East Midlands Gateway
Phase 2 (EMG2)

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ENVIRONMENTAL STATEMENT

Technical Appendices

Appendix 10A

LVIA Criteria; inc. Visualisations and ZTV Methodologies

February 2026

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The East Midlands Gateway Phase 2 and Highway Order 202X and The East Midlands Gateway Rail Freight and Highway (Amendment) Order 202X

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Appendix 10A

Landscape and Visual Impact Assessment – Methodology and Assessment Criteria

Introduction

1.1 The methodology for the Landscape and Visual Impact Assessment undertaken for the proposed development is detailed in Chapter 10 of the Environmental Statement (ES). The following information is provided and should be read in conjunction with the overview methodology outlined in Chapter 10 of the ES.

1.2 As advised in the Guidelines for Landscape and Visual Impact Assessment (3rd Edition) (GLVIA3), the judgements made in respect of both landscape and visual effects are a combination of an assessment of the sensitivity of the receptor and the magnitude of the landscape or visual effect. The following details the definitions used in assessing sensitivity and magnitude for landscape and visual receptors.

1.3 Where it is determined that the assessment falls between or encompasses two of the defined criteria terms, then the judgement will be described as High/ Medium or Moderate/ Minor etc. This indicates that the assessment lies between the respective definitions or encompasses aspects of both.

Landscape

Landscape Sensitivity

1.4 Landscape receptors are assessed in terms of their 'Landscape Sensitivity'. This combines judgements on the value to be attached to the landscape and the susceptibility to change of the landscape from the type of change or development proposed. Based upon the combination of these judgements landscape sensitivity is described as High, Medium or Low (or encompassing aspects of both as per 1.3 above). The definition and criteria adopted for these contributory factors is detailed below at 1.6 and 1.7 and in the accompanying tables.

1.5 There can be complex relationships between the value attached to landscape receptors and their susceptibility to change which can be especially important when considering change within or close to designated landscapes. For example an internationally, nationally or locally valued landscape does not automatically or by definition have a high susceptibility to all types of change. The type of change or development proposed may not compromise the specific basis for the value attached to the landscape.

<u>Landscape Value</u>

1.6 Value can apply to a landscape area as a whole, or to the individual elements, features and aesthetic or perceptual dimensions which contribute to the character of the landscape. The following criteria have been used to categorise landscape value. Where there is no clear existing evidence on landscape value, an assessment is made based on the criteria/ factors identified below (based on the guidance in the Landscape Institute Technical Guidance Note 02/21 "*Assessing landscape value outside national designations*", which provides more up to date guidance than Box 5.1 of GLVIA3).

- Natural Heritage
- Associations
- Perceptual (scenic)

- Cultural Heritage
- Distinctiveness
- Perceptual (wildness and tranquillity)
- Landscape Condition
- Recreational Value
- Functional

Landscape Value	Definition
High	Landscape receptors of high importance based upon factors of natural and cultural heritage, condition, associations, distinctiveness, recreational value, perceptual qualities and functional aspects.
Medium	Landscape receptors of medium importance based upon factors of natural and cultural heritage, condition, associations, distinctiveness, recreational value, perceptual qualities and functional aspects.
Low	Landscape receptors of low importance based upon factors of natural and cultural heritage, condition, associations, distinctiveness, recreational value, perceptual qualities and functional aspects.

Landscape Susceptibility to Change

1.7 This means the ability of the landscape receptor (overall character type/ area or individual element/ feature) to accommodate the change (i.e. the proposed development without undue consequences for the maintenance of the baseline position and/ or the achievement of landscape planning policies and strategies. The definition and criteria for the assessment of Landscape Susceptibility to Change is as follows:

Landscape Susceptibility to Change	Definition
High	A highly distinctive and cohesive landscape receptor, with positive characteristics and features with no or very few detracting or intrusive elements. Landscape features intact and in very good condition and/ or rare. Limited capacity to accept the type of change/ development proposed.
Medium	Distinctive and more commonplace landscape receptor, with some positive characteristics/ features and some detracting or intrusive elements. Landscape features in moderate condition. Capacity to accept well planned and designed change/ development of the type proposed.
Low	Landscape receptor of mixed character with a lack of coherence and including detracting or intrusive elements. Landscape features that may be in poor or improving condition and few that could not be replaced. Greater capacity to accept the type of change/ development proposed.

Magnitude of Landscape Effects

1.8 The magnitude of landscape effects is the degree of change to the landscape receptor in terms of its size or scale of change, the geographical extent of the area influenced and its duration and reversibility. The table below sets out the categories and criteria adopted in respect of the separate considerations of Scale or Size of the Degree of Change and Reversibility. The geographical extent and duration of change are described where relevant in the assessment.

Scale or Size of the Degree of Landscape Change

Scale or Size of the Degree of Landscape Change	Definition
High	Total loss of or major alteration to key characteristics / features and the introduction of new elements totally uncharacteristic to the receiving landscape. Overall landscape receptor will be fundamentally changed.
Medium	Partial loss of or alteration to one or more key characteristics / features and the introduction of new elements that would be evident but not necessarily uncharacteristic to the receiving landscape. Overall landscape receptor will be obviously changed.
Low	Limited loss of, or alteration to one or more key characteristics/ features and the introduction of new elements evident and/ or characteristic to the receiving landscape. Overall landscape receptor will be perceptibly changed.
Negligible	Very minor alteration to one or more key characteristics/ features and the introduction of new elements characteristic to the receiving landscape. Overall landscape receptor will be minimally changed.
None	No loss or alteration to the key characteristics/ features, representing 'no change'.

Geographical Extent

Geographical Extent	Definition
Extensive	Notable change to an extensive proportion of the geographic area.
Moderate	Notable change to part of the geographic area.
Minimal	Change over a limited part of the geographic area.
Negligible	Change over a very limited part of the geographical area.

Duration

Duration	Definition
Short term	The change will occur for up to 5 years.
Medium Term	The change will occur for between 5 and 10 years.

Long term	The change will occur for over 10 years.

Reversibility

Reversibility	Definition
Irreversible	The development would be permanent and the assessment site could not be returned to its current/ former use.
Reversible	The development could be deconstructed/ demolished and the assessment site could be returned to broadly its current/ historic use (although that may be subject to qualification depending on the nature of the development).

Visual

Sensitivity of Visual Receptors

1.9 Visual sensitivity assesses each visual receptor in terms of their susceptibility to change in views and visual amenity and also the value attached to particular views. The definition and criteria adopted for these contributory factors is detailed below.

Visual Susceptibility to Change

1.10 The susceptibility of different visual receptors to changes in views and visual amenity is mainly a function of; firstly, the occupation or activity of people experiencing the view at particular locations; and secondly, the extent to which their attention or interest may therefore be focussed on the views and visual amenity they experience.

Visual Susceptibility to Change	Definition
High	Residents at home with primary views from ground floor/garden and upper floors. Public rights of way/ footways where attention is primarily focussed on the landscape and on particular views. Visitors to heritage assets or other attractions whose attention or interest is likely to be focussed on the landscape and/ or on particular views. Communities where views make an important contribution to the landscape setting enjoyed by residents. Travellers on recognised scenic routes.
Medium	Residents at home with secondary views (primarily from first floor level). Public rights of way/ footways where attention is not primarily focussed on the landscape and/ or particular views. Travellers on road, rail or other transport routes.
Low	Users of outdoor recreational facilities where the view is less important to the activities (e.g. sports pitches). Travellers on road, rail or other transport where views are primarily focussed on the transport route. People at their place of work where views of the landscape are not important to the quality of the working life.

Value of Views

1.11 The value attached to a view takes account of any recognition attached to a particular view and/ or any indicators of the value attached to views, for example through guidebooks or defined viewpoints or references in literature or art.

Value of Views	Definition
High	A unique or identified view (e.g. shown as such on Ordnance Survey map, guidebook or tourist map) or one noted in literature or art. A view where a heritage asset makes an important contribution to the view.
Medium	A typical and/ or representative view from a particular receptor.
Low	An undistinguished or unremarkable view from a particular receptor.

Magnitude of Visual Effects

1.12 Magnitude of Visual Effects evaluates each of the visual effects in terms of its size or scale, the geographical extent of the area influenced and its duration and reversibility. The table below sets out the categories and criteria adopted in respect of the Scale or Size (including the degree of contrast) of Visual Change. The distance and nature of the view and whether the view will be permanent or temporary are also detailed in the Visual Effects Table.

Scale or Size of the Degree of Visual Change	Definition
High	The proposal will result in a large and immediately apparent change in the view, being a dominant and new and/ or incongruous feature in the landscape.
Medium	The proposal will result in an obvious and recognisable change in the view and will be readily noticed by the viewer.
Low	The proposal will constitute a minor component of the wider view or a more recognisable component that reflects those apparent in the existing view. Awareness of the proposals will not have a marked effect on the overall nature of the view.
Negligible/ None	Only a very small part of the proposal will be discernible and it will have very little or no effect on the nature of the view.

Night time Visual Effects

1.13 A night-time visual assessment has been undertaken for this LVIA. This has drawn upon the technical lighting assessment and baseline work undertaken as part of the Lighting Assessment study. It has entailed night time field survey(s) to ascertain the general nature of the night time character /conditions within the site and surroundings; including appraising the likely effects of the proposed development and lighting from surrounding receptors. General observations and descriptions of the likely night time visual effects are included, with reference where relevant to the surrounding receptors.

Level of Effect

1.14 The final conclusions on effects, whether adverse or beneficial, are drawn from the separate judgements on the sensitivity of the receptors and the magnitude of the effects. This overall judgement is formed from a reasoned professional overview of the individual judgements against the assessment criteria.

1.15 GLVIA3 notes, at paragraphs 5.56 and 6.44, that there are no hard and fast rules with regard to the level of effects, therefore the following descriptive thresholds have been used for this assessment:

- Major
- Moderate
- Minor
- Negligible

1.16 Where it is determined that the assessment falls between or encompasses two of the defined criteria terms, then the judgement may be described as, for example, Major/ Moderate or Moderate/ Minor. This indicates that the effect is assessed to lie between the respective definitions or to encompass aspects of both.

Significance of Landscape and Visual Effects

1.17 Guidance on assessing significance of landscape and visual effects is included within GLVIA3.

Significance of Landscape Effects

1.18 GLVIA3 states, at paragraph 5.56, that:

"There are no hard and fast rules about what makes a significant effect, and there cannot be a standard approach since circumstances vary with the location and context and with the type of proposal. At opposite ends of the spectrum it is reasonable to say that:

- *Major loss or irreversible negative effects, over an extensive area, on elements and/ or aesthetic and perceptual aspects that are key to the character of nationally valued landscapes are likely to be of the greatest significance;*
- *Reversible negative effects of short duration, over a restricted area, on elements and/ or aesthetic and perceptual aspects that contribute to but are not key characteristics of the character of landscapes of community value are likely to be of the least significance and may, depending on the circumstances, be judged as not significant;*
- *Where assessments of significance place landscape effects between these extremes, judgements must be made about whether or not they are significant, with full explanations of why these conclusions have been reached."* (GLVIA3 paragraph 5.56.)

Significance of Visual Effects

1.19 GLVIA3 states, at paragraph 6.44, that:

"There are no hard and fast rules about what makes a significant effect, and there cannot be a standard approach since circumstances vary with the location and context and with the type of proposal. In making a judgement about the significance of visual effects the following points should be noted:

- *Effects on people who are particularly sensitive to changes in views and visual amenity are more likely to be significant;*
- *Effects on people at recognised and important viewpoints or from recognised scenic routes are more likely to be significant;*
- *Large-scale changes which introduce new, non-characteristic or discordant or intrusive elements into the view are more likely to be significant than small changes or changes involving features already present within the view.*" (GLVIA3 paragraph 6.44.)

Judging Overall Significance

1.20 Landscape Institute Technical Guidance Note (LITGN) 2024-01 (Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3)), also references assessing significance. This states at 3(5);

'GLVIA3 provides guidance on assessing significance, in particular paragraphs 3.19 – 3.36. The Panel highlight the following key points:

Make sure the methodology clearly states the basis on which effects are judged as 'significant', and check that judgements are consistent with this (see GLVIA3 paragraph 3.23)…….As indicated at GLVIA paragraph 3.33, it is not necessary to establish thresholds for levels of significance……It should be noted that judgements of significance are not judgements of acceptability considering the policy context, which is a matter for decision makers…..'

1.21 For this LVIA, a judgement is reached, based on the assessment, as to whether an effect is significant or not. Those degrees of effects that are considered to be significant by the assessor for this LVIA are judged to be effects that are either Major or Moderate/Major.

2.0 METHODOLOGY FOR ZONE OF THEORETICAL VISIBILITY (ZTV)

2.1 GLVIA3 recognises the importance of surrounding landscape components in influencing actual visibility and in relation to these components it states; 'Their effects are best judged by field surveys that can examine and record their location, size and extent, and their effect in screening visibility at key points…Site surveys are therefore essential to provide an accurate baseline assessment of visibility.' (para 6.10)

2.2 The Zone of Theoretical Visibility (ZTV), is a computer-generated tool used to identify the 'theoretical' extent of visibility of a development. It is a desk study component of the visibility analysis.

2.3 The ZTV is based on a digital surface model (DSM) comprised of Lidar survey data from the Environment Agency. The DSM shows 2m resolution data (an elevation reading for every 2m by 2m square) and includes buildings, vegetation and other surface features. In urban areas, this more detailed approach to ZTV modelling can be useful in identifying key view corridors along streets so helping to identify very specific potential views to a proposed development. In rural areas, the Lidar survey picks up hedgerows so ZTVs based on this data can give a more refined indication of theoretical visibility. Note that the ZTV output is theoretical and still requires interpretation. For example, theoretical visibility on the plan below is indicated from the roofs of buildings, which would not normally offer accessible public viewpoints.

2.4 The ZTV has been modelled and is based upon the Parameters Plan using both the maximum building/ structures heights and maximum plot/ floor levels as detailed on the Proposed Development Parameters Plan. In this scenario, it presents the 'worst case' situation in terms of visible extents.

2.5 The ZTV was carried out using the Visibility Analysis plugin in QGIS. Points were evenly distributed over each of the plots using the maximum heights shown on the Parameters Plan. The analysis was carried out on a using an eye height of 1.8m.

2.6 It is important that the benefits and limitations of ZTV are fully understood - it is a useful tool, amongst others, particularly in the early stages of a project, to assist in gaining an appreciation of the potential and maximum visibility of a development. The ZTV;

- provides a useful guide to field survey and analysis by showing areas from which visibility may potentially occur.
- focuses the visual assessment process on those areas which may be affected and avoids those which won't.
- supports more detailed field based evaluation and analysis, which can draw upon the ZTV, to more accurately determine the potential visibility of the development.

2.7 It is also important to recognise that the significance of the visual effects arising from a development are dependent on many other factors as described elsewhere in the landscape and visual impact assessment methodology.

3.0 TECHNICAL METHODOLOGY FOR TYPE 4 PHOTOMONTAGES

Introduction

3.1 The Photomontages were prepared in accordance with the guidance published by the Landscape Institute; '*Visual Representation of Development Proposals - Technical Guidance Note 06/19*' (September 2019), (subsequently referred to as TGN 06/19). Photomontages or Photowires are referred to in TGN 06/19 as '*Type 3 Visualisations*'.

3.2 The aim of these visualisations is to represent appearance, context, form, and extent of development. It should be noted that however accurate these visualisations are, there are limitations on what can be conveyed by a 2D image, as explained in para 1.2.13 of TGN 06/19:

"*Two-dimensional visualisations, however detailed and sophisticated, can never fully substitute what people would see in reality. They should, therefore, be considered an approximation of the three-dimensional visual experiences that an observer might receive in the field.*"

Technical Photography

3.3 A Canon EOS 6D full-frame SLR camera with fixed 50mm lens was mounted onto a Manfrotto 360 VR panoramic tripod head and tripod and levelled with Benro Levelling Adjustment Base. A series of adjoining photographs were taken in landscape format for each viewpoint. The camera was set with the centre of the lens at 1.6 metres above ground level. The panoramic head was set to a 20º angle of rotation to achieve a 50% horizontal overlap between frames. At each viewpoint location the camera was set up to take photographs centred around a nodal point. The nodal point was set to avoid any problems of foreground parallax.

3.4 Photographs were taken on 02 December 2024. The weather was fair with good visibility.

3.5 The photographs were cylindrically stitched using Adobe Photoshop software, thus illustrating the full horizontal extents of each view.

Surveying

3.6 A surveyor (Greenhatch Group Ltd) was present at the time the photography was undertaken to obtain a GPS reference for the camera position (eastings, northings, and height), providing sub-metre accuracy. Selected fixed reference markers within each view were surveyed using the same technique to enable the proposals to be positioned as accurately as possible within the photographs. Reference markers have been surveyed for each viewpoint at varying distances from the camera.

3.7 Viewpoint EMG1 e was added subsequently (after surveying) and therefore this viewpoint location was not accurately surveyed by Greenhatch Group Ltd. The photograph was taken on 10 April 2025, the weather and visibility were good. Mobile phone GPS was used to record the location of the photograph location, and this was verified further using OS Maps, geo-referenced aerial photography and a topographical survey of the site, providing sub-3 metre accuracy for this viewpoint location. The photomontage from viewpoint EMG1 e has therefore been labelled as a Type 3 photomontage. All other parts of this methodology were followed for this viewpoint.

3D Modelling

3.8 Proposals for the proposed development have been modelled in 3D using LSS software. The proposed development in the model is geo-referenced and based upon the Illustrative Masterplan. The units have been modelled using the proposed FFLs, heights and massing. The topography of the site has been generated from topographical survey. The surrounding context has been modelled using LIDAR DSM 1m. The surveyed reference markers have also been modelled in LSS.

3.9 The proposed view from each viewpoint has been exported from LSS software in cylindrical projection, then overlaid on the panoramic photographs using Adobe Photoshop software. The 3D model has been accurately positioned within the photographs using surveyed reference markers and landform. This enabled both the horizontal and vertical alignment of the 3D models and photographs to be cross-checked and verified.

3.10 A more detailed 3D model has been prepared (by Emperor Vision) to provide a fully rendered photomontage, with photo-realistic with texture, shading and lighting. (Accurate Visual Representation Level 3).

3.11 The proposed planting has been modelled at two different heights (based on Year 0 (upon completion of the proposed development) and Year 15 (post completion) scenarios). Trees at 15 years are shown at circa 7-9m in height to provide a reasonable indication of the likely visual filtering/ screening effects of the proposed tree planting at this time.

3.12 The more detailed model has been aligned with the existing photographs, using the surveyed reference markers and the LSS model, to generate photomontages that appear as realistic as possible.

Presentation

3.13 Photomontages have been presented in accordance with TGN 06/19. The visualisations have been prepared to be printed at A1. The visualisations should be viewed at comfortable arm's length. Specific information on each viewpoint is provided alongside the relevant visualisations.

Summary

3.14 The table below summarises the technical methodology for Type 3 Visualisations, as required by TGN 06/19:

Photography	
Method used to establish camera location	GPS (surveyor)
Likely level of accuracy of location (excluding EMG1 e)	Better than 1m
Likely level of accuracy of location for EMG1 e	Better than 3m
If lenses other than 50mm have been used, explain why a different lens is appropriate	N/A

If panoramas used: make and type of Pano head and equipment used to level head	Manfrotto Pano Head and Benro Levelling Adjustment Base
If working outside the UK, geographic co-ordinate system (GCS) used (e.g. WGS-84)	N/A
3D Model / Visualisation	
Source of topographic height data and its resolution	LIDAR DTM 1m
How have the model and the camera locations been placed in the software?	Based on survey coordinates
Elements in the view used as target points to check the horizontal alignment	Existing buildings, telegraph poles, pylons, fence posts etc.
Elements in the view used as target points to check the vertical alignment	Topography, existing buildings
Any limitations in the overall methodology for preparation of the visualisations?	None

Technical Methodology for Type 3 Night-time Photomontages

Introduction

3.15 In respect of published guidance that is specific to assessment of landscape and visual effects at night, this is limited in its scope. GLVIA3 (paragraph 6.12) advocates undertaking "*night-time 'darkness' surveys of the existing conditions in order to assess the potential effects of lighting and these effects need to be taken into account in generating the 30 model of the scheme. Quantitative assessment of illumination levels, and incorporation into models relevant to visual effects assessment, will require input from lighting engineers, but the visual effects assessment will also need to include qualitative assessments of the effects of the predicted light levels on night-time visibility*".

3.16 The Night-time Photomontages were prepared in accordance with the guidance published by the Landscape Institute; '*Visual Representation of Development Proposals - Technical Guidance Note 06/19*' (September 2019), (subsequently referred to as TGN 06/19). Photomontages or Photowires are referred to in TGN 06/19 as '*Type 3 Visualisations*'.

3.17 The aim of these visualisations is to represent appearance, context, form, and extent of development and to give an impression of the lighting effects at night from the selected viewpoints. It should be noted that however accurate these visualisations are, there are limitations on what can be conveyed by a 2D image, as explained in para 1.2.13 of TGN 06/19:

"Two-dimensional visualisations, however detailed and sophisticated, can never fully substitute what people would see in reality. They should, therefore, be considered an approximation of the three-dimensional visual experiences that an observer might receive in the field."

Technical Photography

3.18 As with the daytime photography, a Canon EOS 6D full-frame SLR camera with fixed 50mm lens was mounted onto a Manfrotto 360 VR panoramic tripod head and tripod and levelled with Benro Levelling Adjustment Base. A series of adjoining photographs were taken in landscape format for each viewpoint. The camera was set with the centre of the lens at 1.6 metres above ground level. The panoramic head was set to a 20º angle of rotation to achieve a 50% horizontal overlap between frames. At each viewpoint location the camera was set up to take photographs centred around a nodal point. The nodal point was set to avoid any problems of foreground parallax.

3.19 The night-time photographs were taken on 11, 16 December 2025 and 12 January 2026. The weather was good with good visibility.

3.20 The night-time photographs were cylindrically stitched using Adobe Photoshop software, thus illustrating the full horizontal extents of each view.

Surveying

3.21 The position of the photograph was aligned as closely as possible to the locations of the daytime photographs. Phone GPS was additionally used to record the location of each photograph location, and these locations were verified with reference to the day-time photography, OS Maps, geo-referenced aerial photography and a topographical survey of the site, providing sub-3 metre accuracy.

3.22 Selected fixed reference markers within each view were surveyed for the day-time photomontages in December 2024 and the same surveyed markers were used for the night-time photomontages to enable the proposals to be positioned as accurately as possible within the photographs. Reference markers were surveyed for each viewpoint at varying distances from the camera.

3D Modelling

3.23 Proposals for the proposed development have been modelled in 3D using LSS software. The proposed development in the model is geo-referenced and based upon the Illustrative Masterplan. The units have been modelled using the proposed FFLs, heights and massing. The topography of the site has been generated from topographical survey. The surrounding context has been modelled using LIDAR DSM 1m. The surveyed reference markers have also been modelled in LSS.

3.24 The proposed view from each viewpoint has been exported from LSS software in cylindrical projection, then overlaid on the panoramic photographs using Adobe Photoshop software. The 3D model has been accurately positioned within the photographs using surveyed reference markers and landform. This enabled both the horizontal and vertical alignment of the 3D models and photographs to be cross-checked and verified.

3.25 A more detailed 3D model has been prepared (by Emperor Vision) to provide a fully rendered photomontage, with photo-realistic with texture, shading and lighting. (Accurate Visual Representation Level 3). The lighting engineer provided details on the lighting scheme and this has been accurately positioned in the 3D model by Emperor Vision.

3.26 The proposed planting has been modelled at two different heights (based on Year 0 (upon completion of the proposed development) and Year 15 (post completion) scenarios). Trees at 15 years are shown at circa 7-9m in height to provide a reasonable indication of the likely visual filtering/ screening effects of the proposed tree planting at this time.

3.27 The more detailed model has been aligned with the existing photographs, using the surveyed reference markers and the LSS model, to generate photomontages that appear as realistic as possible.

Presentation

3.28 Photomontages have been presented in accordance with TGN 06/19. The visualisations have been prepared to be printed at A1. The visualisations should be viewed at comfortable arm's length. Specific information on each viewpoint is provided alongside the relevant visualisations.

Summary

3.29 The table below summarises the technical methodology for Type 3 Visualisations, as required by TGN 06/19:

Photography	
Method used to establish camera location	GPS (mobile phone) along with reference to the daytime photographs with surveyed locations

Likely level of accuracy of location	Better than 3m
If lenses other than 50mm have been used, explain why a different lens is appropriate	N/A
If panoramas used: make and type of Pano head and equipment used to level head	Manfrotto Pano Head and Benro Levelling Adjustment Base
If working outside the UK, geographic co-ordinate system (GCS) used (e.g. WGS-84)	N/A
3D Model / Visualisation	
Source of topographic height data and its resolution	LIDAR DTM 1m
How have the model and the camera locations been placed in the software?	GPS coordinates for camera location Reference Markers based on survey coordinates
Elements in the view used as target points to check the horizontal alignment	Existing buildings, telegraph poles, pylons, fence posts etc.
Elements in the view used as target points to check the vertical alignment	Topography, existing buildings
Any limitations in the overall methodology for preparation of the visualisations?	None