Green Square Stage 3, Zetland, NSW

Visual impact photomontages and methodology report

17th December 2025

VIRTUAL IDEAS

1. INTRODUCTION

This document, created by Virtual Ideas, aims to showcase the visual impact of the proposed development for Green Square Stage 3, Zetland, NSW in comparison to the existing built form and site conditions.

2. VIRTUAL IDEAS EXPERTISE

Virtual Ideas is an experienced 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, and C.

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 selection of camera lens and composition of photography from each viewpoint was instructed 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 focal length of 24mm was chosen. These lens choices ensure 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 Beveridge Willians 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 of Stage 3 was rendered with a basic grey material, whilst the proposed building model of Stage 4 was rendered with a basic blue material. This differentiation aids in visual clarity and enhances the presentation of the design elements.

Image showing survey drawing supplied by Beveridge Williams at MGA 56 GDA2020, proposed Stage 3 massing (gold) and proposed proposed future Stage 4/5 massing (red) aligned to the site boundary

4. VIEWPOINTS

MAP ILLUSTRATING VIEWPOINT LOCATIONS

Proposed Stage 3 Site
Proposed Future Stage 4/5 Site

Viewpoint 3_01. Green Square Station looking East
Viewpoint 3_02. The Drying Green at Paul Street
Viewpoint 3_03. Portman Street at Merton Street

5.1 VIEWPOINT POSITION 3_01 - Green Square Station looking East

VIEWPOINT LOCATION

ALIGNMENT OF SURVEYED POINTS

PHOTOGRAPH DETAILS

File Name:	View 01_24mm_01
Author:	Virtual Ideas
Format:	ARW
Date:	24 November 2025
Time:	16:18 AEDT
Lens:	FE 16-35mm F2.8 GM
Model:	Sony ILCE-7RM4A
Sensor:	Full frame
Focal length:	24mm

ORIGINAL PHOTOGRAPH

ORIGINAL PHOTOGRAPH WITH PROPOSED

5.2 VIEWPOINT POSITION 3_01 - Green Square Station looking East

VIEWPOINT LOCATION

Proposed Stage 3 Site
Proposed Future Stage 4/5 Site

5.3 VIEWPOINT POSITION 3_01 - Green Square Station looking East

ALIGNMENT OF SURVEYED POINTS

5.4 VIEWPOINT POSITION 3_01 - Green Square Station looking East

ORIGINAL PHOTOGRAPH

5.5 VIEWPOINT POSITION 3_01 - Green Square Station looking East

ORIGINAL PHOTOGRAPH WITH PROPOSED

6.1 VIEWPOINT POSITION 3_02 - The Drying Green at Paul Street

VIEWPOINT LOCATION

ALIGNMENT OF SURVEYED POINTS

PHOTOGRAPH DETAILS

File Name:	View 03_24mm_04
Author:	Virtual Ideas
Format:	ARW
Date:	24 November 2025
Time:	16:53 AEDT
Lens:	FE 16-35mm F2.8 GM
Model:	Sony ILCE-7RM4A
Sensor:	Full frame
Focal length:	24mm

ORIGINAL PHOTOGRAPH

ORIGINAL PHOTOGRAPH WITH PROPOSED

6.2 VIEWPOINT POSITION 3_02 - The Drying Green at Paul Street

VIEWPOINT LOCATION

Proposed Stage 3 Site
Proposed Future Stage 4/5 Site

6.3 VIEWPOINT POSITION 3_02 - The Drying Green at Paul Street

ALIGNMENT OF SURVEYED POINTS

6.4 VIEWPOINT POSITION 3_02 - The Drying Green at Paul Street

ORIGINAL PHOTOGRAPH

6.5 VIEWPOINT POSITION 3_02 - The Drying Green at Paul Street

ORIGINAL PHOTOGRAPH WITH PROPOSED

7.1 VIEWPOINT POSITION 3_03 - Portman Street at Merton Street

VIEWPOINT LOCATION

ALIGNMENT OF SURVEYED POINTS

PHOTOGRAPH DETAILS

File Name:	View 05A_24mm_04
Author:	Virtual Ideas
Format:	ARW
Date:	24 November 2025
Time:	17:02 AEDT
Lens:	FE 16-35mm F2.8 GM
Model:	Sony ILCE-7RM4A
Sensor:	Full frame
Focal length:	24mm

ORIGINAL PHOTOGRAPH

ORIGINAL PHOTOGRAPH WITH PROPOSED

7.2 VIEWPOINT POSITION 3_03 - Portman Street at Merton Street

VIEWPOINT LOCATION

Proposed Stage 3 Site
Proposed Future Stage 4/5 Site

7.3 VIEWPOINT POSITION 3_03 - Portman Street at Merton Street

ALIGNMENT OF SURVEYED POINTS

7.4 VIEWPOINT POSITION 3_03 - Portman Street at Merton Street

ORIGINAL PHOTOGRAPH

7.5 VIEWPOINT POSITION 3_03 - Portman Street at Merton Street

ORIGINAL PHOTOGRAPH WITH PROPOSED

8.1 3D SCENE DATA SOURCES

1 - 3D Model of the Proposed Development - refer to Appendix A

File Name: 3D EXPORT_VIA ANALYSIS WITH CONTEXT
Author: FKAustralia
Format: FBX
Alignment: Aligned to MGA 56 GDA2020 via Appendix C

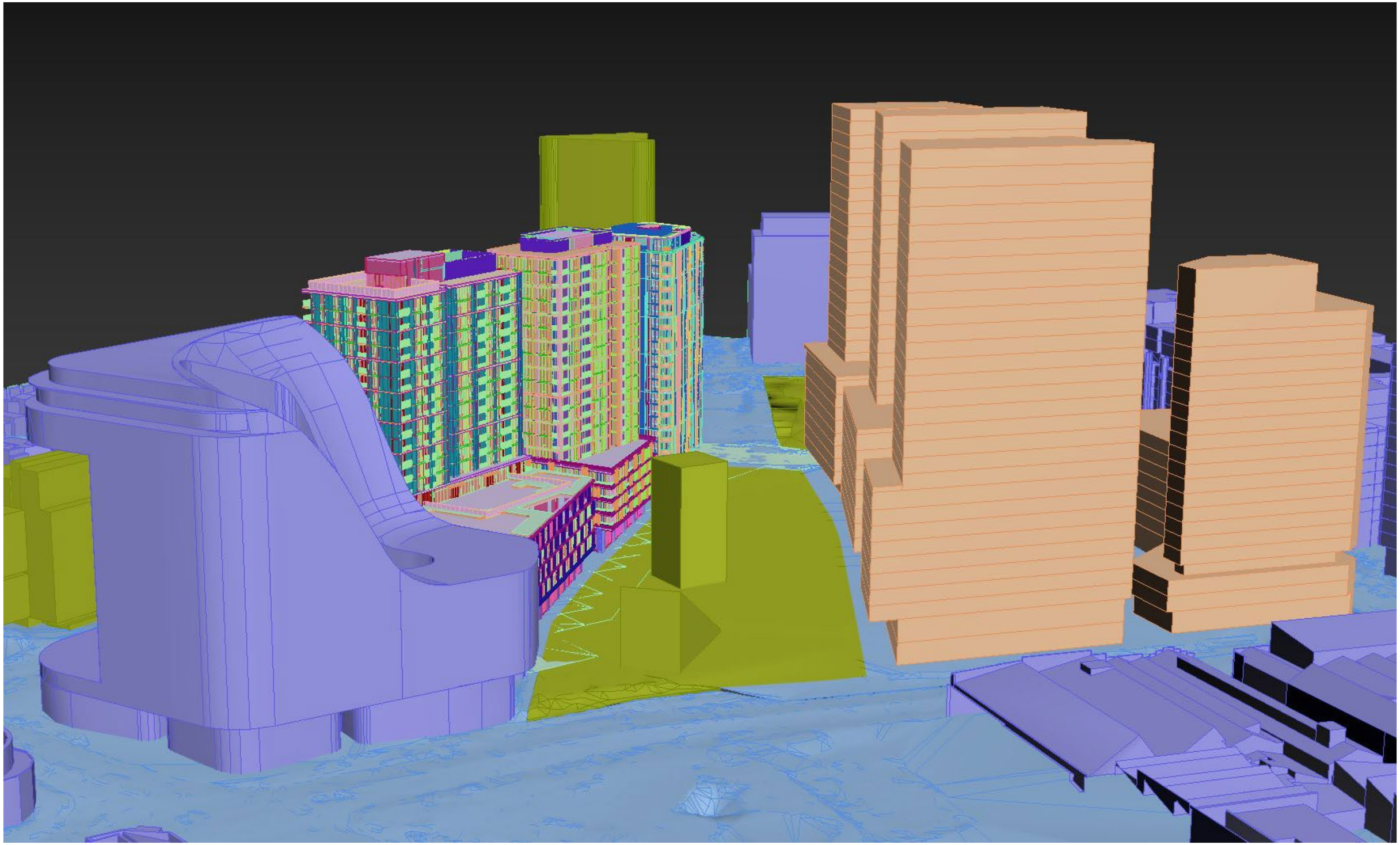
2 - Site Survey - refer to Appendix B for details

File Name: 25042photolocations 1
Author: CMS Surveyors
Format: Autocad DWG
Alignment: MGA 56 GDA2020

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

File Name: 2200483-DET-REV B_230727
Author: Beveridge Williams
Format: Autocad DWG
Alignment: MGA 56 GDA2020

8.2 APPENDIX A: 3D MODEL BY FKAUSTRALIA



8.3 APPENDIX B: SITE PHOTOGRAPHY SURVEY SUPPLIED BY CMS SURVEYORS

CMS SURVEYORS — LAND SURVEYING | CONSTRUCTION | 3D SCAN AND MODEL

Date: 02-12-2025
Our Ref: 25042 Photo Locations

Studio 71/61 Marlborough Street
Surry Hills
NSW 2010

Dear Rick Mansfield,

RE: PHOTO LOCATIONS – GREEN SQUARE

As requested, we attended site on 28/11/2025 and measured the Co-ordinates and Elevation of the photo locations in and around the Green Square CBD.

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

Measurements were taken using Leica Total Station and GNSS measurements. Checks taken to SCIMS marks: PM280, SSM212300, & SSM212301. Please refer to the accompanying plan "25042photolocations 1" for survey notes. A DWG copy of "25042photolocations 1" has also been supplied.

Point Number	Easting	Northing	Reduced Level (RL)	Photo Point
100	333848.73	6246788.44	13.67	CAMERA SPOT 1
101	333889.50	6246799.27	19.02	BEAM
102	333868.95	6246790.97	16.67	SIGN
103	333886.66	6246776.20	18.59	AWNING
104	333889.41	6246777.03	31.37	ROOF
105	334010.99	6246779.08	54.70	ROOF
SAME AS 100	333848.73	6246788.44	13.67	CAMERA SPOT 2 SAME AS 1
201	333850.45	6246765.18	17.23	SIGN
202	333866.39	6246769.22	16.50	SIGN
203	333866.16	6246774.36	23.34	LIGHT POLE
204	333881.66	6246768.42	31.36	ROOF
205	333950.15	6246585.06	53.64	ROOF
300	334044.47	6246654.50	19.05	CAMERA SPOT 3
301	334035.87	6246669.26	28.63	LIGHT POLE
302	334024.47	6246681.98	23.52	TRAFFIC LIGHT POLE
303	334028.98	6246697.24	22.09	WALL
304	334032.81	6246724.53	26.20	LIGHT POLE
305	334033.41	6246756.24	53.32	PARAPET
400	334119.84	6246614.45	19.49	CAMERA SPOT 4
401	334104.17	6246627.75	20.32	SEAT
402	334099.49	6246615.78	20.31	SEAT
403	334105.04	6246613.63	20.30	SEAT
404	334013.27	6246617.29	24.28	LIGHT POLE
405	334073.85	6246623.86	19.64	TOP OF KERB
500	334109.38	6246803.21	23.75	CAMERA SPOT 5
501	334078.82	6246811.19	28.93	TOP OF GUTTER
502	334081.54	6246807.23	29.21	TOP OF GUTTER
503	334089.14	6246805.70	30.92	POWER POLE
504	334021.52	6246808.83	53.33	PARAPET
505	334080.07	6246797.78	32.30	ROOF
600	333828.62	6246877.08	14.86	CAMERA SPOT 6
601	333854.06	6246854.93	19.59	TRAFFIC LIGHT POLE
602	333868.57	6246800.01	23.50	LIGHT POLE
603	333840.89	6246843.34	21.62	SIGN
604	333831.01	6246839.26	17.14	SIGN

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,

Daniel Higgins
Survey Technician
CMS Surveyors Pty Limited

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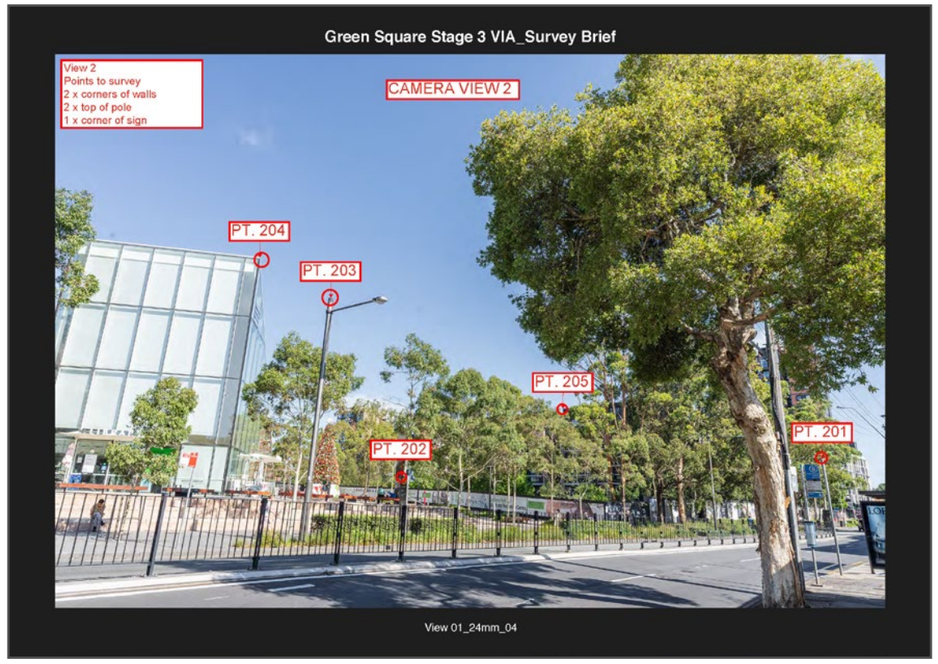
Western Sydney 7/36 Holbeche Rd, Arndell Park NSW 2148
Riverina 90 Wallendoon St, Cootamundra NSW 2590

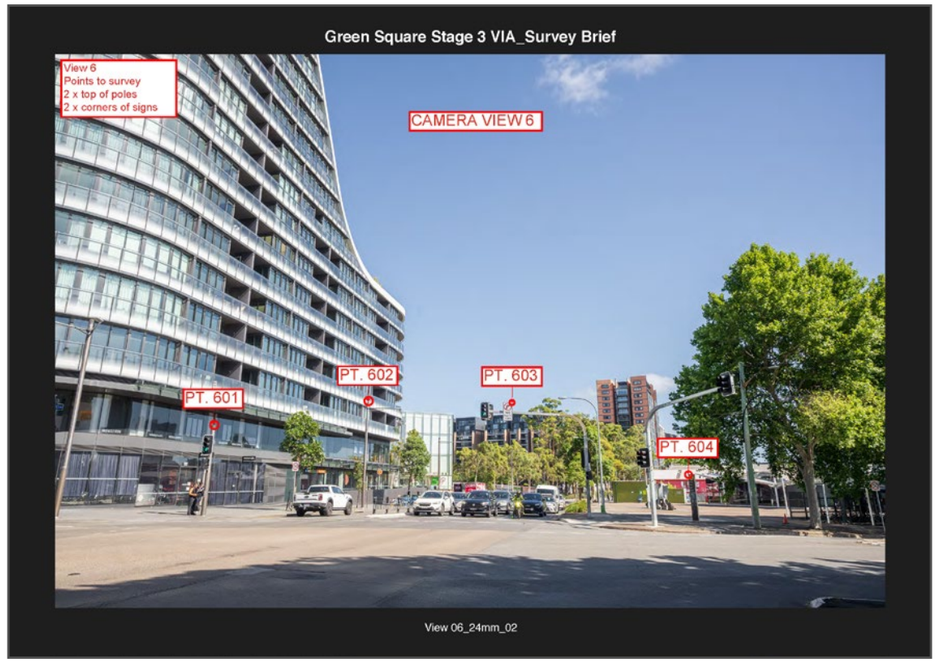
COLLABORATE | MASTER | SOLVE

CMS SURVEYORS 2

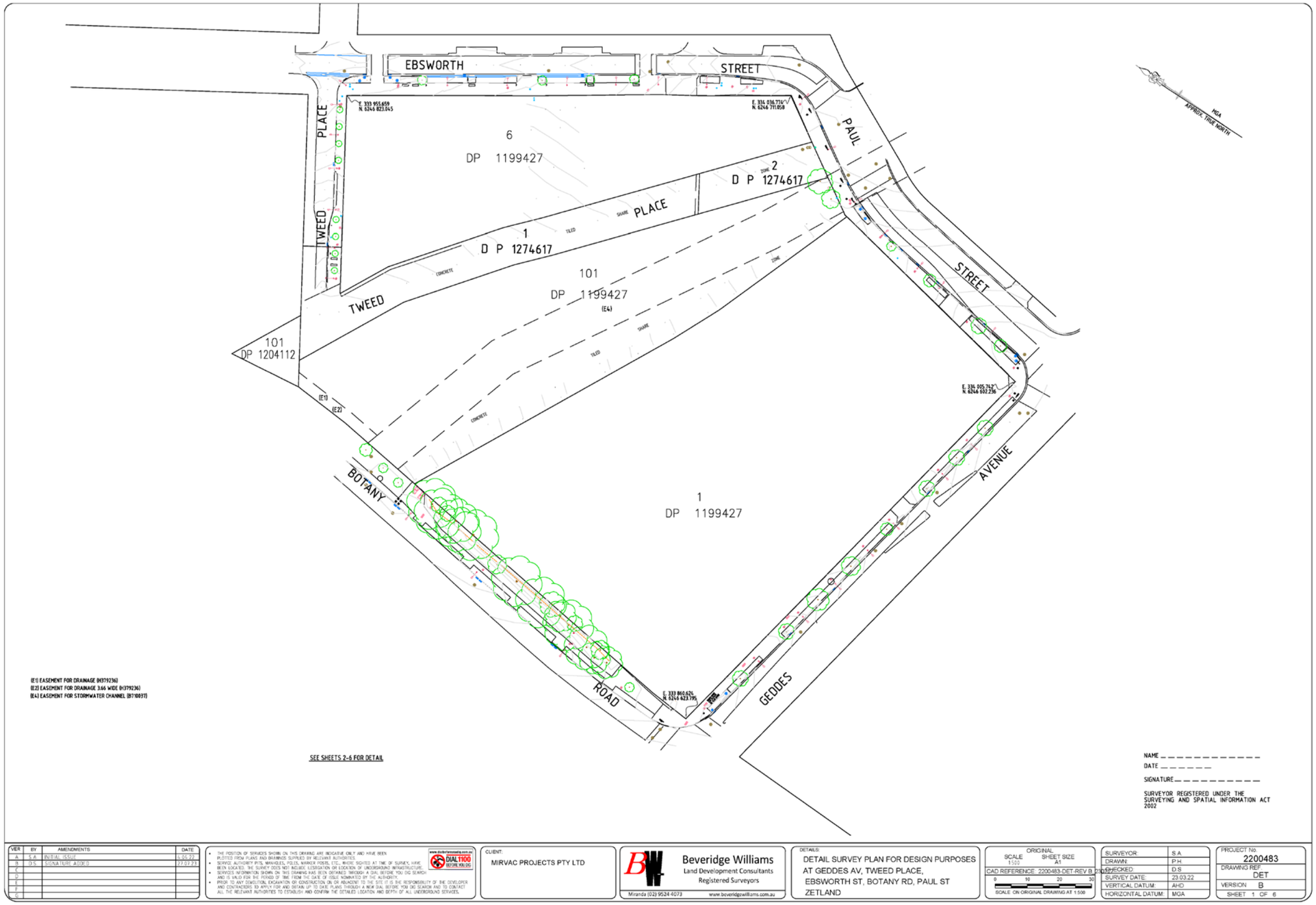
8.3 APPENDIX B: SITE PHOTOGRAPHY SURVEY SUPPLIED BY CMS SURVEYORS



8.3 APPENDIX B: SITE PHOTOGRAPHY SURVEY SUPPLIED BY CMS SURVEYORS



8.4 APPENDIX C: EXISTING SITE SURVEY SUPPLIED BY BEVERIDGE WILLIAMS



VER	BY	AMENDMENTS	DATE
A	S.A	INITIAL ISSUE	6.04.22
B	D.S	SIGNATURE ADDED	27.07.23
C			
D			
E			
F			
G			

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- SERVICES INFORMATION SHOWN ON THIS DRAWING HAS BEEN OBTAINED THROUGH A DIAL BEFORE YOU DIG SEARCH AND IS VALID FOR THE PERIOD OF TIME FROM THE DATE OF ISSUE NOMINATED BY THE AUTHORITY.
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DIAL 1100 BEFORE YOU DIG

CLIENT: MIRVAC PROJECTS PTY LTD

Beveridge Williams
Land Development Consultants
Registered Surveyors
Miranda (02) 9524 4073 www.beveridgewilliams.com.au

DETAILS: DETAIL SURVEY PLAN FOR DESIGN PURPOSES AT GEDDES AV, TWEED PLACE, EBSWORTH ST, BOTANY RD, PAUL ST ZETLAND

ORIGINAL SCALE 1:500 SHEET SIZE A1
CAD REFERENCE: 2200483-DET-REV B.dwg
0 10 20 30
SCALE ON ORIGINAL DRAWING AT 1:500

SURVEYOR:	S.A
DRAWN:	P.H
CHECKED:	D.S
SURVEY DATE:	23.03.22
VERTICAL DATUM:	AHD
HORIZONTAL DATUM:	MGA

PROJECT No: 2200483
DRAWING REF: DET
VERSION: B
SHEET 1 OF 6