RICHARD W STAIG
CHARTERED BUILDING SURVEYOR

Foster Kenny Developments Limited
21 Melville Road
London
SW13 9RH

Date: Tuesday, March 21, 2023
Our ref: rs/ROL.22/1

Dear Sirs

LAND TO THE REAR OF 35 TWICKENHAM ROAD LONDON TW11 8AH
DAYLIGHT AND SUNLIGHT

This Report has been commissioned by yourselves in support of their Planning Permission Application in respect of the proposed construction of 2nr residential dwellings as shown on the drawings prepared by Messrs. Flower Michelin hereto attached.

The adjacent properties where the effect has been considered are 23A, 25 & 30 Manor Road and 35 Twickenham Road with technical analysis, undertaken in accordance with *BR209 (2022)*, demonstrating that the effect of the proposals accord with the guidance; the detailed analysis results are attached.

Following the publication of the information paper entitled "*Site Layout planning for daylight and sunlight: A guide to good practice*" by the *Building Research Establishment* in 1991, the assessment of daylight and sunlight has been generally carried out in accordance with the criteria set by this publication and which is generally taken to be the accepted basis for such assessment and adopted by most Planning Authorities. This publication has now been superseded by the *Second Edition* issued *October 2011* which itself has been superseded by *BR209 (2022).*

Whilst *BR209 2022* is a comprehensive revision of the *BRE Second Edition 2011* the advice of *paragraph 1.6* is replicated within the new guidance which also retains the same methods of analysis for the effect upon adjoining properties daylight/sunlight.

Paragraph *1.6* of the *BR209 (2022)* states in entirety *The guide 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 (see Section 5). 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. Alternatively, where natural light is of special importance, less obstruction and hence more sunlight and daylight may be deemed necessary. The calculation methods in Appendices A and B are entirely flexible in this respect. Appendix F gives advice on how to develop a consistent set of target values for skylight under such circumstances.*

Prior to providing my detailed advice, I would confirm that I am a Chartered Building Surveyor working predominately in the field of rights of light including daylight and sunlight assessments. I have an extensive and highly specialised knowledge, in these areas having worked in the past for both Anstey Horne & Co. for five years and Schatunowski Brooks (formerly known as Michael Brooks Associates as it was when I joined, then known as GVA Schatunowski Brooks and now part of Avison Young) for three years, as well as Delva Patman Associates - now known as Delva Patman Redler LLP - for four years prior to joining in Partnership Dixon Payne in 2001. All are acknowledged Experts in these fields; I now act under my own banner.

I regularly provide Expert Witness advice in respect of Planning Applications in respect of daylight and sunlight at Planning Inquiries acting for both Appellants and Planning Authorities. I was consulted by the *Building Research Establishment* prior to the revision of their guidelines in 2011 and was part of the further consultation about further revisions currently being considered following the publication of *BS EN 17037:2018*. Those discussions have resulted in the recently published *BR209 2022.*

The primary assessment of daylight is based on the calculation of the vertical sky component (*VSC*) to an affected window in both the existing and proposed condition. The *VSC*, simply put, is the amount of light received at the centre of a window with the maximum that can be received on a vertical face being 39.6%. It does not indicate distribution within a room for which other assessments are required. The guide states than if at the centre of a window the *VSC* is greater than 27% of the visible dome then enough skylight should be reaching the window.

This said, a *VSC* of 27% is the ideal, but in most urban situations unlikely to be achieved. The guide states, however, that if the *VSC* is below 27%, and if any reduction is within 0.8 of the original value, no significant loss will occur (a reduction which is deemed to be of no consequence and not readily identifiable).

In respect of sunlight, the *BR209 (2022)* details the assessment of this by way of calculating the number of probable sunlight hours. Probable sunlight hours take into account the total number of hours a year that the sun is expected to shine taking into account average levels of cloud cover for the geographical location. Only windows which face within 90° of south meet the criteria for assessment.

The orientation of a window is important when considering sunlight. A south facing window, generally, will receive the most sunlight whilst east and west facing windows will only receive sunlight at certain times of the day with a maximum of 50% of annual probable hours available even in an unobscured aspect. A north facing window will only receive sunlight on a very few occasions during early morning and late evening in summer.

Sunlight is considered important for living rooms, but less so for bedrooms and kitchens. If the assessment is appropriate, the guide states that a window should receive at least 25% of annual probable sunlight hours (*APSH*) with at least 5% of winter probable sunlight hours (*WPSH*), but no less than 0.8 times the former if the sunlight is originally below.

For the detailed technical analysis of the effect upon daylight/sunlight, which is detailed with *Appendix A* of the *BR209 2022*, a 3D model of the existing site including surrounding contextual buildings proposed has been constructed by way of reference to the survey drawings provided with other surrounding contextual buildings modelled by way of a 3D massing model procured from the OS. Utilising specialist computer programmes, the quantum of daylight/sunlight received in the existing and proposed conditions to the affected fenestration of adjoining properties has been calculated by way of Waldram analysis – *Appendix B* of the *BR209 2022*.

By way of explanation, Percy J. Waldram invented the Waldram diagram as a method of showing on a 2d image the curved and three-dimensional view of the sky from a fixed point. The area of a Waldram diagram drawn to scale is 396cm² which represents the total amount of unobscured sky that can be seen from a vertical plane. The vertical edges of any obstructions are plotted as vertical lines on the diagrams by reference to their angle from the reference point. The head of any obstruction are plotted along the droop line corresponding to their altitudes above the horizontal measured in the section perpendicular to the reference point – the Waldram analysis are attached.

The attached analysis results demonstrates that that all windows bar one to 35 Twickenham Road retain daylight levels in excess of 27% *VSC* which is a level of daylight deemed acceptable in any circumstance. The window to 35 Twickenham Road whose retained *VSC* is below 27%, the reduction in daylight approximately 20% and therefore would not be discernible to the human eye.

With regard to sunlight, only the fenestration to 35 Twickenham Road meets the criteria for detailed analysis. One window does not achieve guidance, but this can be explained by the orientation of the window - being only just within 90 degrees of south - and the self obstruction of the outrigger to the property restricting the access to winter sun.

In addition to the analysis undertaken in respect of the effect upon daylight/sunlight to the adjoining properties, further analysis was undertaken to ensure that the retained and proposed amenity spaces retained adequate direct sunlight.

Paragraph 3.3.17 of the *BR209 (2022)* provides:

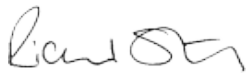
It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21 March. If as a result of new development an existing garden or amenity area does not meet the above, and the area that can receive two hours of sun on 21 March is less than 0.80 times its former value, then the loss of sunlight is likely to be noticeable. If a detailed calculation cannot be carried out, it is recommended that the centre of the area should receive at least two hours of sunlight on 21 March.

The attached results demonstrates that the areas of the amenity spaces receiving at least two hours of direct sunlight significantly exceeds 50%.

To conclude, in my Expert opinion, as the technical analysis undertaken in accordance with *BR209 (2022)* demonstrates that there is no substantive effect upon daylight/sunlight received to the affected fenestration of the adjoining properties, there is no reason to refuse the granting of Planning Permission in respect of the effect upon daylight/sunlight.

I hope that the foregoing clarifies matters, but if you have any queries, please do not hesitate to contact me.

Yours faithfully,



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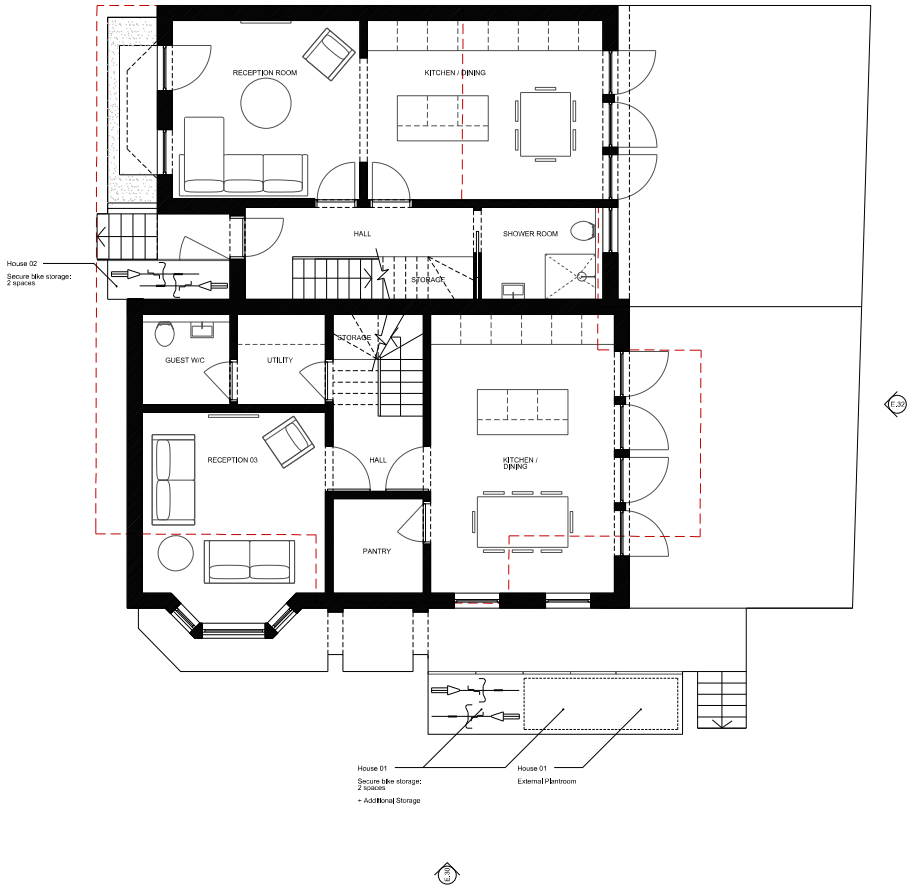

Line of Approved Permission

Revision	Date	Description
/	28.09.22	Client Issue
A	14.10.22	Client Issue
B	21.10.22	Client Comments
C	31.01.23	Option 02 Issue

FLOWER MICHELIN

Project	35 Twickenham Road, TW11 8AH
Title	Proposed Lower Ground Floor Plan Option 02
Number	287_33_09.2
Status	Planning
Scale	1:100 A3/1:50 A1

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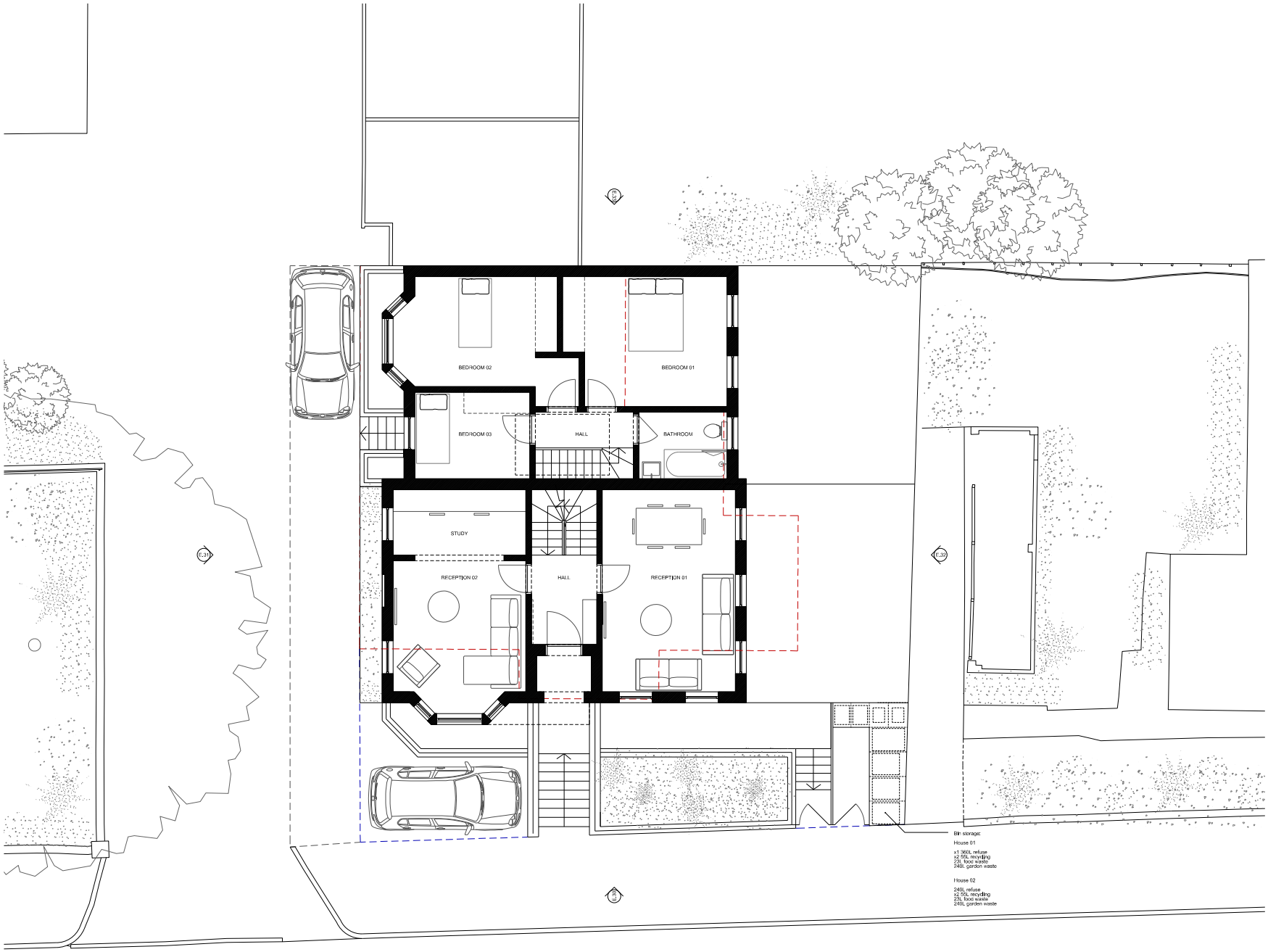

General Notes

Do not scale from this drawing. Drawings are for the purpose of the stage stated at the base of the drawing and therefore not for construction unless specifically stated. All dimensions to be verified on site prior to construction.

For information only unless indicated in status.
All structure to Structural Engineer's design.
All services to be Contractor's design.
All works to be in accordance with current Building Regulation requirements an current construction legislation.
It is the contractor's responsibility to cross-reference all design documents and notify the architect of any inadequacy, discrepancy or divergence in or between the full drawing package/design information.
Drawings to be read in conjunction with full drawing package issued by Architect and other consultant's information.

Neighbouring Site Boundary
Line of Approved Permission

Revision	Date	Description
/	28.09.22	Client Issue
A	14.10.22	Client Issue
B	21.10.22	Client Comments
C	31.01.23	Option 02 Issue

FLOWER MICHELIN

Project	35 Twickenham Road, TW11 8AH
Title	Proposed Ground Floor Plan Option 02
Number	287_33_10.2
Status	Planning
Scale	1:100 A3/1:50 A1

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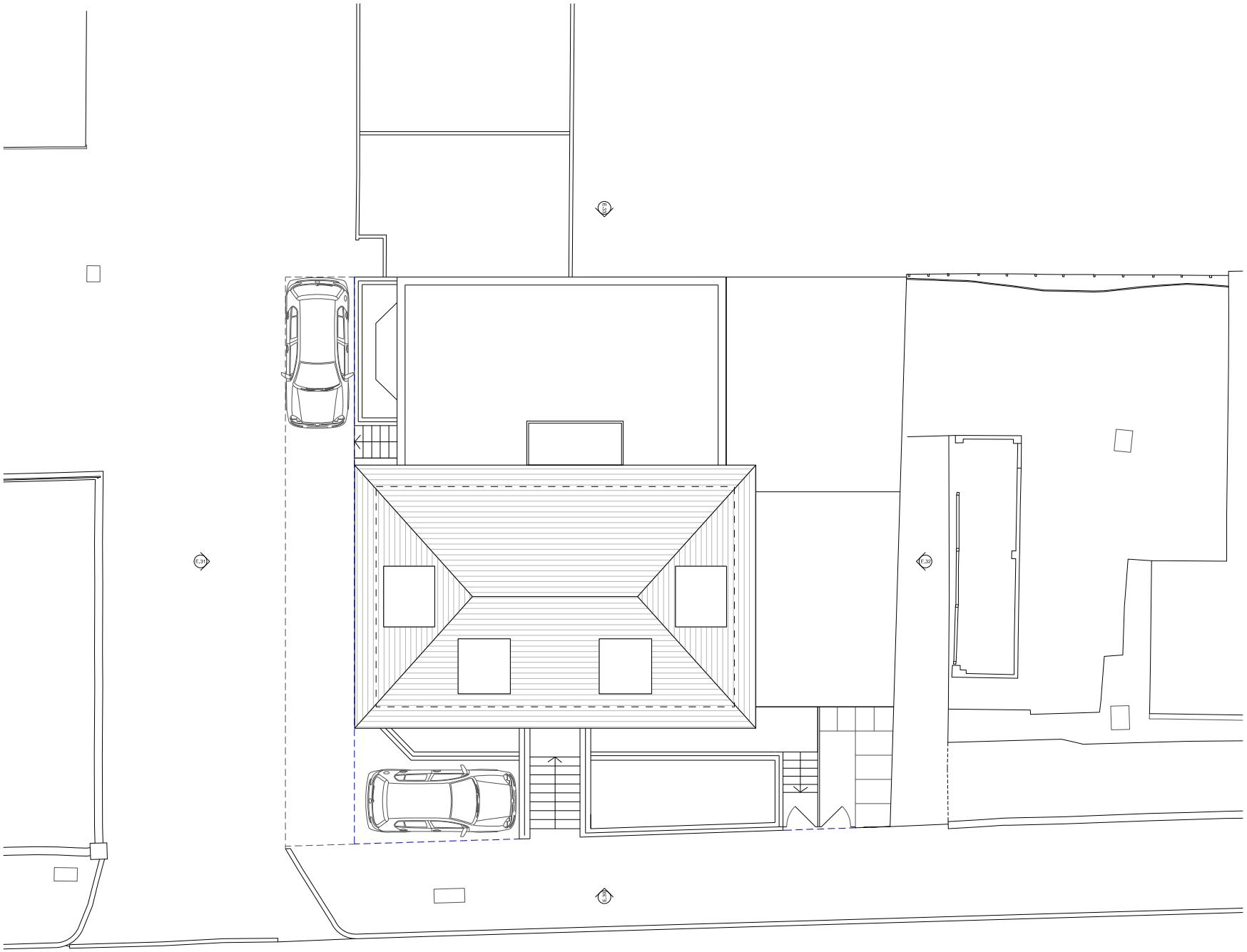

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Site Boundary
Line of Approved Permission

Revision	Date	Description
/	28.09.22	Client Issue
A	14.10.22	Client Issue
B	21.10.22	Client Comments
C	31.01.23	Option 02 Issue

FLOWER MICHELIN

Project	35 Twickenham Road, TW11 8AH
Title	Proposed Roof Plan
Number	287_33_13.2
Status	Planning
Scale	1:100 A3/1:50 A1

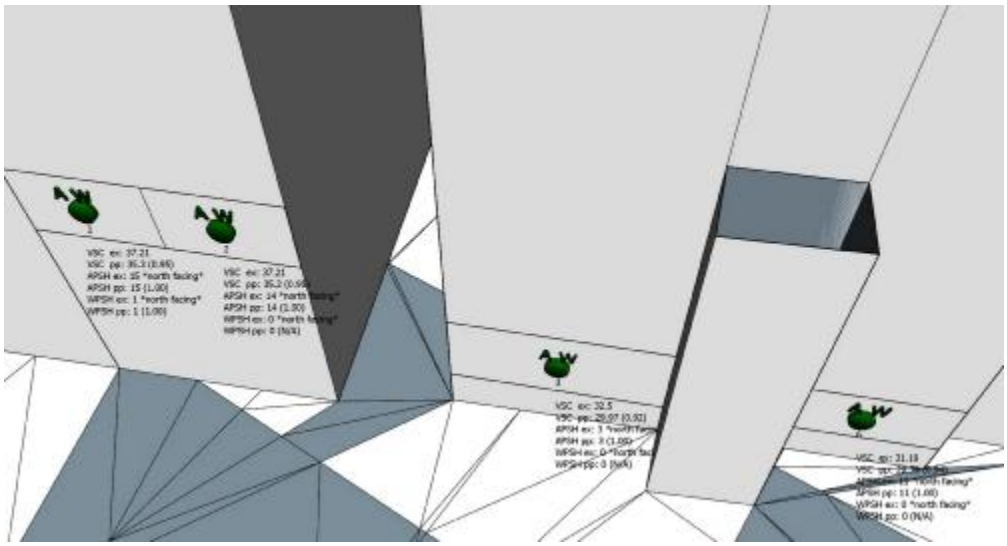
0 0.5m 1m 2m 5m

BR209 (2022)
35 TWICKENHAM ROAD TW11 8AH
DAYLIGHT ANALYSIS

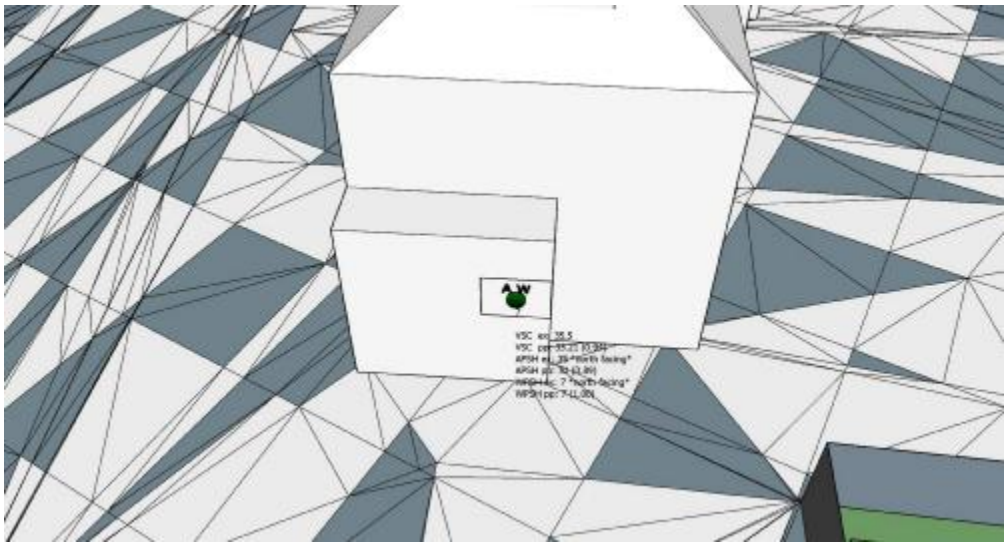
Building Name	Floor Name	Window Name	Window Id	Vsc Existing	Vsc Proposed	Pr/Ex	Meets BRE Criteria
23A Manor Road	First	W1	1	37.21	35.3	0.95	YES
23A Manor Road	First	W2	2	37.21	35.2	0.95	YES
25 Manor Road	Ground	W1	3	32.5	29.97	0.92	YES
25 Manor Road	Ground	W2	6	31.19	29.39	0.94	YES
30 Manor Road	Ground	W1	7	35.5	33.21	0.94	YES
35 Twickenham Road	Ground	W1	4	28.34	22.48	0.79	YES
35 Twickenham Road	Ground	W2	5	35.82	31.76	0.89	YES

SUNLIGHT ANALYSIS

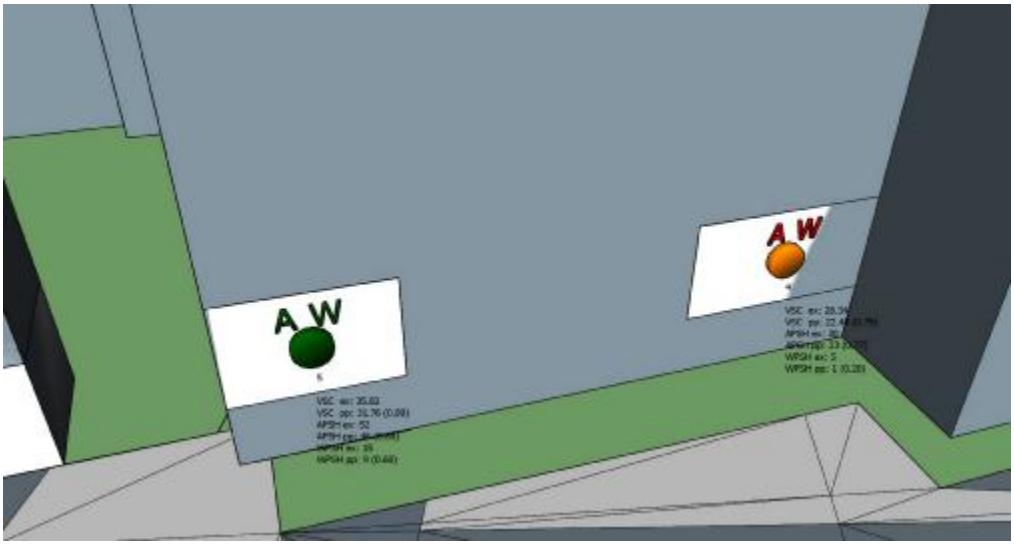
Building Name	Floor Name	Window Name	Window Id	Window Orientation	Annual Ex	Annual Pr	Pr/Ex	Meets BRE Criteria	Winter Ex	Winter Pr	Pr/Ex	Meets BRE Criteria
23A Manor Road	First	W1	1	336°N	15	15	North	North	1	1	North	North
23A Manor Road	First	W2	2	336°N	14	14	North	North	0	0	North	North
25 Manor Road	Ground	W1	3	336°N	3	3	North	North	0	0	North	North
25 Manor Road	Ground	W2	6	336°N	11	11	North	North	0	0	North	North
30 Manor Road	Ground	W1	7	64°N	35	31	North	North	7	7	North	North
35 Twickenham Road	Ground	W1	4	247°	30	23	0.77	NO	5	1	0.2	NO
35 Twickenham Road	Ground	W2	5	248°	52	46	0.88	YES	15	9	0.6	YES



23A & 25 Manor Road RevA

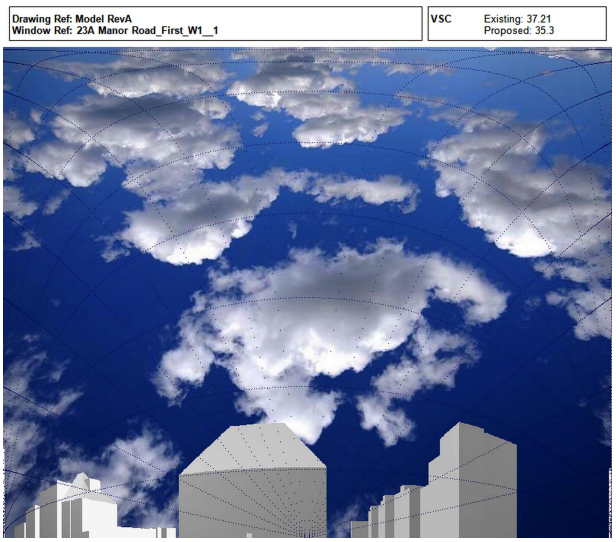


30 Manor Road RevA

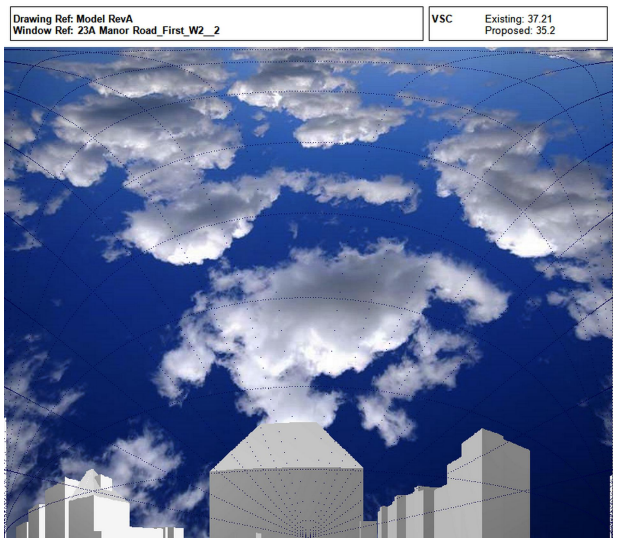


35 Twickenham Road RevA

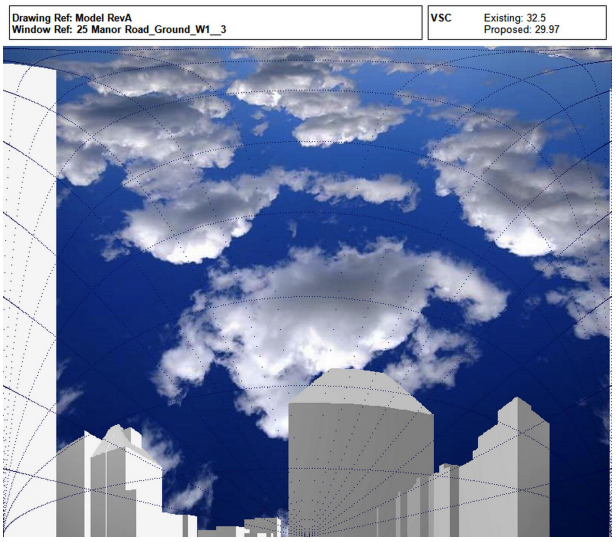
BR209 (2022)
LAND TO THE REAR OF 35 TWICKENHAM ROAD LONDON TW11 8AH
DAYLIGHT - WALDRAM DIAGRAMS



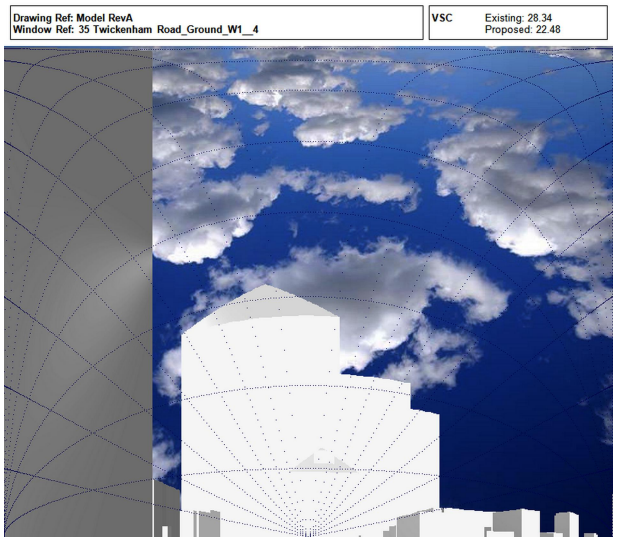
VSC-23A Manor Road_First_W1__1



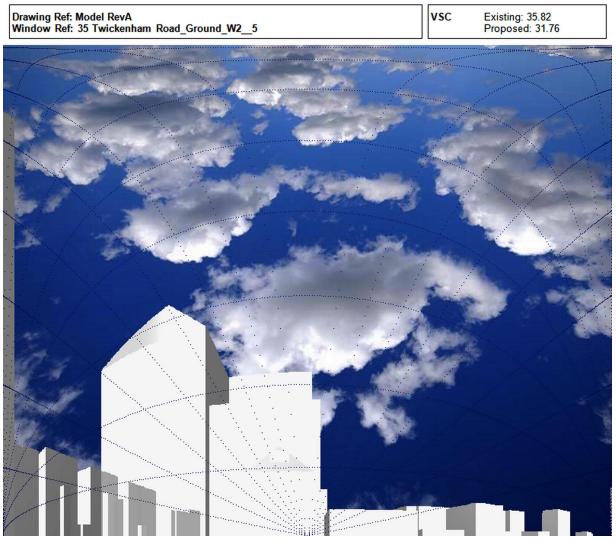
VSC-23A Manor Road_First_W2__2



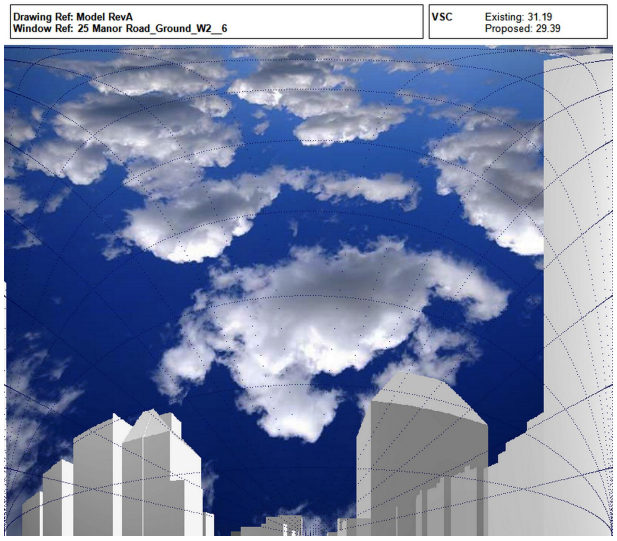
VSC-25 Manor Road_Ground_W1__3



VSC-35 Twickenham Road_Ground_W1__4



VSC-35 Twickenham Road_Ground_W2__5



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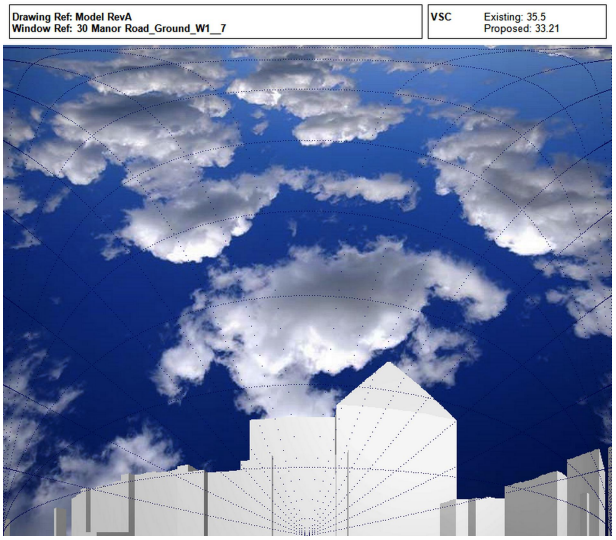
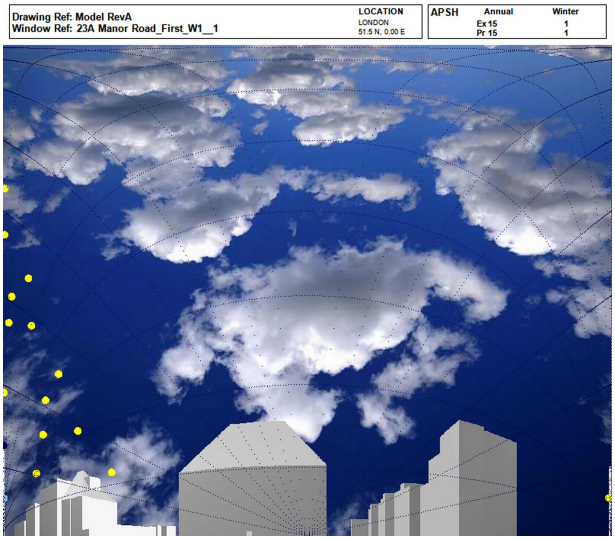
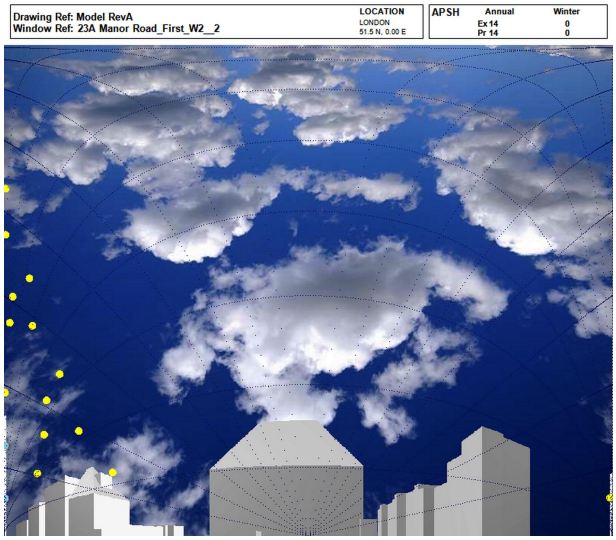


VSC-30 Manor Road_Ground_W1__7

BR209 (2022)
LAND TO THE REAR OF 35 TWICKENHAM ROAD LONDON TW11 8AH
SUNLIGHT - WALDRAM DIAGRAMS



APSH-23A Manor Road_First_W1__1



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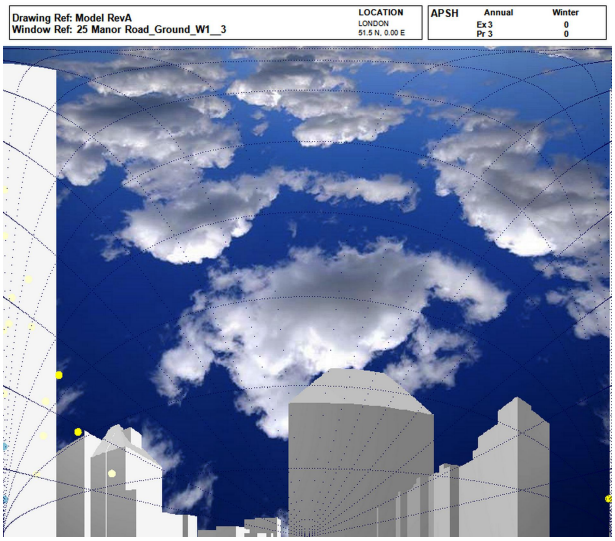

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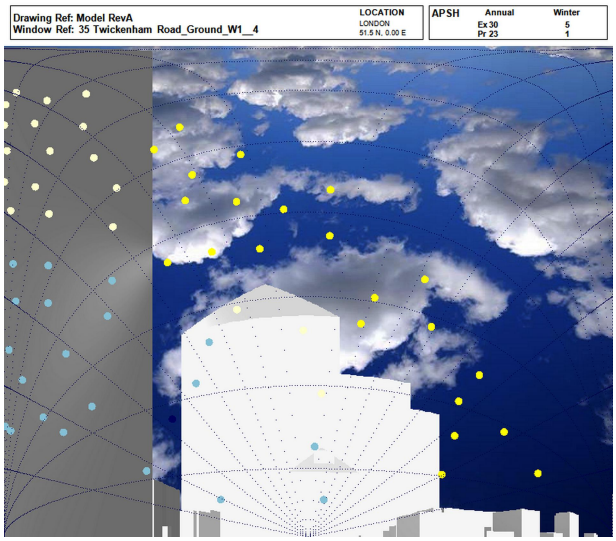

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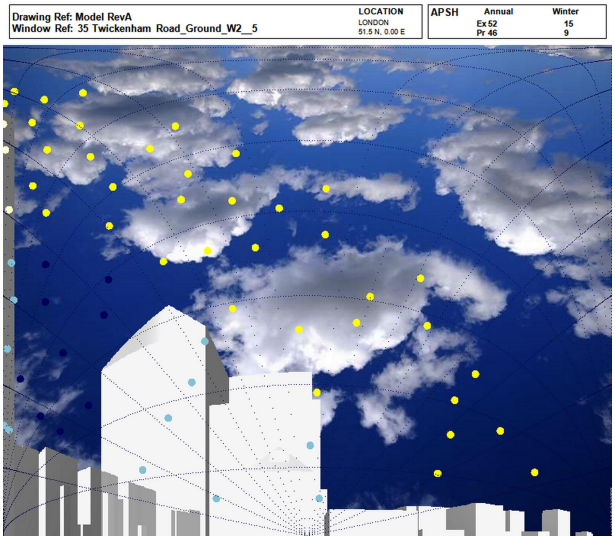

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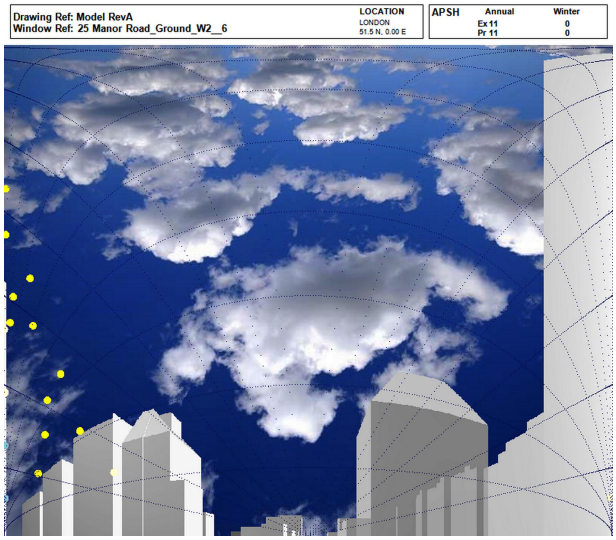

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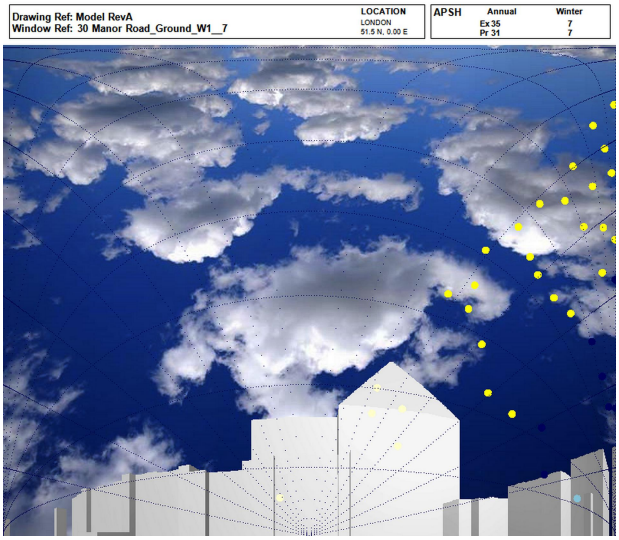
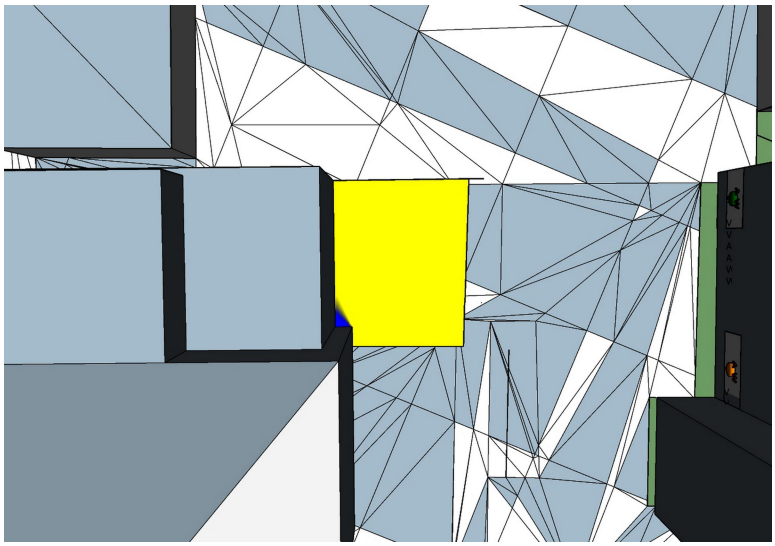
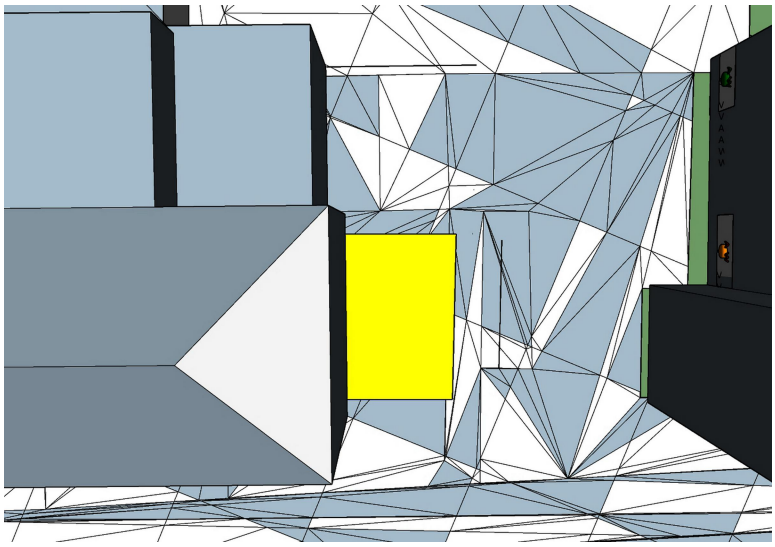


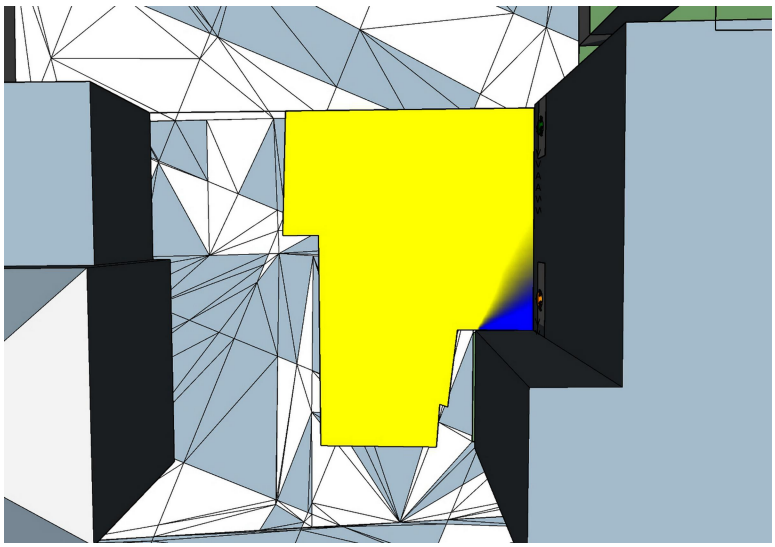
APSH-30 Manor Road_Ground_W1__7



Amenity Space 1 RevA

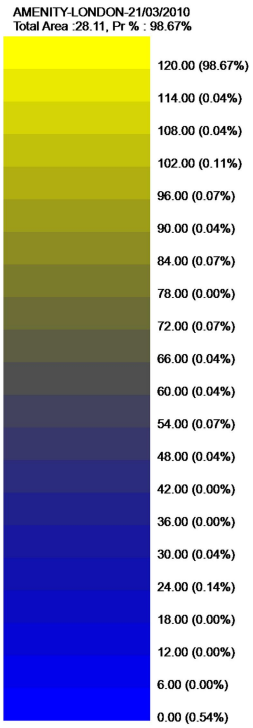


Amenity Space 2 RevA

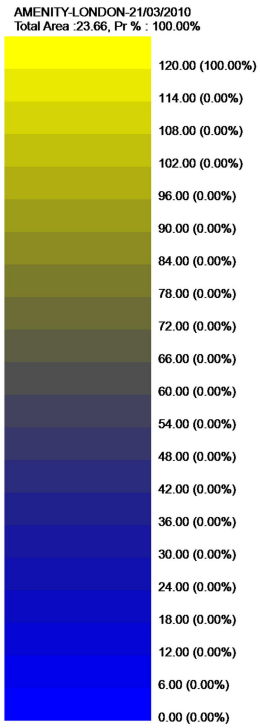


Amenity Space 3 RevA

BR209 (2022)
LAND TO THE REAR OF 35 TWICKENHAM ROAD LONDON TW11 8AH
AMENITY SPACES - AREAS OF DIRECT SUNLIGHT



AMENITY_PROPOSED_Legend_Ameni



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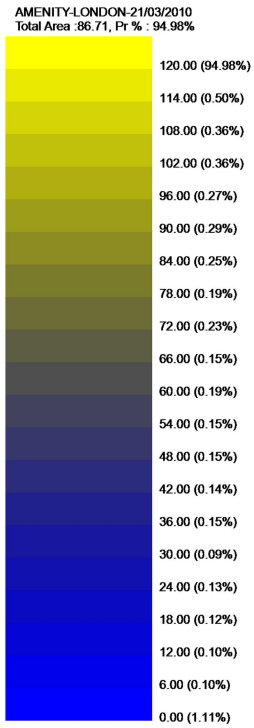

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