

DUKESBRIDGE HOUSE READING

SCHEME INTERNAL DAYLIGHT REPORT

DIRECTOR: LIAM DUNFORD
CLIENT: LIPMAN PROPERTIES
DATE: JULY 2020
VERSION: DR1
PROJECT: PP082

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Appendices

- Appendix 1:** Drawings
- Appendix 2:** Technical Analysis

1 Introduction

- 1.1 This report considers the internal daylight amenity of the proposed development of Dukesbridge House. The site is located in Reading.

Sources of Information

- 1.2 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

Emre Arolat Architecture

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

comment.skp

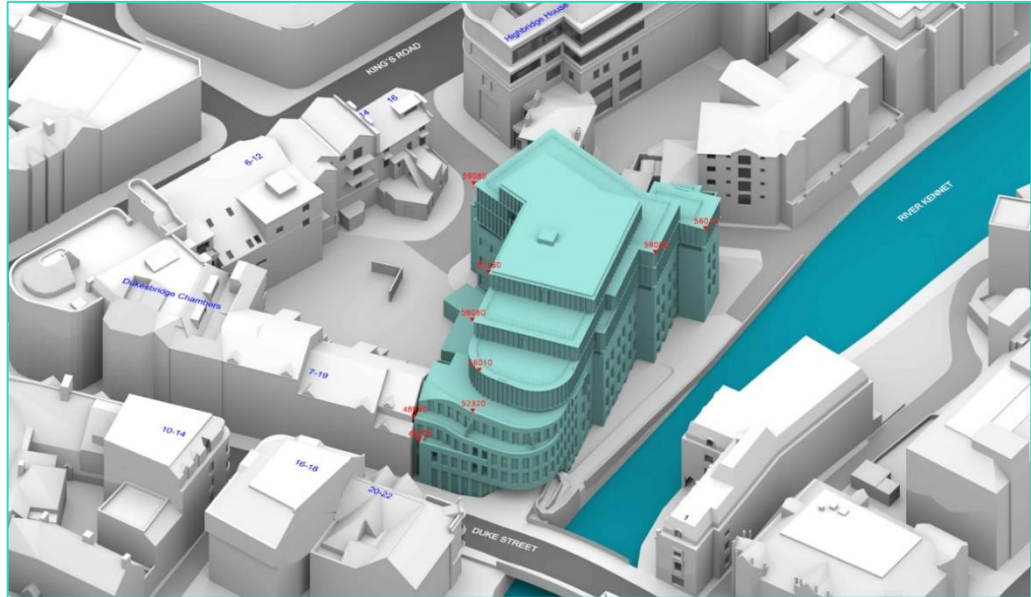
2 Planning Overview

- 2.1 Through the planning process the local authority will wish to be reassured that the construction of the new scheme will benefit from acceptable levels of internal daylight amenity within BRE and British Standard Guidance.
- 2.2 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.
- 2.3 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 internal daylight amenity will be one of a number of planning considerations which the local authority will weigh

3 Methodology

- 3.1 In assessing the daylight to the main habitable spaces within the proposed accommodation, as recommended by the guidelines, we have calculated the ADF. With reference to BS8206 Part 2:2008 and Appendix C of the BRE Report, in calculating the values, we have assumed light internal finishes giving the following reflectances: floors 0.4 (light wood or cream carpet), ceilings 0.85 (white paint), internal walls 0.81 (pale cream paint). We have assumed double glazing with a transmittance of 0.68, and have allowed for a maintenance factor of 8% (appropriate for urban residential properties).
- 3.2 This daylight assessment method considers the transmittance of the glazing to the room in question (i.e. how much light gets through the window glass); the net glazed area of the window in question; the total area of the room surfaces (ceiling, walls, floor and windows) and their reflectances; and the angle of visible sky reaching the window/windows in question.
- 3.3 The BRE guidelines / British Standard sets the following recommended ADF levels for habitable room uses:
- 1% Bedroom
 - 1.5% Living Room
 - 2.0% Kitchens
- 3.4 With regard to the combined Living/Kitchen/Dining Rooms (LKDs), strictly the presence of a kitchen means that the target ADF value is 2%. However, as is common in modern residential developments, the kitchen areas are located to the rear of these spaces, furthest from the windows. As such they will receive lower levels of daylight and the ADF target of 1.5% for a living room, which is the principal use, is appropriate for these combined spaces.
- 3.5 It is important to remember that the BRE Guide states that ‘the advice given here is not mandatory and should not be seen as an instrument of planning policy’. Furthermore, daylight criteria should be ‘interpreted flexibly because natural lighting is only one of many factors’. Based upon these statements it is important to apply the guidance and target levels sensibly and flexibly taking into account the context of the site as a conversion of an existing building

4 The Proposal

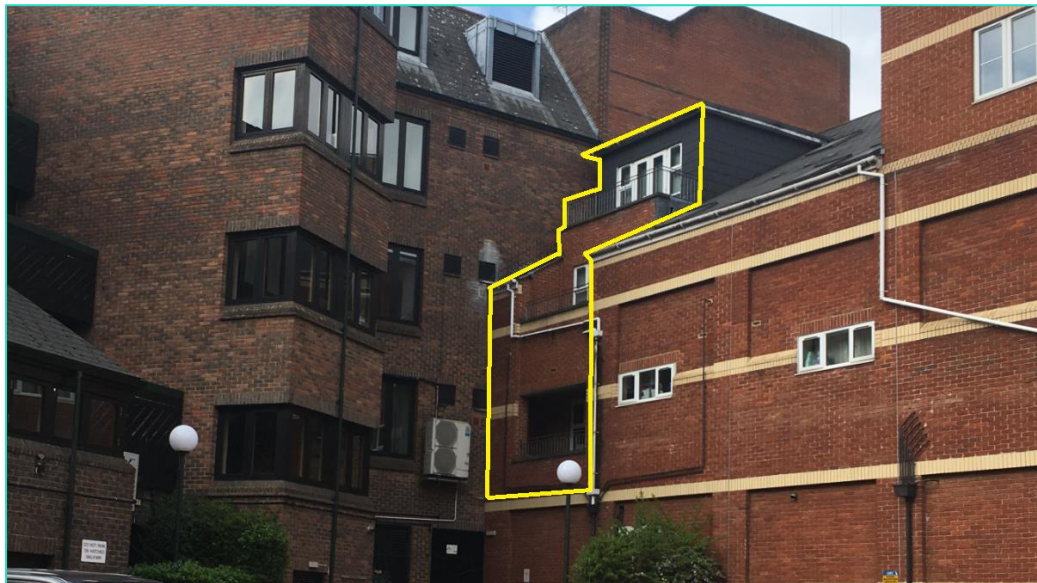


Drawing Number: P2082/55 – 3D View – Proposed Scheme

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

5 Internal Daylight Study

- 5.1 Full and detailed analysis annotated upon floor layout plans are provided within Appendix 2 to show both the locations and configuration of the rooms which have been analysed. These drawings are referenced: P2082/INT/01-03.
- 5.2 26 rooms have been analysed to establish the ADF levels within. This represents all of the residential first, second and third floor rooms within the Proposed Development. Since these are the lowest residential floors, the analysis results represent a worst-case scenario. Daylight amenity will generally improve the higher within the building a residential room is located since the windows serving the rooms will, generally, have a greater view of the sky.
- 5.3 22 of the 26 rooms (85%) assessed meet the required ADF value appropriate for the rooms' usage with many of the rooms achieving above the required minimums.
- 5.4 Of the 4 rooms which do not reach the recommended ADF, there are 3 bedrooms and 1 living/kitchen/dining room (LKD).
- 5.5 The LKD (R7/511) achieves a 0.7% ADF against a target of 1.5%. This is largely due to the location of the room being in a slightly more constrained element of the scheme, which is often architecturally unavoidable. Whilst this room performs below the desired target, the precedence is already somewhat established that a lower target has been considered acceptable. I draw decision makers attention to 6-12 King's Road, which is discussed and analysed in the submitted Daylight and Sunlight Report July 2020.



Site Photograph Denoting Living Rooms in 6-12 King's Road

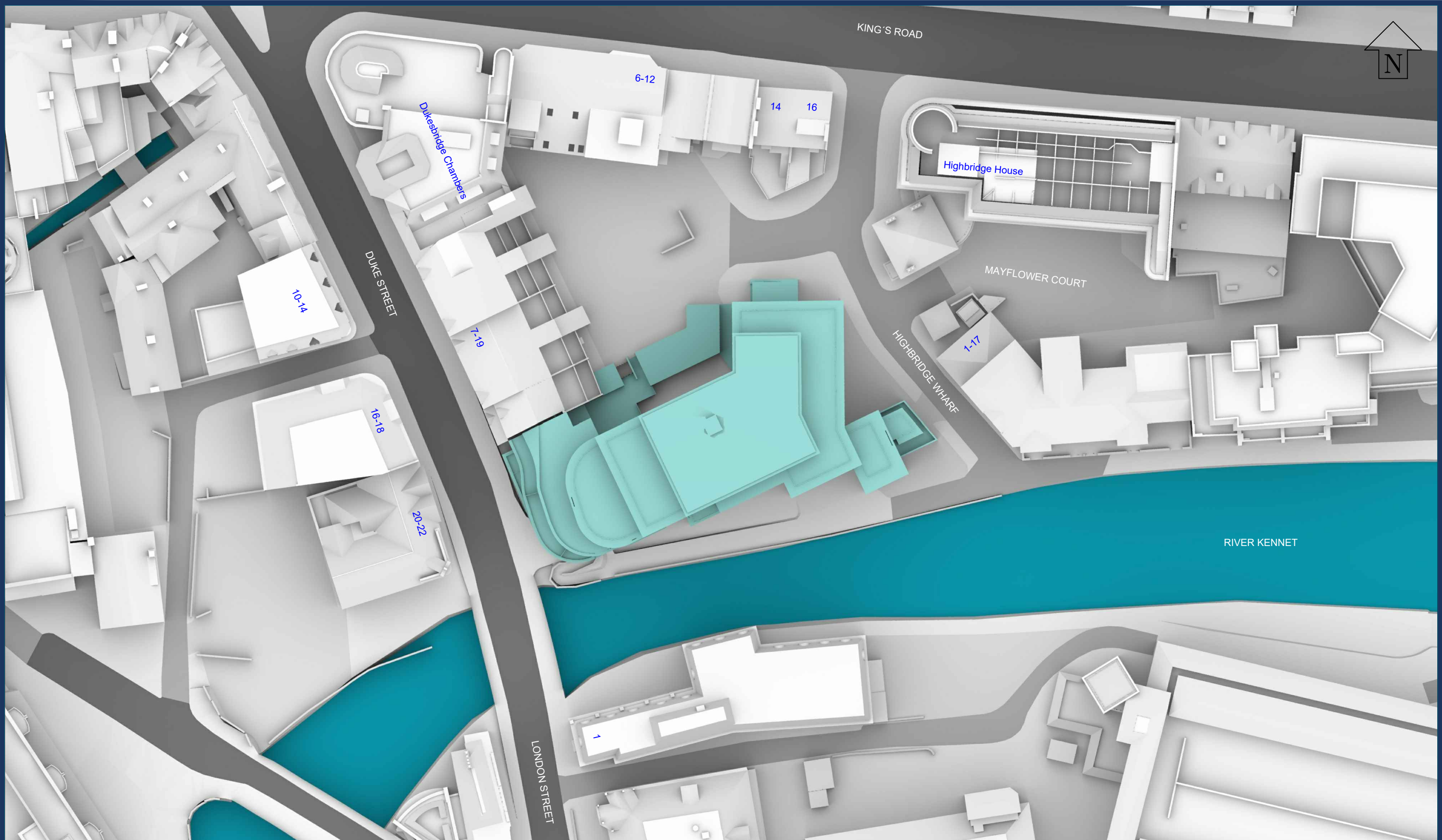
- 5.6 The assessment of these Living Rooms without the Proposed Development in place confirms there are established ADF levels of 0.1%, 0.5%, 0.8% and 1% within the locality.
- 5.7 The three bedrooms (R7/511, R8/511 and R2/152) achieve ADF values of 0.5%, 0.7% and 0.9% against a desired target of 1%.
- 5.8 The two rooms achieving 0.5% and 0.7% ADF are located recessed behind a balcony which naturally limits the amount of sky that can be received at the window face; but the balcony provides an added amenity to the unit which, if removed, would result in these two bedrooms achieving the desired target value.
- 5.9 The remaining bedroom achieves a 0.9% ADF, which is only marginally below the 1% target.

6 Conclusion

- 6.1 Section 5 above, and the appended drawings to this report (P2082/INT/01-03) show that the scheme demonstrates a good level of compliance with BRE Guidance in terms of internal daylight amenity with over 85% of the habitable rooms on the lowest 3 floors meeting their ADF target value in the 'as built' position. It should be borne that we have assessed a 'worst case scenario' and if all residential units across all floors were assessed, then the overall rate of compliance would be superior.
- 6.2 External amenity areas are readily sought after by occupants and should be considered as a benefit to the property, not a constraint. The position in this regard should be considered holistically, and, once the room is considered with the additional amenity areas, the internal daylight position would only appear to improve surpasses the BRE recommended ADF target value for the given room use.
- 6.3 The scheme has been designed well to allow good levels of daylight to penetrate into the proposed units and distribute throughout the rooms efficiently – especially in consideration of the it being located in an urban area, whereas the BRE guidelines are predicated upon a typically suburban environment.
- 6.4 We fully support this scheme in terms of internal daylight amenity.

Appendix 1:

Drawings



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

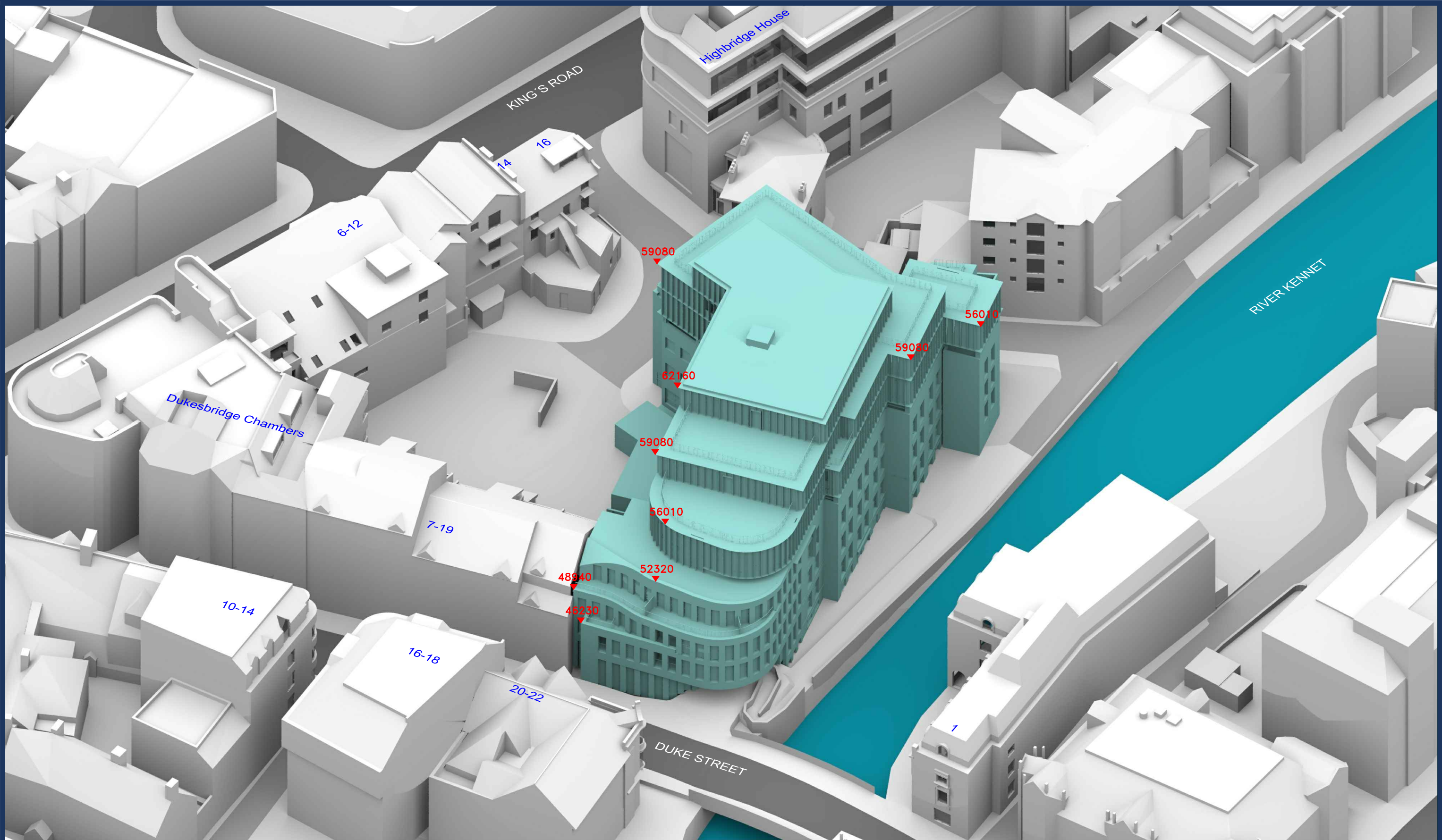
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1:500 @ A3

Date:
July 20

Dwg No:
P2082/54

Rel:
13





Sources: Point 2 Surveyors
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comment.skp

Key:  Existing Buildings
 Proposed Scheme

All Heights in mm AOD

Scheme Confirmed:

-

Date:

-

Project: Dukesbridge House
Reading

Drawn By:
BW

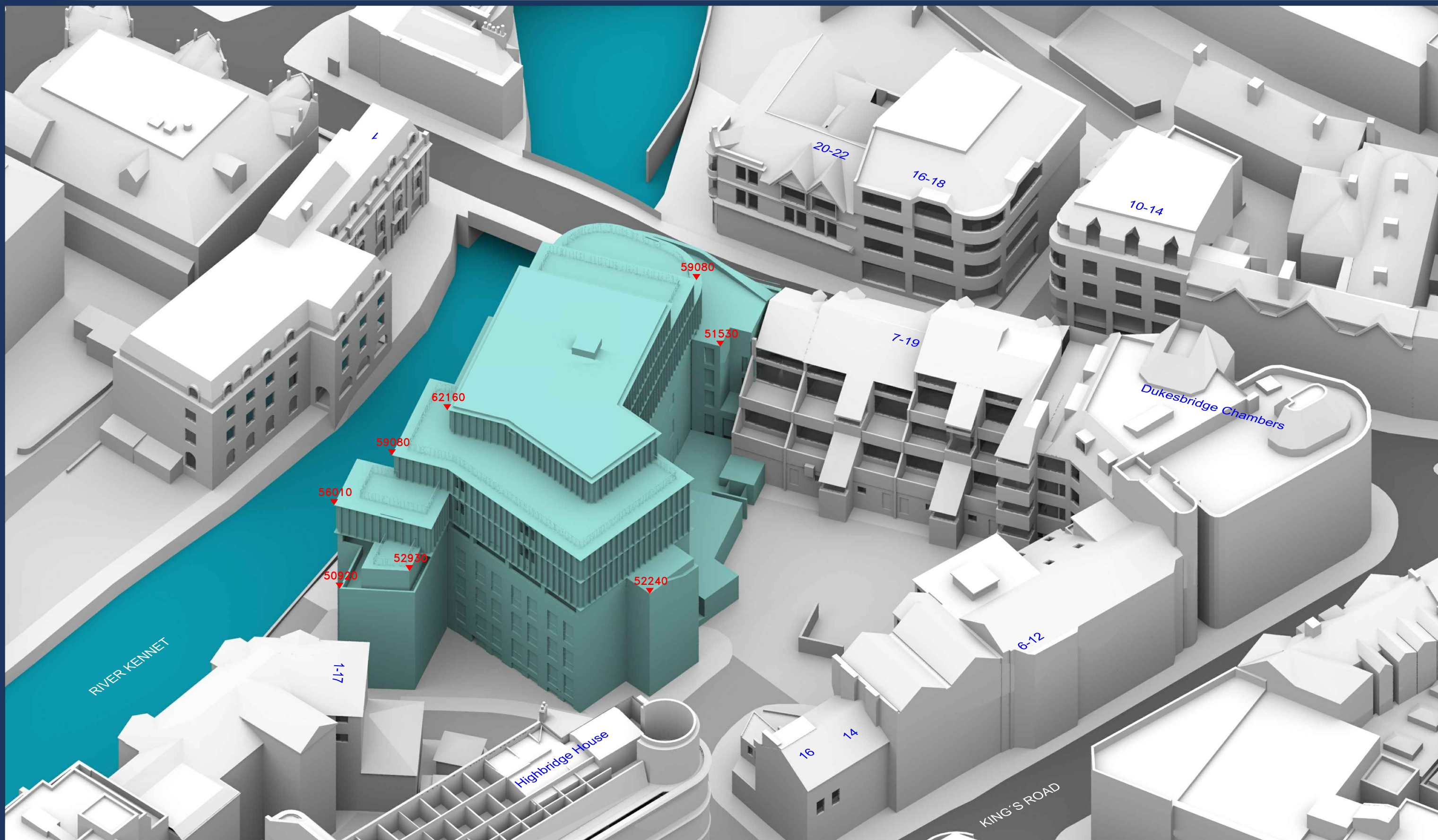
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NTS @ A3

Date:
July 20

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

Dwg No: **P2082/55**

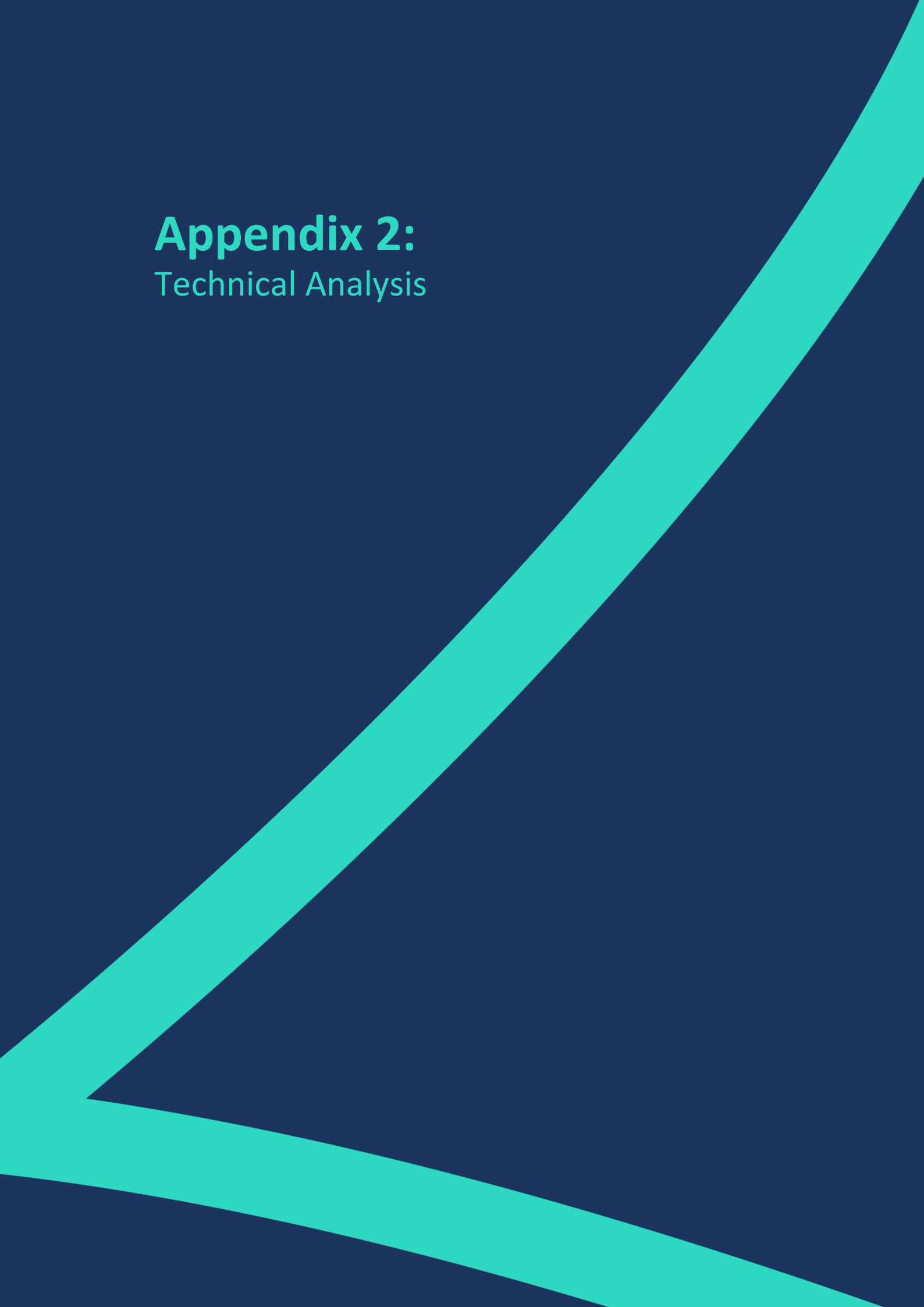
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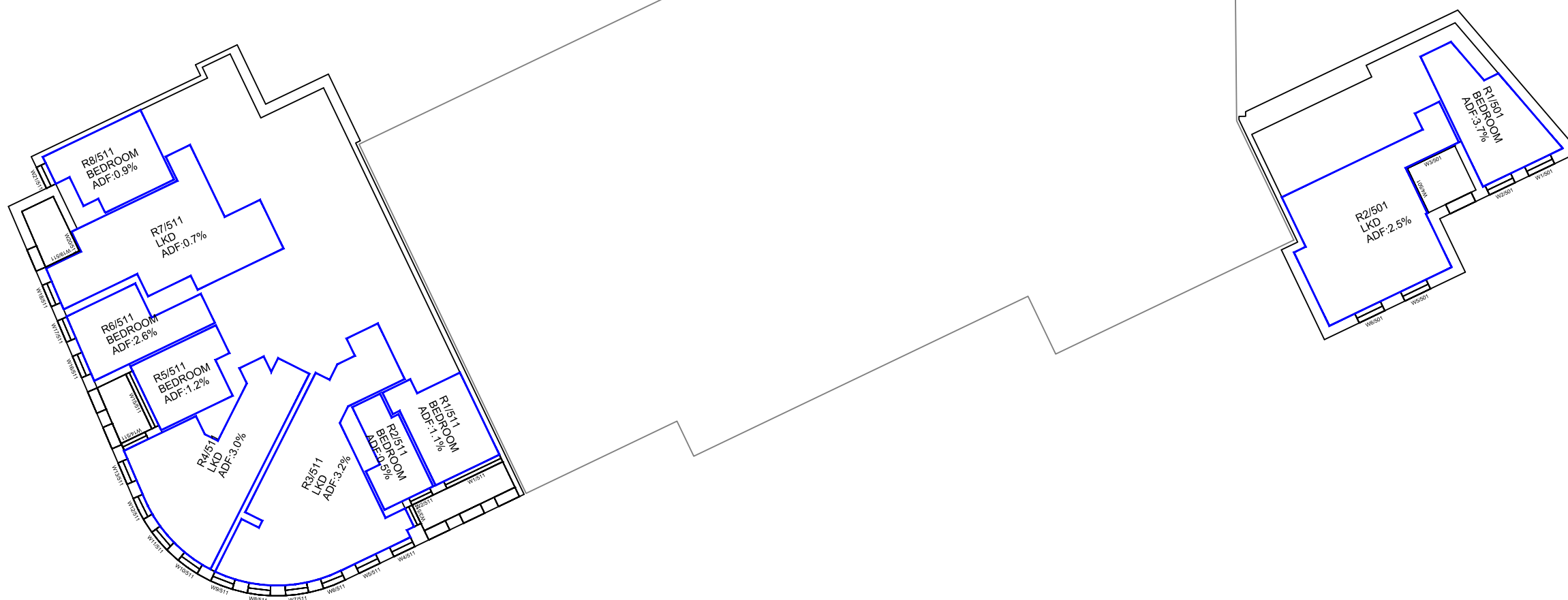
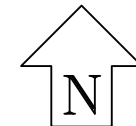


Sources: Point 2 Surveyors Site Photos Layouts - 7-19 Duke Street Herts Engineering Point Cloud Survey Reading Borough Council Layouts information Emre Arolat Architecture Proposed Scheme 3D Model (received 01/07/20) comment.skp		Key: Existing Buildings Proposed Scheme		Project: Dukesbridge House Reading		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		Dwg No: P2082/56	
						Rel: 13	

Appendix 2:

Technical Analysis





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

Key:

Project: Dukesbridge House
Reading

Title: Room Layouts & ADF Results
Proposed Scheme Received 01/07/20
First Floor

Scheme Confirmed:
-

Date:
-

Drawn By:
BW

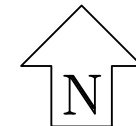
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Date:
July 20

Dwg No:
P2082/INT/01

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:

Project: Dukesbridge House
Reading

Title: Room Layouts & ADF Results
Proposed Scheme Received 01/07/20
Second Floor

Scheme Confirmed: -

Date: -

Drawn By: BW

Scale: 1:200 @ A3

Date: July 20

Dwg No: P2082/INT/02

Rel: 13





Sources: Point 2 Surveyors
Site Photos
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comment.skp

Key:

Project: Dukesbridge House
Reading

Title: Room Layouts & ADF Results
Proposed Scheme Received 01/07/20
Third Floor

Scheme Confirmed:
-

Date:
-

Drawn By:
BW

Scale:
1:200 @ A3

Date:
July 20

Dwg No:
P2082/INT/03

Rel:
13

