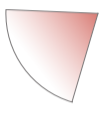




Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **VP02 - Forfar**
 Scale: **1:50,000 @ A3**

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: **E346837 N751629**
 Viewpoint Elevation: **77m (A.O.D)**
 View Direction: **37°**
 Distance to Turbine: **4.0km**

Visibility: **2 Projects**

Camera Type: **Nikon D3000**
 Focal Length: **35mm**
 Effective Focal Length: **52mm**
 Date Taken: **01/11/2011**
 Time Taken: **12:40**
 Height above elevation: **1.5m**

Visual Impact

Magnitude: **High**
 Sensitivity: **Low**
 Overall: **Moderate**

Please note for a 76° field of view, a viewing distance of 300m is recommended.

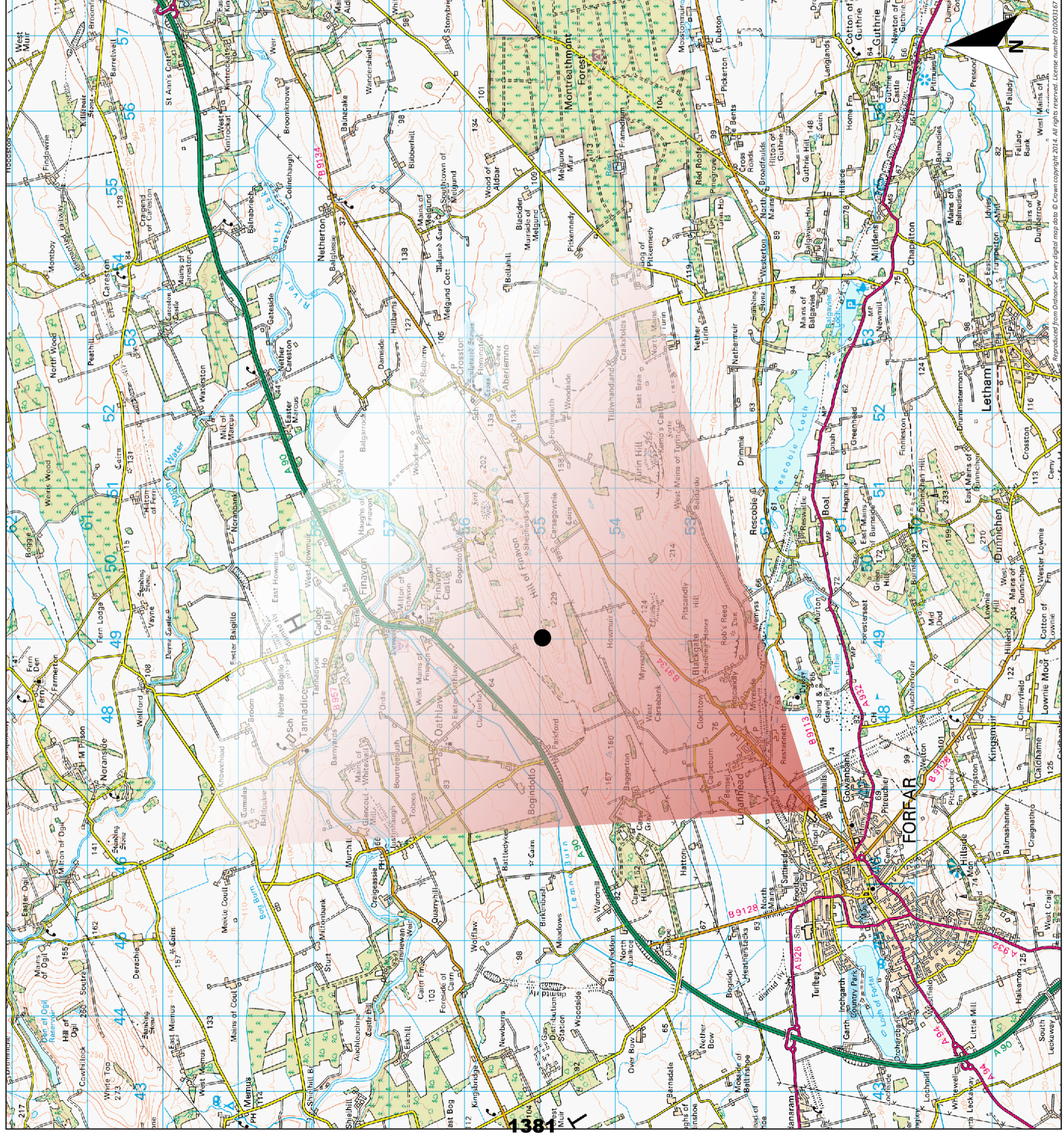


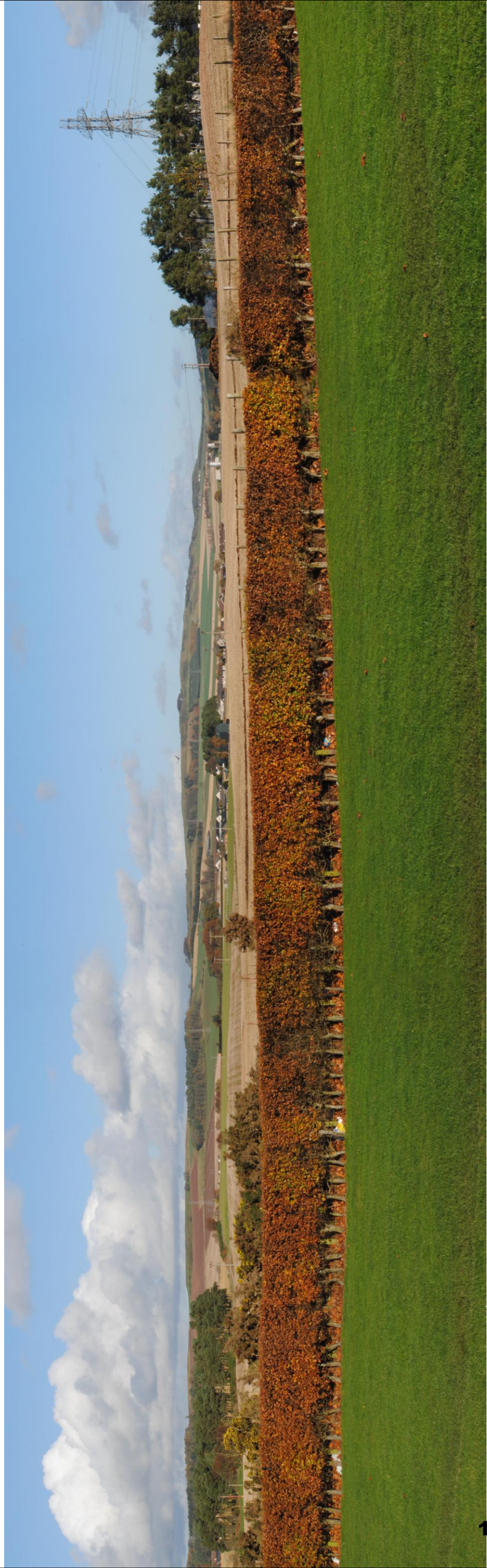
Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
 Kilmac Construction Ltd

Drawing by: **Green Cat Renewables Ltd**

Document Number: **C0256-163/FIG 7.10**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
 Date: **11/08/2014**

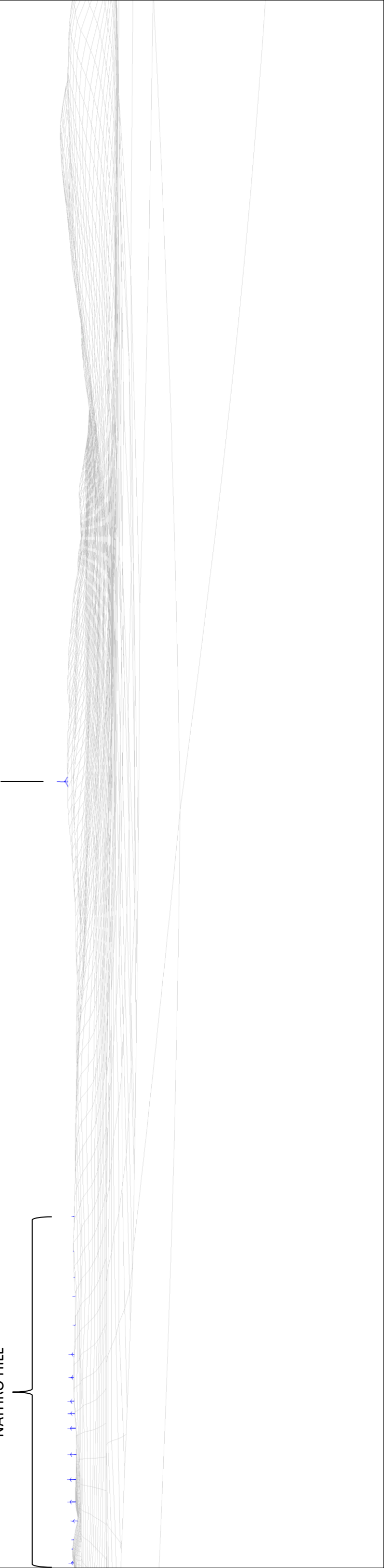
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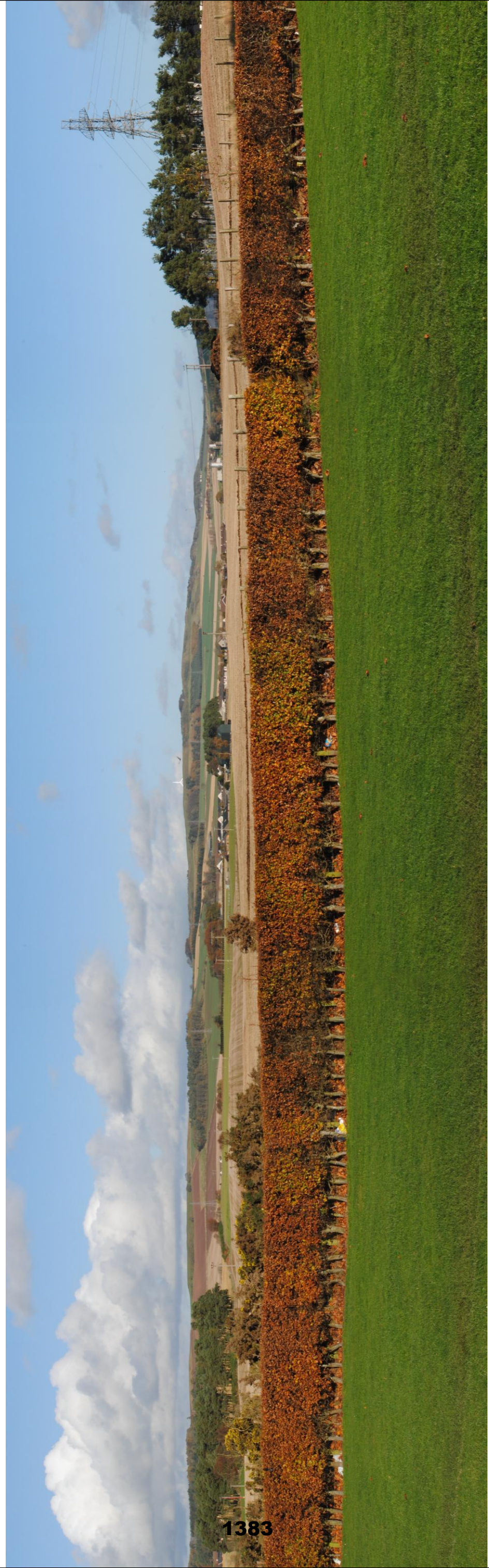
HILL OF FINAVON

NATHRO HILL



VP02 FORFAR - PHOTOMONTAGE OF PROPOSAL

**76° VIEWING ANGLE
300MM VIEWING DISTANCE**






Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **VP03 - Howmuir**
 Scale: **1:50,000 @ A3**

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: **E349461 N753778**
 Viewpoint Elevation: **132m (A.O.D)**
 View Direction: **347°**
 Distance to Turbine: **1.3km**
 Visibility: **1 Project**
 Camera Type: **Nikon D3000**
 Focal Length: **35mm**
 Effective Focal Length: **52mm**
 Date Taken: **01/11/2011**
 Time Taken: **12:40**
 Height above elevation: **1.5m**

Visual Impact

Magnitude: **Medium**
 Sensitivity: **Low**
 Overall: **Moderate/Minor**

Please note for a 76° field of view, a viewing distance of 300m is recommended.



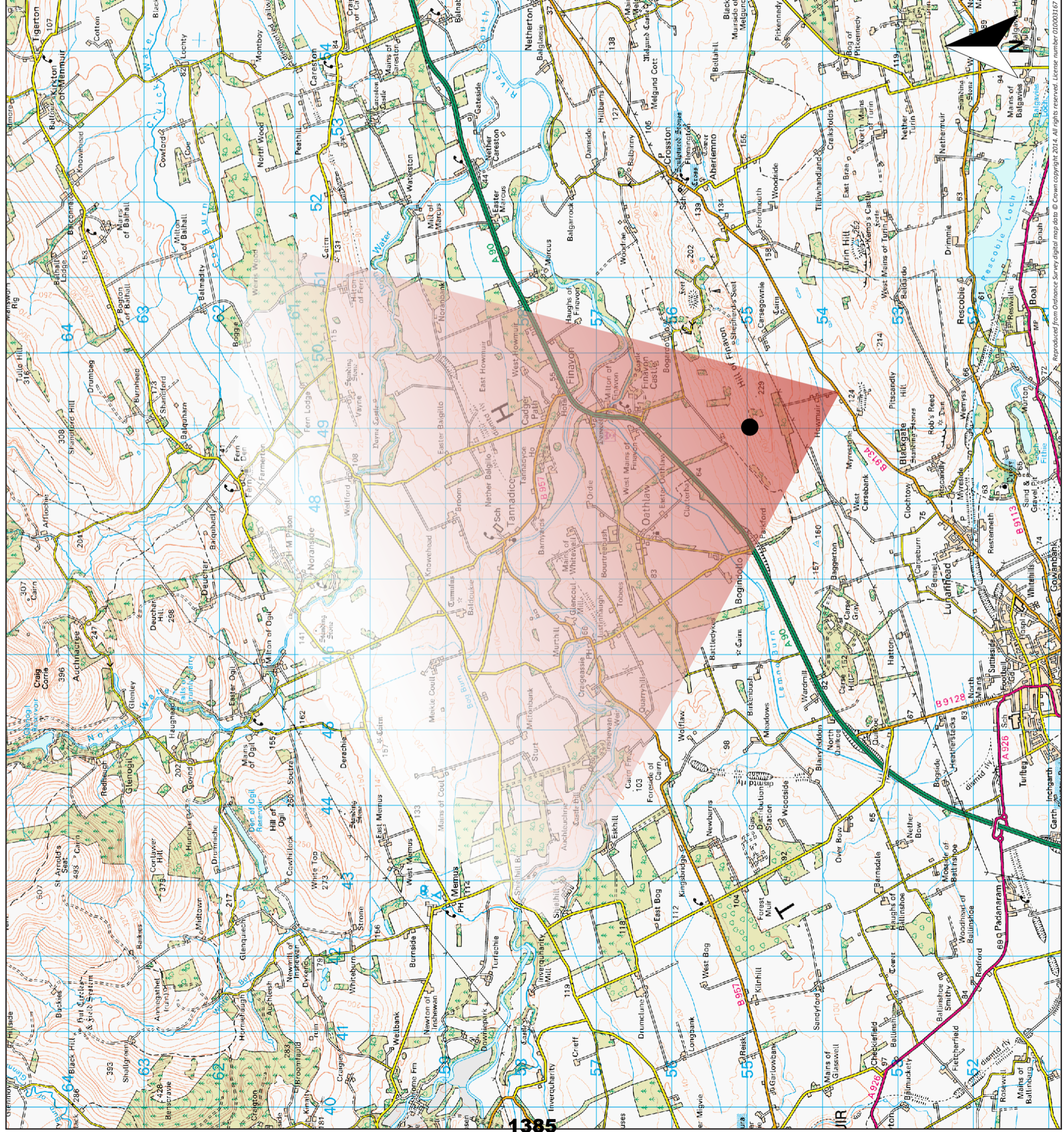
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Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
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Document Number: **C0256-163/FIG 7.11**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
 Date: **11/08/2013**

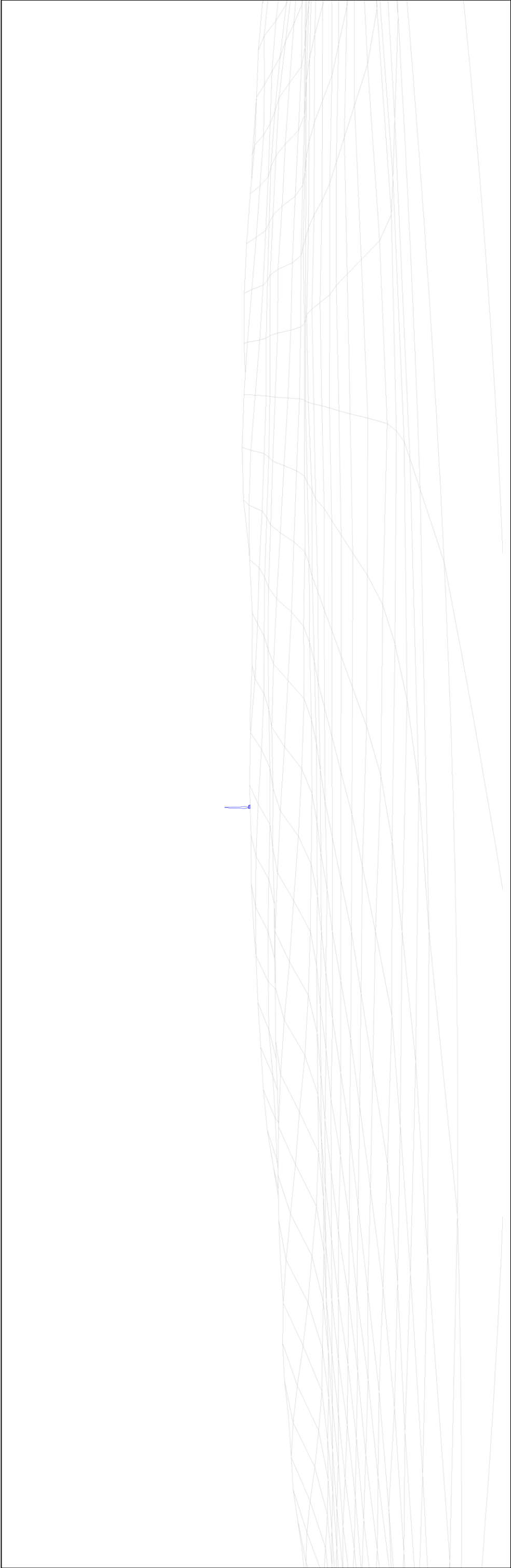
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VP03 HOWMUIR - PHOTOGRAPH OF EXISTING VIEW



VP03 HOWMUIR - WIRELINE DRAWING







1388

VP03 HOWMUIR – SINGLE FRAME


Distance to nearest turbine: 1.3km Camera: Nikon D3000 Focal length: 35mm Camera height: 1.5m Date: 01/11/2011 Time: 12:40

When viewed at a comfortable arms length, this image is representative of the Maximum field of view of clear vision but is not representative of scale and distance

Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **VP04 - Borgado**
 Scale: **1:50,000 @ A3**

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: **E350075 N755963**
 Viewpoint Elevation: **81m (A.O.D)**
 View Direction: **224°**
 Distance to Turbine: **1.5km**

Visibility: **1 Project**

Camera Type: **Nikon D3000**
 Focal Length: **35mm**
 Effective Focal Length: **52mm**
 Date Taken: **25/07/2011**
 Time Taken: **15:15**
 Height above elevation: **1.5m**

Visual Impact

Magnitude: **High**
 Sensitivity: **Negligible**
 Overall: **Moderate/Minor**

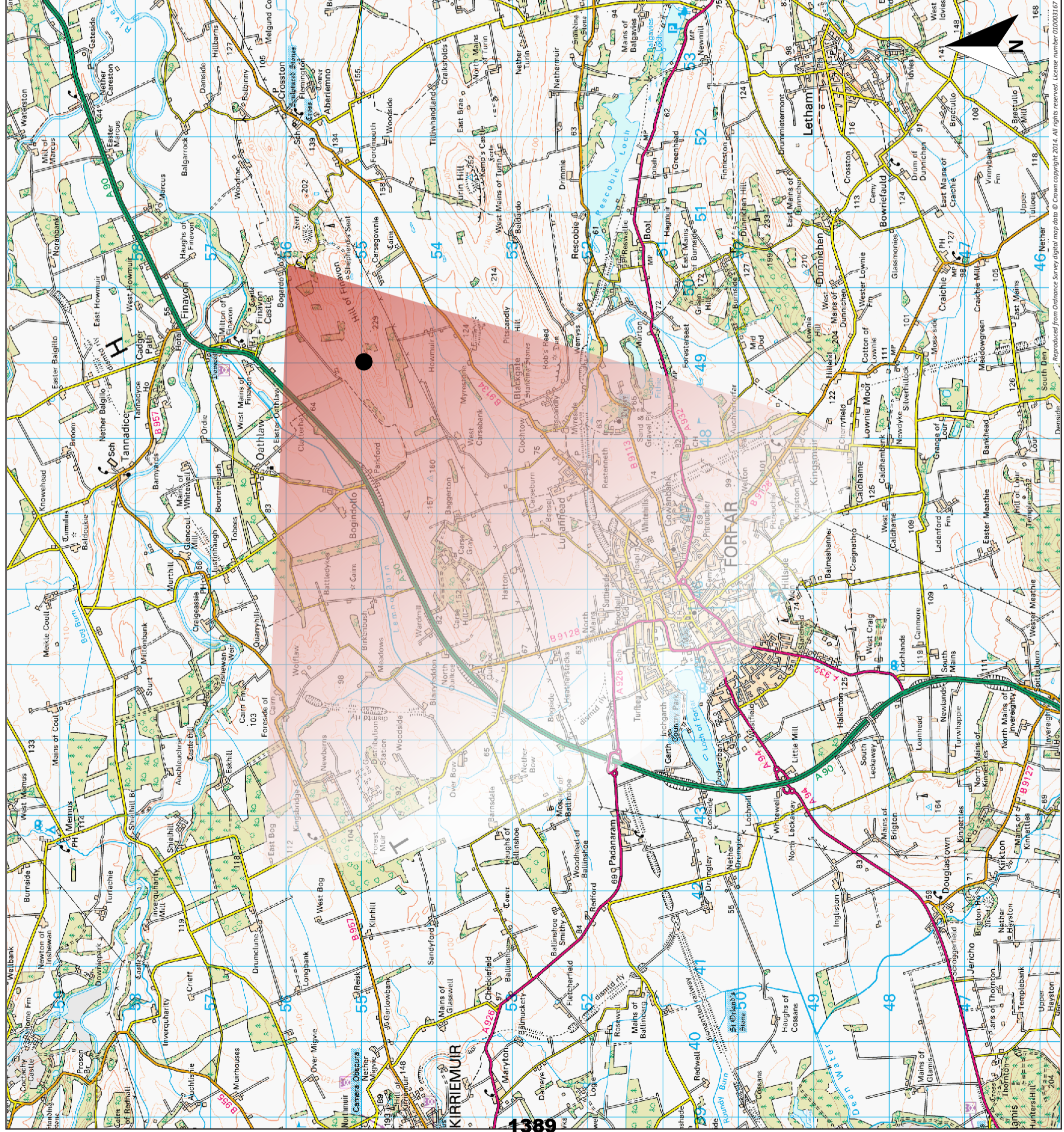
Please note for a 76° field of view, a viewing distance of 300m is recommended.



Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
 Kilmac Construction Ltd

Drawing by: **Green Cat Renewables Ltd**

Document Number: **C0256-163/FIG 7.12**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
 Date: **11/08/2014**



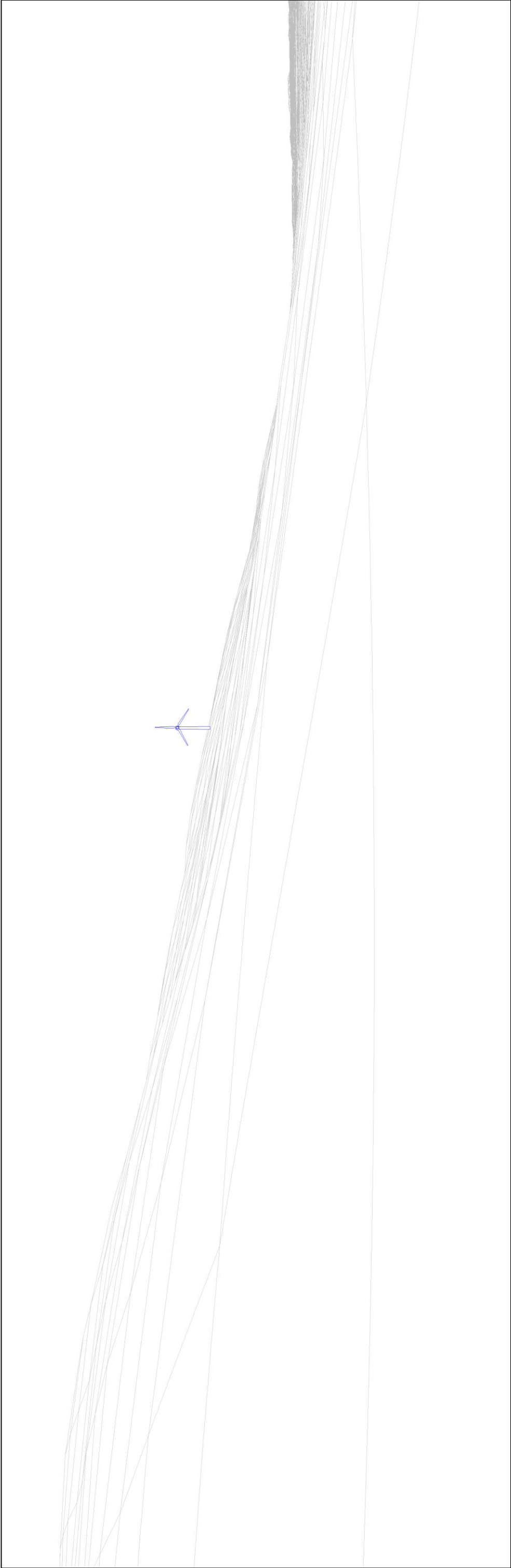
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VP04 BORGADO - PHOTOGRAPH OF EXISTING VIEW



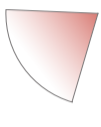
VP04 BORGADO - WIRELINE DRAWING



Project Name: Finavon Hill Estate Wind Turbine
 Document Title: VP05 - West Mains of Finavon
 Scale: 1:50,000 @ A3

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: E348949 N756324
 Viewpoint Elevation: 61m (A.O.D)
 View Direction: 180°
 Distance to Turbine: 1.3km

Visibility: 1 Project

Camera Type: Nikon D3000
 Focal Length: 35mm
 Effective Focal Length: 52mm
 Date Taken: 25/07/2011
 Time Taken: 15:00
 Height above elevation: 1.5m

Visual Impact

Magnitude: Medium
 Sensitivity: Low
 Overall: Moderate/Minor

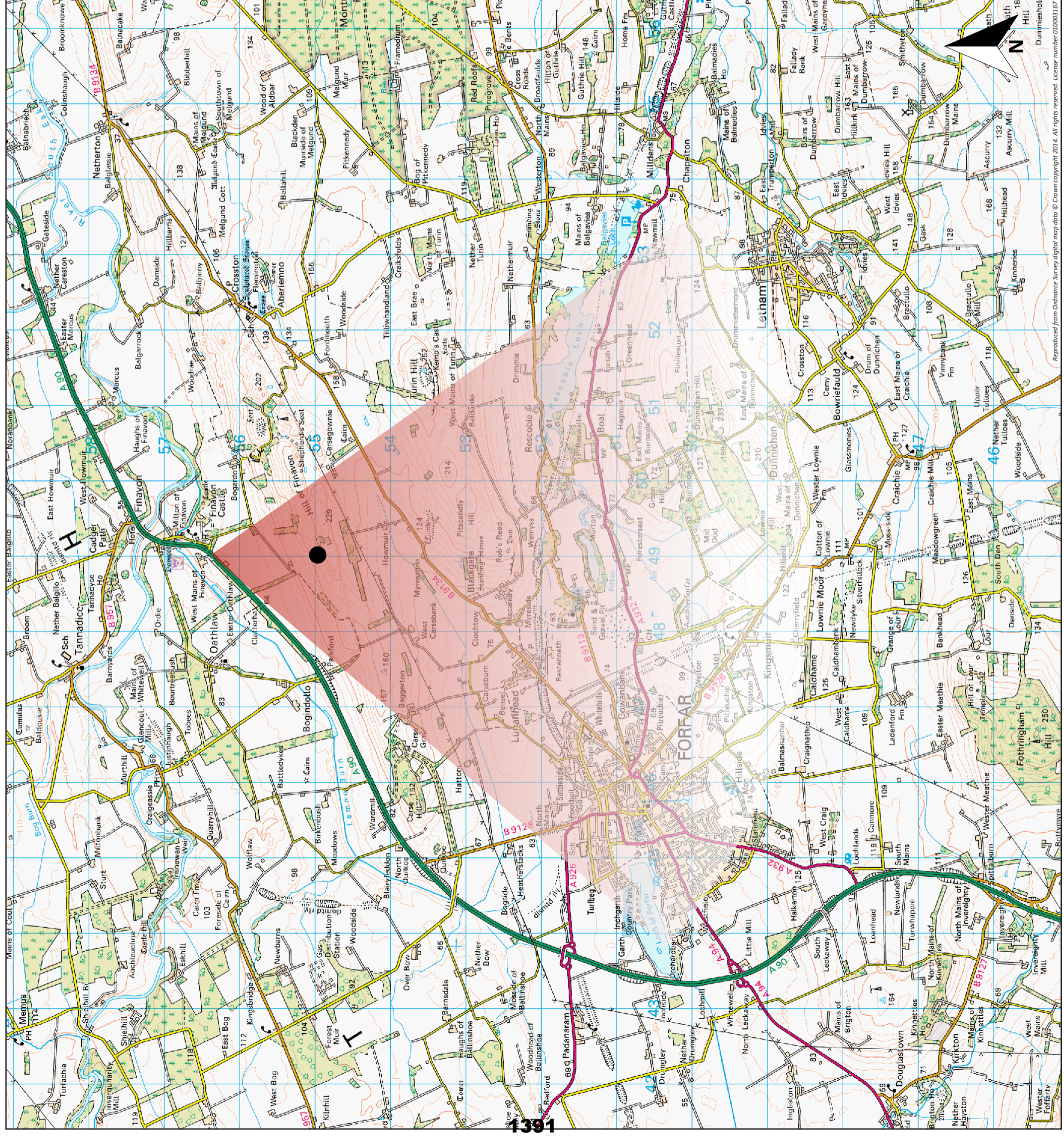
Please note for a 76° field of view, a viewing distance of 300m is recommended.



Client: Mr. J Sanderson (Finavon Estate) & Construction Partner
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 Drawing by: Green Cat Renewables Ltd

Document Number: C0256-163/FIG 7.13
 Version: 1.0
 Author: AM
 Checked by: AW
 Approved By: AW
 Date: 11/08/2014

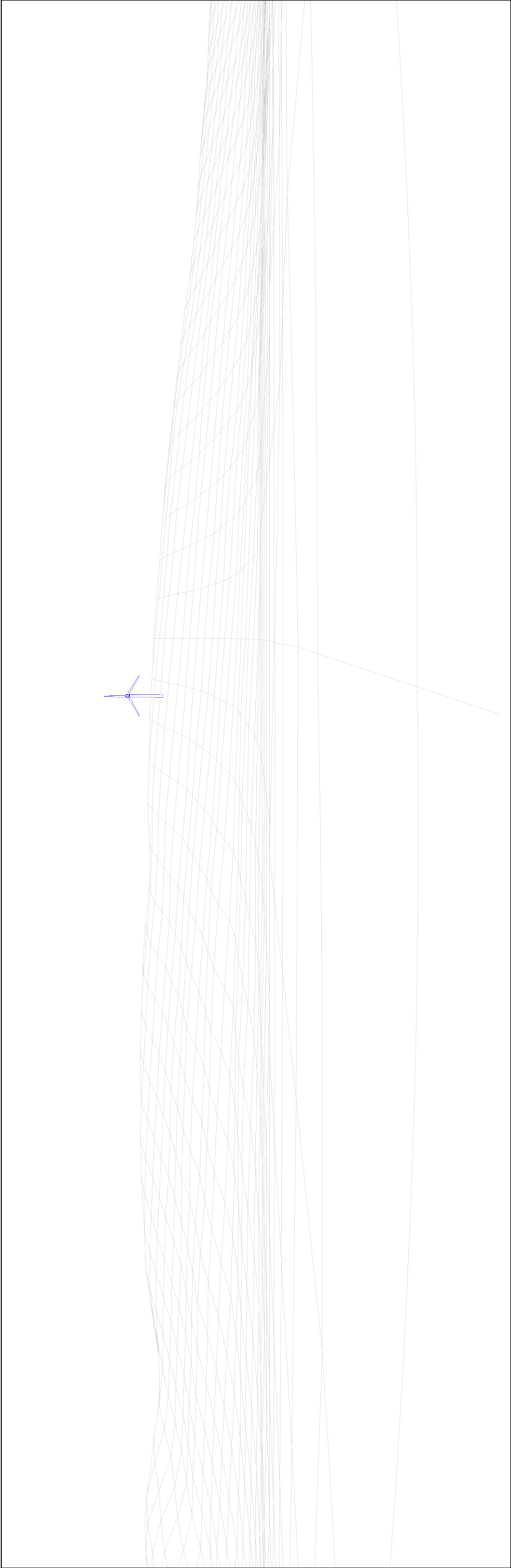
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VP05 WEST MAINS OF FINAVON - PHOTOGRAPH OF EXISTING VIEW



VP05 WEST MAINS OF FINAVON - WIRELINE DRAWING








Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **VP06 - Bogindollo**
 Scale: **1:50,000 @ A3**

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: **E347361 N755464**
 Viewpoint Elevation: **61m (A.O.D)**
 View Direction: **107°**
 Distance to Turbine: **1.7km**

Visibility: **1 Project**

Camera Type: **Nikon D3000**
 Focal Length: **35mm**
 Effective Focal Length: **52mm**
 Date Taken: **25/07/2011**
 Time Taken: **14:50**
 Height above elevation: **1.5m**

Visual Impact

Magnitude: **High**
 Sensitivity: **Low**
 Overall: **Moderate**

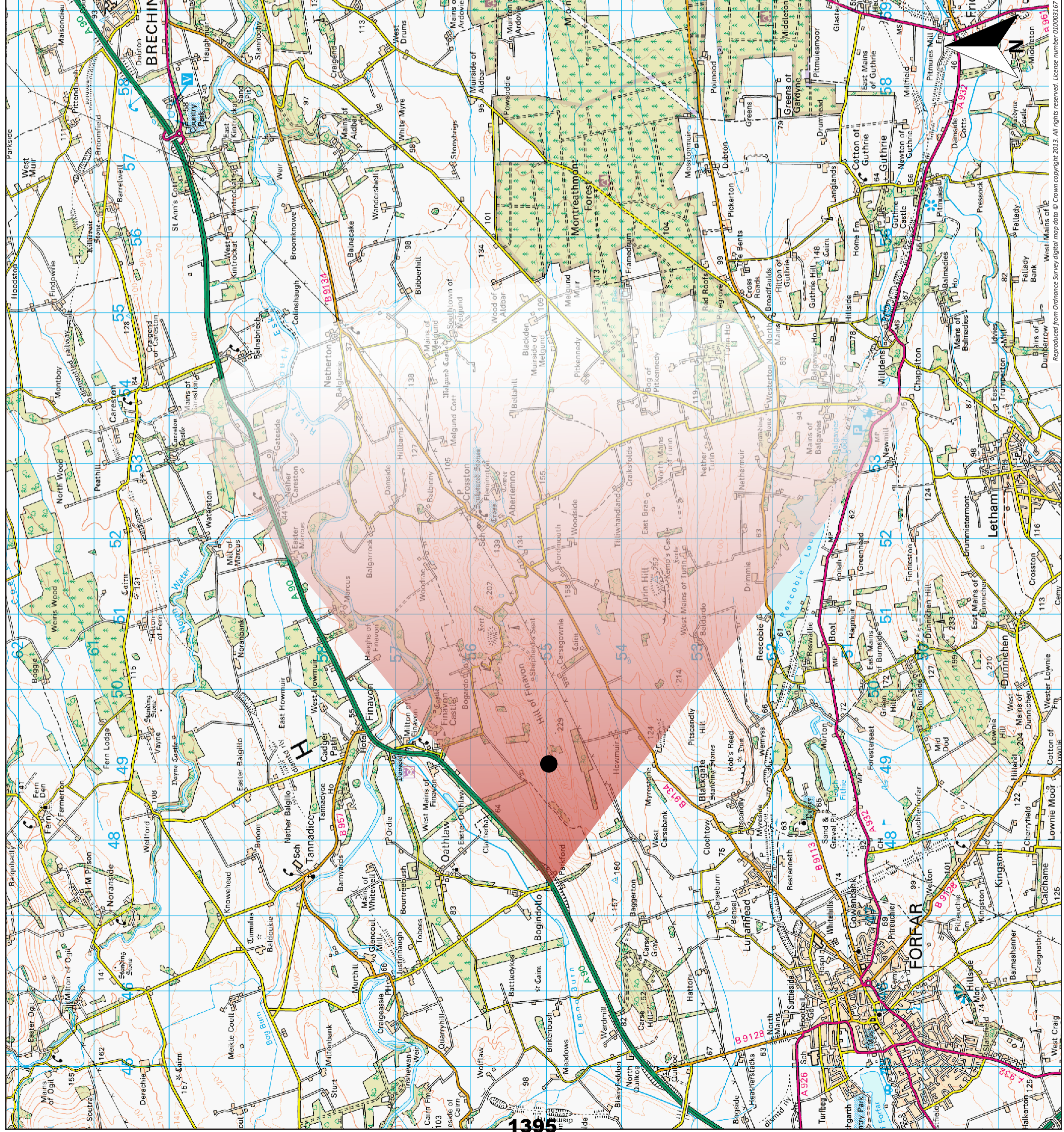
Please note for a 76° field of view, a viewing distance of 300m is recommended.



Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
 Kilmac Construction Ltd
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **C0256-163/FIG 7.14**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
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 Date: **11/08/2014**

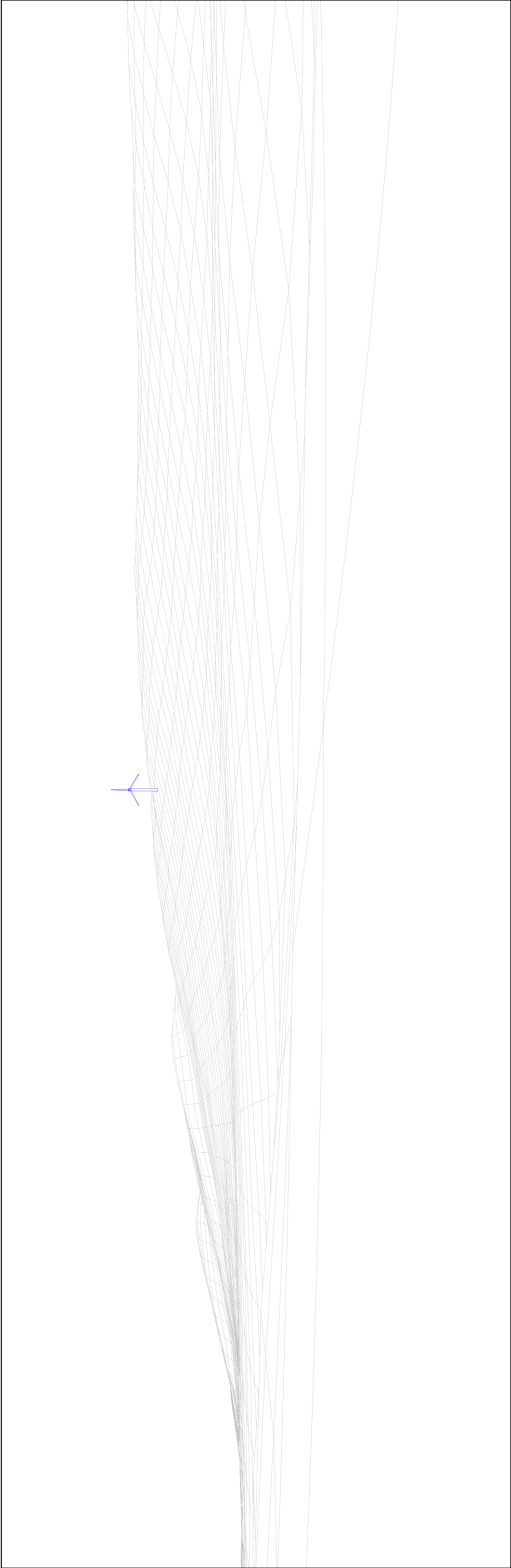
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VP06 BOGINDOLLO - PHOTOGRAPH OF EXISTING VIEW



VP06 BOGINDOLLO - WIRELINE DRAWING







VP06 BOGINDOLLO – SINGLE FRAME


Distance to nearest turbine: 1.7km Camera: Nikon D3000 Focal length: 35mm Camera height: 1.5m Date: 25/07/2011 Time: 14:50

When viewed at a comfortable arms length, this image is representative of the Maximum field of view of clear vision but is not representative of scale and distance

Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **VP07 - Finavon Hill Fort**
 Scale: **1:50,000 @ A3**

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: **E350720 N755730**
 Viewpoint Elevation: **167m (A.O.D)**
 View Direction: **234°**
 Distance to Turbine: **1.9km**

Visibility: **7 Projects**

Camera Type: **Nikon D3000**
 Focal Length: **35mm**
 Effective Focal Length: **52mm**
 Date Taken: **22/11/2011**
 Time Taken: **13:45**
 Height above elevation: **1.5m**

Visual Impact

Magnitude: **Medium**
 Sensitivity: **Low**
 Overall: **Moderate/Minor**

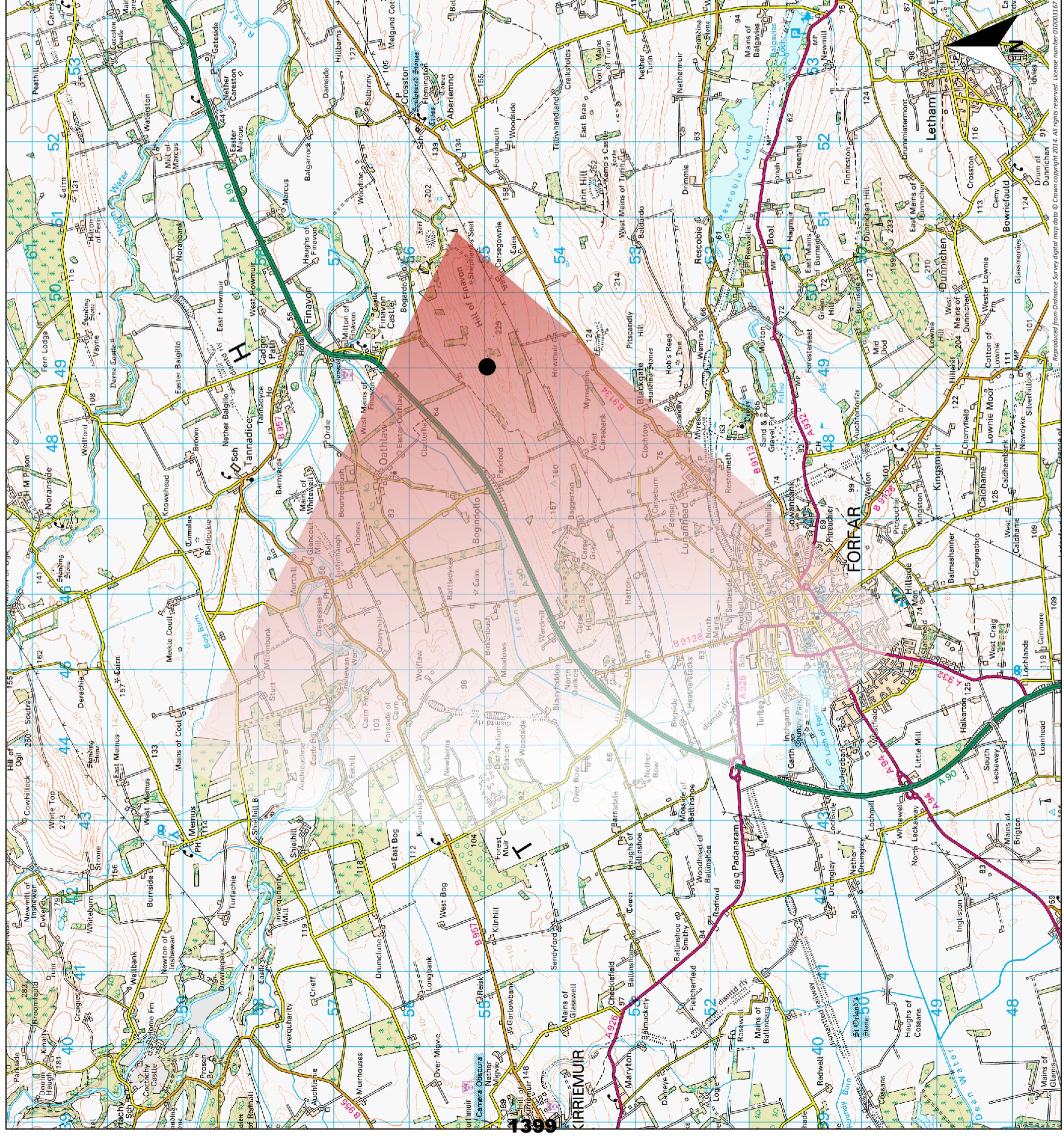
Please note for a 76° field of view, a viewing distance of 300m is recommended.



Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
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Document Number: **C0256-163/FIG 7.15**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
 Date: **11/08/2014**

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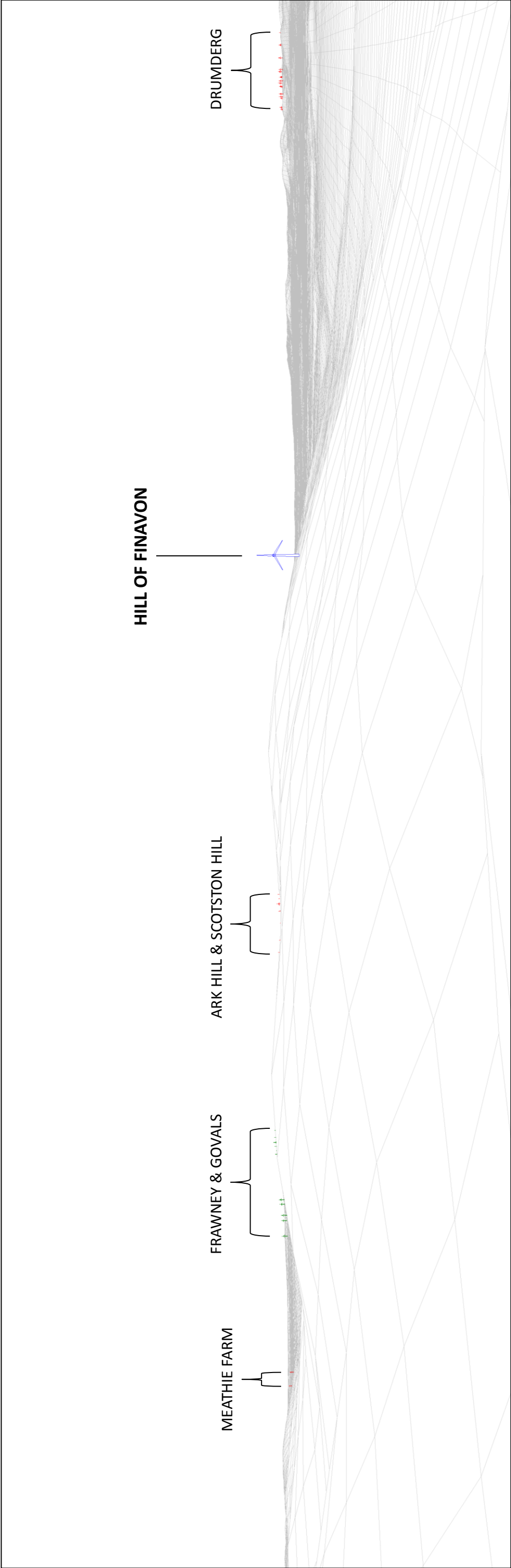


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VP07 FINAVON HILL FORT - PHOTOGRAPH OF EXISTING VIEW

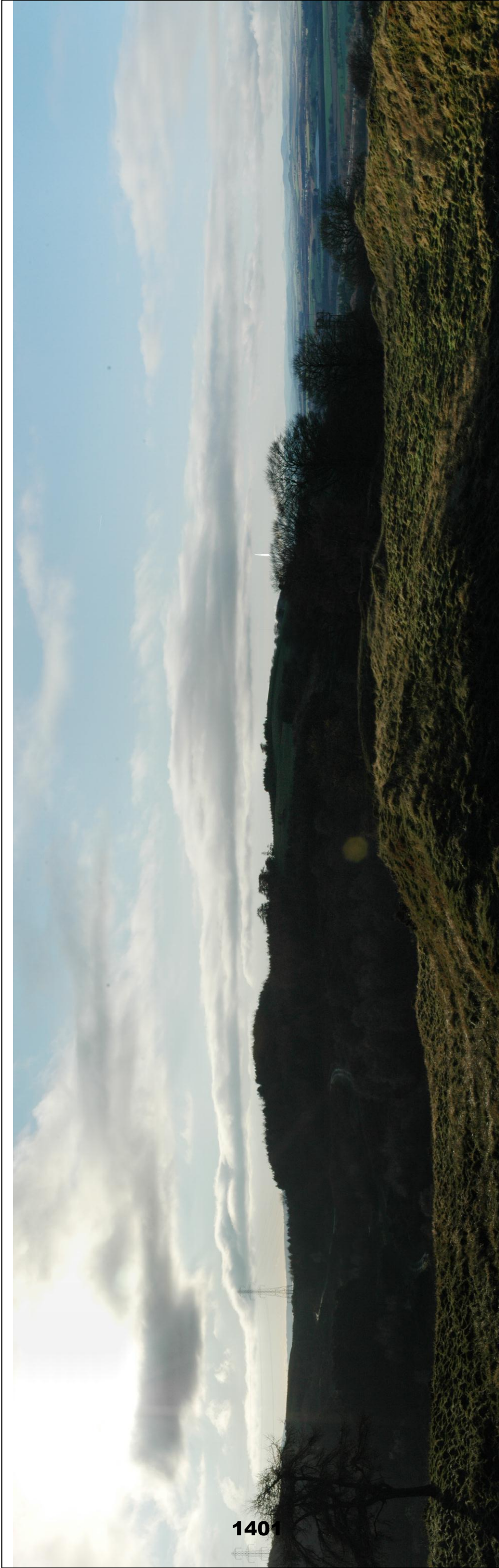


VP07 FINAVON HILL FORT - WIRELINE DRAWING



VP07 FINAVON HILL FORT - PHOTOMONTAGE OF PROPOSAL

**76° VIEWING ANGLE
300MM VIEWING DISTANCE**





VP07 FINAVON HILL FORT – SINGLE FRAME


When viewed at a comfortable arms length, this image is representative of the Maximum field of view of clear vision but is not representative of scale and distance

Distance to nearest turbine: 1.9km Camera: Nikon D3000 Focal length: 35mm Camera height: 1.5m Date: 22/11/2011 Time: 13:45

Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **VP08 - Tannadice**
 Scale: **1:50,000 @ A3**

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: **E347378 N758648**
 Viewpoint Elevation: **94m (A.O.D)**
 View Direction: **150°**
 Distance to Turbine: **4.0km**

Visibility: **2 Projects**

Camera Type: **Nikon D3000**
 Focal Length: **35mm**
 Effective Focal Length: **52mm**
 Date Taken: **01/11/2011**
 Time Taken: **13:20**
 Height above elevation: **1.5m**

Visual Impact

Magnitude: **Medium**
 Sensitivity: **Medium**
 Overall: **Moderate**

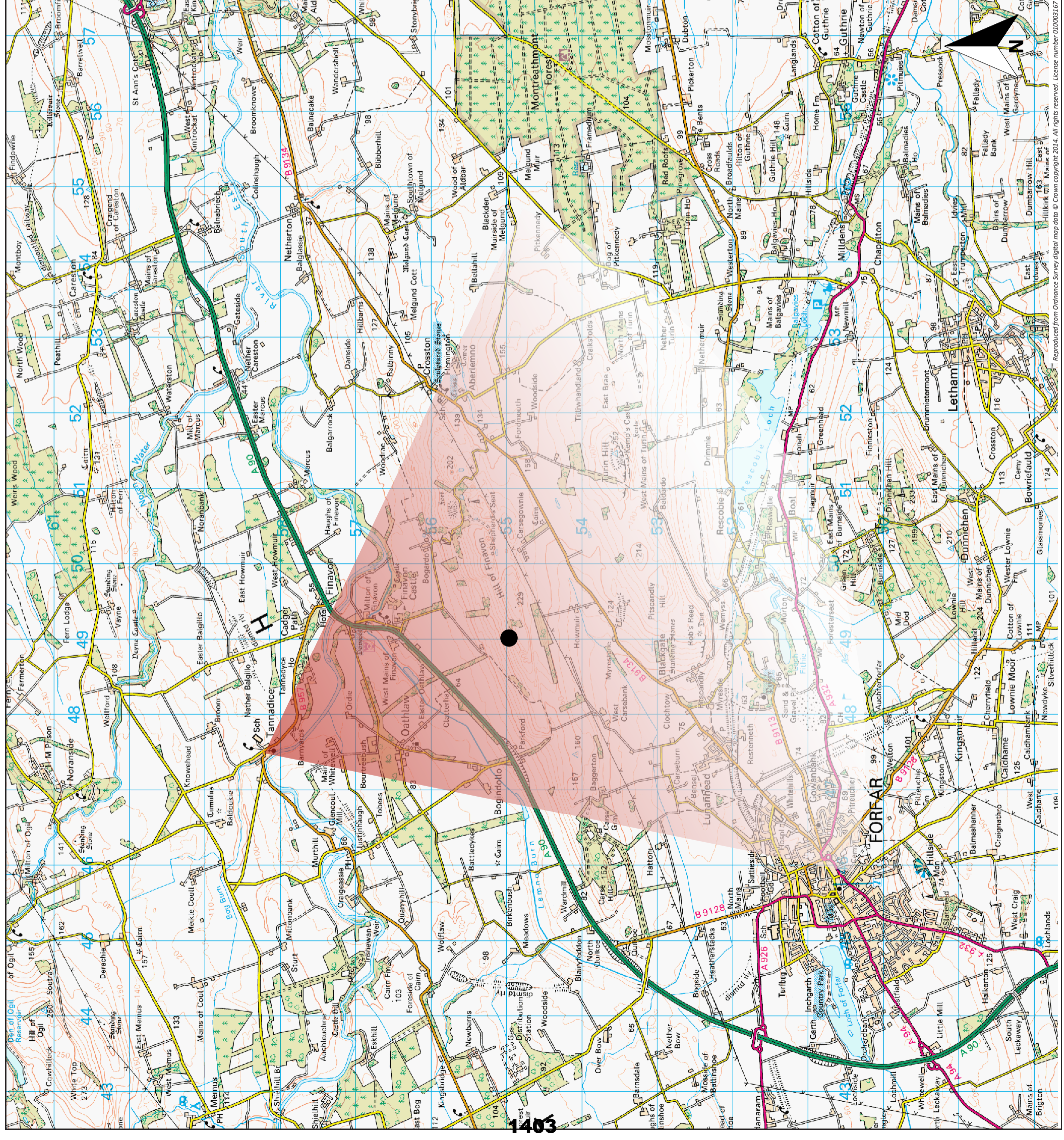
Please note for a 76° field of view, a viewing distance of 300m is recommended.



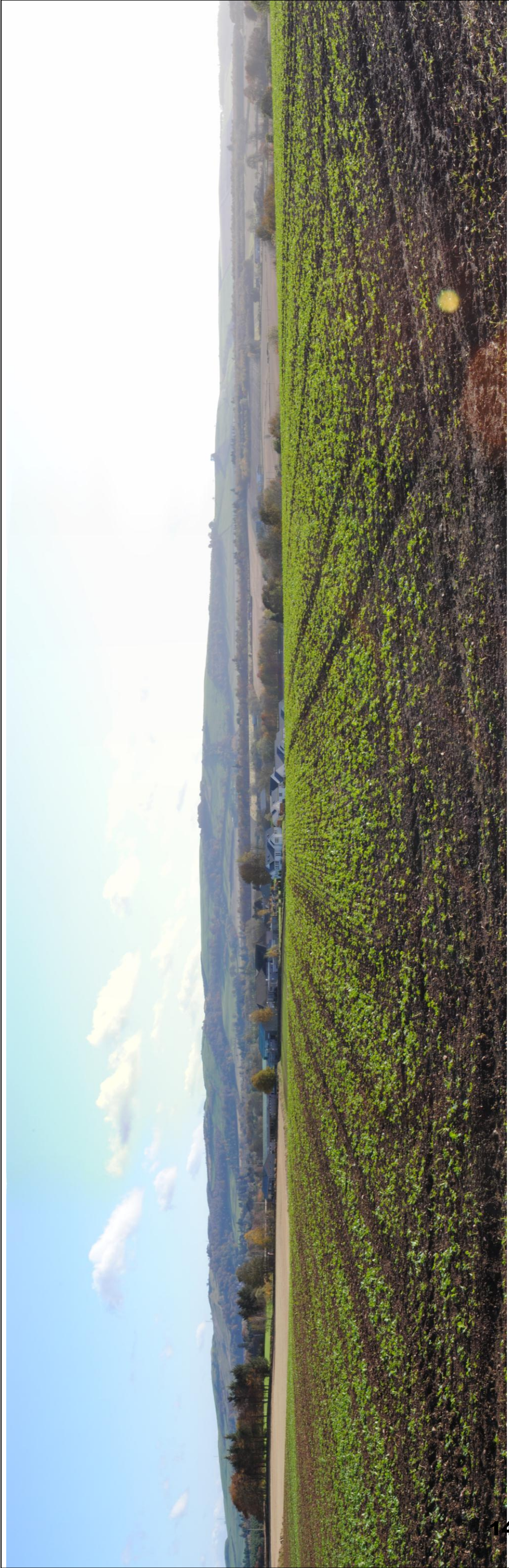
Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
 Kilmac Construction Ltd

Document Number: **C0256-163/FIG 7.16**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
 Date: **11/08/2014**

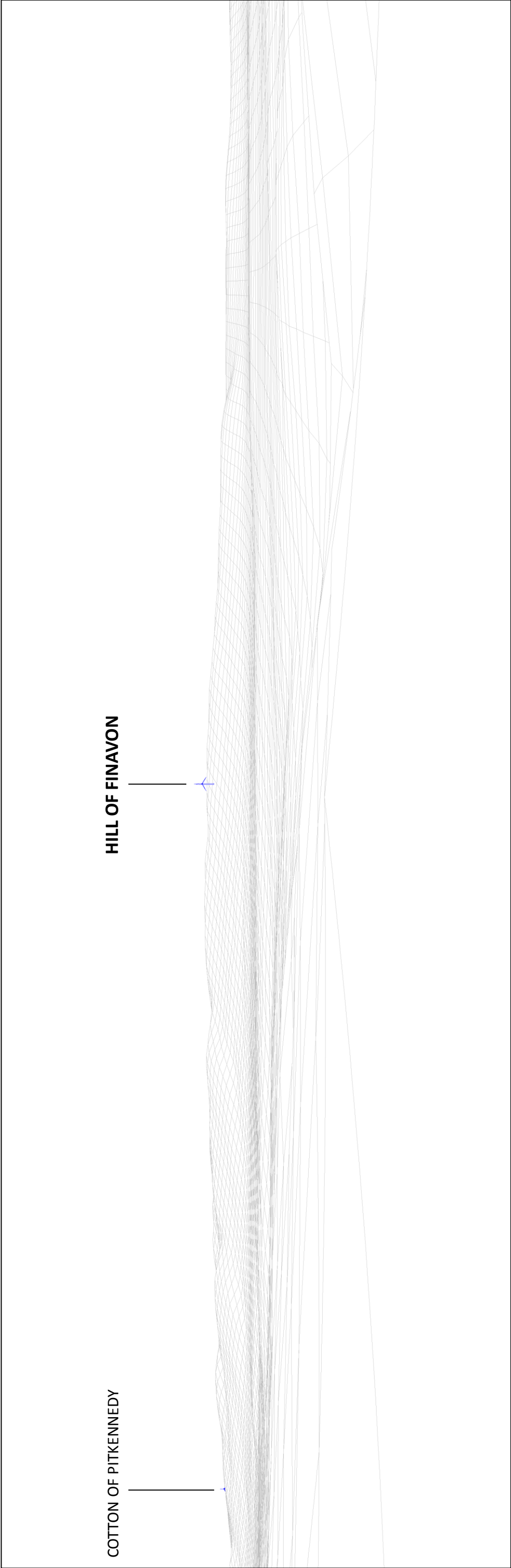
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VP08 TANNADICE - PHOTOGRAPH OF EXISTING VIEW

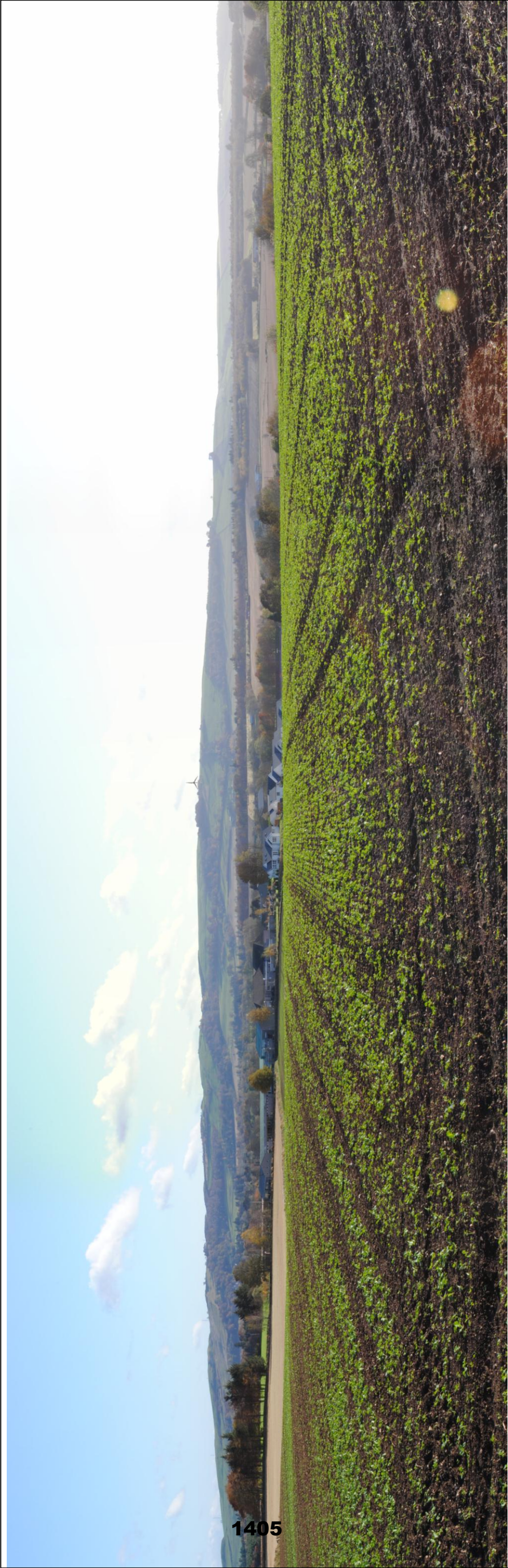


VP08 TANNADICE - WIRELINE DRAWING



COTTON OF PITKENNEDY

HILL OF FINAVON





1406

VP08 TANNADICE – SINGLE FRAME


Distance to nearest turbine: 4.0km Camera: Nikon D3000 Focal length: 35mm Camera height: 1.5m Date: 01/11/2011 Time: 13:20

When viewed at a comfortable arms length, this image is representative of the Maximum field of view of clear vision but is not representative of scale and distance

Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **VP09 - Turin Hill Fort**
 Scale: **1:50,000 @ A3**

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: **E351448 N753572**
 Viewpoint Elevation: **244m (A.O.D)**
 View Direction: **294°**
 Distance to Turbine: **2.8km**

Visibility: **7 Projects**

Camera Type: **Nikon D3000**
 Focal Length: **35mm**
 Effective Focal Length: **52mm**
 Date Taken: **22/11/2011**
 Time Taken: **15:30**
 Height above elevation: **1.5m**

Visual Impact

Magnitude: **Medium**
 Sensitivity: **Low**
 Overall: **Moderate**

Please note for a 76° field of view, a viewing distance of 300m is recommended.




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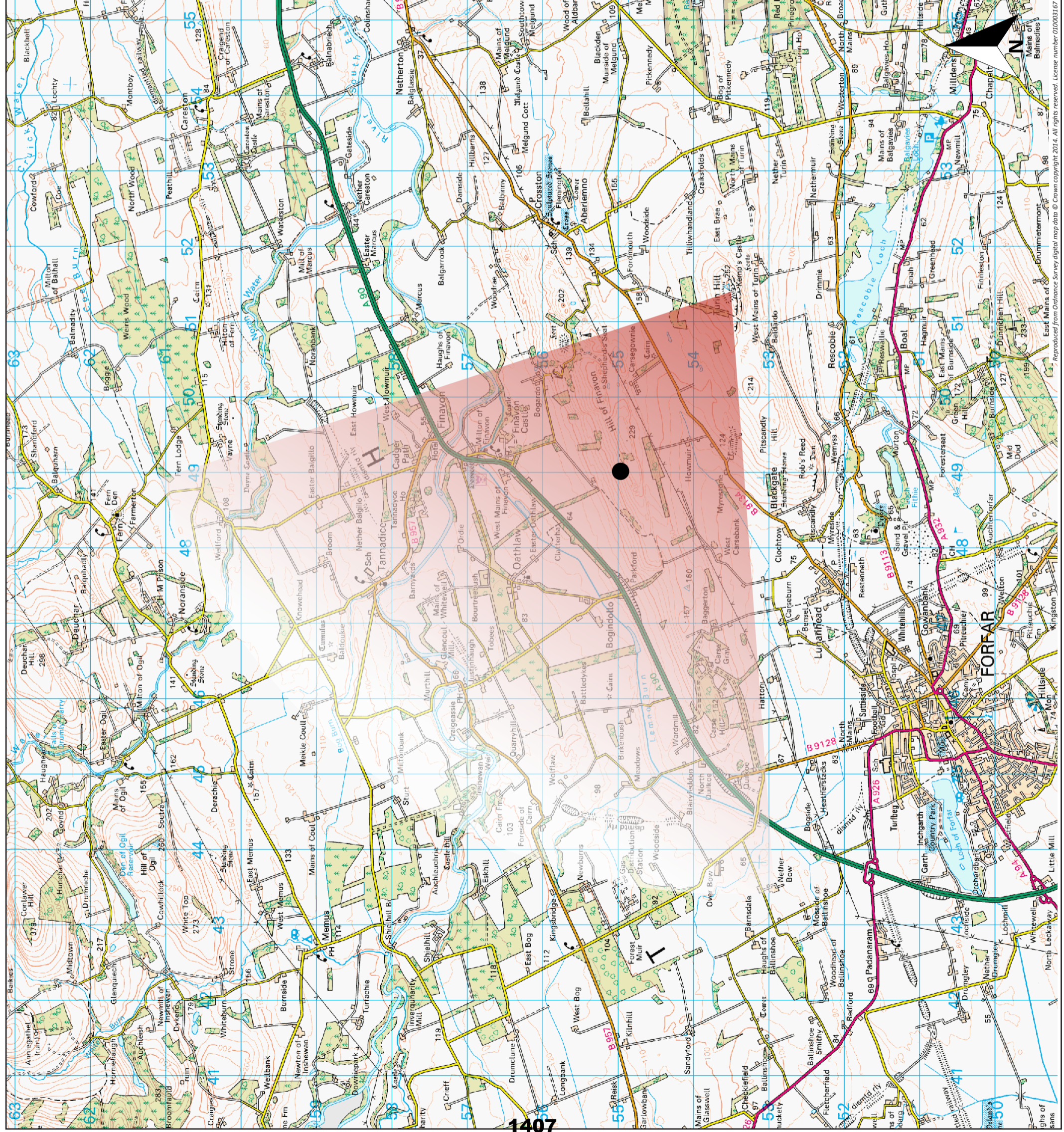
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 Kilmac Construction Ltd

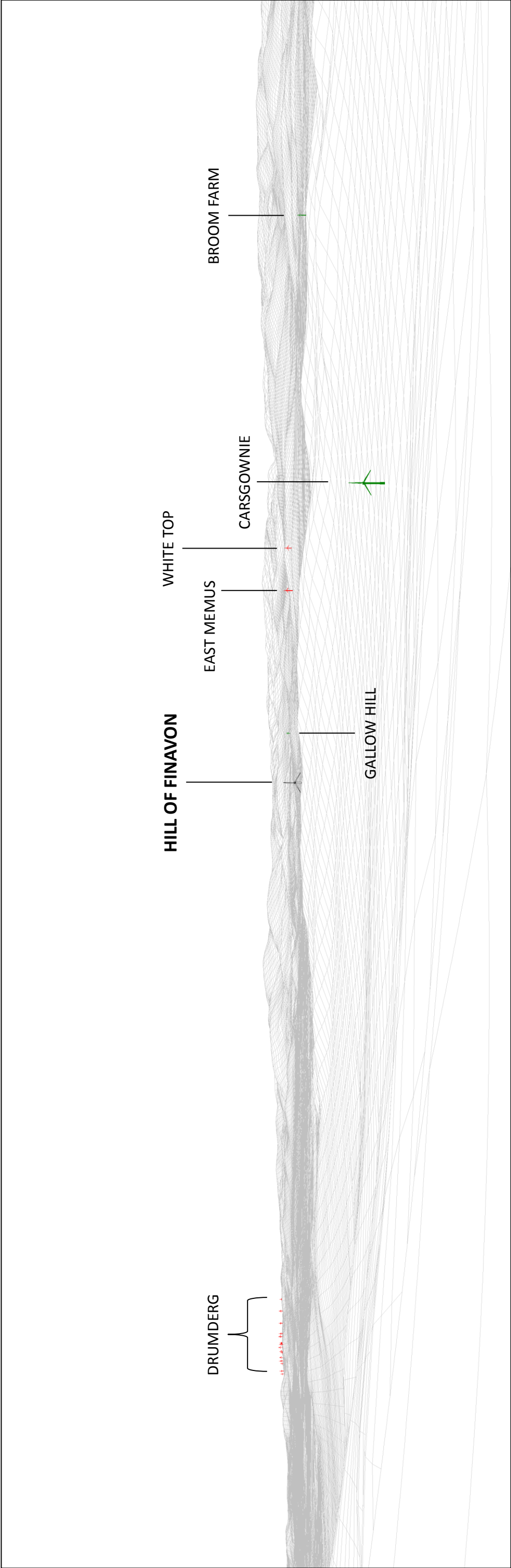
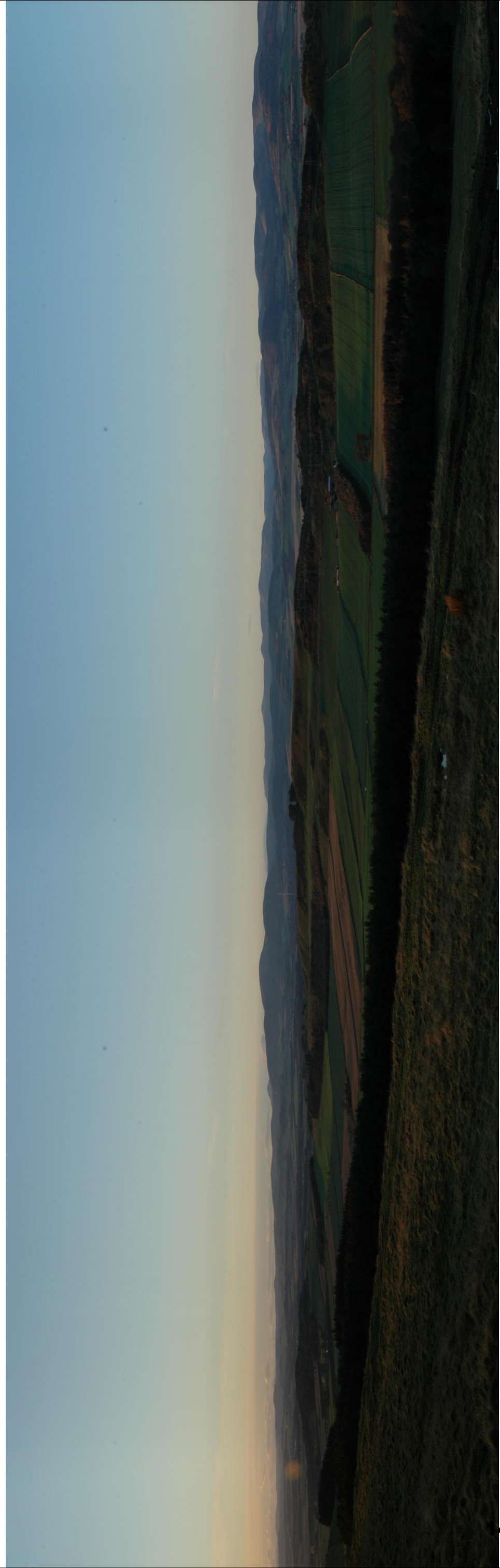
Drawing by: **Green Cat Renewables Ltd**

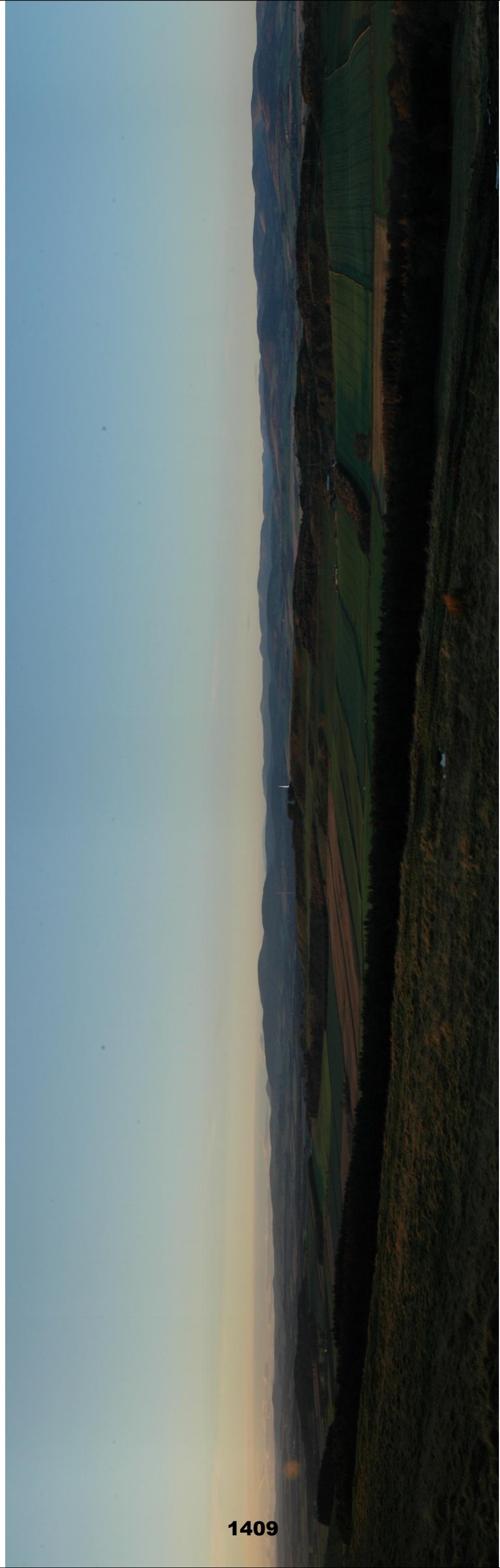
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 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
 Date: **11/08/2014**



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Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **VP10 - A932**
 Scale: **1:50,000 @ A3**

Key:

- Proposed Turbine Location
-  76° Field of View

Viewpoint Information

Viewpoint Location: **E352155 N751103**
 Viewpoint Elevation: **68m (A.O.D)**
 View Direction: **340°**
 Distance to Turbine: **5.0km**

Visibility: **1 Project**

Camera Type: **Nikon D3000**
 Focal Length: **35mm**
 Effective Focal Length: **52mm**
 Date Taken: **25/07/2011**
 Time Taken: **15:50**
 Height above elevation: **1.5m**

Visual Impact

Magnitude: **-**
 Sensitivity: **Medium**
 Overall: **-**

Please note for a 76° field of view, a viewing distance of 300m is recommended.

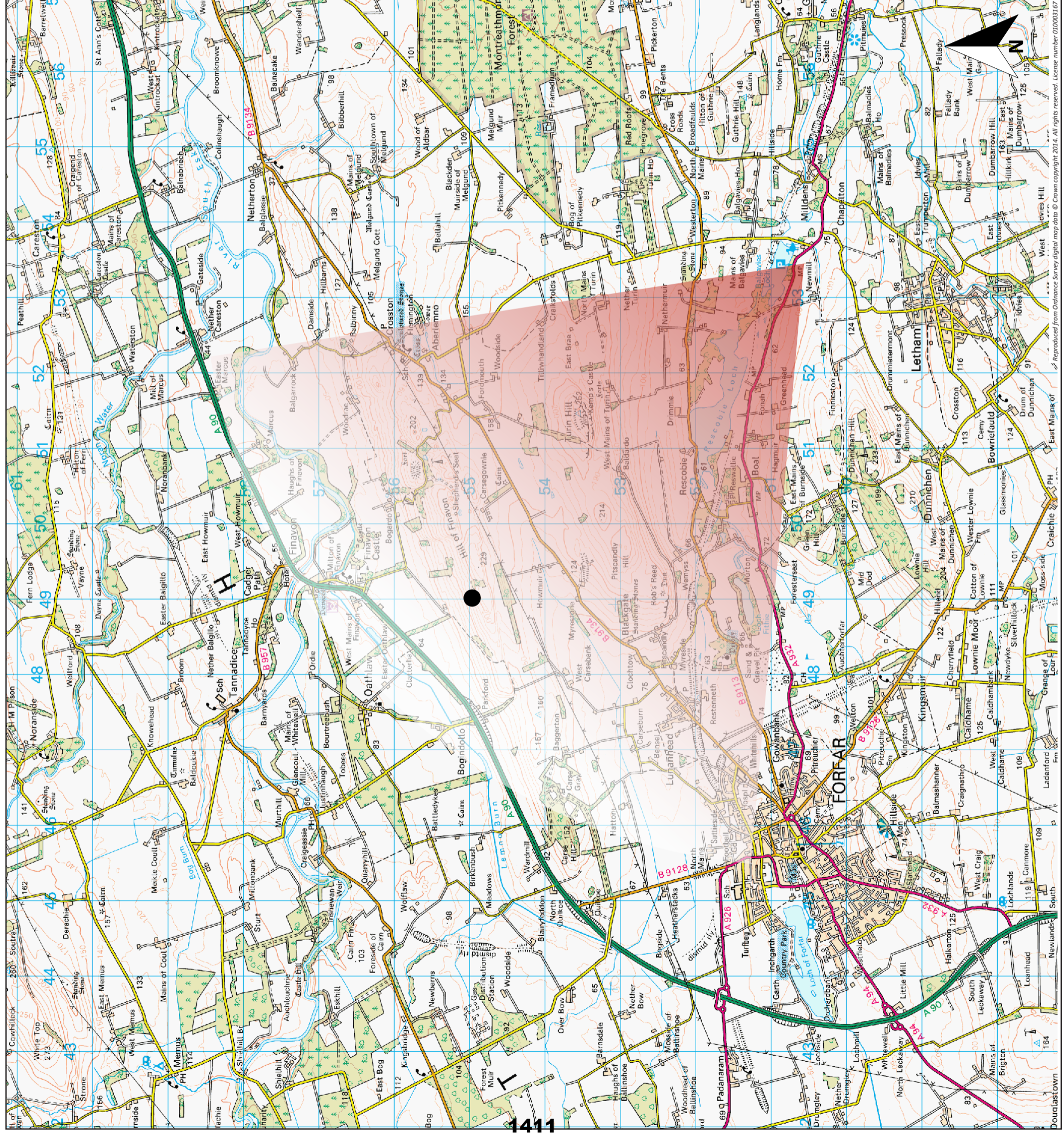


Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
 Kilmac Construction Ltd

Drawing by: **Green Cat Renewables Ltd**

Document Number: **C0256-163/FIG 7.18**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
 Date: **11/08/2014**

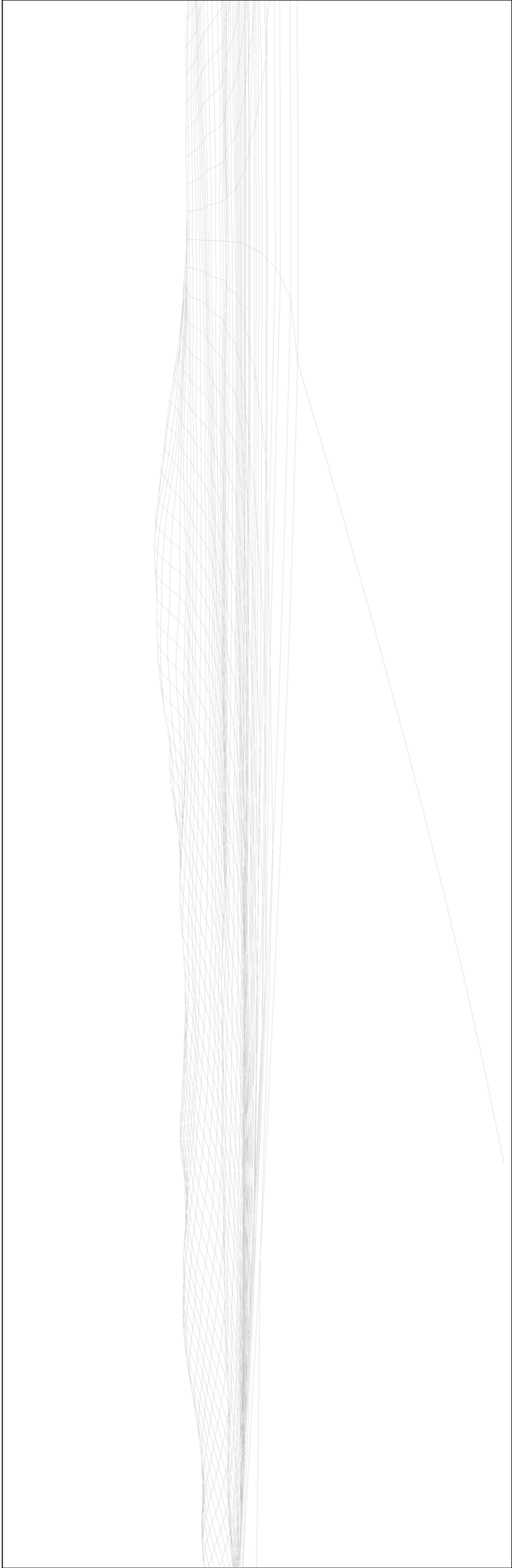
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VP10 A932 - PHOTOGRAPH OF EXISTING VIEW




VP10 A932 - WIRELINE DRAWING



Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **VP11 - Brechin**
 Scale: **1:50,000 @ A3**

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: **E358694 N760738**
 Viewpoint Elevation: **77m (A.O.D)**
 View Direction: **227°**
 Distance to Turbine: **11.3km**

Visibility: **8 Projects**

Camera Type: **Nikon D3000**
 Focal Length: **35mm**
 Effective Focal Length: **52mm**
 Date Taken: **01/11/2011**
 Time Taken: **11:30**
 Height above elevation: **1.5m**

Visual Impact

Magnitude: **High**
 Sensitivity: **Low**
 Overall: **Moderate**

Please note for a 76° field of view, a viewing distance of 300m is recommended.

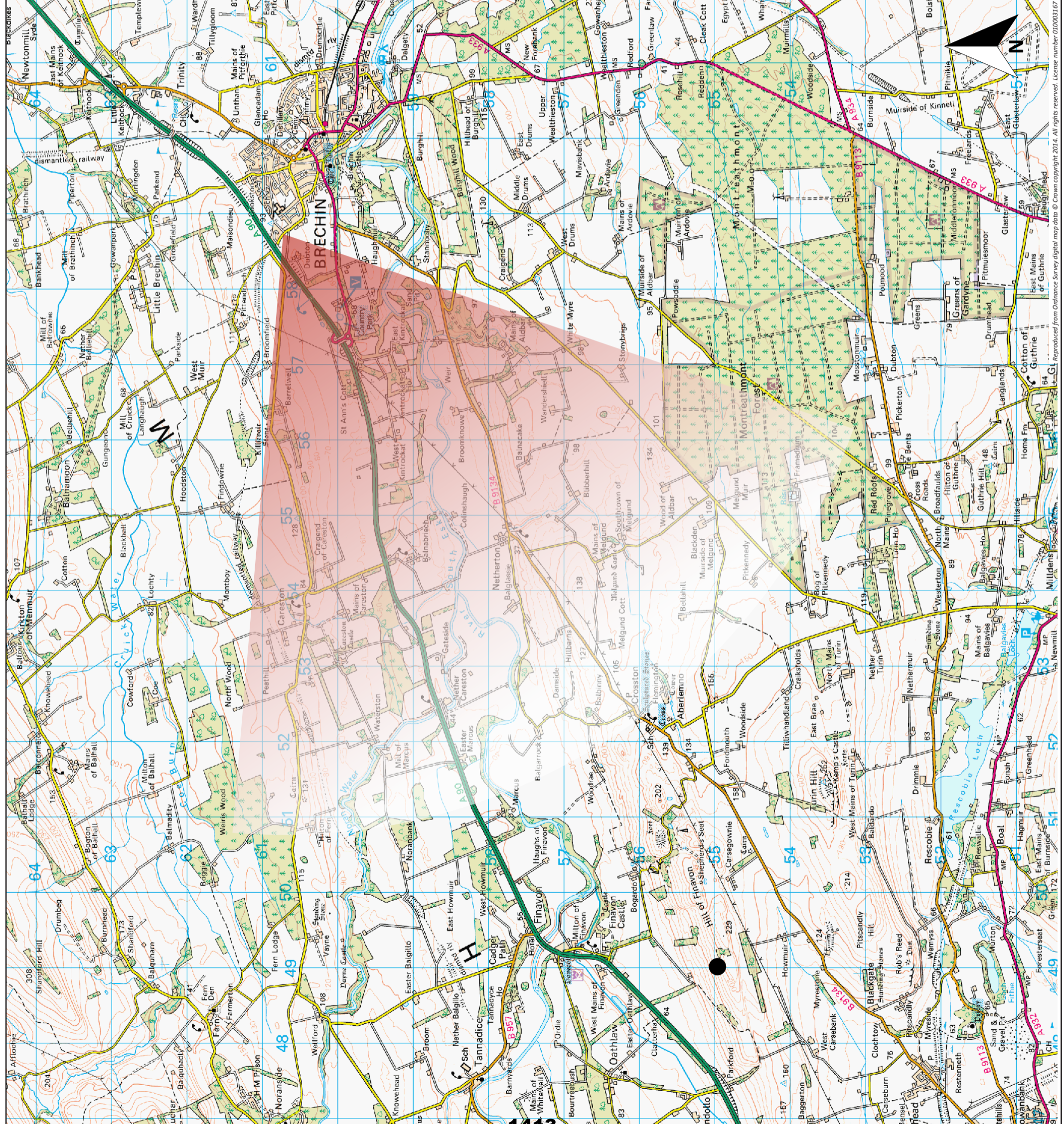


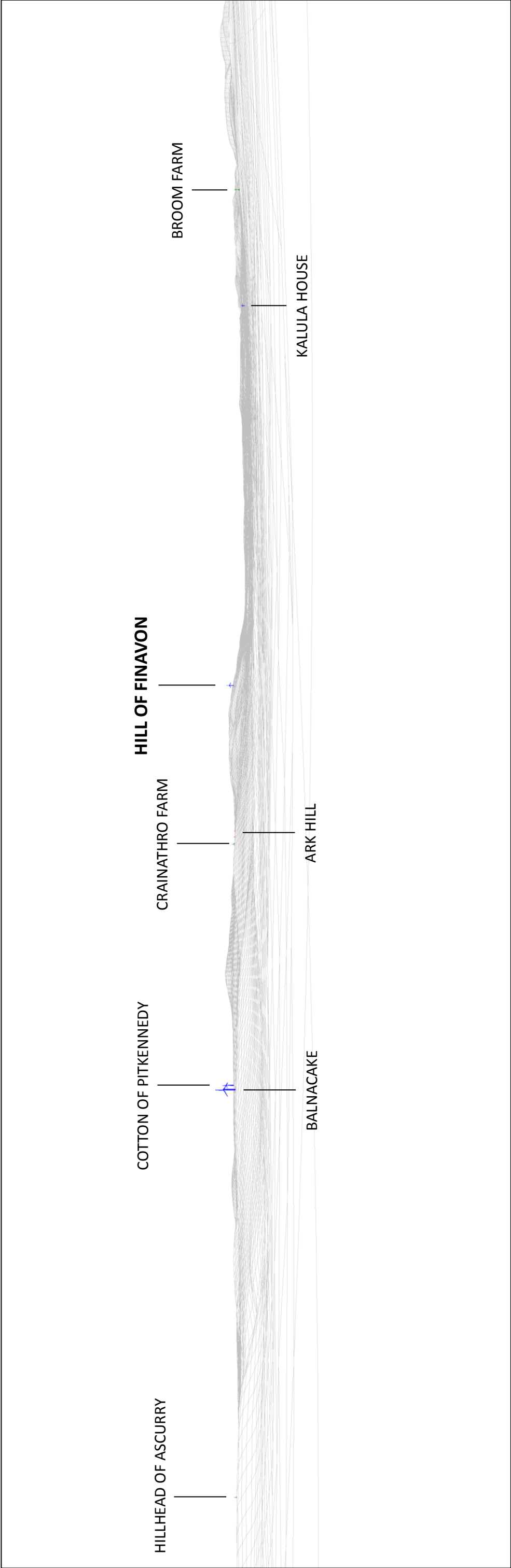
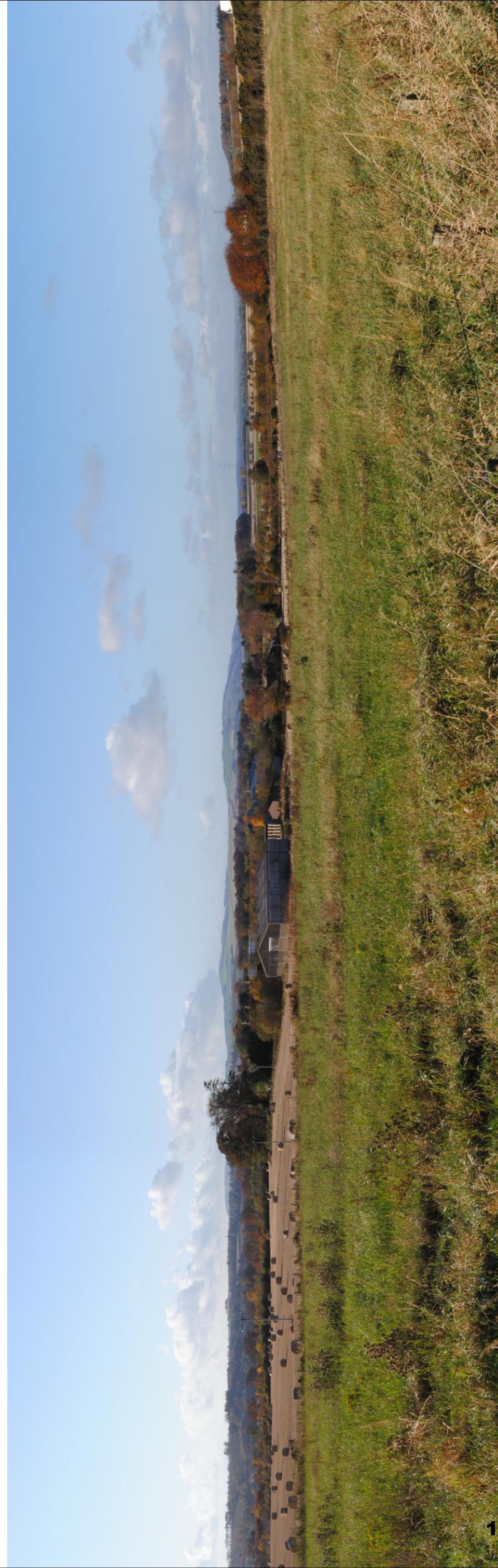
Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
 Kilmac Construction Ltd

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Document Number: **C0256-163/FIG 7.19**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
 Date: **11/08/2014**

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1416

VP11 BRECHIN – SINGLE FRAME


Distance to nearest turbine: 11.3km Camera: Nikon D3000 Focal length: 35mm Camera height: 1.5m Date: 01/11/2011 Time: 10:30

When viewed at a comfortable arms length, this image is representative of the Maximum field of view of clear vision but is not representative of scale and distance

Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **VP12 - White Caterthun Fort**
 Scale: **1:50,000 @ A3**

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: **E354693 N765982**
 Viewpoint Elevation: **288m (A.O.D)**
 View Direction: **215°**
 Distance to Turbine: **12.4km**

Visibility: **16 Projects**

Camera Type: **Nikon D3000**
 Focal Length: **35mm**
 Effective Focal Length: **52mm**
 Date Taken: **01/11/2011**
 Time Taken: **09:45**
 Height above elevation: **1.5m**

Visual Impact

Magnitude: **High**
 Sensitivity: **Negligible**
 Overall: **Moderate/Minor**

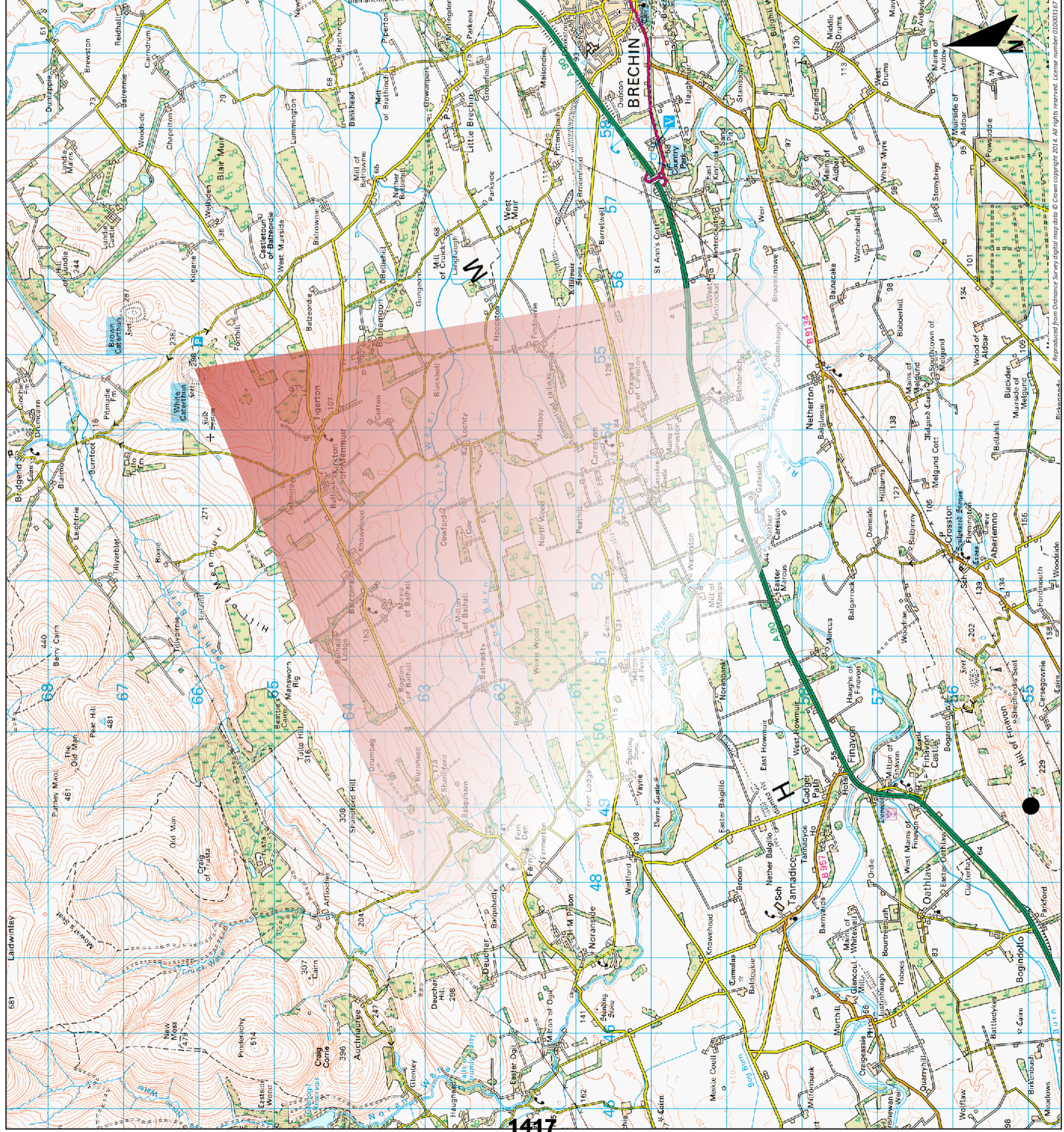
Please note for a 76° field of view, a viewing distance of 300m is recommended.



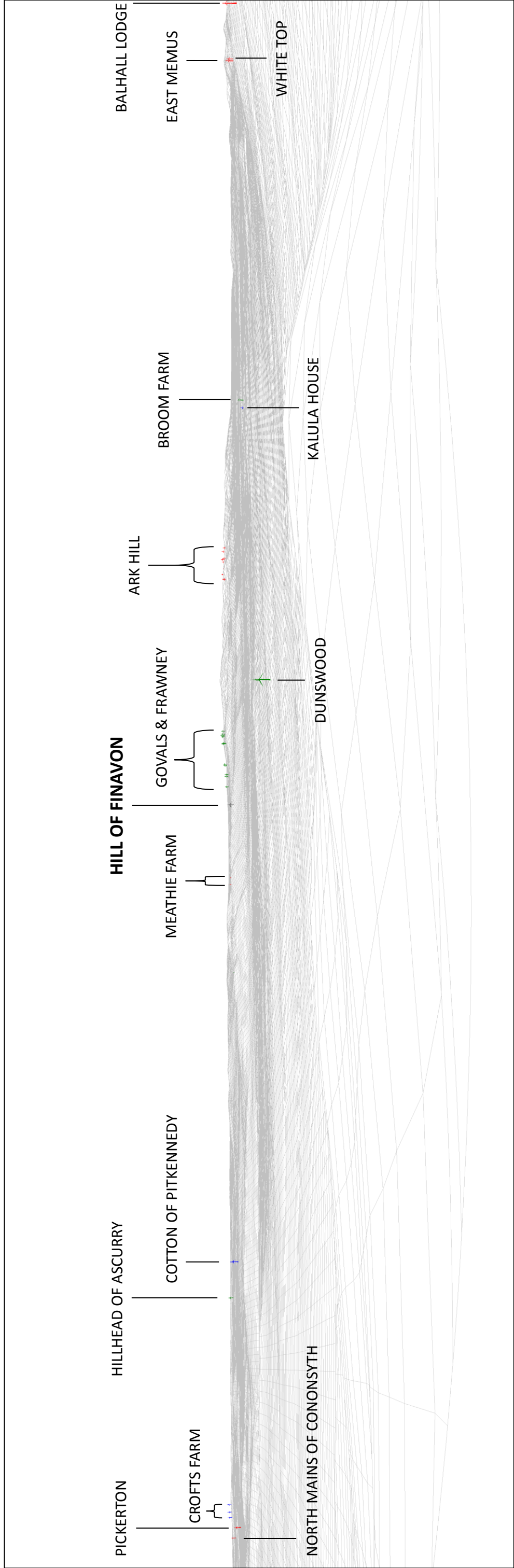
Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
 Kilmac Construction Ltd

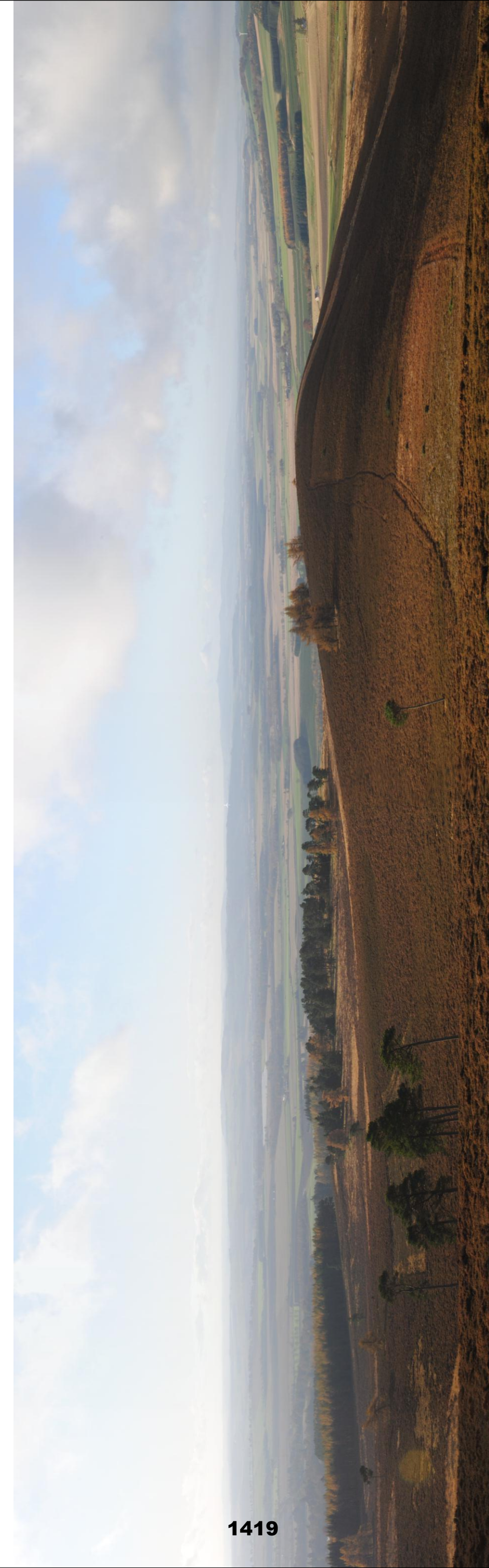
Document Number: **C0256-163/FIG 7.20**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
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VP12 WHITE CATERTHUN FORT – SINGLE FRAME


Distance to nearest turbine: 12.4km Camera: Nikon D3000 Focal length: 35mm Camera height: 1.5m Date: 01/11/2011 Time: 09:45

When viewed at a comfortable arms length, this image is representative of the Maximum field of view of clear vision but is not representative of scale and distance

Project Name: Finavon Hill Estate Wind Turbine
 Document Title: VP13 - Airline Monument
 Scale: 1:50,000 @ A3

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: **E337395 N761464**
 Viewpoint Elevation: **378m (A.O.D)**
 View Direction: **98°**
 Distance to Turbine: **13.3km**

Visibility: **18 Projects**

Camera Type: **Nikon D3000**
 Focal Length: **35mm**
 Effective Focal Length: **01/11/2011**
 Date Taken: **15:10**
 Time Taken: **1.5m**
 Height above elevation:

Visual Impact

Magnitude: **High**
 Sensitivity: **Negligible**
 Overall: **Moderate/Minor**

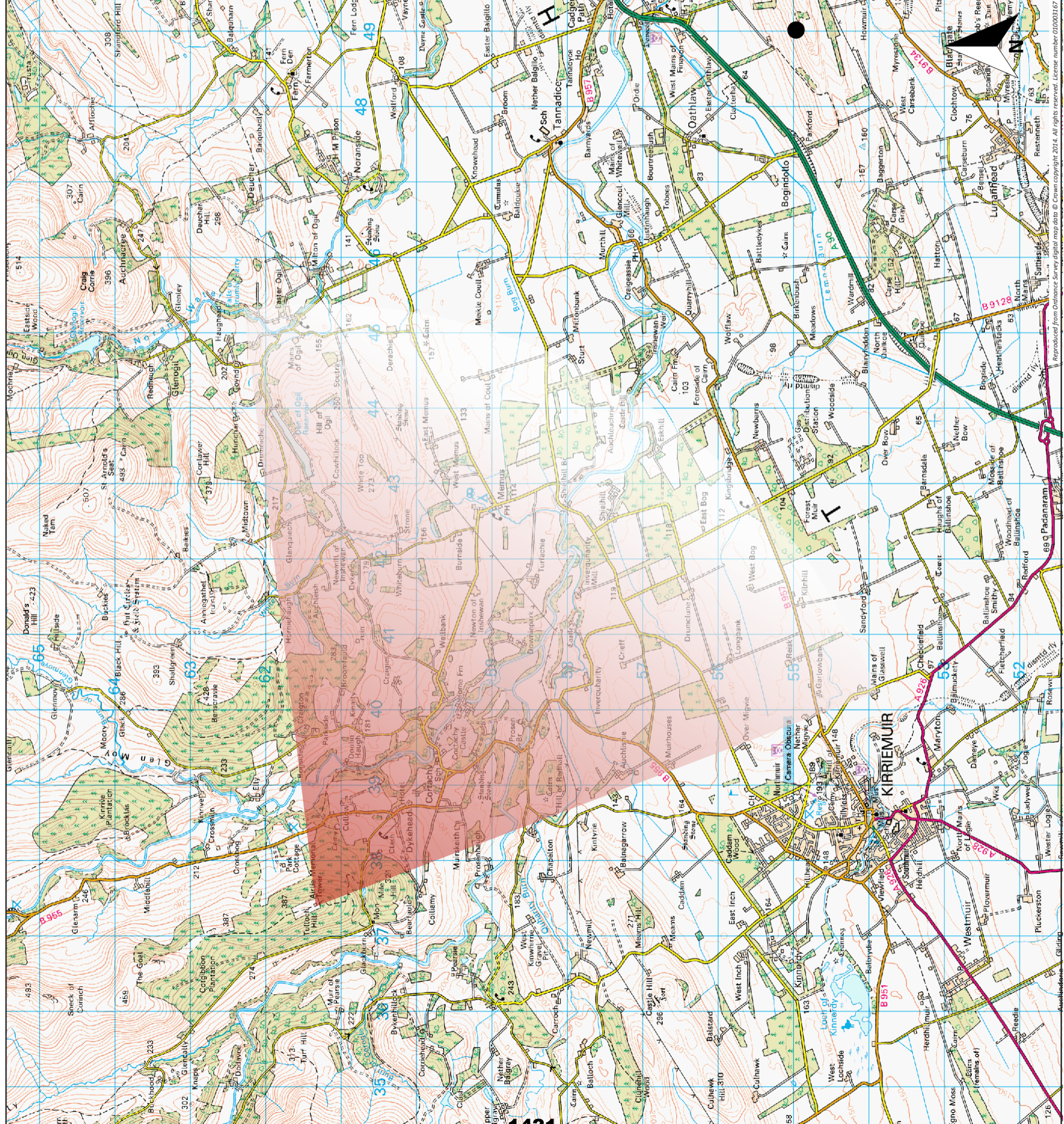
Please note for a 76° field of view, a viewing distance of 300m is recommended.

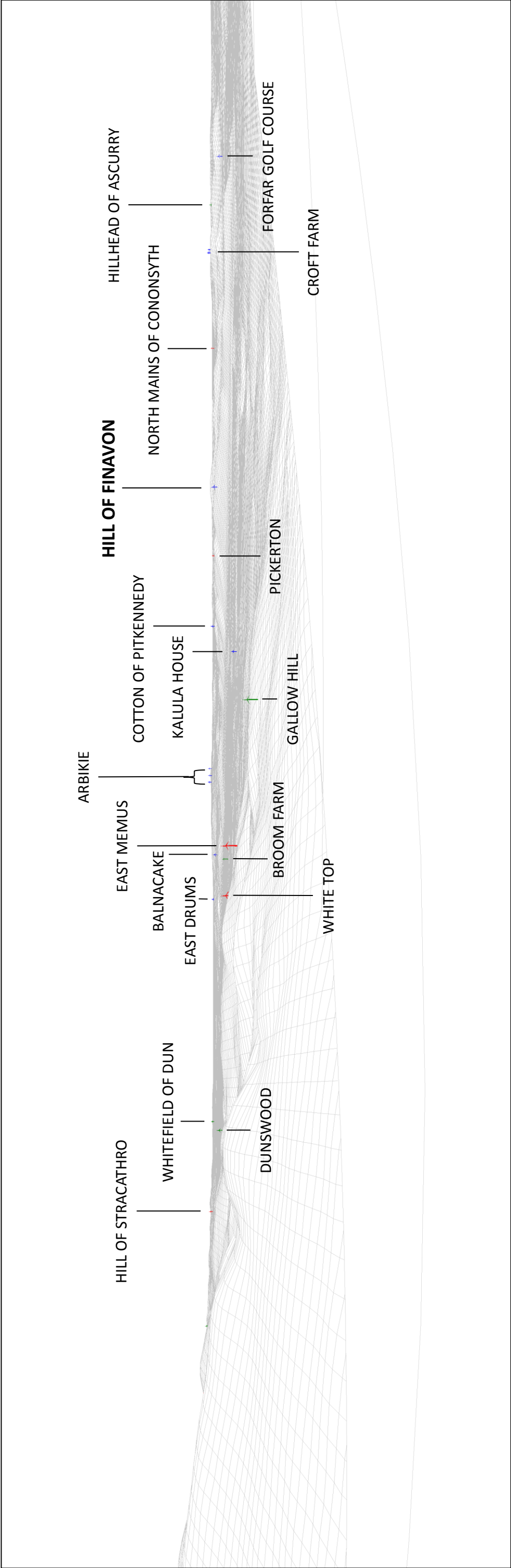


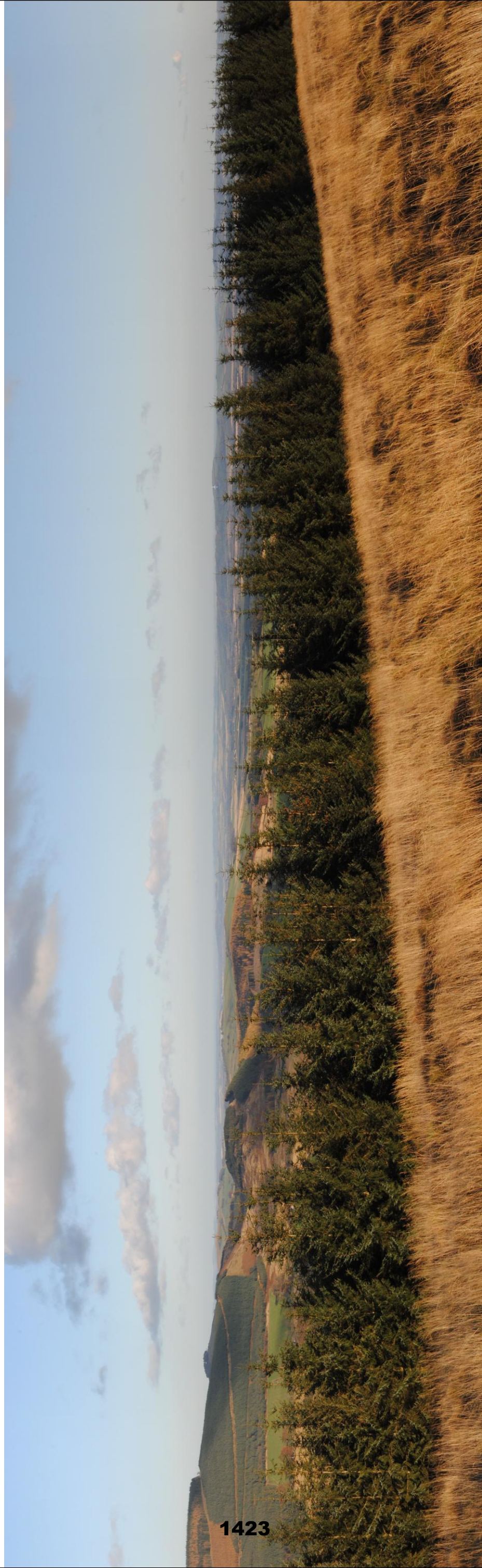
Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
 Kilmac Construction Ltd

Document Number: **C0256-163/FIG 7.21**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
 Date: **11/08/2014**

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1424

VP13 AIRLIE MONUMENT – SINGLE FRAME


Distance to nearest turbine: 13.3km Camera: Nikon D3000 Focal length: 35mm Camera height: 1.5m Date: 01/11/2011 Time: 15:10

When viewed at a comfortable arms length, this image is representative of the Maximum field of view of clear vision but is not representative of scale and distance

Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **VP14 - Cat Law**
 Scale: **1:50,000 @ A3**

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: **E331838 N760979**
 Viewpoint Elevation: **666m (A.O.D)**
 View Direction: **172°**
 Distance to Turbine: **18.2km**
 Visibility: **14 Projects**
 Camera Type: **Nikon D3000**
 Focal Length: **35mm**
 Effective Focal Length: **52mm**
 Date Taken: **26/07/2011**
 Time Taken: **13:50**
 Height above elevation: **1.5m**

Visual Impact

Magnitude: **High**
 Sensitivity: **Negligible**
 Overall: **Moderate/Minor**

Please note for a 76° field of view, a viewing distance of 300m is recommended.



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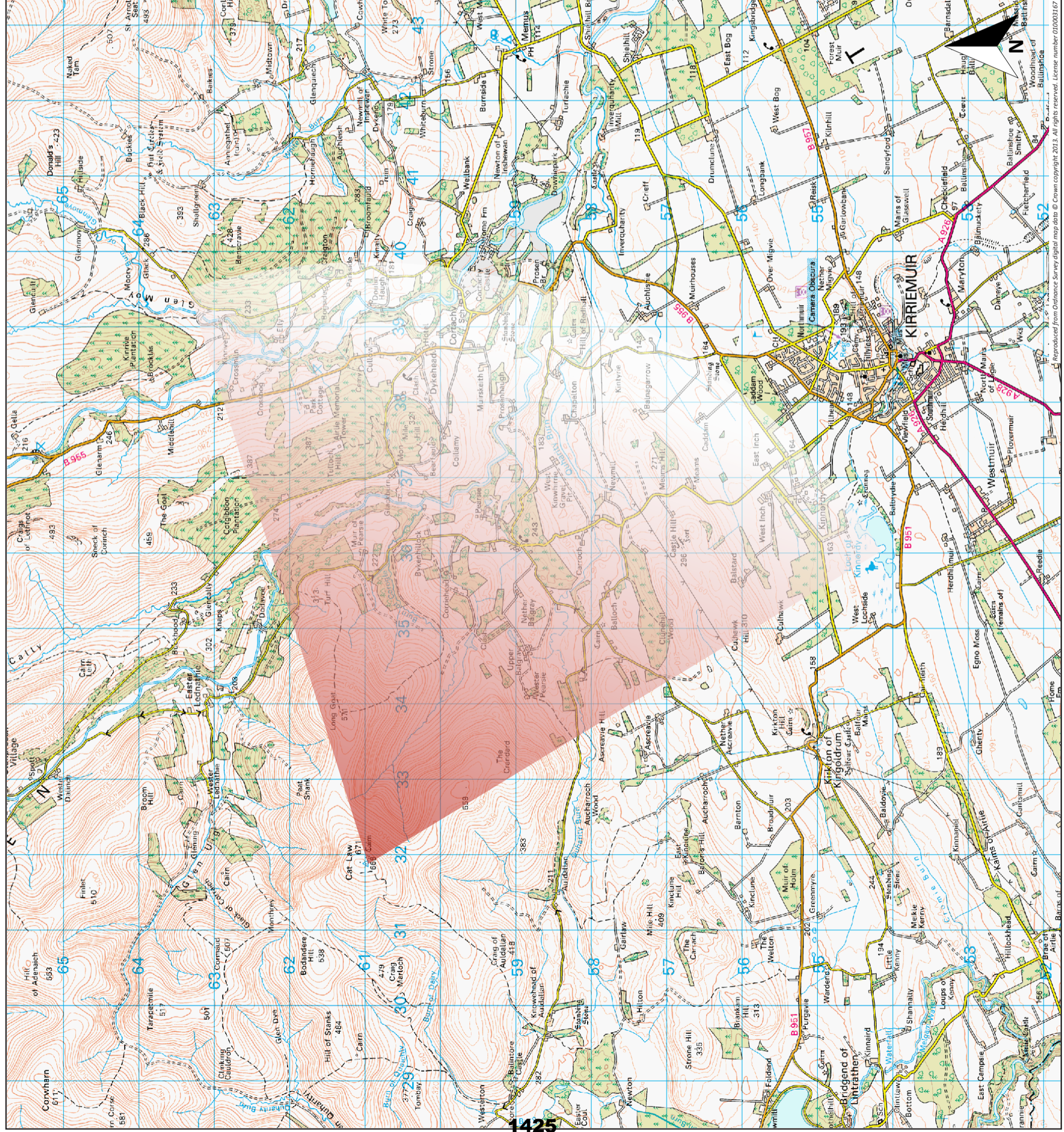
Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
 Kilmac Construction Ltd

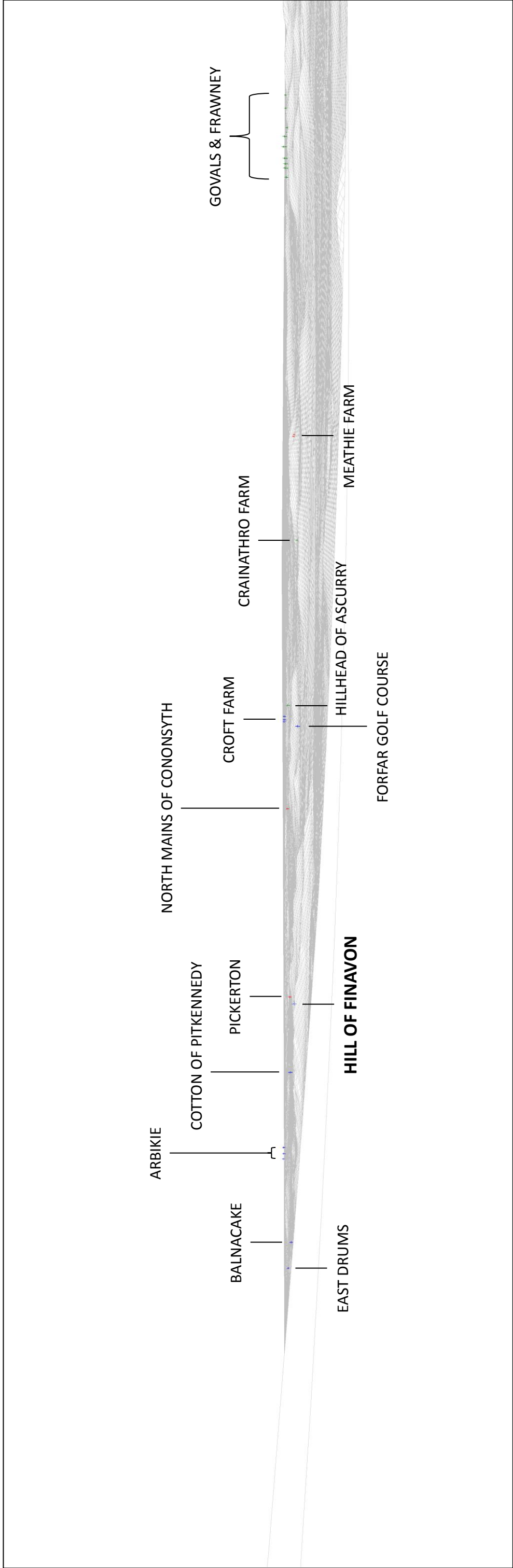
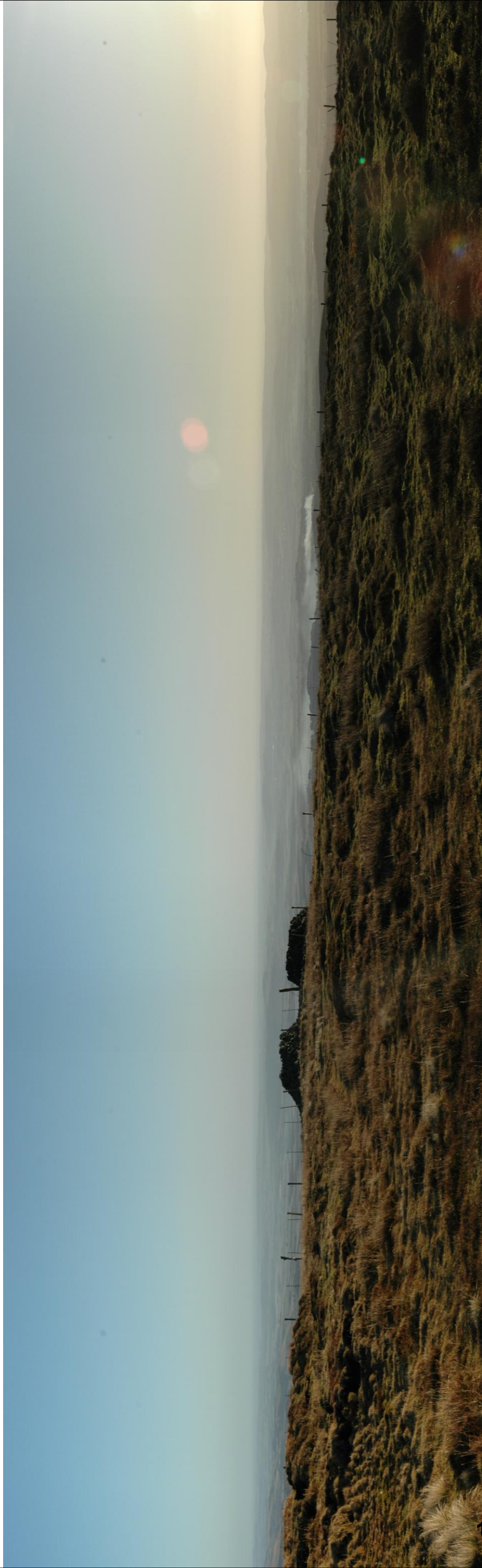
Drawing by: **Green Cat Renewables Ltd**

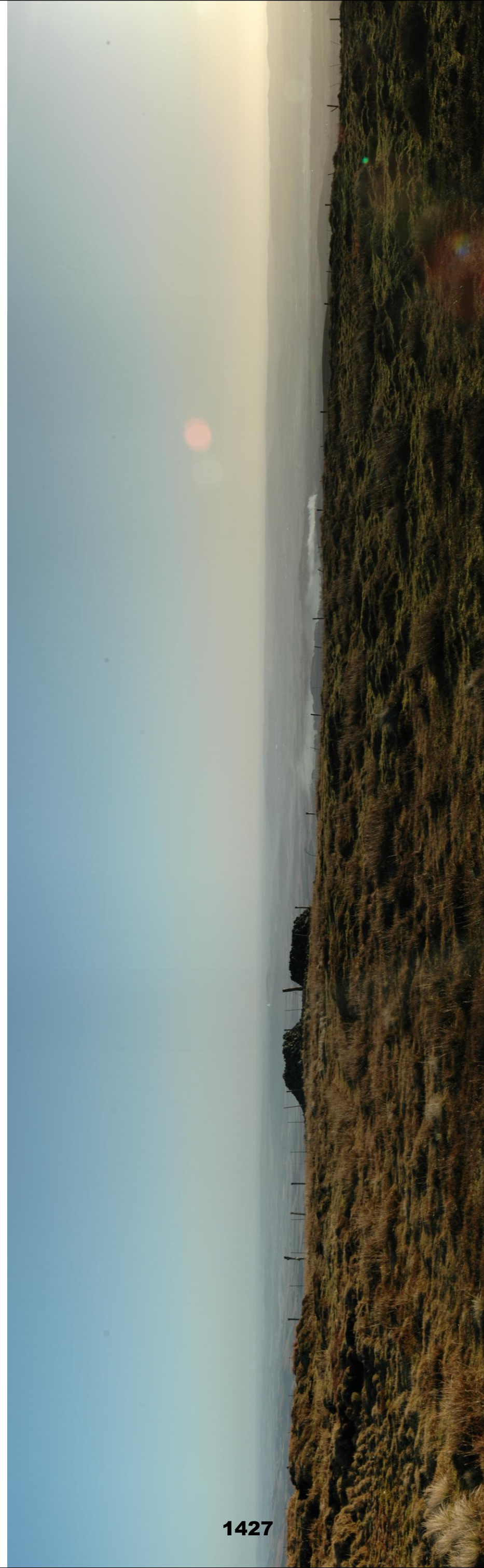
Document Number: **C0256-163/FIG 7.22**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
 Date: **11/08/2014**



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Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **VP15 - Kirriemuir**
 Scale: **1:50,000 @ A3**

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: **E339342 N754677**
 Viewpoint Elevation: **174m (A.O.D)**
 View Direction: **89°**
 Distance to Turbine: **9.7km**

Visibility: **13 Projects**

Camera Type: **Nikon D3000**
 Focal Length: **35mm**
 Effective Focal Length: **52mm**
 Date Taken: **26/07/2011**
 Time Taken: **13:10**
 Height above elevation: **1.5m**

Visual Impact

Magnitude: **High**
 Sensitivity: **Low**
 Overall: **Moderate**

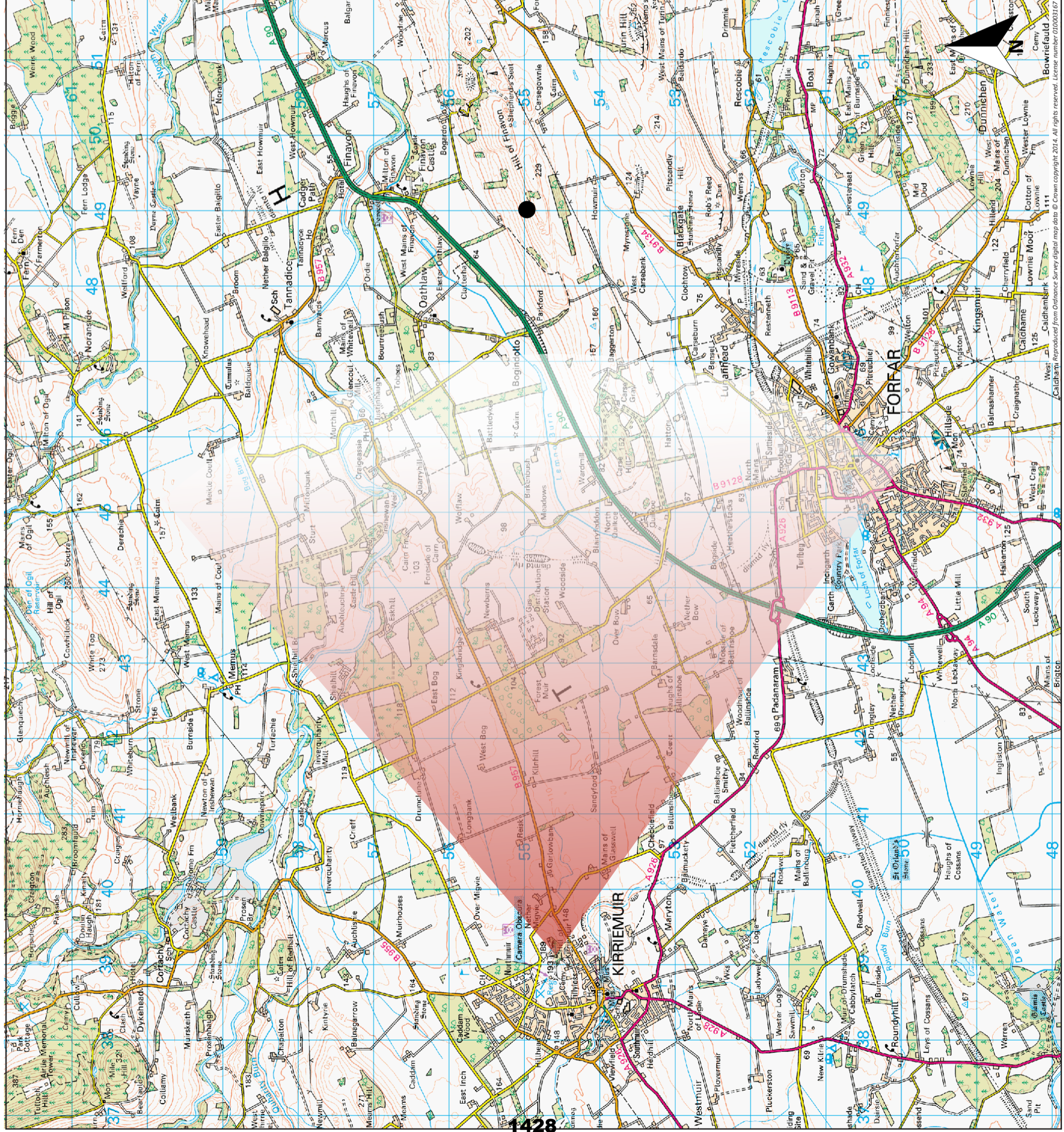
Please note for a 76° field of view, a viewing distance of 300m is recommended.



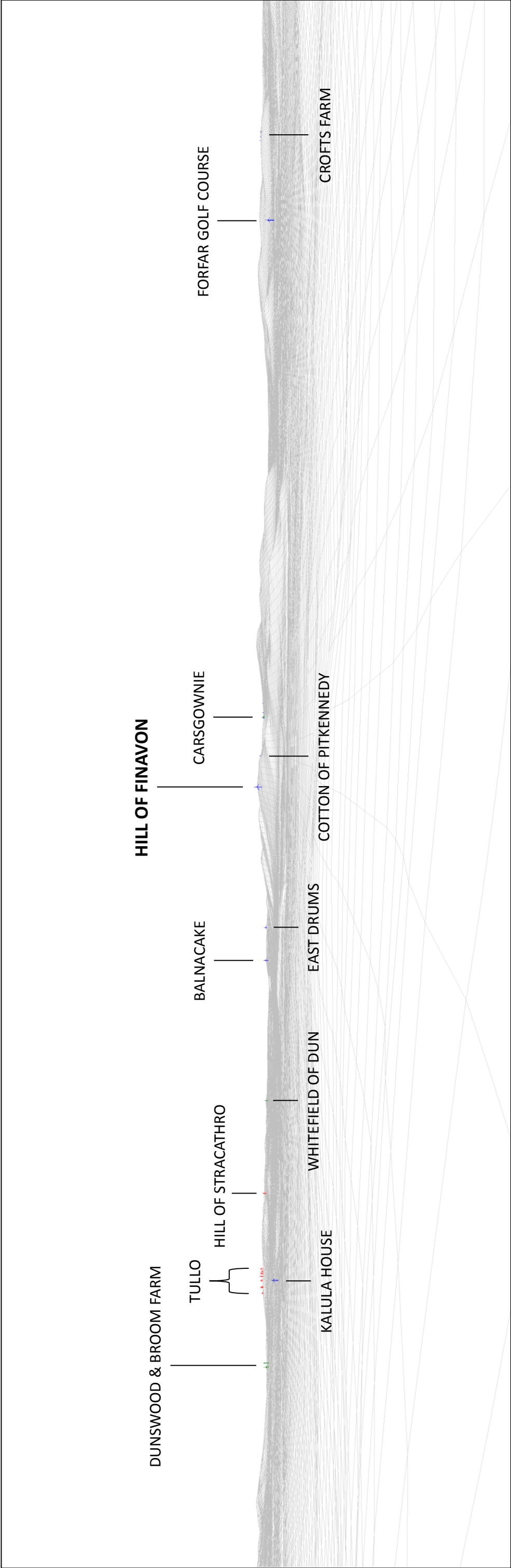
Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
 Kilmac Construction Ltd

Drawing by: **Green Cat Renewables Ltd**

Document Number: **C0256-163/FIG 7.23**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
 Date: **11/08/2014**



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1431

VP15 KIRRIEMUJR – SINGLE FRAME


Distance to nearest turbine: 9.7km Camera: Nikon D3000 Focal length: 35mm Camera height: 1.5m Date: 26/07/2011 Time: 13:10

When viewed at a comfortable arms length, this image is representative of the Maximum field of view of clear vision but is not representative of scale and distance

Project Name: Finavon Hill Estate Wind Turbine
 Document Title: VP16 - Kinpurney
 Scale: 1:50,000 @ A3

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: E332273 N741730
 Viewpoint Elevation: 337m (A.O.D)
 View Direction: 52°
 Distance to Turbine: 21.3km

Visibility: 18 Projects

Camera Type: Nikon D3000
 Focal Length: 35mm
 Effective Focal Length: 52mm
 Date Taken: 26/07/2011
 Time Taken: 15:50
 Height above elevation: 1.5m

Visual Impact

Magnitude: High
 Sensitivity: Negligible
 Overall: Moderate/Minor

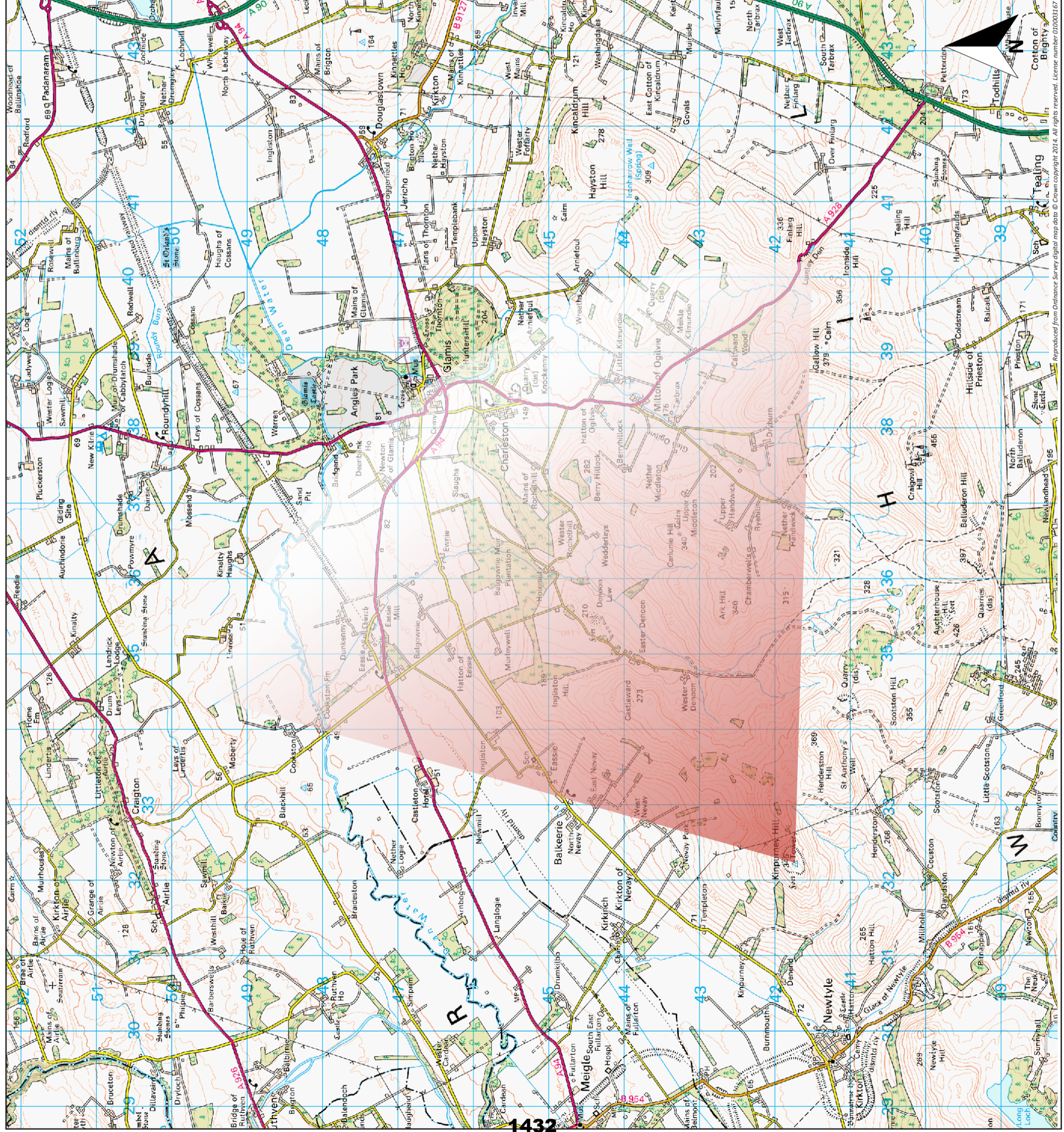
Please note for a 76° field of view, a viewing distance of 300m is recommended.

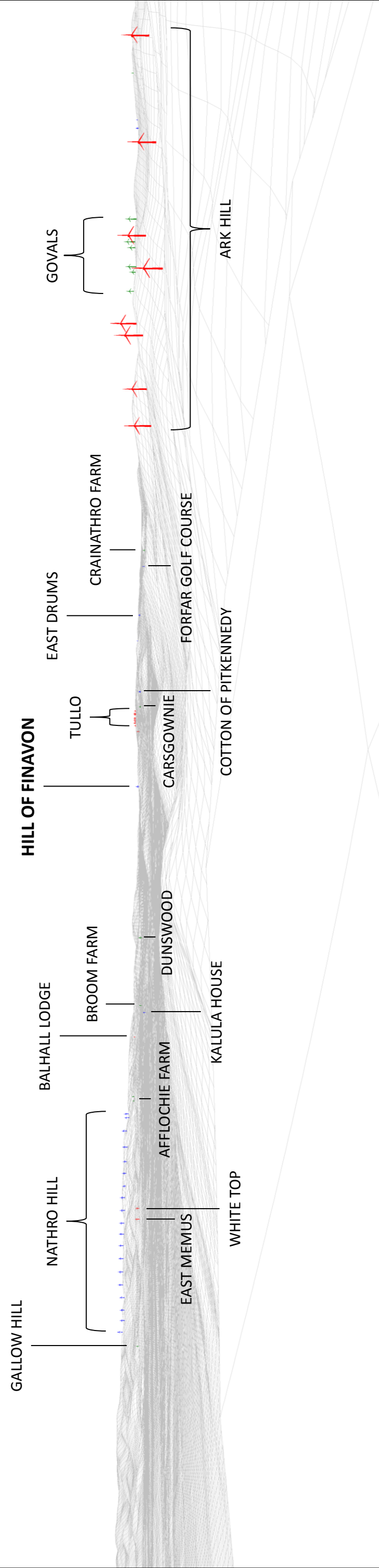


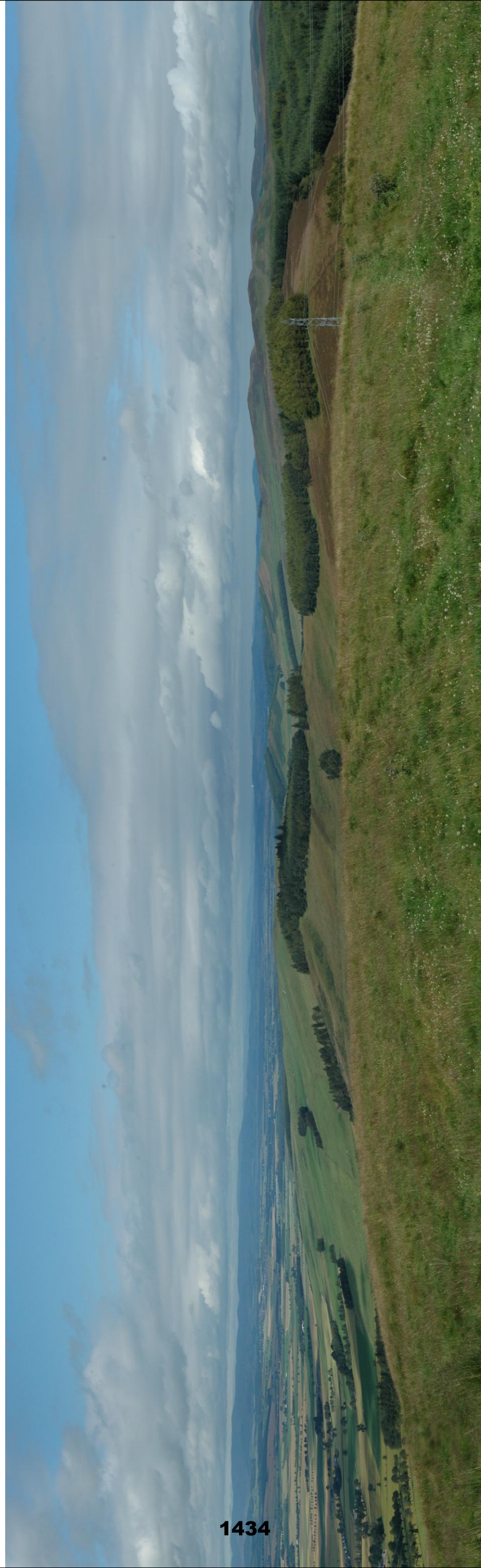
Client: Mr. J Sanderson (Finavon Estate) & Construction Partner
 Kilmac Construction Ltd
 Drawing by: Green Cat Renewables Ltd

Document Number: C0256-163/FIG 7.24
 Version: 1.0
 Author: AM
 Checked by: AW
 Approved By: AW
 Date: 11/08/2014

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1435

VP16 KINPURNEY HILL – SINGLE FRAME


Distance to nearest turbine: 21.3km Camera: Nikon D3000 Focal length: 35mm Camera height: 1.5m Date: 26/07/2011 Time: 15:50

When viewed at a comfortable arms length, this image is representative of the Maximum field of view of clear vision but is not representative of scale and distance

Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **VP17 - Glamis Castle**
 Scale: **1:50,000 @ A3**

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: **E338591 N748037**
 Viewpoint Elevation: **54m (A.O.D)**
 View Direction: **57°**
 Distance to Turbine: **12.5km**

Visibility: **1 Projects**

Camera Type: **Nikon D3000**
 Focal Length: **35mm**
 Effective Focal Length: **52mm**
 Date Taken: **10/02/2011**
 Time Taken: **11:15**
 Height above elevation: **1.5m**

Visual Impact

Magnitude: **High**
 Sensitivity: **Negligible**
 Overall: **Moderate/Minor**

Please note for a 76° field of view, a viewing distance of 300m is recommended.

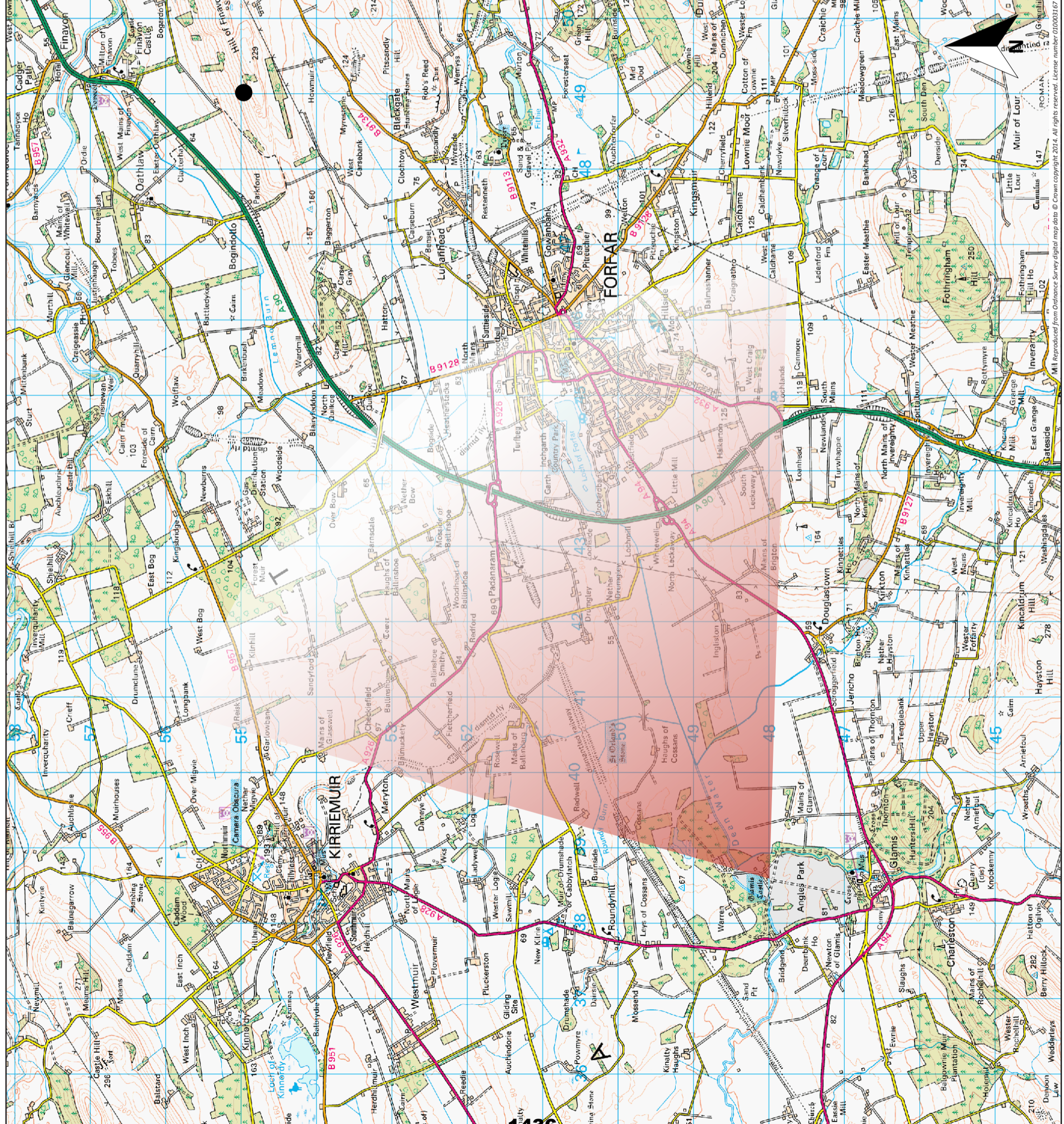


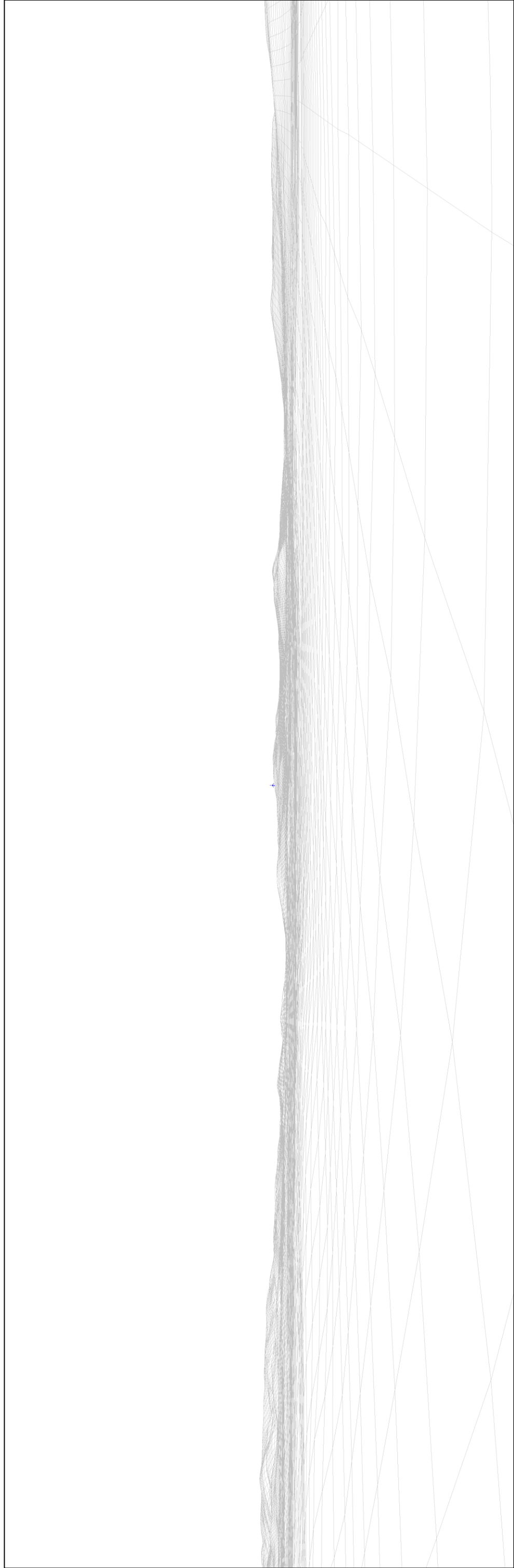
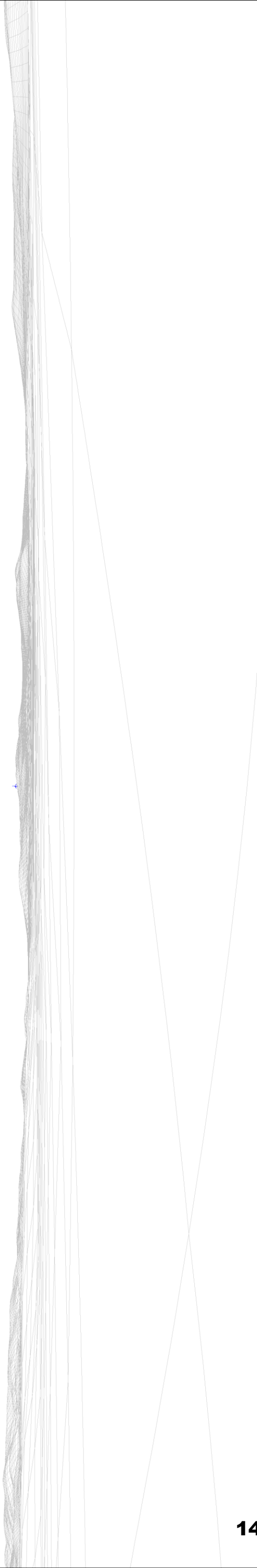
Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
 Kilmac Construction Ltd

Drawing by: **Green Cat Renewables Ltd**

Document Number: **C0256-163/FIG 7.25**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
 Date: **11/08/2014**

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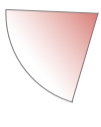




Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **VP18 - A90 Bridge North of Forfar**
 Scale: **1:50,000 @ A3**

Key:

- Proposed Turbine Location



76° Field of View

Viewpoint Information

Viewpoint Location: **E343656 N751650**
 Viewpoint Elevation: **66m (A.O.D)**
 View Direction: **61°**
 Distance to Turbine: **6.3km**

Visibility: **8 Projects**

Camera Type: **Nikon D3100**
 Focal Length: **35mm**
 Effective Focal Length: **52mm**
 Date Taken: **03/03/2014**
 Time Taken: **13:30**
 Height above elevation: **1.5m**

Visual Impact

Magnitude: **Low**
 Sensitivity: **Medium**
 Overall: **Moderate/Minor**

Please note for a 76° field of view, a viewing distance of 300m is recommended.



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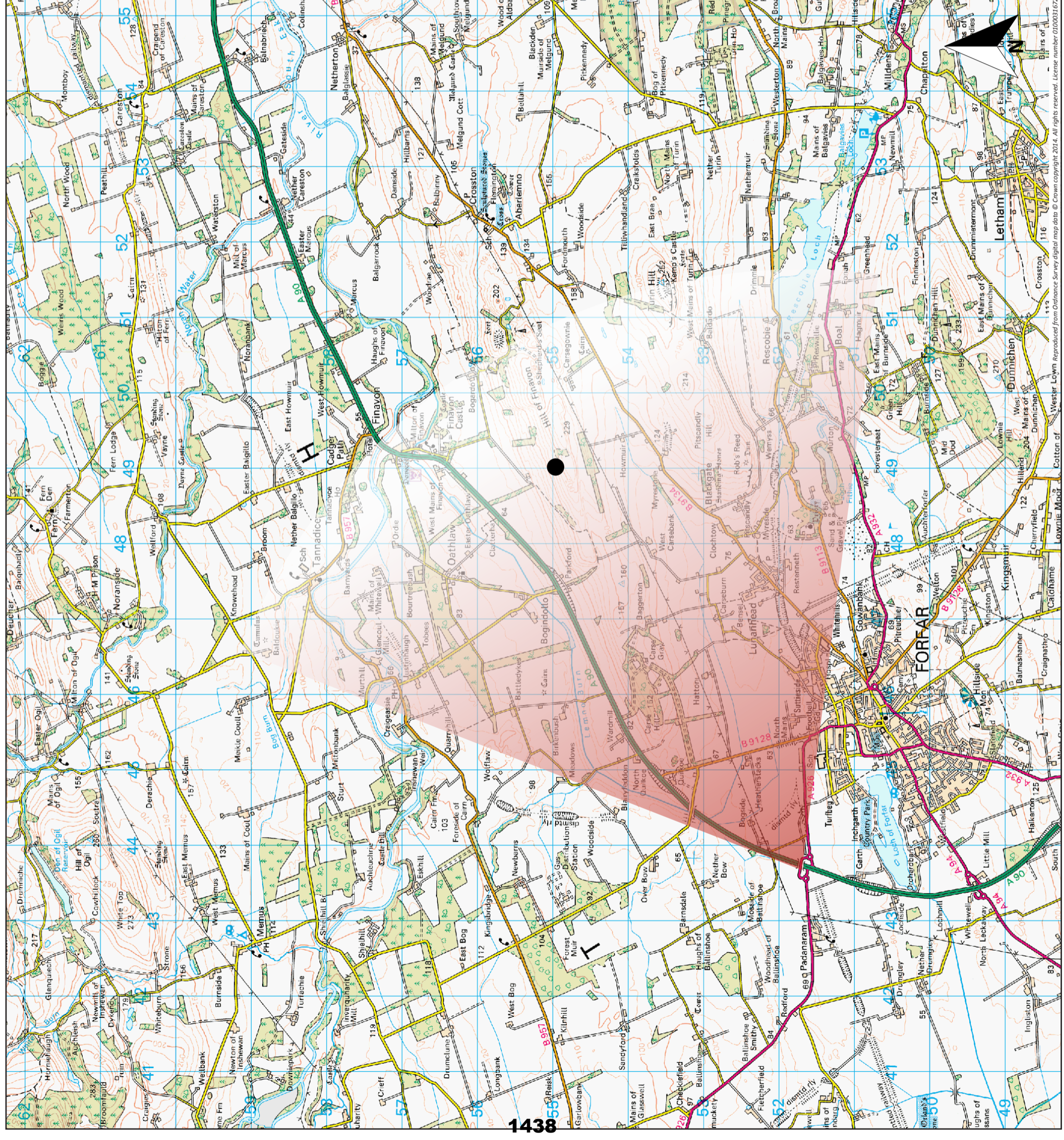
Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
 Kilmac Construction Ltd

Drawing by: **Green Cat Renewables Ltd**

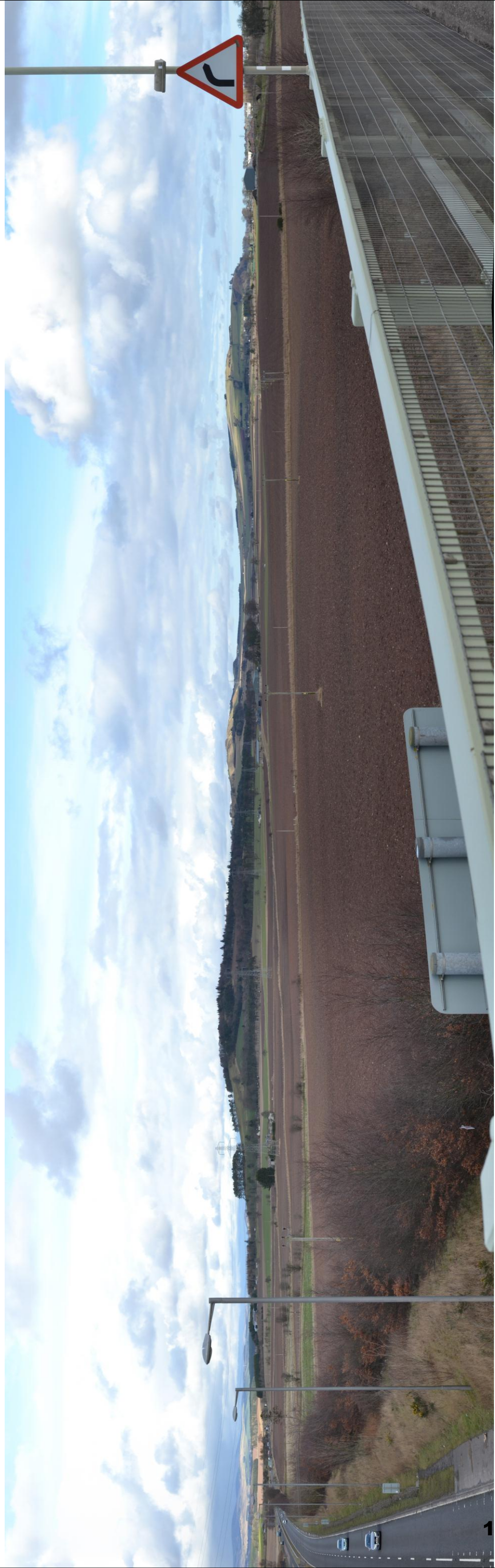
Document Number: **C0256-163/FIG 7.26**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
 Date: **11/08/2014**



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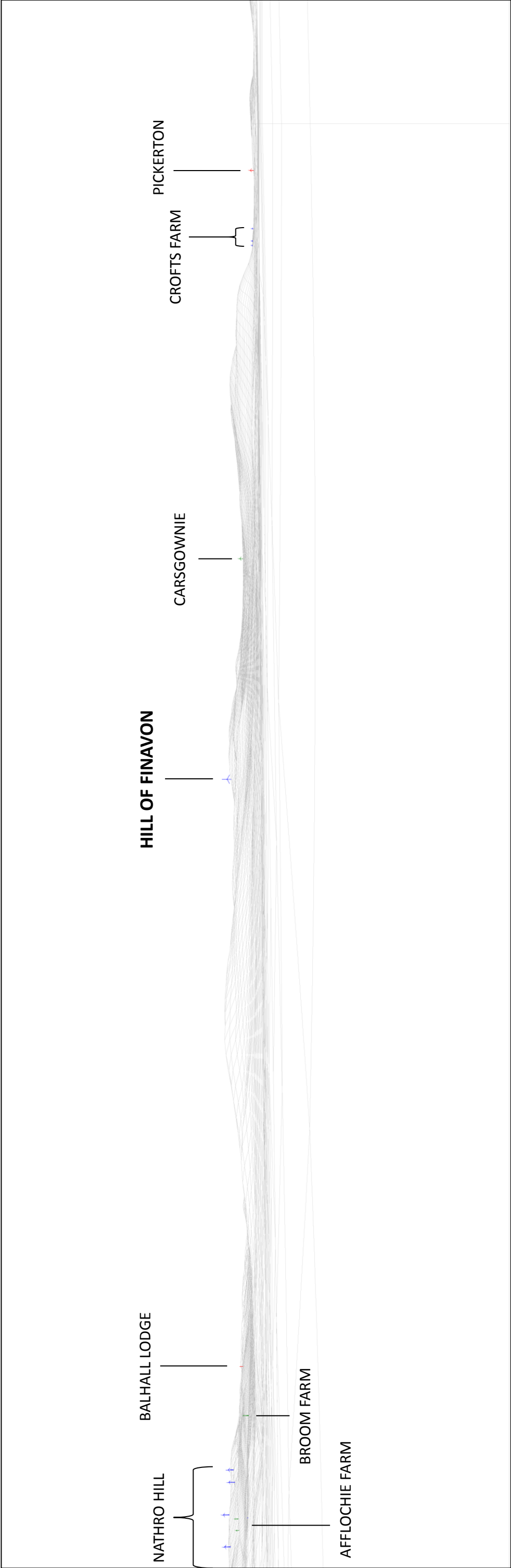


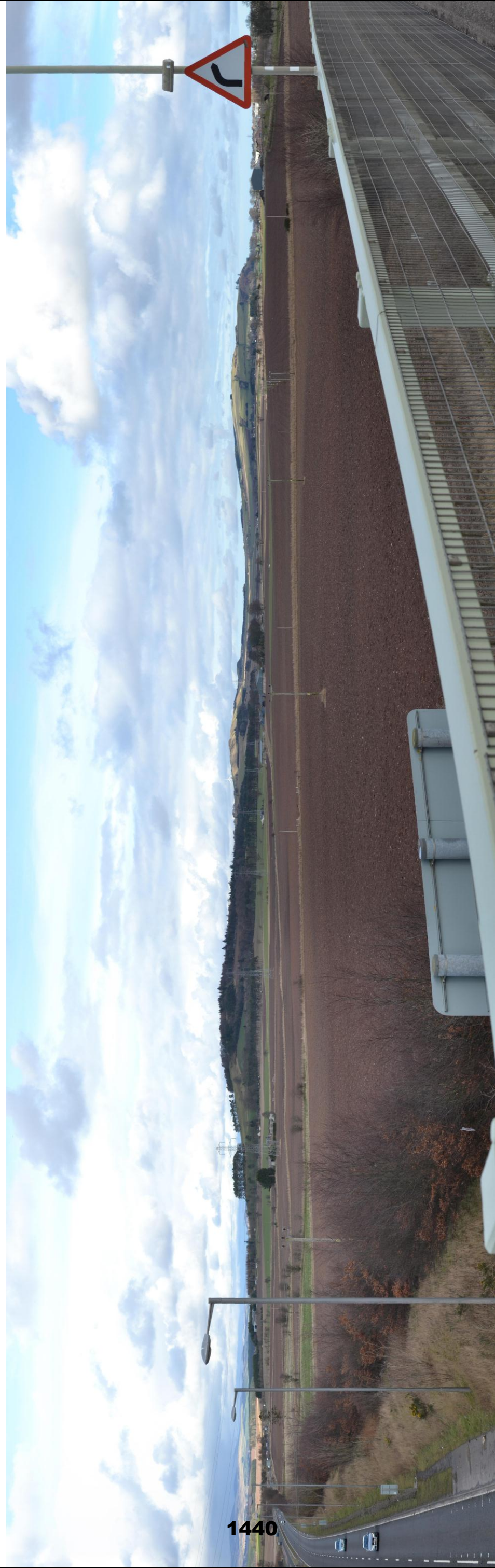
VP18 A90 BRIDGE NORTH OF FORFAR - PHOTOGRAPH OF EXISTING VIEW



1439

VP18 A90 BRIDGE NORTH OF FORFAR - WIRELINE DRAWING







VP18 A90 BRIDGE NORTH OF FORFAR – SINGLE FRAME

Distance to nearest turbine: 6.3km Camera: Nikon D3100 Focal length: 35mm Camera height: 1.5m Date: 03/03/2014 Time: 13:30

When viewed at a comfortable arms length, this image is representative of the Maximum field of view of clear vision but is not representative of scale and distance

Project Name: **Finavon Hill Estate Wind Turbine**
 Document Title: **Route Assessment**
 Scale: **1:250,000 @ A3**

Key:

- Proposed Wind Turbine Location
- 5, 10, 15, 20, 25 & 30km Radii from Wind Turbine
- 35km Landscape and Visual Study Area
- Zone of Theoretical Visibility

Route

- A90 between Tealing and Brechin
- B9134 between Forfar and Brechin
- B957 between Kirriemuir and Finavon

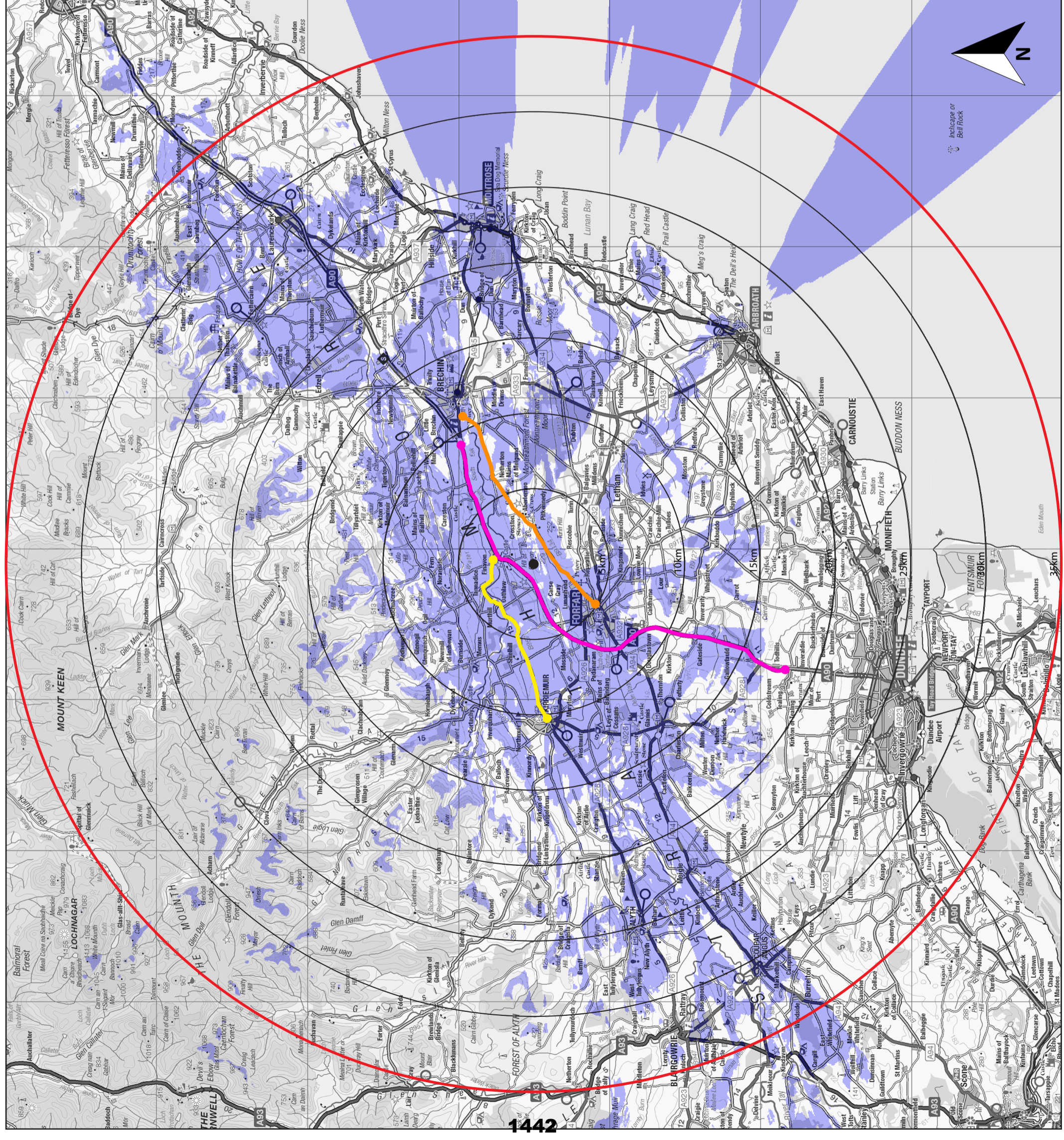


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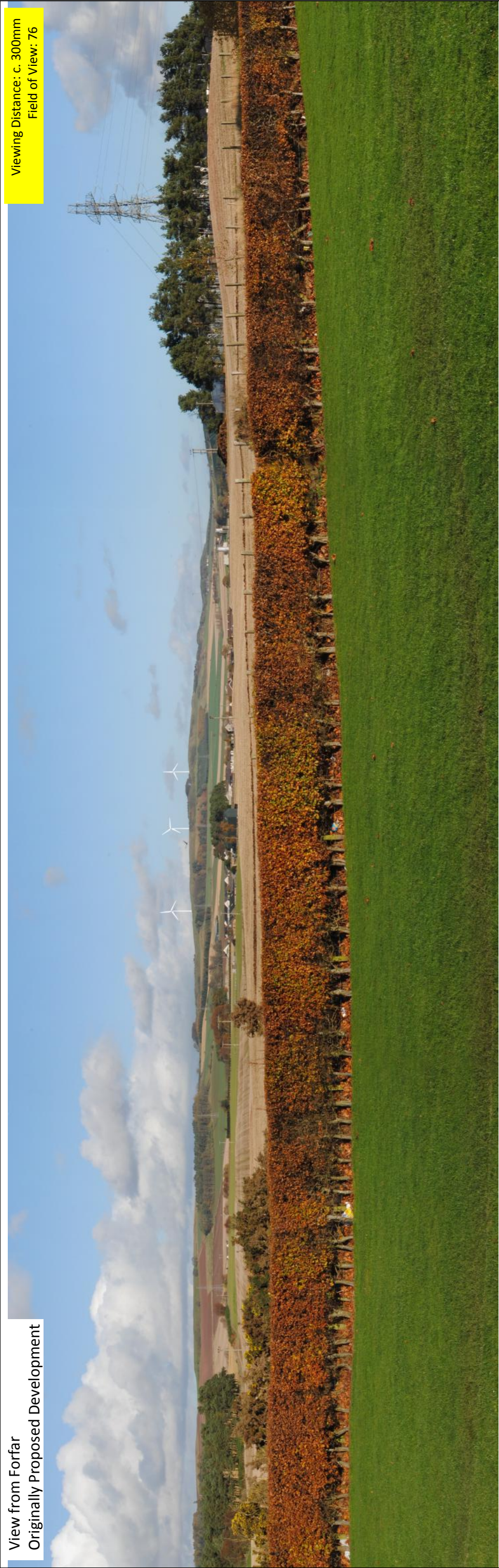
Client: **Mr. J Sanderson (Finavon Estate) & Construction Partner**
 Kilmac Construction Ltd
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **C0256-163/FIG 7.27**
 Version: **1.0**
 Author: **AM**
 Checked by: **AW**
 Approved By: **AW**
 Date: **11/08/2014**

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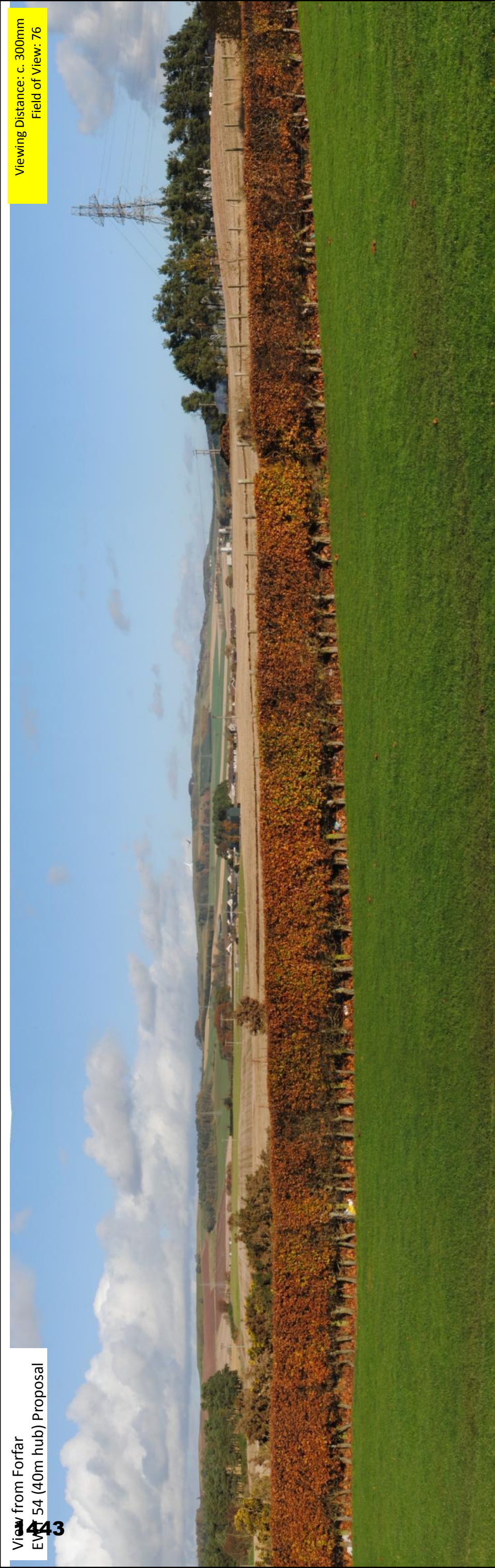


View from Forfar
Originally Proposed Development



Viewing Distance: c. 300mm
Field of View: 76

View from Forfar
EV 54 (40m hub) Proposal



Viewing Distance: c. 300mm
Field of View: 76

Project: **Finavon Hill**

Viewpoint: **Forfar**

Location: **E346837 N751629**
Elevation: **80m (A.O.D)**
View Direction: **35**
Distance: **3.6km**

Tip Height:
Visibility:
Date:
Time:

Camera:
Focal Length:
Eff. Focal Length:
Height above elev.:

Visual Impact
Sensitivity:
Magnitude:
Overall Impact:

Client
Kilmac Energy

Doc. No.:
Version:
Author:
Checked by:
Approved by:
Date:

View from B9134, Howmuir
Original Development Proposal



Viewing Distance: c. 300mm
Field of View: 76

View from B9134, Howmuir
EV 54 (40m hub) Proposal



Viewing Distance: c. 300mm
Field of View: 76

Project: **Finavon Hill**

Viewpoint: **B9134, Howmuir**

Location: **E349461 N753778**
Elevation: **133m (A.O.D)**
View Direction: **347**
Distance: **1.1km**

Tip Height:
Visibility:
Date:
Time:

Camera:
Focal Length:
Eff. Focal Length:
Height above elev.:

Visual Impact
Sensitivity:
Magnitude:
Overall Impact:

Client
Kilmac Energy

Doc. No.:
Version: 1.0
Author: GD
Checked by:
Approved by:
Date: 19/09/2013



View from West Mains of Finavon
Originally Proposed Development



Viewing Distance: c. 300mm
Field of View: 76

View from West Mains of Finavon
EV 54 (40m hub) Proposal
445



Viewing Distance: c. 300mm
Field of View: 76

Project: **Finavon Hill**

Viewpoint: **West Mains of Finavon**

Location: **E348949 N756324**
Elevation: **61m (A.O.D)**
View Direction: **173**
Distance: **1.5km**

Tip Height:
Visibility:
Date:
Time:

Camera:
Focal Length:
Eff. Focal Length:
Height above elev.:

Visual Impact
Sensitivity:
Magnitude:
Overall Impact:

Client
Kilmac Energy

Doc. No.:
Version:
Author:
Checked by:
Approved by:
Date:

0.1
GD

19/09/2013



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View from Bogindollo
Originally Proposed Development



Viewing Distance: c. 300mm
Field of View: 76

View from Bogindollo
EV 54 (40m hub) Proposal
446



Viewing Distance: c. 300mm
Field of View: 76

Project: **Finavon Hill**

Viewpoint: **Bogindollo**

Location: **E347361 N755464**
Elevation: **61m (A.O.D)**
View Direction: **109**
Distance: **1.5km (nearest turbine)**

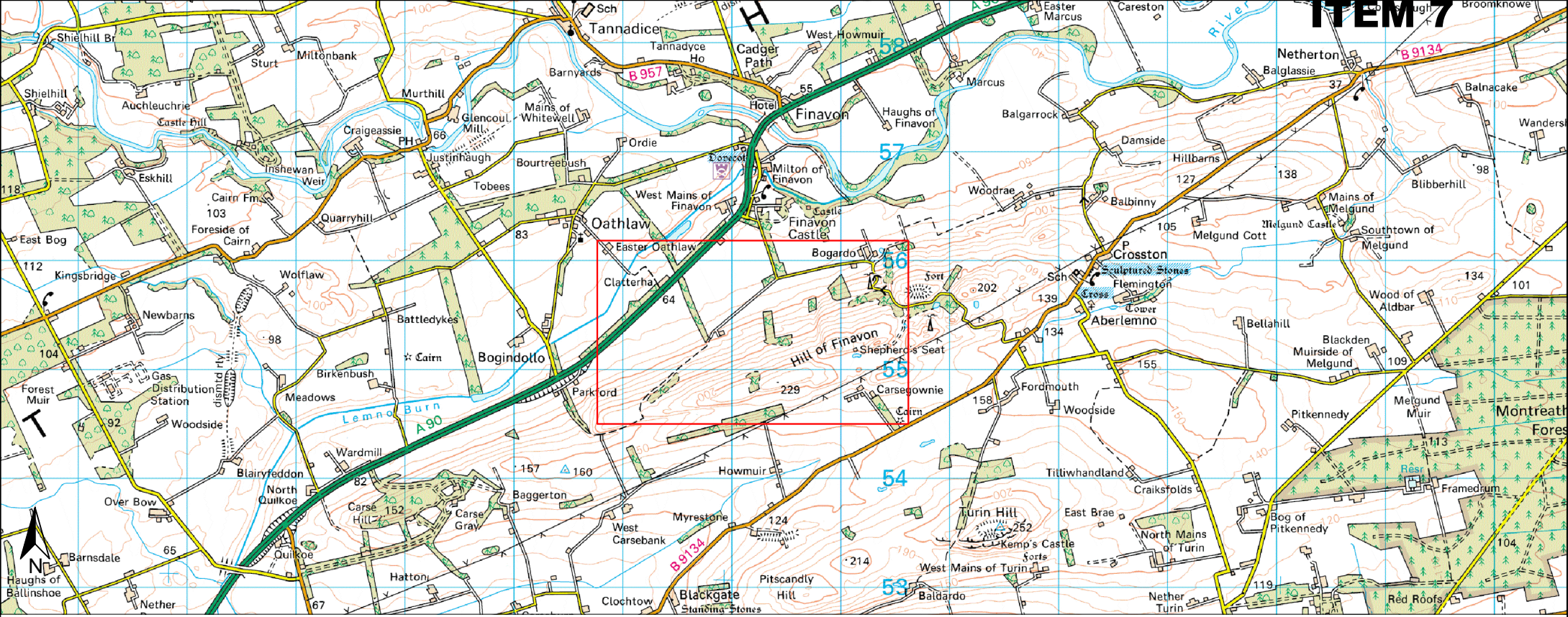
Tip Height:
Visibility:
Date:
Time:

Camera:
Focal Length:
Eff. Focal Length:
Height above elev.:

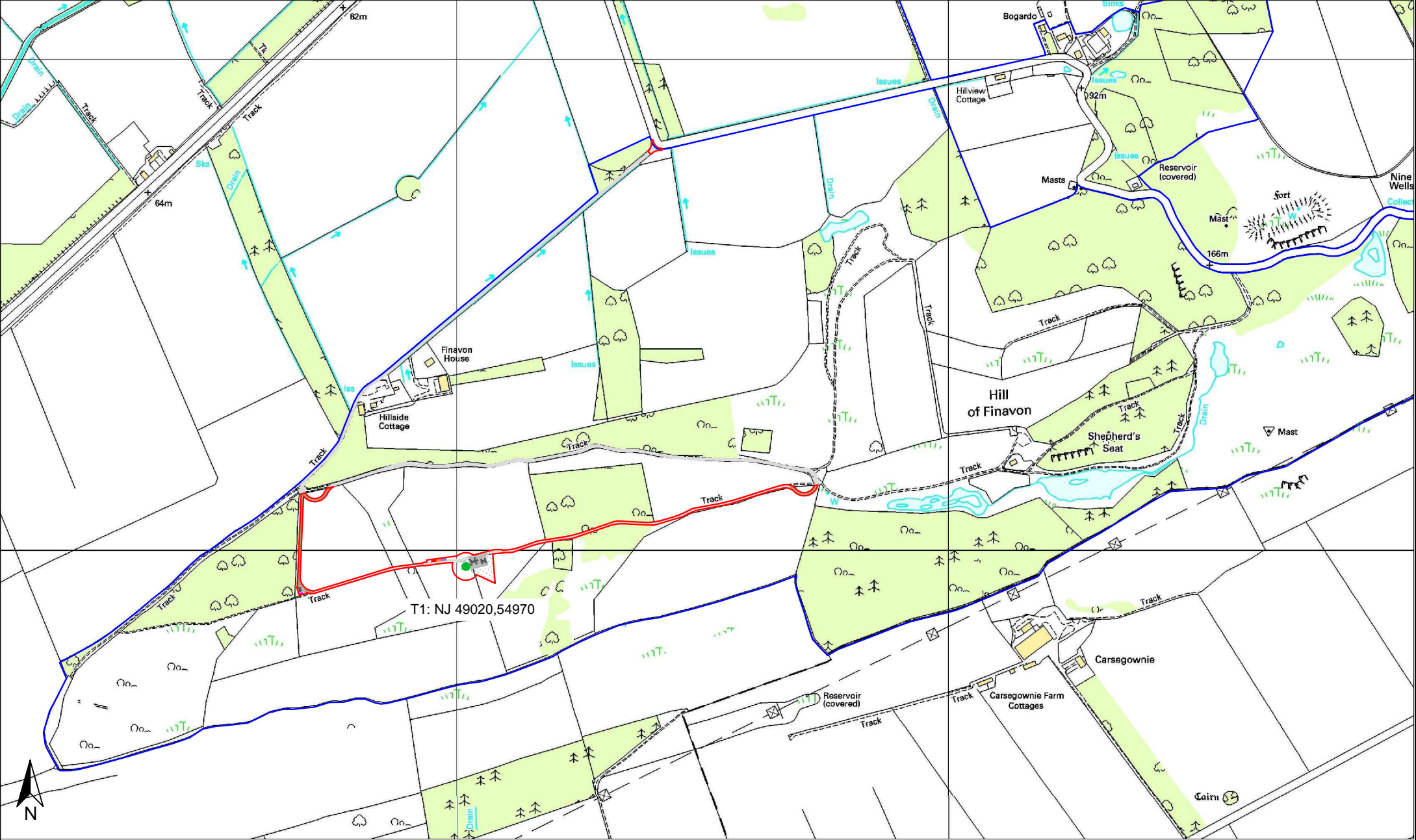
Visual Impact
Sensitivity:
Magnitude:
Overall Impact:

Client
Kilmac Energy

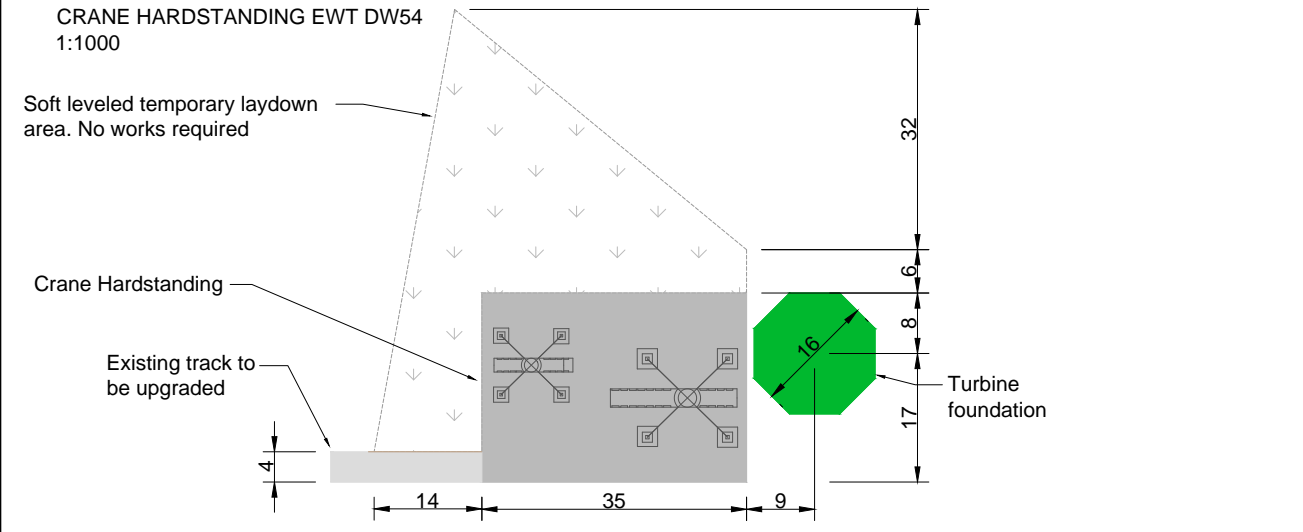
Doc. No.:
Version:
Author:
Checked by:
Approved by:
Date:



DEVELOPMENT SITE LOCATION - 1:50,000
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DEVELOPMENT LAYOUT - 1:10,000
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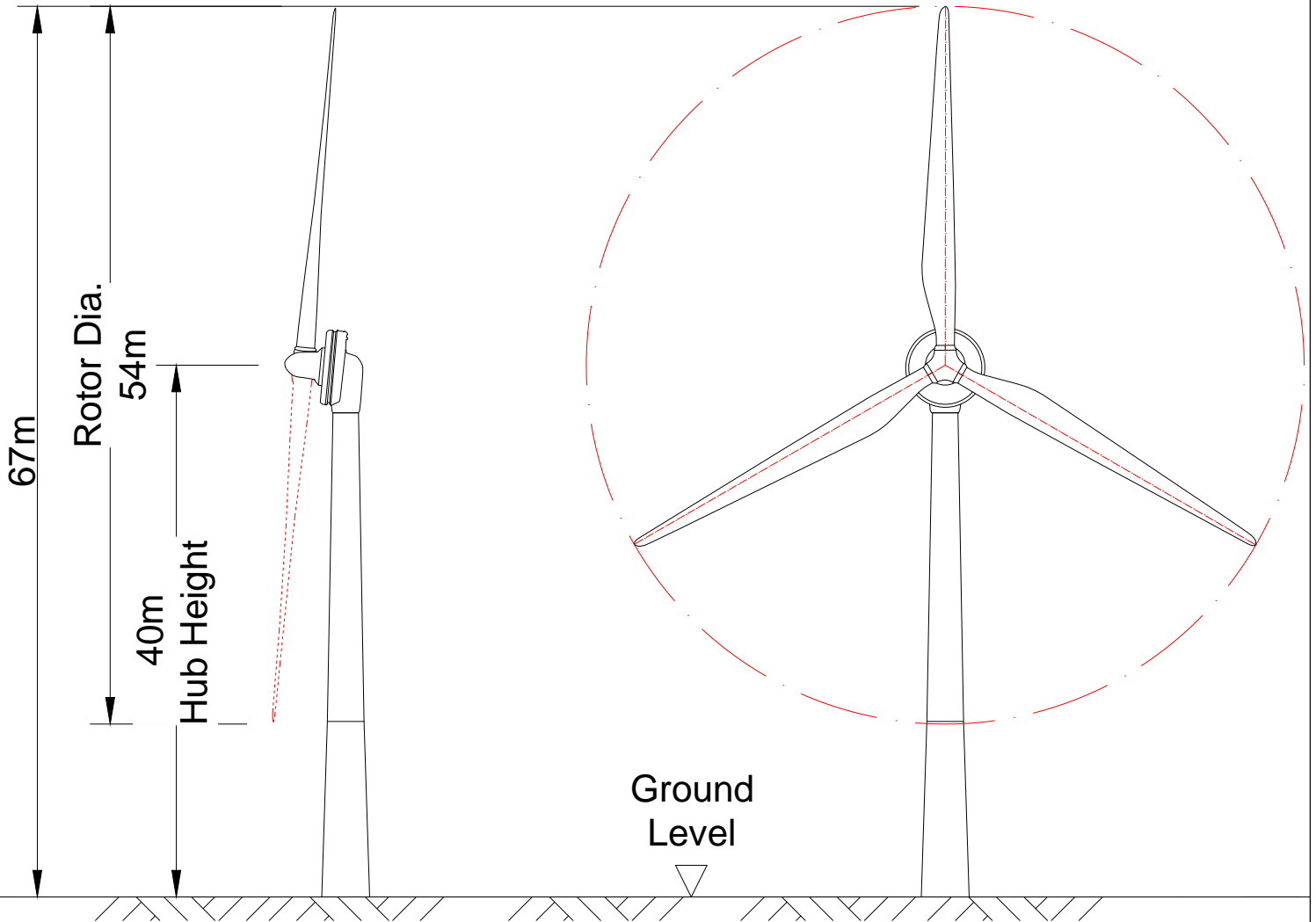
KEY

- PROPOSED TURBINE / FOUNDATION
- HARDSTANDING
- LAYDOWN AREA
- NEW ACCESS TRACK
- EXISTING TRACK TO BE UPGRADED
- APPLICATION BOUNDARY
- LAND OWNERSHIP BOUNDARY
- SUBSTATION
- CONSTRUCTION COMPOUND


TURBINE AND ACCESS TRACK APPLICATION AREA: 1.17 HECTARES

SITE ENTRANCE APPLICATION AREA: 0.03 HECTARES

Project Title: Finavon Hill Estate Wind Turbine	Date drawn: 17.09.14	Rev.	Date	Chk'd	Client: Mr. J Sanderson (Finavon Estate) & Construction Partner Kilmac Construction Ltd
Drawing Title: Planning Application - Site Plan	Drawn by: BC	-	-	-	<p>GREEN CAT RENEWABLES LTD Midlothian Innovation Centre, Pentlandsfield, Edinburgh, EH25 9RE. Tel: 0131 440 9053 www.greencatrenewables.co.uk</p>
Job No. C0256-163	Checked by: GD	-	-	-	
Drawing No. APP-100	Approved by: 1447	-	-	-	
Scale: Shown @ A3					



EWT DIRECTWIND 54 Hub 40m

Project Title: Finavon Hill Estate Wind Turbine			Date drawn: 19.09.14	Client: Mr. J Sanderson (Finavon Estate) & Construction Partner Kilmac Construction Ltd	GREEN CAT RENEWABLES LTD  Midlothian Innovation Centre, Pentlandfield, Edinburgh, EH25 9RE. Tel: 0131 440 9053 www.greencatrenewables.co.uk
Drawing Title: Turbine Elevation			Stage: Planning		
Job No. C0256-163	Drawing No. APP-002	Scale: 1:500 @A4	Drawn by: BC		
			Checked by: GD		
			Approved by: SE		

FAO GRAHAM DONNACHIE

**TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 (AS AMENDED)
THE TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT)
(SCOTLAND) REGULATIONS 2011
ERECTION OF 3 WIND TURBINES WITH A BLADE TIP OF 74M - FINAVON HILL,
FORFAR
ERECTION OF 1 WIND TURBINES WITH A BLADE TIP OF 77M**

I refer to your letter and report received on 23 July 2013 requesting (1) a Screening/Scoping Opinion and (2) the Council thoughts on a revised proposal based on 3 wind turbines with a tip height of 74m; and a single turbine of 77m. Firstly, I apologise for the delay in replying. I have attached the requested Screening Opinion to this email.

The submitted enquiry has been arrived at following consideration of the concerns raised by the Reporter appointed by Scottish Ministers in the determination of Planning Appeal PPA -120-2019 which was dismissed. The aforementioned appeal related to a proposal for 3 turbines of 99.5m to blade tip. The submitted proposal relates to (1) the erection of 3 turbines of 74m to blade tip; and (2) the erection of a single 77m to tip turbine.

My comments below relate primarily to the three turbine proposal, but many of the constraints identified would be equally applicable to a single turbine proposal in the same location. The Council's position on the development of a wind farm at this location is outlined in the Statement submitted by Angus Council to The Scottish Government (DPEA) for the last appeal at the site and these concerns would remain. From reviewing the Reporters decision notice against your submitted proposal I would offer the following response to your proposal focusing specifically on landscape character and visual impact.

Landscape Character

The Reporter concluded that the proposed turbines by reason of their height and location on a hill top ridge would be out of scale with this medium scale landscape. He found that when viewed from a long stretch of the A90 and certain settlements to the north-west, from various points on the B9134 and from Turin Hill, a recreational destination, the turbines would appear out of scale with the landscape and, as such, the proposals would be incompatible with the advice in the Council's Angus Windfarms Landscape Capacity and Cumulative Impacts Study which states that windfarm developments should avoid prominent visibility clashes of scale with the modest hill size.

You would be proposing to reduce the height of the turbines to 74m to blade tip and move their location slightly further north on Finavon Hill. It is considered that these amendments in the context of landscape character would not address the conclusions of the reporter. The 74m high turbines would still be out of proportion to the other elements of the landscape and

these would appear out of place in the medium scale landscape. The turbines would still be sited on a hill top ridge and would not be consistent with the underlying character of the area. A development of the nature proposed would give rise to similar issues that the Council and the Reporter found unacceptable and would give rise to similar development plan issues.

Visual Impact

The Reporter considered that the proposals would have an unacceptable adverse visual impact on 13 residential properties located within a radius of 2km from the proposed turbines. The proposed turbines would also have an unacceptable impact on views from other residential properties situated on the edge of Forfar, at Bogindollo, and on the view from Turin Hill. Therefore, he concluded that the proposals would conflict with development plan policy.

In this case, I do not consider that your current proposal has addressed the concerns of the Council or the Reporter. I remain of the view that turbines of the height proposed would not comply with the development plan for the reasons set out by Angus Council and by the Reporter and, on that basis, I consider it likely that this department would refuse a planning application for the development.

Other matters

Whilst this proposal reduces the height of the turbines to 74m, my Council would be required to consider the revised proposal in the context of Section 39 of the Town and Country Planning (Scotland) Act 1997 (as amended) as to whether it would be appropriate to decline to determine an application. An application of the nature outlined by you would be similar to that which has recently been refused by the council and a government reporter and there has been no change in the development plan since that determination.

The Council has recently commissioned a Strategic Landscape Capacity Assessment for Wind Energy in Angus in partnership with SNH. While that document remains in draft form and is yet to be published, the emerging document indicates that this general area could accommodate turbines of up to 50 metres only. It is likely to indicate that turbines should be located away from the smaller scale hills and hill slopes to avoid diminishing the apparent scale of the slopes or breaking the skyline. The Council Implementation Guide constraint of avoiding development on the principal ridgelines would also remain.

On the basis of the above factors, I would strongly recommend that you reconsider pursuing a wind turbine development in this location.

Whilst enquiries and pre-application discussions are encouraged, it should be stressed that the above advice is given without the benefit of a site visit and external consultations or full and comprehensive information and as such the expressed opinion is given without prejudice and is not binding upon the council.

I trust this answers your enquiry.

Regards

Neil Duthie
Planning Officer (Development Standards)
Communities
Planning & Transport Division
Angus Council
County Buildings
Market Street
Forfar
DD8 3LG

**TOWN AND COUNTRY PLANNING
ENVIRONMENTAL IMPACT ASSESSMENT (SCOTLAND)
REGULATIONS 2011**

SCREENING OPINION

**ERECTION OF A WIND DEVELOPMENT COMPRISING THREE TURBINES OF 74M TO
BLADE TIP ON LAND AT FINAVON HILL, BY FORFAR**

SEPTEMBER 2013

Green Cat Renewables has requested a Screening Opinion under the above Regulations in connection with the above proposal. This Screening Opinion has been formed taking account of the criteria detailed in Schedule 3 of the above Regulations.

- 1 The proposed development would not fall within Schedule 1 of the Regulations where EIA is mandatory.
- 2 In terms of Schedule 2 of the above Regulations, the proposal falls within Schedule 2 under (3) Energy Industry, (i) installations for the harnessing of wind power for energy production (wind farms);
- 3 The proposal does not fall within a sensitive area, e.g. SAC, SPA, SSSI, National Park, World Heritage Site or Scheduled Monument etc
- 4 The proposal exceeds the threshold of 3(i)(ii) of Schedule 2 because the hub height of the turbine exceeds 15 metres;
- 5 Is this Schedule 2 development 'likely to have significant effects on the environment?' This judgement requires consideration of the proposal in the context of the Schedule 3 criteria which form part of the Regulations. The relevant tests include (1) characteristics of the development; (2) location of the development; and (3) characteristics of the potential impact.
- 6 The **characteristics of the development** are such that the proposal is unlikely to have significant environmental effects. The turbine number (3) and size at 77 metres are unlikely to attract any unusual environmental effects. The **location of the development** is not environmentally sensitive in respect of the existing or proposed land use, absorption capacity of the site or population density. The **characteristics of the impact** are not of significant complexity or extent to have a significant environmental effect.

- 7 In **conclusion**, Angus Council considers that the development is unlikely to lead to significant environmental effects for the reasoning detailed above. Following the methodology for establishing whether a development requires environmental impact assessment as defined by Circular 3/2011 and the 2011 Regulations, it is concluded that the development does not constitute an EIA development.

ENVIRONMENTAL IMPACT ASSESSMENT NOT REQUIRED.

□

Your Ref
Our Ref 14/00827/FULL

7 October 2014

Green Cat Renewables Ltd
FAO Graham Donnachie
Stobo House
Midlothian Innovation Centre
Roslin
EH25 9RE

COMMUNITIES
Strategic Director:
Alan McKeown

Dear Sir/Madam

Town and Country Planning (Scotland) Act 1997 (As Amended)
Planning Application Reference : 14/00827/FULL

I acknowledge receipt of your application for planning permission received on **26 September 2014** and registered on **7 October 2014** for **Erection of a Wind Turbine of 40 metres to Hub Height and 67m to Blade Tip and Ancillary Development.** at **Field 450M South Of Finavon House Finavon Forfar** . I acknowledge receipt of your planning fee of **£4584**.

In addition your application requires to be advertised. The Town and Country Planning (Charges for Publication of Notices) Regulations 2009 indicate that the Council is required to charge the cost of that advertisement to the applicant. The Council has determined that the cost of the advertisement is £100.

You should note that the Council is not permitted to determine the application until such time as payment is made. You can pay now but no later than 21 days after the application has been registered. The application will be dispatched for advertising on the day of registration.

If you require any assistance or information on the progress of your application, please contact **Neil Duthie** on telephone number **01307 473229** approximately four weeks after the date of this letter. Your application will be assessed in relation to National and Council policies subject to any necessary consultations being carried out. Applications cannot be determined by the Authority until this process has been completed. Your application cannot be determined in less than 21 days of its registration in order to allow neighbours and other interested parties a period of time to comment. This time period may be extended in some cases e.g. if there is a requirement to advertise the application.

You may expect a determination on your application within two months of registration. The target date for this application is **6 December 2014**. It is intended that your application will be determined by delegated decision however in certain circumstances your application may require to be considered by the Development Standards Committee. If it does you will be advised of the date of the meeting at which it will be considered approximately one week in advance.

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If you have not received formal notification of the decision on your application by **6 December 2014** and your application is to be determined by delegated decision, you may ask for the application to be reviewed by the Council's Local Review Body. The local review should be made in accordance with Section 43A of the above Act by notice sent within three months of the target date specified above. The target date cannot be extended. Further information on the relevant means of an appeal in respect of applications will be provided when the application is decided and can also be made available on request.

You can apply for a review on the basis of non-determination by downloading the forms from www.angus.gov.uk. Alternatively please telephone Committee Services on 01307 476265.

Before applying for a review on the basis of non-determination you are advised to contact the case officer to ensure that your application is of a category that can be considered by the Council's Local Review Body.

If calling or telephoning please ask for Neil Duthie on 01307 473229 or e-mail DuthieNG@angus.gov.uk

Yours faithfully,

Iain Mitchell
Service Manager
Planning

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TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997
(AS AMENDED)
TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE)
(SCOTLAND)
REGULATIONS 2013

PLANNING PERMISSION REFUSAL
REFERENCE 14/00827/FULL

To **Finavon Hill Estate & Kilmac Construction**
c/o Green Cat Renewables Ltd
FAO Graham Donnachie
Stobo House
Midlothian Innovation Centre
Roslin
EH25 9RE

With reference to your application dated 7 October 2014 for planning permission under the above mentioned Acts and Regulations for the following development, viz.:-

Erection of a Wind Turbine of 40 metres to Hub Height and 67m to Blade Tip and Ancillary Development at Field 450M South Of Finavon House Finavon Forfar for Finavon Hill Estate & Kilmac Construction

The Angus Council in exercise of their powers under the above mentioned Acts and Regulations hereby **Refuse Planning Permission (Delegated Decision)** for the said development in accordance with the particulars given in the application and plans docquetted as relative hereto in paper or identified as refused on the Public Access portal.

The reasons for the Council's decision are:-

- 1 That the proposal is contrary to Policy ER5(a) of the Angus Local Plan Review (2009) because the site selected would not be capable of absorbing the proposed development to ensure that it fits into the landscape; and is contrary to Policy ER34(b) of the Angus Local Plan Review (2009) because the proposed turbine would result in unacceptable adverse landscape impacts having regard to landscape character, setting within the immediate and wider landscape, and sensitive viewpoints.

Amendments:

- 1 This application for planning permission has not been subject of variation.

Dated this **11 March 2015**

Iain Mitchell - Service Manager
Angus Council
Communities
Planning
County Buildings
Market Street
FORFAR
DD8 3LG

Angus Council

Application Number:	14/00827/FULL
Description of Development:	Erection of a Wind Turbine of 40 metres to Hub Height and 67m to Blade Tip and Ancillary Development
Site Address:	Field 450M South Of Finavon House Finavon Forfar
Grid Ref:	349020 : 754970
Applicant Name:	Finavon Hill Estate & Kilmac Construction

Report of Handling

Site Description

The application site measures approximately 1.2ha and is located on agricultural land on the north-facing slopes of Finavon Hill, to the north-east of Forfar and approximately 1km to the south-east of the A90. The application site lies just down from the ridge of Finavon Hill and there are tree belts to the east, west and north of the application site.

Proposal

The proposal involves the installation of a single wind turbine of 40m to hub height and 67m to blade tip and associated infrastructure, including a new access track, crane hardstanding area and small cabin close to the base of the turbine. The proposed turbine would be an EWT Directwind 54 500kW with an estimated annual generating capacity of 1800MWh. The wind turbine would be finished in a pale grey colour and a semi-matt finish. The access track to the site would involve the upgrading of approximately 2.5km of existing access track and the addition of approximately 350m of new track.

This application for planning permission has not been subject of variation.

Publicity

The application was subject to normal neighbour notification procedures.

The application was advertised in the Dundee Courier on 17 October 2014 for the following reasons:

- Schedule 3 Development

The nature of the proposal did not require a site notice to be posted.

Planning History

A planning application was received for erection of 3 wind turbines (99.5m to blade tip) close to the current application site. That proposal was subject to a planning appeal prior to a decision being taken on the application. The planning appeal was dismissed by a Reporter appointed by the Scottish Government on 26 October 2012 (ref. 12/00002/EIAL applies) because it was judged to be contrary to policies S1(b), S6, ER5 and ER34(b) of the Angus Local Plan Review (2009) and was not considered to be justified in relation to the requirements of policy 6 of TAYplan.

Planning permission has also been granted for the erection of a 50m high wind-speed monitoring mast on a nearby site (refs 11/00565/FULL & 13/01101/FULL).

Applicant's Case

The applicant has submitted the following documents to support the application:-

1. An Environmental Report which includes ZTV's, viewpoints and wirelines of the proposed turbine;
2. A Supporting Statement; and
3. A Socio-Economic Impact Assessment.

The Environmental Report (ER) assesses the local environmental impacts of the proposed turbine. The ER includes chapters on (1) Introduction (including development background); (2) The Proposed Development; (3) Planning and Environmental Policy Context; (4) Local Economic Benefits; (5) Project Design Considerations; (6) Ecology and Ornithology; (7) Landscape and Visual Impact; (8) Noise; (9) Cultural Heritage/Archaeology; (10) Surface and Groundwater Hydrology; (11) Existing Infrastructure, Telecommunications, Television, Aviation and Electromagnetic Interference; and (12) Shadow Flicker. The ER indicates that the proposal has been revised following a consideration of the reasons for refusal for the earlier proposal for 3 wind turbines. The ER indicates that the revised development has reached the point at which any further reductions in elevation or turbine size would have a dramatic impact on the efficiency of the wind turbine and the viability of the development.

The Supporting Statement highlights the significant personal investments made by the estate owner since the estate was purchased in 1993. It highlights that the proposed turbine would help secure the future of the estate and permit further investment in farming and the construction of a sporting lodge. It would permit the employment of additional staff and allow the part retirement of the estate owner. The other turbine partner is a locally based company who employs over 100 people and provides apprenticeships across Tayside. The statement indicates that the magnitude of changes adopted by the proposal, in comparison with the original proposal for three higher wind turbines, must be given due weight and consideration. It is also considered that the issues raised by the Scottish Government Reporter, for the previously dismissed appeal for 3 turbines nearby, have been suitably addressed by the current application. The supporting statement indicates that over the lifetime of the development the planning context of the site has distinctly changed in terms of landscape capacity recommendations. The statement includes letters of support from other local businesses including Laird Brothers, Nixon Hire, W. F Barker Joiners and Builders, Cotside Quarry, Bogindollo Farm, Finavon Hotel, Finavon Castle Water fishery, D Geddes and Keyline.

The Socio-Economic Impact Assessment (SEIA) indicates that the Finavon Hill Estate is a well-established sporting estate attracting over 250 visitors per annum. The estate brings footfall and expenditure to the area, which in turn has a direct positive affect on tourism related sectors. Finavon Hill Estate is active during the traditionally quieter low season for other tourism operators and, therefore, nearby services benefit during these normally quieter tourist periods. The proposed wind turbine for the estate would contribute to its continued progression, including employment and salaries at the estate. The SEIA highlights the economic benefits of the construction process and ongoing operational and maintenance impacts. It indicates that the proposal would result in the long term impacts of economic wealth (gross value added) of £4.5m and disposable income of £2.2m. It would support on site impacts of 11 net FTE jobs and construction impacts of 3 net person year equivalent jobs.

Consultations

Atkins - No objection.

Transport Scotland - No objections, on the understanding that the route for the turbine delivery is given prior approval including any temporary traffic management measures proposed.

Angus Council - Flood Prevention - Notes that the proposed turbine lies out-with the medium probability flood envelope of the Lemno Water as given on SEPA's indicative 1:200 year flood map so will not be at risk of flooding from this source. The Roads Service suggests that all access roads and areas of hard-standing used in construction, operation and decommissioning should be drained by suitable SUDs

systems to prevent increased run off rates or pollution entering downstream receiving waters.

Angus Council Environmental Health - has no objection to the proposal provided conditions are attached to any planning permission to regulate noise and shadow flicker. Environmental Health notes that an increased noise limit would be allowed for both Finavon House and Finavon Cottage provided they both have a financial interest in the proposed development.

Ministry Of Defence - This consultee has raised no objections, on condition that the turbine is fitted with aviation safety lighting and details of the dates of construction period, maximum height of construction equipment and exact location of the turbine are sent to them for their records.

Aberdeenshire Council Archaeology Service - notes that the proposed turbine occupies an area in close proximity to the archaeology site NO45SE0074, a cup marked stone thought to date to the prehistoric period. They have advised that a condition should be applied to any planning permission in order to protect this feature from accidental damage during development works.

Historic Scotland - Archaeology - Historic Scotland acknowledges the impact of the proposal on the settings of the Finavon Hill Fort and Turin Hill Fort (Scheduled Ancient Monuments), but considers that impact to be limited and localised. Consequently, they do not consider the proposed development will adversely affect the way in which these monuments are understood, appreciated and experienced to such an extent that issues of national significance are involved.

RSPB Scotland - Has examined the relevant ecological chapters of the planning application and has no specific comments.

NERL Safeguarding - The proposed development has been examined from a technical safeguarding aspect and does not conflict with safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company ("NERL") has no safeguarding objection to the proposal

Civil Aviation Authority - Has requested that consultations are sent to NATS and MOD but has not objected to the proposal.

Dundee Airport Ltd - Has confirmed that its calculations show that, at the given position and height, this development would not infringe the safeguarding surfaces for Dundee Airport.

Joint Radio Co Ltd - This consultee has raised no objections to the proposals.

Natural & Built Environment - Landscape - Has indicated that the height and positioning of the proposed turbine would be inconsistent with council guidance relating to the landscape character of the Forfar Hills and has indicated that a turbine of this size and in this location would result in significant adverse landscape impacts.

Countryside Access Officer - No objection provided that a condition of planning permission is imposed requiring details of how public access will be managed during construction and on completion of development.

Scottish Environment Protection Agency - There was no response from this consultee at the time of report preparation.

Spectrum - There was no response from this consultee at the time of report preparation.

BBC - There was no response from this consultee at the time of report preparation.

Community Council - There was no response from this consultee at the time of report preparation.

Angus Council - Roads - The Roads Service notes that turbine components would be delivered from

Aberdeen by special turbine delivery vehicles using extended trailers for the turbine blades which would be approximately 24m in length. Since only 1 turbine is proposed the volume of these trips would be limited to 6 only. Consequently, the majority of vehicular traffic generated by the proposal will result from construction traffic. The Roads Service has no objections to the proposed development but recommend that any consent granted shall be subject to conditions requiring construction traffic management details.

Scottish Water - There was no response from this consultee at the time of report preparation.

Representations

159 letters of representation were received, of which 1 offered comments which neither supported nor objected to the proposal, 30 objected to the proposal and 128 supported the proposal.

Points in objection:-

- Adverse effects on the historic environment around the proposed turbine;
- Proposals would be contrary to development plan policy and Council/National advice;
- Approval would set an undesirable precedent for similar proposals nearby;
- Adverse effects on landscape and visual amenity;
- Claims of carbon saving through the proposals cannot be substantiated;
- The socio/economic benefits claimed cannot be substantiated;
- Adverse effects on existing residential amenity through noise, shadow flicker and visual intrusion;
- Adverse effects on the cumulative visual impact of the development;
- Public access to Finavon Hill is currently virtually impossible due to access gates being kept locked at all times;
- Adverse effects on tourism.

These matters are discussed in the Assessment below.

- Previous dismissal of appeal for 3 wind turbines close to this site should result in the current proposals also being refused. Comment:- the current application is materially different from the previous scheme that was refused. It requires to be assessed on its own merits having regard to development plan policy and other material considerations. The previous refusal is of some materiality in the determination of this application;
- Adverse effects on public health - The Scottish Government's Specific Advice Sheet on Onshore Wind indicates that a recent report prepared for the Department of Energy and Climate Change concluded that there is no evidence of health effects arising from infrasound or low frequency noise generated by wind turbines. I do not consider that the proposal should give rise to any other significant health issues provided it is capable of complying with relevant conditions in relation to matters such as noise levels and shadow flicker;
- The letters of support, which are primarily pre-printed letters, should be disregarded as the turbine will not be beneficial to the local economy post-construction. Comment:- Economic and environmental benefits and disbenefits are considered in the assessment below..

Points in Support:

- The proposals will provide diversification for the established shooting and farming estate, which attracts visitors to the area;
- The proposals will not have an adverse effect on landscape and visual interests;
- Local contractors, businesses and suppliers will benefit from the proposals, which are a joint venture of two local companies;
- The proposals will not have an adverse effect on existing residential amenity;
- Good wind speed will be provided in this location;
- Existing employment on this estate will be safeguarded and the new shooting lodge will be able to be

progressed;

- The application site is not within a designated sensitive area;
- There are already many wind turbines on hilltops on the route to Aberdeen, which can be seen for miles.

These matters are discussed in the Assessment below.

Development Plan Policies

Angus Local Plan Review 2009

Policy S1 : Development Boundaries
Policy S3 : Design Quality
Policy S6 : Development Principles (Schedule 1)
Policy ER4 : Wider Natural Heritage and Biodiversity
Policy ER5 : Conservation of Landscape Character
Policy ER11 : Noise Pollution
Policy ER16 : Development Affecting the Setting of a Listed Building
Policy ER18 : Archaeological Sites of National Importance
Policy ER19 : Archaeological Sites of Local Importance
Policy ER20 : Historic Landscapes and Designed Landscapes
Policy ER30 : Agricultural Land
Policy ER34 : Renewable Energy Developments
Policy ER35 : Wind Energy Developments

TAYplan Strategic Development plan

Policy 3D : Natural and Historic Assets
Policy 6 : Energy and Waste/Resource Management Infrastructure

The full text of the relevant development plan policies can be viewed at Appendix 1 to this report.

Assessment

Sections 25 and 37(2) of the Town and Country Planning (Scotland) Act 1997 require that planning decisions be made in accordance with the development plan unless material considerations indicate otherwise.

In this case the development plan comprises: -

- . TAYplan (Approved 2012)
- . Angus Local Plan Review (Adopted 2009)

The relevant policies of the development plan are reproduced at Appendix 1.

Angus Council is progressing with preparation of a Local Development Plan to provide up to date Development Plan coverage for Angus. When adopted, the Angus Local Development Plan (ALDP) will replace the current adopted Angus Local Plan Review (ALPR). The Draft Proposed Angus Local Development Plan was considered by Angus Council at its meeting on 11 December with a view to it being approved and published as the Proposed ALDP for a statutory period for representations. The Draft Proposed ALDP sets out policies and proposals for the 2016-2026 period consistent with the strategic framework provided by the approved TAYplan SDP (June 2012) and Scottish Planning Policy (SPP) published in June 2014. The Proposed ALDP, as approved by Angus Council, will be subject to a 9 week period for representation commencing in February 2015. Any unresolved representations received during this statutory consultation period are likely to be considered at an Examination by an independent Reporter appointed by Scottish Ministers. The Council must accept the conclusions and recommendations of the Reporter before proceeding to adopt the plan. Only in exceptional circumstances can the Council choose

not to do this. The Proposed ALDP represents Angus Council's settled view in relation to the appropriate use of land within the Council area. As such, it will be a material consideration in the determination of planning applications. The Proposed ALDP is, however, at a stage in the statutory process of preparation where it may be subject to further modification. Limited weight can therefore currently be attached to its contents. This may change following the period of representation when the level and significance of any objection to policies and proposals of the plan will be known.

In addition to the development plan a number of matters are also relevant to the consideration of the application and these include: -

- . National Planning Framework for Scotland 3 (NPF3);
- . Scottish Planning Policy (SPP);
- . Scottish Government 'Specific Advice Sheet' on Onshore Wind Turbines;
- . Tayside Landscape Character Assessment;
- . Angus Council Implementation Guide for Renewable Energy Proposals (2012);
- . Strategic Landscape Capacity Assessment for Wind Energy in Angus (Ironsides Farrar - 2013);
- . Angus Wind farms Landscape Capacity and Cumulative Impacts Study (Ironsides Farrar, 2008);
- . Siting and Designing Wind Farms in the Landscape (SNH, Version 2 May 2014)
- . 'Assessing The Cumulative Impact of Onshore Wind Energy Developments' (SNH, March 2012)
- . Planning Advice Note 1/2011: Planning and Noise.

NPF3 states that the Government is committed to a Low Carbon Scotland and through the priorities identified in the spatial strategy set a clear direction to tackling climate change through national planning policy. Renewable energy technologies, including onshore wind, are identified as key aspects to realising this aim whilst recognising that a planned approach to development is required to find the correct balance between safeguarding assets which are irreplaceable while facilitating change in a sustainable way.

The Scottish Planning Policy (SPP, June 2014) represents a statement of government policy on land use planning. In relation to onshore wind, the SPP states that 'planning authorities should set out in the development plan a spatial framework identifying areas that are likely to be most appropriate for onshore wind farms. The spatial framework is complemented by a more detailed and exacting development management process where the merits of an individual proposal will be carefully considered against the full range of environmental, community and cumulative impacts. Proposals for onshore wind should continue to be determined while spatial frameworks and local policies are being prepared and updated'. Proposals for energy infrastructure developments should always take account of spatial frameworks for wind farms and heat maps where these are relevant. Considerations will vary relative to the scale of the proposal and area characteristics but are likely to include:

- net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities;
- the scale of contribution to renewable energy generation targets;
- effect on greenhouse gas emissions;
- cumulative impacts - planning authorities should be clear about likely cumulative impacts arising from all of the considerations below, recognising that in some areas the cumulative impact of existing and consented energy development may limit the capacity for further development;
- impacts on communities and individual dwellings, including visual impact, residential amenity, noise and shadow flicker;
- landscape and visual impacts, including effects on wild land;
- effects on the natural heritage, including birds;
- impacts on carbon rich soils, using the carbon calculator;
- public access, including impact on long distance walking and cycling routes and scenic routes identified in the NPF;
- impacts on the historic environment, including scheduled monuments, listed buildings and their settings;
- impacts on tourism and recreation;
- impacts on aviation and defence interests and seismological recording;

- impacts on telecommunications and broadcasting installations, particularly ensuring that transmission links are not compromised;
- impacts on road traffic;
- impacts on adjacent trunk roads;
- effects on hydrology, the water environment and flood risk;
- the need for conditions relating to the decommissioning of developments, including ancillary infrastructure, and site restoration;
- opportunities for energy storage; and
- the need for a robust planning obligation to ensure that operators achieve site restoration.

The Scottish Government's Planning Advice Notes relating to renewable energy have been replaced by Specific Advice Sheets (SAS). The 'Onshore Wind Turbines SAS' identifies typical planning considerations in determining planning applications for onshore wind turbines. The considerations identified in the SAS are similar to those identified by policies ER34 and ER35 of the ALPR and the SPP as detailed above.

Angus Council has produced an Implementation Guide for Renewable Energy Proposals. It provides guidance for development proposals ranging from small single turbines to major windfarms. It indicates that wind developments are the primary area of renewable energy proposals in Angus and the planning considerations are strongly influenced by the scale and location of the proposal including landscape and visual impact, potential adverse effects on designated natural and built heritage sites, protected species, residential amenity, soils, water bodies and access.

Scottish Natural Heritage in conjunction with Angus and Aberdeenshire Councils commissioned Ironside Farrar to review current landscape sensitivity and capacity guidance in relation to wind energy development. The Strategic Landscape Capacity Assessment for Wind Energy in Angus (March 2014) provides updated information on landscape capacity for wind energy development and the potential cumulative impact of proposals in the context of operational and consented developments.

Proposals for wind turbine developments and associated infrastructure are primarily assessed against policies ER34 and ER35 of the local plan although other policies within the plan are also relevant. The policy position provides a presumption in favour of renewable energy developments recognising the contribution wind energy can make in generating renewable energy in Scotland. These policies also require consideration of impacts on ecology including birds; cultural heritage including listed buildings, scheduled monuments, designed landscapes and archaeology; aviation; amenity in the context of shadow flicker, noise and reflected light; landscape and visual impact including cumulative impacts; future site restoration; transmitting or receiving systems; any associated works including transmissions lines, road and traffic access/safety and the environmental impact of this. These policy tests overlap matters contained in other policies and therefore these matters are discussed on a topic by topic basis.

Environmental and Economic Benefits

Policy 6 of TAYplan indicates that one of its aims for the city region is to deliver a low/zero carbon future and contribute to meeting Scottish Government energy and waste targets. The local plan indicates that Angus Council supports the principle of developing sources of renewable energy in appropriate locations. The SPP sets out a "commitment to increase the amount of electricity generated from renewable sources" and includes a target for the equivalent of 100% of Scotland's electricity demand to be generated from renewable sources by 2020 along with a target of 30% of overall energy demand from renewable sources by 2020. Paragraph 154 of the SPP indicates that planning authorities should help to reduce emissions and energy use in new buildings and from new infrastructure by enabling development at appropriate locations that contributes to electricity and heat from renewable sources.

In term of economic benefits associated with the proposal, a Socio-Economic Impact Assessment has been submitted which suggests that the long term impacts of the proposed development would result in economic wealth of £4.5m (net Gross Value Added). It indicates that during the construction phase the total project cost would be approximately £1.5m, resulting in 10 Person Year Equivalent jobs, £300,000 in salaries and £680,000 Gross Value Added. The operational and maintenance phase costs would be

£600,000 over the lifetime of the turbine or 5 Person Year Equivalent jobs, £110,000 in salaries and £255,000 in Gross Value Added. The Socio-Economic Impact Assessment also states that Finavon Estate employs three full time staff and around 20-25 seasonal staff working during the peak season. The seasonal staff all live locally and there are a range of ages and backgrounds. The wind turbine project would support the long term sustainability of the estate and safeguard existing jobs. The supporting information states that the estate has been looking at the promotion of a wind project since 2010 to help secure the future of the estate and to permit further employment, investment in farming and in the construction of the a sporting lodge to meet expansion requirements. The information indicates that the Finavon Estate is now a thriving community continuing to attract inward investment from sporting parties as far away as the United States. The information suggests that the proposed wind turbine development represents an excellent opportunity for local contractors and suppliers to benefit from the proposed development.

The supporting information indicates that environmental benefits associated with the proposal would also be significant. The proposed wind turbine is predicted to generate approximately 1,800MWh of electricity annually, which is enough electricity to provide power to approximately 430 homes. Over the turbine's 20 year lifecycle, the project is expected to result in a carbon saving of 5,900 tonnes and a CO2 saving of 21,800 tonnes. The development is predicted to have a CO2 payback time of approximately 4 months of operation.

I acknowledge that the proposed turbine could make a contribution towards renewable energy generation and would assist in securing the viability of the estate's operation, providing a level of local economic benefit through the construction and operation period. The proposal attracts in principle support from the development plan. I have had regard to the economic and environmental contribution in undertaking my assessment of the proposal.

Landscape Impact

Policy 6 of TAYplan indicates that in determining proposals for energy development consideration should be given to landscape sensitivity. Local Plan Policy ER5 (Conservation of Landscape Character) requires development proposals to take account of the guidance provided by the Tayside Landscape Character Assessment (TLCA), prepared for Scottish Natural Heritage (SNH) in 1999, and indicates that, where appropriate, sites selected should be capable of absorbing the proposed development to ensure that it fits into the landscape. Policy ER34 of the Local Plan indicates that proposals for renewable energy development will be assessed on the basis of no unacceptable adverse landscape and visual impacts having regard to landscape character, setting within the immediate and wider landscape, and sensitive viewpoints.

The application site lies within an area identified in the Tayside Landscape Character Assessment (TLCA) as 'Low Moorland Hills' Landscape Character Type (LCT). The Angus Windfarms Landscape Capacity and Cumulative Impacts Study undertaken by Ironside Farrar in September 2008 acknowledges that the 'Low Moorland Hills' Landscape Character Type (LCT) comprises two sub-types: the lower, flatter and mainly afforested Montreathmont Forest & Moor and surrounding farmland to the east of Turin Hill and north of Guthrie and the area of widely separated steep sided hills in rolling farmland to the west, surrounding the east and south sides of Forfar.

The Council's Implementation Guide for Renewable Energy Proposals suggests that this landscape character type (Low Moorland Hills) has scope for turbines circa 80m in height which do not disrupt the principal ridgelines or adversely affect the setting of important landscape features and monuments such as Balmashanner Monument; and Finavon and Turin hillforts.

The Strategic Landscape Capacity Assessment for Wind Energy in Angus (SLCA) (March 2014) provides more detailed assessment of the Low Moorland Hills LCT and subdivides the area into smaller Landscape Character Areas (LCA) based on their more localised landscape characteristics. The site is situated within sub area (i) Forfar Hills. This LCT is characterised by a varied landscape of small steep hills and ridges set within a wider area of medium scale rolling/undulating farmland. The hills provide a backdrop to Forfar and

define the southern edge of the South Esk section of Strathmore. Most of the hills are visible from the A90 and there are a number of hillforts and viewpoints located on the hills. An electricity transmission line crosses the northern edge of the LCA at the Hill of Finavon.

The SLCA indicates that the Forfar Hills have no capacity for medium/large turbines (turbines between 50m and 80m in height). The turbine proposed is 67m and is therefore a larger turbine than the SLCA indicates as being an appropriate size for the Forfar Hills. The SLCA indicates that the Forfar Hills have higher visual sensitivity and complex, modest scale landforms compared with the sub-area to the east. The detailed guidance in the SLCA indicates that turbines should be located in enclosed farmland or on lower slopes of the hills, avoiding skylines. It states that the height of the turbines should relate to the scale of the landscape with particular regard to the vertical scale of the hills. Larger turbines should be located away from the smaller scale hills and hill slopes to avoid diminishing the apparent scale of the slopes or breaking the skyline.

The proposed turbine would be 40 metres to hub height and 67 metres to blade tip. It would be located between the 180m and 190m contour, which the Environment Report indicates as '25m off the summit of the ridgeline'. The ridgeline varies in height from around 200m to 229m (at its highest point). The 67m turbine would project above the ridge breaking the skyline and would be located on the higher part of the hill slope (180m-190m contours) which would have the effect of reducing the perceived scale of the hills in that location. Both of these factors mean that the proposal would be inconsistent with the detailed landscape guidance contained within the SLCA.

The ER includes photomontages to help illustrate the potential impacts associated with the proposal. VP01 Balmashanner shows that the turbine would project above the ridgeline when viewed from the south west. From this position, there would be no landscape backdrop for the turbine and it would breach the skyline, contrary to the detailed landscape guidance. Skylining effects associated with the proposed turbine would be extensive from Strathmore. This is illustrated by VP02 Whitehills, Forfar; VP05 Mains of Finavon; VP06 Bogindollo; VP08 Tannadice; VP11 Brechin; VP12 White Catterthun; VP15 Kirriemuir; and VP18 A90 bridge by Forfar. The photomontages also illustrate the proposed turbine would be located on the higher slopes of the hills which would contribute to diminishing the apparent scale of the hill slopes. SNH guidance Siting and Designing Wind Farms in the Landscape (May 2014) indicates that wind turbines should be of minor vertical scale in relation to the key features of the landscape (typically less than one third). The turbine would not appear as being of minor vertical scale in relation to the key features of the landscape. VP05 Mains of Finavon shows visual elevation gain to be around 1.5 times turbine height; VP06 Bogindollo shows visual elevation gain to be around 2 times turbine height; and VP08 Tannadice shows visual elevation gain to be around 2 to 2.5 times turbine height.

In this case the proposed turbine would be inconsistent with the detailed siting and design guidelines provided by the Council's Implementation Guide, the SLCA and the guidance of SNH for the siting and design of wind turbines. The SLCA indicates that there is no capacity for medium/large turbines in the Forfar Hills area. On that basis, I consider that the site selected would not be capable of absorbing the proposed development to ensure that it fits into the landscape (ER5); and the proposed turbine would result in adverse landscape impacts having regard to landscape character, setting within the immediate and wider landscape, and sensitive viewpoints (ER34).

Visual Impact

Policy S6 of the Angus Local Plan Review requires that proposals should not give rise to unacceptable visual impacts. Policy ER34 of the Local Plan also indicates that renewable energy development will be assessed on the basis of no unacceptable adverse landscape and visual impacts having regard to landscape character, setting within the immediate and wider landscape, and sensitive viewpoints. In assessing visual impact I consider that it is appropriate to have regard to recent appeal decisions within Angus where this issue has been considered in order to secure a degree of consistency in the decision making process.

The application is supported by information to show the theoretical visibility of the proposed turbine. A zone of theoretical visibility (ZTV) has been submitted to show theoretical visibility of both the hub of the turbine and the blades. This information indicates a band of theoretical visibility along Strathmore from south west and north east. This includes theoretical visibility from the settlements of Alyth, Meigle, Glamis, Kirriemuir, Forfar, Brechin, Montrose and Laurencekirk. The turbine would be widely visible from the A90 trunk road and rural roads primarily in a band extending from the south west to north east, with impacts likely to be greatest within 10km of the proposed turbine. The ridgeline location of the proposed turbine immediately adjacent to Strathmore disproportionately increases the visual prominence of the turbine. Significant visual effects would therefore extend to a greater distance than would otherwise have been the case, with the proposed turbine becoming a landmark along the route of the A90(T).

Planning appeal decisions have generally accepted that residents should be treated as of high sensitivity in assessing the significance of visual impact. The magnitude of change (and, thus, the significance of the impact they will experience) will vary with the context of the house that they occupy: its distance from the proposed wind farm and orientation in relation to it; the presence of intervening screening from vegetation and other buildings; and the presence of other significant visual features. However it is not only the views from principal rooms that are of importance as residents also use the space around their house and the impact on occupiers and visitors approaching or leaving the properties must also be considered.

The ER includes an assessment of impacts on residential property within 3km of the proposed turbine. Finavon House (approximately 400m from the proposed turbine) is identified as the only property which would experience a high magnitude of change in that assessment. It is noted that there are two properties within 10 turbine heights: Finavon House and Hillside Cottage (described as Finavon Cottage in the noise assessment data submitted). The residential assessment in the ER does not include this cottage (west of Finavon House). It is likely to experience a similar magnitude of change to Finavon House. However, the occupants of these properties are understood to have a financial interest in the proposed turbine and as such the sensitivity of these receptors can be reduced. There are a number of properties further north between 1km and 2km and close to the A90. They would experience views towards the proposed turbine from windows, garden areas or on their approaches. VP5 and VP6 provide a reasonable representation of the visual impacts they may experience. It is noted that while the proposed turbine would occupy a reasonably significant vertical extent of the view, it would only occupy a relatively minor horizontal extent. The turbine would have some significant effects on those residential receptors, but those effects are not considered to be unacceptable at that distance. Properties to the south, south east and south west and between 1km and 2km from the proposed turbine are attributed a low or negligible magnitude of change in the ER. VP3 provides a reasonable representation of the views which would be experienced from properties to the south including Howmuir, Myreston and the cottages on the B9134. They would experience views towards the proposed turbine from windows, garden areas or on their approaches but those views would be limited to the turbine blades and (potentially) the hub, with much of the turbine tower screened by the ridge. The views from these properties would be less significant than from those to the north and at the distances involved, the effects would not be unacceptable. In summary, the turbine would be visible from a number of residential properties but given its height, the separation distance between the properties and the turbine, and the limited horizontal extent of a single turbine; it is not considered that it would be dominant or overbearing on the occupants of any property. As such visual impact on residential property is not considered unacceptable.

The ER includes an assessment of visual effects on settlements within 20km of the proposed turbine. No settlements are predicted to experience significant effects, although the ER acknowledges that parts of eastern Forfar would experience some prominent views. The ER also provides an assessment of transport routes. The A90 Tealing to Brechin, the B9134 Forfar to Brechin and the B957 Kirriemuir to Finavon are all assessed but none are assessed as likely to experience significant effects.

In summary, the proposed turbine would be readily visible in the surrounding area and would give rise to visual impacts on sensitive receptors in the area (residential and recreational receptors), and on those using roads in the area. However, I do not consider that any of these impacts would be unacceptable.

Cumulative Landscape and Visual Impact

An assessment of cumulative landscape and visual effects is also required by local and national policy. SNH Guidance on 'Assessing The Cumulative Impact of Onshore Wind Energy Developments' (March 2012) indicates that cumulative landscape effects can include effects on the physical aspects of the landscape and effects on landscape character. Cumulative visual effects can be caused by combined visibility and/or sequential effects. Combined visibility may be in combination i.e. where several wind farms are in the observers arc of vision or in succession where the observer has to turn to see various wind farms. Sequential effects occur when the observer has to move to another viewpoint to see different developments.

The Implementation Guide provides interpretation of the level of turbine development that a Landscape Character Type is capable of absorbing. It suggests that the Low Moorland Hills has an existing windfarm character as a 'landscape with views of windfarms'. It indicates that an acceptable future windfarm character would be a 'landscape with occasional windfarms'. The SLCA indicates that the minimum group separation distance between medium (30m-<50m) sized turbines in this area should be between 3km and 6km. It provides no separation distance for medium/large turbines (50m-<80m) relative to any other turbine size because it indicates that there is no capacity for medium/large turbines in this area.

The ER provides information on operational, consented and in planning wind turbines with 50km of the application site. It indicates that there is very little cumulative impact as a result of the proposed turbine due to both its limited impact and the distance to other schemes. The nearest operational or consented turbines include two operational 76.5m turbines at East Memus approximately 7.5km to the north-west. There is also a 49.5m operational wind turbine at Broom Farm, Tannadice approximately 4.5km to the north. There is a 47.5m single operational wind turbine at Balhall Lodge, Menmuir approximately 9km to the north-east. A single 77m operational wind turbine exists at Pickerton approximately 7.8km to the south east. There is a single 77m wind turbine approved at Dunswood, Menmuir approximately 7.5km to the north-east. A 34.2m single turbine has been approved at Carsegowrie, Forfar approximately 1.5km to the south-east. Regarding undetermined applications for wind turbines, a single 61m turbine is proposed at Easter Balgillo, Tannadice approximately 4km to the north.

Significant cumulative landscape impacts arising from the proposed turbine and consented turbines is unlikely. The closest consented turbine is the 34.2m single turbine (classified as medium sized in the SLCA) at Carsegowrie approximately 1.5km south east. This separation distance is significantly smaller than the 3-6km guideline minimum separation distance between medium sized turbines promoted in the SLCA. Given that the proposed turbine exceeds the medium turbine size categorisation (and would be categorised as medium/large), it would be reasonable to expect that the medium to medium turbine separation distance specified in the SLCA should be exceeded where the relationship would be between a medium and a medium/large turbine. It is considered that the ridgeline of Finavon Hill would provide some physical separation between these two developments, but from certain locations (particularly from the south and south west) the ridge would be a less effective barrier given that the hub height of the proposed turbine would in places project above the Finavon Hill ridge. There is another operational turbine within 6km of the proposed turbine at Broom Farm, Tannadice but I do not consider that the relationship of that turbine relative to the proposed turbine would give rise to significant cumulative landscape impacts.

The most significant cumulative landscape effect is likely to be in relation to sequential cumulative effects upon the A90(T). There is currently extensive wind turbine development in Aberdeenshire which is prominent from the A90(T), just north of Angus. Similarly, there is the constructed wind farm at Arc Hill and the consented wind farms at Frwaney and Govalls in the Sidlaws. Whilst only a single turbine the proposed turbine would, by virtue of its prominent position in the landscape, increase the frequency of which wind turbines are obvious or prominent along the A90(T) through Angus north of the Sidlaws.

In terms of cumulative visual effects, the greatest effect is likely to be the cumulative visual impact of the proposed turbine and the above mentioned turbine at Carsegowrie from locations along and around the B9134 between Forfar and Aberlemno. Combined and simultaneous views of the two turbines are likely to be experienced from stretches of this road. However the proposed turbine would likely be screened by

Finavon Hill ridge to differing extents along that route and on this basis significant cumulative impacts are unlikely to be significant.

Whilst approval of all the undetermined applications could give rise to increased cumulative landscape and visual impacts, this application on its own would not give rise to unacceptable cumulative landscape or visual impacts in respect of existing and consented turbines in the area. Any decision on this application could be taken into account when those proposals are determined.

Amenity (Noise/Shadow Flicker/Reflected Light)

Criterion (a) of ALPR policy ER34 requires the siting and appearance of renewable energy apparatus to be chosen to minimise its impact on amenity, while respecting operational efficiency. Criterion (c) of ALPR policy ER35 indicates wind energy developments must have no unacceptable detrimental effect on residential amenity, existing land uses or road safety by reason of shadow flicker, noise or reflected light. Criterion (a) of Schedule 1 of Policy S6 indicates that the amenity of proposed and existing properties should not be affected by unreasonable restriction of sunlight, daylight or privacy; by smells or fumes; noise levels and vibration; emissions including smoke, soot, ash, dust, grit, or any other environmental pollution; or disturbance by vehicular or pedestrian traffic. Policy ER11 deals specifically with noise pollution.

PAN 1/2011: Planning and Noise indicates there are two sources of noise from wind turbines - the mechanical noise from the turbines and the aerodynamic noise from the blades. Mechanical noise is related to engineering design. Aerodynamic noise varies with rotor design and wind speed, and is generally greatest at low speeds. Good acoustical design and siting of turbines is essential to minimise the potential to generate noise. The Scottish Governments Specific Advice Sheet for onshore wind turbines confirms that proposals should be considered against 'The Assessment and Rating of Noise from Wind Farms' (ETSU-R-97).

The ER contains a noise assessment which has been reviewed by the Council's Environmental Health Service. On the basis that the two closest houses to the proposed turbine (Finavon House and Finavon Cottage) are owned occupied by partners in the business who are joint applicants for the proposed turbine, a higher noise limit could be allowed for these properties. Taking account of that, Environmental Health is satisfied that the proposal would not result in any unacceptable noise impacts on residential property subject to a number of detailed planning conditions including noise limits and a complaints investigation and resolution procedure.

Government guidance indicates that shadow flicker should not be a problem where sufficient separation distances are provided between turbines and nearby dwellings (as general rule 10 rotor diameters). The Environmental Health Service has also indicated that this matter could be mitigated by planning condition.

In terms of private water supplies, the ER states that there are no private water supplies nor any springs or wells within the study boundary. However, given the possibility that there could be private water supplies found within the area, the Environmental Health Service has requested a planning condition to ensure that mitigation measures are carried out in the event of any interruption to drinking water supplies.

Impact on Natural Heritage

The development plan framework contains a number of policies that seek to protect important species and sites designated for their natural heritage interest and to ensure that proposals that may affect them are properly assessed. It also indicates that the Local Biodiversity Action Plans will constitute material considerations in determining development proposals. Policy ER35 specifically requires that proposals should demonstrate that there is no unacceptable interference to birds. Policy ER4 requires safeguarding of habitats protected under British and European law or other valuable habitats and species.

The 'Onshore Wind Turbines SAS' indicates wind turbine developments have the capacity to have both positive and negative effects on the wildlife, habitats, ecosystems and biodiversity of an area. There is also the potential for negative environmental effects, with possible loss of or damage to valuable habitat

resulting from construction of turbine bases, access tracks or other works. Such impacts can be significant particularly if they relate to habitats that are difficult to replicate. There is also the potential of collision risk, displacement or disturbance by forcing birds or bats to alter flight paths. Wind farms should not adversely affect the integrity of designated sites protected under EU and UK legislation (Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Sites of Special Scientific Interest (SSSIs)) or wider conservation interests. Planning guidance produced by Scottish Natural Heritage (SNH) indicates that experience suggests that many bird species and their habitats are unaffected by wind turbine developments and the impact of an appropriately designed and located wind farm on the local bird life should, in many cases, be minimal.

The ER contains an ecological assessment which is based on the findings of the Environmental Statement for the earlier 3 turbine proposal. The assessment included possible impacts on ecology, ornithology, bats, badgers, and otters. This assessment concluded that the potential for the development to adversely affect this range of ecological interests would be extremely unlikely. RSPB was consulted on the proposal and do not consider that there would be significant negative impacts on birds from the proposed single turbine. SNH was consulted for the previous 3-turbine development and indicated no objections to that proposal in the context of impact on natural heritage. Taking this into account and the detailed findings of the earlier ES, I have no reason to consider that the single turbine would cause unacceptable impacts on natural heritage interests.

Cultural Heritage

The development plan provides a number of policies that seek to safeguard cultural heritage. Policy ER34 requires proposals for renewable energy development to have no unacceptable detrimental effect on any sites designated for natural heritage, scientific, historic or archaeological reasons. Impacts on cultural heritage can include impacts on Schedule Ancient Monuments (SAM's), Historic Gardens and Designed Landscapes (HGDL's), listed buildings, conservation areas and undesignated archaeology. The development could potentially have direct impacts on cultural heritage features or indirect effects such as impacts on setting.

The ER indicates that the Council expressed a level of concern relating to the indirect impact of the previous development for 3 wind turbines on the Hill of Finavon fort and Turin Hill fort, both Scheduled Ancient Monuments. The application contains photomontages to show the significant reduction in impact. These photomontages are noted and I am satisfied that any significant impacts on the setting of these SAMs including impacts on views from these SAMs has been significantly reduced, with only part of the blade of the turbine visible.

The ER also indicates that an archaeological survey was originally carried out for the previous application for three larger turbines at the site and this concluded that the proposed development would not have a direct physical or major visual adverse effect on any recorded cultural assets or their settings. The current application for a single lower turbine would result in less impact on archaeology. The Archaeology Service has indicated no objections on the understanding that a noted archaeological site near to the proposed turbine is fenced off during development. Therefore I am satisfied that no archaeological interests would be unacceptably impacted upon by the proposal.

Moving on to impacts on listed buildings, the ER has identified the nearest listed building as Carsegownie Farmhouse approximately 1.3km to the east. However, only the blades of the turbine would be visible from the listed building and I consider that this would not be a dominant feature in the setting of this listed building. No significant impacts are anticipated on any other listed buildings.

Impacts on Historic Gardens and Designed Landscapes (HGDL) as well as Conservation Areas must also be assessed. The closest HGDL lies around 11km north-west of the site at Cortachy. The nearest Conservation Area is located approximately 3.5km to the north-west at Tannadice. At these distances, no significant impact on the setting is anticipated.

Overall I am satisfied that the proposal would not give rise to unacceptable impacts in terms of scheduled

monuments, unscheduled archaeology, historic gardens and designed landscapes, conservation areas and listed buildings.

Remaining Issues / Other Development Plan Considerations

Policy ER35 of the Angus Local Plan Review indicates that wind farm development should not interfere with authorised aircraft activity. I have no reason to consider that the proposal would interfere with aircraft activity and note that no aviation related objection has been received from MOD, CAA, Dundee Airport or NATS.

No objections have been received from technical consultees regarding the impact of the development on any existing transmitting or receiving systems. The Roads Service has raised no objection to the proposal on the grounds of flood risk. I consider that a planning condition could be used to secure the restoration of the site.

I note the concerns raised by third parties regarding the potential impact of the development on the tourist industry. Whilst there have been a number of surveys undertaken to assess the impact of wind farm development on the tourist industry there does not appear to be definitive information on the impact of existing developments. Although I cannot discount the possibility that some visitors might be deterred from making return visits to holiday accommodation in the vicinity of the site because of the presence of the wind turbine, I find no persuasive evidence to suggest that it would have an overall adverse effect on tourism in this part of Angus.

Scottish Government policy supports the provision of renewable energy development including wind farms. The SPP confirms that planning authorities should support the development of wind farms in locations where amongst other matters the technology can operate efficiently and environmental and cumulative impacts can be satisfactorily addressed. The SPP also indicates that areas identified for wind farms should be suitable for use in perpetuity. Consents may be time-limited but wind farms should nevertheless be sited and designed to ensure impacts are minimised and to protect an acceptable level of amenity for adjacent communities. In this case I accept that the wind turbine would contribute to meeting government targets and in this regard attracts some support from national policy and from the development plan.

This application must be considered on its own merits, however the findings of the Reporter who assessed the planning appeal for the three 99.5m turbines (PPA-120-2019) represents a consideration which is material to the assessment of this application. The Reporter indicated that the 3 turbine proposal on the summit of Finavon Hill would result in unacceptable landscape impacts. The proposed turbines were deemed to be out of scale with the medium scale landscape, being viewed from the A90 and certain settlements from the north-west, from various points on the B9134 and from Turin Hill. The Reporter raised concerns regarding the vertical scale of the proposed turbines and referenced SNH guidance on vertical scale. The Reporter stressed that 'skylines are of critical importance... and Finavon Hill is a distinctive landmark'. The Reporter also judged that the proposal would result in a dominating and overbearing effect on the visual amenity of a number of residential properties and the view from Turin Hill.

While the current application is for a different proposal on a different site, the applicant has drawn comparisons with that refused proposal in their supporting information. They consider that the impacts resulting from this proposal are significantly reduced from the previously refused scheme and tackle the issues identified by the Reporter. I agree that the impacts of the single turbine proposed would be reduced in comparison to the earlier proposal. In particular impacts on visual amenity of residents have been reduced. However, the issues identified by the Reporter relating to landscape impacts would remain. The vertical scale of the proposed turbine would be too great for the underlying landform reducing the perceived scale of the hill slopes; and sky-lining effects above Finavon Hill would remain. While some of the Reporter's concerns have been addressed, others have not.

Conclusion

The matters raised both in support and objection to the application are noted. Government and Council

policy give support to wind turbines in appropriate locations. The applicant has submitted information highlighting the environmental benefits. Economic benefits associated with the further development of the shooting estate including the development of a shooting lodge would represent a very positive outcome and could help in further employment generation and tourism facilities which would be welcomed. However, these benefits must be weighed against the dis-benefits. The Council's Implementation Guide on Renewable Energy and the Strategic Landscape Capacity Study for Wind Energy in Angus seek to guide turbines to appropriate locations. They identify locations which can accommodate larger turbines as well as identifying more sensitive areas where there is only scope for smaller turbines. These documents state that turbines should not disrupt principal ridgelines (such as Finavon Hill) and the strategic study refines the guidance within the implementation guide to reflect the sensitivities of the Forfar Hills, indicating that there is no scope in this area for turbines which exceed 50m in height. The Reporter for the planning appeal for three wind turbines in this area described Finavon Hill as 'a distinctive landmark' and I consider that the scale and position of the proposed turbine would reduce the perceived scale of this distinctive landmark. I do not consider the site selected would be capable of absorbing the proposed development to ensure that it fits into the landscape (contrary to Policy ER5(a)) and I consider that the proposed turbine would result in unacceptable adverse landscape impacts having regard to landscape character, setting within the immediate and wider landscape, and sensitive viewpoints (contrary to Policy ER34(b)).

Human Rights Implications

The decision to refuse this application has potential implications for the applicant in terms of his entitlement to peaceful enjoyment of his possessions (First Protocol, Article 1). For the reasons referred to elsewhere in this report justifying the decision in planning terms, it is considered that any actual or apprehended infringement of such Convention Rights, is justified. Any interference with the applicant's right to peaceful enjoyment of his possessions by refusal of the present application is in compliance with the Council's legal duties to determine this planning application under the Planning Acts and such refusal constitutes a justified and proportionate control of the use of property in accordance with the general interest and is necessary in the public interest with reference to the Development Plan and other material planning considerations as referred to in the report.

Equalities Implications

The issues contained in this report fall within an approved category that has been confirmed as exempt from an equalities perspective.

Decision

The application is Refused

Reason(s) for Decision:

1. That the proposal is contrary to Policy ER5(a) of the Angus Local Plan Review (2009) because the site selected would not be capable of absorbing the proposed development to ensure that it fits into the landscape; and is contrary to Policy ER34(b) of the Angus Local Plan Review (2009) because the proposed turbine would result in unacceptable adverse landscape impacts having regard to landscape character, setting within the immediate and wider landscape, and sensitive viewpoints.

Notes:

Case Officer: Neil Duthie
Date: 5 March 2015

Appendix 1 - Development Plan Policies

Angus Local Plan Review 2009

Policy S1 : Development Boundaries

(a) Within development boundaries proposals for new development on sites not allocated on Proposals Maps will generally be supported where they are in accordance with the relevant policies of the Local Plan.

(b) Development proposals on sites outwith development boundaries (i.e. in the countryside) will generally be supported where they are of a scale and nature appropriate to the location and where they are in accordance with the relevant policies of the Local Plan.

(c) Development proposals on sites contiguous with a development boundary will only be acceptable where there is a proven public interest and social, economic or environmental considerations confirm there is an overriding need for the development which cannot be met within the development boundary.

Policy S3 : Design Quality

A high quality of design is encouraged in all development proposals. In considering proposals the following factors will be taken into account:-

- * site location and how the development fits with the local landscape character and pattern of development;
- * proposed site layout and the scale, massing, height, proportions and density of the development including consideration of the relationship with the existing character of the surrounding area and neighbouring buildings;
- * use of materials, textures and colours that are sensitive to the surrounding area; and
- * the incorporation of key views into and out of the development.

Innovative and experimental designs will be encouraged in appropriate locations.

Policy S6 : Development Principles (Schedule 1)

Proposals for development should where appropriate have regard to the relevant principles set out in Schedule 1 which includes reference to amenity considerations; roads and parking; landscaping, open space and biodiversity; drainage and flood risk, and supporting information.

Schedule 1 : Development Principles

Amenity

(a) The amenity of proposed and existing properties should not be affected by unreasonable restriction of sunlight, daylight or privacy; by smells or fumes; noise levels and vibration; emissions including smoke, soot, ash, dust, grit, or any other environmental pollution; or disturbance by vehicular or pedestrian traffic.

(b) Proposals should not result in unacceptable visual impact.

(c) Proposals close to working farms should not interfere with farming operations, and will be expected to accept the nature of the existing local environment. New houses should not be sited within 400m of an existing or proposed intensive livestock building. (Policy ER31).

Roads/Parking/Access

(d) Access arrangements, road layouts and parking should be in accordance with Angus Council's Roads Standards, and use innovative solutions where possible, including 'Home Zones'. Provision for cycle parking/storage for flatted development will also be required.

(e) Access to housing in rural areas should not go through a farm court.

(f) Where access is proposed by unmade/private track it will be required to be made-up to standards set out in Angus Council Advice Note 17 : Miscellaneous Planning Policies. If the track exceeds 200m in length, conditions may be imposed regarding widening or the provision of passing places where necessary.

(g) Development should not result in the loss of public access rights. (Policy SC36)

Landscaping / Open Space / Biodiversity

(h) Development proposals should have regard to the Landscape Character of the local area as set out in the Tayside Landscape Character Assessment (SNH 1998). (Policy ER5)

(i) Appropriate landscaping and boundary treatment should be an integral element in the design and layout of proposals and should include the retention and enhancement of existing physical features (e.g.

hedgerows, walls, trees etc) and link to the existing green space network of the local area.

(j) Development should maintain or enhance habitats of importance set out in the Tayside Local Biodiversity Action Plan and should not involve loss of trees or other important landscape features or valuable habitats and species.

(k) The planting of native hedgerows and tree species is encouraged.

(l) Open space provision in developments and the maintenance of it should be in accordance with Policy SC33.

Drainage and Flood Risk

(m) Development sites located within areas served by public sewerage systems should be connected to that system. (Policy ER22)

(n) Surface water will not be permitted to drain to the public sewer. An appropriate system of disposal will be necessary which meets the requirements of the Scottish Environment Protection Agency (SEPA) and Angus Council and should have regard to good practice advice set out in the Sustainable Urban Drainage Systems Design Manual for Scotland and Northern Ireland 2000.

(o) Proposals will be required to consider the potential flood risk at the location. (Policy ER28)

(p) Outwith areas served by public sewerage systems, where a septic tank, bio-disc or similar system is proposed to treat foul effluent and /or drainage is to a controlled water or soakaway, the consent of SEPA and Angus Council will be required. (Policy ER23).

(q) Proposals should incorporate appropriate waste recycling, segregation and collection facilities (Policy ER38)

(r) Development should minimise waste by design and during construction.

Supporting Information

(s) Where appropriate, planning applications should be accompanied by the necessary supporting information. Early discussion with Planning and Transport is advised to determine the level of supporting information which will be required and depending on the proposal this might include any of the following: Air Quality Assessment; Archaeological Assessment; Contaminated Land Assessment; Design Statement; Drainage Impact Assessment; Environmental Statement; Flood Risk Assessment; Landscape Assessment and/or Landscaping Scheme; Noise Impact Assessment; Retail Impact Assessment; Transport Assessment.

Policy ER4 : Wider Natural Heritage and Biodiversity

The Council will not normally grant planning permission for development that would have a significant adverse impact on species or habitats protected under British or European Law, identified as a priority in UK or Local Biodiversity Action Plans or on other valuable habitats or species.

Development proposals that affect such species or habitats will be required to include evidence that an assessment of nature conservation interest has been taken into account. Where development is permitted, the retention and enhancement of natural heritage and biodiversity will be secured through appropriate planning conditions or the use of Section 75 Agreements as necessary.

Policy ER5 : Conservation of Landscape Character

Development proposals should take account of the guidance provided by the Tayside Landscape Character Assessment and where appropriate will be considered against the following criteria:

(a) sites selected should be capable of absorbing the proposed development to ensure that it fits into the landscape;

(b) where required, landscape mitigation measures should be in character with, or enhance, the existing landscape setting;

(c) new buildings/structures should respect the pattern, scale, siting, form, design, colour and density of existing development;

(d) priority should be given to locating new development in towns, villages or building groups in preference to isolated development.

Policy ER11 : Noise Pollution

Development which adversely affects health, the natural or built environment or general amenity as a result of an unacceptable increase in noise levels will not be permitted unless there is an overriding need which cannot be accommodated elsewhere.

Proposals for development generating unacceptable noise levels will not generally be permitted adjacent to existing or proposed noise-sensitive land uses. Proposals for new noise-sensitive development which would be subject to unacceptable levels of noise from an existing noise source or from a proposed use will not be permitted.

Policy ER16 : Development Affecting the Setting of a Listed Building

Development proposals will only be permitted where they do not adversely affect the setting of a listed building. New development should avoid building in front of important elevations, felling mature trees and breaching boundary walls.

Policy ER18 : Archaeological Sites of National Importance

Priority will be given to preserving Scheduled Ancient Monuments in situ. Developments affecting Scheduled Ancient Monuments and other nationally significant archaeological sites and historic landscapes and their settings will only be permitted where it can be adequately demonstrated that either:

- (a) the proposed development will not result in damage to the scheduled monument or site of national archaeological interest or the integrity of its setting; or
- (b) there is overriding and proven public interest to be gained from the proposed development that outweighs the national significance attached to the preservation of the monument or archaeological importance of the site. In the case of Scheduled Ancient Monuments, the development must be in the national interest in order to outweigh the national importance attached to their preservation; and
- (c) the need for the development cannot reasonably be met in other less archaeologically damaging locations or by reasonable alternative means; and
- (d) the proposal has been sited and designed to minimise damage to the archaeological remains.

Where development is considered acceptable and preservation of the site in its original location is not possible, the excavation and recording of the site will be required in advance of development, at the developer's expense

Policy ER19 : Archaeological Sites of Local Importance

Where development proposals affect unscheduled sites of known or suspected archaeological interest, Angus Council will require the prospective developer to arrange for an archaeological evaluation to determine the importance of the site, its sensitivity to development and the most appropriate means for preserving or recording any archaeological information. The evaluation will be taken into account when determining whether planning permission should be granted with or without conditions or refused.

Where development is generally acceptable and preservation of archaeological features in situ is not feasible Angus Council will require through appropriate conditions attached to planning consents or through a Section 75 Agreement, that provision is made at the developer's expense for the excavation and recording of threatened features prior to development commencing.

Policy ER20 : Historic Landscapes and Designed Landscapes

Sites included in the "Inventory of Gardens and Designed Landscapes in Scotland", and any others that may be identified during the plan period, will be protected from development that adversely affects their character, amenity value and historic importance. Development proposals will only be permitted where it can be demonstrated that:

- (a) the proposal will not significantly damage the essential characteristics of the garden and designed landscape or its setting; or
- (b) there is a proven public interest, in allowing the development, which cannot be met in other less damaging locations or by reasonable alternative means.

Protection will also be given to non-inventory historic gardens, surviving features of designed landscapes, and parks of regional or local importance, including their setting.

Policy ER30 : Agricultural Land

Proposals for development that would result in the permanent loss of prime quality agricultural land and/or have a detrimental effect on the viability of farming units will only normally be permitted where the land is allocated by this Local Plan or considered essential for implementation of the Local Plan strategy.

Policy ER34 : Renewable Energy Developments

Proposals for all forms of renewable energy developments will be supported in principle and will be assessed against the following criteria:

- (a) the siting and appearance of apparatus have been chosen to minimise the impact on amenity, while respecting operational efficiency;
- (b) there will be no unacceptable adverse landscape and visual impacts having regard to landscape character, setting within the immediate and wider landscape, and sensitive viewpoints;
- (c) the development will have no unacceptable detrimental effect on any sites designated for natural heritage, scientific, historic or archaeological reasons;
- (d) no unacceptable environmental effects of transmission lines, within and beyond the site; and
- (e) access for construction and maintenance traffic can be achieved without compromising road safety or causing unacceptable permanent change to the environment and landscape, and
- (f) that there will be no unacceptable impacts on the quantity or quality of groundwater or surface water resources during construction, operation and decommissioning of the energy plant.

Policy ER35 : Wind Energy Developments

Wind energy developments must meet the requirements of Policy ER34 and also demonstrate:

- (a) the reasons for site selection;
- (b) that no wind turbines will cause unacceptable interference to birds, especially those that have statutory protection and are susceptible to disturbance, displacement or collision;
- (c) there is no unacceptable detrimental effect on residential amenity, existing land uses or road safety by reason of shadow flicker, noise or reflected light;
- (d) that no wind turbines will interfere with authorised aircraft activity;
- (e) that no electromagnetic disturbance is likely to be caused by the proposal to any existing transmitting or receiving system, or (where such disturbances may be caused) that measures will be taken to minimise or remedy any such interference;
- (f) that the proposal must be capable of co-existing with other existing or permitted wind energy developments in terms of cumulative impact particularly on visual amenity and landscape, including impacts from development in neighbouring local authority areas;
- (g) a realistic means of achieving the removal of any apparatus when redundant and the restoration of the site are proposed.

TAYplan Strategic Development plan

Policy 3D : Natural and Historic Assets

Understanding and respecting the regional distinctiveness and scenic value of the TAYplan area through:-

- ensuring development likely to have a significant effect on a designated or proposed Natura 2000 sites (either alone or in combination with other sites or projects), will be subject to an appropriate assessment. Appropriate mitigation requires to be identified where necessary to ensure there will be no adverse effect on the integrity of Natura 2000 sites in accordance with Scottish Planning Policy;
- safeguarding habitats, sensitive green spaces, forestry, watercourses, wetlands, floodplains

(in-line with the water framework directive), carbon sinks, species and wildlife corridors, geo-diversity, landscapes, parks, townscapes, archaeology, historic buildings and monuments and allow development where it does not adversely impact upon or preferably enhances these assets; and,

- identifying and safeguarding parts of the undeveloped coastline along the River Tay Estuary and in Angus and North Fife, that are unsuitable for development and set out policies for their management; identifying areas at risk from flooding and sea level rise and develop policies to manage retreat and realignment, as appropriate.

Policy 6: Energy and Waste/Resource Management Infrastructure

Local Development Plans should identify areas that are suitable for different forms of renewable heat and electricity infrastructure and for waste/resource management infrastructure or criteria to support this; including, where appropriate, land for process industries (e.g. the co-location/proximity of surplus heat producers with heat users).

Local Development Plans and development proposals should ensure that all areas of search, allocated sites, routes and decisions on development proposals for energy and waste/resource management infrastructure have been justified, at a minimum, on the basis of these considerations:-

- The specific land take requirements associated with the infrastructure technology and associated statutory safety exclusion zones where appropriate;
- Waste/resource management proposals are justified against the Scottish Government's Zero Waste Plan and support the delivery of the waste/resource management hierarchy;
- Proximity of resources (e.g. woodland, wind or waste material); and to users/customers, grid connections and distribution networks for the heat, power or physical materials and waste products, where appropriate;
- Anticipated effects of construction and operation on air quality, emissions, noise, odour, surface and ground water pollution, drainage, waste disposal, radar installations and flight paths, and, of nuisance impacts on of-site properties;
- Sensitivity of landscapes (informed by landscape character assessments and other work), the water environment, biodiversity, geo-diversity, habitats, tourism, recreational access and listed/scheduled buildings and structures;
- Impacts of associated new grid connections and distribution or access infrastructure;
- Cumulative impacts of the scale and massing of multiple developments, including existing infrastructure;
- Impacts upon neighbouring planning authorities (both within and outwith TAYplan); and,
- Consistency with the National Planning Framework and its Action Programme.

Directorate for Planning and Environmental Appeals

Appeal Decision Notice

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Decision by Douglas G Hope, a Reporter appointed by the Scottish Ministers

- Planning appeal reference: PPA-120-2019
- Site address: Land south of Finavon House, Finavon, Forfar, DD8 3PX
- Appeal by Kilmac Energy LLP against the failure by Angus Council to determine the planning application within the prescribed time.
- Application for planning permission no. 12/00002/EIAL dated 6 January 2012.
- The development proposed: Erection of 3 turbines, 99.5m to tip and associated infrastructure.
- Date of site visit by Reporter: 18 September 2012

Date of appeal decision: 26 October 2012

Decision

I dismiss the appeal and refuse planning permission.

Background

1. The proposed three turbines would be sited on the Hill of Finavon, which is located between the A90(T) and B9134 to the south of Finavon Castle, approximately 6 kilometres north-east of Forfar. The summit of the Hill of Finavon peaks at 229m. The appellant has confirmed the location and altitude of the three turbines in relation to the existing topography and woodland. The altitude of the three turbine locations as shown on the planning application are 200m, 214m and 221m respectively. The candidate wind turbine, the Enercon E70 (2.3MW), has a hub height of 64m and a rotor diameter of 71m, giving an overall height to blade tip of 99.5m. The existing Met Mast is 50 metres high.

2. The proposal also includes the necessary up-grading of existing access tracks lower down the hill and the construction of new tracks on the upper hill, the construction of crane platforms and temporary working areas for each turbine, and the construction of a small substation building to house the necessary metering and protection equipment. No overhead lines would be required to connect the turbines to the site substation or the site substation to the Grid.

3. A screening response in early 2011 determined that an Environmental Impact Assessment was required for the proposed development. Scoping parameters were

agreed with SNH and Angus Council in April 2011 and work proceeded on the preparation of an Environmental Statement, which accompanied the planning application submitted in January 2012. This addresses the socio, economic and environmental issues associated with the proposal.

Reasoning

4. The determining issues in this appeal are: (1) the landscape impact; (2) the visual impact; (3) the impact on residential amenity; (4) the impact on natural heritage; and (5) the impact on the cultural heritage, having regard to the provisions of the development plan and to any other material considerations. In this case, the development plan comprises TAYplan, approved June 2012, and the Angus Local Plan Review, adopted 2009.

5. Policy 6 of TAYplan relates to the aim of delivering a low/zero carbon future for the city region to contribute to meeting Scottish Government energy targets and indicates that, in determining proposals for energy development, consideration should be given to the effect on off-site properties, the sensitivity of landscapes and cumulative impacts. Policy S1 of the Angus Local Plan Review (ALPR) supports developments in the countryside that are of a scale and nature appropriate to the location and where they are in accordance with the relevant policies of the local plan. Policy S6 sets out the principles that all development proposals should have regard to. The relevant policies of the ALPR in this case are policies ER4, ER5, ER18, ER34 and ER35.

Environmental and Economic Benefits

6. In relation to the aim of policy 6 of TAYplan, the proposed development would contribute to the Scottish Government's target of 100% of electricity generation from renewable energy sources by 2020. The appellant indicates that the proposal could potentially generate enough electricity to supply 3,800 homes. The estimated Carbon saving over the 25 year life of the project is some 74,300 tonnes. The submitted ES identifies the general economic benefits associated with the renewables sector and the potential for local employment during the construction and de-commissioning phases. The cost of construction is estimated at £9.5m, of which about 20% would typically be spent in the locality. The development would be likely, therefore, to provide some local economic benefit, although the extent of this is difficult to determine. In addition, the developer is offering to deliver an annual community payment of £25,000 per annum. However, the adopted local plan indicates that local community benefits are not considered part of any planning application.

Landscape impact

7. Policy ER5 of the ALPR requires development proposals to take account of the guidance provided by the Tayside Landscape Character Assessment. Sites selected for development should be capable of absorbing the proposed development to ensure that it fits into the landscape. Policy ER34(b) indicates that there should be no unacceptable adverse landscape and visual impacts having regard to landscape character, setting within the immediate and wider landscape, and sensitive viewpoints. The appeal site is within the

Low Moorland Hills Landscape Character Type (LCT), which is characterised by a combination of low, rounded hills and craggy, ridged upland. The Angus Windfarms Landscape Capacity and Cumulative Impacts Study, September 2008 (AWLCCIS), provides further information on the characteristics of the Low Moorland Hills LCT. The proposed turbines are within the Low Moorland Hills sub-type (LCT 12b), described as an area of high visual sensitivity. Overall, landscape sensitivity is medium-high with a low capacity for windfarm development. The study advises that 'Any windfarm development would have to be carefully sited and small scale to avoid prominent visibility and clashes of scale with the modest hill size'.

8. On behalf of the appellant, it is pointed out that the proposal constitutes a 'small scale scheme' in terms of Table 4.3 of the AWLCCIS and as defined by SNH in its recent guidance; *Assessing the Impact of Small-scale Wind Energy Proposals on the Natural Heritage*, February 2012. Subsequent to the submission of the planning application, the council has prepared further guidance on renewable energy proposals, approved in June 2012. In relation to Landscape Character Type LCT12, the guidance indicates that there is scope for turbines circa 80m in height which do not disrupt the principal ridgelines or adversely affect the setting of important landscape features and monuments such as Balmashanner Monument and Hill of Finavon and Turin Hill forts. On behalf of the appellant, it is submitted that it is not unreasonable to assume that turbines up to 100m to blade tip would be acceptable in certain locations within Landscape Character Type LCT12, subject to site-specific design considerations. It is contended that the regular, linear layout of the proposed turbines would be in alignment with the Hill of Finavon ridge, thus reflecting the underlying landform, and would achieve a good landscape fit with the local topography, in accordance with SNH's guidance in 'Siting and Designing Windfarms in the Landscape'.

9. In this case, SNH agrees with the conclusions of the ES regarding the potential impacts on the landscape and that the proposal does not affect a protected site or species. Third parties have, however, raised concerns regarding the impact of the development on the landscape.

10. A landscape and visual impact assessment (LVIA), including a cumulative LVIA, has been undertaken in accordance with relevant EIA Regulations. Supplementary information has been submitted in response to the council's appeal statement. The LVIA concludes that the magnitude of change to local landscape character during both construction and operation of the Finavon wind cluster would be low. In relation to the Low Moorland Hills LCT, which covers much of the landscape between Forfar and Brechin, although the wind cluster would occupy and directly affect only a small proportion of this LCT, it would be visible across a large proportion of this area and would indirectly affect its character. The ZVT shows that the location of the wind cluster along a ridge, flanked by two small valleys to the north and south, means that the turbines would become pronounced features of the Hill of Finavon. According to the LVIA, the magnitude of change is considered to be high, which would result in the overall level of direct/indirect landscape effects on the Low Moorland Hills LCT being high and significant, long term (reversible) and negative. I concur with this assessment.

11. In relation to the wider landscape, the LVIA concludes that the proposed turbines could indirectly affect the neighbouring areas of landscape character where particular views or scenic qualities constitute a key characteristic of the landscape. An assessment of the wider area concludes that there would be no significant indirect effects on these neighbouring landscape character areas or on any designated landscapes (Table 7.16).

12. A viewpoint analysis has been undertaken for seventeen locations, which the appellant regards as being representative of the range of views round the site. These are located at distances of up to 21km from the site. This analysis concludes that significant visual effects would be unlikely to occur at distances beyond 4km. The viewpoint analysis shows that the visibility of the turbines would affect a range of receptors, including residents, road users, tourists, and others involved in recreational activities. The overall impact of the proposal is high from viewpoints 2, 3, 5 & 6; located in Forfar, on the B9134 at Howmuir, at West Mains of Finavon on the A90(T), and at Bogindollo close to the A90(T), respectively.

13. In response to the council's appeal statement, the appellant has submitted further evidence in relation to SNH's guidance in the publication 'Siting and Designing Windfarms in the Landscape', published in final form after the planning application and ES were submitted. This shows that the visual effects of the proposed development would diminish with increasing distance from the site. As regards the guidance on the vertical scale for a windfarm in relation to the key features of the landscape (typically less than one third), the perceived height of the proposed turbines would vary from approximately one third of the underlying hill as viewed from viewpoint 8, to approximately two thirds the height of the hill in viewpoints 2, 3, 5 & 9. In terms of the horizontal scale, the angle of view affected by the proposed turbines decreases with distance. At closer viewpoints such as viewpoint 3 on the B9134, the angle of view amounts to 37°; at viewpoint 5 on the A90 it would be 29°. At viewpoint 6 near Bogindollo, the angle of view would be 15° and at viewpoints 8 and 9, Tannadice and Turin Hill Fort respectively, the angle of view would be 10-12°.

14. The methodology for the LVIA conforms to the Guidelines for Landscape and Visual Impact Assessment produced by the Landscape Institute and was undertaken in accordance with best practice and by chartered landscape architects. However, landscape and visual impact assessment is an extremely complex procedure, relying on value judgements at a number of stages. As acknowledged by the appellant's landscape consultant, determining the acceptability of the landscape to accommodate a particular proposal is a matter of professional judgement.

15. In this case, the landscape impact would be relatively localised. However, the location of the proposed turbines on a hill top ridge, combined with their height, would result in a development that would dominate the immediately surrounding landscape. As recorded in paragraph 10 above, the overall level of direct/indirect landscape effects on the Low Moorland Hills LCT would be high and significant, long term (reversible) and negative. Based on the above evidence and my site inspections, I find that, when viewed from a long stretch of the A90 and certain settlements to the north-west, from various points on the B9134 and from Turin Hill, a recreational destination, the proposed turbines would be out of scale with the medium scale landscape. As such the proposal is incompatible with the

advice in the council's Angus Windfarms Landscape Capacity and Cumulative Impacts Study, that windfarm developments should avoid prominent visibility and clashes of scale with the modest hill size.

16. The proposal also conflicts with the recommendations in the SNH report 'Siting and Designing Windfarms in the Landscape' that the vertical scale of turbines should be "typically less than one third". A key design objective is finding an appropriate scale for the windfarm that is in keeping with that of the landscape. Siting is an important consideration. Skylines are of critical importance and, in this case, the Hill of Finavon is a distinctive landmark. Consequently, although the efforts of the appellant in designing an acceptable scheme are acknowledged, I am not satisfied that these efforts have been successful in this instance.

17. Policy ER5 of the ALPR requires sites selected for development to be capable of absorbing the proposed development to ensure that it fits into the landscape. In this case, for all the above reasons, I conclude that the siting of three 99.5m high turbines almost on the summit of Hill of Finavon does not constitute a development capable of being absorbed into the landscape as required by policy ER5. For similar reasons, I consider that the proposal would have an unacceptable adverse impact on the landscape, contrary to the requirements of policy ER34(b) of the ALPR.

Visual impacts

18. There are a total of twenty-six residential properties within a radius of 2km of the nearest turbine. The EIA has examined the theoretical visibility from these properties, including the garden areas, taking account of existing vegetation and woodland cover. In summary, thirteen of these properties, including one property belonging to the developer of the windfarm, were found to have significant visual effects (see Table 7.6). Only five had significant visual effects from the property's main window. The ES points out that many of the properties are located with their backs to Hill of Finavon. With the proposed turbines located to the rear, most views will be from rear windows and rear gardens with the main view from the property relatively unaffected. This is certainly the case with a number of properties along the B9134 to the south of Hill of Finavon, which I visited on my site inspection. Other properties, to the north-west of the site at Clatterha, Oathlaw and West Mains of Finavon, would also experience significant visual effects.

19. Eight properties would have direct views towards the development and would experience a high magnitude of change. This is particularly relevant in relation to the properties at Howmuir, located within 1km of the turbines; those along the B9134 between Howmuir and Myrestone; and at Myrestone, located some 1.2km from the nearest turbine. The appellant has pointed out that the views of the development from these properties would be restricted to rear windows and rear gardens, and in some cases would be partially screened by vegetation. Whilst this is the case, as confirmed by my site inspection, the issue here is not simply the effect on views from main windows but the impact on the amenity of residents within their property and curtilage. Residents generally use the whole space around their house and the impact on occupiers and visitors approaching or leaving the properties must also be considered. Based on the evidence and my site inspections, I

conclude that the height of the turbines and the rotating motion of the blades, combined with their proximity, would have an overbearing and dominating effect on the visual amenity of a number of residential properties.

20. The council has made reference to other appeal decisions within its area and to an English appeal decision in 2009 that relate to the acceptability of visual impacts on residential properties. These decisions serve to illustrate the fact that any assessment of acceptability relies on judgement rather than measurement. In this case, the ES states that all residential properties are judged to be of high sensitivity. The ES indicates that thirteen of the twenty-six properties within a radius of 2km of the nearest turbine would experience significant visual effects. Policy ER34(b) of the ALPR requires renewable energy developments to have no unacceptable adverse visual impacts on sensitive viewpoints, which must include highly sensitive receptors such as residential properties. On that basis, I find that the significant visual effects experienced by these thirteen properties amounts to an unacceptable adverse visual impact in contravention of the terms of policy ER34(b).

21. As indicated in paragraph 12 above, the viewpoint analysis in the ES shows that the visibility of the turbines would affect a range of receptors within a radius of 4km, including, settlements, road users, tourists and others involved in recreational activities. The visualisations demonstrate that the proposed turbines would be highly visible from Bogindollo and Tannadice, situated to the north of the site and some 1.5km and 4.1km, respectively, from the nearest turbine. Viewed from these settlements, the turbines would be prominently situated on the ridge of the Hill of Finavon and would have significant visual effects. The impact of the proposal is also high from viewpoints in Forfar, at various points along the A90 between Forfar and Finavon and on the B9134 at Howmuir. In the ES, whereas residential receptors are considered to be of high sensitivity in all cases, road users are considered to be of medium sensitivity and the assessment of the visual effects from the main routes within the surrounding area, the A90(T), B9134 and B957, concludes that the overall level of effect on these routes would be low to medium, which would not be significant.

22. Hill walkers are also considered to be medium sensitivity receptors in the ES. The Guidelines for Landscape and Visual Impact Assessment indicate that sensitive visual receptors may include the users of outdoor recreational facilities, including public rights of way. The council has questioned the assessment in the ES of the Hill of Finavon and Turin Hill Forts as being of medium sensitivity rather than high sensitivity. Both viewpoints are Scheduled Ancient Monuments capable of being visited by the public. However, there is limited access to Finavon Fort and little evidence of it being visited on a frequent basis, and I concur with the appellant's view that it does not represent a popular recreational attraction and, thus, a sensitive visual receptor. Furthermore, views towards the proposed turbines would be limited by topography and existing vegetation and tree planting, and I agree with the appellant's view that the magnitude of change would be medium resulting in a medium overall impact.

23. Turin Hill Fort, located some 2.5km south of the nearest turbine, is more of a recreational attraction, with better access. Not only is it the site of a Scheduled Ancient Monument but also of a memorial cairn to a Second World War soldier. There are

extensive un-obscured views over the Hill of Finavon towards the Cairngorms Mountains to the north and the proposed turbines would be unduly prominent in this panorama. The supplementary information provided by the appellant indicates that the horizontal field of view from Turin Hill affected by the proposed development would only be 12°.

Nevertheless, the perceived height of the proposed turbines would be two-thirds the height of the underlying Hill of Finavon and would project some 80-90m above the hill top. They would, therefore, be most obtrusive. On this basis, I consider that Turin Hill is a highly sensitive viewpoint and that the overall impact of the proposed development from a visual perspective would be high.

24. Further afield, the turbines would be visible from the outskirts of Kirriemuir and Brechin, and from the Airlie Monument. I am satisfied that from these and other more distant viewpoints, the visual impact would be insignificant.

25. In conclusion, therefore, I find that the proposed turbines would have an unacceptable adverse visual impact on the thirteen residential properties located within a radius of 2km of the nearest turbine identified in the ES as being subject to significant visual effects. The proposed turbines would also have an unacceptable impact on views from other residential properties situated on the edge of Forfar, at Bogindollo and along the B9134, and on the view from Turin Hill. Therefore, I conclude that the proposal conflicts with the requirements of policy ER34(b).

Cumulative landscape and visual impact

26. The assessment of cumulative impact includes all existing operational, consented, at planning and at scoping stage windfarms within a 60km radius of the proposed turbines. The majority are situated to the south of the site, in the hills behind Dundee, or to the north-east associated with the Aberdeenshire coastal landscapes. ZTV analysis has been undertaken of the proposed development in combination with operational windfarms at Drumderg, Tullo and Scotston Hill; consented sites at Ark Hill, Welton of Creuchies, North Mains of Cononsyth and East Memus; and planned sites at Carroch and Woodside. Potential cumulative visibility has been assessed at each of the seventeen viewpoints identified in the LVIA. Cumulative impact assessment of major tourist and transport routes, the A90(T), B9134 and B957, has also been undertaken.

27. The assessment concludes that views in which the operational windfarms would be seen in conjunction with the proposed development would be limited and the overall cumulative impact would be negligible. The overall cumulative visual impact of the operational and consented windfarms in conjunction with the proposed development would be low. The overall cumulative visual impact of the operational, consented and planned windfarms in conjunction with the proposed development would also be low. Significant cumulative effects would be limited to the view from Kirriemuir Hill.

28. The council considers that the ES generally understates the cumulative impacts that would be experienced and draws attention to a number of further windfarm proposals, all in the region of 13-16km from Hill of Finavon, that are not included in the ES. The appellant has provided a detailed response to the council's concerns regarding potential cumulative

effects in relation to the Strathmore Valley, and potential sequential cumulative effects from the A90 between Forfar and Brechin and the A94 south of Forfar.

29. The operational windfarm at Drumderg is located some 35km to the west of the appeal site, that at Tullo is situated some 30km to the north-east, and Scotston Hill is located some 22km to the south-west. The cumulative Finavon/Drumderg ZTV shows that the theoretical combined visibility of the Finavon and Drumderg schemes would be largely restricted to a section of the Strathmore Valley west of Forfar, primarily along the A94 between Coupar Angus and Forfar. Based on the submitted evidence and my inspection of the area, I agree with the appellant that such intervisibility would be limited by the angle of view, topography and vegetation. Viewed from the A94, the two sites are located almost at right angles from each other and the view of Drumderg becomes increasingly oblique as Forfar is approached.

30. The theoretical cumulative visibility of Finavon and Tullo is largely restricted to the eastern part of Strathmore, the area north of Forfar and Brechin. Also visible to the north-west would be the consented turbine at East Memus. Views westwards of the Drumderg and consented Welton of Creuchies windfarms would be intermittent between Brechin and Forfar and only at a distance in excess of 24km. Views of Scotston and Ark Hill, in the Sidlaw Hills, would be limited. Consequently, the intervisibility of the Finavon and Scotston and Ark Hill schemes would be concentrated on the area between Forfar and Kirriemuir.

31. In relation to the sequential cumulative assessments, sequential cumulative visual impacts occur along the A94 between Coupar Angus and Forfar and along the A90(T). When travelling north-east along the A94, there are intermittent views of Drumderg windfarm to the north-west and Scotston Hill windfarm to the south. There would also be views of the Welton of Creuchies windfarm to the north-west and Ark Hill to the south-east but these would be partially screened. Between Meigle and Forfar, visibility of these existing and consented windfarms decreases as the angle of view becomes more oblique. The Finavon turbines would only contribute to the views of road users on the A94 at points east of Glamis and on the approach to the A90(T) junction when the existing and consented turbines would be out of view. Therefore, I agree with the appellant that although the Finavon turbines would contribute to cumulative sequential visibility along this route to a minor extent, they would not result in significant cumulative adverse visual effects.

32. In terms of that section of the A90(T) between Brechin and Forfar, there would be distant views of the Drumderg and Welton of Creuchies windfarms to the west at distances in excess of 30km. Views of Ark Hill would be limited to distant views from Brechin at some 27km distance and the outskirts of Forfar. The East Memus turbine would be visible to the north of the A90(T). Combined visibility with the Finavon turbines would be restricted to the single turbine at East Memus and the blade tips of Ark Hill. Travelling northwards, the Tullo windfarm only becomes a prominent feature north of Brechin. Combined visibility with the Finavon turbines from points south of the appeal site would be intermittent at a distance in excess of 30km.

33. Therefore, on the basis of the evidence before me, I find that although the visual impact of the Hill of Finavon proposal in isolation would result in significant adverse visual

effects at distances of up to 2km from the site, the combination of the Finavon proposal with existing operational and consented developments would not result in significant adverse cumulative visual effects over a wider area.

34. In summary, I consider that the cumulative landscape and visual impact of the Finavon proposal with all other operational, consented, at planning and at scoping stage windfarms would not be significant, because of the distances involved, the effect of topography and vegetation, and the relatively small scale of the proposal and of the majority of the other proposals. In arriving at this view, I have noted the terms of paragraph 188 of Scottish Planning Policy (SPP) that the weight to be attached to undetermined applications should reflect their position in the application process and that cumulative impact largely relates to the scale and proximity of these other developments.

35. In relation to compliance or otherwise with the development plan, in respect of cumulative impacts, policy ER35(f) of the ALPR requires wind energy developments to be capable of co-existing with other existing or permitted wind energy developments in terms of visual amenity and landscape. It does not include developments at the planning or scoping stage. I am satisfied that the proposed development would have no significant cumulative impact in combination with the operational schemes at Drumderg, Tullo and Scotston Hill, and consented schemes at Arkhill, Welton of Creuchies, North Mains of Cononsyth and East Memus. I conclude that the proposal does not conflict with policy ER35(f) of the ALPR.

Impact on residential amenity

36. The ES indicates that thirteen of the twenty-six residential properties within a radius of 2km of the nearest turbine would experience significant visual effects. I conclude in paragraph 20 above that the significant visual effects experienced by these thirteen properties amounts to an unacceptable adverse visual impact in contravention of the terms of policy ER34(b) of the ALPR.

37. Other potential impacts on residential amenity, shadow flicker, noise and reflected light, are covered by policy ER35(c). The council is satisfied that there are no adverse issues relating to shadow flicker and reflected light. In relation to noise, the council is not satisfied that the noise limits have been derived in accordance with the guidance in 'The Assessment and Rating of Noise from Wind Farms' (ETSU-R-97). The council suggests that data has not been gathered in accordance with best practice and the consequence of this could be that the noise limits are too high and operational wind turbine noise would not be masked by background noise as intended by ETSU-R-97.

38. ETSU-R-97 details two methods for the assessment of operational wind turbine noise: a simple method whereby it can be demonstrated that predicted operational wind turbine noise will not exceed 35dBA L₉₀ up to a wind speed of 10m/s at 10m height at noise sensitive locations; or a complex method using background noise and wind speed data to derive appropriate noise limits. The appellant has adopted the complex method and the main criticism of the council relates to the way in which rain data has potentially been excluded from the background noise data collected. In response, the appellant has pointed

out that ETSU-R-97 guidance does not prescribe a method for detecting and accounting for rainfall and that the data was collected in accordance with best practice. The appellant is content to accept the lowest day time and night-time noise limits set by ETSU-R-97 at 35db(A) and 43db(A), respectively, for all properties apart from two where there is a financial interest and the 45bd(A) standard applies.

39. The council has suggested appropriate conditions that would ensure that noise emission levels at the closest residential properties would comply with the guidance in ETSU-R-97. The appellant has suggested certain minor amendments. I find that, subject to the conditions suggested by the council, the proposal would not have a detrimental effect on residential property by reason of noise. Consequently, I conclude that the proposed development could meet the specific requirements of policy ER35(c) of the ALPR.

40. Criterion (a) of policy ER34 in the ALPR requires the siting and appearance of apparatus to have been chosen to minimise the impact on amenity, while respecting operational efficiency. The evidence from the appellant indicates that the final decision on the number, siting and design of the proposed turbines followed a rigorous assessment of the potential impact of the proposal on the surrounding area. The optimum spacing of the turbines with respect to noise and shadow flicker constraints and the topography of the Hill of Finavon determined the final layout shown in the planning application. Based on the evidence, I am satisfied that the siting and appearance of the apparatus have been chosen to minimise the impact on amenity whilst seeking to maximise electrical output. Consequently, I find that policy ER34(a) has been complied with.

Impact on natural heritage

41. Policy ER4 of the ALPR guards against developments that would have a significant adverse impact on species or habitats protected under British or European Law. Bats are a European Protected Species. The council has highlighted the fact that the proposed turbines locations are inaccurately shown on the Bat Survey Plan. This has been rectified by the appellant and an amended plan shows the turbine locations on the planning application compared with the original turbine positions shown on the Habitat Map in the ES. The proposed turbines are positioned 45m, 65m and 68m, respectively, from adjoining mature woodland. The evidence from the appellant is that no bats were recorded on the site or in adjoining mature woodland during three visits to the site. Consequently, the proposed turbines are not located within 50 metres of a "bat habitat feature"; the standard minimum distance recommended in the accepted best practice guidance on bats and wind turbines published by the Bat Conservation Trust and Natural England (TIN051). The appellant submits, therefore, that the positioning of the turbines within the minimum separation distance from the woodland edge recommended in TIN051 will have no adverse impact on bats. There is no evidence that the proposal would have a significant adverse impact on any other valuable habitats or species. Accordingly, I am satisfied that the proposal complies with policy ER4 of the ALPR.

42. Policy ER35(b) specifically requires that wind energy development should not cause unacceptable interference to birds, especially those that have statutory protection. The ES indicates that the proposed turbines would have minimal impact on breeding and wintering

birds. SNH has raised no objection in relation to protected species. Based on this evidence, I am satisfied that the proposal complies with policy ER35(b) of the ALPR.

Impact on cultural heritage

43. Policy ER18 of the ALPR protects Scheduled Ancient Monuments from damage to the site and the integrity of the setting. Policy ER34(c) requires proposals for renewable energy developments to have no unacceptable detrimental effect on any sites designated for historic or archaeological reasons.

44. The proposal would not result in damage to the site of any scheduled monument. The ES predicts impacts of medium significance on the setting of Hill of Finavon fort, Turin Hill fort and Rob's Reed fort, which is situated 500m ESE of Home Farm. Historic Scotland is content with these findings and, accordingly, has not offered an objection to the proposal. Aberdeenshire Council's Archaeological Service has not objected to the application on the basis of impact on any archaeological sites in the area. However, the council considers that the proposed development would significantly impact upon the setting of both Finavon and Turin Hill forts.

45. As indicated in paragraph 22 above, I agree with the appellant's view that the proposal would have a medium impact on views from Finavon Fort. In relation to Turin Hill Fort, as indicated in paragraph 23 above, I consider that this is a highly sensitive viewpoint and that the overall impact of the proposed development from a visual perspective would be significant. Nevertheless, I am content that the proposed development would only have a medium impact on Turin Hill fort from a cultural perspective. It is located some 2.4km from the nearest turbine and stands on a hilltop independently of the Hill of Finavon. I am not persuaded that the proposed development would damage the integrity of the setting of this hill fort when viewed from the surrounding area.

46. There are a number of listed buildings and historic gardens and designed landscapes in the surrounding area. The closest listed building is the 'B' listed Carsegownie farmhouse, situated some 900m from the nearest turbine. The proposed development would be located to the rear of the building, at an oblique angle, beyond a line of pylons and, consequently, the proposal would not have a significant adverse effect on the setting of the building. The council is satisfied that the proposal would not have an adverse impact on the setting of any listed buildings or historic and designed landscapes to a magnitude that would merit refusal of the planning application.

47. I conclude that the proposal complies with the terms of policies ER18 and ER34(c) of the ALPR.

Overall conclusions in relation to development plan policies

48. For the reasons given in paragraphs 7-17, I conclude that the proposal would have an unacceptable adverse impact on the landscape, contrary to the requirements of policies ER5 and ER34(b) of the ALPR. For the reasons given in paragraphs 18-25 above, I conclude that the proposal would have an unacceptable adverse visual impact on a number

of residential properties located within a radius of 2km of the nearest turbine, and on certain views from the surrounding area. Accordingly, the proposal also conflicts with the requirements of policy ER34(b) in relation to visual impact. As a result of proposal's non-compliance with policies ER5 and ER34(b), the proposed development fails to meet the requirements of principles (b) and (h) of the schedule attached to policy S6 of the ALPR. It also lacks the support of policy S1(b) of the ALPR.

49. For the reasons given in paragraphs 26-35, I am satisfied that the proposal does not conflict with policy ER35(f) of the ALPR. For the reasons given in paragraphs 36-40 above, I find that policies ER34(a) and ER35(c) have been complied with. For the reasons given in paragraphs 41-42, I am satisfied that the proposal complies with policies ER4 and ER35(b) and, for the reasons given in paragraphs 43-47 I conclude that the proposal complies with the terms of policies ER18 and ER34(c) of the ALPR.

50. Overall, I conclude that, whilst the proposal accords with a number of relevant local plan policies, non-compliance with policies ER5 and ER34(b) and, consequently, policies S6 and S1(b) means that the proposal does not meet all the requirements of the adopted local plan. Non-compliance with policies ER5 and ER34(b) of the ALPR also means that the proposal is not justified in relation to the requirements of policy 6 of TAYplan. Accordingly, I find that the proposal conflicts with the development plan.

Other material considerations

51. There is strong support in principle for the development of renewable energy schemes in statements of Scottish Government policy and advice. In relation to the location of wind turbines, this should be considered carefully to ensure that landscape and visual impact is minimised. A balance has to be struck, therefore, when determining renewable energy proposals. In this case, I have determined that the landscape and visual impact of the proposal would be unacceptable. I am not persuaded that the significant adverse landscape and visual impacts that would result from the development would be outweighed by the contribution that the three wind turbines would make to Scottish and UK renewable targets or by any local economic benefits that might accrue from the construction of the turbines.

52. Finally, I note that none of the statutory consultees object to the proposal. Any potential effects in relation to aircraft safety, noise, shadow flicker, impact on wildlife, biodiversity, hydrogeology and hydrology, and impact on residential amenity can be addressed through the imposition of conditions. However, I also note that one hundred or so representations and petition comprising some 210 signatories have been received by the council objecting to the proposed development. A further fourteen representations have been received in relation to the appeal, reiterating the grounds of objection made to the council.

Conclusion

53. I have given careful consideration to all the evidence and submissions in this case, including the ES and the supplementary information provided by the appellant, the council's

written statement and suggested conditions in the event of a favourable decision in this appeal, and all the representations received. I conclude that a grant of planning permission for the proposed development would be contrary to the development plan and would not be supported by National Planning Policy. There are no other material considerations that would justify an exception to the provisions of the development plan.

Douglas G Hope

Reporter

Directorate for Planning and Environmental Appeals

Appeal Decision Notice

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Decision by Dan Jackman, a Reporter appointed by the Scottish Ministers

- Planning appeal reference: PPA-120-2036
- Site address: Welton, Kingoldrum, Kirriemuir, DD8 5HY
- Appeal by The Carrach Wind Farm LLP against the decision by Angus Council
- Application for planning permission 14/00276/FULL dated 3 April 2014 refused by notice dated 17 September 2014
- The development proposed: Erection of two 225 kw wind turbines 47 metres to tip
- Application drawings: Included in the submitted Environmental Report
- Date of site visit by Reporter: 28 November 2014 and 8 April 2015

Date of appeal decision: 29 April 2015

Decision

I allow the appeal and grant planning permission subject to the 19 conditions listed at the end of the decision notice. Attention is drawn to the 3 advisory notes at the end of the notice.

Reasoning

1. I am required to determine this appeal in accordance with the development plan, unless material considerations indicate otherwise.

Development Plan

2. The development plan consists of the Tayplan Strategic Development Plan (approved June 2012) and the Angus Local Plan Review (adopted in February 2009). Tayplan provides the general strategic planning context for the area in order to inform the preparation of individual local development plans. This includes providing the vision and general planning objectives. In relation to renewable energy proposals, the general objective is that provision should be made in an environmentally acceptable manner. However, Tayplan does not include detailed guidance that is directly applicable for the assessment of two turbines less than 50 metres in height.

3. Policies ER 34 and ER 35 of the Angus Local Plan Review relate to renewable energy development and wind energy proposals. As the appeal is for two wind turbines both policies have to be considered together. The objective is to support in principle renewable energy development provided that the various criteria in Policies ER 34 and ER 35 can be complied with.

4. In addition, there are a number of general policies that apply to any development, including a proposal for two wind turbines. The ones I have been referred are Policy S1 (b) – development in the countryside, Policy S6 (b) – development principles and ER 5 – conservation of landscape character. I note however, that the relevant criterion for these three policies essentially repeat the requirement to consider the landscape and visual impact of the proposal as set out in Policies ER 34 and ER 35.

5. The submissions to the council and those made during the appeal process have raised a number of issues. However, it appears to me that the determining issue in dispute between the council and the appellant is whether the two turbines would result in unacceptable landscape and visual impacts, including impacts on nearby dwellings and cumulative impacts.

Landscape impacts

6. The appellant has submitted an environmental report which includes a landscape and visual impact assessment prepared using a widely recognised methodology. The assessment in turn has been considered by the council's planning officials. There is no dispute that the proposal will not have any unacceptable impacts on any formal landscape designation.

7. The Tayside Landscape Character Assessment is referred to in Policy ER 5 and should be taken into account to ensure a good landscape fit. The site falls within landscape character type Tay 5 – Highland foothills. I agree that in general terms, the highland foothills form a transition between the highland summits and the broad valley lowland landscape types to the south. I recognise that any wind turbine proposal would have to be carefully designed to make sure that it was in scale with the landscape and would not be unduly prominent.

8. For landscape and visual assessment purposes 'scale' does not relate to any particular dimension. It is a descriptive term regarding the perception of relative size. Scale is generally considered to be important because viewers will use other landscape features as scale indicators to gauge the perceived size of the two turbines. A turbine that is out of scale may be perceived to be unduly conspicuous and could visually dominate the surrounding landscape.

9. Both the appellant and the council have taken particular phrases from the Angus Wind Farms – Landscape Capacity and Cumulative Impacts Study (2008), Angus Local Plan Review - Implementation Guide for Renewable Energy Proposals (2012), and Strategic Landscape Capacity Assessment for Wind Energy in Angus (2014) to support their respective conclusions about the appropriateness of the scale of the two turbines.

10. Landscape capacity studies can be helpful tools in understanding the nature of the landscape impacts caused by wind turbines. However, they should not be given the attribute of detailed zonings for a particular number of turbines of a particular size. I note that paragraph 1.4 of the Strategic Landscape Capacity Assessment for Wind Energy in Angus (2014) states, *"It is emphasised that this is a strategic level landscape and visual study, providing a context for consideration of capacity for, and the cumulative effects of,*

existing and potential wind turbine developments in Angus. No site specific conclusions should be drawn from it in relation to current, proposed or future wind turbines and wind farms."

11. The council in justifying the refusal of planning permission appears to attach considerable weight to certain phrases. In particular, *"on lower ground towards Strathmore"* and *"not be located near the summit of Mile Hill."* However, I consider that it is more important to take into account the general conclusions of such studies rather than focus on individual phrases. I note for example, that the objective for landscape character type Tay 5 - Highland foothills, is not to protect a wind farm free landscape but to create a landscape with occasional wind farms.

12. The appellant's site specific landscape and visual assessment considered both the impact on landscape character type Tay 5 – Highland foothills and the impact on the surrounding landscape character types. The assessment concluded that there would be no significant impacts. I agree that the direct impacts of two turbines would be limited. In my judgement, two turbines with a hub height of 30.5 metres and a total height less than 50 metres would not be out of scale with the surrounding landscape. In general, the two turbines would be seen in the context of a topography that would not make them appear unduly conspicuous.

13. Based on my site visits and assessment of the material before me, I find the conclusions of the appellant's landscape and visual impact to be fair. It seems to me that these conclusions are consistent with the three landscape capacity studies. Overall, the three landscape capacity studies do not support the assertion that two turbines of a maximum height of 47 metres would be out of scale with landscape character type Tay 5 – Highland foothills.

Visual impacts

14. Diagrams 5.5a and 5.5b of The Carrach Wind Turbines Landscape Figures (Production A01b) show the extent of theoretical visibility. In practice, this is a worst case, the actual extent of visibility would be less due to the presence of trees and minor changes in topography. The diagrams show that the area of most visibility is to the south of the site. Thirteen representative viewpoints were assessed in the environmental report. At only one of the viewpoints was the change in view considered to be significant.

15. It seems to me that the main public viewpoints would be from the local road network. As such, views would be for a relatively short duration. Furthermore, due to the topography, views of the two turbines are generally not constant. I accept that Cat Law is also a public viewpoint. However, due to a combination of distance, the height of the two turbines, the intervening topography and the expansive views, I consider that there would be a negligible impact. I believe that this is demonstrated in the wire line diagrams included within Production A02a. Overall, in the context of planning policies supporting appropriate wind turbine development, I do not consider that there are any unacceptable visual impacts.

Residential amenity

16. Subject to appropriate conditions there is no suggestion that the proposal would exceed the noise limits set out in Assessment and Rating of Noise for Wind Farms (ETSU-R-97). There is sufficient separation distance between the two turbines and nearby houses to avoid any shadow flicker.

17. The environmental report identifies 27 properties within 2 kilometres of the two turbines. It considers that only 4 would be affected. One of these has a financial interest in the project. It concludes that none of the 4 properties would experience a significant visual impact. The author of the report of handling accepted this conclusion.

18. I agree that nearby local residents would not only experience the two turbines from their houses but also within their garden areas and travelling about the local road network as part of their daily routine. In my opinion, nearby local residents would experience the greatest impact from the development.

19. However, the fact that the two turbines would be seen at relatively close quarters is not of itself a sound basis for the refusal of planning permission. Bearing in mind the distances involved, the relatively modest height of the two turbines and that views are not solely focussed upon the two turbines, I agree with the conclusions of the environmental report. I cannot accept that two turbines of a height less than 50 metres would have a demonstrably harmful impact on the residential amenities of nearby houses.

Cumulative landscape and visual impacts

20. I accept that within the larger study area there are a number of operational and consented wind turbines that would mean that there are some cumulative impacts. It is important to recognise that some cumulative landscape and visual impacts are an inevitable consequence of both the policies of the development plan and of the Scottish Government.

21. However, bearing in mind the separation distances and the modest height of the proposal, I do not consider that any cumulative impacts would be significant. In my judgement, landscape character type Tay 5 - Highland foothills would remain a landscape with occasional turbines as a result of the development of the proposal.

Other matters

22. Policies ER 34 and ER 35 have criteria that relate to other matters. These include designated sites, road safety, water quality, impact on birds, television interference and site restoration. Some of these matters were raised in the representations made by local residents. However, none, subject to appropriate conditions, are considered significant in the environmental report, in the consultation replies from the relevant organisations or by the council. Therefore, subject to appropriate planning conditions, I consider that none of the other criteria are breached by the proposal.

Development plan conclusions

23. Overall, I find that where landscape and visual impacts occur, they are localised, proportionate and not unexpected for a proposal of this nature. In the context of development plan policies supporting renewable energy proposals, I find no unacceptable impacts that would conflict with the criteria in Policies ER 34 and ER 35. I therefore agree with the author of the report of handling, that overall, the proposal complies with the provisions of the development plan.

Material Considerations

Previous appeal decision

24. I am aware that a previous proposal at a similar location was refused planning permission and the subsequent appeal dismissed. However, each case must be considered on its individual merits.

25. The previous proposal related to 9 turbines with a maximum height of 84 metres. The scale and extent of the overall landscape and visual impact of the previous proposal is of a completely different order than the proposal before me. I note for example, that the Strategic Landscape Capacity Assessment for Wind Energy in Angus (2014) concludes that there is no capacity in landscape character type Tay 5 - Highland foothills for turbines over 50 metres.

26. It is an unfair reading of the previous appeal decision to suggest that no other wind turbine proposal would ever be acceptable. It is desirable that proposals address reasonable planning concerns expressed in previous decisions.

Balintore Castle

27. Balintore Castle is an A listed building currently being renovated, approximately 2.8 kilometres from the two turbines. I agree with my colleague, that at such a distance the issue is not the impact of the two turbines on the setting of the listed building but the impact of the view from the castle itself. I also agree that the castle has obviously been designed to maximise the views to the east and south.

28. However, unlike the scheme before my colleague, only two blade tips would be visible. In the context of such expansive views, I cannot agree that the visibility of two blade tips would amount to a significant visual disturbance. I cannot therefore see any reasonable basis for concluding that two turbines, less than 50 metres in height, partially screened by intervening topography and 2.8 kilometres away should undermine the renovation project or the future use of an A listed building.

Council's planning guidance and advice

29. I have considered the three landscape capacity studies in the landscape and visual impact section above. The council considered that the proposal breached the aims of the capacity studies. However, I find that this places undue reliance on certain phrases. Overall, I find that that two turbines, less than 50 metres in height, would comply with the

overall objective of the various studies. The development of the proposal in my opinion would continue to keep landscape character type Tay 5 - Highland foothills a landscape with occasional wind farms.

Benefits

30. The proposal would generate a relatively modest amount of electricity but this would still contribute to achieving the Scottish Government's renewable energy targets. In particular, the Scottish Government target for 500 Megawatts of electricity generated from community and locally owned projects. Any capital investment, irrespective of its size is beneficial to the wider economy. I also note the submission made on behalf of the appellant that the scheme would assist in developing the farm business.

Scottish Planning Policy

31. Scottish Planning Policy introduces a presumption in favour of development that contributes to sustainable development. I have found above that the proposal would have no unacceptable environmental impacts. It seems to me, that a proposal for two turbines that would be environmentally acceptable would be exactly the kind of development that the Scottish Government would consider contributes to sustainable development.

32. Paragraph 169 lists a number of considerations for wind farms. Although expressed in a different style, I note that many of these considerations are similar to those listed in Policies ER 34 and ER 35. Where paragraph 169 lists additional matters, I have not been made aware of any where a planning harm would occur. I conclude that the proposal can draw considerable support from Scottish Planning Policy.

Conclusions

33. I therefore conclude that for the reasons set out above, the proposed development accords overall with the relevant provisions of the development plan. I do not consider that there are any material considerations of sufficient weight that would justify the refusal of planning permission in this instance. I have considered all the other matters raised but there are none which would lead me to alter my conclusions.

Conditions

34. The appellant has not disputed the planning conditions proposed by the council. In general terms I agree that the proposed conditions are necessary and comply with the advice contained in Circular 4/1998 – The Use of Conditions in Planning Permissions. However, the noise conditions and notes for guidance mix reference to noise emissions and noise immissions. Noise emission means the noise emitted by a source of sound. Noise immission means the noise to which a receiver is exposed. For the purposes of the noise conditions and guidance notes, it is the noise received by nearby residents that is relevant. I have therefore made sure that there is a consistent reference to noise immissions.

Dan Jackman

Reporter

Directorate for Planning and Environmental Appeals
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Conditions

1. That the wind turbines hereby approved shall be removed from the site no later than 26 years after the date when it is erected unless otherwise approved by the Planning Authority through the grant of a further planning permission following submission of an application. Written confirmation of the date of erection of the turbines shall be provided to the Planning Authority within one month of that date.

Reason: In order to limit the permission to the expected operational lifetime of the wind turbine development and to allow for restoration of the site.

2. That prior to the commencement of development, the applicant shall provide the Ministry of Defence (Defence Estates – Safeguarding) with the following information, a copy of which shall also be submitted to the Planning Authority;

- Proposed date of commencement of construction;
- Estimated date of completion of construction;
- Height above ground level of the tallest structure;
- Maximum extension height of any construction equipment;
- Latitude and Longitude of the proposed turbine.

Reason: In the interests of aviation safety.

3. That should any wind turbine no longer be required or should it cease to generate electricity for a period of six months it shall be removed and the site restored to its previous condition in accordance with the details approved under condition 4(iii) of this permission. The restoration works shall be completed no later than twelve months following the date that the turbine has ceased to generate electricity or as otherwise agreed in writing with the Planning Authority.

Reason: In order to ensure that the turbines are removed and the land restored to its previous condition in the event that the turbines are no longer required in the interests of the visual amenity of the area.

4. That prior to the commencement of the development hereby approved the following information shall be submitted to and approved in writing by the Planning Authority: -

(i) The precise route and details of the transmission cables from the turbine. Thereafter the transmission cables shall be provided only in accordance with the approved details;

(ii) Details of the colour of the wind turbines which shall be Agate Grey (RAL 7038) unless otherwise agreed with the Planning Authority. Thereafter the turbines shall be finished in accordance with the approved details;

(iii) A scheme for the decommissioning and restoration of the site including aftercare measures. The scheme shall set out the means of reinstating the site to agricultural land following the removal of the components of the development. The developer shall obtain written confirmation from the Planning Authority that all decommissioning has been completed in accordance with the approved plan and (unless otherwise agreed in writing by the Planning Authority) works for removal of site apparatus shall be completed within 12 months of the final date electricity is generated at the site;

(iv) A survey of existing television signal reception to establish a baseline against which to assess the impact of the wind turbines. Thereafter, within six weeks of the wind turbine coming into operation, and subsequently at the reasonable request of the Planning Authority following receipt of a complaint, a report assessing the effect of the wind turbines on local television signal reception ('the report') shall be submitted to the Planning Authority. If any impact on TV reception signal takes place, the report shall include detailed measures to overcome reception interference. In the event that interference with TV signals occurs, the operation of the turbines shall cease until measures to mitigate any such interference are implemented. Should such measures fail to address the TV interference the operation of the turbines shall cease until otherwise approved in writing by the Planning Authority.

(v) The developer shall secure the implementation of an archaeological watching brief, to be carried out by an archaeological organisation acceptable to the Aberdeenshire Council Archaeology Service on behalf of the planning authority, during any ground breaking and development work. The retained archaeological organisation shall be afforded access at all reasonable times and allowed to record and recover items of interest and finds. Terms of Reference for the watching brief will be supplied by the Aberdeenshire Council Archaeology Service. The name of the archaeological organisation retained by the developer shall be given to the planning authority and to the Aberdeenshire Council Archaeology Service in writing not less than 14 days before development commences.

Reason: In order that the Planning Authority may verify the acceptability of the transmission lines, access route and turbine colour in the interests of visual amenity; in order to ensure appropriate site restoration; and in order to mitigate any impacts on television reception and in order to record items of archaeological interest.

5. At least one month prior to commencement of development, the developer shall provide to the planning authority written details of the bond or other financial provision which it proposes to put in place to cover all decommissioning and site restoration costs on the expiry of the consent/permission period in accordance with the requirements of condition 4(iii). No development shall start on site until the developer has provided documentary evidence that the proposed bond or other financial provision is in place and written confirmation has been given by the planning authority that the proposed bond or other financial provision is satisfactory. The developer shall ensure that the approved bond or other financial provision is maintained throughout the duration of this consent/permission. The adequacy of the approved bond or other financial provision shall be subject to a review at five yearly intervals from commencement of development, to be paid for by the developer and conducted by a competent independent professional who has relevant experience within the wind energy sector. The findings of such reviews shall be submitted in writing to

the planning authority within 2-months of the anniversary of the commencement of development.

Reason: To ensure that there are sufficient funds available for the full costs of site restoration.

6. That the turbines hereby approved shall: -

- have no symbols, signs, logos or other lettering by way of advertisement displayed on any part of the wind turbine;
- be designed such that the blades of both turbines rotate in the same direction, that is, all clockwise or anticlockwise;
- not be lit other than for the purposes of aviation safety.

Reason: In the interests of the visual amenity of the area.

7. That, prior to the commencement of development, a Construction Traffic Management and Routing Plan shall be submitted to and approved in writing by the Planning Authority. The details of the plan should consider arrangements for the following:

- (i) agreement with the Roads Authority on the routing for abnormal loads;
- (ii) the type and volume of vehicles to be utilised in the delivery of construction materials;
- (iii) assessment of the suitability of the proposed routes, including bridge capacities, to accommodate the type and volume of traffic to be generated by the development. The assessment shall include details of swept path analyses and include DVD video route surveys;
- (iv) mitigating measures on public roads, including, carriageway widening, junction alterations, associated drainage works, protection to public utilities, temporary or permanent traffic management signing, and temporary relocation or removal of other items of street furniture;
- (v) the restriction of delivery traffic to agreed routes;
- (vi) the timing of construction traffic to minimise impacts on local communities, particularly at school start and finish times, during refuse collection, at weekends and during community events;
- (vii) a code of conduct for HGV drivers to allow for queuing traffic to pass;
- (viii) liaison with the roads authority regarding winter maintenance;
- (ix) contingency procedures, including names and telephone numbers of persons responsible, for dealing with vehicle breakdowns;
- (x) a dust and dirt management strategy, including sheeting and wheel cleaning prior to departure from the site;

- (xi) the location, design, erection and maintenance of warning/information signs for the duration of the works, at site accesses and crossovers on private haul roads or tracks used by construction traffic and pedestrians, cyclists or equestrians;
- (xii) contingencies for unobstructed access for emergency services;
- (xiii) co-ordination with other major commercial users of the public roads on the agreed routes in the vicinity of the site;
- (xiv) traffic management, in the vicinity of temporary construction compounds;
- (xv) the provision of data from traffic counters, installed at locations and at intervals to be agreed with the Roads Authority, at the applicant's expense;
- (xvi) arrangements for the monitoring, reviewing and reporting on the implementation of the approved plan; and
- (xvii) procedures for dealing with non-compliance with the approved plan.

The development shall be undertaken in accordance with the approved Construction Traffic Management and Routing Plan.

Reason: To ensure the free flow of traffic, in the interests of road safety and for the convenience of road users.

8. The rating level of noise immissions from the wind turbines (including the application of any tonal penalty) when determined in accordance with the attached Guidance Notes (to this condition), shall not exceed at any property lawfully existing at the date of this planning permission, LA90 35dB (A) 10 min at wind speeds up to 10 m/s at 10m height.

Reason: In order to safeguard the residential amenity of adjacent property.

9. Prior to the commencement of development the make and model of the turbine selected for use in the development shall be submitted to and approved in writing by the Planning Authority. In the event that any turbine other than the candidate turbine is to be installed, a detailed noise assessment, including where necessary a cumulative assessment taking into account any other approved wind turbine development, demonstrating that the noise limits specified by this permission shall not be exceeded shall be submitted for the written approval of the Planning Authority. Only the make and model of turbine approved by this condition shall be erected.

Reason: In order that the planning authority can verify the model of turbine to be used and to ensure that noise limits can be met.

10. In the event that noise immissions from any wind turbine exceeds the levels set by this permission, operation of the turbine/s shall cease until measures to reduce noise levels to comply with this permission are implemented. Should such measures fail to achieve compliance with the noise levels set by this permission the operation of the turbine/s shall cease until otherwise approved in writing by the planning authority.

Reason: In order to safeguard the residential amenity of adjacent property.

11. The wind farm operator shall continuously log power production, wind speed and wind direction, all in accordance with Guidance Note 1(d). This data shall be retained for a period of not less than 24 months. The wind farm operator shall provide this information in the format set out in Guidance Note 1(e) to the Planning Authority on its request, within 14 days of receipt in writing of such a request.

Reason: In order to safeguard the residential amenity of adjacent property.

12. No electricity shall be exported until the wind farm operator has submitted to the Planning Authority for written approval a list of proposed independent consultants who may undertake noise compliance measurements in accordance with this permission. Amendments to the list of approved consultants shall be made only with the prior written approval of the Planning Authority.

Reason: In order to safeguard the residential amenity of adjacent property.

13. Within 21 days of receipt of a written request from the Planning Authority, following a complaint to it from an occupant of a sensitive property alleging noise disturbance at that property, the wind farm operator shall, at its expense, employ a consultant approved by the Planning Authority to assess the level of noise immissions from the wind farm at the complainant's property in accordance with the procedures described in the attached Guidance Notes. The written request from the Planning Authority shall set out at least the date, time and location that the complaint relates to and any identified atmospheric conditions, including wind direction, and include a statement as to whether, in the opinion of the Planning Authority, the noise giving rise to the complaint contains or is likely to contain a tonal component. For the avoidance of doubt sensitive receptors includes all residential properties, hospitals, schools and office buildings.

Reason: In order to safeguard the residential amenity of adjacent property.

14. The assessment of the rating level of noise immissions shall be undertaken in accordance with an assessment protocol that shall previously have been submitted to and approved in writing by the Planning Authority. The protocol shall include the proposed measurement location identified in accordance with the Guidance Notes where measurements for compliance checking purposes shall be undertaken, whether noise giving rise to the complaint contains or is likely to contain a tonal component, and also the range of meteorological and operational conditions (which shall include the range of wind speeds, wind directions, power generation and times of day) to determine the assessment of rating level of noise emissions. The proposed range of conditions shall be those which prevailed during times when the complainant alleges there was disturbance due to noise, having regard to the written request by the Planning Authority to investigate a complaint, and such others as the independent consultant considers likely to result in a breach of the noise limits.

Reason: In order to safeguard the residential amenity of adjacent property.

15. The wind farm operator shall provide to the Planning Authority the independent consultant's assessment of the rating level of noise immissions undertaken in accordance with the Guidance Notes within 2 months of the date of the written request of the Planning Authority for compliance measurements to be undertaken, unless the time limit is extended in writing by the Planning Authority. The assessment shall include all data collected for the purposes of undertaking the compliance measurements, such data to be provided in the format set out in Guidance Note 1(e) of the Guidance Notes. The instrumentation used to undertake the measurements shall be calibrated in accordance with Guidance Note 1(a) and certificates of calibration shall be submitted to the Planning Authority with the independent consultant's assessment of the rating level of noise emissions.

Reason: In order to safeguard the residential amenity of adjacent property.

16. Where a further assessment of the rating level of noise immissions from the wind farm is required pursuant to Guidance Note 4(c), the wind farm operator shall submit a copy of the further assessment within 21 days of submission of the independent consultant's assessment pursuant to condition 7 above unless the time limit has been extended in writing by the Planning Authority.

Reason: In order to safeguard the residential amenity of adjacent property.

17. Within 2 months of receipt of a written request from the Planning Authority following a complaint to it from an occupant of a sensitive property, the wind farm operator shall, at its expense, undertake a shadow flicker assessment in accordance with a methodology approved in writing by the Planning Authority and submit it for the written approval of the Planning Authority. The aforementioned assessment shall consider any sensitive receptors a minimum of 1km from any turbine. Where under worst case conditions any property is predicted to be affected by shadow flicker for more than 30 minutes per day or more than 30 days per year then a scheme of mitigation shall be submitted for the written approval of the Planning Authority. Operation of the wind turbines shall cease in those conditions where shadow flicker is predicted to occur or until the approved mitigation scheme is implemented. For the avoidance of doubt sensitive receptors includes all residential properties, hospitals, schools and office buildings.

Reason: In order to safeguard the residential amenity of adjacent property.

18. That in the event of a pollution incident or interruption to supply, caused by the wind farm development, affecting or likely to affect any private water supply, the wind farm operator shall provide an immediate temporary supply to those affected until permanent mitigation can be effected to the satisfaction of the Planning Authority. Any replacement supply shall be of a quality to meet the private water supplies (Scotland) Regulations 1992 or any other appropriate Regulation in force at the time. In any case a permanent replacement supply or mitigation measures shall be provided no later than one month after the supply is first affected.

Reason: In order to safeguard the residential amenity of adjacent property.

19. Noise associated with construction operations including the movement of materials, plant and equipment shall not exceed the noise limits shown in table A below for the times shown. At all other times noise associated with construction operations shall be inaudible

at any sensitive receptor. For the avoidance of doubt sensitive receptors includes all residential properties, hospitals, schools and office buildings.

Reason: In order to safeguard the residential amenity of adjacent property.

Table A: Construction Noise Limits

Day	Time	Average Period	Noise limit
Monday - Friday	07:00 – 08:00	1 hour	55 dBA Leq
Monday - Friday	08:00 – 18:00	10 hour	65 dBA Leq
Monday - Friday	18:00 – 19:00	1 hour	55 dBA Leq
Saturday	07:00 – 08:00	1 hour	55 dBA Leq
Saturday	08:00 – 18:00	10 hour	65 dBA Leq
Saturday	18:00 – 19:00	1 hour	55 dBA Leq
Sunday	08:00 – 18:00	10 hour	55 dBA Leq

Guidance Notes for Noise Conditions

These notes are to be read with and form part of the noise condition. They further explain the condition and specify the methods to be employed in the assessment of complaints about noise immissions from the wind farm. The rating level at each integer wind speed is the arithmetic sum of the wind farm noise level as determined from the best-fit curve described in Guidance Note 2 of these Guidance Notes and any tonal penalty applied in accordance with Guidance Note 3. Reference to ETSU-R-97 refers to the publication entitled "The Assessment and Rating of Noise from Wind Farms" (1997) published by the Energy Technology Support Unit (ETSU) for the Department of Trade and Industry (DTI).

Guidance Note 1

(a) Values of the LA90,10 minute noise statistic should be measured at the complainant's property, using a sound level meter of EN 60651/BS EN 60804 Type 1, or BS EN 61672 Class 1 quality (or the equivalent UK adopted standard in force at the time of the measurements) set to measure using the fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This should be calibrated in accordance with the procedure specified in BS 4142: 1997 (or the equivalent UK adopted standard in force at the time of the measurements). Measurements shall be undertaken in such a manner to enable a tonal penalty to be applied in accordance with Guidance Note 3.

(b) The microphone should be mounted at 1.2 – 1.5 metres above ground level, fitted with a two-layer windshield or suitable equivalent approved in writing by the Local Planning Authority, and placed outside the complainant's dwelling. Measurements should be made in "free field" conditions. To achieve this, the microphone should be placed at least 3.5 metres away from the building facade or any reflecting surface except the ground at the approved measurement location. In the event that the consent of the complainant for access to his or her property to undertake compliance measurements is withheld, the wind farm operator shall submit for the written approval of the Local Planning Authority details of the proposed alternative representative measurement location prior to the commencement

of measurements and the measurements shall be undertaken at the approved alternative representative measurement location.

(c) The LA90,10 minute measurements should be synchronised with measurements of the 10-minute arithmetic mean wind and operational data logged in accordance with Guidance Note 1(d), including the power generation data from the turbine control systems of the wind farm.

(d) To enable compliance with the conditions to be evaluated, the wind farm operator shall continuously log arithmetic mean wind speed in metres per second and wind direction in degrees from north at hub height for each turbine and arithmetic mean power generated by each turbine, all in successive 10-minute periods. Unless an alternative procedure is previously agreed in writing with the Planning Authority, this hub height wind speed, averaged across all operating wind turbines, shall be used as the basis for the analysis. All 10 minute arithmetic average mean wind speed data measured at hub height shall be 'standardised' to a reference height of 10 metres as described in ETSU-R-97 at page 120 using a reference roughness length of 0.05 metres. It is this standardised 10 metre height wind speed data, which is correlated with the noise measurements determined as valid in accordance with Guidance Note 2, such correlation to be undertaken in the manner described in Guidance Note 2. All 10-minute periods shall commence on the hour and in 10- minute increments thereafter.

(e) Data provided to the Local Planning Authority in accordance with the noise condition shall be provided in comma separated values in electronic format.

(f) A data logging rain gauge shall be installed in the course of the assessment of the levels of noise emissions. The gauge shall record over successive 10-minute periods synchronised with the periods of data recorded in accordance with Note 1(d).

Guidance Note 2

(a) The noise measurements shall be made so as to provide not less than 20 valid data points as defined in Guidance Note 2 (b)

(b) Valid data points are those measured in the conditions specified in the agreed written assessment protocol, but excluding any periods of rainfall measured in the vicinity of the sound level meter. Rainfall shall be assessed by use of a rain gauge that shall log the occurrence of rainfall in each 10 minute period concurrent with the measurement periods set out in Guidance Note 1. In specifying such conditions the Local Planning Authority shall have regard to those conditions which prevailed during times when the complainant alleges there was disturbance due to noise or which are considered likely to result in a breach of the limits.

(c) For those data points considered valid in accordance with Guidance Note 2(b), values of the LA90,10 minute noise measurements and corresponding values of the 10- minute wind speed, as derived from the standardised ten metre height wind speed averaged across all operating wind turbines using the procedure specified in Guidance Note 1(d), shall be plotted on an XY chart with noise level on the Y-axis and the standardised mean wind speed on the X-axis. A least squares, "best fit" curve of an order deemed appropriate by

the independent consultant (but which may not be higher than a fourth order) should be fitted to the data points and define the wind farm noise level at each integer speed.

Guidance Note 3

(a) Where, in accordance with the approved assessment protocol, noise immissions at the location or locations where compliance measurements are being undertaken contain or are likely to contain a tonal component, a tonal penalty is to be calculated and applied using the following rating procedure.

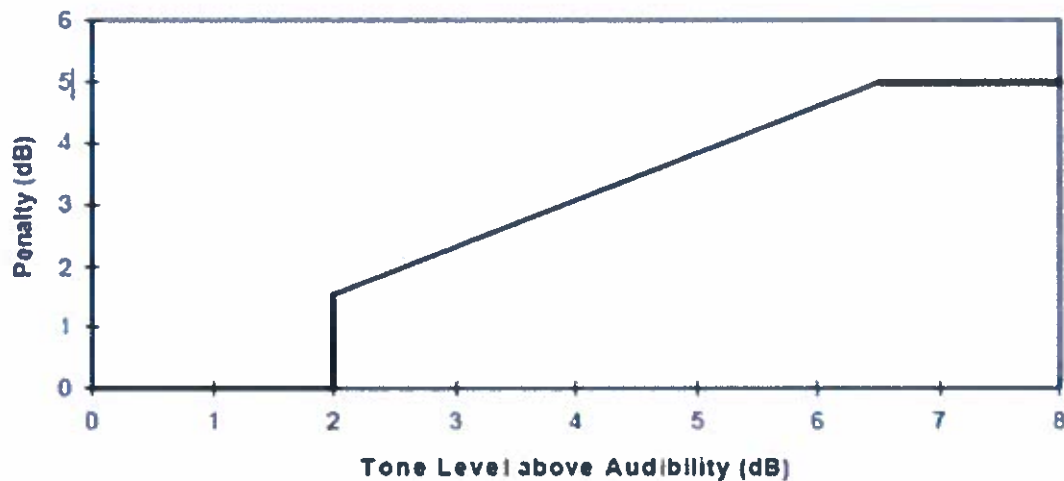
(b) For each 10 minute interval for which LA90,10 minute data have been determined as valid in accordance with Guidance Note 2 a tonal assessment shall be performed on noise emissions during 2 minutes of each 10 minute period. The 2 minute periods should be spaced at 10 minute intervals provided that uninterrupted uncorrupted data are available ("the standard procedure"). Where uncorrupted data are not available, the first available uninterrupted clean 2 minute period out of the affected overall 10 minute period shall be selected. Any such deviations from the standard procedure, as described in Section 2.1 on pages 104-109 of ETSU-R-97, shall be reported.

(c) For each of the 2 minute samples the tone level above or below audibility shall be calculated by comparison with the audibility criterion given in Section 2.1 on pages 104-109 of ETSU-R-97.

(d) The tone level above audibility shall be plotted against wind speed for each of the 2 minute samples. Samples for which the tones were below the audibility criterion or no tone was identified, a value of zero audibility shall be used.

(e) A least squares "best fit" linear regression line shall then be performed to establish the average tone level above audibility for each integer wind speed derived from the value of the "best fit" line at each integer wind speed. If there is no apparent trend with wind speed then a simple arithmetic mean shall be used. This process shall be repeated for each integer wind speed for which there is an assessment of overall levels in Guidance Note 2.

(f) The tonal penalty is derived from the margin above audibility of the tone according to the figure below.



Guidance Note 4

(a) If a tonal penalty is to be applied in accordance with Guidance Note 3 the rating level of the turbine noise at each wind speed is the arithmetic sum of the measured noise level as determined from the best fit curve described in Guidance Note 2 and the penalty for tonal noise as derived in accordance with Guidance Note 3 at each integer wind speed within the range specified by the agreed written assessment protocol.

(b) If no tonal penalty is to be applied then the rating level of the turbine noise at each wind speed is equal to the measured noise level as determined from the best fit curve described in Guidance Note 2.

(c) In the event that the rating level is above the limit(s) set out in the Tables attached to the noise conditions or the noise limits for a complainant's dwelling, the independent consultant shall undertake a further assessment of the rating level to correct for background noise so that the rating level relates to wind turbine noise immission only.

(d) The wind farm operator shall ensure that all the wind turbines in the development are turned off for such period as the independent consultant requires to undertake the further assessment. The further assessment shall be undertaken in accordance with the following steps:

(e). Repeating the steps in Guidance Note 2, with the wind farm switched off, and determining the background noise (L3) at each integer wind speed within the range requested by the Local Planning Authority in its written request and the approved protocol.

(f) The wind farm noise (L1) at this speed shall then be calculated as follows where L2 is the measured level with turbines running but without the addition of any tonal penalty:

$$L_1 = 10 \log \left[10^{L_2/10} - 10^{L_3/10} \right]$$

(g) The rating level shall be re-calculated by adding arithmetically the tonal penalty (if any is applied in accordance with Note 3) to the derived wind farm noise L1 at that integer wind speed.

(h) If the rating level after adjustment for background noise contribution and adjustment for tonal penalty (if required in accordance with note 3 above) at any integer wind speed lies at or below the values set out in the Tables attached to the conditions or at or below the noise limits approved by the Local Planning Authority for a complainant's dwelling then no further action is necessary. If the rating level at any integer wind speed exceeds the values set out in the Tables attached to the conditions or the noise limits approved by the Local Planning Authority for a complainant's dwelling then the development fails to comply with the conditions.

Advisory notes

1. **The length of the permission:** This planning permission will lapse on the expiration of a period of three years from the date of this decision notice, unless the development has been started within that period (See section 58(1) of the Town and Country Planning (Scotland) Act 1997 (as amended)).
2. **Notice of the start of development:** The person carrying out the development must give advance notice in writing to the planning authority of the date when it is intended to start. Failure to do so is a breach of planning control. It could result in the planning authority taking enforcement action (See sections 27A and 123(1) of the Town and Country Planning (Scotland) Act 1997 (as amended)).
3. **Notice of the completion of the development:** As soon as possible after it is finished, the person who completed the development must write to the planning authority to confirm the position (See section 27B of the Town and Country Planning (Scotland) Act 1997 (as amended)).

Angus Local Plan Review

Policy ER4 : Wider Natural Heritage and Biodiversity

The Council will not normally grant planning permission for development that would have a significant adverse impact on species or habitats protected under British or European Law, identified as a priority in UK or Local Biodiversity Action Plans or on other valuable habitats or species.

Development proposals that affect such species or habitats will be required to include evidence that an assessment of nature conservation interest has been taken into account. Where development is permitted, the retention and enhancement of natural heritage and biodiversity will be secured through appropriate planning conditions or the use of Section 75 Agreements as necessary.

Landscape Character

3.10 The landscape of Angus is one of its most important assets. It ranges in character from the rugged mountain scenery of the Angus Glens, through the soft rolling cultivated lowland landscape of Strathmore to the sandy bays and cliffs of the coast.

3.11 A small part of north-west Angus is statutorily designated as part of a larger National Scenic Area (NSA). The character and quality of this landscape is of national significance and special care should be taken to conserve and enhance it. Part of the upland area of Angus, including the NSA, is contained within the Cairngorms National Park which is excluded from the Angus Local Plan Review. The guidance provided by the adopted Angus Local Plan will remain in force until it is replaced by a Cairngorms National Park Local Plan prepared by the National Park Authority. The Cairngorms was made a National Park in September 2003 because it is a unique and special place that needs to be cared for – both for the wildlife and countryside it contains and for the people that live in it, manage it and visit it. It is Britain's largest national park.

3.12 In seeking to conserve the landscape character of the area it is important to assess the impact of development proposals on all parts of the landscape. To assist in this the "Tayside Landscape Character Assessment (1999)" commissioned by Scottish Natural Heritage establishes landscape character zones and key character features within the local plan area to provide a better understanding of them and thus to enable better conservation, restoration, management and enhancement. Landscape Character Zones for the Local Plan Area are shown in Figure 3.2.

National Scenic Area:

Nationally important area of outstanding natural beauty, representing some of the best examples of Scotland's grandest landscapes particularly lochs and mountains.

National Park (Scotland) Act 2000 sets out four key aims for the park:

- To conserve and enhance the natural and cultural heritage of the area;
- To promote sustainable use of the natural resources of the area;
- To promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public;
- To promote sustainable economic and social development of the area's communities.

Tayside Landscape Character Assessment 1999:

A detailed hierarchical assessment based on variations in the Tayside landscape, with a series of management and planning guidelines designed to conserve and enhance its distinctive character.

Figure 3.2 : Landscape Character Zones



- | | | | |
|---|--|---|--|
| <ul style="list-style-type: none"> 1a 1b 3 5 8 10 | <ul style="list-style-type: none"> Upper Highland Glens Mid Highland Glens Highland Summits & Plateaux Highland Foothills Igneous Hills Broad Valley Lowland | <ul style="list-style-type: none"> 12 13 14a 14b 15 | <ul style="list-style-type: none"> Low Moorland Hills Dipslope Farmland Coast with sand Coast with cliffs Lowland Basin |
|---|--|---|--|

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3.13 Where appropriate, development proposals will be considered in the context of the guidance provided by the Tayside Landscape Character Assessment. The assessment identifies different landscape character zones, considers their capacity to absorb change, and indicates how various types of development might best be accommodated to conserve characteristic landscape features and to strengthen and enhance landscape quality. Particular attention is focussed on the location, siting and design of development and the identification of proposals which would be detrimental to the landscape character of Angus.

Policy ER5 : Conservation of Landscape Character

Development proposals should take account of the guidance provided by the Tayside Landscape Character Assessment and where appropriate will be considered against the following criteria:

- (a) sites selected should be capable of absorbing the proposed development to ensure that it fits into the landscape;**
- (b) where required, landscape mitigation measures should be in character with, or enhance, the existing landscape setting;**
- (c) new buildings/structures should respect the pattern, scale, siting, form, design, colour and density of existing development;**
- (d) priority should be given to locating new development in towns, villages or building groups in preference to isolated development.**

Trees, Woodlands and Hedgerows

3.14 Trees, woodlands, hedgerows and treelines make valuable contributions to nature conservation and recreational activity and are integral to the landscape and townscape of Angus. Ancient woodland is of particular ecological value and is an irreplaceable resource. Such woodland requires special protection as once destroyed it cannot be recreated. Where appropriate, the Council will use Tree Preservation Orders to ensure the protection of an individual tree or group of trees considered important to the amenity value of the surrounding area. In addition and wherever possible the opportunity should be taken to strengthen woodland cover with local native species, either as part of a development proposal, or through the establishment of urban forestry and community woodland initiatives. Angus Council has established the Angus Millennium Forest (AMF) which covers around 83 ha of Council land in the main towns. The AMF makes a significant contribution to biodiversity, urban wildlife conservation and the provision of green spaces in these towns and should be protected from development.

Treeline (lowland)

As defined in The Local Biodiversity Action Plan this is a row of standard trees growing in a hedgerow or as a separate avenue of trees.

Tree Preservation Order(TPO):

An order made by the Planning Authority to preserve trees or woodlands in their area which are considered to have a high amenity value.

3.69 Angus Council supports the Government policy to address the causes of climate change, and has adopted an Environmental Policy Statement along with a draft Local Agenda 21 Strategy for Angus. The effective conservation and management of energy resources is important for economic, environmental and ecological reasons. The production of energy from renewable sources prevents the production of emissions in power generation, while the reduction of energy consumption reduces the demand for electricity from all sources and should make homes and businesses more cost efficient. In terms of sustainable development, energy efficiency and non-polluting power generation are fundamental to establishing a stable and environmentally acceptable energy policy.

Energy Efficiency

3.70 Energy efficiency, the reduction of pollution and the use of renewable resources are elements of the sustainable principles on which this plan is based. The key factors that impact on the energy efficiency of a building are site location and building design. The gradient and orientation of a site, together with the spacing between buildings and the height of possible obstructions have an impact on the amount of exposure a building has to direct sunlight and therefore its potential for solar energy gain. Heat loss is influenced by the number and/or construction of external walls and, on exposed sites, by the presence of planting and other types of windbreaks.

3.71 The choice of materials, amount of insulation, use of renewable energy sources and the installation of energy efficient heating/cooling systems can contribute to the wise use of resources. Energy generation and conservation technologies using renewable sources and energy efficient systems can reduce demand for fossil fuels and reduce running costs of domestic and commercial properties. Re-use of building materials and/or the local sourcing of materials also contributes to the conservation of resources and should be incorporated into development proposals wherever possible.

*Securing a Renewable Future,
Scottish Executive 2003*

Energy efficiency has a crucial role to play if we are to achieve significant cuts in carbon emissions. ...It is also vital to improving Scotland's economic performance and business competitiveness.

Policy ER33 : Energy Efficiency

Angus Council will encourage energy efficiency through the promotion of:

- **siting, form, orientation and layout of buildings to maximise the benefits of solar energy, passive solar gain, natural ventilation and natural light;**
- **the use of landscaping and boundary treatment to modify temperature extremes, minimise heat loss due to exposure and create shelter on inner faces and entrances to buildings;**
- **optimum provision of insulation and the use of energy efficient heating/cooling systems;**
- **the re-use of building materials;**
- **local sourcing of materials;**

- the use of a flexible design to facilitate possible future adaptation for other uses;
- renewable energy generation and energy efficient systems in domestic and commercial buildings where appropriate, which reduce demand for power from non-renewable sources.

Renewable Energy

3.72 The Scottish Executive is strongly supportive of renewable energies and has set a target of 17-18% of Scotland's electricity supply to come from renewable sources by 2010. NPPG6: Renewable Energy Developments (Revised 2000) considers a range of renewable energy technologies and encourages the provision of a positive policy framework to guide such developments. The Scottish Executive's aspiration is for renewable sources to contribute 40% of electricity production by 2020, an estimated total installed capacity of 6GW (Minister for Enterprise, July 2005). This will require major investment in commercial renewable energy production and distribution capacity throughout Scotland.

3.73 The Dundee and Angus Structure Plan acknowledges the advantages of renewable energy in principle but also recognises the potential concerns associated with development proposals in specific locations. Angus Council supports the principle of developing sources of renewable energy in appropriate locations. Large-scale developments will only be encouraged to locate in areas where both technical (e.g. distribution capacity and access roads) and environmental capacity can be demonstrated.

3.74 Developments which impinge on the Cairngorms National Park will be considered within the context of the National Park Authority's Planning Policy No1: Renewable Energy.

Renewable Energy Sources

3.75 Offshore energy production, including wind and tidal methods, has the potential to make a significant contribution to the production of renewable energy in Scotland. Other than small-scale onshore support buildings, such developments currently fall outwith the remit of the planning system.

3.76 All renewable energy production, including from wind, water, biomass, waste incineration and sources using emissions from wastewater treatment works and landfill sites will require some processing, generating or transmission plant. Such developments, that can all contribute to reducing emissions will have an impact on the local environment and will be assessed in accordance with Policy ER34.

Policy ER34 : Renewable Energy Developments

Proposals for all forms of renewable energy development will be supported in principle and will be assessed against the following criteria:

NPPG6: Renewable Energy Developments (Revised 2000)

The Scottish Ministers wish to see the planning system make positive provision for renewable energy whilst at the same time:

- meeting the international and national statutory obligations to protect designated areas, species, and habitats of natural heritage interest and the historic environment from inappropriate forms of development; and
- minimising the effects on local communities.

Large-scale projects which may or will require an Environmental Assessment. These are defined as hydroelectric schemes designed to produce more than 0.5MW and wind farms of more than 2 turbines or where the hub height of any turbine or any other structure exceeds 15m.

SNH's EIA Handbook identifies 6 types of impact which may require an assessment:

- Landscape and visual;
- Ecological;
- Earth heritage;
- Soil;
- Countryside access; and
- Marine environment.

- (a) the siting and appearance of apparatus have been chosen to minimise the impact on amenity, while respecting operational efficiency;
- (b) there will be no unacceptable adverse landscape and visual impacts having regard to landscape character, setting within the immediate and wider landscape, and sensitive viewpoints;
- (c) the development will have no unacceptable detrimental effect on any sites designated for natural heritage, scientific, historic or archaeological reasons;
- (d) no unacceptable environmental effects of transmission lines, within and beyond the site; and
- (e) access for construction and maintenance traffic can be achieved without compromising road safety or causing unacceptable permanent and significant change to the environment and landscape.

Wind Energy

3.77 Onshore wind power is likely to provide the greatest opportunity and challenge for developing renewable energy production in Angus. Wind energy developments vary in scale but, by their very nature and locational requirements, they have the potential to cause visual impact over long distances. Wind energy developments also raise a number of environmental issues and NPPG 6 advises that planning policies should guide developers to broad areas of search and to establish criteria against which to consider development proposals. In this respect, Scottish Natural Heritage Policy Statement 02/02, Strategic Locational Guidance for Onshore Wind Farms in Respect of the Natural Heritage, designates land throughout Scotland as being of high, medium or low sensitivity zones in terms of natural heritage. Locational guidance is provided to supplement the broad-brush zones.

3.78 A range of technical factors influence the potential for wind farm development in terms of location and viability. These include wind speed, access to the distribution network, consultation zones, communication masts, and proximity to radio and radar installations. Viability is essentially a matter for developers to determine although annual average wind speeds suitable for commercially viable generation have been recorded over most of Angus, other than for sheltered valley bottoms. Environmental implications will require to be assessed in conjunction with the Council, SNH and other parties as appropriate.

Strategic Locational Guidance for Onshore Windfarms in Respect of the Natural Heritage - Scottish Natural Heritage Policy Statement No 02/02

Zone 3 – high natural heritage sensitivity. Developers should be encouraged to look outwith Zone 3 for development opportunities

Zone 2 – medium natural heritage sensitivity. ...while there is often scope for wind farm development within Zone 2 it may be restricted in scale and energy output and will require both careful choice of location and care in design to avoid natural heritage impacts.

Zone 1 - ...inclusion of an area in Zone 1 does not imply absence of natural heritage interest. Good siting and design should however enable such localised interests to be respected, so that overall within Zone 1, natural heritage interests do not present a significant constraint on wind farm development

Figure 3.4 : Geographic Areas



1 Highland

2 Lowland and Hills

3 Coast

TLCA Designation

- 1a Upper Highland Glens
- 1b Mid Highland Glens
- 3 Highland Summits & Plateaux
- 5 Highland Foothills

TLCA Designation

- 8 Igneous Hills
- 10 Broad Valley Lowland
- 12 Low Moorland Hills
- 13 Dipslope Farmland

TLCA Designation

- 14a Coast with sand
- 14b Coast with cliffs
- 15 Lowland Basin

3.79 Scottish Natural Heritage published a survey of Landscape Character, the Tayside Landscape Character Assessment (TLCA), which indicates Angus divides naturally into three broad geographic areas – the Highland, Lowland and hills and the Coast. The Tayside Landscape Character Assessment provides a classification to map these areas based on their own particular landscape characteristics (Fig 3.4).

Area	TLCA Classification	Landscape Character
1 Highland	1a, 1b, 3, 5	Plateaux summits, glens and complex fault line topography
2 Lowland and hills	8, 10, 12, 13	Fertile strath, low hills and dipslope farmland.
3 Coast	14a, 14b, 15	Sand and cliff coast and tidal basin

The impact of wind farm proposals will, in terms of landscape character, be assessed against the TLCA classifications within the wider context of the zones identified in SNH Policy Statement 02/02.

3.80 The open exposed character of the Highland summits and the Coast (Areas 1 and 3) is sensitive to the potential landscape and visual impact of large turbines. The possibility of satisfactorily accommodating turbines in parts of these areas should not be discounted although locations associated with highland summits and plateaux, the fault line topography and coast are likely to be less suitable. The capacity of the landscape to absorb wind energy development varies. In all cases, the scale layout and quality of design of turbines will be an important factor in assessing the impact on the landscape.

3.81 The Highland and Coast also have significant natural heritage value, and are classified in SNH Policy Statement 02/02 as mainly Zone 2 or 3 - medium to high sensitivity. The development of large scale wind farms in these zones is likely to be limited due to potential adverse impact on their visual character, landscape and other natural heritage interests.

3.82 The Lowland and Hills (Area 2) comprises a broad swathe extending from the Highland boundary fault to the coastal plain. Much of this area is classified in Policy Statement 02/02 as Zone 1- lowest sensitivity. Nevertheless, within this wider area there are locally important examples of higher natural heritage sensitivity such as small- scale landscapes, skylines and habitats which will influence the location of wind turbines. In all cases, as advocated by SNH, good siting and design should show respect for localised interests.

3.83 Wind farm proposals can affect residential amenity, historic and archaeological sites and settings, and other economic and social activities including tourism. The impact of wind farm developments on these interests requires careful assessment in terms of sensitivity and scale so that the significance can be determined and taken into account.

3.84 Cumulative impact occurs where wind farms/turbines are visually interrelated e.g. more than one wind farm is visible from a single point or sequentially in views from a road or a footpath.

Landscape and visual impact can be exacerbated if wind turbines come to dominate an area or feature. Such features may extend across local authority, geographic or landscape boundaries and impact assessments should take this into account. Environmental impacts can also be subject to cumulative effect – for example where a number of turbine developments adversely affect landscape character, single species or habitat type.

3.85 SNH advise that an assessment of cumulative effects associated with a specific wind farm proposal should be limited to all existing and approved developments or undetermined Section 36 or planning applications in the public domain. The Council may consider that a pre-application proposal in the public domain is a material consideration and, as such, may decide it is appropriate to include it in a cumulative assessment. Similarly, projects outwith the 30km radius may exceptionally be regarded as material in a cumulative context.

Policy ER35 : Wind Energy Development

Wind energy developments must meet the requirements of Policy ER34 and also demonstrate:

- (a) the reasons for site selection;**
- (b) that no wind turbines will cause unacceptable interference to birds, especially those that have statutory protection and are susceptible to disturbance, displacement or collision;**
- (c) there is no unacceptable detrimental effect on residential amenity, existing land uses or road safety by reason of shadow flicker, noise or reflected light;**
- (d) that no wind turbines will interfere with authorised aircraft activity;**
- (e) that no electromagnetic disturbance is likely to be caused by the proposal to any existing transmitting or receiving system, or (where such disturbances may be caused) that measures will be taken to minimise or remedy any such interference;**
- (f) that the proposal must be capable of co-existing with other existing or permitted wind energy developments in terms of cumulative impact particularly on visual amenity and landscape, including impacts from development in neighbouring local authority areas;**
- (g) a realistic means of achieving the removal of any apparatus when redundant and the restoration of the site are proposed.**

NPPG6 : Renewable Energy Developments (Revised 2000)

Large-scale projects which may or will require an Environmental Assessment. These are defined as hydroelectric schemes designed to produce more than 0.5MW and wind farms of more than 2 turbines or where the hub height of any turbine or any other structure exceeds 15m.

Local Community Benefit

3.86 Where renewable energy schemes accord with policies in this local plan there may be opportunities to secure contributions from developers for community initiatives. Such contributions are not part of the planning process and as such will require to be managed through other means than obligations pursuant to Section 75 Planning Agreement. Community contributions are separate from planning gain and will not be considered as part of any planning application.

Angus Windfarms

Landscape Capacity and Cumulative Impacts Study



Final Report
by
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111 McDonald Road
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7131 / September 2008

Operating and Consented Windfarms

There are no operating or consented windfarms in the *Broad Valley Lowlands*. All impacts are indirect. Currently the consented Ark Hill has visual effects on Strathmore between Alyth and Forfar and the operational Drumderg is visible on the south side of the valley at 15-20km, making it a *Broad Valley Lowland with Views of Windfarms*. In the case of the Lower Esk Valleys the influence of these windfarms is minimal, being a minimum 15-20km distant. At the eastern end the 8 turbines of Tullo are at a minimum distance of 10km. Again this is a *Broad Valley Lowland with Views of Windfarms* but with little visual influence between Forfar and Brechin.

Proposed Windfarms

There are no proposals for windfarms within this landscape type. Considering the proposed windfarms in surrounding areas there would be an increased indirect effect. The most significant would be on the area of the Lower Esk Valley around Brechin from which the turbines of Montreathmont and Mountboy would be visible. Strathmore west of Kirriemuir would experience some increased but scattered impacts from Mile Hill. In both cases the windfarms would be clearly located in other landscape types and the whole character type would become *Broad Valley Lowland with Views of Windfarms*.

12. Low Moorland Hills

This lowland character area lies between the *Dipslope Farmland* to the south and *Broad Valley Lowland* to the north. Although clearly higher than this and the Montrose Basin to the east, much of it is of lower elevation than the adjacent *Dipslope Farmland* to the south and east. On analysis it has two clearly different sub-types: the lower, flatter and significantly afforested *Lowland Forest and Farmland* area of Montreathmont to the east of Turin Hill and north of Guthrie and the area of widely separated steep sided *Low Moorland Hills* in rolling farmland to the west, surrounding the east and south sides of Forfar.

Landscape Capacity

The simple topography, medium to large scale rectilinear pattern and extensive commercial forestry of the *Lowland Forest and Farmland* sub-type makes it an area of low to medium landscape character sensitivity. Views within are often screened by mature coniferous forestry although the area is highly visible from higher ground within and surrounding it. There is a scattered population within the farmland, but two well used roads and some minor roads cross the area, making it of medium visual sensitivity. Overall the landscape sensitivity of the area is medium to low.

There are no landscape designations but the mature forestry crossed by tracks provides opportunities for informal recreation, giving the area a medium value. Overall the *Lowland Forest and Farmland* area has a medium to high capacity for windfarm development due to forest cover and extensive areas with little habitation. It is mainly constrained by the limited extent of forest and the degree to which it is overlooked from surrounding farmland areas. Windfarm proposals, although

potentially larger than in the surrounding populated farmland areas should be limited by the potential for effects on views from sensitive receptors.

The *Low Moorland Hills* sub-type has a much more complex topography and semi-open appearance, with a network of roads and villages, forming a backdrop to Forfar. It is of medium-high landscape sensitivity to commercial windfarm development due to the complex topography and varied landscape pattern, modest scale of the hills and small scale of some of the elements making up the landscape. Visually it varies from enclosed in the lower lying areas and valleys between the hills to open with extensive views from the hills. As these form the backdrop to Forfar and are prominently visible from the A90, the area is of high visual sensitivity. Overall landscape sensitivity is medium-high. There are no statutory designations and one HGDL near Guthrie Castle. Nevertheless, with its network of lanes and scattered dwellings and settlements, prominent viewpoints and archaeological remains the area is of medium-high landscape value. Overall the *Low Moorland Hills* sub-type has a low capacity for windfarm development. Any windfarm development would have to be carefully sited and small scale to avoid prominent visibility and clashes of scale with the modest size hills.

Operating and Consented Windfarms

Currently there are no consented windfarms close enough to Montreathmont Moor to significantly affect the *Lowland Forest and Farmland* landscape, with Ark Hill 20km to the southwest and Tullo 20km to the northeast meaning that it would remain a *Landscape with no Windfarms*.

Similarly, much of the Moorland Hills area east of Forfar is currently a *Landscape with no Windfarms*. However Drumderg is visible at 30km and it is possible that at 10-12km from Fotheringham Hill the Ark Hill turbines would be visible, rendering the area south of Forfar a '*Landscape with Views of Windfarms*' (although much of Fotheringham Hill itself is afforested).

Proposed Windfarms

Considering the proposed windfarms there would be significant effects on the *Lowland Forest and Farmland* sub-type as a result of the 11x126m high turbines of the proposed windfarm within it. There would also be cumulative impacts from the development of the three turbines at Mountboy 5km to the east. Although clearly separate the proposed turbines are in a prominent location and would be clearly visible from roads and houses between the two and from open farmland areas north of the forest, leading to sequential and successive impacts. This would reinforce and extend the impacts of wind turbines on the landscape and on visual receptors, creating a *Lowland Forest and Farmland with Windfarms* landscape.

In the case of the *Low Moorland Hills* sub-type, development of the proposed windfarms would not lead to direct impacts but would lead to significant visual impacts overall. This would include primarily the Montreathmont Moor development at just over 5km to the east but also the more modest effects of the three *Dipslope Farmland* windfarms at Mountboy, Dusty Drum and East Skichen at 5-15km distant,

in addition to the consented windfarms at Ark Hill and Drumderg. The proposed windfarm at Mile Hill 15-20km northwest would also be visible from some of the hilltops but clearly not associated with the lowland landscape types. The whole of this sub-type would become a *Low Moorland Hills with Views of Windfarms*.

13. Dipslope Farmland

This is the largest landscape character area in Angus, covering most of the lowland farmland between the lowland hills, Dundee, Montrose Basin and the coast. It is some 40km from SW to NE and a maximum of 14km wide between Letham and Arbroath.

Landscape Capacity

Analysis of the landscape character, landscape features and elements suggests that, given its medium to large scale, gentle landform, working agricultural nature and moderately strong rectilinear field pattern it is of medium landscape character sensitivity. Due to the number of settlements and widely distributed population and number of key transport routes, together with a generally open aspect, it is of medium to high visual sensitivity. Overall landscape sensitivity is medium

There are no statutory landscape designations and much of it is a working landscape. There are nevertheless a number of HGDLs, estates and country parks. There are also long sections of the National Cycle Route and many local footpaths. The area is considered to have a medium landscape value. Together with a medium sensitivity this gives an overall medium capacity for windfarm development. Large or medium windfarms would not be appropriate in this area due to scale and visual sensitivity limitations. Any proposed development should be of limited scale and extent, reflecting the scale and pattern of the local landscape and would be limited by proximity of the settlements and scattered residential population.

Operating and Consented Windfarms

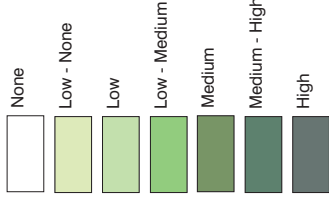
Currently there are no consented windfarms within this landscape type. Adjacent to the area are the two Michelin turbines in Dundee within ca. 2km and the consented 8 turbines on Ark Hill, high in the Sidlaw Hills at ca. 3-4km north of the area to the north of Dundee. The nearest consented turbines in Aberdeenshire are the 8 at Tullo, a minimum 15km to the northeast.

The operational and consented windfarms have a limited indirect effect on the *Dipslope Farmland*, with only the Michelin turbines being extensively visible in the vicinity of Dundee. Visibility of Ark Hill is minimal due to intervening landforms and Tullo is an intermittently visible background feature to the north. Parts of the *Dipslope Farmland* near Dundee and Montrose are a *Landscape with Views of Windfarms*, but most of the area is a *Landscape with no Windfarms*.

Proposed Windfarms

There are three proposed windfarms within the *Dipslope Farmland*: three turbines each at East Skichen and Dusty Drum in the middle and three at Mountboyn in the

Landscape Capacity for Windfarms



Landscape Character (See fig 3.2 for details of Landscape Types)

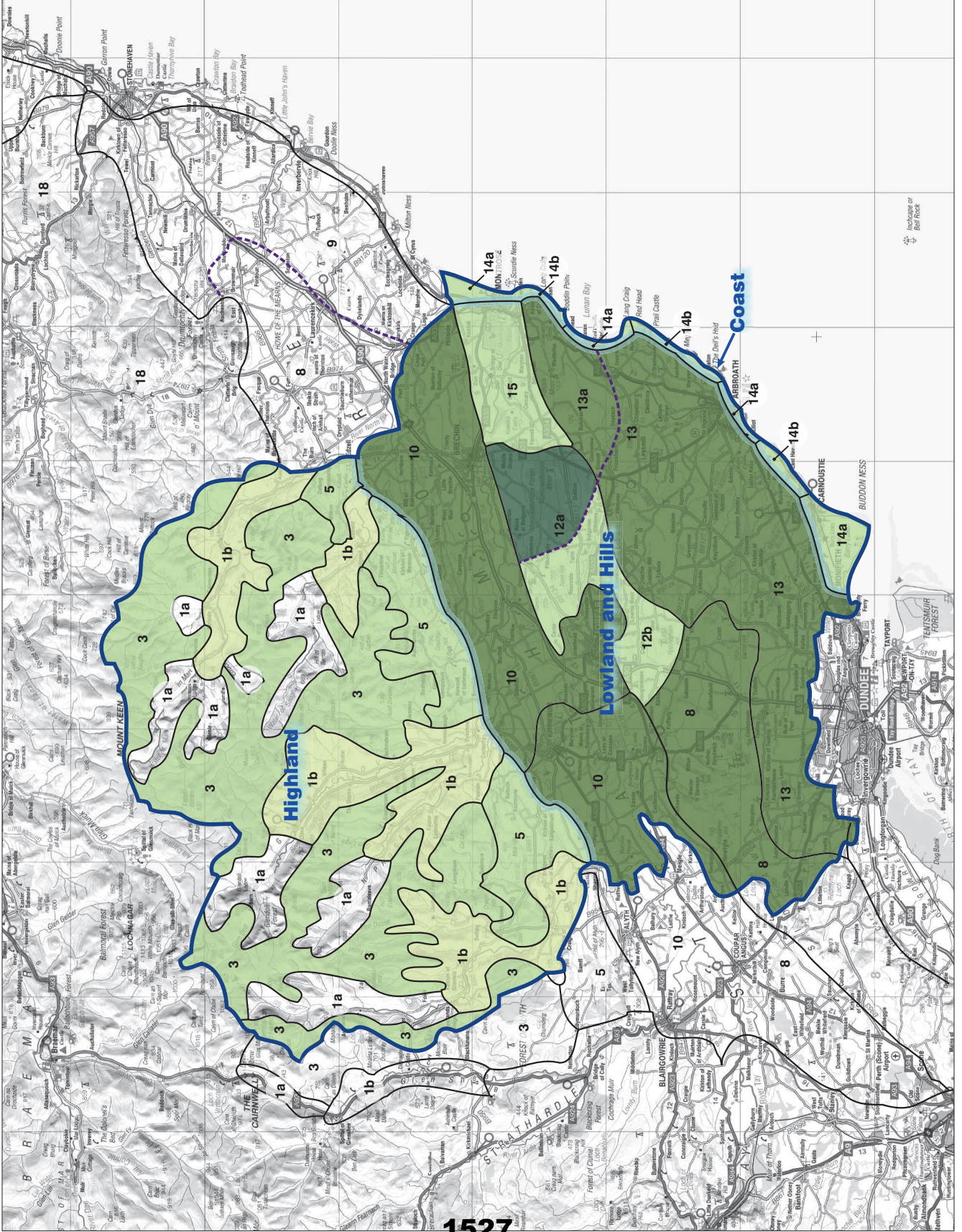
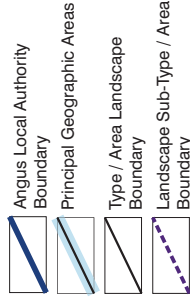
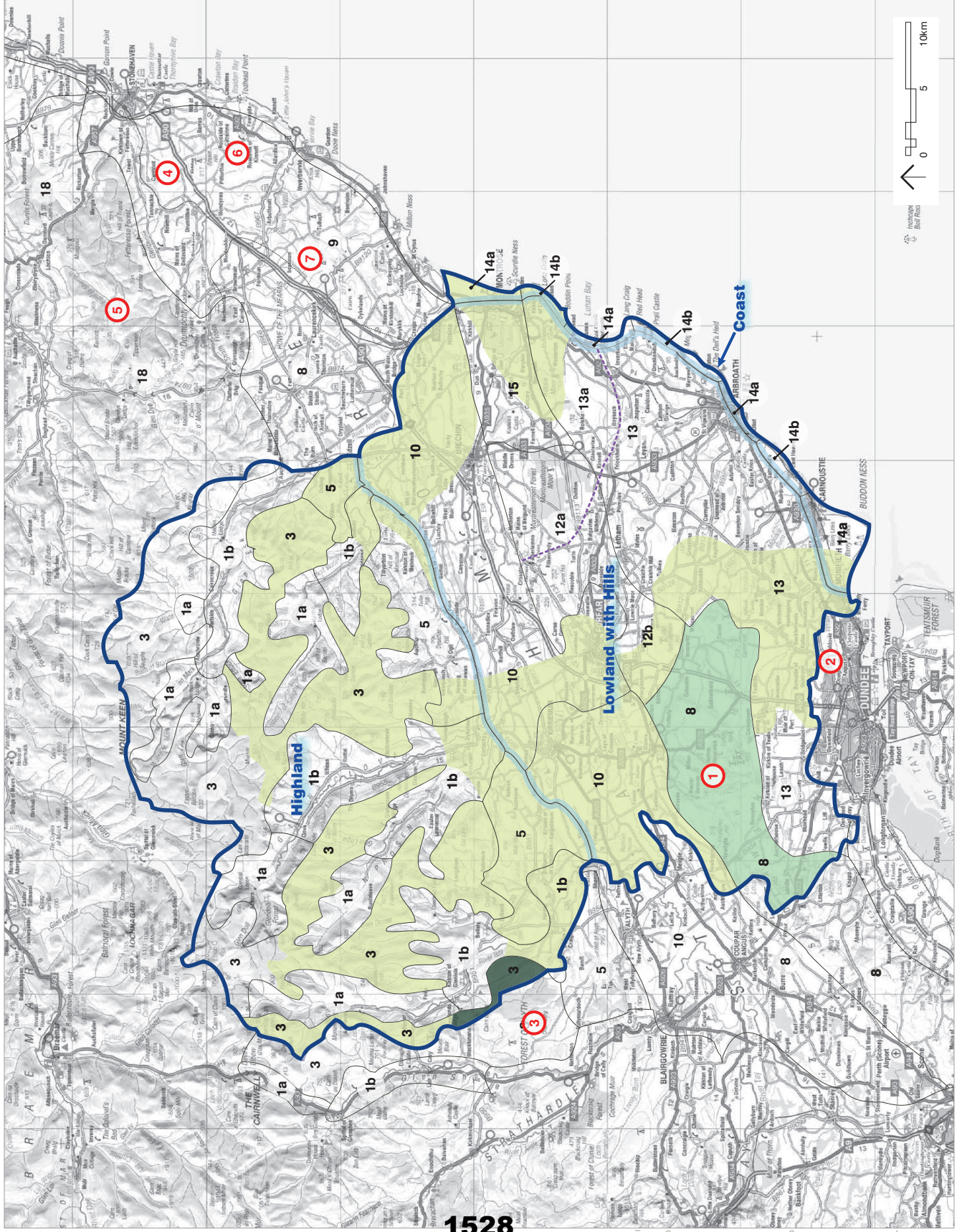


Figure 5.1

Landscape Capacity



Angus Local Authority Boundary

Windfarm Locations

- 1 Operational & Consented Windfarms
1. Ark Hill
 2. Michelin
 3. Drumdreg
 4. Clochanhill
 5. Mid Hill
 6. St John's Hill
 7. Tullo

Windfarm Character Type

- Landscape with no view of windfarms
- Landscape with views of windfarms
- Landscape with occasional windfarms
- Landscape with windfarms
- Windfarm landscape

Landscape Character
(See fig 3.2 for details of Landscape Types)

- Principal Geographic Areas
- Type / Area Landscape Boundary
- Landscape Sub-Type / Area Boundary

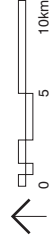


Figure 5.2

Cumulative Landscape Character Effects: Operating & Consented Windfarms

Angus Windfarms Study



Windfarm Locations

1 Operational & Consented Windfarms

1. Ark Hill
2. Michelin
3. Drumdreg
4. Clochanhill
5. Mid Hill
6. St John's Hill
7. Tullo

1 Planning Applications

1. Mounbooy
2. Montreatmont
3. Dusty Drum
4. East Skichen
5. Mile Hill
6. Scopton Hill
7. Droop Hill
8. Hertscha Hill
9. Hillhead of Aquhirie
10. Meikle Carewe

Windfarm Character Type

- Landscape with no view of windfarms
- Landscape with views of windfarms
- Landscape with occasional windfarms
- Landscape with windfarms
- Windfarm landscape

Landscape Character (See fig 3.2 for details of Landscape Types)

- Principal Geographic Areas
- Type / Area Landscape Boundary
- Landscape Sub-Type / Area Boundary



Figure 5.3

Cumulative Landscape Character Effects: All Windfarms

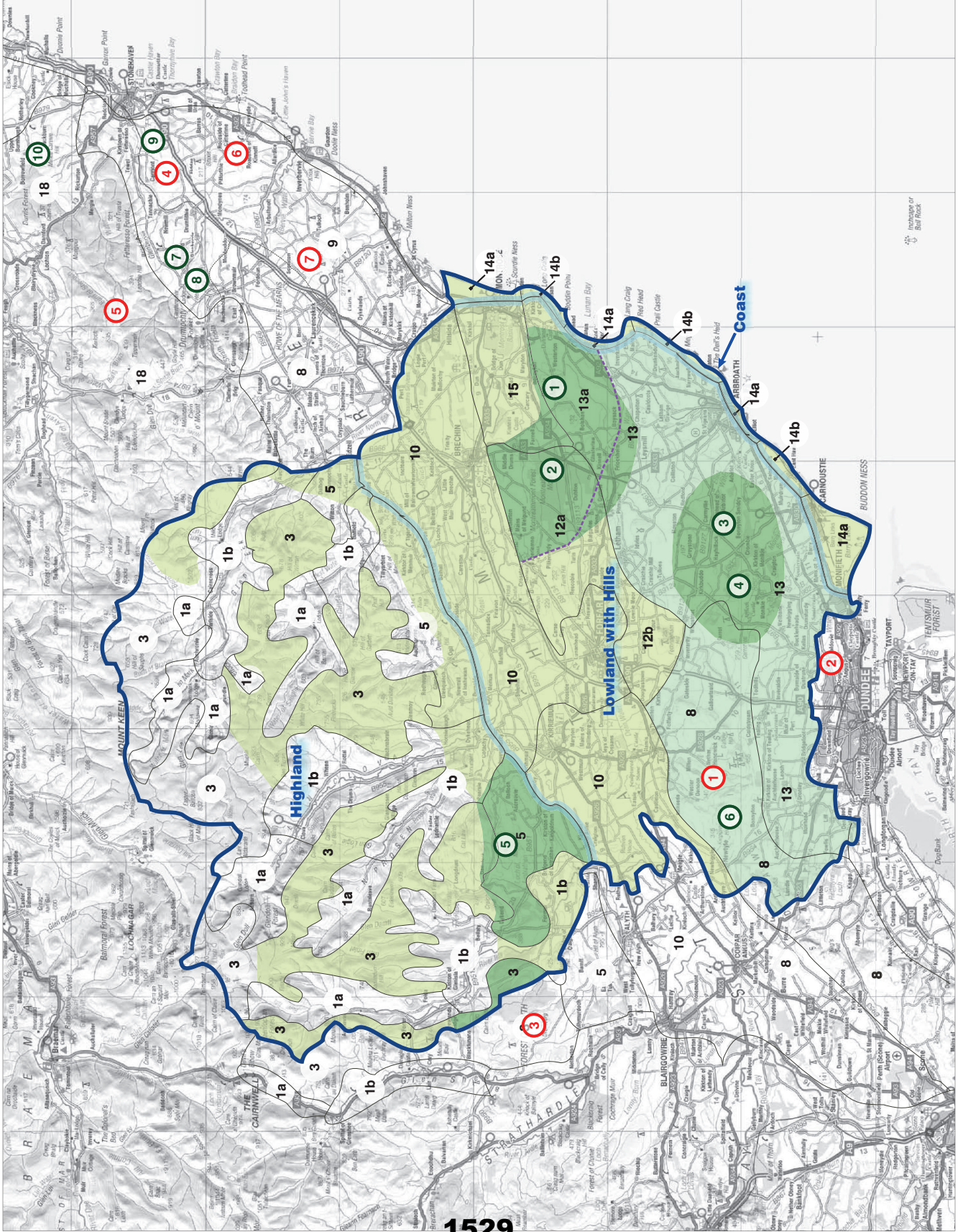


Table 5.1. Summary of Landscape Capacity and Cumulative Effects

Landscape Type	Landscape Character Sensitivity	Visual Sensitivity	Overall Landscape Sensitivity	Landscape Value	Landscape Capacity	Operational/ Consented Landscape	Operational/ Consented & Proposed Landscape	Comment
HIGHLAND AREA								
1a. Upper Highland Glens	High	Medium	Med-High	High	None	No Windfarms	No Windfarms	Extensive area lies within Cairngorms National Park
1b. Mid Highland Glens	High	Medium	Med-High	High	Low to none	No Windfarms to Landscape with Views of Windfarms	Slight increase in area of Landscape with Views of Windfarms	Angus Glens are important visitor destinations
3. Highland Summits & Plateaux	Low-Med	Med-High	Medium	High	Low	Varies from Landscape with Windfarm in SW to Landscape with Views of Windfarms over most and No Views in northern areas	Slight increase in Landscape with Views of Windfarms and Landscape with Windfarms in SW	No capacity in National Park/ NSA and very limited opportunity in areas to the south and east. Most windfarms distant. Direct effects in SW from Drumderg. Mile Hill will have limited additional effect.
5. Highland Foothills	Med-High	Medium	Med-High	Med-High	Low	Landscape with Views of Windfarms in E & W	Area of Landscape with Windfarms in W. Otherwise an increase in Landscape with Views of Windfarms	Effects of Mile Hill would be significantly adverse but limited in extent. Further development elsewhere would change all of this type
Overall Capacity/ Effect On Highland Area	Med-High	Med-High	Med-High	High	Low	Varied. Some areas of No Windfarms; mostly Landscape with Views of Windfarms to small area of Landscape with Windfarms	Small increase in area of Landscape with Windfarms in SW and increase in area of Landscape with Views of Windfarms	Direct effects limited and mostly outwith Angus boundary. Proposed windfarm development is mainly in lowland areas and clearly separated from the Highlands.

Landscape Type	Landscape Character Sensitivity	Visual Sensitivity	Overall Landscape Sensitivity	Landscape Value	Landscape Capacity	Operational/ Consented Landscape	Operational/ Consented & Proposed Landscape	Comment
LOWLAND AREA								
8. Igneous Hills	Medium	Medium	Medium	Medium	Medium	Landscape with Occasional Windfarms	Landscape with Occasional Windfarms (slightly increased)	Ark Hill is only consented windfarm in Angus. One further turbine proposed within Sidlaw Hills. Increased views of windfarms in other areas.
10. Broad Valley Lowland	Medium	Medium	Medium	Medium	Medium	Landscape with Views of Windfarms (and some areas with no views)	Landscape with Views of Windfarms	Most significant effects would be at eastern end.
12a. Lowland Forest and Farmland	Low-Medium	Medium	Low-Medium	Medium	Med-High	No Windfarms	Landscape with Windfarms	This area has highest capacity for a windfarm but is limited by extent.
12b. Low Moorland Hills	Medium-High	High	Med-High	Med-High	Low	Landscape with no Windfarms/ Views of Windfarms (southern part only)	Landscape with Views of Windfarms (all area – some significant)	This area is sensitive to issues of scale and visibility
13. Dipslope Farmland	Medium	Med-High	Medium	Medium	Medium	Landscape with Views of Windfarms in E. Landscape with No Windfarm W of A90	Landscape with Occasional Windfarms but some areas of Landscape with Windfarms	3 small windfarms, with Montreathmont close by. Significant cumulative effects in NE and some effects to SE but not between the two areas.
Overall Capacity/ Effect on Lowland Area	Medium	Med-High	Medium	Medium	Medium	Landscape with Views of Windfarms and limited area of Landscape with Occasional Windfarms)	Landscape with Occasional Windfarms but with significant areas of Landscape with Windfarms and Landscape with Views of Windfarms	Lowland area is the most affected by proposed windfarms but also has the most capacity

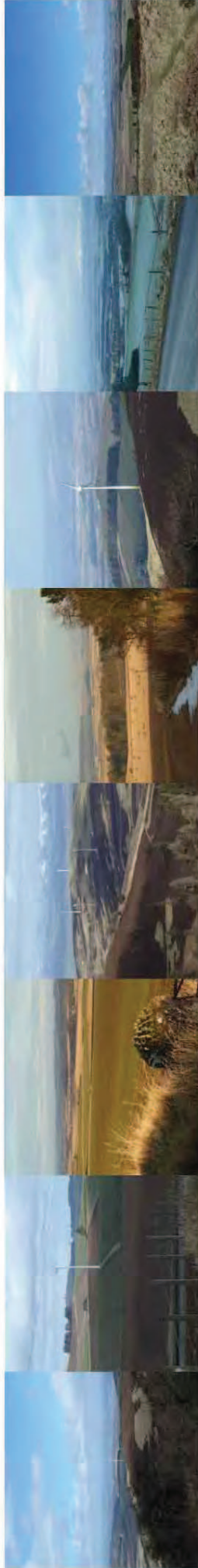
Landscape Type	Landscape Character Sensitivity	Visual Sensitivity	Overall Landscape Sensitivity	Landscape Value	Landscape Capacity	Operational/Consented Landscape	Operational/Consented & Proposed Landscape	Comment
COAST AREA								
14a Coast with Sand	Med-High	High	Med-High	Med-High	Low	No Windfarms/ Landscape with Views of Windfarms	Landscape with Views of Windfarms/ No Windfarms	
14b. Coast with Cliffs	Med-High	High	Med-High	Med-High	Low	No Windfarms/ Landscape with Views of Windfarms	Landscape with Views of Windfarms/ No Windfarms	
15. Lowland Basin	Medium	Med-High	Med-High	Med-High	Low	Landscape with no Windfarms/ Views of Windfarms	Landscape with Views of Windfarms (with small area of Landscape with Windfarms)	Likely to be a significant effect on landscape character from Mountboy and Montreatmont together
Overall Effect on Coastal Area	Med-High	High	Med-High	Med-High	Low	No Windfarms/ Landscape with Views of Windfarms	Landscape with Views of Windfarms/ No Windfarms	Significant increase in area of Landscape with Views of Windfarms



Scottish Natural Heritage
 Dualchas Nàdair na h-Alba
 All of nature, for all of Scotland
 Nàdar air fèd airson Alba air fad



Strategic Landscape Capacity Assessment for Wind Energy in Angus



Final Report

ITEM 17

IronsideFarrar
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 Edinburgh
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November 2013
 7933

1.0 INTRODUCTION

1.1 Background

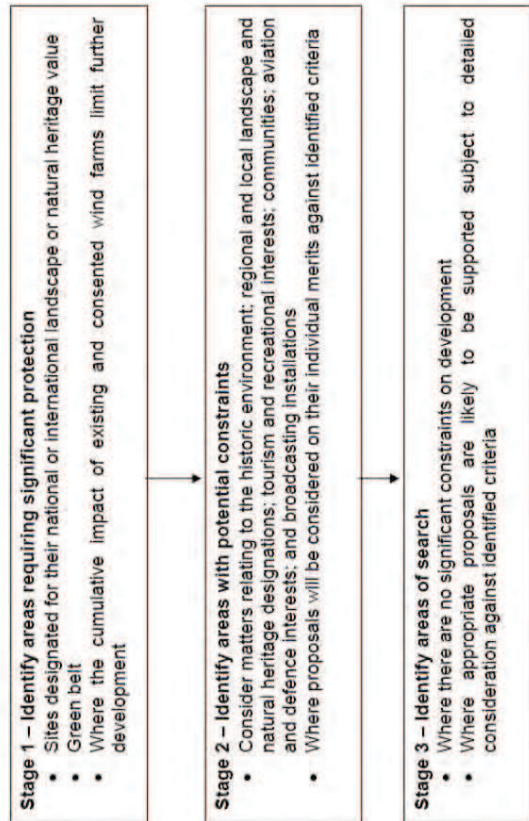
Scottish Planning Policy (SPP 2010) states that local authorities should make positive provision for the development of windfarms in locations where the technology can operate efficiently and environmental and cumulative impacts can be satisfactorily addressed. The Scottish Government has strongly stated its support for renewable energy developments and encouraged Planning Authorities to ensure appropriate planning guidance is in place.

Angus Council's wind energy guidance is being reviewed as part of the Local Development Plan Process and the Scottish Government's instruction to incorporate a locational framework. It will also reflect the recent increase in proposals for wind energy projects, particularly single or small groupings of turbines as a result of the introduction of the Feed in Tariff. Given this factor and existing levels of development in upland areas, Scottish Government web based guidance (*Onshore Wind Turbines, July 2013*) states:

'Planning authorities are more frequently having to consider turbines within lower-lying more populated areas, where design elements and cumulative impacts need to be managed'.

Scottish Government policy in SPP and web based guidance clearly indicates that cumulative development within areas may lead to eventual limits on further development and that this should be considered as a significant constraint. Areas where cumulative development has reached a threshold of acceptability are a Stage 1 constraint in a Spatial Framework, requiring significant protection from further development:

Figure 1.1: Extract from Current Scottish Government Guidance on Preparing Spatial Frameworks



Angus's existing guidance (*Renewable Energy Implementation Guide, 2012*) gives guidance for applicants for wind turbine development. It includes an indication of varying landscape capacity based on the findings of a study carried out by Ironside Farrar in 2008. (*Angus Windfarms Landscape Capacity and Cumulative Impacts Study*). That study determined the capacity for windfarm development across Angus, based on analysis of landscape character, quality and value and an assessment of significance of landscape change resulting from different potential scales of development.

The Ironside Farrar study found that Angus has little capacity for larger scales of wind energy development due to the sensitive location of its uplands; spread of its population in lowland and coastal areas, modest scale and settled character of the landscape. Highland and coastal areas were not deemed suitable for windfarm development due to their landscape quality and visual sensitivity. A number of recent planning appeal dismissals for windfarms in or near these areas have underlined this finding.

1.2 Consultancy Appointment

Ironside Farrar, together with Envision 3D, has been appointed by SNH, Angus and Aberdeenshire Councils to undertake a strategic landscape capacity assessment with respect to wind energy development across the two neighbouring local authority areas. The key purpose of this study is to provide detailed guidance on the capacity of the landscape across both areas to accommodate wind turbine development and to inform the review of the Development Plans' spatial frameworks and supplementary guidance.

The key study objectives are:

- To identify the sensitivity of the landscape to different types and scales of wind energy development;
- To identify viewpoints, routes and features, and the views from these, which are particularly sensitive to wind energy development;
- To advise on the capacity and potential for the landscape to accommodate different types or scales of wind energy development;
- Identify areas where cumulative impact is potentially at, or near, capacity, and provide an indication of when the capacity threshold would be reached for these areas;
- Identify areas, in landscape terms, unsuitable for wind energy developments;
- Provide clear siting and design guidance for landscape character areas that are identified as having some capacity for specific scales of development.

This study specifically assesses landscape sensitivity, value and capacity together with the impact of cumulative wind energy development in order to determine where significant protection from further development may be required. This study addresses these requirements through a staged assessment process detailed in sections 2.0 to 6.0.

1.3 National and Local Policy

National and local planning policies in Scotland are well disposed towards the development of onshore wind energy. However it is accepted that there are limitations imposed by environmental sensitivities and the capacity of areas to accept cumulative development. Therefore the acceptability of multiple windfarms and turbines and the cumulative landscape and visual impacts of development has to be considered in the light of national and development plan policy. **Appendix 1** reviews current national policy and guidance and Angus development plan policy and guidance.

Emerging Policy

Emerging Scottish Planning Policy (*SPP Consultation Draft 2013*) continues to strongly support onshore wind energy. It continues to support the undertaking of Spatial Frameworks and capacity studies. Key changes in emphasis are the recommendation for inclusion of all scales of wind energy development in spatial frameworks and the provision of a more detailed hierarchy and explanation of constraints to and opportunities for wind energy development.

1.4 Landscape Capacity and Cumulative Impacts

SPP and Scottish Government guidance identifies cumulative impacts and landscape capacity as being critical to the identification of broad areas of search. This study has thus been prepared to inform the Council on the issues of landscape capacity and cumulative impact. Accordingly it comprises three main themes:

- A strategic landscape capacity study, investigating the underlying capacity of landscapes within Angus to accommodate wind energy development;
- A cumulative assessment examining the level of cumulative development of operating, consented and proposed wind turbines and wind farms in Angus.
- Guidance on the levels and types of wind turbine development throughout Angus that would be acceptable in landscape terms, taking into account the first two considerations.

It is emphasised that this is a strategic level landscape and visual study, providing a context for consideration of capacity for, and the cumulative effects of, existing and potential future wind turbine developments in Angus. No site specific conclusions should be drawn from it in relation to current, proposed or future wind turbines and windfarms.

As a strategic landscape and visual study this does not address specific localised impacts such as effects on individual residential receptors or other sensitive receptors. All wind energy proposals should be considered on their own unique locational and design characteristics as well as their strategic context. All proposals should be subject to landscape, visual and cumulative impact assessment including (if required) a full environmental assessment.

TAY12: LOW MOORLAND HILLS

The Low Moorland Hills LCA is situated to the east and south of Forfar and lies between Strathmore and the *Dipslope Farmland*, continuing a gradually diminishing line of hills from the Sidlaws in the west to near sea level farmland at the Montrose Basin in the east. The LCA has been divided into two sub-areas on the basis of differences in landscape character and sensitivity: the Forfar Hills in the south and west and Montreatment Moor in the north and east.

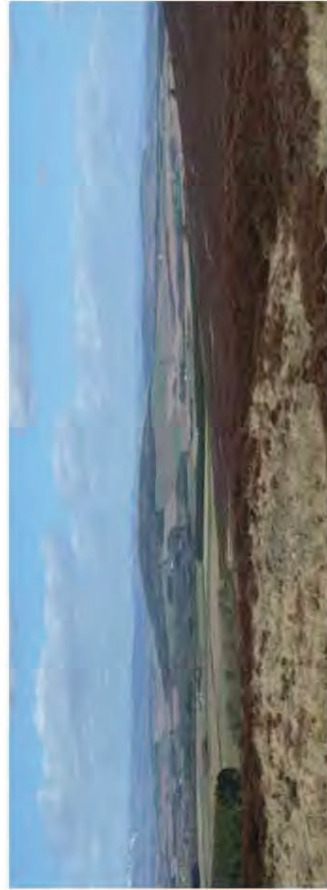
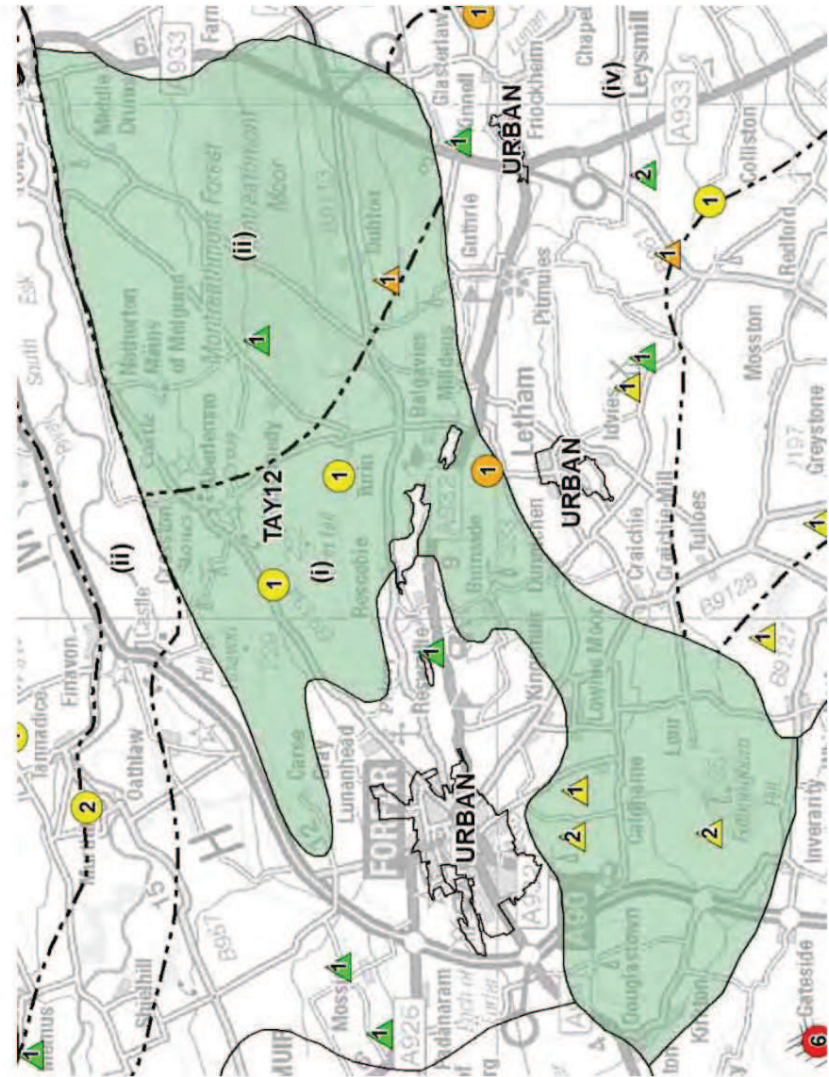
(i) FORFAR HILLS

A varied landscape of small steep hills and ridges set within a wider area of medium scale rolling/undulating farmland. The hills provide a backdrop to Forfar and define the southern edge of the South Esk section of Strathmore. Most of the hills are very visible from the A90. There are a number of hillforts and viewpoints located on the hills and other points of interest such as the standing stones at Aberlemno. There are scattered small settlements throughout the farmland, connected by a network of

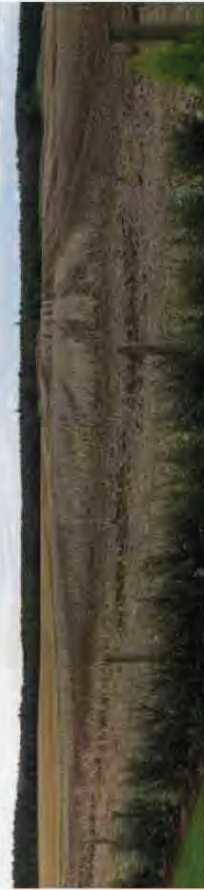
small lanes, sometimes twisting over the hills. The distinctive Rescobie Lochs and A932 lie in a valley separating the distinctly bald ridges north east of Forfar from the more tree covered hills to the east and south of the town. An electricity transmission line crosses the northern edge of the LCA at Hill of Finavon. This sub-area has higher visual sensitivity and complex, modest scale landforms compared with the sub-area further to the east.

(ii) MONTREATMENT MOOR

This LCA, lying east of the Forfar Hills, is distinctly different in character. The landform is predominantly gently undulating and gradually slopes down to the lower Montrose Basin LCA to the east. There are no distinctive hill landforms, although the northern edge forms an escarpment of some 100m descending to the River South Esk. It is a medium to large scale farming and forestry landscape dominated by Montreatment Forest which is a distinctively large mature lowland forest dominated by coniferous planting. It is well populated by scattered properties and farmhouses in the farmland areas outside the forest, with a network of small roads.



Area (i) the Forfar Hills, with a distinctive series of hill landforms



Area (ii) Montreatment Moor: a gently undulating landform with farmland surrounding an extensive area of forest

Table 6.1(f): Summary of Landscape Capacity, Cumulative Effects and Guidance for Future Wind Energy Development: Low Moorland Hills

LANDSCAPE CHARACTER TYPE TAY 12: LOW MOORLAND HILLS												
Turbine Size: Small/Medium=15-30m; Medium=30-50m; Large=50-80m; Very Large=125m+												
BASE LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Character	Visual Sensitivity	Landscape Sensitivity	Landscape Value	CURRENT CONSENTED DEVELOPMENT					Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Related to turbine size)	Current Applications	Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design)
				Existing/ Consented Developments	Current Wind Energy Landscape Type(s)	S/M	M	M/L				
Landscape Character Area: Forfar Hills Sub Area: (i) Forfar Hills												
Med/ High	Med/ High	Med/ High	Med	5 medium size turbines scattered south of Forfar. One medium/ large (77m) turbine at Pickerton just outwith sub area boundary north of Guthrie.	Low Moorland Hills with Wind Turbines/ Occasional Wind Turbines	Low Moorland Hills with Wind Turbines/ Occasional Wind Turbines	1-5	1-3	2-4	2-4	Two medium turbines either side of Turin Hill east of Forfar and one medium/ large (66m) turbine on southern boundary with Dipslope Farmland at Letham.	<p>Landscape Analysis: A varied landscape of small steep hills and rolling/undulating farmland. Both the higher visual sensitivity and complex, modest scale landforms indicate that only small groups of turbines up to 50m would be appropriate to this area.</p> <p>Comments on Consented and Proposed Turbines: Current medium turbines south of Forfar within capacity of this area although two turbines on Fotheringham Hill are high up the hillside. Proposals for turbines at Turin Hill are within capacity and suitably located. Medium/ large turbine N of Letham larger than recommended maximum size. Recent proposal for three large turbines at Finavon Hill dismissed at appeal due to adverse landscape/visual impacts relating to the size of the turbines.</p>
Landscape Character Area: Forfar Hills Sub Area: (ii) Montreathmont Moor												
Med/ Low	Med	Med	Med	Currently one medium/ large turbine in the S at Pickerton and one small/ medium turbine 3km north of this consented.	Low Moorland Hills with Occasional Wind Turbines/ No Wind Turbines	Low Moorland Hills with Occasional Wind Turbines	1-5	1-3	1-3	5-10	No current applications.	<p>Landscape analysis: Medium to large scale farming and forestry landscape dominated by Montreathmont forest. Simple undulating landform with no distinctive hills. It is well populated agricultural land outside the forest. The landscape is able to accommodate larger turbine sizes.</p> <p>Comments on Consented and Proposed Turbines: The current consented turbines fall well within capacity. Pickerton turbine is larger than maximum for adjacent sub-area, which it influences. A proposal for 11 very large turbines in Montreathmont Forest was dismissed at appeal in 2009 due to adverse landscape and visual effects, particularly on the amenity of surrounding properties.</p>

GUIDANCE: TAY12 LOW MOORLAND HILLS

(i) FORFAR HILLS

Proposed Limits to Future Development:

Low Moorland Hills with Occasional Wind Turbines (east of Forfar)

Turbine Sizes: 15-<30m (small/medium); 30-<50m (medium)

Group Sizes: 1-5 (small/medium; medium)

Separation Distances: 2-4km (small/medium); 3-6km (medium)

Low Moorland Hills with Wind Turbines (south of Forfar)

Turbine Sizes: 15-<30m (small/medium); 30-<50m (medium)

Group Sizes: 1-5 (small/medium); 1-3 (medium)

Separation Distances: 2-4km (small/medium and medium)

Detailed Guidance

Locate turbines in the enclosed farmland or on lower slopes of the hills, avoiding skylines and reducing intervisibility between turbine groups. Relate the height of turbines to the scale of the landscape, with particular regard to the vertical scale of the hills. Larger turbines should be located away from the smaller scale hills and hill slopes to avoid diminishing the apparent scale of the slopes or breaking the skyline. Proximity to residential properties or settlements may also limit opportunities for locating larger turbines and/or turbine groups. Site turbines away from the electricity transmission line on Hill of Finavon to avoid cumulative clutter.

Position turbines so that they relate clearly to landscape features such as field boundaries, breaks in slope and larger farm buildings. Separate turbine groupings sufficiently to ensure that clear intervisibility is infrequent. This can be achieved through selecting appropriate turbine sizes, separation distances and/or the intervention of landforms and tree groups. Place smaller turbines in locations where they are not close to, or readily intervisible with, larger turbines and are more closely associated with built development. Where there are two or three closely located applications for single turbines of the same size, exploit opportunities for clustering as a group in preference to separation.



Forfar Hills cannot accommodate larger turbines without adverse scale effects. Small/medium or medium turbines will not dominate the landforms. Turbine groups in the enclosed farmland can also be visually separated. Smaller turbines may be accommodated in the same view if closely associated with buildings

There is a higher proportion of enclosed farmland south of Forfar compared with the greater preponderance of open hills to the east. A number of medium size turbines are already consented in this area. Given the current pattern of development further medium size turbines could be located in this area to create a landscape with wind turbines between hills. Separation of turbines/groups by distance or landform should be sufficient to avoid loose clustering of turbines within or between groupings dominating an area. Turbines should be located to avoid breaking the skyline on Balmashanner Hill above Forfar.

(ii) MONTREATHMONT MOOR

Proposed Limits to Future Development: Low Moorland Hills with Occasional Wind Turbines

Turbine Sizes: 15-<30m (small/medium); 30-<50m (medium); 50-<80m (medium/large)

Group Sizes: 1-5 (small/medium and medium); 1-3 (medium/large)

Separation Distances: 2-4km (small/medium); 3-6km (medium); 5-10km (medium/large)

Detailed Guidance

Turbines can be located in most parts of this undulating landscape; the farmland area or the forest, with the key determining issues being the need to avoid domination of the landscape character and of views from residential properties. The size of turbines should relate to the scale of the landscape, which is principally determined by the pattern of field boundaries and forestry but also by proximity to features such as buildings and small tree groups. To the north the escarpment above Strathmore forms a taller and steeper landform than elsewhere in the sub-area.

Locate larger turbines (medium/large) in areas further from residential properties, the forest being the most suitable area in terms of low population density and uniform landscape character. Smaller size turbines (small/medium, medium and potentially medium/large) are more suitably sited in farmland areas. Proximity to residential properties or settlements may limit opportunities for locating larger turbines and/or turbine groups.

Position turbines so that they relate clearly to landscape features such as field boundaries, rolling ridges and farm buildings. Within the forest existing clearings would be most suitable and the most mature and diverse areas should be avoided. Separate turbine groupings sufficiently to ensure that the landscape is not dominated and that significant areas with clear intervisibility between developments is infrequent. This may be achieved through selecting appropriate turbine sizes and separation distances and through exploiting areas of trees and forestry to screen views. Where there are two or three closely located applications for single turbines of the same size, exploit opportunities for clustering as a group in preference to separation.

Avoid locating medium/large turbines close to the escarpment slope above Strathmore (typically rising 60m-100m from valley floor) and to the eastern Forfar Hills (ranging from 50m-140m higher than the farmland). The turbines would dominate the modest scale of these landforms.

Angus Local Plan Review (2009)

**Implementation Guide for Renewable Energy
Proposals**

**Policies ER34 Renewable Energy Developments
&
ER35 Wind Energy Development**

**Angus Council
June 2012**

4. Landscape and Visual Assessment of Wind Energy Proposals

The potential landscape and visual impact of wind turbines, both individually and cumulatively is a major factor in the assessment of any planning application.

The Tayside Landscape Character Assessment (TLCA) was prepared by Land Use Consultants in 1999, as part of a series of assessments for Scotland prepared on behalf of SNH and the local authorities. It develops a landscape classification which identifies and describes a range of character areas. It also provides guidance on accommodating development and land use change. Whilst some of this guidance has been superseded, the definition of the landscape character areas and their vulnerability to some types of development remains valid, and should be used in conjunction with the evolving SNH guidance.

The landscape character areas form the basis of The Wind Energy Geographic Areas in the ALPR as follows (Figure 1, page 39):-

- Area 1 Highland - primarily the Angus Glens along and to the north of the Highland Boundary Fault;
- Area 2 Lowland and Hills - mainly rolling farmland and low hills;
- Area 3 Coast - a mix of sand, cliffs and, around Montrose, lowland basin.

The ALPR identifies areas 1 Highland and 3 Coast as having a greater potential sensitivity to the landscape and visual impact of large turbines. This principle is developed in the Landscape Capacity and Cumulative Impacts Study undertaken by Ironside Farrar on behalf of the Council in 2008. This study primarily considered landscape capacity and cumulative impact in Angus at a strategic level in order to assist in the determination of two planning applications for wind turbines and based on the TLCA character area it identifies Landscape Capacity for Windfarms and current windfarm character type.

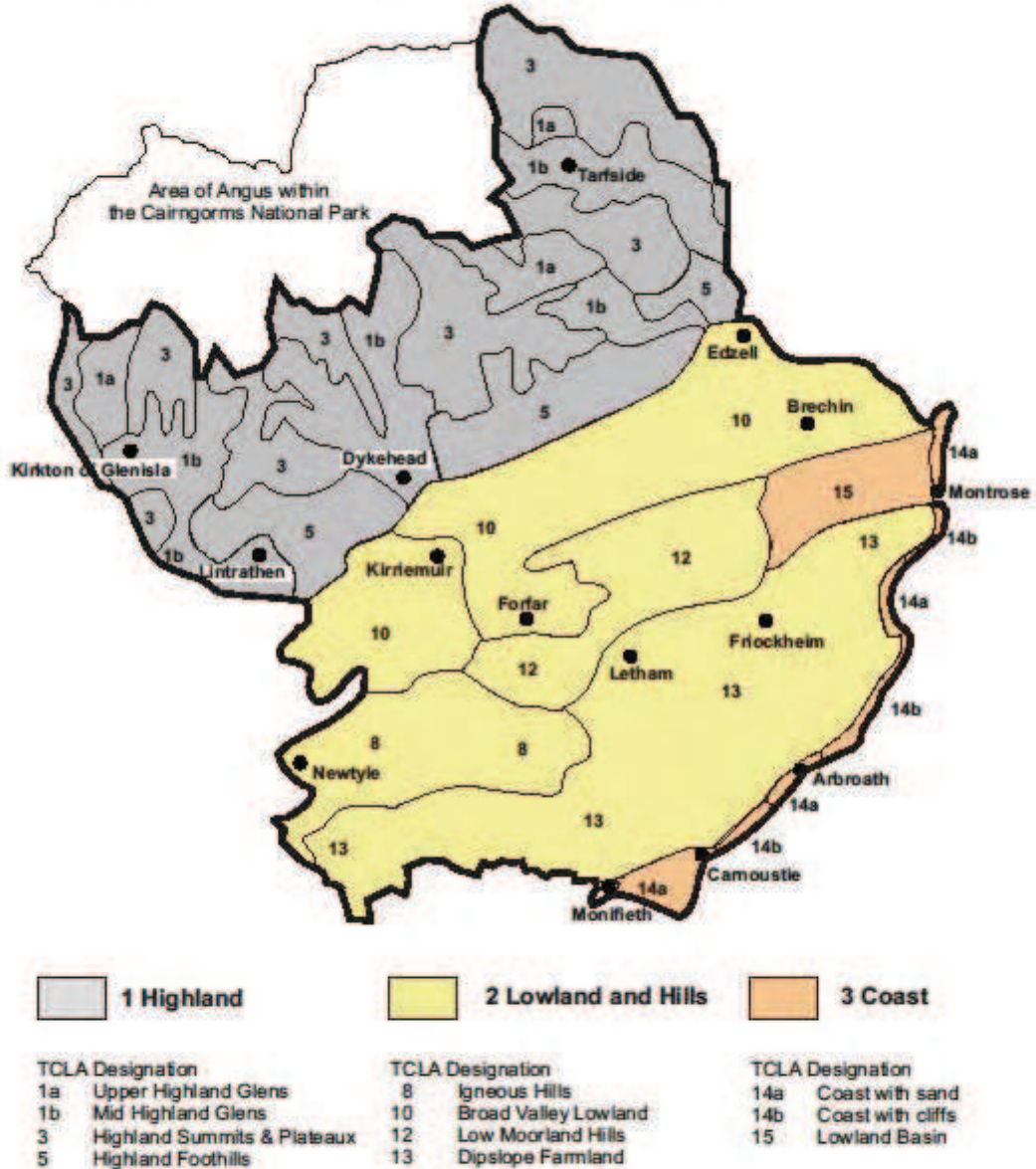
www.angus.gov.uk/devcontrol/LandscapeCapacityandCumulativeImpactAssessmentFinal.pdf

Area 3 Coast also has specific locational factors such as coastal flooding potentially exacerbated in future by rising sea levels, the protection of the undeveloped coast, shoreline management and the interrelationship with off-shore proposals. Development proposals on the coast will be required to address these issues as appropriate in any applications and supporting information.

The ALPR and TLCA form the basis for the strategic assessment of landscape capacity and potential visual and landscape impact. Applicants will require to establish the parameters for their individual site assessment with the Council taking cognisance of the detailed landscape and visual implications and suitable representations. Where proposals are for turbines between 15 and 50m are proposed a basic VIA should be submitted and for turbines over 50m a full LVIA should be undertaken as detailed in Table 2.

Scottish Natural Heritage has developed a series of Advice Notes on the impacts of windfarms on the landscape, and their advice will be sought by the Council as appropriate.

Figure 1 - Wind Energy Development Geographic areas



Map extract from Angus Local Plan Review (adopted Feb 2009)
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The 'Landscape Capacity and Cumulative Impacts Study' is a strategic level study providing a context for the consideration of the cumulative effects of existing and potential future windfarm developments. It develops a classification of landscape types in terms of the degree of wind turbine development (Table 3) which is applied in Table 4: Levels of Acceptable Landscape Character Change.

Table 3: Landscape Classification

Landscape	Type	Landscape Character Visual Experience
Landscape with no Windfarms	A landscape type or area in which no windfarms or wind turbines are present and none are clearly visible from neighbouring areas	There would be no discernable effects on visual receptors.
Landscape with Views of Windfarms	A landscape type or area within which, or immediately adjacent, there are no windfarms or wind turbines physically located, but from which windfarms are clearly visible in a separate landscape character area. Character may vary considerably according to proximity and scale of neighbouring windfarm(s).	The experience of a visual receptor would be noticeably affected, but windfarms are a background feature clearly not associated with the landscape in which the receptor is located. Visual effects may vary considerably according to proximity and scale of neighbouring windfarm(s)
Landscape with Occasional Windfarms	A landscape type or area in which windfarms or wind turbines are located or are very close to and visible. However they are not of such a size, number, extent or contrast in character that they become one of the defining characteristics of the landscape's character.	Visual receptors would experience occasional close-quarters views of a windfarm or turbines and more frequent background views of windfarms or turbines. Some turbines may or may not be perceived as being located in the landscape character area. No overall perception of windfarms being a defining feature of the landscape.
Landscape with Windfarms	A landscape type or area in which a windfarm, windfarms or wind turbines are located and visible to such an extent that they become a defining characteristic of the Landscape Character. However, they are clearly separated and not the single most dominant characteristic of the landscape	Visual receptors would experience frequent views of windfarms or wind turbines as foreground, mid-ground or background features, affecting their perception of the landscape character. However there would be sufficient separation between windfarms and turbines and sufficient areas from which wind turbines are not visible such that they would not be seen as dominating the landscape over all other landscape features.
Windfarm Lands	A landscape type or area in which windfarms or wind turbines are extensive, frequent and nearly always visible. They become the dominant, defining characteristic of the landscape. Nevertheless there is a clearly defined separation between developed areas.	Visual receptors would experience views of windfarms as foreground, mid-ground and background features, to the extent that they are seen to dominate landscape character. Few areas would be free of views of wind turbines
Windfarm	Landscape fully developed as a windfarm with no clear separation between groups of turbines. Few if any areas where turbines not visible.	Visual receptors would always be close to and nearly always in full view of wind turbines.

Table 4: Levels of Acceptable Landscape Character Change also incorporates the SNH classification of landscape and visual cumulative effects :-

- a) *'in combination - where two or more features are seen together at the same time from the same place, in the same (arc of) view where their visual effects are combined;*

- b) *in succession* - where two or more features are present in views from the same place (viewpoint) but cannot be seen at the same time, together because they are not in the same arc of view - the observer has to turn to see new sectors of view whereupon the other features unfold in succession;
- c) *in sequence* - where two or more features are not present in views from the same place (viewpoint) and cannot, therefore, ever be seen at the same time, even if the observer moved round the arc of view, the observer has to move to another viewpoint to see the second or more of them, so they will then appear in sequence. The frequency of occurrence in the sequence may be highly variable, ranging from frequently sequential when the features keep appearing regularly and with short time lapses between (clearly speed of travel influences this as well as distance between the viewpoints) down to occasionally sequential where there may be long time lapses between appearances, because the observer is moving very slowly and / or there are large distances between the viewpoints (even if not between the features);
- d) *perceived* - where two or more features are present but one or more is never seen by the observer, for example, because they are screened, or the observer is unable or unwilling to attend a viewpoint from where they would be seen. However, the observer is aware that others are there because, for example, they may have read or heard about them or seen signs to them; this is an apprehended or perceived effect but can be strongly felt; it could also, nevertheless, be mistaken because the observer's information or interpretation of it is wrong.' (David Tyldesley for SNH at PLI – Proposed Windfarm, An Suidhe, Inveraray, Argyll. November 2002).

New large scale proposals close to established wind farm or turbine development in landscape and/or visual terms should consider their relationship with existing turbine type, scale, colour and layout from all directions from which the wind farms or turbines are viewed in combination.

As the number of sites generating energy from wind increase, so does potential for conflict between different scales of development, and between proposed and existing development. Where proposals are submitted, the relative height and style of turbine (e.g. tower construction, number of blades, blade length) should increasingly reflect those already consented to promoted a harmonious development pattern.

The Levels of Acceptable Landscape Character Change established in Table 4 provides guidance on the Councils assessment of the potential impact of wind energy development in Angus.

Additional Information

SNH Cumulative Effect of Windfarms (revised 2005)

<http://www.snh.gov.uk/docs/A305440.pdf>

Table 4: Levels of Acceptable Landscape Character Change

Within **Development Boundaries** (as defined in the ALPR) it is not possible to define maximum turbine heights. Proposals for turbine development in towns and villages will be considered in the context of the ALPR policies and take account of the following considerations:

- Scale and location
- Landscape setting
- Residential amenity including noise, shadow flicker, visual impact etc
- Historic environment including townscape
- Compatibility with adjacent uses
- Proximity to sensitive receptors such as educational buildings, open space and leisure facilities, hospitals, residential care homes, cemeteries, visitor facilities and accommodation and proposed development areas
- Access
- Design
- Security of equipment/facility
- Ancillary works

Outwith development boundaries, in countryside locations it is considered that there is scope for turbines to be accommodated within the following defined landscape types. The guide heights are extrapolated from sources including the Tayside Landscape Character Assessment, the Landscape Capacity and Cumulative Impacts Study, Reporters findings from planning appeals, responses from statutory consultees and reflect the particular scale and landscape of Angus.

There may be scope for turbines of greater height, where this can be demonstrated by the applicant. This will be strongly influenced by the elevation of the turbine site, the scale of the landscape and proximity of scale features and buildings.

ALPR Zone	Landscape Type (LT) Landscape Units (LU)	Existing Windfarm Character	Acceptable Future Windfarm Character	Guidance (Height to blade tip unless otherwise stated)
1	1a. Upper Highland Glens • Glen Isla • Glen Lethnot • Milton and Upper Tarf Valley	Landscape with no Windfarms & Views of Windfarms	Landscape with Views of Windfarms	This LT is of medium scale; predominantly unsettled; with wild/slightly tamed level of naturalness and with narrow corridor views. Accordingly, it is considered to have no scope for turbines other than domestic scale turbines (less than 25m in height).

ALPR Zone	Landscape Type (LT) Landscape Units (LU)	Existing Windfarm Character	Acceptable Future Windfarm Character	Guidance (Height to blade tip unless otherwise stated)
	1b. Mid Highland Glens <ul style="list-style-type: none"> • Glen Esk • West Water Valley • Glen Clova • Glen Prosen • Glen Isla 	Landscape with no Windfarms & Landscape with Views of Windfarms	Landscape with Occasional Windfarms	Due to the small to medium scale of this LT and the corridor nature of views, it is considered to have scope for turbines circa 50m in height.
	3. Highland Summits & Plateaux <ul style="list-style-type: none"> • Caenlochan Forest/ Glen Doll Forest 	Landscape with Views of Windfarms	Landscape with Views of Windfarms	Considered to have no scope for wind turbines.
	5. Highland Foothills <ul style="list-style-type: none"> • Alyth Foothills • Kirriemuir Foothills • Menmuir Foothills • Edzell Foothills 	Landscape with Views of Windfarms	Landscape with Occasional Windfarms	The Highland Foothills provide a dramatic transition between highland and lowland. The contrast between the rolling topography of Strathmore (LT 10) and the foothills is important in defining the character of both LT 10 & 5. Whilst the Foothills appear big next to Strathmore, they are relatively low lying hills. In order to avoid the risk of turbines adversely affecting perceived scale, it is considered that there is scope for turbines less than circa 80m tall located on lower ground only, where they do not adversely affect the setting of landscape features and monuments such as Airrie Monument and the White & Brown Caterthuns.
2	8. Igneous Hills <ul style="list-style-type: none"> • Sidlaws 	Landscape with Views of Windfarms	Landscape with Occasional Windfarms	Considered to have scope for turbines circa 80m in height which do not disrupt the principle ridgelines or adversely affect the setting of important landscape features monuments such as Kinpurney Monument and Auchterhouse hillfort.

ALPR Zone	Landscape Type (LT) Landscape Units (LU)	Existing Windfarm Character	Acceptable Future Windfarm Character	Guidance (Height to blade tip unless otherwise stated)
3	10. Broad Valley Lowland • Strathmore	Landscape with Views of Windfarms	Landscape with Occasional Windfarms	Considered to have scope for turbines circa 80m in height.
	12. Low Moorland Hills • Forfar Hills	Landscape with Views of Windfarms	Landscape with Occasional Windfarms	Considered to have scope for turbines circa 80m in height which do not disrupt the principle ridgelines or adversely affect the setting of important landscape features and monuments such as Balmashanner Monument; and Finavon and Turin hillforts.
	13. Dipslope Farmland • SE Angus Lowland	Landscape with Views of Windfarms	Landscape with Occasional Windfarms	Considered to have scope for turbines circa 80m in height.
	14a. Coast with Sand • Barry Links • Elliot • Lunan Bay • Montrose	Landscape with Views of Windfarms	Landscape with Views of Windfarms	Due to the often open nature of the Angus coastline and in order to avoid the risk of turbines being visually prominent and therefore adversely affecting the character of the undeveloped coast, it is generally considered there is scope for domestic turbines of circa 25m in height.
	14b. Coast with Cliffs • Carnoustie • Auchmithie • Usan	Landscape with Views of Windfarms	Landscape with Views of Windfarms	
	15. Lowland Basins • Montrose Basin	Landscape with Views of Windfarms	Landscape with Views of Windfarms	