gia CHARTERED SURVEYORS

DAYLIGHT, SUNLIGHT & SUN HOURS ON GROUND

IMPACT ON NEIGHBOURING PROPERTIES REPORT

The Joint, Field and Leeke Street

CBRE Global Investors

30 September 2021

GIA No: **17319** Fee Quote: **FQ0003464**

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3D models	**VU.CITY & Murphy Surveys**
OS Data	**FIND Maps**

DISCLAIMER:

This report has been prepared for CBRE Global Investors by GIA as their appointed Daylight & Sunlight consultants. It is accurate as at the time of publication and based upon the information we have been provided with as set out in the report. It does not take into account changes that have taken place since the report was written nor does it take into account private information on internal layouts and room uses of adjoining properties unless this information is publicly available.

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APPENDICES (BOUND SEPARATELY)

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1 EXECUTIVE SUMMARY

GIA have assessed the proposed Orbit Architects scheme "proposed development" for the The Joint, Field and Leeke Street site to understand the potential changes in light to the relevant surrounding properties.

1.1 GIA have been instructed by CBRE Global Investors to provide daylight and sunlight advice in relation to the The Joint, Field and Leeke Street development.

1.2 GIA have undertaken a technical daylight,sunlight and Sun Hours on Ground (SHOG) assessment of the architect's scheme at The Joint "the site" to understand the potential effect of the development on the daylight and sunlight amenity of the relevant neighbouring properties. The requirement in London boroughs for significantly more living and working spaces necessitates higher density development. The Site is located within the London borough of Camden.

1.3 The daylight and sunlight analysis has been considered by reference to the criteria and methodology within the Building Research Establishment Guidelines (2011), which when published, recognised that it should not form a mandatory set of criteria, rather it should be used to help and inform design.

1.4 The daylight, sunlight and SHOG analysis has been considered by reference to the criteria and methodology within the Building Research Establishment Guidelines (2011), which when published, recognised that it should not form a mandatory set of criteria, rather it should be used to help and inform design.

1.5 Upon successful completion of the proposed scheme all windows tested for sunlight (100%) will meet the national numerical values identified in paragraph 3.2.11 of the BRE Guide in relation to sunlight matters.

1.6 GIA assessed four gardens and all but one would achieve BRE compliance for SHOG.

1.7 Overall there is a high compliance rate in relation to daylight,sunlight and SHOG following the implementation of the proposed development.

Figure 01: The Site and surrounding area

2 THE SITE

GIA have been instructed to review and advise on the daylight and sunlight impacts associated with the implementation of the proposed development at The Joint, Field and Leeke Street.

THE SITE

2.1 The Site is located in the London borough of Camden.

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

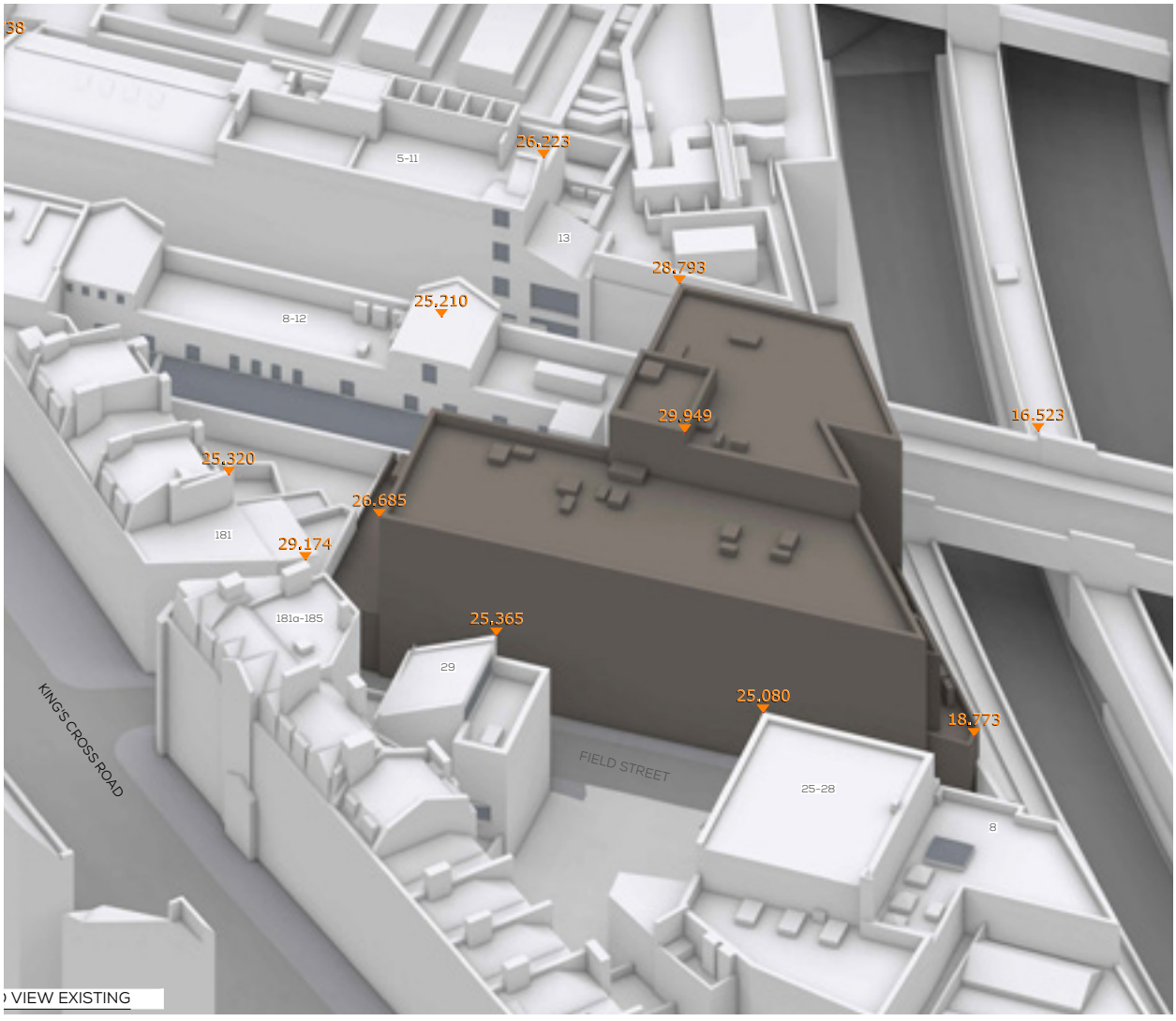

Figure 02: 3D model of the site and Existing Property

PROPOSED DEVELOPMENT

2.3 GIA's understanding of the Proposed Development is illustrated in Figure 03 and further drawings are enclosed at Appendix 03.

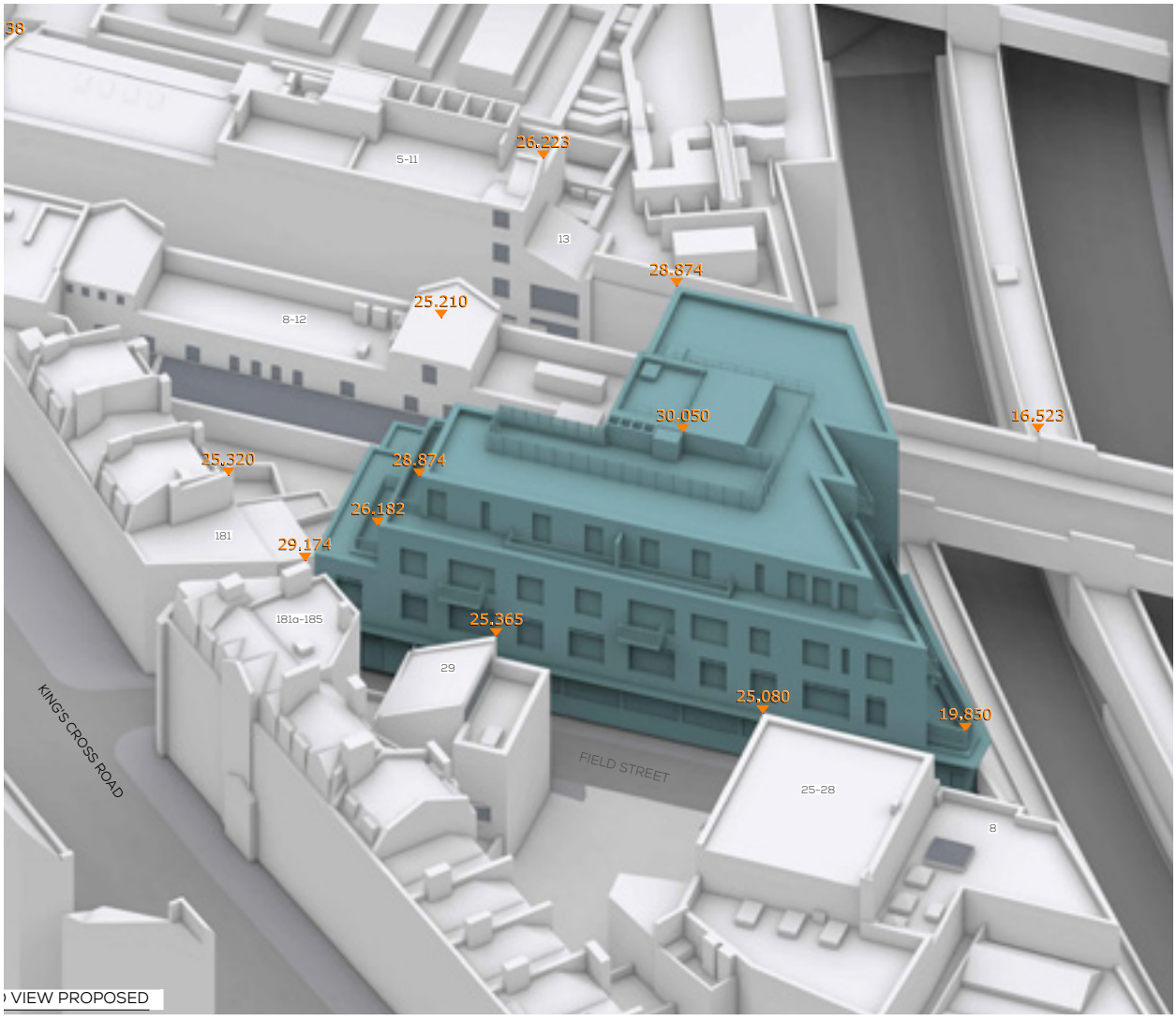

Figure 03: 3D Perspective View of the Proposed Scheme

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 (NPPF) (Feb 2019) (Ministry of Housing Communities and Local Government (MHCLG));
- National Planning Practice Guidance (NPPG) (updated October 2019) (MHCLG);
- The London Plan (March 2021) (Greater London Authority);
- Camden Local Plan (July 2017);
- London Borough of Camden Draft Holborn Vision and Strtegy (2019); and
- London Borough of Camden Draft Site Allocation Plan (2020).

NATIONAL PLANNING POLICY FRAMEWORK (JUNE 2019)

3.2 The NPPF (Feb 2019) states that local planning authorities should refuse applications which they consider fail to make efficient use of land. The discussion in relation to daylight and sunlight highlights the Government's recognition that increased flexibility is required in response to the requirement for higher density development.

> *"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)"*

NATIONAL PLANNING PRACTICE GUIDANCE (UPDATED JULY 2019)

3.3 In light of the update to the Government's Planning Practice Guidance, we have considered the relevant paragraphs on daylight and sunlight.

3.4 Paragraph 6 of the NPPG (Ref ID: 66-006-20190722) acknowledges that new development may cause an impact on daylight and sunlight levels enjoyed by neighbouring occupiers. It requires local authorities to assess whether the impact to neighbouring occupiers would be "unreasonable".

THE LONDON PLAN (MARCH 2021)

3.5 The London Plan was published in March 2021 and sets out the integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years.

3.6 Part D of Policy D6 (Housing Quality and Standards) states that the design of development "should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space."

3.7 It is clear that the GLA's focus is on sufficient or retained daylight and sunlight to neighbouring properties and highlights that context will be a consideration to determine sufficiency.

CAMDEN LOCAL PLAN (JULY 2017)

3.8 The Camden Local Plan was adopted by Council on 3 July 2017 and comprises the strategic and development management policies which will be used to inform development in the borough.

3.9 Policy A1 of the Camden Local Plan (2017) seeks to ensure that standard of amenity are protected. It states that the

> *"Council will seek to protect the quality of life of occupiers and neighbours. We will grant permission for development unless this causes unacceptable harm to amenity" (our emphasis).*

3.10 There are several factors the Council have identified as contributing to amenity, which includes "sunlight, daylight and overshadowing". The policy recognises that harm to daylight and sunlight condition within neighbouring properties, as well as overshadowing can occur, but it is to be considered whether this is "unacceptable".

3.11 A two staged approach should be considered when applying this policy:

- Whether there is any "harm" to existing daylight and sunlight levels and overshadowing of adjoining properties; and
- Whether the level of "harm" is unacceptable.

3.12 Supporting text requires applicants to refer to the BRE Guidelines (para 6.5).

LONDON BOROUGH OF CAMDEN DRAFT HOLBORN VISION AND STRATEGY (2019)

3.13 The Site is identified within the emerging Holborn Vision and Urban Strategy (2019) as a 'Key Project' for potential redevelopment. The guidance within this document supports active frontages ground level, increased residential population, and a through route on an axis with Coptic Street with future potential to connect to Covent Garden.

LONDON BOROUGH OF CAMDEN DRAFT SITE ALLOCATION PLAN (2020)

3.14 The Site lies within the Tottenham Court Road Growth Area, Tottenham Court Road Opportunity Area and within the Central Activities Zone ('CAZ').

3.15 The Site is identified as a development site within the Council's Draft Site Allocations Plan (2020) under Policy HCG3 ('1 Museum Street'). The draft allocation supports the comprehensive redevelopment of the Site with a mix of commercial and residential uses, emphasising the requirement for enhancing the public realm, permeability through the Site and ground level experience.

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 (2011)'*, guidelines and methodology for the measurement and assessment of daylight and sunlight.

BUILDING RESEARCH ESTABLISHMENT GUIDELINES 2011

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 BS8206-2:2008 and The Applications Manual on Window Design of the Chartered Institution of Building Services Engineers (CIBSE).

4.2 The BRE Guidelines provides three methodologies for daylight assessment of neighbouring properties, namely;

1 The Vertical Sky Component (VSC);

2 The No Sky Line (NSL); and

3 The Average Daylight Factor (ADF).

4.3 For daylight to be compliant (in accordance with figure 20 of the Guide), both the VSC and NSL tests have to be met.

4.4 The BRE Guidelines suggest that the ADF assessment should only be used to "check that adequate daylight is provided in new rooms", rather than existing buildings.

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

4.6 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.

4.7 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.

OVERSHADOWING

4.8 The BRE Guide provides two methods of overshadowing assessment, the Sun Hours on Ground and Transient Overshadowing studies.

4.9 The BRE guidance in respect of overshadowing of amenity spaces is set out in section 3.3 of the handbook. Here it states as follows:

> *"Sunlight in the spaces between buildings has an important impact on the overall appearance and ambiance of a development. It is valuable for a number of reasons, to:*
>
> - *provide attractive sunlit views (all year)*
> - *make outdoor activities, like sitting out and children's play more pleasant (mainly warmer months)*
> - *encourage plant growth (mainly spring and summer)*
> - *dry out the ground, reducing moss and slime (mainly in colder months)*
> - *melt frost, ice and snow (in winter)*
> - *dry clothes (all year)"*

4.10 Again, it must be acknowledged that in urban areas the availability of sunlight on the ground is a factor which is significantly controlled by the existing urban fabric around the site in question and so may have very little to do with the form of the development itself.

4.11 Likewise there may be many other urban design, planning and site constraints which determine and run contrary to the best form, sitting and location of a proposed development in terms of availability of sun on the ground.

4.12 The summary of section 3.3 of the guide states as follows:

> *"3. 3 .17 It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21 March. If as a result of new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21 March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable. If a detailed calculation cannot be carried out, it is recommended that the centre of the area should receive at least two hours of sunlight on 21 March."*

4.13 Appendix 01 of this report elaborates on the mechanics of the above assessment criteria, explains the appropriateness of their use and the parameters of each specific recommendation.

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 to carry out the relevant technical studies. All relevant assumptions made in producing this model can be found in Appendix 01.

SURROUNDING PROPERTIES

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

- 29 Field Street;
- 181 King's Cross Road;
- 181a-185 King's Cross Road (first floor up);
- 177 King's Cross Road; and
- 179 King's Cross Road.

5.3 The following properties adhere to the numerical values set out within the BRE Guidelines and are not discussed further:

- 181 King's Cross Road;
- 181a-185 King's Cross Road;
- 177 King's Cross Road; and
- 179 King's Cross Road.

5.4 Where changes in daylight and sunlight occur to the remaining properties, the impacts are fully discussed in the following sections. All results can be found in Appendix 04.

DISCUSSION OF RESULTS

29 Field Street

5.5 This property is located to the north of the development Site.

5.6 GIA have been able to obtain floor plans of this property and this has formed the basis of our technical analysis.

5.7 It is our understanding that the ground floor is in commercial use and has therefore been discounted from our technical analysis.

5.8 GIA have identified three rooms that include windows that face the Site. An LKD located on the first floor and two bedrooms located on the second floor.

Daylight (VSC & NSL)

5.9 In accordance with the VSC analysis all windows will adhere to the BRE Guide.

5.10 When considering the NSL test the two bedrooms will also adhere to the BRE criteria for this daylight methodology and as such the two bedrooms comply with paragraph 2.2.21 of the Guide.

5.11 The LKD will see a change in the NSL of 25% against the BRE recommendation of 20%.

5.12 This alteration in NSL is not considered to be a significant change beyond the BRE especially in consideration of the urban context.

Sunlight (APSH)

5.13 When considering the sunlight analysis, all rooms will adhere to the Guide.

Conclusion

5.14 In conclusion only the LKD will see a change in daylight by reference to the NSL test. All other daylight and sunlight tests are met.

5.15 Where there is an alteration in the daylight within the room to the LKD, this is only just beyond the principal value allowed within the BRE Guide.

5.16 It is therefore our opinion that these alterations are not considered to be a serious breach of the Guide.

6 SUN HOURS ON GROUND (SHOG) ASSESSMENTS

This section details the SHOG assessments undertaken for the adjoining amenity areas..

6.1 GIA have identified four private amenity spaces that may be overshadowed by the implementation of the proposed development. These gardens are located in the following properties:

- 29 Field Street;
- 181 King's Cross Road;
- 179 King's Cross Road; and
- 177 King's Cross Road (this garden has been split into two areas).

6.2 All gardens achieve BRE compliance for SHOG except for one of the garden areas associated with 177 King's Cross Road. However, the reason that the area does not achieve BRE compliance is that it only receives 4% of its area seeing more than 2 hours of sunlight on the 21st March. Following implementation of the proposed scheme, this is reduced to 0%. We consider this a technical transgression beyond the guidance.

6.3 All SHOG results are located within Appendix 05.

6.4 The image in Figure 04 illustrates the SHOG in the existing condition:

6.5 The image in Figure 05 illustrates the SHOG in the proposed scenario:

6.6 The image in Figure 06 illustrates the loss:

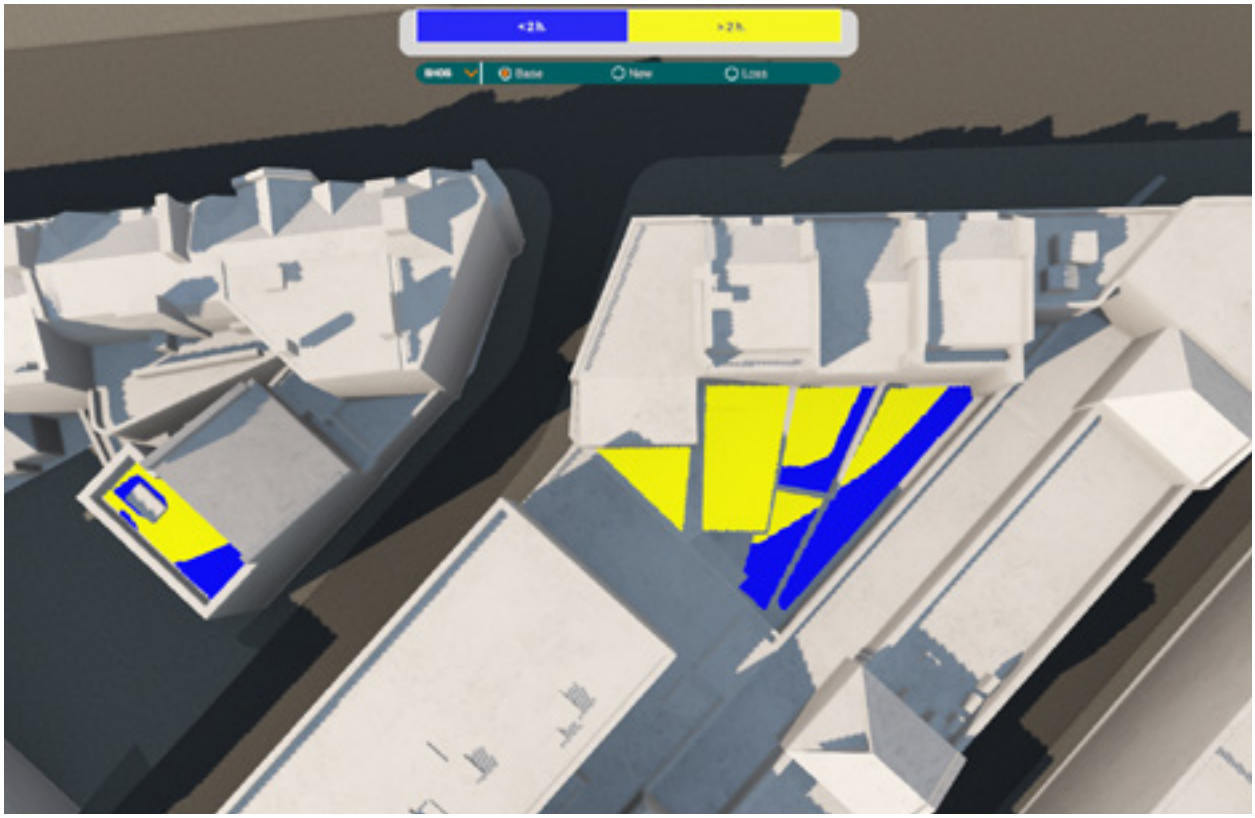

Figure 04: SHOG - Existing

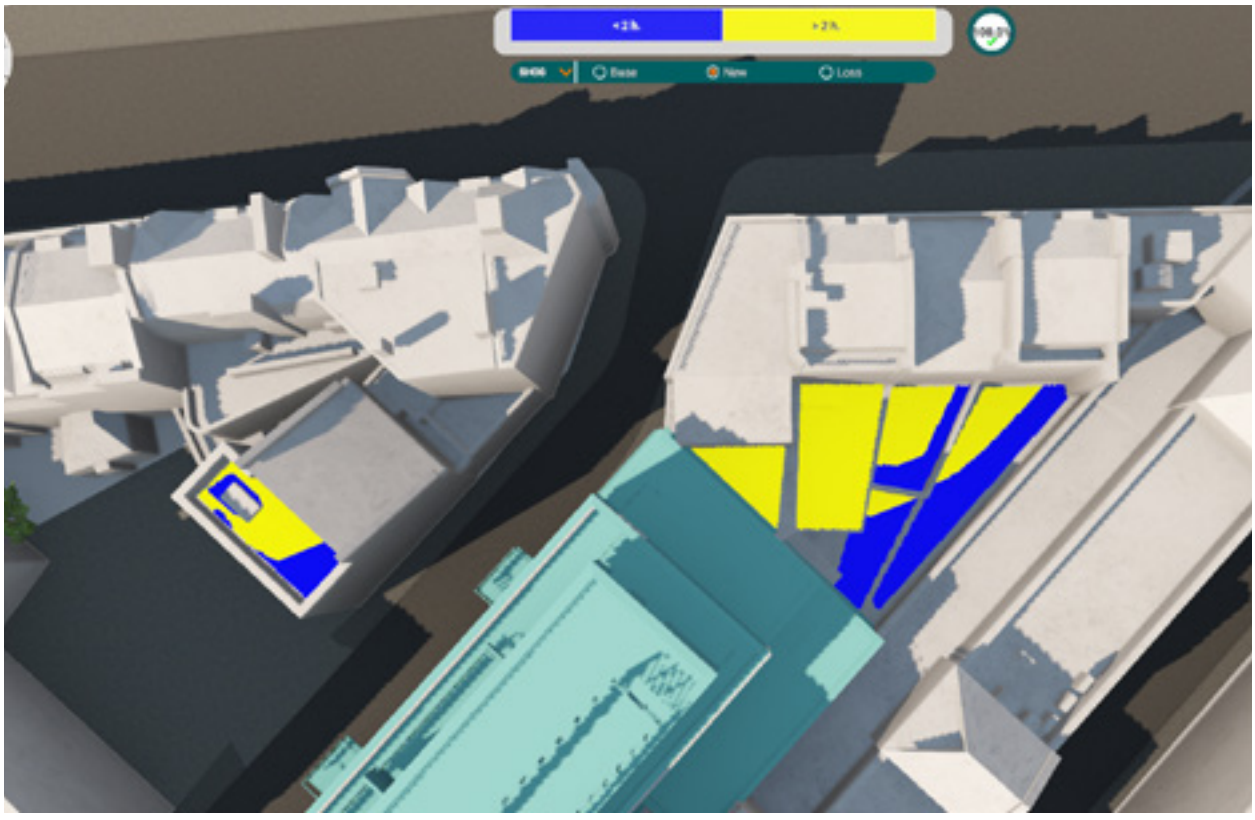

Figure 05: SHOG - Proposed

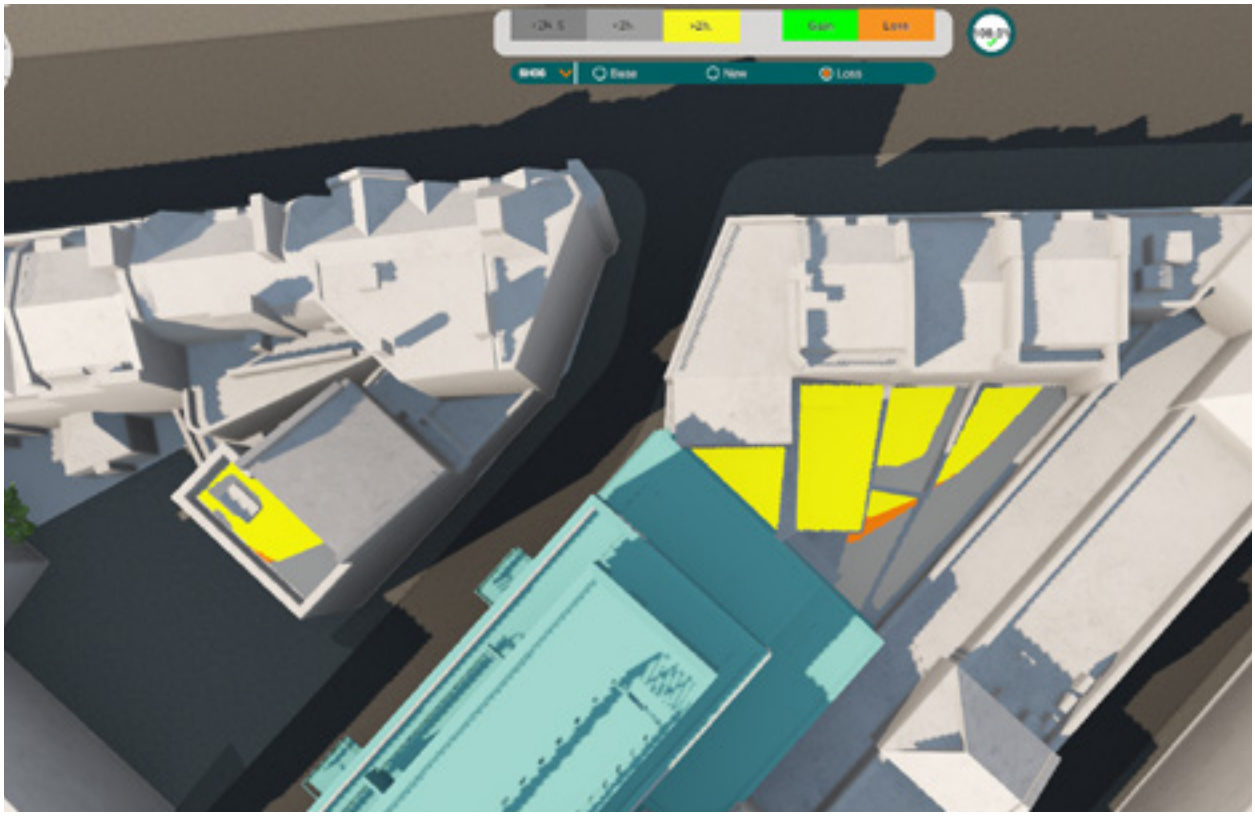

Figure 06: SHOG - Loss

7 CONCLUSIONS

GIA have undertaken a daylight and sunlight assessment in relation to the Proposed Development at The Joint, Field and Leeke Street. The technical analysis has been undertaken in accordance with the BRE Guidelines.

7.1 Throughout the design process, the scheme has been subjected to extensive testing to minimise the daylight and sunlight impacts to the surrounding residential properties.

7.2 When constructing buildings in an urban environment, alterations in daylight and sunlight to adjoining properties are often unavoidable. The numerical guidance given in the BRE document should be treated flexibly, especially in dense urban environments.

7.3 Our technical analysis shows that following the implementation of the Proposed Development one property, 29 Field Street, will experience changes outside of the BRE recommendations.

7.4 It should be noted that only one room within this property is affected and the breach is only just above the permissible level within the Guide and is not considered to be a significant impact.

7.5 Overall, of the rooms tested 95.8% comply with the daylight test and 100% with the sunlight test. There is a high compliance rate for SHOG with only one small garden area experiencing a technical transgression in guidance.

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