Daylight & Sunlight Report

Assessment of Proposed Development

PR Architecture

80-82 High Street, Littlehampton

29th July 2025

Client:	PR Architecture
Prepared By:	MES Building Solutions Newark Beacon Beacon Hill Office Park Cafferata Way Newark NG24 2TN
Project:	80-82 High Street, Littlehampton, BN17 5DX
Document Title:	Daylight & Sunlight Report – Assessment of Proposed Development
Date:	29th July 2025
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About MES Building Solutions

MES Building Solutions (MES) is an established consultancy practice specialising in providing building solutions throughout the UK.
We offer a full range of services for both residential and commercial buildings from small individual properties through to highly complex mixed use developments.
We are an industry leader in delivering a professional, accredited and certified service to a wide range of clients including architects, developers, builders, housing associations, the public sector and private householders.
Employing highly qualified staff, our team comes from a variety of backgrounds within the construction industry with combined knowledge of building design, engineering, assessment, construction, development, research and surveying.
MES Building Solutions maintains its position at the forefront of changes in building regulations as well as technological advances. Our clients, large or small are therefore assured of a cost effective, cohesive and fully integrated professional service.

About the Authors

Chris Jones is a Director at MES Building Solutions. Chris has a Masters Degree in Energy Efficient & Sustainable Building, as well as an Honours degree in Mechanical Engineering. Chris has over 20 years' experience in providing sustainable building solutions and assists the Neighbourly Matters team at MES. He undertakes daylighting, sunlight and shadow cast analysis for planning applications. Chris is also a qualified BREEAM and Code for Sustainable Homes assessor and has worked with some of the UK's top developers, as well as housing associations and local authorities.

Andrew Pickersgill is an Associate member of the Royal Institution of Chartered Surveyors and leads our neighbourly matters team. He has a BSc (Hons) degree in Building Surveying. Andrew undertakes daylighting, sunlight and shadow analysis for planning applications. He is also involved in party wall issues and carries out other building surveying services for our clients.

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Appendices

1.0 Executive Summary

We have carried out calculations following guidance in Site Layout Planning for Daylight & Sunlight (SLPDS), PJ Littlefair et al 2022 to assess the expected amount of natural daylight and sunlight in seven habitable rooms within three new apartments that will be formed by the proposed residential conversion of the first floor of 80-82 High Street, Littlehampton, BN17 5DX and compared the results to the recognised BRE guidance figures.

Our technical evaluation of the proposed scheme confirms that all seven of the habitable rooms assessed will comfortably achieve daylight levels that meet the planning guidance provided by the BRE while all three flats will receive levels of direct sunlight comfortably above the minimum recommended in the BRE guidance.

Therefore, in our opinion, the development achieves an effective and balanced level of daylight and sunlight provision, which exceeds the minimum standards recommended in the BRE planning guidance. We provide further detail and comments in the following report.

2.0 Introduction

The purpose of this report is to assess the natural daylight and sunlight levels in seven habitable rooms within three new apartments that will be formed by the proposed residential conversion of the first floor of 80-82 High Street, Littlehampton, BN17 5DX.

This report considers the daylight issues against the criteria set out for national guidance in the following publications:

Site Layout Planning for Daylight & Sunlight (SLPDS), PJ Littlefair et al 2022 published by the Building Research Establishment (BRE).

The SLPDS is the culmination of research undertaken by the BRE to determine whether or not a new development will achieve acceptable levels of internal daylight and sunlight. The BRE tests and are widely used by local authorities when deciding on development applications.

BS EN 17037-2018 Daylight in Buildings.

There are no minimum mandatory requirements for daylighting in Building Regulations for England & Wales, but the guidance set out in SLPDS is widely accepted as the approved methodology when calculating light levels in habitable rooms.

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3.0 Planning Policy

3.1 National Planning Policy

The national Planning Policy Framework (Department for Levelling Up, Housing & Communities December 2024) makes little direct reference to Daylight & Sunlight However, in Section 11 (Making effective use of land), paragraph 124 states:

“Planning policies and decisions should promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions.”

Section 11 continues in paragraph 130c:

“local planning authorities should refuse applications which they consider fail to make efficient use of land, taking into account the policies in this Framework. In this context, 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).”

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3.2 Arun District Adopted Local Plan (July 2018)

Policy D DM4 Extensions and alterations to existing buildings (residential and non-residential)

When considering applications for extensions and alterations to existing buildings, the Council will require that:

a. the extension or alteration sympathetically relates to and is visually integrated with, the existing building in siting, massing, design, form, scale and materials;
b. the extension or alteration is visually subservient to the main building and provide a high standard of amenity;
c. the extension or alteration does not have an adverse overshadowing, overlooking or overbearing effect on neighbouring properties;
d. in streets characterised by relatively small gaps at first floor level between buildings, any extension or alteration at first floor level does not come to within a minimum of one metre of the side boundary and;
e. the extension or alteration does not compromise the established spatial character and pattern of the place but is instead a positive addition.

Developments shall also be consistent with all other Local Plan Policies.

Paragraph 13.4.3 of the supporting text to the Policy states that:

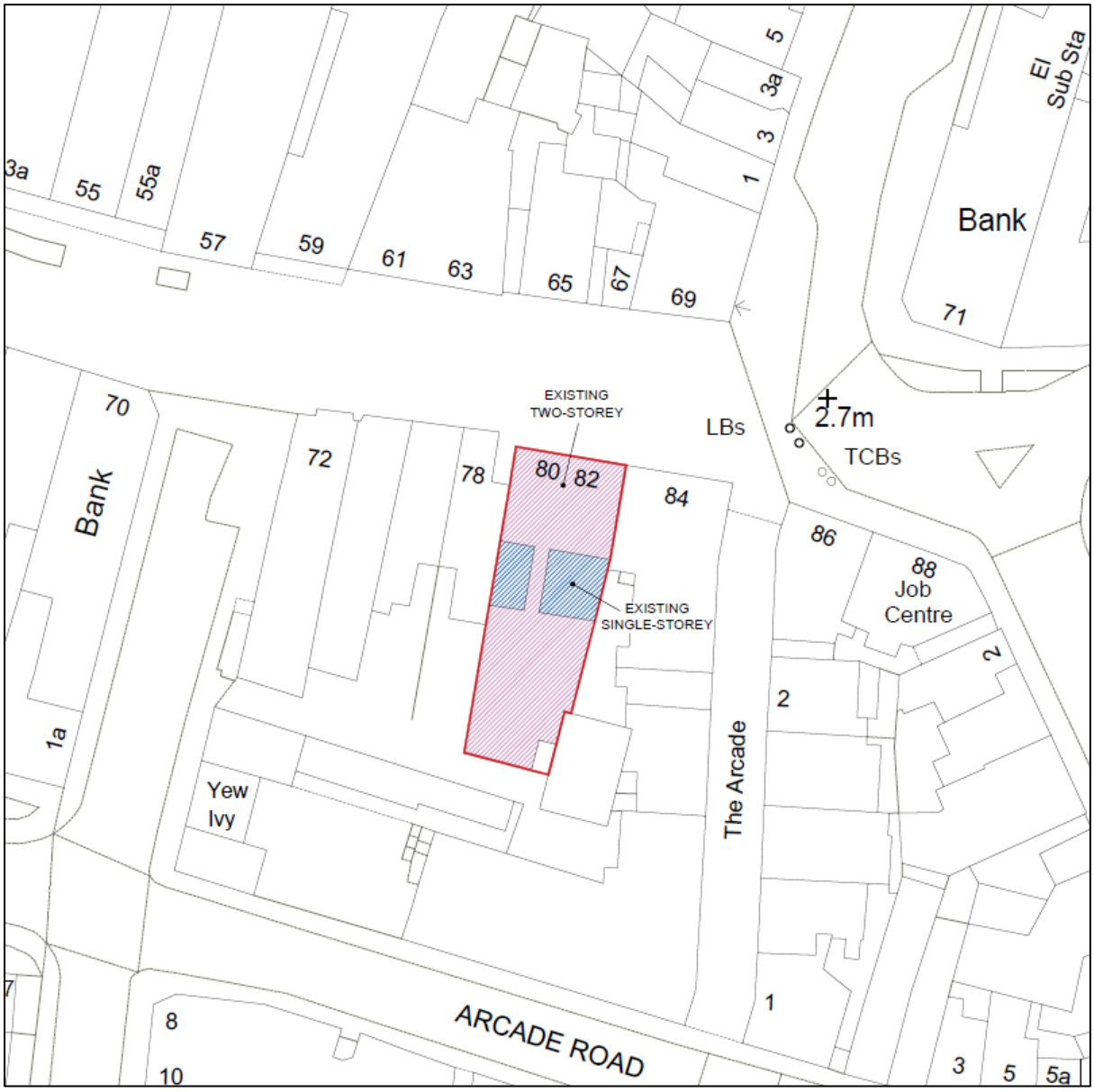
Extensions and alterations to existing buildings should be designed to:

- Complement the scale and massing of the existing building;
- Preserve any features of interest;
- Provide a satisfactory relationship between old and new fabric;
- Not lead to overlooking, overpowering or overshadowing of neighbouring properties; and
- Ensure adequate natural light within the building, garden and amenity space.

4.0 Description of Development

The scheme comprises of the conversion of the first floor of 80-82 High Street, Littlehampton, BN17 5DX from commercial use to residential, to provide one new two bed, and two one bed apartments.

The property is located on the south side of High Street, in Littlehampton Centre. The site is closely neighboured at the west, south and east boundaries by buildings of a similar size with the pedestrianised Hight Street to the north.



Site Location Plan

5.0 Assessment Process

The guidance states that rooms to be assessed should be living rooms, kitchens and bedrooms in residential properties. In non-domestic buildings rooms where occupants 'have a reasonable expectation of daylight' should be assessed. Although these spaces are not defined, examples are given of the type of non-domestic buildings that would normally fall into this category. These include schools, hospitals, hotels and hostels, small workshops and some offices.

It is important to note that the numerical values in the guidance are purely advisory and different criteria may be used based on the requirements for daylighting in an area viewed against other site layout constraints.

The parameters we have assessed are:

- Spatial Daylight Autonomy (SDA)
- Sunlight Exposure (SE)

Room reference plans of the spaces we have assessed can be found in Appendix 1.

The assessment is based on OS data, along with the following drawings, provided by PR Architecture:

- 23.06 60A Proposed Site Plan
- 23.06 65A Proposed Ground Floor Plan
- 23.06 66B Proposed First Floor Plan
- 23.06 67A Proposed Elevations
- 23.06 68A Proposed Elevations

6.0 Daylight Provision

Illuminance (Spatial Daylight Autonomy)

This method involves using climatic data for the location of the site (via the use of an appropriate typical or average year, weather file within the software) to calculate the illuminance from daylight at each point on an assessment grid on the reference plane at an at least hourly interval for a typical year.

The UK National Annex gives illuminance recommendations of 100 lux in bedrooms, 150 lux in living rooms and 200 lux in kitchens. These are the median illuminances, to be exceeded over at least 50% of the assessment points in the room for at least half of the daylight hours.

Other non-habitable rooms need not be assessed.

The calculation of Daylight Provision takes into account the following variables:

- The diffuse visible transmittance of the glazing (we have assumed a figure of 0.68 for double glazing).
- Maintenance factor, allowing for the effects of dirt (we have assumed a figure of 0.76).
- Net glazed area of the window. (we have assumed a figure of 0.8).
- Total area of the room surfaces.

Surface Reflectance should represent real conditions. Where reflectance values have not been measured or specified, default values to be used in the calculation. Assumed reflectance for individual elements are:

Assumed Surface Reflectance	
Surface	**Assumed Reflectance**
Interior Walls	0.8 (White Painted Finish)
Ceilings	0.8 (White Painted Finish)
Floors	0.2 (Default)
Exterior Walls & Obstructions	0.3 (Default)
Exterior Ground	0.2 (Default)

- Assessment grid: The calculation of illuminance or daylight factor is carried out on a grid of points on a reference plane within each room assessed. The plane is normally 0.85m from the floor level (sometimes described as the working plane height). The standard states that the assessment grid should exclude a band of 0.5m from the walls, unless otherwise specified. In dwellings it is recommended that a band of 0.3m should be excluded, to avoid excluding parts of the room that are used by the occupants.

Daylight Provision Results

Calculations were undertaken in accordance with the procedures shown in SLPDS. All seven the habitable rooms assessed, comfortably meet the BRE guidance for daylight provision.

Please see Appendix 2 for the detailed results.

7.0 Sunlight Exposure

The BRE guidance states that access to sunlight can be quantified. BS EN 17037 recommends that a space should receive a minimum of 1.5 hours of direct sunlight on a selected date between 1st February and 21st March with cloudless conditions. It is suggested that 21st March (equinox) be used.

The medium level of recommendation is three hours and the high level of recommendation four hours.

For dwellings, at least one habitable room, preferably a main living room, should meet at least the minimum criterion.

Sunlight Exposure Results

Calculations were undertaken in accordance with the procedures detailed in SLPDS. Our results show that all three of the apartments assessed will receive levels of direct sunlight comfortably above the minimum recommended in the BRE guidance

Please see Appendix 3 for the detailed results.

8.0 Notes

This report has been prepared for the use of the Client in support of a planning application. No representation or warranty (expressed or implied) is given to any other parties for any other purpose. Therefore, this report should not be relied upon by any third party for any other use and we accept no liability from the use of this report in any way other than originally intended.

We are not aware of any conflicts of interest between ourselves and any other party concerning this project.

Appendix 1

Room Layouts

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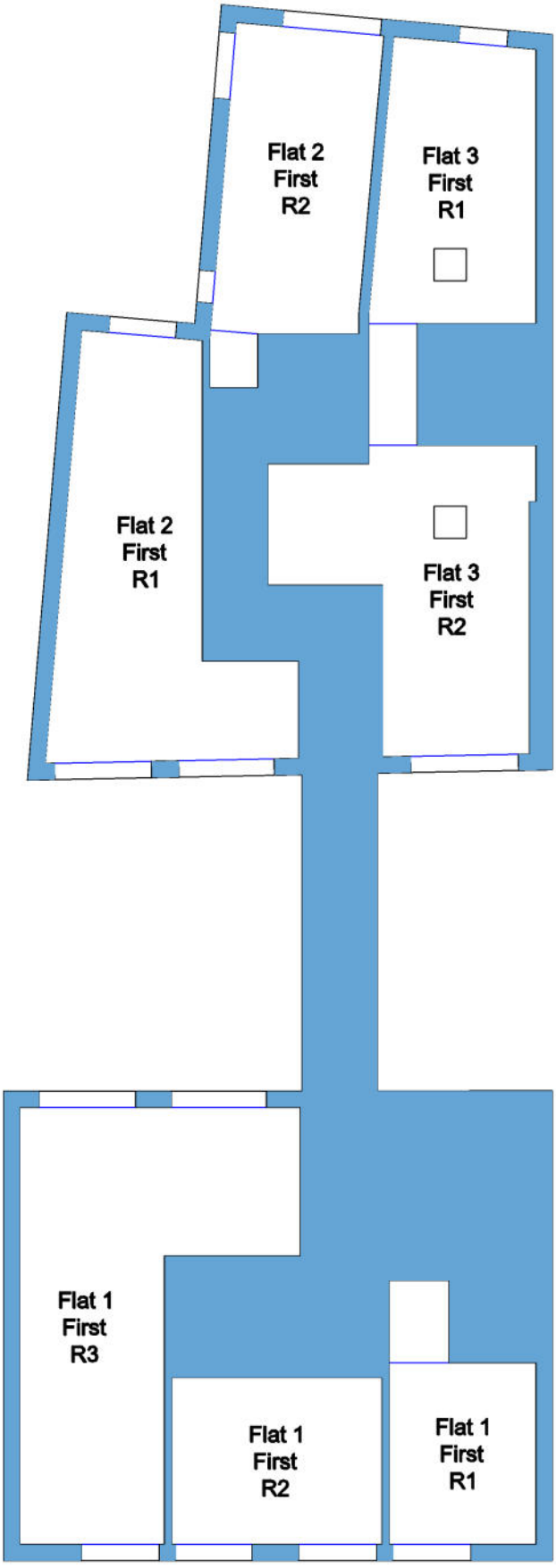

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CLIENT:	PROJECT :	DRAWING TITLE:	DRAWN BY:	CHECKED BY:
PR Architecture	80-82 High Street Littlehampton BN17 5DX	First Floor Layout Showing Roof Lights	NJW	CJ
			DATE: 16/7/2025	SCALE: NTS

Appendix 2

Daylight Test Results

Spatial Daylight Autonomy

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BRE Room Daylight Test (Spatial Daylight Autonomy)
Project: 80-82 High Street (Proposed roof lights)
Date of Analysis: 14/07/2025

Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Target Lux	% of Area Meeting target Lux	Criteria				
								Target Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours	Meets BRE Guidance
Flat 1												
First	R1	Bedroom	9.22	5.92	550	5.92	100%	100	50%	50%	4380	YES
	R2	Bedroom	12.19	8.33	993	8.33	100%	100	50%	50%	4380	YES
	R3	LKD	28.89	21.23	544	21.23	100%	200	50%	50%	4380	YES
Flat 2												
First	R1	LKD	23.99	16.96	413	16.96	100%	200	50%	50%	4380	YES
	R2	Bedroom	15.53	10.84	293	10.84	100%	100	50%	50%	4380	YES
Flat 3												
First	R1	Bedroom	15.06	10.55	149	10.37	98%	100	50%	50%	4380	YES
	R2	LKD	20.73	14.65	240	9.95	68%	200	50%	50%	4380	YES

Appendix 3

Sunlight Exposure Results

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BRE Sunlight Assessment (Sunlight Exposure)
Project: 80-82 High Street, Littlehampton
Date: 22nd July 2025

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Sunlight Exposure (Hours)	Rating
			Flat 1			
First	R1	Bedroom	W1	10°N	0	
					0	North Facing
First	R2	Bedroom	W2	10°N	0	
			W3	10°N	0	
					0	North Facing
First	R3	LKD	W4	10°N	0	
			W5	190°	5.5	
			W6	190°	4.8	
					6.3	High
			Flat 2			
First	R1	LKD	W1	8°N	0	
			W2	8°N	0	
			W3	195°	4.3	
					4.3	High
First	R2	Bedroom	W4	104°	2.4	
			W5	104°	3.6	
			W6	195°	2.8	
					3.9	Medium
			Flat 3			
First	R1	Bedroom	W1	195°	3	
			W4	90° Hz	0	
					3	Medium
First	R2	LKD	W2	9°N	0	
			W3	90° Hz	0	
					0	Falls Short