

SUNLIGHT AND DAYLIGHT ASSESSMENT

PROJECT:

1-2 MARLBOROUGH PARADE, HILLINGDON, UB10 0LR

JOB NO.	DOC NO.	REVISION
175MAR	SDA	B

ISSUE DATE:

10/02/2025

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EXECUTIVE SUMMARY

- 1.1.1 SHA has been commissioned by Cuppacoff Limited to undertake a daylight and sunlight study of the proposed development at 1-2 Marlborough Parade, UB10 0LR.
- 1.1.2 The study is based on the various numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a guide to good practice, 3rd Edition' by P J Littlefair 2022.
- 1.1.3 The aim of the study is to assess the impact of the development on the light receivable by the neighbouring properties at 2 & 3 Marlborough Parade, and to ensure that the dwellings have sufficient daylight to provide a good standard of natural light within the rooms.
- 1.1.4 Appendix I lists the sources of documents used to build the model. The window key in Appendix II identifies the windows analysed in this study. Appendix III gives the full numerical results of the various daylight and sunlight tests.
- 1.1.5 **The results confirm that the development will not create any areas of non-compliance. The proposed development achieves full compliance of the BRE recommendations both in terms of its impact upon neighbouring properties and in terms of the internal light levels achieved within the proposed development rooms.**

METHODOLOGY OF THE STUDY

1. The existing and proposed conditions have been accurately modelled using Autodesk Revit software utilising a mixture of on-site survey and plans submitted retrieved and viewed via the Local Authority's online planning application search tool.
2. Tests were then carried out on the model using MBS Waldram Tools v5.0 Daylight and Sunlight Analysis software. The list of tests carried out are in the following section.
3. The software has been used to analyse both the impact of the proposal on neighbouring buildings and the daylight and sunlight conditions within the development
4. We understand that the Local Authority take the conventional approach of considering daylight and sunlight amenity with reference to the various numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a guide to good practice, 3rd Edition' by P J Littlefair 2022. A new European standard BS EN 17037:2018+A1:2021 'Daylight in Buildings' was published in Jan 2022.

LIST OF TESTS CARRIED OUT

NEIGHBOUR TESTS

Threshold criteria in accordance with BRE 2011	
VSC Vertical Sky Component	Vertical Sky Component is both less than 27% and less than 0.8 times its former value. This test has not been carried out as all relevant windows are categorised as North Facing.
DD Daylight Distribution	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
APSH Annual Percentage Sunlight Hours	a) 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 b) receives less than 0.8 times its former sunlight hours during either period and c) has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours. This test has not been carried out as all relevant windows are categorised as North Facing.
Overshadowing & Amenity	This test was not carried out as there are no amenity spaces which are to be overshadowed in the neighbouring buildings.

INTERNAL LIGHTING TESTS

Threshold criteria in accordance with BRE 20 BS8206-2

VSC Vertical Sky Component	Vertical Sky Component is 27% or greater. If less than 27% but greater than 15% perform Daylight Factor test.
DF Daylight Factor	The target illuminance to be achieve should be 300lux for over half od the assessment area and over 100 lux for 95% of the assessment area.
DD Daylight Distribution	80% of the working plane within kitchens, living, dining rooms and any room used as a home office, should receive direct light from the sky.
APSH Annual Percentage Sunlight Hours	Applies to living rooms only and they should not receive less than 25% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21 March
AMENITY Sunlight availability to garden spaces	In general a dwelling will appear reasonably sunlit provided: - at least one main window wall faces within 90° of due south and - a habitable room, preferably a main living room, can receive a total of at least 1.5 hours of sunlight on 21 March. This is assessed at the inside centre of the window(s); sunlight received by different windows can be added provided they occur at different times and sunlight hours are not double counted.

SUMMARY RESULTS

NEIGHBOUR TESTS

BUILDING NAME	ROOM NAME	DD %	NOTES	PASS (Y/N)
2 Marlborough Parade	2MP-Living	97%		YES
3 Marlborough Parade	3MP-Living	100%		YES

INTERNAL TESTS

UNIT NAME	ROOM NAME	DD	DF	APSH (ALL)	APSH (Winter)	NOTES	PASS (Y/N)
UNIT 1	Kitchen / Living / Dining	100%	100%	67.4	14.0		YES
	Bedroom 1	100%	100%	49.0	13.0		YES
UNIT 2	Flat 2	100%	100%	68.0	14.0		YES
UNIT 3	Flat 3	100%	97%	61.0	23.0		YES
UNIT 4	Flat 4	100%	100%	74.0	24.0		YES

APPENDIX I - INFORMATION SOURCES

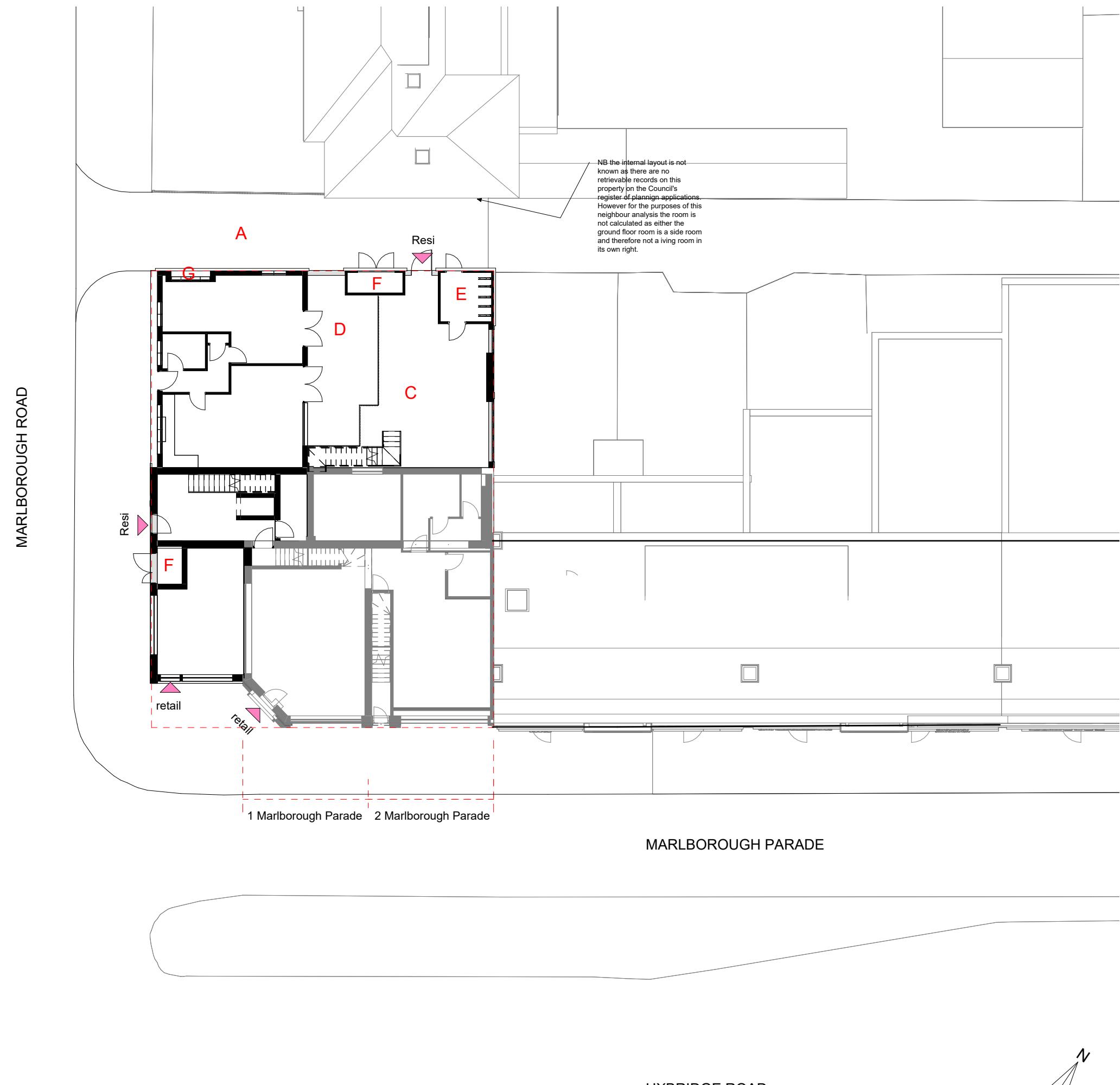
DRAWINGS

This report is based on the in-house Revit model used to produce the following drawings:

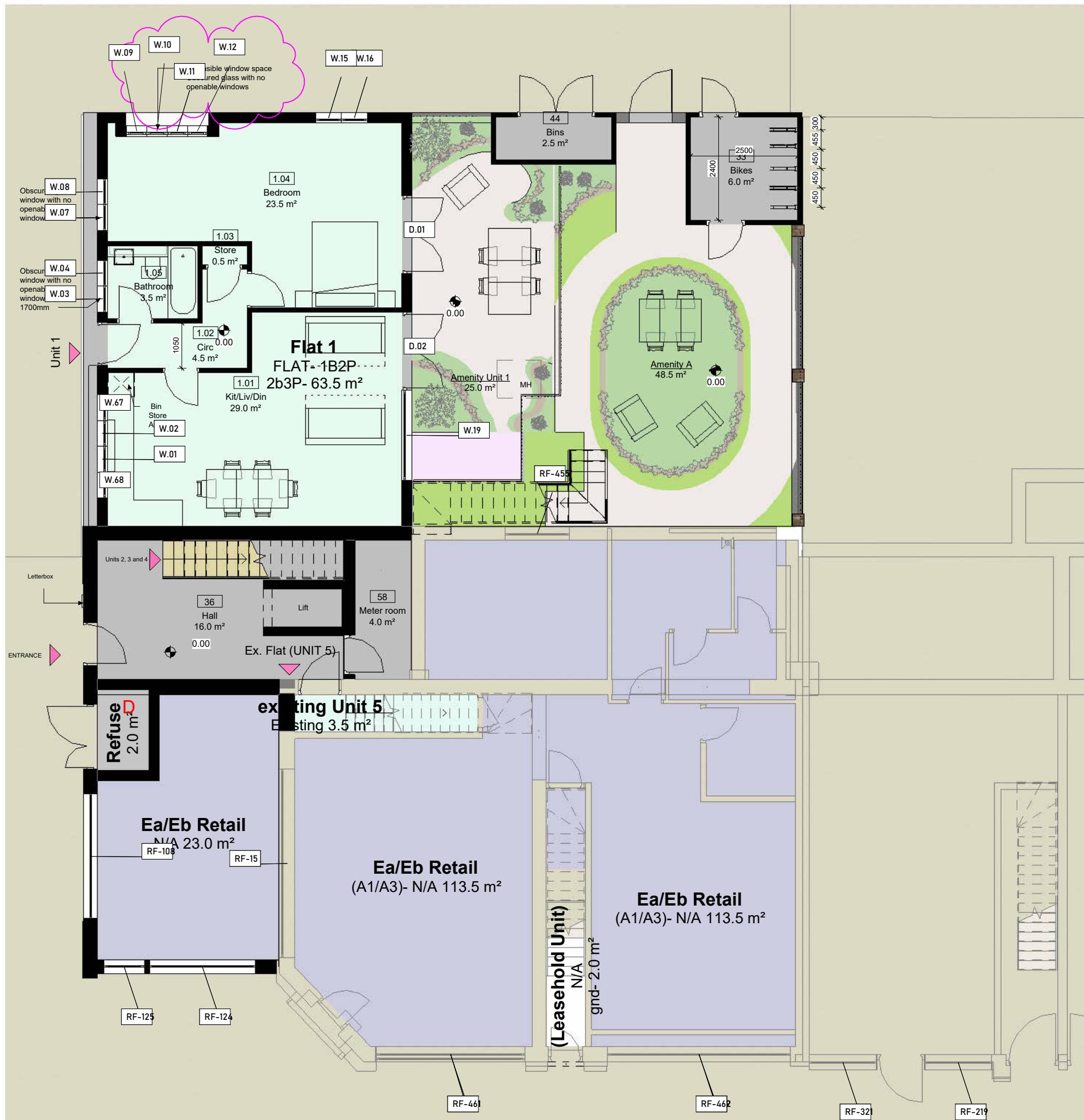
E.01	Site Location plan	A
E.02	Existing Block Plan	A
E.03	Existing Ground Floor	A
E.04	Existing Upper Floors	A
E.05	Existing Roof Plan	A
E.10	Existing Streetscape Elevations	A
E.11	Existing Front and back building elevations	A
P.02	Proposed Block Plan	B
P.03	Proposed Ground Floor	G
P.04	Proposed Upper Floors	C
P.05	Proposed Roof	B
P.10	Proposed Streetscape Elevations	B
P.11	Proposed Front and back elevations	D
P.12	Proposed Side building elevations	D
P.21	Proposed Sections	B

APPENDIX II – PLANS

- A** Rear access
- C** Shared Amenity space
- D** Private Amenity space
- E** Cycle storage
- F** Refuse and recycling storage
- G** Defensible space



PROJECT NO.	DRAWING NO.	REVISION
175MAR-PL5	LS.01	B
FIRST ISSUE 19/03/13	PAPER SIZE A3	SCALE 1 : 200
REV ISSUE 04/09/24		
1-2 Marlborough Parade, UB10 0LR		
Proposed Block Plan (lighting study)		
PLANNING		
Note: All dimensions to be checked on the site before commencement of the work. For construction only use figured dimensions. Any variations from these drawings should be approved by the Architect prior to commencement. This drawing is copyright.		
SHA The Hayloft, 15 Barnet Gate Lane Arkley, HERTS, EN5 2AA 02072679679 info@sha.uk.com		



Area Schedule (GIA Proposed)

Name	Unit Occupancy (xBxP)	Area	Amenity Required
Flat 1	1B2P	63 m ²	20
Flat 2	1B1P	37 m ²	20
Flat 3	1B1P	38 m ²	20
Flat 4	1B1P	38 m ²	20

Amenities Schedule (GIA Proposed)

Name	Area
Amenity A	48 m ²
Amenity B	20 m ²
Amenity Unit 1	25 m ²
	94 m ²

Bicycle storage

Name	Bikes
Flat 1	1
Flat 2	1
Flat 3	1
Flat 4	1

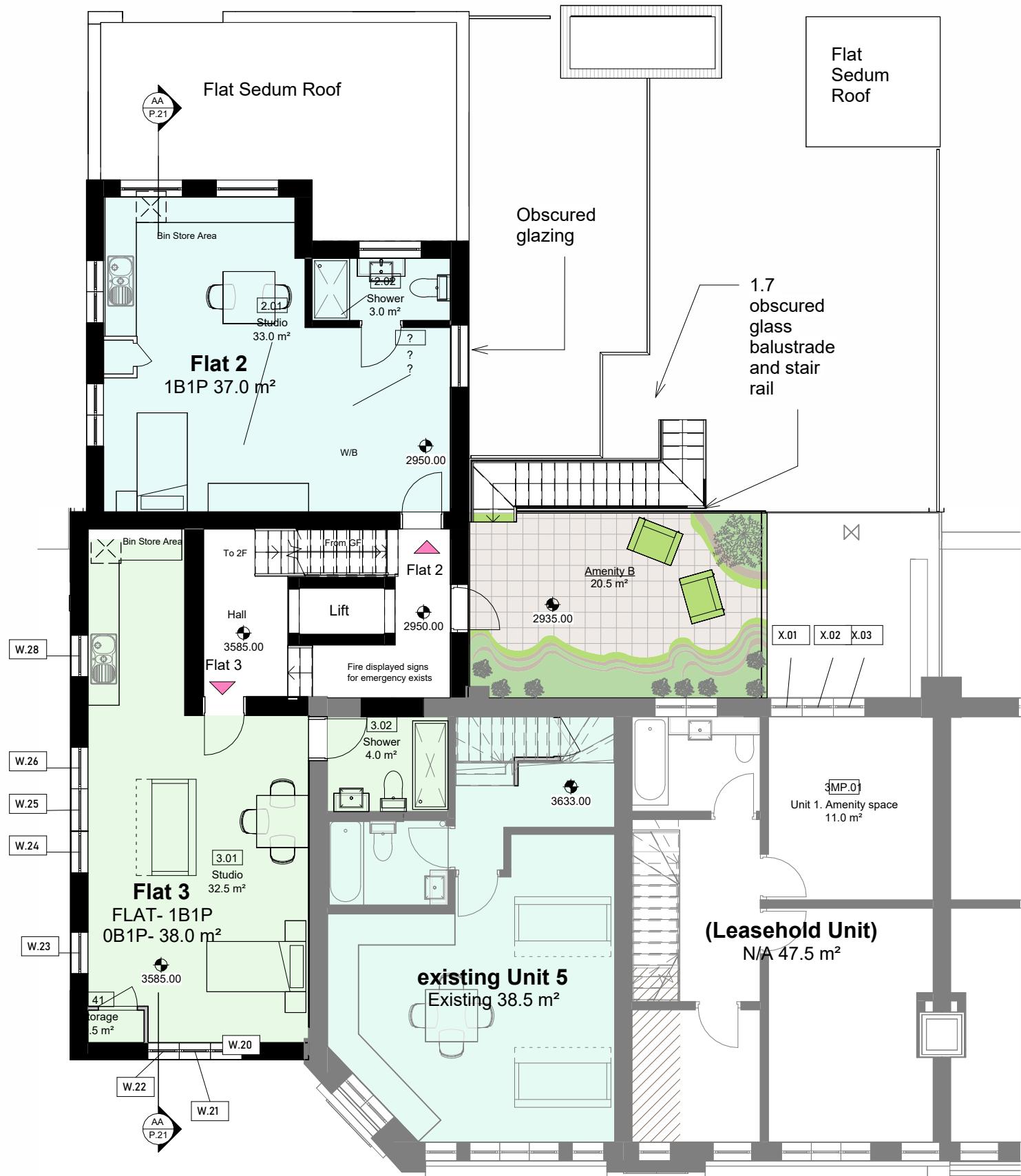
A	04/12/23	Issued for planning
B	04/09/24	Issued for planning
C	12/12/24	Flat 1 Layout changed
D	08/01/25	Flat 1 reduced to 1B2P
E	21/01/25	Study removed
F	05/02/25	Obscured glazing note added

Rev	Date	Description
PROJECT NO.		DRAWING NO.
175MAR-PL5		LS.02 F
FIRST ISSUE	PAPER SIZE	SCALE
19/03/13	A3	1 : 100
REV ISSUE		
05/02/25		
1-2 Marlborough Parade, UB10 0LR		

Proposed Ground Floor (lighting study)

PLANNING

Note: All dimensions to be checked on the site before commencement of the work. For construction only use figured dimensions. Any variations from these drawings should be approved by the Architect prior to

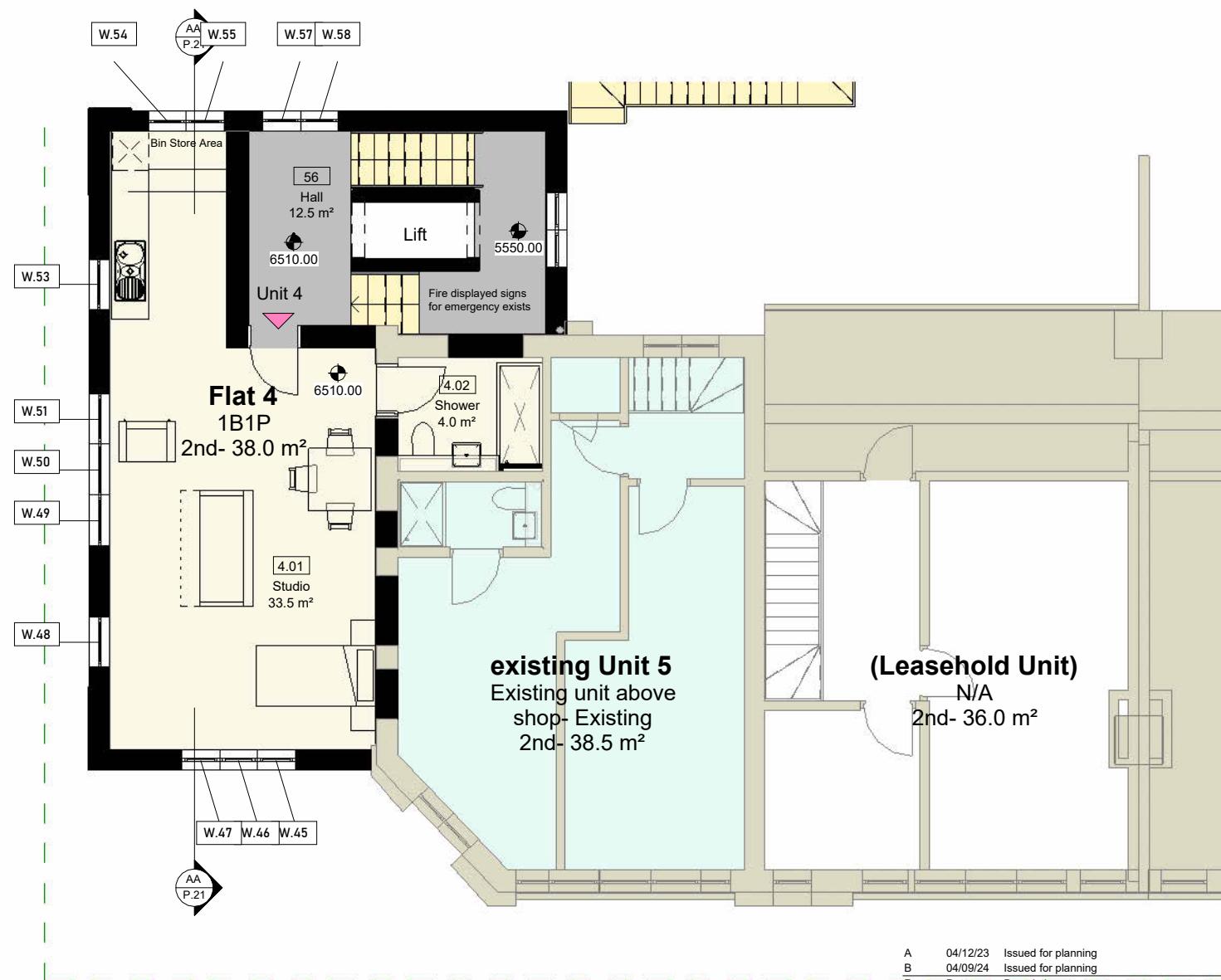


3/ LS.03 Proposed 1st FFL
1 : 100

Area Schedule (GIA Proposed)

Name	Unit Occupancy (xBxP)	Area	Amenity Required
Flat 1	1B2P	63 m ²	20
Flat 2	1B1P	37 m ²	20
Flat 3	1B1P	38 m ²	20
Flat 4	1B1P	38 m ²	20

- A Rear access
- C Shared Amenity space
- D Private Amenity space
- E Cycle storage
- F Refuse and recycling storage
- G Defensible space



4/ LS.03 Proposed Front 2nd FFL Copy 1
1 : 100

A 04/12/23 Issued for planning
B 04/09/24 Issued for planning
Rev Date Description

PROJECT NO.	175MAR-PL5	DRAWING NO.	LS.03 B
FIRST ISSUE	19/03/13	PAPER SIZE	A3
SCALE	1 : 100	REV ISSUE	04/09/24
1-2 Marlborough Parade, UB10 0LR			
Proposed Upper Floors (lighting study)			
PLANNING			
Note: All dimensions to be checked on the site before commencement of the work. For construction only use figured dimensions. Any variations from these drawings should be approved by the Architect prior to commencement. This drawing is copyright.			
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3/ LS.04 Proposed Marlborough Parade Elevation Copy 1



- A New windows
- B Dotted line represents outline of existing building
- C 3-storey side extension
- D Brick to match existing or similar approved
- E Doors - Timber doors
- F Entrance
- G Refuse store
- H Retail unit
- I Brick to match existing
- J Render to match existing
- K Windows to match existing
- L Cornice details restored / match existing
- M Cornice - Fibre Cement panel
- N Railings - Metal railing powder-coated
- O Railings - Obscured glazing 1.7m height
- P Bathrooms window with obscured glass and no openable panes below 1700mm
- Q Obscured glass

A 04/12/23 Issued for planning
 B 04/09/24 Issued for planning
 C 12/12/24 Window layout amended
 D 05/02/25 Obscured glazing note added
 Rev Date Description

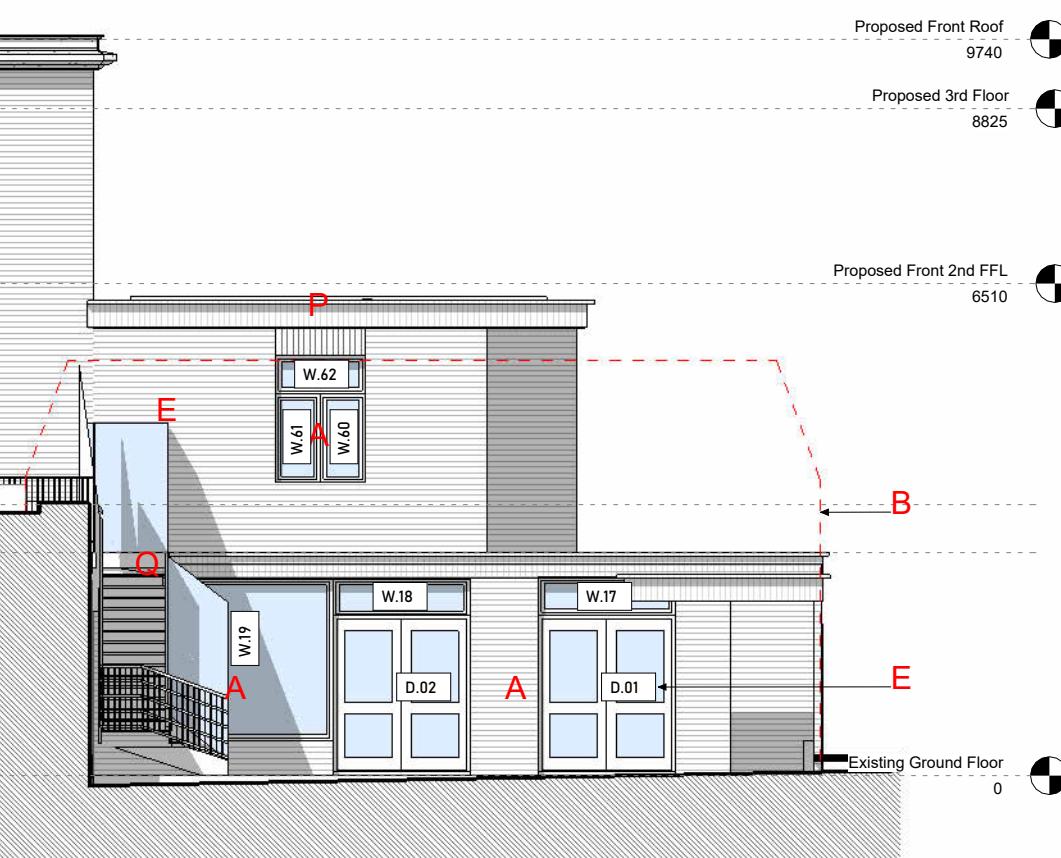
PROJECT NO.		DRAWING NO. REVISION	
175MAR-PL5	LS.04 D		
FIRST ISSUE PAPER SIZE SCALE REV ISSUE			
19/03/13	A3	1 : 100	05/02/25
1-2 Marlborough Parade, UB10 0LR			
Proposed Rear Elevation (lighting study)			
PLANNING			
Note: All dimensions to be checked on the site before commencement of the work. For construction only use figured dimensions. Any variations from these drawings should be approved by the Architect prior to commencement. This drawing is copyright.			
SHA		The Hayloft, 15 Barnet Gate Lane Arkley, HERTS, EN5 2AA 02072679679 info@sha.uk.com	

1/ LS.04 Proposed Rear Elevation

1 : 100

Bulkhead Security Light

1:100 0 1 2 3 4 5m



- A New windows
- B Dotted line represents outline of existing building
- C 3-storey side extension
- D Brick to match existing or similar approved
- E Doors - Timber doors
- F Entrance
- G Refuse store
- H Retail unit
- I Brick to match existing
- J Render to match existing
- K Windows to match existing
- L Cornice details restored / match existing
- M Fibre Cement panel
- N Railings - Metal railing powder-coated
- O Railings - Obscured glazing 1.7m height
- P Bathrooms window with obscured glass and no openable panes below 1700mm
- Q Obscured glass

A 04/12/23 Issued for planning
 B 04/09/24 Issued for planning
 C 12/12/24 Window layout amended
 Rev Date Description

PROJECT NO.		DRAWING NO. REVISION	
175MAR-PL5		LS.05 C	
FIRST ISSUE	PAPER SIZE	SCALE	REV ISSUE
19/03/13	A3	1 : 100	12/12/24
1-2 Marlborough Parade, UB10 0LR			
Proposed Side Building Elevations (lighting study)			
PLANNING			
Note: All dimensions to be checked on the site before commencement of work. For construction only use figured dimensions. Any variations from these drawings should be approved by the Architect prior to commencement. This drawing is copyright.			

APPENDIX III – FULL RESULTS

Project Name: 175MAR-PL4-Lighting Study

Project No.: 175MAR

Report Title: Daylight Distribution Analysis - Neighbour

Date of Analysis: 15/01/2024

Floor Ref.	Room Ref	Room Attribute	Property Type	Room Use	Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
3 Marlborough Parade									
Proposed Front 1st FFI	60	Residential	3MP-Living	Area m2 % of room	11.42	11.25 98.48%	11.25 98.48%	1.00	YES

Project Name: 175MAR-PL5-Lighting Study

Project No.: 175MAR-PL5

Report Title: Daylight Factor Analysis - Proposed Scheme

Date of Analysis:

Floor Ref	Room Ref	Room Attribute	Property Type	Room Use	Room Area m2	Effective Area	Median DF	Area Meeting Req DF	% of Area Meeting Req DF	Criteria			Meets Criteria
										Req DF	Req % of Effective Area	Median Diffuse Horizontal Illuminance	
Proposed building													
Existing Ground Floor	1.01	Flat 1	Residential	Kit/Liv/Din	29.25	22.52	4.10%	22.52	100%	0	1	14100	YES
	1.04	Flat 1	Residential	Bedroom	23.50	17.11	4.30%	17.11	100%	0	1	14100	YES
Proposed Rear 1st FFL	2.01	Flat 2	Residential	Studio	33.08	25.01	4.40%	25.01	100%	0	1	14100	YES
Proposed Front 1st FF	3.01	Flat 3	Residential	Studio	32.53	24.42	3.60%	23.60	97%	0	1	14100	YES
Proposed Front 2nd FF	4.01	Flat 4	Residential	Studio	33.54	25.44	5.40%	25.44	100%	0	1	14100	YES

Project Name: 175MAR-PL5-Lighting Study

Project No.: 175MAR-PL5

Report Title: Daylight Distribution Analysis - Proposed Scheme

Date of Analysis:

Floor Ref.	Room Ref	Room Attribute	Property Type	Room Use	Room Area	Lit Area Proposed	Meets BRE Criteria
Proposed building							
Existing Ground Floor	1.01	Flat 1	Residential	Kit/Liv/Din	Area m2 % of room	29.25 100.00%	YES
	1.04	Flat 1	Residential	Bedroom	Area m2 % of room	23.50 100.00%	YES
Proposed Rear 1st FFl	2.01	Flat 2	Residential	Studio	Area m2 % of room	33.08 100.00%	YES
Proposed Front 1st FF	3.01	Flat 3	Residential	Studio	Area m2 % of room	32.53 100.00%	YES
Proposed Front 2nd FF	4.01	Flat 4	Residential	Studio	Area m2 % of room	33.54 100.00%	YES

Project Name: 175MAR-PL5-Lighting Study
 Project No.: 175MAR-PL5
 Report Title: Daylight & Sunlight - Proposed Scheme
 Date of Analysis:

Floor Ref.	Room Ref.	Room Attribute	Property Type	Room Use	Window Ref.	Window Attribute	VSC	Meets BRE Criteria	Window Orientation	Room VSC	Meets BRE Criteria	Annual	Meets BRE Criteria	Winter	Meets BRE Criteria	Total Suns per Room Annual	Meets BRE Criteria	Total Suns per Room Winter	Meets BRE Criteria	Meets Both Window Criteria	Meets Both Room Criteria
Proposed building																					
Existing Ground Floor	1.01	Flat 1	Residential	Kit/Liv/Din	D.02	Flat 1	0.54	NO	304°N			0.00	NO	0.00	NO					NO	
Existing Ground Floor	1.01	Flat 1	Residential	Kit/Liv/Din	W.01	Flat 1	34.90	YES	304°N			17.00	NO	2.00	NO					NO	
Existing Ground Floor	1.01	Flat 1	Residential	Kit/Liv/Din	W.02	Flat 1	35.06	YES	304°N			21.00	NO	3.00	NO					NO	
Existing Ground Floor	1.01	Flat 1	Residential	Kit/Liv/Din	W.18	Flat 1	29.72	YES	124°			33.00	YES	10.00	YES					YES	
Existing Ground Floor	1.01	Flat 1	Residential	Kit/Liv/Din	W.19	Flat 1	26.90	NO	124°			38.74	YES	4.59	NO					NO	
Existing Ground Floor	1.01	Flat 1	Residential	Kit/Liv/Din	W.67	Flat 1	35.10	YES	304°N			23.00	NO	4.00	NO					NO	
Existing Ground Floor	1.01	Flat 1	Residential	Kit/Liv/Din	W.68	Flat 1	34.25	YES	304°N			9.00	NO	0.00	NO					NO	
Existing Ground Floor	1.01	Flat 1	Residential	Kit/Liv/Din	W.69	Flat 1	35.26	YES	304°N			13.00	NO	3.00	NO					NO	
Existing Ground Floor	1.01	Flat 1	Residential	Kit/Liv/Din	W.70	Flat 1	34.94	YES	304°N			12.00	NO	2.00	NO					NO	
Existing Ground Floor	1.04	Flat 1	Residential	Bedroom	D.01	Flat 1	0.85	NO	304°N			0.00	NO	0.00	NO					NO	
Existing Ground Floor	1.04	Flat 1	Residential	Bedroom	W.07	Flat 1	34.79	YES	304°N			10.00	NO	0.00	NO					NO	
Existing Ground Floor	1.04	Flat 1	Residential	Bedroom	W.08	Flat 1	34.77	YES	304°N			18.00	NO	2.00	NO					NO	
Existing Ground Floor	1.04	Flat 1	Residential	Bedroom	W.09	Flat 1	25.66	NO	34°N			6.00	NO	0.00	NO					NO	
Existing Ground Floor	1.04	Flat 1	Residential	Bedroom	W.10	Flat 1	29.67	YES	34°N			5.00	NO	0.00	NO					NO	
Existing Ground Floor	1.04	Flat 1	Residential	Bedroom	W.11	Flat 1	29.57	YES	34°N			0.00	NO	0.00	NO					NO	
Existing Ground Floor	1.04	Flat 1	Residential	Bedroom	W.12	Flat 1	26.85	NO	34°N			0.00	NO	0.00	NO					NO	
Existing Ground Floor	1.04	Flat 1	Residential	Bedroom	W.13	Flat 1	14.04	NO	34°N			0.00	NO	0.00	NO					NO	
Existing Ground Floor	1.04	Flat 1	Residential	Bedroom	W.14	Flat 1	14.01	NO	34°N			0.00	NO	0.00	NO					NO	
Existing Ground Floor	1.04	Flat 1	Residential	Bedroom	W.15	Flat 1	29.83	YES	34°N			5.00	NO	0.00	NO					NO	
Existing Ground Floor	1.04	Flat 1	Residential	Bedroom	W.16	Flat 1	28.95	YES	34°N			0.00	NO	0.00	NO					NO	
Existing Ground Floor	1.04	Flat 1	Residential	Bedroom	W.17	Flat 1	29.82	YES	124°			30.00	YES	11.00	YES					YES	
Proposed Rear 1st FFI	2.01	Flat 2	Residential	Studio	W.35	Flat 2	35.71	YES	34°N			4.00	NO	0.00	NO					NO	
Proposed Rear 1st FFI	2.01	Flat 2	Residential	Studio	W.38	Flat 2	35.55	YES	34°N			4.00	NO	0.00	NO					NO	
Proposed Rear 1st FFI	2.01	Flat 2	Residential	Studio	W.29	Flat 2	37.31	YES	304°N			8.00	NO	0.00	NO					NO	
Proposed Rear 1st FFI	2.01	Flat 2	Residential	Studio	W.30	Flat 2	37.49	YES	304°N			18.00	NO	2.00	NO					NO	
Proposed Rear 1st FFI	2.01	Flat 2	Residential	Studio	W.31	Flat 2	37.57	YES	304°N			8.00	NO	0.00	NO					NO	
Proposed Rear 1st FFI	2.01	Flat 2	Residential	Studio	W.32	Flat 2	37.57	YES	304°N			18.00	NO	2.00	NO					NO	
Proposed Rear 1st FFI	2.01	Flat 2	Residential	Studio	W.33	Flat 2	36.31	YES	34°N			9.00	NO	0.00	NO					NO	
Proposed Rear 1st FFI	2.01	Flat 2	Residential	Studio	W.34	Flat 2	36.21	YES	34°N			2.00	NO	0.00	NO					NO	
Proposed Rear 1st FFI	2.01	Flat 2	Residential	Studio	W.36	Flat 2	36.05	YES	34°N			9.00	NO	0.00	NO					NO	
Proposed Rear 1st FFI	2.01	Flat 2	Residential	Studio	W.37	Flat 2	35.98	YES	34°N			2.00	NO	0.00	NO					NO	
Proposed Rear 1st FFI	2.01	Flat 2	Residential	Studio	W.60	Flat 2	32.53	YES	124°			47.00	YES	12.00	YES					YES	
Proposed Rear 1st FFI	2.01	Flat 2	Residential	Studio	W.61	Flat 2	32.21	YES	124°			40.00	YES	8.00	YES					YES	
Proposed Rear 1st FFI	2.01	Flat 2	Residential	Studio	W.62	Flat 2	33.14	YES	124°			25.00	YES	9.00	YES					YES	
Proposed Front 1st FF	3.01	Flat 3	Residential	Studio	W.28	Flat 3	37.97	YES	304°N			10.00	NO	0.00	NO					NO	
Proposed Front 1st FF	3.01	Flat 3	Residential	Studio	W.24	Flat 3	38.07	YES	304°N			10.00	NO	0.00	NO					NO	
Proposed Front 1st FF	3.01	Flat 3	Residential	Studio	W.25	Flat 3	37.94	YES	304°N			10.00	NO	0.00	NO					NO	
Proposed Front 1st FF	3.01	Flat 3	Residential	Studio	W.26	Flat 3	38.02	YES	304°N			20.00	NO	3.00	NO					NO	
Proposed Front 1st FF	3.01	Flat 3	Residential	Studio	W.27	Flat 3	38.30	YES	304°N			7.00	NO	0.00	NO					NO	
Proposed Front 1st FF	3.01	Flat 3	Residential	Studio	W.20	Flat 3	36.24	YES	214°			51.00	YES	17.00	YES					YES	
Proposed Front 1st FF	3.01	Flat 3	Residential	Studio	W.21	Flat 3	37.07	YES	214°			57.00	YES	21.00	YES					YES	
Proposed Front 1st FF	3.01	Flat 3	Residential	Studio	W.22	Flat 3	37.63	YES	214°			51.00	YES	23.00	YES					YES	
Proposed Front 1st FF	3.01	Flat 3	Residential	Studio	W.23	Flat 3	38.15	YES	304°N			10.00	NO	0.00	NO					NO	
Proposed Front 2nd FF	4.01	Flat 4	Residential	Studio	W.56	Flat 4	33.74	YES	34°N			5.00	NO	0.00	NO					NO	
Proposed Front 2nd FF	4.01	Flat 4	Residential	Studio	W.45	Flat 4	36.14	YES	214°			51.00	YES	17.00	YES					YES	
Proposed Front 2nd FF	4.01	Flat 4	Residential	Studio	W.46	Flat 4	37.														

Project Name: 175MAR-PL5-Lighting Study

Project No.: 175MAR-PL5

Report Title: Daylight & Sunlight - Proposed Scheme

Date of Analysis:

Floor Ref.	Room Ref.	Room Attribute	Property Type	Room Use	Window Ref.	Window Attribute	VSC	Meets BRE Criteria	Window Orientation	Room VSC	Meets BRE Criteria	Annual	Meets BRE Criteria	Winter	Meets BRE Criteria	Total Suns per Room Annual	Meets BRE Criteria	Total Suns per Room Winter	Meets BRE Criteria	Meets Both Window Criteria	Meets Both Room Criteria
Proposed Front 2nd FF	4.01	Flat 4	Residential	Studio	W.55	Flat 4	38.33	YES	34°N	N/A	YES	3.00	NO	0.00	NO	74.00	YES	24.00	YES	NO	YES

