

Our Ref: 21545/sg/SG

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10 February 2022

Mr R Mounty
Principal Planning Officer
Spelthorne Borough Council
Knowles Green
Staines
TW18 1XB

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Dear Sirs

Former Debenhams Store, 37-45 High Street, Staines, TW18 4QU – Daylight & Sunlight response to comments received

Delva Patman Redler LLP (DPR) have been provided with a copy of the Daylight & Sunlight Solutions 'Daylight & Sunlight Review' report.

It is noted that the review concludes at 4.1.1 that *'We conclude that the assessment carried out by Delva Patman Redler Chartered Surveyors is of a good standard.'*

There is little from the review that contradicts or challenges the DPR report or its conclusions. It is noted, however, within section 3.2 & 3.3 that there are short list of points where further clarity has been requested. Below we provide the further assessments and points of clarification requested.

Light within the Scheme

We have undertaken an assessment of the internal daylight adequacy within the scheme itself which demonstrates 100% compliance of that primary ADF assessment criteria for new development. This assessment covered the lowest two floors only as the worst case scenario for rooms within the scheme. A point raised by Daylight & Sunlight Solutions is that there are other criteria which can also be assessed. We have now undertaken those additional studies and are able to report on those as follows:

Daylight

The additional findings for the no sky line (NSL) and room depth criterion (RDC) assessments are included along with the original average daylight factor ADF findings are included at the Appendices with this letter.

As previously reported the ADF assessment illustrates that all 81 (100%) of the rooms assessed will fully comply with the assessment criteria. The NSL assessment illustrates that 77 (95%) out of the 81 rooms assessed will fully comply with the assessment criteria. The RDC assessment illustrates that all 81 (100%) of the rooms assessed will fully comply with the assessment criteria.

The 4 rooms that fall short of the NSL target are all to bedrooms and all are located in the tower to the north, Block A with an aspect of the tower to the south, Block B.

Paragraph 2.2.8 from the BRE Guide *"bedrooms should also be analysed although they are less important"*. This is because they are typically occupied at night-time when there is clearly a lower expectation for daylight.

All infringements are within 6% of compliance and 2 are within 2% so all are only very minor infringements beyond the Guidance.

Also at:
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Appendix F of the BRE Guide discusses adopting alternative target values for skylight and sunlight access stating that:

These values are purely advisory and different targets may be used based on the special requirements of the proposed development or its location. Such alternative targets may be generated from the layout dimensions of existing development, or they may be derived from considering the internal layout and daylighting needs of the proposed development itself.

On review only a minor adjustment from an 80% target down to 70% on the NSL assessment target would see all of the rooms comfortably achieve this alternative target value. This would not be unreasonable given that the rooms are fully compliant with the ADF and RDC assessment criteria.

The daylight results based on the numerical target values within the BRE Guide are illustrated in full in the Appendices and below is a summary of the findings from all three sets of internal daylight assessment criteria.

Building	No. of rooms tested	ADF			NSL			RDC		
		Meeting guideline		No. below guideline	Meeting guideline		No. below guideline	Meeting guideline		No. below guideline
		No.	%		No.	%		No.	%	
Block A	41	41	100%	0	37	90%	4	41	100%	0
Block B	40	40	100%	0	40	100%	0	40	100%	0
Totals:	81	81	100%	0	77	95%	4	81	100%	0

Sunlight

In housing, sunlight should be assessed in living rooms and conservatories. The amount of sunlight reaching the interior of a space is measured by calculating the percentage of annual probable sunlight hours (APSH) reaching the centre of each window.

The BRE guide recommends that living rooms and conservatories should receive at least 25% APSH, including least 5% of APSH in the winter months between 21 September and 21 March. Where groups of dwellings are planned, site layout design should aim to maximise the number of dwellings meeting this recommendation.

All main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90° of due south.

When asked to clarify whether bedrooms should be assessed, the author of the BRE guide, Dr Paul Littlefair, wrote:

“The BRE Report 'Site layout planning for daylight and sunlight: a guide to good practice' recommends that 'all main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun.' Normally we would not include loss of sunlight to bedrooms in a detailed analysis; and loss of sunlight to bedrooms would not be treated as a material issue except in bedrooms that also comprised a living space, for example a bed sitting room in an old people's home. Loss of diffuse daylight to bedrooms does need to be taken into account, as stated in paragraph 2.2.2 of the BRE Report.”

Our assessment has therefore assessed the loss of sunlight to all primary living rooms within the scheme at first and second floors.

There are a total of 31 living rooms within the lowest two floors of the scheme of which 20 will have at least one window facing within 90° of due south.

Of the total 31 living rooms around the scheme 21 (68%) of those will comply with both the annual and winter sunlight criteria and a further 1 room (3%) will meet the annual criteria only. Therefore, a total of 71% of all living rooms assessed will achieve the APSH assessment criteria.

Of the 20 living rooms with at least one a one window facing within 90° of due south 17 (85%) of those will comply with both the annual and winter sunlight criteria and a further 1 room (5%) will meet the annual criteria only. Therefore, a total of 90% of all living rooms assessed with at least one window facing within 90° of due south will achieve the APSH assessment criteria.

The sunlight results based on the numerical target values within the BRE Guide are illustrated in full in the Appendices and below is a summary of the findings from all three sets of internal sunlight assessment criteria.

Table A6 - Adherence to APSH guidelines - main living rooms, all orientations

Building	APSH (main living rooms)					
	No. of main living rooms tested	Meeting guideline <i>(Ann & Win)</i>		No. below guideline		
		No.	%	Meets Annual only	Meets Winter only	Meets neither
Block A	15	8	28%	1	0	6
Block B	16	13	43%	0	0	3
Totals:	31	21		1	0	9
		68%		3%	0%	29%

Table A7 - Adherence to APSH guidelines - main living rooms with at least one window facing within 90° of due s

Building	APSH (main living rooms with a southerly-aspect window)					
	No. of main living rooms tested	Meeting guideline (Ann & Win)		No. below guideline		
		No.	%	Meets Annual only	Meets Winter only	Meets neither
Block A	11	8	47%	1	0	2
Block B	9	9	69%	0	0	0
Totals:	20	17		1	0	2
		85%		5%	0%	10%

Taking into account of the orientation of the towers and the scheme itself these findings illustrate a very good level of sunlight attainment for the primary habitable rooms within the scheme. This on top of the internal daylight adequacy studies illustrate that the proposed scheme will achieve very good levels of internal daylight and sunlight attainment and will achieve very good levels of compliance when measured against the BRE assessment criteria.

There are additional points of clarity requested in 3.3.1 which are also addressed individually below:

1. We consider this to be a statement of fact and we have nothing further to comment.
2. We can confirm that the London location has indeed been used for these assessments.
3. 28-44 High Street has not been assessed as no residential use has been identified from our research for these neighbours.
4. Clarifications from the results tables in Appendix 4:
 - 46 and 48 High Street. Reading the building from the street side there is an additional window at second floor which suggests a likelihood that windows W2, W3 & W4 served the same space. This additional window is not present at first floor and so it was considered likely that the configuration could well be more compartmentalised at this level. Either way as the effects on this neighbour are marginal, it is not considered that an alternative configuration of the spaces would derive any material alternative conclusion to the current findings.
 - 59 High Street. Windows W1 & 2 which serve R1 in 59 High Street are understood to serve non habitable spaces and so have been discounted from consideration as part of these daylight and sunlight assessments.
 - 55 High Street. Layouts for this property have not been obtained so alternative configurations are certainly a possibility. However, given that the findings for this neighbour are very marginal, it is not considered that an alternative configuration of the spaces would derive any material alternative conclusion to the current findings.
 - 53 High Street. Layouts for this property have not been obtained so alternative configurations are certainly a possibility. However, given that the findings for this neighbour are very marginal, it is

not considered that an alternative configuration of the spaces would derive any material alternative conclusion to the current findings.

- 47 High Street. The rooms in question front onto the High Street and are understood to serve commercial uses rather than residential uses so have been discounted from these assessments.
- Spelthorne House. The windows and rooms referred to serve a stairwell.

We trust the above is clear and responds to the daylight, sunlight and shadowing points raised in the comments from Daylight & Sunlight Solutions.

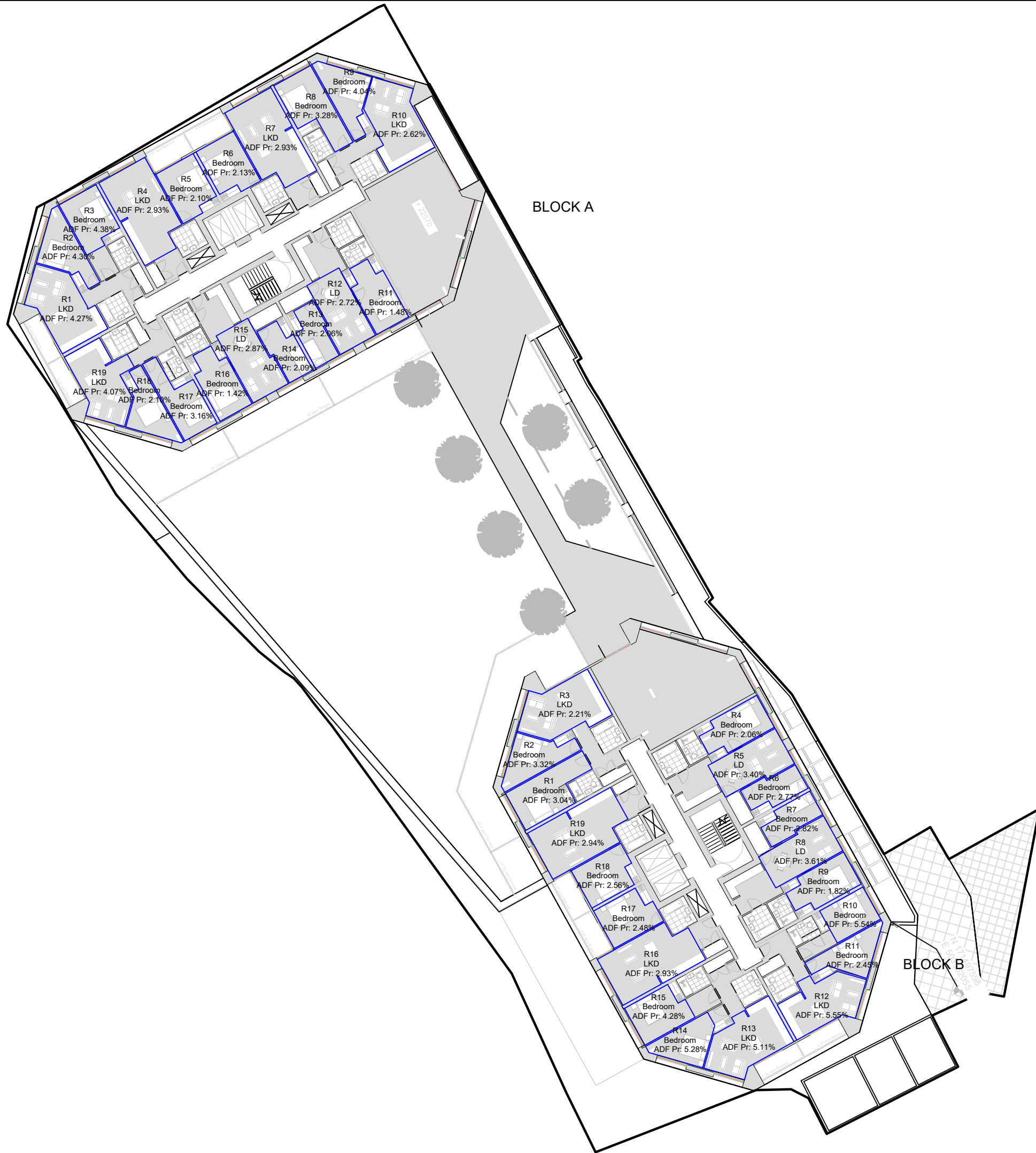
DELVA PATMAN REDLER LLP

Property & room attributes					Daylight (BRE)					Sunlight (BRE)		
Floor	Flat no.	Room ref.	Property type	Room use	ADF		NSL (% room)	Room depth criterion		APSH room		
					Target (%)	ADF (%)		Limit (current) (m)	Criterio n met?	Annual (%)	Winter (%)	
Block A												
F01	Plan(s)	R1	Residential	LKD	2.0	4.27	100%	Exempt: Dual Aspec	Yes	26	4	
	Plan(s)	R2	Residential	Bedroom	1.0	4.30	98%	11.7 (Current: 2.5)	Yes	25	2	
	Plan(s)	R3	Residential	Bedroom	1.0	4.38	99%	10.2 (Current: 4.3)	Yes	8	0	
	Plan(s)	R4	Residential	LKD	2.0	2.93	100%	Exempt: Dual Aspec	Yes	10	0	
		R5	Residential	Bedroom	1.0	2.10	99%	10.3 (Current: 4.2)	Yes	N/R	N/R	
		R6	Residential	Bedroom	1.0	2.13	99%	10.3 (Current: 4.2)	Yes	N/R	N/R	
	Plan(s)	R7	Residential	LKD	2.0	2.93	100%	Exempt: Dual Aspec	Yes	8	0	
	Plan(s)	R8	Residential	Bedroom	1.0	3.28	99%	10.3 (Current: 6.5)	Yes	11	1	
	Plan(s)	R9	Residential	Bedroom	1.0	4.04	98%	11.8 (Current: 2.5)	Yes	3	0	
	Plan(s)	R10	Residential	LKD	2.0	2.62	99%	Exempt: Dual Aspec	Yes	1	0	
		R11	Residential	Bedroom	1.0	1.48	78%	9.7 (Current: 4)	Yes	N/R	N/R	
	Plan(s)	R12	Residential	LD	1.5	2.72	100%	9.9 (Current: 5.7)	Yes	55	18	
		R13	Residential	Bedroom	1.0	2.06	79%	8.6 (Current: 4.5)	Yes	N/R	N/R	
		R14	Residential	Bedroom	1.0	2.09	89%	8.6 (Current: 4.5)	Yes	N/R	N/R	
	Plan(s)	R15	Residential	LD	1.5	2.87	100%	9.9 (Current: 5.7)	Yes	55	21	
		R16	Residential	Bedroom	1.0	1.42	75%	9.7 (Current: 4)	Yes	N/R	N/R	
	Plan(s)	R17	Residential	Bedroom	1.0	3.16	100%	9.9 (Current: 3.7)	Yes	47	15	
	Plan(s)	R18	Residential	Bedroom	1.0	2.10	95%	12 (Current: 2.6)	Yes	54	18	
	Plan(s)	R19	Residential	LKD	2.0	4.07	97%	Exempt: Dual Aspec	Yes	60	16	
F02	Plan(s)	R1	Residential	LKD	2.0	4.58	100%	Exempt: Dual Aspec	Yes	30	9	
	Plan(s)	R2	Residential	Bedroom	1.0	4.42	98%	11.7 (Current: 2.5)	Yes	25	4	
	Plan(s)	R3	Residential	Bedroom	1.0	3.54	99%	10.3 (Current: 6.5)	Yes	8	0	
	Plan(s)	R4	Residential	LKD	2.0	3.09	100%	Exempt: Dual Aspec	Yes	10	0	
		R5	Residential	Bedroom	1.0	2.30	99%	10.3 (Current: 4.2)	Yes	N/R	N/R	
		R6	Residential	Bedroom	1.0	2.33	99%	10.3 (Current: 4.2)	Yes	N/R	N/R	
	Plan(s)	R7	Residential	LKD	2.0	3.09	100%	Exempt: Dual Aspec	Yes	8	0	
	Plan(s)	R8	Residential	Bedroom	1.0	3.49	99%	10.3 (Current: 6.5)	Yes	11	1	
	Plan(s)	R9	Residential	Bedroom	1.0	4.54	98%	11.8 (Current: 2.5)	Yes	5	0	
	Plan(s)	R10	Residential	LKD	2.0	5.14	100%	Exempt: Dual Aspec	Yes	15	3	
	Plan(s)	R11	Residential	LKD	2.0	5.42	99%	Exempt: Dual Aspec	Yes	35	7	
	Plan(s)	R12	Residential	Bedroom	1.0	4.38	96%	12 (Current: 2.1)	Yes	33	6	
	Plan(s)	R13	Residential	Bedroom	1.0	3.14	88%	9.9 (Current: 3.7)	Yes	51	17	
		R14	Residential	Bedroom	1.0	1.51	81%	9.7 (Current: 4)	Yes	N/R	N/R	
	Plan(s)	R15	Residential	LD	1.5	2.78	100%	9.9 (Current: 5.7)	Yes	55	18	
		R16	Residential	Bedroom	1.0	2.11	82%	8.6 (Current: 4.5)	Yes	N/R	N/R	
		R17	Residential	Bedroom	1.0	2.14	90%	8.6 (Current: 4.5)	Yes	N/R	N/R	
	Plan(s)	R18	Residential	LD	1.5	2.93	100%	9.9 (Current: 5.7)	Yes	56	21	
		R19	Residential	Bedroom	1.0	1.46	74%	9.7 (Current: 4)	Yes	N/R	N/R	
	Plan(s)	R20	Residential	Bedroom	1.0	3.24	100%	9.9 (Current: 3.7)	Yes	50	17	
	Plan(s)	R21	Residential	Bedroom	1.0	2.22	95%	12 (Current: 2.6)	Yes	57	21	
	Plan(s)	R22	Residential	LKD	2.0	4.44	100%	Exempt: Dual Aspec	Yes	64	20	
Block B												

Orange or Red = Below guidelines (Orange = within 20% of guideline or LKD/LK/KD/Studio>1.5% ADF)

Grey APSH = not a main living room

Property & room attributes					Daylight (BRE)					Sunlight (BRE)	
Floor	Flat no.	Room ref.	Property type	Room use	ADF		NSL (% room)	Room depth criterion		APSH room	
					Target (%)	ADF (%)		Limit (current) (m)	Criterio n met?	Annual (%)	Winter (%)
F01		R1	Residential	Bedroom	1.0	3.04	80%	10.2 (Current: 6.6)	Yes	N/R	N/R
		R2	Residential	Bedroom	1.0	3.32	99%	11.7 (Current: 2.5)	Yes	N/R	N/R
	Plan(s)	R3	Residential	LKD	2.0	2.21	94%	9.8 (Current: 4.6)	Yes	24	2
	Plan(s)	R4	Residential	Bedroom	1.0	2.06	98%	9.7 (Current: 4)	Yes	23	3
	Plan(s)	R5	Residential	LD	1.5	3.40	100%	9.9 (Current: 5.7)	Yes	25	5
	Plan(s)	R6	Residential	Bedroom	1.0	2.77	99%	8.6 (Current: 4.5)	Yes	25	5
		R7	Residential	Bedroom	1.0	2.82	99%	8.5 (Current: 4.5)	Yes	N/R	N/R
	Plan(s)	R8	Residential	LD	1.5	3.61	100%	9.8 (Current: 5.7)	Yes	25	5
	Plan(s)	R9	Residential	Bedroom	1.0	1.82	98%	9.7 (Current: 4)	Yes	24	4
	Plan(s)	R10	Residential	Bedroom	1.0	5.54	100%	9.7 (Current: 3.7)	Yes	19	2
	Plan(s)	R11	Residential	Bedroom	1.0	2.45	99%	12 (Current: 2.7)	Yes	45	15
	Plan(s)	R12	Residential	LKD	2.0	5.55	100%	Exempt: Dual Aspect	Yes	52	20
	Plan(s)	R13	Residential	LKD	2.0	5.11	100%	Exempt: Dual Aspect	Yes	73	27
	Plan(s)	R14	Residential	Bedroom	1.0	5.28	99%	11.6 (Current: 2.5)	Yes	65	27
		R15	Residential	Bedroom	1.0	4.28	100%	10.2 (Current: 4.3)	Yes	N/R	N/R
	Plan(s)	R16	Residential	LKD	2.0	2.93	84%	Exempt: Dual Aspect	Yes	47	18
		R17	Residential	Bedroom	1.0	2.48	86%	10.3 (Current: 4.2)	Yes	N/R	N/R
		R18	Residential	Bedroom	1.0	2.56	87%	10.3 (Current: 4.2)	Yes	N/R	N/R
	Plan(s)	R19	Residential	LKD	2.0	2.94	92%	Exempt: Dual Aspect	Yes	44	14
F02	Plan(s)	R1	Residential	LKD	2.0	5.47	99%	Exempt: Dual Aspect	Yes	48	17
	Plan(s)	R2	Residential	Bedroom	1.0	3.23	82%	10.9 (Current: 3.3)	Yes	26	3
	Plan(s)	R3	Residential	LD	1.5	3.84	83%	12.2 (Current: 4.1)	Yes	8	0
	Plan(s)	R4	Residential	Bedroom	1.0	3.86	96%	12.1 (Current: 4.5)	Yes	7	0
	Plan(s)	R5	Residential	Bedroom	1.0	3.96	92%	11 (Current: 3.3)	Yes	5	0
	Plan(s)	R6	Residential	LKD	2.0	4.70	100%	Exempt: Dual Aspect	Yes	26	6
	Plan(s)	R7	Residential	LKD	2.0	2.83	100%	10.3 (Current: 6.9)	Yes	20	2
	Plan(s)	R8	Residential	Bedroom	1.0	4.02	100%	10.3 (Current: 4.1)	Yes	26	6
		R9	Residential	Bedroom	1.0	2.89	99%	8.5 (Current: 4.5)	Yes	N/R	N/R
	Plan(s)	R10	Residential	LD	1.5	3.68	100%	9.8 (Current: 5.7)	Yes	26	6
	Plan(s)	R11	Residential	Bedroom	1.0	1.86	98%	9.7 (Current: 4)	Yes	25	5
	Plan(s)	R12	Residential	Bedroom	1.0	4.11	100%	9.9 (Current: 3.7)	Yes	20	2
	Plan(s)	R13	Residential	Bedroom	1.0	2.51	99%	12 (Current: 2.7)	Yes	47	16
	Plan(s)	R14	Residential	LKD	2.0	5.55	100%	Exempt: Dual Aspect	Yes	52	21
	Plan(s)	R15	Residential	LKD	2.0	5.11	100%	Exempt: Dual Aspect	Yes	75	28
	Plan(s)	R16	Residential	Bedroom	1.0	5.36	99%	11.6 (Current: 2.5)	Yes	66	27
		R17	Residential	Bedroom	1.0	4.42	100%	10.2 (Current: 4.3)	Yes	N/R	N/R
	Plan(s)	R18	Residential	LKD	2.0	3.01	92%	Exempt: Dual Aspect	Yes	49	18
		R19	Residential	Bedroom	1.0	2.24	100%	10.3 (Current: 4.2)	Yes	N/R	N/R
		R20	Residential	Bedroom	1.0	2.30	99%	10.3 (Current: 4.2)	Yes	N/R	N/R
	Plan(s)	R21	Residential	LKD	2.0	3.00	99%	Exempt: Dual Aspect	Yes	45	14



LEVEL 01

NO DIMENSIONS TO BE SCALED
FROM THIS DRAWING

KEY:

Self Test:

Room Area

SOURCE DATA:

Proposed Scheme:
CORSTORPHINE & WRIGHT Architect
Dwg No:
21115-CW-XX-ZZ-A-DR-0301;
21115-CW-XX-A-2500-SK6, 2501-SK9,
2502-SK6, 2503-SK6, 2504-SK6, 2505-SK4,
2506-SK4, 2600-SK5, 2601-SK4, 2602-SK3,
2603-SK3, 2610-SK4;

NOTES:

Cross hatched rooms do not comply
with BS 8206-2:2008

REV	Description	Drawn	Date

DELVA PATMAN REDLER
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Liverpool 0151 242 0980
Bristol 0117 456 9703

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TITLE:

37-45 HIGH STREET
STAINES
TW18 4QU

DRAWING:

AVERAGE DAYLIGHT FACTOR
FLOOR PLAN

DRAWN: RM

SCALE: NTS

DATE: 09.02.2022

DWG NO:

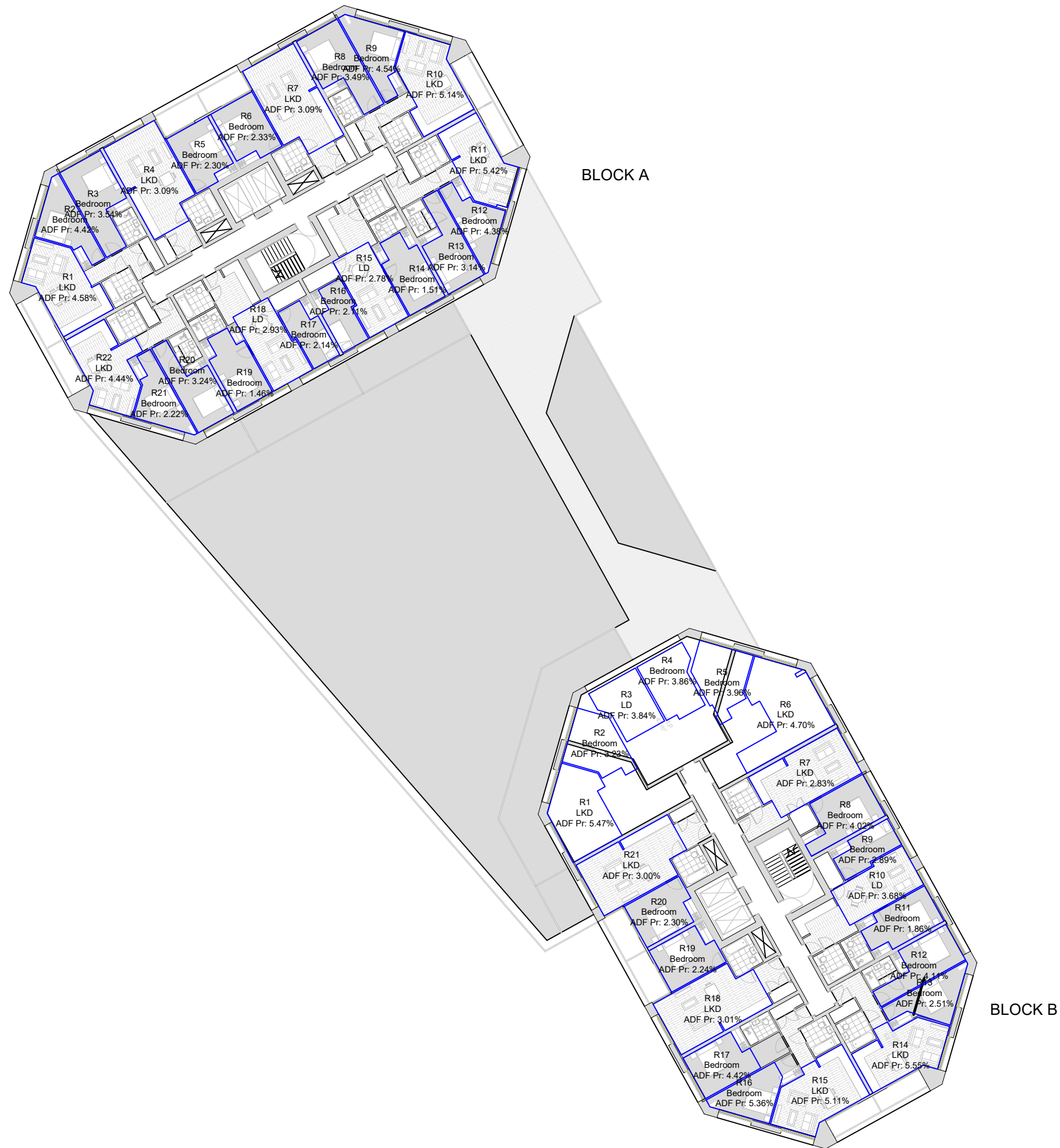
ST_003

JOB NBR:

21545

REV:

-



LEVEL 02

NO DIMENSIONS TO BE SCALED FROM THIS DRAWING

KEY:

Self Test:

Room Area

SOURCE DATA:

Proposed Scheme:
CORSTORPHINE & WRIGHT Architect
Dwg No:
21115-CW-XX-ZZ-A-DR-0301;
21115-CW-XX-A-2500-SK6, 2501-SK9,
2502-SK6, 2503-SK6, 2504-SK6, 2505-SK4,
2506-SK4, 2600-SK5, 2601-SK4, 2602-SK3,
2603-SK3, 2610-SK4;

NOTES:

Cross hatched rooms do not comply with BS 8206-2:2008

REV	Description	Drawn	Date

DELVA PATMAN REDLER
Chartered Surveyors

London 020 7936 3668
Liverpool 0151 242 0980
Bristol 0117 456 9703

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TITLE:

37-45 HIGH STREET
STAINES
TW18 4QU

DRAWING:

AVERAGE DAYLIGHT FACTOR
FLOOR PLAN

DRAWN: RM	JOB NBR:
SCALE: NTS	21545
DATE: 09.02.2022	
DWG NO:	REV:
ST_004	-