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# North Humber to High Marnham Project Document Control

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### 1. Introduction

#### 1.1 Overview of the Project

- The North Humber to High Marnham Project (the 'Project') is a proposal by National Grid Electricity Transmission (NGET) referred to as National Grid in this report, to build a new high voltage electricity transmission line and associated works including reinforcing the electricity transmission network between the new Birkhill Wood Substation north of Hull close to Creyke Beck in the East Riding of Yorkshire and the new High Marnham Substation at High Marnham in Nottinghamshire. This would be achieved by reinforcing the transmission network with a new 400 kilovolt (kV) electricity transmission line over approximately 90 kilometres (km).
- National Grid owns, builds and maintains the electricity transmission network in England and Wales, and operates the high voltage electricity network throughout Great Britain, transporting electricity from generators (such as wind farms, solar farms and power stations) to local distribution network operators (DNOs). Under the Electricity Act 1989 (Ref 1.3) (the Act), National Grid holds a transmission licence under which it is required to develop and maintain an efficient, coordinated, and economical electricity system.
- 1.1.3 The current draft proposals for the Project comprise of the following elements:
  - Approximately 90 km of new overhead line between the new Birkhill Wood and High Marnham 400 kV Substations.
  - Replacement and re-alignment of a section of the existing 400 kV 4ZQ overhead line route between Brantingham and east of Broomfleet.
  - Replacement and re-alignment of a section of the existing 400 kV ZDA overhead line route between Ealand and west of Keadby.
  - A new 400 kV Birkhill Wood substation, with a new permanent access. This is proposed to be a Gas Insulated Switchgear (GIS) substation.
  - Replacement and re-alignment of a section of the existing 400 kV 4ZR route to allow for connection into the new Birkhill Wood substation.
  - A new 400 kV High Marnham substation, with a new permanent access. This is proposed to be an Air Insulated Switchgear (AIS) substation.
  - Replacement and re-alignment of the existing 4ZV and XE 275 kV overhead line routes and existing 400 kV ZDA and ZDF overhead line routes, to allow for connection into the new High Marnham substation.
- The Project will include other required works, for example, temporary diversions for works on existing overhead line routes, temporary access roads, highway works, temporary works compounds, work sites and ancillary works. The Project will also include utility diversions and drainage works. There would also be land required for mitigation, compensation and enhancement, including biodiversity net gain. A detailed description of the Project is set out in **Volume 1 Chapter 4 Description of the Project**.

#### 1.2 Purpose of this Document

- This document presents the photomontages that have been prepared for the proposed 400 kV overhead line (Proposed Overhead Line) and to support the statutory consultation on the Project. A sample selection of nine viewpoints have been presented to represent how the Proposed Overhead Line may be seen from a range of locations, distances and receptors. Figure 1 shows the geographical locations of these across the whole Project.
- Information relating to these viewpoints and the reasons for their selection is outlined in Table 1.1. Viewpoints have been selected from those identified for the visual assessment of the Project and in line with Guidelines for Landscape and Visual Impact Assessment (GLVIA3) (Ref 1.1). For further details on viewpoints refer to **Volume 3 Appendix 7.2 Proposed Viewpoints**.

#### 1.3 Methodology

- The photomontages have been produced following professional guidelines laid out by the Landscape Institute in their Advice Note of 06/19 Visual Representation of Development Proposals (Ref 1.2). They have been produced to at least meet the criteria for Visualisation Type 4: Photomontage/Photowire to represent the appearance, context, form and extent of the Project.
- Photographs were taken on site, in October 2024, towards the Project from publicly accessible places, such as public rights of way (PRoW). Cameras were levelled and set up on a tripod at a standard viewing height of 1.6m. Other details such as the camera and lens used, the location, date and time of the photography and other technical information are presented within the title block on each sheet in accordance with professional guidance. The panoramic baseline photographs used to generate the photomontages, have been formed from a number of separate images taken in sequence and stitched together using PTGui and Adobe Photoshop software.

- A three-dimensional computer model of the project has been generated using individual models of indicative pylon locations. The photomontages do not show any proposals for embedded mitigation such as planting or any additional mitigation such as proposed use of colours or material which will be considered in the environmental impact assessment and as such represent a worst-case scenario in terms of potential changes in views.
- 1.3.4 The following bullet points summarise the key limitations and assumptions considered in the production of the photomontages:
  - Modelling of the Project is based on the Draft Alignment for describing the route of the Proposed Overhead Line as currently proposed. The Draft Alignment is a concept to help communicate
    the potential route of the Proposed Overhead Line, National Grid will be seeking development consent for Limits of Deviation rather than a specific alignment (including pylons therefore, the
    pylon locations should be treated as indicative and may be subject to change;
  - The size of pylons (heights and base widths) is based on the Draft Alignment and associated pylon schedules (refer to **Volume 3 Appendix 4.2 Indicative Pylon Schedules**). National Grid will be seeking a limit of deviation for pylon heights and therefore it should be noted that pylon heights and base widths are subject to change;
  - A basic pylon model has been used to generate the photomontages at this stage which does not contain all details related to each pylon e.g. fittings, insulators. The photomontages provide a representation of the size and scale of the Proposed Overhead Line and the relationship with the existing overhead lines. Additional photomontages will be produced during the ES stage.
  - Modelling is based on 5 m Digital Terrain Model (OS Terrain 5) data so subtleties of localised landform changes may not be fully represented this is not considered to be an issue in the photomontages presented in this document; and
  - Vegetation clearance has been shown only where this would be close up and obvious in the view (such as in Photomontage 2).

#### 1.4 Next Steps

- More viewpoint photographs will be taken over winter 2025/2026 and in summer 2025 so that additional photomontages can be produced to accompany the application for development consent. The photomontages will be produced to Visualisation Type 4: Photomontage/Photowire (survey/scale verifiable) to represent highest level of accuracy and verifiability.
- Photographic images alone cannot provide the visual experience that a human observer would receive in the field and should therefore be considered an aide-mémoire and for illustration of how the project would be likely to sit in a view. As such, the photomontages will not be used to make professional judgements on the landscape and visual impacts of the Project. Detailed assessment and considered judgements will be made on the basis of site inspection by chartered and experienced Landscape Architects.

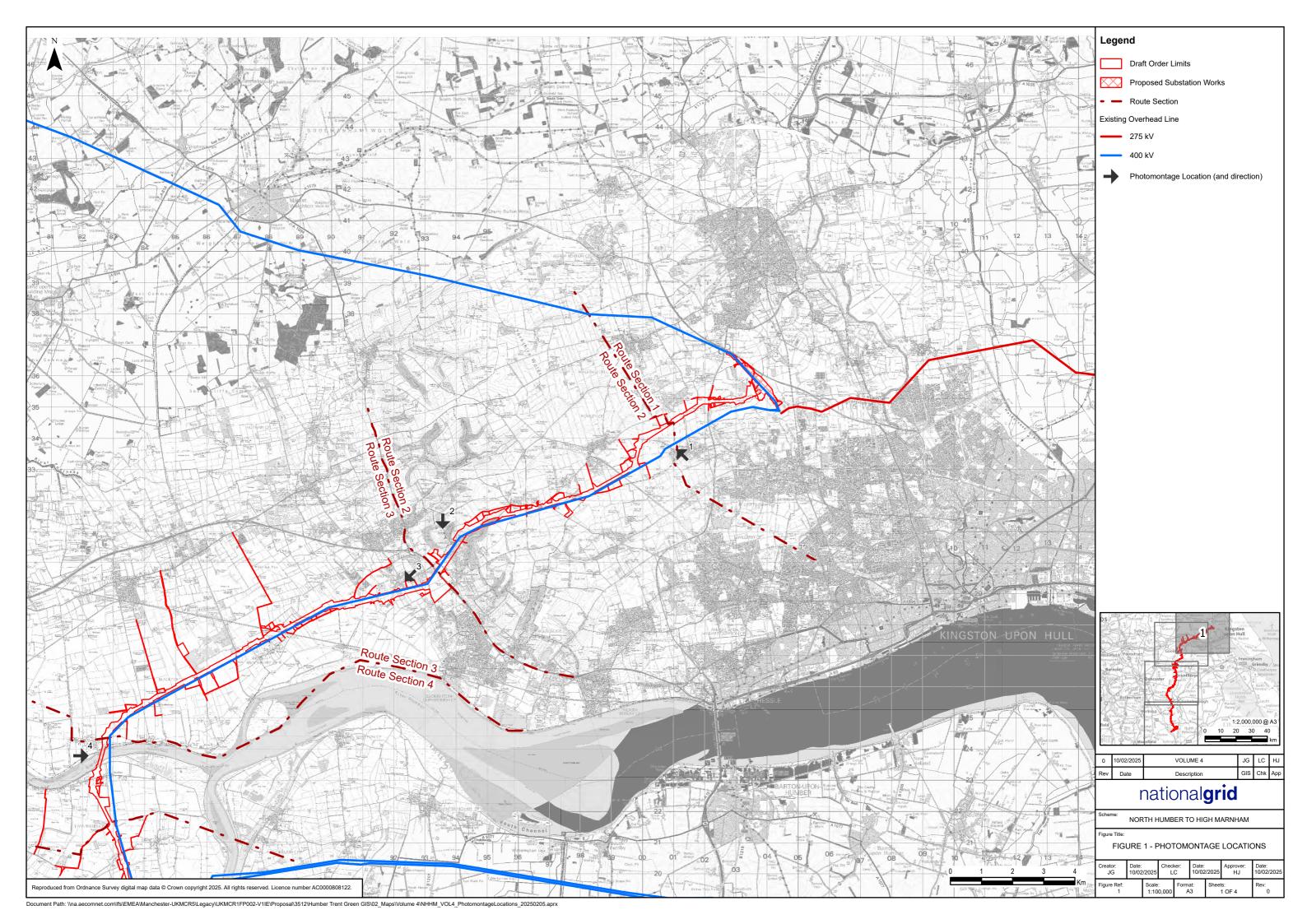
#### 1.5 Photomontage Viewpoints and Reasons for Selection

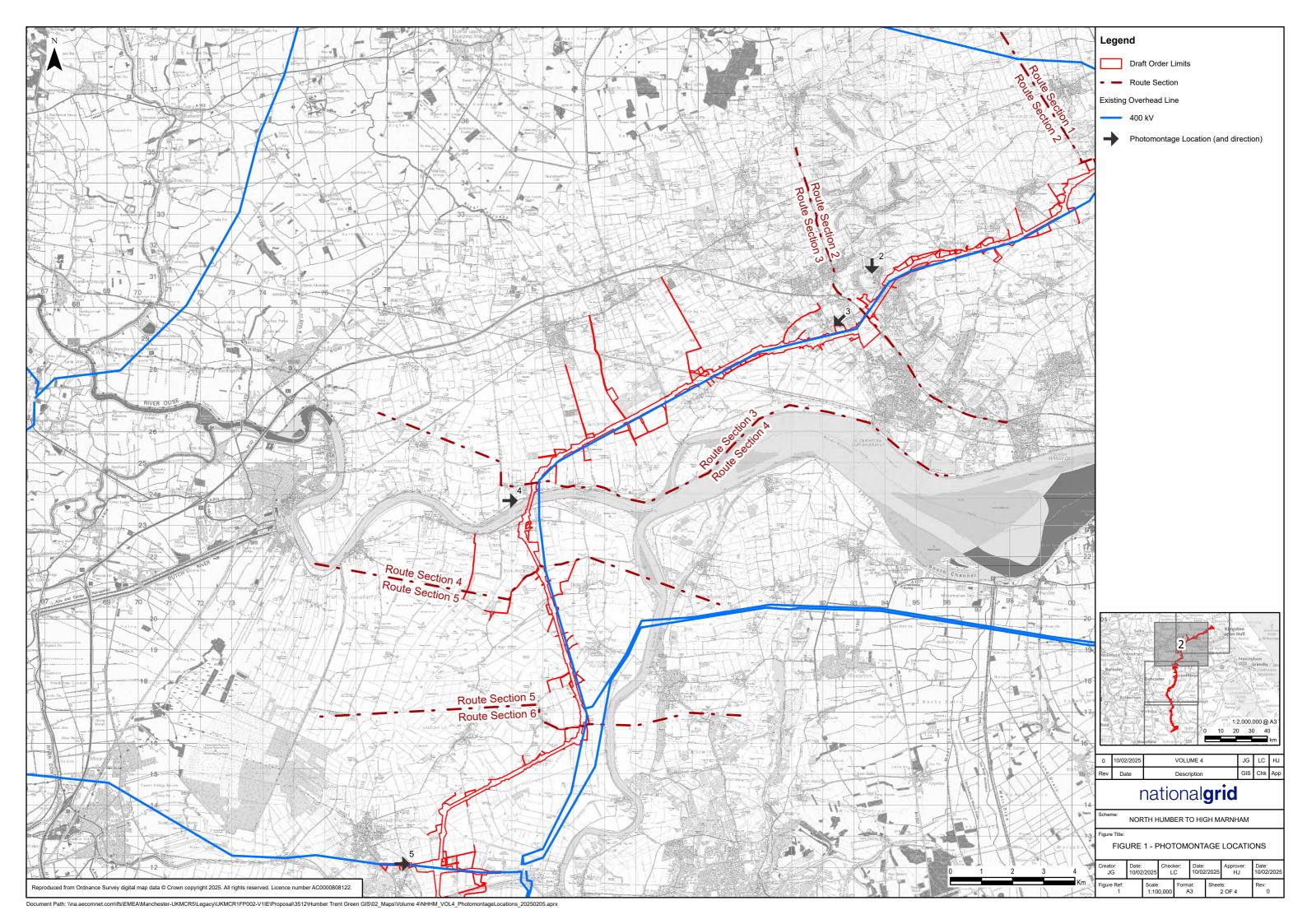
.5.1 The viewpoints selected for photomontages and reasons for selection are outlined below in Table 1.1 and locations shown on Figure 1.

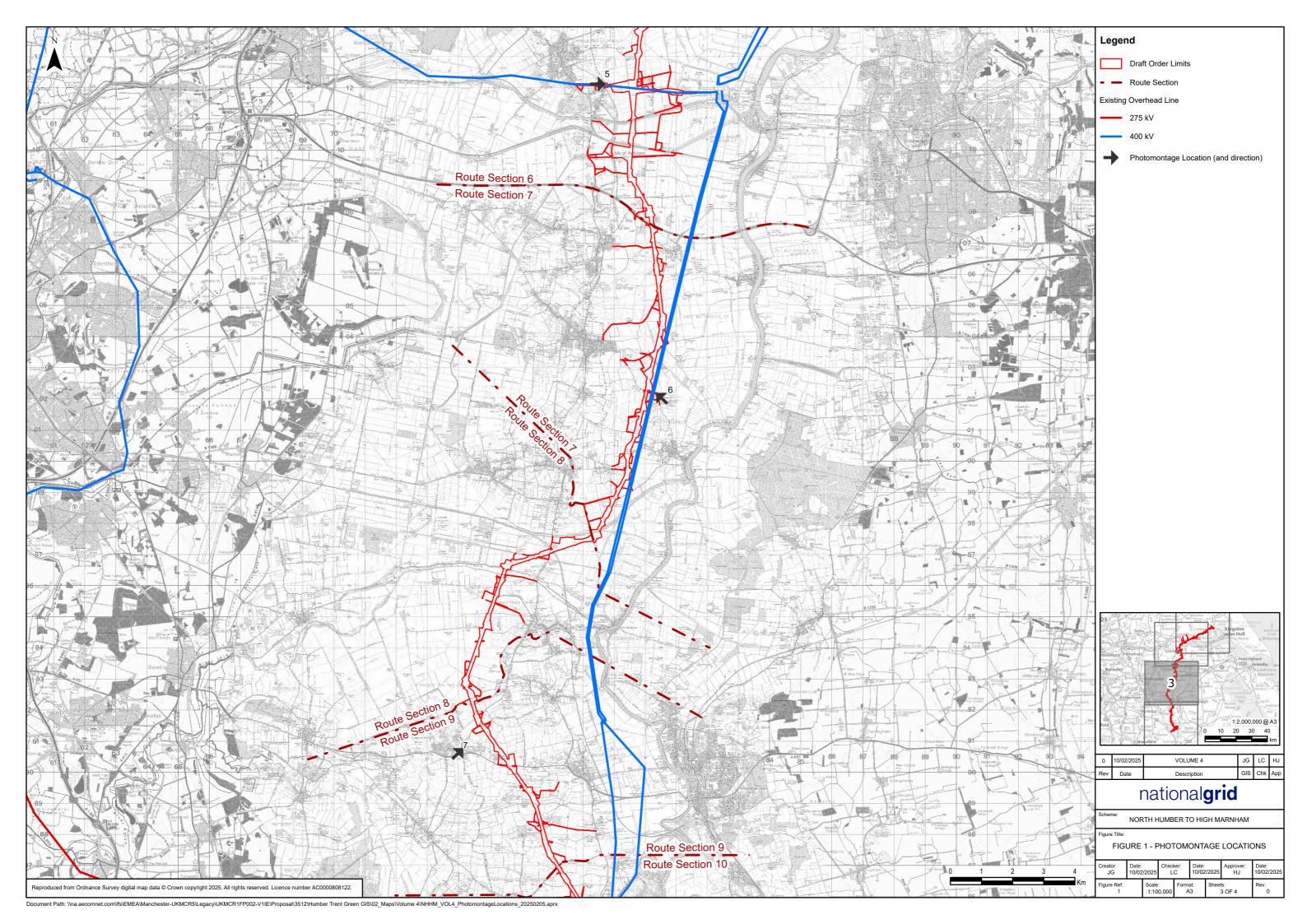
Table 1.1 - Photomontage Viewpoints and Reasons for Selection

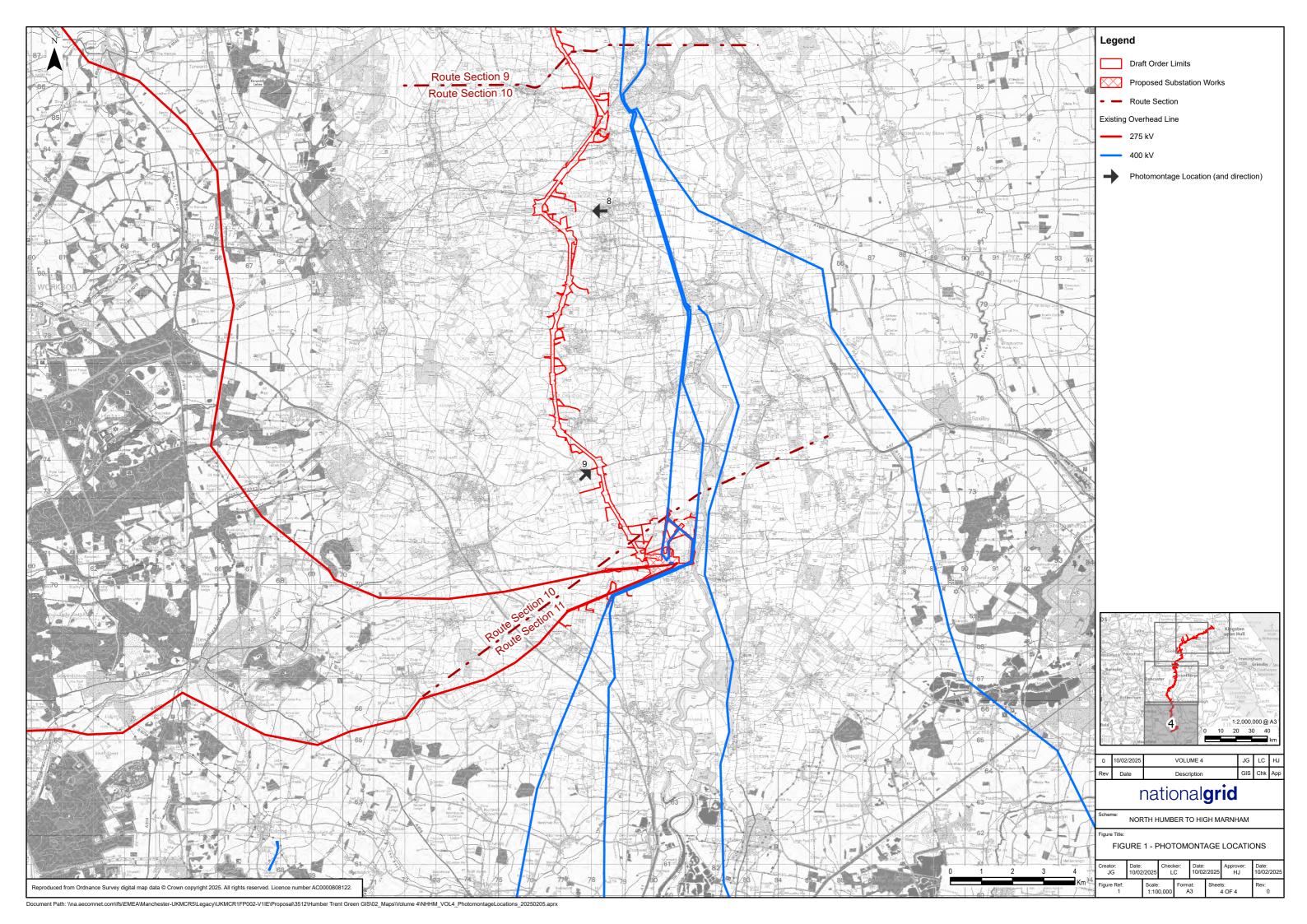
Photomontage	Photomontage title	Location (easting, northing)	Approximate distance to Project	Reason for selection
Photomontage 1	View from High Hunsley Circuit at Skidby (Section 1, LVIA Proposed Viewpoint 1.3)	E501099, N433642	800 m	This viewpoint is representative of views experienced by people living and moving around the community of Skidby, including users of the High Hunsley Circuit and Beverley 20 footpaths. It illustrates how the Proposed Overhead Line would be viewed with the existing 400 kV overhead line in Route Section 1.
Photomontage 2	View from the Yorkshire Wolds Way near Mount Airy (Section 2, LVIA Proposed Viewpoint 2.6A)	E493575, N431086	570 m	This viewpoint is representative of the views experienced by people using the High Hunsley Circuit, which form part of the Yorkshire Wolds Way near Mount Airy. It illustrates how the Proposed Overhead Line would be viewed with the existing 400 kV overhead line in Route Section 2 as it descends the scarp slope and proposed vegetation loss.
Photomontage 3	View south from Ellerker (Section 3, LVIA Proposed Viewpoint 3.8)	E492353, N429407	220 m	This viewpoint is representative of views experienced by people living and moving around the community of Ellerker. It illustrates how the Proposed

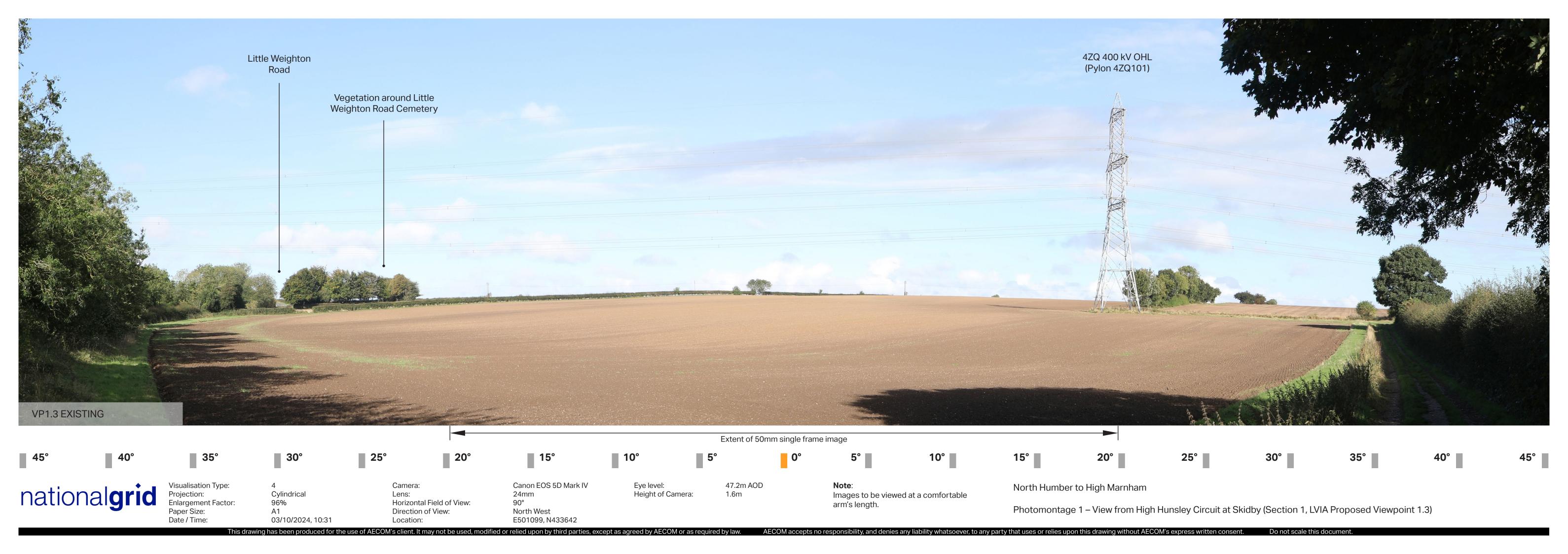
Photomontage	Photomontage title	Location (easting, northing)	Approximate distance to Project	Reason for selection
				Overhead Line would be viewed with the existing 400 kV overhead line in Route Section 3.
Photomontage 4	View from Trans Pennine Trail at Yokefleet (Section 4, LVIA Proposed Viewpoint 4.5)	E482194, N423794	350 m	This viewpoint is representative of views experienced by people living and moving around the community of Yokefleet, including people using the Trans Pennine Trail. It illustrates the northern side of the proposed River Ouse crossing and how the Proposed Overhead Line would be viewed with the existing 400 kV overhead line in Route Section 4.
Photomontage 5	View from Ealand showing ZDA duck under (Section 6, LVIA Proposed Viewpoint 6.4)	E478727, N412119	350 m	This viewpoint is representative of the views experienced by people living and moving around the community of Ealand including users of the Peatlands Way which links the communities of the Isle of Axholme. It illustrates the ZDA duck under which is required where the Proposed Overhead Line crosses the existing 400 kV overhead line in Route Section 6.
Photomontage 6	View from Melwood Hill within the Isle of Axholme (Section 7)	E480360, N402194	330 m	This viewpoint is representative of views experienced by people living and moving around the community of Ealand which is located within the Isle of Axholme. It illustrates the Proposed Overhead Line in Route Section 7 where the new overhead line would parallel the two existing 400 kV overhead lines.
Photomontage 7	View from Beacon Hill at Gringley on the Hill (Section 9, LVIA Proposed Viewpoint 9.4)	E474154, N390774	850 m	This viewpoint is representative of views experienced by people visiting Beacon Hill Scheduled Monument at Gringley on the Hill. It illustrates the long-distance views from elevated landform in Route Section 9 and shows the Proposed Overhead Line as it routes west of Misterton in Route Section 8.
Photomontage 8	View from Retford Road at North Leverton (Section 10, LVIA Proposed Viewpoint 10.6C)	E478015, N382005	1000 m	This viewpoint is representative of the views experienced by people using Retford Road near North Leverton. It illustrates how the Proposed Overhead Line would be viewed with the North Leverton Windmill in Route Section 10.
Photomontage 9	View from Darlton (Section 10, LVIA Proposed Viewpoint 10.18)	E477973, N373700	280 m	This viewpoint is representative of the views experienced by people living and moving around the community of Darlton, including users of the PRoW which crosses the farmland to the north of the A57. It illustrates how the Proposed Overhead Line would be viewed in Route Section 10.

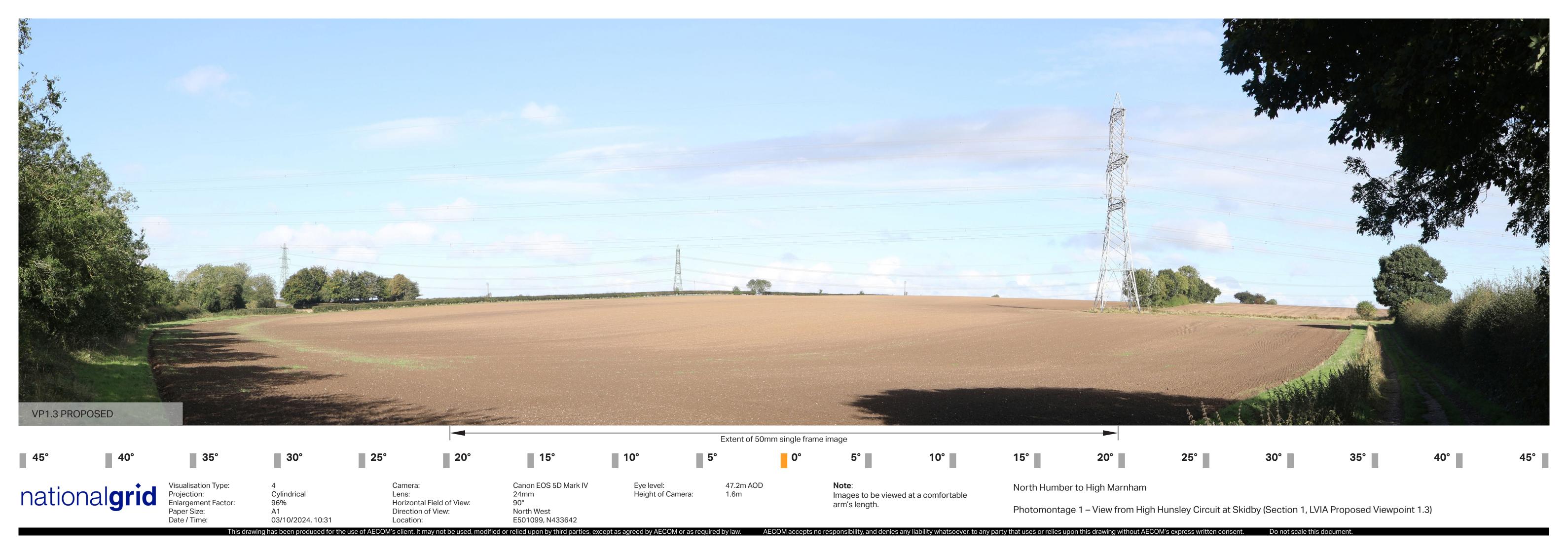


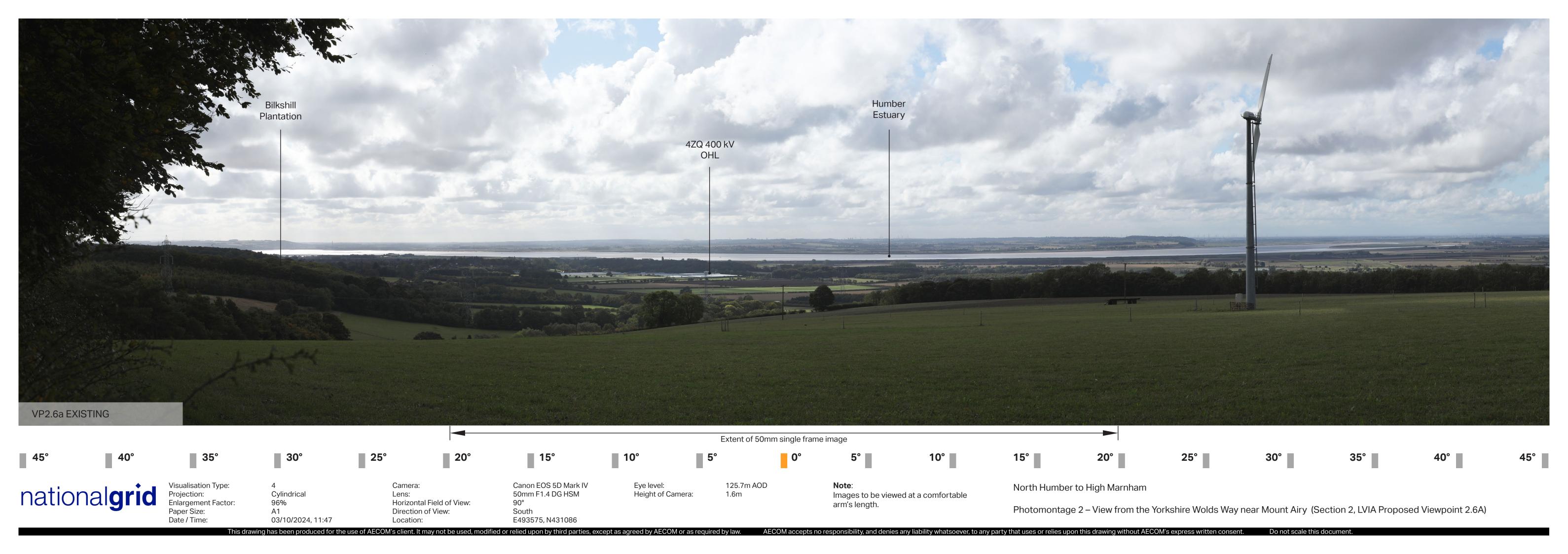


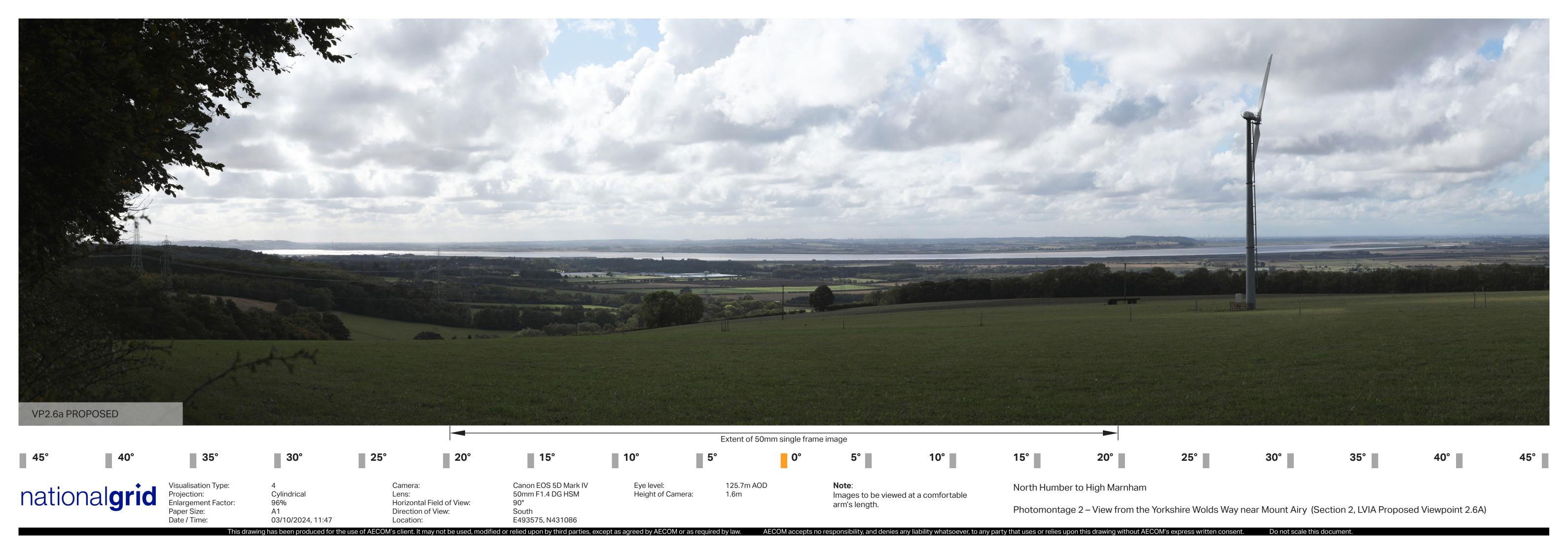






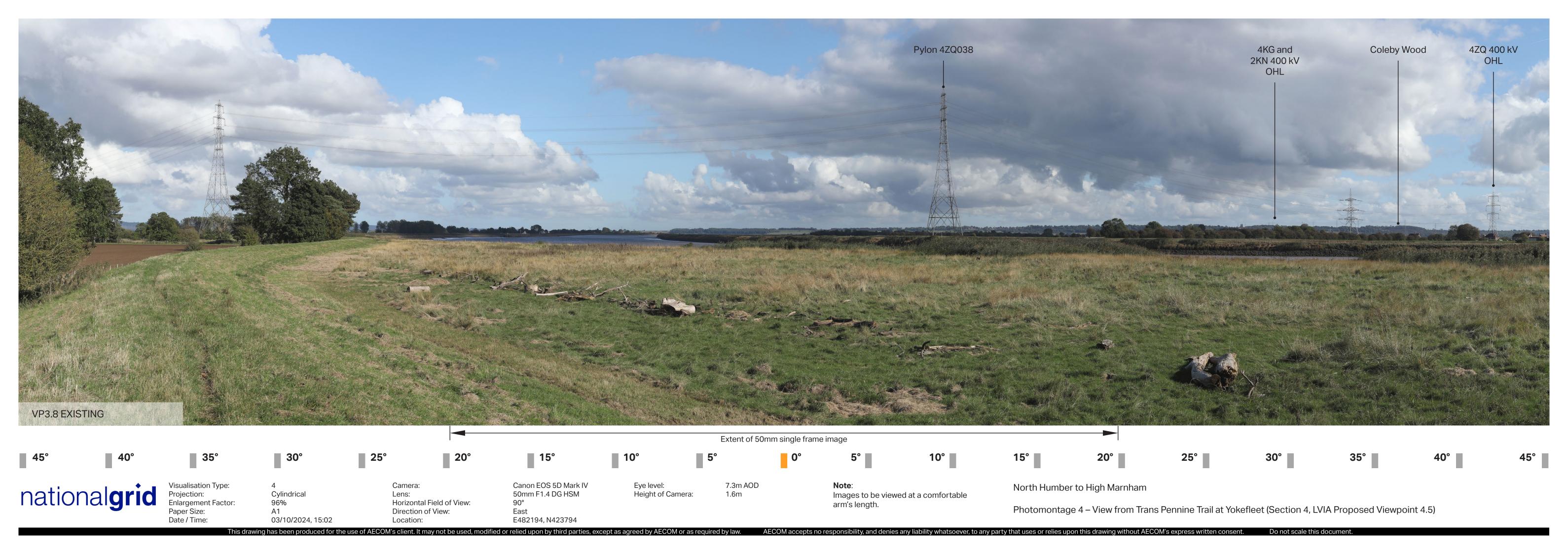


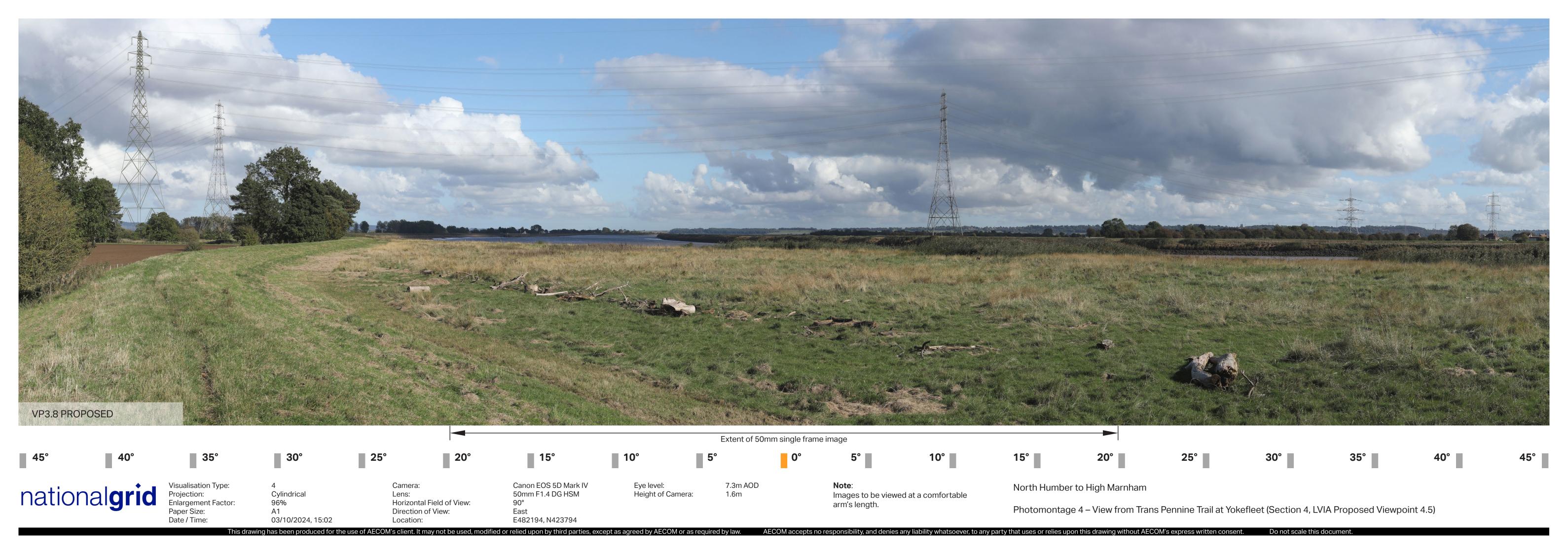


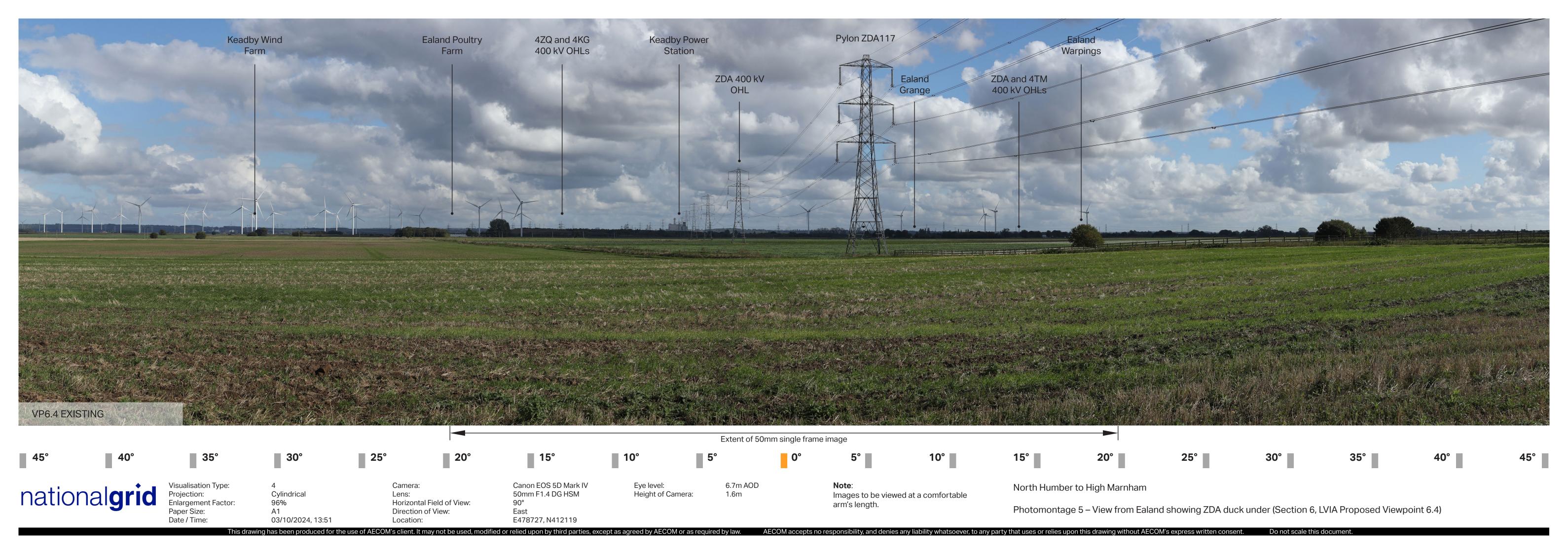




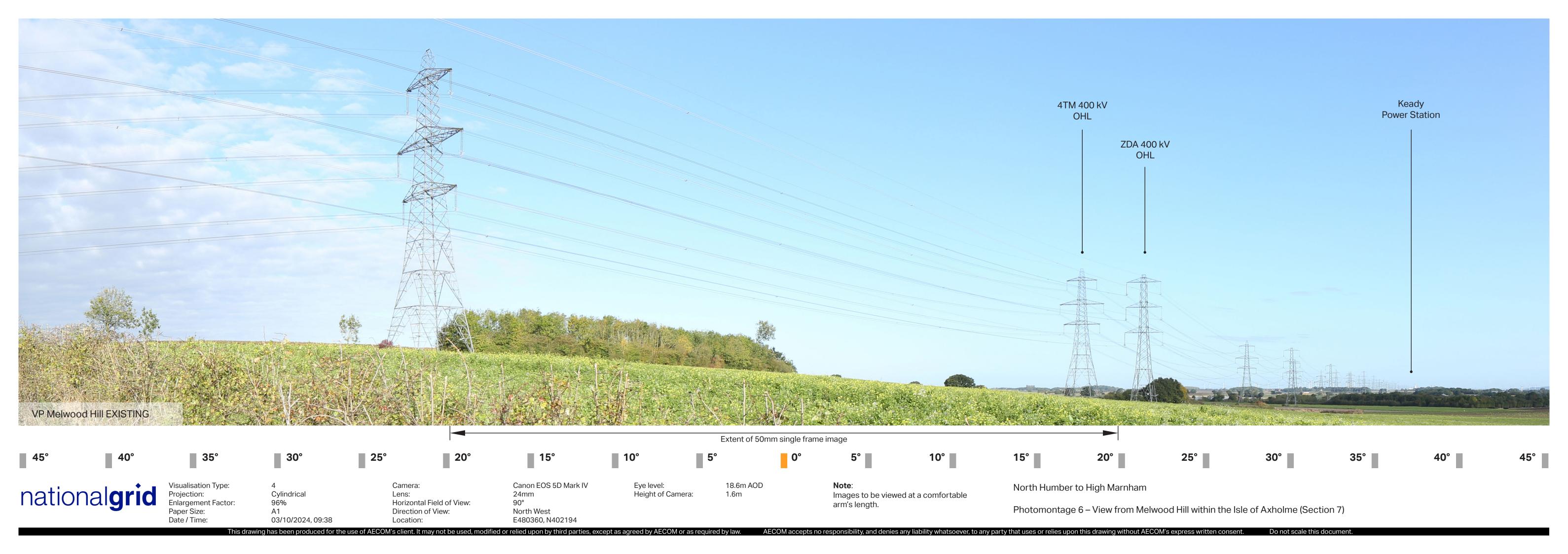


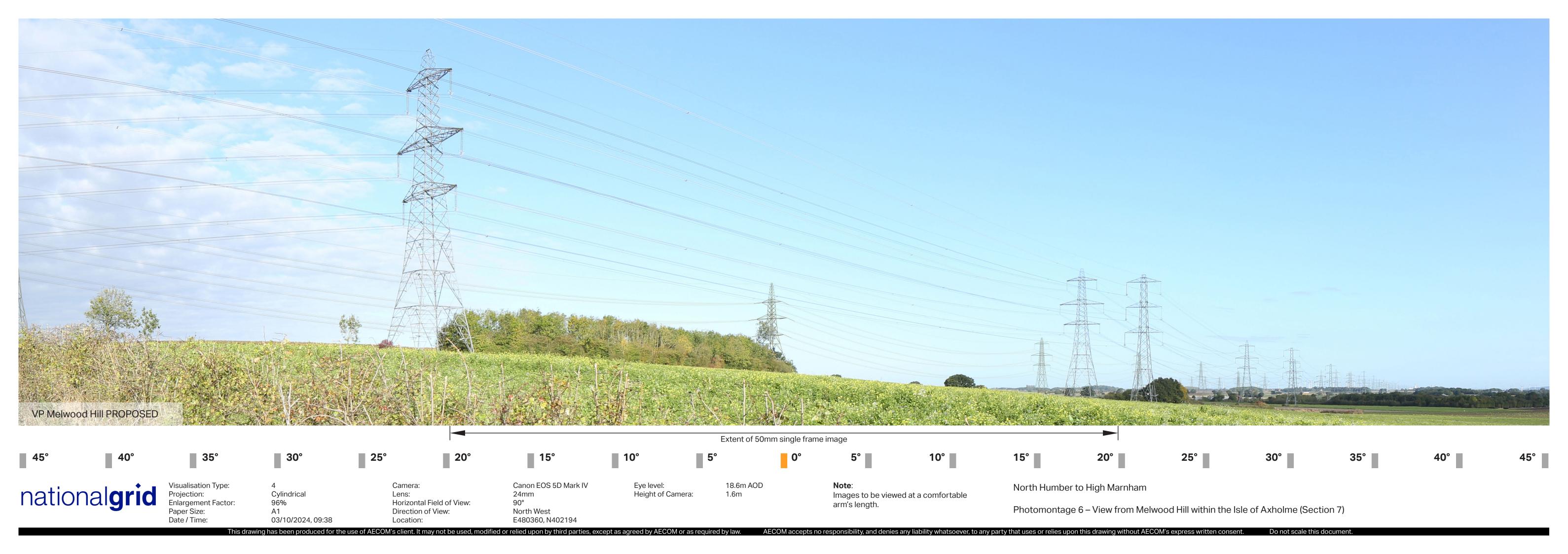


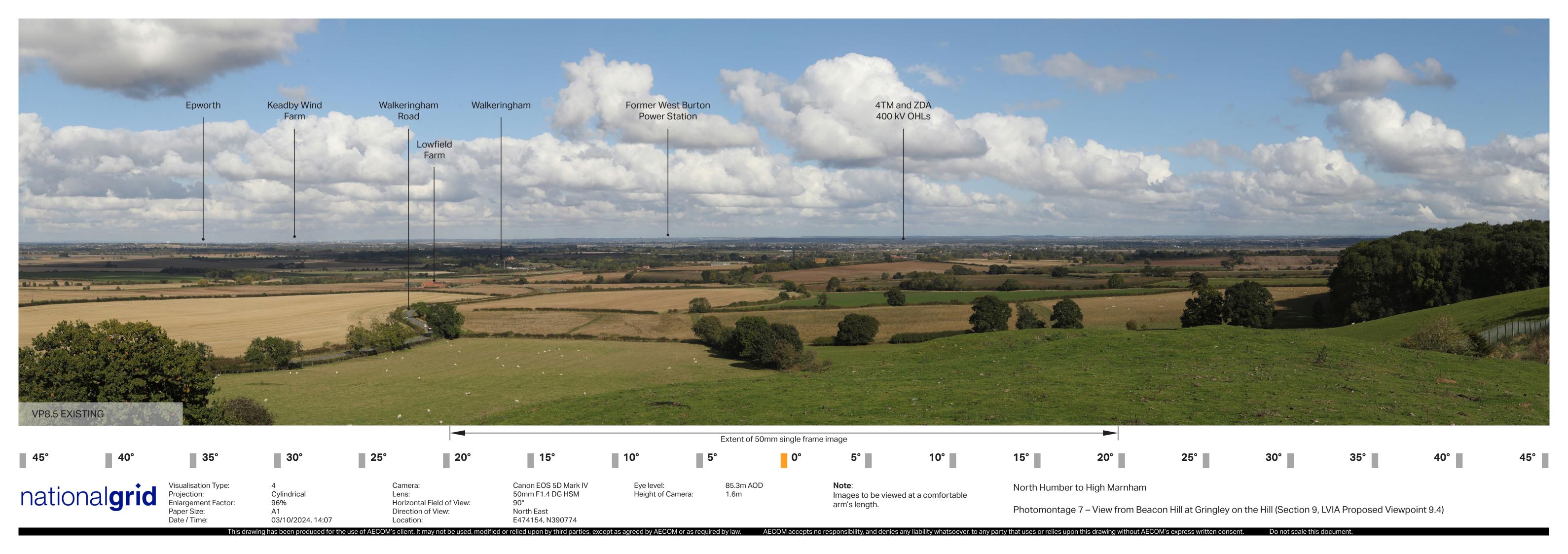


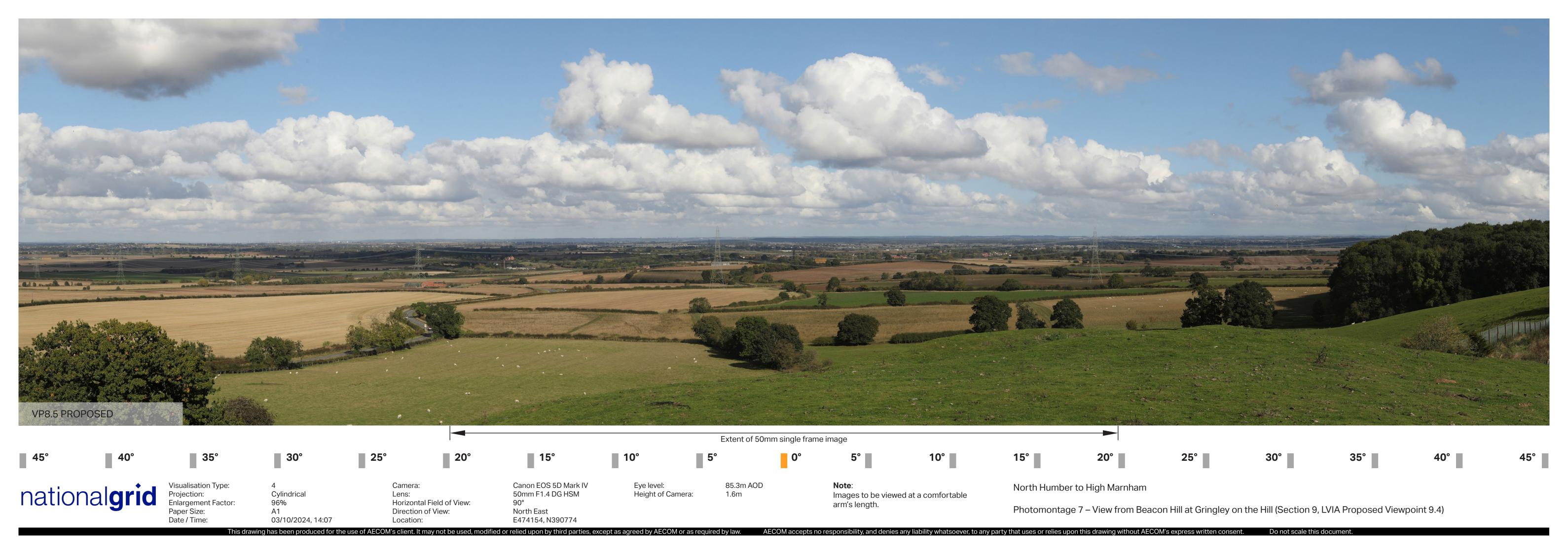


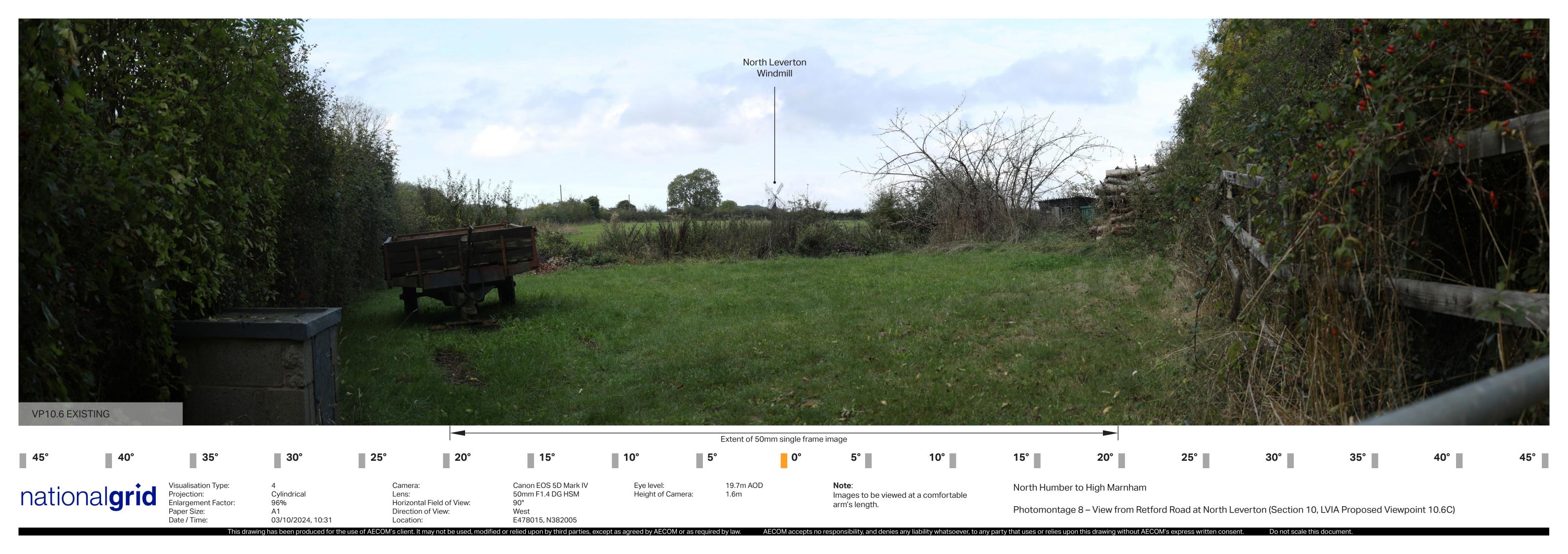




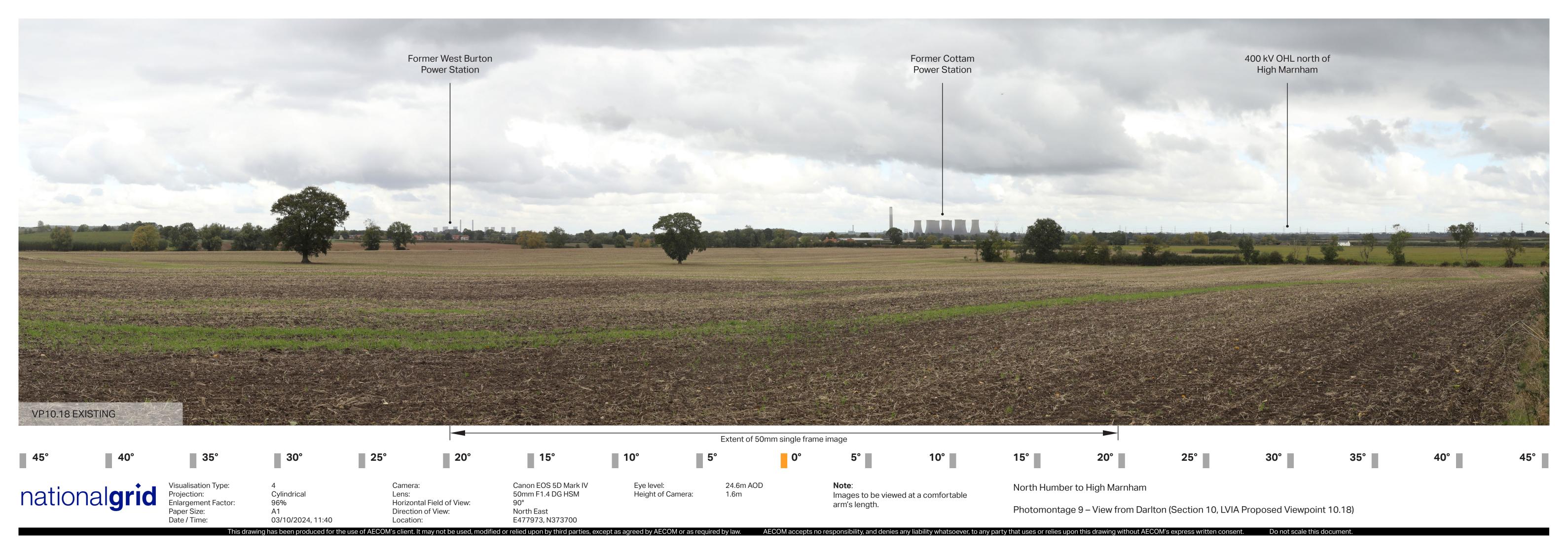














#### 1.6 References

- Ref 1.1 Landscape Institute and Institute for Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment 3rd Edition. Abingdon: Routledge.
- Ref 1.2 Landscape Institute and Institute for Environmental Management and Assessment (2019). Technical Guidance Note 06/19 Visual Representation of Development Proposal [Online]. Available at https://www.TGN-06-19-Visual\_Representation (landscapewpstorage01.blob.core.windows.net) [Accessed: 5th December 2024].
- Ref 1.3 H.M. Government (1989). Electricity Act 1989. [Online]. Available at https://www.legislation.gov.uk/ukpga/1989/29/contents [Accessed: December 2024].

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