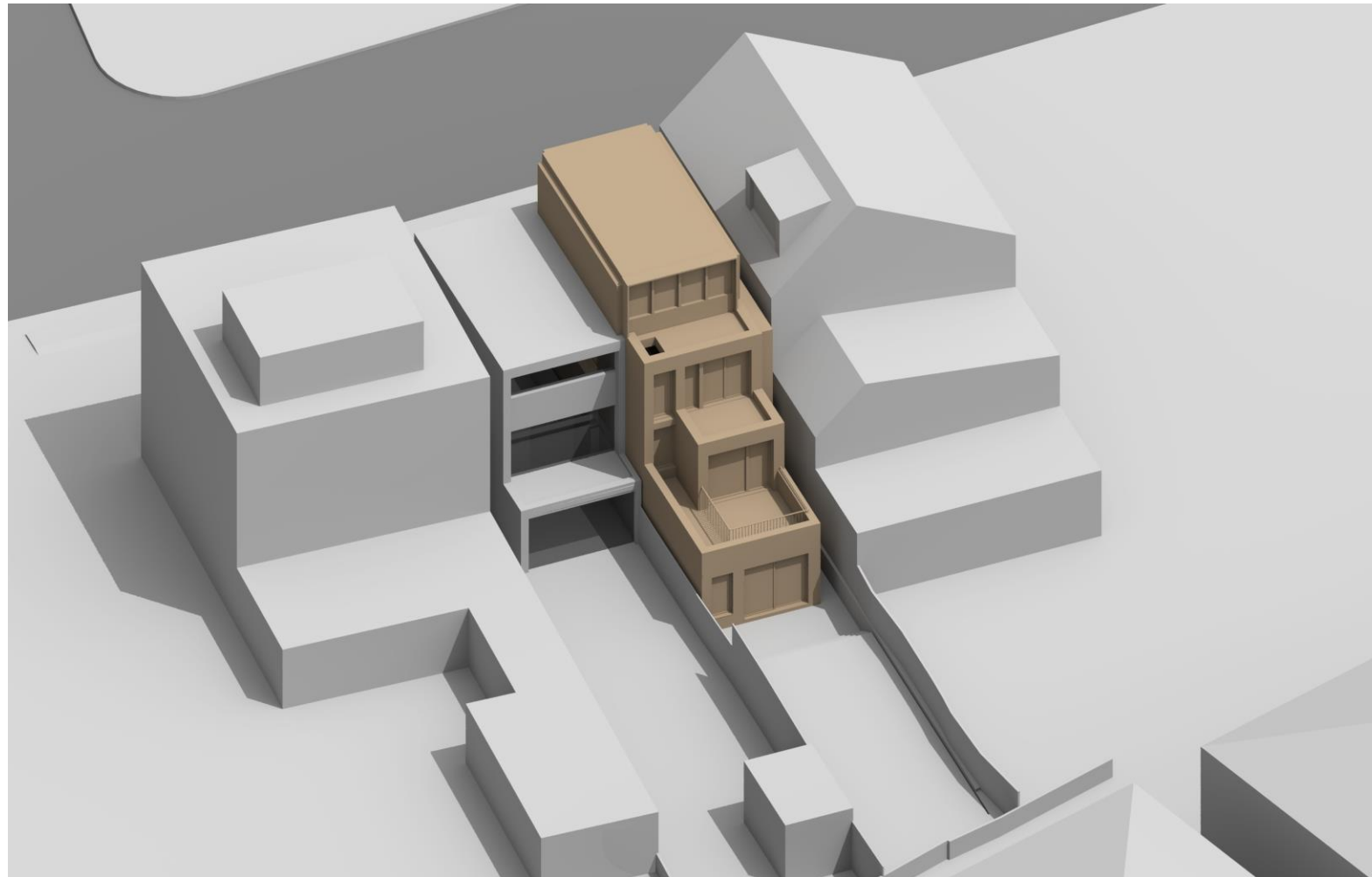


**Glenilla Road
London**

Daylight & Sunlight Report



April 2024



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1 Introduction and Methodology

Generally

- 1.1 We have been instructed to examine the impact that proposed development on 28B Glenilla Road will have in relation to daylight and sunlight amenity enjoyed by 28A Glenilla Road.
- 1.2 It is usual to assess daylight and sunlight in relation to the guidelines set out in the 2022 Building Research Establishment report 'Site layout planning for daylight and sunlight - A guide to good practice' by Paul Littlefair. This document is most widely accepted by planning authorities as the means by which to judge the acceptability of a scheme.
- 1.3 The BRE guidelines are not mandatory, and they explicitly state that the numerical target values should be interpreted flexibly. While local planning authorities will consider the acceptability of a proposed scheme in relation to BRE guidance, consideration will be given to the context within which a scheme is located, and daylight and sunlight will be one of a number of planning considerations.
- 1.4 In relation to the properties surrounding a site, usually the local planning authority will only be concerned with the impact to main habitable accommodation (i.e. living rooms, bedrooms and kitchens) within residential properties.
- 1.5 The BRE guidelines provide two principal measures of daylight for assessing the impact on properties neighbouring a site, namely Vertical Sky Component (VSC) and No-Sky Line (NSL). In terms of sunlight we examine the BRE Annual Probable Sunlight Hours (APSH); and in relation to sunlight amenity to gardens and amenity spaces, we apply the quantitative BRE overshadowing guidance. These measures of daylight and sunlight are discussed in the following paragraphs –

Diffuse Daylight

- 1.6 **Vertical Sky Component (VSC)** – VSC is a measure of the direct skylight reaching a point from an overcast sky. It is the ratio of the illuminance at a point on a given vertical plane to the illuminance at a point on a horizontal plane due to an unobstructed sky.
- 1.7 For existing buildings, the BRE guideline is based on the loss of VSC at a point at the centre of a window, on the outer plane of the wall.
- 1.8 The BRE guidelines state that if the VSC at the centre of a window is less than 27%, and it is less than 0.8 times its former value (i.e. the proportional reduction is greater than 20%), then the reduction in skylight will be noticeable, and the existing building may be adversely affected.
- 1.9 **No-Sky Line (NSL)** - NSL is a measure of the distribution of daylight within a room. It maps out the region within a room where light can penetrate directly from the sky, and therefore accounts for the size of and number of windows by simple geometry.
- 1.10 The BRE suggest that the area of the working plane within a room that can receive direct skylight should not be reduced to less than 0.8 times its former value (i.e. the proportional reduction in area should not be greater than 20%).

Sunlight

- 1.11 **Annual Probable Sunlight Hours (APSH)** - In relation to sunlight, the BRE recommends that the APSH received at a given window in the proposed case should be at least 25% of the total available, including at least 5% in winter.
- 1.12 Where the proposed values fall short of these, and the absolute loss is greater than 4%, then the proposed values should not be less than 0.8 times their previous value in each period (i.e. the proportional reductions should not be greater than 20%).
- 1.13 The BRE guidelines state that *'...all main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90 degrees of due south. Kitchens and bedrooms are less important, although care should be taken not to block out too much sun'.*
- 1.14 The APSH figures are calculated for each window, and where a room is served by more than one window the contribution of each is accounted for in the overall figures for the room. The acceptability criteria are applied to overall room based figures.

Overshadowing

- 1.15 Section 3.3 of the BRE guidelines describes the method of assessment of the availability of sunlight within garden/amenity spaces. This relates to the proportion of shading on March 21st.
- 1.16 The BRE criteria for gardens or amenity areas are as follows, *'It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity space should receive at least two hours of sunlight on 21 March. If as a result of a new development an existing garden or amenity space does not meet the above, and the area that can receive two hours of sun on 21 March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable.'*

2 Sources of Information

Metropolitan Workshop

Proposed Scheme (received 14/03/24)

Series: WLET_2236-MET-H_001-00-DR-A-(101000-123001).dwg

Proposed Scheme (received 25/03/24)

28b Glenilla Road skp.skp

28b Glenilla Road.dwg

3 Drawings Attached

Drawing Number:

Title:

W1352_01-03

Site Plan and 3D Views as Existing

W1352_04-06

Site Plan and 3D Views as Proposed

W1352_WM_01

Window Locations

W1352_S_01

2hr Overshadowing Assessment

4 Calculations and Assumptions

- 4.1 In order to calculate the various measures of daylight and sunlight it is necessary to construct a 3D computer model. The model is then analysed using proprietary software to calculate the various measures of daylight and sunlight.
- 4.2 The massing and window apertures of the neighbouring properties and Proposed Scheme was guided by the Architects' model and site photography. The existing building was guided by the Architects 2D Drawings.
- 4.3 The 3D model is created to reproduce the massing of the buildings both on and surrounding the site at a level of detail appropriate to the calculations performed. All heights in the model are in mm Above Ordnance Datum (AOD).
- 4.4 In assessing the impact of a new development on neighbouring properties, it is usual to only consider main habitable spaces (i.e. living rooms, bedrooms and kitchens) within residential properties. In accordance with the BRE and British Standard guidance, VSC and APSH values have been calculated at the window centre, on the outside wall face. For windows with a cill below working plane level, the window area above and below the working plane has been considered separately and weighted in accordance with the latest BRE guidance.
- 4.5 The internal arrangements for 28A Glenilla Road have been by the Architects drawings.

5 Results and Discussion

- 5.1 Initially, a 3-dimensional computer model of the existing site, proposed development, and all the surrounding buildings was created. The model was analysed using proprietary software to calculate the various measures of daylight and sunlight. Existing light levels were then compared with the corresponding levels with the proposed development in place. The resulting levels and their reductions were then compared to the relevant BRE report guidelines.
- 5.2 We refer to attached drawings W1352_01-03 which illustrate the site in plan and 3D prior to development. Drawings W1352_04-06 illustrate the proposed development. Drawing W1352_WM_01 shows the window locations within the neighbouring residential properties that have been considered in detail. For the purpose of this analysis, each window and room are given a unique reference. This is necessary to track the windows through the various calculations. These labels appear in the table of results which summarise the daylight and sunlight results for all main windows serving habitable rooms.

28A Glenilla Road

- 5.3 The reductions in VSC to this property of up to 13% is minimal and is well within the BRE guideline target of 20%. In relation to NSL, the reductions will be negligible.
- 5.4 The reduction in sunlight will be minimal and all windows will retain excellent levels of sunlight.
- 5.5 Overall, the daylight and sunlight impact to this property will be minimal and fully compliant with the BRE guidelines.

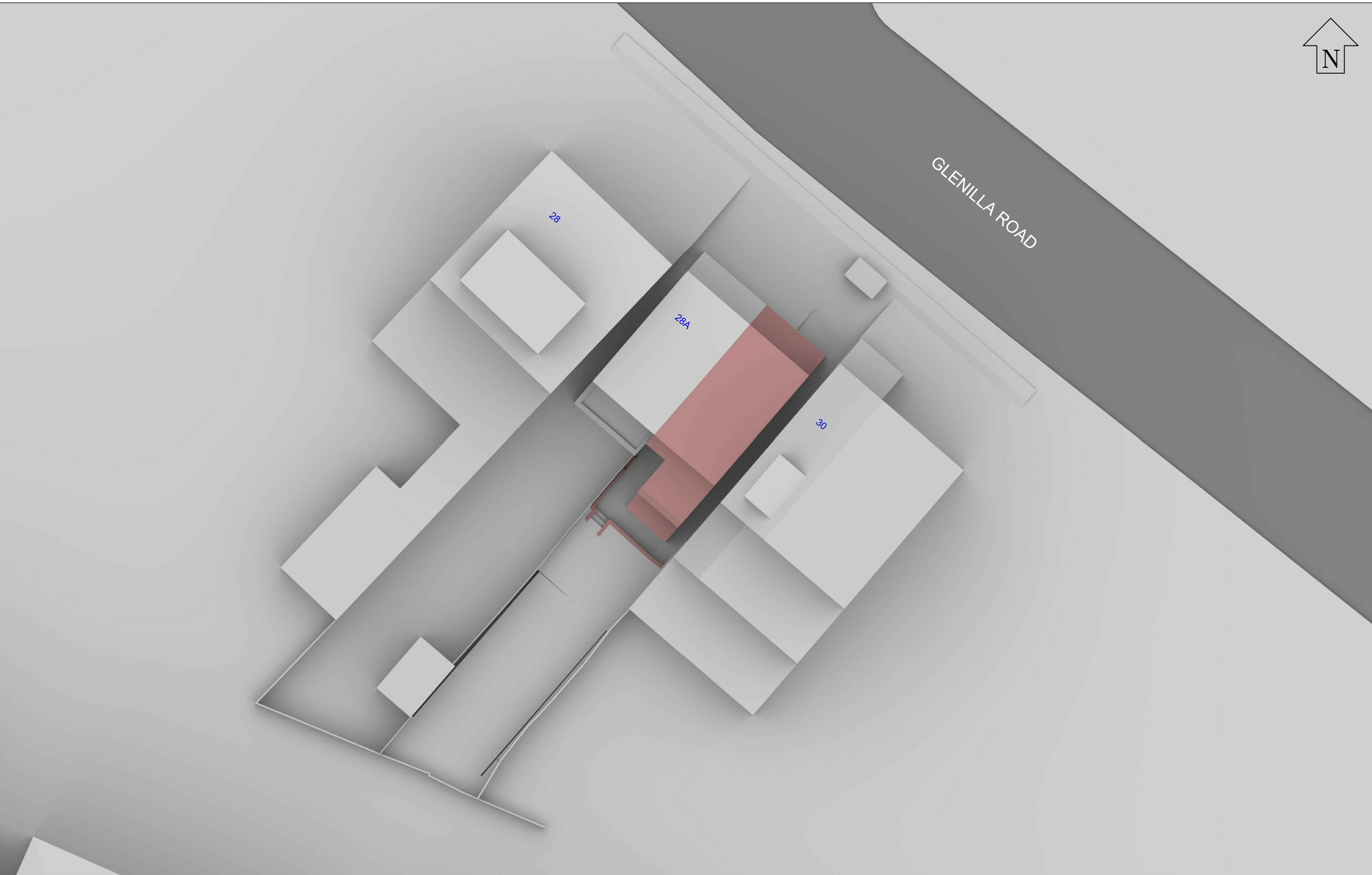
6 Overshadowing

- 6.1 Drawing W1352_S_01 shows that 28A Glenilla Road will continue to receive 2 hours of sunlight to 80% of its garden on the 21st of March. Therefore, the overshadowing impact will be minimal and fully compliant with the BRE guidelines.
- 6.2 Furthermore, the proposed amenity of 28A Glenilla Road will experience 2 hours of sunlight to 72% of its area on the 21st of March, compliant with the BRE guidelines.

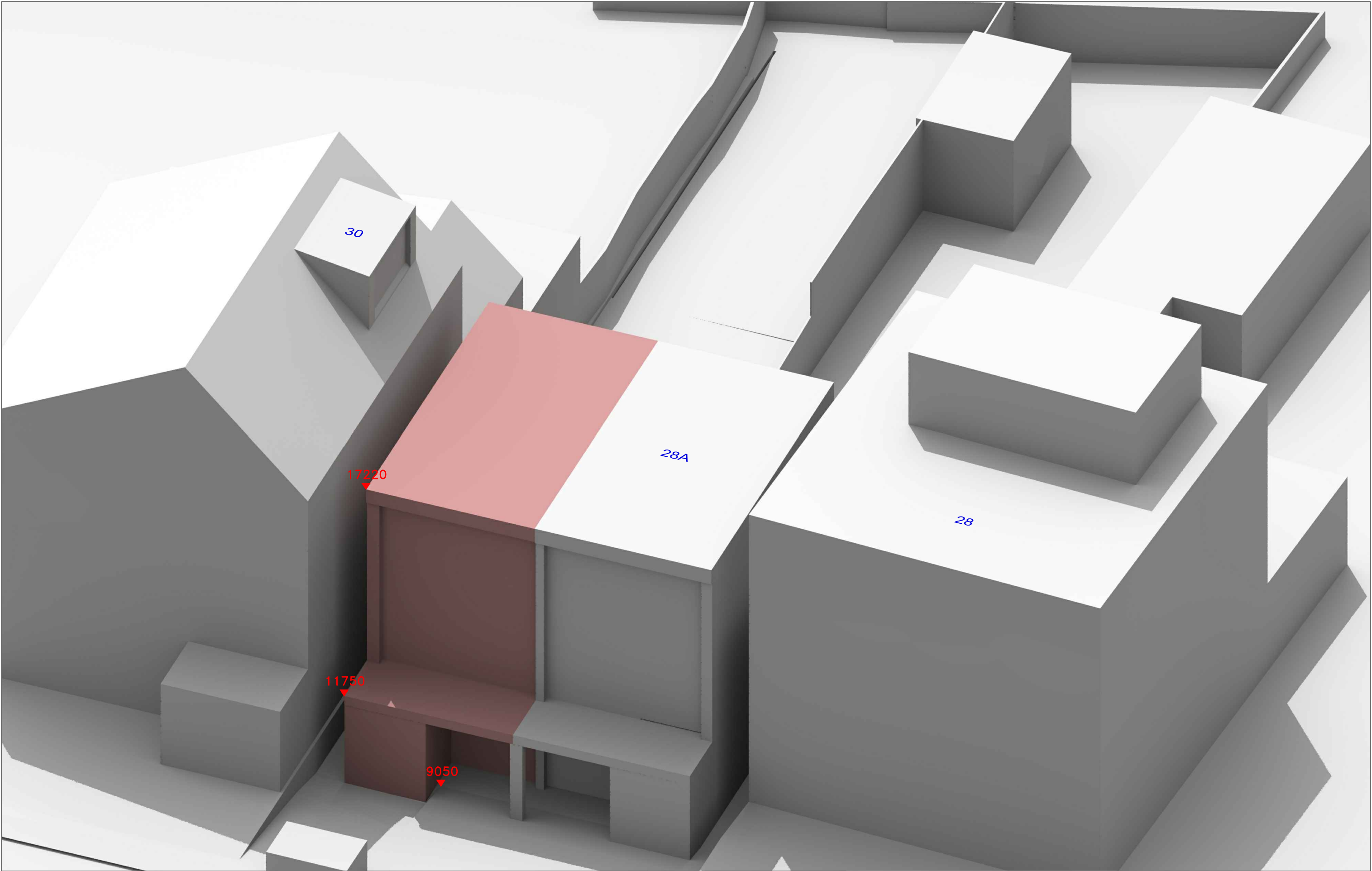
7 Summary and Conclusions

- 7.1 We have considered the proposed development in relation to the BRE guidelines on daylight and sunlight.
- 7.2 Overall, the daylight and sunlight impact to 28A Glenilla Road will be minimal and fully compliant with the BRE guidelines.

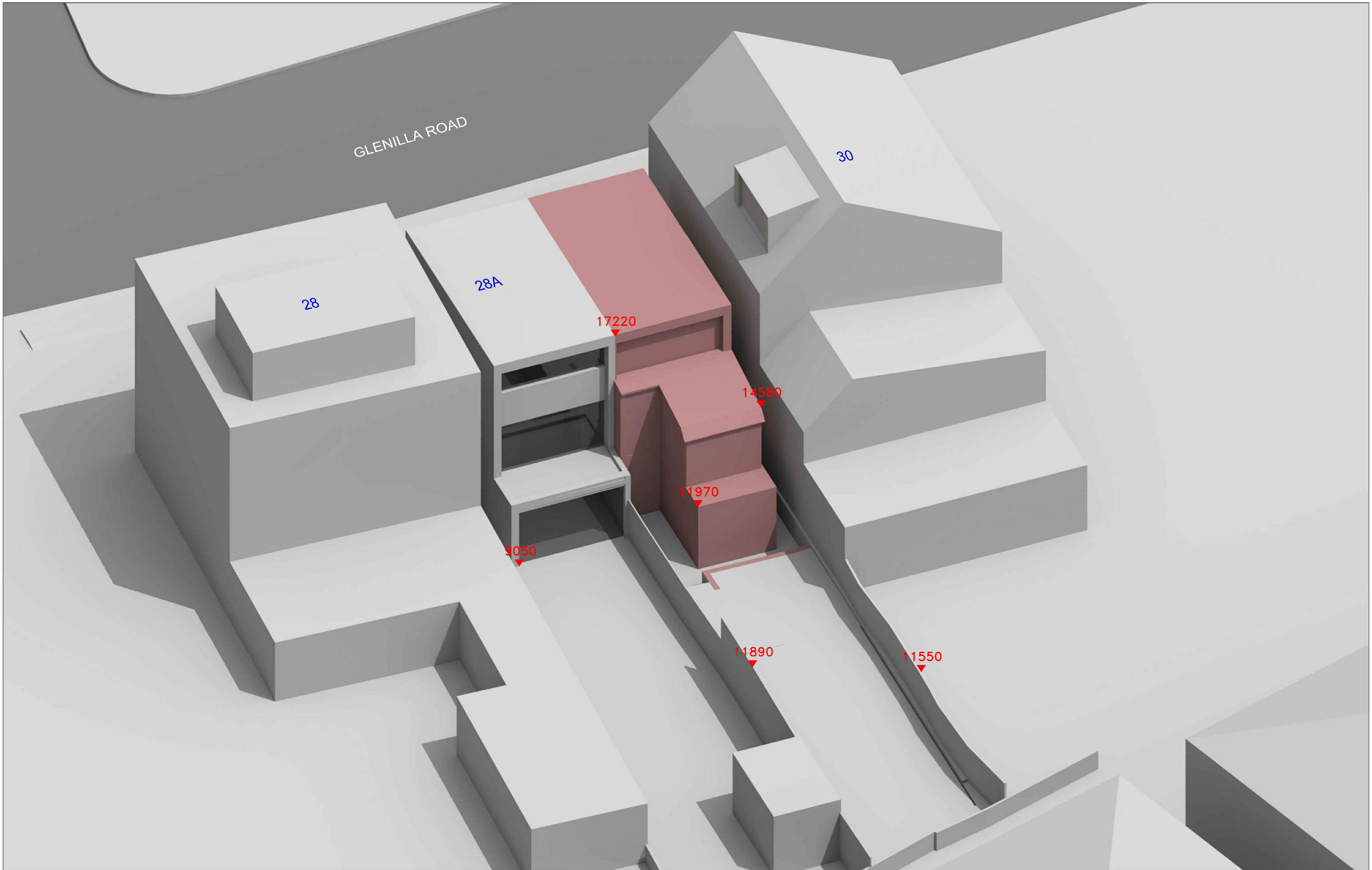
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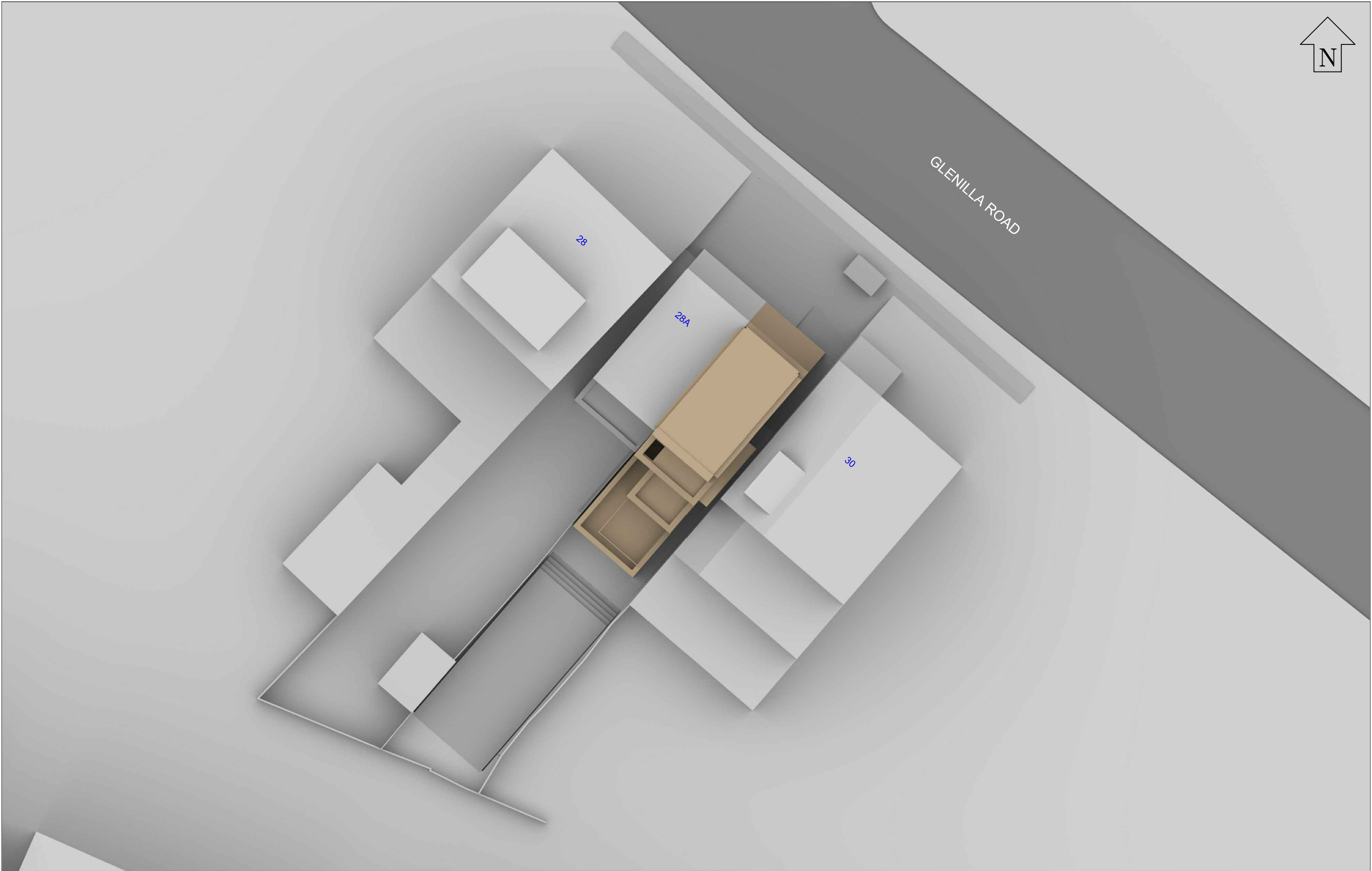
<div>Sources: Metropolitan Workshop Survey Info (received 14/03/24) 28b Glenilla Road drawing set.pdf Metropolitan Workshop Proposed Info (received 25/03/24) 28b glenilla road.skp</div>	<div>Key: <div>Existing Buildings</div><div>Proposed Scheme</div></div>	<div>Project: 28b Glenilla Road London</div>		<div>Drawing Title: Site Plan Existing Buildings</div>		<div><div>WATERSLADE</div><div>7 Oasis Park, Eynsham, Oxford, OX29 4TP</div><div>t: 01865 881882 f: 01865 881891 @: www.waterslade.com</div></div>
		<div>Drawn By: TP</div>	<div>Date: Mar 2024</div>	<div>Scale: 1:200 @ A3</div>	<div>Drawing No: W1352_01</div>	



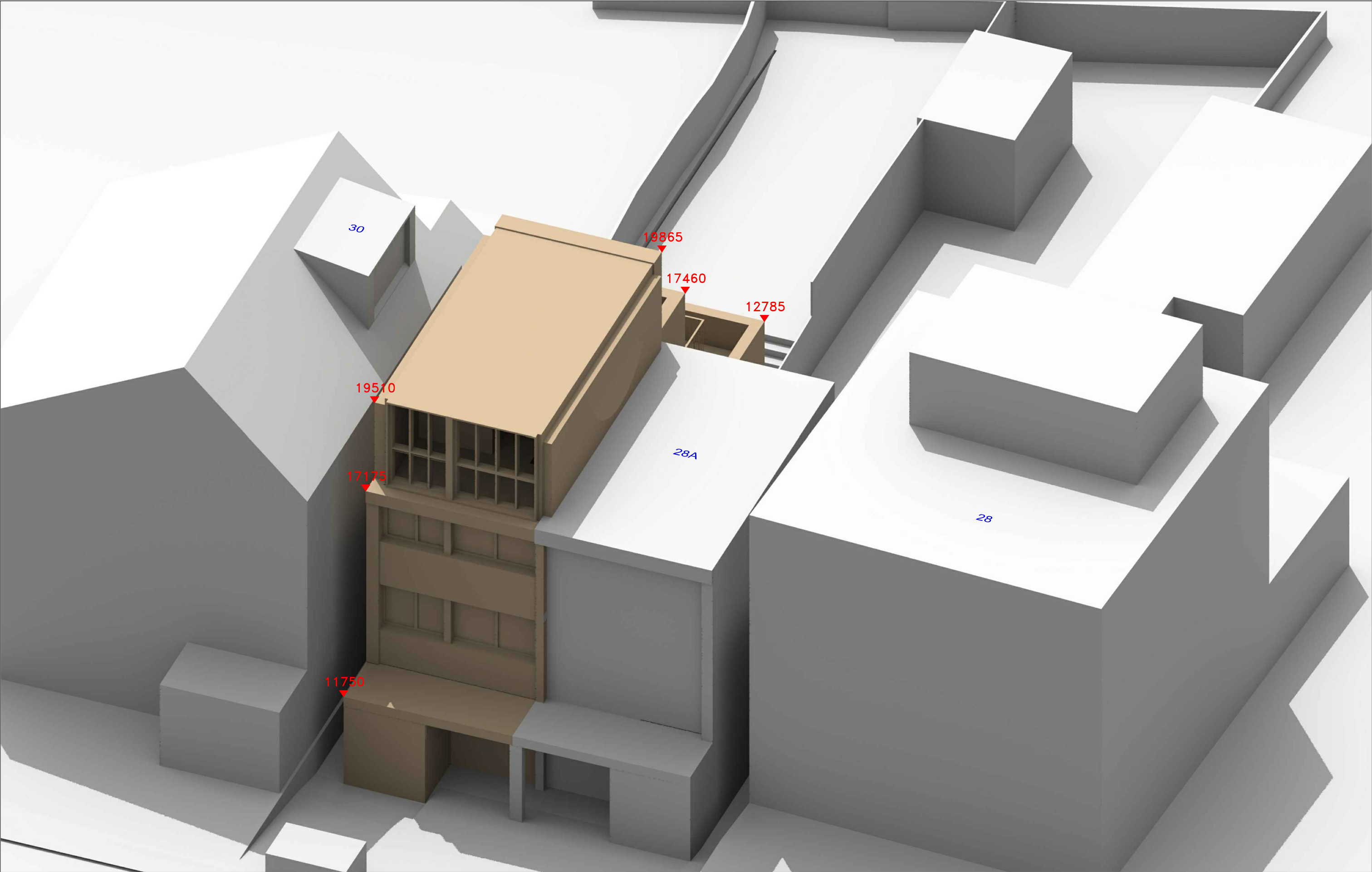
Sources: Metropolitan Workshop Survey Info (received 14/03/24) 28b Glenilla Road drawing set.pdf Metropolitan Workshop Proposed Info (received 25/03/24) 28b glenilla road.skp	Key: <div>Existing Buildings</div> <div>Proposed Scheme</div> <div>All Heights in mm AOD</div>	Project: 28b Glenilla Road London		Drawing Title: 3D View Existing Buildings		<div>WATERSLADE</div> <div>7 Oasis Park, Eynsham, Oxford, OX29 4TP</div> <div>t: 01865 881882 f: 01865 881891 @: www.waterslade.com</div>
		Drawn By: TP	Date: Mar 2024	Scale: NTS @ A3	Drawing No: W1352_02	



<p>Sources: Metropolitan Workshop Survey Info (received 14/03/24) 28b Glenilla Road drawing set.pdf</p> <p>Metropolitan Workshop Proposed Info (received 25/03/24) 28b glenilla road.skp</p>	<p>Key: Existing Buildings Proposed Scheme All Heights in mm AOD</p>	<p>Project: 28b Glenilla Road London</p> <p>Drawn By: TP Date: Mar 2024</p>	<p>Drawing Title: 3D View Existing Buildings</p> <p>Scale: NTS @ A3 Drawing No: W1352_03</p>	<p>WATERSLADE</p> <p>7 Oasis Park, Eynsham, Oxford, OX29 4TP</p> <p>t: 01865 881882 f: 01865 881891 @: www.waterslade.com</p>
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		<div>Drawn By: TP</div>	<div>Date: Mar 2024</div>	<div>Scale: 1:200 @ A3</div>	<div>Drawing No: W1352_04</div>	



Sources: Metropolitan Workshop
Survey Info (received 14/03/24)
28b Glenilla Road drawing set.pdf
Metropolitan Workshop
Proposed Info (received 25/03/24)
28b glenilla road.skp

Key: — Existing Buildings
— Proposed Scheme
All Heights in mm AOD

Project: 28b Glenilla Road
London

Drawing Title: Site Plan
Proposed Scheme 25/03/24

Drawn By: TP

Date: Mar 2024

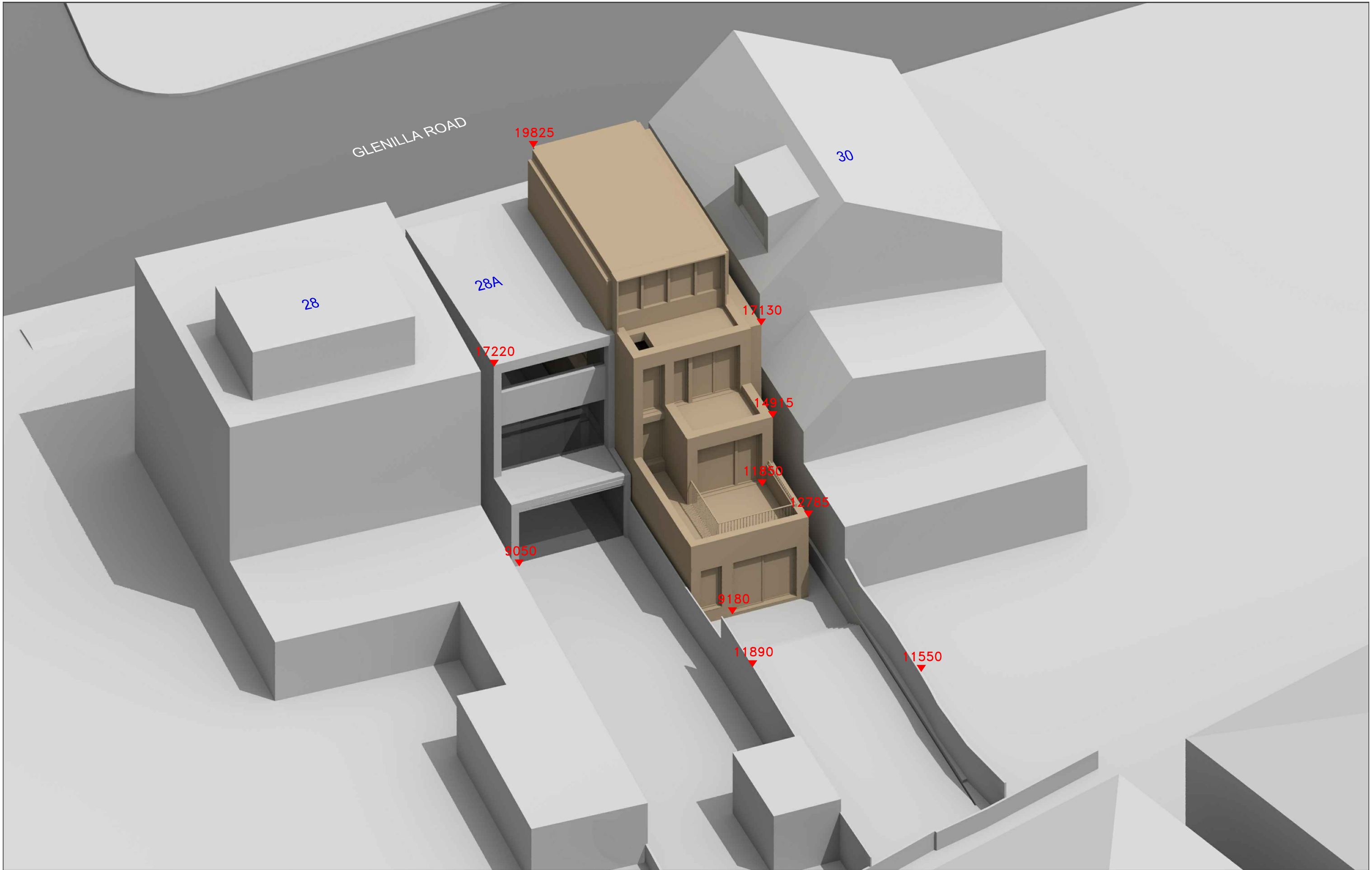
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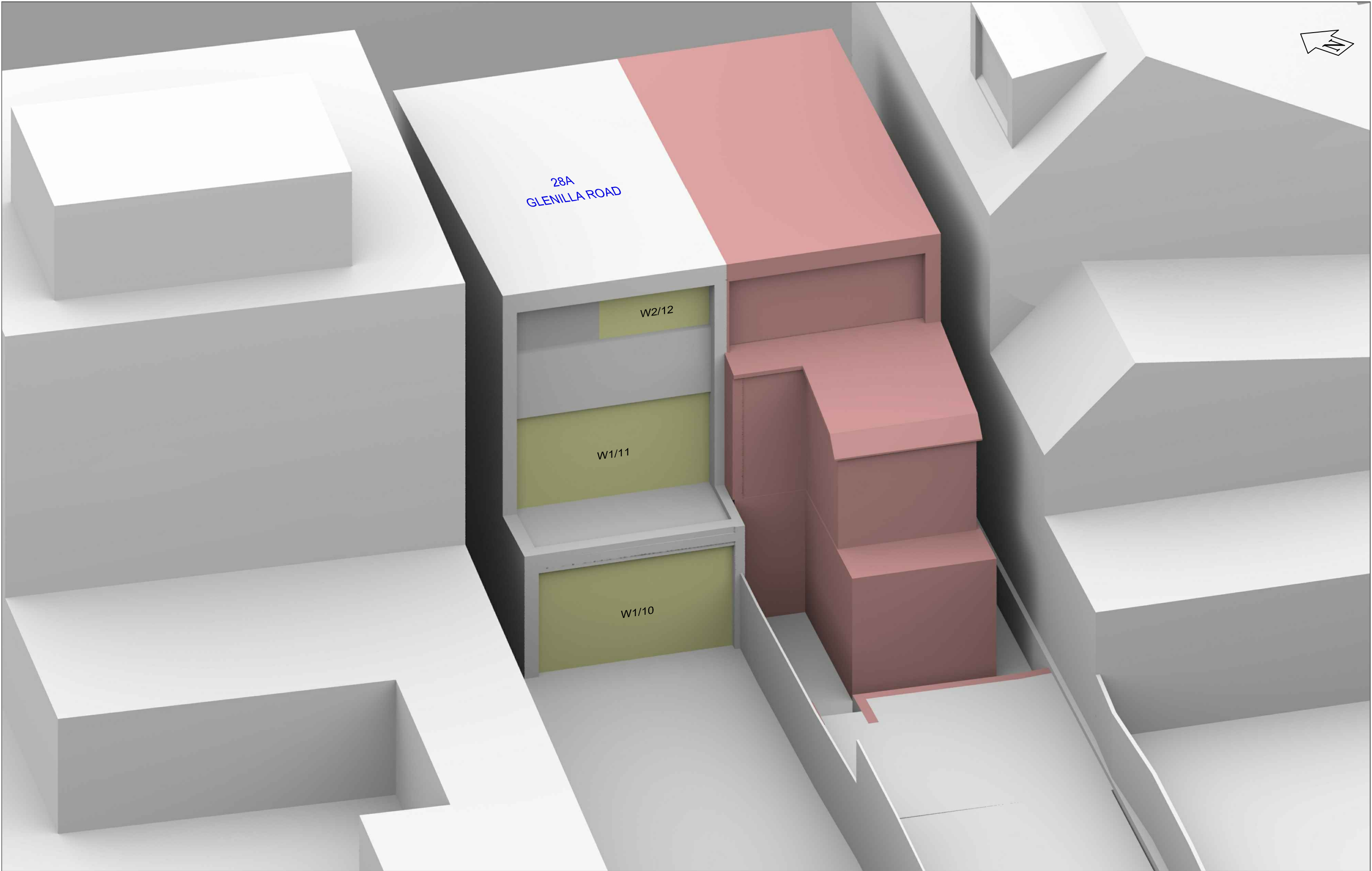
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		<div>Drawn By: TP</div>	<div>Date: Mar 2024</div>	<div>Scale: NTS @ A3</div>	<div>Drawing No: W1352_06</div>	





<p>Sources: Metropolitan Workshop Survey Info (received 14/03/24) 28b Glenilla Road drawing set.pdf</p> <p>Metropolitan Workshop Proposed Info (received 25/03/24) 28b glenilla road.skp</p>	<p>Key: — Existing Buildings — Proposed Scheme</p>	<p>Project: 28b Glenilla Road London</p>		<p>Drawing Title: Window Location 28A Glenilla Road</p>	
		<p>Drawn By: TP</p>	<p>Date: Mar 2024</p>	<p>Scale: NTS</p>	<p>Drawing No: W1352_WM_01</p>

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Location			Vertical Sky Component (VSC)			No-Sky Line (NSL)				Window		Annual Probable Sunlight Hours (APSH) (window)					Annual Probable Sunlight Hours (APSH) (room)				
Room	Room Use	Window	EXISTING	PROPOSED	Reduction Factor	Whole Room	EXISTING	PROPOSED	Reduction Factor	Angle from South	Aspect	EXISTING	PROPOSED	Reduction Factor	EXISTING	PROPOSED	Reduction Factor	EXISTING	PROPOSED	Reduction Factor	
			VSC	VSC		sq ft	sq ft	Winter %				Annual %	Winter %		Annual %	Winter %		Annual %			
28A Glenilla Road																					
R1/10	DINING	W1/10	27.0	23.7	0.88	197.3	197.2	197.2	1.00	40.4°W	Southerly	13	49	5	40	0.82	13	49	5	40	0.82
R1/11	LIVINGROOM	W1/11	29.4	26.8	0.91	174.4	173.6	173.6	1.00	40.7°W	Southerly	16	56	12	45	0.80	16	56	12	45	0.80
R1/12	BEDROOM	W2/12	29.0	25.3	0.87	99.5	96.4	96.4	1.00	40.7°W	Southerly	21	55	11	45	0.82	21	55	11	45	0.82