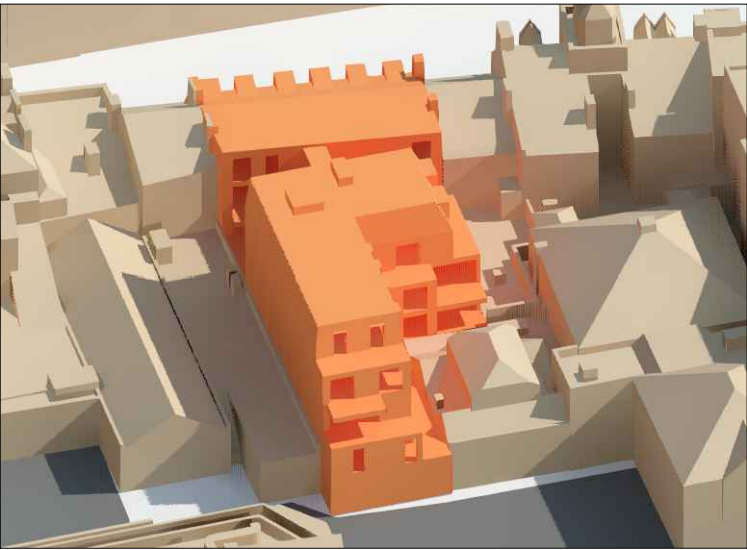
3D Context View - North

KEY

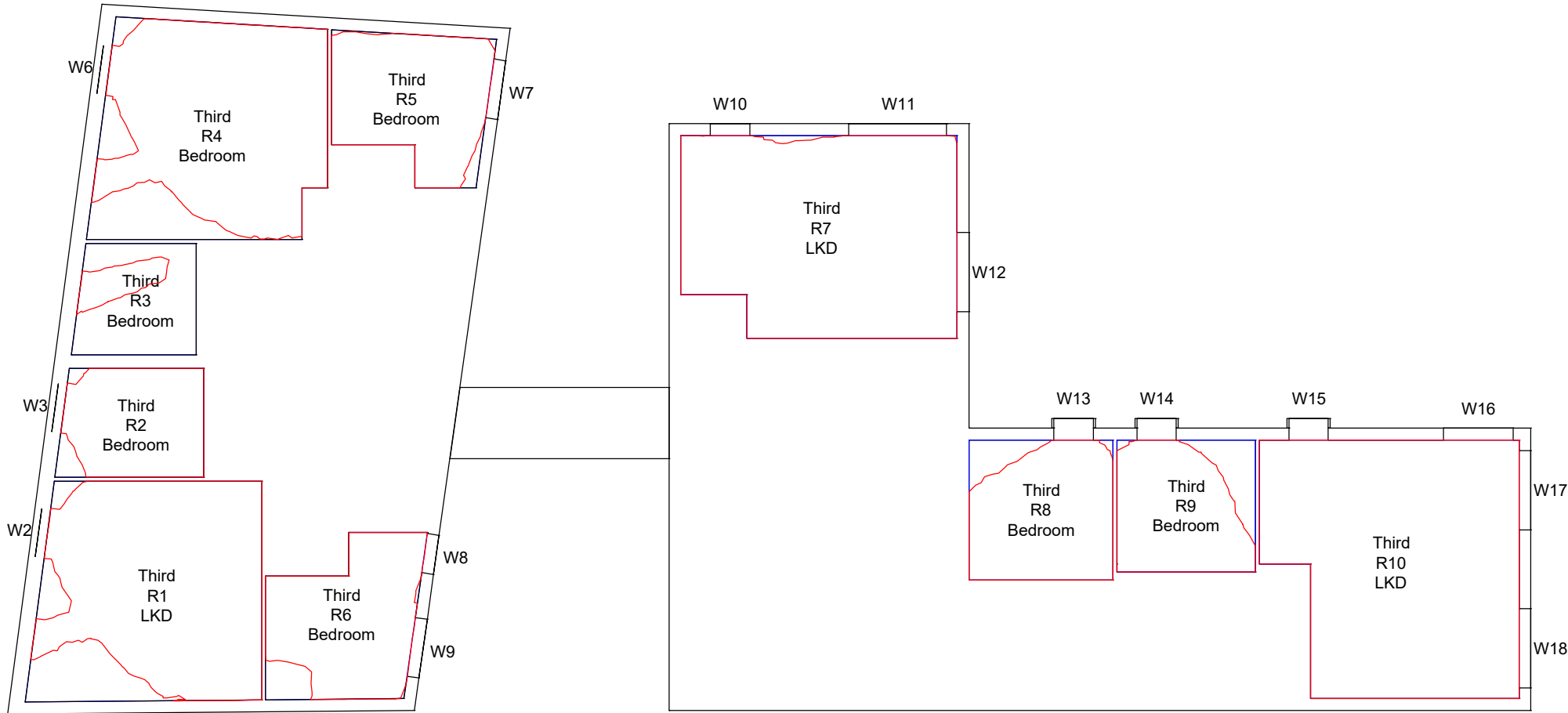
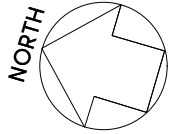
R1

Proposed contour

Subject room



3D Context View - South



SOURCES OF INFORMATION:
SUTTON CA ARCHITECTS

1316 2000D GA Ground Floor Plan.dwg
1316 2001C GA First Floor Plan.dwg
1316 2002C GA Second Floor Plan.dwg
1316 2003C GA Third Floor Plan.dwg
1316 2004C GA Fourth Floor Plan.dwg
1316 2005C GA Roof Plan.dwg
1316 Z100-03 Proposed Elevations.dwg
1316 Z104-05 Proposed Elevations.dwg
Received 13th August 2021

ACCUCITIES 3d MAPPING

001839_Broad Street,Reading _HD_MASTER.dwg
Received 28th April 2021

Rev.	Date	Amendments	Initial
------	------	------------	---------

HOLLIS SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES.
ALL DIMENSIONS ARE IN METRES ONLY

TITLE

**Daylight Distribution
Contours/Referencing Plans
Proposed Development**

CLIENT

Bankfoot APAM Ltd

PROJECT

**86-87A Broad Street,
Reading,
RG1 2AP**

DRAWN BY	CHECKED
SL	DO

SCALE	DATE
1:150@A3	August 2021

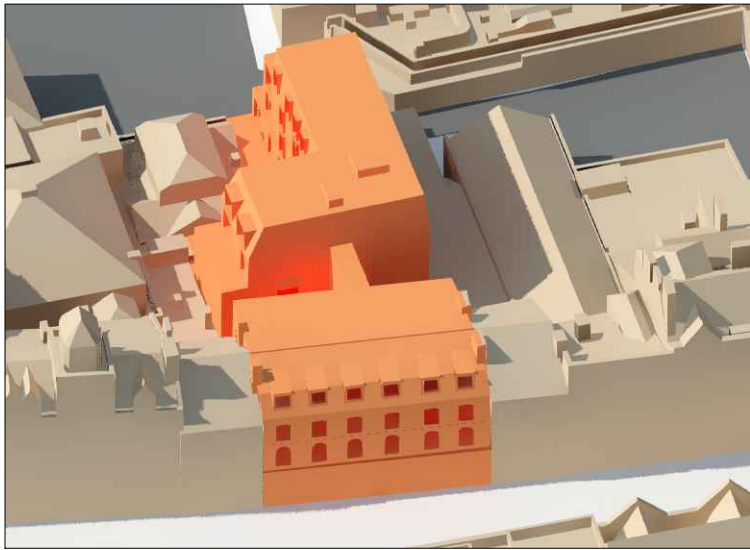
HOLLIS

80-82 Silverthorne Road
London
SW8 3HE

T 020 7622 9555
F 020 7627 9850
W hollisglobal.com

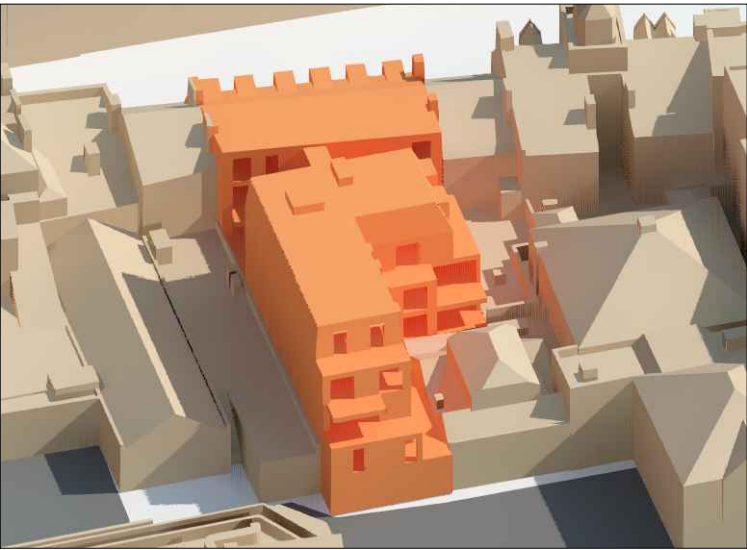
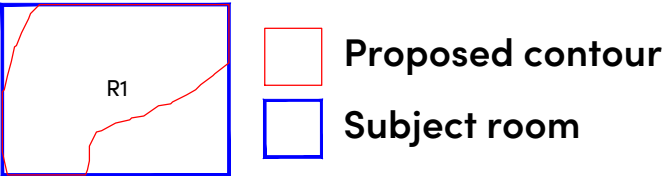
DRAWING NO.	RELEASE NO.
92807_DD_03	3

Proposed Development - Third Floor

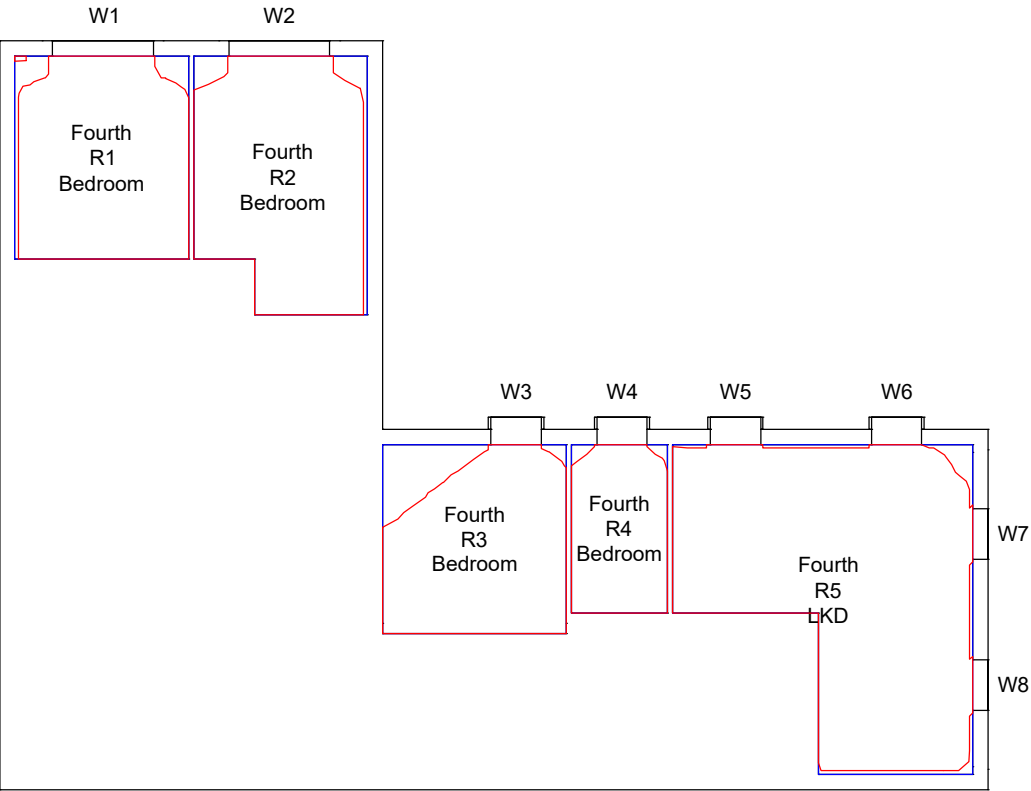
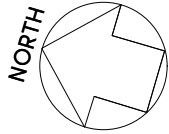


3D Context View - North

KEY



3D Context View - South



SOURCES OF INFORMATION:
SUTTON CA ARCHITECTS

1316 2000D GA Ground Floor Plan.dwg
1316 2001C GA First Floor Plan.dwg
1316 2002C GA Second Floor Plan.dwg
1316 2003C GA Third Floor Plan.dwg
1316 2004C GA Fourth Floor Plan.dwg
1316 2005C GA Roof Plan.dwg
1316 Z100-03 Proposed Elevations.dwg
1316 Z104-05 Proposed Elevations.dwg
Received 13th August 2021

ACCUCITIES 3d MAPPING

001839_Broad Street,Reading _HD_MASTER.dwg
Received 28th April 2021

Rev.	Date	Amendments	Initial
------	------	------------	---------

HOLLIS SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES.
ALL DIMENSIONS ARE IN METRES ONLY

TITLE

**Daylight Distribution
Contours/Referencing Plans
Proposed Development**

CLIENT

Bankfoot APAM Ltd

PROJECT

**86-87A Broad Street,
Reading,
RG1 2AP**

DRAWN BY	CHECKED
SL	DO
SCALE	DATE
1:150@A3	August 2021

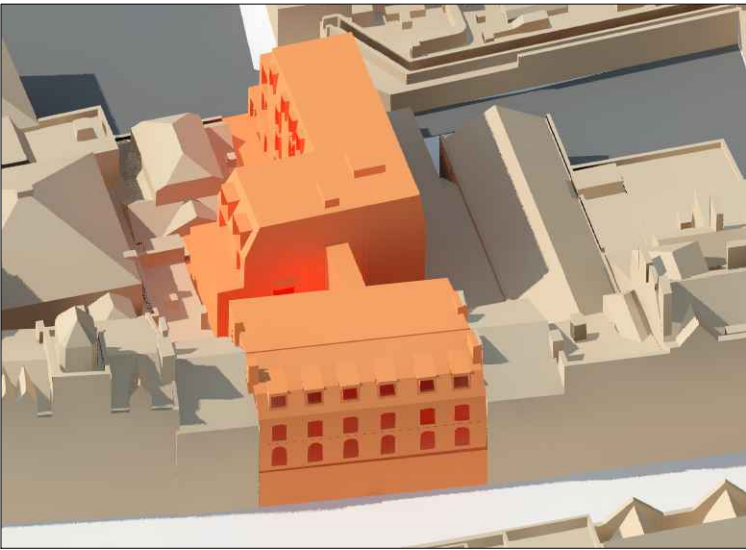
HOLLIS

80-82 Silverthorne Road
London
SW8 3HE

T 020 7622 9555
F 020 7627 9850
W hollisglobal.com

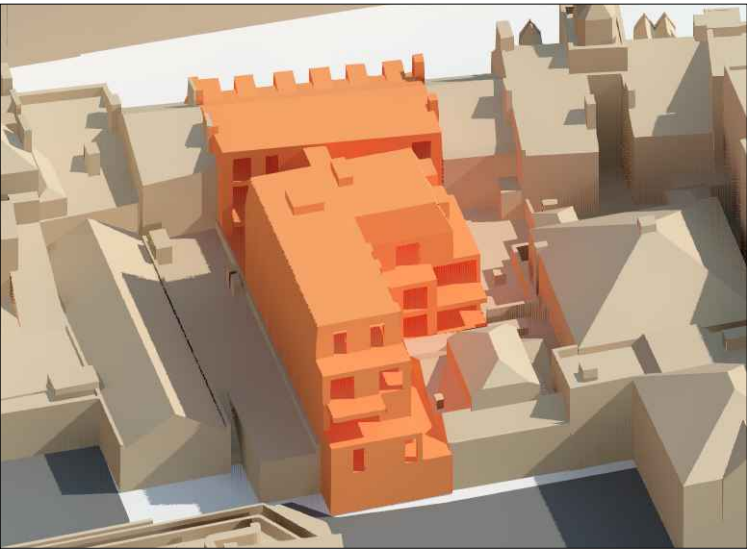
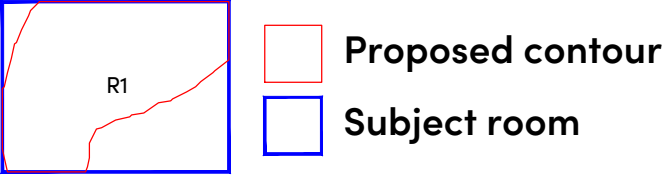
DRAWING NO.	RELEASE NO.
92807_DD_04	3

Proposed Development - Fourth Floor



3D Context View - North

KEY



3D Context View - South

Appendix D

Daylight study



Floor Ref.	Room Ref.	Room Use.	Window Ref.	Proposed Clear Sky	Proposed ADF	Meets BRE Criteria
Proposed Development						
First	R1	LD	W1-L	59.06	0.03	
First	R1	LD	W1-U	60.26	0.81	
First	R1	LD	W2-L	63.57	0.13	
First	R1	LD	W2-U	64.42	3.66	
First	R1	LD	W3-L	58.57	0.03	
First	R1	LD	W3-U	59.34	0.80	
Total				5.45		YES
First	R2	Studio	W4-L	57.21	0.02	
First	R2	Studio	W4-U	58.01	0.46	
First	R2	Studio	W5-L	64.14	0.07	
First	R2	Studio	W5-U	64.98	2.17	
First	R2	Studio	W6-L	59.1	0.02	
First	R2	Studio	W6-U	59.74	0.47	
Total				3.21		YES
First	R3	LD	W7-L	57.56	0.03	
First	R3	LD	W7-U	58.42	0.76	
First	R3	LD	W8-L	64.79	0.12	
First	R3	LD	W8-U	65.57	3.60	
First	R3	LD	W9-L	61.7	0.03	
First	R3	LD	W9-U	62.69	0.81	
Total				5.34		YES
First	R4	Bedroom	W10-L	26.36	0.09	
First	R4	Bedroom	W10-U	18.61	0.75	
Total				0.85		NO
First	R5	Bedroom	W11-L	37.35	0.13	
First	R5	Bedroom	W11-U	27.75	1.13	
Total				1.26		YES
First	R6	Bedroom	W12-L	10.02	0.01	
First	R6	Bedroom	W12-U	10.86	0.14	
First	R6	Bedroom	W13-L	21.97	0.09	
First	R6	Bedroom	W13-U	23.43	1.09	
First	R6	Bedroom	W14-L	29.23	0.03	
First	R6	Bedroom	W14-U	31.15	0.40	
Total				1.75		YES
First	R7	LKD	W15-L	31.86	0.16	
First	R7	LKD	W15-U	11.03	0.64	
Total				0.80		NO
First	R8	Bedroom	W16-L	48.36	0.23	
First	R8	Bedroom	W16-U	54.07	3.06	
Total				3.29		YES
First	R9	Bedroom	W17-L	44.18	0.10	
First	R9	Bedroom	W17-U	46.74	1.21	
Total				1.31		YES
First	R10	Bedroom	W18-L	51.69	0.13	
First	R10	Bedroom	W18-U	55.23	1.60	
Total				1.72		YES
First	R11	Bedroom	W19-L	53.54	0.15	
First	R11	Bedroom	W19-U	60.23	1.98	
Total				2.13		YES
First	R12	LKD	W20-L	55.81	0.05	
First	R12	LKD	W20-U	62.4	0.72	
First	R12	LKD	W21-L	63.66	0.11	
First	R12	LKD	W21-U	66.41	1.36	
First	R12	LKD	W22-L	75.67	0.07	

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Proposed Clear Sky	Proposed ADF	Meets BRE Criteria
First	R12	LKD	W22-U	76.23	0.88	
First	R12	LKD	W23-L	74.14	0.07	
First	R12	LKD	W23-U	75.16	0.87	
Total				4.14	YES	
Second	R1	LD	W1-L	65.2	0.03	
Second	R1	LD	W1-U	66.85	0.90	
Second	R1	LD	W2-L	71.01	0.14	
Second	R1	LD	W2-U	71.93	4.09	
Second	R1	LD	W3-L	64.27	0.03	
Second	R1	LD	W3-U	65.5	0.88	
Total				6.06	YES	
Second	R2	Studio	W4-L	63.29	0.02	
Second	R2	Studio	W4-U	64.53	0.51	
Second	R2	Studio	W5-L	71.5	0.08	
Second	R2	Studio	W5-U	72.38	2.42	
Second	R2	Studio	W6-L	64.69	0.02	
Second	R2	Studio	W6-U	65.77	0.52	
Total				3.56	YES	
Second	R3	LD	W7-L	63.54	0.03	
Second	R3	LD	W7-U	64.86	0.84	
Second	R3	LD	W8-L	71.98	0.14	
Second	R3	LD	W8-U	72.8	4.00	
Second	R3	LD	W9-L	67.13	0.03	
Second	R3	LD	W9-U	68.52	0.89	
Total				5.92	YES	
Second	R4	Bedroom	W10-L	47.69	0.16	
Second	R4	Bedroom	W10-U	52.05	2.11	
Total				2.27	YES	
Second	R5	Bedroom	W11-L	54.21	0.19	
Second	R5	Bedroom	W11-U	55.97	2.27	
Total				2.46	YES	
Second	R6	Bedroom	W12-L	16.56	0.02	
Second	R6	Bedroom	W12-U	20.34	0.26	
Second	R6	Bedroom	W13-L	31.33	0.12	
Second	R6	Bedroom	W13-U	34.84	1.62	
Second	R6	Bedroom	W14-L	35.54	0.04	
Second	R6	Bedroom	W14-U	38.28	0.49	
Total				2.55	YES	
Second	R7	LKD	W15-L	67.23	0.33	
Second	R7	LKD	W15-U	70.73	4.10	
Total				4.43	YES	
Second	R8	Bedroom	W16-L	61.41	0.29	
Second	R8	Bedroom	W16-U	63.36	3.58	
Total				3.88	YES	
Second	R9	Bedroom	W17-L	52.15	0.12	
Second	R9	Bedroom	W17-U	56.03	1.47	
Total				1.59	YES	
Second	R10	Bedroom	W18-L	61.2	0.15	
Second	R10	Bedroom	W18-U	63.01	1.86	
Total				2.01	YES	
Second	R11	LKD	W19-L	67.22	0.07	
Second	R11	LKD	W19-U	68.42	0.81	
Second	R11	LKD	W20-L	71.13	0.13	
Second	R11	LKD	W20-U	71.77	1.49	
Second	R11	LKD	W21-L	57.19	0.23	

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Proposed Clear Sky	Proposed ADF	Meets BRE Criteria
Second	R11	LKD	W21-U	32.09	1.51	
Total					4.24	YES
Third	R1	LD	W1-L	76.69	0.33	
Third	R1	LD	W1-U	79.75	4.01	
Total					4.34	YES
Third	R2	LD	W2-L	76.81	0.29	
Third	R2	LD	W2-U	80.08	3.58	
Total					3.87	YES
Third	R3	LD	W3-L	76.87	0.33	
Third	R3	LD	W3-U	80.28	4.12	
Total					4.46	YES
Third	R4	Bedroom	W4-L	60.39	0.23	
Third	R4	Bedroom	W4-U	63.58	2.89	
Total					3.13	YES
Third	R5	Bedroom	W5-L	62.14	0.24	
Third	R5	Bedroom	W5-U	65.51	3.02	
Total					3.26	YES
Third	R6	LKD	W6-L	68.26	0.08	
Third	R6	LKD	W6-U	70.5	0.92	
Third	R6	LKD	W7-L	72.22	0.20	
Third	R6	LKD	W7-U	73.55	2.38	
Third	R6	LKD	W8-L	67.58	0.15	
Third	R6	LKD	W8-U	69.38	1.82	
Total					5.54	YES
Third	R7	Bedroom	W9-L	61.06	0.14	
Third	R7	Bedroom	W9-U	63.16	1.73	
Total					1.87	YES
Third	R8	Bedroom	W10-L	67.44	0.17	
Third	R8	Bedroom	W10-U	69.4	2.04	
Total					2.21	YES
Third	R9	LKD	W11-L	72.3	0.07	
Third	R9	LKD	W11-U	73.48	0.87	
Third	R9	LKD	W12-L	75.78	0.13	
Third	R9	LKD	W12-U	76.3	1.59	
Third	R9	LKD	W13-L	83.88	0.17	
Third	R9	LKD	W13-U	82.85	1.95	
Third	R9	LKD	W14-L	84	0.17	
Third	R9	LKD	W14-U	82.95	1.96	
Total					6.91	YES
Fourth	R1	Bedroom	W1-L	85.01	0.09	
Fourth	R1	Bedroom	W1-U	84.26	2.40	
Total					2.49	YES
Fourth	R2	Bedroom	W2-L	85.23	0.10	
Fourth	R2	Bedroom	W2-U	84.38	2.66	
Total					2.76	YES
Fourth	R3	Bedroom	W3-L	85.3	0.10	
Fourth	R3	Bedroom	W3-U	84.39	2.45	
Total					2.55	YES
Fourth	R4	Bedroom	W4	0	3.97	
Total					3.97	YES
Fourth	R5	Bedroom	W5	0	3.16	
Fourth	R5	Bedroom	W6	0	3.22	
Total					6.38	YES
Fourth	R6	Bedroom	W7	0	4.19	
Total					4.19	YES

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Proposed Clear Sky	Proposed ADF	Meets BRE Criteria
Fourth	R7	Bedroom	W8-L	77.7	0.34	
Fourth	R7	Bedroom	W8-U	78.21	3.63	
Total					3.97	YES
Fourth	R8	Bedroom	W9-L	78.63	0.30	
Fourth	R8	Bedroom	W9-U	78.82	3.16	
Total					3.45	YES
Fourth	R9	Bedroom	W10-L	69.92	0.16	
Fourth	R9	Bedroom	W10-U	73.87	1.74	
Total					1.90	YES
Fourth	R10	Bedroom	W11-L	74.97	0.28	
Fourth	R10	Bedroom	W11-U	76.87	3.01	
Total					3.29	YES
Fourth	R11	LKD	W12-L	76.83	0.09	
Fourth	R11	LKD	W12-U	77.7	0.96	
Fourth	R11	LKD	W13-L	77.89	0.09	
Fourth	R11	LKD	W13-U	78.22	0.97	
Fourth	R11	LKD	W14-L	82.67	0.10	
Fourth	R11	LKD	W14-U	81.52	1.01	
Fourth	R11	LKD	W15-L	82.73	0.10	
Fourth	R11	LKD	W15-U	81.58	1.01	
Total					4.33	YES

Floor Ref	Room Ref	Room Use	Room Area (m ²)	No Sky Line (m ²)	% of Room Area	BRE Compliant
Proposed Development						
First	R1	LD	21.34	20.35	95.35%	YES
First	R2	Studio	35.03	20.72	59.14%	NO
First	R3	LD	22.51	20.68	91.88%	YES
First	R4	Bedroom	13.04	8.36	64.08%	NO
First	R5	Bedroom	12.97	9.34	71.99%	NO
First	R6	Bedroom	15.58	3.42	21.92%	NO
First	R7	LKD	28.26	21.98	77.79%	NO
First	R8	Bedroom	12.17	12.08	99.25%	YES
First	R9	Bedroom	14.04	12.92	92.05%	YES
First	R10	Bedroom	12.03	8.67	72.05%	NO
First	R11	Bedroom	9.93	9.63	97.00%	YES
First	R12	LKD	40.85	40.53	99.24%	YES
Second	R1	LD	21.35	21.28	99.67%	YES
Second	R2	Studio	35.03	24.69	70.49%	NO
Second	R3	LD	22.52	22.46	99.74%	YES
Second	R4	Bedroom	13.04	11.9	91.26%	YES
Second	R5	Bedroom	12.98	10.16	78.26%	NO
Second	R6	Bedroom	15.58	6.34	40.71%	NO
Second	R7	LKD	28.26	28.26	100.00%	YES
Second	R8	Bedroom	12.17	12.12	99.56%	YES
Second	R9	Bedroom	13.44	11.46	85.25%	YES
Second	R10	Bedroom	11.68	8.79	75.25%	NO
Second	R11	LKD	38.65	38.65	100.00%	YES
Third	R1	LD	24.87	24.65	99.12%	YES
Third	R2	LD	29.49	29.26	99.24%	YES
Third	R3	LD	24.24	24.03	99.15%	YES
Third	R4	Bedroom	10.93	10.54	96.43%	YES
Third	R5	Bedroom	10.84	9.56	88.18%	YES
Third	R6	LKD	34.11	33.87	99.29%	YES
Third	R7	Bedroom	12.94	11.57	89.38%	YES
Third	R8	Bedroom	11.68	9.68	82.93%	YES
Third	R9	LKD	38.65	38.65	100.00%	YES
Fourth	R1	Bedroom	17.64	12.08	68.49%	NO
Fourth	R2	Bedroom	15.79	12.63	80.00%	YES
Fourth	R3	Bedroom	17.23	12.09	70.14%	NO
Fourth	R4	Bedroom	14.06	12.84	91.31%	YES
Fourth	R5	Bedroom	17.62	14.99	85.06%	YES
Fourth	R6	Bedroom	12.65	10.4	82.19%	YES
Fourth	R7	Bedroom	13.93	12.96	93.05%	YES
Fourth	R8	Bedroom	16.39	15.32	93.47%	YES
Fourth	R9	Bedroom	13.67	11.73	85.76%	YES
Fourth	R10	Bedroom	6.34	6.14	96.90%	YES
Fourth	R11	LKD	29.75	28.7	96.49%	YES

Appendix E

Sunlight study



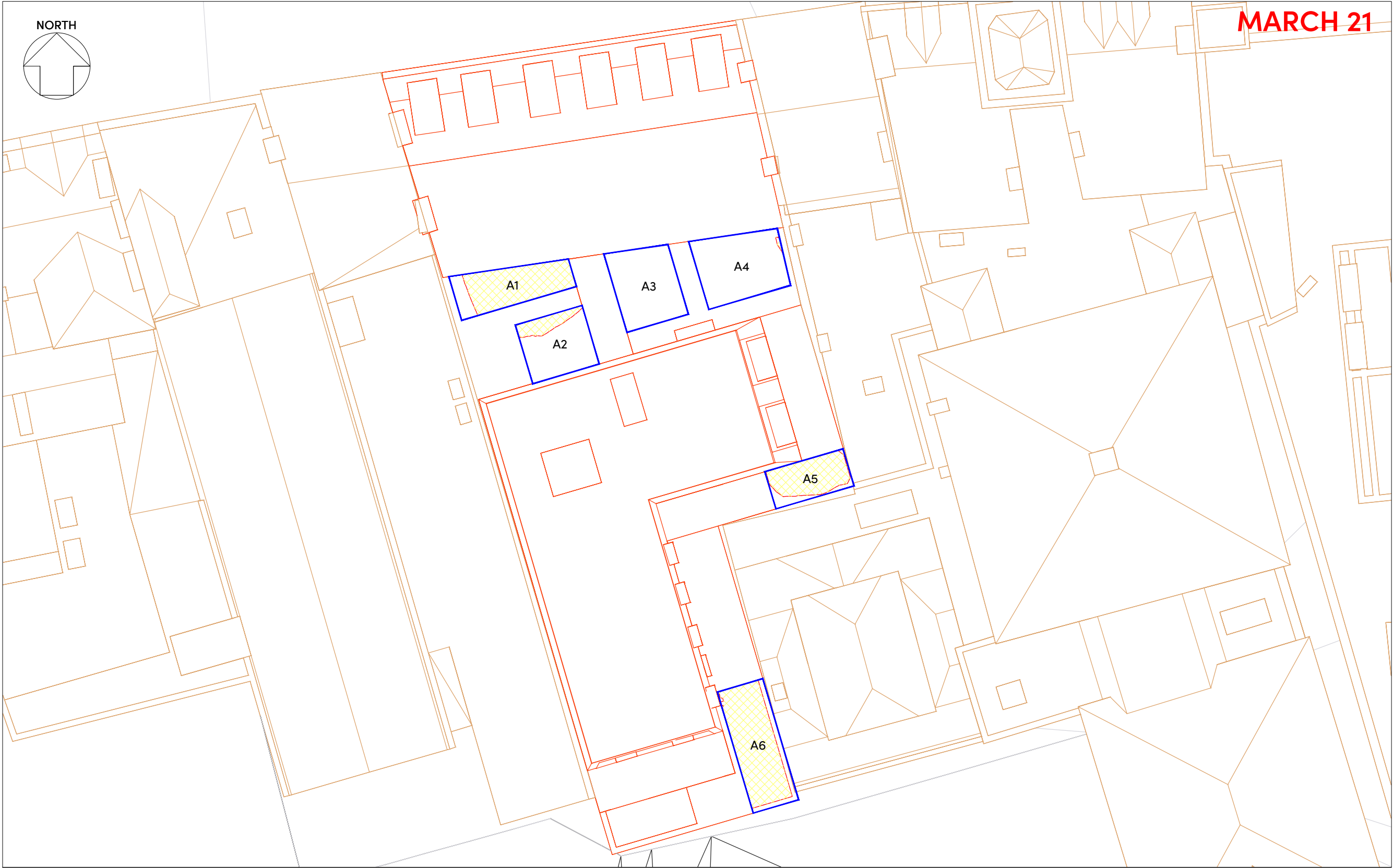
Floor Ref.	Room Ref.	Room Use.	Window Ref.	Proposed Window		Proposed Room		Meets BRE Criteria
				Winter %	Annual %	Winter %	Annual %	
Proposed Development								
First	R1	LD	W1	0	7			
First	R1	LD	W2	0	7			
First	R1	LD	W3	0	0	0	9	NO
First	R2	Studio	W4	0	5			
First	R2	Studio	W5	0	7			
First	R2	Studio	W6	0	0	0	7	NO
First	R3	LD	W7	0	6			
First	R3	LD	W8	0	9			
First	R3	LD	W9	0	3	0	9	NO
First	R4	Bedroom	W10	3	12	3	12	NO
First	R5	Bedroom	W11	11	20	11	20	NO
First	R6	Bedroom	W12	0	0			
First	R6	Bedroom	W13	0	0			
First	R6	Bedroom	W14	0	0	0	0	NO
First	R7	LKD	W15	3	3	3	3	NO
First	R8	Bedroom	W16	8	41	8	41	YES
First	R9	Bedroom	W17	1	18	1	18	NO
First	R10	Bedroom	W18	1	18	1	18	NO
First	R11	Bedroom	W19	1	17	1	17	NO
First	R12	LKD	W20	2	19			
First	R12	LKD	W21	4	26			
First	R12	LKD	W22	21	58			
First	R12	LKD	W23	23	60	23	67	YES
Second	R1	LD	W1	0	7			
Second	R1	LD	W2	0	9			
Second	R1	LD	W3	0	1	0	10	NO
Second	R2	Studio	W4	0	6			
Second	R2	Studio	W5	0	9			
Second	R2	Studio	W6	0	1	0	9	NO
Second	R3	LD	W7	0	6			
Second	R3	LD	W8	0	10			
Second	R3	LD	W9	0	5	0	11	NO
Second	R4	Bedroom	W10	6	42	6	42	YES
Second	R5	Bedroom	W11	13	44	13	44	YES
Second	R6	Bedroom	W12	0	0			
Second	R6	Bedroom	W13	0	0			
Second	R6	Bedroom	W14	0	0	0	0	NO
Second	R7	LKD	W15	16	61	16	61	YES
Second	R8	Bedroom	W16	13	50	13	50	YES
Second	R9	Bedroom	W17	2	23	2	23	NO
Second	R10	Bedroom	W18	2	23	2	23	NO
Second	R11	LKD	W19	2	23			
Second	R11	LKD	W20	4	28			
Second	R11	LKD	W21	17	22	18	42	YES
Third	R1	LD	W1	0	7	0	7	NO
Third	R2	LD	W2	0	7	0	7	NO
Third	R3	LD	W3	0	7	0	7	NO
Third	R4	Bedroom	W4	10	53	10	53	YES
Third	R5	Bedroom	W5	14	57	14	57	YES
Third	R6	LKD	W6	2	23			
Third	R6	LKD	W7	4	29			
Third	R6	LKD	W8	16	60	16	63	YES
Third	R7	Bedroom	W9	3	25	3	25	NO
Third	R8	Bedroom	W10	3	25	3	25	NO

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Proposed Window		Proposed Room		Meets BRE Criteria
				Winter %	Annual %	Winter %	Annual %	
Third	R9	LKD	W11	3	25			
Third	R9	LKD	W12	6	31			
Third	R9	LKD	W13	28	77			
Third	R9	LKD	W14	28	77	28	81	YES
Fourth	R1	Bedroom	W1	0	3	0	3	NO
Fourth	R2	Bedroom	W2	0	3	0	3	NO
Fourth	R3	Bedroom	W3	0	3	0	3	NO
Fourth	R4	Bedroom	W4	21	56	21	56	YES
Fourth	R5	Bedroom	W5	22	58			
Fourth	R5	Bedroom	W6	19	53	25	72	YES
Fourth	R6	Bedroom	W7	23	59	23	59	YES
Fourth	R7	Bedroom	W8	5	32	5	32	YES
Fourth	R8	Bedroom	W9	5	32	5	32	YES
Fourth	R9	Bedroom	W10	4	26	4	26	NO
Fourth	R10	Bedroom	W11	4	26	4	26	NO
Fourth	R11	LKD	W12	4	26			
Fourth	R11	LKD	W13	4	26			
Fourth	R11	LKD	W14	25	62			
Fourth	R11	LKD	W15	25	62	25	72	YES

Appendix F

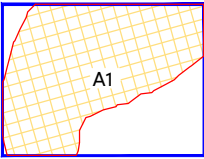
Overshadowing study





Proposed Development - First Floor

KEY



-  Proposed area receiving over 2 hours of Sun
-  Amenity area

SOURCES OF INFORMATION:
SUTTON CA ARCHITECTS
1316 2000D GA Ground Floor Plan.dwg
1316 2001C GA First Floor Plan.dwg
1316 2002C GA Second Floor Plan.dwg
1316 2003C GA Third Floor Plan.dwg
1316 2004C GA Fourth Floor Plan.dwg
1316 2005C GA Roof Plan.dwg
1316 Z100-03 Proposed Elevations.dwg
1316 Z104-05 Proposed Elevations.dwg
Received 13th August 2021

ACCUCITIES 3d MAPPING
001839_Broad Street,Reading _HD_MASTER.dwg
Received 28th April 2021

Rev.	Date	Amendments	Initial
HOLLIS SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES. ALL DIMENSIONS ARE IN METRES ONLY			

TITLE
**Proposed 2hr Sun Contours
March 21st**

CLIENT
Bankfoot APAM Ltd

PROJECT
**86-87A Broad Street,
Reading,
RG1 2AP**

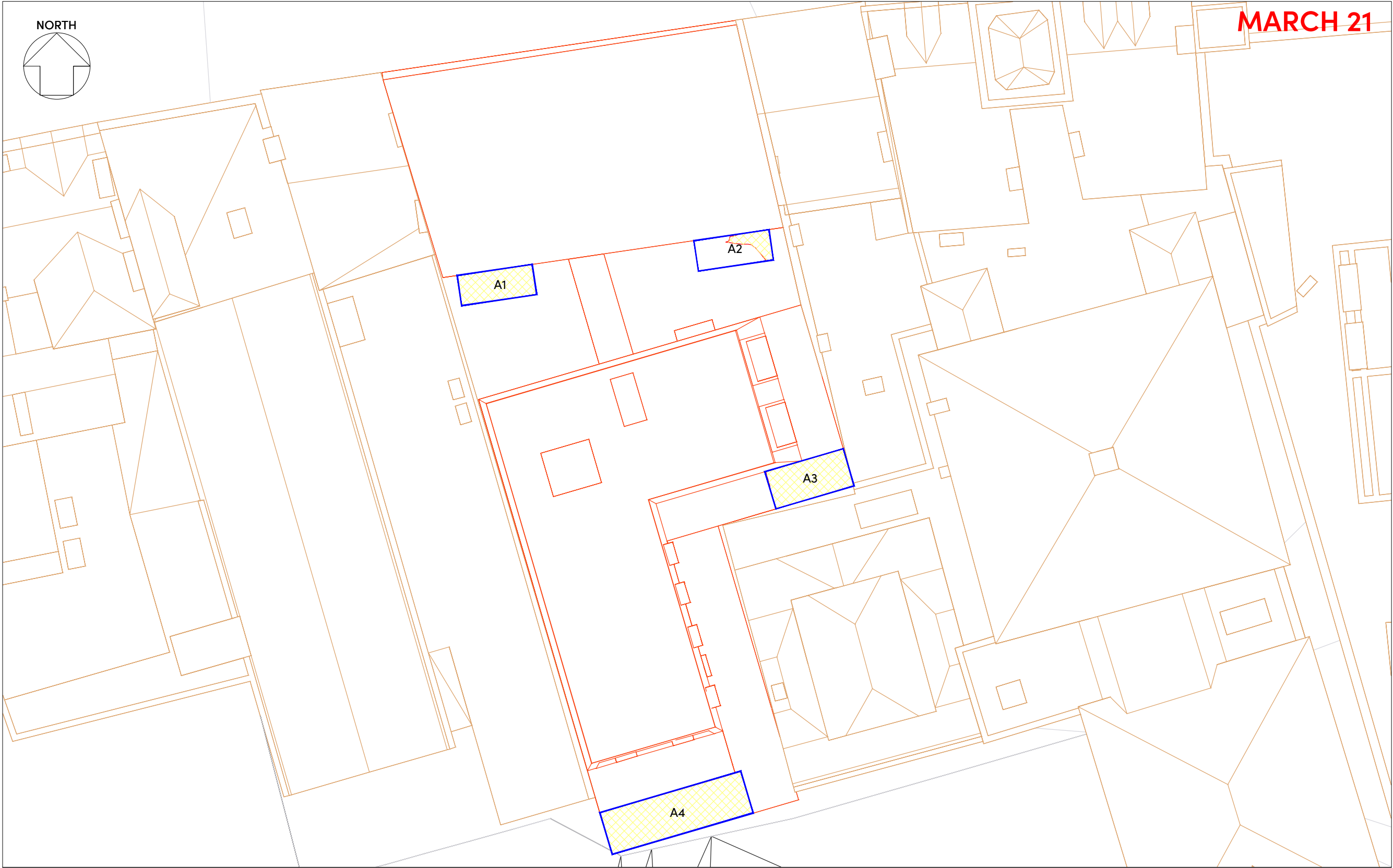
DRAWN BY	CHECKED
SL	DO

SCALE	DATE
1:200@A3	August 2021

HOLLIS

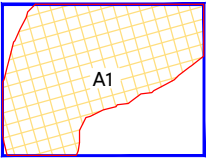
80-82 Silverthorne Road
London
SW8 3HE
T 020 7622 9555
F 020 7627 9850
W hollisglobal.com

DRAWING NO. 92807_PO_01	RELEASE NO. 3
-----------------------------------	-------------------------



Proposed Development – Second Floor

KEY



-  Proposed area receiving over 2 hours of Sun
-  Amenity area

SOURCES OF INFORMATION:
SUTTON CA ARCHITECTS
1316 2000D GA Ground Floor Plan.dwg
1316 2001C GA First Floor Plan.dwg
1316 2002C GA Second Floor Plan.dwg
1316 2003C GA Third Floor Plan.dwg
1316 2004C GA Fourth Floor Plan.dwg
1316 2005C GA Roof Plan.dwg
1316 2100-03 Proposed Elevations.dwg
1316 2104-05 Proposed Elevations.dwg
Received 13th August 2021

ACCUCITIES 3d MAPPING
001839_Broad Street,Reading _HD_MASTER.dwg
Received 28th April 2021

Rev.	Date	Amendments	Initial
HOLLIS SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES. ALL DIMENSIONS ARE IN METRES ONLY			

TITLE
**Proposed 2hr Sun Contours
March 21st**

CLIENT
Bankfoot APAM Ltd

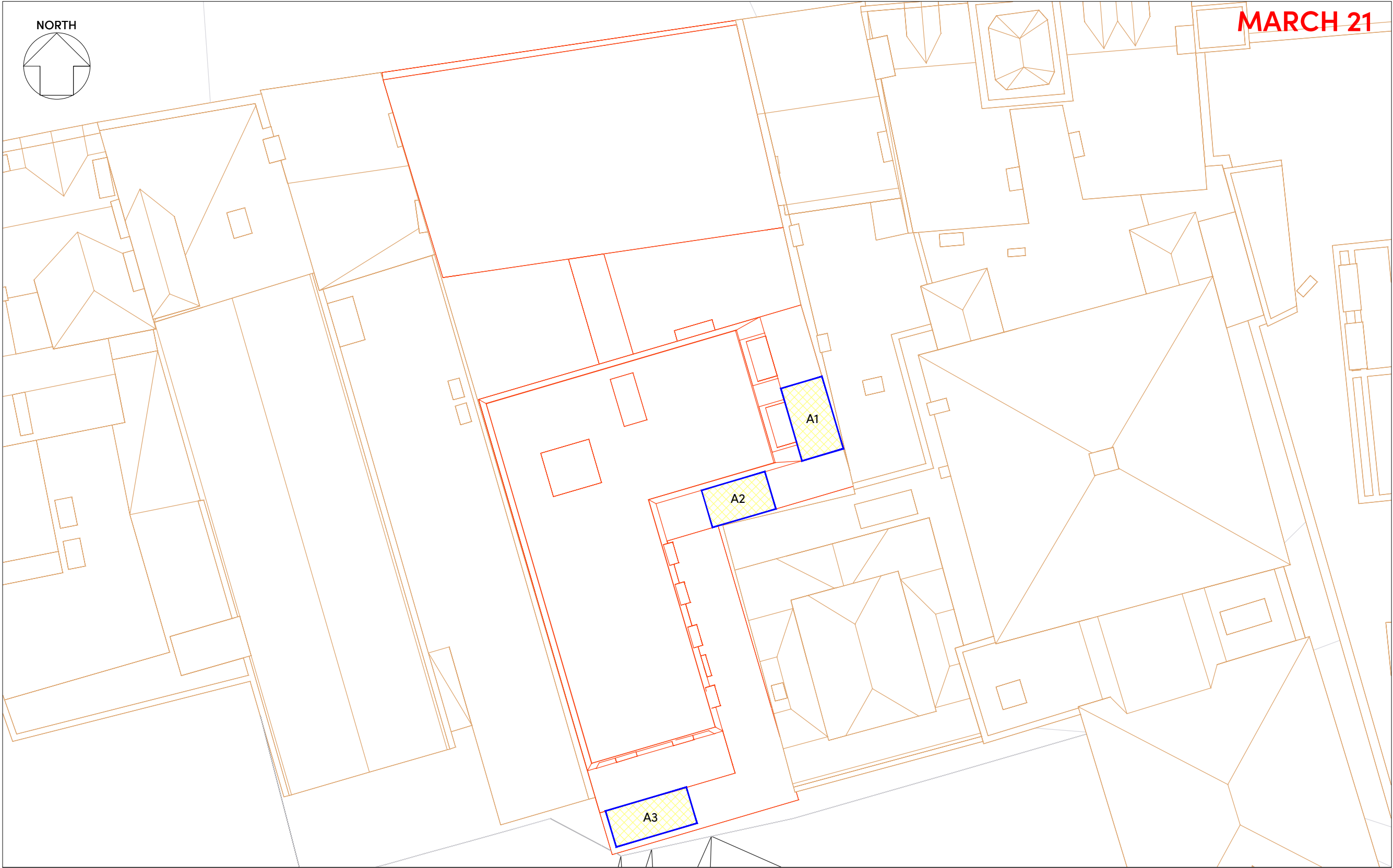
PROJECT
**86-87A Broad Street,
Reading,
RG1 2AP**

DRAWN BY	CHECKED
SL	DO
SCALE	DATE
1:200@A3	August 2021

HOLLIS

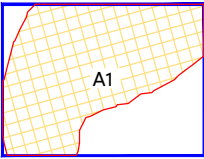
80-82 Silverthorne Road
London
SW8 3HE
T 020 7622 9555
F 020 7627 9850
W hollisglobal.com

DRAWING NO.	RELEASE NO.
92807_PO_02	3



Proposed Development - Third Floor

KEY



-  Proposed area receiving over 2 hours of Sun
-  Amenity area

MARCH 21

SOURCES OF INFORMATION:
SUTTON CA ARCHITECTS
1316 2000D GA Ground Floor Plan.dwg
1316 2001C GA First Floor Plan.dwg
1316 2002C GA Second Floor Plan.dwg
1316 2003C GA Third Floor Plan.dwg
1316 2004C GA Fourth Floor Plan.dwg
1316 2005C GA Roof Plan.dwg
1316 2100-03 Proposed Elevations.dwg
1316 2104-05 Proposed Elevations.dwg
Received 13th August 2021

ACCUCITIES 3d MAPPING
001839_Broad Street,Reading _HD_MASTER.dwg
Received 28th April 2021

Rev.	Date	Amendments	Initial
------	------	------------	---------

HOLLIS SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES.
ALL DIMENSIONS ARE IN METRES ONLY

TITLE

Proposed 2hr Sun Contours
March 21st

CLIENT

Bankfoot APAM Ltd

PROJECT

86-87A Broad Street,
Reading,
RG1 2AP

DRAWN BY	CHECKED
SL	DO

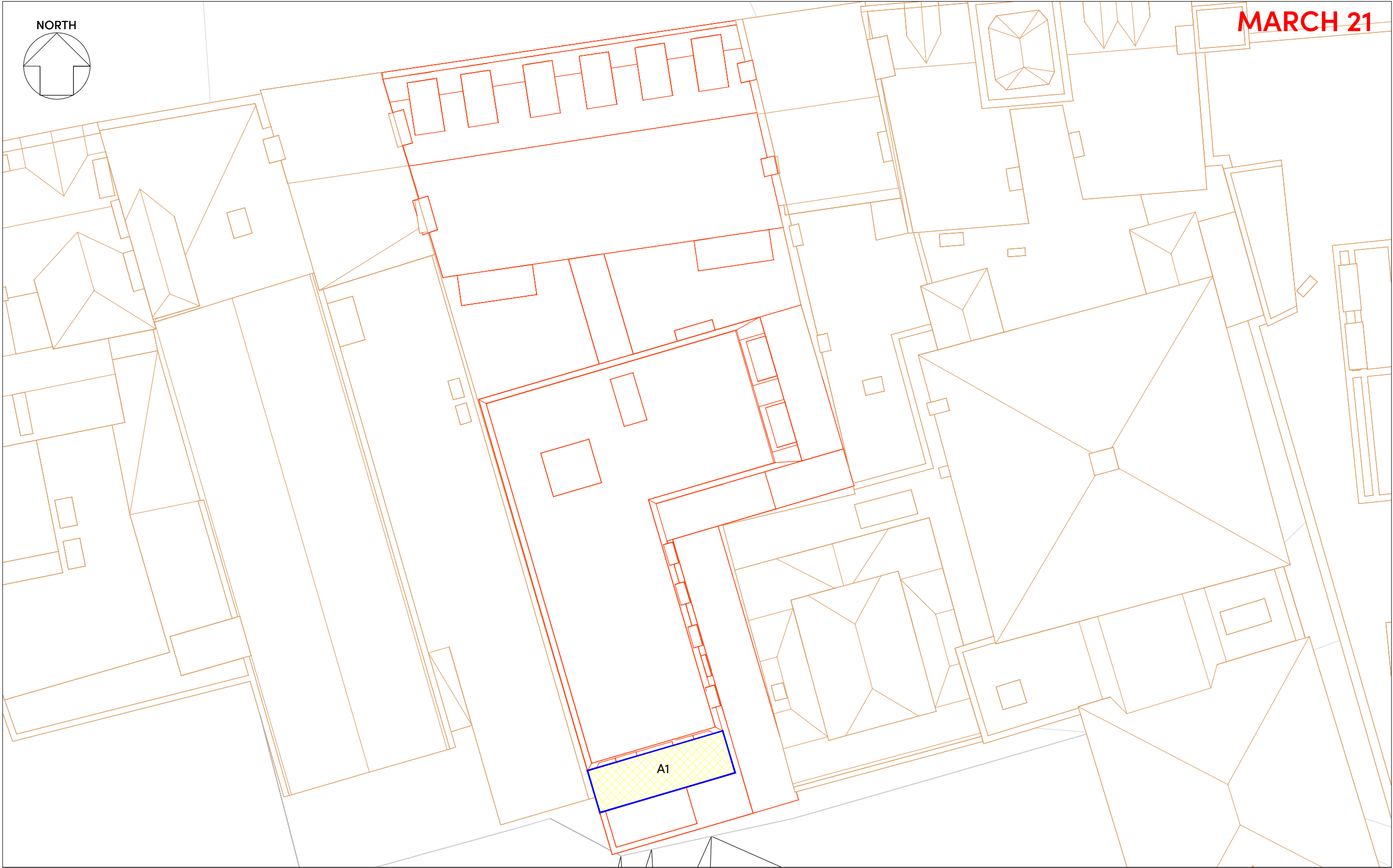
SCALE	DATE
1:200@A3	August 2021

HOLLIS

80-82 Silverthorne Road
London
SW8 3HE

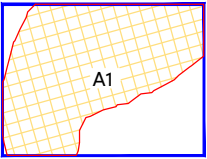
T 020 7622 9555
F 020 7627 9850
W hollisglobal.com

DRAWING NO.	RELEASE NO.
92807_PO_03	3



Proposed Development - Fourth Floor

KEY



-  Proposed area receiving over 2 hours of Sun
-  Amenity area

SOURCES OF INFORMATION:
SUTTON CA ARCHITECTS
1316 2000D GA Ground Floor Plan.dwg
1316 2001C GA First Floor Plan.dwg
1316 2002C GA Second Floor Plan.dwg
1316 2003C GA Third Floor Plan.dwg
1316 2004C GA Fourth Floor Plan.dwg
1316 2005C GA Roof Plan.dwg
1316 Z100-03 Proposed Elevations.dwg
1316 Z104-05 Proposed Elevations.dwg
Received 13th August 2021

ACCUCITIES 3d MAPPING
001839_Broad Street,Reading _HD_MASTER.dwg
Received 28th April 2021

Rev.	Date	Amendments	Initial
HOLLIS SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES. ALL DIMENSIONS ARE IN METRES ONLY			

TITLE
**Proposed 2hr Sun Contours
March 21st**

CLIENT
Bankfoot APAM Ltd

PROJECT
**86-87A Broad Street,
Reading,
RG1 2AP**

DRAWN BY	CHECKED
SL	DO
SCALE	DATE
1:200@A3	August 2021

HOLLIS

80-82 Silverthorne Road
London
SW8 3HE
T 020 7622 9555
F 020 7627 9850
W hollisglobal.com

DRAWING NO.	RELEASE NO.
92807_PO_04	3