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DAYLIGHT & SUNLIGHT REPORT

relating to the

PROPOSED EXTENSION

at

33 DOWNSIDE CRESCENT
LONDON
NW3 2AN

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APRIL 2022
Ref: 200/EY Rev-

CONTENTS

APPENDICES

1.0 EXECUTIVE SUMMARY

1.1 This Daylight and Sunlight Report considers the impact of the proposal upon daylight and sunlight to neighbouring residential properties.

1.2 The results of our examination are based upon the standard assessment procedure of the BRE Guide 'Site Layout Planning for Daylight and Sunlight - A Guide to Good Practice' Edition 2011 (The BRE Guide).

1.3 Based upon the analysis results, for any applicable reductions to the neighbouring windows / habitable rooms, these are all meeting BRE Guide target criteria for both daylight vertical sky component (with due consideration of BRE Guide clause 2.2.6) and daylight distribution.

1.4 For sunlight, there are no neighbouring windows serving habitable rooms with applicable orientation for review, and in terms of the effect upon neighbouring amenity, any reductions applicable meet BRE Guide target criteria.

1.5 Therefore, we conclude that the impacts of the proposal upon daylight and sunlight to neighbouring residential properties are considered as meeting BRE Guide target criteria, and on this basis, should be considered acceptable.

2.0 OVERVIEW

2.1 The proposal is for the replacement and extension of the single storey rear extension. The scheme has been prepared by Brandon Schubert Ltd.

2.2 The proposals are shown in detail on the planning drawings but for general visual reference, we present 3D perspective massing views of existing (Image No.1) and proposed (Image No.2) as follows;

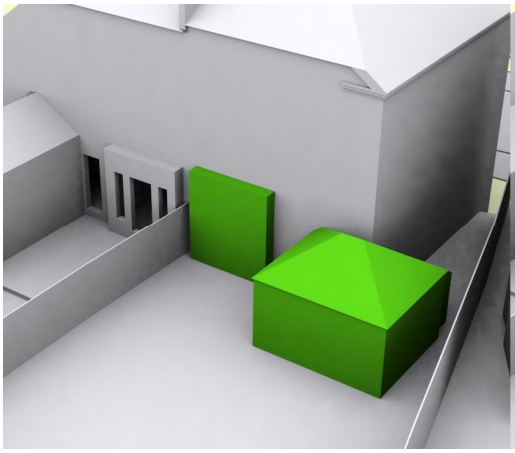


Image 1 - Existing

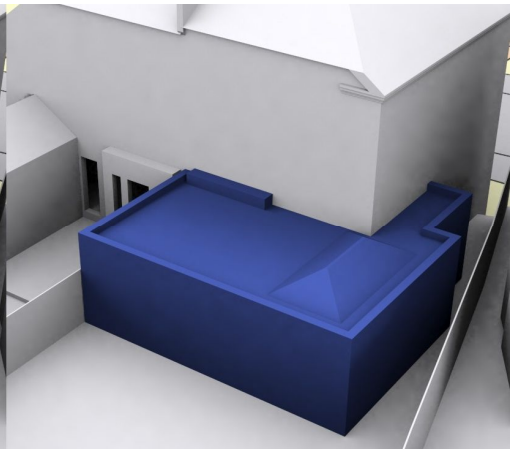


Image 2 - Proposed

2.3 In terms of neighbouring properties for detailed review, this relates to the nearest neighbouring residential property at No.35 Downside Crescent (as background the flank windows to adjacent neighbouring building No.31 are anticipated to serve non-habitable rooms, thus not applicable for review).

2.4 3D perspective views (existing and proposed) with neighbouring context (along with associated window references relating to the analysis tables) are provided within **Appendix A**, to enable the analysis tables and other descriptions within this report to be understood.

3.0 NEIGHBOURING REVIEW – DAYLIGHT & SUNLIGHT

3.1 BACKGROUND

3.1.1 Daylight and sunlight amenity are considerations that the local planning authority will ordinarily take into account when determining planning applications. There is no national planning policy relating to daylight and sunlight and overshadowing impacts although general guidance is, however, given on the need to protect existing amenity as set out in the National Planning Policy Framework. The National Planning Practice Guidance (NPPG) requires consideration on whether the impact to neighbouring daylight and sunlight would be 'unreasonable'.

3.1.2 At a Regional level, the Mayor of London has introduced the **new London Plan (March 2021)** providing an overall strategic plan for London, which includes an environmental framework for development within London. The proposal, in consideration of bulk, scale and massing is considered to be appropriate for surrounding context in terms of impacts to daylight and sunlight amenity. Locally, the London Borough of Camden provides policies on daylight and sunlight review.

3.1.3 The Building Research Establishment's (BRE) 'Site Layout Planning for Daylight and Sunlight - A Guide to Good Practice' (2011) (The BRE Guide) enables an objective assessment to be made as to whether the proposals will adversely affect the daylight and sunlight reaching neighbouring habitable rooms. The BRE Guide is the industry source reference for daylight and sunlight review although it is important to highlight that the Guide is not a set of planning rules, which are either passed or failed; the numerical values are given and used, not as proscriptive or prescriptive values but as a way of comparing situations and coming to a judgement. The BRE Guide is conceived as an aid to planning officers and designers by giving objective means of making assessments. The values given as desirable in the BRE Guide may not be obtainable in dense urban areas where the grain of development is often tighter.

3.2 METHODOLOGY

3.2.1 We have undertaken analysis of the existing and proposed situations following the methodology set out in the BRE Guide on Site Layout Planning for Daylight and Sunlight (2nd Ed / 2011). We have considered daylight, both in terms of Vertical Sky Component (VSC) and daylight distribution analysis and have also considered sunlight (again, by the method set out in the Guide) to review as applicable, the proportion of the annual probable sunlight hours (APSHs) and winter hours, that the surrounding windows will benefit from in the existing and proposed scenario.

3.2.2 We have utilised OS data, and the architect's design drawings to enable a 3D model of the existing and proposed arrangement, with neighbouring context, ready for analysis with industry recognised specialist software for daylight/sunlight review. As the scheme drawings form part of the formal submission, these are not reproduced here.

3.2.3 In terms of neighbouring properties applicable for detailed daylight and sunlight review, we have assessed the effects of the proposals on applicable windows and rooms within residential property **No.35 Downside Crescent** – located east of site.

3.2.4 Whilst we have not accessed the neighbouring properties, we have reasonably inferred internal arrangements for analysis from indicative floor plans found within the public realm (planning portal / estate agent descriptions).

3.3 DAYLIGHT VSC

3.3.1 The BRE Guide considers that in terms of Vertical Sky Component (VSC), as a target value, if the VSC with the new development in place is both, less than 27% and less than 0.8 times its former value (i.e. the latter, if exceeding a 20% reduction), occupants of the existing building will notice the reduction in the amount of skylight. The maximum value obtainable at a flat window in a vertical wall is effectively 40%.

3.3.2 VSC represents a ratio of the part of illuminance at a point on a given vertical plane (usually the centre point of window on the window wall face), that would be received directly from an overcast sky (CIE standard overcast sky) to illuminance on a horizontal plane due to an unobstructed hemisphere of this sky. The VSC does not include reflected light, either from the ground or from other buildings.

3.3.3 **Table 1** – VSC and sunlight for surrounding buildings within **Appendix B** sets-out the results of our analysis review with the existing and proposed VSC values presented along with the proportion of the former value stated from which we summarise the results as follows;

35 Downside Crescent: VSC reductions to primary windows are readily meeting BRE Guide target criteria.

As background, analysis consideration of ground floor windows W2 and W4 was undertaken on the basis of average VSC in reference to BRE Guide clause 2.2.6 'if a room has two or more windows of equal size, the mean of their VSC's may be taken.

3.4 DAYLIGHT DISTRIBUTION

3.4.1 The Guide considers that in terms of daylight distribution, as a target value, if the daylight distribution with the new development in place is less than 0.8 times its former value (i.e. if exceeding a 20% reduction), occupants of the existing building will notice the reduction in the amount of daylight distribution within the room.

3.4.2 Daylight distribution relates to the area of the room (expressed as a percentage of the whole room area) that can see direct sky, at the working plane (working plane for residential is taken at 85 cm above floor level).

3.4.3 **Table 2** – Daylight Distribution for surrounding buildings within **Appendix B** sets out the results of our analysis review with the existing and proposed daylight distribution values presented along with the proportion of the former value stated, from which we summarise the results as follows;

35 Downside Crescent: There are effectively no reductions in daylight distribution thus readily meeting the BRE Guide target criteria.

3.4.4 **Daylight Summary:** Daylight analysis for all applicable neighbouring primary windows / habitable rooms, confirms that for reductions to such windows / rooms, where reductions are applicable, these all meet BRE Guide default target criteria (with due consideration of BRE Guide clause 2.2.6) and this basis should be considered acceptable.

3.5 SUNLIGHT

3.5.1 For sunlight, only windows that face within 90° of South, that is to say, facing from 90° to 270°, are ordinarily considered in reference to sunlight BRE Guide review.

3.5.2 The BRE Guide recommendation is that windows facing within 90° of South, should have 25% of Annual Probable Sunlight Hours (APSHs) with 5% in the winter months (from the autumn equinox to the spring equinox). Where reductions below the recommended levels are contemplated, these should be targeted so that the proposed value is 0.8 times former value or above (unless a reduction of sunlight received over the whole year is not greater than 4% of annual probable sunlight hours).

3.5.3 To highlight, focus of analysis review of windows primarily relates to main living rooms and conservatories i.e. sun important rooms as per the BRE Guide. Notwithstanding this, we have analysed all habitable windows for sunlight review as considered previously for daylight.

3.5.4 In this particular instance there are no windows serving habitable rooms with the appropriate orientation / applicable for review.

3.6 SUN ON THE GROUND

3.6.1 The BRE Guide states that the garden (amenity space) of an existing property, it is recommended that for it to appear adequately sunlit throughout the year;

1) *at least half of a garden or amenity area should receive at least two hours of sunlight on 21st March.*
2) *If as a result of a new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21st 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 21st March.*

3.6.2 We have undertaken analysis of the nearest applicable surrounding main amenity areas i.e. rear gardens to No.31 and No.35 Downside Crescent. We now present the analysis for the amenity areas reviewed in Table A below:

TABLE A: Ability to receive 2hr sun on the ground at the equinox (21st March)

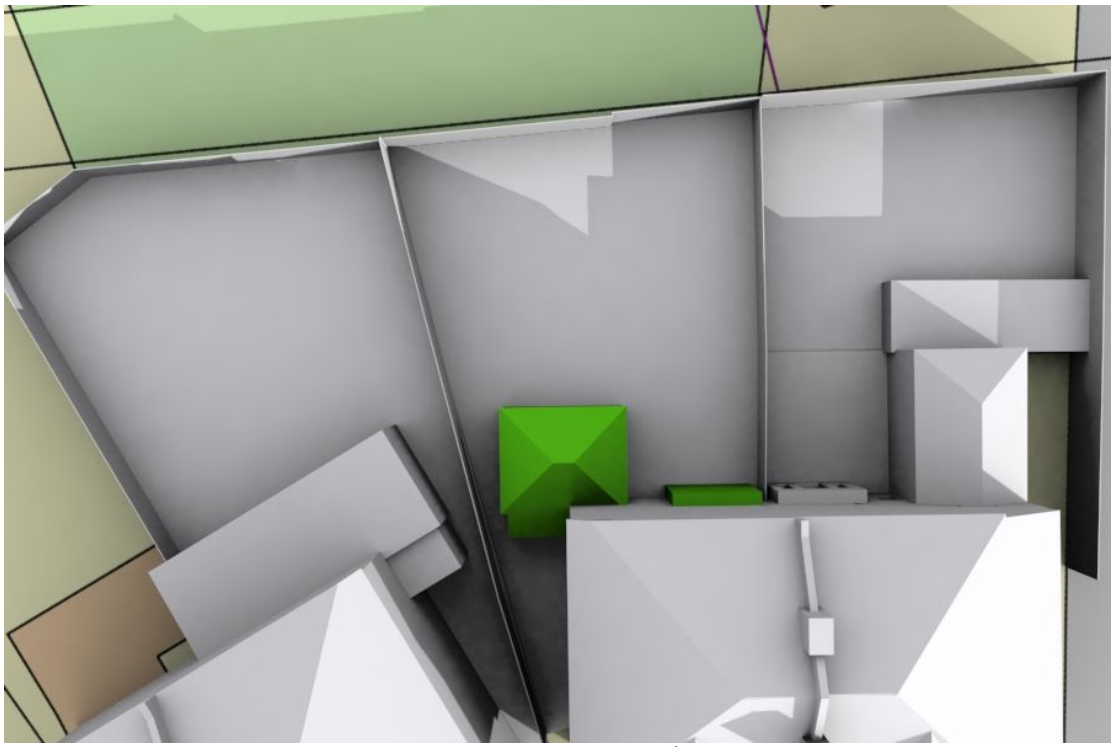
Amenity Area / Property	Existing 2-hour Area (ability to receive 2 hours sun at Equinox)		Proposed 2-hour Area (ability to receive 2 hours sun at Equinox)		Proposed / Existing for Sun
	Sun	Shaded	Sun	Shaded	
31 Downside Crescent	76%	24%	76%	24%	1.00
35 Downside Crescent	52%	48%	52%	48%	1.00

The above is also presented as plot 200/EY-04, areas that are hatched orange have the ability to receive 2 hours of sunlight at the equinox (please see Appendix B).

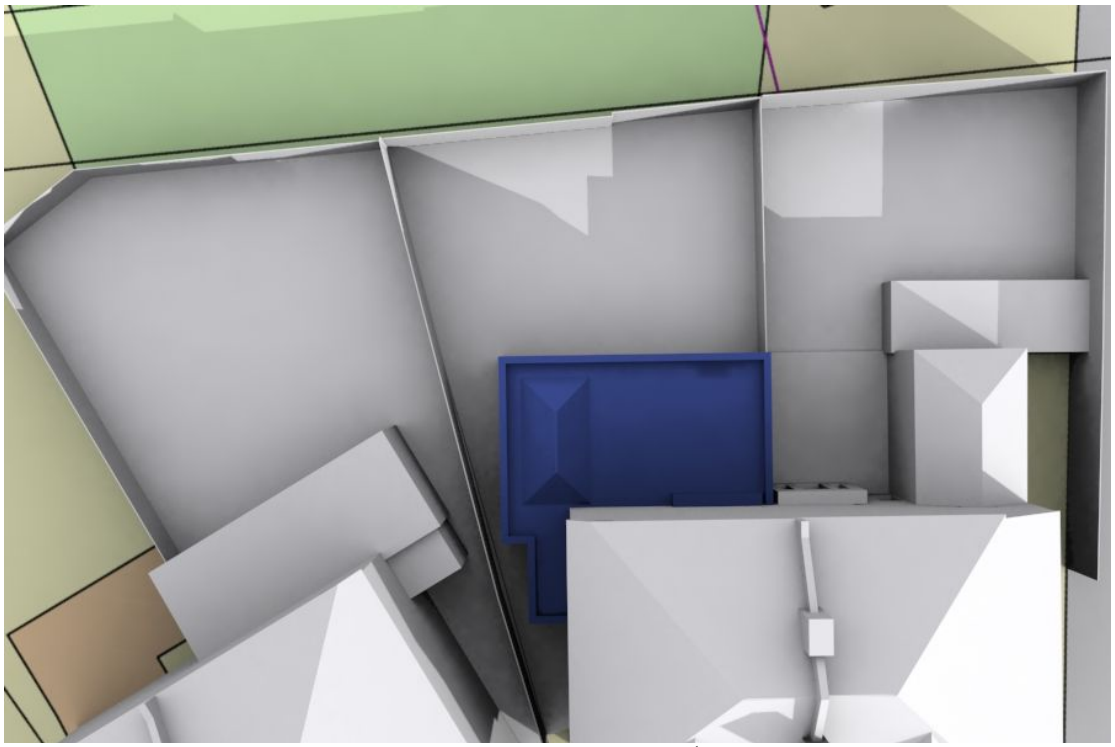
3.6.3 Thus, for the nearest applicable amenity areas, the areas that have the actual ability to receive 2 hours of sun on the ground at the 21st March Equinox readily meet BRE Guide target criteria.

3.6.4 For visual representation, we set out in the following pages, a series of images as existing and as proposed, taken at two-hourly intervals through the day on the Equinox to show the cast of the shadows pictorially. It is important to state that whilst the sequence highlights some shadowing change, this is obviously transient shadowing and any increase in shadowing is for limited parts of the day. Given that the main rear gardens are effectively to the south of the proposal it is evident that any increase in shadowing is very limited from the proposal.

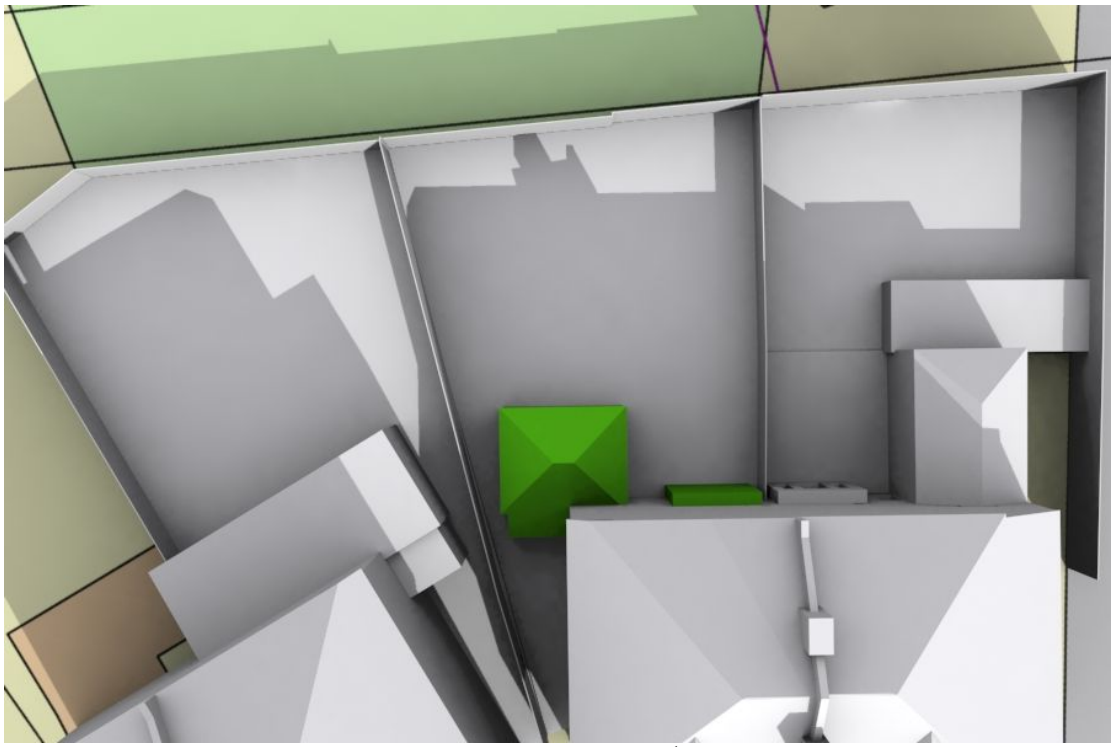
3.6.5 In summary, the proposals satisfy the BRE Guide target criteria / there is no material effect.



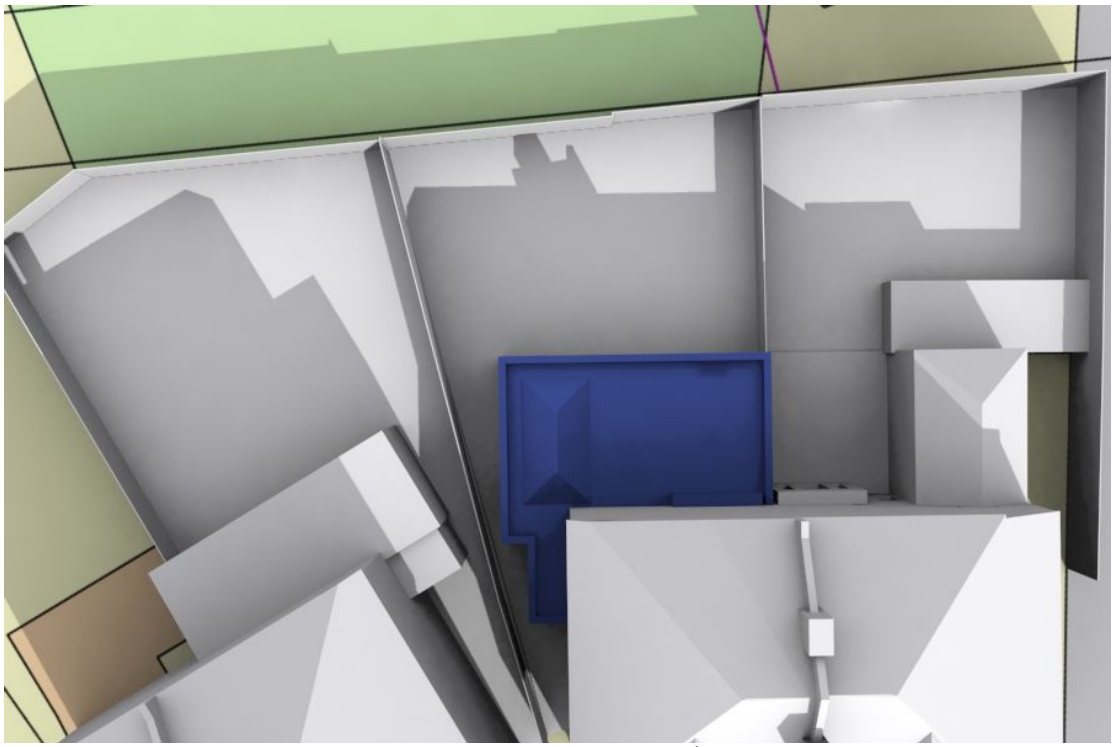
Shadow Diagram - 08.00 hours as existing on the 21st March Equinox



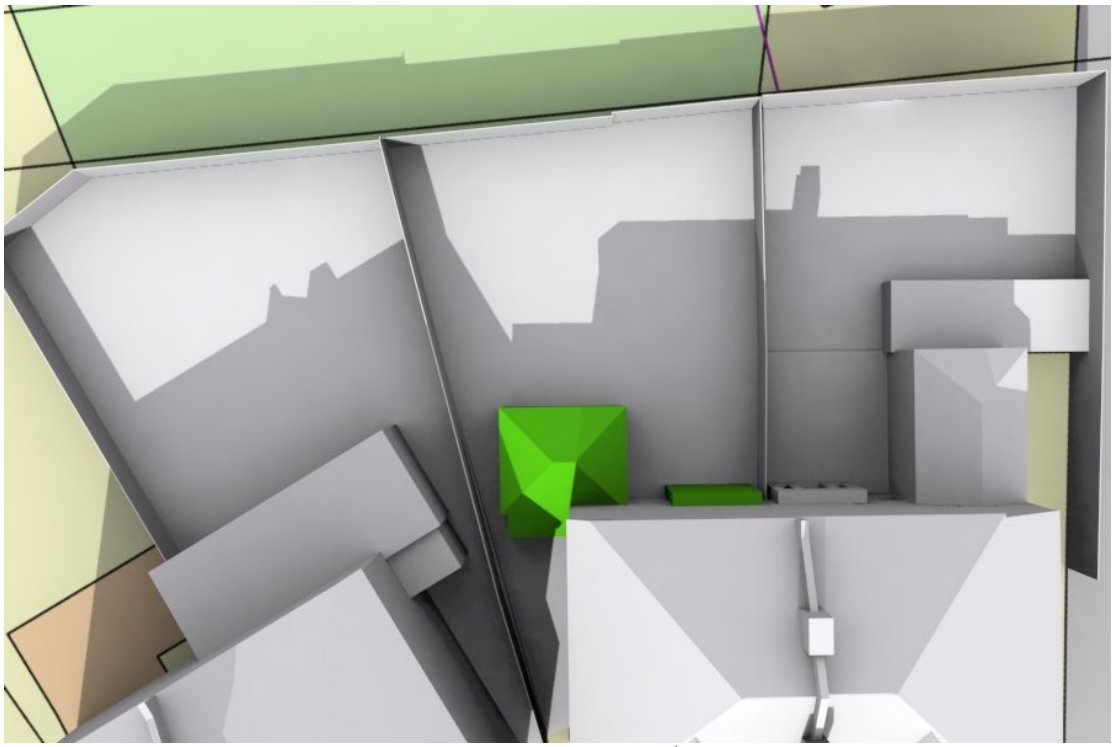
Shadow Diagram - 08.00 hours as proposed on the 21st March Equinox



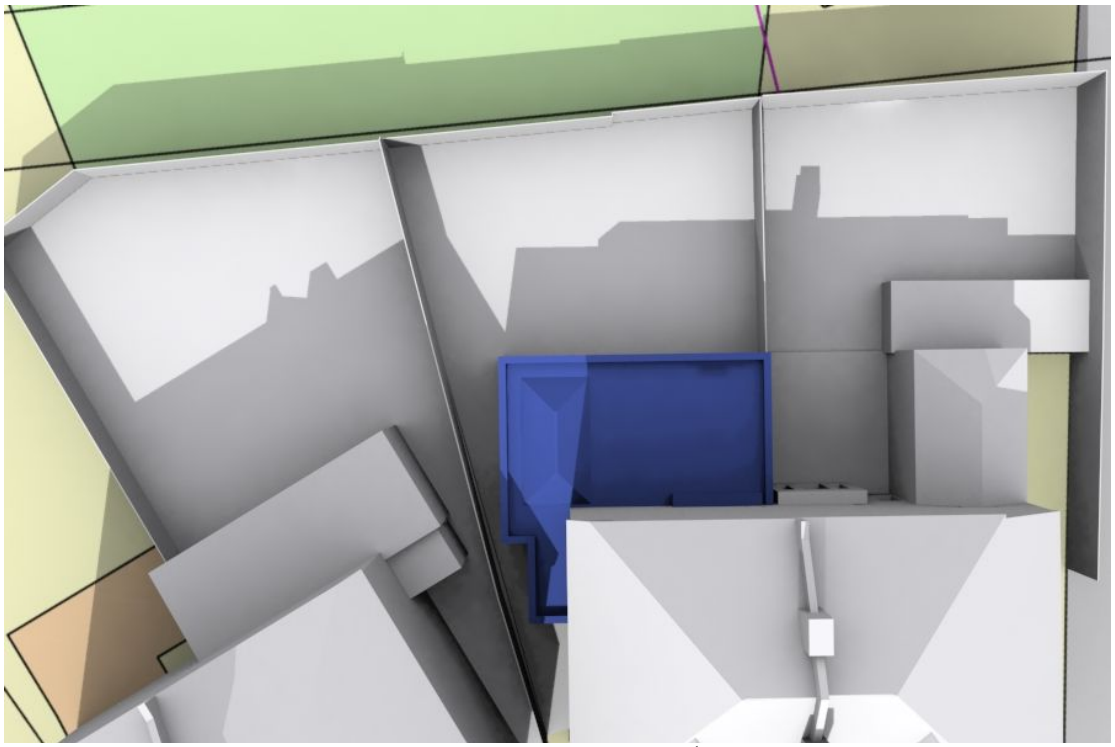
Shadow Diagram - 10.00 hours as existing on the 21st March Equinox



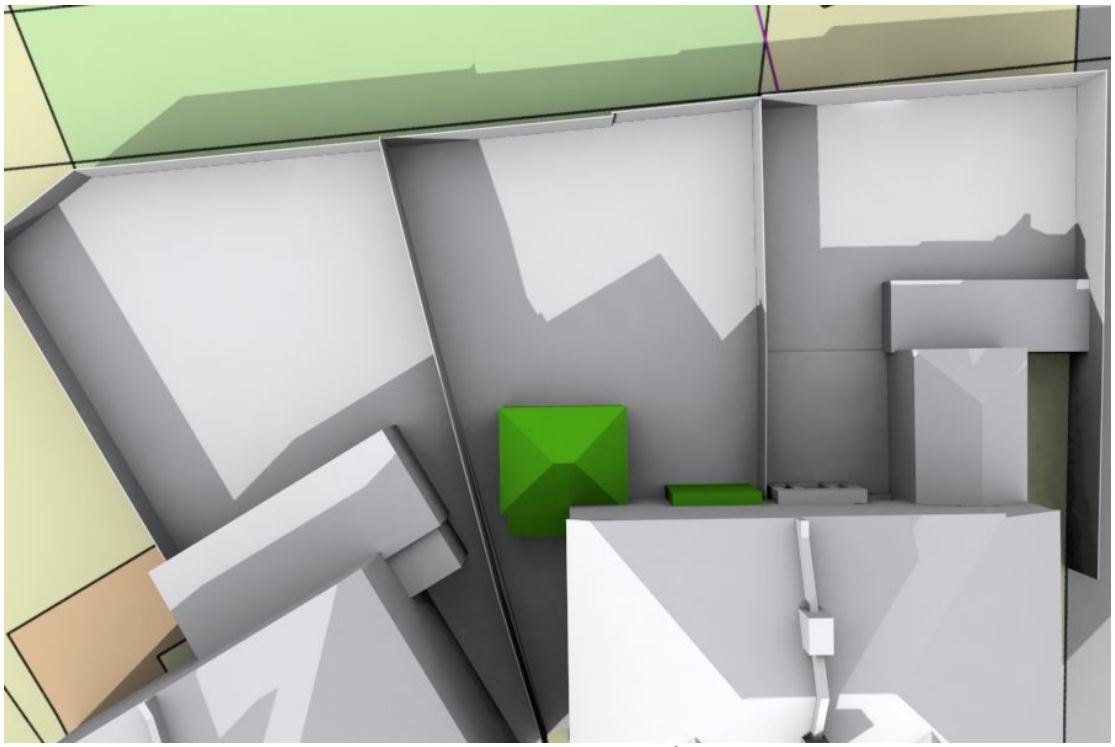
Shadow Diagram - 10.00 hours as proposed on the 21st March Equinox



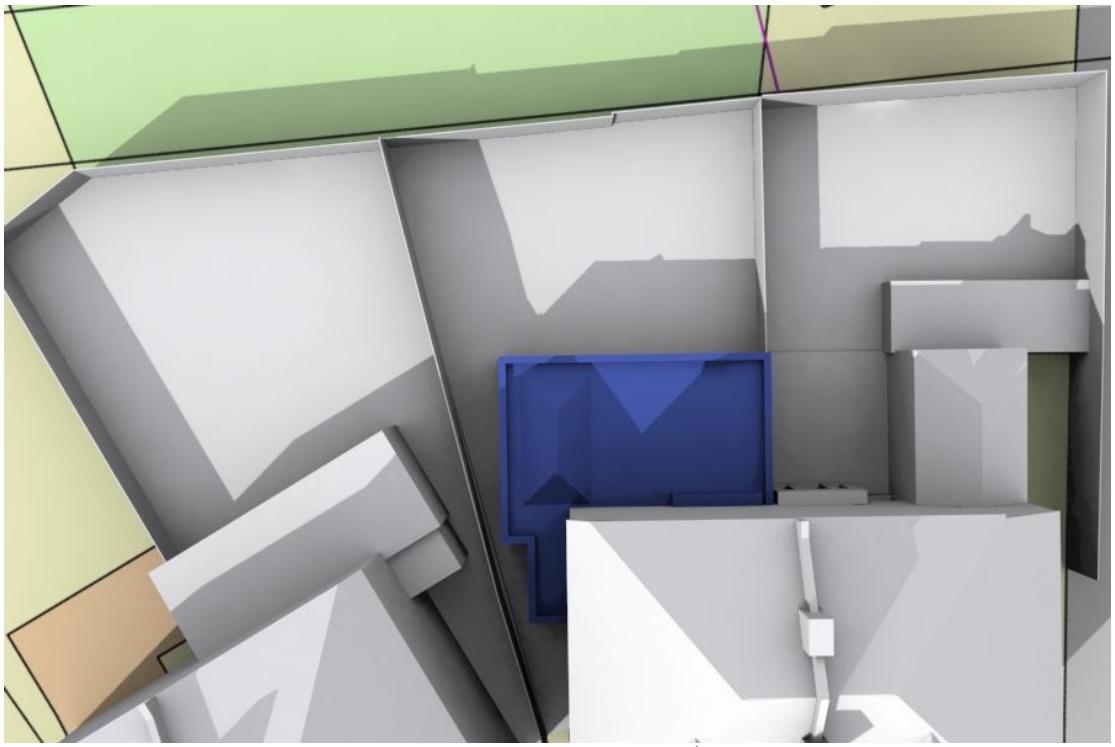
Shadow Diagram - 12.00 hours as existing on the 21st March Equinox



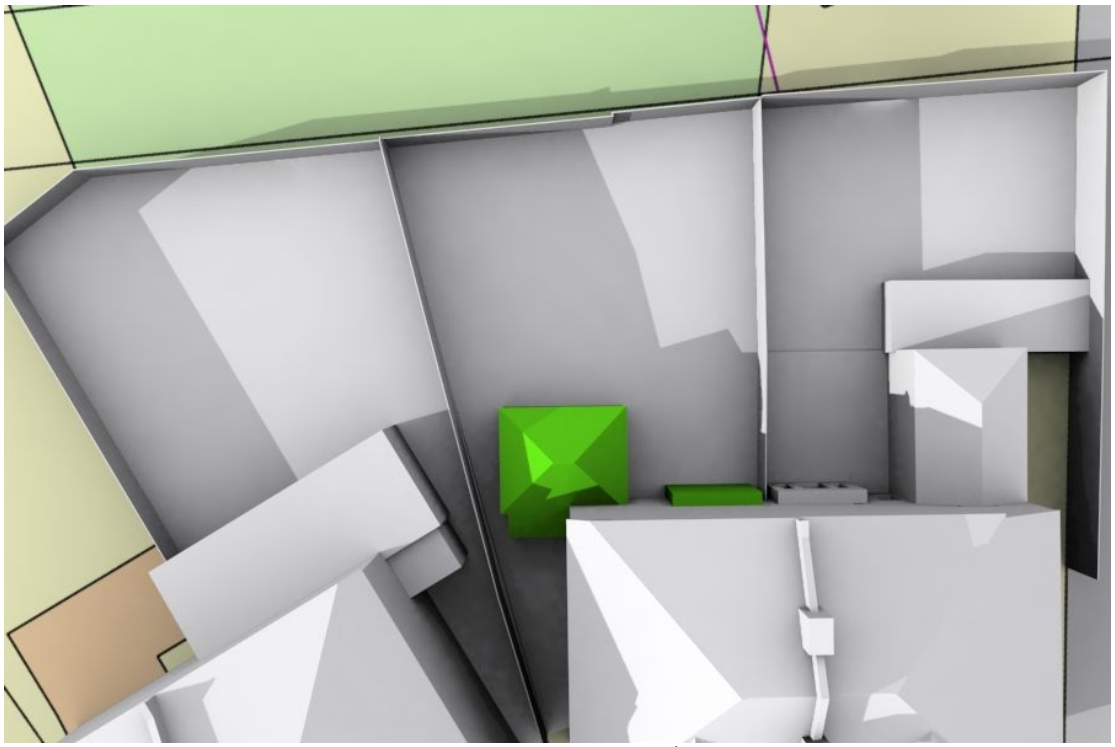
Shadow Diagram - 12.00 hours as proposed on the 21st March Equinox



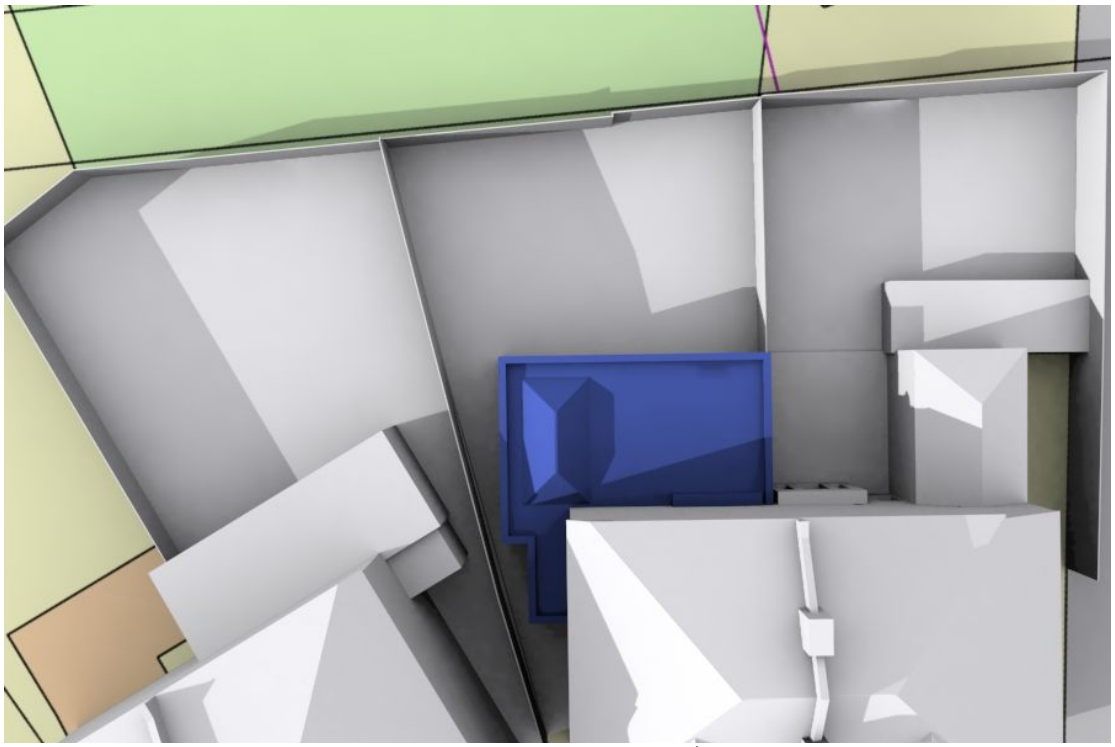
Shadow Diagram - 14.00 hours as existing on the 21st March Equinox



Shadow Diagram - 14.00 hours as proposed on the 21st March Equinox



Shadow Diagram - 16.00 hours as existing on the 21st March Equinox



Shadow Diagram - 16.00 hours as proposed on the 21st March Equinox

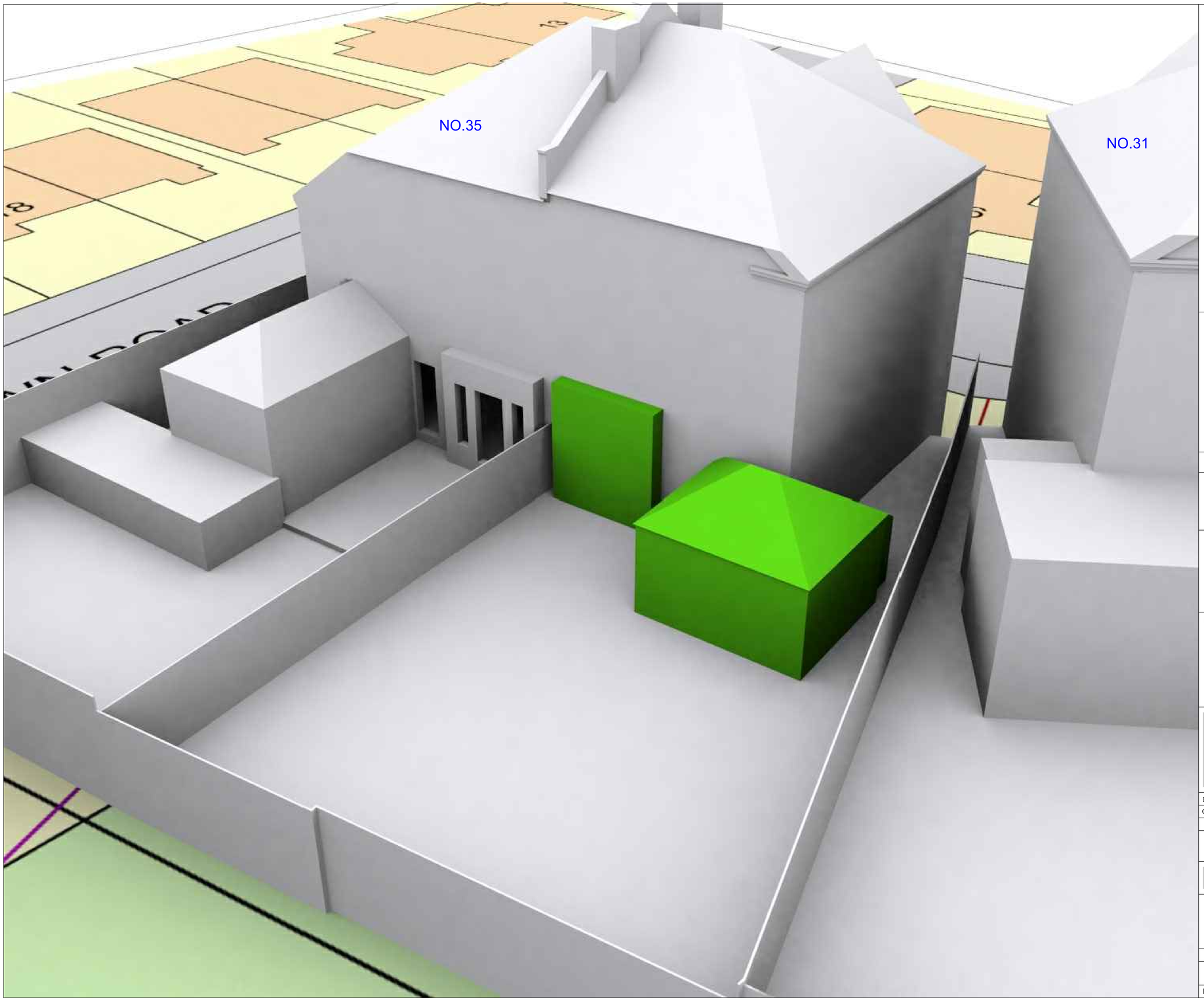
APPENDICES

A. **3D Perspective Views with Neighbouring Context** (existing and proposed), associated Window / Room Reference Plans.

B. **Neighbouring Analysis:**
Table 1 - VSC and Sunlight for surrounding buildings
Table 2 - Daylight Distribution for surrounding buildings
2-Hour sun on the ground amenity test

Appendix A

3D Perspective Views with Neighbouring Context (existing and proposed), associated Window / Room Reference Plans.



SOURCES

REV.	NOTES	DWN	DATE

Notes:

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SCALE

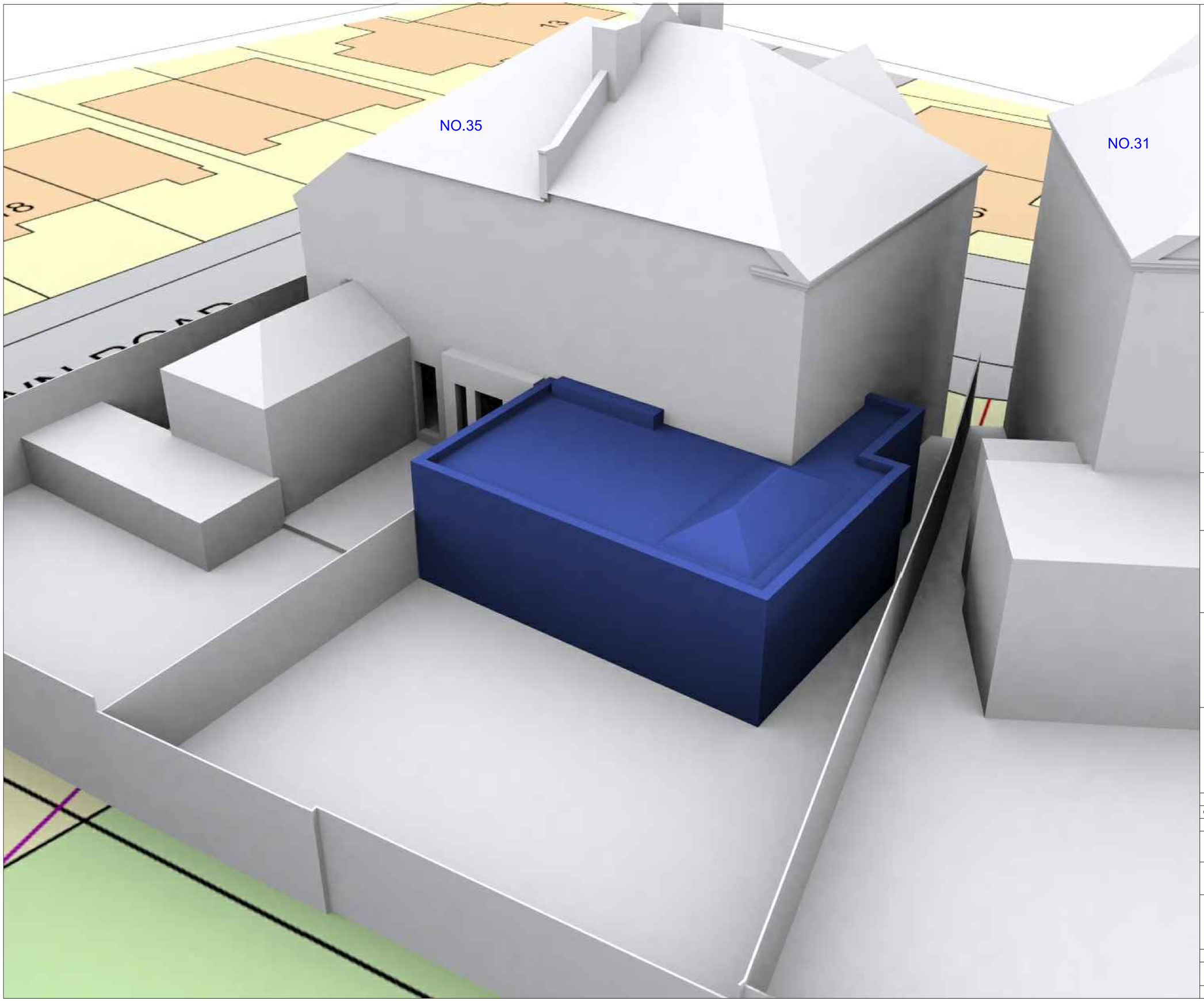
NTS (A3 Sheet)

33 Downside Crescent

Perspective View Existing

Job No	Rev	Drawing Number
200EY	-	01

Date : 2022.04.22



SOURCES

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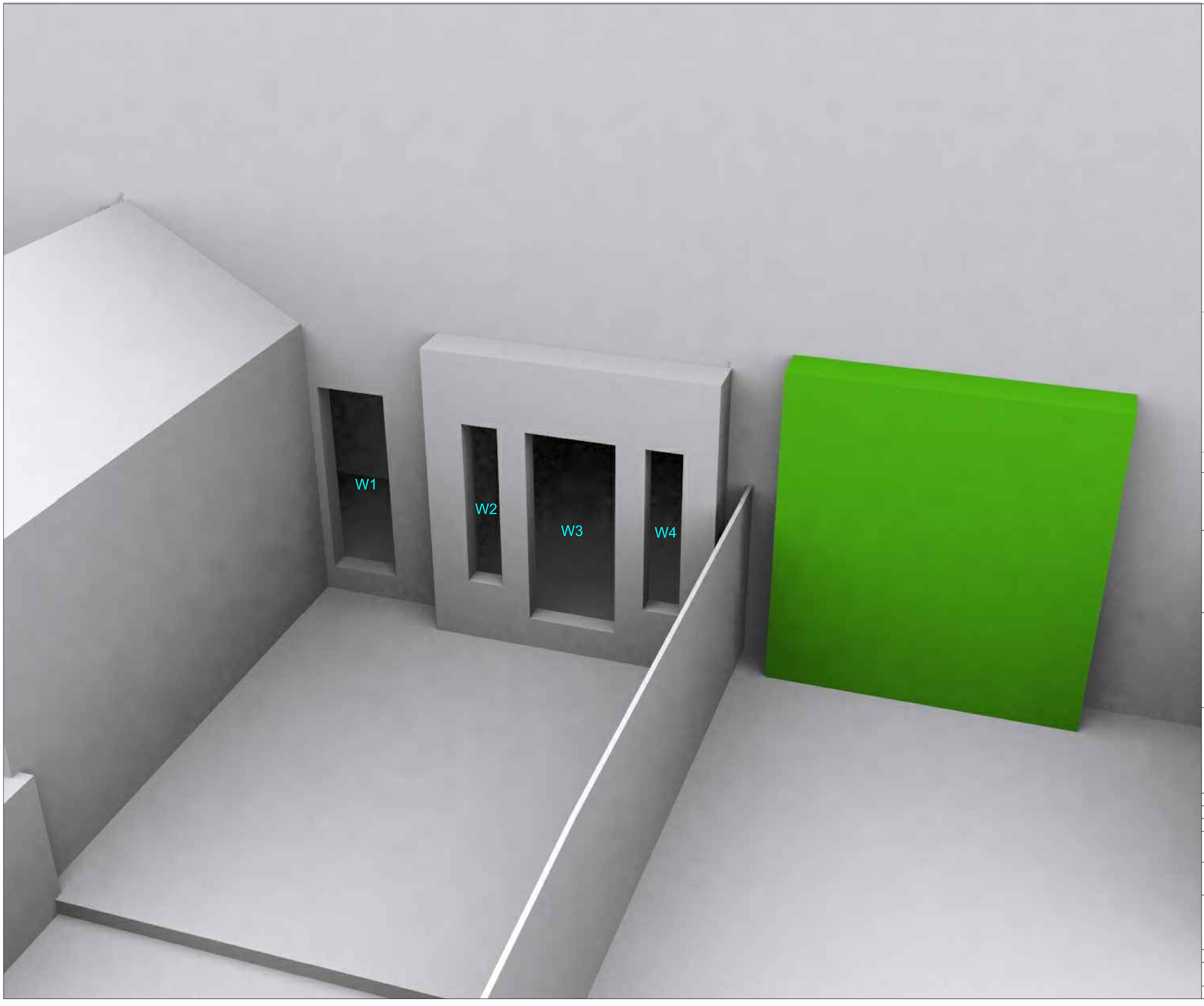
NTS (A3 Sheet)

33 Downside Crescent

Perspective View Proposed

Job No	Rev	Drawing Number
200EY	-	02

Date : 2022.04.22



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33 Downside Crescent

Window Location Map
35 Downside Crescent

Job No	Rev	Drawing Number
200EY	-	03

Date : 2022.04.22

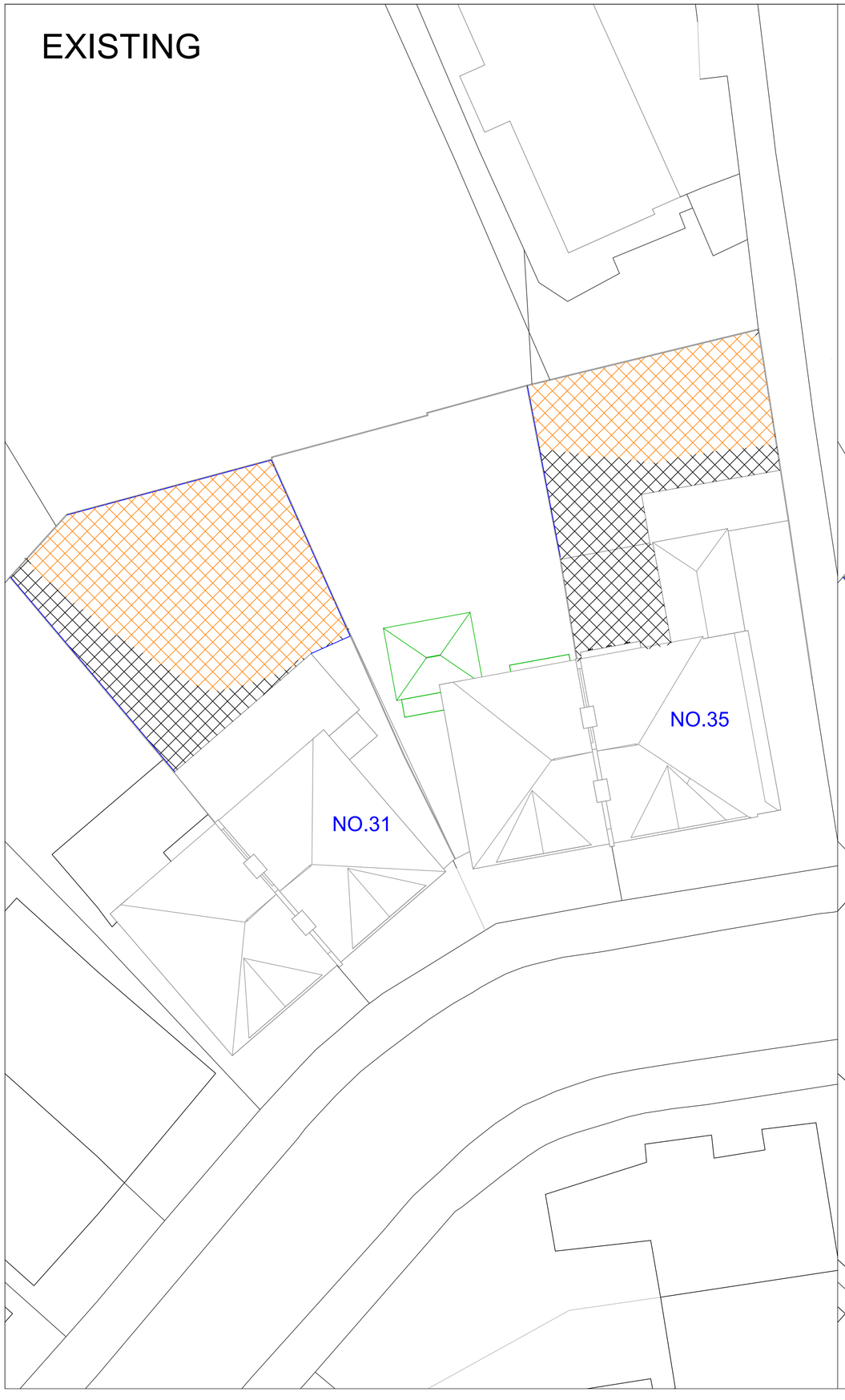
Appendix B

Neighbouring Analysis:
Table 1 - VSC and Sunlight for surrounding buildings
Table 2 - Daylight Distribution for surrounding buildings
2h Sun on the ground amenity test.

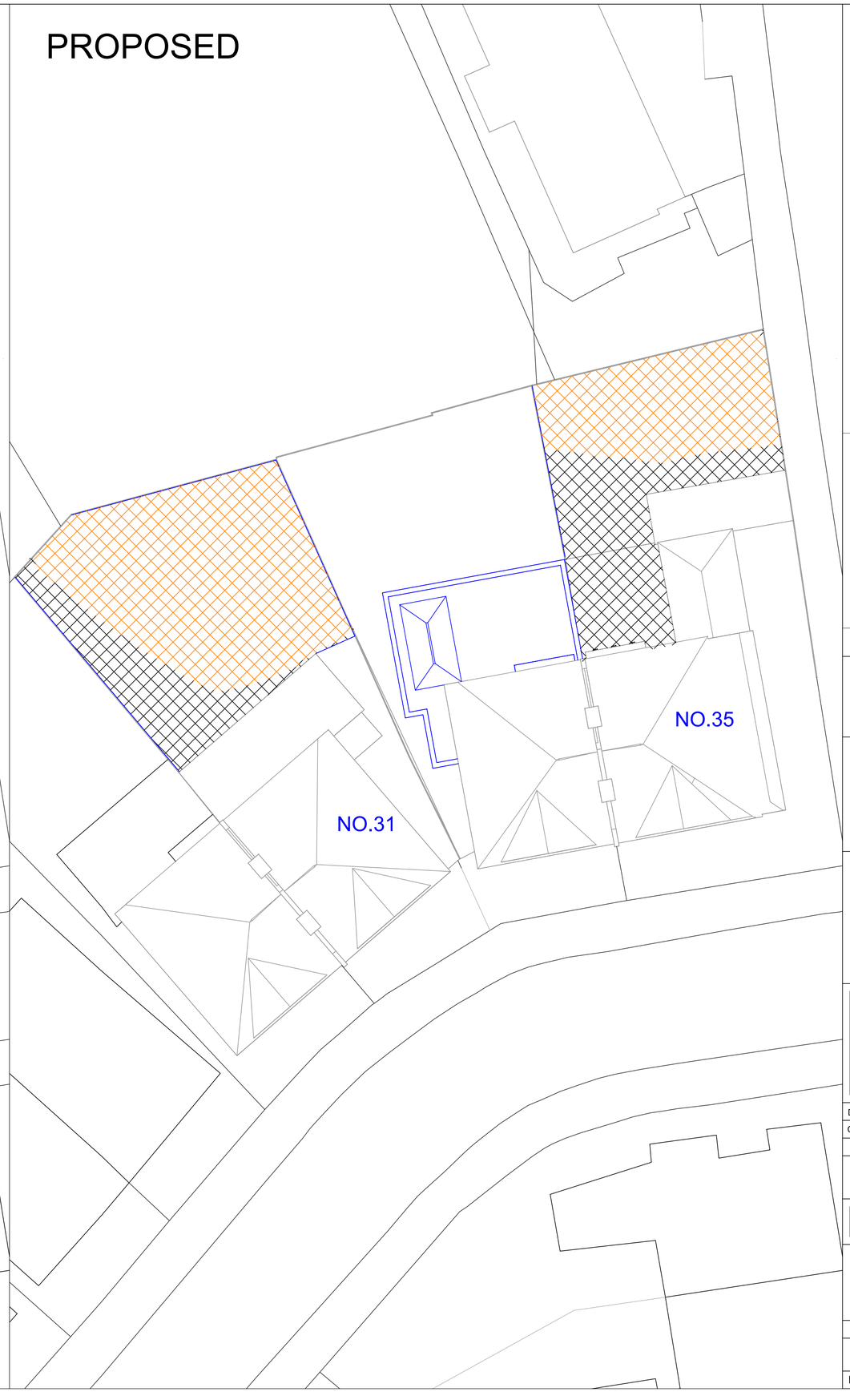
Table 1 - VSC and Sunlight for surrounding buildings													
Floor Ref.	Room Ref.	Room Use.	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Annual	Winter	Total Suns per Room Annual	Meets BRE Criteria	Total Suns per Room Winter	Meets BRE Criteria
35 Downside Crescent													
Ground	R1	Bedroom	W1	Existing	20.37	0.94	YES	*North*	*North*				
				Proposed	19.21					*North*	*North*	*North*	*North*
	R2	Reception Room	W2	Existing	29.59	*see average*		*North*	*North*				
				Proposed	26.36								
			W3	Existing	30.01	0.83	YES	*North*	*North*				
				Proposed	24.85								
			W4	Existing	29.55	*see average*		*North*	*North*				
				Proposed	21.41								
										North	*North*	*North*	*North*
		Average VSC	*W2 & W4*	*Existing*	*29.57*	*0.81*	*YES*						
				Proposed	*23.88*								

Table 2 - Daylight Distribution for surrounding buildings								
Floor Ref.	Room Ref.	Room Use.		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
35 Downside Crescent								
Ground	R1	Bedroom	Area m2	11.89	11.17	11.17		
			% of room		94%	94%	1.00	YES
	R2	Reception Room	Area m2	22.83	22.47	22.47		
			% of room		98%	98%	1.00	YES

EXISTING



PROPOSED



SOURCES

REV.	NOTES	DWN	DATE

>2H SUNLIGHT (EQUINOX)

<2H SUNLIGHT (EQUINOX)

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33 Downside Crescent

2Hr Sun on the ground amenity test
21st March Equinox

Job No	Rev	Drawing Number
200EY	-	04

Date : 2022.04.22