

1 SECTION DETAIL THROUGH LIGHTWELL/PATIO DOOR AT PROPOSED LOWER GROUND FLOOR

02-33 SCALE: 1:50 @ A3 // 1:25 @ A1

THE 'SITE LAYOUT PLANNING FOR DAYLIGHT AND SUNLIGHT GUIDE 2022' GIVES ADVICE ON SITE LAYOUT PLANNING TO ACHIEVE GOOD DAYLIGHTING AND SUNLIGHTING, WITHIN BUILDINGS AND IN THE OPEN SPACES BETWEEN THEM. IT IS INTENDED TO BE USED IN CONJUNCTION WITH THE INTERIOR DAYLIGHTING RECOMMENDATIONS IN BS EN 17037 DAYLIGHT IN BUILDINGS, AND IN THE CIBSE PUBLICATION LG 10 DAYLIGHTING - A GUIDE FOR DESIGNERS.

THIS ANALYSIS SUGGESTS AN EFFECTIVE WAY TO QUANTIFY IF THE LOWER GROUND FLOOR PROPOSED DESIGN WOULD DELIVER A SATISFACTORY AMOUNT OF LIGHT AND A GOOD VISIBLE PORTION OF SKY FROM THE LIVING SPACE. THE SIDE ANALYSIS QUANTIFIES THE AMOUNT OF 'OBSTRUCTIONS' PRESENT INTO THE PROPOSED DESIGN.

THIS ANALYSIS CONFIRMS THAT THE AMOUNT OF LIGHT AND 'SKY' VISIBLE FROM THE PROPOSED LIVING ROOM, GIVES REASONABLE RESULT, THEREFORE THE AMOUNT OF DAYLIGHT ENTERING IN THE ROOM IS CONSIDERED POSITIVE, AND THE OBSTRUCTION IS NOT CONSIDERED DETRIMENTAL. (PLEASE REFER TO THE EXTRACT OF THE GUIDE BELOW)

OBSTRUCTION ANGLE LESS THAN 25° CONVENTIONAL WINDOW DESIGN WILL USUALLY GIVE REASONABLE RESULTS.

PROPOSED RETAINING WALL OF THE REAR LIGHTWELL TO FORM THE OUTDOOR SPACE FOR THE FLAT AT LOWER GROUND FLOOR

FRENCH DOOR WITH SIDE GLAZED PANELS FLOOR TO CEILING TO IMPROVE BOTH THE AMOUNT OF DAYLIGHT ENTERING AND ITS DISTRIBUTION WITHIN THE ROOM.

IN THIS CASE THERE IS A FLOOR-TO-CEILING WINDOW, THEREFORE THE 'SITE LAYOUT PLANNING FOR DAYLIGHT AND SUNLIGHT GUIDE 2022' SUGGESTS A POINT 1.6 M ABOVE GROUND ON THE CENTRE LINE OF THE WINDOW MAY BE USED TO CALCULATE THE PORTION OF THE SKY VISIBLE FROM THE PATIO DOOR.

PROPOSED REAR LIGHTWELL PARTIALLY PAVED WITH A REFLECTIVE PAVING SLABS (I.E PORTLAND STONE OR SIMILAR) TO HELP REFLECTING THE NATURAL LIGHT INTO THE PROPOSED SPACE (PLEASE REFER TO '2' BELOW AS AN EXAMPLE)



2 REAR ELEVATION AS PROPOSED

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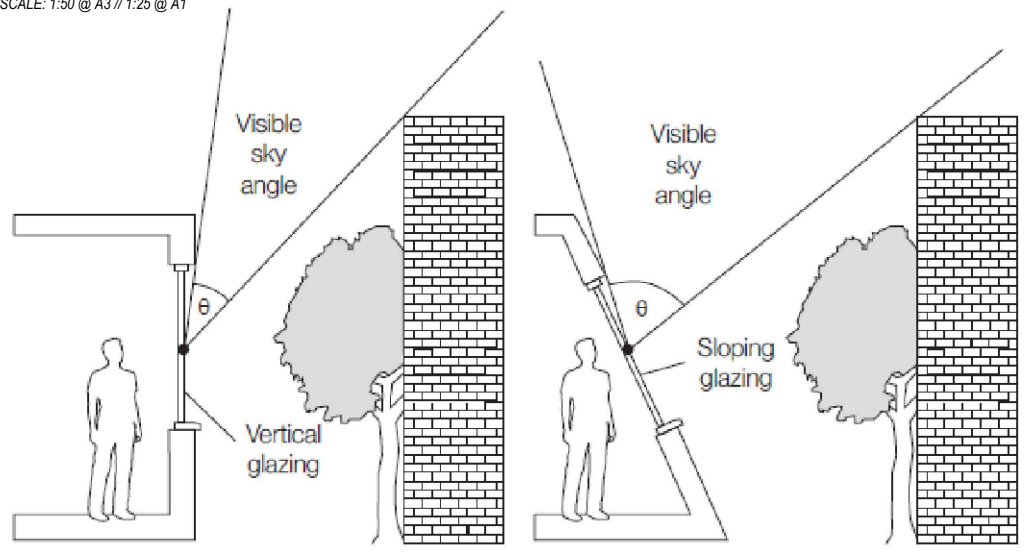


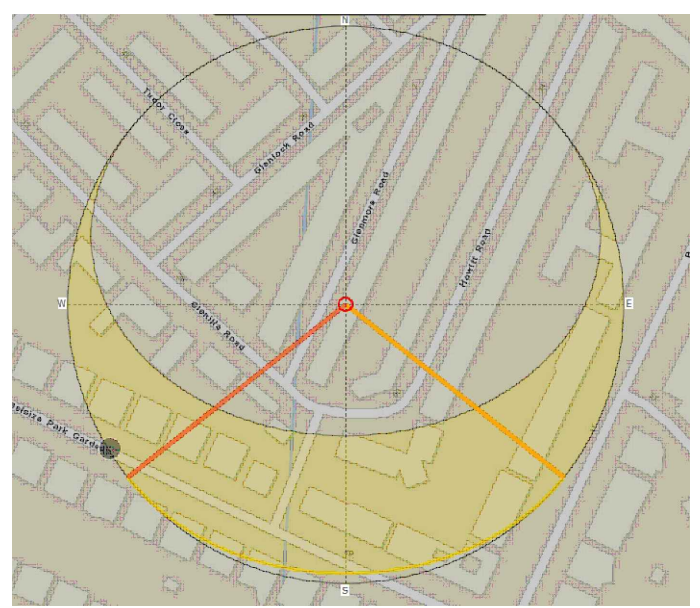
Figure 1:  $\theta$  is the angle of visible sky measured from the centre of the window, in a vertical plane (section) perpendicular to that of the window

[...]OBSTRUCTIONS CAN LIMIT ACCESS TO LIGHT FROM THE SKY. THIS CAN BE CHECKED AT AN EARLY DESIGN STAGE BY MEASURING OR CALCULATING THE ANGLE OF VISIBLE SKY  $\theta$ , ANGLE OF OBSTRUCTION OR VERTICAL SKY COMPONENT (VSC) AT THE CENTRE OF THE LOWEST WINDOW WHERE DAYLIGHT IS REQUIRED.

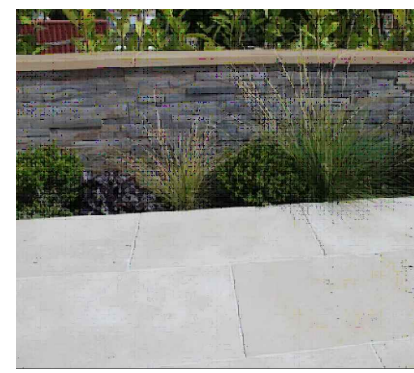
- IF VSC IS:
- AT LEAST 27% ( $\theta$  IS GREATER THAN 65°, OBSTRUCTION ANGLE LESS THAN 25°) CONVENTIONAL WINDOW DESIGN WILL USUALLY GIVE REASONABLE RESULTS.
  - BETWEEN 15% AND 27% ( $\theta$  IS BETWEEN 45° AND 65°, OBSTRUCTION ANGLE BETWEEN 25° AND 45°) SPECIAL MEASURES (LARGER WINDOWS, CHANGES TO ROOM LAYOUT) ARE USUALLY NEEDED TO PROVIDE ADEQUATE DAYLIGHT.
  - BETWEEN 5% AND 15% ( $\theta$  IS BETWEEN 25° AND 45°, OBSTRUCTION ANGLE BETWEEN 45° AND 65°) IT IS VERY DIFFICULT TO PROVIDE ADEQUATE DAYLIGHT UNLESS VERY LARGE WINDOWS ARE USED.
  - LESS THAN 5% ( $\theta$  LESS THAN 25°, OBSTRUCTION ANGLE MORE THAN 65°) IT IS OFTEN IMPOSSIBLE TO ACHIEVE REASONABLE DAYLIGHT, EVEN IF THE WHOLE WINDOW WALL IS GLAZED.

ANY REDUCTION IN THE TOTAL AMOUNT OF SKYLIGHT CAN BE CALCULATED BY FINDING THE VSC AT THE CENTRE OF EACH MAIN WINDOW. IN THE CASE OF A FLOOR-TO-CEILING WINDOW SUCH AS A PATIO DOOR, A POINT 1.6 M ABOVE GROUND (OR BALCONY LEVEL FOR AN UPPER STOREY) ON THE CENTRE LINE OF THE WINDOW MAY BE USED

'SITE LAYOUT PLANNING FOR DAYLIGHT AND SUNLIGHT 2022'



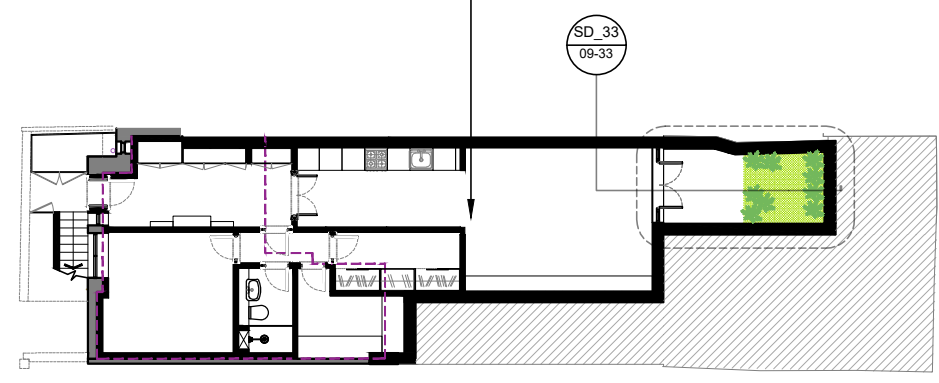
1. SOLAR PATH AT 53 GLENMORE ROAD (WINTER SOLSTICE)



2. PORTLAND STONE

PROPOSED LIVING ROOM/KITCHEN IS CIRCA 28m<sup>2</sup>, THE GLASS AREA PROPOSED IS CIRCA 3m<sup>2</sup> RESULTING IN MORE OF THE 10% OF GLASS AREA OF THE FLOOR AREA RECOMMENDED.

[...]If this VSC is greater than 27% then enough skylight should still be reaching the window of the existing building. This value of VSC typically supplies enough daylight to a standard room when combined with a window of normal dimensions, with glass area around 10% or more of the floor area.



3 LOWER GROUND FLOOR PLAN AS PROPOSED\_KEY PLAN

02\_09 SCALE: 1:200 @ A3

**DISCLAIMER:**

Dimensions to be verified on site. Only figured dimensions to be used and any discrepancies in dimensions are to be reported to RJHA. No dimensions are to be scaled from printed drawings. Any areas indicated on this drawing are for guidance only. No responsibility is taken for their accuracy.

There is a risk of injury or death in construction if works are not properly planned and supervised. The contractor must not undertake any elements of the work without first having carried out the necessary risk assessments and prepare detailed method statements.

**NOTES**

**'VERTICAL SKY COMPONENT (VSC)**

This is a measure of the amount of light reaching a window. It is the ratio of that part of illuminance, at a point on a given vertical plane, that is received directly from a CIE standard overcast sky, to illuminance on a horizontal plane due to an unobstructed hemisphere of this sky. Usually the 'given vertical plane' is the outside of a window wall. The VSC does not include reflected light, either from the ground or from other buildings.

**'SITE LAYOUT PLANNING FOR DAYLIGHT AND SUNLIGHT 2022'**

**STAGE**

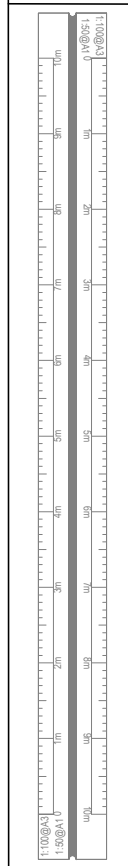
**PLANNING**

**KEY**

EXISTING WALL

PROPOSED WALL

**SCALE RULE**



REV.	DESCRIPTION:	BY	DATE
P-	ISSUED FOR PLANNING	CM	06.09.2022

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<b>Client</b>	MR & MRS CADISH		
<b>Address</b>	53 GLENMORE ROAD NW3 4DA		
<b>TITLE</b>	EXTERNAL SECTION DETAIL AS PROPOSED		
<b>DRAWING</b>	2105_09-33		
<b>REV.</b>	P-	<b>SCALE</b>	AS STATED
<b>STATUS</b>	PLANNING	<b>DRAWN</b>	CM
<b>DATE</b>	06.09.2022	<b>CHECKED</b>	