33-35 Fairlight Street & 10-12 Clifford Avenue, Fairlight, NSW

Visual impact photomontage and methodology report

10th December 2024

VIRTUAL IDEAS

1. INTRODUCTION

This document, created by Virtual Ideas, aims to showcase the visual impact of the proposed development for 33-35 Fairlight Street & 10-12 Clifford Avenue, Fairlight, NSW, in comparison to the existing built form and site conditions.

2. VIRTUAL IDEAS EXPERTISE

Virtual Ideas is a reputable architectural visualisation company with over 15 years of expertise in crafting visual impact assessment content and reports for projects of significant magnitude, aligning with the standards set by local and state planning authorities.

Our reports have served as evidence in proceedings before both the Land and Environment Court and the Supreme Court of NSW. Our director, Grant Kolln, has provided expert testimony in visual impact assessment in the Supreme Court of NSW.

Virtual Ideas' methodologies and outcomes have undergone thorough scrutiny by court-appointed experts in relation to previous visual impact assessment submissions, consistently garnering recognition for their precision and reliability.

3. RENDERINGS METHODOLOGY

The following outlines the meticulous process employed by Virtual Ideas to produce the renderings that underpin this report.

3.1 DIGITAL 3D SCENE CREATION

Our initial stage involves crafting a precise, true-to-life digital 3D environment using Autodesk 3ds Max software, accurately scaled to real-world dimensions, and aligned to a standardised reference point utilising the MGA 56 GDA 2020 coordinate system.

To construct this environment, we combine various data sources, encompassing existing, approved and proposed building 3D models, along with site survey data. Further information regarding the origins of these data sources is provided in Appendices A, B, C, and D.

In cases where data sources lack alignment with the MGA-56 GDA 2020 coordinates, we employ identifiable features common across datasets, such as site boundaries and building outlines, which can be aligned with those already situated in the MGA-56 GDA 2020 framework.

Detailed accounts of the alignment processes for each data source are elaborated upon in Section 3.3.

3.2 SITE PHOTOGRAPHY

The site photography was captured by Virtual Ideas, with the respective viewpoint locations delineated on the viewpoint map in Section 4 of this document.

The choice of camera lenses for photography was made by Ethos Urban after careful consideration of multiple factors. Paramount among these were the distance of the camera position from the site and the scale of the proposed development in relation to the surrounding built environment and landscape.

For these public domain photomontages a 50mm lens was chosen. This lens choice ensures adequate visibility of both the proposed development and the immediate surrounding context, facilitating a thorough assessment of the proposed development's visual impact.

For certain scenarios, employing a 50mm lens may produce the most effective photomontage for assessing visual impact. The 50mm lens is often favoured for its close approximation to the human eye perception of distance. However, in instances where a 50mm lens fails to encompass an adequate surrounding context for comprehensive visual impact assessment, opting for a wider lens becomes imperative. All photographs are lens profile corrected in Camera RAW, which removes the distortion associated with the curvature of the lens.

Comprehensive metadata, including date, time, and lens information, is recorded during site photography. This critical data enables precise analysis and documentation of each photograph's attributes.

3.3 ALIGNMENT OF 3D SCENE

To accurately position the 3D scene within its geographical context, we employed the following data:

1. Site Survey Alignment: Utilising a provided site survey, we aligned the boundaries of the proposed buildings with geo-referenced data, ensuring precise positioning within the digital environment.

2. Camera Alignment: Cameras were aligned to surveyed positions supplied by CMS Surveyors, adhering to the MGA-56 GDA 2020 coordinate system. This meticulous alignment ensured that viewpoints captured within the 3D scene accurately reflected real-world perspectives.

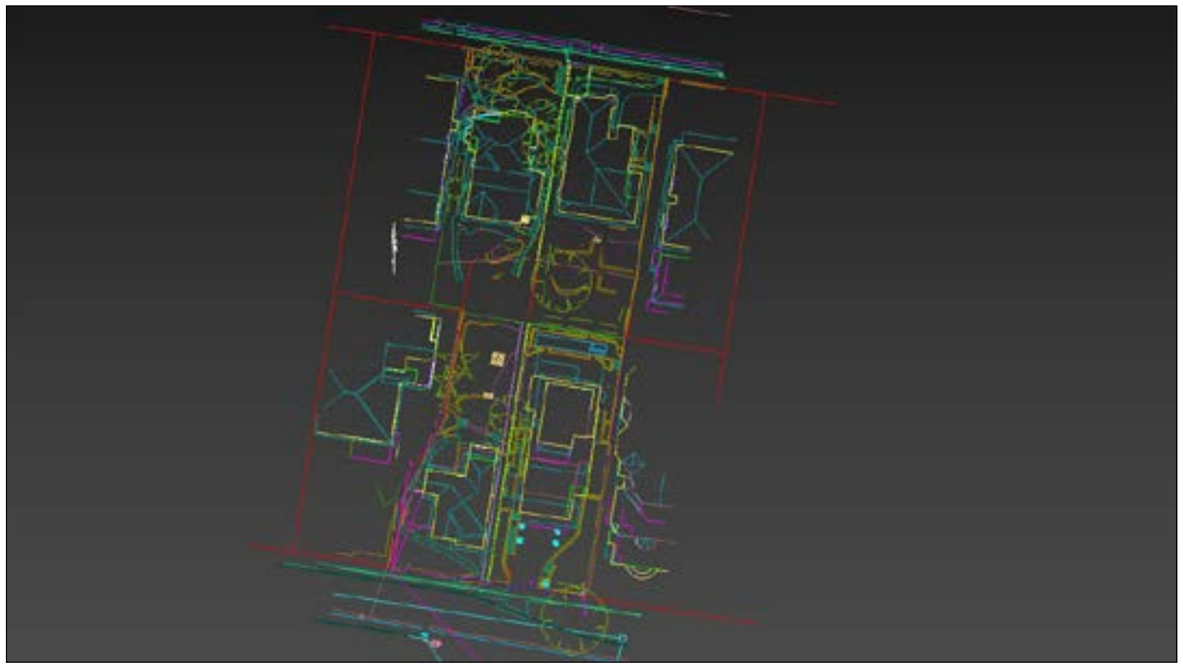


Image showing survey drawing supplied by Bee & Lethbridge located at MGA 56 GDA2020

3.4 RENDERING CREATION

Following the completion of the camera alignment, we proceeded to integrate lighting into the 3D scene. To replicate natural lighting conditions accurately, a digital sunlight system was incorporated into the 3D environment. This system emulates the directional lighting of the sun leveraging location data, as well as time and date information. Implemented through specialised software, the sunlight system ensures precise alignment with the sun's angle, enhancing realism within the scene.

The proposed building model was rendered with a basic chalk white material. This differentiation aids in visual clarity and enhances the presentation of the design elements.

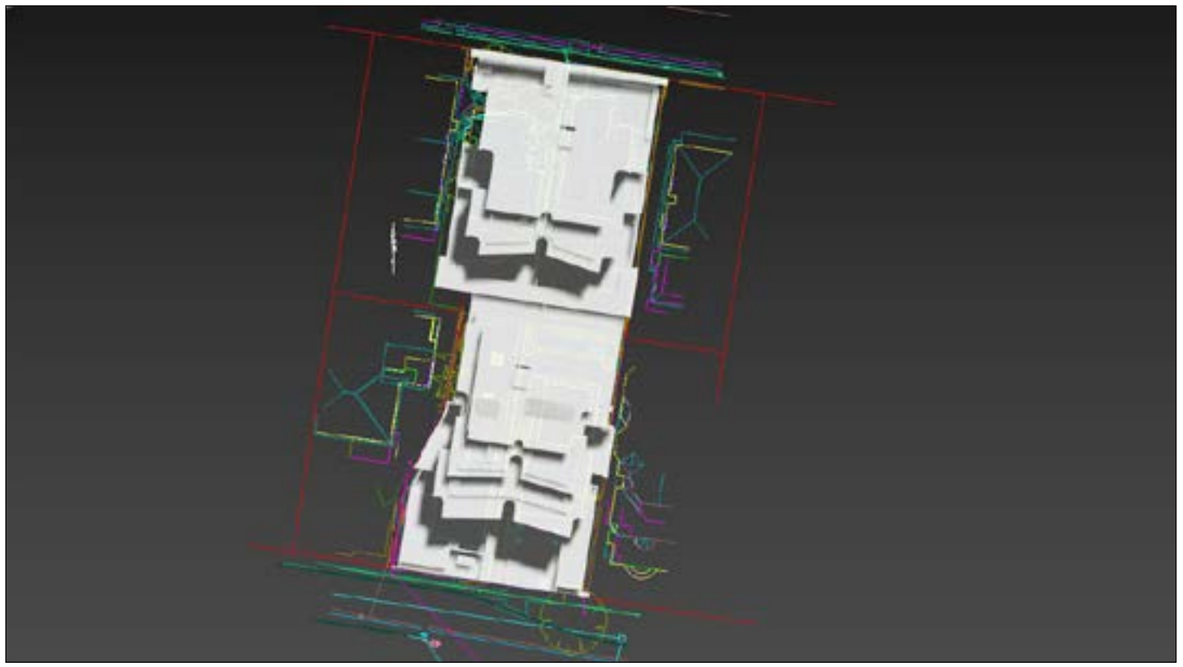
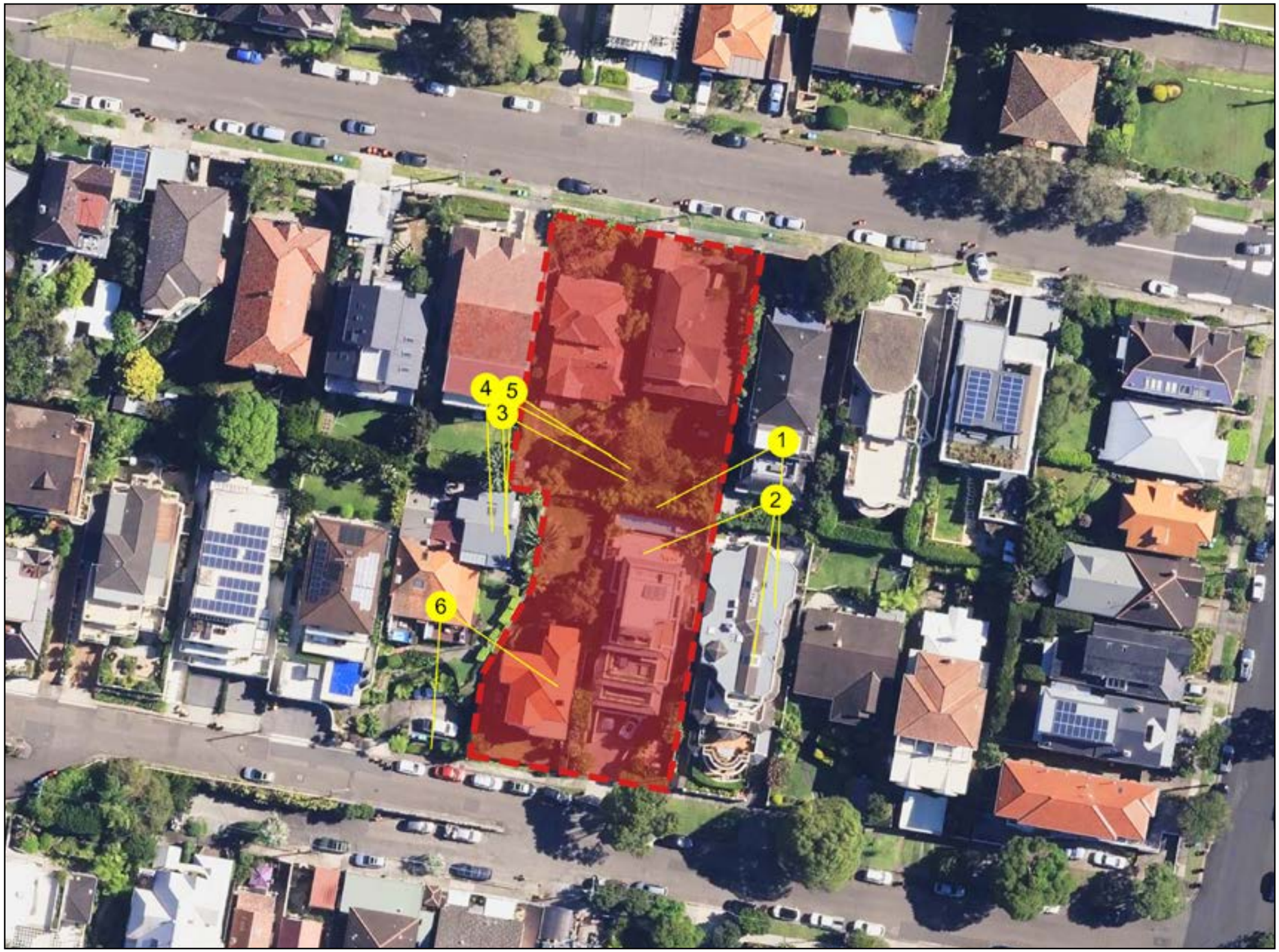


Image showing survey drawing supplied by Bee & Lethbridge located at MGA 56 GDA2020 and 3D model supplied by Platform Architects aligned to site boundary.

4. MAP OF PHOTOGRAPHY LOCATIONS



VIEWPOINT POSITION 01 - 2/31 Fairlight Street, Fairlight, NSW (Terrace)

VIEWPOINT POSITION 02 - 3/31 Fairlight Street, Fairlight, NSW (Balcony)

VIEWPOINT POSITION 03 - 2/37 Fairlight Street, Fairlight, NSW (Balcony)

VIEWPOINT POSITION 04 - 3/37 Fairlight Street, Fairlight, NSW (Balcony)

VIEWPOINT POSITION 05 - 2/14 Clifford Avenue, Fairlight, NSW (Kitchen)

Site boundary of proposed building developments 33-35 Fairlight Street & 10-12 Clifford Avenue

5.1 VIEWPOINT POSITION 01 - 2/31 Fairlight Street, Fairlight, NSW (Terrace)

VIEWPOINT LOCATION

ALIGNMENT OF SURVEYED POINTS

PHOTOGRAPH DETAILS

File Name:	31 Fairlight_2B_50mm_01
Author:	Virtual Ideas
Format:	CR2
Date:	6th November 2024
Time:	09:02 AEDT
Lens:	EF24-105mm f/0
Model:	Canon EOS 5DS R
Sensor:	Full frame
Focal length:	50mm

ORIGINAL PHOTOGRAPH

ORIGINAL PHOTOGRAPH WITH PROPOSED DEVELOPMENT

5.2 VIEWPOINT POSITION 01 - 2/31 Fairlight Street, Fairlight, NSW (Terrace)

VIEWPOINT LOCATION

5.3 VIEWPOINT POSITION 01 - 2/31 Fairlight Street, Fairlight, NSW (Terrace)

ALIGNMENT OF SURVEYED POINTS

5.4 VIEWPOINT POSITION 01 - 2/31 Fairlight Street, Fairlight, NSW (Terrace)

ORIGINAL PHOTOGRAPH

5.5 VIEWPOINT POSITION 01 - 2/31 Fairlight Street, Fairlight, NSW (Terrace)

PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT

6.1 VIEWPOINT POSITION 02 - 3/31 Fairlight Street, Fairlight, NSW (Balcony)

VIEWPOINT LOCATION

ALIGNMENT OF SURVEYED POINTS

PHOTOGRAPH DETAILS

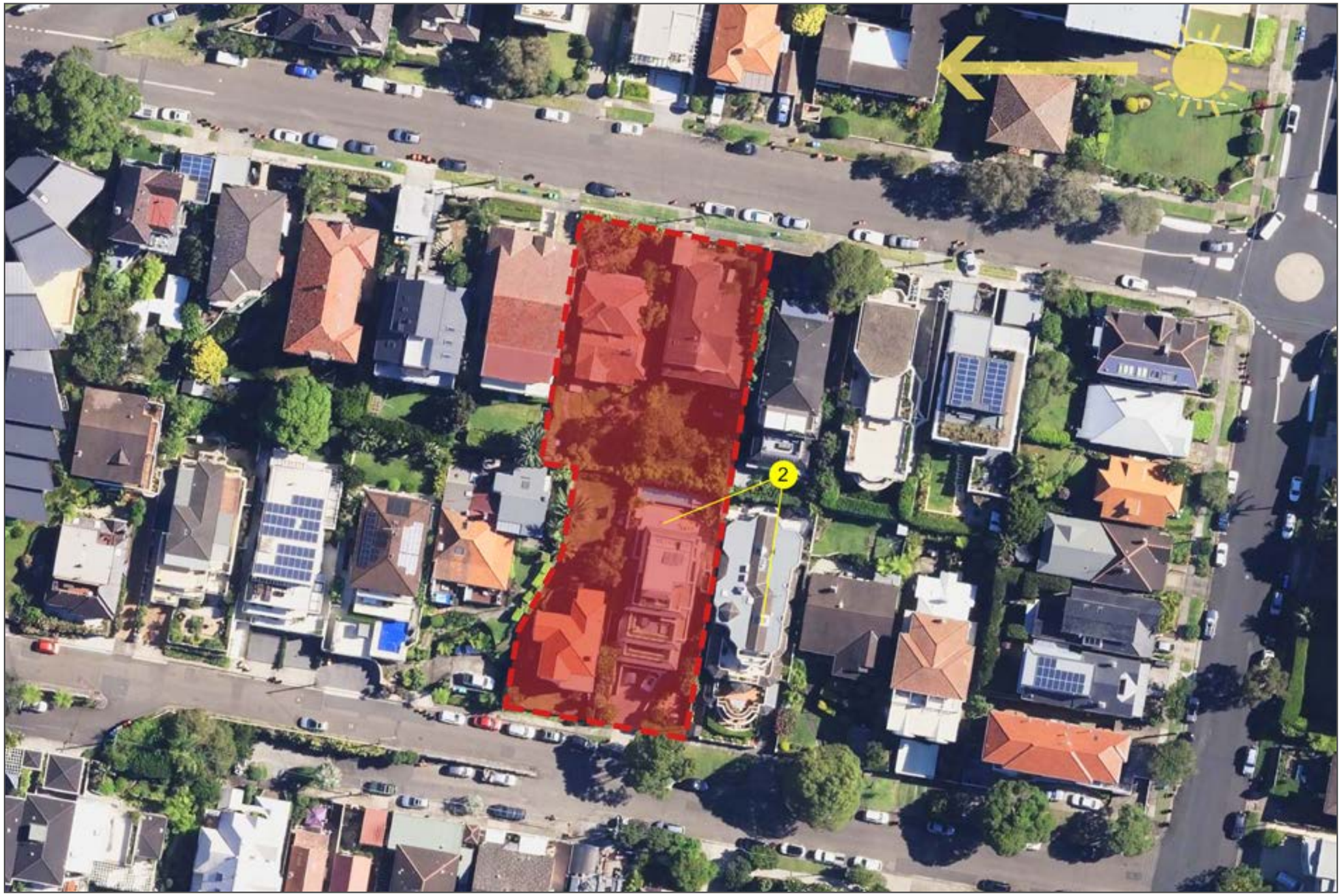
File Name:	31 Fairlight_3B_50mm_01
Author:	Virtual Ideas
Format:	CR2
Date:	6th November 2024
Time:	08:47 AEDT
Lens:	EF24-105mm f/0
Model:	Canon EOS 5DS R
Sensor:	Full frame
Focal length:	50mm

ORIGINAL PHOTOGRAPH

ORIGINAL PHOTOGRAPH WITH PROPOSED DEVELOPMENT

6.2 VIEWPOINT POSITION 02 - 3/31 Fairlight Street, Fairlight, NSW (Balcony)

VIEWPOINT LOCATION



6.3 VIEWPOINT POSITION 02 - 3/31 Fairlight Street, Fairlight, NSW (Balcony)

ALIGNMENT OF SURVEYED POINTS

6.4 VIEWPOINT POSITION 02 - 3/31 Fairlight Street, Fairlight, NSW (Balcony)

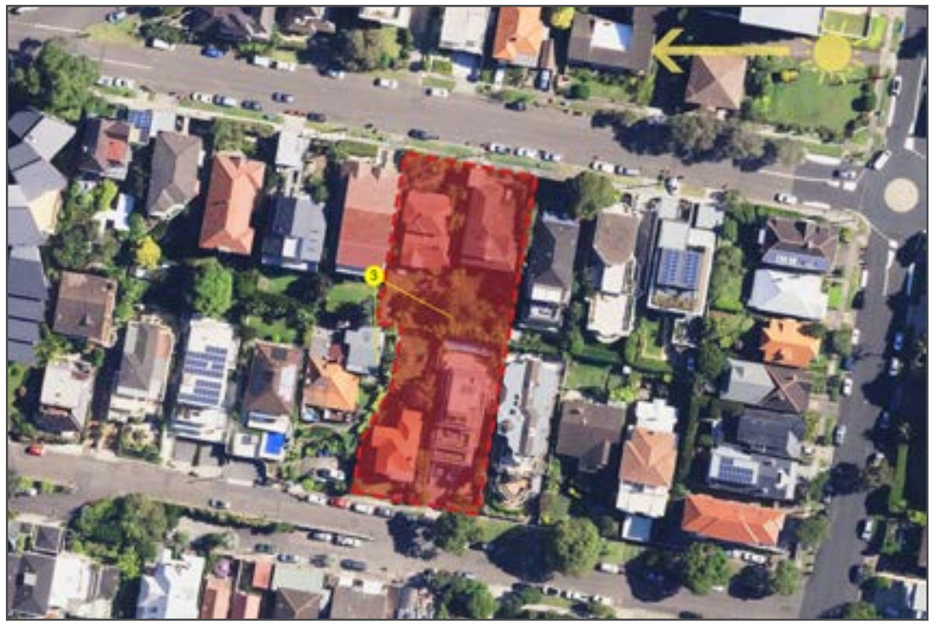
ORIGINAL PHOTOGRAPH

6.5 VIEWPOINT POSITION 02 - 3/31 Fairlight Street, Fairlight, NSW (Balcony)

PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT

7.1 VIEWPOINT POSITION 03 - 2/37 Fairlight Street, Fairlight, NSW (Balcony)

VIEWPOINT LOCATION



ALIGNMENT OF SURVEYED POINTS

PHOTOGRAPH DETAILS

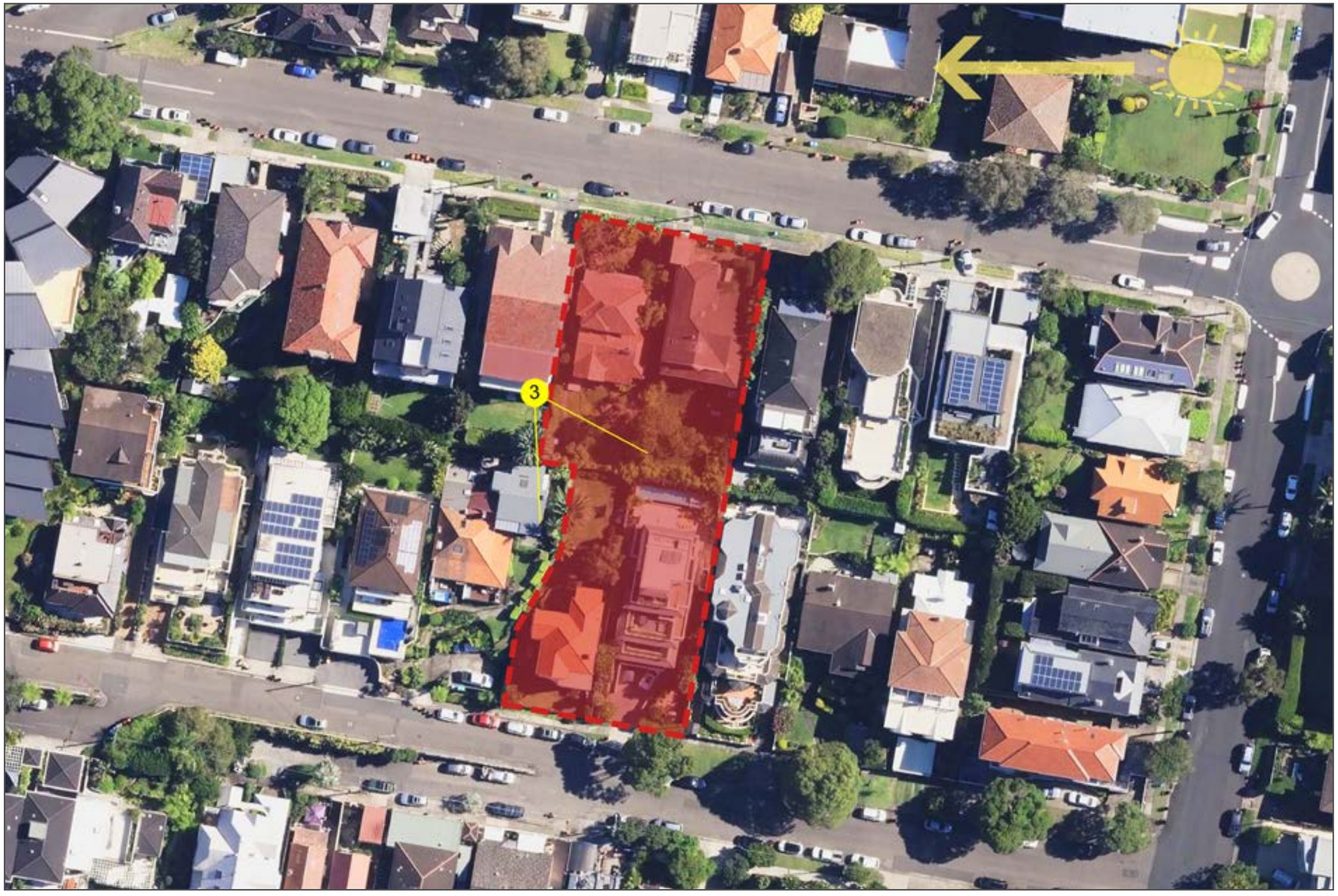
File Name:	37 Fairlight_2A_50mm_04
Author:	Virtual Ideas
Format:	CR2
Date:	6th November 2024
Time:	10:29 AEDT
Lens:	EF24-105mm f/0
Model:	Canon EOS 5DS R
Sensor:	Full frame
Focal length:	50mm

ORIGINAL PHOTOGRAPH

ORIGINAL PHOTOGRAPH WITH PROPOSED DEVELOPMENT

7.2 VIEWPOINT POSITION 03 - 2/37 Fairlight Street, Fairlight, NSW (Balcony)

VIEWPOINT LOCATION



7.3 VIEWPOINT POSITION 03 - 2/37 Fairlight Street, Fairlight, NSW (Balcony)

ALIGNMENT OF SURVEYED POINTS

7.4 VIEWPOINT POSITION 03 - 2/37 Fairlight Street, Fairlight, NSW (Balcony)

ORIGINAL PHOTOGRAPH

7.5 VIEWPOINT POSITION 03 - 2/37 Fairlight Street, Fairlight, NSW (Balcony)

PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT

8.1 VIEWPOINT POSITION 04 - 3/37 Fairlight Street, Fairlight, NSW (Balcony)

VIEWPOINT LOCATION

ALIGNMENT OF SURVEYED POINTS

PHOTOGRAPH DETAILS

File Name:	37 Fairlight_3A_50mm_03
Author:	Virtual Ideas
Format:	CR2
Date:	6th November 2024
Time:	07:51 AEDT
Lens:	EF24-105mm f/0
Model:	Canon EOS 5DS R
Sensor:	Full frame
Focal length:	50mm

ORIGINAL PHOTOGRAPH

ORIGINAL PHOTOGRAPH WITH PROPOSED DEVELOPMENT

8.2 VIEWPOINT POSITION 04 - 3/37 Fairlight Street, Fairlight, NSW (Balcony)

VIEWPOINT LOCATION

8.3 VIEWPOINT POSITION 04 - 3/37 Fairlight Street, Fairlight, NSW (Balcony)

ALIGNMENT OF SURVEYED POINTS

8.4 VIEWPOINT POSITION 04 - 3/37 Fairlight Street, Fairlight, NSW (Balcony)

ORIGINAL PHOTOGRAPH

8.5 VIEWPOINT POSITION 04 - 3/37 Fairlight Street, Fairlight, NSW (Balcony)

PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT

9.1 VIEWPOINT POSITION 05 - 3/37 Fairlight Street, Fairlight, NSW (Balcony)

VIEWPOINT LOCATION

ALIGNMENT OF SURVEYED POINTS

PHOTOGRAPH DETAILS

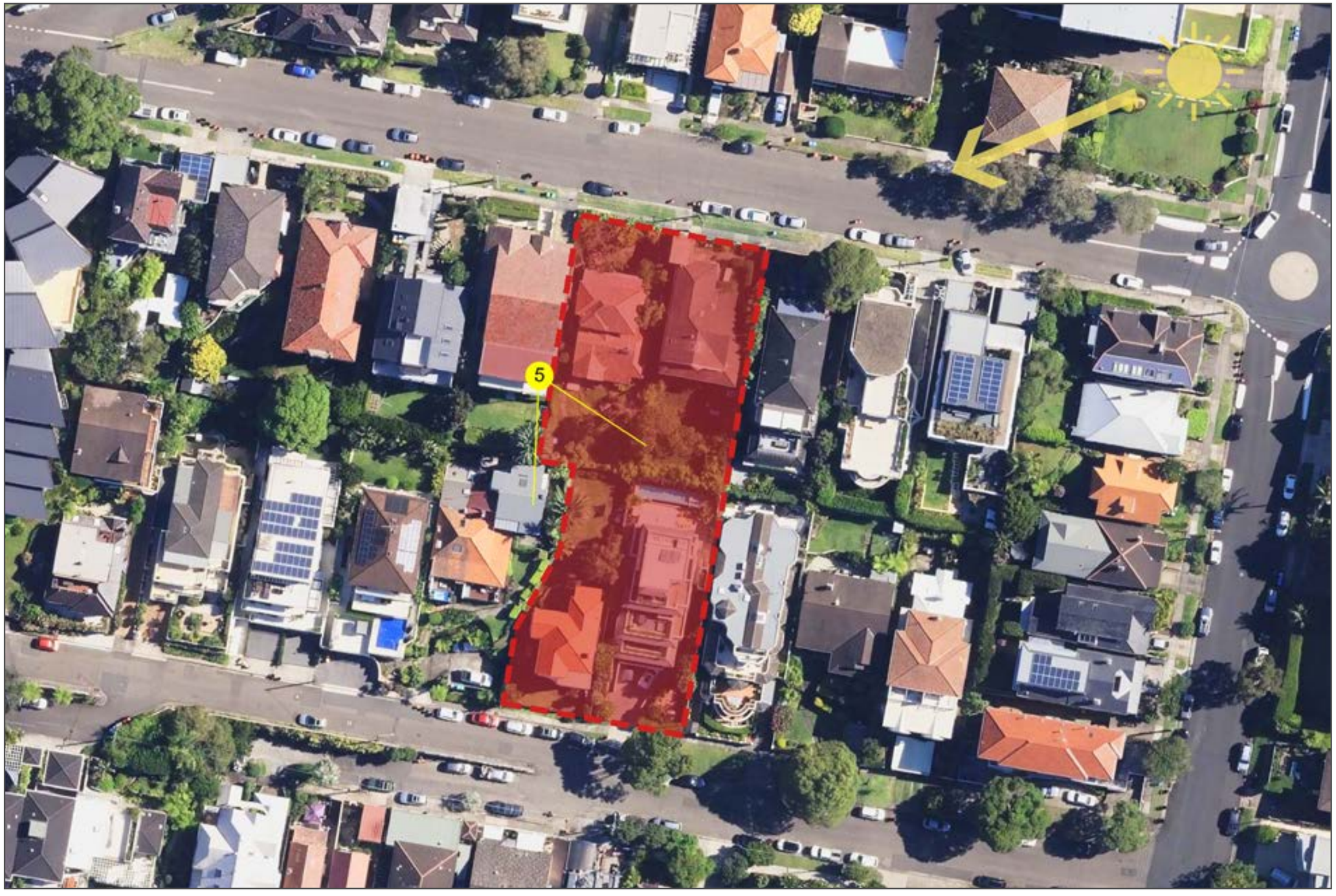
File Name:	37 Fairlight_3A_50mm_03
Author:	Virtual Ideas
Format:	CR2
Date:	6th November 2024
Time:	07:51 AEDT
Lens:	EF24-105mm f/0
Model:	Canon EOS 5DS R
Sensor:	Full frame
Focal length:	50mm

ORIGINAL PHOTOGRAPH

ORIGINAL PHOTOGRAPH WITH PROPOSED DEVELOPMENT

9.2 VIEWPOINT POSITION 05 - 3/37 Fairlight Street, Fairlight, NSW (Balcony)

VIEWPOINT LOCATION



9.3 VIEWPOINT POSITION 05 - 3/37 Fairlight Street, Fairlight, NSW (Balcony)

ALIGNMENT OF SURVEYED POINTS

9.4 VIEWPOINT POSITION 05 - 3/37 Fairlight Street, Fairlight, NSW (Balcony)

ORIGINAL PHOTOGRAPH

9.5 VIEWPOINT POSITION 05 - 3/37 Fairlight Street, Fairlight, NSW (Balcony)

PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT

10.1 VIEWPOINT POSITION 06 - 2/14 Clifford Avenue, Fairlight, NSW (Kitchen)

VIEWPOINT LOCATION

ALIGNMENT OF SURVEYED POINTS

PHOTOGRAPH DETAILS

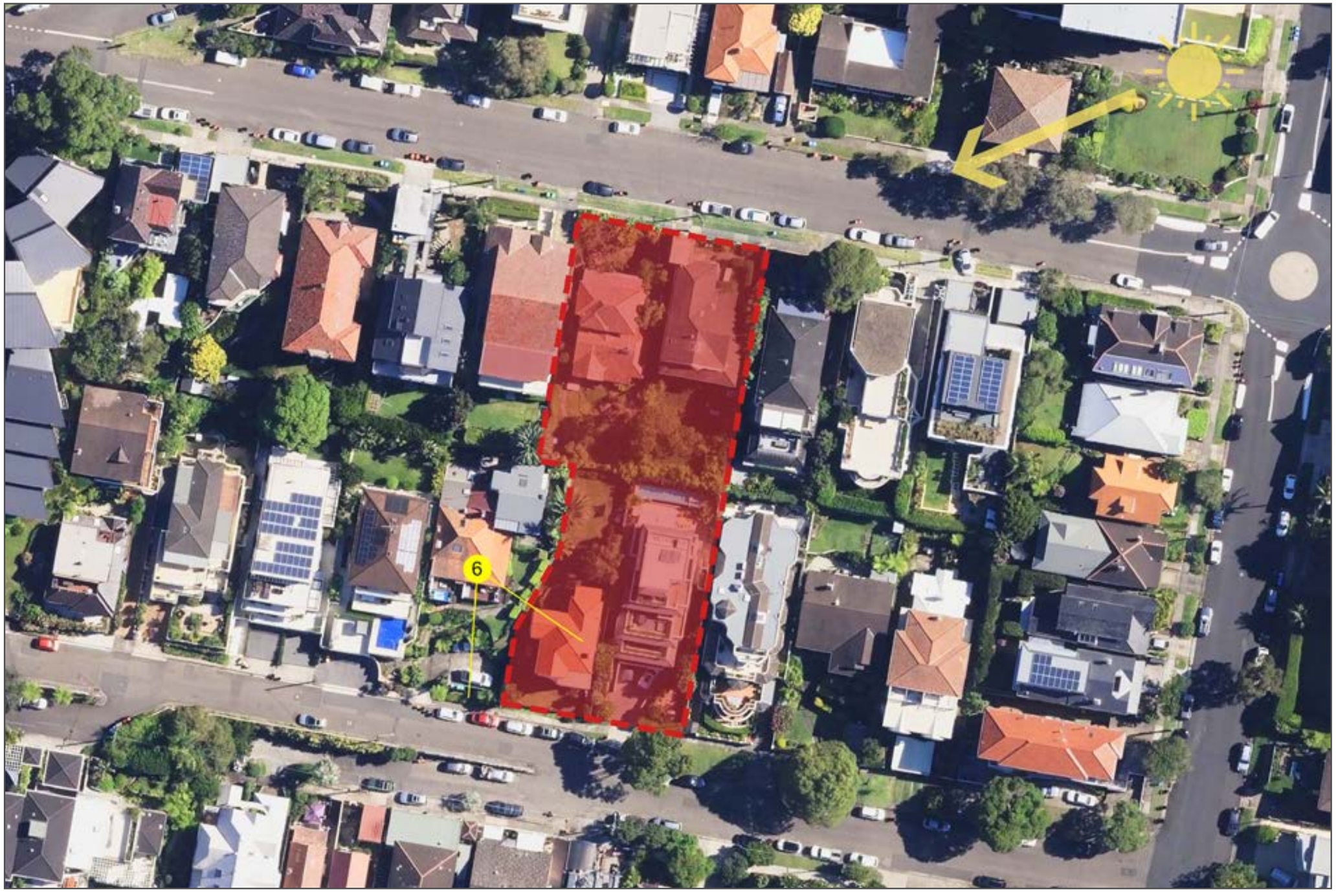
File Name:	14 Clifford_2B_50mm_43
Author:	Virtual Ideas
Format:	CR2
Date:	6th November 2024
Time:	09:58 AEDT
Lens:	EF24-105mm f/0
Model:	Canon EOS 5DS R
Sensor:	Full frame
Focal length:	50mm

ORIGINAL PHOTOGRAPH

ORIGINAL PHOTOGRAPH WITH PROPOSED DEVELOPMENT

10.2 VIEWPOINT POSITION 06 - 2/14 Clifford Avenue, Fairlight, NSW (Kitchen)

VIEWPOINT LOCATION



10.3 VIEWPOINT POSITION 06 - 2/14 Clifford Avenue, Fairlight, NSW (Kitchen)

ALIGNMENT OF SURVEYED POINTS AND AEROMETREX PHOTOGRAMMETRIC CITY MODEL

10.4 VIEWPOINT POSITION 06 - 2/14 Clifford Avenue, Fairlight, NSW (Kitchen)

ORIGINAL PHOTOGRAPH

10.5 VIEWPOINT POSITION 06 - 2/14 Clifford Avenue, Fairlight, NSW (Kitchen)

PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT

11.1 3D SCENE DATA SOURCES

1 - 3D Model of the proposed building - refer to Appendix A

File Name: FSF_33-35 Fairlight St - 3D View - For CGI_241106
Author: Platform Architects
Format: DWG
Alignment: Aligned to MGA 56 GDA2020 via Appendix C

2 - Site Photography Survey - refer to Appendix B for details

File Name: 20582BPhotolocation1/20582BPhotolocation2
Author: CMS Surveyors
Format: Autocad DWG
Alignment: MGA 56 GDA2020

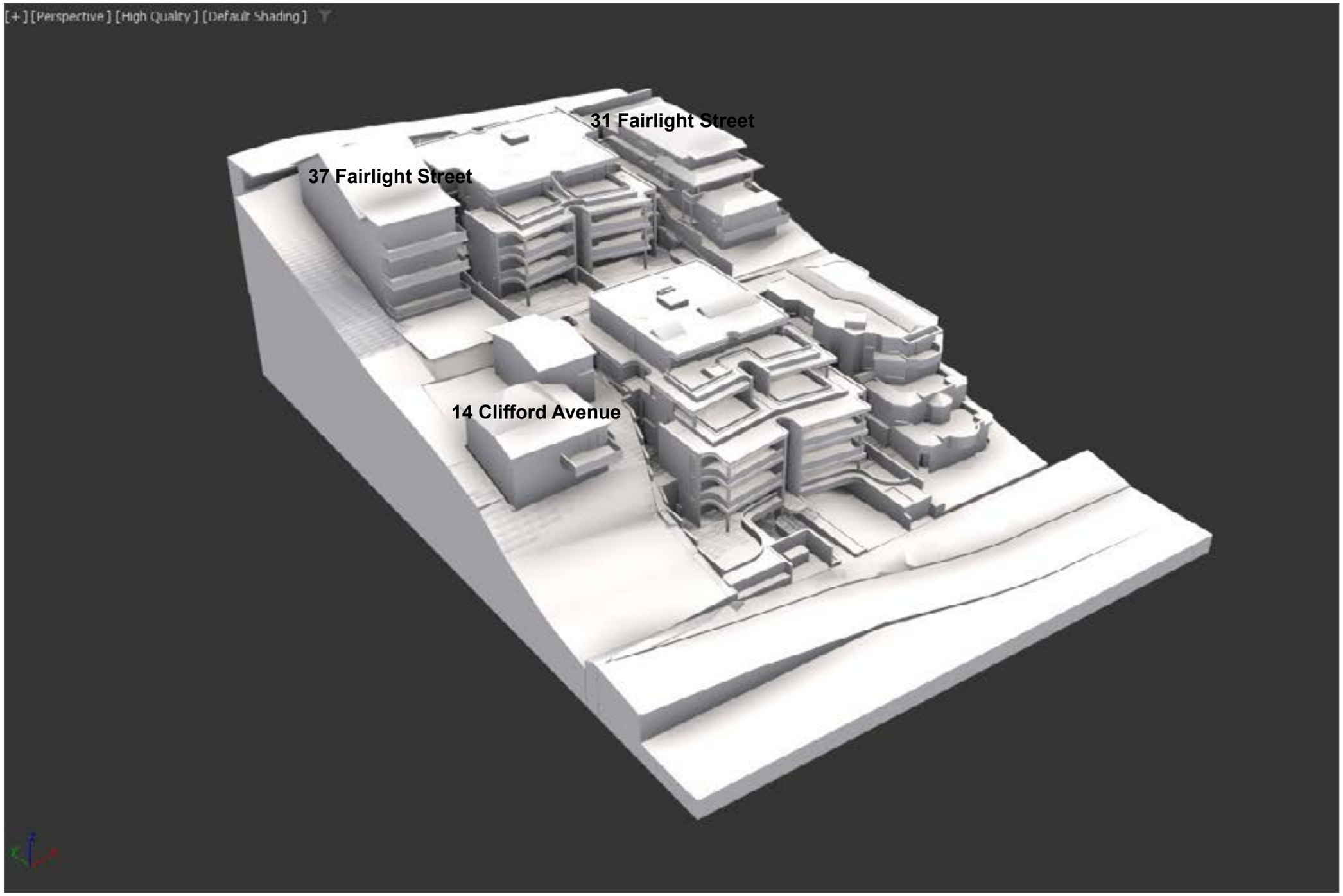
3 - Existing Site Survey - refer to Appendix C for details

File Name: MGA 23181
Author: Bee & Lethbridge
Format: Autocad DWG
Alignment: MGA 56 GDA2020

4 - Photogrammetic city model - refer to Appendix D for details

File Name: Aero_LOD 20_CBD
Author: Aerometrex
Format: fbx
Alignment: MGA 56 GDA2020

11.2 APPENDIX A: 3D MODELS SUPPLIED BY PLATFORM ARCHITECTS



PROPOSED BUILDING

11.3 APPENDIX B: SITE SURVEY SUPPLIED BY CMS

CMS SURVEYORS

LAND SURVEYING | CONSTRUCTION | 3D SCAN AND MODEL

Date: 22-11-2024
Our Ref: 20582B Photo Locations 2

Studio 71/61 Marlborough Street
Surry Hills
NSW 2010

Dear Rick Mansfield,

RE: PHOTO LOCATIONS – 31 & 37 Fairlight St, Fairlight

As requested, we have attended site and measured the Co-ordinates and Elevation of the photo locations along 31 & 37 Fairlight St, Fairlight

Co-ordinates are MGA 56 **(GDA 2020)** and elevation to Australian Height datum (AHD).

Measurements were taken using Leica TS15 and RTC-360 measurements. The measurements are verified with PM909 & PM918.

DWG of locations has also been supplied.

Point Number	Easting	Northing	Reduced Level (RL)	Photo Point
1	340295.866	6258980.802	43.350	CAMERA 3/37 BALCONY
2	340299.154	6258980.522	43.360	CAMERA 3/37 BALCONY
3	340299.957	6258983.356	43.370	CAMERA 3/37 BEDROOM
4	340292.143	6258944.859	38.674	CAMERA 2/14 BALCONY
5	340298.268	6258979.598	46.526	CAMERA 2/37 BALCONY
6	340293.400	6258980.490	46.525	CAMERA 2/37 BALCONY
7	340297.306	6258982.469	46.545	CAMERA 2/37 BEDROOM
8	340338.312	6258965.915	40.012	CAMERA 3/31 COURTYARD
9	340332.975	6258968.236	42.769	CAMERA 3/31 BALCONY
10	340338.812	6258967.520	42.769	CAMERA 3/31 BALCONY
11	340338.318	6258971.832	45.467	CAMERA 2/31 TERRACE
12	340299.906	6258974.146	43.977	TOP OF POST
13	340340.023	6258974.732	45.472	CAMERA 2/31 TERRACE
14	340323.297	6258947.959	43.398	TOP OF PARAPET
15	340330.359	6258943.974	42.043	TOP OF ROOF RIDGE
16	340323.118	6258939.049	37.348	TOP OF PARAPET
17	340253.056	6258851.710	35.373	TOP OF ROOF
18	340316.692	6258954.016	44.790	TOP OF ANTENNA
19	340383.262	6258883.910	36.286	TOP OF ROOF RIDGE
20	340336.576	6258970.307	46.558	CORNER OF SEAT

CMS SURVEYORS PTY LIMITED
(02) 9971 4802
info@cmssurveyors.com.au
ABN 79 096 240 201
www.cmssurveyors.com.au
Liability limited by a scheme approved under Professional Standards Legislation

Sydney Office
2/99A South Creek Rd
Dee Why NSW 2099

Riverina Office
90 Wollendoon St
Cootamundra NSW 2590

PO Box 463 Dee Why NSW 2099

CMS SURVEYORS

Point Number	Easting	Northing	Reduced Level (RL)	Photo Point
21	340337.758	6258970.737	46.108	CORNER OF SEAT
22	340341.277	6258972.236	42.811	CAMERA 3/31 LOUNGEROOM
23	340340.772	6258970.429	42.814	CAMERA 3/31 LOUNGEROOM
30	340290.363	6258950.370	38.820	CAMERA 2/14 KITCHEN
1010	340316.280	6258957.756	42.755	TOP OF GUTTER
1011	340317.244	6258956.462	43.445	TOP OF PARAPET
1012	340315.837	6258947.289	43.433	TOP OF PARAPET
31	340292.858	6258944.148	39.625	CORNER OF RAILING
32	340301.622	6258932.447	40.334	TOP OF ROOF RIDGE
33	340301.205	6258896.446	31.046	TOP OF ROODF RIDGE
34	340315.319	6258886.772	32.607	TOP OF CHIMNEY
35	340282.887	6258948.218	38.708	CAMERA 1/14 BALCONY
36	340282.952	6258950.693	38.718	CAMERA 1/14 DINING
37	340283.810	6258951.342	38.725	CAMERA 1/14 LIVING ROOM

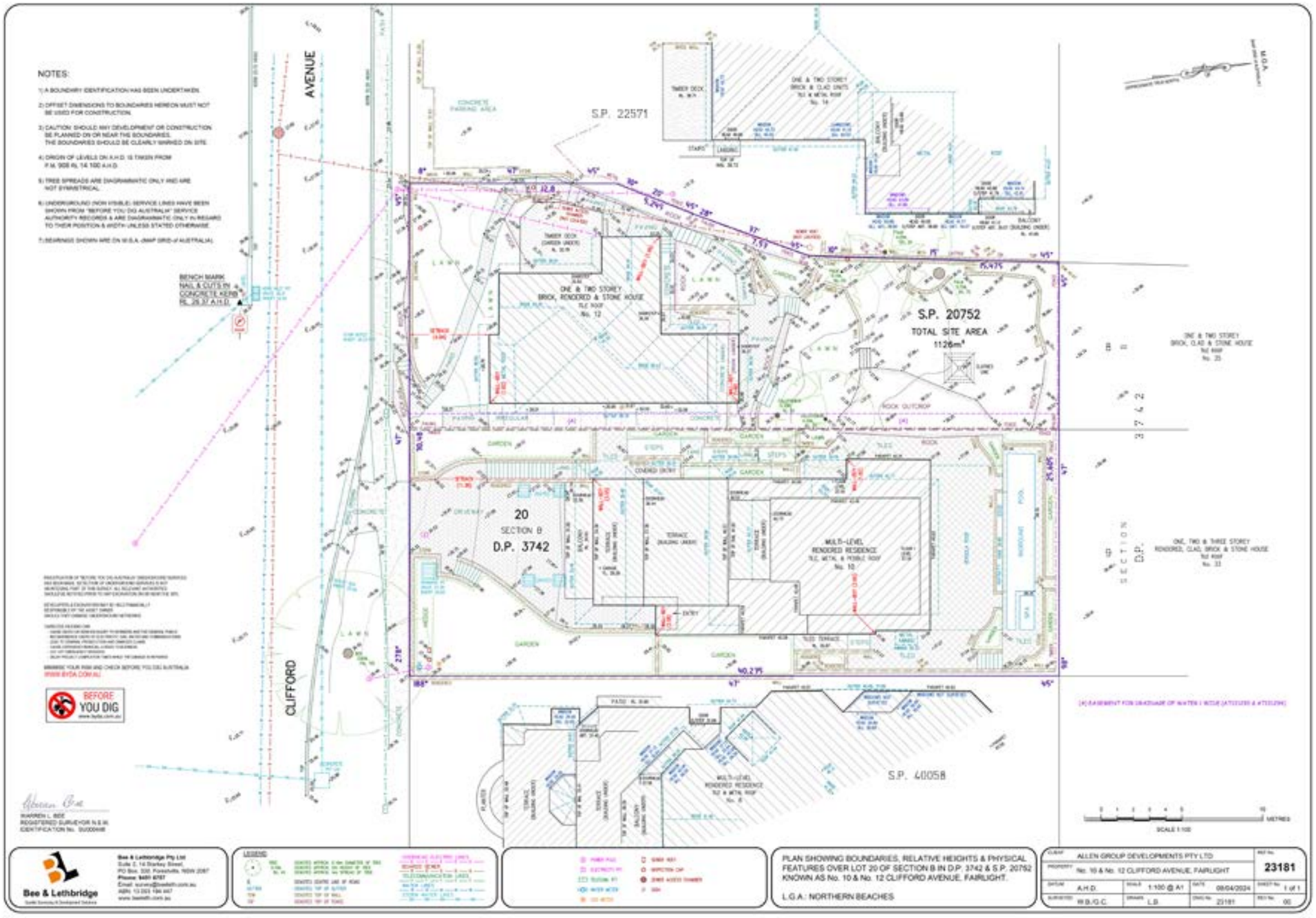
Note: R.L. shown on the report for photo locations are ground levels. Camera height should be added to the supplied RL of each corresponding photo location.

Yours faithfully,
CMS Surveyors Pty Limited
Hayden Cook,
Diploma of Surveying (TAFE NSW)

COLLABORATE | MASTER | SOLVE

CMS SURVEYORS 2

11.4 APPENDIX C: EXISTING SITE SURVEY SUPPLIED BY BEE & LETHBRIDGE



11.5 APPENDIX D: PHOTOGRAMMETRIC CITY MODEL SUPPLIED BY AEROMETREX

aerometrex.
Digital Mapping Specialists

Sydney 75mm - 3D MODEL

Aerometrex Project Number:	A5673
Aerial Survey Acquisition Dates:	4th, 10th, 11th and 12th February 2019
Number of frames captured:	127,250
Capture Pixel Size:	7.5 cm GSD
Horizontal Datum:	Geocentric Datum of Australia 1994 (GDA94)
Vertical Datum:	Australian Height Datum (AHD)
Map Projection:	MGA Zone 56 (MGA56) FBX Offsets: X= 313,000 Y= 5,236,000
Spatial Accuracy – XYZ:	Derived controls from 10cm Photogrammetric surveying – 25cm absolute accuracy

Data Summary:

- **FBX Tiles** – 3D mesh tiles in FBX format split into their Level of Details. Please refer to the associated *metadata.xml* and Tile_Index.kml folder for global offsets and tile extents respectively.

  Please note there are different directories for different Level of details meaning L19 is typically the highest level of resolution and geometry and every Level down the geometry gets simplified as well as the texture resolution.

aerometrex.
Digital Mapping Specialists

Figure 1: Sydney 2019 3D Model example

Figure 2: Sydney 2019 3D Model example

Any queries/feedback please contact Aerometrex - Adelaide
ph +61 8 8362 9911

aerometrex.