
Daylight & Sunlight Report

Assessment of Proposed Development

Pinewood Campus

Legal and General Assurance (Pensions Management) Ltd



8th August 2024



Client: Legal and General Investment Management
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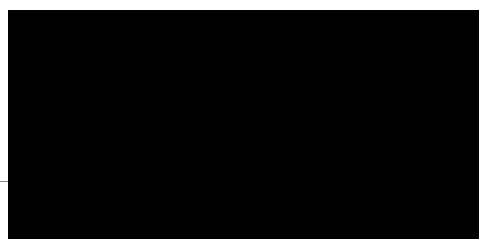
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About MES Building Solutions

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 Author

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.

Contents

1.0	Executive Summary	4
2.0	Introduction.....	5
3.0	Planning Policy	6
4.0	Description of Development	7
5.0	Assessment Process	8
6.0	Daylight Provision	9
7.0	Sunlight Exposure	10
8.0	Conclusion.....	11
9.0	Notes	11

Appendices

Appendix 1 Room Layouts

Appendix 2 Daylight Test Results Spatial Daylight Autonomy

Appendix 3 Sunlight Exposure Results

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 two hundred and fifty two habitable rooms in one hundred and nine new flats that will be formed following the proposed residential conversion of Pinewood Campus, Nine Mile Ride, Wokingham RG40 3EW and compared the results to the recognised BRE guidance figures.

Daylight and sunlight is one of a number of considerations when designing a building and should therefore be balanced with other planning issues, such as the appearance of the building, the need for additional local housing, the existing street scene and the commercial viability of the project.

The BRE guidance acknowledges that the advice it gives is tailored towards new build projects and care should be taken when this is applied to the conversion of existing buildings as in these situations there may well be constraints on design that would not be relevant to new build schemes.

The results of our analysis shows that two hundred and forty eight of the habitable open plan living rooms and bedrooms assessed will meet the recommended daylight levels, while the remaining four rooms would be considered marginal, being within 5% of the targets suggested in the guidance.

In addition, we have assessed the sunlight provision to sixty two flats that have at least one window orientated within ninety degrees of south. Of these, fifty eight meet the guidance for sunlight provision to new dwellings, while the remaining four have east facing windows into an internal courtyard and would not be expected to receive direct sunlight given their orientation, or position.

Therefore, in our opinion, the development achieves an effective and balanced level of daylight and sunlight provision, and all habitable rooms will receive adequate levels of natural light in line with the requirements for Class MA of the Town and Country Planning (General Permitted Development) Order 2020.

2.0 Introduction

The purpose of this report is to assess the natural daylight and sunlight levels in two hundred and fifty two habitable rooms in one hundred and nine new flats that will be formed following the proposed residential conversion of Pinewood Campus, Nine Mile Ride, Wokingham RG40 3EW.

This report considers the daylight issues using guidance provided 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.

3.0 Planning in England: Permitted development and change of use (House of Commons Library 6 March 2024)

Commercial, business and service use to residential (since 2020)

In September 2020, the government created a new use class (use class E) which combined different commercial, business and service uses that were previously contained in separate use classes. Following the creation of use class E, the government introduced new PDRs to allow for changes of use from a building in commercial, business and service use (use class E) to a dwellinghouse (use class C3).⁶⁰

Class MA of Part 3 of Schedule 2 of the General Permitted Development 2015 replaced permitted development rights under Class O (office-to-residential conversions) and Class M (conversions of shops, financial and professional services and other uses to residential use).

Restrictions, conditions and limitations on Class MA

PDRs under Class MA are subject to prior approval with regards to some of the following matters:

- Since August 2020, the provision of adequate natural light in all habitable rooms.
- The impact of noise from existing commercial premises.
- The impact on future occupants of the dwelling if it is in an area the LPA considers important for heavy industry, waste management, storage and distribution.
- The impact of the loss of health centres and registered nurseries.
- In conservation areas, the impact of the loss of ground-floor commercial, business and service uses on the area's character and sustainability.

4.0 Description of Development

The scheme comprises of the conversion of the existing three storey commercial building to provide one hundred and nine new residential apartments over three levels.

The property is located approximately 3.5km south east of Wokingham to the north of the B3430 Nine Mile Ride. The building is situated within an area of woodland and has no neighbouring buildings nearby.



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 survey data and drawings, provided by Chetwoods:

5730 PL 0002 C site location plan
5730 PL 1100 C proposed site plan
5730 PL 1101 C proposed part site plan
5730 PL 2100 C proposed ground floor plan
5730 PL 2110 C proposed first floor plan
5730 PL 2120 C proposed second floor plan
5730 PL 2130 A proposed roof plan
5730 PL 2210 A proposed elevations sheet 1 - external elevations
5730 PL 2220 A proposed elevations sheet 2 - courtyard 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 using guidance contained in SLPDS. We have assessed open plan living spaces and bedrooms in one hundred and nine flats. Open plan living spaces have been assessed against the recommended target of 150Lux for living rooms, as this will be the primary room use. Bedrooms have been assessed against the recommended target of 100Lux. Of the two hundred and fifty two habitable rooms assessed, two hundred and forty eight meet the recommended targets, while the remaining four rooms would be considered marginal, being within 5% of the target for the room type. We therefore consider all habitable rooms to be adequately lit and compliant with the requirements of Permitted Development and change from Commercial to residential use.

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

The BRE guidance acknowledges that the advice it gives is tailored towards new build projects and care should be taken when this is applied to the conversion of existing buildings, as in these situations there may well be constraints on design that would not be relevant to new build schemes

We have assessed the sunlight provision to sixty two flats that have at least one window orientated within ninety degrees of south. Of these, fifty eight meet the guidance for sunlight provision to new dwellings, while the remaining four flats have east facing windows into an internal courtyard and would not be expected to receive direct sunlight given their orientation, or position.

Therefore, it is our opinion that, given the nature of the project, the proposal provides an adequate amount of sunlight into all flats that might be expected to receive direct light from the sun.

Calculations were undertaken using guidance contained in SLPDS. Please see Appendix 2 for the detailed results.

8.0 Conclusion

The results of our analysis demonstrate that the development achieves an effective and balanced level of daylight and sunlight provision, and all habitable rooms will receive adequate levels of natural light in line with the requirements for Class MA of the Town and Country Planning (General Permitted Development) Order 2020.

9.0 Notes

This report has been prepared for the sole use of the Client for the purpose of their 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 by any party for any use than originally intended.



Appendix 1

Room Layouts



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CLIENT:
PMV Planning LTD

PROJECT :
Pinewood Campus

DRAWING TITLE:
Ground Floor Plan

DRAWN BY:
NJW

CHECKED BY:
CJ

DATE:
6/8/2024

SCALE:
NTS



Newark Beacon
Cafferata Way
Newark NG24 2TN
01636 653 055

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CLIENT:
PMV Planning LTD

PROJECT :
Pinewood Campus

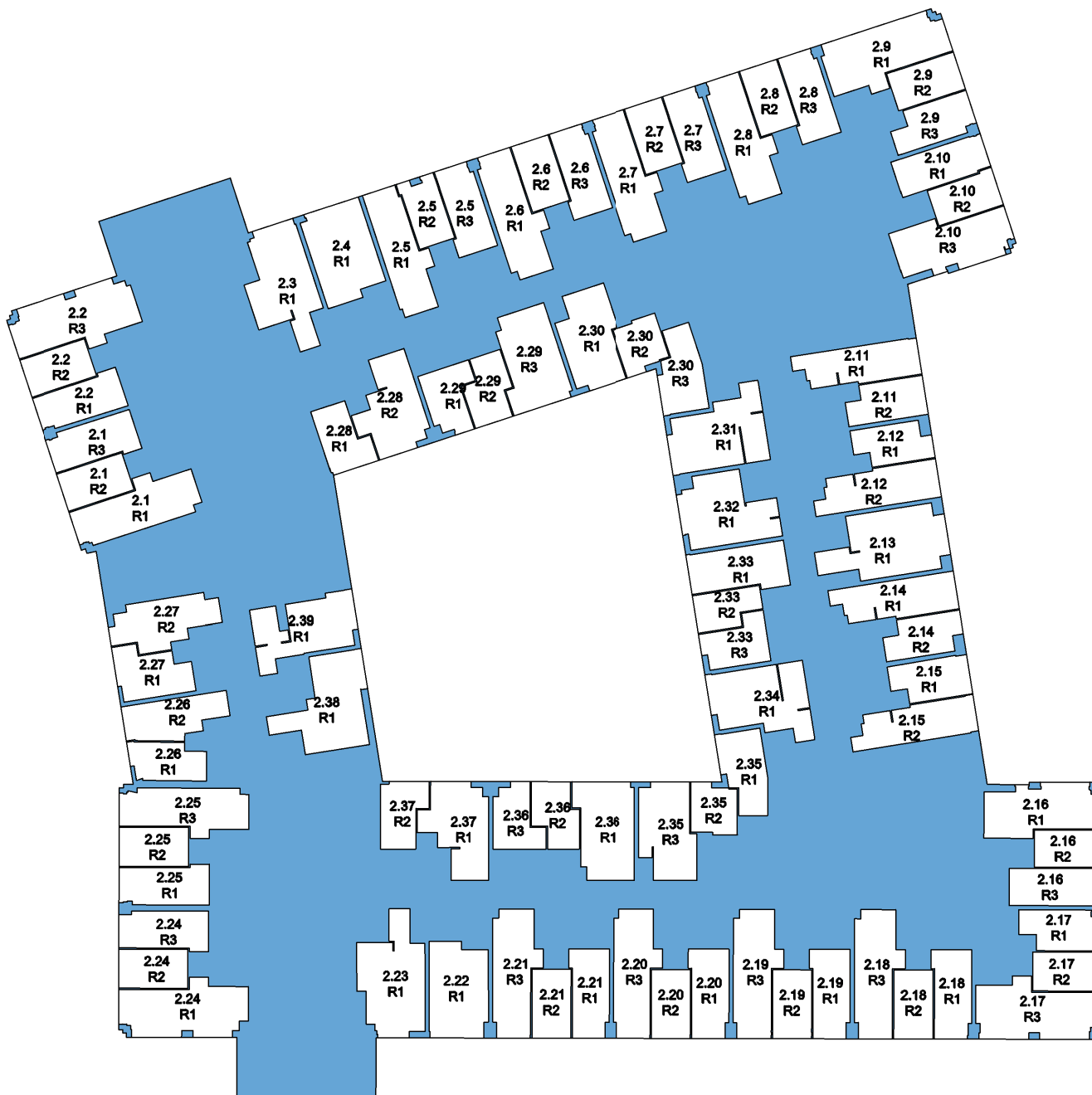
DRAWING TITLE:
First Floor Plan

DRAWN BY:
NJW

CHECKED BY:
CJ

DATE:
6/8/2024

SCALE:
NTS



Newark Beacon
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Newark NG24 2TN
01636 653 055

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CLIENT:
PMV Planning LTD

PROJECT :
Pinewood Campus

DRAWING TITLE:
Second Floor Plan

DRAWN BY:
NJW

DATE:
6/8/2024

CHECKED BY:
CJ

SCALE:
NTS



Appendix 2

Daylight Test Results

Spatial Daylight Autonomy

Daylight Assessment Results (Spatial Daylight Autonomy) Project: Pinewood Campus Date of Analysis: 06/08/2024								Criteria				
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Recommended Lux	% of Area Meeting Recommended Lux	Recommended Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours	Meets Guidance
0.1												
Ground	R1	OP Living	27.88	20.48	449	20.48	100%	150	50%	50%	4380	YES
	R2	Bedroom	13.30	9.17	935	9.17	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.45	12.30	902	12.30	100%	100	50%	50%	4380	YES
0.2												
Ground	R1	Bedroom	16.85	11.75	889	11.75	100%	100	50%	50%	4380	YES
	R2	Bedroom	13.27	9.15	950	9.15	100%	100	50%	50%	4380	YES
	R3	OP Living	29.76	22.26	2322	22.26	100%	150	50%	50%	4380	YES
0.3												
Ground	R1	Bedsit	30.02	23.54	985	23.54	100%	150	50%	50%	4380	YES
0.4												
Ground	R1	Bedroom	17.49	11.42	184	11.05	97%	100	50%	50%	4380	YES
	R2	OP Living	24.63	16.96	641	16.96	100%	150	50%	50%	4380	YES
0.5												
Ground	R1	OP Living	27.30	19.94	482	19.94	100%	150	50%	50%	4380	YES
	R2	Bedroom	13.42	9.26	1060	9.26	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.31	12.16	1001	12.16	100%	100	50%	50%	4380	YES
0.6												
Ground	R1	OP Living	27.30	19.94	478	19.94	100%	150	50%	50%	4380	YES
	R2	Bedroom	13.41	9.25	1060	9.25	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.34	12.18	982	12.18	100%	100	50%	50%	4380	YES
0.7												
Ground	R1	OP Living	27.26	19.90	481	19.90	100%	150	50%	50%	4380	YES
	R2	Bedroom	13.40	9.24	1060	9.24	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.38	12.23	1001	12.23	100%	100	50%	50%	4380	YES
0.8												
Ground	R1	OP Living	29.46	21.96	2861	21.96	100%	150	50%	50%	4380	YES
	R2	Bedroom	13.94	9.69	794	9.69	100%	100	50%	50%	4380	YES
	R3	Bedroom	15.65	10.75	997	10.75	100%	100	50%	50%	4380	YES
0.9												
Ground	R1	Bedroom	17.63	12.47	801	12.47	100%	100	50%	50%	4380	YES
	R2	Bedroom	12.58	8.48	852	8.48	100%	100	50%	50%	4380	YES
	R3	OP Living	26.41	19.61	1320	19.61	100%	150	50%	50%	4380	YES
0.10												
Ground	R1	OP Living	22.08	15.17	484	15.17	100%	150	50%	50%	4380	YES
	R2	Bedroom	14.98	10.06	877	10.06	100%	100	50%	50%	4380	YES
0.11												
Ground	R1	Bedroom	18.56	13.23	676	13.23	100%	100	50%	50%	4380	YES
	R2	OP Living	30.34	22.66	356	22.66	100%	150	50%	50%	4380	YES
0.12												
Ground	R1	OP Living	30.29	22.61	348	22.61	100%	150	50%	50%	4380	YES
	R2	Bedroom	17.99	12.69	717	12.69	100%	100	50%	50%	4380	YES
0.13												
Ground	R1	Bedroom	14.62	9.98	935	9.98	100%	100	50%	50%	4380	YES
	R2	OP Living	21.36	14.75	524	14.75	100%	150	50%	50%	4380	YES
0.14												
Ground	R1	OP Living	25.75	19.11	1585	19.11	100%	150	50%	50%	4380	YES
	R2	Bedroom	11.64	7.81	956	7.81	100%	100	50%	50%	4380	YES
	R3	Bedroom	16.89	11.92	918	11.92	100%	100	50%	50%	4380	YES

Daylight Assessment Results (Spatial Daylight Autonomy) Project: Pinewood Campus Date of Analysis: 06/08/2024								Criteria				
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Recommended Lux	% of Area Meeting Recommended Lux	Recomended Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours	Meets Guidance
0.15												
Ground	R1	Bedroom	14.71	10.02	1087	10.02	100%	100	50%	50%	4380	YES
	R2	Bedroom	12.44	8.48	976	8.48	100%	100	50%	50%	4380	YES
	R3	OP Living	29.39	21.90	2166	21.90	100%	150	50%	50%	4380	YES
0.16												
Ground	R1	Bedroom	17.78	12.49	752	12.49	100%	100	50%	50%	4380	YES
	R2	Bedroom	14.04	9.75	1211	9.75	100%	100	50%	50%	4380	YES
	R3	OP Living	27.80	20.30	373	20.21	100%	150	50%	50%	4380	YES
0.17												
Ground	R1	Bedroom	17.71	12.43	747	12.43	100%	100	50%	50%	4380	YES
	R2	Bedroom	14.05	9.76	1212	9.76	100%	100	50%	50%	4380	YES
	R3	OP Living	27.86	20.36	381	20.27	100%	150	50%	50%	4380	YES
0.18												
Ground	R1	Bedroom	17.82	12.53	760	12.53	100%	100	50%	50%	4380	YES
	R2	Bedroom	14.05	9.76	1211	9.76	100%	100	50%	50%	4380	YES
	R3	OP Living	27.81	20.31	375	20.22	100%	150	50%	50%	4380	YES
0.19												
Ground	R1	Bedroom	17.64	12.36	744	12.36	100%	100	50%	50%	4380	YES
	R2	Bedroom	14.05	9.76	1208	9.76	100%	100	50%	50%	4380	YES
	R3	OP Living	27.84	20.35	371	20.25	100%	150	50%	50%	4380	YES
0.20												
Ground	R1	Bedsit	28.84	22.41	818	22.41	100%	150	50%	50%	4380	YES
0.21												
Ground	R1	OP Living	29.11	21.62	1784	21.62	100%	150	50%	50%	4380	YES
	R2	Bedroom	13.35	9.21	998	9.21	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.17	12.03	907	12.03	100%	100	50%	50%	4380	YES
0.22												
Ground	R1	Bedroom	17.27	12.12	911	12.12	100%	100	50%	50%	4380	YES
	R2	Bedroom	13.34	9.19	937	9.19	100%	100	50%	50%	4380	YES
	R3	OP Living	27.17	19.75	418	19.75	100%	150	50%	50%	4380	YES
0.23												
Ground	R1	Bedroom	14.31	9.63	490	9.63	100%	100	50%	50%	4380	YES
	R2	OP Living	27.91	20.44	179	12.15	59%	150	50%	50%	4380	YES
0.24												
Ground	R1	Bedroom	14.65	9.75	167	8.71	89%	100	50%	50%	4380	YES
	R2	Bedroom	13.85	9.19	506	9.19	100%	100	50%	50%	4380	YES
	R3	OP Living	29.46	22.73	269	16.08	71%	150	50%	50%	4380	YES
0.25												
Ground	R1	OP Living	26.96	20.44	138	9.31	46%	150	50%	50%	4380	MARGINAL
	R2	Bedroom	12.00	8.06	197	7.77	96%	100	50%	50%	4380	YES
	R3	Bedroom	17.70	12.35	284	11.21	91%	100	50%	50%	4380	YES
0.26												
Ground	R1	Bedsit	33.24	23.56	125	11.00	47%	150	50%	50%	4380	MARGINAL
0.27												
Ground	R1	Bedsit	33.54	25.36	153	12.99	51%	150	50%	50%	4380	YES
0.28												
Ground	R1	Bedsit	33.50	25.32	255	18.01	71%	150	50%	50%	4380	YES
0.29												
Ground	R1	Bedsit	33.12	23.44	148	11.68	50%	150	50%	50%	4380	YES

Daylight Assessment Results (Spatial Daylight Autonomy) Project: Pinewood Campus Date of Analysis: 06/08/2024								Criteria				
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Recommended Lux	% of Area Meeting Recommended Lux	Recomended Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours	Meets Guidance
0.30												
Ground	R1	Bedroom	17.05	11.86	348	11.07	93%	100	50%	50%	4380	YES
	R2	Bedroom	11.91	7.96	223	7.69	97%	100	50%	50%	4380	YES
	R3	OP Living	26.60	19.62	144	9.67	49%	150	50%	50%	4380	MARGINAL
0.31												
Ground	R1	OP Living	29.80	23.03	291	16.12	70%	150	50%	50%	4380	YES
	R2	Bedroom	13.88	9.21	604	9.21	100%	100	50%	50%	4380	YES
	R3	Bedroom	14.63	9.73	208	8.61	88%	100	50%	50%	4380	YES
0.32												
Ground	R1	OP Living	27.38	19.90	215	13.33	67%	150	50%	50%	4380	YES
	R2	Bedroom	14.44	9.74	528	9.74	100%	100	50%	50%	4380	YES
0.33												
Ground	R1	Bedsit	34.04	25.49	151	12.75	50%	150	50%	50%	4380	YES
1.1												
First	R1	OP Living	27.88	20.48	365	20.31	99%	150	50%	50%	4380	YES
	R2	Bedroom	13.30	9.17	787	9.17	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.45	12.30	760	12.30	100%	100	50%	50%	4380	YES
1.2												
First	R1	Bedroom	16.85	11.75	738	11.75	100%	100	50%	50%	4380	YES
	R2	Bedroom	13.27	9.15	800	9.15	100%	100	50%	50%	4380	YES
	R3	OP Living	29.76	22.26	2203	22.26	100%	150	50%	50%	4380	YES
1.3												
First	R1	Bedsit	33.44	24.67	499	24.67	100%	150	50%	50%	4380	YES
1.4												
First	R1	Bedsit	30.02	23.54	948	23.54	100%	150	50%	50%	4380	YES
1.5												
First	R1	OP Living	25.77	18.58	452	18.58	100%	150	50%	50%	4380	YES
	R2	Bedroom	12.71	8.59	999	8.59	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.27	12.12	924	12.12	100%	100	50%	50%	4380	YES
1.6												
First	R1	OP Living	27.30	19.94	445	19.94	100%	150	50%	50%	4380	YES
	R2	Bedroom	13.42	9.26	998	9.26	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.31	12.16	927	12.16	100%	100	50%	50%	4380	YES
1.7												
First	R1	OP Living	27.30	19.94	444	19.94	100%	150	50%	50%	4380	YES
	R2	Bedroom	13.41	9.25	1000	9.25	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.34	12.18	917	12.18	100%	100	50%	50%	4380	YES
1.8												
First	R1	OP Living	27.26	19.90	446	19.90	100%	150	50%	50%	4380	YES
	R2	Bedroom	13.40	9.24	998	9.24	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.38	12.23	931	12.23	100%	100	50%	50%	4380	YES
1.9												
First	R1	OP Living	29.46	21.96	2768	21.96	100%	150	50%	50%	4380	YES
	R2	Bedroom	13.56	9.37	775	9.37	100%	100	50%	50%	4380	YES
	R3	Bedroom	15.65	10.75	943	10.75	100%	100	50%	50%	4380	YES
1.10												
First	R1	Bedroom	17.63	12.47	746	12.47	100%	100	50%	50%	4380	YES
	R2	Bedroom	12.58	8.48	808	8.48	100%	100	50%	50%	4380	YES
	R3	OP Living	26.41	19.61	1287	19.61	100%	150	50%	50%	4380	YES

Daylight Assessment Results (Spatial Daylight Autonomy) Project: Pinewood Campus Date of Analysis: 06/08/2024								Criteria				
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1.11												
First	R1	OP Living	21.99	14.87	424	12.19	82%	150	50%	50%	4380	YES
	R2	Bedroom	14.33	9.73	764	9.73	100%	100	50%	50%	4380	YES
1.12												
First	R1	Bedroom	13.99	9.39	400	9.39	100%	100	50%	50%	4380	YES
	R2	OP Living	22.74	15.57	459	13.71	88%	150	50%	50%	4380	YES
1.13												
First	R1	Bedsit	36.68	27.79	366	25.17	91%	150	50%	50%	4380	YES
1.14												
First	R1	OP Living	22.50	15.35	479	13.81	90%	150	50%	50%	4380	YES
	R2	Bedroom	14.03	9.43	446	9.43	100%	100	50%	50%	4380	YES
1.15												
First	R1	Bedroom	14.72	10.07	756	10.07	100%	100	50%	50%	4380	YES
	R2	OP Living	22.02	14.88	396	11.96	80%	150	50%	50%	4380	YES
1.16												
First	R1	OP Living	25.75	19.11	1544	19.11	100%	150	50%	50%	4380	YES
	R2	Bedroom	11.64	7.81	913	7.81	100%	100	50%	50%	4380	YES
	R3	Bedroom	16.89	11.92	878	11.92	100%	100	50%	50%	4380	YES
1.17												
First	R1	Bedroom	14.71	10.02	1033	10.02	100%	100	50%	50%	4380	YES
	R2	Bedroom	12.44	8.48	926	8.48	100%	100	50%	50%	4380	YES
	R3	OP Living	28.41	21.15	2106	21.15	100%	150	50%	50%	4380	YES
1.18												
First	R1	Bedroom	17.78	12.49	614	12.49	100%	100	50%	50%	4380	YES
	R2	Bedroom	14.04	9.75	986	9.75	100%	100	50%	50%	4380	YES
	R3	OP Living	27.80	20.30	294	19.83	98%	150	50%	50%	4380	YES
1.19												
First	R1	Bedroom	17.71	12.43	612	12.43	100%	100	50%	50%	4380	YES
	R2	Bedroom	14.05	9.76	1021	9.76	100%	100	50%	50%	4380	YES
	R3	OP Living	27.86	20.36	300	19.98	98%	150	50%	50%	4380	YES
1.20												
First	R1	Bedroom	17.82	12.53	623	12.53	100%	100	50%	50%	4380	YES
	R2	Bedroom	14.05	9.76	1021	9.76	100%	100	50%	50%	4380	YES
	R3	OP Living	27.81	20.31	295	19.84	98%	150	50%	50%	4380	YES
1.21												
First	R1	Bedroom	17.64	12.36	610	12.36	100%	100	50%	50%	4380	YES
	R2	Bedroom	14.05	9.76	1020	9.76	100%	100	50%	50%	4380	YES
	R3	OP Living	27.84	20.35	294	19.77	97%	150	50%	50%	4380	YES
1.22												
First	R1	Bedsit	28.84	22.41	695	22.41	100%	150	50%	50%	4380	YES
1.23												
First	R1	Bedsit	30.84	23.85	235	22.44	94%	150	50%	50%	4380	YES
1.24												
First	R1	OP Living	29.11	21.62	1675	21.62	100%	150	50%	50%	4380	YES
	R2	Bedroom	13.35	9.21	808	9.21	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.17	12.03	765	12.03	100%	100	50%	50%	4380	YES
1.25												
First	R1	Bedroom	17.27	12.12	769	12.12	100%	100	50%	50%	4380	YES
	R2	Bedroom	13.34	9.19	792	9.19	100%	100	50%	50%	4380	YES
	R3	OP Living	27.17	19.75	339	19.46	99%	150	50%	50%	4380	YES

Daylight Assessment Results (Spatial Daylight Autonomy) Project: Pinewood Campus Date of Analysis: 06/08/2024								Criteria				
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1.28												
First	R1	OP Living	27.20	9.63	543	9.63	100%	150	50%	50%	4380	YES
	R1	Bedroom	14.31	9.63	543	9.63	100%	100	50%	50%	4380	YES
1.29												
First	R1	Bedroom	14.65	9.75	190	9.18	94%	100	50%	50%	4380	YES
	R2	Bedroom	13.85	9.19	562	9.19	100%	100	50%	50%	4380	YES
	R3	OP Living	29.46	22.73	325	20.23	89%	150	50%	50%	4380	YES
1.30												
First	R1	OP Living	26.96	20.44	166	11.05	54%	150	50%	50%	4380	YES
	R2	Bedroom	12.00	8.06	215	7.87	98%	100	50%	50%	4380	YES
	R3	Bedroom	17.70	12.35	333	11.65	94%	100	50%	50%	4380	YES
1.31												
First	R1	Bedsit	33.24	23.56	188	13.55	58%	150	50%	50%	4380	YES
1.32												
First	R1	Bedsit	30.97	23.24	261	17.73	76%	150	50%	50%	4380	YES
1.33												
First	R1	OP Living	21.86	15.93	254	10.50	66%	150	50%	50%	4380	YES
	R2	Bedroom	11.64	7.44	797	7.44	100%	100	50%	50%	4380	YES
	R3	Bedroom	14.66	9.86	270	9.35	95%	100	50%	50%	4380	YES
1.34												
First	R1	Bedsit	33.12	23.44	227	15.21	65%	150	50%	50%	4380	YES
1.35												
First	R1	Bedroom	17.10	11.90	421	11.54	97%	100	50%	50%	4380	YES
	R2	Bedroom	11.91	7.96	275	7.87	99%	100	50%	50%	4380	YES
	R3	OP Living	26.60	19.62	206	12.53	64%	150	50%	50%	4380	YES
1.36												
First	R1	OP Living	29.80	23.03	414	23.03	100%	150	50%	50%	4380	YES
	R2	Bedroom	13.88	9.21	750	9.21	100%	100	50%	50%	4380	YES
	R3	Bedroom	14.63	9.73	262	9.17	94%	100	50%	50%	4380	YES
1.37												
First	R1	OP Living	27.44	19.96	269	14.70	74%	150	50%	50%	4380	YES
	R2	Bedroom	14.51	9.80	595	9.80	100%	100	50%	50%	4380	YES
1.38												
First	R1	Bedsit	33.66	25.23	136	11.94	47%	150	50%	50%	4380	MARGINAL
1.39												
First	R1	Bedsit	28.83	18.92	314	14.49	77%	150	50%	50%	4380	YES
2.1												
Second	R1	OP Living	27.88	20.48	354	20.31	99%	150	50%	50%	4380	YES
	R2	Bedroom	13.30	9.17	1240	9.17	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.45	12.30	738	12.30	100%	100	50%	50%	4380	YES
2.2												
Second	R1	Bedroom	16.85	11.75	718	11.75	100%	100	50%	50%	4380	YES
	R2	Bedroom	13.27	9.15	1247	9.15	100%	100	50%	50%	4380	YES
	R3	OP Living	29.76	22.26	1839	22.26	100%	150	50%	50%	4380	YES
2.3												
Second	R1	Bedsit	33.44	24.67	349	22.71	92%	150	50%	50%	4380	YES
2.4												
Second	R1	Bedsit	30.02	23.54	770	23.54	100%	150	50%	50%	4380	YES

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2.5												
Second	R1	OP Living	25.77	18.58	316	18.49	100%	150	50%	50%	4380	YES
	R2	Bedroom	12.71	8.59	737	8.59	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.27	12.12	666	12.12	100%	100	50%	50%	4380	YES
2.6												
Second	R1	OP Living	27.30	19.94	310	19.66	99%	150	50%	50%	4380	YES
	R2	Bedroom	13.42	9.26	1179	9.26	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.31	12.16	667	12.16	100%	100	50%	50%	4380	YES
2.7												
Second	R1	OP Living	27.30	19.94	309	19.66	99%	150	50%	50%	4380	YES
	R2	Bedroom	13.41	9.25	1179	9.25	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.34	12.18	661	12.18	100%	100	50%	50%	4380	YES
2.8												
Second	R1	OP Living	27.26	19.90	311	19.62	99%	150	50%	50%	4380	YES
	R2	Bedroom	13.40	9.24	1180	9.24	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.38	12.23	673	12.23	100%	100	50%	50%	4380	YES
2.9												
Second	R1	KD	29.46	21.96	2610	21.96	100%	200	50%	50%	4380	YES
	R2	Bedroom	13.56	9.37	1018	9.37	100%	100	50%	50%	4380	YES
	R3	Bedroom	15.65	10.75	819	10.75	100%	100	50%	50%	4380	YES
2.10												
Second	R1	Bedroom	17.63	12.47	640	12.47	100%	100	50%	50%	4380	YES
	R2	Bedroom	12.58	8.48	1118	8.48	100%	100	50%	50%	4380	YES
	R3	OP Living	26.41	19.61	1126	19.61	100%	150	50%	50%	4380	YES
2.11												
Second	R1	OP Living	21.99	14.87	766	14.87	100%	150	50%	50%	4380	YES
	R2	Bedroom	14.32	9.72	1257	9.72	100%	100	50%	50%	4380	YES
2.12												
Second	R1	Bedroom	13.98	9.39	673	9.39	100%	100	50%	50%	4380	YES
	R2	OP Living	22.74	15.57	786	15.57	100%	150	50%	50%	4380	YES
2.13												
Second	R1	Bedsit	36.68	27.79	654	27.42	99%	150	50%	50%	4380	YES
2.14												
Second	R1	OP Living	22.49	15.34	829	15.34	100%	150	50%	50%	4380	YES
	R2	Bedroom	14.02	9.42	730	9.42	100%	100	50%	50%	4380	YES
2.15												
Second	R1	Bedroom	14.63	9.98	1260	9.98	100%	100	50%	50%	4380	YES
	R2	OP Living	22.02	14.89	699	14.80	99%	150	50%	50%	4380	YES
2.16												
Second	R1	OP Living	25.75	19.11	1520	19.11	100%	150	50%	50%	4380	YES
	R2	Bedroom	11.64	7.81	1156	7.81	100%	100	50%	50%	4380	YES
	R3	Bedroom	16.89	11.92	757	11.92	100%	100	50%	50%	4380	YES
2.17												
Second	R1	Bedroom	14.71	10.02	895	10.02	100%	100	50%	50%	4380	YES
	R2	Bedroom	12.44	8.48	1180	8.48	100%	100	50%	50%	4380	YES
	R3	OP Living	28.41	21.15	1915	21.15	100%	150	50%	50%	4380	YES
2.18												
Second	R1	Bedroom	17.78	12.49	628	12.49	100%	100	50%	50%	4380	YES
	R2	Bedroom	14.04	9.75	1011	9.75	100%	100	50%	50%	4380	YES
	R3	OP Living	27.80	20.30	302	19.92	98%	150	50%	50%	4380	YES

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2.19												
Second	R1	Bedroom	17.71	12.43	627	12.43	100%	100	50%	50%	4380	YES
	R2	Bedroom	14.05	9.76	1045	9.76	100%	100	50%	50%	4380	YES
	R3	OP Living	27.86	20.36	308	20.08	99%	150	50%	50%	4380	YES
2.20												
Second	R1	Bedroom	17.82	12.53	640	12.53	100%	100	50%	50%	4380	YES
	R2	Bedroom	14.05	9.76	1045	9.76	100%	100	50%	50%	4380	YES
	R3	OP Living	27.81	20.31	304	19.93	98%	150	50%	50%	4380	YES
2.21												
Second	R1	Bedroom	17.64	12.36	625	12.36	100%	100	50%	50%	4380	YES
	R2	Bedroom	14.05	9.76	1043	9.76	100%	100	50%	50%	4380	YES
	R3	OP Living	27.84	20.35	302	19.96	98%	150	50%	50%	4380	YES
2.22												
Second	R1	Bedsit	28.84	22.41	716	22.41	100%	150	50%	50%	4380	YES
2.23												
Second	R1	Bedsit	30.84	23.85	247	23.05	97%	150	50%	50%	4380	YES
2.24												
Second	R1	OP Living	29.11	21.62	1579	21.62	100%	150	50%	50%	4380	YES
	R2	Bedroom	13.35	9.21	1281	9.21	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.17	12.03	745	12.03	100%	100	50%	50%	4380	YES
2.25												
Second	R1	Bedroom	17.27	12.12	747	12.12	100%	100	50%	50%	4380	YES
	R2	Bedroom	13.34	9.19	1257	9.19	100%	100	50%	50%	4380	YES
	R3	OP Living	27.17	19.75	328	19.46	99%	150	50%	50%	4380	YES
2.26												
Second	R1	Bedroom	14.40	9.71	717	9.71	100%	100	50%	50%	4380	YES
	R2	OP Living	19.13	13.30	711	13.30	100%	150	50%	50%	4380	YES
2.27												
Second	R1	Bedroom	16.62	11.37	989	11.37	100%	100	50%	50%	4380	YES
	R2	OP Living	23.09	16.43	288	14.89	91%	150	50%	50%	4380	YES
2.28												
Second	R1	OP Living	14.35	9.66	637	9.66	100%	150	50%	50%	4380	YES
	R2	OP Living	27.22	19.76	305	14.89	75%	150	50%	50%	4380	YES
2.29												
Second	R1	Bedroom	14.65	9.75	245	9.27	95%	100	50%	50%	4380	YES
	R2	Bedroom	13.85	9.19	696	9.19	100%	100	50%	50%	4380	YES
	R3	OP Living	29.46	22.73	418	22.73	100%	150	50%	50%	4380	YES
2.30												
Second	R1	OP Living	26.98	20.48	249	17.78	87%	150	50%	50%	4380	YES
	R2	Bedroom	12.00	8.06	278	8.06	100%	100	50%	50%	4380	YES
	R3	Bedroom	17.70	12.35	503	12.35	100%	100	50%	50%	4380	YES
2.31												
Second	R1	Bedsit	33.24	23.56	327	16.83	71%	150	50%	50%	4380	YES
2.32												
Second	R1	Bedsit	30.97	23.24	390	21.16	91%	150	50%	50%	4380	YES
2.33												
Second	R1	OP Living	21.86	15.93	380	15.93	100%	150	50%	50%	4380	YES
	R2	Bedroom	11.64	7.44	1015	7.44	100%	100	50%	50%	4380	YES
	R3	Bedroom	14.66	9.86	374	9.86	100%	100	50%	50%	4380	YES



Daylight Assessment Results (Spatial Daylight Autonomy)

Project: Pinewood Campus

Date of Analysis: 06/08/2024

								Criteria				
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Recommended Lux	% of Area Meeting Recommended Lux	Recommended Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours	Meets Guidance
2.34												
Second	R1	Bedsit	33.12	23.44	359	16.93	72%	150	50%	50%	4380	YES
2.35												
Second	R1	Bedroom	17.08	11.88	601	11.88	100%	100	50%	50%	4380	YES
	R2	Bedroom	11.91	7.96	377	7.96	100%	100	50%	50%	4380	YES
	R3	OP Living	26.60	19.62	326	19.53	100%	150	50%	50%	4380	YES
2.36												
Second	R1	OP Living	29.80	23.03	543	23.03	100%	150	50%	50%	4380	YES
	R2	Bedroom	13.88	9.21	917	9.21	100%	100	50%	50%	4380	YES
	R3	Bedroom	14.63	9.73	332	9.36	96%	100	50%	50%	4380	YES
2.37												
Second	R1	OP Living	27.42	19.93	381	16.46	83%	150	50%	50%	4380	YES
	R2	Bedroom	14.46	9.76	718	9.76	100%	100	50%	50%	4380	YES
2.38												
Second	R1	Bedsit	33.66	25.23	195	14.55	58%	150	50%	50%	4380	YES
2.39												
Second	R1	Bedsit	28.83	18.92	420	14.69	78%	150	50%	50%	4380	YES



Appendix 3

Sunlight Exposure Results



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
0.1						
Ground	R1	LKD	W1	108°	5	
					5	High
Ground	R2	Bedroom	W2	108°	4.2	
			W3	108°	4.2	
Ground	R3	Bedroom	W4	108°	4.2	High
					5	
					5	High
0.2						
Ground	R1	Bedroom	W1	108°	5	
					5	High
Ground	R2	Bedroom	W2	108°	4.3	
			W3	108°	4.1	
Ground	R3	LKD	W4	108°	4.3	High
					5	
					8.1	
					5.8	
					9.1	High
0.3						
Ground	R1	Bedsit	W1	198°	6.7	
					6.7	High
0.4						
Ground	R1	Bedroom	W1	198°	7.1	
					7.1	High
Ground	R2	LKD	W2	198°	8	
					8	High
0.5						
Ground	R1	LKD	W1	198°	8.2	
					8.2	High
Ground	R2	Bedroom	W2	198°	7.1	
			W3	198°	7.1	
Ground	R3	Bedroom	W4	198°	7.1	High
					8.2	
					8.2	High



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
0.6						
Ground	R1	LKD	W1	198°	8.2	
					8.2	High
Ground	R2	Bedroom	W2	198°	7.1	
			W3	198°	7.1	
					7.1	High
					8.2	
Ground	R3	Bedroom	W4	198°	8.2	
					8.2	High
0.7						
Ground	R1	LKD	W1	198°	8.2	
					8.2	High
Ground	R2	Bedroom	W2	198°	7.1	
			W3	198°	7.1	
					7.1	High
					8.2	
Ground	R3	Bedroom	W4	198°	8.2	
					8.2	High
0.8						
Ground	R1	LKD	W1	198°	8.5	
			W2	198°	8.5	
			W3	288°N	3.1	
					8.5	High
Ground	R2	Bedroom	W4	288°N	2.1	
			W5	288°N	2.1	
					2.1	North Facing
Ground	R3	Bedroom	W6	288°N	3.1	
					3.1	North Facing
0.9						
Ground	R1	Bedroom	W1	288°N	3.1	
					3.1	North Facing
Ground	R2	Bedroom	W2	288°N	2.1	
			W3	288°N	2.1	
					2.1	North Facing
Ground	R3	LKD	W4	288°N	3.1	
			W5	18°N	0	
			W6	18°N	0	
					3.1	North Facing



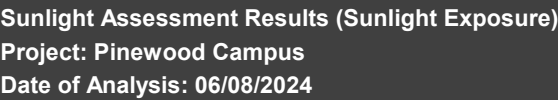
Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
0.10						
Ground	R1	LKD	W1	297°N	0	North Facing
					0	
Ground	R2	Bedroom	W2	297°N	0.6	North Facing
					0.6	
0.11						
Ground	R1	Bedroom	W1	297°N	1.4	North Facing
					1.4	
Ground	R2	LKD	W2	297°N	1.7	North Facing
					1.7	
0.12						
Ground	R1	LKD	W1	297°N	2.7	North Facing
					2.7	
Ground	R2	Bedroom	W2	297°N	2.7	North Facing
					2.7	
0.13						
Ground	R1	Bedroom	W1	297°N	2.7	North Facing
					2.7	
Ground	R2	LKD	W2	297°N	2.6	North Facing
					2.6	
0.14						
Ground	R1	LKD	W1	217°	3.9	High
			W2	216°	4.6	
			W3	306°N	2	
					4.6	
Ground	R2	Bedroom	W4	306°N	0.9	North Facing
			W5	306°N	0.4	
					0.9	
Ground	R3	Bedroom	W6	306°N	2	North Facing
					2	



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
0.15						
Ground	R1	Bedroom	W1	306°N	2	North Facing
					2	
Ground	R2	Bedroom	W2	306°N	0.7	North Facing
			W3	306°N	0.9	
			0.9			
Ground	R3	LKD	W4	306°N	2	North Facing
			W5	36°N	1	
			W6	36°N	1	
			3			
0.16						
Ground	R1	Bedroom	W1	36°N	0.7	North Facing
					0.7	
Ground	R2	Bedroom	W2	36°N	0.8	North Facing
					0.8	
Ground	R3	LKD	W3	36°N	0.7	North Facing
					0.7	
0.17						
Ground	R1	Bedroom	W1	36°N	0.7	North Facing
					0.7	
Ground	R2	Bedroom	W2	36°N	0.8	North Facing
					0.8	
Ground	R3	LKD	W3	36°N	0.7	North Facing
					0.7	
0.18						
Ground	R1	Bedroom	W1	36°N	0.7	North Facing
					0.7	
Ground	R2	Bedroom	W2	36°N	0.8	North Facing
					0.8	
Ground	R3	LKD	W3	36°N	0.7	North Facing
					0.7	
0.19						
Ground	R1	Bedroom	W1	36°N	0.5	North Facing
					0.5	
Ground	R2	Bedroom	W2	36°N	0.2	North Facing
					0.2	
Ground	R3	LKD	W3	36°N	0	North Facing
					0	

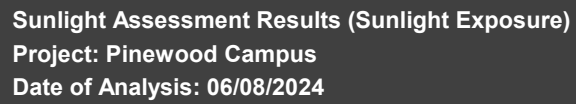


Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
0.20						
Ground	R1	Bedsit	W1	36°N	0	
					0	North Facing
0.21						
Ground	R1	LKD	W1	36°N	0.8	
			W2	36°N	1	
			W3	126°	6	
				6	High	
Ground	R2	Bedroom	W4	126°	5	
			W5	126°	5.2	
				5.2	High	
Ground	R3	Bedroom	W6	126°	6	
					6	High
0.22						
Ground	R1	Bedroom	W1	126°	6	
					6	High
Ground	R2	Bedroom	W2	126°	5	
			W3	126°	5.2	
				5.2	High	
Ground	R3	LKD	W4	126°	5.9	
					5.9	High
0.23						
Ground	R1	Bedroom	W1	18°N	0	
					0	North Facing
Ground	R2	LKD	W2	18°N	0	
					0	North Facing
0.24						
Ground	R1	Bedroom	W1	18°N	0	
					0	North Facing
Ground	R2	Bedroom	W2	18°N	0	
					0	North Facing
Ground	R3	LKD	W3	18°N	0	
					0	North Facing



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
0.25						
Ground	R1	LKD	W1	18°N	0	
					0	North Facing
Ground	R2	Bedroom	W2	18°N	0	
					0	North Facing
Ground	R3	Bedroom	W3	117°	0	
					0	Falls Short
0.26						
Ground	R1	Bedsit	W1	117°	0	
					0	Falls Short
0.27						
Ground	R1	Bedsit	W1	117°	1.1	
					1.1	Falls Short
0.28						
Ground	R1	Bedsit	W1	117°	3.7	
					3.7	Medium
0.29						
Ground	R1	Bedsit	W1	117°	3.5	
					3.5	Medium
0.30						
Ground	R1	Bedroom	W1	117°	3.4	
					3.4	Medium
Ground	R2	Bedroom	W2	216°	3.5	
					3.5	Medium
Ground	R3	LKD	W3	216°	4.3	
					4.3	High
0.31						
Ground	R1	LKD	W1	216°	4.4	
					4.4	High
Ground	R2	Bedroom	W2	216°	4.2	
					4.2	High
Ground	R3	Bedroom	W3	216°	3.9	
					3.9	Medium

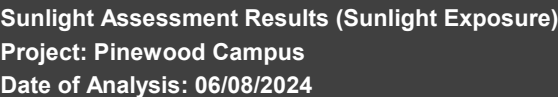


Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
0.32						
Ground	R1	LKD	W1	216°	3.2	
					3.2	Medium
Ground	R2	Bedroom	W2	216°	2.8	
					2.8	Minimum
0.33						
Ground	R1	Bedsit	W1	297°N	0	
					0	North Facing



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
1.1						
First	R1	LKD	W1	108°	5	
					5	High
First	R2	Bedroom	W2	108°	4.2	
			W3	108°	4.2	
					4.2	High
First	R3	Bedroom	W4	108°	5	
					5	High
1.2						
First	R1	Bedroom	W1	108°	5	
					5	High
First	R2	Bedroom	W2	108°	4.3	
			W3	108°	4.1	
					4.3	High
First	R3	LKD	W4	108°	5	
			W5	198°	8.1	
			W6	198°	5.8	
					9.1	High
1.3						
First	R1	Bedsit	W1	198°	5	
					5	High
1.4						
First	R1	Bedsit	W1	198°	6.7	
					6.7	High
1.5						
First	R1	LKD	W1	198°	7.4	
					7.4	High
First	R2	Bedroom	W2	198°	7.1	
			W3	198°	7.1	
					7.1	High
First	R3	Bedroom	W4	198°	8	
					8	High



Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
1.6						
First	R1	LKD	W1	198°	8.2	
					8.2	High
First	R2	Bedroom	W2	198°	7.1	
			W3	198°	7.1	
					7.1	High
First	R3	Bedroom	W4	198°	8.2	
					8.2	High
1.7						
First	R1	LKD	W1	198°	8.2	
					8.2	High
First	R2	Bedroom	W2	198°	7.1	
			W3	198°	7.1	
					7.1	High
First	R3	Bedroom	W4	198°	8.2	
					8.2	High
1.8						
First	R1	LKD	W1	198°	8.2	
					8.2	High
First	R2	Bedroom	W2	198°	7.1	
			W3	198°	7.1	
					7.1	High
First	R3	Bedroom	W4	198°	8.2	
					8.2	High
1.9						
First	R1	LKD	W1	198°	8.5	
			W2	198°	8.5	
			W3	288°N	3.1	
					8.5	High
First	R2	Bedroom	W4	288°N	2.1	
			W5	288°N	2.1	
					2.1	North Facing
First	R3	Bedroom	W6	288°N	3.1	
					3.1	North Facing



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
1.10						
First	R1	Bedroom	W1	288°N	3.1	North Facing
					3.1	
First	R2	Bedroom	W2	288°N	2.1	North Facing
			W3	288°N	2.1	
					2.1	
First	R3	LKD	W4	288°N	3.1	North Facing
			W5	18°N	0	
			W6	18°N	0	
					3.1	
1.11						
First	R1	LKD	W1	297°N	0	North Facing
					0	
First	R2	Bedroom	W2	297°N	0.6	North Facing
					0.6	
1.12						
First	R1	Bedroom	W1	297°N	1.8	North Facing
					1.8	
First	R2	LKD	W2	297°N	2.7	North Facing
					2.7	
1.13						
First	R1	Bedsit	W1	297°N	2.7	North Facing
					2.7	
1.14						
First	R1	LKD	W1	297°N	2.7	North Facing
					2.7	
First	R2	Bedroom	W2	297°N	2.2	North Facing
					2.2	
1.15						
First	R1	Bedroom	W1	297°N	2.7	North Facing
					2.7	
First	R2	LKD	W2	297°N	2.6	North Facing
					2.6	



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
1.16						
First	R1	LKD	W1	217°	4.2	High
			W2	216°	5.2	
			W3	306°N	2	
					5.2	
First	R2	Bedroom	W4	306°N	0.8	North Facing
			W5	306°N	0.4	
First	R3	Bedroom	W6	306°N	2	North Facing
					2	
1.17						
First	R1	Bedroom	W1	306°N	2	North Facing
					2	
First	R2	Bedroom	W2	306°N	0.7	North Facing
			W3	306°N	0.9	
First	R3	LKD	W4	306°N	2	North Facing
			W5	36°N	1	
			W6	36°N	1	
					3	
1.18						
First	R1	Bedroom	W1	36°N	0.7	North Facing
					0.7	
First	R2	Bedroom	W2	36°N	0.8	North Facing
					0.8	
First	R3	LKD	W3	36°N	0.7	North Facing
					0.7	
1.19						
First	R1	Bedroom	W1	36°N	0.7	North Facing
					0.7	
First	R2	Bedroom	W2	36°N	0.8	North Facing
					0.8	
First	R3	LKD	W3	36°N	0.7	North Facing
					0.7	



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
1.20						
First	R1	Bedroom	W1	36°N	0.7	
					0.7	North Facing
First	R2	Bedroom	W2	36°N	0.8	
					0.8	North Facing
First	R3	LKD	W3	36°N	0.7	
					0.7	North Facing
1.21						
First	R1	Bedroom	W1	36°N	0.5	
					0.5	North Facing
First	R2	Bedroom	W2	36°N	0.2	
					0.2	North Facing
First	R3	LKD	W3	36°N	0	
					0	North Facing
1.22						
First	R1	Bedsit	W1	36°N	0	
					0	North Facing
1.23						
First	R1	Bedsit	W1	36°N	0	
					0	North Facing
1.24						
First	R1	LKD	W1	36°N	0.8	
			W2	36°N	1	
			W3	126°	6	
					6	High
First	R2	Bedroom	W4	126°	5	
			W5	126°	5.1	
					5.1	High
First	R3	Bedroom	W6	126°	6	
					6	High



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
1.25						
First	R1	Bedroom	W1	126°	6	
					6	High
First	R2	Bedroom	W2	126°	4.9	
			W3	126°	5.2	
					5.2	High
First	R3	LKD	W4	126°	5.9	
					5.9	High
1.28						
First	R1	LKD	W2	18°N	0	
					0	North Facing
First	R1	Bedroom	W1	18°N	0	
					0	North Facing
1.29						
First	R1	Bedroom	W1	18°N	0	
					0	North Facing
First	R2	Bedroom	W2	18°N	0	
					0	North Facing
First	R3	LKD	W3	18°N	0	
					0	North Facing
1.30						
First	R1	LKD	W1	18°N	0	
					0	North Facing
First	R2	Bedroom	W2	18°N	0	
					0	North Facing
First	R3	Bedroom	W3	117°	0	
					0	Falls Short
1.31						
First	R1	Bedsit	W1	117°	1.8	
					1.8	Minimum
1.32						
First	R1	Bedsit	W1	117°	4.4	
					4.4	High



Project: Pinewood Campus

Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
1.33						
First	R1	LKD	W1	117°	4.3	
					4.3	High
First	R2	Bedroom	W2	117°	4.3	
					4.3	High
First	R3	Bedroom	W3	117°	3.8	
					3.8	Medium
1.34						
First	R1	Bedsit	W1	117°	4.4	
					4.4	High
1.35						
First	R1	Bedroom	W1	117°	4.3	
					4.3	High
First	R2	Bedroom	W2	216°	3.7	
					3.7	Medium
First	R3	LKD	W3	216°	4.9	
					4.9	High
1.36						
First	R1	LKD	W1	216°	5.8	
					5.8	High
First	R2	Bedroom	W2	216°	5.4	
					5.4	High
First	R3	Bedroom	W3	216°	5	
					5	High
1.37						
First	R1	LKD	W1	216°	4.1	
					4.1	High
First	R2	Bedroom	W2	216°	3.4	
					3.4	Medium
1.38						
First	R1	Bedsit	W1	297°N	2.1	
					2.1	North Facing



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
1.39						
First	R1	Bedsit	W1	297°N	0	
					0	North Facing



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
2.1						
Second	R1	LKD	W1	108°	5	
					5	High
Second	R2	Bedroom	W2	108°	5.1	
					5.1	High
Second	R3	Bedroom	W3	108°	5	
					5	High
2.2						
Second	R1	Bedroom	W1	108°	5	
					5	High
Second	R2	Bedroom	W2	108°	5.1	
					5.1	High
Second	R3	LKD	W3	108°	5	
			W4	198°	8.1	
			W5	198°	5.8	
					9.1	High
2.3						
Second	R1	Bedsit	W1	198°	5	
					5	High
2.4						
Second	R1	Bedsit	W1	198°	6.8	
					6.8	High
2.5						
Second	R1	LKD	W1	198°	7.4	
					7.4	High
Second	R2	Bedroom	W2	198°	7.1	
			W3	198°	7.1	
					7.1	High
Second	R3	Bedroom	W4	198°	8.2	
					8.2	High



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
2.6						
Second	R1	LKD	W1	198°	8.2	
					8.2	High
Second	R2	Bedroom	W2	198°	8.4	
					8.4	High
Second	R3	Bedroom	W3	198°	8.2	
					8.2	High
2.7						
Second	R1	LKD	W1	198°	8.2	
					8.2	High
Second	R2	Bedroom	W2	198°	8.4	
					8.4	High
Second	R3	Bedroom	W3	198°	8.2	
					8.2	High
2.8						
Second	R1	LKD	W1	198°	8.2	
					8.2	High
Second	R2	Bedroom	W2	198°	8.4	
					8.4	High
Second	R3	Bedroom	W3	198°	8.2	
					8.2	High
2.9						
Second	R1	KD	W1	198°	8.9	
			W2	288°N	3.1	
Second	R2	Bedroom	W3	288°N	8.9	High
					3.2	North Facing
Second	R3	Bedroom	W4	288°N	3.1	
					3.1	North Facing
2.10						
Second	R1	Bedroom	W1	288°N	3.1	
					3.1	North Facing
Second	R2	Bedroom	W2	288°N	3.2	
					3.2	North Facing
Second	R3	LKD	W3	288°N	3.1	
			W4	18°N	0	
			W5	18°N	0	
					3.1	North Facing



Project: Pinewood Campus

Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
2.11						
Second	R1	LKD	W1	297°N	1.1	
					1.1	North Facing
Second	R2	Bedroom	W2	297°N	2.7	
					2.7	North Facing
2.12						
Second	R1	Bedroom	W1	297°N	2.2	
					2.2	North Facing
Second	R2	LKD	W2	297°N	2.7	
					2.7	North Facing
2.13						
Second	R1	Bedsit	W1	297°N	2.7	
					2.7	North Facing
2.14						
Second	R1	LKD	W1	297°N	2.7	
					2.7	North Facing
Second	R2	Bedroom	W2	297°N	2.2	
					2.2	North Facing
2.15						
Second	R1	Bedroom	W1	297°N	2.7	
					2.7	North Facing
Second	R2	LKD	W2	297°N	2.6	
					2.6	North Facing
2.16						
Second	R1	LKD	W1	217°	5	
			W2	216°	6.3	
			W3	306°N	2	
					6.3	High
Second	R2	Bedroom	W4	306°N	2	
					2	North Facing
Second	R3	Bedroom	W5	306°N	2	
					2	North Facing



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
2.17						
Second	R1	Bedroom	W1	306°N	2	North Facing
					2	
Second	R2	Bedroom	W2	306°N	2.1	North Facing
					2.1	
Second	R3	LKD	W3	306°N	2	North Facing
			W4	36°N	1	
			W5	36°N	1	
			3			
2.18						
Second	R1	Bedroom	W1	36°N	0.7	North Facing
					0.7	
Second	R2	Bedroom	W2	36°N	0.8	North Facing
					0.8	
Second	R3	LKD	W3	36°N	0.7	North Facing
					0.7	
2.19						
Second	R1	Bedroom	W1	36°N	0.7	North Facing
					0.7	
Second	R2	Bedroom	W2	36°N	0.8	North Facing
					0.8	
Second	R3	LKD	W3	36°N	0.7	North Facing
					0.7	
2.20						
Second	R1	Bedroom	W1	36°N	0.7	North Facing
					0.7	
Second	R2	Bedroom	W2	36°N	0.8	North Facing
					0.8	
Second	R3	LKD	W3	36°N	0.7	North Facing
					0.7	
2.21						
Second	R1	Bedroom	W1	36°N	0.5	North Facing
					0.5	
Second	R2	Bedroom	W2	36°N	0.2	North Facing
					0.2	
Second	R3	LKD	W3	36°N	0	North Facing
					0	



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
2.22						
Second	R1	Bedsit	W1	36°N	0	
					0	North Facing
2.23						
Second	R1	Bedsit	W1	36°N	0	
					0	North Facing
2.24						
Second	R1	LKD	W1	36°N	0.8	
			W2	36°N	1	
			W3	126°	6	
					6	High
Second	R2	Bedroom	W4	126°	6.1	
					6.1	High
Second	R3	Bedroom	W5	126°	6	
					6	High
2.25						
Second	R1	Bedroom	W1	126°	6	
					6	High
Second	R2	Bedroom	W2	126°	6.1	
					6.1	High
Second	R3	LKD	W3	126°	5.9	
					5.9	High
2.26						
Second	R1	Bedroom	W1	117°	5.2	
					5.2	High
Second	R2	LKD	W2	117°	5.5	
					5.5	High
2.27						
Second	R1	Bedroom	W1	117°	5.6	
					5.6	High
Second	R2	LKD	W2	117°	5	
					5	High



Sunlight Assessment Results (Sunlight Exposure)
Project: Pinewood Campus
Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)		Rating
2.28							
Second	R1	LKD	W1	18°N	0		
					0	North Facing	
Second	R2	LKD	W2	18°N	0		
					0	North Facing	
2.29							
Second	R1	Bedroom	W1	18°N	0		
					0	North Facing	
Second	R2	Bedroom	W2	18°N	0		
					0	North Facing	
Second	R3	LKD	W3	18°N	0		
					0	North Facing	
2.30							
Second	R1	LKD	W1	18°N	0		
					0	North Facing	
Second	R2	Bedroom	W2	18°N	0		
					0	North Facing	
Second	R3	Bedroom	W3	117°	1.5		
					1.5	Minimum	
2.31							
Second	R1	Bedsit	W1	117°	5.3		
					5.3	High	
2.32							
Second	R1	Bedsit	W1	117°	5.3		
					5.3	High	
2.33							
Second	R1	LKD	W1	117°	5.3		
					5.3	High	
Second	R2	Bedroom	W2	117°	5.2		
					5.2	High	
Second	R3	Bedroom	W3	117°	4.8		
					4.8	High	



Project: Pinewood Campus

Date of Analysis: 06/08/2024

Floor Ref	Room Ref	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)	Rating
2.34						
Second	R1	Bedsit	W1	117°	5.4	
					5.4	High
2.35						
Second	R1	Bedroom	W1	117°	4.9	
					4.9	High
Second	R2	Bedroom	W2	216°	4.2	
					4.2	High
Second	R3	LKD	W3	216°	5.8	
					5.8	High
2.36						
Second	R1	LKD	W1	216°	6.8	
					6.8	High
Second	R2	Bedroom	W2	216°	6.8	
					6.8	High
Second	R3	Bedroom	W3	216°	6.3	
					6.3	High
2.37						
Second	R1	LKD	W1	216°	5.3	
					5.3	High
Second	R2	Bedroom	W2	216°	4	
					4	Medium
2.38						
Second	R1	Bedsit	W1	297°N	2.7	
					2.7	North Facing
2.39						
Second	R1	Bedsit	W1	297°N	2.7	
					2.7	North Facing