AnsteyHorne

expertise applied

REPORT

on

DAYLIGHT & SUNLIGHT WITHIN THE

PROPOSED CHANGE OF USE FROM OFFICE TO RESIDENTIAL

at

HPH1 HYDE PARK

MILLINGTON ROAD

HAYES UB3 4AZ

REF: RC/HS/ROL01412
30 September 2024

TABLE OF CONTENTS

APPENDICES

Figure 1: Oblique aerial photograph of the site looking north

1. INTRODUCTION

1.1 Columbia Threadneedle Investments is proposing a conversion of an office space to residential use at HPH1 Hyde Park, Millington Road, Hayes UB3 4AZ. The site is shown in Figure 1 at page ii.

1.2 This report supports an application submitted for Prior Approval, pursuant to Class MA of the 'General Permitted Development Order'.

1.3 The proposed scheme is designed by tp bennett architects. Anstey Horne has worked closely with the architects to ensure maximum daylight availability is being afforded to the proposed residential units.

1.4 Anstey Horne has been commissioned to undertake a formal technical assessment of the daylight and sunlight levels within the proposed lower ground floor accommodation. We have used 3D computer modelling and our specialist computer software to calculate the levels of daylight and sunlight that will be available in the proposed habitable rooms.

1.5 There are no mandatory standards for daylight or sunlight to dwellings, but the following publications offer guidance:

- BS EN 17037:2018 Daylight in Buildings (2018)
- BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022)
- CIBSE Lighting Guide 10, *Daylighting - A Guide for Designers: Lighting for the Built Environment* (SLL LG10, 2014)

1.6 The assessments have been undertaken based on BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022) which supersedes the second edition of the guide. The 2022 BRE Guidelines introduces more sophisticated tested methodologies that take into account external reflectance and climate-based daylight modelling (CBDM) whereby an assessment can be based on weather data for various locations across the United Kingdom.

1.7 The BRE Guidelines give advice on minimum recommended Target Illuminance (TI) and Daylight Factor (DF) in habitable rooms in dwellings. They also make recommendations for minimum levels of sunlight availability to interiors, based on hours of direct sunlight. The previously used Average Daylight Factor (ADF) and Annual Probable Sunlight Hours (APSH) methodology is no longer recommended for testing the proposed levels of light within new developments.

1.8 This report summarises the relevant planning policy, the basic principles of daylighting, the methods used to assess the potential levels that will be achieved in the new accommodation, the information used in compiling our 3D computer model and the results of our technical assessment. Drawings and full tables of results of our assessment are attached in the appendices.

2. PLANNING POLICY AND GUIDANCE

National Planning Policy and Guidance

2.1 The Revised National Planning Policy Framework (December 2023) sets out the Government's planning policies and how these are expected to be applied. It provides a framework within which councils can produce their own local plans that reflect the needs and priorities of their communities.

2.2 Chapter 11 'Making effective use of land' states in paragraph 125 (c) that:

"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)."

2.3 The Building Research Establishment, whose aims include achieving a higher quality built environment, published the BRE guidelines 209, Site Layout Planning for Daylight and Sunlight: A guide to good practice (third edition, 2022) by PJ Littlefair in June 2022. This guide gives advice on site layout planning to retain good daylighting and sunlighting in existing surrounding buildings and achieve to it in new buildings. The guide is intended for use by designers, consultants and planning officials and notes that:

"The advice given here is not mandatory and this document should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer."

Regional Planning Policy and Guidance

<u>Mayor's London Plan</u>

2.4 The Mayor of London's London Plan March 2021 sets out the spatial development strategy for London. It forms part of the development plan for Greater London, along with local plans of the London boroughs.

2.5 Policy D6 'Housing quality and standards' states the following:

"… C. *Housing development should maximise the provision of dual aspect dwellings and normally avoid the provision of single aspect dwellings. A single aspect dwelling should only be provided where it is considered a more appropriate design solution to meet the requirements of Part B in Policy D3 Optimising site capacity through the design-led*

approach than a dual aspect dwelling, and it can be demonstrated that it will have adequate passive ventilation, daylight and privacy, and avoid overheating.

D. *The design of development should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space..."*

Mayor's Housing Supplementary Planning Guidance

2.6 The Mayor of London's '*Housing Supplementary Planning Guidance'* (March 2016) provides guidance on how to implement the housing policies in the London Plan. It replaces the 2012 Housing Supplementary Planning Guidance.

2.7 Part 1 of the SPG covers housing supply and sets out the Plan's approach to optimising housing output. In relation to daylight and sunlight within new housing developments it advises:

"*An appropriate degree of flexibility needs to be applied when using BRE guidelines to assess the daylight and sunlight … within new developments. Guidelines should be applied sensitively to higher density development, especially in opportunity areas, town centres, large sites and accessible locations, where BRE advice suggests considering the use of alternative targets. This should take into account local circumstances; the need to optimise housing capacity; and scope for the character and form of an area to change over time."*

"The daylight targets within a proposed scheme should be assessed drawing on broadly comparable residential typologies within the area and of a similar nature across London. Decision makers should recognise that fully optimising housing potential on large sites may necessitate standards which depart from those presently experienced but which still achieve satisfactory levels of residential amenity."

2.8 Part 2 of the SPG covers quality and design of housing developments. It contains standards that set out the minimum level of quality and design that new homes should meet. The standards and corresponding guidance that relate to daylight and sunlight in new housing are as follows:

Home as a place of retreat

"… Natural light is also vital to a sense of wellbeing in the home, and this may be restricted in densely developed parts of the city. The Mayor seeks to encourage the kind of housing that provides comfortable and enjoyable places of retreat and privacy. Factors to be considered include privacy, the importance of dual aspect development, noise mitigation, floor to ceiling heights, daylight and sunlight."

Dual aspect

"Standard 29 - Developments should minimise the number of single aspect dwellings. Single aspect dwellings that are north facing, or exposed to noise levels above which significant adverse effects on health and quality of life occur, or which contain three or more bedrooms should be avoided."

"Dual aspect dwellings with opening windows on at least two sides have many inherent benefits. These include better daylight, a greater chance of direct sunlight for longer periods, natural cross ventilation and a greater capacity to address overheating, mitigating pollution, offering a choice of views, access to a quiet side of the building, greater flexibility in the use of rooms, and more potential for future adaptability by altering the use of rooms. Where possible the provision of dual aspect dwellings should be maximised in a development proposal."

"The design of single aspect flats will need to demonstrate that all habitable rooms and the kitchen are provided with adequate ventilation, privacy and daylight and the orientation enhances amenity, including views. North facing single aspect dwellings should be avoided wherever possible. However, in applying this standard consideration should also be given to other planning and design objectives for a site, for example the aim to maximise active frontages and minimise inactive frontages."

"Good single aspect one and two bedroom homes are possible where limited numbers of rooms are required, the frontage is generous, the plan is shallow, the orientation and or outlook is favourable, and care is taken to mitigate the potential for overheating without the need for mechanical cooling. Single aspect dwellings may also be appropriate when being used to wrap podium level car parks or large retail units with active frontages."

"In single aspect dwellings with more than two bedrooms it is difficult to achieve adequate natural ventilation and daylight to all rooms in an efficient plan layout which avoids long internal corridors. Single aspect dwellings containing three or more bedrooms should therefore be avoided. The design of single aspect ground floor dwellings will require particular consideration to maintain privacy and adequate levels of daylight."

Daylight and sunlight

"Standard 32 - All homes should provide for direct sunlight to enter at least one habitable room for part of the day. Living areas and kitchen dining spaces should preferably receive direct sunlight."

"Daylight enhances residents' enjoyment of an interior and reduces the energy needed to provide light for everyday activities, while controlled sunlight can help to meet part of the winter heating requirement. Sunlight is particularly desirable in living areas and kitchen

dining spaces. The risk of overheating should be taken into account when designing for sunlight alongside the need to ensure appropriate levels of privacy. In addition to the above standards, BRE good practice guidelines and methodology can be used to assess the levels of daylight and sunlight achieved within new developments, taking into account guidance below and in Section 1.3."

"Where direct sunlight cannot be achieved in line with Standard 32, developers should demonstrate how the daylight standards proposed within a scheme and individual units will achieve good amenity for residents. They should also demonstrate how the design has sought to optimise the amount of daylight and amenity available to residents, for example, through the design, colour and landscaping of surrounding buildings and spaces within a development."

"BRE guidelines on assessing daylight and sunlight should be applied sensitively to higher density development in London, particularly in central and urban settings, recognising the London Plan's strategic approach to optimise housing output (Policy 3.4) and the need to accommodate additional housing supply in locations with good accessibility suitable for higher density development (Policy 3.3). Quantitative standards on daylight and sunlight should not be applied rigidly, without carefully considering the location and context and standards experienced in broadly comparable housing typologies in London."

Local Planning Policy and Guidance

2.9 The development site is located within London Borough of Hillingdon.

2.10 Local Plan Part 1 - Strategic policies

The Local Plan Part 1 sets out the overall level and broad locations of growth up to 2026. It comprises a spatial vision and strategy, strategic objectives, core policies and a monitoring and implementation framework with clear objectives for achieving delivery. These policies are supported by more detailed policies and allocations set out in the Local Plan Part 2.

Policy BE1 - Built Environment

The Council will require all new development to improve and maintain the quality of the built environment in order to create successful and sustainable neighbourhoods, where people enjoy living and working and that serve the long-term needs of all residents. All new developments should:

1. *Achieve a high quality of design in all new buildings, alterations, extensions and the public realm which enhances the local distinctiveness of the area, contributes to community cohesion and a sense of place;*

…7. Improve the quality of the public realm and provide for public and private spaces that are attractive, safe, functional, diverse, sustainable, accessible to all, respect the local character and landscape, integrate with the development, enhance and protect biodiversity through the inclusion of living walls, roofs and areas for wildlife, encourage physical activity and where appropriate introduce public art;

2.11 Local Plan Part 2 - Development Management Policies

5.41 The Council will aim to minimise the impact of the loss of daylight and sunlight and unacceptable overshadowing caused by new development on habitable rooms, amenity space and public open space. The Council will also seek to ensure that the design of new development optimises the levels of London Borough of Hillingdon Local Plan Part 2 - Development Management Policies 49 daylight and sunlight. The Council will expect the impact of the development to be assessed following the methodology set out in the most recent version of the Building Research Establishments (BRE) "Site layout planning for daylight and sunlight: A guide to good practice".

3. METHOD OF ASSESSMENT AND NUMERICAL GUIDELINES

Daylight within new development

3.1 Section 2.1 of the BRE Guidelines makes recommendations concerning daylight in new buildings. At the site layout stage of the design process, when window positions and sizes are unknown, the potential for daylight may be checked at a series of reference points on each main face of the building. At each of these reference points the amount of available skylight falling on the vertical wall can be quantified as the vertical sky component (VSC).

3.2 Where window positions and sizes are known, it is more informative to calculate the interior daylighting inside the building. The guidelines recommend two methodologies and state that either of these can be used to check daylight provision in new rooms within a development. The two methodologies are as follows:

Illuminance Method

3.3 The illuminance method involves using climatic data for the location of the site to calculate the illuminance from daylight at each point on an assessment grid on the reference plane at a minimum hourly interval for a typical year.

3.4 The UK National Annex provides minimum illuminance recommendations for daylight provision within UK dwellings as follows:

- Bedrooms: 100 lux
- Living rooms: 150 lux
- Kitchens: 200 lux

3.5 The above recommendations are based upon the median illuminances that should be achieved over at least 50% of the assessment grid for at least 50% of the daylight hours over the course of the calendar year.

3.6 The BRE Guidelines note that *"Where a room has a shared use, the highest target should apply. For example, in a bed sitting room in student accommodation, the value for a living room should be used if students would often spend time in their rooms during the day. Local authorities could use discretion here. For example, the target for a living room could be used for a combined living/dining/kitchen area if the kitchens are not treated as habitable spaces, as it may avoid small separate kitchens in a design".*

Daylight Factor Method

3.7 As an alternative to the illuminance method, the BRE Guidelines 2022 recommend calculating daylight factors at each calculation point on the assessment grid. The daylight factor assessment uses an overcast sky model rather than climate-based data and does not take account of the potential for sunlight or the orientation of a particular room.

3.8 The BRE Guidelines provide equivalent daylight factor values to the lux values set out above for different locations. As the site is located in London, the equivalent target daylight factors for the nearest specified location (London Gatwick Airport) as follows:

- Bedrooms: 0.7%
- Living rooms: 1.1%
- Kitchens: 1.4%

3.9 The above recommendations are based upon the median daylight factors that should be achieved over at least 50% of the assessment grid.

Sunlight within new development

3.10 Section 3.1 of the BRE Guidelines make recommendations concerning sunlight in new buildings. It advises that *"In housing, the main requirement for sunlight is in living rooms, where it is valued at any time of day but especially in the afternoon. Sunlight is also required in conservatories. It is viewed as less important in bedrooms and in kitchens, where people prefer it in the mornings rather than the afternoon."*

3.11 The BRE Guidelines advise that site layout can be used to affect the duration of sunlight in buildings. It notes that *"A dwelling with no main window wall within 90° of due south is likely to be perceived as insufficiently sunlit. This is usually an issue only for flats. Sensitive layout design of flats will attempt to ensure that each individual dwelling has at least one main living room which can receive a reasonable amount of sunlight."*

3.12 The BRE Guidelines note that *"The aim should be to minimise the number of dwellings whose living rooms face solely north, northeast or northwest, unless there is some corresponding factor such as an appealing view to the north."* It also acknowledges that *"for larger developments of flats, especially those with constraints, it may not be possible to have every living room facing within 90° of due south"*.

3.13 The BRE Guidelines recommend an approach to measuring sunlight exposure (SE) setting out that internal spaces should be able to receive a minimum of 1.5 hours of direct sunlight on a selected date between 1st February and 21st March with cloudless conditions. The BRE recommend that the test date should be 21st March and that at least one habitable

room, preferably a main living room, should achieve at least the minimum criterion. It further notes that the criterion applies to rooms of all orientations, although if a room faces significantly north of due east or west, it is unlikely to be met.

3.14 The presence of balconies to provide private amenity within new developments does create challenges in relation to maximising sunlight potential as it limits the sky visibility from the centre point of the window. A flexible approach is therefore needed (particularly on large-scale developments where building heights tend to be greater and separation distances smaller) to strike a balance between the provision of balconies and achieving adequate levels of sunlight.

3.15 Whilst the BRE Guidelines intend to give good access to sunlight in a range of situations, it is noted that in some circumstances *"the designer or planning authority may wish to choose a different target value for hours of sunlight.*"

3.16 In summary the BRE Guidelines state that 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".* Where groups of dwellings are planned, *"site layout design should aim to maximise the number of dwellings with a main living room that meets the above recommendations"*.

4. APPLICATION OF THE BRE GUIDELINES

4.1 In its introduction BRE Report 209 states its *"main aim is … to help ensure good conditions in the local environment considered broadly, with enough sunlight and daylight on or between the buildings for good interior and exterior conditions"*.

4.2 The guide notes that it *"is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design."*

4.3 Clearly, the BRE Guidelines is an advisory document, not a rigid set of rules. Care must therefore be taken when applying its recommendations.

4.4 In theory the BRE Guidelines' numerical guidelines may be applied to any setting, whether that is a city centre, suburban area or rural village. However, it notes, "*In special circumstances the developer or planning authority may wish to use different target values. For example, in a historic city centre, or in an area with modern high rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings*."

4.5 Furthermore, as noted at paragraph 2.7 above, the Mayor of London's *Housing Supplementary Planning Guidance* emphasises that fully optimising housing potential on large sites may necessitate departure from conventional guidelines and the adoption of alternative target values.

4.6 Clearly, rigid application of the BRE Guidelines' standard numerical guidelines may be inappropriate in a built-up urban environment where higher density affordable development may be desirable and where there simply cannot be the same expectation of light as in a suburban or rural context.

5. INFORMATION USED IN THE TECHNICAL STUDY

5.1 We undertook our technical study using a 3D computer model of the proposed scheme and its surrounding buildings, which we built from the following information:

- Proposed scheme:
    - tp bennett architects' drawings of the proposed scheme received 25 September 2024
- Surrounding buildings:
    - AccuCities photogrammetric model
    - OS map
    - Aerial photography from Google Earth

5.2 The computer model is illustrated on the drawings at Appendix A.

5.3 In calculating the daylight availability to the proposed habitable rooms, the following values were applied:

- Diffuse glass transmission: 0.68 for clear double glazing with a low emissivity coating;
- Maintenance factor for dirt on glass: 0.92 (i.e. 8% loss) for vertical glazing;
- Surface reflectance's of each room based on the following surface finishes and reflectances:
    - Ceilings: white 0.80
    - Walls: pale cream 0.80
    - Floors: light wood flooring 0.4

6. RESULTS OF TECHNICAL STUDY

6.1 We have tested all habitable rooms in the proposed development.

6.2 In all we tested 144 rooms, of which 51 rooms are combined living rooms, dining rooms and kitchens (LKDs), 24 are studios and 69 are bedrooms.

6.3 The rooms tested are shown outlined on our drawing nos. ROL01412_R02_V01A_TI_Graduated_601-01 to 601-03 at Appendix C. The drawings give the use of each room and the room and window references used in our detailed tables of results.

Daylight and sunlight within the proposed units

6.4 For daylight, the daylight availability within the proposed habitable rooms has been calculated in accordance with the illuminance method as per paragraph 3.6 above. The results for the proposed habitable rooms tested are shown in the table at Appendix A (along with the relevant target for the room use concerned) and on the room layout drawings, including graduated lux contours, at Appendix C.

6.5 For sunlight, the focus of the BRE sunlight guidelines is on main living rooms, rather than bedrooms and kitchens, which the guide views as less important. The guide recommends that *"Sensitive layout design of flats will attempt to ensure that each individual dwelling has at least one main living room which can receive a reasonable amount of sunlight ... Where possible, living rooms should face the southern or western parts of the sky and kitchens towards the north or east."* The sunlight results for the rooms tested are given in the table at Appendix B. As advised by the BRE Guidelines, these are room-based aggregate figures taking account of sunlight available to all windows, where they are served by more than one.

6.6 For daylight, of the 144 rooms assessed, 139 (97%) will exceed the daylight recommended target values as outlined in the BRE Guidelines. The rooms which fall marginally short of the guideline values consist of three studios and two LKDs. These rooms achieve the BRE's 150 target lux to at between 32% and 49% of the assessed area which is only slightly below BRE's recommendation of 50%. These rooms tend to be rather large and deep spaces, which are naturally harder to achieve light penetration through to the rear of the spaces. These rooms all achieve adequate daylight levels to the front portions of the room where the main habitable living space is located, and the non-habitable kitchen areas are located to the rear.

6.7 For sunlight, the results of the SE assessment reveal that 72 (50%) of the 144 habitable rooms assessed would achieve sunlight levels that meet or exceed the minimum suggested guidelines as set out the BRE. If one focuses only on the rooms which contain

living, dining and/or kitchen use, the compliance rate increases to 52%. Where there are transgressions beyond the BRE sunlight guidelines, the windows serving these rooms face north and thus naturally do not achieve high sunlight levels. The building orientation is a product of its original use and design. Therefore with half of the rooms achieving the guidance across a uniform shaped building, all those units with a reasonable expectation of sunlight are achieving adequate sunlight levels.

7. SUMMARY AND CONCLUSION

7.1 There are no mandatory standards for daylight or sunlight provision within dwellings. Hillingdon's planning policy seeks to provide good living conditions for residents of new housing developments, including the provision of adequate daylight and sunlight within dwellings.

7.2 BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022) provides useful guidance on the subject.

7.3 We assessed daylight and sunlight to all of the habitable rooms in the proposed development. The tests were undertaken in accordance with the BRE methodologies.

7.4 In conclusion, the daylight and sunlight quality in the proposed development has been carefully considered by the architectural team, who have had to balance this with the constraints of refurbishing existing building where in the majority of cases the orientation, size and position of the windows are already fixed with limited scope for adjustment. Room sizes and position being limited by the envelope of the existing building, Anstey Horne have worked with the architectural team to enhance the daylight and sunlight to the proposed flats through proposed internal rearrangement.

7.5 Although the BRE Guidelines gives numerical advice, these are intended to be applied flexibly since natural lighting is only one of many factors in site layout design. Furthermore, the Mayor of London's *Draft Interim Housing Supplementary Planning Guidance* emphasises that fully optimising housing potential may necessitate departure from conventional guidelines whilst still achieving satisfactory levels of residential amenity.

7.6 In conclusion, the layout of the proposed development follows the practical application of the BRE Guidelines and will provide good daylight and sunlight conditions within the proposed accommodation.

ANSTEY HORNE

30 September 2024

APPENDIX A
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DAYLIGHT ILLUMINANCE

Floor Ref	Room Ref	Property Type	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux
ONE HYDE PARK								
1st Floor	R1	Residential	LKD 150	23.00	16.42	206	9.62	59%
	R2	Residential	Bedroom	10.16	6.65	535	6.65	100%
	R3	Residential	Bedroom	10.90	7.14	517	7.14	100%
	R4	Residential	Bedroom	11.04	7.17	515	7.17	100%
	R5	Residential	LKD 150	29.64	20.72	1432	20.72	100%
	R6	Residential	LKD 150	22.46	15.65	266	11.40	73%
	R7	Residential	Bedroom	11.58	7.48	774	7.48	100%
	R8	Residential	Studio 150	21.86	15.90	226	10.93	69%
	R9	Residential	Studio 150	21.86	15.90	221	10.48	66%
	R10	Residential	Bedroom	8.41	5.29	925	5.29	100%
	R11	Residential	LKD 150	21.69	15.24	231	10.94	72%
	R12	Residential	LKD 150	21.69	15.24	201	9.65	63%
	R13	Residential	Bedroom	8.41	5.29	892	5.29	100%
	R14	Residential	Studio 150	21.86	15.90	213	10.12	64%
	R15	Residential	Studio 150	21.86	15.90	215	10.21	64%
	R16	Residential	Bedroom	11.58	7.48	733	7.48	100%
	R17	Residential	LKD 150	22.46	15.65	252	11.04	71%
	R18	Residential	Bedroom	11.82	7.47	482	7.47	100%
	R19	Residential	LKD 150	26.24	19.60	1287	19.60	100%
	R20	Residential	Bedroom	10.46	6.74	668	6.74	100%
	R21	Residential	Bedroom	8.96	5.30	163	4.94	93%
	R22	Residential	Bedroom	13.67	9.03	1108	9.03	100%
	R23	Residential	LKD 150	25.29	18.17	425	18.17	100%
	R24	Residential	LKD 150	28.74	22.09	546	22.09	100%
	R25	Residential	Bedroom	12.18	7.98	763	7.98	100%
	R26	Residential	LKD 150	25.18	18.12	454	18.12	100%
	R27	Residential	Bedroom	13.80	9.12	1008	9.12	100%
	R28	Residential	Bedroom	8.96	5.30	153	4.67	88%
	R29	Residential	Bedroom	10.46	6.74	658	6.74	100%

Floor Ref	Room Ref	Property Type	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux
	R30	Residential	LKD 150	26.63	19.89	942	19.89	100%
	R31	Residential	Bedroom	11.82	7.47	173	6.61	88%
	R32	Residential	LKD 150	22.46	15.65	77	5.07	32%
	R33	Residential	Bedroom	11.58	7.48	291	7.30	98%
	R34	Residential	Studio 150	21.86	15.90	70	5.24	33%
	R35	Residential	Studio 150	21.86	15.90	82	5.78	36%
	R36	Residential	Bedroom	8.41	5.29	556	5.29	100%
	R37	Residential	LKD 150	21.69	15.24	124	6.25	41%
	R38	Residential	LKD 150	21.69	15.24	183	9.18	60%
	R39	Residential	Bedroom	8.41	5.29	701	5.29	100%
	R40	Residential	Studio 150	21.86	15.90	179	9.13	57%
	R41	Residential	Studio 150	21.86	15.90	180	9.13	57%
	R42	Residential	Bedroom	11.58	7.48	558	7.48	100%
	R43	Residential	LKD 150	22.46	15.65	202	10.13	65%
	R44	Residential	LKD 150	29.64	20.72	971	20.72	100%
	R45	Residential	Bedroom	11.04	7.17	486	7.17	100%
	R46	Residential	Bedroom	10.90	7.14	445	7.14	100%
	R47	Residential	Bedroom	10.16	6.65	369	6.65	100%
	R48	Residential	LKD 150	23.00	16.42	152	8.21	50%
2nd Floor	R1	Residential	LKD 150	23.00	16.42	364	13.34	81%
	R2	Residential	Bedroom	10.16	6.65	772	6.65	100%
	R3	Residential	Bedroom	10.90	7.14	743	7.14	100%
	R4	Residential	Bedroom	11.04	7.17	716	7.17	100%
	R5	Residential	LKD 150	29.64	20.72	1672	20.72	100%
	R6	Residential	LKD 150	22.46	15.65	306	12.49	80%
	R7	Residential	Bedroom	11.58	7.48	873	7.48	100%
	R8	Residential	Studio 150	21.86	15.90	274	14.10	89%
	R9	Residential	Studio 150	21.86	15.90	270	14.00	88%
	R10	Residential	Bedroom	8.41	5.29	1071	5.29	100%
	R11	Residential	LKD 150	21.69	15.24	282	12.31	81%
	R12	Residential	LKD 150	21.69	15.24	253	11.36	75%
	R13	Residential	Bedroom	8.41	5.29	1046	5.29	100%

Floor Ref	Room Ref	Property Type	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux
	R14	Residential	Studio 150	21.86	15.90	269	13.82	87%
	R15	Residential	Studio 150	21.86	15.90	268	14.01	88%
	R16	Residential	Bedroom	11.58	7.48	857	7.48	100%
	R17	Residential	LKD 150	22.46	15.65	308	12.67	81%
	R18	Residential	Bedroom	11.82	7.47	562	7.47	100%
	R19	Residential	LKD 150	26.24	19.60	1412	19.60	100%
	R20	Residential	Bedroom	10.46	6.74	699	6.74	100%
	R21	Residential	Bedroom	8.96	5.30	175	5.03	95%
	R22	Residential	Bedroom	13.67	9.03	1188	9.03	100%
	R23	Residential	LKD 150	25.29	18.17	463	18.17	100%
	R24	Residential	LKD 150	28.74	22.09	585	22.09	100%
	R25	Residential	Bedroom	12.18	7.98	830	7.98	100%
	R26	Residential	LKD 150	25.18	18.12	476	18.12	100%
	R27	Residential	Bedroom	13.80	9.12	1087	9.12	100%
	R28	Residential	Bedroom	8.96	5.30	163	4.76	90%
	R29	Residential	Bedroom	10.46	6.74	688	6.74	100%
	R30	Residential	LKD 150	26.63	19.89	1159	19.89	100%
	R31	Residential	Bedroom	11.82	7.47	309	7.47	100%
	R32	Residential	LKD 150	22.46	15.65	163	8.69	55%
	R33	Residential	Bedroom	11.58	7.48	504	7.48	100%
	R34	Residential	Studio 150	21.86	15.90	146	7.77	49%
	R35	Residential	Studio 150	21.86	15.90	158	8.13	51%
	R36	Residential	Bedroom	8.41	5.29	714	5.29	100%
	R37	Residential	LKD 150	21.69	15.24	181	9.08	60%
	R38	Residential	LKD 150	21.69	15.24	209	10.32	68%
	R39	Residential	Bedroom	8.41	5.29	781	5.29	100%
	R40	Residential	Studio 150	21.86	15.90	200	9.76	61%
	R41	Residential	Studio 150	21.86	15.90	202	9.94	63%
	R42	Residential	Bedroom	11.58	7.48	613	7.48	100%
	R43	Residential	LKD 150	22.46	15.65	222	10.68	68%
	R44	Residential	LKD 150	29.64	20.72	1115	20.72	100%
	R45	Residential	Bedroom	11.04	7.17	637	7.17	100%

Floor Ref	Room Ref	Property Type	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux
	R46	Residential	Bedroom	10.90	7.14	612	7.14	100%
	R47	Residential	Bedroom	10.16	6.65	555	6.65	100%
	R48	Residential	LKD 150	23.00	16.42	226	9.99	61%
3rd Floor	R1	Residential	LKD 150	23.00	16.42	481	16.42	100%
	R2	Residential	Bedroom	10.16	6.65	989	6.65	100%
	R3	Residential	Bedroom	10.90	7.14	944	7.14	100%
	R4	Residential	Bedroom	11.04	7.17	903	7.17	100%
	R5	Residential	LKD 150	29.64	20.72	1815	20.72	100%
	R6	Residential	LKD 150	22.46	15.65	322	15.47	99%
	R7	Residential	Bedroom	11.58	7.48	915	7.48	100%
	R8	Residential	Studio 150	21.86	15.90	291	15.09	95%
	R9	Residential	Studio 150	21.86	15.90	289	15.27	96%
	R10	Residential	Bedroom	8.41	5.29	1139	5.29	100%
	R11	Residential	LKD 150	21.69	15.24	304	13.19	87%
	R12	Residential	LKD 150	21.69	15.24	275	12.12	80%
	R13	Residential	Bedroom	8.41	5.29	1119	5.29	100%
	R14	Residential	Studio 150	21.86	15.90	289	15.00	94%
	R15	Residential	Studio 150	21.86	15.90	290	15.27	96%
	R16	Residential	Bedroom	11.58	7.48	908	7.48	100%
	R17	Residential	LKD 150	22.46	15.65	329	15.47	99%
	R18	Residential	Bedroom	11.82	7.47	594	7.47	100%
	R19	Residential	LKD 150	26.24	19.60	1482	19.60	100%
	R20	Residential	Bedroom	10.46	6.74	724	6.74	100%
	R21	Residential	Bedroom	8.96	5.30	183	5.12	97%
	R22	Residential	Bedroom	13.67	9.03	1239	9.03	100%
	R23	Residential	LKD 150	25.29	18.17	486	18.17	100%
	R24	Residential	LKD 150	28.74	22.09	568	22.09	100%
	R25	Residential	Bedroom	12.18	7.98	749	7.98	100%
	R26	Residential	LKD 150	25.18	18.12	490	18.12	100%
	R27	Residential	Bedroom	13.80	9.12	1136	9.12	100%
	R28	Residential	Bedroom	8.96	5.30	166	4.94	93%
	R29	Residential	Bedroom	10.46	6.74	708	6.74	100%

Floor Ref	Room Ref	Property Type	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux
	R30	Residential	LKD 150	26.63	19.89	1301	19.89	100%
	R31	Residential	Bedroom	11.82	7.47	418	7.47	100%
	R32	Residential	LKD 150	22.46	15.65	241	11.13	71%
	R33	Residential	Bedroom	11.58	7.48	666	7.48	100%
	R34	Residential	Studio 150	21.86	15.90	217	10.93	69%
	R35	Residential	Studio 150	21.86	15.90	215	10.39	65%
	R36	Residential	Bedroom	8.41	5.29	852	5.29	100%
	R37	Residential	LKD 150	21.69	15.24	217	11.04	72%
	R38	Residential	LKD 150	21.69	15.24	225	10.79	71%
	R39	Residential	Bedroom	8.41	5.29	857	5.29	100%
	R40	Residential	Studio 150	21.86	15.90	219	11.20	70%
	R41	Residential	Studio 150	21.86	15.90	219	10.48	66%
	R42	Residential	Bedroom	11.58	7.48	661	7.48	100%
	R43	Residential	LKD 150	22.46	15.65	240	11.13	71%
	R44	Residential	LKD 150	29.64	20.72	1253	20.72	100%
	R45	Residential	Bedroom	11.04	7.17	788	7.17	100%
	R46	Residential	Bedroom	10.90	7.14	792	7.14	100%
	R47	Residential	Bedroom	10.16	6.65	806	6.65	100%
	R48	Residential	LKD 150	23.00	16.42	363	12.76	78%

APPENDIX B

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SUNLIGHT EXPOSURE TABLE

Floor Ref	Room Ref	Room Attribute	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
ONE HYDE PARK							
1st Floor	R1	Flat 01	Residential	LKD 150	W1	206°	3
					W2	206°	4.9
					W3	206°	4.5
							5.4
1st Floor	R2	Flat 01	Residential	Bedroom	W4	206°	5
					W5	206°	4.5
							5.4
1st Floor	R3	Flat 02	Residential	Bedroom	W6	206°	5
					W7	206°	4.6
							5.4
1st Floor	R4	Flat 02	Residential	Bedroom	W8	206°	5
					W9	206°	4.5
							5.4
1st Floor	R5	Flat 02	Residential	LKD 150	W10	206°	5.3
					W11	206°	4.8
					W12	116°	4
					W13	116°	4.6
					W14	116°	4
					W15	116°	4.6
					W16	116°	4
					W17	116°	4.6
							8.3
1st Floor	R6	Flat 03	Residential	LKD 150	W18	116°	4
					W19	116°	4.6
							4.6
1st Floor	R7	Flat 03	Residential	Bedroom	W20	116°	4
					W21	116°	4.6
							4.6
1st Floor	R8	Flat 04	Residential	Studio 150	W22	116°	4
					W23	116°	4.6
							4.6
1st Floor	R9	Flat 05	Residential	Studio 150	W24	116°	4
					W25	116°	4.6
							4.6
1st Floor	R10	Flat 06	Residential	Bedroom	W26	116°	4
					W27	116°	4.6
							4.6
1st Floor	R11	Flat 06	Residential	LKD 150	W28	116°	4
					W29	116°	4.3
							4.3
1st Floor	R12	Flat 07	Residential	LKD 150	W30	116°	1.6
					W31	116°	2.8
							2.8
1st Floor	R13	Flat 07	Residential	Bedroom	W32	116°	3.3
					W33	116°	4.1
							4.1
1st Floor	R14	Flat 08	Residential	Studio 150	W34	116°	4
					W35	116°	4.4
							4.4
1st Floor	R15	Flat 09	Residential	Studio 150	W36	116°	3.9
					W37	116°	4.5
							4.5
1st Floor	R16	Flat 10	Residential	Bedroom	W38	116°	3.9
					W39	116°	4.5
							4.5

Floor Ref	Room Ref	Room Attribute	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
1st Floor	R17	Flat 10	Residential	LKD 150	W40	116°	3.9
					W41	116°	4.6
							4.6
1st Floor	R18	Flat 11	Residential	Bedroom	W42	116°	4
					W43	116°	4.6
							4.6
1st Floor	R19	Flat 11	Residential	LKD 150	W44	116°	4
					W45	116°	4.6
					W46	116°	4
					W47	116°	4.6
					W48	26°N	0.3
					W49	26°N	0
					W50	26°N	0
					W51	26°N	0
							4.6
1st Floor	R20	Flat 11	Residential	Bedroom	W52	26°N	0
					W53	26°N	0
							0
1st Floor	R21	Flat 11	Residential	Bedroom	W54	26°N	0
							0
1st Floor	R22	Flat 12	Residential	Bedroom	W55	116°	0.3
					W56	116°	1.4
					W57	26°N	0
					W58	26°N	0
					W59	26°N	0
							1.4
1st Floor	R23	Flat 12	Residential	LKD 150	W60	26°N	0
					W61	26°N	0
					W62	26°N	0
							0
1st Floor	R24	Flat 13	Residential	LKD 150	W63	26°N	0
					W64	26°N	0
					W65	26°N	0
					W66	26°N	0
							0
1st Floor	R25	Flat 13	Residential	Bedroom	W67	26°N	0
					W68	26°N	0
					W69	26°N	0
							0
1st Floor	R26	Flat 14	Residential	LKD 150	W70	26°N	0
					W71	26°N	0
					W72	26°N	0
							0
1st Floor	R27	Flat 14	Residential	Bedroom	W73	26°N	0
					W74	26°N	0
					W75	26°N	0
					W76	296°N	0
					W77	296°N	0
							0
1st Floor	R28	Flat 15	Residential	Bedroom	W78	26°N	0
							0
1st Floor	R29	Flat 15	Residential	Bedroom	W79	26°N	0
					W80	26°N	0
							0
1st Floor	R30	Flat 15	Residential	LKD 150	W81	26°N	0
					W82	26°N	0
					W83	26°N	0
					W84	26°N	0

Floor Ref	Room Ref	Room Attribute	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
					W85	296°N	0.4
					W86	296°N	0
					W87	296°N	0.6
					W88	296°N	0
							0.6
1st Floor	R31	Flat 15	Residential	Bedroom	W89	296°N	0.7
					W90	296°N	0.1
							0.8
1st Floor	R32	Flat 16	Residential	LKD 150	W91	296°N	1
					W92	296°N	0.5
							1.2
1st Floor	R33	Flat 16	Residential	Bedroom	W93	296°N	1.3
					W94	296°N	0.5
							1.3
1st Floor	R34	Flat 17	Residential	Studio 150	W95	296°N	0.9
					W96	296°N	0.4
							0.9
1st Floor	R35	Flat 18	Residential	Studio 150	W97	296°N	0.7
					W98	296°N	0.2
							0.7
1st Floor	R36	Flat 19	Residential	Bedroom	W99	296°N	0.1
					W100	296°N	0
							0.1
1st Floor	R37	Flat 19	Residential	LKD 150	W101	296°N	0
					W102	296°N	0
							0
1st Floor	R38	Flat 20	Residential	LKD 150	W103	296°N	0.6
					W104	296°N	0
							0.6
1st Floor	R39	Flat 20	Residential	Bedroom	W105	296°N	0.4
					W106	296°N	0
							0.4
1st Floor	R40	Flat 21	Residential	Studio 150	W107	296°N	0.4
					W108	296°N	0
							0.4
1st Floor	R41	Flat 22	Residential	Studio 150	W109	296°N	0.4
					W110	296°N	0
							0.4
1st Floor	R42	Flat 23	Residential	Bedroom	W111	296°N	0.4
					W112	296°N	0
							0.4
1st Floor	R43	Flat 23	Residential	LKD 150	W113	296°N	0.4
					W114	296°N	0
							0.4
1st Floor	R44	Flat 24	Residential	LKD 150	W115	296°N	0.4
					W116	296°N	0
					W117	296°N	0.4
					W118	296°N	0
					W119	296°N	0.3
					W120	296°N	0.2
					W121	206°	4.8
					W122	206°	4
							5
1st Floor	R45	Flat 24	Residential	Bedroom	W123	206°	4.1
					W124	206°	3.6
							4.6
1st Floor	R46	Flat 24	Residential	Bedroom	W125	206°	3.7
					W126	206°	3.2

Floor Ref	Room Ref	Room Attribute	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
							4.1
1st Floor	R47	Flat 25	Residential	Bedroom	W127	206°	3.2
					W128	206°	2.7
							3.7
1st Floor	R48	Flat 25	Residential	LKD 150	W129	206°	2.5
					W130	206°	2.2
					W131	206°	0.9
							3.2
2nd Floor	R1	Flat 26	Residential	LKD 150	W1	206°	3
					W2	206°	4.9
					W3	206°	4.5
							5.4
2nd Floor	R2	Flat 26	Residential	Bedroom	W4	206°	5.2
					W5	206°	4.9
							5.8
2nd Floor	R3	Flat 27	Residential	Bedroom	W6	206°	5.6
					W7	206°	5.3
							6.2
2nd Floor	R4	Flat 27	Residential	Bedroom	W8	206°	6
					W9	206°	5.7
							6.6
2nd Floor	R5	Flat 27	Residential	LKD 150	W10	206°	6.2
					W11	206°	6
					W12	116°	4
					W13	116°	4.6
					W14	116°	4
					W15	116°	4.6
					W16	116°	4
					W17	116°	4.6
							9.5
2nd Floor	R6	Flat 28	Residential	LKD 150	W18	116°	4
					W19	116°	4.6
							4.6
2nd Floor	R7	Flat 28	Residential	Bedroom	W20	116°	4
					W21	116°	4.6
							4.6
2nd Floor	R8	Flat 29	Residential	Studio 150	W22	116°	4
					W23	116°	4.6
							4.6
2nd Floor	R9	Flat 30	Residential	Studio 150	W24	116°	4
					W25	116°	4.6
							4.6
2nd Floor	R10	Flat 31	Residential	Bedroom	W26	116°	4
					W27	116°	4.6
							4.6
2nd Floor	R11	Flat 31	Residential	LKD 150	W28	116°	4
					W29	116°	4.3
							4.3
2nd Floor	R12	Flat 32	Residential	LKD 150	W30	116°	1.6
					W31	116°	2.8
							2.8
2nd Floor	R13	Flat 32	Residential	Bedroom	W32	116°	3.3
					W33	116°	4.1
							4.1
2nd Floor	R14	Flat 33	Residential	Studio 150	W34	116°	4
					W35	116°	4.6
							4.6
2nd Floor	R15	Flat 34	Residential	Studio 150	W36	116°	4

Floor Ref	Room Ref	Room Attribute	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
					W37	116°	4.6
							4.6
2nd Floor	R16	Flat 35	Residential	Bedroom	W38	116°	4
					W39	116°	4.6
							4.6
2nd Floor	R17	Flat 35	Residential	LKD 150	W40	116°	4
					W41	116°	4.6
							4.6
2nd Floor	R18	Flat 36	Residential	Bedroom	W42	116°	4
					W43	116°	4.6
							4.6
2nd Floor	R19	Flat 36	Residential	LKD 150	W44	116°	4
					W45	116°	4.6
					W46	116°	4
					W47	116°	4.6
					W48	26°N	0.3
					W49	26°N	0
					W50	26°N	0
					W51	26°N	0
							4.6
2nd Floor	R20	Flat 36	Residential	Bedroom	W52	26°N	0
					W53	26°N	0
							0
2nd Floor	R21	Flat 36	Residential	Bedroom	W54	26°N	0
							0
2nd Floor	R22	Flat 37	Residential	Bedroom	W55	116°	0.3
					W56	116°	1.4
					W57	26°N	0
					W58	26°N	0
					W59	26°N	0
							1.4
2nd Floor	R23	Flat 37	Residential	LKD 150	W60	26°N	0
					W61	26°N	0
					W62	26°N	0
							0
2nd Floor	R24	Flat 38	Residential	LKD 150	W63	26°N	0
					W64	26°N	0
					W65	26°N	0
					W66	26°N	0
							0
2nd Floor	R25	Flat 38	Residential	Bedroom	W67	26°N	0
					W68	26°N	0
					W69	26°N	0
							0
2nd Floor	R26	Flat 39	Residential	LKD 150	W70	26°N	0
					W71	26°N	0
					W72	26°N	0
							0
2nd Floor	R27	Flat 39	Residential	Bedroom	W73	26°N	0
					W74	26°N	0
					W75	26°N	0
					W76	296°N	0
					W77	296°N	0
							0
2nd Floor	R28	Flat 40	Residential	Bedroom	W78	26°N	0
							0
2nd Floor	R29	Flat 40	Residential	Bedroom	W79	26°N	0
					W80	26°N	0

Floor Ref	Room Ref	Room Attribute	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
							0
2nd Floor	R30	Flat 40	Residential	LKD 150	W81	26°N	0
					W82	26°N	0
					W83	26°N	0
					W84	26°N	0
					W85	296°N	1.4
					W86	296°N	0.5
					W87	296°N	1.2
					W88	296°N	0.4
							1.4
2nd Floor	R31	Flat 40	Residential	Bedroom	W89	296°N	1.3
					W90	296°N	0.7
							1.4
2nd Floor	R32	Flat 41	Residential	LKD 150	W91	296°N	1.4
					W92	296°N	0.7
							1.4
2nd Floor	R33	Flat 41	Residential	Bedroom	W93	296°N	1.4
					W94	296°N	0.7
							1.4
2nd Floor	R34	Flat 42	Residential	Studio 150	W95	296°N	1.1
					W96	296°N	0.7
							1.1
2nd Floor	R35	Flat 43	Residential	Studio 150	W97	296°N	1.1
					W98	296°N	0.7
							1.1
2nd Floor	R36	Flat 44	Residential	Bedroom	W99	296°N	0.7
					W100	296°N	0.1
							0.7
2nd Floor	R37	Flat 44	Residential	LKD 150	W101	296°N	0
					W102	296°N	0
							0
2nd Floor	R38	Flat 45	Residential	LKD 150	W103	296°N	0.6
					W104	296°N	0
							0.6
2nd Floor	R39	Flat 45	Residential	Bedroom	W105	296°N	0.5
					W106	296°N	0
							0.5
2nd Floor	R40	Flat 46	Residential	Studio 150	W107	296°N	0.4
					W108	296°N	0
							0.4
2nd Floor	R41	Flat 47	Residential	Studio 150	W109	296°N	0.4
					W110	296°N	0
							0.4
2nd Floor	R42	Flat 48	Residential	Bedroom	W111	296°N	0.4
					W112	296°N	0
							0.4
2nd Floor	R43	Flat 48	Residential	LKD 150	W113	296°N	0.4
					W114	296°N	0
							0.4
2nd Floor	R44	Flat 49	Residential	LKD 150	W115	296°N	0.4
					W116	296°N	0
					W117	296°N	0.4
					W118	296°N	0
					W119	296°N	0.3
					W120	296°N	0.2
					W121	206°	5
					W122	206°	4.6
							5.5

Floor Ref	Room Ref	Room Attribute	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
2nd Floor	R45	Flat 49	Residential	Bedroom	W123	206°	5.2
					W124	206°	4.8
							5.7
2nd Floor	R46	Flat 49	Residential	Bedroom	W125	206°	5.4
					W126	206°	5
							5.9
2nd Floor	R47	Flat 50	Residential	Bedroom	W127	206°	5.5
					W128	206°	5.1
							6
2nd Floor	R48	Flat 50	Residential	LKD 150	W129	206°	5
					W130	206°	4.4
					W131	206°	2.5
							5.5
3rd Floor	R1	Flat 51	Residential	LKD 150	W1	206°	3
					W2	206°	6
					W3	206°	5.5
							6.5
3rd Floor	R2	Flat 51	Residential	Bedroom	W4	206°	6.1
					W5	206°	5.5
							6.5
3rd Floor	R3	Flat 52	Residential	Bedroom	W6	206°	6.1
					W7	206°	5.7
							6.7
3rd Floor	R4	Flat 52	Residential	Bedroom	W8	206°	6
					W9	206°	5.7
							6.7
3rd Floor	R5	Flat 52	Residential	LKD 150	W10	206°	6.2
					W11	206°	6
					W12	116°	4
					W13	116°	4.6
					W14	116°	4
					W15	116°	4.6
					W16	116°	4
					W17	116°	4.6
							9.5
3rd Floor	R6	Flat 53	Residential	LKD 150	W18	116°	4
					W19	116°	4.6
							4.6
3rd Floor	R7	Flat 53	Residential	Bedroom	W20	116°	4
					W21	116°	4.6
							4.6
3rd Floor	R8	Flat 54	Residential	Studio 150	W22	116°	4
					W23	116°	4.6
							4.6
3rd Floor	R9	Flat 55	Residential	Studio 150	W24	116°	4
					W25	116°	4.6
							4.6
3rd Floor	R10	Flat 56	Residential	Bedroom	W26	116°	4
					W27	116°	4.6
							4.6
3rd Floor	R11	Flat 56	Residential	LKD 150	W28	116°	4
					W29	116°	4.3
							4.3
3rd Floor	R12	Flat 57	Residential	LKD 150	W30	116°	1.6
					W31	116°	2.8
							2.8
3rd Floor	R13	Flat 57	Residential	Bedroom	W32	116°	4
					W33	116°	4.6

Floor Ref	Room Ref	Room Attribute	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
							4.6
3rd Floor	R14	Flat 58	Residential	Studio 150	W34	116°	4
					W35	116°	4.6
							4.6
3rd Floor	R15	Flat 59	Residential	Studio 150	W36	116°	4
					W37	116°	4.6
							4.6
3rd Floor	R16	Flat 60	Residential	Bedroom	W38	116°	4
					W39	116°	4.6
							4.6
3rd Floor	R17	Flat 60	Residential	LKD 150	W40	116°	4
					W41	116°	4.6
							4.6
3rd Floor	R18	Flat 61	Residential	Bedroom	W42	116°	4
					W43	116°	4.6
							4.6
3rd Floor	R19	Flat 61	Residential	LKD 150	W44	116°	4
					W45	116°	4.6
					W46	116°	4
					W47	116°	4.6
					W48	26°N	0.3
					W49	26°N	0
					W50	26°N	0
					W51	26°N	0
							4.6
3rd Floor	R20	Flat 61	Residential	Bedroom	W52	26°N	0
					W53	26°N	0
							0
3rd Floor	R21	Flat 61	Residential	Bedroom	W54	26°N	0
							0
3rd Floor	R22	Flat 62	Residential	Bedroom	W55	116°	0.3
					W56	116°	1.3
					W57	26°N	0
					W58	26°N	0
					W59	26°N	0
							1.3
3rd Floor	R23	Flat 62	Residential	LKD 150	W60	26°N	0
					W61	26°N	0
					W62	26°N	0
							0
3rd Floor	R24	Flat 63	Residential	LKD 150	W63	26°N	0
					W64	26°N	0
					W65	26°N	0
					W66	26°N	0
							0
3rd Floor	R25	Flat 63	Residential	Bedroom	W67	26°N	0
					W68	26°N	0
					W69	26°N	0
							0
3rd Floor	R26	Flat 64	Residential	LKD 150	W70	26°N	0
					W71	26°N	0
					W72	26°N	0
							0
3rd Floor	R27	Flat 64	Residential	Bedroom	W73	26°N	0
					W74	26°N	0
					W75	26°N	0
					W76	296°N	0
					W77	296°N	0

Floor Ref	Room Ref	Room Attribute	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
							0
3rd Floor	R28	Flat 65	Residential	Bedroom	W78	26°N	0
							0
3rd Floor	R29	Flat 65	Residential	Bedroom	W79	26°N	0
					W80	26°N	0
							0
3rd Floor	R30	Flat 65	Residential	LKD 150	W81	26°N	0
					W82	26°N	0
					W83	26°N	0
					W84	26°N	0
					W85	296°N	1.4
					W86	296°N	0.7
					W87	296°N	1.4
					W88	296°N	0.7
							1.4
3rd Floor	R31	Flat 65	Residential	Bedroom	W89	296°N	1.4
					W90	296°N	0.7
							1.4
3rd Floor	R32	Flat 66	Residential	LKD 150	W91	296°N	1.4
					W92	296°N	0.7
							1.4
3rd Floor	R33	Flat 66	Residential	Bedroom	W93	296°N	1.4
					W94	296°N	0.7
							1.4
3rd Floor	R34	Flat 67	Residential	Studio 150	W95	296°N	1.4
					W96	296°N	0.7
							1.4
3rd Floor	R35	Flat 68	Residential	Studio 150	W97	296°N	1.4
					W98	296°N	0.7
							1.4
3rd Floor	R36	Flat 69	Residential	Bedroom	W99	296°N	0.7
					W100	296°N	0.1
							0.7
3rd Floor	R37	Flat 69	Residential	LKD 150	W101	296°N	0
					W102	296°N	0
							0
3rd Floor	R38	Flat 70	Residential	LKD 150	W103	296°N	1.2
					W104	296°N	0.7
							1.2
3rd Floor	R39	Flat 70	Residential	Bedroom	W105	296°N	1.4
					W106	296°N	0.6
							1.4
3rd Floor	R40	Flat 71	Residential	Studio 150	W107	296°N	1.2
					W108	296°N	0.4
							1.2
3rd Floor	R41	Flat 72	Residential	Studio 150	W109	296°N	0.9
					W110	296°N	0.1
							0.9
3rd Floor	R42	Flat 73	Residential	Bedroom	W111	296°N	0.9
					W112	296°N	0.1
							0.9
3rd Floor	R43	Flat 73	Residential	LKD 150	W113	296°N	0.9
					W114	296°N	0.1
							0.9
3rd Floor	R44	Flat 74	Residential	LKD 150	W115	296°N	0.9
					W116	296°N	0.1
					W117	296°N	0.9
					W118	296°N	0.1

Floor Ref	Room Ref	Room Attribute	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
					W119	296°N	0.8
					W120	296°N	0.4
					W121	206°	5.7
					W122	206°	5.3
							6.2
3rd Floor	R45	Flat 74	Residential	Bedroom	W123	206°	5.9
					W124	206°	5.5
							6.4
3rd Floor	R46	Flat 74	Residential	Bedroom	W125	206°	6
					W126	206°	5.6
							6.5
3rd Floor	R47	Flat 75	Residential	Bedroom	W127	206°	6
					W128	206°	5.6
							6.5
3rd Floor	R48	Flat 75	Residential	LKD 150	W129	206°	5.6
					W130	206°	5.4
					W131	206°	3.1
							6.2

APPENDIX C

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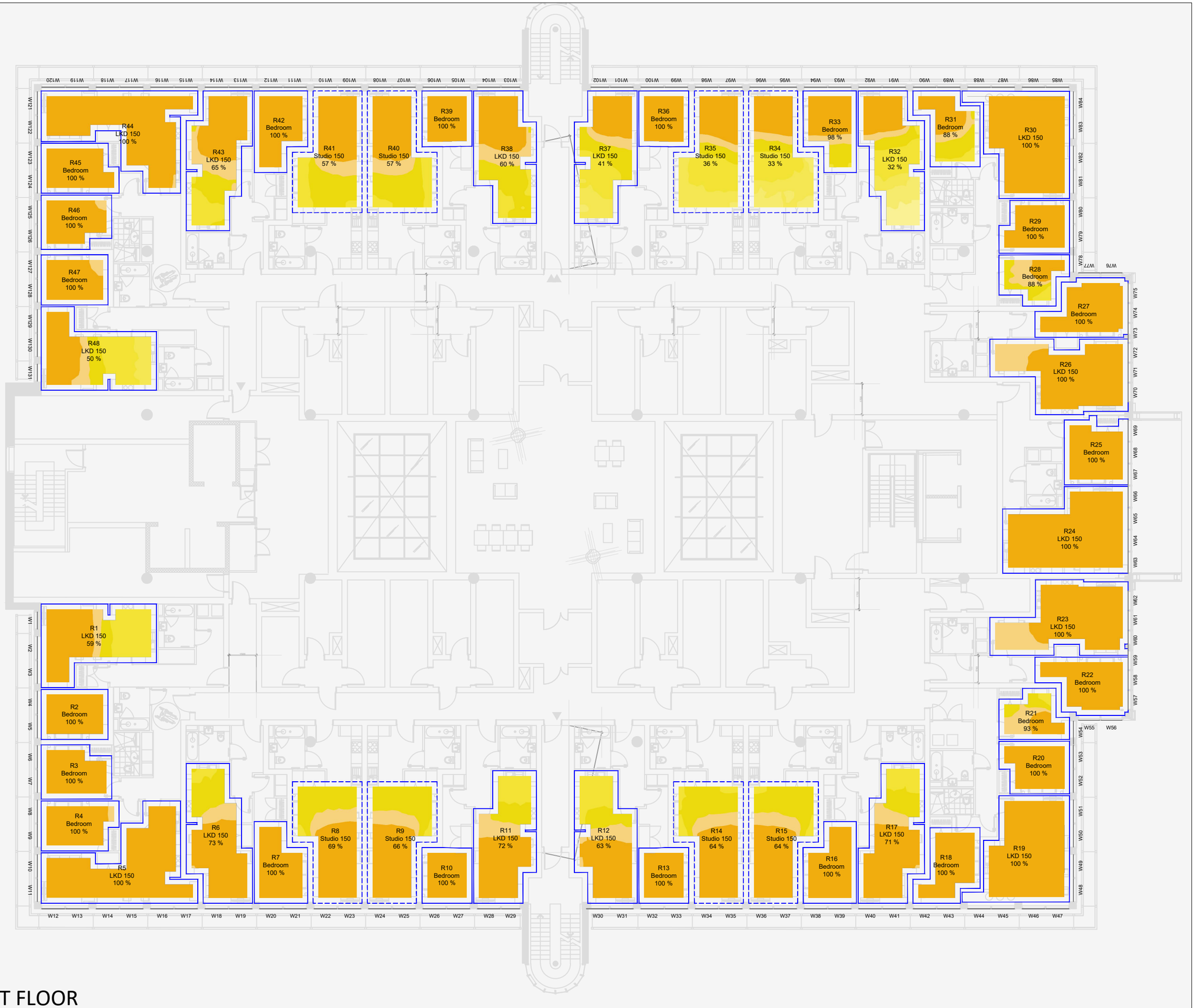
LAYOUT PLANS WITH DAYLIGHT ILLUMINANCE

DRAWING NOS. ROL01412_R02_V01A_TI_Graduated-601-01 to 601-03



1ST FLOOR

AnsteyHorne
CHARTERED SURVEYORS
www.ansteyhorne.co.uk
London - 020 3744 2374
Birmingham - 0121 667 9902
Bristol - 0117 471 1574
Manchester - 0161 528 7690
Plymouth - 01752 270 315
Norwich - 01603 577 362

LEGEND:

TI - LUX LEVELS PER (50%) ANNUAL HOURS

- 200+
- 150-200
- 100-150
- 50-100
- 40-50
- 30-40
- 20-30
- 10-20
- 0-10

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS

ZMAPPING
Received on 12/08/24

Site and aerial photos.

PROPOSED BUILDINGS

TP BENNETT
Received on 25/09/24

0m 2m 4m 6m 8m 10m

PROJECT INFORMATION

CLIENT:	COLUMBIA THREADNEEDLE INVESTMENTS
PROJECT TITLE:	ONE HYDE PARK MILLINGTON ROAD, HAYES UB3 4AZ
SCHEME REF:	SCHEME RECEIVED: 25/09/24
DRAWING TITLE:	TARGET ILLUMINANCE INTERNAL FLOOR LAYOUTS ONE HYDE PARK

MODELLED BY:/ DRAWN BY:	DATE:	SCALE:	
BS	26/09/24	1:200	A3

PROJECT No:__RELEASE No:__VERSION No:	DRAWING No:
ROL01412_R02_V01A_	601-01

Daylight & Sunlight

2ND FLOOR

AnsteyHorne

CHARTERED SURVEYORS

London - 020 3744 2374
Birmingham - 0121 667 9902
Bristol - 0117 471 1574
Manchester - 0161 528 7690
Plymouth - 01752 270 315
Norwich - 01603 577 362

www.ansteyhorne.co.uk

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MODELLED BY:/ DRAWN BY:	DATE:	SCALE:	
BS	26/09/24	1:200	A3

PROJECT No:__RELEASE No:__VERSION No:	DRAWING No:
ROL01412_R02_V01A_	601-02

Daylight & Sunlight

3RD FLOOR

AnsteyHorne

CHARTERED SURVEYORS

London - 020 3744 2374
Birmingham - 0121 667 9902
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Manchester - 0161 528 7690
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Norwich - 01603 577 362

www.ansteyhorne.co.uk

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PROJECT No:__RELEASE No:__VERSION No:	DRAWING No:
ROL01412_R02_V01A_	601-03

Daylight & Sunlight

AnsteyHorne

ansteyhorne.co.uk

Regulated by RICS

Chartered Surveyors

Rights of Light | Party Walls | Building Consultancy | Fire Consultancy

LONDON BIRMINGHAM MANCHESTER BRISTOL PLYMOUTH NORWICH

expertise *applied*