DAYLIGHT & SUNLIGHT ASSESSMENT

23 Daymer Gardens, HA5 2HW | Blue Sky Surveyors

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Contents

1.0 Introduction

Blue Sky Surveyors have been appointed by Mr Suresh to undertake an assessment in order to understand the potential effect that their proposed extension at 23 Daymer Gardens would have upon the daylight and sunlight enjoyed by the neighbouring property at 25 Daymer Gardens.

Blue Sky Surveyors undertook a full technical analysis in order to understand the likely impact that the proposed project would have with respect to daylight and sunlight. This assessment was undertaken using 3-D laser scan data, 3-D computer modelling and specialist assessment software to run a simulation. Imagery of our assessment model can be seen in Appendix A.

When considering the results of our assessment, reference has been made to the BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022). A summary of the assessment methodology and key recommendations from the BRE Report for daylight & sunlight can be found in Section 2.

A plan view of the site along with imagery of the modelling in its existing and proposed conditions can be found in Appendix A.

2.0 BRE Assessment & Guidelines

The primary tests that are advised to be undertaken in the BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022) are the Vertical Sky Component (VSC) and Daylight Distribution (DD) for daylight; and the Annual Probable Sunlight Hours (APSH) test for sunlight. It should be noted that we have only tested with respect to the neighbours daylight & sunlight amenity and not for the aesthetic impact of the proposal (a right to a view is not recognised).

It should be noted that the VSC and APSH calculations provide a more accurate assessment of potential amenity loss. According to the BRE guidelines, the results of these tests are more important for understanding potential loss of amenity compared to the 25-degree or 45-degree 'rules of thumb.'

Below we have provided a brief explanation of each test:

Vertical Sky Component Definition:

The VSC test is used to determine the amount of sky that is visible at the centre point of a window on the external plane. On a vertical plane the maximum value the VSC can take is 40%, which would represent a totally unobstructed window. The size of the window, nor the size of the room it serves, are accounted for in the VSC test. Therefore, it is necessary to look at the VSC result in conjunction with the Daylight Distribution (DD) test.

Daylight Distribution Definition:

The Daylight Distribution test is used to assess the area of a room which will have a view of sky at working plane level. This test is represented using contours drawings, which plot the 'no sky line' at working plane level.

Annual Probable Sunlight Hours Definition:

The sunlight levels which reach the centre point of a window can be looked at in percentage terms of the Annual Probable Sunlight Hours (APSH). Within its glossary, the BRE guidelines define "annual sunlight hours" as the following:

"the long-term average of the total number of hours during a year in which direct sunlight reaches the unobstructed ground (when clouds are taken into account)."

Recommended Targets for Daylight:

Section 2.2 of the BRE Report states the following: *"If any part of a new building or extension, measured in a vertical section perpendicular to a main window wall of an existing building from the centre of the lowest window, subtends an angle of more than 25° to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be the case if either:*

- *the VSC [vertical sky component] measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value; [or]*
- *the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value."*

Recommended Targets for Sunlight:

Paragraph 3.2.11 of the BRE Report states the follows:

"If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely affected. This will be the case if the centre of the window:

- *receives less than 25% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21 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".*

3.0 Information for Computer Modelling

To carry out the daylight & sunlight tests, we built a model which detailed the site at 23 Daymer Gardens in its existing and proposed conditions; as well as nearby neighbouring properties and additional context massing. Imagery of the computer model can be found in Appendix A.

The modelling was based around the following information:

Existing Massing

- Blue Sky Surveyors' 3D Scan Survey.
- OS Map.
- Blue Sky Surveyors' site photography.

Proposed Scheme

The Market Design & Build Proposal Drawings:

"240019 23 Daymer Gardens - Draft 05-DWG" – received 05/09/24.

4.0 Results of the Assessment

25 Daymer Gardens

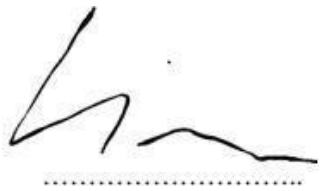
This residential property is located directly to the east of the development site.

Our assessment confirms that all BRE recommended daylight and sunlight tests have been comfortably met. As a result, we anticipate that the impact on the property's daylight and sunlight levels will be minimal.

5.0 Conclusion

We have conducted a comprehensive daylight and sunlight computer assessment to evaluate the impact of the proposed extension at 23 Daymer Gardens on the adjacent residential property at 25 Daymer Gardens. This assessment was carried out in accordance with the guidelines set forth in the BRE Report 209, Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice (third edition, 2022).

The results demonstrate that the proposed development fully complies with the BRE standards for daylight and sunlight impact with respect to 25 Daymer Gardens.



Stevan Dillon

DIRECTOR - BLUE SKY SURVEYORS
02/10/2024

Appendix A – Plans & 3-D Views

Sources:

BLUE SKY SURVEYORS
LASER SCAN SURVEY DATA

THE MARKET DESIGN & BUILD
PROPOSAL DRAWINGS
240019 23 Daymer Gardens - Draft 05-DWG
RECEIVED 05/09/24

KEY:

N

EXISTING BUILDINGS IN GREEN

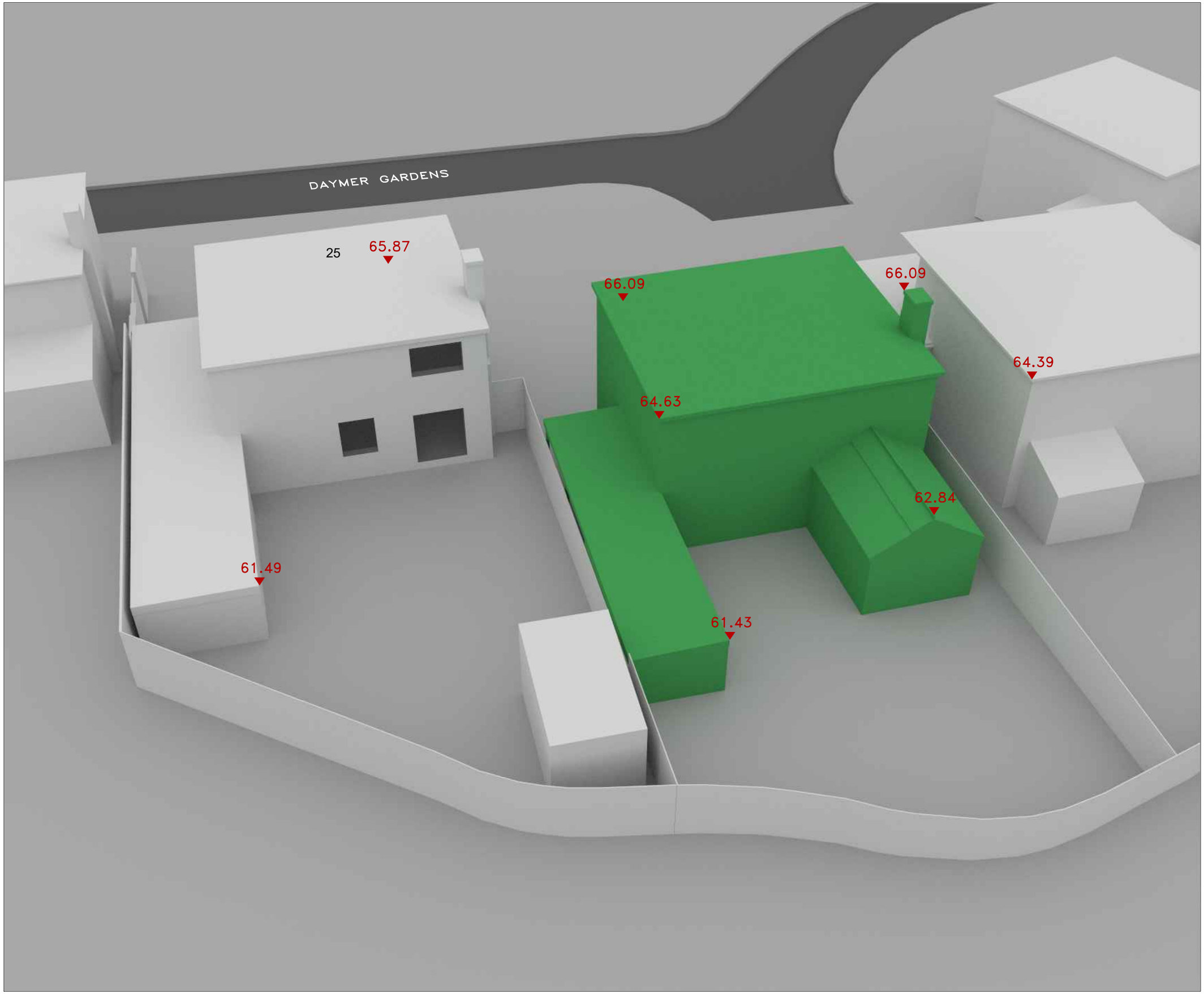
REV:	DETAILS:	DATE:
A	-	-

ADDRESS:
23 DAYMER GARDENS
PINNER, HA5 2HW

TITLE:
SITE PLAN
EXISTING

DRAWN:	DATE:
MG	30/09/24
DRAWING NO:	SCALE:
SDIL/326/ROL/01	NTS

BLUE SKY SURVEYORS



Sources:

BLUE SKY SURVEYORS
LASER SCAN SURVEY DATA

THE MARKET DESIGN & BUILD
PROPOSAL DRAWINGS
240019 23 Daymer Gardens - Draft 05-DWG
RECEIVED 05/09/24

KEY:

HEIGHTS IN METRES AOD

EXISTING BUILDINGS IN GREEN

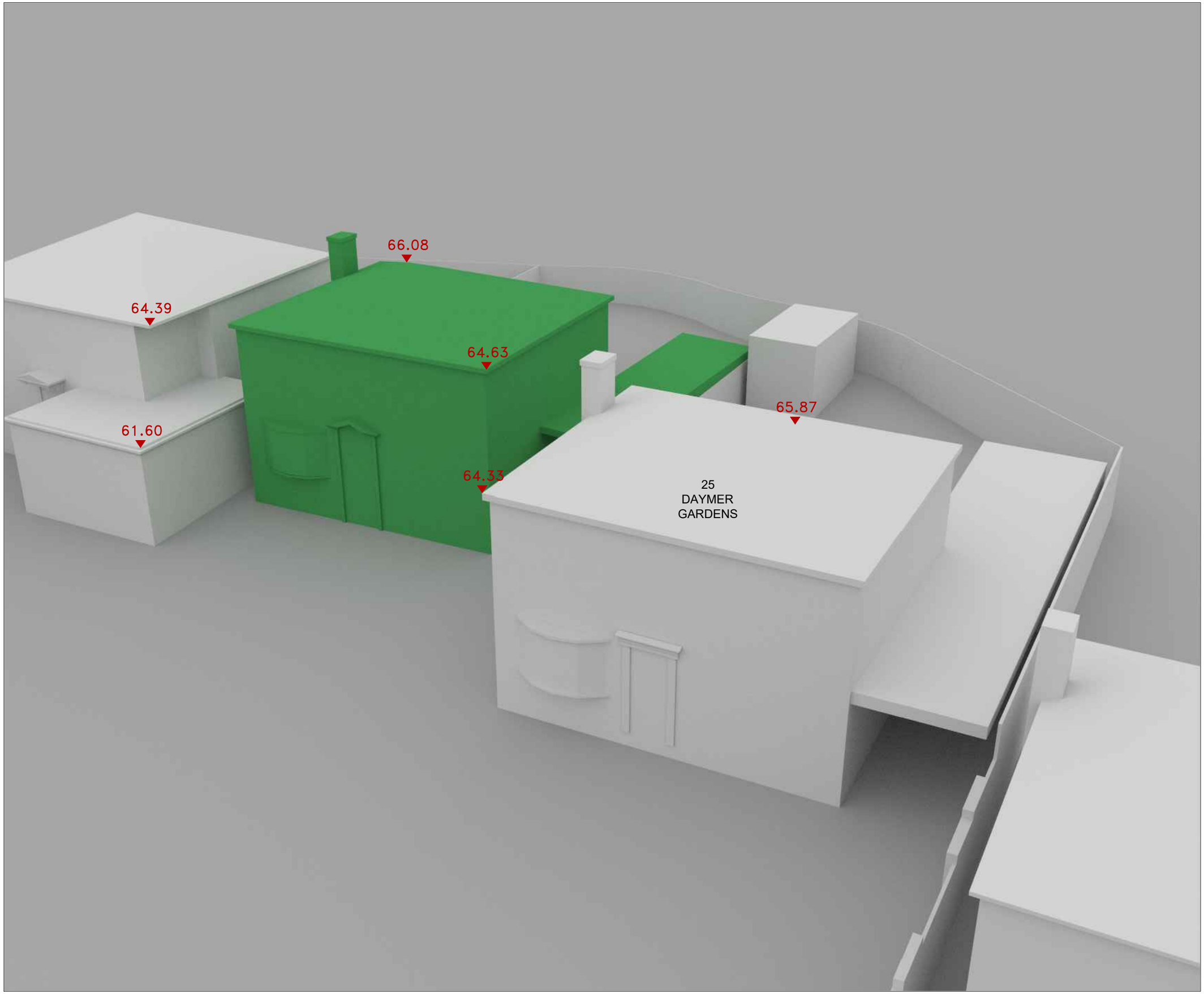
REV:	DETAILS:	DATE:
A	-	-

ADDRESS:
23 DAYMER GARDENS
PINNER, HA5 2HW

TITLE:
3D VIEW
EXISTING

DRAWN:	DATE:
MG	30/09/24
DRAWING NO:	SCALE:
SDIL/326/ROL/02	NTS

BLUE SKY SURVEYORS



Sources:

BLUE SKY SURVEYORS
LASER SCAN SURVEY DATA

THE MARKET DESIGN & BUILD
PROPOSAL DRAWINGS
240019 23 Daymer Gardens - Draft 05-DWG
RECEIVED 05/09/24

KEY:

HEIGHTS IN METRES AOD

EXISTING BUILDINGS IN GREEN

REV:	DETAILS:	DATE:
A	-	-

ADDRESS:
23 DAYMER GARDENS
PINNER, HA5 2HW

TITLE:
3D VIEW
EXISTING

DRAWN:	DATE:
MG	30/09/24

DRAWING NO:	SCALE:
SDIL/326/ROL/03	NTS

BLUE SKY SURVEYORS

Sources:

BLUE SKY SURVEYORS
LASER SCAN SURVEY DATA

THE MARKET DESIGN & BUILD
PROPOSAL DRAWINGS
240019 23 Daymer Gardens - Draft 05-DWG
RECEIVED 05/09/24

KEY:

N

PROPOSED SCHEME IN BLUE

REV:	DETAILS:	DATE:
A	-	-

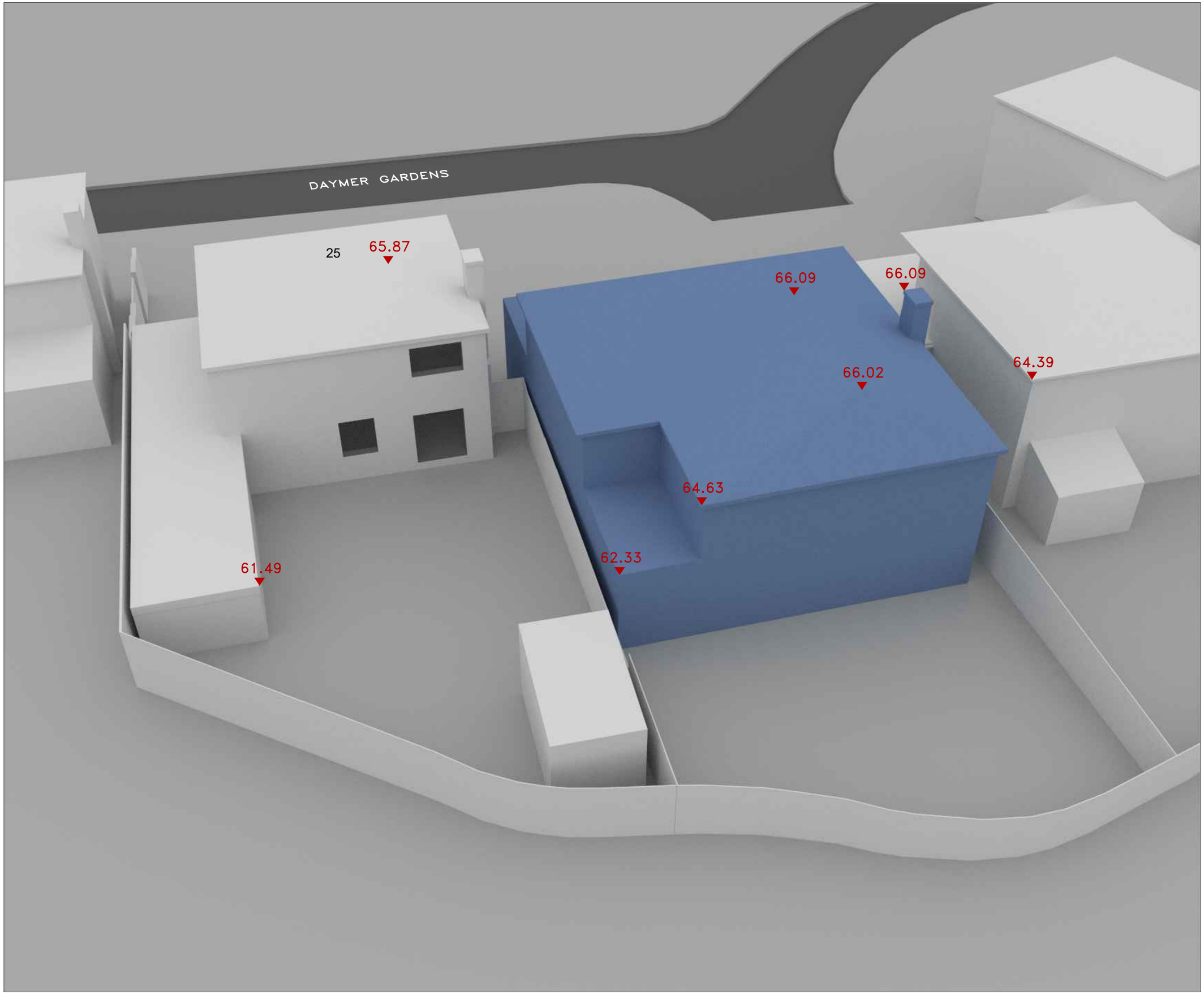
ADDRESS:
23 DAYMER GARDENS
PINNER, HA5 2HW

TITLE:
SITE PLAN
THE MARKET DESIGN & BUILD SCHEME
RECEVIED 05/09/24

DRAWN:	DATE:
MG	30/09/24

DRAWING NO:	SCALE:
SDIL/326/ROL/04	NTS

BLUE SKY SURVEYORS



Sources:

BLUE SKY SURVEYORS
LASER SCAN SURVEY DATA

THE MARKET DESIGN & BUILD
PROPOSAL DRAWINGS
240019 23 Daymer Gardens - Draft 05-DWG
RECEIVED 05/09/24

KEY:

HEIGHTS IN METRES AOD

PROPOSED SCHEME IN BLUE

REV:	DETAILS:	DATE:
A	-	-

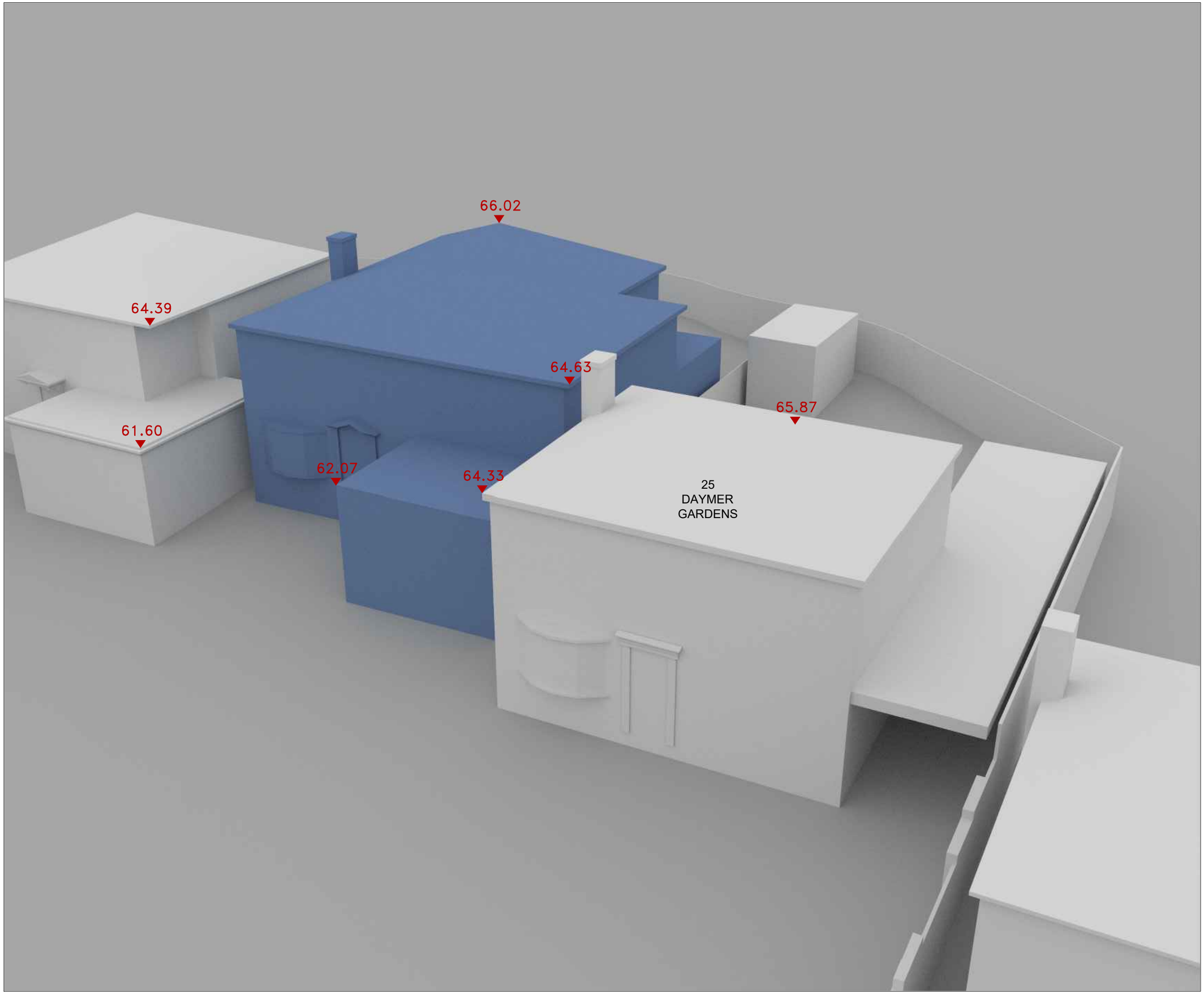
ADDRESS:
23 DAYMER GARDENS
PINNER, HA5 2HW

TITLE:
3D VIEW
THE MARKET DESIGN & BUILD SCHEME
RECEVIED 05/09/24

DRAWN:	DATE:
MG	30/09/24

DRAWING NO:	SCALE:
SDIL/326/ROL/05	NTS

BLUE SKY SURVEYORS



Sources:

BLUE SKY SURVEYORS
LASER SCAN SURVEY DATA

THE MARKET DESIGN & BUILD
PROPOSAL DRAWINGS
240019 23 Daymer Gardens - Draft 05-DWG
RECEIVED 05/09/24

KEY:

HEIGHTS IN METRES AOD

PROPOSED SCHEME IN BLUE

REV:	DETAILS:	DATE:
A	-	-

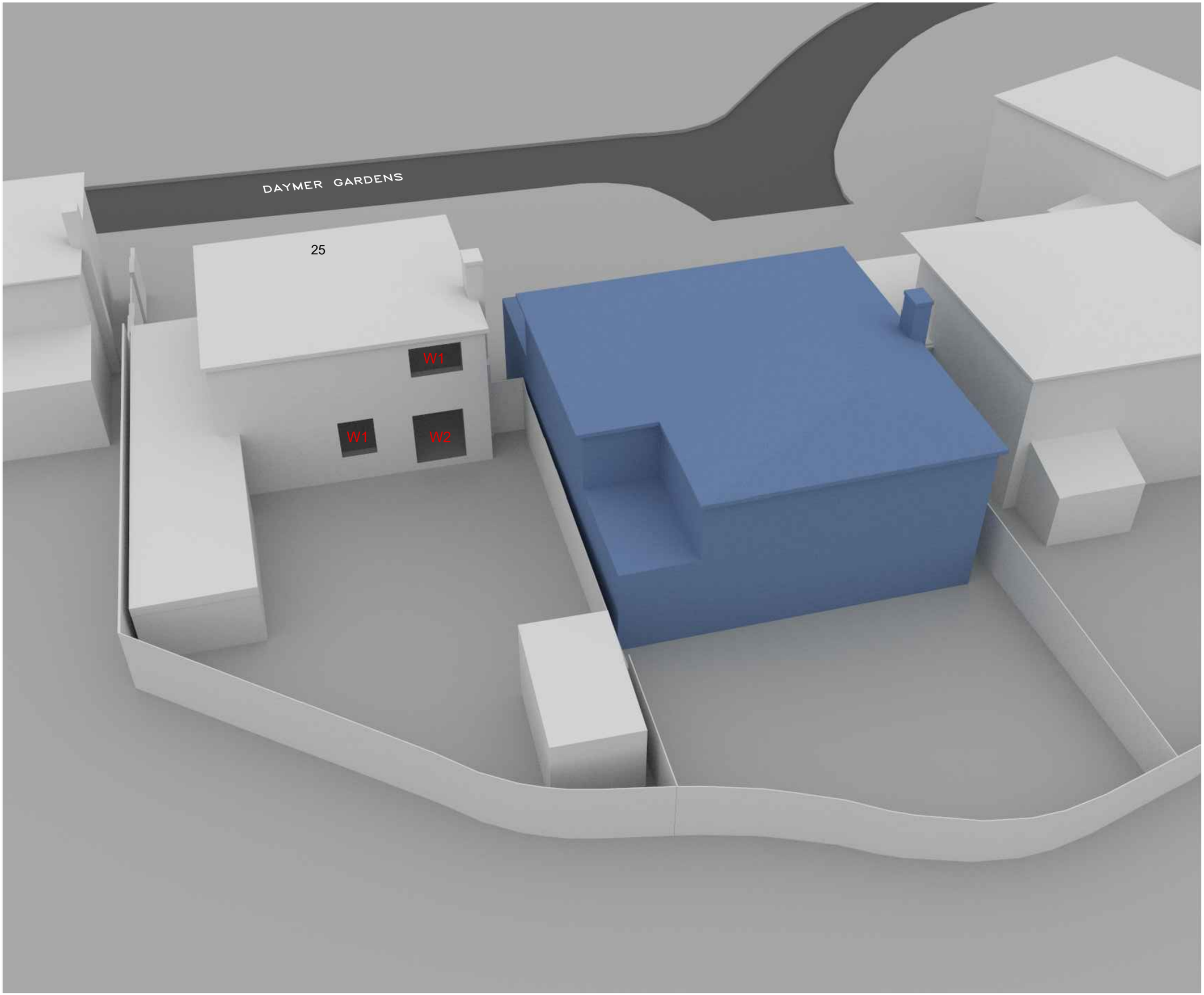
ADDRESS:
23 DAYMER GARDENS
PINNER, HA5 2HW

TITLE:
3D VIEW
THE MARKET DESIGN & BUILD SCHEME
RECEVIED 05/09/24

DRAWN:	DATE:
MG	30/09/24

DRAWING NO:	SCALE:
SDIL/326/ROL/06	NTS

BLUE SKY SURVEYORS



Sources:

BLUE SKY SURVEYORS
LASER SCAN SURVEY DATA

THE MARKET DESIGN & BUILD
PROPOSAL DRAWINGS
240019 23 Daymer Gardens - Draft 05-DWG
RECEIVED 05/09/24

KEY:

REV:	DETAILS:	DATE:
A	-	-

ADDRESS:
23 DAYMER GARDENS
PINNER, HA5 2HW

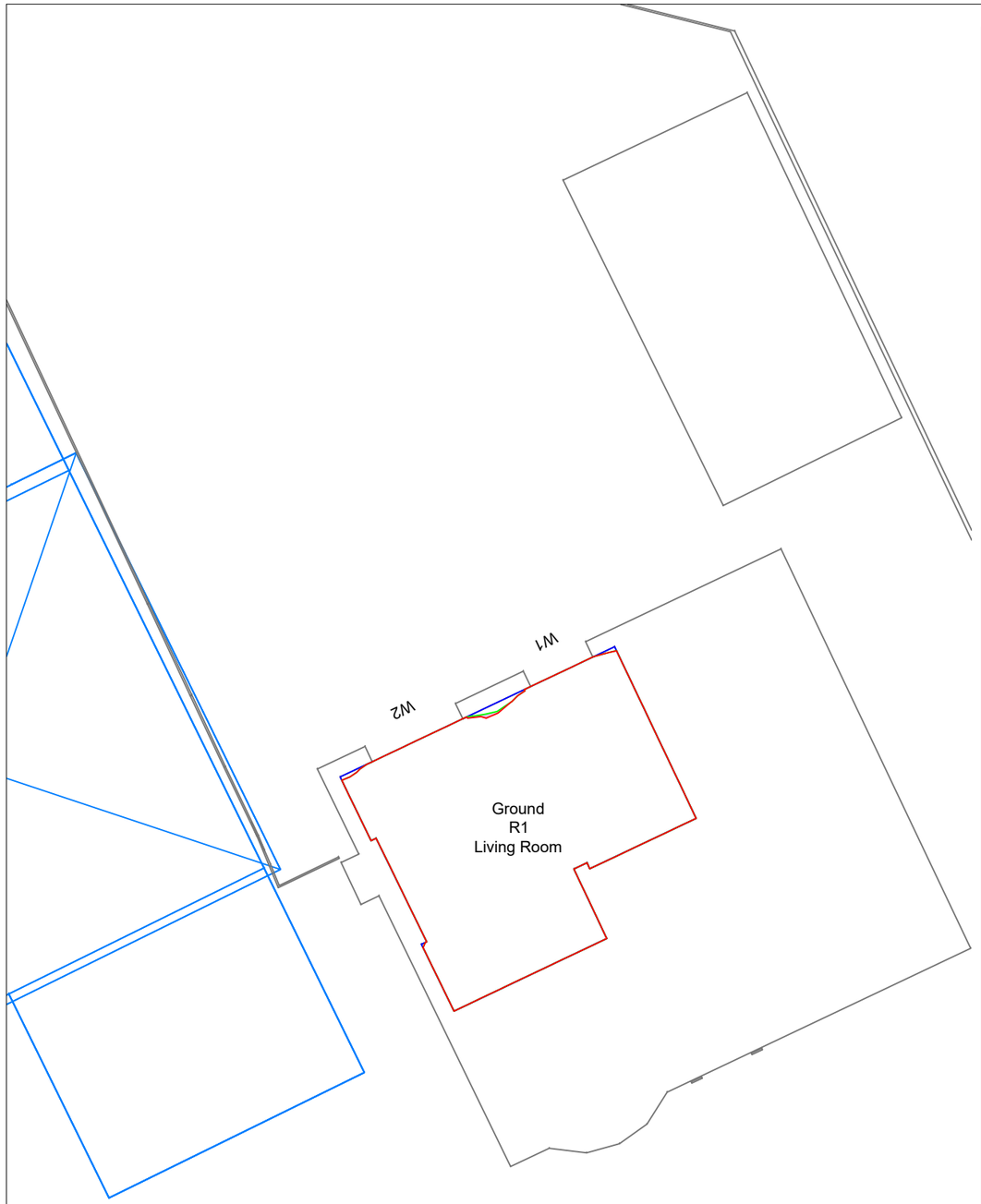
TITLE:
WINDOW MAP

DRAWN:	DATE:
MG	30/09/24

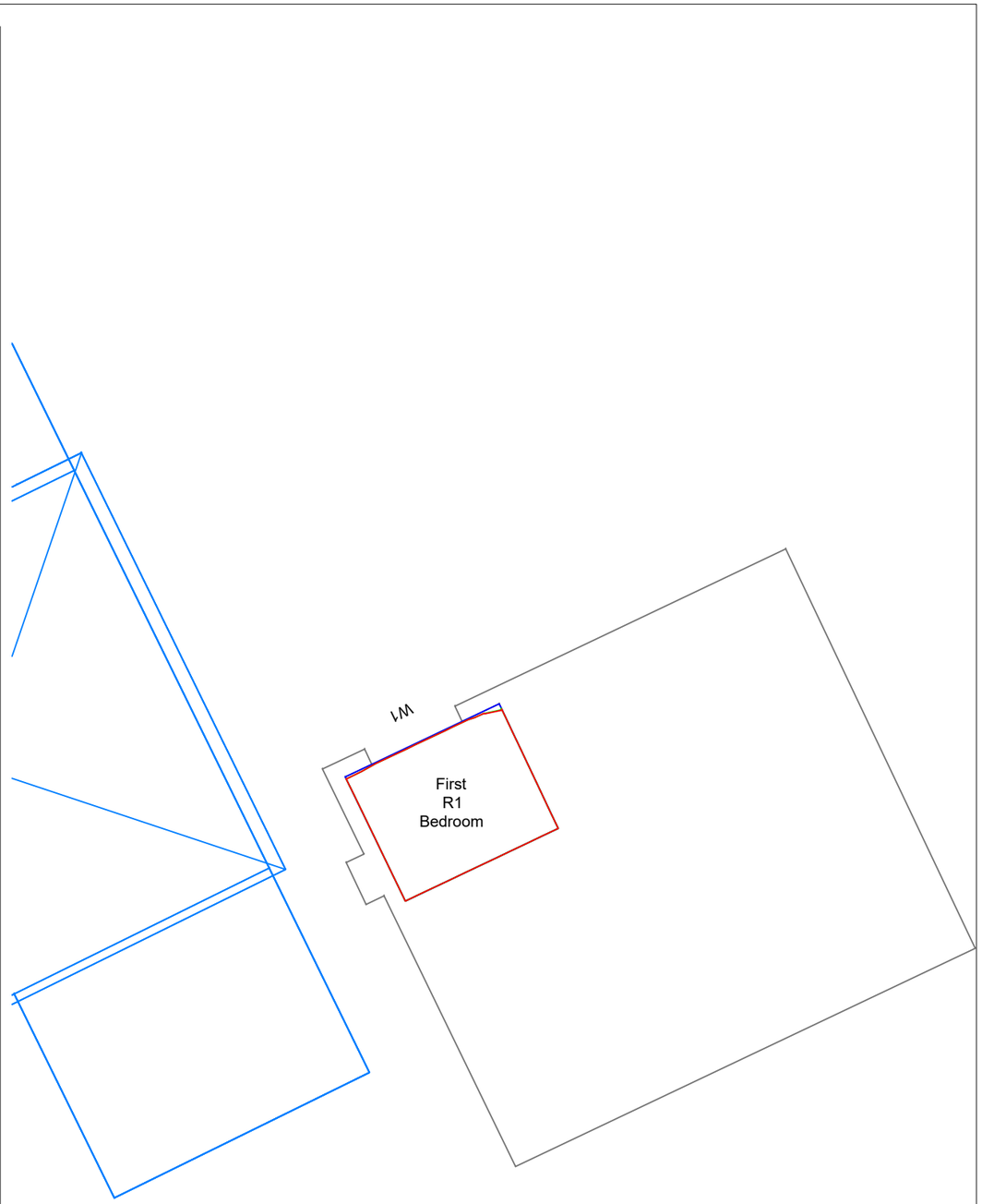
DRAWING NO:	SCALE:
SDIL/326/ROL/07	NTS

BLUE SKY SURVEYORS

Appendix B – Numeric Results



25 DAYMER GARDENS
GROUND FLOOR
SCALE 1:100 @ A3



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25 DAYMER GARDENS
FIRST FLOOR
SCALE 1:100 @ A3

Sources:

BLUE SKY SURVEYORS
LASER SCAN SURVEY DATA

THE MARKET DESIGN & BUILD
PROPOSAL DRAWINGS
240019 23 Daymer Gardens - Draft 05-DWG
RECEIVED 05/09/24

KEY:

EXISTING NO-SKY CONTOUR

PROPOSED NO-SKY CONTOUR

AREA OF LOSS / GAIN

REV:	DETAILS:	DATE:
A	-	-

ADDRESS:
23 DAYMER GARDENS
PINNER, HA5 2HW

TITLE:
NO-SKY LINE CONTOURS

DRAWN:	DATE:
MG	30/09/24
DRAWING NO:	SCALE:
SDIL/326/ROL/08	1:100 @ A3

BLUE SKY SURVEYORS

DAYMER GARDENS
GROUND FLOOR
SCALE 1:150 @ A3

Sources:

BLUE SKY SURVEYORS
LASER SCAN SURVEY DATA

THE MARKET DESIGN & BUILD
PROPOSAL DRAWINGS
240019 23 Daymer Gardens - Draft 05-DWG
RECEIVED 05/09/24

KEY:

EXISTING >2HR SUN-ON-GROUND

PROPOSED >2HR SUN-ON-GROUND

AREA OF LOSS / GAIN

REV:	DETAILS:	DATE:
A	-	-

ADDRESS:
23 DAYMER GARDENS
PINNER, HA5 2HW

TITLE:
2HR SUN-ON-GROUND STUDY
MARCH 21ST

DRAWN:	DATE:
MG	30/09/24
DRAWING NO:	SCALE:
SDIL/326/ROL/09	1:150 @ A3

BLUE SKY SURVEYORS

Project Name: 23 Daymer Gardens, HA5 2HW_M01
Project No.:
Report Title: Two hours Sunlight to Amenity Analysis - Neighbour
Date of Analysis: 02/10/2024

Floor Ref	Amenity Ref		Amenity Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
25 Daymer Gardens							
Ground	A1	Area m2	144.37	80.87	71.28	0.88	YES
		Percentage		56%	49%		

Project Name: 23 Daymer Gardens, HA5 2HW_M01
Project No.:
Report Title: Daylight Distribution Analysis - Neighbour
Date of Analysis: 02/10/2024

Floor Ref.	Room Ref	Room Attribute	Property Type	Room Use		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
25 Daymer Gardens										
Ground	R1	Assumed	Residential	Living Room	Area m2	21.43	21.29	21.26		
					% of room		99.37%	99.24%	1.00	YES
First	R1	Assumed	Residential	Bedroom	Area m2	7.30	7.22	7.22		
					% of room		98.85%	98.81%	1.00	YES

Project Name: 23 Daymer Gardens, HA5 2HW_M01
Project No.:
Report Title: Daylight & Sunlight Analysis - Neighbour
Date of Analysis: 02/10/2024

Floor Ref.	Room Ref.	Room Attribute	Property Type	Room Use	Window Ref.	Window Attribute		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Room VSC	Pr/Ex	Meets BRE Criteria	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria	Total Suns per Room Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Winter	Pr/Ex	Meets BRE Criteria
25 Daymer Gardens																										
Ground	R1	Assumed	Residential	Living Room	W1		Existing	34.89	0.95	YES	335°N					*North	*North		*North	*North						
							Proposed	33.21																		
					W2		Existing	32.12	0.89	YES	335°N					*North	*North		*North	*North						
							Proposed	28.47																		
												33.03	0.91	YES												
												30.03										*North	*North		*North	*North
First	R1	Assumed	Residential	Bedroom	W1		Existing	37.76	0.96	YES	335°N					*North	*North		*North	*North						
							Proposed	36.13																		
												37.76	0.96	YES												
												36.13										*North	*North		*North	*North