Telephone: +44 (0)7870 248193
Mobile: +44 (0)7254 2432
E-mail: info@planit.uk.net

CIAT
Registered Practice

10 St Lukes Close, Uxbridge

UB8 3SN, LONDON

DAYLIGHT AND SUNLIGHT STUDY REPORT

PLANIT

Telephone: +44 (0)7870 248193
Mobile: +44 (0)7254 2432
E-mail: info@planit.uk.net

1. Executive summary

The aim of this study is to assess the impact of construction of a new house at 10 St Lukes Close Uxbridge on the light received by N°s 8 and 10 St Lukes Close.

The proposal comprises a two-storey house.

The study is based on the indicators and methodology used for the assessment of daylight and sunlight provided by the Building Research Establishment guidance 'SITE LAYOUT PLANNING FOR DAYLIGHT AND SUNLIGHT: A guide to good practice' (BRE 2011)

The results of this study should be taken as an indication of the impact of the development, but these conditions cannot be guaranteed.

This study report is provided solely for the use of the Client and no liability to anyone else is accepted.

PLANIT

Telephone: +44 (0)7870 248193
Mobile: +44 (0)7254 2432
E-mail: info@planit.uk.net

2. Methodology

Daylight

The guidelines given by the BRE guide "are intended for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedrooms. Windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analyzed.

The reduction of the total amount of skylight can be calculated by finding the VSC (Vertical Sky Component) at the center of each main window. The VSC can be found by using the skylight indicator.
Where room layouts are known, the impact on the daylight distribution in the existing building can be found by plotting the 'no sky line' In each of the main rooms

The diffuse daylight of the analyzed existing building may be adversely affected if either:

The VSC measured at the center of an existing main window is less than 27%, and less than 0.8 times its former value.

Sunlight

The BRE guide recommends that in designing a new extension to a building, care should be taken to safeguard the access to sunlight both for existing dwellings and for any non- domestic buildings where here is a particular requirement for sunlight.

Obstruction to sunlight may become an issue if:
Some part of a new development is situated within 90° of due south of a main window wall of an existing building receives less than 25% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21 March, and receives less than 0.8 times its former sunlight hours during either period and has a reduction in sunlight received over the whole year greater than 4% annual probable sunlight hours.

Telephone: +44 (0)7870 248193
Mobile: +44 (0)7254 2432
E-mail: info@planit.uk.net

Gardens and open spaces

The BRE guide recommends 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 a new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21 March is less than 0.8 its former value, then the loss of sun is likely to be noticeable. If detailed calculation cannot be carried out, it is recommended that the center of the area should receive at least two hours of sunlight on 21 March.

Telephone: +44 (0)7870 248193
Mobile: +44 (0)7254 2432
E-mail: info@planit.uk.net

3. Windows considered

PLANIT

Telephone: +44 (0)7870 248193
Mobile: +44 (0)7254 2432
E-mail: info@planit.uk.net

4. Results of the study

Daylight results

WINDOW	DAYLIGHT-VSC			RATIO PROPOSED/EXISTING		BRE COMPLIANCE
	EXISTING	PROPOSED	REQUIRED	PROJECT	REQUIRED	
Nº10-W1	40,00%	34,50%	27%	0,86	0.8	YES

Sunlight results

WINDOW	SUNLIGHT-APSH FULL YEAR			RATIO PROPOSED/EXISTING		BRE COMPLIANCE
	EXISTING	PROPOSED	REQUIRED	PROJECT	REQUIRED	
Nº10-W1	61,00%	45,00%	25%	0,74	0.8	YES

WINDOW	SUNLIGHT-APSH WINTER MONTHS			RATIO PROPOSED/EXISTING		BRE COMPLIANCE
	EXISTING	PROPOSED	REQUIRED	PROJECT	REQUIRED	
Nº10-W1	21,00%	5,00%	5%	0,24	0.8	YES

Telephone: +44 (0)7870 248193
Mobile: +44 (0)7254 2432
E-mail: info@planit.uk.net

Internal daylight levels

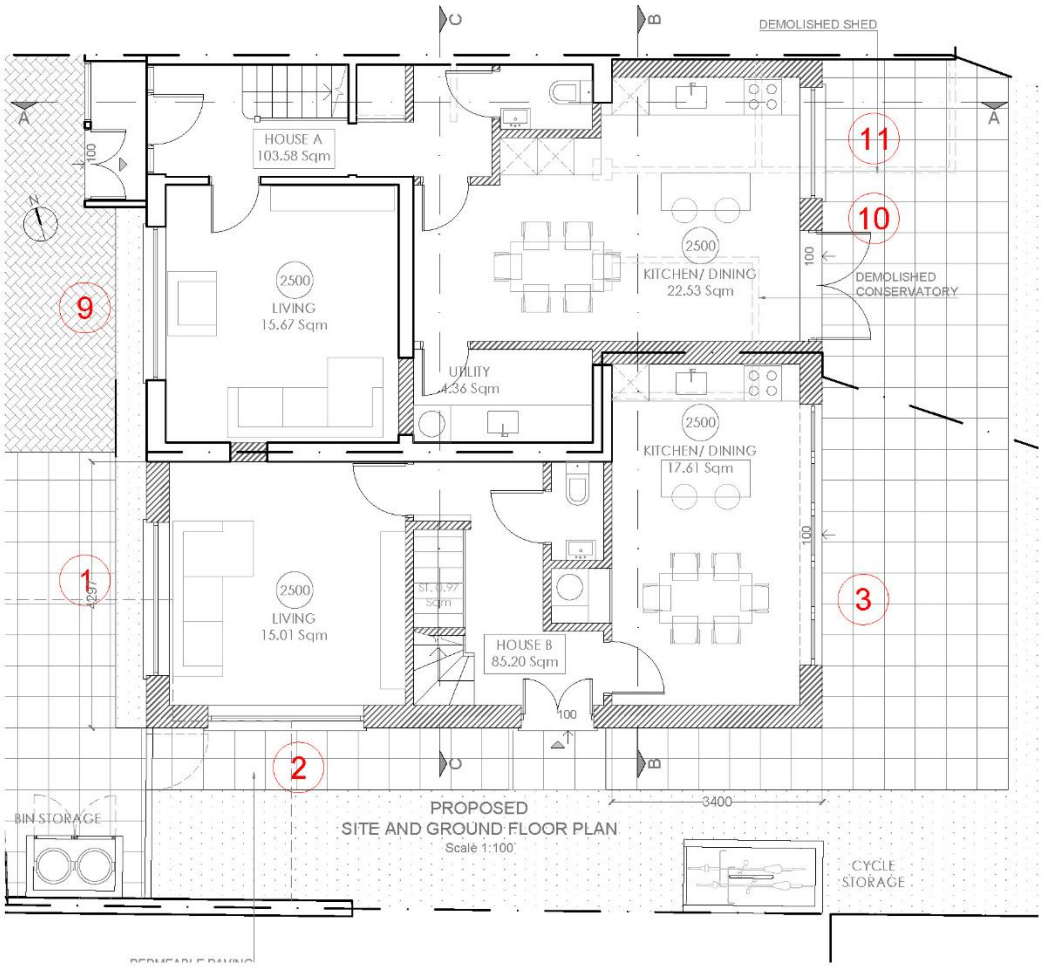
Daylight levels in all rooms are predicted to meet or exceed minimum good practice standards.

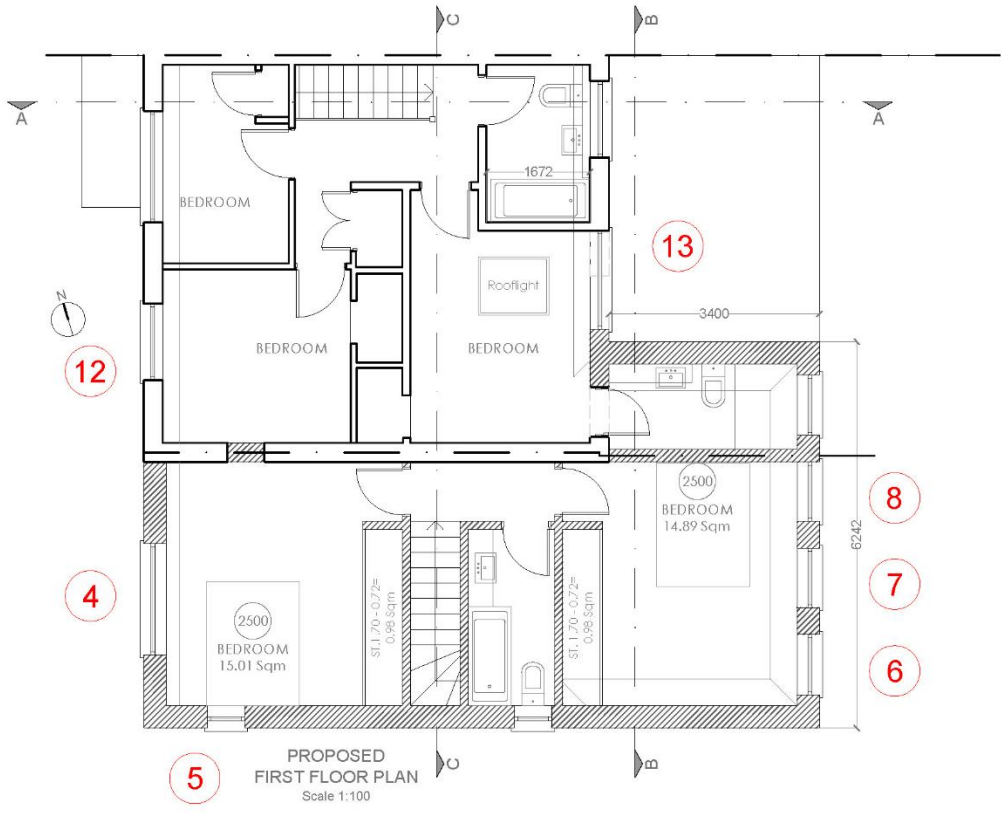
$$ADF = \frac{TMA_w\theta}{A(1 - R^2)} \quad \%$$

	ROOM	WINDOW	ADF (%)	MINIMUM	BRE COMPLIANCE
HOUSE B	LIVING	1 2	4,94	1,00%	YES
	DINING/ KITCHEN	3 TOP 3 BOTTOM	4,09	2,00%	YES
	BEDROOM	4 5	1,28	1,00%	YES
	BEDROOM	6 7 8	4,38	1,00%	YES
HOUSE A	ROOM	WINDOW	ADF (%)	MINIMUM	BRE COMPLIANCE
	LIVING	9	2,37	1,00%	YES
	DINING/ KITCHEN	10 TOP 10 BOTTOM 11	2,03	2,00%	YES
	BEDROOM	12	1,01	1,00%	YES
	BEDROOM	13 RL	2,59	1,00%	YES

PLANIT

Telephone: +44 (0)7870 248193
Mobile: +44 (0)7254 2432
E-mail: info@planit.uk.net





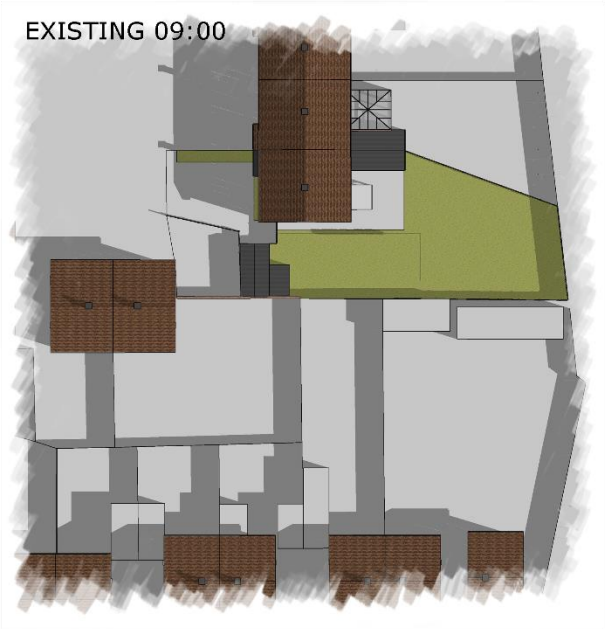
Telephone: +44 (0)7870 248193
Mobile: +44 (0)7254 2432
E-mail: info@planit.uk.net

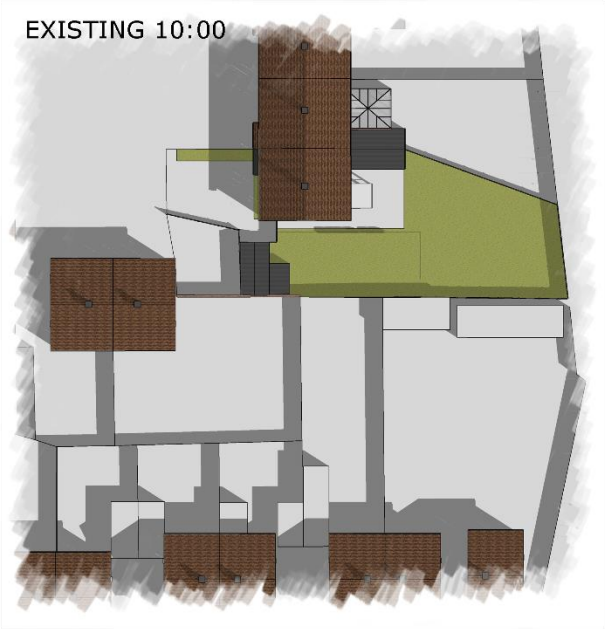
Overshadowing to gardens and open spaces

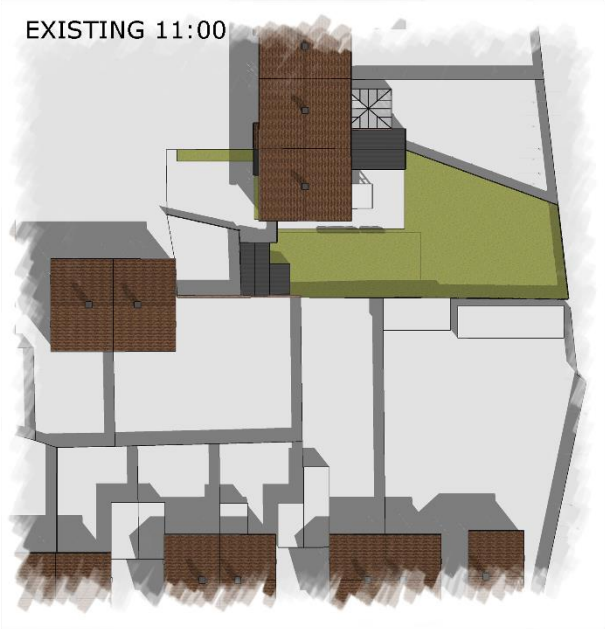
The center of the adjoining properties gardens receives at least two hours of sunlight on 21 March.

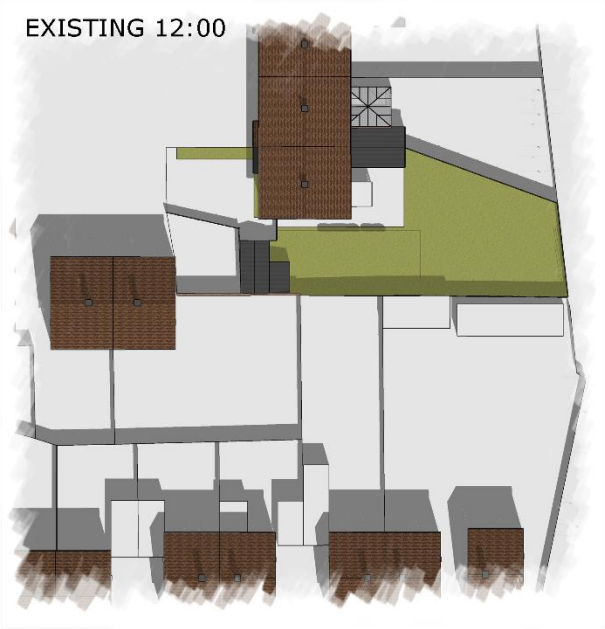
Shadow plots

EXISTING









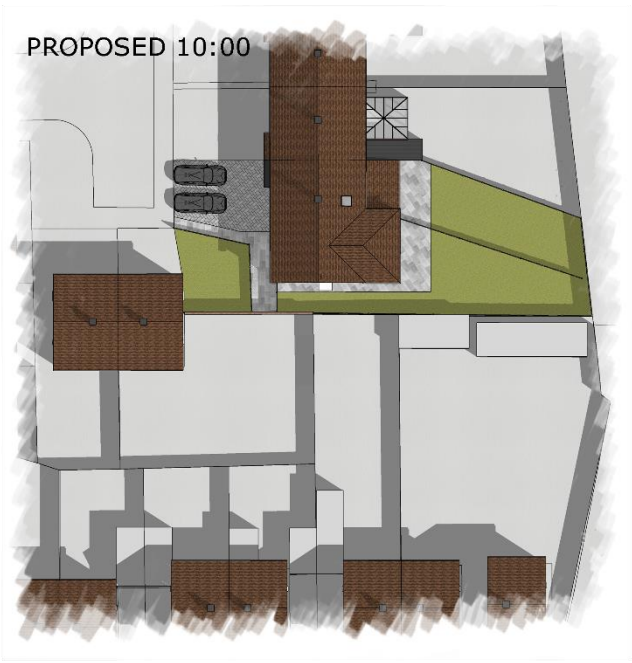
PLANIT

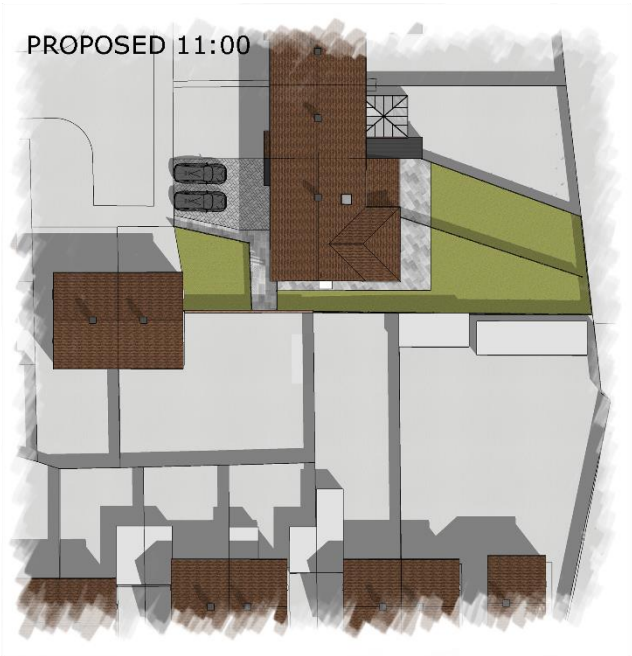
Telephone: +44 (0)7870 248193
Mobile: +44 (0)7254 2432
E-mail: info@planit.uk.net

PLANIT

Telephone: +44 (0)7870 248193
Mobile: +44 (0)7254 2432
E-mail: info@planit.uk.net

PROPOSED





PLANIT

Telephone: +44 (0)7870 248193
Mobile: +44 (0)7254 2432
E-mail: info@planit.uk.net

Conclusions

The proposal complies with the required by the BRE guide.

The impact to the neighboring dwellings is assessed to be negligible.