REFERENCE
1834.1

PROJECT
TRAFFORD CIVIC QUARTER

DOCUMENT
APPENDIX 1.3: BASELINE PHOTOGRAPHY AND PHOTOMONTAGES

CLIENT	STATUS	DATE
TRAFFORD COUNCIL	DRAFT	29/10/18

DOCUMENT CONTROL

FILE NAME

1834.1-ID-002-02-TVIA VIEWS

PREPARED BY (INITIALS) **AS**	p·ie
CHECKED BY (INITIALS) **GW**	

Contents

1.1 Viewpoint Location Plan

VIEWSPOINT

1: View from Chester Road

2: A and B views from Great Stone Road/Talbot Road junction

3: View from Great Stone Road bridge over Metrolink tram line

4: A and B views from Old Trafford Metrolink tram stop

5: View from Talbot Road entrance to sunken gardens adjacent to Trafford Town Hall

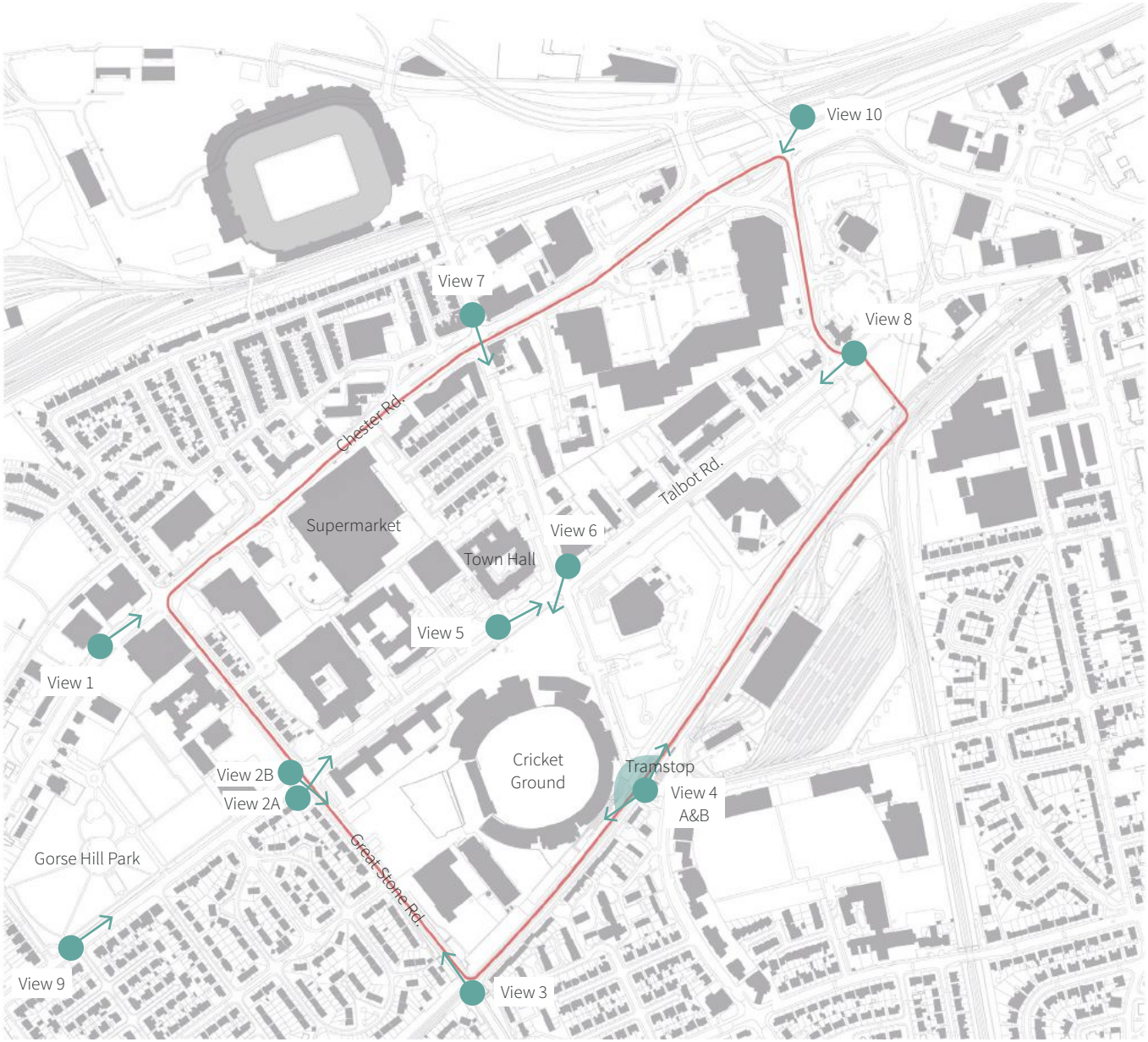
6: View from outside Warwick House, Talbot Road/Warwick Road junction

7: View from Sir Matt Busby Way/Chester Road junction

8: View from White City Way/Talbot Road junction

9: View from Talbot Road entrance to Gorse Hill Park

10: View from Chester Road/Trafford Road junction



KEY

SPD Boundary

Proposed View

1.2 Views

EXISTING VIEW 1 | CHESTER ROAD

VIEW 1 | PROPOSED DEVELOPMENT

VIEW 2A | GREAT STONE ROAD/TALBOT ROAD JUNCTION

VIEW 2A | PROPOSED DEVELOPMENT

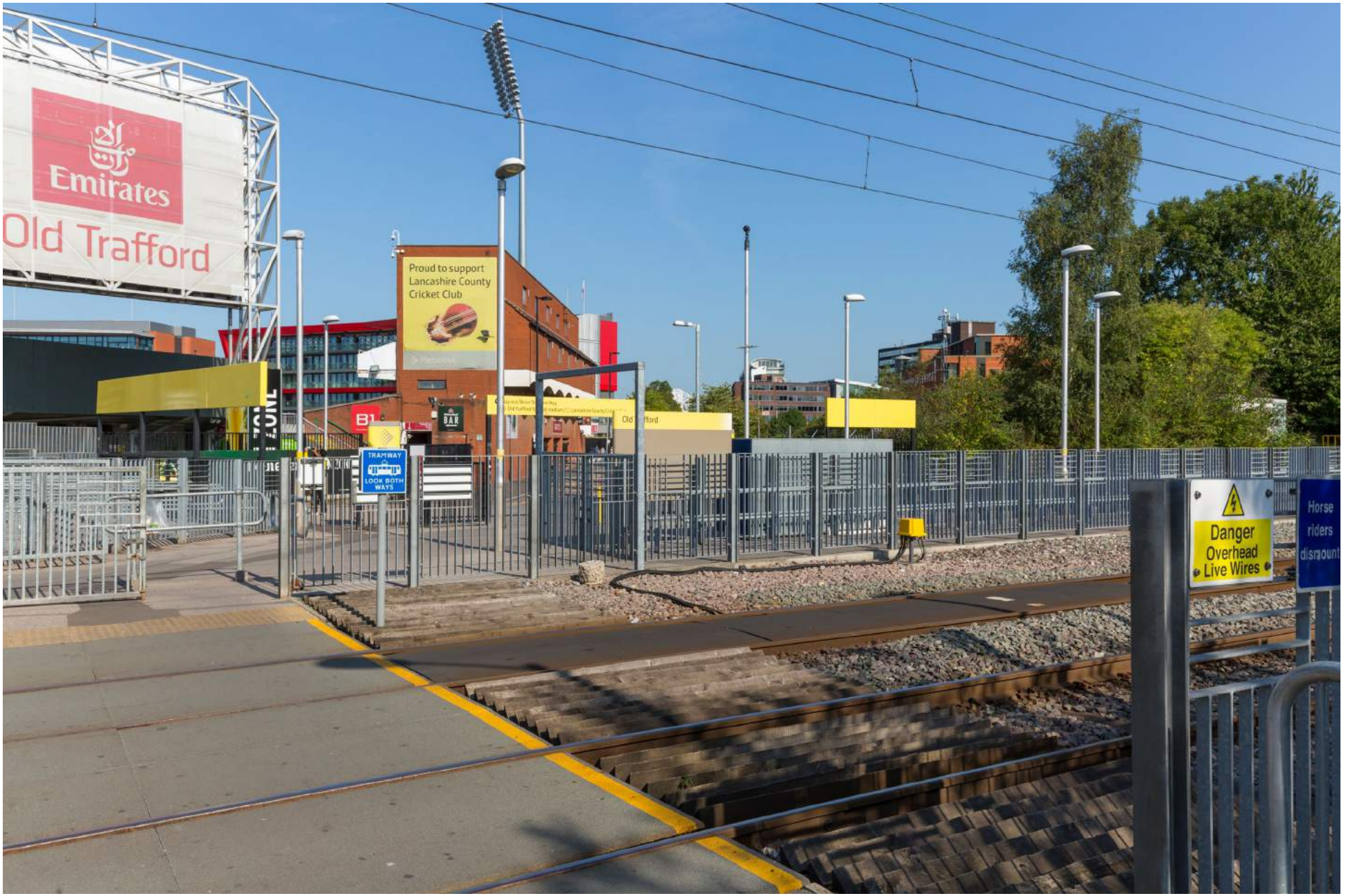
VIEW 2B | GREAT STONE ROAD/TALBOT ROAD JUNCTION

VIEW 2B | PROPOSED DEVELOPMENT

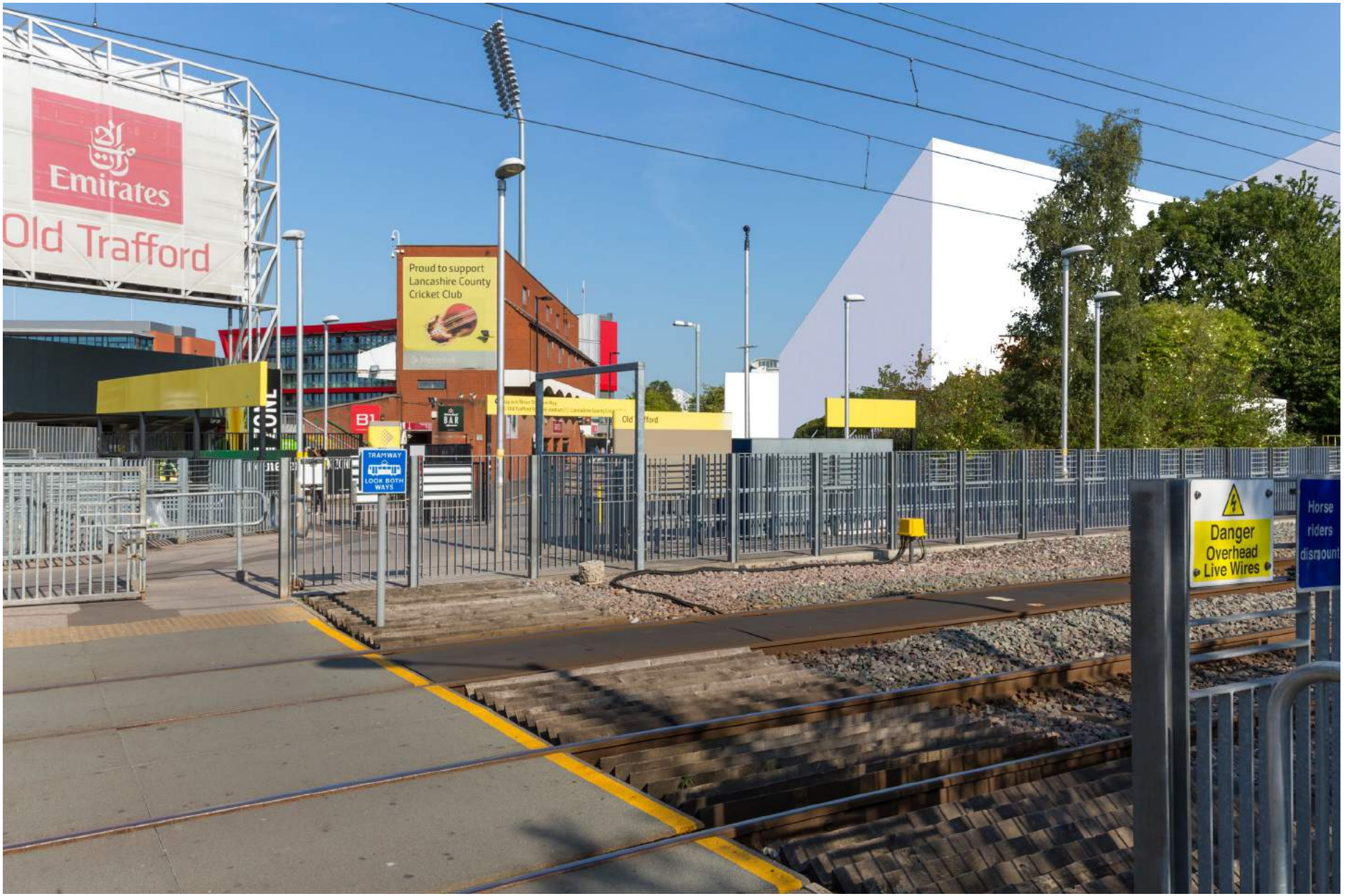
EXISTING VIEW 3 | GREAT STONE ROAD BRIDGE OVER METROLINK TRAM LINE

VIEW 3 | PROPOSED DEVELOPMENT

EXISTING VIEW 4A | OLD TRAFFORD METROLINK TRAM STOP



VIEW 4A | PROPOSED DEVELOPMENT



EXISTING VIEW 4B | OLD TRAFFORD METROLINK TRAM STOP

VIEW 4B | PROPOSED DEVELOPMENT

EXISTING VIEW 5 | TALBOT ROAD ENTRANCE TO SUNKEN GARDENS ADJACENT TO TRAFFORD TOWN HALL

VIEW 5 | PROPOSED DEVELOPMENT

EXISTING VIEW 6 | WARWICK HOUSE, TALBOT ROAD/WARWICK ROAD JUNCTION

VIEW 6 | PROPOSED DEVELOPMENT

EXISTING VIEW 7 | SIR MATT BUSBY WAY/CHESTER ROAD JUNCTION

VIEW 7 | PROPOSED DEVELOPMENT

EXISTING VIEW 8 | WHITE CITY WAY/TALBOT ROAD JUNCTION

VIEW 8 | PROPOSED DEVELOPMENT

EXISTING VIEW 9 | TALBOT ROAD ENTRANCE TO GORSE HILL PARK

VIEW 9 | PROPOSED DEVELOPMENT

EXISTING VIEW 10 | CHESTER ROAD/TRAFFORD ROAD JUNCTION

VIEW 10 | PROPOSED DEVELOPMENT

1.3 Verified Views Methodology

PHOTOGRAPHY

Virtual Planit commissioned Gary Beal at Vantage Point Photos for all of the photography on Echo Street. Gary has worked on many verified projects and has over 25 years of professional experience. The aim with the photography is to create an image similar to that perceived by the human eye. The lens and camera configuration can affect this perception but it is critical to maintain data accuracy especially if the proposed development is a considerable distance from the view position.

The equipment used in this instance was: Canon EOS 5D Mark III. The angle of view in landscape orientation is 70 degrees. Each scene was photographed using a survey pin or suitable marker to accurately identify the view location. A plumb line was used to ensure that the centre of the camera lens was directly over the surveyed viewing position at a height of 1.65-1.7 metres. The metadata of each image records the exact time and date of each image allowing accurate lighting conditions to be recreated in the computer model as required. Further information is also recorded such as the camera, lens, and exposure and aperture settings. All camera data is recorded in a spreadsheet for reference.

Each scene was photographed using a survey pin or suitable marker to accurately identify the view location. A plumb line was used to ensure that the centre of the cam-era lens was directly over the surveyed viewing position at a height of 1.65-1.7m.

VP2B

VP2B

Viewpoint Co-ordinates			Instrument Height (metres)	Point ID	Horizontal Angle			Vertical Angle		
Easting	Northing	Level			Deg	Min	Sec	Deg	Min	Sec
380737.582	395542.313	27.276	1.601	1	102	33	19	90	20	01
				2	115	25	45	76	36	50
				3	122	32	31	78	37	11
				4	138	24	02	86	33	33
				5	150	39	04	82	58	19
				6	155	43	35	82	12	52
				7	162	09	50	80	40	11

SURVEY

Virtual Planit have a long standing relationship with Powers and Tiltman, experienced RICS surveyors, who are familiar and experienced with verified work.

In preparation for the surveys, a series of key points were identified in each of the photographs used to verify the shots, particularly on the clearly visible corners of buildings. Care is taken to ensure a good spread of points including points close to the camera, points near the target development, together with points at ground and roof level, and points across the width of the image. A wide spread enables a more thorough and accurate analysis. The surveyor would then add a further series of additional reference points, in order to provide a comprehensive range of point reference across the photograph. It is these 2d points on the photograph that are surveyed to give each a 3 dimensional co-ordinate value.

The points were surveyed by a professional survey team using GPS. The survey points are related back to the Ordnance Survey National Grid - selected as it is the most widely used and also allows captured data to be incorporated into other digital products.

3D MODEL AND CAMERA MATCHING.

Virtual Planit were supplied with a digital 3D model of the proposed scheme by the architect. The model is related back to the Ordnance Survey grid and absolute (AOD) heights.

The same 3D model is used as the basis for each of the photographs, and was certified as being correct by the architect.

This 3D model was precisely aligned to the survey information using proprietary 3D modelling and rendering software, using the following information for each of the views.

- Specific details of the camera and lens used.
- The photograph, rotated if necessary to ensure the horizon line is level
- The surveyed viewpoint co-ordinates.
- The surveyed co-ordinates of points on existing buildings or immovable objects within the photograph.
- The 3D model of the proposed scheme.

The information listed above is used to situate the virtual camera in each case, such that the 3D model, survey points and model align exactly with the photograph.

NON-VERIFIED VIEWS

For views that have been produced without survey verification described above, an alternative method is used which relies on our 3d model of Manchester.

Using a combination of the viewpoint location (see below), and the focal length of the photograph, we are able to position key elements of the 3d context model with the base imagery. Whilst this isn't a true Verified View, the information is good enough to give a good triangulation of elements to allow the production of a view that can be considered for assessment so long as it is caveated that it isn't a true Verified image.

WIRELINES AND RENDERING.

A render is a technical term referring to the process of creating a two-dimensional output image from a 3D model. Using the virtual camera described previously, the 3D modelling and rendering software produces a render of the proposed building.

Where the required output is a wireline view and not a fully rendered image, the wireline is created by utilising a basic render; devoid of material, texture and lighting information; but fully representative of the building form, and using tools within the compositing software package (in this case Adobe Photoshop) placing a thin coloured line at the exact edge of the rendered building, defining the building envelope.

Where the required output is fully rendered, the output image from the modelling and rendering software displays the predetermined materials, textures and lighting. All materials specifications, textures and daylighting are applied to model prior to rendering. After rendering the fully rendered building is combined with the photograph in proprietary digital 'paint' software (again Adobe Photoshop) to produce the photomontage image.

In order to achieve the most photorealistic result, colour correction adjustments may be made to the rendered image. For example hue, saturation and brightness values of the rendered image may be adjusted to better match the colour tones of the photograph. For example, poor air quality at the time of photography may necessitate the rendered image to be 'degraded' to ensure that it behaves visually as the other buildings within the photograph. This is an iterative process and is reliant on the skill of the artist and good communication between the artist and the architect to ensure their vision for the material and texture qualities is maintained. The design team then signed off on the appearance of the scheme in the views.

'Masks' are created where the line of sight to the proposed scheme is interrupted by foreground buildings or elements such as lampposts, vehicles and street furniture.

PHOTOGRAPHY METADATA

	VIEW 1	VIEW 2A	VIEW 2B	VIEW 3	VIEW 4A
DATE:	31 AUGUST 2018	9 SEPTEMBER 2018	31 AUGUST 2018	9 SEPTEMBER 2018	31 AUGUST 2018
TIME:	11.23AM	11.07AM	13.26AM	10.57AM	10.13AM
FOCAL LENGTH:	35MM	24MM	24MM	24MM	28MM
F/STOP:	F/11	F/9	F/11	F/9	F/11
EXPOSURE:	1/400 SEC	1/320 SEC	1/200 SEC	1/320 SEC	1/320 SEC

	VIEW 4B	VIEW 5	VIEW 6	VIEW 7	VIEW 8
DATE:	31 AUGUST 2018	31 AUGUST 2018	9 SEPTEMBER 2018	31 AUGUST 2018	9 SEPTEMBER 2018
TIME:	10.14AM	11.52PM	10.38PM	9.37PM	10.14PM
FOCAL LENGTH:	28MM	24MM	24MM	35MM	28MM
F/STOP:	F/11	F/11	F/9	F/11	F/8
EXPOSURE:	1/320 SEC	1/320 SEC	1/250 SEC	1/200 SEC	1/200 SEC

	VIEW 9	VIEW 10
DATE:	31 AUGUST 2018	18 SEPTEMBER 2018
TIME:	11.05PM	14.32PM
FOCAL LENGTH:	35MM	28MM
F/STOP:	F/11	F/9
EXPOSURE:	1/250 SEC	1/800 SEC

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