Daylight & Sunlight Analysis

18-23 Hand Court
High Holborn Estate
SRG Holborn Ltd.

26th September 2018

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Daylight and Sunlight Report for the Proposed Development at

18-23 Hand Court, London WC1V 6RZ

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Date: 19 September 2018
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1. Executive Summary

1.1 *Assessment Criteria*

1.1.1 The assessment below is based on the following standards, the Building Research Establishment Report 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice' 2nd Edition, 2011(BRE guide) and British Standard 8206 – 2: 2008 – 'Lighting for Buildings – Part 2: Code of Practice for Daylighting' (which reference is made within the BRE guide).

1.2 *Effect of Proposed Development on Surrounding Buildings*

1.2.1 *Daylight*

Of 174 windows assessed under the Vertical Sky Component test, 83% (145) will continue to meet the target values.

With daylight distribution analysis, of the 171 rooms tested, 89% (152) of these rooms meet target values.

Offices are generally lit when they are occupied, it is considered that occupants will not perceive any losses in daylight and the rooms and windows that fell short are, we consider, to be acceptable.

1.2.2 *Sunlight*

Of the 111 windows analysed, 72% (80) of these windows. In an urban context such as this, we consider this situation to be acceptable.

Whilst there has been some reduction in sunlight, we consider this to be acceptable in an urban context.

1.3 *Summary of Results*

The results are considered to be acceptable and should be viewed with the following material considerations:

Where windows and rooms fall short of the target values, it is arguable that occupants will not notice the difference, as offices mainly are artificially lit when occupied.

In addition, the BRE guidelines are not intended to be mandatory or applied rigidly. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design.

2. Introduction

2.1 *Scope*

2.1.1 Lambert Smith Hampton (LSH) have been instructed by SRG Holborn Limited to establish the impact on daylight and sunlight to the surrounding properties which may result from the proposed development at 18-23 Hand Court, London WC1V 6RZ.

2.2 *Camden Council's Planning Policy*

2.2.1 Camden Council's Local Plan 2017, 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:

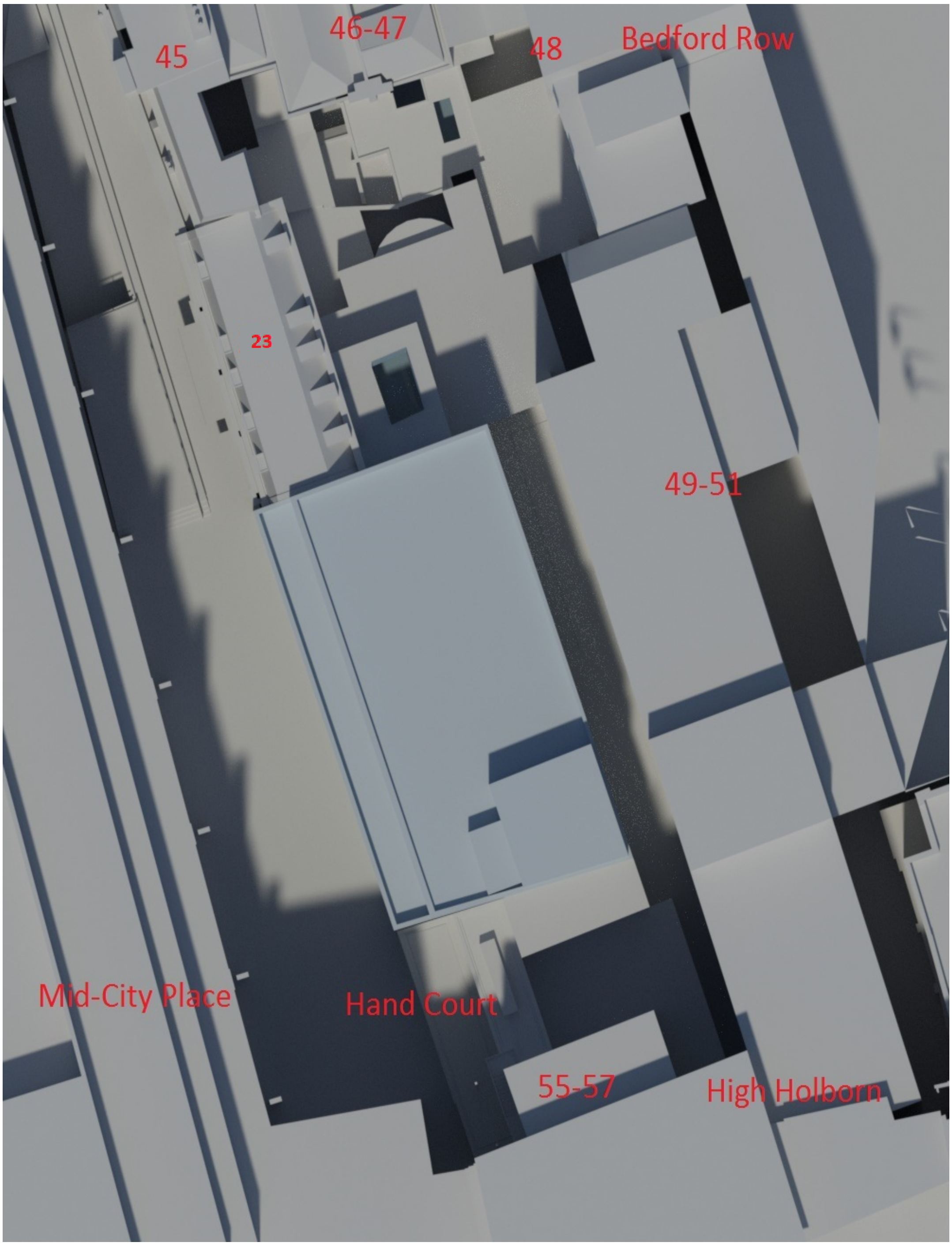
2.2.2 Building Research Establishment (BRE) Report "Site Layout Planning for Daylight and Sunlight – a guide to good practice, 2nd Edition, 2011" ("the BRE guide")

2.2.3 Camden Council's Local Plan 2017 states:

Sunlight, daylight and overshadowing

2.2.4 Loss of daylight and sunlight can be caused if spaces are overshadowed by development. To assess whether acceptable levels of daylight and sunlight are available to habitable, outdoor amenity and open spaces, the Council will take into account the most recent guidance published by the Building Research Establishment (currently the Building Research Establishment's Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice 2011).

2.2.5 The buildings around the proposed development site, that have been tested, are shown on the site plan below:


45
46-47
48
Bedford Row
23
49-51
Mid-City Place
Hand Court
55-57
High Holborn

Site Plan

2.3 *Information Provided*

2.3.1 Our assessment is based on the scheme drawings shown in table 1 below, these were provided by Buckley Gray Yeoman:

Table 1: Scheme Drawings

Drawing Number	Revision	Title	Date
975_1821HC-GA-00	-	Ground Floor Plan	Aug 18
975_1821HC-GA-03	-	Third Floor Plan	Aug 18
975_1821HC-GA-04	-	Fourth Floor Plan	Aug 18
975_1821HC-GA-RF	-	Roof Plan	Aug 18
975_1821HC-GA-TYP	-	Typical Floor Plan	Aug 18
171272.skp	-	3D model	Aug 18

2.3.2 We have also undertaken a site inspection to record the location of windows within the surrounding buildings. Access was not available to any of the adjoining properties, therefore, our assessment is based on assumptions of room uses etc.

3. Assessment & Results – Surrounding Properties

3.1 *Daylight*

3.1.1 In accordance with the BRE guide and our site inspection, the following buildings found in table 2 below required assessment:

Table 2: Surrounding Properties

Building	**Assumed Use**	**Position (in relation to the development)**
Mid-City Place	Office	North
49-51 Bedford Row	Office	East
48 Bedford Row	Office	Northeast
46-47 Bedford Row	Office	Northeast
45 Bedford Row	Office	Northeast
55-57 High Holborn	Office	North
23 Hand Court	Office/Residential	North/Northeast

3.2 Vertical Sky Component (VSC)

3.2.1 The results of our VSC analysis are found in Appendix C. Table 3 below contains a summary:

Table 3: VSC Summary

Property	Vertical Sky Component Test		
	No. of Windows Tested	No. of Windows Passed VSC Test	No. of Windows Failed VSC Test
Mid-City Place	47	40	7
49-51 Bedford Row	84	61	23
48 Bedford Row	8	8	0
46-47 Bedford Row	10	10	0
45 Bedford Row	5	5	0
55-57 High Holborn	15	12	3
23 Hand Court	13	9	4
Total	**174**	**145**	**37**

3.2.2 The results indicate that with the proposed development in place the vast majority of windows surrounding the site will continue to receive adequate daylight, as defined by the BRE guidance, a very small number failed to meet the requirements and we comment as follows:

Mid-City Place

3.2.3 Of the 47 windows tested 85% (40) will continue to meet the target values as set out in the BRE guidelines.

3.2.4 The 7 windows that fell short of the target values are located on the ground and first floors. Of these windows, 1 fell short by 1%, 2 windows by 3% and 1 by 6%. Offices are generally lit by artificial lighting all of the time they are occupied, so the loss of daylight to windows, that already receive low levels of daylight, arguably will not be noticed by occupants.

3.2.5 Noting comments above and putting this into an urban context, with the number of windows that have passed, we consider this situation to be acceptable.

49-51 Bedford Row

3.2.6 Of the 84 windows tested 73% (61) will continue to meet the target values as set out in the BRE guidelines. The reason some windows fell short are the effects from the general increase in the height of the new building when compared with the existing building.

3.2.7 It is the first, second and third floors that are affected, all upper floors continue to enjoy good levels of daylight. The affected floors fair better in daylight distribution and sunlight tests below.

3.2.8 Offices are generally lit by artificial lighting all of the time they are occupied, so the loss of daylight to windows, arguably will not be noticed by occupants.

55-57 High Holborn

3.2.9 Of the 15 windows tested 80% (12) will continue to meet the target values as set out in the BRE guidelines. Of the 3 windows that fell short, these all marginally missed the target value, by 1%, 2% and 5%, these are fractionally outside of the BRE tolerances and is not considered material.

3.2.10 All rooms passed daylight distribution test as seen below and we consider the results here to be acceptable.

23 Hand Court

3.2.11 Of the 13 windows tested 69% (9) will continue to meet the target values as set out in the BRE guidelines. Here, 2 of the 4 windows that fell short, did so by 3% & 4%. Again all rooms passed daylight distribution tests, therefore, we consider the results to be acceptable.

3.3 Daylight Distribution (DD)

3.3.1 The DD test results are shown in full in Appendix C. Table 4 below outlines a summary of our findings:

Table 4: DD Summary

Property	Daylight Distribution Test		
	No. of Rooms	No. of Rooms Passed	No. of Rooms Failed
Mid-City Place	47	40	7
49-51 Bedford Row	84	72	12
48 Bedford Row	8	8	0
46-47 Bedford Row	7	7	0
45 Bedford Row	5	5	0
55-57 High Holborn	15	15	0
23 Hand Court	5	5	0
Total	**171**	**152**	**19**

3.3.2 Although the results indicate that with the proposed development, the majority of the rooms surrounding the site will continue to receive adequate daylight distribution as defined by the BRE guidance, a number did not meet the requirements. We comment as follows:

Mid-City Place

3.3.3 Of the rooms tested, 85% will continue to meet the target values. Noting the number of rooms that passed and comments in 3.2.8 above, this is considered to be acceptable.

49-51 Bedford Row

3.3.4 Here 86% of the rooms met the target value, again, noting comments above, we consider the number which fell short to be acceptable.

3.4 *Sunlight*

3.4.1 In accordance with the BRE Guide, a number of surrounding buildings require Annual Probable Sunlight Hours (APSH) testing, these are shown in table 5 below:

Table 5: Surrounding Properties

Building	Assumed Use	Position (in relation to the development)
Mid-City Place	Office	North
49-51 Bedford Row	Office	East
48 Bedford Row	Office	Northeast
46-47 Bedford Row	Office	Northeast
45 Bedford Row	Office	Northeast
55-57 High Holborn	Office	North
23 Hand Court	Office/Residential	North/Northeast

3.4.2 Table 6 below provides a summary of the results of the APSH testing. Full results are contained in Appendix C.

Table 6: APSH Summary

Property	No. of Windows Tested	No. of Windows Passed APSH Test	No. of Windows Failed APSH Test
49-51 Bedford Row	84	62	22
48 Bedford Row	8	6	2
46-47 Bedford Row	10	7	3
45 Bedford Row	5	5	0
23 Hand Court	4	0	4
Total	**111**	**80**	**31**

3.4.3 The vast majority of windows will still receive a good level sunlight, there are a small number that did not meet target values. We comment as follows:

49-51 Bedford Row

3.4.4 Of the 22 windows that fell short 15 of these windows did not receive enough sunlight in the existing scenario.

3.4.5 The Guide stresses that the target values it gives are purely advisory, especially in circumstances such as: where the new development needs to match the height and proportion of existing nearby buildings. In circumstances like this a larger reduction in sunlight may be necessary.

3.4.6 Therefore, we consider the situation here is acceptable.

48 Bedford Row

3.4.7 Whilst there are two windows that did not meet the target values, these did not receive much sunlight in the existing scenario and any slight losses have a greater impact. For reasons given in 3.4.5 above, we consider this to be acceptable.

46-47 Bedford Row

3.4.8 All of the windows that did not meet the values received little or no sunlight in the winter months. The slight reductions here have had an impact, but for reasons given in 3.4.5 above, we consider these to be acceptable.

23 Hand Court

3.4.9 Whilst all 4 windows fell short of the target values, the BRE guidance states *"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 The calculation methods are entirely flexible in this respect."* (Para 1.6). therefore, we consider this to be acceptable.

Conclusion

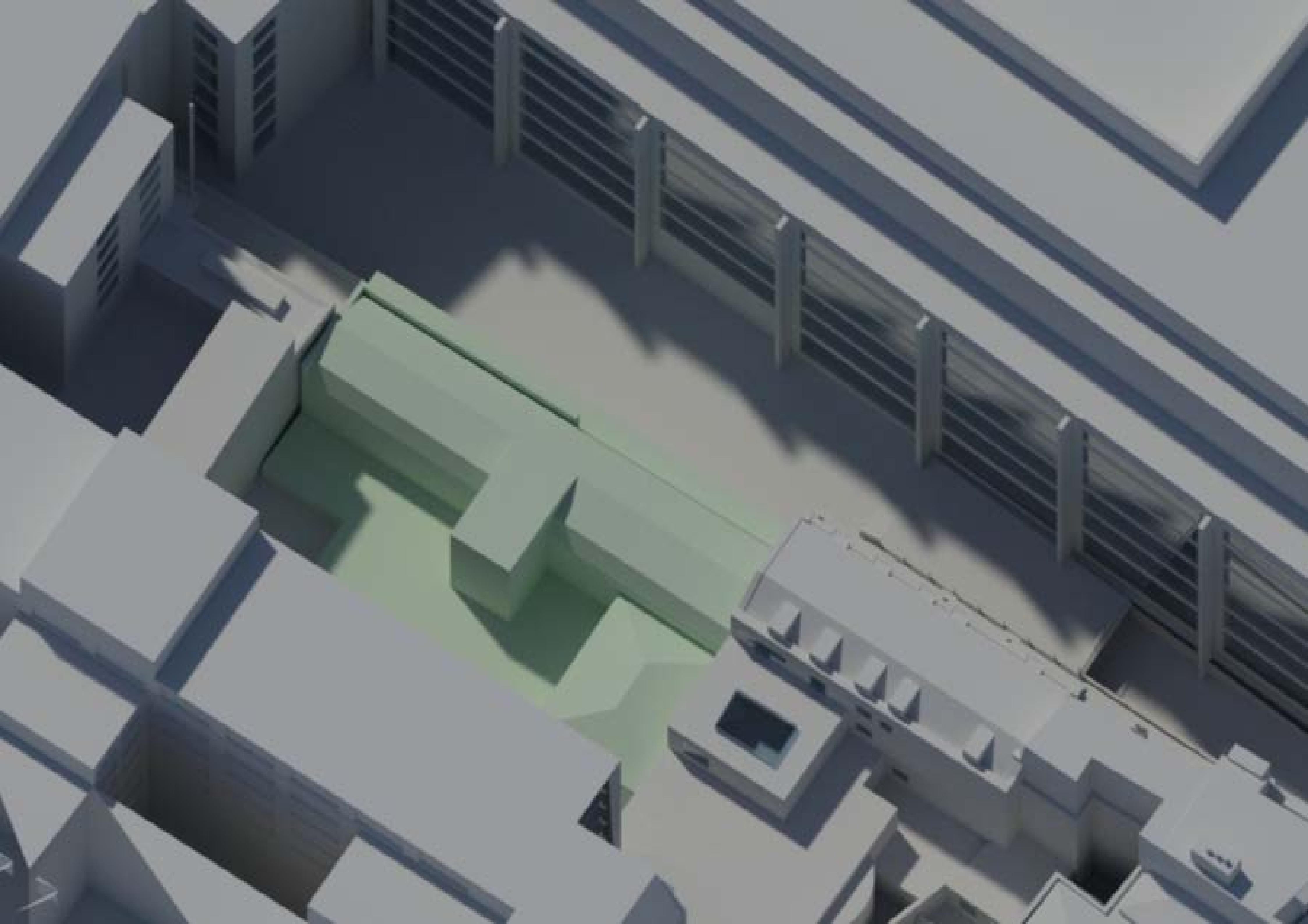
3.4.10 On the whole, the vast majority of windows continue to enjoy good levels of daylight and sunlight. Whilst some windows fell short of the target values, in an urban context, we consider this to be acceptable.

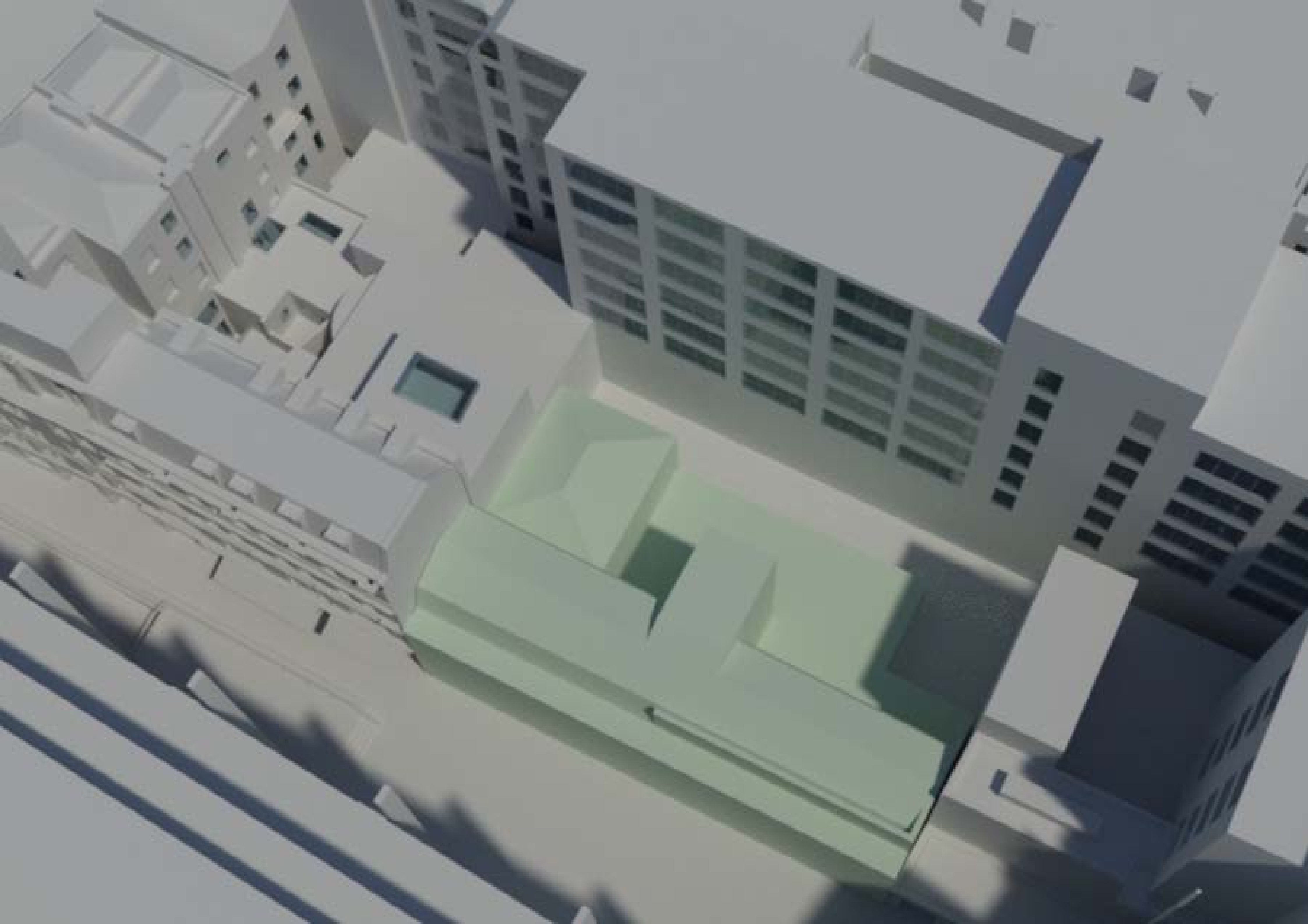
3.4.11 The guidance document states *"The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design." (Para 1.6)*

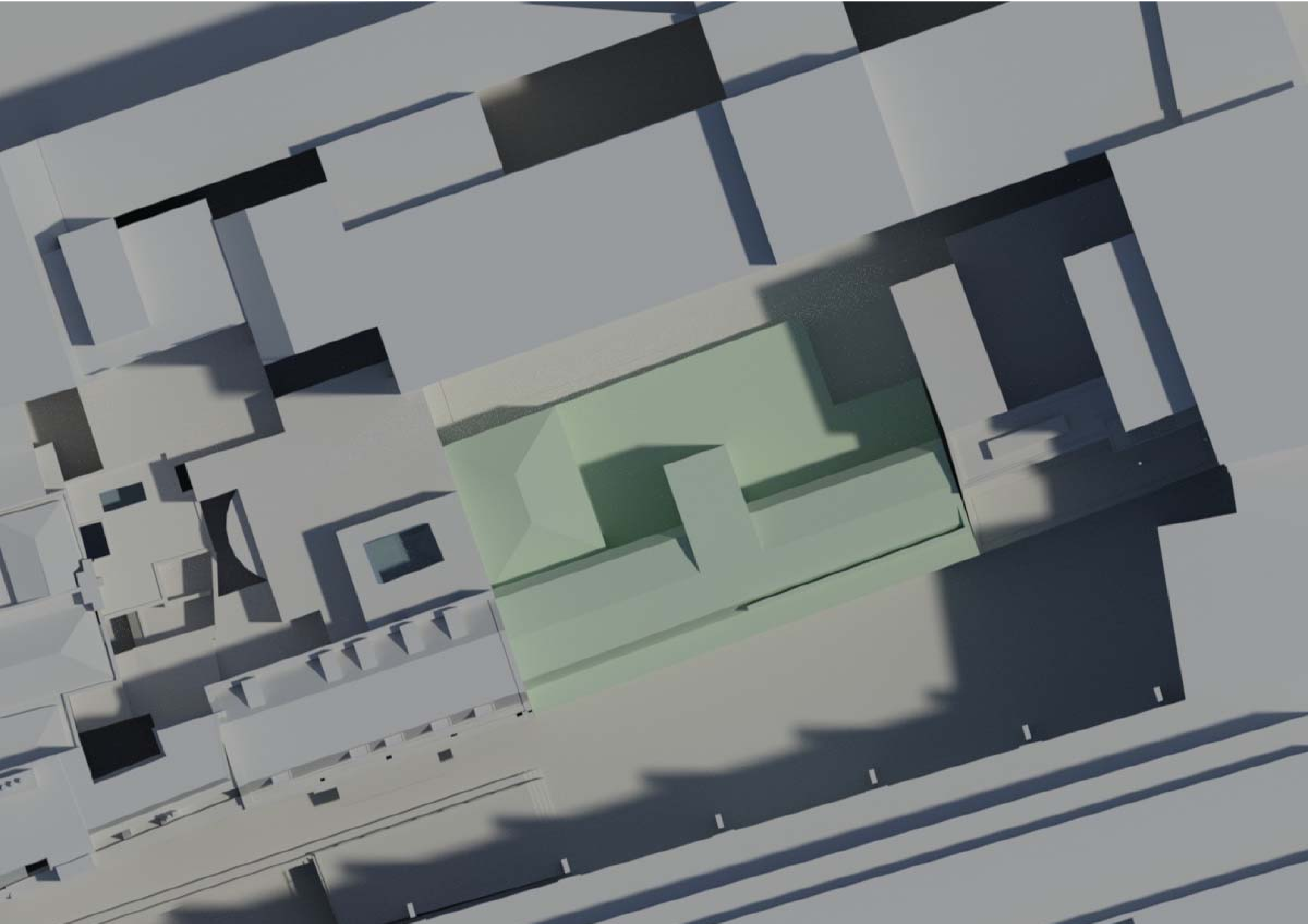
3.4.12 The BRE guide is an advisory document and not a rigid set of rules. Care must be taken to apply its recommendations in a manner fitting to the location of the proposed development.

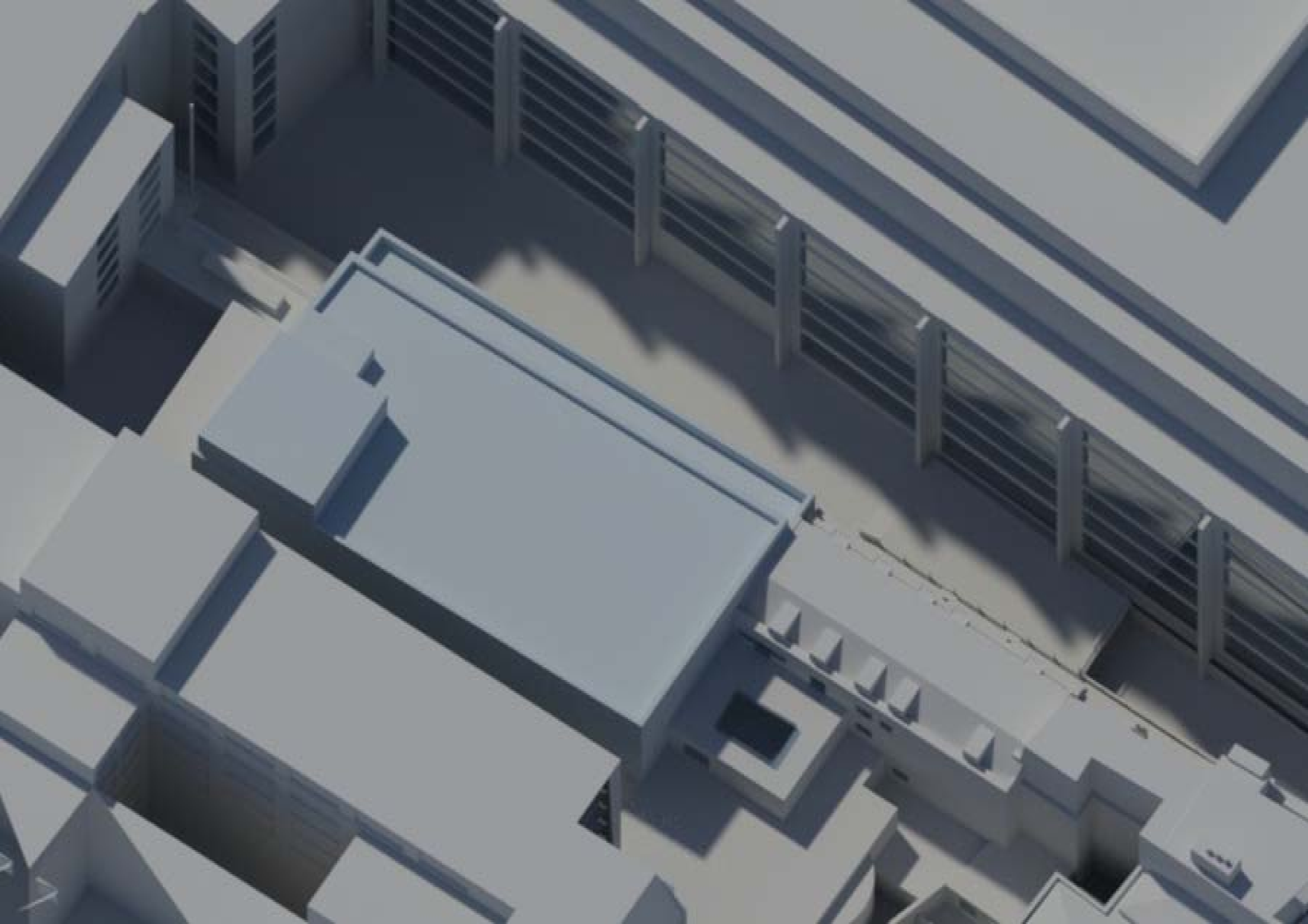
Appendix A

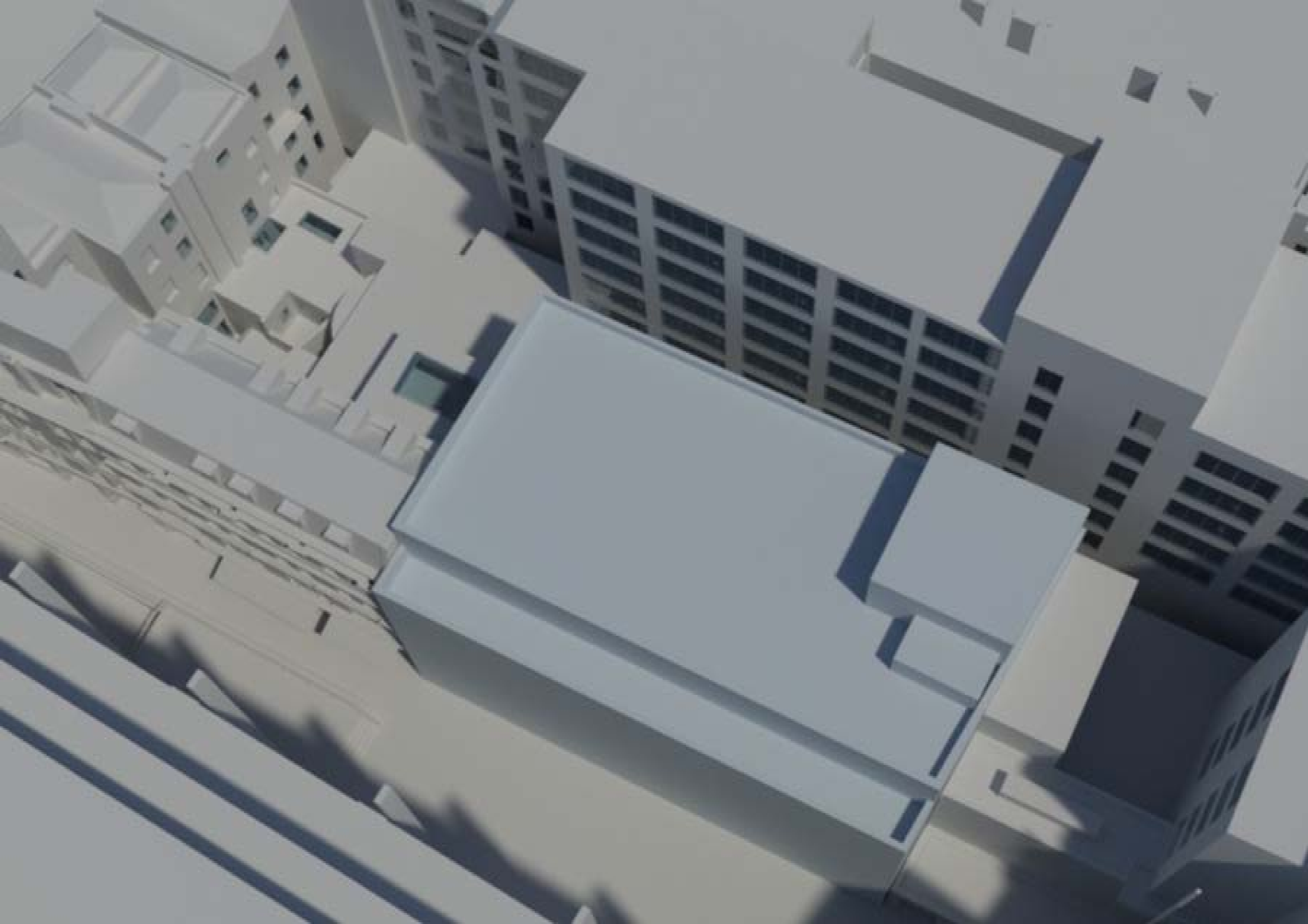
Context Drawings

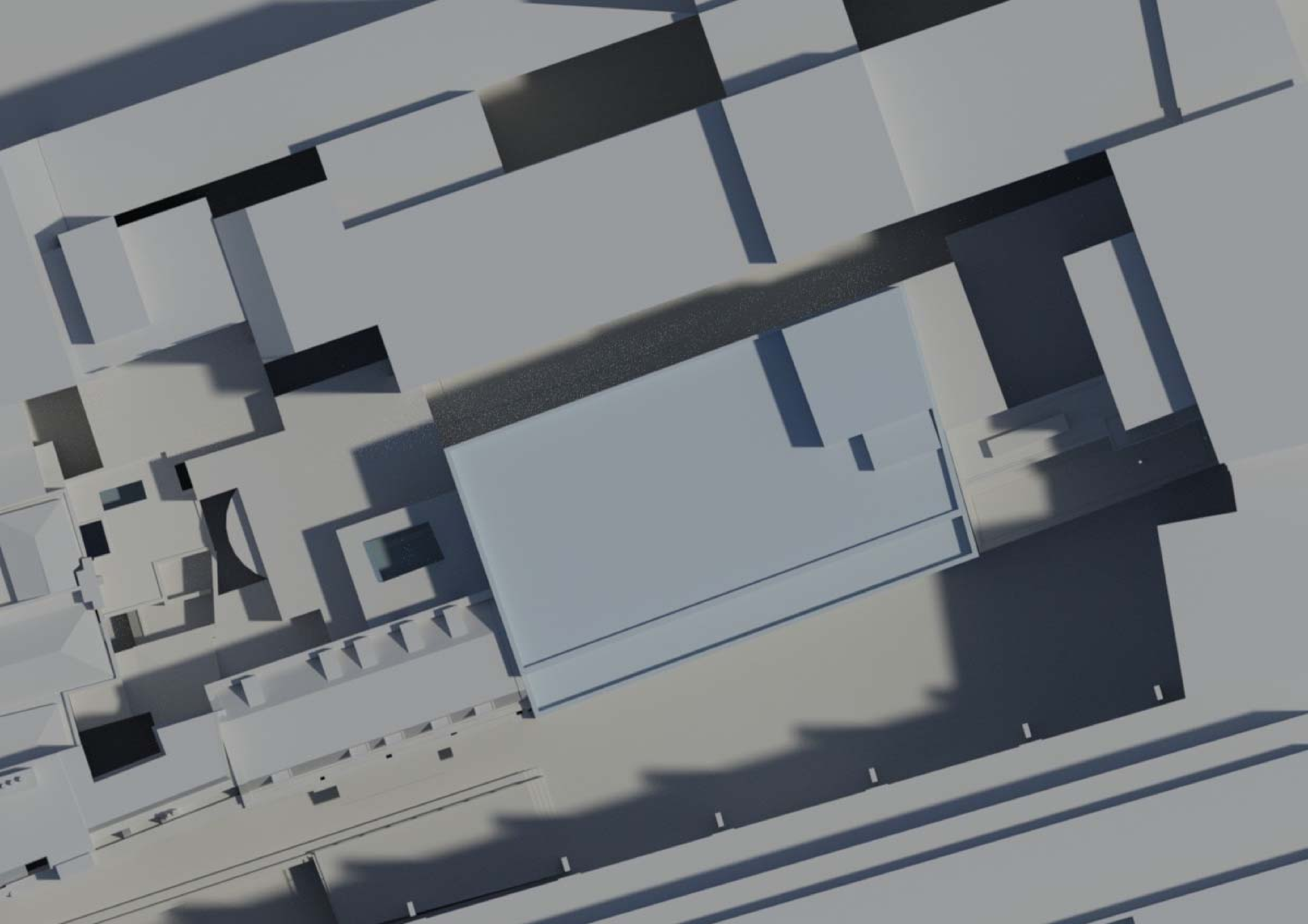












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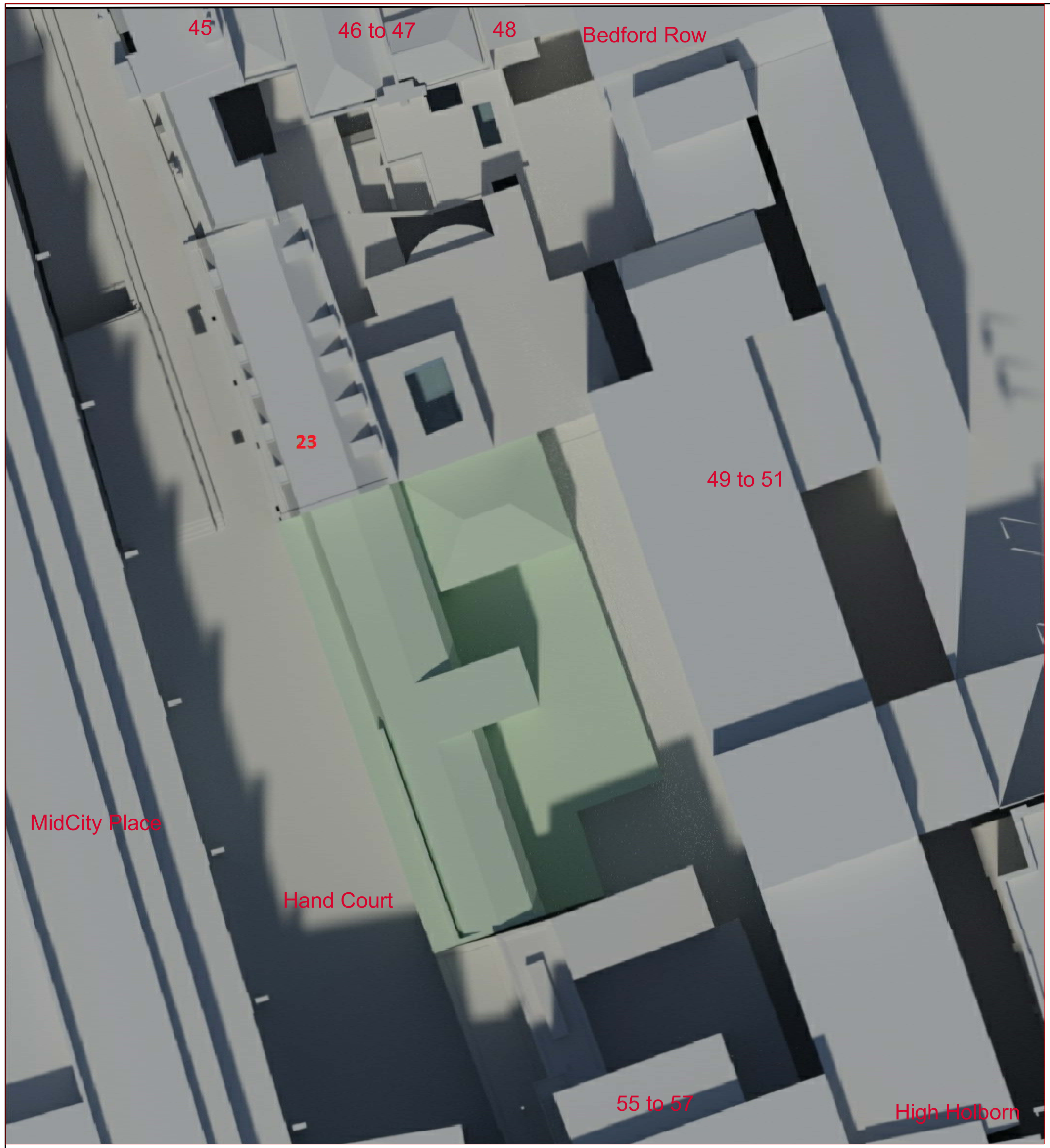
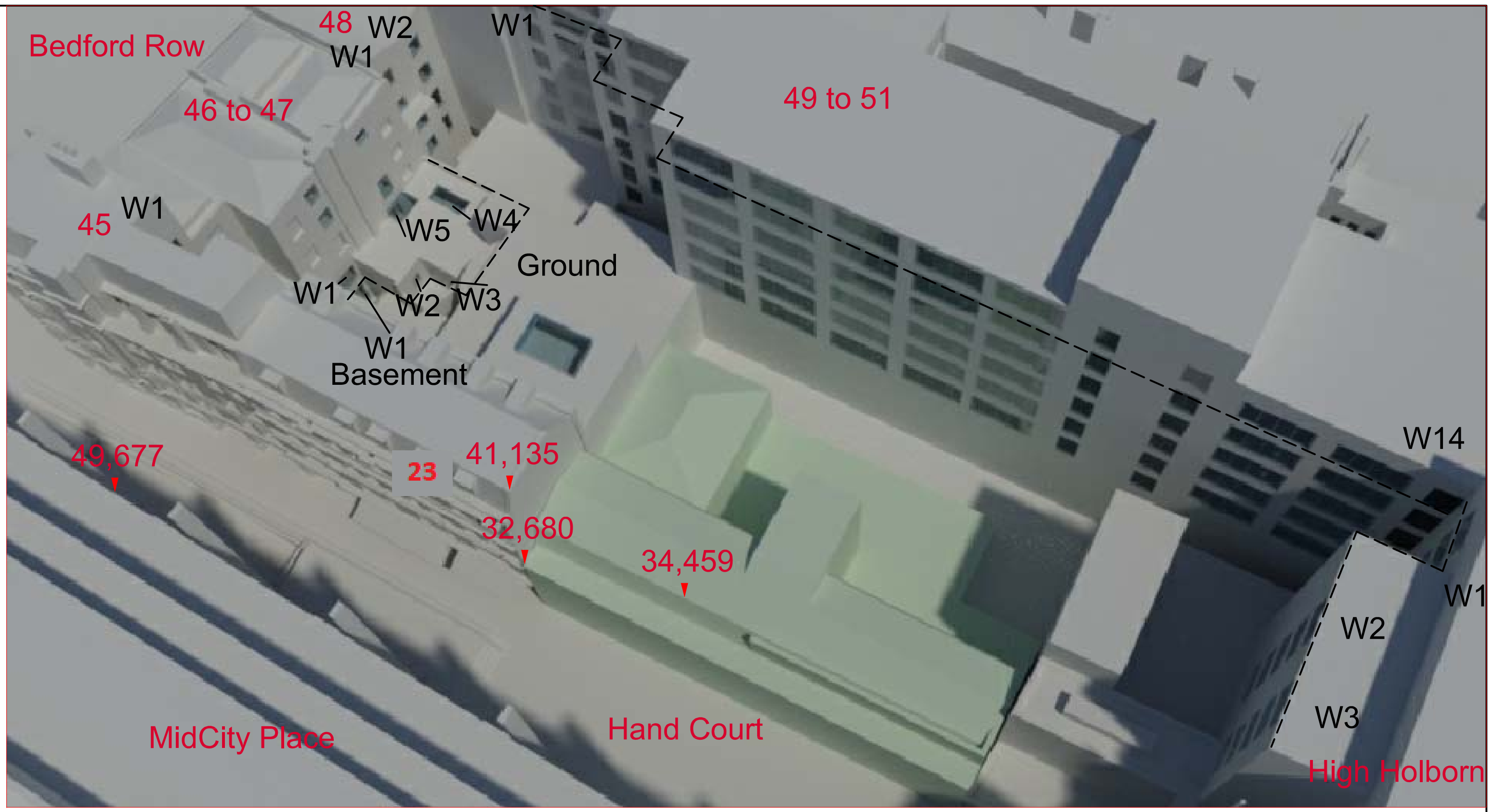
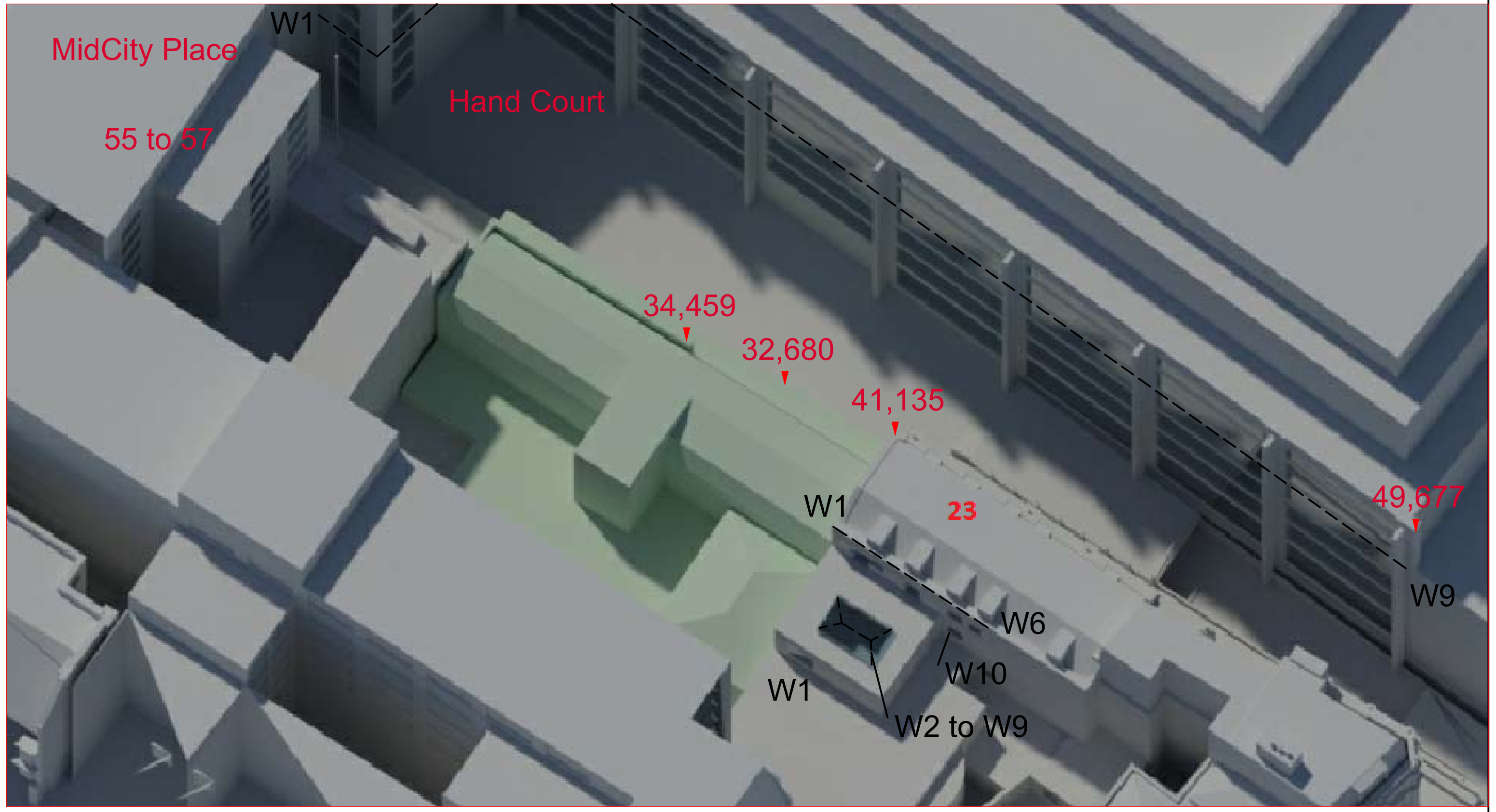
Appendix B

Window Reference Drawings







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Notes

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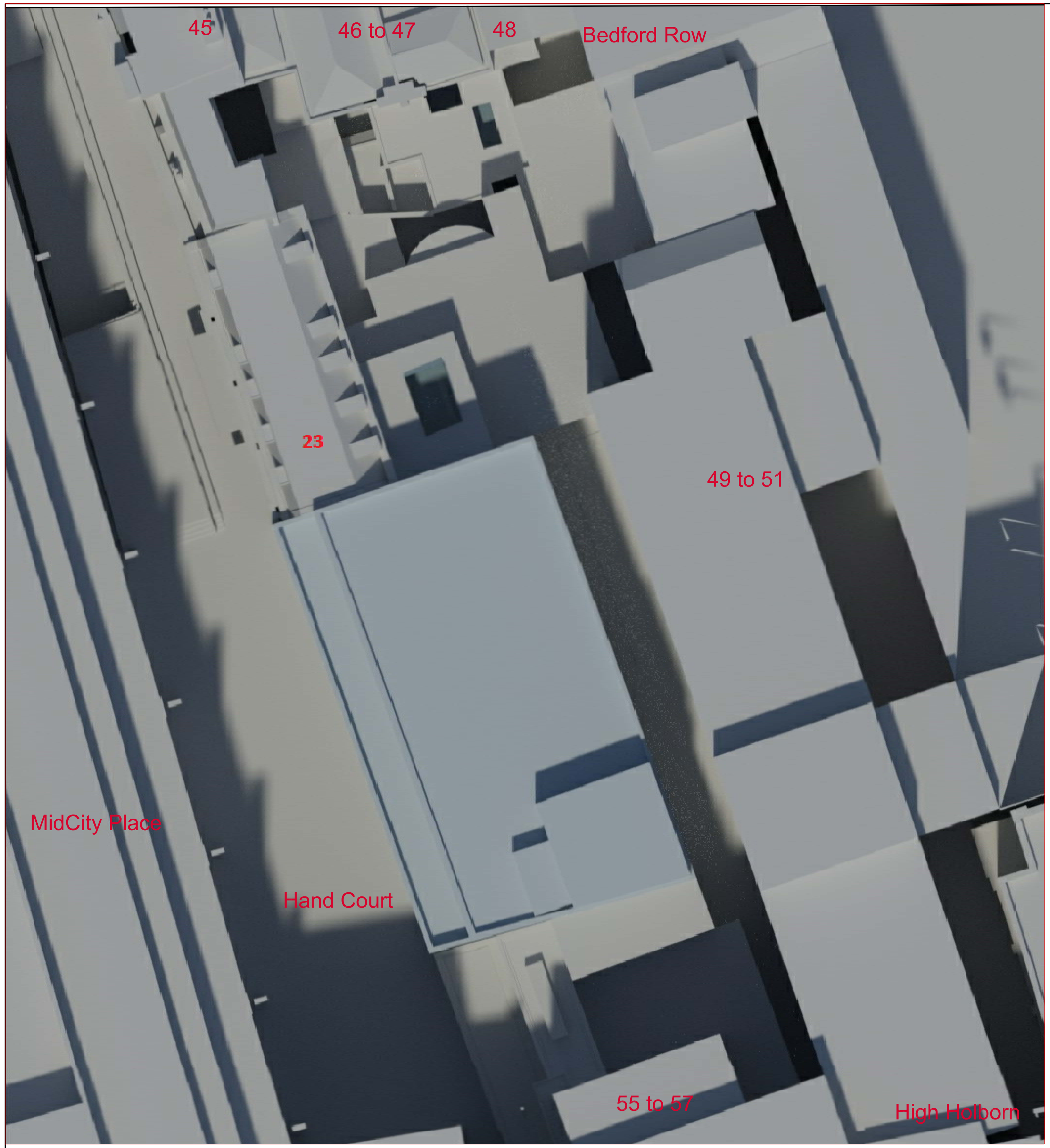
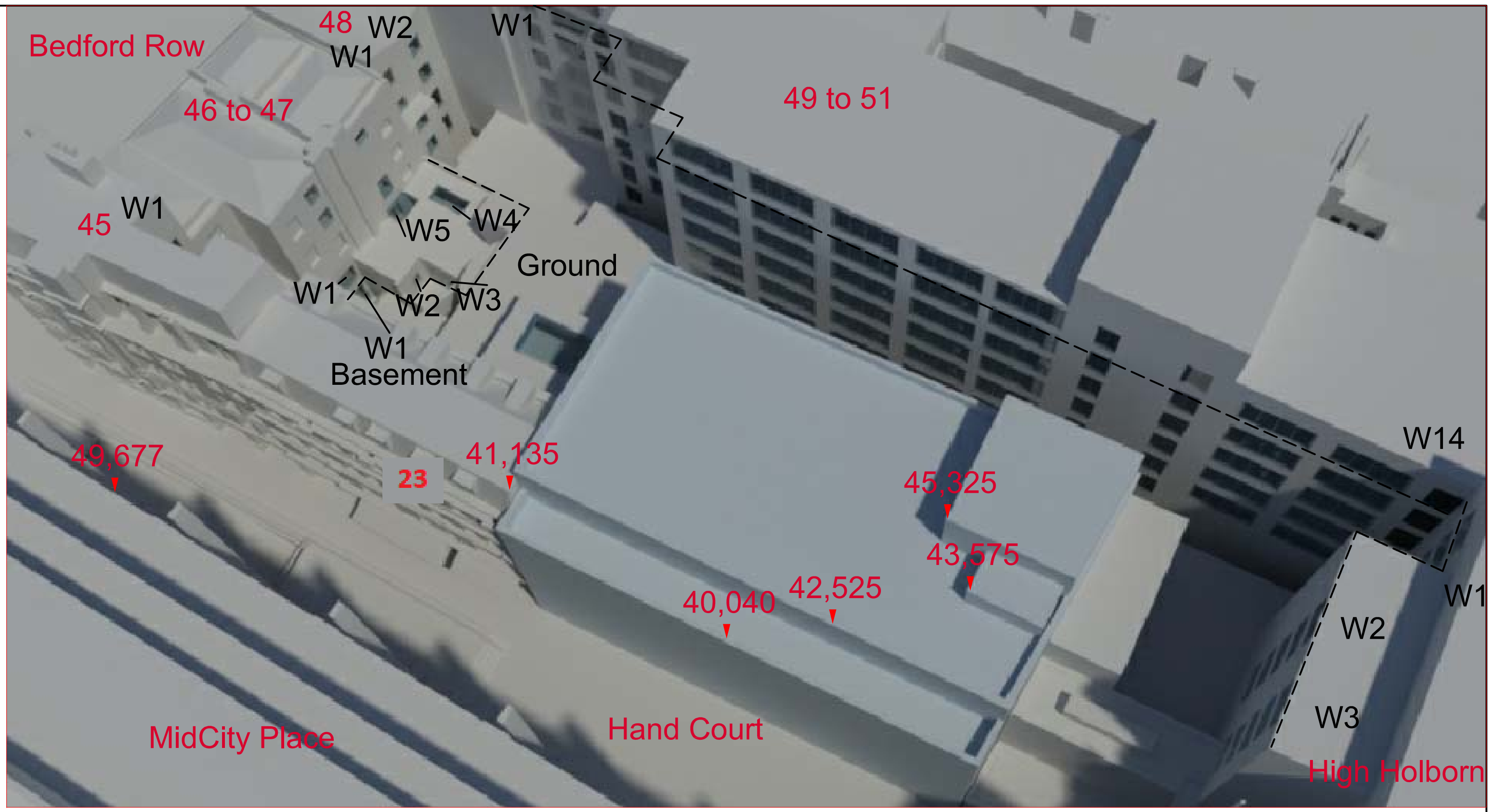
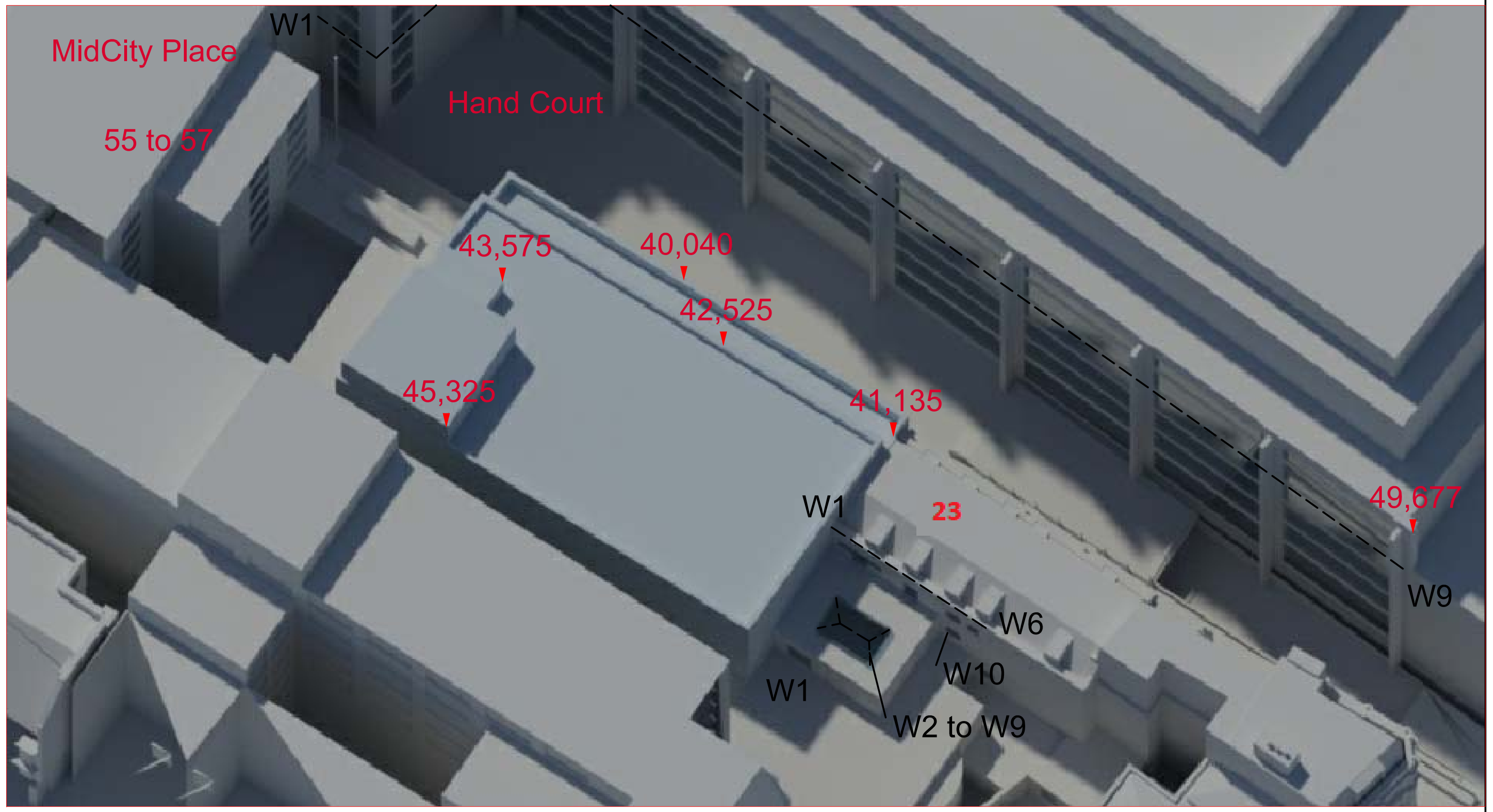
Revisions







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Revisions

Appendix C

Daylight/Sunlight Study