

Revised Larbrax Wind Farm

Environmental Impact Assessment Report (EIA Report)

Volume 3c: Landscape and Visual Impact Assessment Visualisations (Part 2) and Cultural Heritage Visualisations



Revised Larbrax Wind Farm

Environmental Impact Assessment (EIA) Report

Volume 3c: Landscape and Visual Impact Assessment Visualisations (Part 2) and Cultural Heritage Visualisations

Prepared by LUC
on behalf of
Orsted Onshore UK Limited

December 2024



Preface

This Environmental Impact Assessment (EIA) Report has been prepared in support of an application by Orsted Onshore UK Limited ('the Applicant') to Dumfries and Galloway Council (DGC) under the Town and Country Planning (Scotland) Act 1997 as amended ('the Act') to construct and operate the Revised Larbrax Wind Farm ('the Proposed Development'). The Proposed Development is located approximately 9 kilometres (km) west of Stranraer within the DGC administrative area. The Proposed Development will comprise up to four wind turbines with battery storage and other ancillary infrastructure.

The EIA Report comprises the following volumes:

- Volume 1: Non-Technical Summary;
- Volume 2: Main Report;
- Volume 3a: Figures;
- Volume 3b: Landscape and Visual Impact Assessment Visualisations (Part 1);
- Volume 3c: Landscape and Visual Impact Assessment Visualisations (Part 2) and Cultural Heritage Visualisations (this volume);
- Volume 4: Technical Appendices; and
- Volume 5: Confidential Documents.

In addition to the above, the application is supported by a standalone Planning Statement, a Pre-Application Consultation (PAC Report and a Design and Access Statement.

A hard copy of the EIA Report and supporting documents will be available for public viewing during the application consultation period at the following address:

Dumfries and Galloway Council

Planning and Development

Economy and Infrastructure

Militia House

English Street

Dumfries

DG1 2HS

A hard copy of the EIA Report and supporting documents alone is available for £500 and can be requested via the following email address: larbrax@orsted.com.

An electronic version of the EIA Report and supporting documents will be available to download from the project website at www.larbraxwindfarm.co.uk and the DGC planning portal: https://eaccess.dumgal.gov.uk/online-applications/.

Any public representations to the application may be submitted via the DGC planning portal at

https://eaccess.dumgal.gov.uk/online-applications/ or by email to planningrepresentations@dumgal.gov.uk, identifying the proposal and specifying the grounds for representation. DGC will advertise the submission of the EIA Report in local and national press and the DGC planning portal. The advert will state the deadline for submitting representations to the DGC in relation to the planning application.

ore UK Act 1997 as	
proposed Proposed	
ons (this	
ation (PAC)	
onsultation	
llowing email	
ct website at	
or website at	
ng the and national	
elation to the	

Volume 3c: Landscape and Visual Impact Assessment Visualisations (Part 2) and Cultural Heritage Visualisations

Contents

Figure 5.2.11a-f: Viewpoint 11, Parking Area, near Killantringan Lighthouse

Figure 5.2.12a-f: Viewpoint 12, South Cairn

Figure 5.2.13a-f: Viewpoint 13, Marian Tower

Figure 5.2.14a-f: Viewpoint 14, High Ardwell

Figure 5.2.15a-f: Viewpoint 15, Minor Road, west of North Port o' Spittal

Figure 5.2.16a-e: Viewpoint 16, Stranraer to Belfast Ferry

Figure 5.2.17a-e: Viewpoint 17, Little Laight

Figure 5.2.18a-8: Viewpoint 18, Braid Fell

Figure 6.3a-d: CH Viewpoint 1, Meikle Larbrax, hut circles 460 m northwest of (SM 4792)

Figure 6.4a-d: CH Viewpoint 2, Meikle Larbrax, farmstead 1040 m northwest of (SM 4838)

Figure 6.5a-d: CH Viewpoint 3, Fort Point, fort and salt-pans (SM 1982)

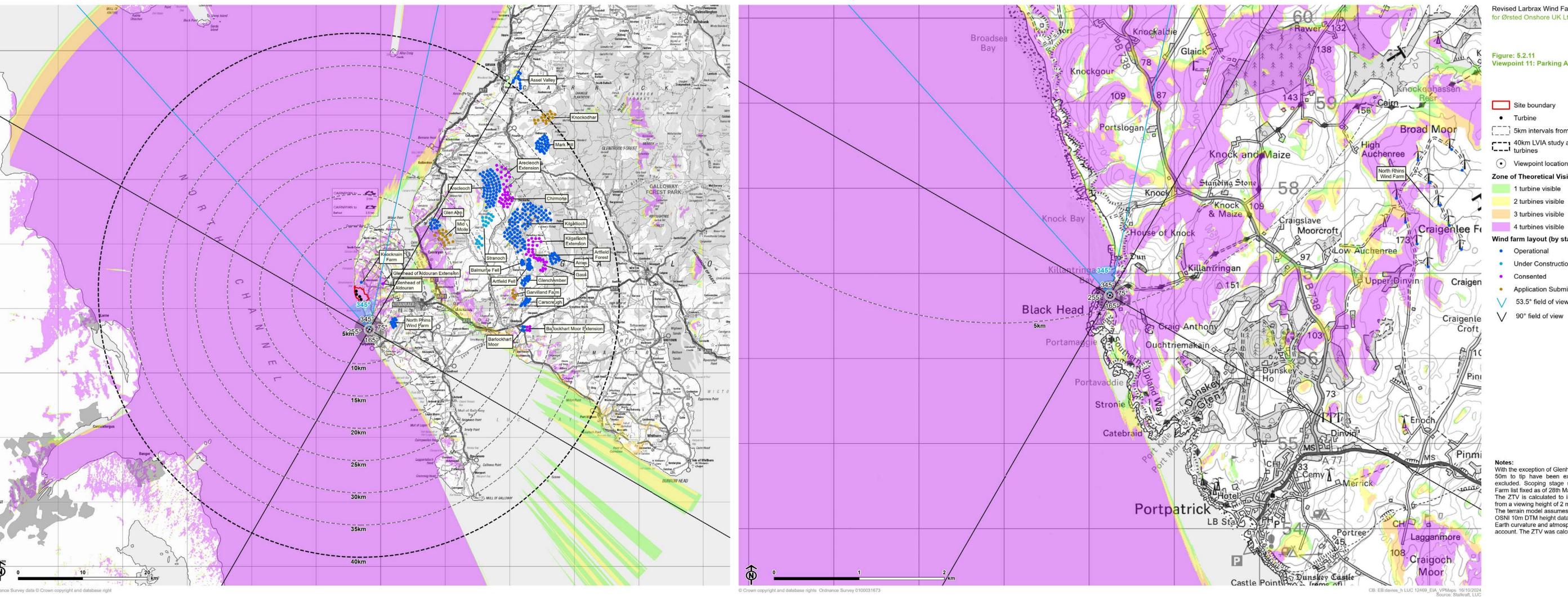
Figure 6.6a-d: CH Viewpoint 4, Meikle Larbrax, hut circle 1000 m north-northeast of (SM 4786)

Figure 6.7a-f: CH Viewpoint 5, Entrance to Meikle Larbrax, fort (SM 1992)

Figure 6.8a-d: CH Viewpoint 6, Interior of Meikle Larbrax, fort (SM 1992)

Figure 6.9a-d: CH Viewpoint 7, Cairn Pat, fort (SM 1958)

Figure 6.10a-d: CH Viewpoint 8, Lochnaw Castle (LB 13498) and GDL (GDL 00407)



Revised Larbrax Wind Farm EIA Report

for Ørsted Onshore UK Ltd



Viewpoint 11: Parking Area near Killantringan Lighthouse

5km intervals from outermost turbines

40km LVIA study area from outermost L--I turbines

Viewpoint location

Zone of Theoretical Visibility

1 turbine visible

2 turbines visible

3 turbines visible

4 turbines visible

Wind farm layout (by status)

Operational

Under Construction

Consented

Application Submitted

// 53.5° field of view

Notes:
With the exception of Glenhead of Aldouran (and its extension), turbines under 50m to tip have been excluded. Single turbine beyond 5km have been excluded. Scoping stage schemes have been excluded. Cumulative Wind Farm list fixed as of 28th May 2024.

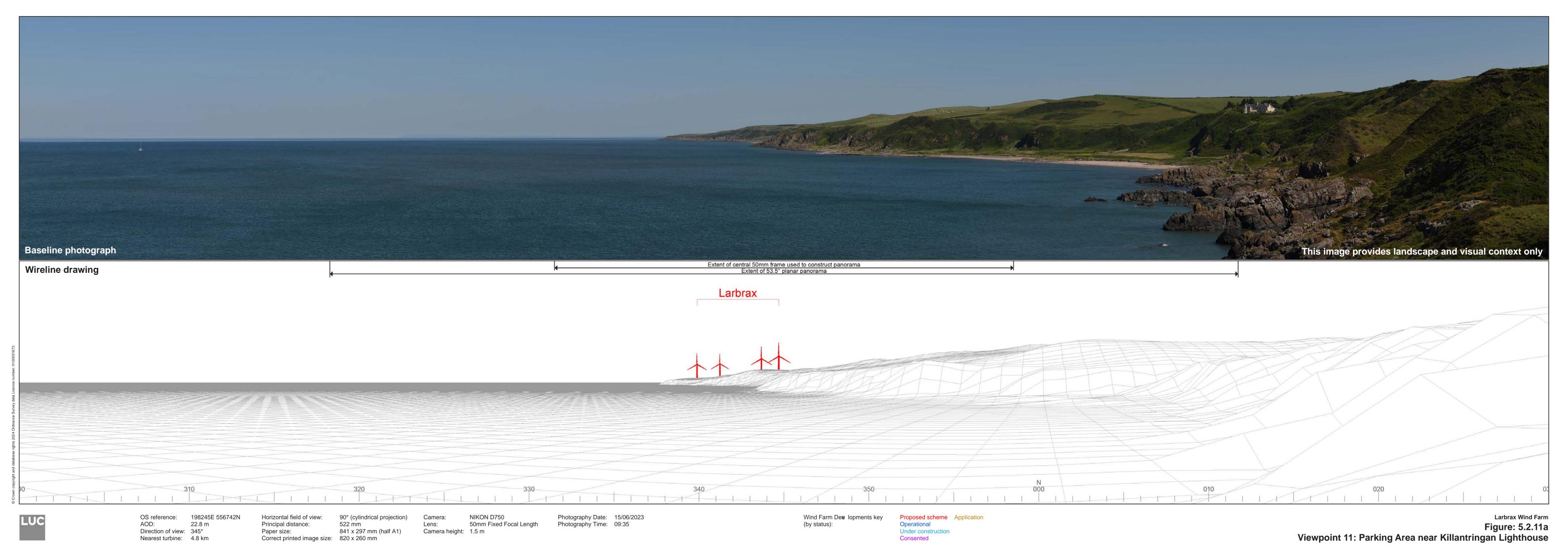
The ZTV is calculated to individual turbine blade tip height (up to 149.9 m)

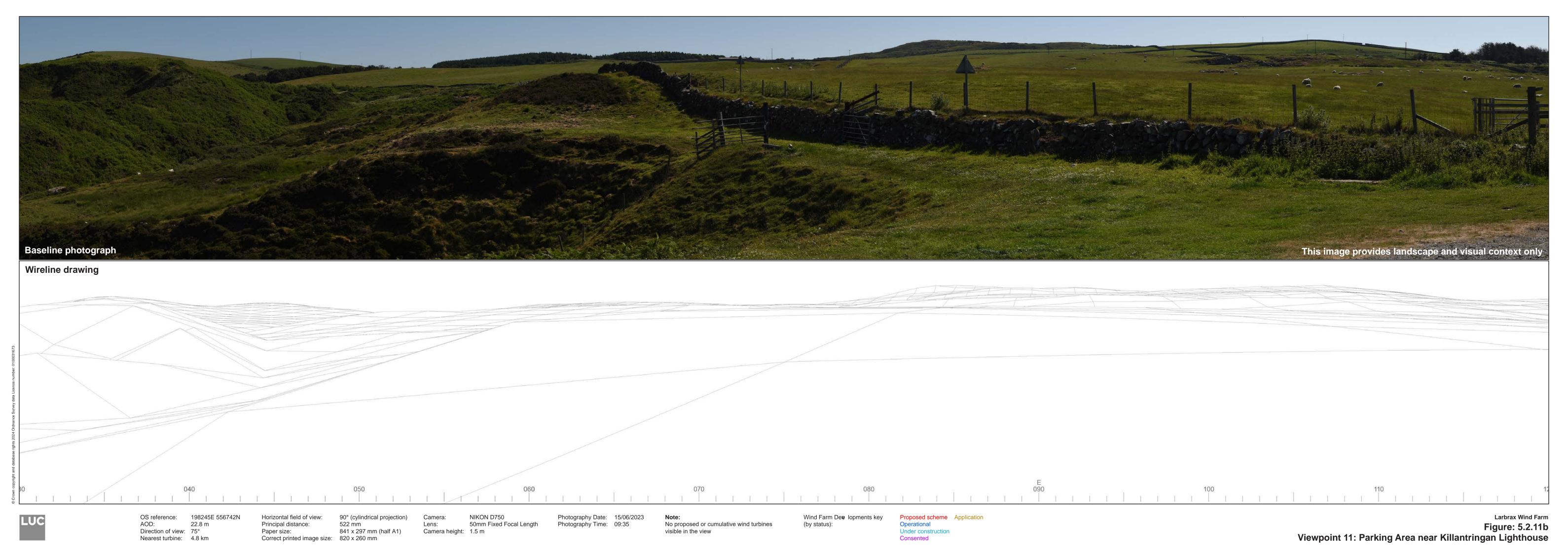
from a viewing height of 2 m above ground level.

The terrain model assumes bare ground and is derived from OS Terrain 5 and OSNI 10m DTM height data.

Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcPro 3.2.0.

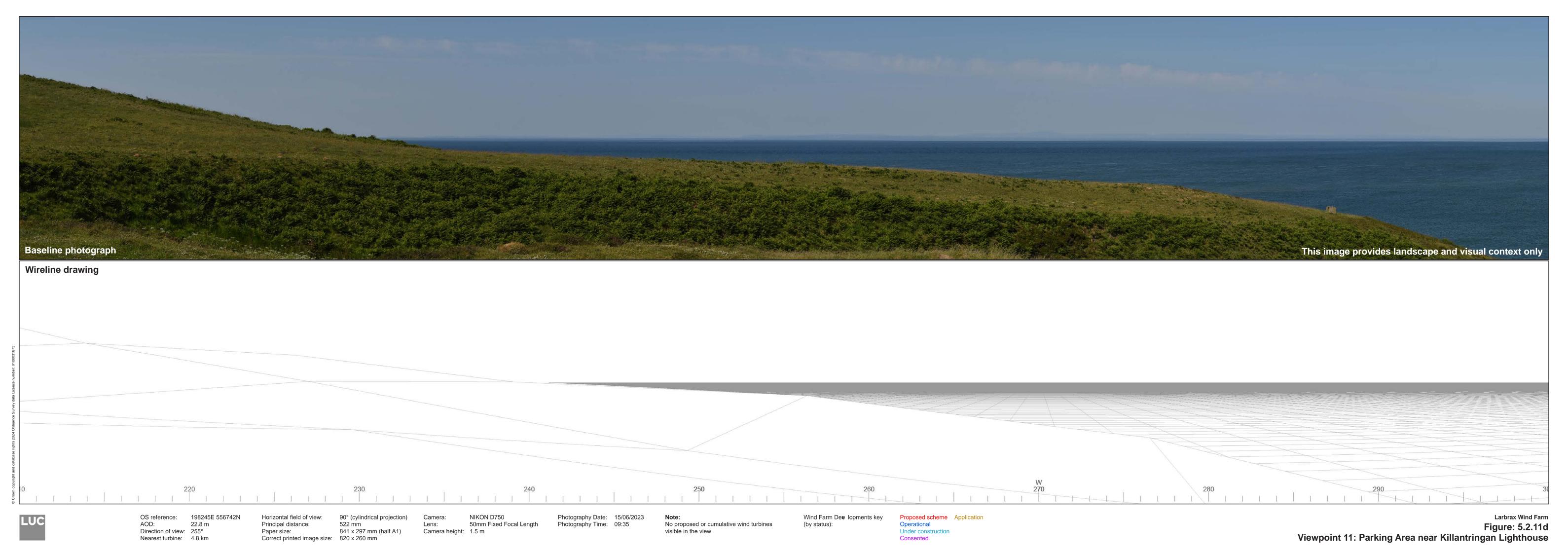


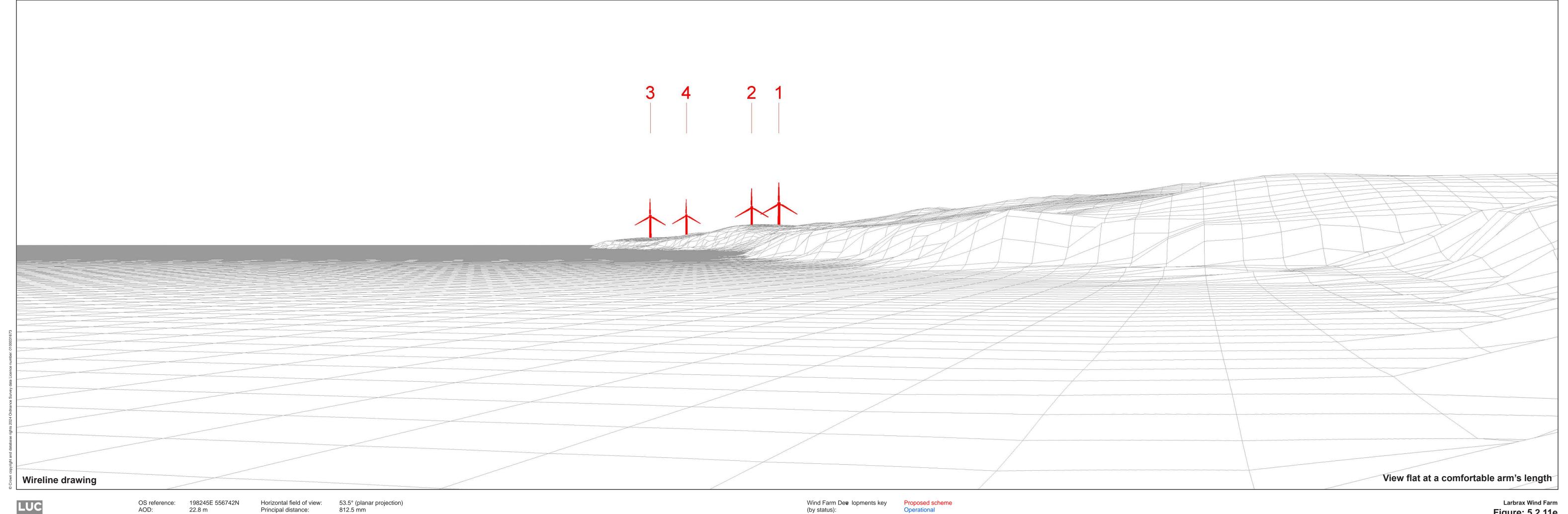






Viewpoint 11: Parking Area near Killantringan Lighthouse





OS reference: 198245E 556742N AOD: 22.8 m Direction of view: 345°
Nearest turbine: 4.8 km

Horizontal field of view: 53.5° (planar projection)
Principal distance: 812.5 mm

Paper size: 841 x 297 mm (half A1)
Correct printed image size: 820 x 260 mm





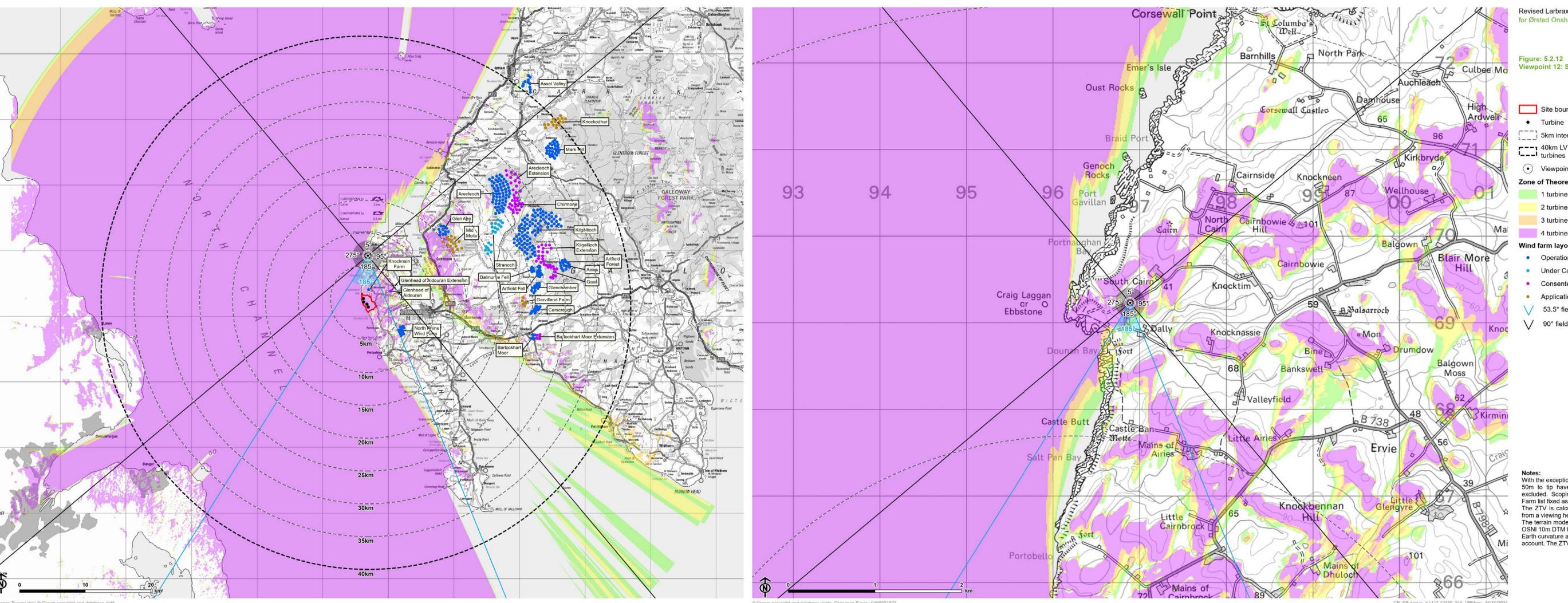
OS reference: 198245E 556742N
AOD: 22.8 m
Direction of view: 345°
Nearest turbine: 4.8 km

Horizontal field of view: 53.5° (planar projection)
Principal distance: 812.5 mm
Paper size: 841 x 297 mm (half A1)
Correct printed image size: 820 x 260 mm

NIKON D750 50mm Fixed Focal Length Camera height: 1.5 m

Photography Date: 15/06/2023 Photography Time: 09:35

Note: Visible infrastructure included in photomontage



Revised Larbrax Wind Farm EIA Report for Ørsted Onshore UK Ltd



Viewpoint 12: South Cairn

Site boundary

5km intervals from outermost turbines

40km LVIA study area from outermost L--I turbines

Viewpoint location

Zone of Theoretical Visibility

1 turbine visible

2 turbines visible

3 turbines visible

4 turbines visible

Wind farm layout (by status)

Operational

Under Construction

Consented

Application Submitted

// 53.5° field of view

√ 90° field of view

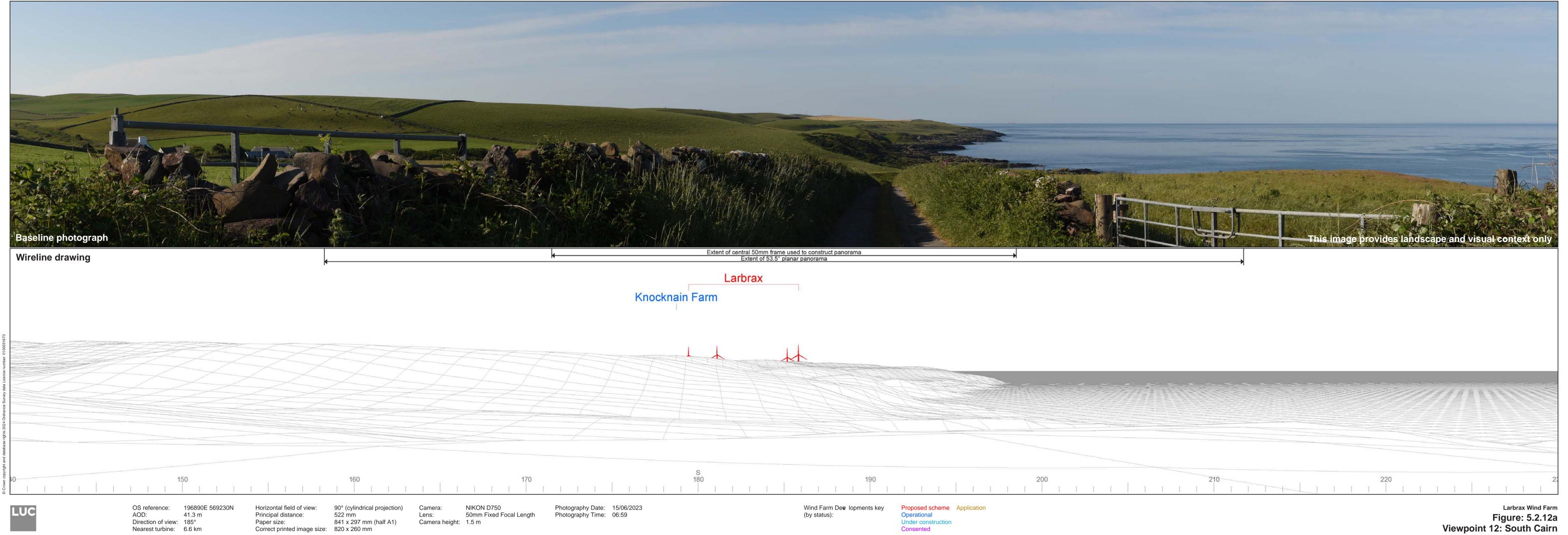
With the exception of Glenhead of Aldouran (and its extension), turbines under 50m to tip have been excluded. Single turbine beyond 5km have been excluded. Scoping stage schemes have been excluded. Cumulative Wind Farm list fixed as of 28th May 2024.

The ZTV is calculated to individual turbine blade tip height (up to 149.9 m) from a viewing height of 2 m above ground level.

The terrain model assumes bare ground and is derived from OS Terrain 5 and OSNI 10m DTM height data.

Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcPro 3.2.0.

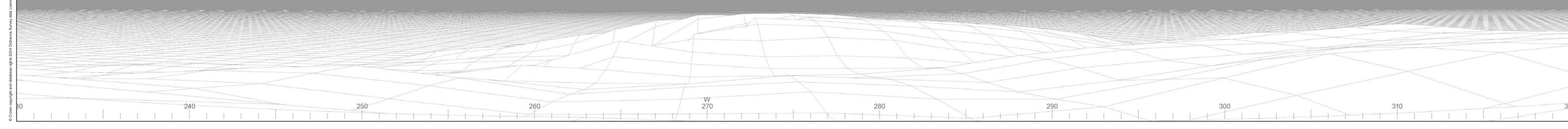




Camera height: 1.5 m

Consented





OS reference: 196890E 569230N
AOD: 41.3 m
Direction of view: 275°
Nearest turbine: 6.6 km

Horizontal field of view: 90° (cylindrical projection)
Principal distance: 522 mm
Paper size: 841 x 297 mm (half A1)
Correct printed image size: 820 x 260 mm

NIKON D750 50mm Fixed Focal Length Camera height: 1.5 m

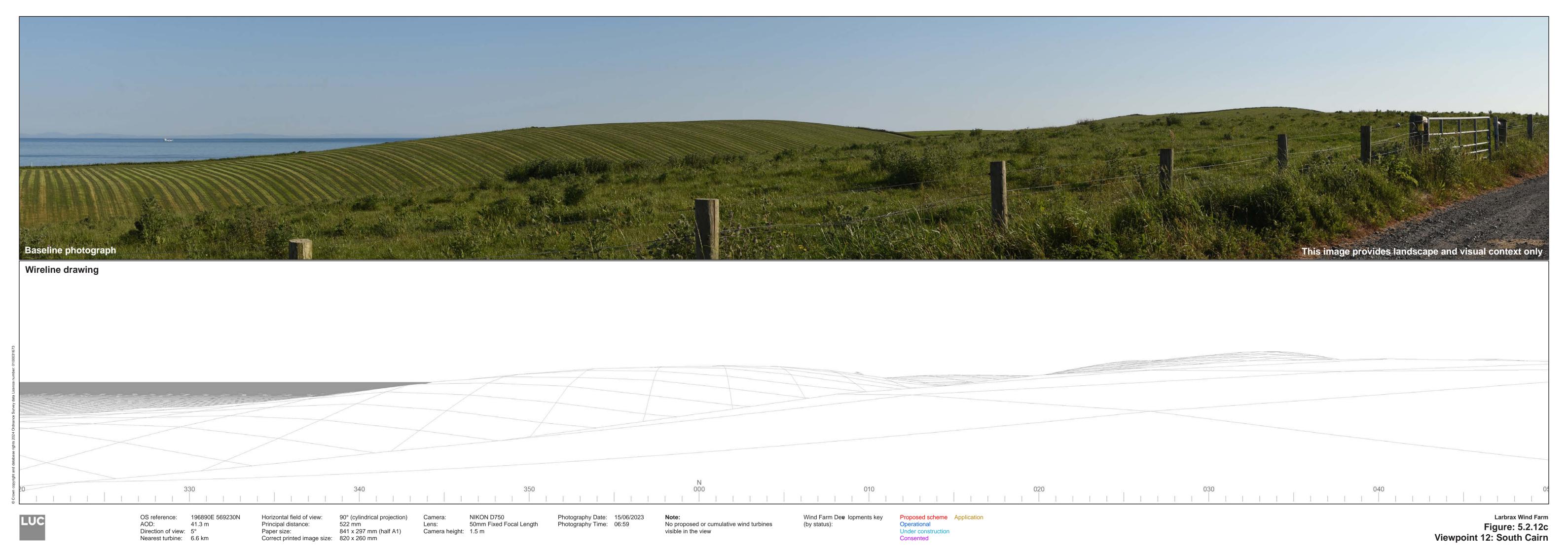
Photography Date: 15/06/2023 Photography Time: 06:59

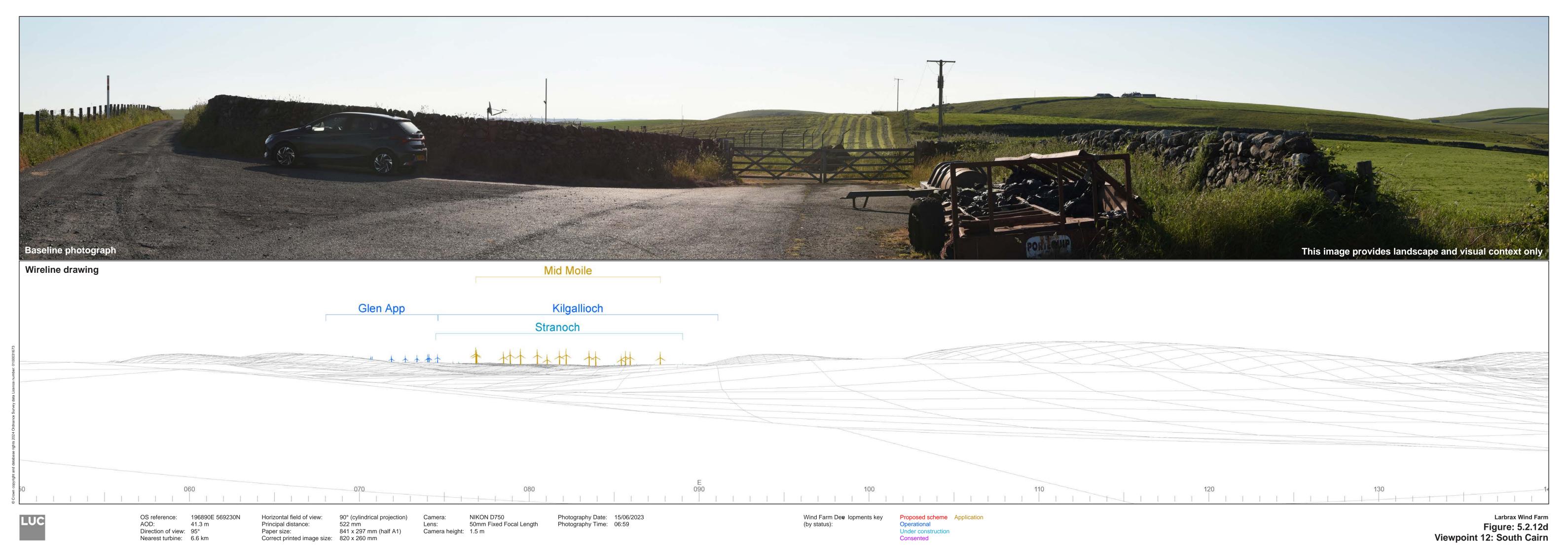
Note:No proposed or cumulative wind turbines visible in the view

Wind Farm Developments key (by status):

Proposed scheme Application
Operational
Under construction Consented

Larbrax Wind Farm Figure: 5.2.12b Viewpoint 12: South Cairn





View flat at a comfortable arm's length Wireline drawing

OS reference: 196890E 569230N AOD: 41.3 m Direction of view: 185° Nearest turbine: 6.6 km

Horizontal field of view: 53.5° (planar projection)
Principal distance: 812.5 mm
Paper size: 841 x 297 mm (half A1)
Correct printed image size: 820 x 260 mm





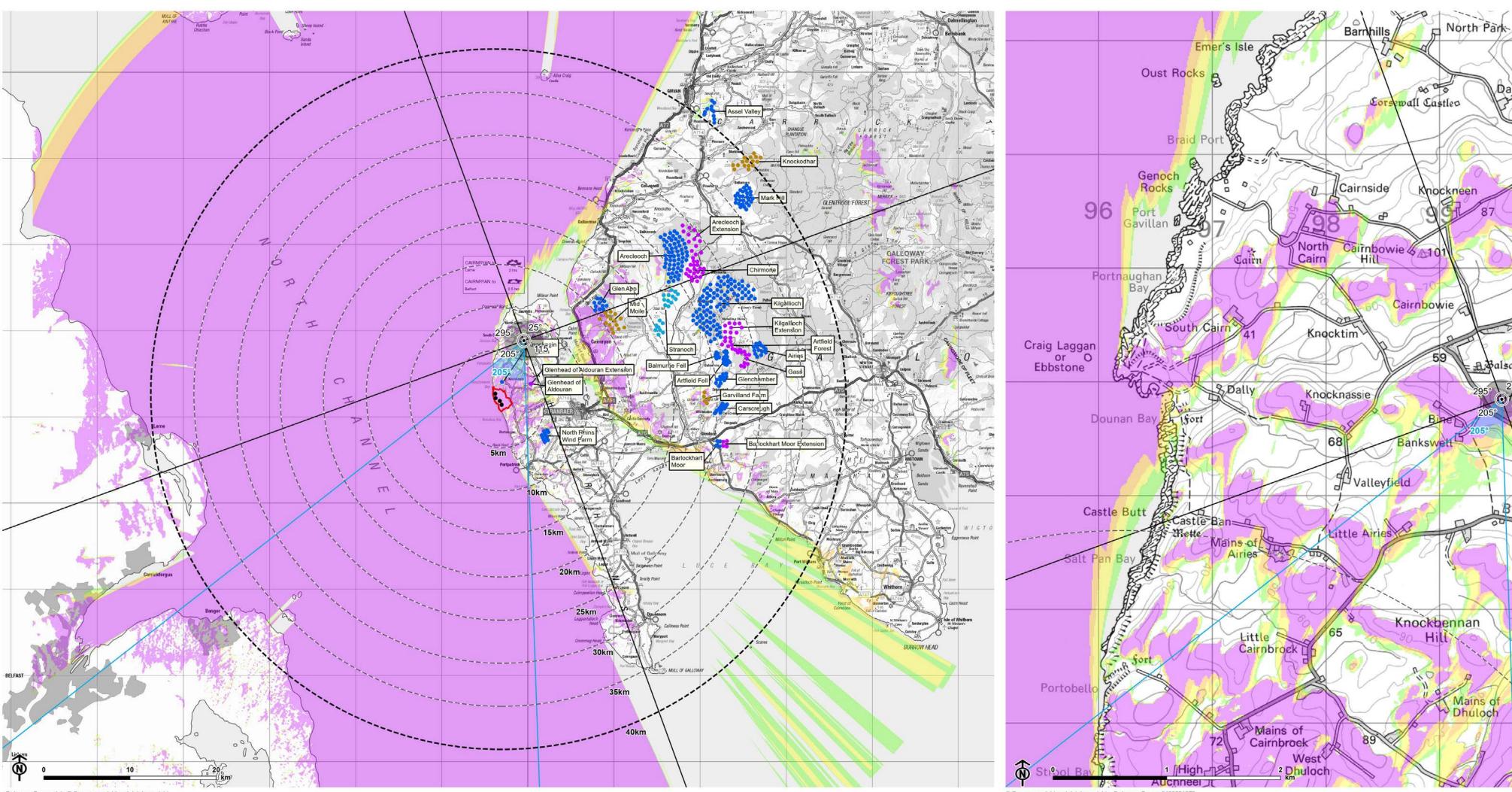
OS reference: 196890E 569230N
AOD: 41.3 m
Direction of view: 185°
Nearest turbine: 6.6 km

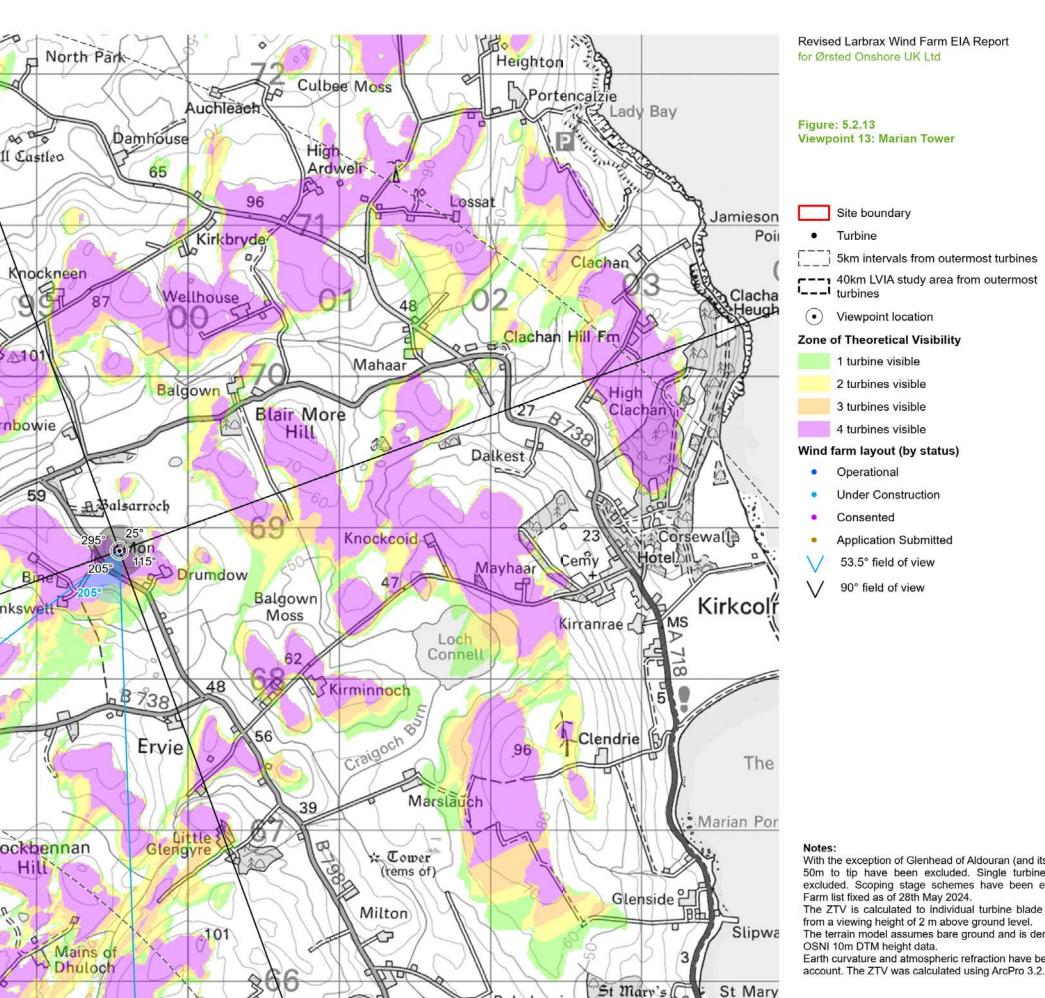
Horizontal field of view: 53.5° (planar projection) Camera: NIKON D'
Principal distance: 812.5 mm Lens: 50mm Fix
Paper size: 841 x 297 mm (half A1) Camera height: 1.5 m

Correct printed image size: 820 x 260 mm

NIKON D750 50mm Fixed Focal Length

Photography Date: 15/06/2023 Photography Time: 06:59





Revised Larbrax Wind Farm EIA Report

for Ørsted Onshore UK Ltd



Viewpoint 13: Marian Tower

5km intervals from outermost turbines

Viewpoint location

Zone of Theoretical Visibility

1 turbine visible

2 turbines visible

3 turbines visible

Under Construction

Application Submitted

With the exception of Glenhead of Aldouran (and its extension), turbines under 50m to tip have been excluded. Single turbine beyond 5km have been excluded. Scoping stage schemes have been excluded. Cumulative Wind Farm list fixed as of 28th May 2024.

The ZTV is calculated to individual turbine blade tip height (up to 149.9 m) from a viewing height of 2 m above ground level.

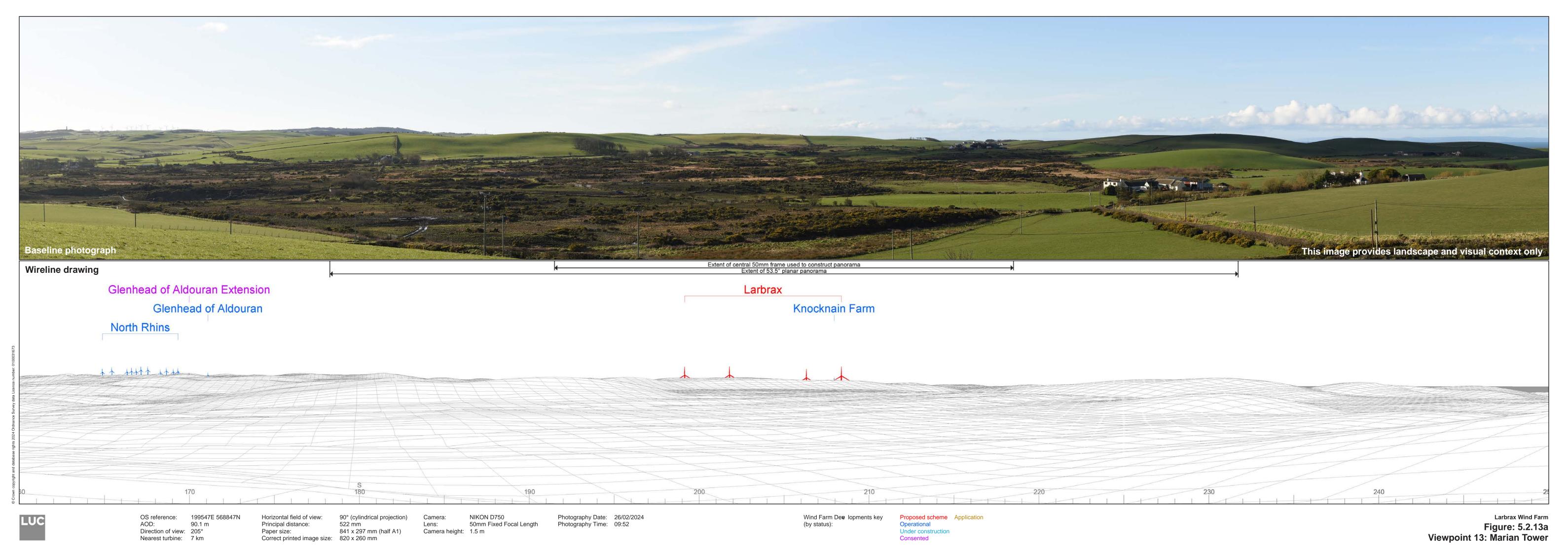
The terrain model assumes bare ground and is derived from OS Terrain 5 and OSNI 10m DTM height data.

Earth curvature and atmospheric refraction have been taken into

account. The ZTV was calculated using ArcPro 3.2.0.

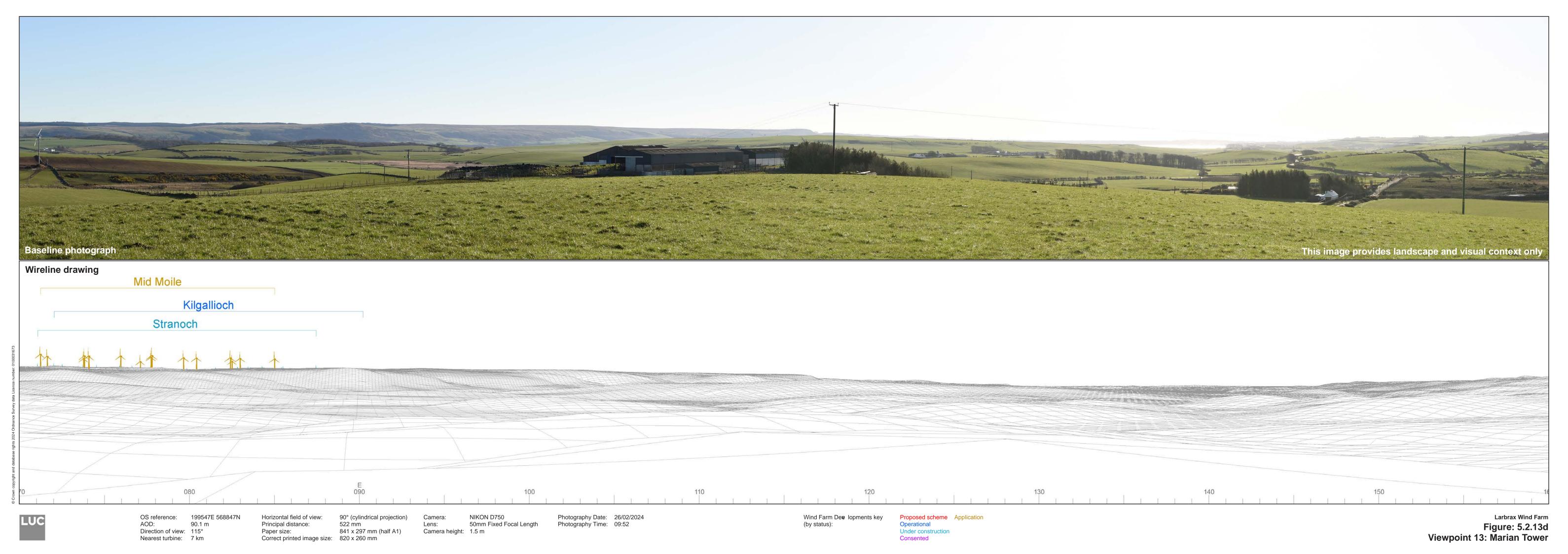


Ordnance Survey data @ Crown copyright and database right









View flat at a comfortable arm's length Wireline drawing

OS reference: 199547E 568847N AOD: 90.1 m Direction of view: 205°
Nearest turbine: 7 km

Horizontal field of view: 53.5° (planar projection)
Principal distance: 812.5 mm
Paper size: 841 x 297 mm (half A1)
Correct printed image size: 820 x 260 mm



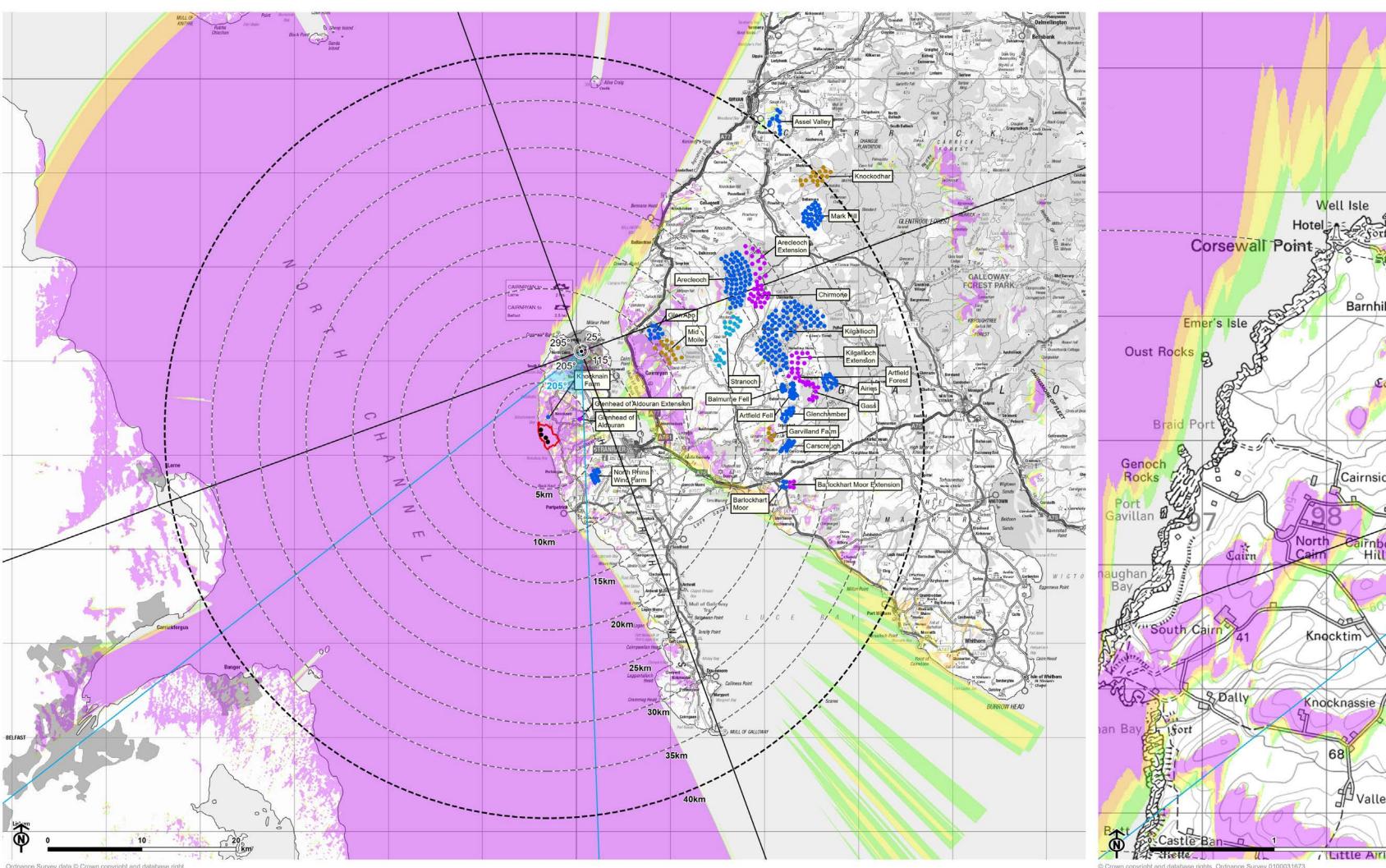
OS reference: 199547E 568847N
AOD: 90.1 m
Direction of view: 205°
Nearest turbine: 7 km

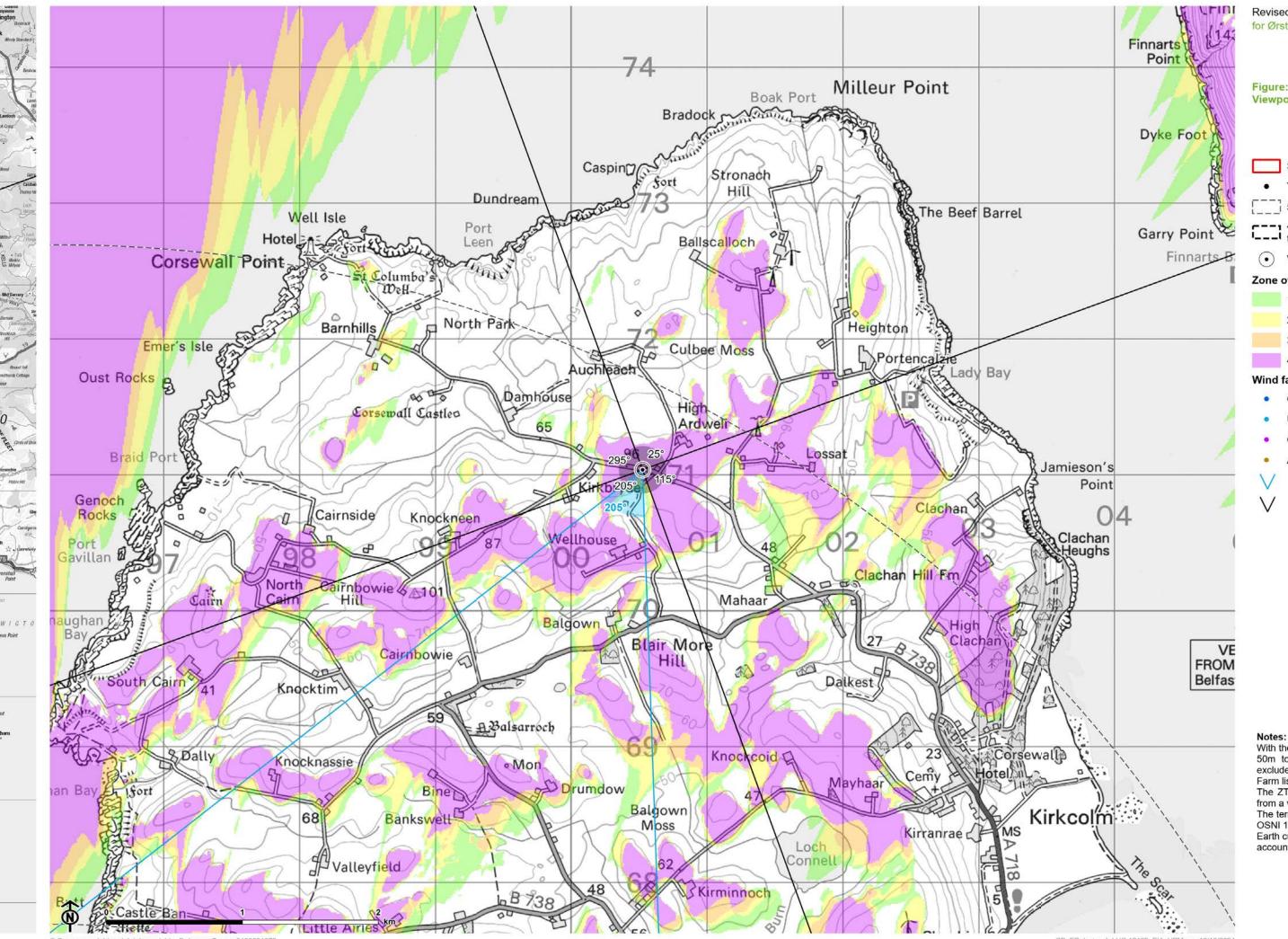
Horizontal field of view: 53.5° (planar projection)
Principal distance: 812.5 mm
Paper size: 841 x 297 mm (half A1)
Correct printed image size: 820 x 260 mm

Camera: NIKON D750
Lens: 50mm Fixed Focal Length
Camera height: 1.5 m

Photography Date: 26/02/2024 Photography Time: 09:52

Larbrax Wind Farm Figure: 5.2.13f Viewpoint 13: Marian Tower





Revised Larbrax Wind Farm EIA Report

for Ørsted Onshore UK Ltd



Figure: 5.2.14 Viewpoint 14: High Ardwell

Site boundary

Turbine

5km intervals from outermost turbines

40km LVIA study area from outermost turbines

Viewpoint location

Zone of Theoretical Visibility

1 turbine visible

2 turbines visible

3 turbines visible

4 turbines visible

Wind farm layout (by status)

Operational

Under Construction

Consented

Application Submitted

// 53.5° field of view

90° field of view

With the exception of Glenhead of Aldouran (and its extension), turbines under 50m to tip have been excluded. Single turbine beyond 5km have been excluded. Scoping stage schemes have been excluded. Cumulative Wind Farm list fixed as of 28th May 2024.

The ZTV is calculated to individual turbine blade tip height (up to 149.9 m) from a viewing height of 2 m above ground level.

The terrain model assumes bare ground and is derived from OS Terrain 5 and OSNI 10m DTM height data.

Earth curvature and atmospheric refraction have been taken into

account. The ZTV was calculated using ArcPro 3.2.0.



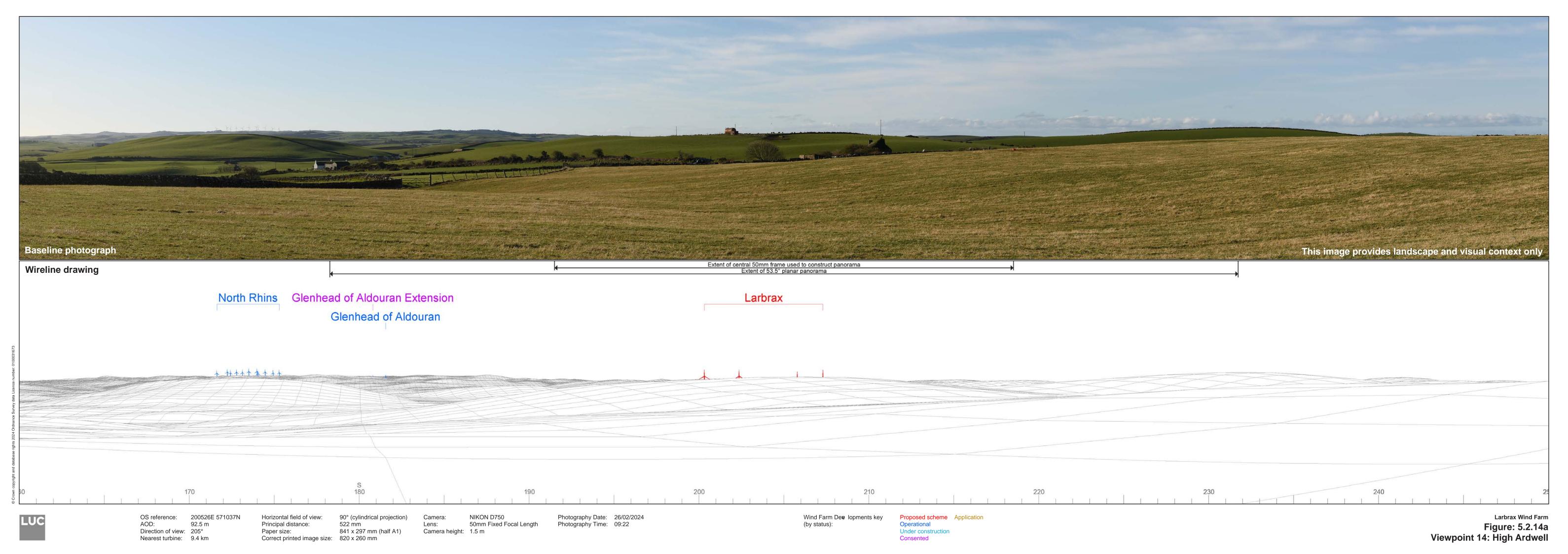








Figure: 5.2.14d Viewpoint 14: High Ardwell

View flat at a comfortable arm's length Wireline drawing Wind Farm Deve lopments key (by status):

Proposed scheme Operational Larbrax Wind Farm

OS reference: 200526E 571037N AOD: 92.5 m Direction of view: 205°
Nearest turbine: 9.4 km

Horizontal field of view: 53.5° (planar projection)

Principal distance: 812.5 mm

Paper size: 841 x 297 mm (half A1)

Correct printed image size: 820 x 260 mm



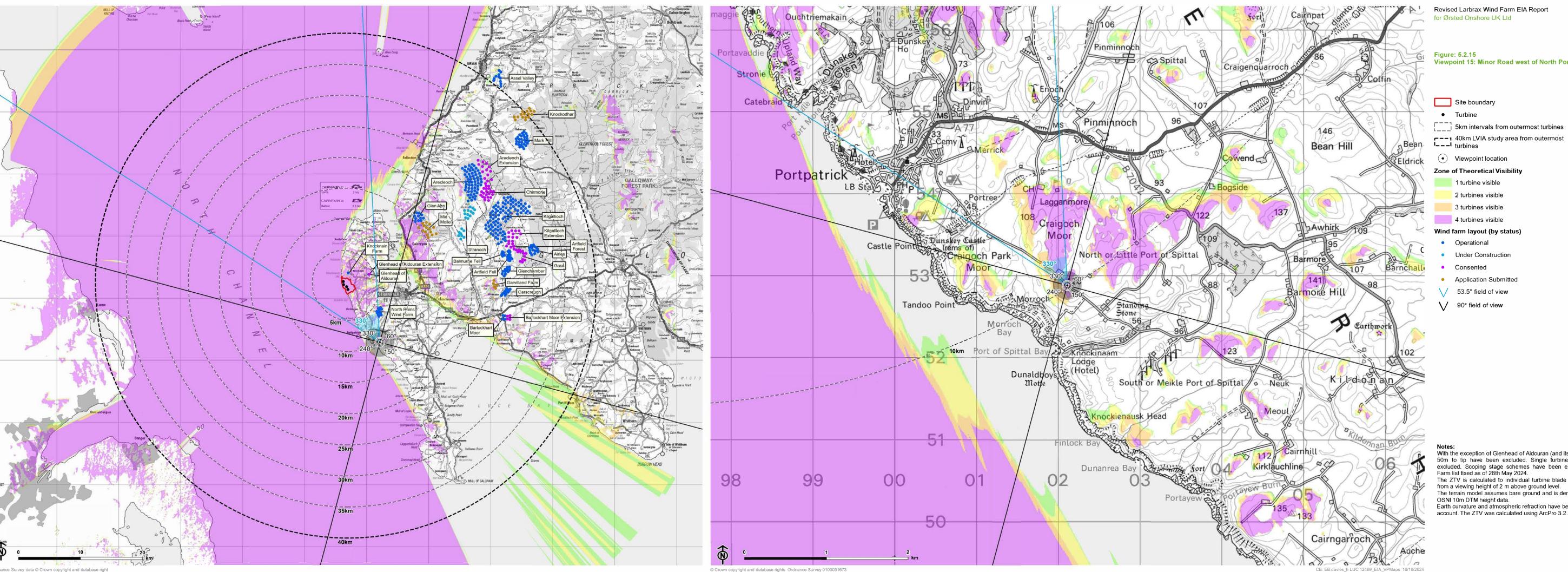
OS reference: 200526E 571037N AOD: 92.5 m Direction of view: 205°
Nearest turbine: 9.4 km

Horizontal field of view: 53.5° (planar projection) Camera: NIKON D
Principal distance: 812.5 mm Lens: 50mm Fix
Paper size: 841 x 297 mm (half A1) Camera height: 1.5 m
Correct printed image size: 820 x 260 mm

NIKON D750 50mm Fixed Focal Length

Photography Date: 26/02/2024 Photography Time: 09:22

Larbrax Wind Farm Figure: 5.2.14f Viewpoint 14: High Ardwell



Revised Larbrax Wind Farm EIA Report

for Ørsted Onshore UK Ltd



Viewpoint 15: Minor Road west of North Port o' Spittal

Site boundary

5km intervals from outermost turbines

turbines

Viewpoint location

Zone of Theoretical Visibility

2 turbines visible

3 turbines visible

4 turbines visible

Wind farm layout (by status)

Operational

/ 53.5° field of view

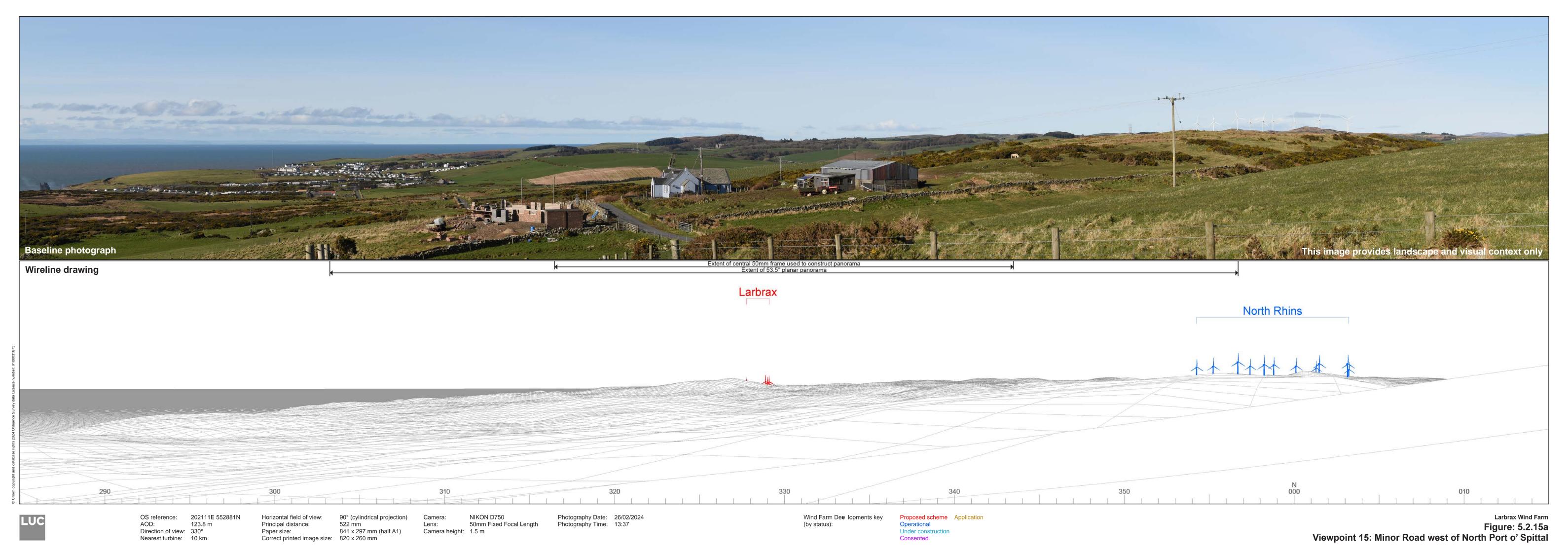
With the exception of Glenhead of Aldouran (and its extension), turbines under 50m to tip have been excluded. Single turbine beyond 5km have been excluded. Scoping stage schemes have been excluded. Cumulative Wind Farm list fixed as of 28th May 2024.
The ZTV is calculated to individual turbine blade tip height (up to 149.9 m)

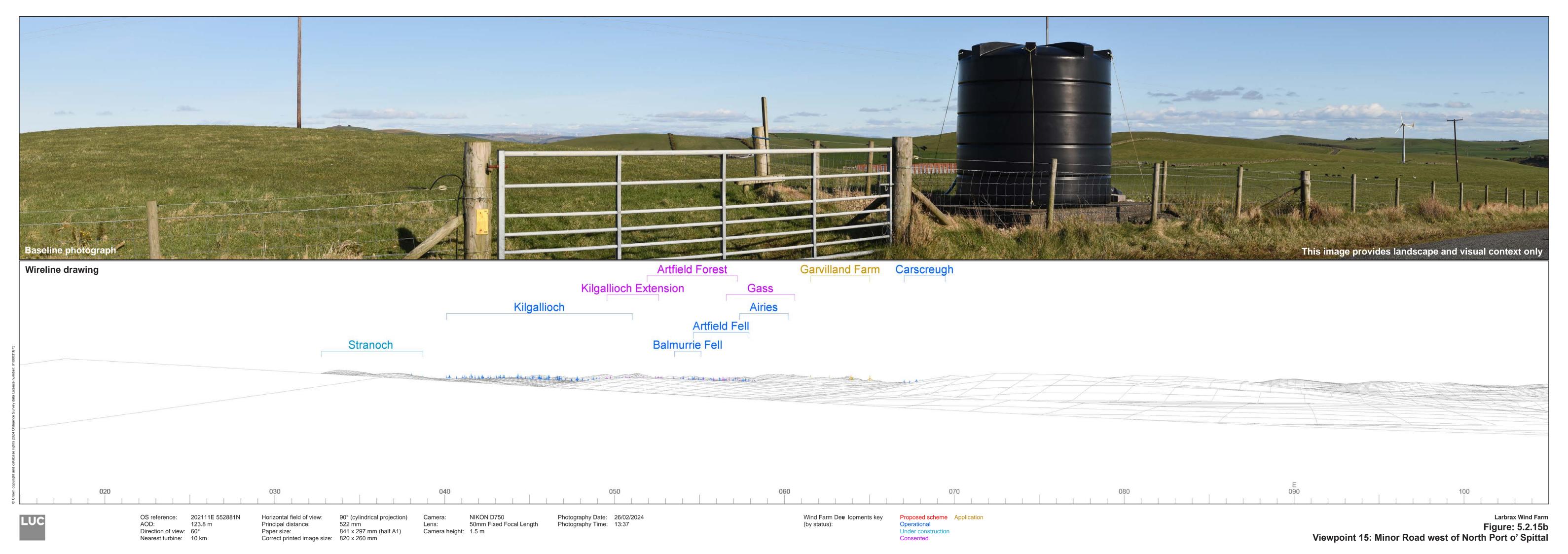
from a viewing height of 2 m above ground level.

The terrain model assumes bare ground and is derived from OS Terrain 5 and OSNI 10m DTM height data.

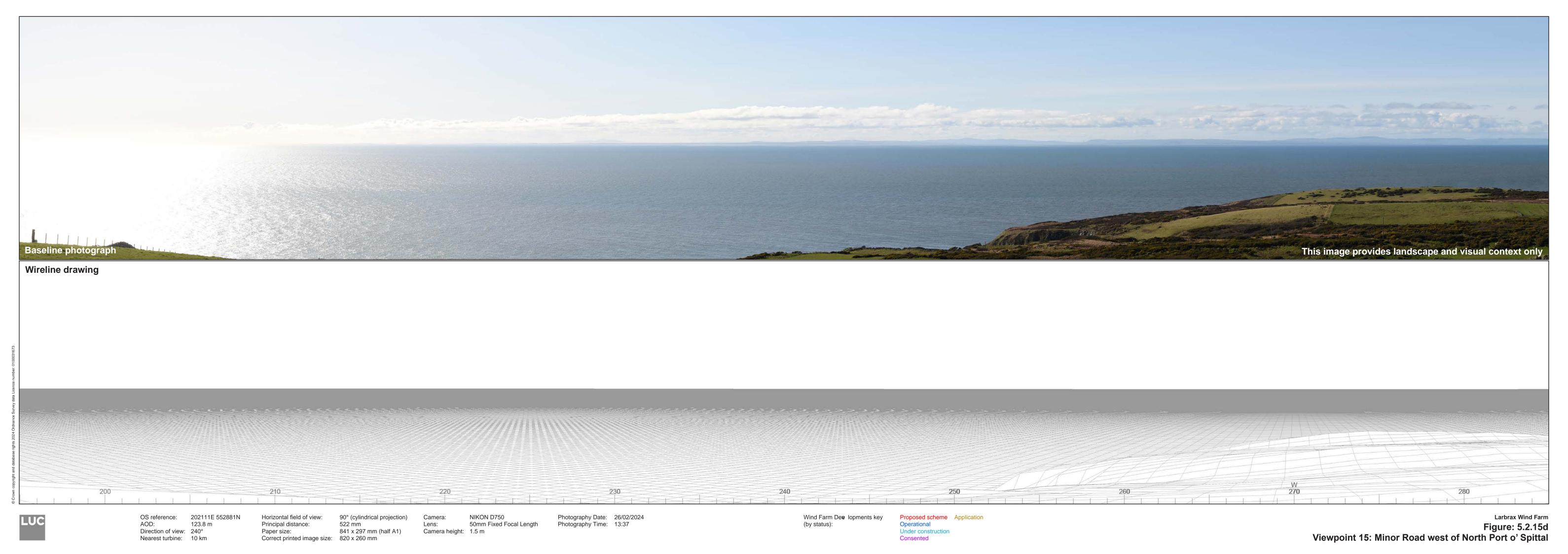
Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcPro 3.2.0.

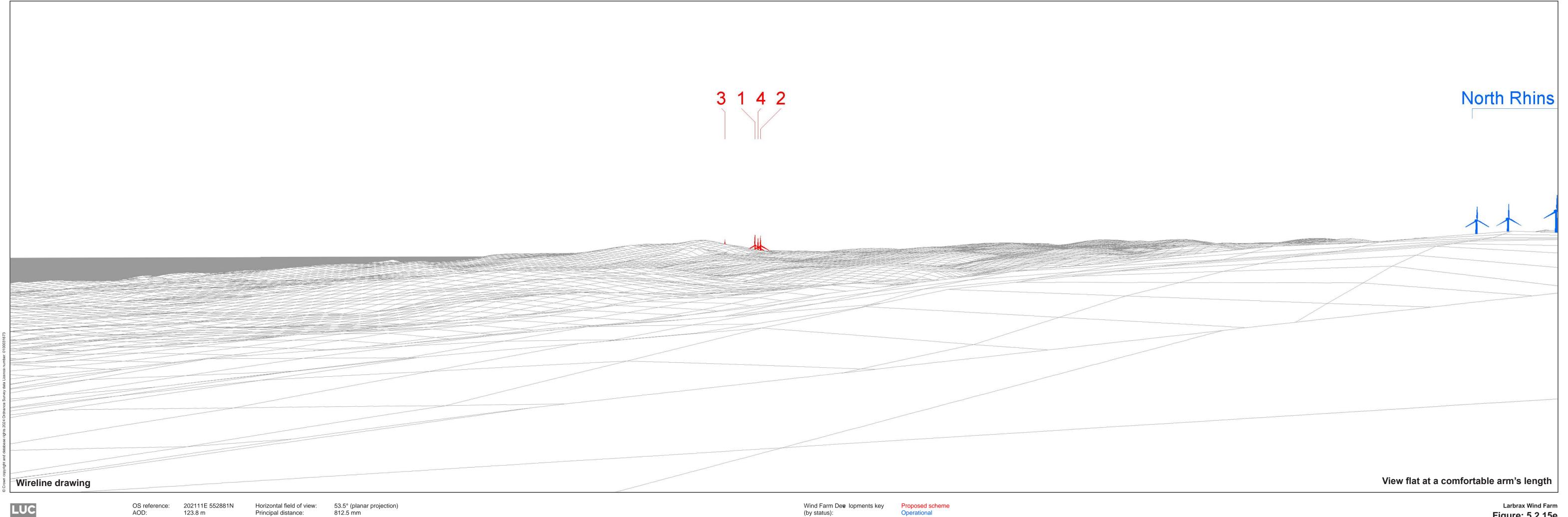












OS reference: 202111E 552881N
AOD: 123.8 m
Direction of view: 330°
Nearest turbine: 10 km

Horizontal field of view: 53.5° (planar projection)
Principal distance: 812.5 mm
Paper size: 841 x 297 mm (half A1)
Correct printed image size: 820 x 260 mm



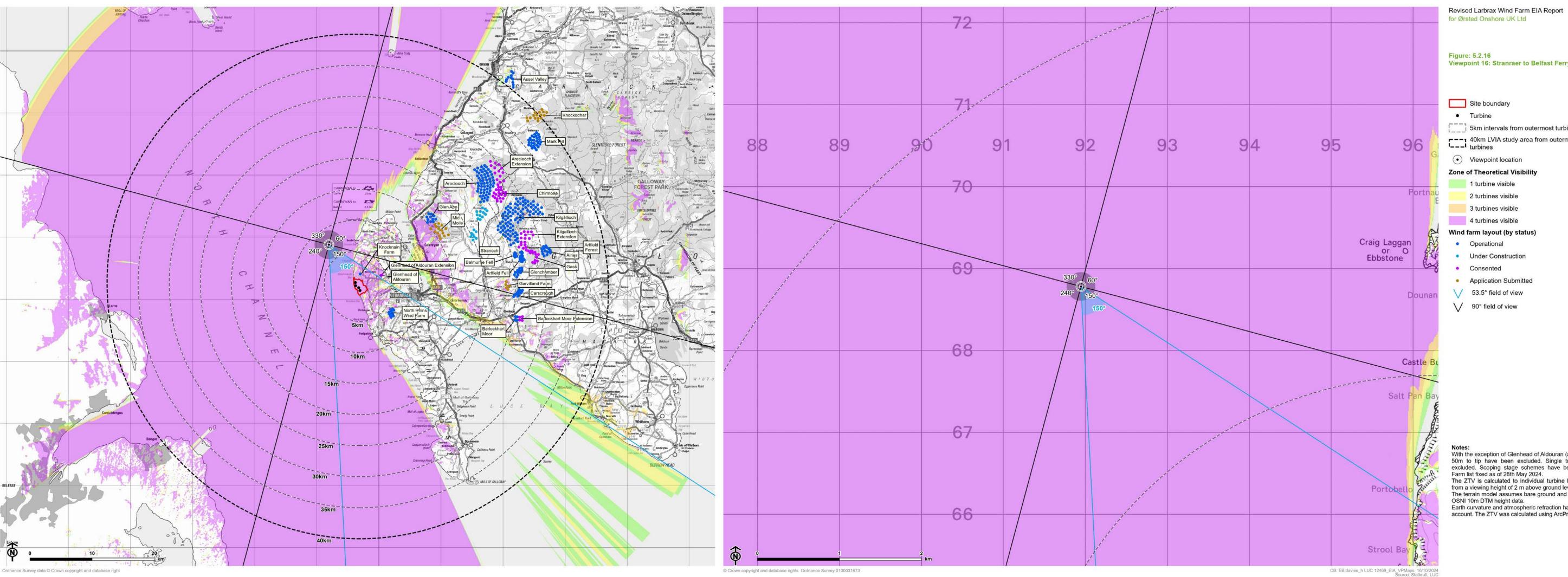


OS reference: 202111E 552881N
AOD: 123.8 m
Direction of view: 330°
Nearest turbine: 10 km

Horizontal field of view: 53.5° (planar projection) Camera: NIKON D750
Principal distance: 812.5 mm Lens: 50mm Fixed Focal Length
Paper size: 841 x 297 mm (half A1)
Correct printed image size: 820 x 260 mm

Photography Date: 26/02/2024 Photography Time: 13:37

Larbrax Wind Farm Figure: 5.2.15f Viewpoint 15: Minor Road west of North Port o' Spittal



for Ørsted Onshore UK Ltd



Viewpoint 16: Stranraer to Belfast Ferry

[___] 5km intervals from outermost turbines

40km LVIA study area from outermost turbines

Viewpoint location

Zone of Theoretical Visibility

2 turbines visible

4 turbines visible

Wind farm layout (by status)

Operational

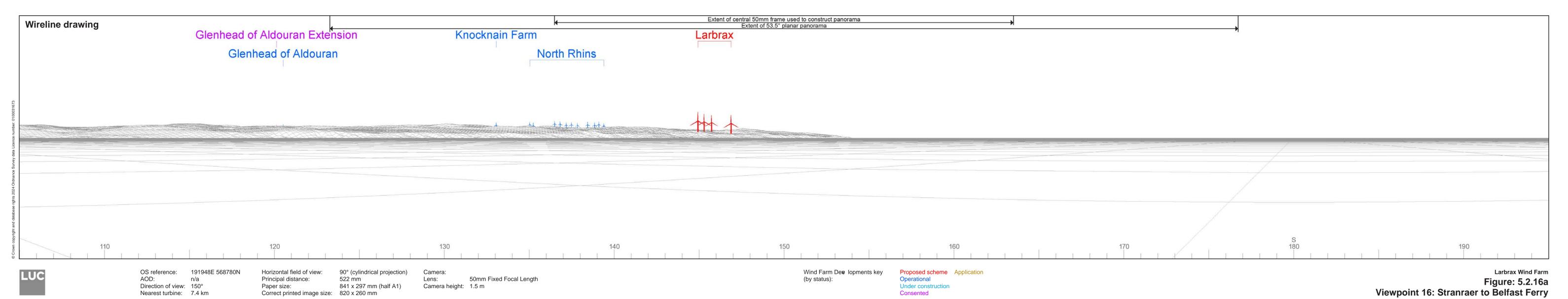
Under Construction

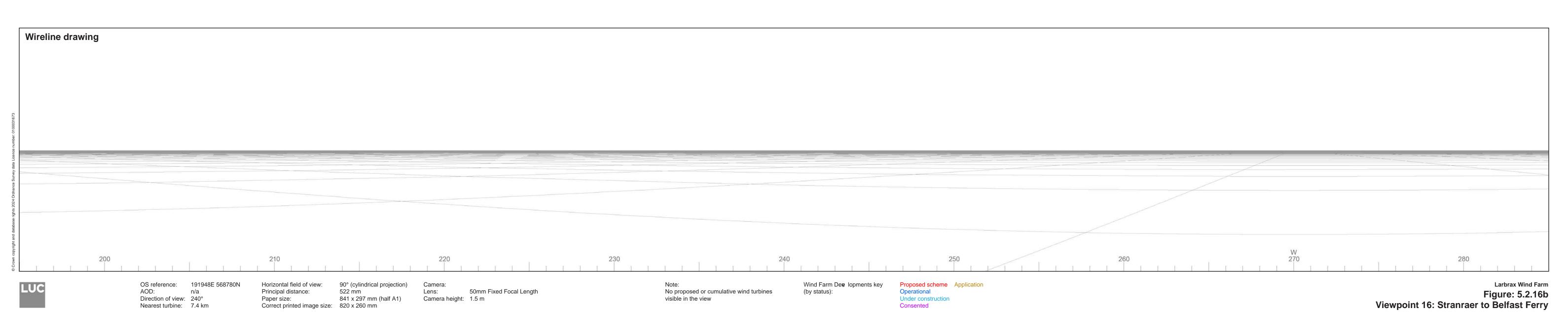
Application Submitted

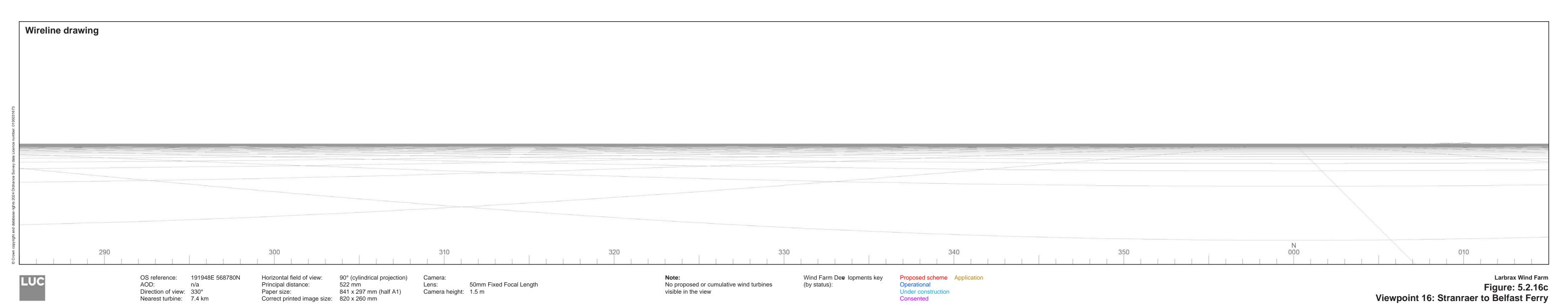
Notes:
With the exception of Glenhead of Aldouran (and its extension), turbines under 50m to tip have been excluded. Single turbine beyond 5km have been excluded. Scoping stage schemes have been excluded. Cumulative Wind Farm list fixed as of 28th May 2024.
The ZTV is calculated to individual turbine blade tip height (up to 149.9 m) from a viewing height of 2 m above ground level.
The terrain model assumes bare ground and is derived from OS Terrain 5 and OSNI 10m DTM height data.

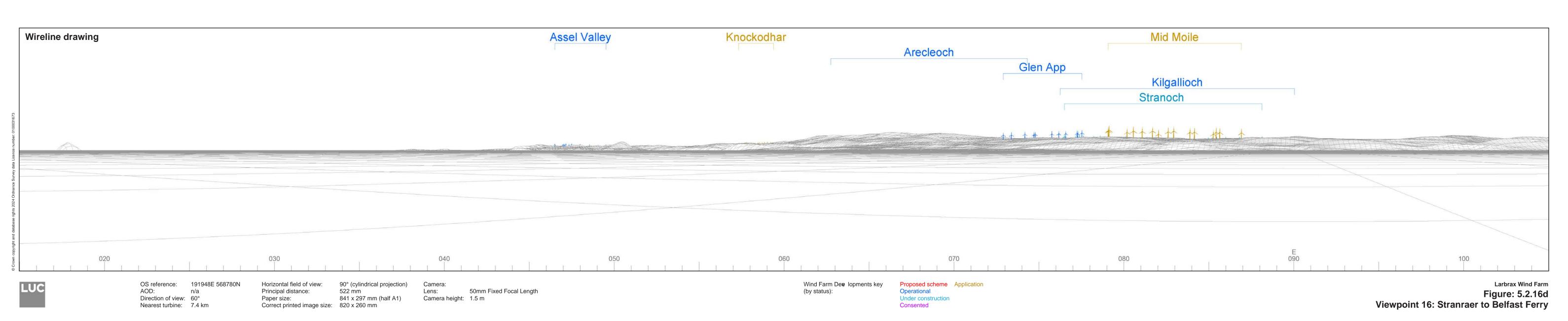
Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcPro 3.2.0.







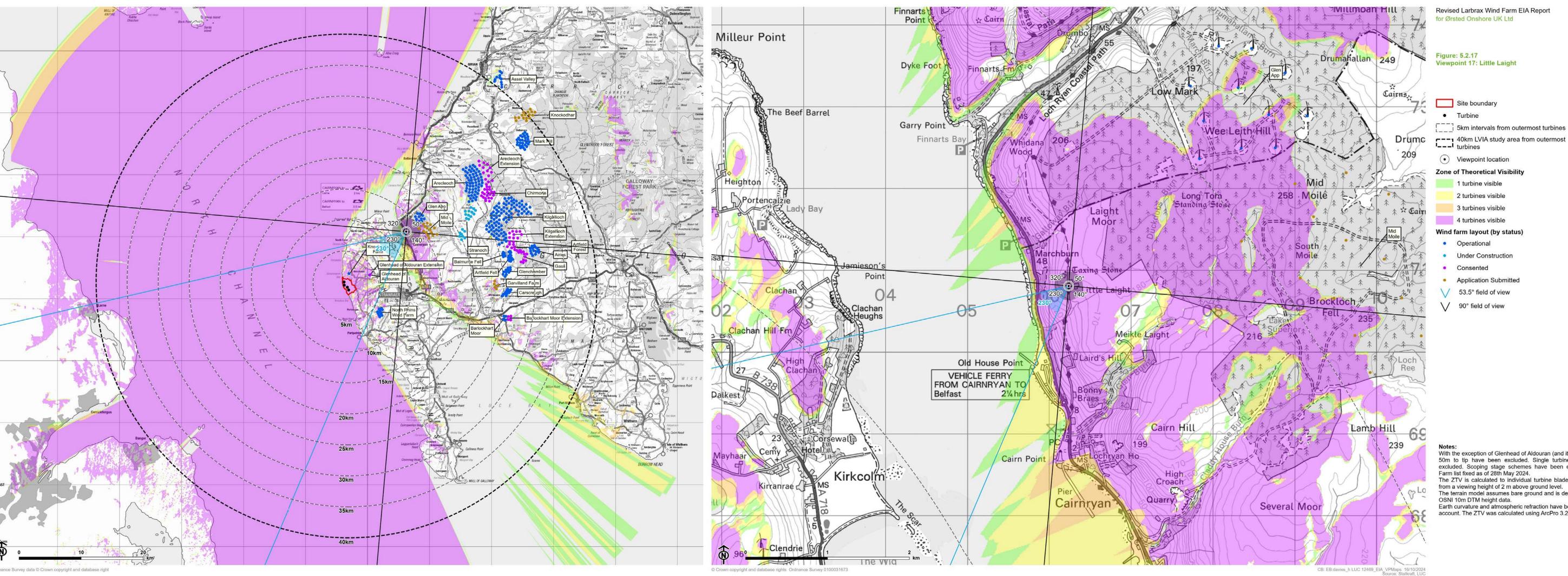




Knocknain Farm North Rhins 4 2 1 3 Wireline drawing Larbrax Wind Farm

OS reference: 191948E 568780N AOD: n/a Direction of view: 150° Nearest turbine: 7.4 km

Horizontal field of view: 53.5° (planar projection)
Principal distance: 812.5 mm
Paper size: 841 x 297 mm (half A1)
Correct printed image size: 820 x 260 mm



Revised Larbrax Wind Farm EIA Report

for Ørsted Onshore UK Ltd



Viewpoint 17: Little Laight

Site boundary

5km intervals from outermost turbines

Viewpoint location

Zone of Theoretical Visibility

1 turbine visible

2 turbines visible

3 turbines visible 4 turbines visible

Wind farm layout (by status)

Operational

Under Construction

Consented

Application Submitted

// 53.5° field of view

// 90° field of view

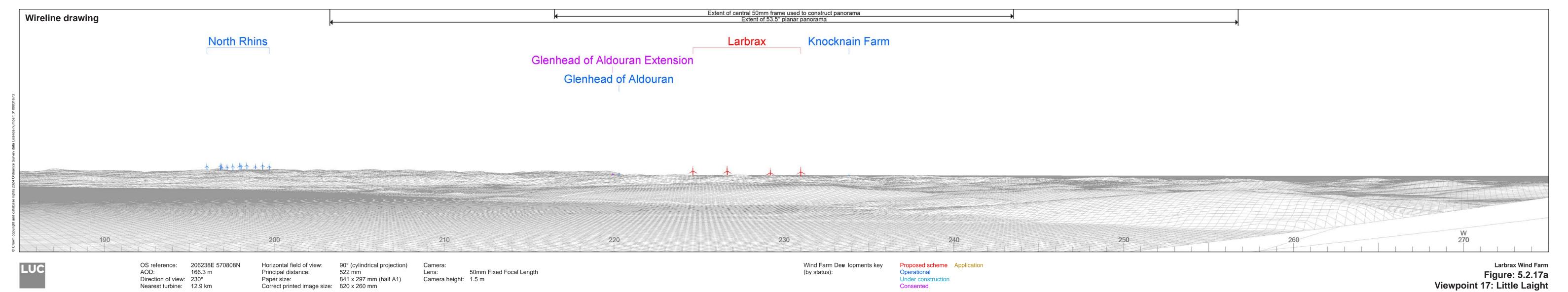
With the exception of Glenhead of Aldouran (and its extension), turbines under 50m to tip have been excluded. Single turbine beyond 5km have been excluded. Scoping stage schemes have been excluded. Cumulative Wind Farm list fixed as of 28th May 2024.

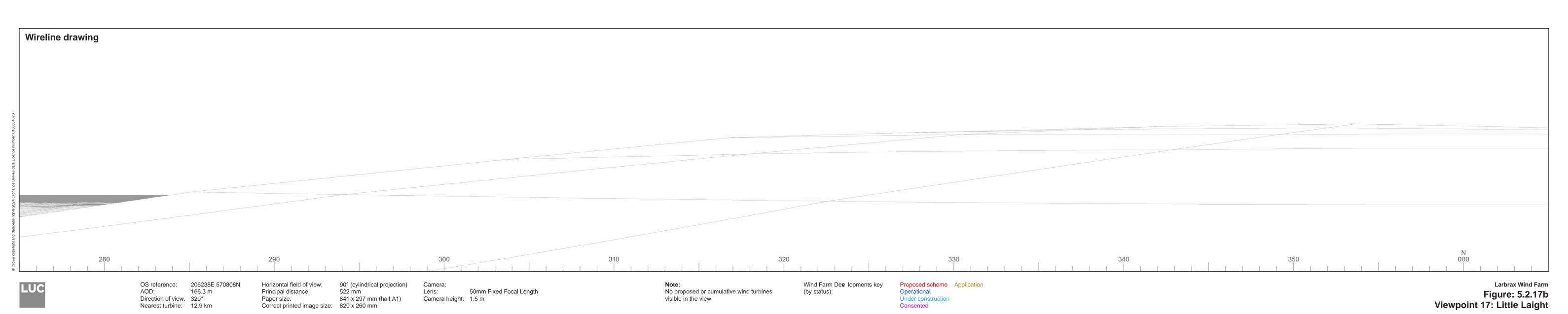
The ZTV is calculated to individual turbine blade tip height (up to 149.9 m) from a viewing height of 2 m above ground level.

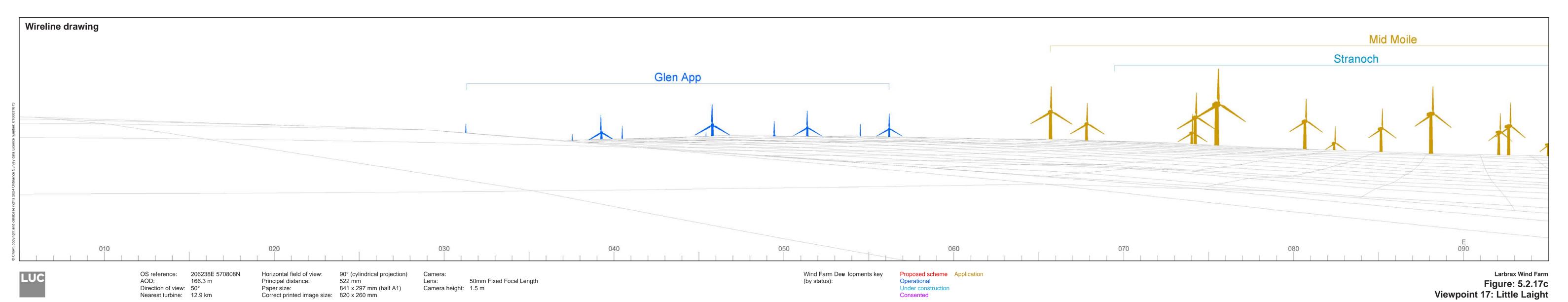
The terrain model assumes bare ground and is derived from OS Terrain 5 and OSNI 10m DTM height data.

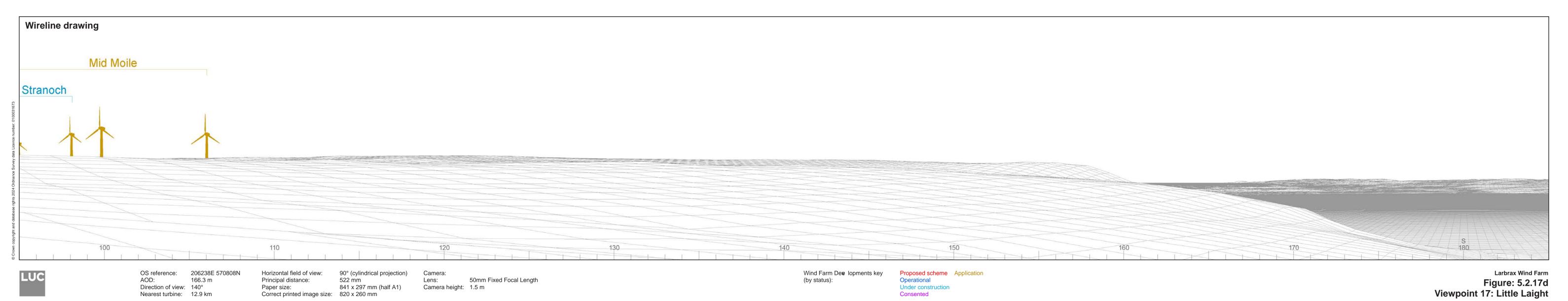
Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcPro 3.2.0.

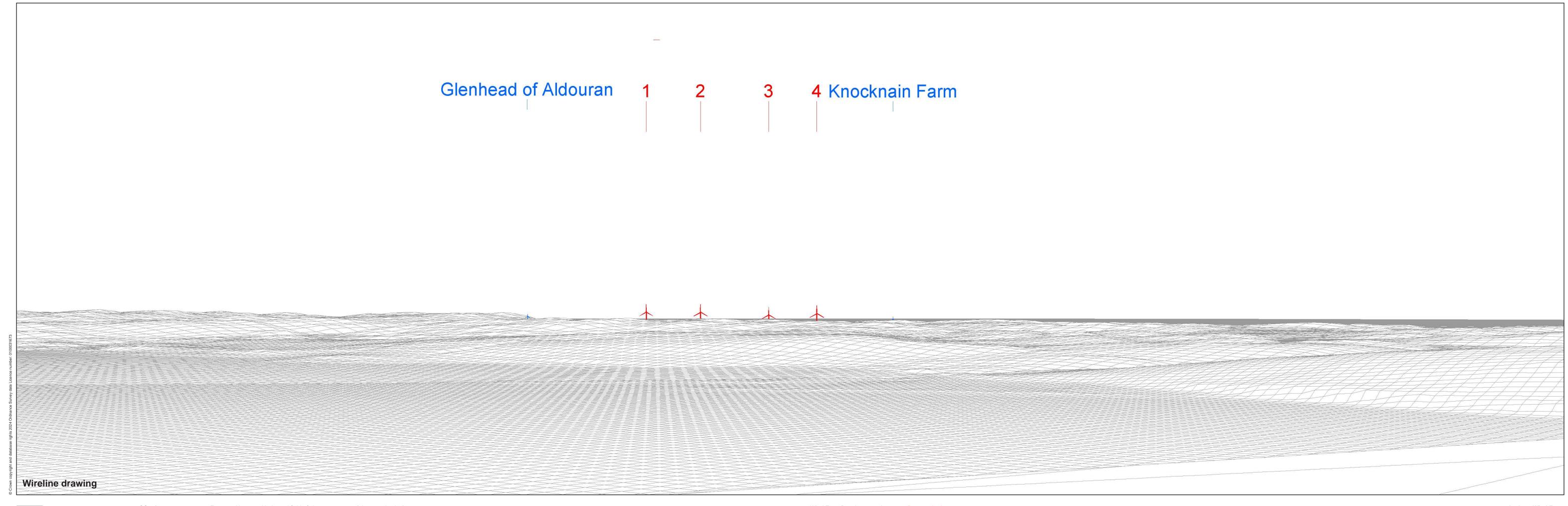








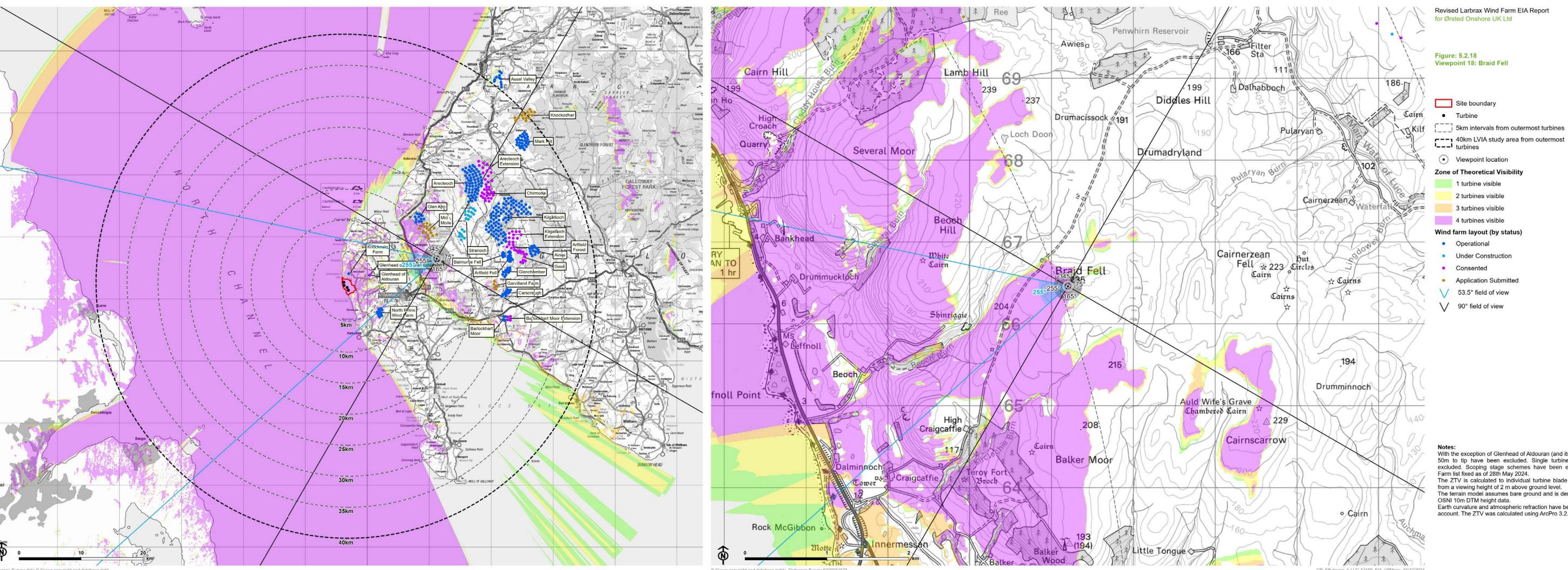






Nearest turbine: 12.9 km

OS reference: 206238E 570808N Horizontal field of view: 53.5° (planar projection)
AOD: 166.3 m Principal distance: 812.5 mm
Direction of view: 230° Paper size: 841 x 297 mm (half A1) Correct printed image size: 820 x 260 mm



Revised Larbrax Wind Farm EIA Report

for Ørsted Onshore UK Ltd



Viewpoint 18: Braid Fell

Site boundary

5km intervals from outermost turbines

Viewpoint location

Zone of Theoretical Visibility

1 turbine visible

2 turbines visible

3 turbines visible

4 turbines visible

Wind farm layout (by status)

Operational

Under Construction

Consented

Application Submitted

53.5° field of view

/ 90° field of view

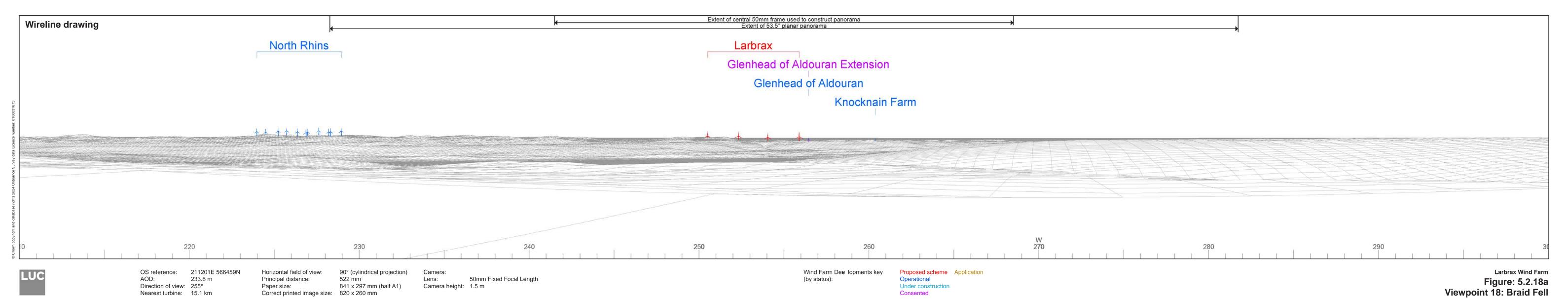
With the exception of Glenhead of Aldouran (and its extension), turbines under 50m to tip have been excluded. Single turbine beyond 5km have been excluded. Scoping stage schemes have been excluded. Cumulative Wind Farm list fixed as of 28th May 2024.

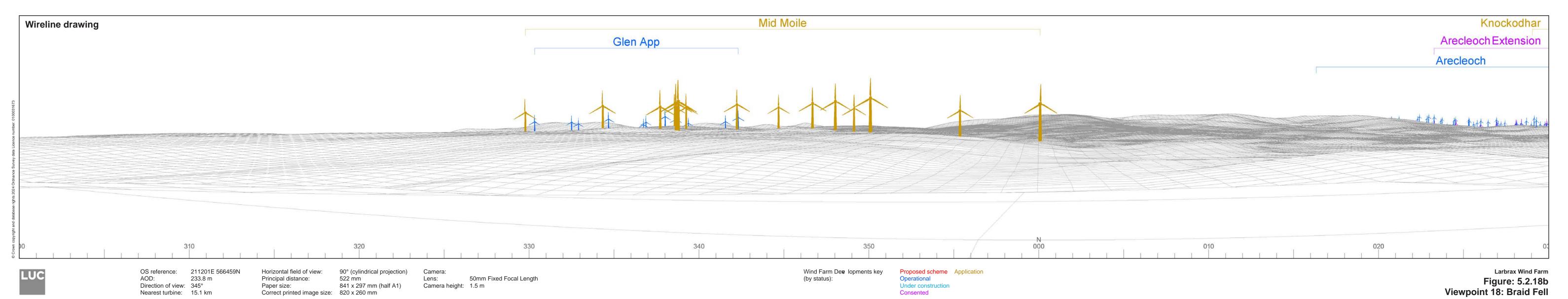
The ZTV is calculated to individual turbine blade tip height (up to 149.9 m) from a viewing height of 2 m above ground level.

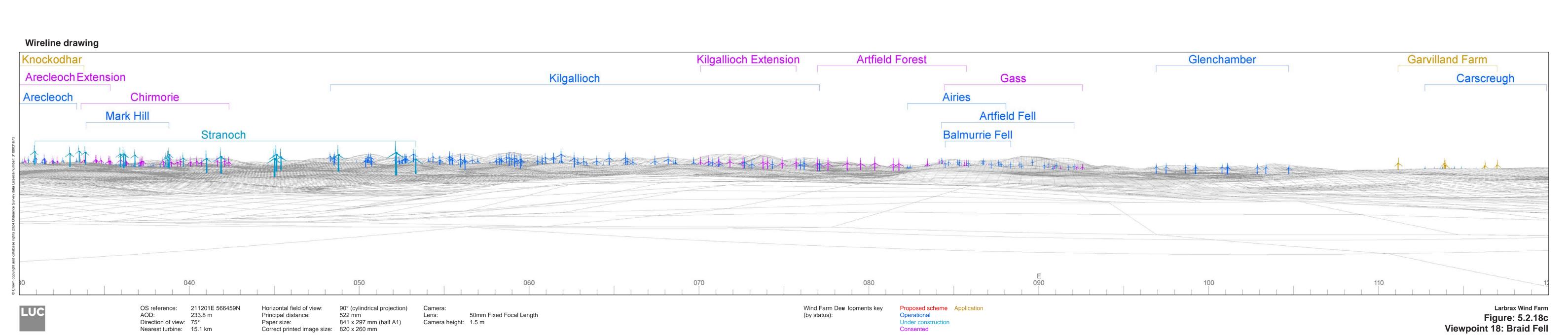
The terrain model assumes bare ground and is derived from OS Terrain 5 and OSNI 10m DTM height data.

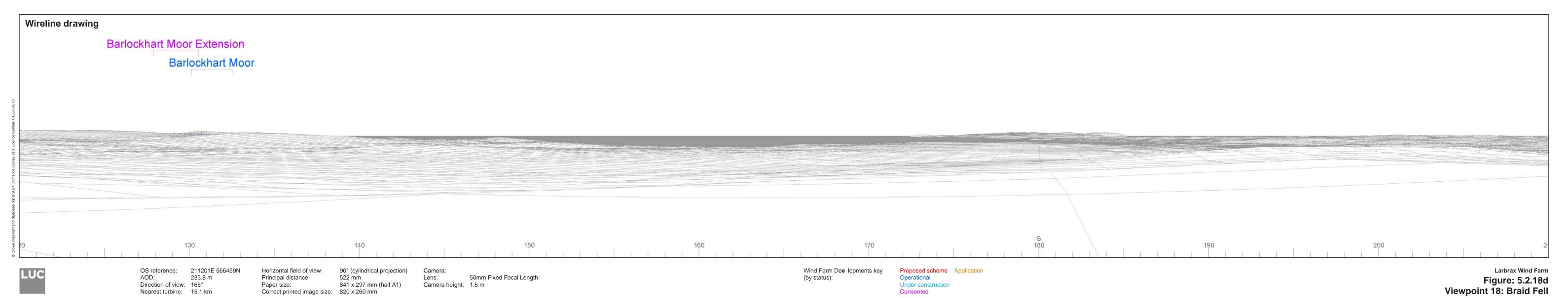
Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcPro 3.2.0.

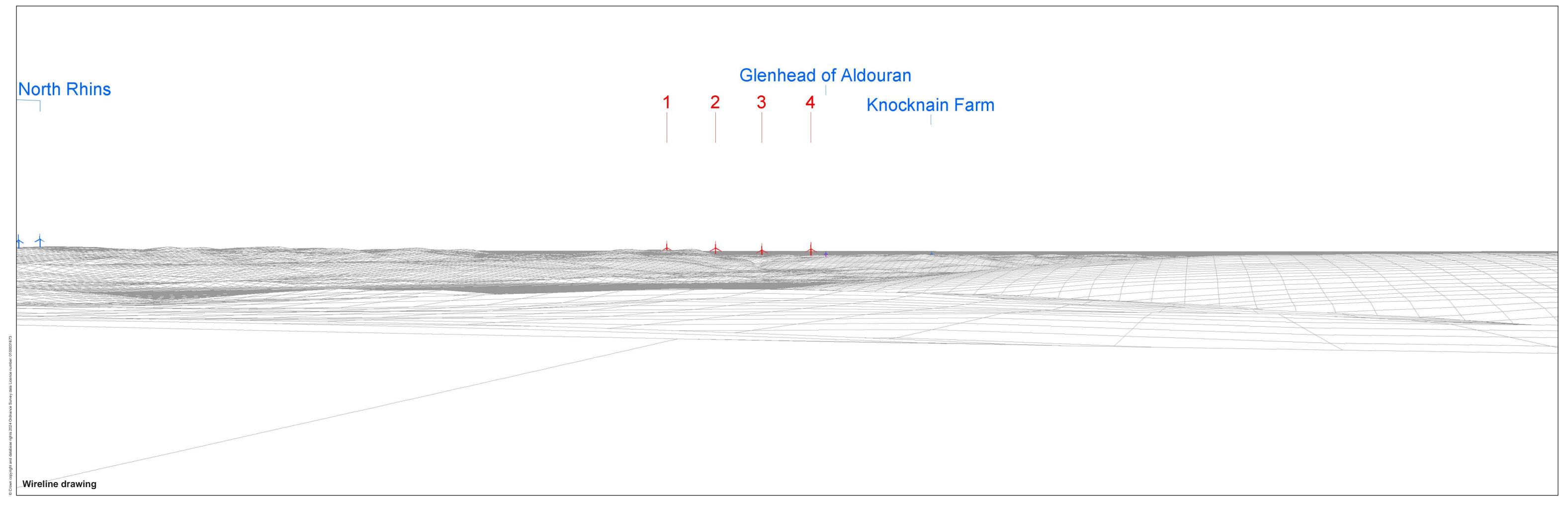














OS reference: 211201E 566459N
AOD: 233.8 m
Direction of view: 255°
Nearest turbine: 15.1 km

Horizontal field of view: 53.5° (planar projection)
Principal distance: 812.5 mm

Paper size: 841 x 297 mm (half A1)
Correct printed image size: 820 x 260 mm

I of view: 53.5° (planar projection)
nce: 812.5 mm
841 x 297 mm (half A1)