

DUKESBRIDGE HOUSE READING

DAYLIGHT AND SUNLIGHT REPORT

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CLIENT: LIPMAN PROPERTIES
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VERSION: DR1
PROJECT: P2082

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1 Introduction

- 1.1 This report relates to the Emre Arolat Architecture Proposed Scheme for the redevelopment of Dukesbridge House insofar as it affects the daylight and sunlight amenity to the surrounding residential properties.
- 1.2 The Local Authority will be informed in this by the BRE document entitled Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice 2011 (the BRE guidelines). This document is the principal guidance in this area and sets out the methodology for measuring light and recommends what it considers to be permitted or unobtrusive levels of change.
- 1.3 The BRE guidelines are not mandatory, though local planning authorities and planning inspectors will consider the suitability of a proposed scheme for a site within the context of BRE guidance. Consideration will be given to the urban context within which a scheme is located and the daylight and sunlight will be one of a number of planning considerations which the local authority will weigh.

Sources of Information

- 1.4 In the process of compiling this report, the following sources of information have been used:

Point 2 Surveyors

Site Photos
Layouts - 7-19 Duke Street

Herts Engineering

Point Cloud Survey
Reading Borough Council
Layouts information

Emre Arolat Architecture

Proposed Scheme 3D Model (received 01/07/20)
comment.skp

2 Methodology

- 2.1 It is usual to assess daylight and sunlight in relation to the guidelines set out in the 2011 Building Research Establishment (BRE) Report 'Site layout planning for daylight and sunlight - A guide to good practice' by Paul Littlefair. This document is most widely accepted by planning authorities as the means by which to judge the acceptability of a scheme. One of the primary sources for the BRE Report is the more detailed guidance contained within 'British Standard 8206 Part 2:2008'.
- 2.2 In relation to the properties surrounding a site, usually the local planning authority will only be concerned with the impact to main habitable accommodation (i.e. living rooms, bedrooms and kitchens) within residential properties.
- 2.3 To determine whether a neighbouring existing building may be adversely affected, the initial test provided by the BRE is to establish if any part of the proposal subtends an angle of more than 25° from the lowest window serving the existing building. If this is the case then there may be an adverse effect, and more detailed calculations are required to quantify the extent of any impact.
- 2.4 The BRE guidelines provide two principal measures of daylight for assessing the impact on properties neighbouring a site, namely Vertical Sky Component (VSC) and No-Sky Line (NSL). They also detail a third measure of daylight which is primarily used for assessing amenity within proposed accommodation, namely Average Daylight Factor (ADF).
- 2.5 In terms of sunlight we examine the BRE Annual Probable Sunlight Hours (APSH); and in relation to sunlight amenity to gardens and amenity spaces, we apply the quantitative BRE overshadowing guidance.
- 2.6 These measures of daylight and sunlight are discussed in the following paragraphs.

Diffuse Daylight

- 2.7 **Vertical Sky Component (VSC)** – VSC is a measure of the direct skylight reaching a point from an overcast sky. It is the ratio of the illuminance at a point on a given vertical plane to the illuminance at a point on a horizontal plane due to an unobstructed sky.
- 2.8 For existing buildings, the BRE guideline is based on the loss of VSC at a point at the centre of a window, on the outer plane of the wall.
- 2.9 The BRE guidelines state that if the VSC at the centre of a window is less than 27%, and it is less than 0.8 times its former value (i.e. the proportional reduction is greater than 20%), then the reduction in skylight will be noticeable, and the existing building may be adversely affected.

- 2.10 **No-Sky Line (NSL)** - NSL is a measure of the distribution of daylight within a room. It maps out the region within a room where light can penetrate directly from the sky, and therefore accounts for the size of and number of windows by simple geometry.
- 2.11 The BRE suggest that the area of the working plane within a room that can receive direct skylight should not be reduced to less than 0.8 times its former value (i.e. the proportional reduction in area should not be greater than 20%).
- 2.12 **Average Daylight Factor (ADF)** - ADF is a measure of the overall amount of diffuse daylight within a room. It is the average of the daylight factors across the working plane within a room. This equates to the ratio of the average illuminance across the working plane, to the illuminance due to an unobstructed sky.
- 2.13 In addition to accounting for external obstructions, the ADF accounts for the number of windows and their size in relation to the size of the room, the window transmittance and the reflectance of the internal walls, floor and ceiling.
- 2.14 While the ADF can be calculated from first principles using a lighting simulation software suite such as Radiance, in simple situations it can be approximated using the empirical formula detailed in both British Standard 8206 Part 2:2008 and Appendix C of the BRE Report.
- 2.15 Both the BRE Report and BS 8206 Part 2:2008 provide guidance for acceptable ADF values in the presence of supplementary electric lighting, depending on the room use. These are 1.0% for a bedroom, 1.5% for a living room and 2.0% for a kitchen.

Sunlight

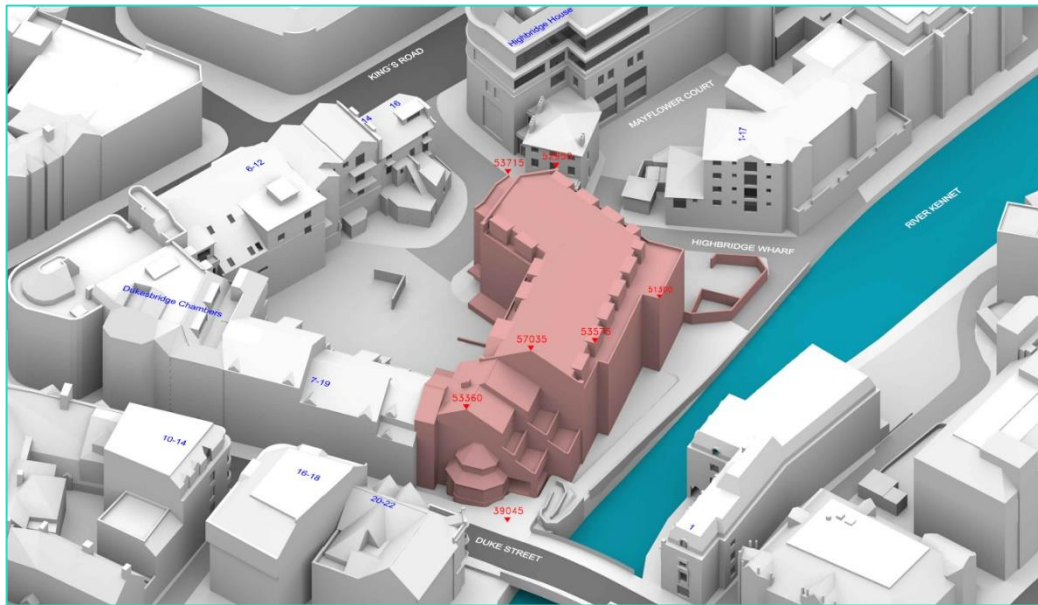
- 2.16 **Annual Probable Sunlight Hours (APSH)** - In relation to sunlight, the BRE recommends that the APSH received at a given window in the proposed case should be at least 25% of the total available, including at least 5% in winter.
- 2.17 Where the proposed values fall short of these, and the absolute loss is greater than 4%, then the proposed values should not be less than 0.8 times their previous value in each period (i.e. the proportional reductions should not be greater than 20%).
- 2.18 The BRE guidelines state 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 out too much sun'.
- 2.19 The APSH figures are calculated for each window, and where a room is served by more than one window the contribution of each is accounted for in the overall figures for the room. The acceptability criteria are applied to overall room based figures.

3 Standard Survey Limitations

- 3.1 Although we have undertaken as detailed an inspection as possible, we are required by our professional indemnity insurers to notify you that our report is based upon the Standard Terms and Conditions provided along with our fee proposal. Our understanding of the existing massing, including the surrounding context was established from the sources of information details within Section 3.
- 3.2 In addition to our standard limitations the following limitations and assumptions also apply.
- Best estimates were made in establishing building use (residential or commercial) and room uses; generally, these were made from external observations and recourse to planning records where available.
 - When floor plans of surrounding properties were not available, room depths have been assumed from external observations. Where no indicators of room depth were available a standard of 4m, 6m or 8m depths have been used.

4 The Site

4.1 The site is located in Reading.



Drawing Number: P2082/31 – 3D View – Existing Building

4.2 Our understanding of the site location and existing building(s) that occupy the site are illustrated in drawing numbers P2082/30-32 and located within Appendix 1.

5 The Proposal



Drawing Number: P2082/55 – 3D View – Proposed Scheme

- 5.1 Our understanding of the proposed scheme is illustrated in drawings P2082/54-56 located within Appendix 1.

6 The Surrounding Properties

6.1 The following surrounding properties contain residential accommodation and, due to their proximity to the development site, have been assessed in terms of the effects of the proposed development upon their daylight and sunlight amenity:

- 1) 7-19 Duke Street
- 2) 6-12 King's Road
- 3) 14 & 16 King's Road
- 4) 1-17 Mayflower Court, Highbridge Court

6.2 The location of the proximate residential properties are illustrated in yellow on the below site plan. The location of the above properties are labelled 1-4 and can be cross-referenced below. Properties highlighted blue are commercial in nature and not material for BRE assessment.



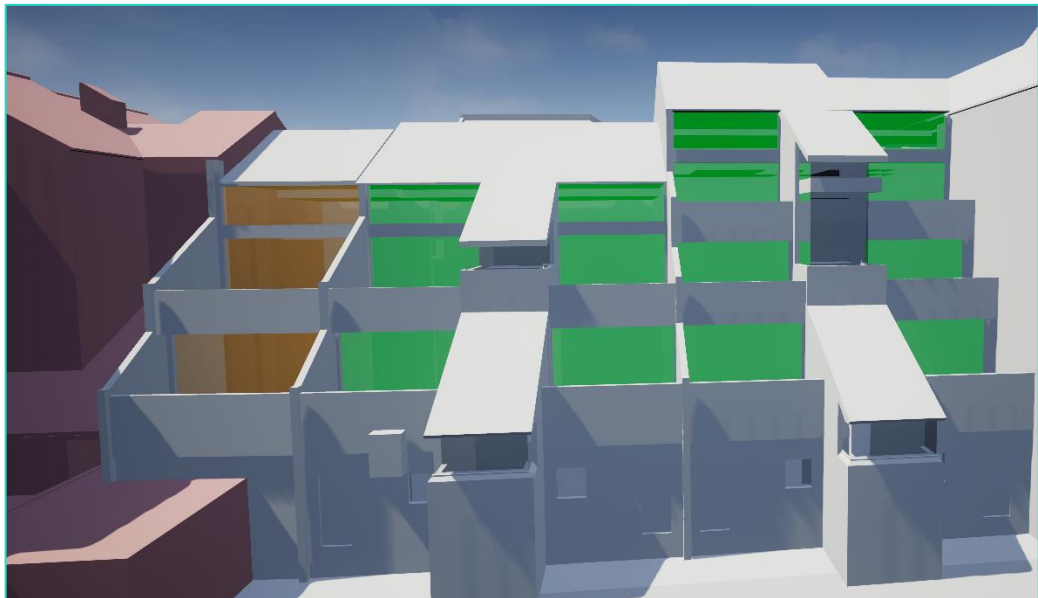
6.3 Detailed results for each window/room assessed can be found in Appendix B and are summarised below.

1) 7-19 Duke Street

- 6.4 North and adjoining the development, referenced '1' on the site plan this property is identified as containing residential accommodation thus material for assessment. Point 2 attended several flats on 01/04/19 and took measurements of the site facing rooms. These measurements have been incorporated into our analysis model. This identifies there are 17 windows serving 17 site facing rooms, comprising facing Living Rooms and Bedrooms.

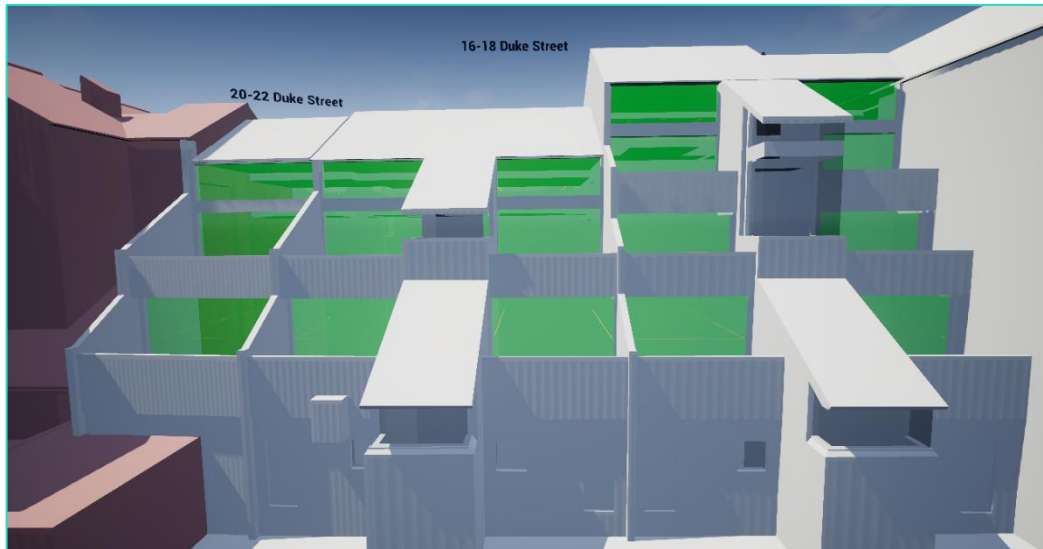
Daylight

- 6.5 4 of the site facing windows closest to the site experience proportionate reductions in VSC which depart from default BRE Guidance, ranging 23-24% the existing value. These can be seen shaded orange on the below window plan.



Extract 01: Window Plan Illustrating VSC Compliance (Green) Derogations (30+% Red & 20-30% Orange)

- 6.6 It should be borne that the VSC calculation is taken from a spot in the centre of the window; it does not account for the size of the glazing. Notably these windows are very large, allowing a large amount of direct skylight to be received within the room. The NSL analysis confirms that all the rooms analysed will not experience a noticeable change in daylight distribution as a result of the proposal.



Extract 02: Window Plan Illustrating NSL Compliance (Green)

- 6.7 We consider the overall effect on daylight amenity to be of minor significance and acceptable on balance.

Sunlight

- 6.8 None of the site facing rooms have a window orientated within 90 degrees due south and therefore not material for assessment in accordance with BRE Guidance.

2) 6-12 King's Road

- 6.9 North of the development site and referenced '2' on the site plan, this property review is identified as containing residential accommodation. We have sourced layouts for the building via Reading Borough Council's Planning Portal which have been incorporated into our analysis model. There are 24 windows serving 14 site facing habitable rooms, comprising 8 Living/Kitchens (LK's) and 6 Bedrooms. Some windows assessed have a balcony directly above the window. For the purposes of our calculations, and in accordance with BRE Guidance, the balcony has been removed from the calculation (BRE Guide 209, paragraph 2.2.11)

Daylight

- 6.10 With the exception one room (R1/111; made up of three windows: W1/111, W2/111 and W3/111) all other windows and rooms in 6-12 Kings Road experience fully BRE compliant changes in both VSC and NSL. We will consider the aforementioned room in more detail below:



Extract 03: Site Photograph LK R1/111 (Served by W1/111, W2/111 and W3/111)

- 6.11 The windows serving this LK are extremely constrained in the existing situation by virtue of them being deeply recessed and tucked into a corner adjacent to a five-storey building. It was clearly not designed to receive adequate daylight. The existing VSC values are 1.25%, 0.59% & 0.53%. BRE states at paragraph 2.1.6:

"...VSC less than 5%...it is often impossible to achieve reasonable daylight, even if the whole window wall is glazed."

- 6.12 The proposed development causes 1%, 0.51% and 0.09% actual losses to the existing levels of VSC. These losses are nominal however due to the starting point reflect as very large percentage reductions.
- 6.13 Due to the positioning of these windows and recess, it has created a tunnel view over the existing building; it is unavoidable that the VSC to these windows and the NSL contour in the room will be affected; even with a modest single-storey extension.
- 6.14 Overall, the actual effect on daylight will be very minor.

Sunlight

- 6.15 All rooms which have a window orientated within 90 degrees of due south experience fully BRE compliant changes in APSH.

3) 14 & 16 Kings Road

- 6.16 Located to the north of the development site and referenced '3' on the site plan, these properties are identified as containing residential accommodation. We are in receipt of layouts for 16 Kings Road which have been incorporated into our analysis model. Layouts for 14 Kings Road have been assumed from external observation, using a room depth approximately half the depth of the building. There are 7 windows serving 5 site facing habitable rooms.

Daylight

- 6.17 All windows experience fully BRE compliant changes in VSC. One room in 14 King's Road experiences a 20.9% change in NSL, which marginally departs from the BRE suggested 20%

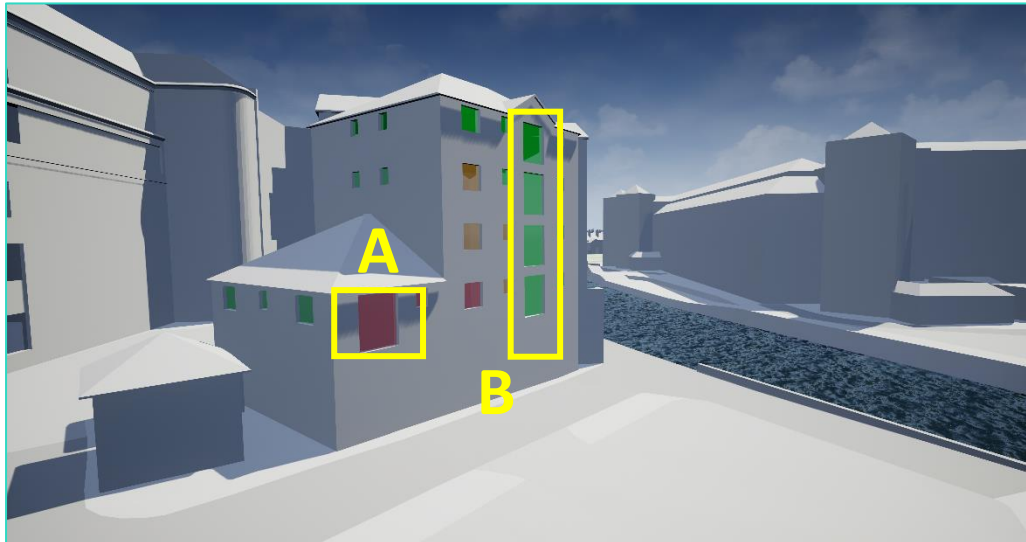
- 6.18 These are very minor derogations from BRE Guidance and, considering them alongside the compliant VSC calculations, the overall effect is considered very minor.

Sunlight

- 6.19 All rooms which have a window orientated within 90 degrees of due south experience fully BRE compliant changes in APSH.

4) 1-17 Mayflower Court

- 6.20 North-west of the site and referenced '4' on the site plan this property is identified as containing residential accommodation. We have not been able to source full layouts for the property; however, we have made reasonable assumptions using external observations. There are 27 site facing windows serving 17 rooms.



Extract 06: Window Plan Mayflower Court Illustrating %VSC Reductions (Green = <20%, Orange 20-30%, Red >30%)

- 6.21 Based on the size of the windows, it is likely the windows bordered yellow are the main window serving the living rooms.
- 6.22 The windows in column B (W2/41, 42, 43 and 44) receive very high existing VSC values (>30%). BRE suggests 27% is appropriate in a suburban environment. These windows experience <20% reductions in VSC, which will be unnoticeable. These windows all retain absolute VSC values of 24% to 30% after construction of the proposed development, which is very good for an urban area.
- 6.23 The room served by the window marked 'A' (W6/41) would appear to be supplemented by an additional window (W7/41) on the side elevation.



Extract 07: Site photograph; side elevation of Mayflower Court

- 6.24 The windows on the front elevation experiences a proportionate VSC reduction 50-52%. The window on the side elevation does not experience a noticeable change and subsequently there is a nominal 0.3% change in daylight distribution (NSL). Moreover, over 98% room area continues to receive direct skylight at the working plane. Considering the VSC and NSL effects together, on balance the overall effect on daylight is therefore considered to be of minor to moderate significance.
- 6.25 The remaining, smaller windows on the front elevation are likely to serve secondary spaces, such as bedrooms. The windows experience proportionate VSC reductions up to 33% and retain absolute VSC values of at least 19%. This level of retained VSC is commensurate with urban development and considered acceptable on balance.
- 6.26 For reference, we have conducted NSL analysis on 4.2m deep single aspect layouts of the abovementioned windows/rooms, which is considered a reasonable assumption. Only 2 rooms (identified red and orange below) experience noticeable changes in NSL, and none of those should the principal living room.



Extract 08: Window Plan Illustrating NSL Compliance (Green) & Derogations (Orange/Red)

Sunlight

- 6.27 All rooms which have a window orientated within 90 degrees of due south experience fully BRE compliant changes in APSH.

7 Conclusion

- 7.1 The proposed development of Dukesbridge House has been carefully tailored to best address daylight/sunlight to the surrounding residential properties within the intended flexibility of the BRE Guidelines.
- 7.2 The technical analysis identifies that 6-12 Duke Street, 6-16 King Street and Mayflower Court may experience noticeable reductions in daylight as a result of the proposed development, however, the vast majority of windows retain levels of VSC that are commensurate with an urban grain and widely considered acceptable across most urban areas. Where the VSC to some of the windows fall short of this level, if it is a living room, it has been checked to see if the room is dual aspect and supplemented by an additional window not noticeably affected by the proposed development.
- 7.3 There is one instance at 6-12 King Street where the positioning of existing windows/rooms beneath recesses and tucked into side returns means changes more significant changes are inevitable as a result of any reasonable proposed massing. The BRE Guide recognises that when these constraints exist, larger relative reductions may be unavoidable.
- 7.4 Overall, the scheme is considered to relate well with the surrounding residential properties in terms of daylight and sunlight amenity and demonstrate adequate compliance with BRE Guidance.
- 7.5 We fully support this planning application in terms of daylight and sunlight amenity.

Appendix 1:

Drawings



Sources: Point 2 Surveyors
Site Photos
Reading Borough Council
Layouts information
Emre Arolat Architecture
Proposed Scheme from 3d Model (received 07/05/19)
Model_14.skp

Key:
Existing Buildings
Proposed Scheme

Scheme Confirmed:
-

Date:
-

Project: Dukesbridge House
Reading

Drawn By:
BW

Scale:
1:500 @ A3

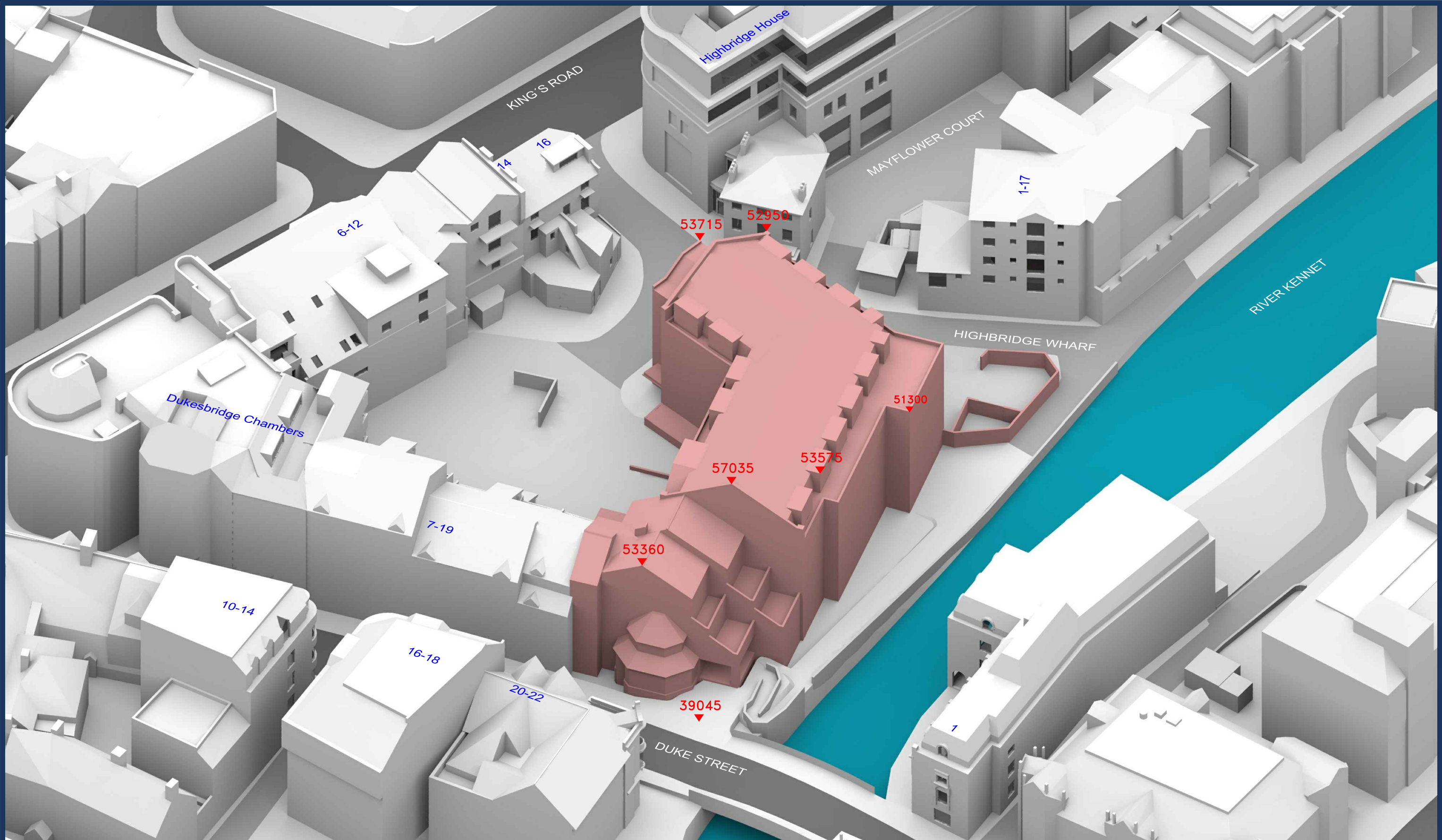
Date:
May 19

Title: Plan View
Existing Buildings

Dwg No:
P2082/30

Rel:
05





Sources: Point 2 Surveyors
Site Photos
Reading Borough Council
Layouts information
Emre Arolat Architecture
Proposed Scheme from 3d Model (received 07/05/19)
Model_14.skp

Key:

- Existing Buildings
- Proposed Scheme

All Heights in mm AOD

Scheme Confirmed:

-

Date:

-

Project: Dukesbridge House
Reading

Drawn By:

BW

Scale:

NTS @ A3

Date:

May 19

Title: 3D View
Existing Buildings

Dwg No:

P2082/31

Rel:

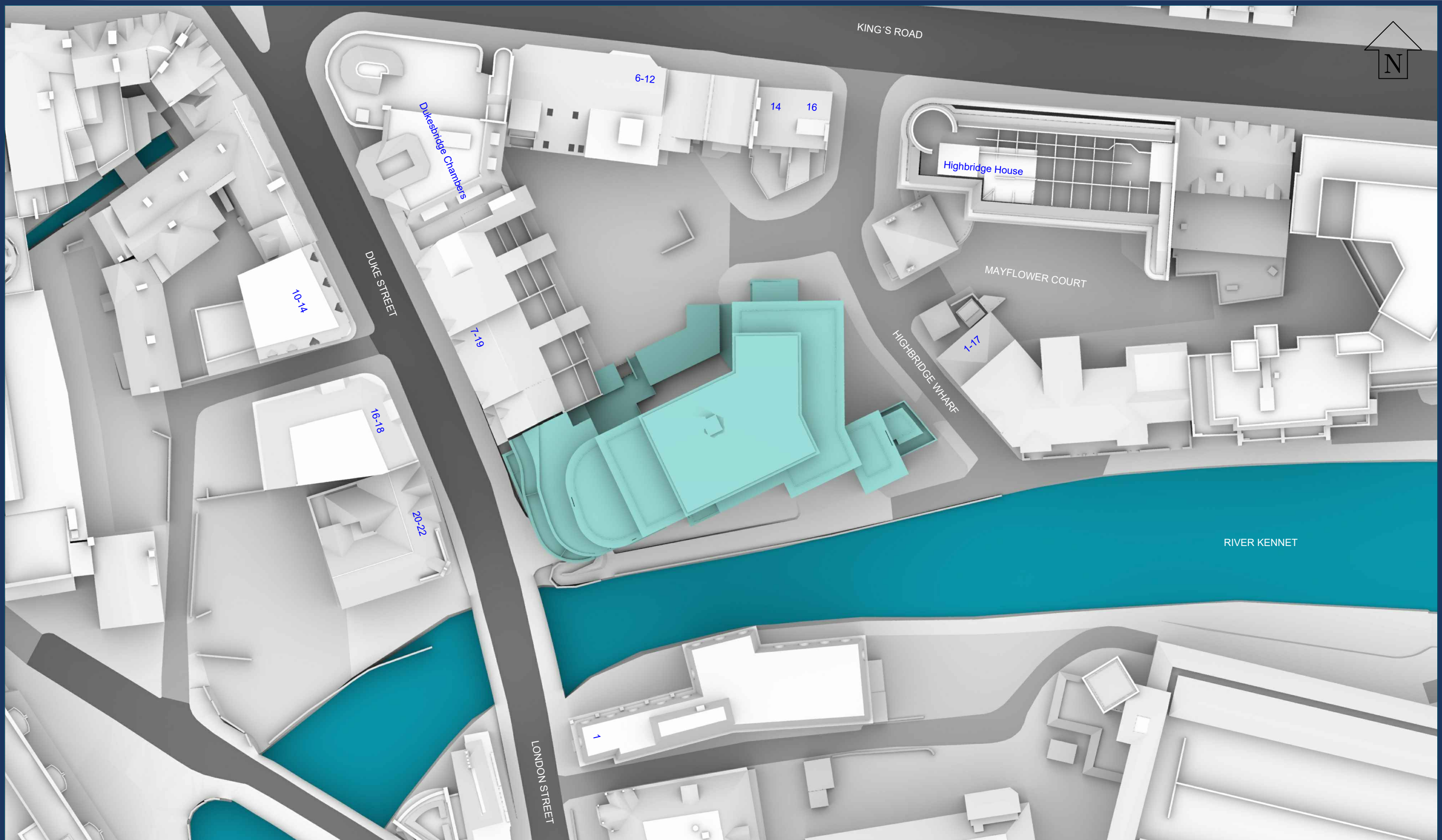
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Sources: Point 2 Surveyors Site Photos Reading Borough Council Layouts information Emre Arolat Architecture Proposed Scheme from 3d Model (received 07/05/19) Model_14.skp		Key: Existing Buildings Proposed Scheme All Heights in mm AOD		Project: Dukesbridge House Reading		Title: 3D View Existing Buildings		
Scheme Confirmed: -		Date: -		Drawn By: BW	Scale: NTS @ A3	Date: May 19	Dwg No: P2082/32	Rel: 05





Sources: Point 2 Surveyors
Site Photos
Layouts - 7-19 Duke Street
Herts Engineering
Point Cloud Survey
Reading Borough Council
Layouts information
Emre Arolat Architecture
Proposed Scheme 3D Model (received 01/07/20)
comment.skp

Key: Existing Buildings
Proposed Scheme

Project: Dukesbridge House
Reading

Title: Plan View
Proposed Scheme Received 01/07/20

Scheme Confirmed:

-

Date:

-

Drawn By:
BW

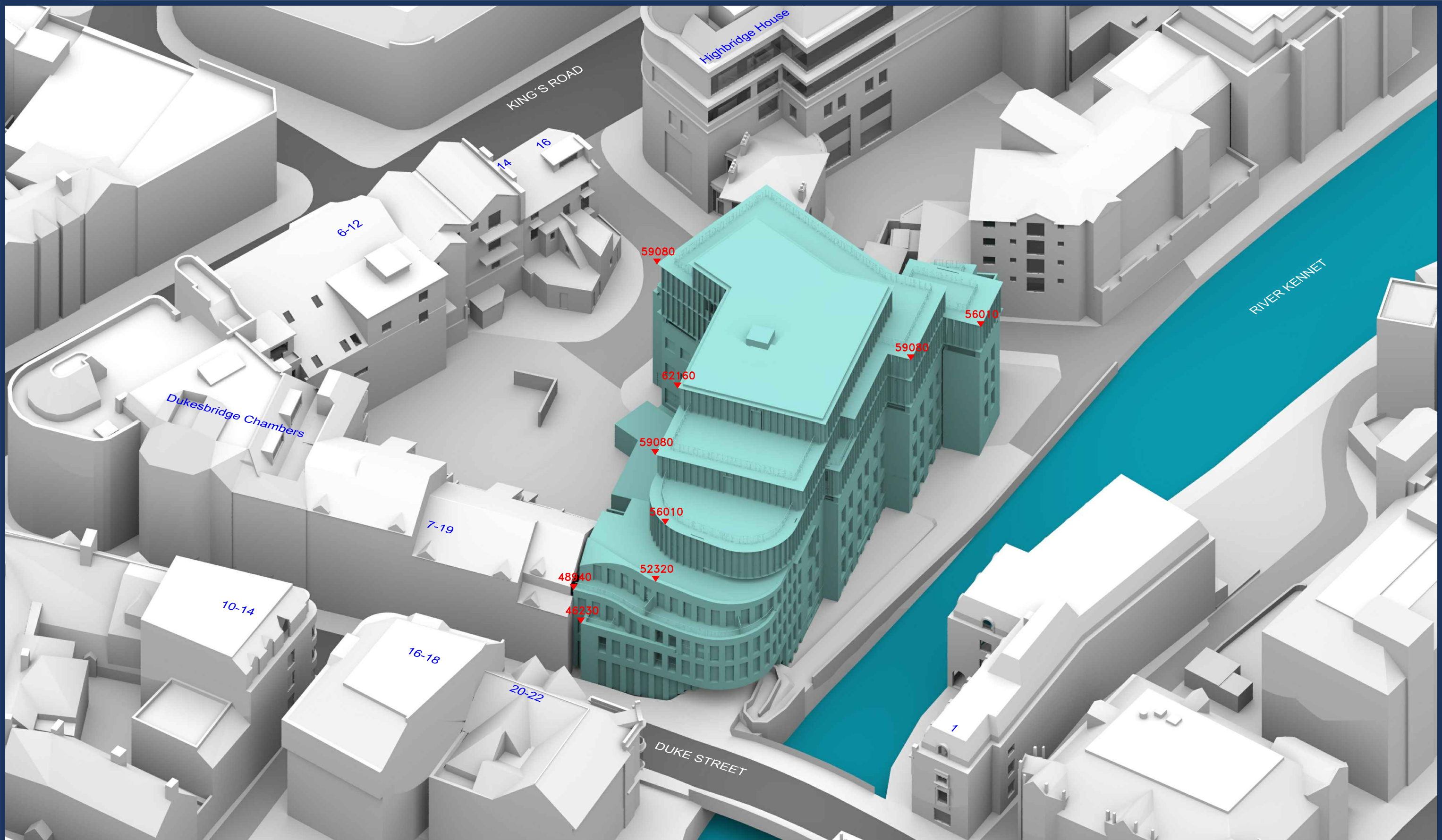
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Date:
July 20

Dwg No:
P2082/54

Rel:
13





Sources: Point 2 Surveyors
Site Photos
Layouts - 7-19 Duke Street
Herts Engineering
Point Cloud Survey
Reading Borough Council
Layouts information
Emre Arolat Architecture
Proposed Scheme 3D Model (received 01/07/20)
comment.skp

Key:  Existing Buildings
 Proposed Scheme

All Heights in mm AOD

Scheme Confirmed:

Date:

Project: Dukesbridge House
Reading

Drawn By:
BW

Scale:
NTS @ A3

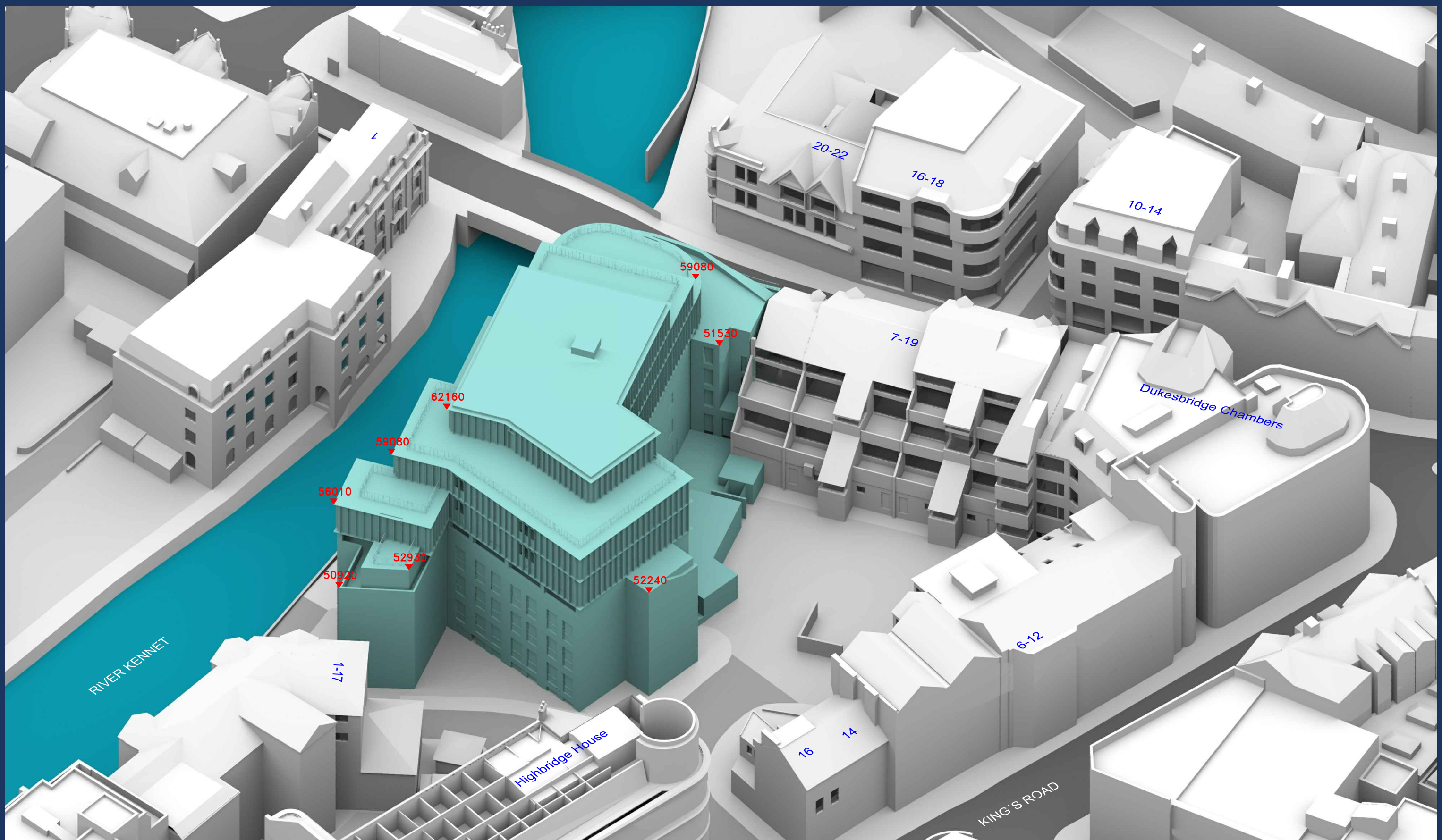
Date:
July 20

Title: 3D View
Proposed Scheme Received 01/07/20

Dwg No:
P2082/55

Rel:
13





Sources: Point 2 Surveyors
Site Photos
Layouts - 7-19 Duke Street
Herts Engineering
Point Cloud Survey
Reading Borough Council
Layouts information
Emre Arolat Architecture
Proposed Scheme 3D Model (received 01/07/20)
comment.skp

Key: Existing Buildings
Proposed Scheme

Project: Dukesbridge House
Reading

Title: 3D View
Proposed Scheme Received 01/07/20

All Heights in mm AOD

Scheme Confirmed:

Date:

Drawn By:
BW

Scale:
NTS @ A3

Date:
July 20

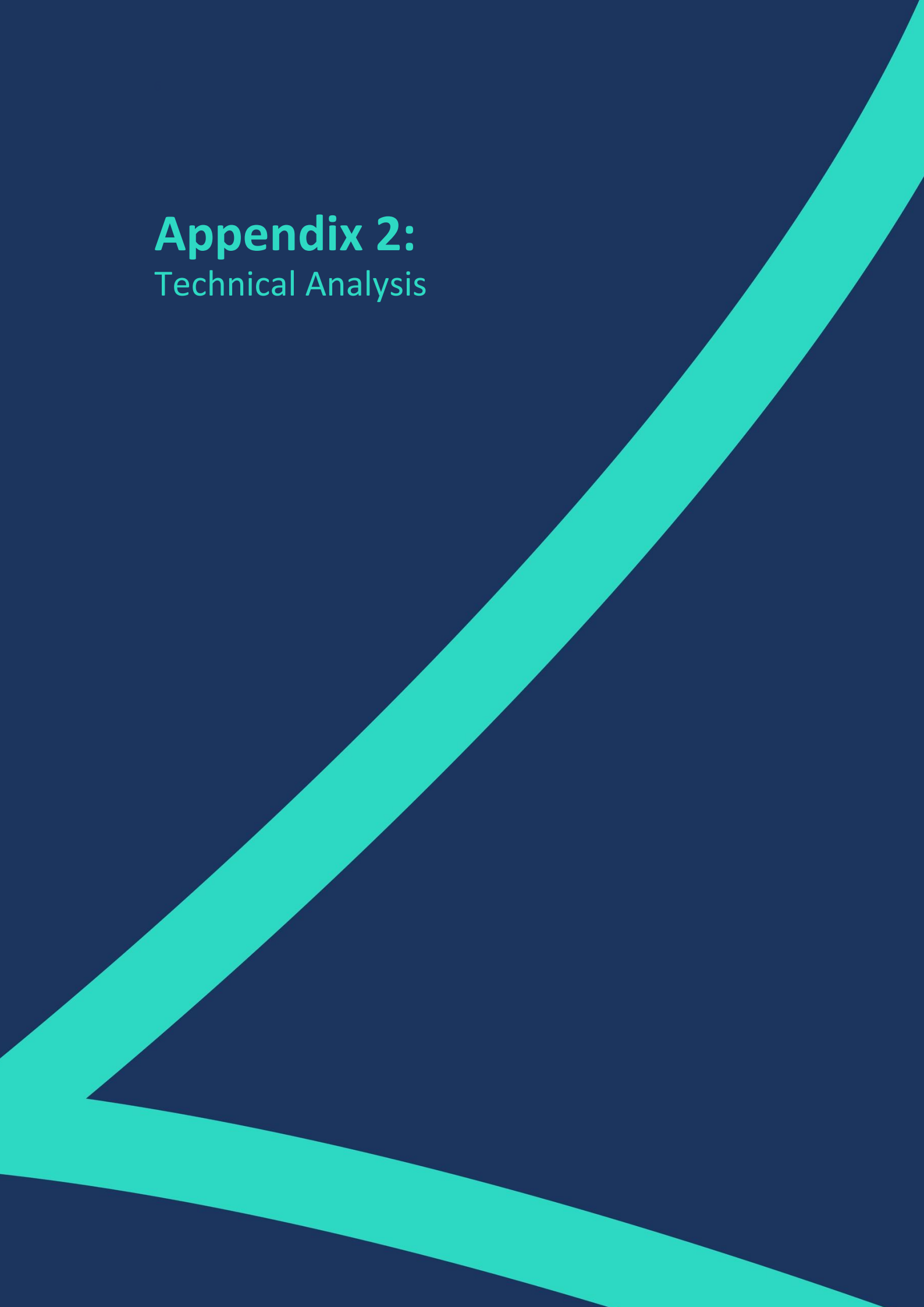
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P2082/56

Rel:
13



Appendix 2:

Technical Analysis





DAYLIGHT ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
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7-19 Duke Street

R1/141	MED_LIVINGROOM_	W1/141	20.40	15.32	5.08	24.90
R2/141	MED_LIVINGROOM_	W2/141	22.26	17.87	4.39	19.72
R3/141	MED_LIVINGROOM_	W3/141	24.15	21.76	2.39	9.90
R4/141	MED_LIVINGROOM_	W4/141	24.13	22.18	1.95	8.08
R5/141	MED_LIVINGROOM_	W5/141	16.70	16.32	0.38	2.28
R1/142	ASSUMED_HALF	W1/142	26.72	20.40	6.32	23.65
R1/142	ASSUMED_HALF	W1/143	30.56	23.05	7.51	24.57
R2/142	ASSUMED_HALF	W2/142	25.49	20.85	4.64	18.20
R2/142	ASSUMED_HALF	W2/143	31.64	26.48	5.16	16.31
R3/142	ASSUMED_HALF	W3/142	24.24	23.66	0.58	2.39
R3/142	ASSUMED_HALF	W3/143	32.15	29.25	2.90	9.02
R4/142	ASSUMED_HALF	W4/142	24.13	22.17	1.96	8.12
R5/142	ASSUMED_HALF	W5/142	15.98	15.72	0.26	1.63
R1/143	ASSUMED_HALF	W1/143	30.56	23.05	7.51	24.57
R2/143	ASSUMED_HALF	W2/143	31.64	26.48	5.16	16.31
R3/143	ASSUMED_HALF	W3/143	32.15	29.25	2.90	9.02
R4/143	ASSUMED_HALF	W4/143	28.59	26.67	1.92	6.72
R4/143	ASSUMED_HALF	W1/144	32.12	30.27	1.85	5.76
R5/143	ASSUMED_HALF	W5/143	20.40	20.40	0.00	0.00
R5/143	ASSUMED_HALF	W2/144	28.68	27.67	1.01	3.52
R1/144	ASSUMED_HALF	W1/144	32.12	30.27	1.85	5.76
R2/144	ASSUMED_HALF	W2/144	28.68	27.67	1.01	3.52

Dukesbrige Chambers, Duke Street

R1/161	LKD	W1/161	13.63	13.63	0.00	0.00
R2/161	BEDROOM	W3/161	16.73	16.62	0.11	0.66



DAYLIGHT ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
R3/161	STUDIO	W2/161	17.88	17.07	0.81	4.53
R1/162	LKD	W1/162	18.89	18.89	0.00	0.00
R2/162	BEDROOM	W3/162	22.81	22.74	0.07	0.31
R3/162	STUDIO	W2/162	23.46	22.71	0.75	3.20
R1/164	LKD	W3/164	36.95	36.11	0.84	2.27
R2/164	BEDROOM	W4/164	36.72	35.82	0.90	2.45
R3/164	LKD	W2/164	34.20	33.57	0.63	1.84
R4/164	BEDROOM	W1/164	35.87	34.88	0.99	2.76
R1/171	BEDROOM	W1/171	22.40	19.05	3.35	14.96
R1/171	BEDROOM	W2/171	20.48	19.55	0.93	4.54
R1/171	BEDROOM	W3/171	4.78	4.78	0.00	0.00
R1/172	BEDROOM	W1/172	26.77	23.48	3.29	12.29
R1/172	BEDROOM	W2/172	26.13	25.23	0.90	3.44
R1/172	BEDROOM	W3/172	8.85	8.85	0.00	0.00
R1/174	BEDROOM	W1/174	33.88	31.15	2.73	8.06
R1/174	BEDROOM	W2/174	32.84	32.06	0.78	2.38
R1/174	BEDROOM	W3/174	24.52	24.52	0.00	0.00

6-12 King's Road

R1/111	LK	W1/111	1.25	0.25	1.00	80.00
R1/111	LK	W2/111	0.59	0.08	0.51	86.44
R1/111	LK	W3/111	0.53	0.44	0.09	16.98
R2/111	BEDROOM	W4/111	19.59	17.57	2.02	10.31
R3/111	BEDROOM	W5/111	26.33	23.82	2.51	9.53
R6/111	LK	W8/111	19.86	16.64	3.22	16.21
R1/112	LK	W1/112	15.69	14.28	1.41	8.99
R1/112	LK	W2/112	17.61	16.16	1.45	8.23
R1/112	LK	W3/112	16.75	16.09	0.66	3.94
R2/112	BEDROOM	W4/112	71.52	70.07	1.45	2.03
R3/112	BEDROOM	W5/112	71.49	69.77	1.72	2.41



DAYLIGHT ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
R3/112	BEDROOM	W6/112	58.85	57.57	1.28	2.18
R4/112	LK	W7/112	32.41	29.09	3.32	10.24
R4/112	LK	W9/112	20.04	18.42	1.62	8.08
R8/112	LK	W12/112	19.53	16.13	3.40	17.41
R1/113	LK_ASSUMED	W1/113	22.60	21.31	1.29	5.71
R1/113	LK_ASSUMED	W2/113	25.04	23.66	1.38	5.51
R1/113	LK_ASSUMED	W3/113	26.52	25.04	1.48	5.58
R2/113	3EDROOM_ASSUMED	W4/113	80.37	79.35	1.02	1.27
R3/113	3EDROOM_ASSUMED	W5/113	83.53	82.93	0.60	0.72
R4/113	LK_ASSUMED	W6/113	34.62	31.52	3.10	8.95
R4/113	LK_ASSUMED	W8/113	24.43	22.80	1.63	6.67
R8/113	LK_ASSUMED	W11/113	34.82	31.55	3.27	9.39
R8/113	LK_ASSUMED	W12/113	35.65	32.24	3.41	9.57

14 King's Road

R1/81	ASSUMED_HALF	W1/81	21.94	19.08	2.86	13.04
R1/82	ASSUMED_HALF	W1/82	29.76	26.51	3.25	10.92

16 King's Road

R1/61	LD	W1/61	27.03	24.15	2.88	10.65
R1/61	LD	W2/61	27.77	27.77	0.00	0.00
R1/61	LD	W3/61	27.99	27.99	0.00	0.00
R1/62	BEDROOM	W1/62	30.19	27.22	2.97	9.84
R1/63	STUDY	W1/63	32.77	29.95	2.82	8.61
R1/71	KITCHEN	W1/71	18.29	17.87	0.42	2.30

1-17 Mayflower Court, Highbridge Court

R1/41	ASSUMED_4.2M	W1/41	31.42	27.09	4.33	13.78
R2/41	ASSUMED_4.2M	W2/41	30.31	24.34	5.97	19.70
R2/41	ASSUMED_4.2M	W3/41	30.27	22.58	7.69	25.40
R3/41	ASSUMED_4.2M	W4/41	29.07	19.46	9.61	33.06



DAYLIGHT ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
R4/41	ASSUMED	W5/41	24.71	12.51	12.20	49.37
R4/41	ASSUMED	W6/41	24.83	12.26	12.57	50.62
R4/41	ASSUMED	W7/41	20.72	18.22	2.50	12.07
R5/41	ASSUMED_4.2M	W8/41	19.34	17.47	1.87	9.67
R6/41	ASSUMED_4.2M	W9/41	18.60	17.20	1.40	7.53
R1/42	ASSUMED_4.2M	W1/42	33.49	29.47	4.02	12.00
R2/42	ASSUMED_4.2M	W2/42	32.54	26.91	5.63	17.30
R2/42	ASSUMED_4.2M	W3/42	32.65	25.46	7.19	22.02
R3/42	ASSUMED_4.2M	W4/42	31.72	22.60	9.12	28.75
R1/43	ASSUMED_4.2M	W1/43	35.38	31.79	3.59	10.15
R2/43	ASSUMED_4.2M	W2/43	34.66	29.62	5.04	14.54
R2/43	ASSUMED_4.2M	W3/43	34.83	28.49	6.34	18.20
R3/43	ASSUMED_4.3M	W4/43	34.13	26.10	8.03	23.53
R3/43	ASSUMED_4.3M	W5/43	29.83	27.05	2.78	9.32
R4/43	ASSUMED_4.3M	W6/43	29.33	27.11	2.22	7.57
R4/43	ASSUMED_4.3M	W7/43	12.81	12.81	0.00	0.00
R1/44	ASSUMED_4.2M	W1/44	33.52	30.49	3.03	9.04
R2/44	ASSUMED_4.2M	W2/44	36.31	32.01	4.30	11.84
R2/44	ASSUMED_4.2M	W3/44	33.51	28.20	5.31	15.85
R3/44	ASSUMED_4.3M	W4/44	34.16	27.49	6.67	19.53
R3/44	ASSUMED_4.3M	W5/44	29.06	26.42	2.64	9.08
R4/44	ASSUMED_4.3M	W6/44	28.56	26.44	2.12	7.42
R4/44	ASSUMED_4.3M	W7/44	16.41	16.41	0.00	0.00



DAYLIGHT ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

DAYLIGHT

Room	Room Use	Window	Existing		Proposed		Total Loss	%Loss
			ADF	Total	ADF	Total		

7-19 Duke Street

R1/141	MED_LIVINGROOM_	W1/141	2.3	2.3	1.9	1.9	0.4	17.6
R2/141	MED_LIVINGROOM_	W2/141	2.3	2.3	1.9	1.9	0.3	13.9
R3/141	MED_LIVINGROOM_	W3/141	2.4	2.4	2.2	2.2	0.2	7.5
R4/141	MED_LIVINGROOM_	W4/141	2.4	2.4	2.3	2.3	0.1	5.5
R5/141	MED_LIVINGROOM_	W5/141	1.9	1.9	1.9	1.9	0.0	2.3
R1/142	ASSUMED_HALF	W1/142	4.5		3.8			
R1/142	ASSUMED_HALF	W1/143	3.2	7.7	2.6	6.3	1.4	17.6
R2/142	ASSUMED_HALF	W2/142	4.2		3.7			
R2/142	ASSUMED_HALF	W2/143	3.0	7.2	2.6	6.3	0.9	12.7
R3/142	ASSUMED_HALF	W3/142	4.0		3.9			
R3/142	ASSUMED_HALF	W3/143	3.0	7.0	2.8	6.7	0.3	4.4
R4/142	ASSUMED_HALF	W4/142	2.6	2.6	2.4	2.4	0.2	5.8
R5/142	ASSUMED_HALF	W5/142	2.0	2.0	2.0	2.0	0.0	0.7
R1/143	ASSUMED_HALF	W1/143	3.3	3.3	2.6	2.6	0.6	19.4
R2/143	ASSUMED_HALF	W2/143	2.6	2.6	2.3	2.3	0.4	13.4
R3/143	ASSUMED_HALF	W3/143	2.5	2.5	2.3	2.3	0.2	7.8
R4/143	ASSUMED_HALF	W4/143	4.4		4.2			
R4/143	ASSUMED_HALF	W1/144	2.9	7.3	2.7	7.0	0.3	4.7
R5/143	ASSUMED_HALF	W5/143	3.6		3.6			
R5/143	ASSUMED_HALF	W2/144	2.6	6.2	2.6	6.1	0.1	1.1
R1/144	ASSUMED_HALF	W1/144	2.2	2.2	2.1	2.1	0.1	5.5
R2/144	ASSUMED_HALF	W2/144	2.0	2.0	1.9	1.9	0.1	3.2

Dukesbrige Chambers, Duke Street

R1/161	LKD	W1/161	1.5	1.5	1.5	1.5	0.0	0.0
R2/161	BEDROOM	W3/161	0.8	0.8	0.8	0.8	0.0	0.3



DAYLIGHT ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

DAYLIGHT

Room	Room Use	Window	Existing		Proposed		Total Loss	%Loss
			ADF	Total	ADF	Total		
R3/161	STUDIO	W2/161	0.6	0.6	0.6	0.6	0.0	2.7
R1/162	LKD	W1/162	1.9	1.9	1.9	1.9	0.0	0.0
R2/162	BEDROOM	W3/162	0.9	0.9	0.9	0.9	0.0	0.0
R3/162	STUDIO	W2/162	0.8	0.8	0.7	0.7	0.0	2.0
R1/164	LKD	W3/164	1.8	1.8	1.7	1.7	0.0	2.4
R2/164	BEDROOM	W4/164	1.8	1.8	1.7	1.7	0.0	2.5
R3/164	LKD	W2/164	2.6	2.6	2.6	2.6	0.0	1.7
R4/164	BEDROOM	W1/164	1.5	1.5	1.4	1.4	0.0	2.5
R1/171	BEDROOM	W1/171	1.2		1.1			
R1/171	BEDROOM	W2/171	2.5		2.4			
R1/171	BEDROOM	W3/171	0.3	4.1	0.3	3.8	0.2	6.1
R1/172	BEDROOM	W1/172	1.4		1.3			
R1/172	BEDROOM	W2/172	3.0		2.9			
R1/172	BEDROOM	W3/172	0.6	5.1	0.6	4.8	0.2	4.6
R1/174	BEDROOM	W1/174	0.8		0.8			
R1/174	BEDROOM	W2/174	1.8		1.7			
R1/174	BEDROOM	W3/174	0.6	3.2	0.6	3.1	0.1	3.8

6-12 King's Road

R1/111	LK	W1/111	0.0		0.0			
R1/111	LK	W2/111	0.2		0.1			
R1/111	LK	W3/111	0.0	0.2	0.0	0.1	0.1	45.5
R2/111	BEDROOM	W4/111	0.6	0.6	0.5	0.5	0.1	11.2
R3/111	BEDROOM	W5/111	0.5	0.5	0.5	0.5	0.1	10.1
R6/111	LK	W8/111	0.5	0.5	0.5	0.5	0.1	13.2
R1/112	LK	W1/112	0.2		0.2			
R1/112	LK	W2/112	0.6		0.6			
R1/112	LK	W3/112	0.2	1.0	0.2	1.0	0.0	4.5
R2/112	BEDROOM	W4/112	1.2	1.2	1.2	1.2	0.0	1.7
R3/112	BEDROOM	W5/112	1.0		1.0			



DAYLIGHT ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

DAYLIGHT

Room	Room Use	Window	Existing		Proposed		Total Loss	%Loss
			ADF	Total	ADF	Total		
R3/112	BEDROOM	W6/112	0.9	1.9	0.8	1.8	0.0	1.7
R4/112	LK	W7/112	0.6		0.6			
R4/112	LK	W9/112	0.8	1.4	0.7	1.3	0.1	6.4
R8/112	LK	W12/112	0.9	0.9	0.8	0.8	0.1	11.1
R1/113	LK_ASSUMED	W1/113	0.3		0.2			
R1/113	LK_ASSUMED	W2/113	0.7		0.7			
R1/113	LK_ASSUMED	W3/113	0.3	1.3	0.3	1.2	0.1	4.0
R2/113	BEDROOM_ASSUMED	W4/113	1.5	1.5	1.5	1.5	0.0	1.3
R3/113	BEDROOM_ASSUMED	W5/113	1.2	1.2	1.2	1.2	0.0	0.7
R4/113	LK_ASSUMED	W6/113	0.6		0.5			
R4/113	LK_ASSUMED	W8/113	0.4	1.0	0.4	1.0	0.1	6.3
R8/113	LK_ASSUMED	W11/113	0.4		0.4			
R8/113	LK_ASSUMED	W12/113	1.3	1.8	1.2	1.6	0.1	8.5

14 King's Road

R1/81	ASSUMED_HALF	W1/81	1.0	1.0	0.9	0.9	0.1	9.5
R1/82	ASSUMED_HALF	W1/82	0.6	0.6	0.5	0.5	0.1	10.0

16 King's Road

R1/61	LD	W1/61	0.7		0.6			
R1/61	LD	W2/61	0.6		0.6			
R1/61	LD	W3/61	0.6	1.9	0.6	1.8	0.1	3.1
R1/62	BEDROOM	W1/62	0.9	0.9	0.8	0.8	0.1	9.1
R1/63	STUDY	W1/63	1.4	1.4	1.3	1.3	0.1	7.6
R1/71	KITCHEN	W1/71	0.7	0.7	0.7	0.7	0.0	0.0

1-17 Mayflower Court, Highbridge Court

R1/41	ASSUMED_4.2M	W1/41	0.3	0.3	0.3	0.3	0.0	11.9
R2/41	ASSUMED_4.2M	W2/41	1.6		1.4			
R2/41	ASSUMED_4.2M	W3/41	0.2	1.8	0.1	1.5	0.3	16.2
R3/41	ASSUMED_4.2M	W4/41	1.0	1.0	0.7	0.7	0.3	27.4



DAYLIGHT ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

DAYLIGHT

Room	Room Use	Window	Existing		Proposed		Total Loss	%Loss
			ADF	Total	ADF	Total		
R4/41	ASSUMED	W5/41	0.2		0.1			
R4/41	ASSUMED	W6/41	1.5		0.9			
R4/41	ASSUMED	W7/41	0.5	2.3	0.5	1.5	0.8	35.9
R5/41	ASSUMED_4.2M	W8/41	0.2	0.2	0.2	0.2	0.0	4.0
R6/41	ASSUMED_4.2M	W9/41	0.6	0.6	0.6	0.6	0.0	4.9
R1/42	ASSUMED_4.2M	W1/42	0.3	0.3	0.3	0.3	0.0	9.9
R2/42	ASSUMED_4.2M	W2/42	1.7		1.5			
R2/42	ASSUMED_4.2M	W3/42	0.2	1.9	0.2	1.6	0.3	14.4
R3/42	ASSUMED_4.2M	W4/42	1.0	1.0	0.8	0.8	0.2	23.8
R1/43	ASSUMED_4.2M	W1/43	0.3	0.3	0.3	0.3	0.0	8.4
R2/43	ASSUMED_4.2M	W2/43	1.8		1.6			
R2/43	ASSUMED_4.2M	W3/43	0.2	2.0	0.2	1.8	0.3	12.4
R3/43	ASSUMED_4.3M	W4/43	1.0		0.8			
R3/43	ASSUMED_4.3M	W5/43	0.3	1.3	0.3	1.1	0.2	16.7
R4/43	ASSUMED_4.3M	W6/43	0.3		0.3			
R4/43	ASSUMED_4.3M	W7/43	0.5	0.8	0.5	0.8	0.0	1.4
R1/44	ASSUMED_4.2M	W1/44	0.3	0.3	0.3	0.3	0.0	7.1
R2/44	ASSUMED_4.2M	W2/44	1.6		1.5			
R2/44	ASSUMED_4.2M	W3/44	0.2	1.8	0.2	1.6	0.2	10.5
R3/44	ASSUMED_4.3M	W4/44	0.9		0.7			
R3/44	ASSUMED_4.3M	W5/44	0.3	1.1	0.2	0.9	0.2	14.3
R4/44	ASSUMED_4.3M	W6/44	0.2		0.2			
R4/44	ASSUMED_4.3M	W7/44	0.5	0.7	0.5	0.7	0.0	1.2



NSL ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

NSL						
Room	Room Use	Whole Room sq ft	Existing sq ft	Proposed sq ft	Loss sq ft	%Loss

7-19 Duke Street

R1/141	ASSUMED_LIVINGROOM_6.3M	343.7	304.1	302.4	1.7	0.6
R2/141	ASSUMED_LIVINGROOM_6.3M	282.8	267.8	267.9	-0.1	0.0
R3/141	ASSUMED_LIVINGROOM_6.3M	280.7	277.3	277.3	0.0	0.0
R4/141	ASSUMED_LIVINGROOM_6.3M	283.0	282.9	282.9	0.0	0.0
R5/141	ASSUMED_LIVINGROOM_6.3M	269.2	264.7	264.7	0.0	0.0
R1/142	ASSUMED_HALF	266.5	266.5	266.3	0.2	0.1
R2/142	ASSUMED_HALF	218.9	218.9	218.9	0.0	0.0
R3/142	ASSUMED_HALF	216.1	216.0	216.0	0.0	0.0
R4/142	ASSUMED_HALF	254.8	254.1	254.1	0.0	0.0
R5/142	ASSUMED_HALF	234.3	234.3	234.3	0.0	0.0
R1/143	ASSUMED_HALF	153.3	147.2	146.4	0.8	0.5
R2/143	ASSUMED_HALF	148.7	147.1	141.1	6.0	4.1
R3/143	ASSUMED_HALF	161.2	158.9	158.9	0.0	0.0
R4/143	ASSUMED_HALF	220.4	220.4	220.4	0.0	0.0
R5/143	ASSUMED_HALF	205.9	205.8	205.8	0.0	0.0
R1/144	ASSUMED_HALF	174.6	173.9	173.9	0.0	0.0
R2/144	ASSUMED_HALF	164.9	164.9	164.9	0.0	0.0

Dukesbrige Chambers, Duke Street

R1/161	LKD	145.3	96.1	96.1	0.0	0.0
R2/161	BEDROOM	105.2	78.5	78.5	0.0	0.0
R3/161	STUDIO	273.0	157.1	150.6	6.5	4.1
R1/162	LKD	145.3	145.1	145.1	0.0	0.0
R2/162	BEDROOM	105.2	94.4	94.4	0.0	0.0
R3/162	STUDIO	273.0	158.0	157.7	0.3	0.2
R1/164	LKD	216.4	207.1	207.1	0.0	0.0
R2/164	BEDROOM	122.0	110.6	110.6	0.0	0.0
R3/164	LKD	232.2	224.8	224.8	0.0	0.0
R4/164	BEDROOM	155.0	95.6	95.6	0.0	0.0
R1/171	BEDROOM	97.7	93.9	93.9	0.0	0.0
R1/172	BEDROOM	97.7	97.6	97.6	0.0	0.0
R1/174	BEDROOM	91.9	91.9	91.9	0.0	0.0

6-12 King's Road

R1/111	LK	232.2	123.3	82.0	41.3	33.5
R2/111	BEDROOM	105.1	98.7	98.7	0.0	0.0
R3/111	BEDROOM	153.2	144.6	138.6	6.0	4.1
R6/111	LK	238.9	200.2	167.3	32.9	16.4
R1/112	LK	269.5	197.1	197.1	0.0	0.0
R2/112	BEDROOM	112.5	111.3	111.3	0.0	0.0
R3/112	BEDROOM	154.3	154.3	154.3	0.0	0.0
R4/112	LK	265.0	262.1	255.1	7.0	2.7



NSL ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

NSL						
Room	Room Use	Whole Room sq ft	Existing sq ft	Proposed sq ft	Loss sq ft	%Loss
R8/112	LK	263.4	245.9	214.3	31.7	12.9
R1/113	LK_ASSUMED	269.5	219.8	218.9	0.9	0.4
R2/113	BEDROOM_ASSUMED	110.4	68.4	68.4	0.0	0.0
R3/113	BEDROOM_ASSUMED	154.3	85.2	85.2	0.0	0.0
R4/113	LK_ASSUMED	259.5	255.7	251.5	4.2	1.6
R8/113	LK_ASSUMED	263.4	257.3	256.9	0.4	0.2

14 King's Road

R1/81	ASSUMED_HALF	139.5	131.6	109.9	21.7	16.5
R1/82	ASSUMED_HALF	139.5	119.6	94.6	25.0	20.9

16 King's Road

R1/61	LD	308.1	302.1	301.6	0.5	0.2
R1/62	BEDROOM	102.5	94.9	81.7	13.2	13.9
R1/63	STUDY	169.8	136.1	136.1	0.0	0.0
R1/71	KITCHEN	61.1	38.6	38.6	0.0	0.0

1-17 Mayflower Court, Highbridge Court

R1/41	ASSUMED_4.2M	120.6	112.5	94.7	17.7	15.7
R2/41	ASSUMED_4.2M	213.1	209.1	206.3	2.8	1.3
R3/41	ASSUMED_4.2M	132.5	128.3	89.0	39.3	30.6
R4/41	ASSUMED	173.8	171.5	171.0	0.5	0.3
R5/41	ASSUMED_4.2M	127.5	94.5	87.9	6.6	7.0
R6/41	ASSUMED_4.2M	137.9	90.1	88.4	1.6	1.8
R1/42	ASSUMED_4.2M	120.6	112.5	99.1	13.4	11.9
R2/42	ASSUMED_4.2M	213.1	209.1	207.4	1.7	0.8
R3/42	ASSUMED_4.2M	132.5	129.7	93.4	36.3	28.0
R1/43	ASSUMED_4.2M	120.6	112.5	104.5	7.9	7.0
R2/43	ASSUMED_4.2M	213.1	209.1	208.8	0.3	0.1
R3/43	ASSUMED_4.3M	141.8	139.0	135.4	3.6	2.6
R4/43	ASSUMED_4.3M	141.0	120.6	120.6	0.0	0.0
R1/44	ASSUMED_4.2M	120.6	112.5	108.3	4.1	3.6
R2/44	ASSUMED_4.2M	213.1	209.1	209.1	0.0	0.0
R3/44	ASSUMED_4.3M	141.8	139.0	139.0	0.0	0.0
R4/44	ASSUMED_4.3M	141.0	125.7	124.7	1.0	0.8



SUNLIGHT ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

APSH														
Room	Window	Room Use	Window				Winter %Loss	Annual %Loss	Room				Winter %Loss	Annual %Loss
			Existing		Proposed				Existing		Proposed			
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH	Winter APSH	Annual APSH		

Dukesbrige Chambers, Duke Street

R3/161	W2/161	STUDIO	2	19	1	18	50.0	5.3	2	19	1	18	50.0	5.3
R3/162	W2/162	STUDIO	2	20	2	20	0.0	0.0	2	20	2	20	0.0	0.0
R1/164	W3/164	LKD	28	82	26	80	7.1	2.4	28	82	26	80	7.1	2.4
R2/164	W4/164	BEDROOM	28	82	26	80	7.1	2.4	28	82	26	80	7.1	2.4
R3/164	W2/164	LKD	25	76	25	76	0.0	0.0	25	76	25	76	0.0	0.0
R4/164	W1/164	BEDROOM	15	51	14	50	6.7	2.0	15	51	14	50	6.7	2.0
R1/171	W1/171	BEDROOM	7	40	5	38	28.6	5.0						
R1/171	W2/171	BEDROOM	3	27	1	24	66.7	11.1						
R1/171	W3/171	BEDROOM	0	0	0	0	-	-	7	41	5	38	28.6	7.3
R1/172	W1/172	BEDROOM	12	58	6	52	50.0	10.3						
R1/172	W2/172	BEDROOM	5	31	2	28	60.0	9.7						
R1/172	W3/172	BEDROOM	0	0	0	0	-	-	12	59	7	54	41.7	8.5



SUNLIGHT ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

APSH														
Room	Window	Room Use	Window				Winter %Loss	Annual %Loss	Room				Winter %Loss	Annual %Loss
			Existing		Proposed				Existing		Proposed			
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH	Winter APSH	Annual APSH		
R1/174	W1/174	BEDROOM	25	75	23	73	8.0	2.7						
R1/174	W2/174	BEDROOM	5	30	4	29	20.0	3.3						
R1/174	W3/174	BEDROOM	0	5	0	5	-	0.0	25	80	24	79	4.0	1.3

6-12 King's Road

R1/111	W1/111	LK	3	3	0	0	100.0	100.0						
R1/111	W2/111	LK	5	5	2	2	60.0	60.0						
R1/111	W3/111	LK	1	1	0	0	100.0	100.0	6	6	2	2	66.7	66.7
R2/111	W4/111	BEDROOM	17	52	12	47	29.4	9.6	17	52	12	47	29.4	9.6
R3/111	W5/111	BEDROOM	20	65	15	60	25.0	7.7	20	65	15	60	25.0	7.7
R6/111	W8/111	LK	18	45	12	39	33.3	13.3	18	45	12	39	33.3	13.3
R1/112	W1/112	LK	8	39	5	36	37.5	7.7						
R1/112	W2/112	LK	10	40	7	37	30.0	7.5						
R1/112	W3/112	LK	8	34	6	32	25.0	5.9	12	48	9	45	25.0	6.3
R2/112	W4/112	BEDROOM	17	59	13	55	23.5	6.8	17	59	13	55	23.5	6.8



SUNLIGHT ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

APSH														
Room	Window	Room Use	Window				Winter %Loss	Annual %Loss	Room				Winter %Loss	Annual %Loss
			Existing		Proposed				Existing		Proposed			
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH				
R3/112	W5/112	BEDROOM	20	60	15	55	25.0	8.3						
R3/112	W6/112	BEDROOM	17	51	14	48	17.6	5.9	20	63	15	58	25.0	7.9
R4/112	W7/112	LK	26	81	18	73	30.8	9.9						
R4/112	W9/112	LK	13	45	6	38	53.8	15.6	26	84	18	76	30.8	9.5
R8/112	W12/112	LK	23	56	18	51	21.7	8.9	23	56	18	51	21.7	8.9
R1/113	W1/113	LK_ASSUMED	15	54	15	54	0.0	0.0						
R1/113	W2/113	LK_ASSUMED	17	59	17	59	0.0	0.0						
R1/113	W3/113	LK_ASSUMED	18	62	18	62	0.0	0.0	18	62	18	62	0.0	0.0
R2/113	W4/113	BEDROOM_ASSUMED	22	79	22	79	0.0	0.0	22	79	22	79	0.0	0.0
R3/113	W5/113	BEDROOM_ASSUMED	22	78	21	77	4.5	1.3	22	78	21	77	4.5	1.3
R4/113	W6/113	LK_ASSUMED	28	82	23	77	17.9	6.1						
R4/113	W8/113	LK_ASSUMED	15	45	11	41	26.7	8.9	28	87	24	83	14.3	4.6
R8/113	W11/113	LK_ASSUMED	27	81	22	76	18.5	6.2						
R8/113	W12/113	LK_ASSUMED	28	81	22	75	21.4	7.4	29	85	24	80	17.2	5.9



SUNLIGHT ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

APSH														
Room	Window	Room Use	Window				Winter %Loss	Annual %Loss	Room				Winter %Loss	Annual %Loss
			Existing		Proposed				Existing		Proposed			
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH	Winter APSH	Annual APSH		

14 King's Road

R1/81	W1/81	ASSUMED_HALF	15	55	10	50	33.3	9.1	15	55	10	50	33.3	9.1
R1/82	W1/82	ASSUMED_HALF	22	68	16	62	27.3	8.8	22	68	16	62	27.3	8.8

16 King's Road

R1/61	W1/61	LD	17	63	12	58	29.4	7.9						
R1/61	W2/61	LD	0	7	0	7	-	0.0						
R1/61	W3/61	LD	0	6	0	6	-	0.0	17	70	12	65	29.4	7.1
R1/62	W1/62	BEDROOM	23	70	17	64	26.1	8.6	23	70	17	64	26.1	8.6
R1/63	W1/63	STUDY	26	73	23	70	11.5	4.1	26	73	23	70	11.5	4.1
R1/71	W1/71	KITCHEN	8	31	6	28	25.0	9.7	8	31	6	28	25.0	9.7

1-17 Mayflower Court, Highbridge Court

R1/41	W1/41	ASSUMED_4.2M	20	58	19	51	5.0	12.1	20	58	19	51	5.0	12.1
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SUNLIGHT ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

APSH														
Room	Window	Room Use	Window				Winter %Loss	Annual %Loss	Room				Winter %Loss	Annual %Loss
			Existing		Proposed				Existing		Proposed			
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH	Winter APSH	Annual APSH		
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH	Winter APSH	Annual APSH		
R2/41	W2/41	ASSUMED_4.2M	20	57	19	47	5.0	17.5						
R2/41	W3/41	ASSUMED_4.2M	21	57	21	46	0.0	19.3	22	59	21	49	4.5	16.9
R3/41	W4/41	ASSUMED_4.2M	22	56	18	39	18.2	30.4	22	56	18	39	18.2	30.4
R4/41	W5/41	ASSUMED	21	47	15	27	28.6	42.6						
R4/41	W6/41	ASSUMED	19	49	11	24	42.1	51.0						
R4/41	W7/41	ASSUMED	0	4	0	0	-	100.0	21	51	15	31	28.6	39.2
R1/42	W1/42	ASSUMED_4.2M	24	63	22	55	8.3	12.7	24	63	22	55	8.3	12.7
R2/42	W2/42	ASSUMED_4.2M	23	61	22	52	4.3	14.8						
R2/42	W3/42	ASSUMED_4.2M	23	61	22	50	4.3	18.0	24	62	22	52	8.3	16.1
R3/42	W4/42	ASSUMED_4.2M	23	61	19	44	17.4	27.9	23	61	19	44	17.4	27.9
R1/43	W1/43	ASSUMED_4.2M	25	65	23	58	8.0	10.8	25	65	23	58	8.0	10.8
R2/43	W2/43	ASSUMED_4.2M	24	64	23	56	4.2	12.5						
R2/43	W3/43	ASSUMED_4.2M	24	64	22	54	8.3	15.6	24	64	23	56	4.2	12.5
R3/43	W4/43	ASSUMED_4.3M	24	63	19	50	20.8	20.6						



SUNLIGHT ANALYSIS

DUKES BRIDGE HOUSE, READING
EXISTING VS PROPOSED SCHEME 01/07/20
P2082 - Rel13

APSH														
Room	Window	Room Use	Window				Winter %Loss	Annual %Loss	Room				Winter %Loss	Annual %Loss
			Existing		Proposed				Existing		Proposed			
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH	Winter APSH	Annual APSH		
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH	Winter APSH	Annual APSH		
R3/43	W5/43	ASSUMED_4.3M	2	18	0	11	100.0	38.9	24	64	19	54	20.8	15.6
R1/44	W1/44	ASSUMED_4.2M	23	58	21	51	8.7	12.1	23	58	21	51	8.7	12.1
R2/44	W2/44	ASSUMED_4.2M	25	67	23	60	8.0	10.4						
R2/44	W3/44	ASSUMED_4.2M	25	62	22	54	12.0	12.9	25	67	23	60	8.0	10.4
R3/44	W4/44	ASSUMED_4.3M	23	60	19	49	17.4	18.3						
R3/44	W5/44	ASSUMED_4.3M	2	15	0	7	100.0	53.3	23	61	19	51	17.4	16.4

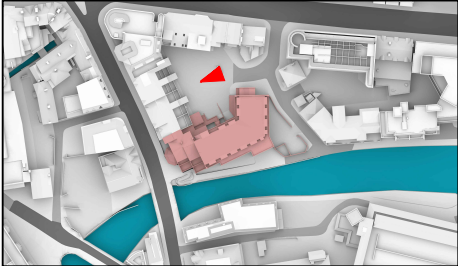
Appendix 3:

Window Maps



Sources: Point 2 Surveyors
Site Photos
Reading Borough Council
Layouts information
Emre Arolat Architecture
Proposed Scheme received 28/03/19
Model.skp
Proposed Scheme received 09/04/19
Model_without windows2_op3.skp
Proposed Scheme received 12/04/19
model_large.skp

Key:



Project: Dukesbridge House
Reading

Drawn By: FV / BW

Title: Window Locations
7-19 Duke Street

Dwg No: **P2082_WWM01**

Point 2 Surveyors Ltd,
3rd Floor,
17 Slingsby Place,
London WC2E 9AB
0207 836 5828
www.point2surveyors.com

POINT
surveyors

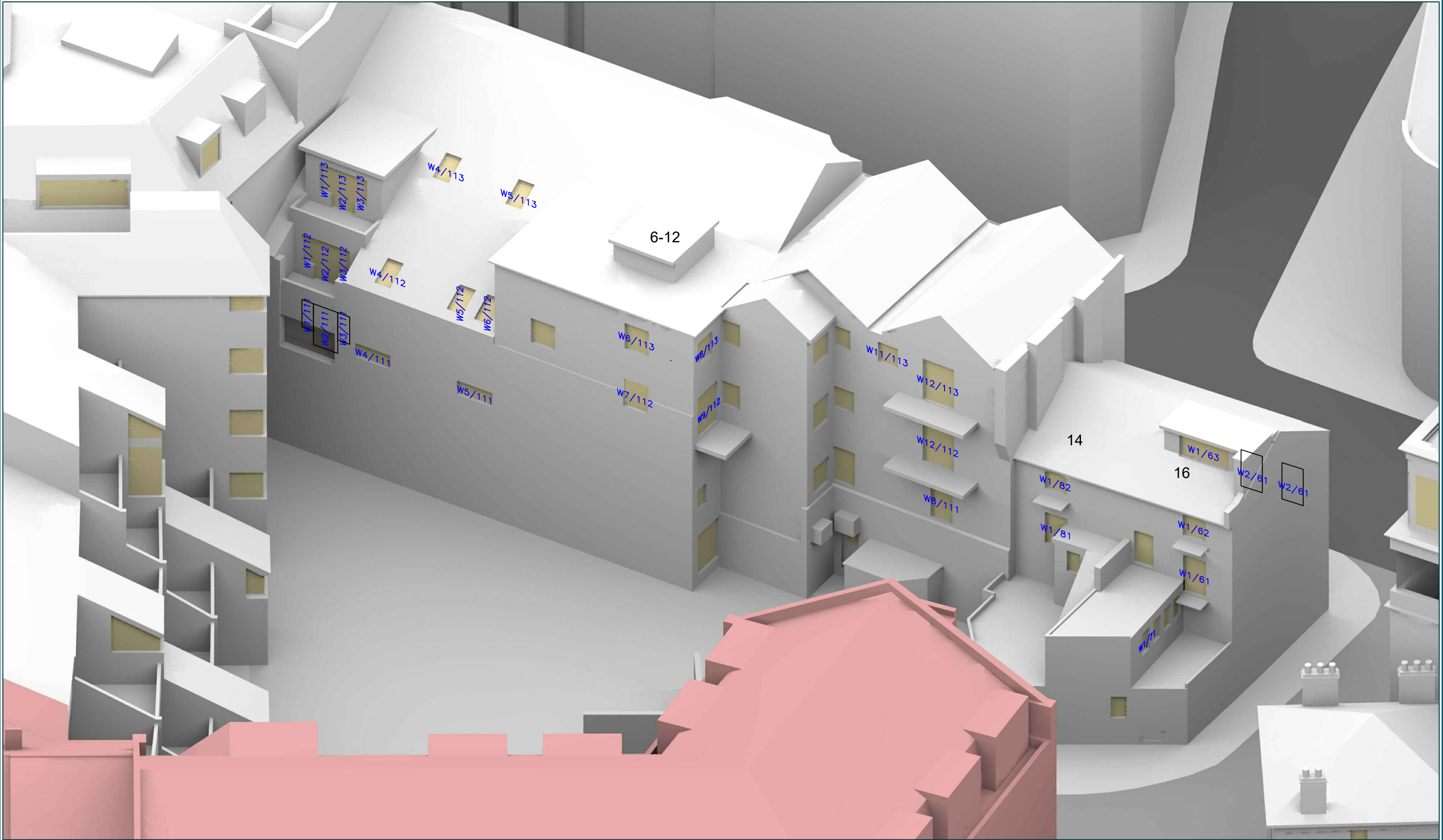
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Date : -

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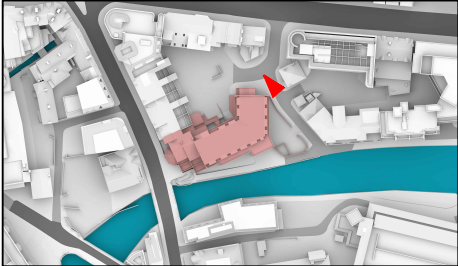
Date: Apr 19

Rel: 01



Sources: Point 2 Surveyors
Site Photos
Reading Borough Council
Layouts information
Emre Arolat Architecture
Proposed Scheme received 28/03/19
Model.skp
Proposed Scheme received 09/04/19
Model_without windows2_op3.skp
Proposed Scheme received 12/04/19
model_large.skp

Key:



Project: Dukesbridge House
Reading

Title: Window Locations
6-16 King's Road

Point 2 Surveyors Ltd,
3rd Floor,
17 Slingsby Place,
London WC2E 9AB
0207 836 5828
www.point2surveyors.com



Scheme Confirmed: -

Date : -

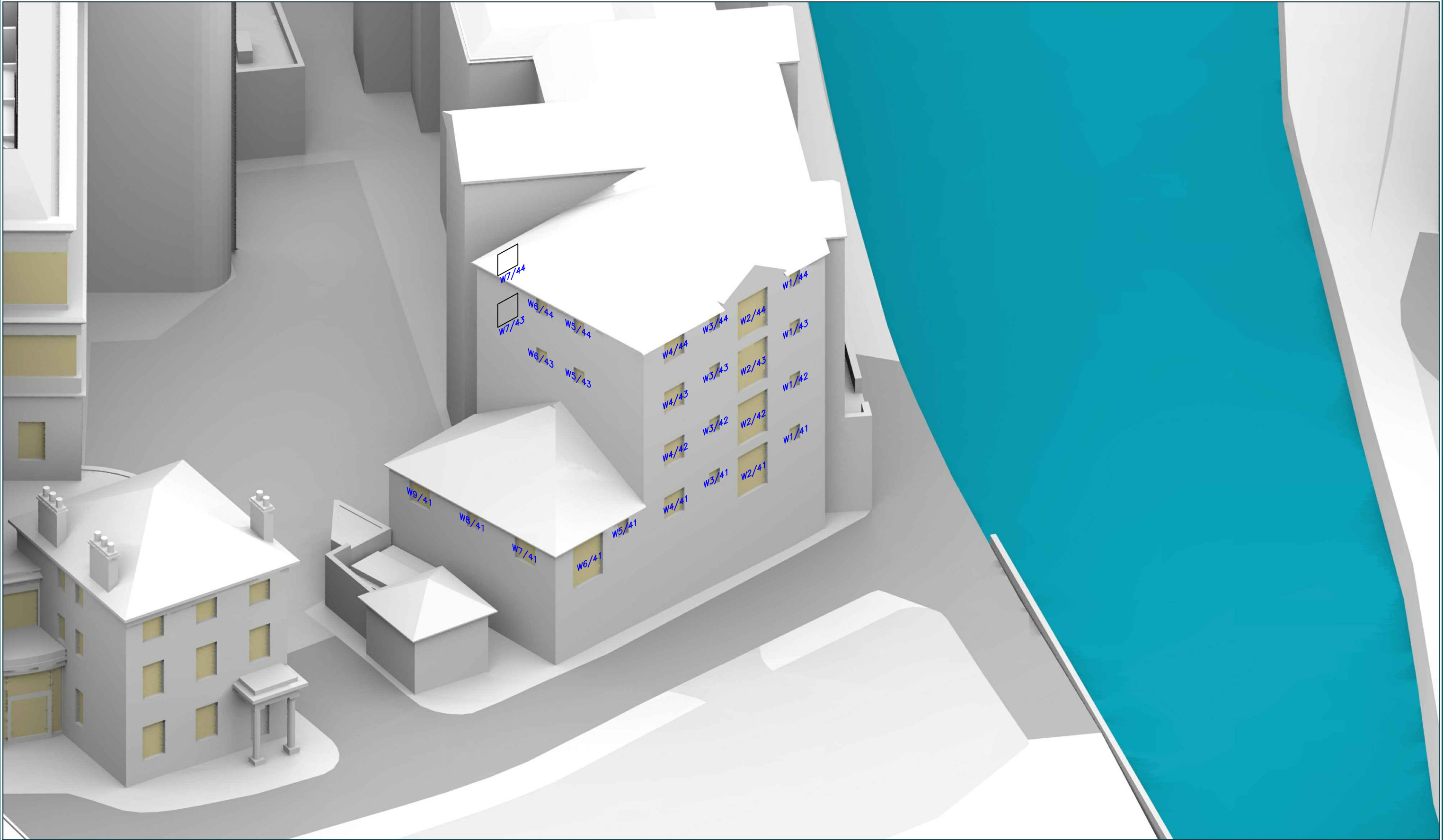
Drawn By: FV / BW

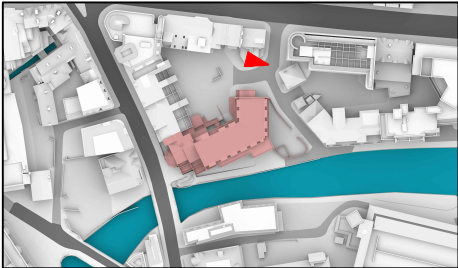
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Date: Apr 19

Dwg No: **P2082_WWM02**

Rel: 01



Sources: Point 2 Surveyors Site Photos Reading Borough Council Layouts information Emre Arolat Architecture Proposed Scheme received 28/03/19 Model.skp Proposed Scheme received 09/04/19 Model_without windows2_op3.skp Proposed Scheme received 12/04/19 model_large.skp		Key: 		Project: Dukesbridge House Reading			Title: Window Locations 1-17 Mayflower Court, Highbridge Court		Point 2 Surveyors Ltd, 3rd Floor, 17 Slingsby Place, London WC2E 9AB 0207 836 5828 www.point2surveyors.com	
Scheme Confirmed: -		Date : -		Drawn By: FV / BW		Scale: N/S @ A3	Date: Apr 19	Dwg No: P2082_WWM03	Rel: 01	