A358 Taunton to Southfields Dualling Scheme

Preliminary Environmental Information Report - Appendix 7.4
Accurate Visual Representation Methodology

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1   Introduction

1.1.1   This appendix describes the methodology that will be used to prepare photomontages for presentation within the Environmental Statement (ES). Where photographs have been taken to date from representative viewpoints (during summer, winter, and night) they have followed this methodology according to the proposed visualisation type for that location, in order that they are appropriate for use in the ES.

2   Methodology

2.1.1   A proportionate number of representative viewpoints have been identified to undertake during the hours of darkness and for visualisations. Where appropriate, these visualisations will be prepared in the ES to show both the year 1 winter, and year 15 summer scenarios. Table 2-1 is extracted from Landscape Institute (LI) Technical Guidance Note (TGN) 06/19, Visual Representation of Development Proposals [1], the definitions within that table and associated document will be used.

Table 2-1   Visualisation types 1-4

Table 2 Visualisation Types 1-4			Type 1	Type 2	Type 3	Type 4
			Annotated Viewpoint Photograph	3D Wireline / Model (non-photographic)	Photomontage / Photowire	Photomontage / Photowire Survey / Scale Verifiable
Aim of the Visualisation			To represent context and outline or extent of development and of key features	To represent 3D form of development / context	To represent appearance, context, form and extent of development	To represent scale, appearance, context, form, and extent of development
Photographic Equipment	Tripod		Recommended but discretionary	Not relevant	Recommended	Necessary
	Panoramic head		Not relevant		Recommended for panoramas	Necessary for panoramas
	Minimum Camera / Lens		Cropped frame or FFS + 50mm	Not relevant	Cropped frame or FFS + 50mm	Full Frame Sensor (FFS) + 50mm FL lens [1]
Locational Accuracy	Source of camera/viewpoint location data		GPS, OS Maps, geo-referenced aerial photography	Varies according to technology	Use good quality data: GPS, OS Maps, geo-referenced aerial photography, LiDAR	Use best available data: High resolution commercial data, LiDAR, GNSS, or measured / topographic surveys
	Survey-verified [2]		Not relevant			When appropriate
Data & Presentation	Verifiable (SNH) [3]		Not relevant			Required
	3D model		Not required	Required		
	Image Enlargement [4]		Typically 100%	Not relevant	Typically 100%	100% - 150%
	Form of Visualisation		sketch / outline / arrows	massing / wireline / textured	wireline / massing / rendered / textured to agreed AVR level [5]	
	Viewpoint mapping		Dedicated viewpoint location plan			Dedicated viewpoint location plan, + individual inset maps recommended
	Reporting of methodology and data sources		Outline description of sources and methodology recommended		Data, sources and methodology recommended	Verifiable data, sources and methodology required

2.1.2   Table 2-1 references AVR (Accurate Visual Representation) Level, which is derived from the London View Management Framework (LVMF). The definition of each AVR Level is provided below alongside photographs extracted from the LVMF document:

- AVR Level 0: Location and size of proposal. This equates to a photo wire and provides an outline of the proposal overlaid onto the photograph base.
- AVR Level 1: Location, size, and degree of visibility of proposal. This shows the massing of the proposal within a 3D context represented by the photograph - that is, what can and cannot be seen.

- AVR Level 2: As level 1 + description of architectural form. This illustrates architectural form such as doors, windows, and floors, and gives a sense of the form and shading of the development within its context.
- AVR Level 3: As level 2 + use of materials. This is a fully rendered photomontage, usually photo-realistic with texture, shading and reflections as appropriate.

2.1.3   The landscape and visual impact Assessment (LVIA) has used a combination of Type 1 visualisations for the Preliminary Environmental Information (PEI) Report, and will also prepare Type 4 visualisation within the ES (see Table 2-1). Type 4 visualisations have been produced to illustrate the proposed scheme from a range of locations and distances at AVR Level 3. To ensure verification of the visualisations (accurate scale and position of the scheme) a surveyor will be used to accurately record camera position, direction, and reference points within the view. The LI TGN glossary [2] states that "verified" means the image has been subjected to a quality assurance process to confirm that what is being presented is an accurate reflection of the true situation.

2.1.4   All photography has been taken using a Full Frame Sensor camera with 5 millimetres (mm) Fixed Focal Length Lens mounted on a tripod at a standard consistent height, regardless of Visualisation Type, to provide consistency between all viewpoints and visualisations. An image captured in this way is regarded as being the closest representative to that seen by the human eye when viewed at a width of 39 cm from a distance of 55 centimetres (cm). Photographs have been captured as single-shot unless the view and position of the site is panoramic in nature – in which case multiple single-shot images have been captured in different directions.

2.1.5   For the ES, exports from the proposed scheme digital model will be generated to match the angle and field of view of the photographs and overlaid on photography, using the surveyed reference points to ensure it is positioned and scaled at an accurate and verifiable position. Once positioned, the scheme will be montaged into the baseline photograph to provide an AVR.

References

[1] Landscape Institute, "Technical Guidance Note (TGN) 06/19, Visual Representation of Development Proposals," September 2019. [Online]. Available: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/09/LI_TGN-06-19_Visual_Representation.pdf. [Accessed July 2021].

[2] Landscape Institute, "Visual Representation of Development Proposals: Glossary and Abbreviations," September 2019. [Online]. Available: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/09/LI_TIN-07-19_Visual_Representation_Glossary-5d80c88b0a51f.pdf. [Accessed July 2021].