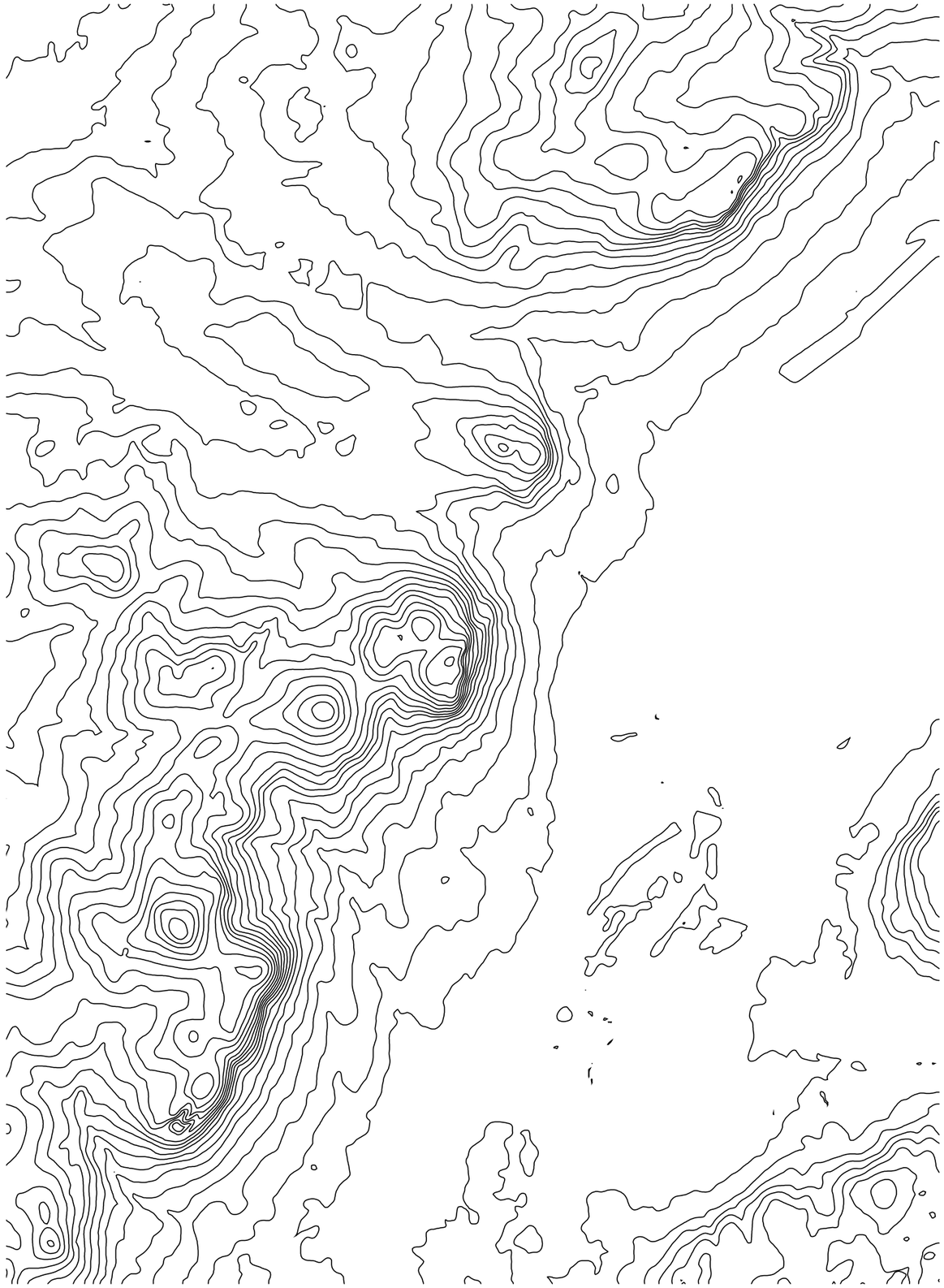


Park Hood
Chartered Landscape Architects

PROPOSED INDUSTRIAL BUILDING ON LANDS AT CARROWREAGH ROAD, DUNDONALD, CO. DOWN BT16 1TS

PREPARED ON BEHALF OF BH ESTATES

April 2025

Photomontage Methodology

Introduction

This document and associated photomontages / visualisations has been prepared by Park Hood Chartered Landscape Architects on behalf of Bell Rolston (Planning Agent) and BH Estates (Client) in relation to a proposed industrial building on lands in the Carrowreagh Ward at Carrowreagh Road, Dundonald in Co. Down BT161TS.
Park Hood is a Chartered Member of the Landscape Institute UK with extensive experience in preparation of Landscape / Townscape and Visual Impact Assessments for large scale projects throughout the UK, Ireland and Europe. All work is undertaken in compliance with the Landscape Institute's Code of Standards of Conduct and Practice for Landscape Professionals and checked in accordance with Park Hood's ISO 14001:2015 and ISO 9001:2015.

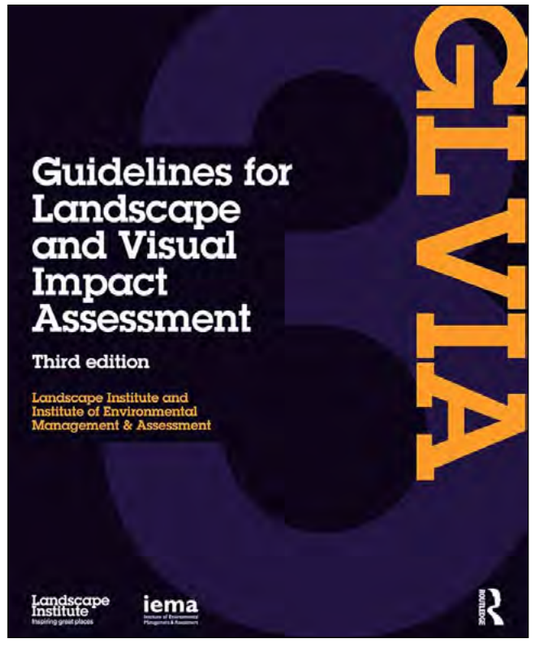
What are photomontages?

Park Hood base their methodology
Park Hood base their methodology on the Landscape Institute Technical Guidance Note 06/19: Visual Representation of Development Proposals. The main function of a photomontage is as an illustrative tool to demonstrate development proposals for the benefit of the consultation process and any planning application. These images have the advantage of providing a high degree of accuracy on the basis of mathematical formulae correlated with OSNI digital survey data and accurate topographical surveys of the Application Site lands.
The Guidelines for Landscape and Visual Impact Assessment (3rd Edition) by The Landscape Institute and the Institute of Environmental Management & Assessment (GLVIA) states that the "Photomontage is the most widespread and popular visualisation technique for illustrating changes in views and visual amenity. A photomontage is the superimposition of an image onto a photograph for the purpose of creating a representation of potential changes to any view."
Both documents include guidance on photographic technology, including camera selection, choice of lens and printing. The principle function of a photomontage is as an illustrative tool to demonstrate development proposals as part of the consultation process and a planning application. These images have the advantage of providing a high degree of accuracy on the basis of scientific formulae and use of digital survey data. The photomontages and wireframes are a tool to assist any assessing parties such as Planning Departments in their assessment of visual amenity effects deriving from the proposed development on key or representative viewpoints.
For planning application purposes in terms of Landscape & Visual Assessment, photomontages are usually taken from locations that are publicly accessible such as, in this instance, from the nearest public roads or areas of public realm in the Carrowreagh Road / A20 Upper Newtownards Road / Dunlady Road / Dundonald area.

Cover of the latest "Visual Representation of Development Proposals" From the Landscape Institute



Cover of "Guidelines for Landscape and Visual Impact Assessment" From the Landscape Institute



1.0
Photomontage Methodology

Photography and Viewpoint Selection

The Application Site is located to the west of the Carrowreagh Road within an area on the rural / urban interface. It is bound to the south by a tree lined hedgerow on the boundary of the Carrowreagh Business Park and to the north by more open landscape on the rising land towards Carrowreagh House and the associated farmyard area. The combination of urban townscape, topography and vegetation across this part of north-east Dundonald ensure views consistently change in context, scale and extent with many views from the nearest publicly accessible areas being closed off. Viewpoints were selected within publicly accessible areas based on the following criteria:-

- Site investigation to establish locations where there was likely to be significant views; and
- Identifying those locations where there was likely to be a significant number of visual receptors (e.g. main roads).

The representative viewpoints were subsequently selected as follows.

- View 1: Carrowreagh Road;
- View 2: Dunlady Road; and
- View 3: A20 Upper Newtownards Road (towards Dungoyne Park).

Site Viewpoint Map - For reference only



Photography Procedures on Site

Photographs taken as high quality jpeg files using a single lens Canon Eos 5D with a fixed focal length lens of 50mm and the following procedures are undertaken:-

- Camera levelled and mounted on tripod with panoramic head to avoid parallax error;
- The proposed development is set as central as possible in the panorama unless there is a specific context which requires inclusion;
- Lens focus set to manual and “infinity” to ensure principal distance (rear nodal point to image plane) coincides with marked focal length;
- Shoot images with a fixed overlap of 20° for panoramic images;
- Photographs “follow the sun” insofar, views from the east are shot in the morning and views from the west in the afternoon. The photos were undertaken on a clear day (2nd October 2024) in bright and clear weather conditions;
- Record the viewpoint elevation including allowance for eye height (average 1.6m) and Northing and Easting OS grid coordinates (via in-built Canon GPS Receiver);
- Record bearing of notable landmarks (even if outside panoramas FOV) if landscape is devoid of strong identifiable elements (the Camera EXIF data automatically records date, time, GPS, focal lengths etc.)

Tripod setup reference picture



Camera Equipment

Our Canon EOS 5D Mark IV has been kitted out to follow the guidelines set by the Landscape Institute.

Our current setup pairs the Canon EOS 5D to a fixed lens Canon EF 50mm f/1.4, to achieve the focal length set by the Landscape Institute guidelines.

The Camera is then mounted using the Vanguard QS-60 quickplate to a Vanguard Alta Pistol Grip, which is then mounted on our Manfrotto 055 Tripod which ensures safe operation.

To gather location data, we use a combination of a GPSMAP 62s by Garmin, a Canon Geotagger GPS Receiver and smartphones on site.

Canon EOS 5D Mark IV



Canon EF 50mm f/1.4



Canon GPS Receiver



Vanguard Alta Pistol grip



Manfrotto 055 Tripod



Garmin GPSMAP 62s

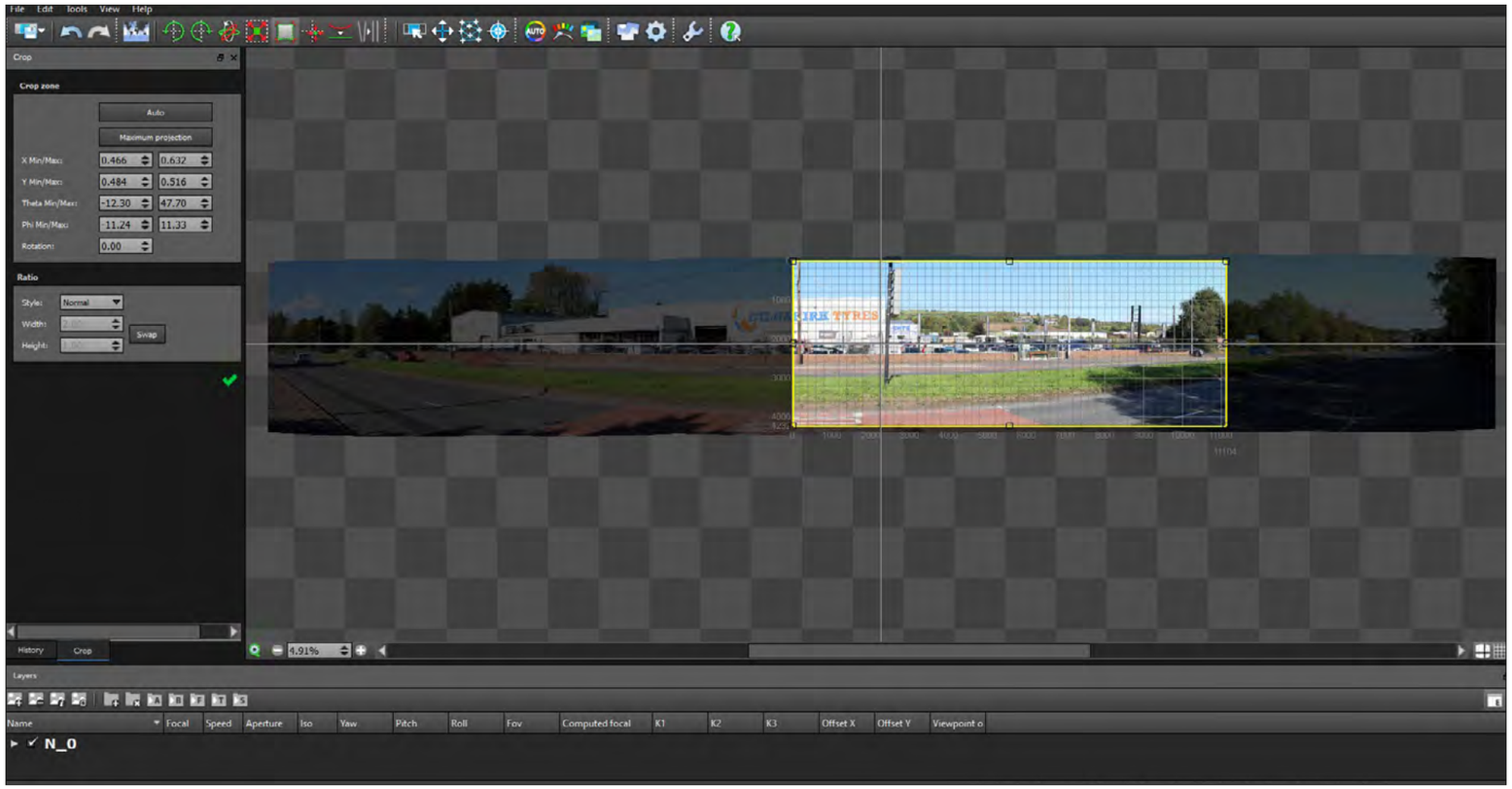


Photograph Alignment and Panoramas

Where there is a panoramic view, photographs are merged together to create a wider image. Panoramas are mapped by planar projection if up to approximately 75° Field of View and, if wider, stitched by cylindrical process using AutoPano-Giga. During the stitching process, none of the photographs are distorted in terms of scaling.
The existing view is set over the proposed view to allow easy comparison and assessment of effects / impacts deriving from either. An information panel aside the photomontage summarises the key information including the viewpoint location, photograph date, field of view and distance to site.

Wireframe / Photomontage Model

The digital base model of the proposed industrial building was prepared in-house using the outline details of the site layout and indicative dwelling types based on the project drawings, specifications and plans using a combination of Autodesk Civil 3D, Adobe Photoshop CS3 and 3d Studio-MAX. The digital ground model is generated using the digital terrain map (DTM) obtained from Ordnance Survey NI. This model is collated and coordinated with the digital site layout, a topographical survey and a digital ACE map of the site context.



▲ Example of photograpgh alignment and merging

Viewpoint 1

Carrowreagh Road

▼ Tripod Location



▼ Viewpoint Location



OS reference
343449 E 374293 N

Eye Level
44.3M

Direction of view
345°

HFOV:
60° (cylindrical projection)

Distance to subject site
235m

Paper size
420 x 297 mm (A3)

Correct printed image size
380 x 129 mm

Camera
Canon EOS 5D Mark IV

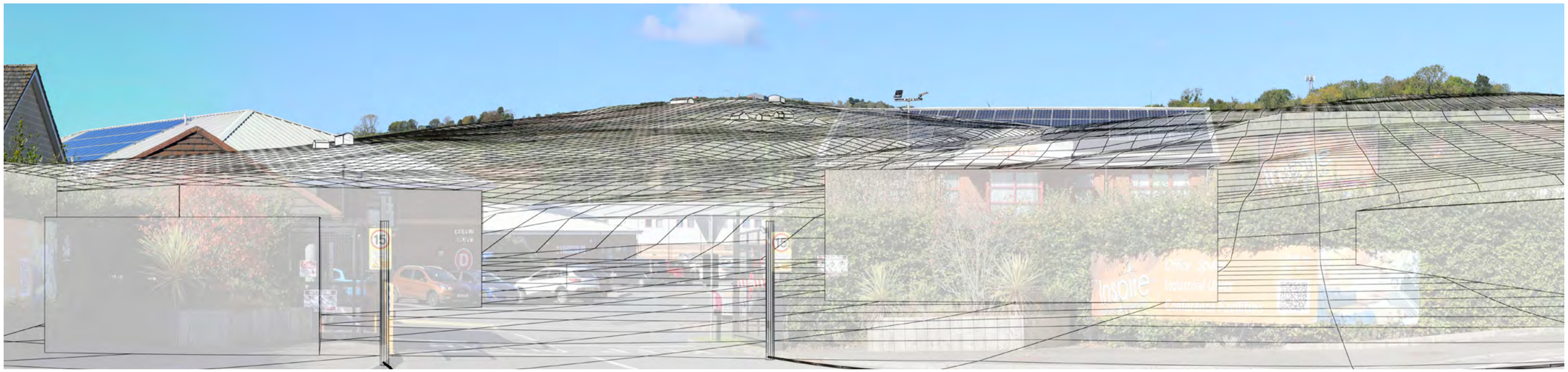
Lens
50mm (Canon EF 50mm f/1.8)

Camera height
1.5 AGL

Date
02/10/2024

Time
14:27

▼ Verification - for context only



2.1
Photomontages

Viewpoint 1 - Existing View



Viewpoint 1 - Proposed View



Viewpoint 2

Dunlady Road

▼ Tripod Location



▼ Viewpoint Location



OS reference
342941 E 375198 N

Eye Level
119.7M

Direction of view
148°

HFOV:
60° (cylindrical projection)

Distance to subject site
770m

Paper size
420 x 297 mm (A3)

Correct printed image size
380 x 129 mm

Camera
Canon EOS 5D Mark IV

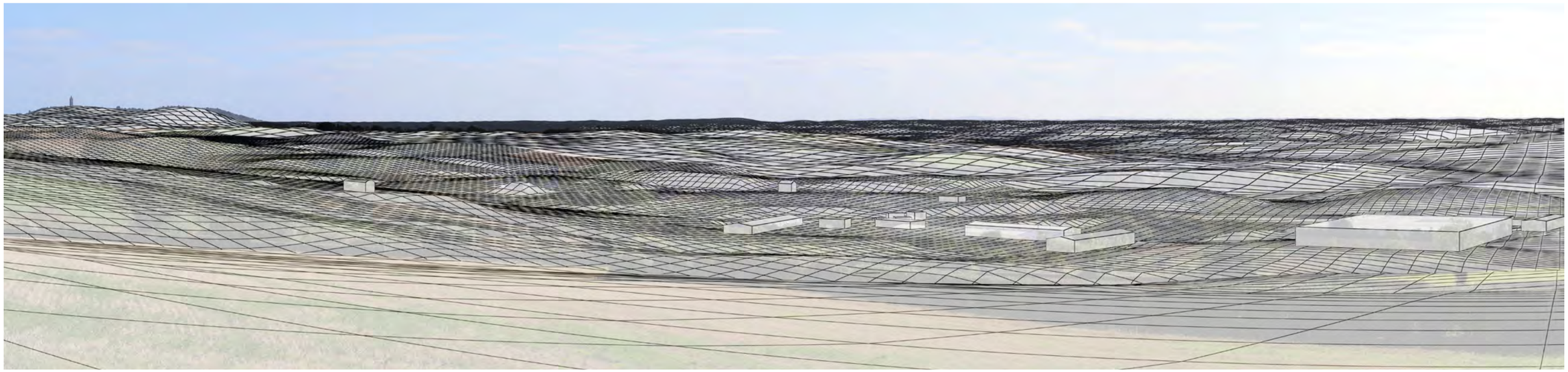
Lens
50mm (Canon EF 50mm f/1.8)

Camera height
1.5 AGL

Date
02/10/2024

Time
14:36

▼ Verification - for context only



3.1
Photomontages

Viewpoint 2 - Existing View



Viewpoint 2 - Proposed View



Viewpoint 3

A20 Upper Newtownards Road
(towards Dungoyne Park)

▼ Tripod Location



▼ Viewpoint Location



OS reference
343003 E 374093 N

Eye Level
36.5M

Direction of view
40°

HFOV:
60° (cylindrical projection)

Distance to subject site
575m

Paper size
420 x 297 mm (A3)

Correct printed image size
380 x 129 mm

Camera
Canon EOS 5D Mark IV

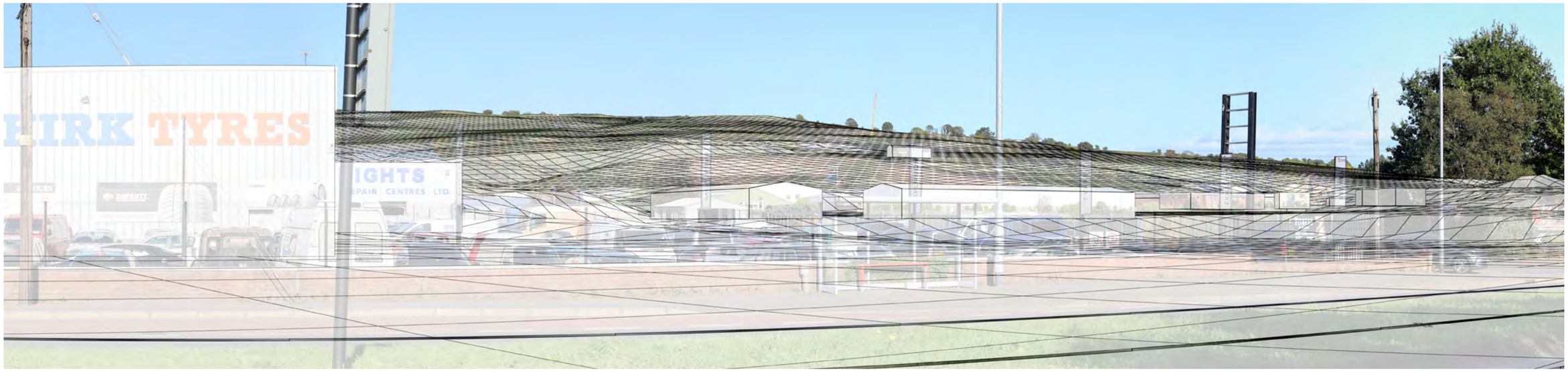
Lens
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Camera height
1.5 AGL

Date
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Time
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▼ Verification - for context only



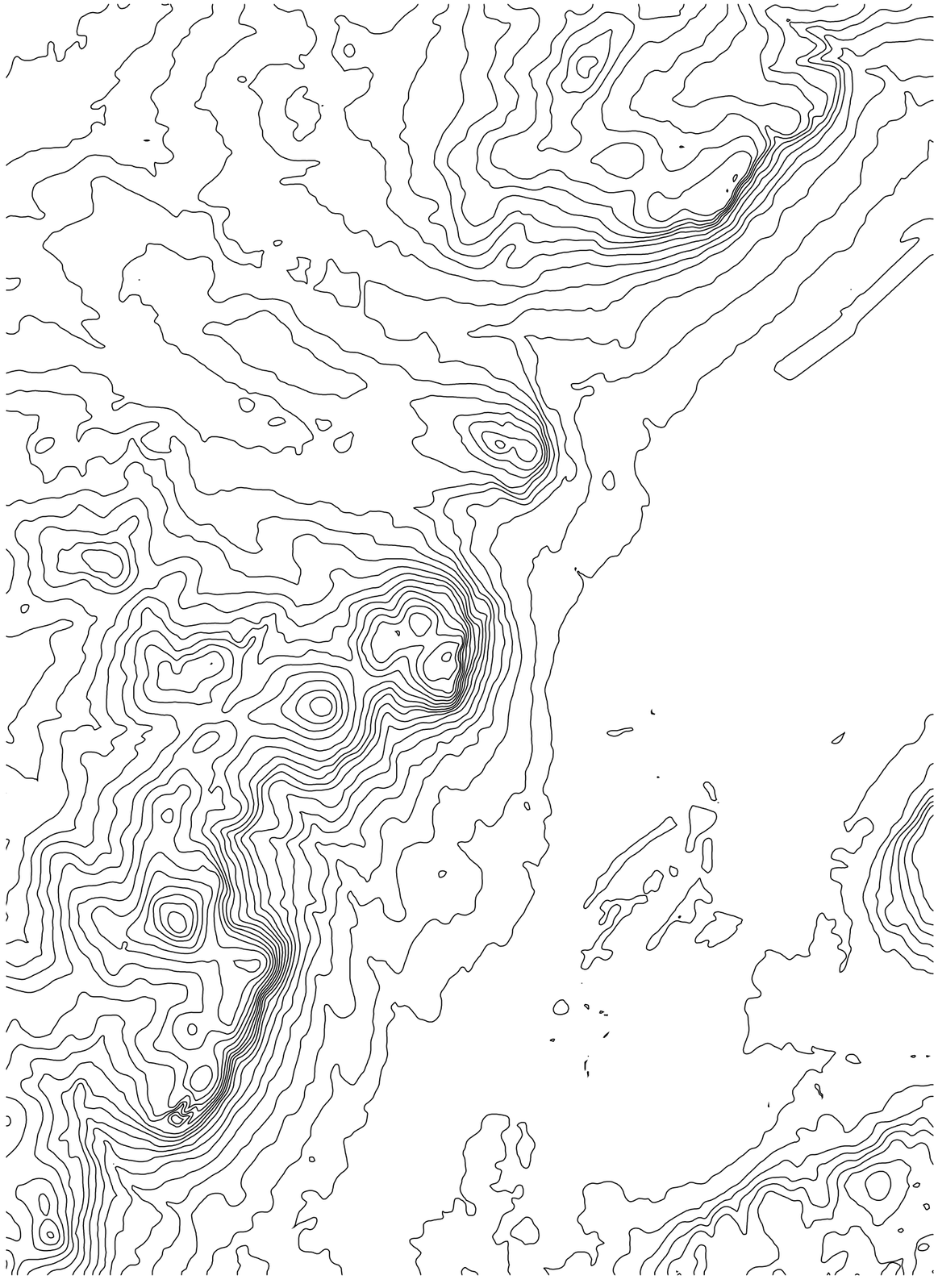
4.1
Photomontages

Viewpoint 3 - Existing View



Viewpoint 3 - Proposed View





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