

PROPOSED RETIREMENT LIVING DEVELOPMENT BOWLS CLUB, GRAVESEND, DA12 2QU

ACCURATE IMAGE PRODUCTION DOCUMENT

VR 12349
Issue B



ACCURATE IMAGE PRODUCTION PROCEDURE

Our Method Statement follows “Guidelines for Landscape & Visual Impact Assessment, 3rd edition 2013’ and Advice Notes from ‘Visual Representation of Development Proposals 06/19’, published by The Landscape Institute and IEMA and the ‘London View Management Framework (LVMF) Supplementary Planning Guidance (2012)’, produced by Greater London Authority.

GENERAL NOTE

Production notes specific to each viewpoint are included on the viewpoint record sheets.

VIEWPOINT LOCATION

Establish and agree each viewpoint location, Field of View (FOV) and optical axis with all relevant parties.

Aim to produce high resolution imagery to match the perspective and detail of the same view on site.

Wherever possible design proposal should be close to the optical axis of the photograph to most closely match our perception of shape and to reduce parallax errors towards the edges of the background photographs.

Choose a lens FOV with a balance between detail and FOV to show the design proposal within meaningful context.

Determine whether a single frame image will be suitable or whether a panorama view will be required.

Camera lens FOV to match as closely as possible the central field of view of the human eye.

Wherever possible use a consistent FOV (and therefore Viewing Distance) between multiple viewpoints.

Shoot preliminary photographs from the agreed locations.

Record each viewpoint location on a current Ordnance Survey site plan.

Issue preliminary photographs and site plan to all relevant parties for approval and confirmation to proceed prior to commissioning professional photography and survey.

VIEWPOINT BACKGROUND PHOTOGRAPHY

Commission professional photographer with experience of photographing for accurate architectural image production.

Shoot high resolution digital background photographs from agreed locations under direction of visualisation consultant.

If necessary, obtain landowner’s permission and photography licence to photograph from each viewpoint.

Set centre of camera lens to a height of 1600mm above ground level, or if this is not practical, set height as close as possible and record height of centre of lens above ground.

Set camera level on a stable tripod. Use spirit level mounted on the tripod or camera’s hot-shoe to ensure optical axis of view is horizontal and in the centre of the photograph.

If vertical rise is necessary to fit the top of the existing context, avoid converging verticals by using a tilt shift lens. Indicate optical axis on final output.

Record type of camera, lens and focal length for each photograph.

Record date, time and weather conditions for each photograph.

Record camera location on a current Ordnance Survey site plan.

If possible, mark position of centre of tripod on ground with chalk or spot marker paint for land surveyor to locate.

Take concise photographic record of camera and tripod in position for each viewpoint location.

If shooting panorama view which require stitching, reduce parallax errors by using a panoramic tripod head to ensure lens nodal point is set to centre of rotation (axis) of tripod.

Record degrees of rotation for multiple photographs.

Obtain DCIM information for each photograph.

Supply final background photographs as high resolution digital image files.

Complete background photography from agreed viewpoint locations prior to commissioning professional land surveyor.

VIEWPOINT SURVEY INFORMATION

Commission professional land surveyor with experience of surveying for accurate architectural image production.

Use final background photographs to determine Surrounding Feature Survey Points necessary to achieve accurate camera match within 3D model.

Choose a suitable number of Surrounding Feature Survey Points to enable accurate camera matching.

Choose a selection of close, mid and long range Surrounding Feature Survey Points within central FOV to reduce parallax errors towards the edges of the background photographs.

If the site lacks suitable surrounding features, carefully position, photograph in location, and survey, Ranging Poles or small wooden stakes placed in ground.

Issue land surveyor with Surrounding Feature Survey Points sheet indicating survey points and camera locations requirements for each viewpoint.

Issue land surveyor with Survey Points Record sheet for each viewpoint.

Survey and supply final land survey information as Easting, Northing and Height AOD relative to National Grid coordinates and Ordnance Survey heights in text file and 3D AutoCAD digital format.

3D MODEL

Create accurate 3D model of proposals to required level of detail from accurate and final architectural 2D drawings supplied by designer.

Position 3D model within 3D site model relative to Ordnance Survey grid coordinates using accurate site plan information supplied by designer.

The position of any landscape elements have been produced as per the landscape proposals, however, heights, foliage and girth are shown indicatively as if planted for a number of years.

CAMERA MATCHING

Import background photographs into 3D model.

If required, stitch multiple photographs together to form a higher resolution composite image. Note stitch points on final output.

Import land survey Surrounding Feature Survey Points into 3D model

Position virtual camera in 3D model using land survey camera location information.

Set FOV for each virtual camera to match the recorded real-world camera SLR equivalent FOV.

Adjust virtual camera target to align 3D Surrounding Feature Survey Points with corresponding real world features visible in background photograph.

LIGHTING & MATERIALS

Using the latest 3D and rendering software, reproduce the sun’s position, thus simulating shadowing onto the computer generated model of the proposed development.

The restraint with the current software is that it is difficult to accurately simulate this light interaction with the building materials. A more ‘artistic’ interpretation must therefore be utilised. This involves the use of reference photographs of the materials within similar environmental conditions to help fine tune the overall image.

RENDERING

A computer generated image of the proposed building or ‘render’ is then produced by the software. Use Photoshop, to overlay the CG image onto the base line of the photograph.

Any foreground elements in between the proposal and the camera position which may occlude the development are then montaged over the proposed development to give a true visual representation.

ACCURATE IMAGE PRODUCTION TEAM

AVR Project Lead, Camera Match, Model Positioning, Verified Image and Report Production:

Virtual Resolution
1st Floor, Unit 7 Wellington Mills
Quebec Street
Elland
HX5 9AS

Photography:

Kruger Lehmann
17 Mays Court
54 Crooms Hill
London
SE10 8BL

Surveying:

Absolute Surveys Ltd
19 New Causeway
Reigate
Surrey
RH2 7PE

REAL WORLD SCALE (VIEWING DISTANCE)

24mm lens focal length - 73.0 degree FOV.
Print A3 @ 100% - Viewing Distance approx. 280mm

ISSUE REGISTER

DATE	REVISION	ISSUED TO	COPIED TO	CHECKED BY
03-11-22	B	CLIENT		JMH
31-10-22	A	CLIENT		JMH

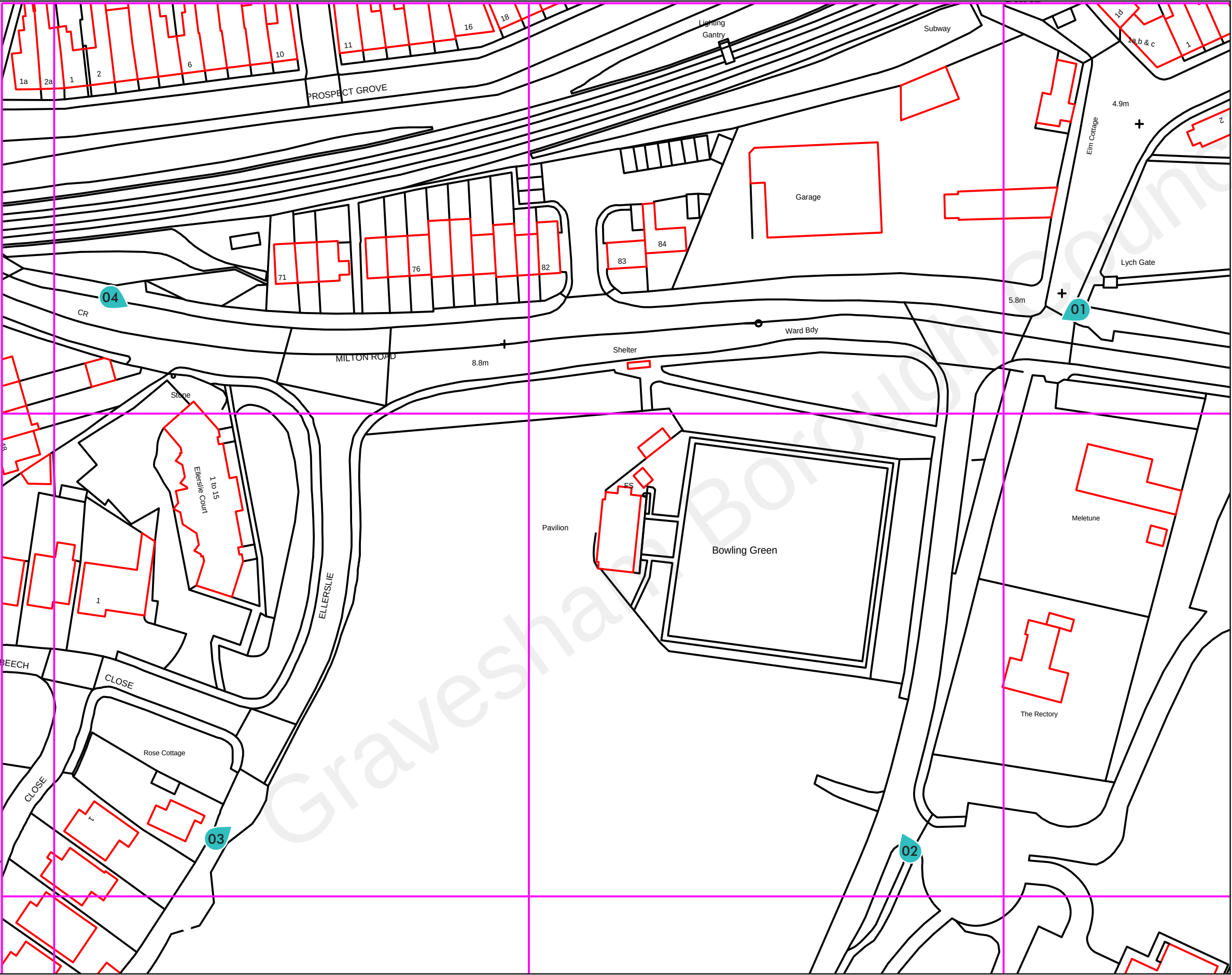
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OVERALL SITE PLAN



SURVEY	DESCRIPTION
VIEW 01	VIEW LOOKING SOUTHWEST TOWARD THE SITE, FROM JUNCTION OF EAST MILTON Rd. / RAPHAEL Rd.
VIEW 02	NORTHWESTERN VIEW FROM THE NORTHERN ENTRANCE OF GRAVESEND GRAMMAR SCHOOL.
VIEW 03	VIEW FROM THE NORTH END OF DONALD BIGGS Dr., LOOKING NORTHEAST.
VIEW 04	WESTERN LOOKING VIEW, LOOKING ALONG MILTON Rd., JUST WEST OF JUNCTION WITH ELLERSLIE.

VIEWPOINT RECORD SHEETS

INTRODUCTION

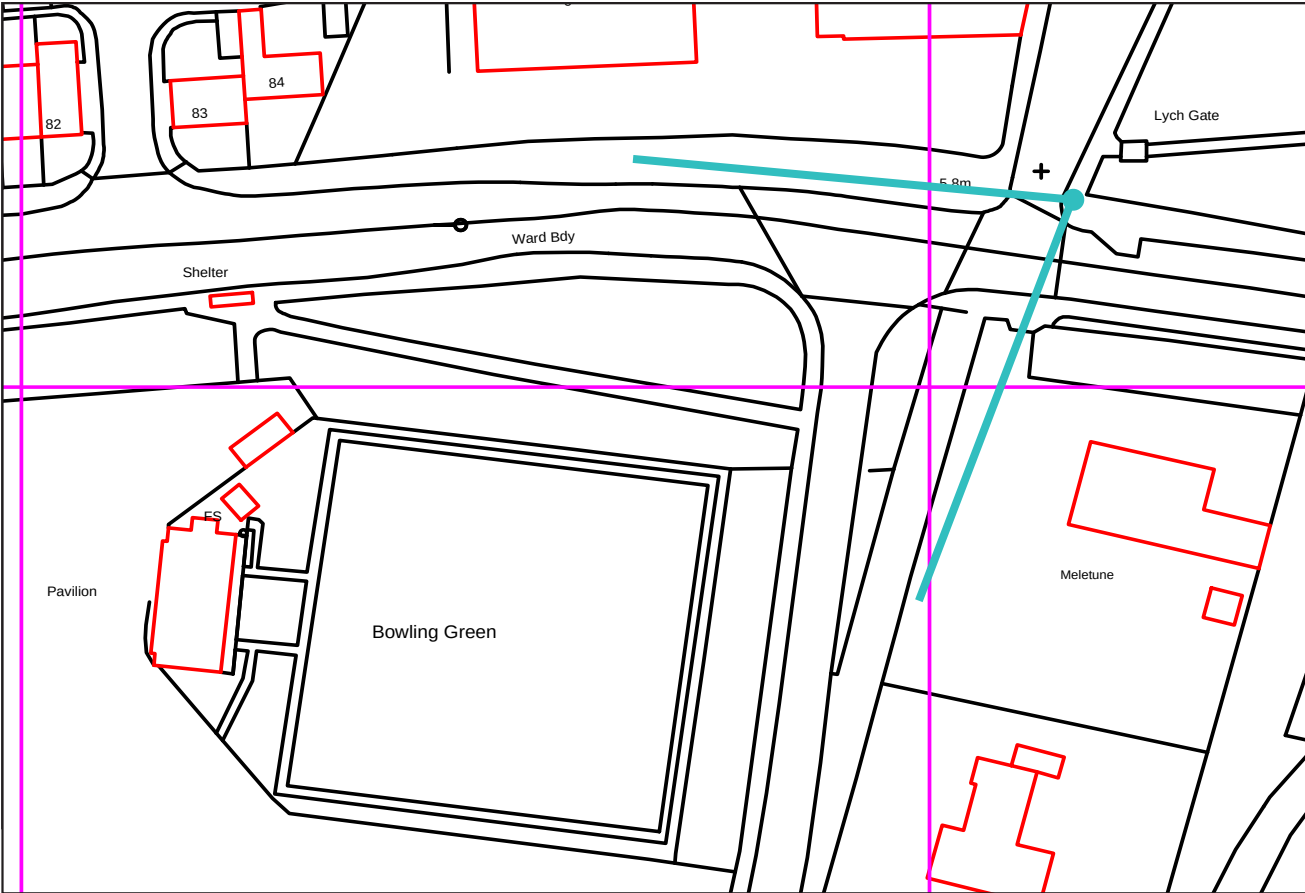
Virtual Resolution (VR) were commissioned by *McCarthy & Stone (Developments) Ltd* in August 2022 to produce dimensionally accurate photomontage images of a proposed development on Church Walk, Gravesend, DA12 2QU, UK.

The photography was carried out and surveying completed at the end of August 2022 after reaching agreements on specified locations between the project team. Camera matches were then created and quantified by VR from that data.

A model of the proposed has been modelled from CAD plans and elevations from On Architecture Ltd. A model of the proposed site has been created from information provided from landscape architects ACD Environmental.

It was requested that VR would show the proposed scheme as AVR-Type4, Levels 1 & 3 for planning purposes.

All images should be read in conjunction with the architects' plans and elevations. The views have been produced in order to illustrate the likely impact of the scheme on the wider setting of the site from the specified locations shown on page 4.



SITE PLAN SHOWING CAMERA LOCATION



BACKGROUND PHOTOGRAPH | CENTRE

CAMERA	Canon EOS 5Dmk4	DATE & TIME	31/08/2022 10:34
LENS	Canon 24mm TS-E f/3.5L II	WEATHER CONDITIONS	Blue Skies with Cumulus Clouds, Sunshine, Good Visibility
LENS HEIGHT	1.6m (AOD)	NATIONAL GRID REF	565815.541 E 173821.582 N
PRODUCTION NOTES	Viewpoint marked with a yellow cross on NW corner of BT ground cover. Photographed with a vertical tilt shift of +6mm.		

PRODUCTION DETAILS



LENS HEIGHT



CAMERA POSITION SURVEY MARKER



CAMERA IN POSITION



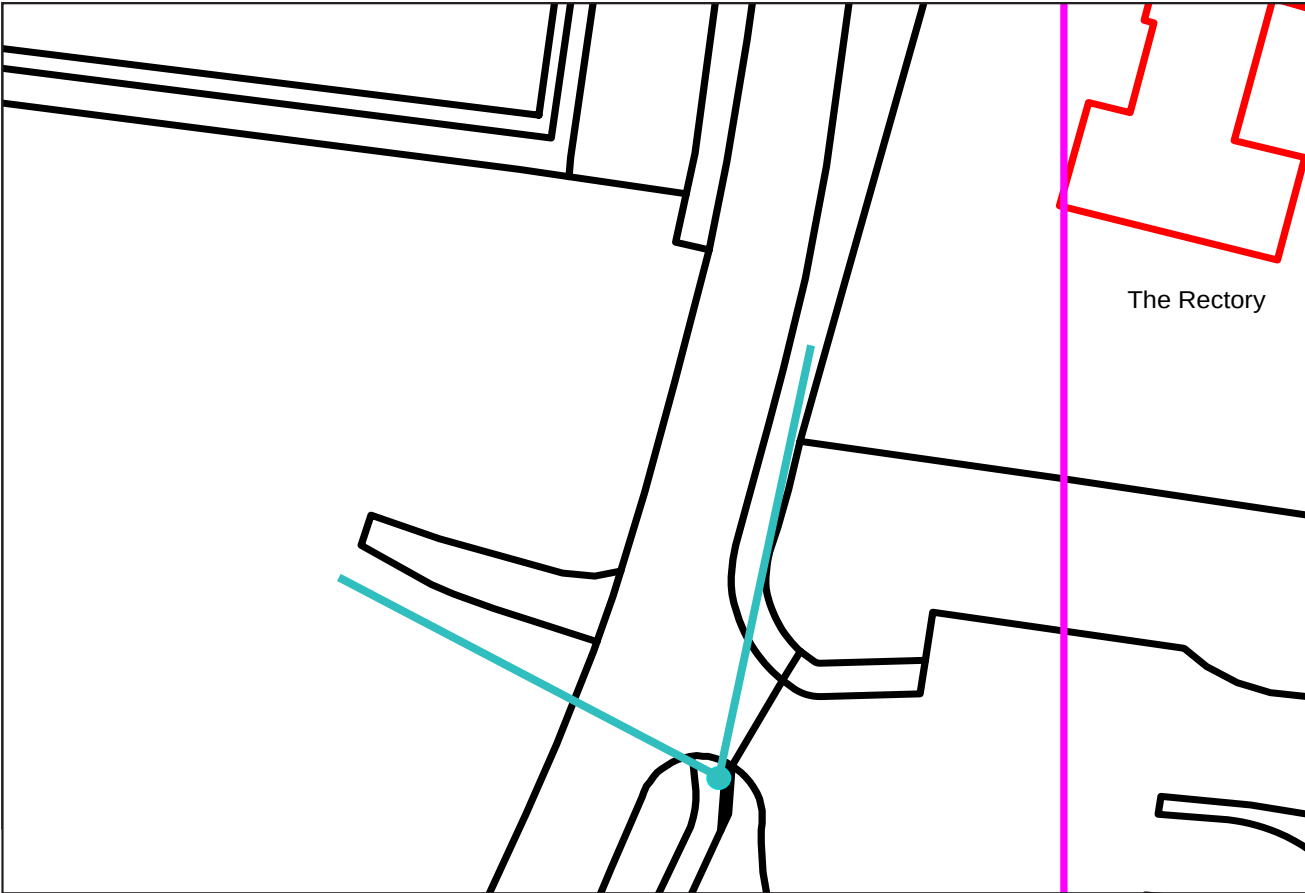
CAMERA IN POSITION

SURVEY POINT	DESCRIPTION	EASTING (X)	NORTHING (Y)	HEIGHT / OD (Z)
Camera Point	Viewpoint Camera Position 1	565815.541	173821.582	5.965
101	Top corner of brick	565808.64	173806.76	7.93
107	Corner of lamp cover	565792.94	173793.04	11.82
108	Corner of bench	565774.92	173795.09	6.56
109	Corner of bench	565773.91	173796.79	6.54
110	Corner of sign	565769.56	173811.39	7.14
115	Corner of inspection cover	565800.10	173821.35	5.93
116	Corner of inspection cover	565800.19	173822.03	5.94
117	Corner of horizontal bracket	565658.31	173819.90	13.61
118	Corner of horizontal bracket	565658.32	173819.90	13.00
119	Corner of sign	565725.71	173810.40	10.66
120	Corner of man hole	565810.31	173817.62	5.99









SITE PLAN SHOWING CAMERA LOCATION



BACKGROUND PHOTOGRAPH | CENTRE

CAMERA	Canon EOS 5Dmk4	DATE & TIME	31/08/2022 13:58
LENS	Canon 24mm TS-E f/3.5L II	WEATHER CONDITIONS	Blue Skies with Cumulus Clouds, Sunshine, Good Visibility
LENS HEIGHT	1.04m (AOD)	NATIONAL GRID REF	565780.443 E 173709.571 N
PRODUCTION NOTES	Viewpoint marked on joint of edging kerb to footpath with yellow cross. Photograph has had a clockwise rotation correction of 0.25 degrees applied for it to become level. Vertical tilt shift of +4mm used.		

PRODUCTION DETAILS



LENS HEIGHT



CAMERA POSITION SURVEY MARKER



CAMERA IN POSITION



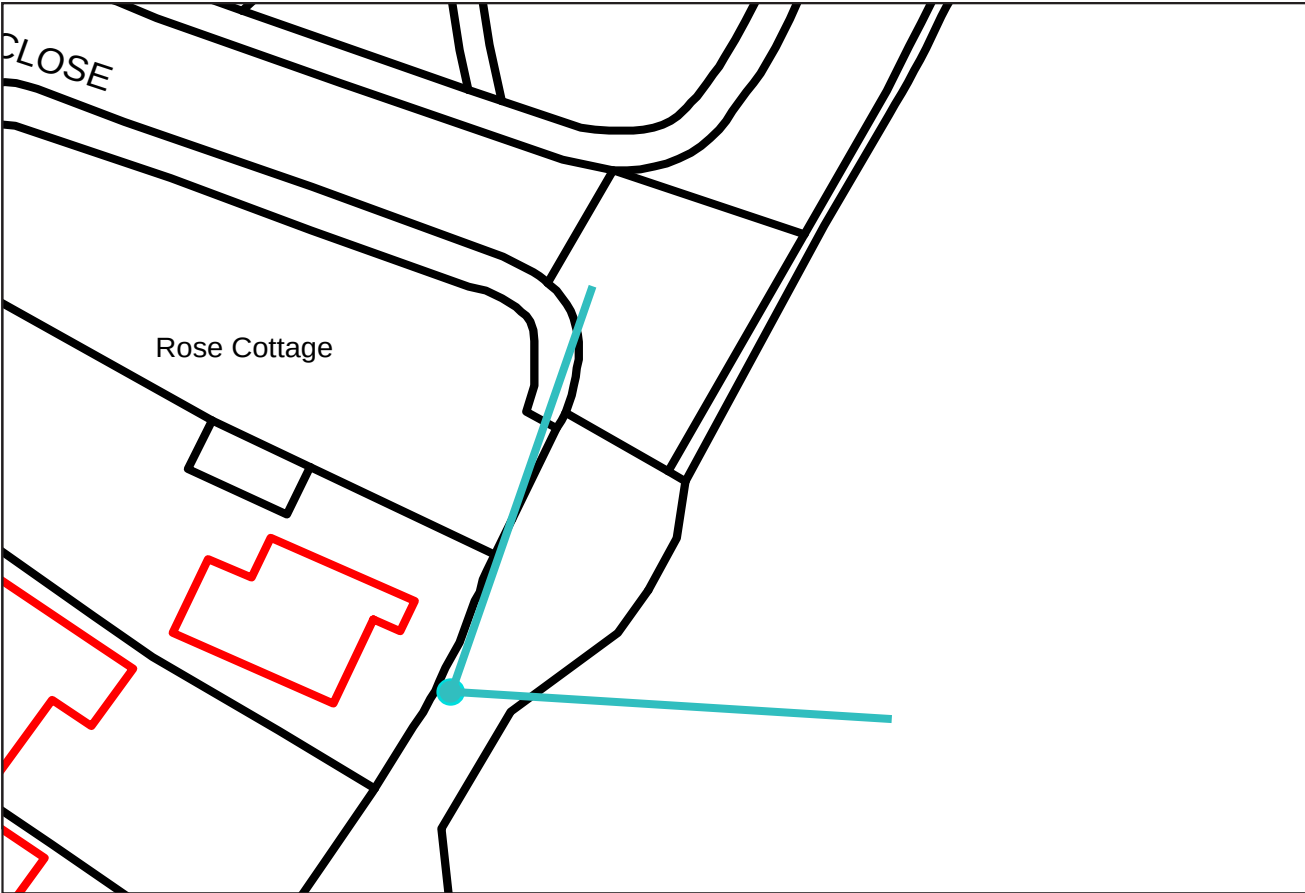
CAMERA IN POSITION

SURVEY POINT	DESCRIPTION	EASTING (X)	NORTHING (Y)	HEIGHT / OD (Z)
Camera Point	Viewpoint Camera Position 2	565780.443	173709.571	9.234
201	Corner of kerb line	565781.40	173718.48	9.00
203	Corner of kerb line	565780.98	173720.16	8.94
204	Corner of top sign	565772.45	173715.13	9.88
205	Corner of top post	565772.35	173715.98	11.12
206	Corner of top post	565774.50	173722.30	11.10
209	Corner of top post	565778.28	173744.12	9.75
211	Corner of bottom red roof	565797.16	173839.98	8.40
212	Corner of top white timber	565793.76	173840.14	8.26
213	Top corner of communications mast	565777.82	173827.52	26.12
214	Corner of window opening	565702.42	173829.09	12.16
216	Corner of top roof	565719.77	173767.26	12.29
218	Corner of window opening	565635.85	173792.91	14.65
219	Corner of window opening	565635.86	173792.91	20.06
221	Corner of top roof	565639.46	173783.53	25.67









SITE PLAN SHOWING CAMERA LOCATION



BACKGROUND PHOTOGRAPH | CENTRE

CAMERA	Canon EOS 5Dmk4	DATE & TIME	31/08/2022 12:35
LENS	Canon 24mm TS-E f/3.5L II	WEATHER CONDITIONS	Clear blue skies with some Light Cumulus Clouds, Sunshine and Good Visibility
LENS HEIGHT	1.6m (AOD)	NATIONAL GRID REF	565633.457 E 173711.996 N
PRODUCTION NOTES	Viewpoint marked with a yellow cross on inner yellow line. Photograph has had a clockwise rotation correction of 0.2 degrees applied for it to become level.		

PRODUCTION DETAILS



LENS HEIGHT



CAMERA POSITION SURVEY MARKER



CAMERA IN POSITION



CAMERA IN POSITION

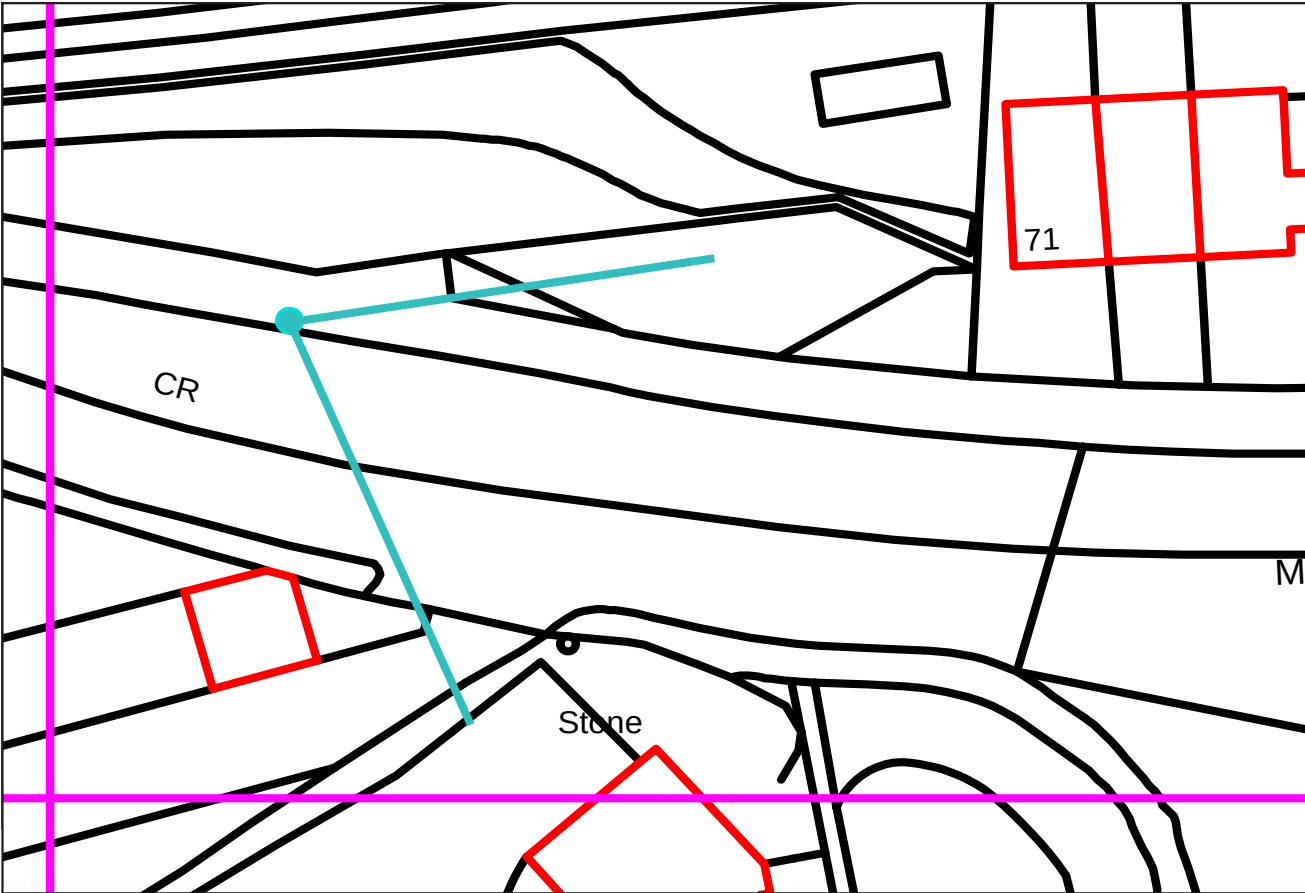
SURROUNDING FEATURE SURVEY POINTS RECORD FOR VIEW 03

SURVEY POINT	DESCRIPTION	EASTING (X)	NORTHING (Y)	HEIGHT / OD (Z)
Camera Point	Viewpoint Camera Position 3	565633.457	173711.996	12.268
301	Corner of glass on window	565677.18	173828.85	14.18
302	Corner of glass on window	565678.79	173828.98	14.18
303	Corner of sign on white	565644.19	173717.72	13.39
304	Corner of sign on white	565644.05	173717.35	13.39
307	Junction of roof before apex	565719.66	173767.28	12.26
308	Junction of vertical pole and horizontal pole	565765.16	173708.13	19.06
310	Apex of roof	565815.86	173786.92	17.42
311	End corner of lamp	565649.88	173731.10	16.40
313	Apex of roof	565706.20	173833.43	15.91
314	Corner of box on lamp post	565721.86	173728.76	8.34
205	Corner of top post	565772.35	173715.98	11.12
206	Corner of top post	565774.50	173722.30	11.10
213	Top corner of communications mast	565777.82	173827.52	26.12









SITE PLAN SHOWING CAMERA LOCATION



BACKGROUND PHOTOGRAPH | CENTRE

CAMERA	Canon EOS 5Dmk4	DATE & TIME	31/08/2022 14:42
LENS	Canon 24mm TS-E f/3.5L II	WEATHER CONDITIONS	Clear Skies with Light Stratocumulus Clouds, Sunshine with Good Visibility
LENS HEIGHT	1.6m (AOD)	NATIONAL GRID REF	565611.602 E 173824.110 N
PRODUCTION NOTES	Viewpoint marked on pedestrian footpath with a yellow cross. Photograph has had a clockwise rotation correction of 0.25 degrees applied for it to become level.		

PRODUCTION DETAILS



LENS HEIGHT



CAMERA POSITION SURVEY MARKER



CAMERA IN POSITION



CAMERA IN POSITION

SURVEY POINT	DESCRIPTION	EASTING (X)	NORTHING (Y)	HEIGHT / OD (Z)
Camera Point	Viewpoint Camera Position 4	565611.602	173824.110	13.052
401	Corner of BT cover	565619.66	173823.86	12.71
402	Corner of sign board internal frame	565619.91	173826.67	16.06
403	Corner of sign board internal frame	565625.58	173824.22	16.08
405	Corner of road marking	565618.04	173817.06	12.59
406	Corner of brick wall	565625.13	173808.47	12.90
407	Corner of top wall	565625.15	173808.50	14.23
408	Corner of top wall	565627.11	173808.07	14.23
409	Corner of top middle metal chimney	565635.48	173793.10	21.62
410	Corner of road sign	565668.53	173798.36	11.36
411	Corner of sign	565664.55	173791.03	11.97
412	Corner of sign	565677.76	173787.22	14.79
415	Corner of road sign	565658.33	173819.93	13.67
416	Corner of bus stop sign	565725.71	173810.41	10.69
419	Corner of bottom fence panel	565634.44	173822.36	12.39







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Virtual Resolution is a trading name of VR Studios Ltd

