
Daylight, Sunlight and Overshadowing Report

1 Sarre Road, London, NW2 3SN &
8 Westbere Road, London, NW2 3SR



Report Title

Daylight, Sunlight and Overshadowing Report

Site Address

1 Sarre Road, London, NW2 3SN &
8 Westbere Road, London, NW2 3SR

Client

Firstplan

Date of Report

15 December 2021

Prepared by

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Report Preface



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1.0 Introduction

TFT Consultants have been instructed by Firstplan to undertake a full technical review of the potential daylight, sunlight, and overshadowing implications that may arise as a result of the potential redevelopment of the site known as 1 Sarre Road and 8 Westbere Road, London, NW2 3SR.

The study has been undertaken by constructing a detailed 3D model of the existing and proposed development sites and surroundings, then using our specialist computer software, daylight and sunlight simulations and numerical calculations are run within the 3D model environment. The numeric test results and 3D model outputs have been analysed and the outputs have been appended to this report.

2.0 Planning Policy and Guidance

The technical assessment has been undertaken in accordance with the methodology outlined in The Building Research Establishment Report “*Site Layout for Daylight and Sunlight 2011*” (BRE 209). The BRE document is the principle guidance when considering daylight, sunlight and overshadowing.

The aim of the guide is to ensure good conditions in the local environment. It is intended for buildings designers and their clients, consultants and planning officials. The advice given is not mandatory, although it gives numerical guidelines, these should be interpreted flexibly as natural lighting is only one of many factors in site layout design. In special circumstances, the developer or planning authority may wish to use different target values.

National Planning Policy Framework: July 2021

The National Planning Policy Framework (NPPF) adopted in July 2021, sets out the Government’s planning policies and how these are expected to be applied. It provides a framework that can be used by councils to produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities.

Section 4 of the NPPF relates to Decision-making setting out the principle to consider when determining applications. Paragraph 38 states that “*Local planning authorities should approach decisions on proposed development in a positive and creative way*”.

Paragraph 125 (c) mentions daylight and sunlight stating that local planning authorities “*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)*.”

3.0 Daylight and Sunlight Methodology

Daylight to Neighbouring Buildings

When considering the impact on neighbouring buildings, the BRE Guidelines recommends that if any new development exceeds an angle of more than 25° from the centre point of the neighbouring window as shown in the diagram below, a more detailed check is needed to find the loss of skylight to the existing building.

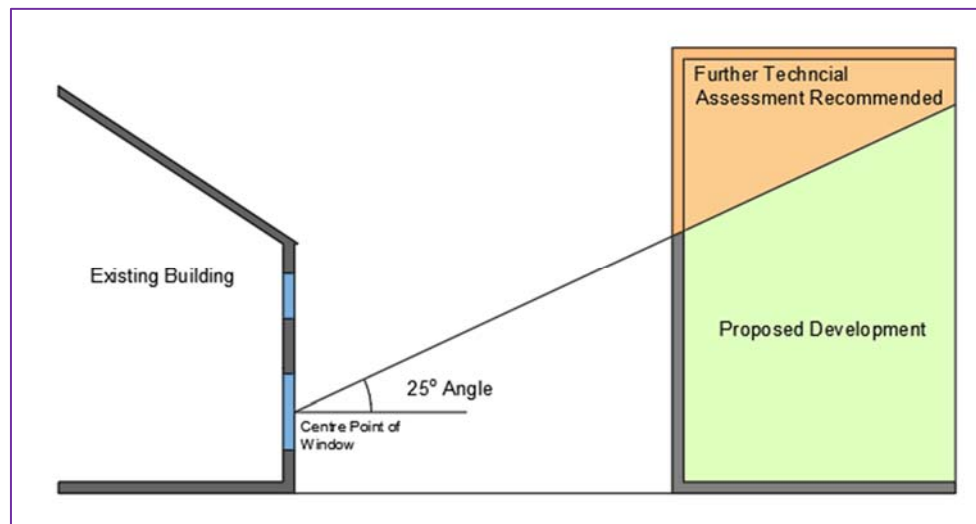


Figure 1: BRE 25° obstruction angle test illustrated.

Where a proposed development exceeds the 25° angle, the BRE Guidelines recommend further detailed checks be undertaken. The BRE proposes two main methods for calculating daylight levels to neighbouring residential properties in more detail. These are the Vertical Sky Component (VSC), the No Skyline (NSL) and both methods have been considered for the purpose of this report.

Vertical Sky Component (VSC)

The VSC quantifies that amount of skylight available at a reference point on the external face of the window (usually the centre point), it does not account for the size and shape of the room the window serves. The Standard CIE (Commission Internationale de L'Eclairage – International Commission on Illumination) overcast sky is used, and the ratio is expressed as a percentage.

The maximum potential VSC if unobstructed is almost 40%. The BRE suggests that if the VSC is less than 27%, and is less than 0.8 times its former value, then the neighbouring buildings will experience a noticeable reduction in the amount of skylight they receive.

No Skyline (NSL)

The No Skyline calculates the daylight distribution within a room by plotting a contour line on the working plane of a room. The contour line divides points on the working plane (typically 0.85m above FFL) which can or cannot see visible sky. This line is called the No Skyline.

If following construction of new development, a room is likely to experience a noticeable reduction in sky view a significant portion of the working plane area is beyond the NSL or is reduced to less than 0.8 times its former value. It should be noted that consideration will need to be given to the depths of single aspect rooms. If the room is greater than 5m deep, then an adverse reduction in sky view may be unavoidable.

Both the VSC and NSL assessment methods have been used to evaluate the effect the proposed development may have on the neighbouring residential properties access to daylight.

Sunlight

When considering the impact on the amount of sunlight to neighbouring buildings, the BRE report recommends that all main living rooms should be considered if they have a window facing within 90° of due south. Direct sunlight to kitchens and bedrooms is considered less important. To calculate this the BRE has produced sunlight templates for London, Manchester and Edinburgh establishing the Annual Probable Sunlight Hours (APSH) unobstructed light for these areas.

For this assessment, we have used the London template where the maximum APSH is 1,486 hours.

If following the construction of a new development, a living room window facing within 90° due south, it will experience a noticeable reduction in direct sunlight if:

- It receives less than 20% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21st September and 21st March, and receives less than 0.8 times its former sunlight hours during either period,
- And has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.

The BRE states that the guidelines suggested should not be applied rigidly and the numerical values quoted are purely advisory. It is therefore appropriate to consider different values depending on the development type.

Overshadowing

The overshadowing assessment calculates the impact the proposed development will have on neighbouring private and public amenity spaces, such as gardens, parks and play areas. The BRE recommends that 50% of any amenity area should be able to receive at least 2 hours of direct sunlight on the ground area, on 21st March.

4.0 Source Information

The assessment has been undertaken using the following information:

- Proposed scheme drawings produced by Flower Michelin Architects received 7 December 2021, drawing references:
 - o 269_00_10 to 13
 - o 269_00_20 & 22
 - o 269_00_30 to 33
 - o 269_30_10 to 13
 - o 269_30_20 & 22
 - o 269_30_30 to 33
 - o 3D model 'Sarre Road_Proposed Model'
- Estate Agents Particulars in relation to:
 - o 3 Sarre Road
- Google Maps 2021

5.0 Assumptions

Access has not been gained to any of the relevant neighbouring buildings to confirm the internal room arrangements. Where floor plans have been unavailable, planning application or estate agent searches have been conducted to obtain information, or notional internal room layouts of 4m have been assumed, unless the building outline dictates otherwise.

Room uses and floor levels have been based on a desktop review of the site from Google maps using brick counts where the topographic survey does not provide information.

6.0 Development Site

The proposed redevelopment property is located on Sarre Road in the London Borough of Camden. The development site currently consists of two-storey residential property, with residential neighbours directly to the north and south. The existing site condition is shown in the image below.



Figure 2: Site view (Google Maps 2021) showing the existing development site (red) in context.

7.0 Proposed Scheme

This consists of redevelopment of property including front and side extensions to existing outrigger facing Westbere Road, roof extension with rear dormer and terrace, single storey front infill extension to Sarre Road and replacing existing single storey rear extension to create four flats with associated landscaping, cycle parking and refuse storage.

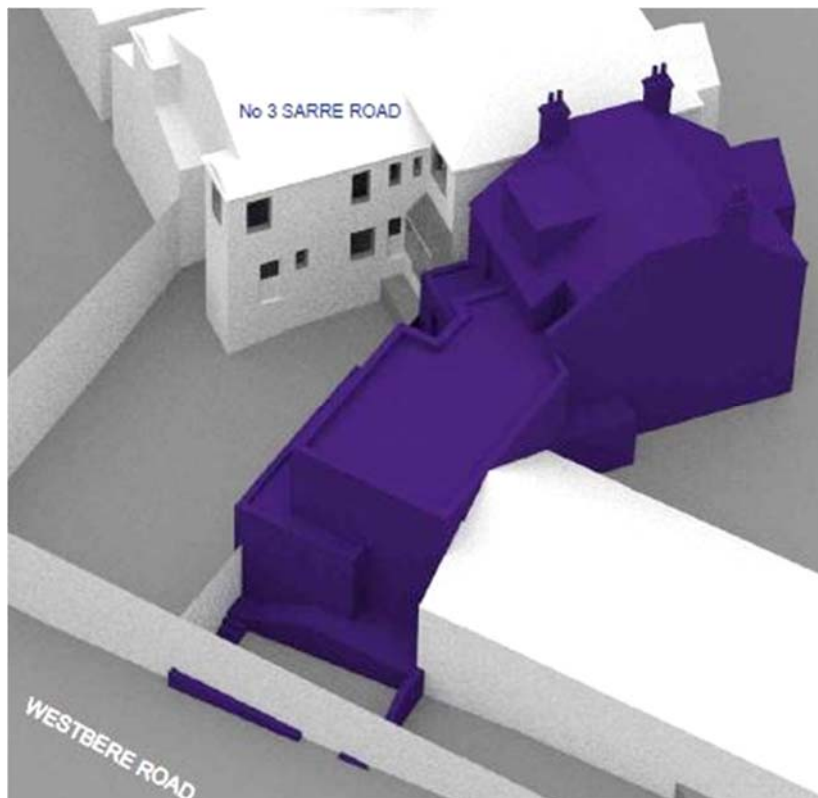


Figure 4: Proposed site scenario shown in purple (looking north).

The proposed site and scheme drawings are included in the appendix to this report.

8.0 Scope of Assessment

The specified property, 3 Sarre Road, was assessed in respect of daylight and sunlight to the dwelling and sunlight availability (overshadowing) to the external amenity area was assessed using the BRE methodology.

9.0 Assessment Results

Daylight and Sunlight

The VSC (at the window) and NSL (within the room) and APSH (at the window) assessment results can be found by reference to Appendix B this report.

The property assessed satisfies all the BRE daylight and sunlight tests both at the window and within the room, with no noticeable reduction. For this property it is possible to conclude, in accordance with the BRE Guidelines, change in daylight and sunlight conditions should be considered negligible. The assessment results to this property are discussed in greater detail below.

3 Sarre Road

This property is to the north/north-west of the proposed redevelopment, with windows to the south-east facing flank wall and south-west facing rear elevation. We note that the property has been subject to historic extensions and internal revisions. We have based the internal arrangements on estates agent's particulars and reasonable assumptions.

Daylight

In relation to the VSC assessment at the window, all windows satisfy the BRE guidelines by virtue of either 27% VSC or 0.8 of their former value i.e. a reduction of 20% or less. The only exception is to ground floor window W1, which retains 0.73 of its former value. However, this is one of five windows serving the exceptionally well-lit conservatory space, which can be seen by reference to the 100% NSL daylight area.

In relation to the NSL (within the room), the rooms are currently very well-lit results indicate that all rooms will satisfy the guidelines by virtue of retaining 0.8 of the former value, with over 90% of room directly daylight.

We therefore suggest that this property should be considered to satisfy the BRE guidelines.

Sunlight

The APSH Sunlight results are located at Appendix B of this report. The results indicate that all rooms contain at least one window that faces within 90° of due south and that satisfy the guidelines by virtue of retaining 25% annual and 5% winter sunlight values or retain 0.8 of their former value.

Overshadowing

The BRE 'Sun Hours on Ground' (SHOG) overshadowing assessment calculates the impact the proposed development will have on neighbouring private and public amenity spaces, such as gardens, parks and play areas. The BRE recommends that 50% of any amenity area should be able to receive at least 2 hours of direct sunlight on 21st March (Spring Equinox) or that the space should retain 0.8 of the former sunlit area i.e. no greater than 20% loss. The results from the assessment can be found in the Appendix C of this report.

The redevelopment property is situated to the east and north-east of the rear garden of 3 Sarre Road. As such, due to the location of the development proper in relation to the neighbouring gardens, both the current and proposed buildings' shadow path will fall within the gardens during the morning period only. The garden is largely unobstructed from approximately midday, with no shadow cast from the proposed building, as any shadow will fall to the north and east as day progresses. The BRE Sun Hours on Ground (SHOG) assessment has been undertaken on 21st March to demonstrate these satisfy the guidelines.

The results of this assessment demonstrate that the garden will satisfy the sunlight on ground assessment on 21st March, retaining sunlight to at least 50% (84%) of the area for greater than two hours.

The assessment demonstrates that the levels of sunlight on the ground to neighbouring garden tested will not see a noticeable change and therefore the BRE Guidelines are satisfied.

10.0 Conclusions

The proposed scheme by Flower Michelin Architects has been considered in relation to the BRE's Daylight, Sunlight, and Overshadowing assessments to quantify the potential daylight and sunlight affect to the neighbouring residential properties.

The technical assessment has been undertaken in accordance with the methodology outlined in The Building Research Establishment Report "*Site Layout Planning for Daylight and Sunlight*" (2011). The BRE document is the principle guidance when considering daylight, sunlight, and overshadowing.

The residential property, 3 Sarre Road, has been assessed in accordance with the BRE criteria for daylight and sunlight impacts. This property will retain excellent daylight and sunlight values post development, with results indicating that there will be no noticeable change overall. The garden was also assessed in relation to direct sun on the ground levels on the 21st March.

In respect of daylight, the vast majority of the windows and all rooms satisfy their respective assessments. There will be some noticeable daylight reductions to VSC at the window, however internal room assessment has demonstrated that the rooms will retain excellent access to daylight with no noticeable change.

In respect of sunlight (APSH) the results indicate that all relevant rooms considered satisfy the guidelines, with no noticeable change.

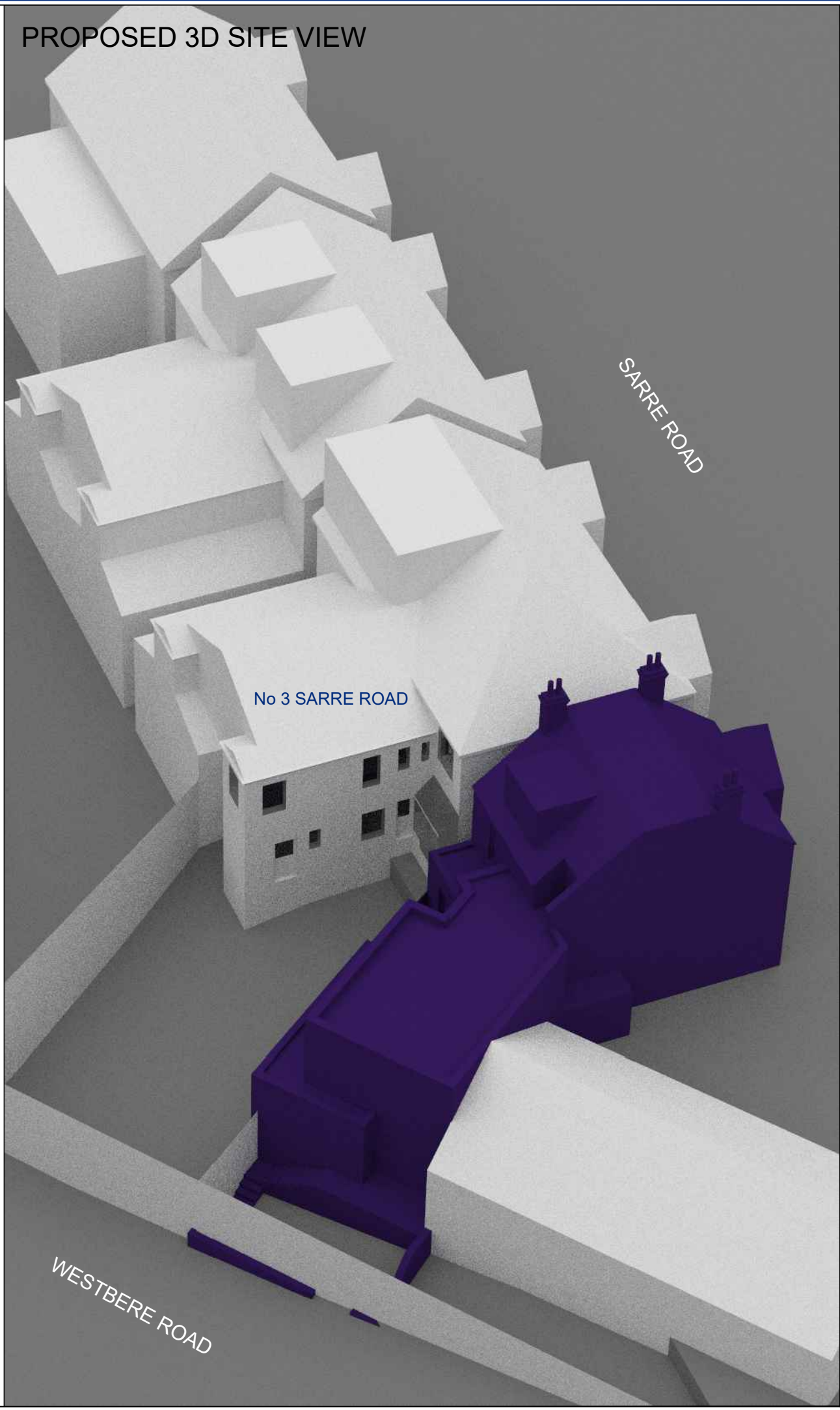
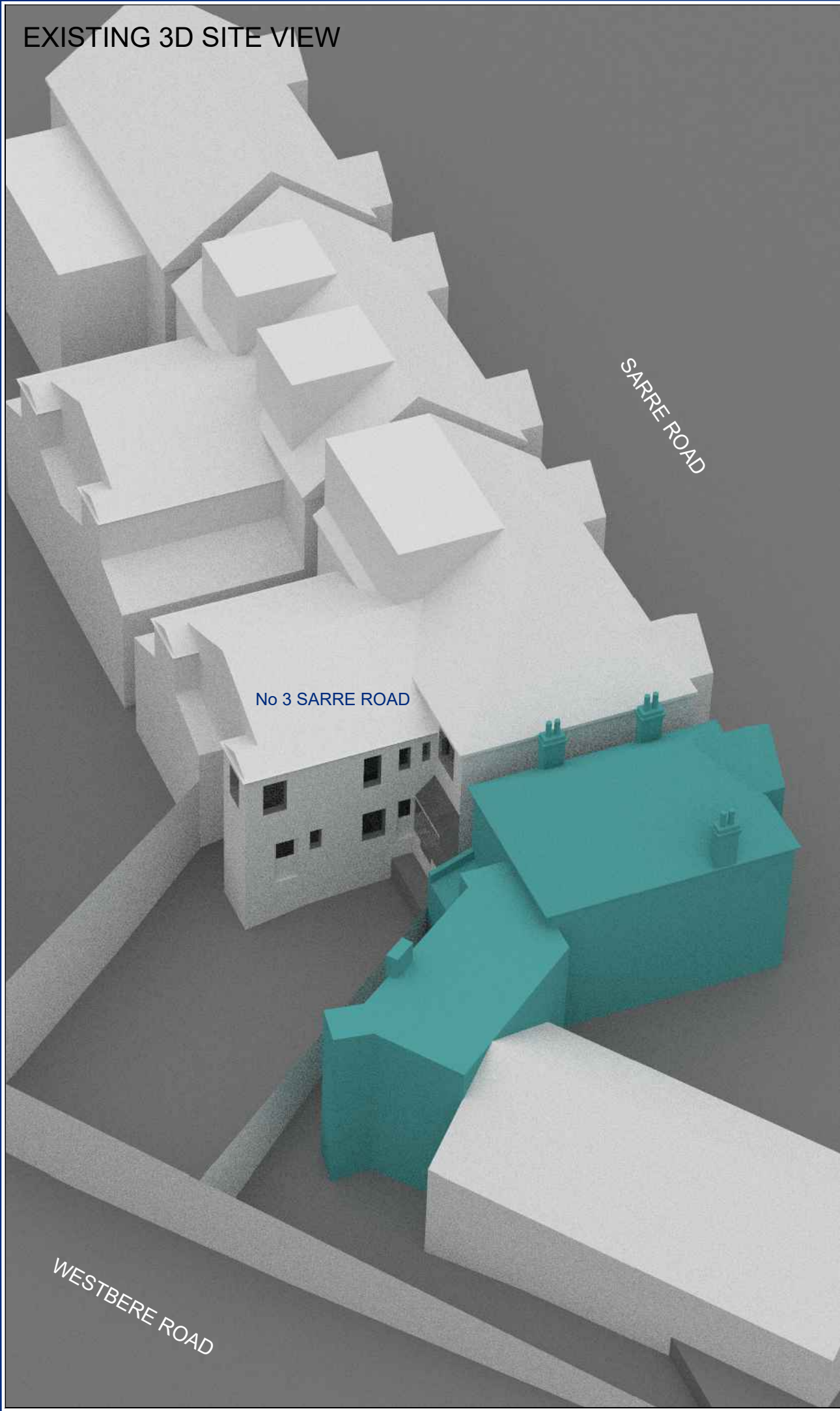
In relation to overshadowing, the BRE 'SHOG' assessment indicates that there will be no noticeable change to the garden area.

The findings indicate that the development is not of an excessive scale for the immediate surrounding area in daylight and sunlight terms and will meet the intentions of the BRE guide. Therefore, the proposed Flower Michelin Architects scheme will meet the aims of the BRE Guidelines and London Borough of Camden's planning policy will be satisfied.



APPENDICES

APPENDIX A –3D VIEWS IN THE EXISTING AND PROPOSED CONDITION





Disclaimer:

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All information displayed is subject to a complete verifiable site survey being undertaken. TFT takes no responsibility for the accuracy or reliability of the displayed data since a verified site survey was not made available prior to the generation of such information.

Sources of Information

IR01 - Existing & Proposed Site / Scheme Drawings
Firstplan
Received 07/12/2021

Drawing Key

BUILDING KEY:

	SURROUNDING BUILDINGS
	TFT PROPOSED SCHEME
	TFT EXISTING BUILDING

CLIENT:

FIRSTPLAN

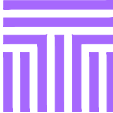
PROJECT:

1 SARRE ROAD, CAMDEN,
LONDON

DRAWING TITLE:

EXISTING v PROPOSED 3D SITE
VIEWS LOOKING NORTH

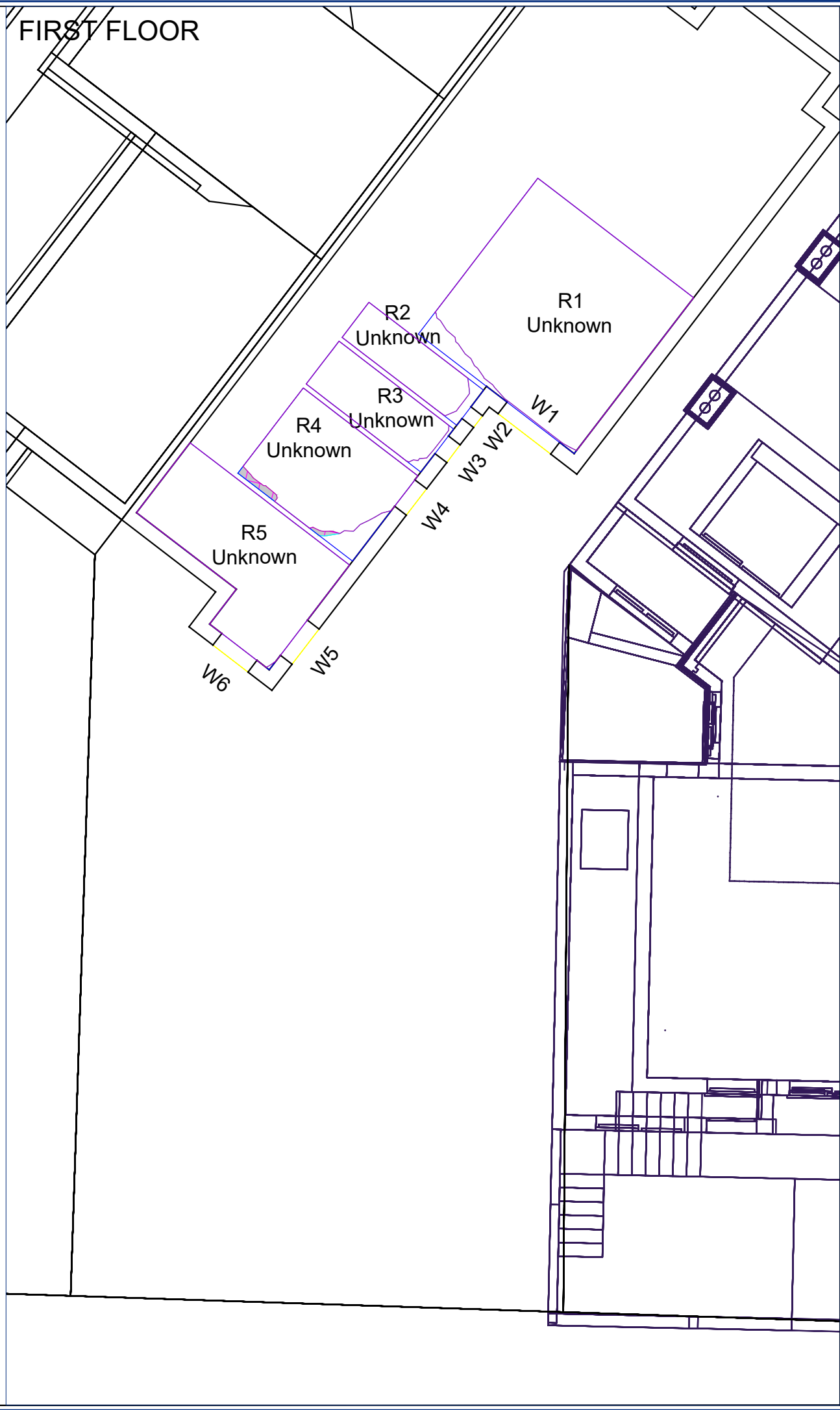
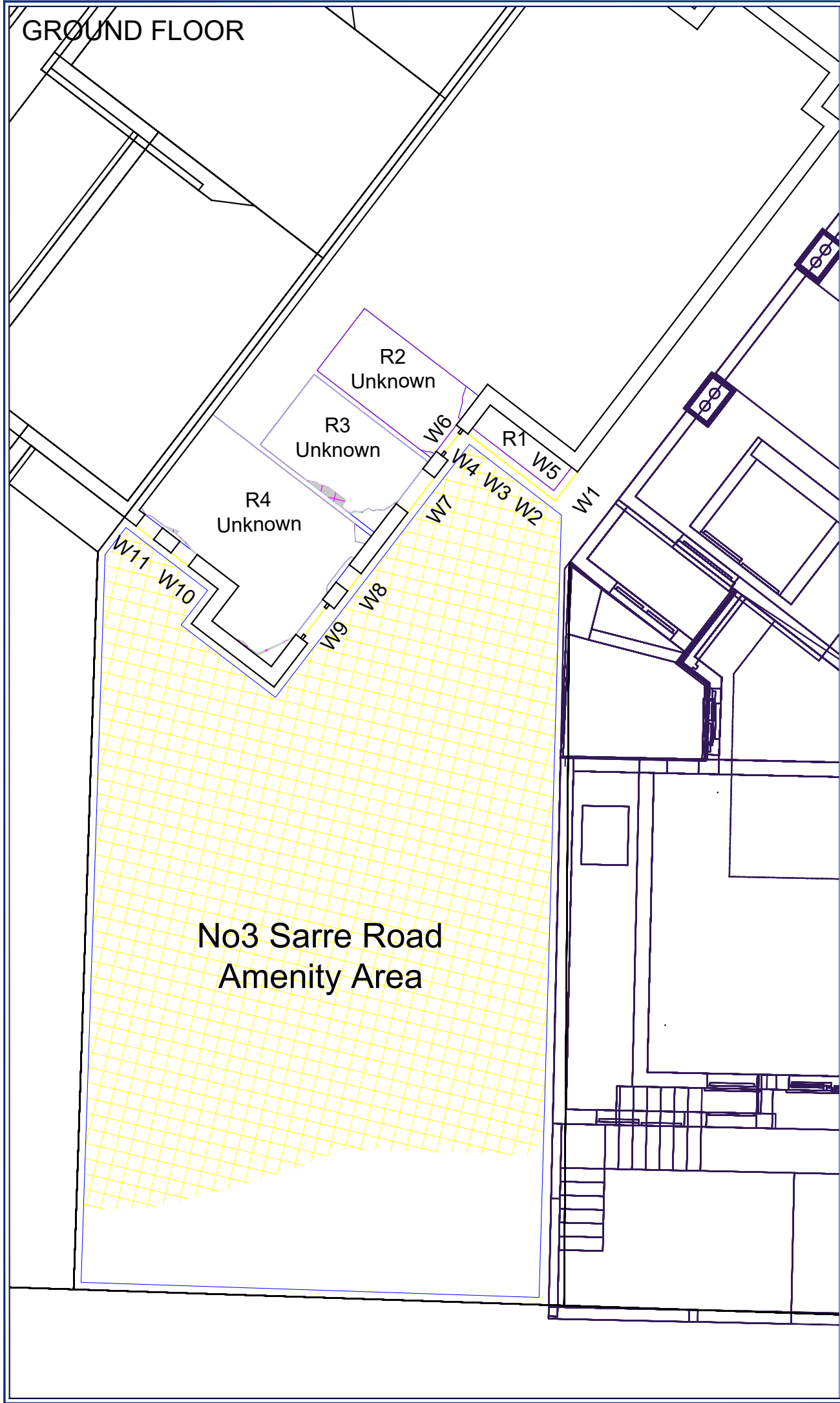
DWN BY	CHK BY	DATE	SCALE	REV
NM	RN	DEC 2021	N/A	-
PROJ No.	REL No.	ADR No.	IS No.	DWG No.
211485	01	-	-	01



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APPENDIX B – DAYLIGHT AND SUNLIGHT DRAWINGS AND TABLES IN RELATION NEIGHBOURING PROPERTIES



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Sources of Information

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Firstplan
Received 07/12/2021

Drawing Key

NO SKY LINE CONTOURS:
EXISTING CONTOUR
PROPOSED CONTOUR
HATCHED AREA SHOWS SKY VIEW LOSS BETWEEN EXISTING & PROPOSED CONTOURS

BUILDING SECTION KEY:
SURROUNDING BUILDINGS
TFT PROPOSED SCHEME
TFT EXISTING BUILDING

SUN HOURS ON GROUND CONTOURS:
EXISTING 2HR CONTOUR
PROPOSED 2HR CONTOUR
HATCHED AREA SHOWS AREA OF CHANGE BETWEEN EXISTING & PROPOSED CONTOURS

CLIENT: FIRSTPLAN

PROJECT: 1 SARRE ROAD, CAMDEN, LONDON

DRAWING TITLE:
BRE NO SKY LINE, & 2HR SHOG CONTOUR RESULTS - No.3 SARRE ROAD.

DWN BY	CHK BY	DATE	SCALE	REV
NM	RN	DEC 2021	1:100@A3	-
PROJ No.	REL No.	ADR No.	IS No.	DWG No.
211485	01	-	-	02

Project Name: Sarre Road
Project No.: 211485
Report Title: Daylight (VSC) & Sunlight (APSH) Analysis to Neighbouring Windows / Rooms
Date of Analysis: 14/12/2021

Floor Ref.	Room Ref.	Room Use	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria	Total Suns per Room Annual	Total Suns per Room Winter	Meets BRE Criteria	
3 SARRE ROAD																		
Ground	R1	Conservatory	W1	Existing	14.52	0.73	-	159°	39.00	0.79	YES	11.00	0.36	-				
				Proposed	10.65													
			W2	Existing	23.75	0.95	YES	249°	41.00	0.85	YES	10.00	0.70	YES				
				Proposed	22.64													
			W3	Existing	20.65	0.98	YES	249°	35.00	0.95	YES	7.00						
		Proposed	20.22															
	W4	Existing	17.63	0.99	YES	249°	40.00	0.98	YES	10.00								
		Proposed	17.44															
	W5	Existing	43.80	1.00	YES	249° Inc	40.00			12.00								
		Proposed	43.91															
															51.00	17.00		
															52.00	18.00	YES	
R2	Unknown-Resi	W6	Existing	18.81	0.99	YES	159°	50.00	0.94	YES	18.00	0.89	YES					
			Proposed	18.66														

Project Name: Sarre Road
Project No.: 211485
Report Title: Daylight (VSC) & Sunlight (APSH) Analysis to Neighbouring Windows / Rooms
Date of Analysis: 14/12/2021

Floor Ref.	Room Ref.	Room Use	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria	Total Suns per Room Annual	Total Suns per Room Winter	Meets BRE Criteria
First	R3	Unknown-Resi	W3	Existing	27.44	0.96	YES	159°	61.00	0.93	YES	25.00	0.88	YES	61.00	25.00	YES
				Proposed	26.40				57.00			22.00					
	R4	Unknown-Resi	W4	Existing	31.53	0.96	YES	159°	68.00	0.96	YES	25.00	0.96	YES	68.00	25.00	YES
				Proposed	30.27				65.00			24.00					
	R5	Unknown-Resi	W5	Existing	35.03	0.98	YES	159°	77.00	0.97	YES	26.00	0.96	YES	89.00	27.00	YES
				Proposed	34.47				75.00			25.00					
			W6	Existing	35.62	1.00	YES	249°	56.00	1.00	YES	20.00	1.00	YES	87.00	26.00	YES
				Proposed	35.62				56.00			20.00					

Project Name: Sarre Road
 Project No.: 211485
 Report Title: No Sky Line Analysis to Neighbouring Rooms
 Date of Analysis: 14/12/2021

Floor Ref.	Room Ref	Room Use		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
3 SARRE ROAD								
Ground	R1	Conservatory	Area m2	1.26	1.26	1.26		
			% of room		100.00%	100.00%	1.00	YES
Ground	R2	Unknown-Resi	Area m2	4.71	4.58	4.58		
			% of room		97.15%	97.15%	1.00	YES
Ground	R3	Unknown-Resi	Area m2	5.34	5.12	5.01		
			% of room		96.02%	93.83%	0.98	YES
Ground	R4	Unknown-Resi	Area m2	11.47	11.11	11.06		
			% of room		96.81%	96.43%	1.00	YES
First	R1	Unknown-Resi	Area m2	16.00	15.38	15.38		
			% of room		96.14%	96.14%	1.00	YES
First	R2	Unknown-Resi	Area m2	2.65	2.44	2.44		
			% of room		92.20%	92.20%	1.00	YES
First	R3	Unknown-Resi	Area m2	3.24	3.12	3.12		
			% of room		96.23%	96.23%	1.00	YES
First	R4	Unknown-Resi	Area m2	6.44	5.97	5.80		
			% of room		92.65%	90.03%	0.97	YES
First	R5	Unknown-Resi	Area m2	8.71	8.70	8.70		
			% of room		99.91%	99.91%	1.00	YES

APPENDIX C – SUN HOURS ON GROUND ‘SHOG’ ASSESSMENT TABLE

Project Name: Sarre Road

Project No.: 211485

Report Title: BRE Two Hour Sun on Ground Analysis to Neighbouring Gardens - 21st March

Date of Analysis: 14/12/2021

Floor Ref		Amenity Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
3 SARRE ROAD						
Ground	Area m2	138.61	115.99	115.99	1.00	YES
	Percentage	100%	84%	84%		

OUR SERVICE LINES



TECHNICAL DUE DILIGENCE



PROJECT MONITORING



SUSTAINABILITY



DILAPIDATIONS



PROJECT CONSULTANCY



COST CONSULTANCY



M+E CONSULTANCY



DEVELOPMENT CONSULTANCY



PRINCIPAL DESIGNER



INSURANCE ASSESSMENT



DISASTER RESPONSE



PARTY WALLS



EXPERT WITNESS



DESIGN



COMPLIANCE



RIGHTS OF LIGHT

OUR MARKET SECTORS



OFFICE



RETAIL



INDUSTRIAL



EDUCATION



LEISURE



HERITAGE



RESIDENTIAL



MIXED-USE