**GVA** Schatunowski Brooks

Planning Daylight & Sunlight Report

GVA 65 Gresham Street, London EC2V 7NQ



## Redevelopment of 152-156 Kentish Town Road, London NW5

AHIG Ltd

June 2016

AHIG Ltd Contents

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### 1. Introduction

- 1.1 GVA Schatunowski Brooks has been instructed by AHIG Ltd to undertake a detailed technical assessment of the neighbouring and internal daylight and sunlight amenity (planning) matters associated with the redevelopment of 152-156 Kentish Town Road.
- 1.2 Demolition of the existing three-storey building and redevelopment of the site to provide a five-storey development, comprising of retail at lower ground and ground floors, commercial office space at first floor and residential units arranged over second and third floors.
- 1.3 This report is based upon the following information:
  - MAREK WOJCIECHOWSKI Architect's drawings 15052 P01 to P18.
  - MAREK WOJCIECHOWSKI Architect's site photographs issued 11 December 2016.
  - Ordnance Survey Plan.
- 1.4 Research was also undertaken using Bing aerial photography and the London Borough of Camden's planning database.
- 1.5 Window locations have been estimated from MWA drawings and photographs and therefore may differ from land survey information.

## 2. Executive Summary

- 2.1 For Planning Daylight and Sunlight amenity to the neighbouring residential properties, our analysis confirms that all the BRE Guideline tests will be satisfied.
- 2.2 For Planning Daylight and Sunlight amenity within the proposal, all rooms will be well lit for their particular use. This is demonstrated by the Average Daylight Factor (ADF) test results which indicate that all rooms will exceed the target values at second floor, by virtue of their position on the upper floors and large areas of glazing.

## 3. Daylight and Sunlight Principles (Planning)

- 3.1 The Building Research Establishment (BRE) Guidelines Site Layout Planning for Daylight and Sunlight: a guide to good practice is the document referred to by most local authorities. The BRE Guide gives advice on site layout planning to achieve good daylighting and sunlighting, within buildings and in the open spaces between them.
- 3.2 The introduction to the Guidelines state: -

"The guide is intended for building designers and their clients, consultants and planning officials. 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 developer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of the many factors in site layout design."

### **Daylighting**

- 3.3 The requirements governing daylighting to existing residential buildings around a development site are set out in Part 2.2 of the guidelines. The amount of light available to any window depends upon the amount of unobstructed sky that can be seen from the centre of the window under consideration. The amount of visible sky and consequently the amount of available skylight is assessed by calculating the vertical sky component (VSC) at the centre of the window. The guidelines advise that bathrooms, toilets, storerooms, circulation areas and garages need not be analysed. The guidelines also suggest that distribution of daylight within rooms is reviewed although bedrooms are considered to be less important.
- 3.4 The VSC can be calculated by using the skylight indicator provided as part of the guidelines, by mathematical methods using what is known as a Waldram diagram or by 3D CAD modelling.
- 3.5 The guidelines state the following:-

"If this vertical sky component is greater than 27% then enough skylight should still be reaching the window of the existing building. Any reduction below this level should be kept to a minimum. If the vertical sky component with the new development in place, is

both less than 27% and less than 0.8 times its former value, then occupants of the existing building will notice the reduction in the amount of skylight."

- 3.6 It must be interpreted from this criterion that a 27% VSC constitutes adequacy, but where this value cannot be achieved a reduction of up to 0.8 times its the former value (this is the same as saying a 20% reduction when compared against the existing condition) would not be noticeable and would not therefore be considered material.
- 3.7 The VSC calculation only measures light reaching the outside plane of the window under consideration, so this is considered more a measure of the potential for good daylight within a given room. Depending upon the room and window size, the room may still be adequately lit with a lesser VSC value than the target values referred to above.
- 3.8 The no sky-line or daylight distribution (DD) contour shows the extent of light penetration into the room at working plane level, 850mm above floor level. If a substantial part of the room falls behind the no sky-line contour, the distribution of light within the room may look poor.
- 3.9 Appendix C of the BRE Guidelines sets out various more detailed tests that assess the interior daylight conditions of proposed habitable rooms. These include the calculation of the average daylight factors (ADF) and no sky-lines.
- 3.10 The ADF value determines the level of interior illumination that can be compared with the British Standard, BS 8206: Part 2. This recommends a minimum of 2% for kitchens, 1.5% for living rooms and 1% for bedrooms.
- 3.11 BS8206-2: 2008 notes that "Where one room serves more than one purpose, the minimum average daylight factor should be that for the room type with the highest value. For example, in a space which combines a living room and a kitchen the minimum average daylight factor should be 2%".

### **Sunlighting**

3.12 Requirements for protection of sunlighting to existing residential buildings around a development site are set out in Part 3.2 of the BRE guidelines. There is a requirement to assess windows of surrounding properties where the main windows face within 90

degrees of due south. The calculations are taken at the window reference point at the centre of each window on the plane of the inside surface of the wall.

3.13 The guidelines further state that kitchens and bedrooms are less important in the context of considering sunlight, although care should be taken not to block too much sun. The guidelines sets the following standard:-

"If this window reference point can receive more than one quarter of annual probable sunlight hours, including at least 5% of annual probable sunlight hours during the winter months of 21st September and 21st March, then the room should still receive enough sunlight. The sunlight availability indicator in Appendix A can be used to check this.

Any reduction in sunlight access below this level should be kept to a minimum. If the available sunlight hours are both less than the amount given and less than 0.8 times their former value, either over the whole year or just during the winter months then the occupants of the existing building will notice the loss of sunlight."

- 3.14 To summarize the above, a good level of sunlight to a window is 25% annual probable sunlight hours, of which 5% should be in winter months. Where sunlight levels fall below the suggested level, a comparison with the existing condition is reviewed and if the ratio reduction is within 0.8 (the same as saying a 20% reduction) its former value or the reduction in sunlight received over the whole year is 4% or less, then the sunlight loss will not be noticeable.
- 3.15 Where sunlight reductions fall below a ratio of 0.8 (the same as saying greater than 20%) then the sunlight losses may be noticeable to occupants.

## 4. Report

4.1 The tests discussed are for planning purposes in accordance with the BRE report 209 and the London Borough of Camden's planning policy.

# Daylight and Sunlight Amenity to Neighbouring Residential Properties

### 150 Kentish Town Road – BRE/24

- 4.2 This property is located directly to the south of the proposals and is a part residential, over four stories to the rear.
- 4.3 The findings of our technical analysis confirm that, with the exception of one window at second floor which will see a VSC reduction of over 20%, the BRE tests will be satisfied. This window enjoys exceptional levels of daylight in the existing condition and despite the reduction in the proposed condition; it will still retain a very good VSC level of 25.05%, in the proposed. These very good daylight levels are confirmed by the room which it serves (R1/33), which will remain over 80% daylit and satisfies the BRE Guidelines.
- 4.4 All remaining windows /rooms tested will satisfy all the BRE Guidelines tests for daylight and sunlight, by either retaining their absolute guideline value, 0.8 of their former value or a reduction less than 4%.

#### 189-195 Kentish Town Road – BRE/22 & 23

- 4.5 This property is located to the west of the proposals on the opposite side of Kentish Town Road and is residential for at first, second and third floors.
- 4.6 The findings of our technical analysis confirm that all windows /rooms tested will satisfy all the BRE Guidelines tests for daylight and sunlight, by either retaining their absolute guideline value, 0.8 of their former value or a reduction less than 4%.

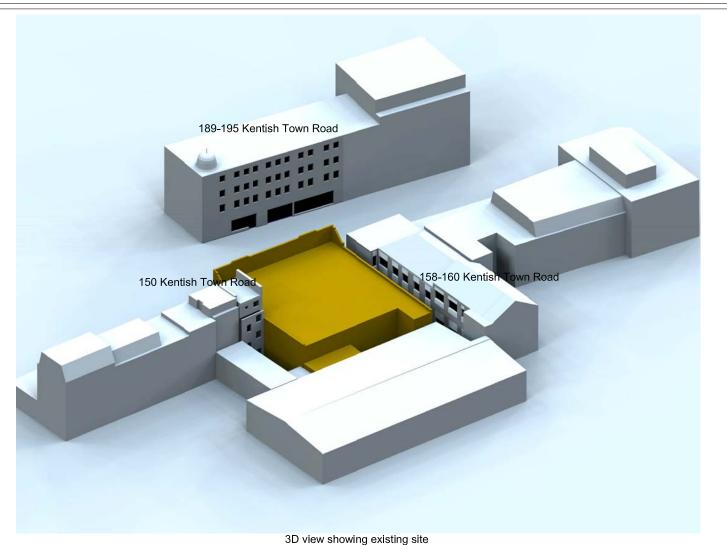
### Daylight and Sunlight Amenity within the Proposal

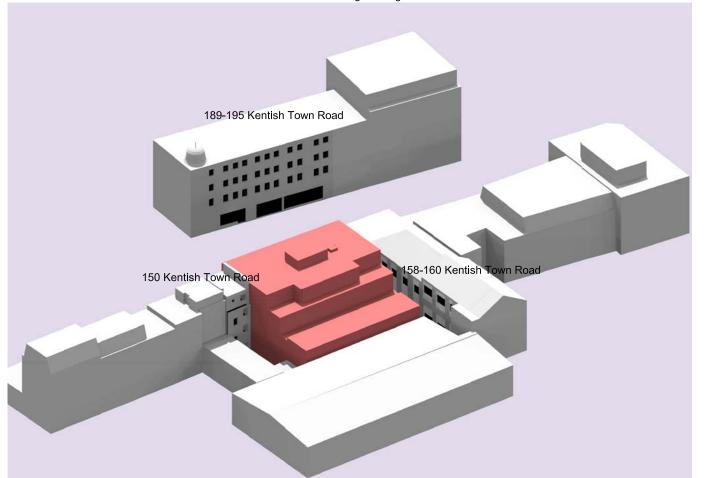
#### Second Floor – BRE/25

- 4.7 We have undertaken a 3D computer study of the proposal in respect of internal daylight and sunlight amenity in accordance with BS 8206: Part 2, as described in section 3.10 and 3.11 above. We have tested all rooms at second floor level to accurately assess the daylight and sunlight levels. This is on the basis that the daylight and sunlight levels will only improve to upper floors; therefore if all rooms satisfy the BS and BRE at second floor, one can reasonably assume they will also satisfy them at third floor.
- 4.8 The BRE Guidelines also suggest that for dwellings, kitchens should obtain 2.0% ADF, living/dining rooms 1.5% and bedrooms 1.0%.
- 4.9 For daylight, ADF test (within the room) indicate that of 10 bedrooms tested, all 10 (100%) will meet the 1% criteria for bedrooms, with all in excess of this figure. Of the four Living/Dining areas tested, all four will meet 1.5% value, in fact all rooms will achieve at 3% or greater.
- 4.10 The habitable rooms above the second floor are either similar configuration or have greater glazing to room ratio, resulting in higher values. This coupled with the greater VSC levels from a greater view of the sky and that the second floor figures are generally more than the guideline values, we expect that there will be complete adherence at third floor.
- 4.11 For Sunlight, we have applied the ASPH test to the rooms that face within 90° of due south. The results confirm that all rooms will contain at least one window that satisfies annual guideline of 25% and the winter guideline of 5%. These sunlight values should be considered excellent in an inner-city environment.
- 4.12 The above findings suggest that the proposals, when considering the existing constraints, will be adequately lit and satisfies the BRE Guidelines and the BS 8206: Part 2.

## 5. Conclusions

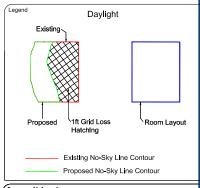
- 5.1 The London Borough of Camden's planning policy seeks to safeguard daylight and sunlight to existing buildings and promote adequate standards for new developments points to the guidance published in BRE Report 209 'Site Layout Planning for Daylight and Sunlight A Guide to Good Practice'.
- 5.2 The results of our technical analysis confirms that all the habitable rooms and windows to neighbouring residential properties will satisfy all the BRE Guidelines test for daylight and sunlight.
- 5.3 For daylight and sunlight amenity within the proposal, our analysis confirms that all of habitable rooms tested at first floor will exceed the target values for their use in respect of daylight and sunlight and this can be extrapolated for the floors above.
- 5.4 In conclusion, the proposal adheres to the BRE guidelines. We therefore consider the London Borough of Camden's planning policy on daylight and sunlight will be satisfied.





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Do not scale this drawing.
All dimensions to be checked on site. Drawing to be read in conjunction with any specifications, schedules and Consultants drawings and details.



Existing And Surrounding Buildings Marek Wojciechowski Architects drawings D\_01-04, P\_07-16

Existing room uses, sizes and floor levels estimated Existing window sizes estimated where not shown on scheme drawlngs

Architects site photographs

Marek Wojclechowski Architects drawings P01,P03-P05, P07-P14, P17-P18 received 01 June 2016



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Kentish Town Road, London

3D view showing existing & proposed site

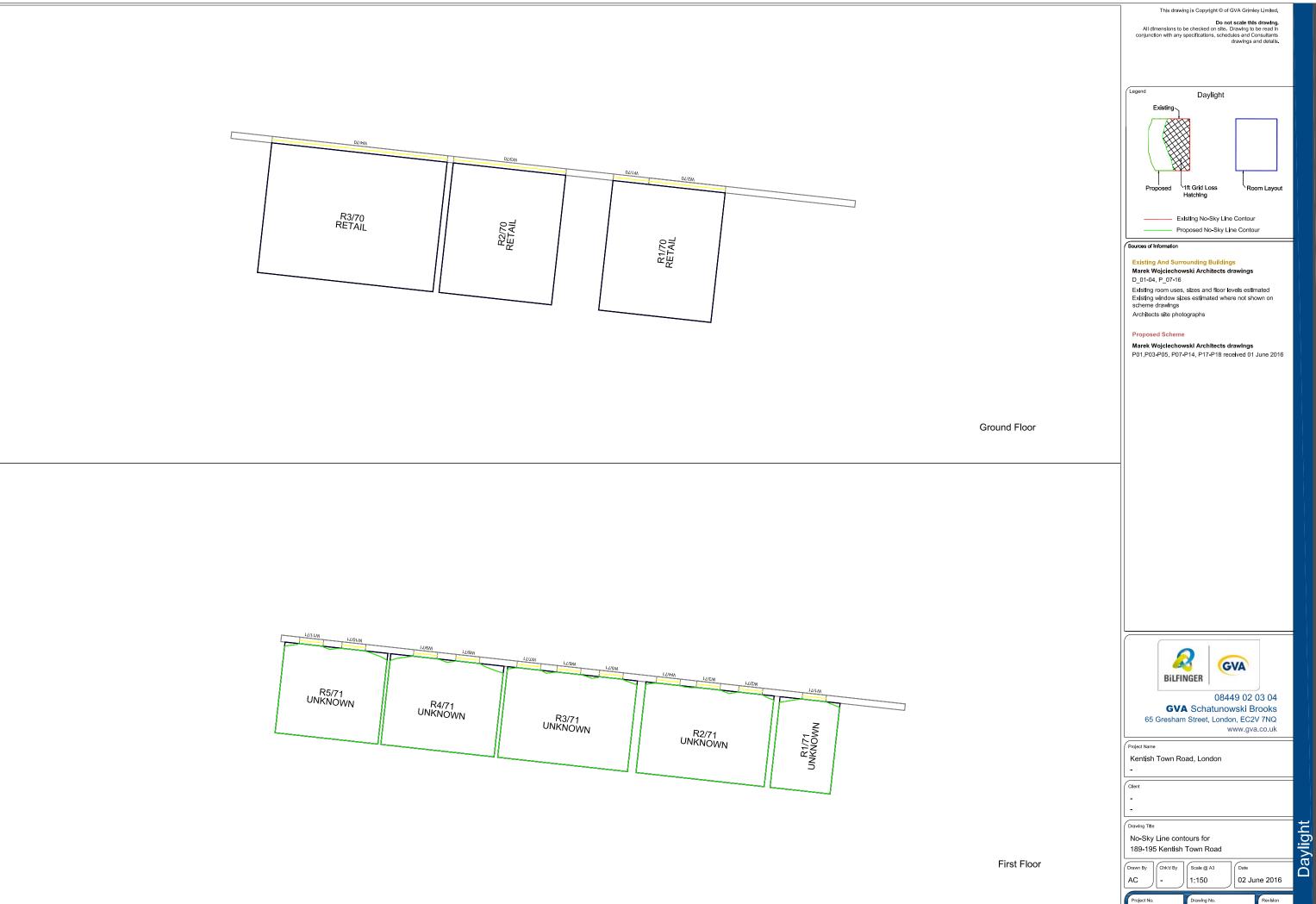
Chk'd By AC

Scale @ A3 N/A

02 June 2016

Daylight

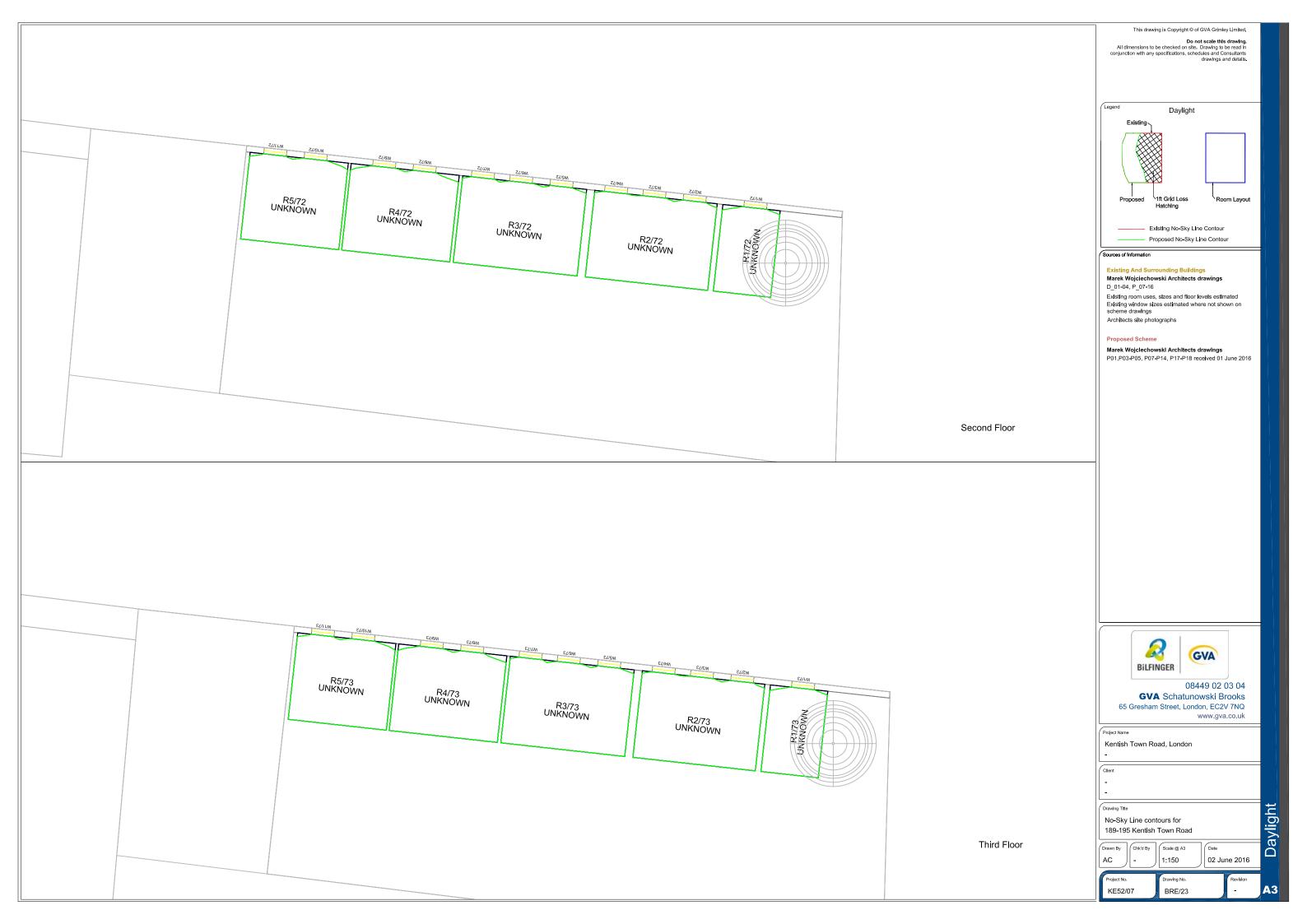
BRE/21



**A3** 

KE52/07

BRE/22







## 152-156 Kentish Town Road, London Daylight results for current proposal 02 June 2016

			%VSC		% Daylight Factor			Proposed No Sky			
									% of		
									Room	% Loss of	
Room/Floor	Room Use	Window	Exist	Prop	% Loss	Exist	Prop	% Loss	Area	Existing	
150 Kentish	Town Road	KE52_07	_BRE_	24							
1st Floor											
R1/10	UNKNOWN	W1/10	25.97	31.95	>27	0.00	0.00	0.00%	0.00%	0.00%	
K1/10	ONKNOVIV	W2/10	33.31	36.57	>27	0.00	0.00	0.00%	0.00%	0.00%	
2nd Floor											
R1/11	UNKNOWN	W1/11	35.57	35.48	>27	0.00	0.00	0.00%	0.00%	0.00%	
N1/11		W2/11	37.37	37.87	>27		0.00	0.00%	0.0076	0.0070	
3rd Floor											
R1/12	UNKNOWN	W1/12	38.88	38.04	>27	0.00	0.00	0.00%	0.00%	0.00%	
Gnd Floor	_										
R1/31	UNKNOWN	W1/31	13.21	12.92	2.20%	0.74	0.74	0.81%	70.49%	1.65%	
1st Floor											
R1/32	UNKNOWN	W1/32	24.11	22.08	8.42%	1.12	1.06	5.10%	75.23%	11.75%	
2nd Floor											
R1/33	UNKNOWN	W1/33	39.30	25.05	36.26%	1.78	1.30	27.10%	81.88%	6.55%	
1st Floor											
R1/41	UNKNOWN	W1/41	20.35	18.20	10.57%	0.81	0.76	5.92%	90.95%	5.50%	
2nd Floor											
R1/42	UNKNOWN	W1/42	37.70	30.92	>27	1.16	1.02	12.18%	93.49%	2.75%	
3rd Floor											
R1/50	UNKNOWN	W1/50	39.56	35.92	>27	1.34	1.09	18.18%	88.19%	0.74%	
K1/30	ONKNOVIN	W2/50	39.55	28.88	>27	1.54	1.09	10.10/0	00.15/0	0.74/0	
189-195 Ken	tish Town Ro	oad KE52	2_07_E	RE_22	.,23						
1st Floor											
R1/71	UNKNOWN	W1/71	34.40	33.90	>27	1.31	1.29	1.37%	98.33%	0.00%	
	UNKNOWN	W2/71	34.52	34.03	>27	2.32	2.29	1.29%	99.40%	0.00%	
R2/71		W3/71	34.67	34.17	>27						
		W4/71	34.85	34.36	>27						
	UNKNOWN	W5/71	35.06	34.50	>27	2.33	2.29	1.59%	99.26%	0.00%	
R3/71		W6/71	35.21	34.57	>27						
		W7/71	35.29	34.62	>27						
R4/71	UNKNOWN	W8/71	35.44	34.73	>27	1.74	1.71	1.84%	98.19%	0.00%	
N+/ / I	CINKINOVIN	W9/71	35.55	34.82	>27	1.74	1./1	1.0470	30.13/0	0.00%	





				%VS0					Proposed No Sky		
									% of Room	% Loss of	
Room/Floor	Room Use	Window	Exist	Prop	% Loss	Exist	Prop	% Loss	Area	Existing	
DE /71	UNKNOWN	W10/71	35.66	34.92	>27	1.88	1.84	1.92%	98.70%	0.00%	
R5/71	UNKNOWN	W11/71	35.71	34.98	>27	1.88	1.84	1.92%	98.70%	0.00%	
2nd Floor	-										
R1/72	UNKNOWN	W1/72	37.35	36.41	>27	1.26	1.23	2.38%	98.33%	0.00%	
		W2/72	37.43	36.52	>27						
R2/72	UNKNOWN	W3/72	37.52	36.64	>27	2.24	2.19	2.19%	99.40%	0.00%	
		W4/72	37.62	36.79	>27						
		W5/72	37.76	36.92	>27						
R3/72	UNKNOWN	W6/72	37.88	37.03	>27	2.23	2.19	2.10%	99.26%	0.00%	
		W7/72	37.98	37.12	>27						
R4/72	UNKNOWN	W8/72	38.12	37.28	>27	1.67	1.63	2.16%	98.19%	0.00%	
114/72	ONKNOWN	W9/72	38.22	37.38	>27	1.07	1.03	2.10/0	36.1370	0.0076	
R5/72	UNKNOWN	W10/72	38.27	37.46	>27	1.79	1.76	2.01%	98.70%	0.00%	
		W11/72	38.29	37.50	>27	1.75	1.70	2.01/0	30.7070	0.0070	
3rd Floor											
R1/73	UNKNOWN	W1/73	39.26	38.54	>27	1.34	1.31	1.79%	98.33%	0.00%	
		W2/73	39.28	38.58	>27						
R2/73	UNKNOWN	W3/73	39.31	38.62	>27	2.33	2.29	1.68%	99.40%	0.00%	
		W4/73	39.32	38.67	>27						
		W5/73	39.34	38.72	>27						
R3/73	UNKNOWN	W6/73	39.35	38.76	>27	2.31	2.27	1.43%	99.26%	0.00%	
		W7/73	39.36								
R4/73	UNKNOWN	W8/73	39.37	38.87		1.71	1.69	1.23%	98.19%	0.00%	
,,5	3.410.0001	W9/73	39.38			1.71	1.03	1.23/0	30.1370	0.0070	
R5/73	UNKNOWN	W10/73	39.38			1.84	1.82	0.98%	98.70%	0.00%	
1.5/75	CIVICIOVIV	W11/73	39.39	39.00	>27	1.04	1.02	0.5670	56.7070	0.0076	



## 152-156 Kentish Town Road, London Daylight results for current proposal 02 June 2016

Available sunlight as a percentage of annual unobstructed total (1486.0 Hrs)

	structed tota		isting %		Proposed %					
	Window		70					% Loss of	% Loss of	% Loss of
Room use	Ref	Summer	Winter	Total	Summer	Winter	Total	Summer	Winter	Total
	ntish Town I		52 07 B	•						ı
1st Floor	IICISII IOWIII	Noau KL	JZ_07_D	NL_22	,23					
UNKNOWN	W1/71	39.00	16.00	55.00	39.00	16.00	55.00	0.00%	0.00%	0.00%
UNKNOWN	W2/71	39.00		55.00	40.00		56.00			
UNKNOWN	W2/71 W3/71	40.00	16.00		40.00		55.00			
UNKNOWN	W4/71	40.00	16.00		40.00		55.00			
UNKNOWN	W5/71	40.00		56.00	40.00		55.00	0.00%		
UNKNOWN	W6/71	39.00	16.00		39.00		54.00			
UNKNOWN	W7/71	39.00	16.00		39.00					
UNKNOWN	W8/71	39.00	16.00		39.00		54.00	0.00%		
UNKNOWN	W9/71	39.00	17.00		39.00		54.00			
UNKNOWN	W10/71	39.00	17.00		39.00		55.00			
UNKNOWN	W11/71	39.00		57.00	39.00		56.00			
2nd Floor										
UNKNOWN	W1/72	40.00	17.00	57.00	40.00	16.00	56.00	0.00%	5.88%	1.75%
UNKNOWN	w2/72	40.00	17.00		40.00		56.00			
UNKNOWN	w3/72	40.00	17.00		40.00	16.00	56.00			
UNKNOWN	W4/72	40.00	18.00		40.00		56.00			
UNKNOWN	W5/72	40.00	18.00	58.00	40.00	16.00	56.00	0.00%	11.11%	3.45%
UNKNOWN	W6/72	40.00	18.00	58.00	40.00	16.00	56.00	0.00%	11.11%	3.45%
UNKNOWN	W7/72	40.00	18.00	58.00	40.00	16.00	56.00	0.00%	11.11%	3.45%
UNKNOWN	W8/72	40.00	18.00	58.00	40.00	16.00	56.00	0.00%	11.11%	3.45%
UNKNOWN	W9/72	40.00	18.00	58.00	40.00	16.00	56.00	0.00%	11.11%	3.45%
UNKNOWN	W10/72	40.00	18.00	58.00	40.00	17.00	57.00	0.00%	5.56%	1.72%
UNKNOWN	W11/72	40.00	18.00	58.00	40.00	17.00	57.00	0.00%	5.56%	1.72%
3rd Floor										
UNKNOWN	W1/73	40.00	18.00	58.00	40.00	18.00	58.00	0.00%	0.00%	0.00%
UNKNOWN	W2/73	40.00	18.00	58.00	40.00	18.00	58.00	0.00%	0.00%	0.00%
UNKNOWN	W3/73	40.00	18.00	58.00	40.00	18.00	58.00	0.00%	0.00%	0.00%
UNKNOWN	W4/73	40.00	18.00	58.00	40.00	18.00	58.00	0.00%	0.00%	0.00%
UNKNOWN	W5/73	40.00	18.00	58.00	40.00	18.00	58.00	0.00%	0.00%	0.00%
UNKNOWN	W6/73	40.00	18.00	58.00	40.00	18.00	58.00	0.00%	0.00%	0.00%
UNKNOWN	W7/73	40.00	18.00	58.00	40.00	18.00	58.00	0.00%	0.00%	0.00%
UNKNOWN	W8/73	40.00	18.00	58.00	40.00		58.00			
UNKNOWN	W9/73	40.00	18.00	58.00	40.00	18.00	58.00	0.00%	0.00%	0.00%
UNKNOWN	W10/73	40.00		58.00	40.00		58.00			
UNKNOWN	W11/73	40.00	18.00	58.00	40.00	18.00	58.00	0.00%	0.00%	0.00%





# 152-156 Kentish Town Road, London Internal Sunlight & Daylight results for current scheme 04 March 2016

			No Sky %S				%Sun	
Room/Floor	Room Use	Window	%VSC	%ADF	% of Room	Summer	Winter	Total
152-156 Ken	tish Town Roa	d KE52/	08/BRE	/25				
2nd Floor								
R1/80	BEDROOM	W14/80	35.90	2.60	94.92%	32.00	10.00	42.00
R2/80	BEDROOM	W15/80	36.80	2.22	96.44%	33.00	10.00	43.00
R3/80	BEDROOM	W16/80	37.15	4.60	97.53%	33.00	10.00	43.00
R4/80	LIVINGROOM	W17/80	37.34	4.84	99.33%	33.00	10.00	43.00
N4/ 6U	LIVINGROOM	W18/80	37.49	4.04	39.33%	33.00	10.00	43.00
R5/80	BEDROOM	W19/80	37.56	2.91	96.46%	33.00	10.00	43.00
R6/80	BEDROOM	W20/80	37.71	2.31	96.33%	33.00	10.00	43.00
R7/80	BEDROOM	W21/80	37.79	2.58	96.34%	33.00	10.00	43.00
R8/80	BEDROOM	W22/80	37.96	2.65	94.53%	33.00	10.00	43.00
	LIVINGROOM	W10/80	36.12	3.81	98.96%	#N/A	#N/A	#N/A
R9/80		W11/80	36.36			#N/A	#N/A	#N/A
		W12/80	36.43			#N/A	0 10.00 0 10.00 0 10.00 0 10.00 0 10.00 #N/A	#N/A
R10/80	LIVINGROOM	W8/80	35.73	3.58	98.88%	#N/A	#N/A	#N/A
K10/80	LIVINGROOM	W9/80	35.88	3.36	90.00%	#N/A	#N/A	#N/A
R11/80	BEDROOM	W7/80	35.52	4.13	98.54%	#N/A	#N/A	#N/A
R12/80	BEDROOM	W5/80	35.10	5.68	99.11%	#N/A	#N/A	#N/A
N12/6U	BEDROOM	W6/80	35.21	3.08	99.11%	#N/A	#N/A	#N/A
R13/80	BEDROOM	W4/80	34.77	3.12	94.92%	#N/A	#N/A	#N/A
		W1/80	34.01		99.95%	#N/A	#N/A	#N/A
D1 4 /00	LIV/INICDOON #	W2/80	34.35			#N/A	#N/A	#N/A
R14/80	LIVINGROOM	W3/80	34.55	6.63		#N/A	#N/A	#N/A
		W13/80	35.09			#N/A	#N/A	#N/A