

Appendix D Accurate Visual Representations



Shinfield Park , Reading

PART A: Methodology

February 2025

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1.0 Overview

This document has been prepared by Realm Communications on behalf of the client to detail the methodology used in the creation of accurate visual representations (AVRs) in relation to the proposed development at Shinfield Park, Reading.

The visual assessment of the proposed development reflects current best practice in relation to the verification of images, a process which is constantly being refined and improved with advances in technology and industry experience. The purpose of the photomontages is to present an accurate overview of the proposed development which enables its effect on the landscape and views to be objectively evaluated. Every image contained within this document is verified unless otherwise stated. Final images should not be used as a standalone tool to assess the suitability of a development, but should be used in conjunction with a site visit.

This audit trail demonstrates the key stages of production (that can, if required, be checked by a third party) including photography, surveying, 3D modelling and camera matching processes - all critical to ensuring the accuracy of the final photomontages. These methodologies are in accordance with current best practice and follow recommendations from The Landscape Institute’s Technical Guidance Note (TGN 06/19) : Visual Representation of Development Proposals.

The entities responsible for the preparation of the views that are set out in the following pages comprise:

Selection of viewpoints

Stantec
7 Soho Square
London
W1D 3QB
Phone: 0207 446 6888

Photography

Arcminute Ltd
25b Pall Mall Deposit ,124-128 Barlby Road
Ladbroke Grove
London W10 6BL
Phone: 07774 857627

Survey of existing views and camera locations

Datum Survey Services
Brickfield Business Centre, Brickfield House
High Road, Thornwood, Epping CM16 6TH
Phone: 07977 111935

Production and checking of verified images

Realm Communications
The Workshop, Old Barn Cottage, Down Lane
Compton, Guildford GU3 1DQ
Phone: 01483 813888

Supply of Landscape CAD and planting information

Burrows Graham
Buckland House
Dower mews
Berkhamsted
HERTS
HP4 2BL
Phone: 01442 508402

Supply of proposed layout and build information

Chetwoods Architects
13-16 Britton St
London
EC1M 5SX
Phone: 020 7490 2400

2.0 Methodology

2.1 Photography

The professional architectural photographer employed on this project was briefed by Realm to work to a methodology which conforms to the principles specified in section 1.0 Overview. The following methodology statement has been supplied by Arcminute:

Photography brief The following methodology applies to the production of photographic images originated in November 2024 which form the pictorial basis for visual impact assessment photomontages for 9 views for the proposed development at Shinfield Park, Reading.

Equipment Images are captured on a 36mm x 24mm 21 megapixel digital sensor in combination with the following shift lenses:

- Focal length 24mm | Horizontal FOV 74° (for close views in built-up streetscapes)
- Focal length 35mm | Horizontal FOV 55° (for close views requiring selective framing)
- Focal length 50mm | Horizontal FOV 40° (for long distance views)

Lenses outside these parameters are also available for use in certain circumstances but these 3 lenses have been found to cover the vast majority of situations required in this type of work.

Choice of lens We prefer to replicate (as far as possible) what may have already been provided in terms of preliminary view studies as typically these would have been generated using pre-considered factors as to what each view would need to illustrate e.g. context, key visual receptors etc. In the absence of a definitive steer, we will generally use a 74° HFOV lens for medium to close views in an urban environment and a 40° HFOV lens for long distance views. However, the actual size and nature of a scheme (single building or large multibuilding development) and its location will also be considered before lens selection. The Landscape Institute’s latest guidelines have been relaxed with regard to lens choice and they are no longer insistent that a ‘standard’ lens be used wherever possible.

Photography The camera is mounted on a tripod at eye level which on level ground is 1.65m within a +/- 100mm tolerance. The camera is then levelled in roll and pitch to a tolerance of 30mm per 100m using a precision spirit level. The point on the lens which coincides with the virtual render camera is horizontally referenced to a survey mark (nail or paint) to +/- 2mm using a survey standard procedure and the height above this is measured using a steel tape measure to the same tolerance. A photograph is taken of the tripod in its location, the survey point on the ground and the tape measure reading against a reference point on the camera mount. During image capture particular emphasis is placed on the following:

- Rendering all points in the scene as sharply as possible to avoid any sense of selective focus.
- Capturing all tonal detail in the scene and avoiding ‘blown out’ highlights and ‘blocked up’ shadows.

Where a scene’s brightness range exceeds that of the sensors dynamic capture range it may be necessary to combine two or more different exposures to create a final image to overcome this limitation and to maintain a realistic tonal rendering closer to that of the human eye.

Post production The camera images are captured using a native camera or ‘RAW’ format and a software application is used to turn these into universally accessible RGB raster images. At this conversion stage colour and tonal adjustments are made to recreate as honestly as possible the scene as was presented to the photographer at the time of capture. RGB images are corrected using specialist software to remove non-perspective optical distortion in order to create a geometrically accurate 2D projection which can be precisely aligned with CGI renderings and survey data.

The image is then placed in a standard sized image template and the calibrated lens axis position is aligned with the documents centre. This accounts for both deliberate offset through lens shift and manufacturing tolerances in lens to camera body

alignment. A text file in the image document records camera height above the survey point, lens focal length, film gate, date and time, nominal lens offset and document pixel dimensions. All images are also accompanied with photographic evidence of camera location, survey point location and height above survey point.

Where temporary survey targets have been set up in the scene the before and after images are included as separate TIFF layers to enable both accurate camera alignment and seamless removal of the targets for final output.

For panoramic images, proprietary software creates a seamless and accurate cylindrical projection from an overlapping sequence of images (10 stitched together for a 120° panoramic, 14 for a 180° and 27 for a 360°) which share a single camera coordinate. The image is then placed in a pre-prepared template where the centre of the optical axis is aligned with the image centre to account for any offset used in vertical farming adjustments or mechanical misalignment of the lens' optical axis and that of the sensor.

2.1.2 Production of Panoramic Photography

This section explains the technical and practical processes for image capture and processing of panoramic photographs for the project, undertaken by Arcminute Ltd in respect of the project. The methodology is compliant with the principles of the Landscape Institute but exceeds them in technical sophistication to meet the higher accuracy standards of VVM practice, where a camera is aligned to a sub cm GNSS survey.

Equipment

- Sony A7rIV 61mp 'full frame' Camera in portrait orientation
- Sigma 35mm F2 DG DN Lens
- In-house designed and manufactured rotating panoramic head with <0.02deg runout under load.

The choice of lens and camera orientation is to overcome the technical limitations for VVM purposes of a 50mm lens in landscape orientation. It is equivalent in resolution to a 27mp sensor and 50mm lens and resolves more detail than that which is observable by the naked eye.

Image Capture: The camera was set at a nominal height of 1.6m above the ground and picture of this setup including an actual height measurement was recorded on a mobile phone camera. A sequence of overlapping images at an angular interval of 18 degrees and sharing the same point of perspective were captured in a RAW file format. A survey for each viewpoint

was undertaken at the same time as the photography to record the precise camera location and features in the scene for use in the camera alignment process. If there were insufficient fixed surveyable features near the camera then supplementary temporary survey targets were placed in the view.

Image Editing: The RAW images were converted in an image editing application into tiff images at native resolution. A panoramic stitching application assembled the individual frames into an accurate seamless cylindrical panorama matching the projection geometry of the end users 3d render panoramic camera model. Further tonal adjustments were made to the assembled panorama to match the visual impression of the scene as experienced at the time of capture.

Deliverables

- A standard working background tiff of 180x55 degrees at a 0.01mm pixel size which provides the customer with enough resolution to crop the image to their required framing while retaining a manageable data size for rendering. It also contains a text layer with all the technical information required for the camera matching operator.
- A photographic record of the camera in position.
- This methodology statement.

2.2 Survey

All of the baseline photographs were taken by a professional architectural photographer. Each viewpoint location is surveyed and identified by Ordnance Survey co-ordinates. The heights and distances of significant points within each view that are easily distinguishable have also been recorded as Ordnance Survey grid and level datum and their accuracy has been checked relative to the fixed camera position. The survey points for each view provide an effective check for ensuring that the 3D model and existing views are accurately merged together.

The following methodology statement has been supplied by Datum Survey Services;

Survey brief We were commissioned to survey and record co-ordinates (Easting, Northing and AOD Height) of known points of detail located around the study site at Shinfield Park, Reading. Digital files of the 9 views together with camera point locations were provided by the photographer.

Date of surveys November 2024

Camera point positioning Network RTK solutions were established using a Leica GPS + GLONASS SmartRover receiver. The equipment was set-up directly over the camera position

(survey nail) and multiple observations were recorded. A second (reference) point was taken approximately 100m away from the camera position using the same method.

Data capture Traditional survey techniques were employed to record the points of detail within each view. A Leica TCRA TS15 Total Station with long range reflector-less distance measurement capabilities was set-up directly over the camera point and orientated to Ordnance Survey National Grid using the two sets of co-ordinates determined by the SmartRover receiver.

Deliverables The completed survey data was issued as follows: Excel Spreadsheet comprising point numbers, coordinate data and descriptions

- PDF copies of each photo with point locations and view specific point numbers clearly marked
- AutoCAD DWG file containing 3D survey points with view specific point numbers.

Several views lacked sufficient clearly defined detail to survey. In these instances retro targets mounted on ranging rods were introduced to act as 'artificial' points within the field of view.

2.3 3D models

Supplied by Chetwood Architects.

2.4 3D landscape

Supplied by Burrows Graham.

2.5 Camera matching

The verification process confirms the accuracy of the 3D model in relation to each view. The camera matching process involves accurately matching the position of the virtual camera with the real world camera in OS space, and the location of the 3D model of the proposed development within each (existing) view. This is achieved through aligning the imported 3D cloud of survey points within the base photo and 3D environment, creating a virtual camera that replicates the exact position and height of the real world camera to produce an image where the rendered survey points match in visual location those recorded by the survey team and photographer.

The specifications of the lens type relating to each existing view are also entered into 3DS Max to help guide with alignment. An alignment is deemed correct only when all survey points sit exactly over the pixel in the photo that corresponds with the marked-up survey photo. If all points match, the virtual camera

An alignment is deemed correct only when all survey points sit exactly over the pixel in the photo that corresponds with the marked-up survey photo. If all points match, the virtual camera must therefore be correctly aligned.

For each view we measure the distance from camera to target and apply respective equations to establish the potential adjustment necessary to compensate for both curvature of the earth and light refraction. Typically, when the real world camera is positioned within 1.5km from the target, the effects of curvature of the earth and light refraction are deemed to be negligible in terms of their visual impact and therefore no adjustment is made to the Z axis of the building model within the view.

2.6 Lighting and rendering

To accurately light the 3D model, 3DS Max's 'daylight system' is set to replicate the solar time, date and geographic location (longitude and latitude) as recorded in the base photograph. The settings used for each base photograph (F stop, shutter speed etc) are replicated in both this 'daylight system' and the virtual camera set-up. This process mimics the virtual sun so that the lighting falls upon the 3D model as it would in real life at the point when the photograph was captured. Fine tuning is sometimes necessary to better match the resultant lighting and shadows to the base photograph.

Once the camera matching and lighting processes are complete, the render of the 3D model is output to the same pixel resolution as per each respective base photograph.

2.7 Post production

Fully rendered views The render of the three-dimensional model was superimposed on the existing still views in Adobe Photoshop. The foreground of the existing views was then copied and placed over the rendered model in order to ensure that the depth is accurate within the photomontage view between the foreground, background and the rendered model.

At this stage, for the fully rendered photomontages, the textured model can adjusted to match the resolution, colouring and saturation of the photograph taken to create a close impression of what the textures of the buildings and structures would look like. This is a qualitative exercise and requires interpretation by the designer on how the structure will look. A final qualitative check of all of the photomontage images has been carried out to ensure that they provide objectively accurate views of the proposed development.

Wireline views These photomontages show the outline of the maximum envelope of built form in accordance with development parameters as a red line for the building (a solid line where visible, a dotted line when obscured by foreground objects).

2.8 Recommended viewing distances

In line with LI Guidance It is recommended that final images are viewed at an optimum viewing distance (in relation to the size of printed photomontage) to give a correct sense of scale. We recommend that images are printed to a size that creates a comfortable viewing distance of up to 525mm.

We recommend that this document is printed at A1 size.

2.9 Caveats

None.

3.0 Supporting evidence

[illegible]

Near Views



Far Views

View P2

01.1 Ordnance survey co-ordinates			
Point Ref	Eastings	Northings	AOD height
201	472870.075	169043.388	89.814
202	472933.408	169034.787	73
203	472912.253	169043.409	73.063
204	472890.57	169066.303	92.746
205	472899.969	169067.507	76.422
206	472861.765	169115.211	94.326
207	472886.303	169092.301	77.69
208	472899.183	169090.055	76.275
209	472923.087	169065.194	74.85
210	472926.455	169063.122	74.832
211	472932.652	169043.327	71.359
212	472919.506	169050.905	71.718
213	472918.583	169043.852	71.386
214	472914.228	169038.665	71.234
215	472860	169099.622	89.84
216	472936.814	169045.456	71.922

1.3 View P2 camera location

Eastings472936.181m

Northings169033.797m

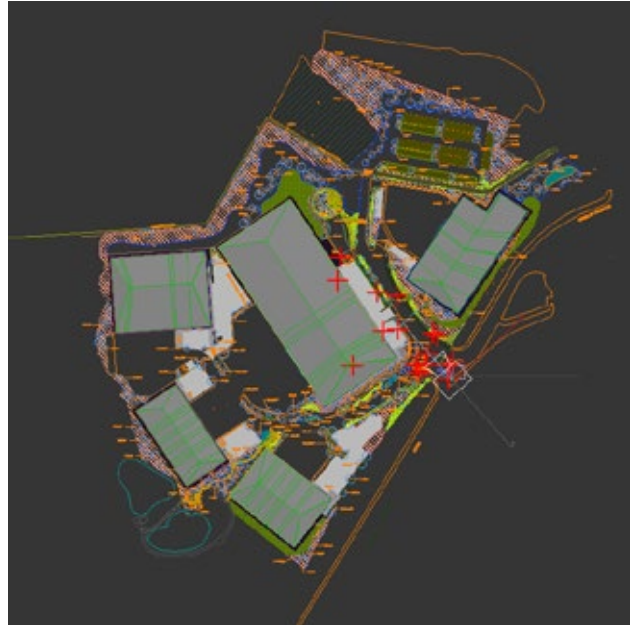
AOD height72.863m

Approx distance to centre of site108m

Approx bearing from North319°



01.2 OS survey points marked on photograph



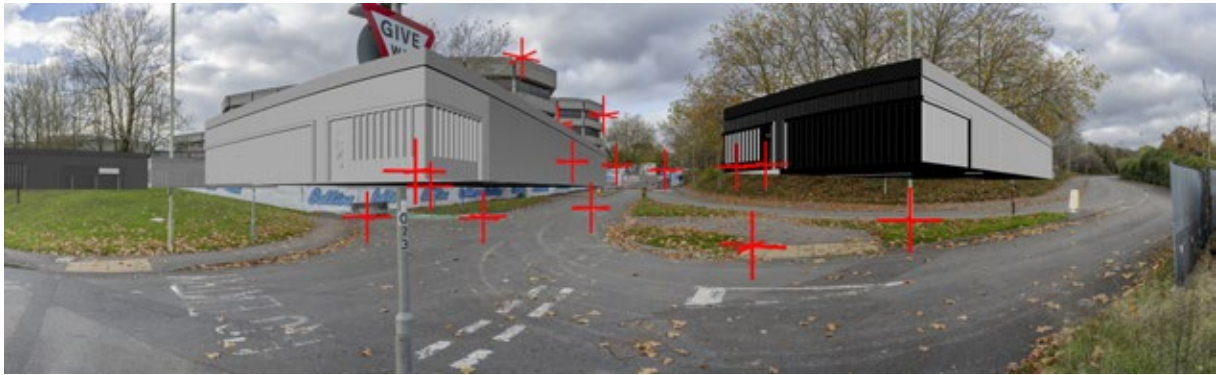
01.4 Screen grab of camera location in 3D Studio Max software



01.5 Screen grab of calculated horizon line



01.6 Screen grab of camera matching to OS data



01.7 Screen grab of model matched to photograph



01.8 Final camera matched photomontage

View P4

01.1 Ordnance survey co-ordinates			
Point Ref	Eastings	Northings	AOD height
401	472838.335	169019.112	97.19
402	472973.188	169050.861	74.327
403	473007.601	169066.123	75.297
404	472998.023	169075.291	83.683
405	473010.685	169061.862	73.312
406	473000.762	169075.591	77.126
407	472994.56	169085.175	74.787
408	473001.167	169088.754	75.811
409	473013.227	169080.645	75.303
410	472996.344	169102.785	77.614
411	473010.756	169092.595	77.654
412	473009.063	169069.292	73.533
413	473002.151	169061.837	83.37
414	473024.879	169085.235	77.234
415	473011.974	169073.516	73.697
416	472966.981	169060.571	82.989
417	473022.537	169080.522	75.362

1.3 View P4 (Left) camera location

Eastings473031.916m

Northings169063.082m

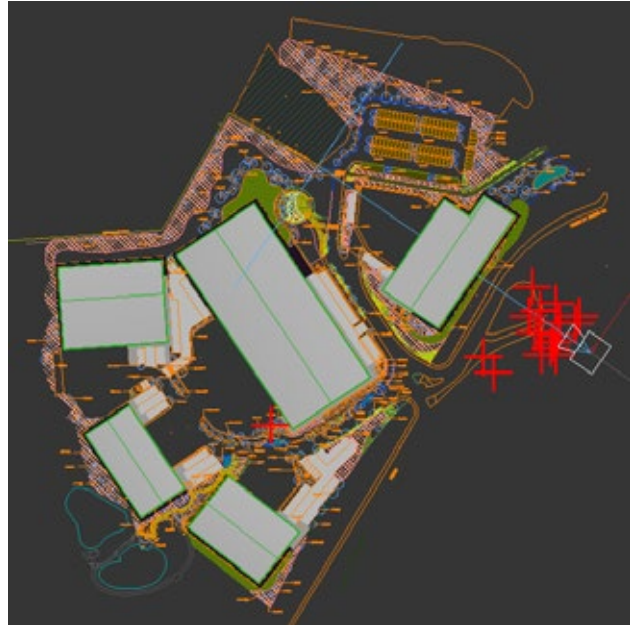
AOD height75.359m

Approx distance to centre of site196m

Approx bearing from North304°



01.2 OS survey points marked on photograph



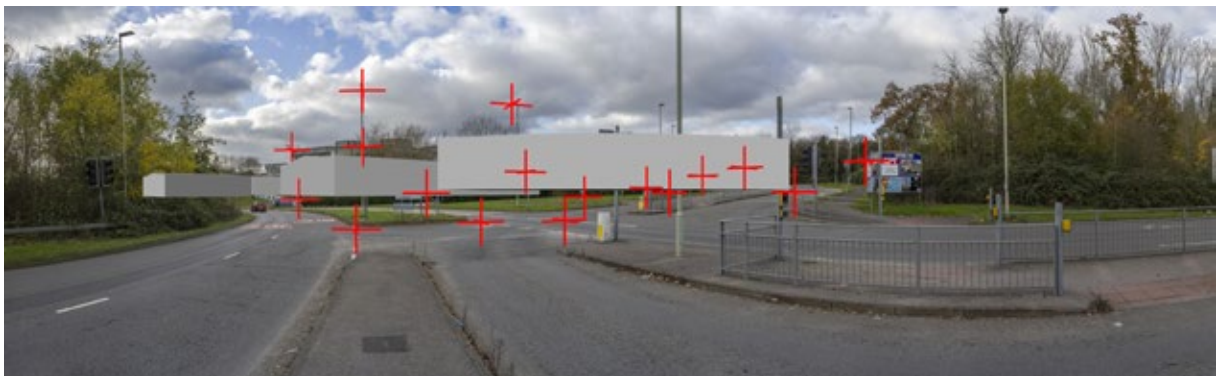
01.4 Screen grab of camera location in 3D Studio Max software



01.5 Screen grab of calculated horizon line



01.6 Screen grab of camera matching to OS data



01.7 Screen grab of model matched to photograph



01.8 Final camera matched photomontage

View P7

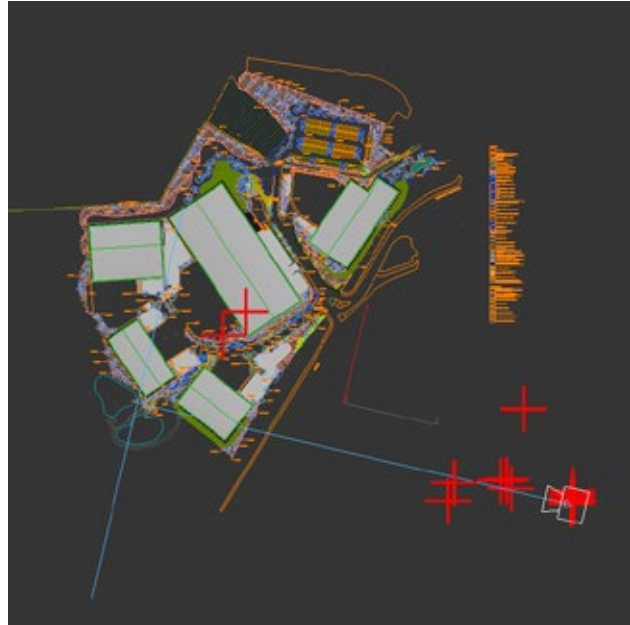
01.1 Ordnance survey co-ordinates			
Point Ref	Eastings	Northings	AOD height
701	473077.639	168887.395	65.991
702	473086.882	168880.24	61.449
703	472829.719	169016.917	94.336
704	472849.54	169038.678	97.176
705	473140.428	168866.869	70.249
706	473140.48	168867.726	70.26
707	473142.013	168868.909	70.228
708	473140.901	168871.331	70.324
709	473141.303	168874.923	70.406
710	473141.713	168878.529	70.464
711	473097.666	168951.871	85.718
712	473082.782	168888.389	62.742
713	473035.902	168885.597	71.088
714	473030.226	168869.516	64.982

1.3 View P7 camera location

Eastings 473142.245m
Northings 168865.627m
AOD height 70.777m
Approx distance to centre of site 370m
Approx bearing from North 283°



01.2 OS survey points marked on photograph



01.4 Screen grab of camera location in 3D Studio Max software



01.5 Screen grab of calculated horizon line



01.6 Screen grab of camera matching to OS data



01.7 Screen grab of model matched to photograph



01.8 Final camera matched photomontage

View P8

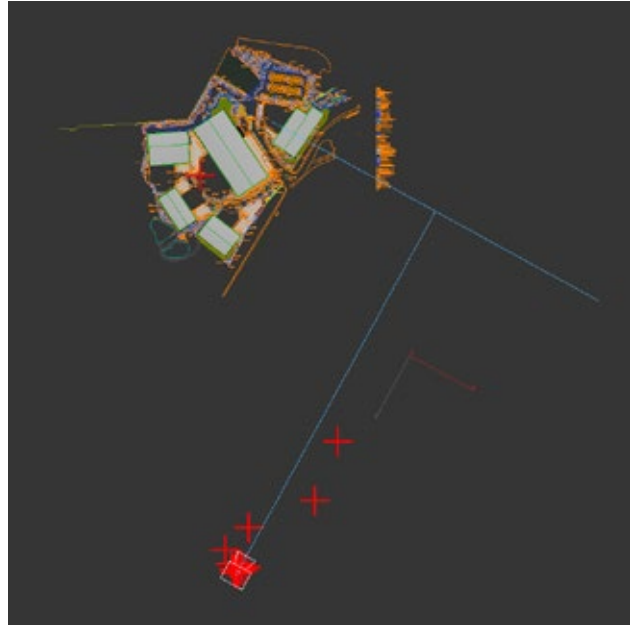
01.1 Ordnance survey co-ordinates			
Point Ref	Eastings	Northings	AOD height
801	472846.811	168428.124	64.17
802	472848.07	168427.9	64.203
803	472850.23	168427.433	64.283
804	472852.229	168426.284	64.342
805	472858.236	168431.622	64.465
806	472853.098	168433.876	64.379
807	472847.924	168433.911	64.204
808	472844.337	168432.986	64.031
809	472840.828	168442.482	64.043
810	472848.56	168443.209	64.263
811	472856.531	168440.71	64.507
812	472865.055	168436.401	64.731
813	472971.747	168540.338	69.688
814	473008.145	168633.542	71.299
815	472868.729	168498.695	64.307
816	472791.997	169050.508	107.667
817	472830.963	168463.735	63.458

1.3 View P8 camera location

Eastings 472848.104m
Northings 168423.673m
AOD height 65.324m
Approx distance to centre of site 651m
Approx bearing from North 29°



01.2 OS survey points marked on photograph



01.4 Screen grab of camera location in 3D Studio Max software



01.5 Screen grab of calculated horizon line



01.6 Screen grab of camera matching to OS data



01.7 Screen grab of model matched to photograph



01.8 Final camera matched photomontage

View P11

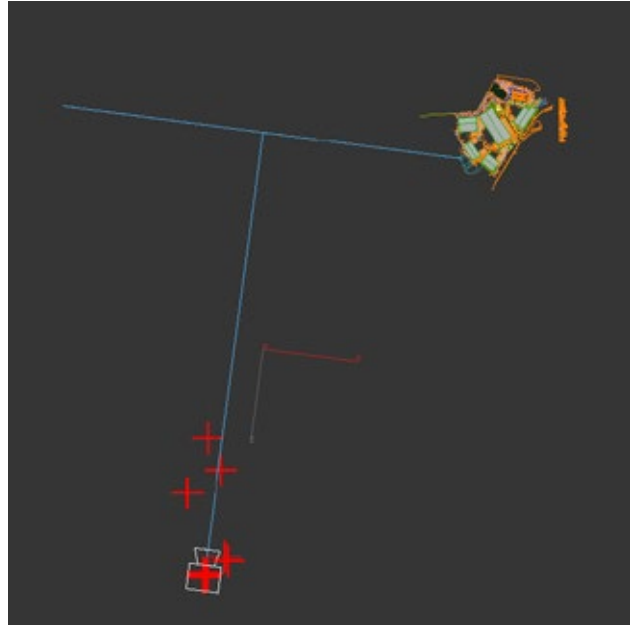
01.1 Ordnance survey co-ordinates			
Point Ref	Eastings	Northings	AOD height
1101	471801.568	167481.58	59.165
1102	471803.129	167481.806	59.141
1103	471805.052	167481.43	59.12
1104	471806.938	167481.134	59.139
1105	471810.609	167486.762	59.244
1106	471806.422	167487.194	59.23
1107	471802.809	167486.597	59.157
1108	471800.185	167484.88	59.147
1109	471800.331	167494.476	59.195
1110	471804.908	167495.142	59.189
1111	471809.413	167493.457	59.214
1112	471814.593	167491.096	59.245
1113	471745.538	167780.684	51.076
1114	471817.47	167975.537	50.432
1115	471864.428	167863.453	53.303
1116	471890.72	167538.638	58.651
1117	471879.607	167554.381	58.31

1.3 View P11 camera location

Eastings 438718.525m
Northings 145663.925m
AOD height 99.626m
Approx distance to centre of site 1901m
Approx bearing from North 8°



01.2 OS survey points marked on photograph



01.4 Screen grab of camera location in 3D Studio Max software



01.5 Screen grab of calculated horizon line



01.6 Screen grab of camera matching to OS data



01.7 Screen grab of model matched to photograph



01.8 Final camera matched photomontage

View P14

01.1 Ordnance survey co-ordinates			
Point Ref	Eastings	Northings	AOD height
1401	473803.897	167398.841	42.061
1402	473805.13	167400.066	42.02
1403	473806.126	167400.906	42.014
1404	473807.442	167401.824	41.982
1405	473808.18	167407.867	41.957
1406	473803.931	167407.477	42.017
1407	473801.164	167405.813	42.067
1408	473797.791	167402.905	42.12
1409	473789.159	167408.531	42.127
1410	473794.659	167415.133	42.066
1411	473800.207	167419.381	42.043
1412	473808.726	167421.566	41.947
1413	473558.986	167721.325	48.209
1414	473151.608	167785.186	59.218
1415	473674.496	167822.904	49.554
1416	473812.821	167844.813	54.489

1.3 View P14 camera location

Eastings473807.641m

Northings167396.557m

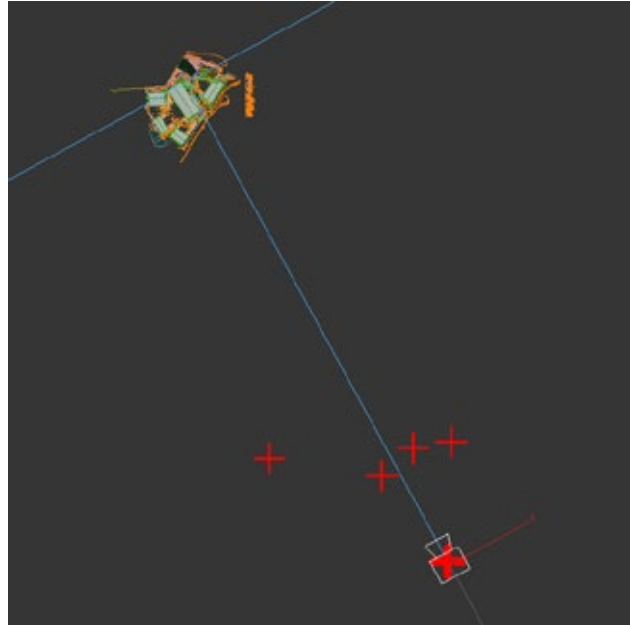
AOD height43.166m

Approx distance to centre of site1939m

Approx bearing from North331°



01.2 OS survey points marked on photograph



01.4 Screen grab of camera location in 3D Studio Max software



01.5 Screen grab of calculated horizon line



01.6 Screen grab of camera matching to OS data



01.7 Screen grab of model matched to photograph



01.8 Final camera matched photomontage

View P15

01.1 Ordnance survey co-ordinates			
Point Ref	Eastings	Northings	AOD height
1501	475835.519	166226.321	79.291
1502	475831.177	166229.822	79.052
1503	475826.075	166232.894	78.717
1504	475821.224	166236.809	78.401
1505	475813.687	166242.844	77.852
1506	475804.218	166250.536	77.184
1507	475817.224	166246.615	77.753
1508	475823.223	166241.268	78.233
1509	475828.059	166237.11	78.607
1510	475832.006	166233.566	78.924
1511	475837.133	166230.545	79.3
1512	475839.568	166230.601	79.414
1513	475829.253	166229.512	81.672
1514	475719.889	166331.986	75.153
1515	475678.449	166449.88	85.47

1.3 View P15 camera location

Eastings 475840.292m
Northings 166224.809m
AOD height 80.734m
Approx distance to centre of site 4140m
Approx bearing from North 296°



01.2 OS survey points marked on photograph



01.4 Screen grab of camera location in 3D Studio Max software



01.5 Screen grab of calculated horizon line



01.6 Screen grab of camera matching to OS data



01.7 Screen grab of model matched to photograph



01.8 Final camera matched photomontage

View P17

01.1 Ordnance survey co-ordinates

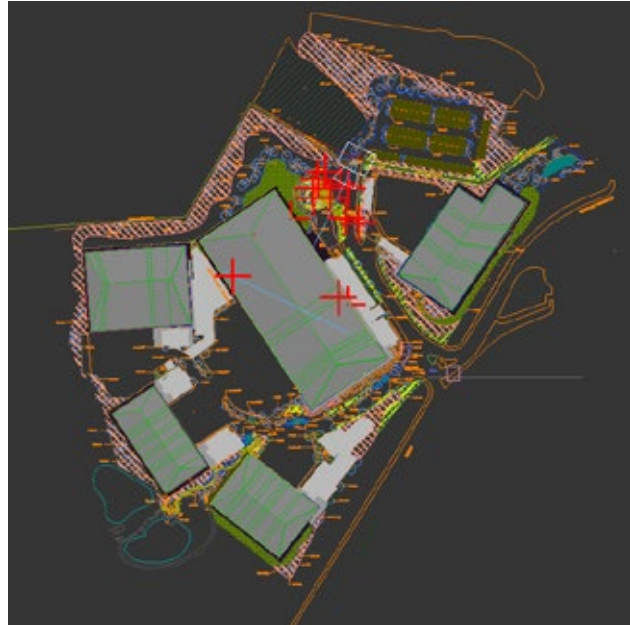
[illegible]

1.3 View P17 camera location

Eastings	472879.764m
Northings	169173.166m
AOD height	76.652m
Approx distance to centre of site	108m
Approx bearing from North	206°



01.2 OS survey points marked on photograph



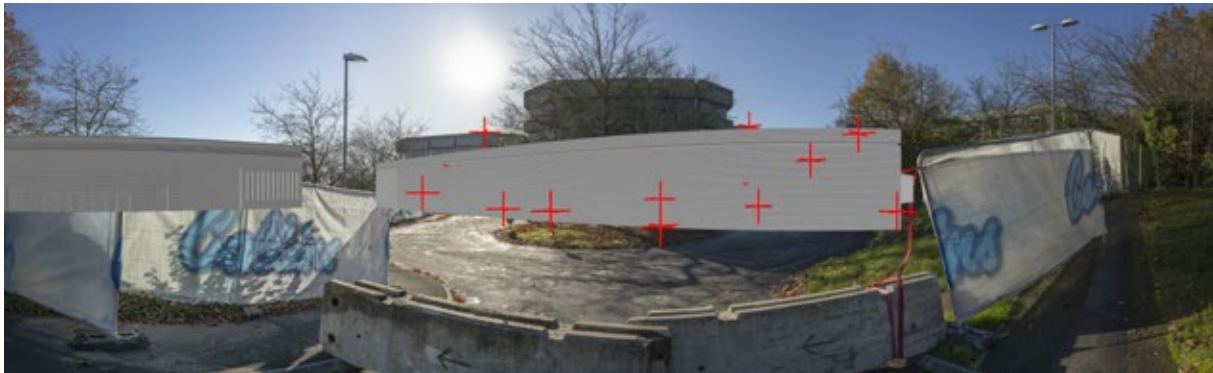
01.4 Screen grab of camera location in 3D Studio Max software



01.5 Screen grab of calculated horizon line



01.6 Screen grab of camera matching to OS data



01.7 Screen grab of model matched to photograph



01.8 Final camera matched photomontage

View P18

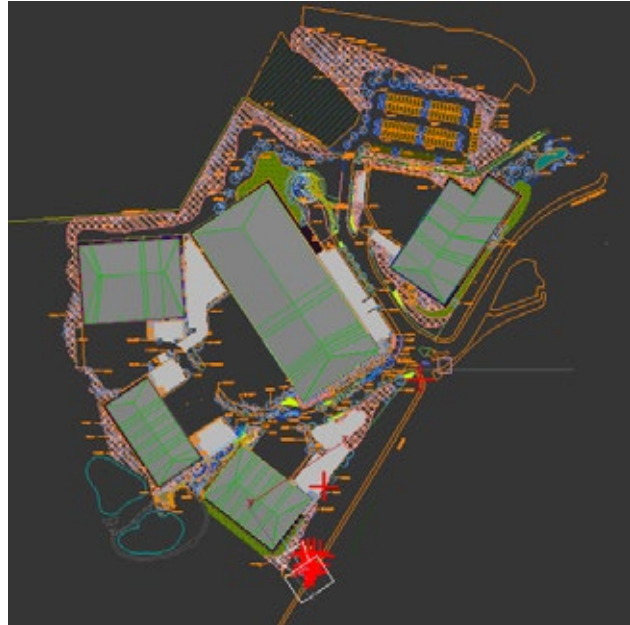
01.1 Ordnance survey co-ordinates			
Point Ref	Eastings	Northings	AOD height
201	472853.301	168907.335	64.488
202	472854.218	168908.898	64.615
203	472855.622	168909.385	64.324
204	472857.022	168909.102	64.003
205	472858.382	168913.305	64.459
206	472856.19	168913.331	64.98
207	472854.02	168912.73	65.407
208	472852.078	168910.436	65.469
209	472850.353	168919.694	67.839
210	472853.967	168920.758	67.173
211	472857.917	168920.865	66.259
212	472861.545	168919.098	64.969
213	472863.879	168962.777	76.443
214	472827.595	168958.369	80.818
215	472924.426	169030.23	73.316

1.3 View P18 camera location

Eastings 472854.761m
Northings 168904.068m
AOD height 64.778m
Approx distance to centre of site 171m
Approx bearing from North 326°



01.2 OS survey points marked on photograph



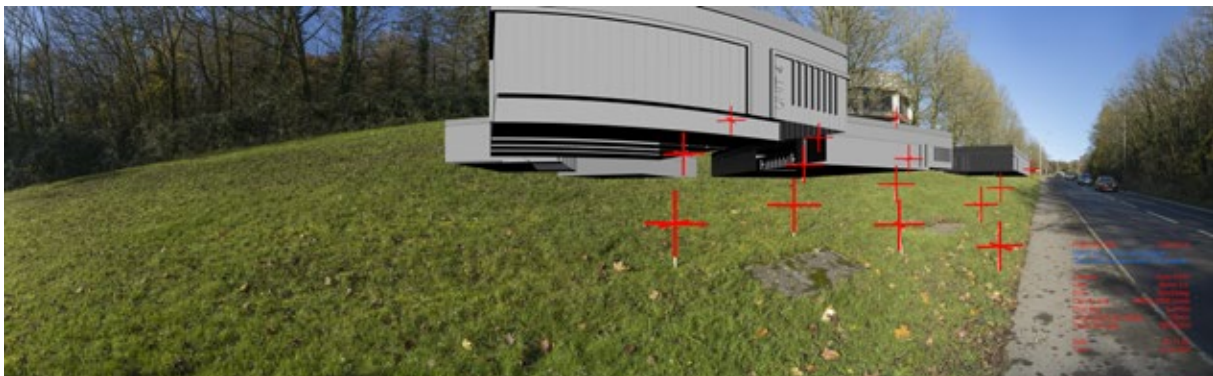
01.4 Screen grab of camera location in 3D Studio Max software



01.5 Screen grab of calculated horizon line



01.6 Screen grab of camera matching to OS data



01.7 Screen grab of model matched to photograph



01.8 Final camera matched photomontage



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Shinfield Park , Reading

PART B: Photomontages

February 2025

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1.0 Final verified photomontages

View P2 - Existing baseline (90 degree panoramic view) - Left Hand Side

5 frame stitched view | FOV 90 x 27 degrees | Camera height above survey point 1642mm | Nominal lens rise 0mm | Date 14.11.24 | Time 13:16



Full 180 degree panorama showing view context

View P2 - Proposed shown at Yr 1 (90 degree panoramic view) - Left Hand Side



View P2 - Proposed shown at Yr 15 (90 degree panoramic view) - Left Hand Side



View P2 - Existing baseline (90 degree panoramic view) - Right Hand Side



View P2 - Proposed shown at Yr 1 (90 degree panoramic view) - Right Hand Side



View P2 - Proposed shown at Yr 15 (90 degree panoramic view) - Right Hand Side



View P4 - Existing baseline (90 degree panoramic view) - Left Hand Side

5 frame stitched view | FOV 90 x 27 degrees | Camera height above survey point 1644mm | Nominal lens rise 0mm | Date 14.11.24 | Time 13:11



Full 180 degree panorama showing view context

View P4 - Proposed (90 degree panoramic view) - Left Hand Side



View P4 - Existing baseline (90 degree panoramic view) - Right Hand Side



View P4 - Proposed (90 degree panoramic view) - Right Hand Side



View P7 - Existing baseline (90 degree panoramic view)

5 frame stitched view | FOV 90 x 27 degrees | Camera height above survey point 1662mm | Nominal lens rise 0mm | Date 14.11.25 | Time 12:06



Full 180 degree panorama showing view context

View P7 - Proposed (90 degree panoramic view)



View P8 - Existing baseline (90 degree panoramic view)

5 frame stitched view | FOV 90 x 27 degrees | Camera height above survey point 1627mm | Nominal lens rise 0mm | Date 14.11.24 | Time 11:24



Full 180 degree panorama showing view context

View P8 - Proposed (90 degree panoramic view)



View P11 - Existing baseline (90 degree panoramic view)

5 frame stitched view | FOV 90 x 27 degrees | Camera height above survey point 1604mm | Nominal lens rise 0mm | Date 14.11.24 | Time 14:15



Full 180 degree panorama showing view context

View P11 - Proposed (90 degree panoramic view)



View P14 - Existing baseline (90 degree panoramic view)

5 frame stitched view | FOV 90 x 27 degrees | Camera height above survey point 1626mm | Nominal lens rise 0mm | Date 14.11.24 | Time 11:00



Full 180 degree panorama showing view context

View P14 - Proposed (90 degree panoramic view)



View P15 - Existing baseline (90 degree panoramic view)

5 frame stitched view | FOV 90 x 27 degrees | Camera height above survey point 1666mm | Nominal lens rise 0mm | Date 14.11.24 | Time 10:08



Full 180 degree panorama showing view context

View P15 - Proposed (90 degree panoramic view)



View P17 - Existing baseline (90 degree panoramic view) - Left Hand Side

5 frame stitched view | FOV 90 x 27 degrees | Camera height above survey point 1600mm | Nominal lens rise 0mm | Date 14.11.24 | Time 12:16



Full 180 degree panorama showing view context

View P17 - Proposed shown at Yr 1 (90 degree panoramic view) - Left Hand Side



View P17 - Proposed shown at Yr 15 (90 degree panoramic view) - Left Hand Side



View P17 - Existing baseline (90 degree panoramic view) - Right Hand Side



View P17 - Proposed shown at Yr 1 (90 degree panoramic view) - Right Hand Side



View P17 - Proposed shown at Yr 15 (90 degree panoramic view) - Right Hand Side



View P18 - Existing baseline (90 degree panoramic view) - Left Hand Side

5 frame stitched view | FOV 90 x 27 degrees | Camera height above survey point 1600mm | Nominal lens rise 0mm | Date 14.11.24 | Time 12:45



Full 180 degree panorama showing view context

View P18 - Proposed shown at Yr 1 (90 degree panoramic view) - Left Hand Side



View P18 - Proposed shown at Yr 15 (90 degree panoramic view) - Left Hand Side



View P18 - Existing baseline (90 degree panoramic view) - Right Hand Side



View P18 - Proposed shown at Yr 1 (90 degree panoramic view) - Right Hand Side



View P18 - Proposed shown at Yr 15 (90 degree panoramic view) - Right Hand Side





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