

DAYLIGHT & SUNLIGHT

IMPACT ON NEIGHBOURING PROPERTIES REPORT

Methodist Central Hall, Manchester

Methodist Central Buildings

18 March 2024

GIA No: **2590**

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Map data
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1 EXECUTIVE SUMMARY

GIA have assessed the OMI Architects' scheme (the "proposed development") for Methodist Central Hall, Manchester to understand the potential changes in light to the relevant sensitive receptors.

1.1 GIA have been instructed by Methodist Central Buildings to provide daylight and sunlight advice in relation to the proposed redevelopment of Methodist Central Hall, Manchester.

1.2 The technical analysis has been considered by reference to the criteria and methodology within the Building Research Establishment handbook (BR209, 2022).

1.3 As shown in Table 01 below, the surrounding properties will fully accord with the target criteria for VSC daylight, NSL daylight and APSH sunlight.

1.4 As such, the impact on these properties is negligible and considered wholly acceptable.

Name/Address of Building	Percentage of Windows Compliant for VSC Daylight	Percentage of Rooms Compliant for NSL Daylight	Percentage of Rooms Compliant for APSH Sunlight
3 Dale Street	33/33 (100%)	14/14 (100%)	5/5 (100%)
1 Dale Street	27/27 (100%)	15/15 (100%)	15/15 (100%)
Smithfield Building	41/41 (100%)	18/18 (100%)	18/18 (100%)
Chatsworth House	182/ 182 (100%)	70/70 (100%)	35/35 (100%)

Table 01: Daylight & Sunlight Levels

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2 THE SITE

GIA have been instructed to review and advise on the daylight and sunlight impacts associated with the implementation of the proposed redevelopment of Methodist Central Hall, Manchester.

THE SITE

2.1 The site is bound by Dale Street to the north, Spear Street to the east, Oldham Street to the west and adjoining buildings to the south.

2.2 Figure 02 below illustrates the existing site. Further drawings are enclosed at Appendix 03 of this report.

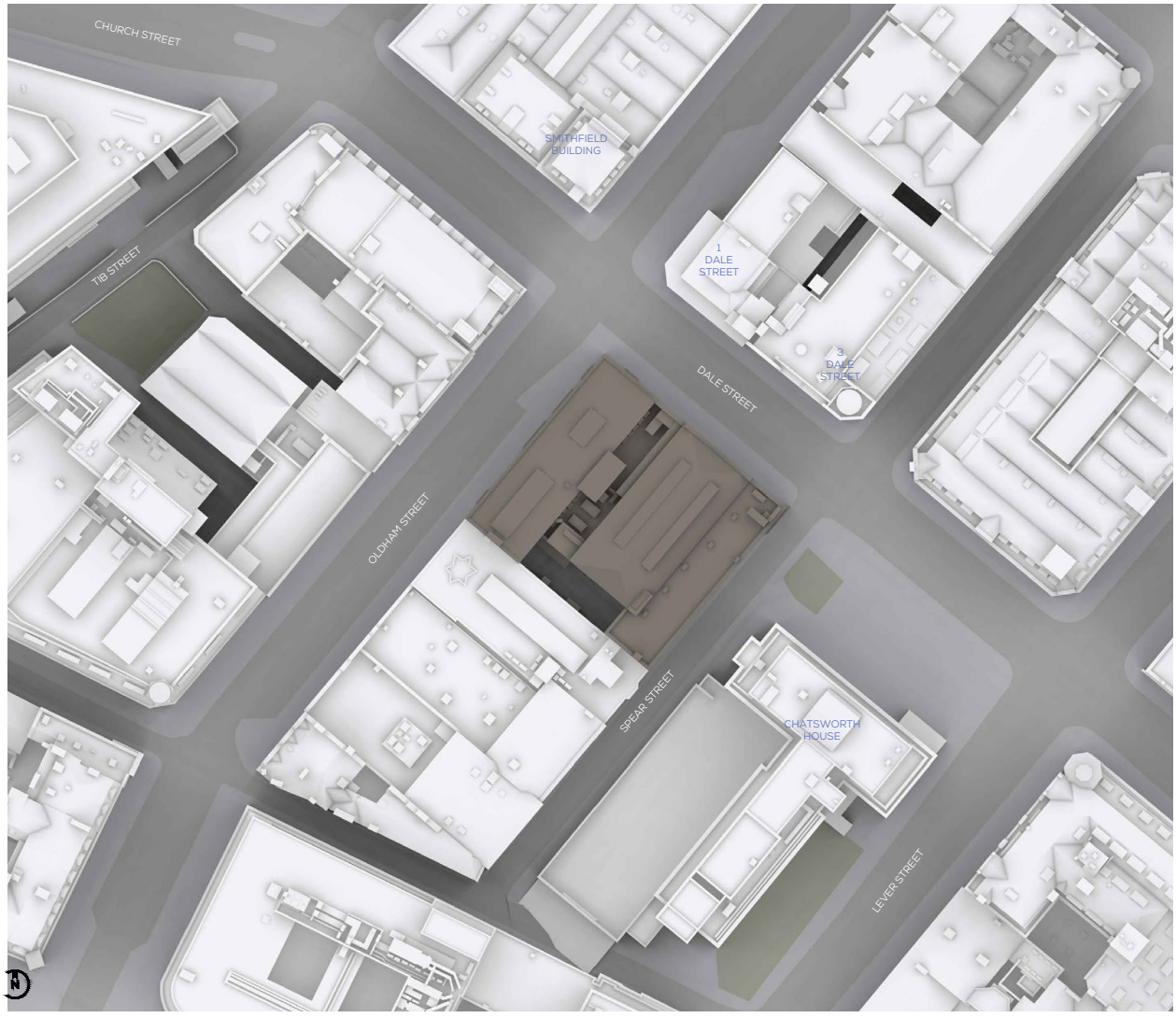


Figure 01: 3D model of the existing site

PROPOSED DEVELOPMENT

2.3 Our analysis of this option is based on the proposed scheme massing models produced by OMI Architects, issued on 21 February 2024

2.4 GIA's understanding of the proposed development is illustrated in Figure 03 and further drawings are enclosed at Appendix 03.

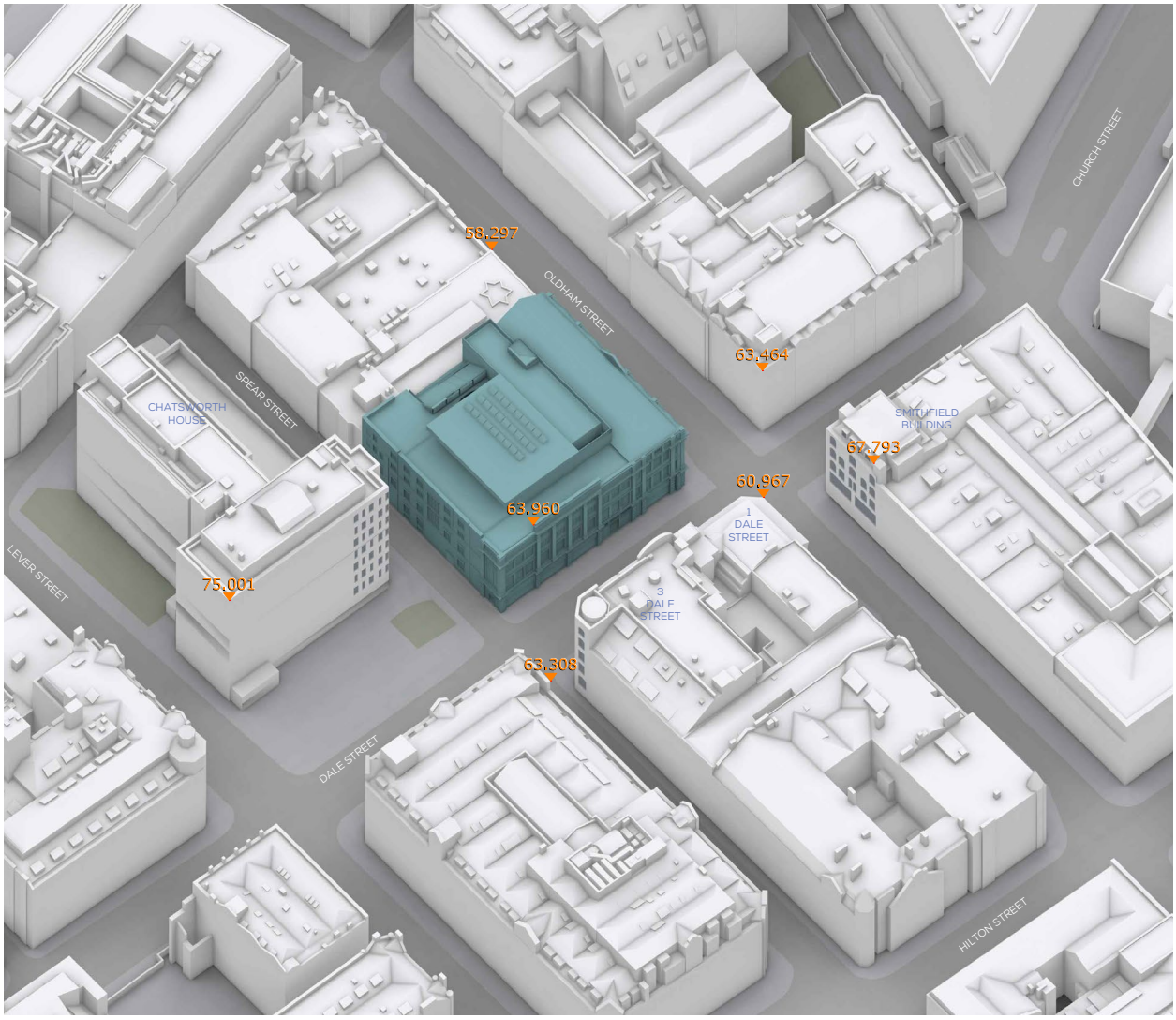


Figure 02: 3D Perspective View of the Proposed Scheme

3 POLICY & THE WIDER CONTEXT

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

- National Planning Policy Framework (December 2023); and
- Planning Practice Guidance (February 2024).

NATIONAL PLANNING POLICY FRAMEWORK (DECEMBER 2023)

3.2 The NPPF highlights the Government's recognition that increased flexibility is required on daylight and sunlight in response to the requirement for higher density development. By stating that *"when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards)"*[1] (our emphasis).

NATIONAL PLANNING PRACTICE GUIDANCE (FEBRUARY 2024)

3.3 The PPG outlines that all developments should *"maintain acceptable living standards"* and that assessing appropriate daylight and sunlight amenity *"will depend to some extent on context"*[2].

1 MHCLG. (2023). National Planning Policy Framework (2023), p 38, para 129(c)

2 MHCLG. (2024). National Planning Policy Guidance (2024), para 66-007-20190722

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4 BRE GUIDELINES & CONTEXT METHODOLOGY

The Building Research Establishment (BRE) have set out in their handbook *'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice (BR209, 2022)'*, guidelines and methodology for the measurement and assessment of daylight and sunlight.

BUILDING RESEARCH ESTABLISHMENT GUIDELINES (BR209, 2022)

4.1 The BRE Guidelines note that the document is intended to be used in conjunction with the interior daylight recommendations found within the British Standard BS EN 17037 Daylighting in Buildings and the Chartered Institution of Building Services Engineers (CIBSE) LG 10 Daylighting – a guide for designers.

4.2 The BRE handbook *"is intended for use in rooms in adjoining dwellings where daylight is required, including living rooms, kitchens, and bedrooms. Windows to bathrooms, toilets, storerooms, circulation areas, and garages need not be analysed. The guidelines may also be applied to any existing non-domestic building where the occupants have a reasonable expectation of daylight; this would normally include schools, hospitals, hotels and hostels, small workshops, and some offices."*

4.3 The BRE Guidelines provides two methodologies for daylight assessment of neighbouring properties, namely;

- The Vertical Sky Component (VSC); and
- The No Sky Line (NSL).

4.4 There is one methodology provided by the BRE Guidelines for sunlight assessment, denoted as Annual Probable Sunlight Hours (APSH).

4.5 It is an inevitable consequence of the built-up urban environment that daylight and sunlight will be more limited in dense urban areas. It is well acknowledged that in such situations there may be many planning and urban design matters to consider other than daylight and sunlight.

4.6 Paragraph 4.5.10 notes that *"numerical values given are purely advisory. Different criteria may be used based on the requirements for solar energy in an area viewed against other site layout constraints. Another important issue is whether the existing solar panels are reasonably sited, at a sensible height and distance from the boundary. A greater loss of solar radiation may be inevitable if panels are mounted close to the ground and near to the site boundary."*[1]

4.7 Appendix 02 of this report elaborates on the mechanics of each of the above assessment criteria, explains the appropriateness of their use and the parameters of each specific recommendation.

4.8 The following table provides a summary of the criteria set out within the BRE Guidelines for daylight and sunlight. For daylight and sunlight, the BRE Guidelines outline the approach within the accompanying Appendix I, in terms of assigning criteria to assess the effects:

"Adverse impacts occur when there is a significant decrease in the amount of skylight and sunlight reaching an existing building where it is required…The assessment of impact will depend on a combination of factors, and there is no simple rule of thumb that can be applied."

"Where the loss of skylight or sunlight fully meets the guidelines, the impact is assessed as negligible or minor adverse. Where the loss of light is well within the guidelines, or only a small number of windows or limited area of open space lose light (within the guidelines), a classification of negligible impact is more appropriate. Where the loss of light is only just within the guidelines and a larger number of windows or open space are affected, a minor adverse impact would be more appropriate, especially if there is a particularly strong requirement for daylight and sunlight in the affected building or open space."

"Where the loss of skylight or sunlight does not meet the guidelines in this book, the impact is assessed as minor, moderate or major adverse. Factors tending towards a minor adverse impact include:

- *Only a small number of windows are affected;*
- *The loss of light is only marginally outside the guidelines;*
- *An affected room has other sources of skylight or sunlight; and*
- *The affected building only has a low level of requirement for skylight or sunlight."*

1 Littlefair, P. (2022). Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice. Hertfordshire: HIS BRE Press, p 29 para 3.3.17

4.9 The classification of major adverse is documented within Paragraph 7 of the BRE Guidelines:

"Factors tending towards a major adverse impact include:

- *a large number of windows are affected;*
- *the loss of light is substantially outside the guidelines;*
- *all the windows in a particular property are affected; and*
- *the affected indoor spaces have a particular strong requirement for skylight or sunlight, e.g. a living room in a dwelling".*

Beneficial impacts occur when there is a significant increase in the amount of skylight and sunlight reaching an existing building. Beneficial impacts should be worked out on the same principals as adverse impacts."

4.10 The BRE Guidelines do not provide any Guidance on what constitutes a moderate adverse impact.

4.11 The initial numerical criteria for determining the magnitude of effect is based on percentage alterations, as follows:

Magnitude of Effect	Percentage Alteration
Negligible	0-20%
Minor	20-29.9%
Moderate	30-39.9%
Major	40%+

4.12 When considering the significance of daylight and sunlight effects, professional judgement has been used. Consideration has been given to the proportion of rooms/windows affected, as well as the percentage alterations, absolute changes, retained daylight and sunlight levels and sensitivity of the receptor. This is in addition to any other relevant factors, including mitigating factors such as location and nature of the development, balconies, overhangs or design features which may also affect the determination of assigning the criteria.

5 DAYLIGHT & SUNLIGHT IMPACTS TO NEIGHBOURING PROPERTIES

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

5.1 A three-dimensional computer model of the Site and surrounding properties was produced based on photogrammtery. Where available we have included floor plans of the relevant properties and this context model has been used to carry out the technical assessments. All relevant assumptions made in producing this model can be found in Appendix 01.

RELEVANT SENSITIVE RECEPTORS

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

- 3 Dale Street
- 1 Dale Street
- Smithfield Building
- Chatsworth House

5.3 The properties are fully discussed in the following sections. All results can be found in Appendix 04.

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3 DALE STREET

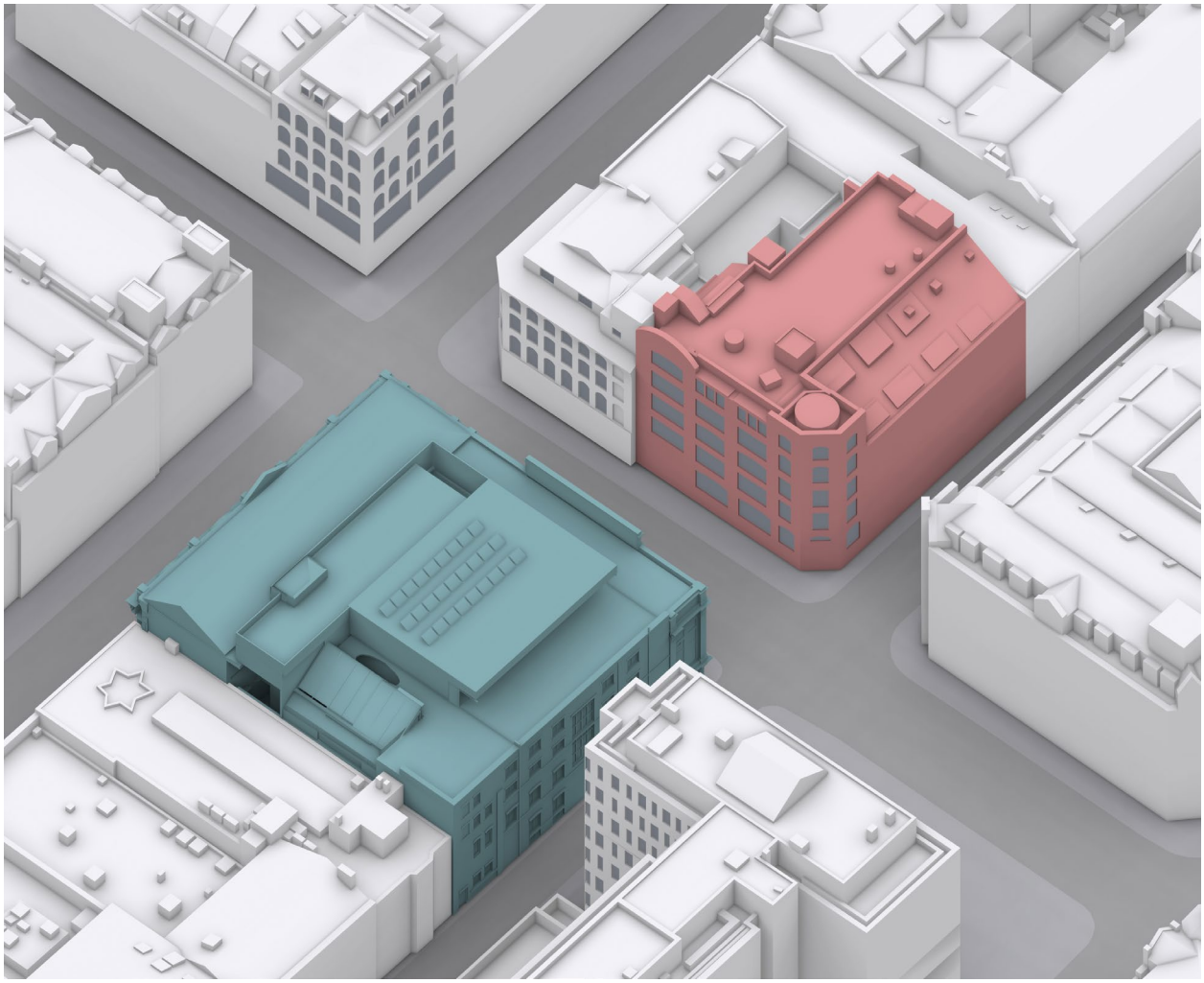


Figure 03: Rendered Image of 3 Dale Street

VERTICAL SKY COMPONENT					NO SKY LINE				
WINDOW					ROOM				
TOTAL	PASS	LOSS			TOTAL	PASS	LOSS		
		20-30	30-40	40+			20-30	30-40	40+
33	33	0	0	0	14	14	0	0	0

Table 02: VSC & NSL Results - 3 Dale Street

ANNUAL PROBABLE SUNLIGHT HOURS							
ROOM							
TOTAL	PASS	ANNUAL (%)			WINTER (%)		
		20-30	30-40	40+	20-30	30-40	40+
5	5	0	0	0	0	0	0

Table 03: APSH Results - 3 Dale Street

5.4 With the proposed development in place, this property will fully comply with the BRE target criteria for VSC daylight, NSL daylight and APSH sunlight.

5.5 As such, the impacts are negligible and considered wholly acceptable.

1 DALE STREET

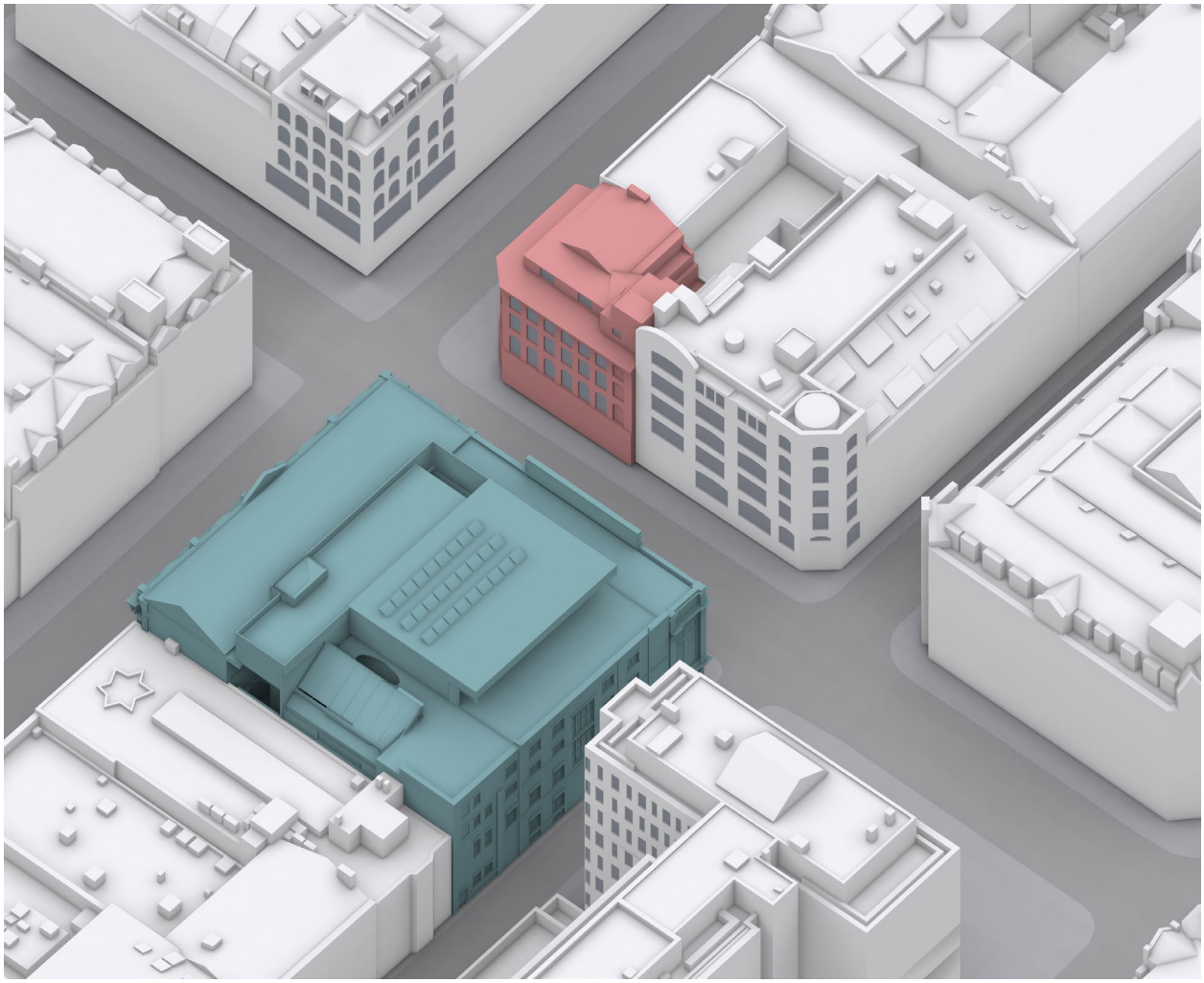


Figure 04: Rendered Image of 1 Dale Street

VERTICAL SKY COMPONENT					NO SKY LINE				
WINDOW					ROOM				
TOTAL	PASS	LOSS			TOTAL	PASS	LOSS		
		20-30	30-40	40+			20-30	30-40	40+
27	27	0	0	0	15	15	0	0	0

Table 04: VSC & NSL Results - 1 Dale Street

ANNUAL PROBABLE SUNLIGHT HOURS							
ROOM							
TOTAL	PASS	ANNUAL (%)			WINTER (%)		
		20-30	30-40	40+	20-30	30-40	40+
15	15	0	0	0	0	0	0

Table 05: APSH Results - 1 Dale Street

5.6 With the proposed development in place, this property will fully comply with the BRE target criteria for VSC daylight, NSL daylight and APSH sunlight.

5.7 As such, the impacts are negligible and considered wholly acceptable.

SMITHFIELD BUILDING

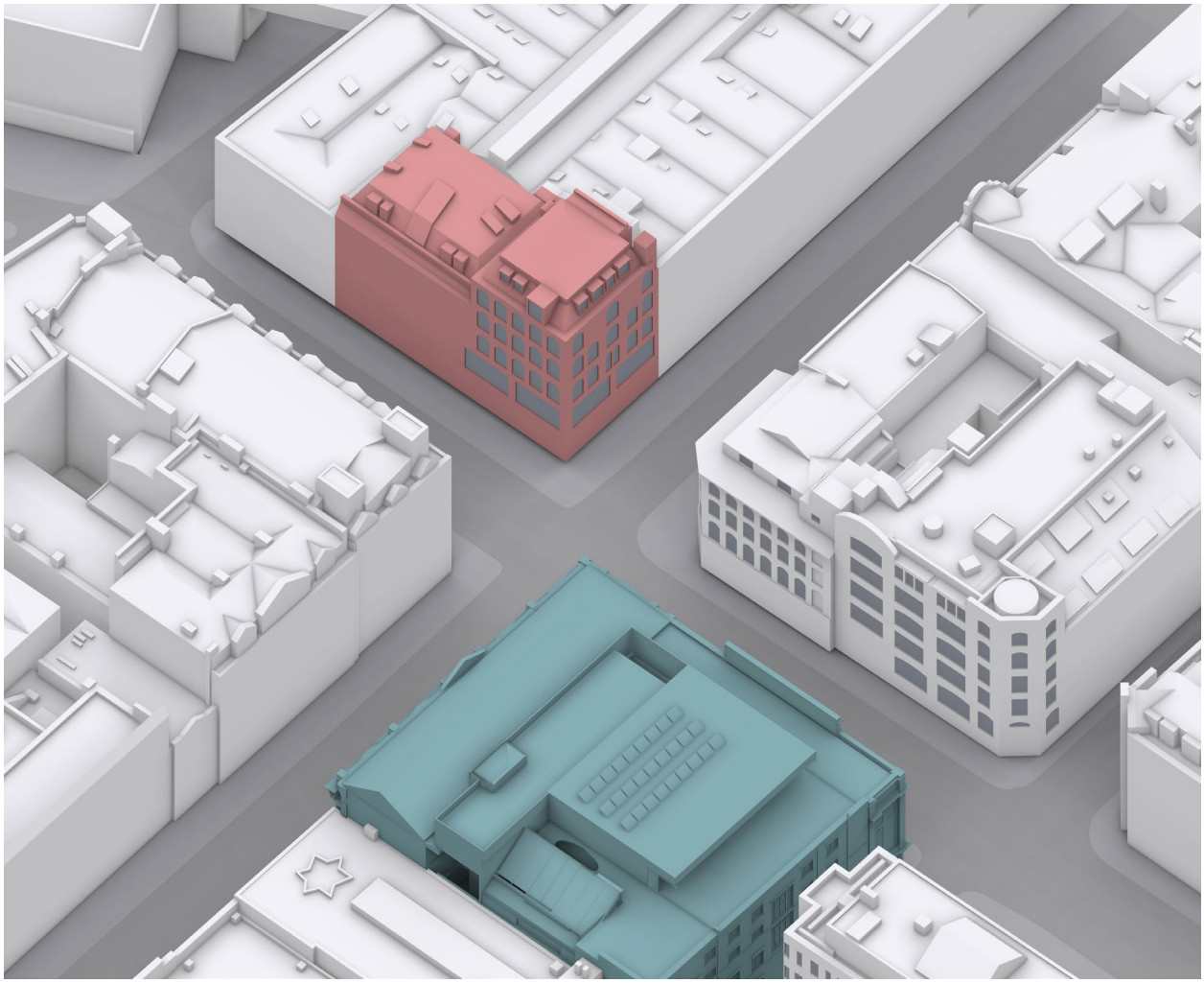


Figure 05: Rendered Image of Smithfield Building

VERTICAL SKY COMPONENT					NO SKY LINE				
WINDOW					ROOM				
TOTAL	PASS	LOSS			TOTAL	PASS	LOSS		
		20-30	30-40	40+			20-30	30-40	40+
41	41	0	0	0	18	18	0	0	0

Table 06: VSC & NSL Results - Smithfield Building

ANNUAL PROBABLE SUNLIGHT HOURS							
ROOM							
TOTAL	PASS	ANNUAL (%)			WINTER (%)		
		20-30	30-40	40+	20-30	30-40	40+
18	18	0	0	0	0	0	0

Table 07: APSH Results - Smithfield Building

5.8 With the proposed development in place, this property will fully comply with the BRE target criteria for VSC daylight, NSL daylight and APSH sunlight.

5.9 As such, the impacts are negligible and considered wholly acceptable.

CHATSWORTH HOUSE

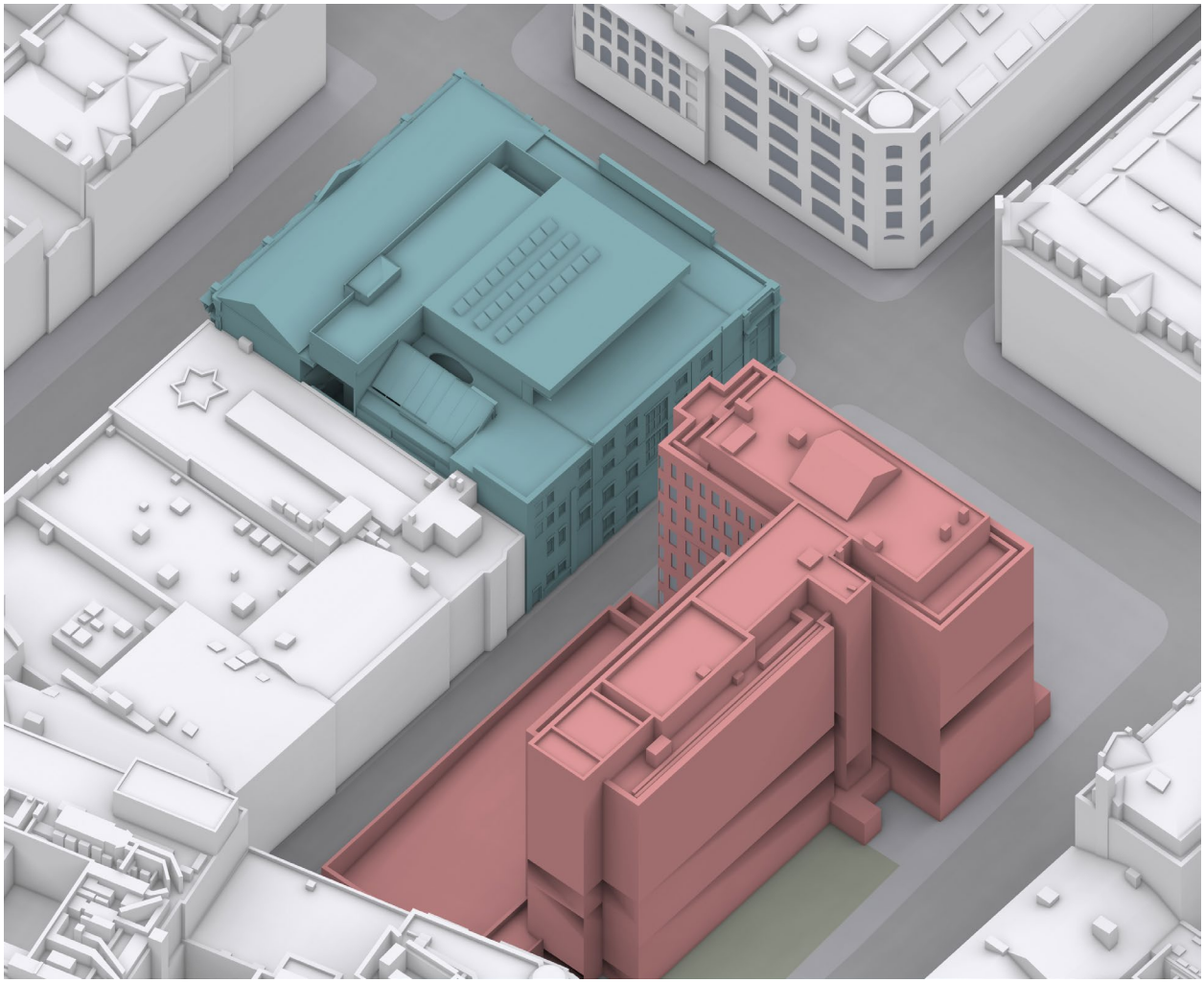


Figure 06: Rendered Image of Chatsworth House

VERTICAL SKY COMPONENT					NO SKY LINE				
WINDOW					ROOM				
TOTAL	PASS	LOSS			TOTAL	PASS	LOSS		
		20-30	30-40	40+			20-30	30-40	40+
182	182	0	0	0	70	70	0	0	0

Table 08: VSC & NSL Results - Chatsworth House

ANNUAL PROBABLE SUNLIGHT HOURS							
ROOM							
TOTAL	PASS	ANNUAL (%)			WINTER (%)		
		20-30	30-40	40+	20-30	30-40	40+
35	35	0	0	0	0	0	0

Table 09: APSH Results - Chatsworth House

5.10 With the proposed development in place, this property will fully comply with the BRE target criteria for VSC daylight, NSL daylight and APSH sunlight.

5.11 As such, the impacts are negligible and considered wholly acceptable.

6 CONCLUSIONS

GIA have undertaken a daylight and sunlight assessment in relation to the proposed redevelopment of Methodist Central Hall, Manchester. The technical analysis has been undertaken in accordance with the BRE handbook.

6.1 GIA have been instructed by Methodist Central Buildings to provide daylight and sunlight advice in relation to the proposed redevelopment of Methodist Central Hall, Manchester.

6.2 The technical analysis has been considered by reference to the criteria and methodology within the Building Research Establishment handbook (BR209, 2022).

6.3 All of the surrounding residential properties will fully accord with the target criteria for VSC daylight, NSL daylight and APSH sunlight.

6.4 As such, the impact on these properties is negligible and considered wholly acceptable.

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