

Technical Appendix 5.2: Residential Visual Amenity Assessment Part 1

Contents

Chapter 1		Assessment of Effects on Residential Visual	
Introduction	1	Amenity	28
		Conclusion	37
Methodology	1	References	38
Assessment of Potential Change to Views and Visual Amenity	4		
Properties Considered in the Assessment	6		

Chapter 1

Introduction

1.1 This Residential Visual Amenity Assessment (RVAA) describes the change in views likely to be experienced by residents within 2 km of the outermost turbines of the Proposed Development. The RVAA should be read in conjunction with **Chapter 5: Landscape and Visual Impact Assessment**. The Likely Grid Connection Route will be an underground cable which is unlikely to result in any adverse effects on residential visual amenity, and is not considered further in the RVAA.

1.2 The RVAA was undertaken by Chartered Landscape Architects at LUC in accordance with the principles contained within the Landscape Institute's Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3), and Residential Visual Amenity Assessment (RVAA) Technical Guidance Note 2/19 (LI TGN 2/19). The approach is also informed by numerous decisions made following public inquiries into wind energy proposals in Scotland and elsewhere in the UK.

1.3 GLVIA3 notes the need for a 'residential amenity assessment' to consider the effects of development on private properties (GLVIA3, Page 107, Para. 6.17). This is noted to include an assessment of visual effects, although is separate from LVIA.

1.4 LI TGN 2/19 explains that *"the purpose of RVAA is to provide an informed, well-reasoned answer to the question: 'is the effect of the development on Residential Visual Amenity of such nature and / or magnitude that it potentially affects 'living conditions' or 'Residential Amenity'?"* (LI TGN 2/19, Page 5, Para. 2.1).

1.5 The RVAA does not consider other components of residential amenity, such as noise or shadow flicker, which are considered in **Chapter 10: Noise and Vibration** and **Technical Appendix 4.4: Shadow Flicker Assessment** of the EIA Report.

1.6 Findings of significant effects on views or visual amenity from a property do not automatically imply the need for further assessment. However, for properties likely to experience a high magnitude of visual change and which are in proximity to a development, undertaking an RVAA may be appropriate.

1.7 The methodology for the RVAA is set out below along with the scope of the assessment. The findings of the assessment are presented in tabular format and the assessment concludes with a summary of the findings. The following figures were prepared to accompany this assessment:

- **Figure A5.2.1** – Residential Property Locations
- **Figure A5.2.2** - Residential Property Locations and Blade Tip (200 m) Zone of Theoretical Visibility
- **Figure A5.2.3** - Residential Property Locations and Hub Height (119 m) ¹ Zone of Theoretical Visibility
- **Figure A5.2.4** - Residential Property Locations and Aviation Lighting Zone of Theoretical Visibility - Nacelle Lighting
- **Figure A5.2.5** - Residential Property Locations and Visible Aviation Light Intensity Zone of Theoretical Visibility

Methodology

1.8 The methodology is summarised as follows:

¹ The hub height used is a candidate turbine used for assessment purposes. The actual hub height of the scheme, if consented, may differ.

- identification of properties to be considered (defining the study area and scope);
- collation of baseline information from maps and aerial photographs and preparation of wireframe visualisations, to inform field survey;
- field survey to collate information in relation to baseline views and visual amenity from each property;
- assessment of the magnitude of change in visual amenity likely to be experienced at the property and the significance of the visual effect (in an EIA context); and
- for properties experiencing a high magnitude of change, a judgement of whether the predicted change in views and visual amenity reaches the 'Residential Visual Amenity Threshold' described in LI TGN 2/19; that is, *"is the effect of the development on Residential Visual Amenity of such nature and / or magnitude that it potentially affects 'living conditions' or 'Residential Amenity'?"* (Para. 2.1, Page 5).

1.9 The following section sets out the methodology and the factors considered in more detail.

Study Area

1.10 The LI RVAA Guidance outlines the background to defining an appropriate study area for the consideration of effects on residential visual amenity arising from large wind turbines:

"Over the last few years a large number of RVAAs have been prepared, especially relating to wind energy proposals. Local Planning Authorities (LPA) have frequently requested 'study areas' of up to 3 or even 5km. The logic for these (exceptionally) large study areas was based on certain findings of LVIA's which identified significant visual effects from 'settlements' or from clusters of residential properties within this range. This fails to recognise that RVAA is a stage beyond LVIA. Consequently, many RVAAs, including those of windfarms with large turbines (150m and taller), have included disproportionately extensive study areas incorporating too many properties. This appears to largely be based on the misconception that if a significant effect has been identified in the LVIA adjacent to a property at 2.5km it will also potentially lead to reaching the Residential Visual Amenity Threshold."

1.11 The assessment includes consideration of the changes in views and visual amenity from all properties up to approximately 2 km of the proposed turbines. Although there is the potential for significant visual effects to occur beyond this distance, such effects are not considered likely to affect 'living conditions'. This is informed by the LI RVAA Guidance which states:

"When assessing relatively conspicuous structures such as wind turbines, and depending on local landscape characteristics, a preliminary study area of approximately 1.5 - 2 km radius may initially be appropriate in order to begin identifying properties to include in a RVAA." (Para. 4.7, Page 10).

1.12 This opinion is also informed by experience, observations made on-site and an understanding of the Proposed Development.

1.13 Properties were identified using Ordnance Survey (OS) AddressBase Plus data and verified in the field. Properties, including their curtilage and access drives, with no theoretical visibility (as indicated by the ZTV in **Figure A5.2.2**) were not considered in the RVAA.

Desktop Studies

1.14 For the purposes of this RVAA, the visual amenity experienced at a property is made up of a combination of the type, nature, extent and quality of views that may be available from the property and its domestic curtilage (e.g. gardens and access drives).

1.15 Ordnance Survey (OS) maps, aerial imagery and Google Streetview were used for desktop research to assist with recording information such as the location of the residential elements of each property, the orientation of the property, and the extent of its curtilage.

1.16 In considering baseline visual amenity, the following was examined:

- the nature and extent of the available existing views (including main/primary² views) from the property and its garden, including the proximity and relationship of the property to surrounding landform, landcover and visual foci; and
- views experienced when approaching or departing from the property via its driveway and/or access roads, if applicable.

Field Surveys

1.17 Field surveys were undertaken from publicly accessible locations in the spring of 2026, to determine the following baseline information:

- the orientation and likely views from each property (including principal/primary aspects and presence of windows);
- layout and orientation of the gardens and property curtilage;
- access location, and likely views from private or shared driveways or access tracks;
- the nature of existing views from the properties and their gardens, including the proximity and relationship of the properties to surrounding landform, landcover and visual foci and the scenic quality of views; and
- potential screening provided by local variations in topography, the built environment and vegetation/tree cover within the surrounding landscape.

Preparation of Accompanying Visualisations

1.18 On the basis of guidance included in LI TGN 2/19, indicative wireline visualisations based on a bare ground Digital Terrain Model (DTM) were generated from all individual properties or property groups (within 2 km) using Resoft Windfarm software. Wirelines were centred on the Proposed Development and illustrate a 53.5° included angle of view and 2 m viewing height from each location. From certain locations, more than one 53.5° included angle of view wireline is required to show the full extent of the Proposed Development. The wirelines are not necessarily representative of the primary outlook of the property and do not show features such as buildings and trees that may provide screening or filtering of views. It should therefore be noted that these indicative wireline visualisations represent a 'maximum visibility scenario' which may potentially be experienced from the property or its curtilage, and this should be borne in mind when using the images.

1.19 The illustrative wireline visualisations show the proposed turbines only, with turbines numbered for ease of reference. Turbines with aviation lighting on the hubs have also been annotated (the four outer turbines (T1, T3, T4 and T5) are proposed to have aviation lighting which has been agreed with the CAA (refer to **Technical Appendix 4.3: Aviation Assessment** and **Technical Appendix 5.3: Aviation Lighting Night-Time Impact Assessment** for further detail). No other components of the wind farm have the potential to affect 'living conditions', and as such they are not included in any of the accompanying visualisations. The primary outlook of residential properties is discussed in the tables for each property/ property group in the assessment section which follows.

1.20 Due to the scope for cumulative interactions in views from properties within the RVAA Study Area, 90 degree cumulative wirelines, focused towards the Proposed Development, were also generated from all properties/ property groups. These include all operational, consented and proposed wind farms, when visible, as mapped on **Figure 5.1.7a in Volume 3a: Figures** of the EIA Report. Where there are cumulative interactions between the Proposed Development and other wind farms, this is discussed.

1.21 The wireline visualisations (**Figures A5.2.6 to A5.2.30**) are included at the end of this report.

² Primary views include views from the main living rooms and living areas of the garden. Secondary views are views from more functional rooms and parts of the garden, and areas of access.

Micrositing

1.22 The principles of micrositing are described in **Chapter 4** of the EIA Report. In summary, a horizontal micrositing tolerance of 50 m will be requested as part of the planning application, required in the event of unforeseen ground conditions being identified.

1.23 Should any turbines move 50 m in any direction, this is unlikely to alter the levels of effect as identified in this RVAA. Micrositing infrastructure within the tolerance is also unlikely to change the significance of effects identified in the assessment.

Assessment of Potential Change to Views and Visual Amenity

Sensitivity of Residential Receptors

1.24 GLVIA3 advocates an approach which considers the overall sensitivity of visual receptors (people) in terms of *“both their susceptibility to change in views and visual amenity and also the value attached to particular views”* (GLVIA3, Page 113, Para. 6.31), whilst stating that visual receptors most susceptible to change are likely to include *“residents at home”* (GLVIA3, Page 113, Para. 6.33).

1.25 Taking account of the purposes of this RVAA, and taking a precautionary approach, all people at their place of private residence are considered to be of high sensitivity to changes in their views and visual amenity. As a consequence, no individual assessment of sensitivity is outlined in the assessment which follows.

Magnitude of Change to Views and Visual Amenity

1.26 The likely changes in views and visual amenity (during both day and night time) as a result of the Proposed Development are considered with reference to the individual wireline visualisations from each property (see **Figures A5.2.6 to A5.2.30**) and informed by fieldwork. A judgement on the magnitude of visual change which will be experienced is made, and the change in views summarised, with reference, as appropriate, to the following factors which are set out in GLVIA3 (Page 115, Para. 6.39-6.40):

- *“Scale of the change in the view with respect to the loss or addition of features in the view and changes in its composition, including the proportion of the view occupied by the Proposed Development;*
- *degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture;*
- *angle of view in relation to the main activity of the receptor;*
- *distance of the viewpoint from the Proposed Development; and*
- *extent of the area over which the changes would be visible.”*

1.27 The following additional factors are specific to the type of development proposed and in the context of a residential visual amenity assessment:

- type and nature of the available view (e.g., panoramic, framed);
- relative size and proximity of turbines;
- number, extent and composition of turbines visible (and presence of screening);
- position of turbines in views from the property e.g., whether in the primary outlook from the property;
- proportion of the skyline occupied by the turbines;
- direction (including the aspect) of the view affected; and
- density and spacing of turbines and their overall composition in the view.

1.28 Informed by the preparatory desk work and supported by maps and wireframes, an assessment was undertaken, during field surveys, of the magnitude of the likely change that may result from the introduction of the Proposed Development into views from each property or property group.

1.29 Magnitude of visual change is expressed on a relative scale, as set out in **Table 1.1** below, which highlights the differences between the types of change experienced in views from residential properties examined as part of this RVAA. The existing and proposed view from each property is considered, and the likely relative magnitude of change (high, medium, low, barely perceptible) arising from the Proposed Development is determined. The nature of existing and predicted views (open, enclosed, panoramic, focused, framed etc.) affects the relative magnitude of change and is taken on board in reaching that judgement. The RVAA looks at the range of views likely to be available from the house and its curtilage and considers potential effects on all of these.

Table 1.1 Magnitude of Change in Views and Visual Amenity

Magnitude of Change in Visual Amenity	Description
High	The Proposed Development will be a key/defining element in views
Medium	The Proposed Development will be clearly discernible but will not be a key/defining element of views
Low	The Proposed Development will be visible and will form a minor element in views
Barely Perceptible	The Proposed Development may go unnoticed as a minor element of the view or is not visible

1.30 Judgements on susceptibility (noting that all residential receptors are of high susceptibility) and magnitude of change are then combined to form a judgement of the significance of the visual effect (in an EIA context). The LI TGN 2/19 note states that:

“LVIA findings of significant (adverse) effects on outlook and /or on visual amenity at a residential property do not automatically imply the need for a RVAA. However, for properties in (relatively) close proximity to a development proposal, and which experience a high magnitude of visual change, a RVAA may be appropriate...” (Para 2.5, Page 5)

1.31 For properties predicted to experience a **barely perceptible**, **low** or **medium** magnitude of change in views, it is considered that there is no potential for ‘living conditions’ to be affected, and detailed RVA assessment is not carried out.

1.32 For properties predicted to experience a **high** magnitude of change in views, a detailed assessment is carried out and an RVAA judgement is formed.

Forming the RVAA Judgement

1.33 The LI TGN 2/19 note states that “The final step of RVAA involves a more detailed examination of the predicted effects on the visual amenity at those properties identified for further assessment in the previous step.” (Para. 4.17, Page 12).

1.34 The Residential Visual Amenity Threshold *“is the threshold at which the visual amenity of a residential property is changed and adversely affected to the extent that it may become a matter of Residential Amenity and which, if such is the case, competent, appropriately experienced planners will weigh this effect in their planning balance”* (LI Technical Guidance Note 2/19 Residential Visual Amenity Assessment).

1.35 As stated in the LI TGN 2/19, RVAA is only concerned with those properties subject to the highest magnitude of change (which will likely be subject to significant visual effects, in the EIA context). Therefore, only properties predicted to experience a high magnitude of change need to be assessed in terms of potential effect on 'living conditions'. This corresponds to the 'Residential Visual Amenity Threshold' as described in LI TGN 2/19. This judgement is intended to assist the decision maker in coming to the wider planning judgement on overall residential amenity, when considered within the context of other components (e.g. noise, shadow flicker, dust and vibration). A property experiencing significant visual effects will not necessarily experience effects on residential visual amenity which are judged to breach the Residential Visual Amenity Threshold.

1.36 The Residential Visual Amenity Threshold is judged by considering whether the Proposed Development, for example:

- blocks the only available view from a property; or
- is overwhelming views in all directions; or
- is unpleasantly encroaching; or
- is inescapably dominant from the property.

1.37 For each property or group of properties included in the detailed assessment, the RVAA evaluation consists of:

- a description of the property and of its location and context;
- a description of the likely existing available views and visual amenity from the property and its domestic curtilage, including gardens and private or shared access drives; and
- a description of the likely effect on views and visual amenity resulting from the Proposed Development, as well as other existing and proposed schemes included in the study area and likely to influence the decision-making process.

1.38 The detailed assessment for each property or group of properties (subject to a high magnitude of change in views) concludes with a judgement with respect to the visual component of residential amenity or 'living conditions' and whether the 'Residential Visual Amenity Threshold' is breached.

Properties Considered in the Assessment

1.39 38 properties were identified within approximately 2 km of the Proposed Development using mapping and address data, and ZTV analysis confirmed theoretical visibility from all of them – see **Figures A5.2.2-A5.2.3**. **Table 1.2** below lists all the properties assessed as part of this study. Where appropriate, properties were grouped where they have similar geographic locations and were deemed likely to experience similar views. For each property or property group, **Table 1.2** contains a reference number, the property name (as informed by OS AddressBase Plus data) and details of location. Computer modelling was used to provide details of distance, viewing direction and potential visibility of the Proposed Development. This potential visibility is illustrated in the illustrative wirelines appended at the end of this report.

1.40 Following site survey and analysis of illustrative wirelines, notes were prepared for each of the properties and the potential magnitude of change/ significance of visual effects which will be experienced at these. Where the magnitude of change is judged to be less than 'high', commentary on these findings is provided in **Table 1.2** below, and these receptors are not carried forward into the detailed Residential Visual Amenity Assessment.

Table 1.2 Properties Considered in Assessment

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
Individual Properties/Property Groups within 2 km						
1	Townhead of Floak Farm	249194	650237	1.4	 View towards the Floak property group from the north-west. Townhead of Floak Farm and Bungalow (Properties 1 and 2) are circled in red, and Mid Floak Farm (Property 3) is circled in blue. The Site is out of picture to the right. See property 5.	See property 5.
2	Townhead of Floak Bungalow	249230	650218	1.4	See property 5.	See property 5.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
3	Mid Floak Farm				 View from near Mid Floak Farm, looking south-west towards Glenouther Moor. See property 5.	See property 5.
4	Mid Floak Bungalow, Floak	249281	650132	1.4	See property 5.	See property 5.
5	Floak (Group)	249344	649974	1.4	See Figure A5.2.6 for wireline visualisation. Group of five properties to the north-east of the Site. Accessed via a track to south-east, linking to A77. More open secondary views from certain properties (properties 1, 2 and 4) to west of access track, looking south-west towards the Site. Views from closest property (5 – Floak Farm) screened by large agricultural buildings. When visible five turbines will be apparent, seen behind retained forestry (whilst this remains in place).	Where more open views towards the Proposed Development from this property group are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
					Due to viewing distance (1.4 km) and secondary nature of views (where available), the magnitude of RVA change is judged to be below high.	However, and when considering the nature of views (in the round ³) from this property group, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property group is not considered further.
6	Marramead (North Drumboy Group)	249403	648916	1.1	See Figure A5.2.7 for wireline visualisation. Group of four properties located to the east of the Site, and to the east of the M77 and A77. The properties are generally oriented with primary views to the west, looking over the road corridors and towards moorland and forestry (Glenouther Forest) to the west. Certain properties (Marramead and a newly constructed property at Greenfinch) have more open views west. Nature of views and wireline suggest potential for high magnitude of change.	A high magnitude of RVA change combined with the high susceptibility of residential receptors will result in significant visual effects from this property group. Effects on RVA considered further in assessment - see Table 1.3.
7	North Drumboy	249403	648839	1.1		See property 6.

³ 'In the round' means the combined or all-round visual amenity experience at, or from a property. LI TGN 2/19 (page 16).

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
						
8	Greenfinch	249386	648793	1.1	See property 6.	See property 6.
9	South Drumboy Farm	249472	648440	1.2		See property 6.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
10	Kingswell Country House	250015	647746	1.8	 See Figure A5.2.8 for wireline visualisation. Kingswell consists of two properties, a period farm house (Kingswell Farm) and period two story house (Kingswell Country House). The properties adjoin one another and along with various outbuildings are arranged around a small courtyard. Mature garden vegetation will provide some screening and filtering of rear views to the north-west. Due to viewing distance (1.8 km) and partially screened nature of views, the magnitude of RVA change is judged to be below high.	Where more open views towards the Proposed Development from this property are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
11	Best Friends Cottage	249731	647272	1.8	 See Figure A5.2.9 for wireline visualisation. Modern single storey bungalow and detached garage that are set back from the B764 by a small front garden and driveway. Primary views orientated to the south-east. Coniferous vegetation provides some screening to rear (north-west) in views to Site. Combined with viewing distance (1.8 km), the magnitude of RVA change is judged to be below high.	Views from this property are largely screened by mature coniferous vegetation. Visual effects are unlikely to be significant. When considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
12	Harelaw Farm	248913	647048	1.4	 See Figure A5.2.10 for wireline visualisation. Two storey farm house configured in a U-shape that partially encloses a small courtyard; agricultural buildings; farmyard; and private gardens. The property is accessed via a private track that comes off the A77 to the south. The front of the farmhouse faces south and looks over Eaglesham Moor, the M77 and A77. Due to viewing distance (1.4 km) and secondary nature of views to Site (to north), the magnitude of RVA change is judged to be below high.	Where more open views towards the Proposed Development from this property are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
13					 See Figure A5.2.11 for wireline visualisation. Single property, located on the valley side to the north of Kingswell Burn. The primary outlook is to the south, looking over the valley and towards the A77 and M77 transport corridors. Turbines in the operational Whitelee Wind Farm will be visible in middle distance views to the south-east. The Proposed Development will be theoretically visible at a distance of 1.1 km, in views to the north. However, large outbuildings to the immediate north of the property will screen these secondary views. The primary outlook, to south, will remain unaltered. Views of the Proposed Development will be available from parts of the access track. This property currently appears to be under renovation and subject to a planning application to extend the large	Where more open views towards the Proposed Development from this property are available (including from parts of the access track), given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.
	Blair Farm	248677	647358	1.1		

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
					agricultural building to the north of the property (see 25/0306/PP on East Ayrshire Council planning portal). Should this development go ahead, large outbuildings to the north of the property are likely to provide further screening in views looking north towards the proposed turbines. Taking into account the above considerations, the magnitude of RVA change is judged to be below high.	
14					 Property frontage, looking south-east. See Figure A5.2.12 for wireline visualisation. Detached two storey farmhouse with an L-shape configuration; various agricultural outbuildings to rear (north); yard; and a private garden. The property is accessed via a private track that joins the A77 to the south-east. The front of the farmhouse faces south-east and looks over Eaglesham Moor, the M77 and A77. Due to viewing distance (1.8 km) and secondary nature of views to Site (to north), the magnitude of RVA change is judged to be below high.	Where more open views towards the Proposed Development from this property are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.
	Raithill Farm	248247	646592	1.8		

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
15	Crofthead of Gree Farm	247063	646558	2.0	See Figure A5.2.13 for wireline visualisation. Single property with extensive mature screening to rear (north) towards Site. Combined with viewing distance (2 km), the magnitude of RVA change is judged to be below high.	Views from this property are largely screened by mature garden vegetation. Visual effects are unlikely to be significant. When considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.
16	Greelaw Farm	247215	647152	1.4	See Figure A5.2.14 for wireline visualisation. Single property accessed via the Clunch Road to the south-west. The primary outlook is to the south-east. There is a large agricultural building to the north of the property, which is likely to screen secondary and oblique views from the property itself, towards the Site. The Proposed Development would be visible at a distance of 1.4 km, in views to the north. It is likely that these views will mainly be seen when accessing the property, rather than from the property itself, due to screening provided by agricultural buildings to the north. Primary views to south-east will remain unaltered. Taking into account the above considerations, the magnitude of RVA change is judged to be below high.	Where more open views towards the Proposed Development from this property are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
17	Townhead of Gree Farm	246817	646710	2.0	 See Figure A5.2.15 for wireline visualisation. Extended farmhouse with outbuildings to east and south. Access via track to Clunch Road to west. Primary views orientated to west. Mature trees/ vegetation provide some partial screening in views to Site, to north-east. Combined with viewing distance (2 km) effects, the magnitude of RVA change is judged to be below high.	Where more open views towards the Proposed Development from this property are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.
18	Gree Cottage	246676	646764	2.0	See Figure A5.2.16 for wireline visualisation. Cottage located west of Clunch Road. Property frontage orientated to south. Garden vegetation provides some partial screening of gable end views/ rear views to Site (north-east). Combined with viewing distance (2 km), the magnitude of RVA change is judged to be below high.	Where more open views towards the Proposed Development from this property are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property,

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
						the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.
19	High Clunch Farm	246709	647238	1.6	 See Figure A5.2.17 for wireline visualisation. Two storey stone built farmhouse with outbuildings accessed via a long private access track orientated in a north-east direction. The large garden to the rear of the property contains a number of mature deciduous trees that enclose the house and grounds. Combined with viewing distance (1.6 km), the magnitude of RVA change is judged to be below high.	Where more open views towards the Proposed Development from this property are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.
20	Glenouther Farm	246501	648218	1.3	See Figure A5.2.18 for wireline visualisation.	A high magnitude of RVA change combined with the high susceptibility of

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
					Single property accessed via the Clunch Road to the west. The primary outlook is to the north and south. Gable end views from the eastern aspect are not available (there is a barn attached to the eastern end of the property). The Proposed Development would be visible at a distance of 1.3 km, in views to the east. It is likely that these views will largely be available only when accessing the property. Any views from the property itself will be very oblique. Nature of views and wireline suggest potential for high magnitude of RVA change.	residential receptors will result in significant visual effects from this property. Effects on RVA considered further in assessment - see Table 1.4.
21	Owl Cottage, Upper Hairshaw Farm	245997	648375	1.7	See property 22.	See property 22.
22	Upper Hairshaw Farm	245986	648397	1.7	 See Figure A5.2.19 for wireline visualisation. Upper Hairshaw consists of a two storey farmhouse arranged in an L-shaped configuration around a courtyard to the east. Primary views appear to be orientated to the north-west.	Where more open views towards the Proposed Development from this property group are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property group, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property group is not considered further.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
					Owl Cottage consists of single storey property and two storey extension orientated with views to north-west and south-east. Both properties are accessed by long private driveway the joins the Clunch Road to the south-west. The Site is located to the north-east, in secondary views. Combined with viewing distance (1.7 km), the magnitude of RVA change is judged to be below high.	
23	Kelvedon Cottage	245912	648971	1.7	 See property 25.	See property 25.
24	Easterhouse of Whitelee	246030	648980	1.6	See property 25.	See property 25.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
25	East Whitelee Farm (Group)	246040	649003	1.5	 View looking south-east from B769 towards East Whitelee property group. See Figure A5.2.20 for wireline visualisation. Cluster of properties located to west of the Site. Primary views generally orientated to the north, looking over the Annick water Valley. Large agricultural buildings and forestry to west will provide a level of screening. Combined with viewing distance (1.5 km distance or longer), the magnitude of RVA change is judged to be below high.	Where more open views towards the Proposed Development from this property group are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property group, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property group is not considered further.
26	Pebblebank, East Whitelee	246008	649004	1.6	See property 25.	See property 25.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
27	Windmill Cottage	245703	649020	1.9	 See Figure A5.2.21 for wireline visualisation. Modern detached two storey house with principal views facing south-east (Site located to east). The property is set within its own private garden accessed by a short driveway leading off the B769 to the east. Combined with viewing distance (1.9 km), the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.	Where more open views towards the Proposed Development from this property are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
28	Glen-A-Moor	245794	649050	1.8	 See Figure A5.2.22 for wireline visualisation. Detached bungalow located adjacent to the B769. The property is orientated with the front facing north-west (Site located to east) and has a garden located at the rear. Combined with viewing distance (1.8 km), the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.	Where more open views towards the Proposed Development from this property are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.
29	Laverockhall Cottage	246199	649255	1.4	See property 31.	See property 31.
30	Downne Law Cottage	246248	649310	1.4	See property 31.	See property 31.
31	Blacklaw Cottage (Group)	246288	649349	1.4	See Figure A5.2.23 for wireline visualisation. Group of three properties, located on the B769 to the west of the Site. The primary outlook from all three is to the south-east. Mature garden trees play a notable filtering and	A high magnitude of RVA change combined with the high susceptibility of residential receptors will result in significant visual effects from this property group.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
					screening role in more eastern of the two properties. More open views are available from the most westerly property. The Proposed Development would be visible at a distance of 1.4 km, in views to the east and looking over the valley of an upper tributary of the Annick Water. Nature of views and wireline suggest potential for high RVA magnitude of change.	Effects on RVA considered further in assessment - see Table 1.5.
32	Blacklawhill Farm	246381	649861	1.6	 See Figure A5.2.24 for wireline visualisation. Farmhouse sitting in elevated position to north of B769. Open primary views focused to south-west, with Site to south-east. Given orientation of key views and viewing distance (1.6 km), the magnitude of RVA change is judged to be below high.	Where more open views towards the Proposed Development from this property are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.
33	Lowtoun of Blacklaw Farm	246641	649909	1.4	See Figure A5.2.25 for wireline visualisation. Farmhouse, sitting in elevated position to north of B769. Open primary views focused to south-east, with Site to south-east. Nature of views and wireline suggest potential for high RVA magnitude of change.	A high magnitude of RVA change combined with the high susceptibility of residential receptors will result in significant visual effects from this property. Effects on RVA considered further in assessment - see Table 1.6.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
34	Meadowlands Farm	246627	650221	1.7	See Figure A5.2.26 for wireline visualisation. Farmhouse, sitting in slight depression in landscape to north of B769. Primary views focused to south-east (with Site to south-east) with mature garden vegetation providing screening. Combined with viewing distance (1.7 km), the magnitude of RVA change is judged to be below high.	Where more open views towards the Proposed Development from this property are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.
35	Easter Blacklaw Farm	246724	650560	1.9	 See Figure A5.2.27 for wireline visualisation. Farmhouse, sitting in elevated position to north of B769. Primary views focused to south, with Site to south-east. Mature trees to south and east will provide a level of partial	Where more open views towards the Proposed Development from this property are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
					screening. Combined with viewing distance (1.9 km), the magnitude of RVA change is judged to be below high.	
36	Corsehouse Cottage	247341	650032	1.2	 See Figure A5.2.28 for wireline visualisation. Cottage set adjacent to south of B769. Property set in dense woodland screening views to Site, to south. The magnitude of RVA change is judged to be below high.	Views from this property are largely screened by mature woodland. Visual effects are unlikely to be significant. When considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.
37	Corsehouse	247767	650233	1.2	See Figure A5.2.29 for wireline visualisation. Single property accessed via the B769 to the north. Large yard area with agricultural buildings to the north. Secondary views to Site from the southern façade. There is a large conservatory, with 180 degree views on this side of the property, looking over Corsehouse Reservoir. The Proposed Development would be visible at a distance of 1.2 km, in views to the south, from the southern façade (including the	A high magnitude of RVA change combined with the high susceptibility of residential receptors will result in significant visual effects from this property. Effects on RVA considered further in assessment - see Table 1.7.

Ref.	Name (Figure A5.2.1).	Appropriate Grid Ref.		Distance to nearest turbine (km)	Residential Visual Amenity Magnitude of Change and commentary	Significance of Visual Effect and commentary on if carried forward for detailed RVA Assessment
		Easting	Northing			
					conservatory) and garden areas. Nature of views and wireline suggest potential for High magnitude of change.	
38	Windy-Yett Farm	247747	650805	1.8	 See Figure A5.2.30 for wireline visualisation. The property itself is set within mature trees which are likely to screen the majority of views towards the Site. Some views may be available from the access track to the south. Combined with viewing distance, the magnitude of change is judged to be below high. Not considered further.	Where more open views towards the Proposed Development from this property are available, given the viewing distance and high susceptibility of residential receptors, this is likely to result in significant visual effects. However, and when considering the nature of views (in the round) from this property, the magnitude of RVA change is judged to be below high. As such, effects are unlikely to breach the RVA threshold and this property is not considered further.

Assessment of Effects on Residential Visual Amenity

1.41 This section sets out the detailed assessment of effects on views and visual amenity for the properties taken forward for detailed assessment, as identified in **Table 1.2**, and in accordance with the methodology.

1.42 The tables below present the detailed assessments. The assessment should be read in conjunction with the accompanying illustrative wireline visualisations (refer to **Figures A5.2.6 to A5.2.30**).

Table 1.3 Marramead (North Drumboy Group)

Property/ Property Group Name		Marramead (North Drumboy Group)	
Property reference no.		6, 7, 8 and 9	
OS grid reference		249403, 648912 (property 6)	
Property used in visualisations		Marramead (property 6)	
Direction of view to Proposed Development		West	
Distance to nearest turbine and turbine no.		1.1 km	T3
Potential No. of turbines visible		Hubs visible	5
		Blade tips visible	5
Description of property, location and context:			
- The Marramead (North Drumboy Group) is located to the east of the M77, on the foot slopes of Drumboy Hill. - The Marramead (North Drumboy Group) represents four properties: two modern properties (Marramead and Greenfinch) and two period farm houses (North and South Drumboy). - All properties are accessed via short driveways leading off the A77 to the east. - All the properties are generally oriented with principal views facing west. From Greenfinch primary views oriented to north and south, with open views to west. - All properties have small private front gardens to the front (west of dwellings). - North Drumboy has agricultural outbuildings which adjoin the eastern façade of the farmhouse. - South Drumboy Farm has various agricultural outbuildings adjoining the farmhouse forming an enclosed courtyard the rear (eastern side of the farmhouse).		 Frontage of Marramead.  Frontage of Greenfinch.	
Description of existing views and visual amenity:			
All properties were observed from the A77.			
From Marramead, open/ partially filtered views over the M77 towards coniferous woodland on Glenouther Moor are obtainable from the front windows and private front garden of the property. The property sits in a slightly elevated position in the garden and has large windows to the front.			

Property/ Property Group Name	Marramead (North Drumboy Group)
Greenfinch is a newly constructed property, with primary views orientated to the north and south. Views west from the property are open in nature (though noting windows on the western façade are limited), looking over the road corridors towards Glenouther Moor. From North and South Drumboy, vegetation (hedgerow and trees) that bound the front gardens of both these properties are more extensive and mature, as a consequence available views from the front windows and private gardens are likely to be filtered. Furthermore, both properties have smaller front windows due to their period construction. Views towards Glenouther Moor may open up more during the winter months as vegetation cover decreases.	
Description of likely effect on views and visual amenity as a result of the proposed wind farm:	
Wireframe from Marramead shown on Figure A5.2.7. Wireframes, based on bare-ground models, indicate that all 5 of the proposed turbines will be theoretically visible from properties within this location in views looking west. The five turbines will read as a coherent group of turbines, with T3 the closest at 1.1 km distance. From Marramead, open/ partially filtered views over the A77 and M77 towards the proposed turbines are obtainable from the front windows and private front garden of the property. From Greenfinch, open views from western façade are available. From North and South Drumboy, filtered views of the proposed turbines are likely to be obtainable from the west facing windows located on the front of both these properties. During the winter months, as vegetation cover decreases, views of the proposed turbines from the front and gardens of these properties are likely to become more open. The proposed turbines will be seen looking over a busy transport corridor. The retained coniferous forest on Glenouther Moor will largely screen the lower section of the proposed turbine towers (and low level ancillary elements) in views from this group of properties. As re-stocking proposals to the east of the proposed turbines mature, these will also offer low level screening as other areas of forestry are removed in the longer term. Cumulative Context Other operational wind farms, in views towards the Site will be long distance and largely screened by intervening features. Aviation Lighting Aviation lighting on the four lit turbines will be apparent, during the hours of darkness. Due to the viewing angle, with the property sat well below the horizontal of the proposed lighting, this lighting will be seen in the range of 20 to 13 candela, when dimmed to 10% (which represents the worst case scenario view when the lights are seen in clear weather conditions). Refer to Figure A5.2.5.	
RVA Findings	

Property/ Property Group Name	Marramead (North Drumboy Group)
When considering the changes in visual amenity 'in the round' (including cumulative effects and effects from lighting) it is judged that the turbines will not appear dominant, oppressive or overwhelming such that any of the properties within this group would become an unattractive place in which to live. This judgement takes account of partial screening/filtering of views provided by vegetation from certain properties (North and South Drumboy); the viewing distance (all turbines are beyond approximately 1.1 km distance); and the highly developed nature of the view and degree of visual separation provided by a very busy double road corridor It is also noted that low level screening of turbine bases and infrastructure will be provided by coniferous forest (retained and re-stocked, when mature) to the east of the proposed turbines. No breach of the RVA Threshold	

Table 1.4 Glenouther Farm

Property/ Property Group Name	Glenouther Farm	
Property reference no.	20	
OS grid reference	246501, 648218	
Property used in visualisation	Glenouther Farm (property 20)	
Direction of view to Proposed Development	North-east	
Distance to nearest turbine and turbine no.	1.3 km	T1
Potential No. of turbines visible	Hubs visible	5
	Blade tips visible	5
Description of property, location and context:		
- Glenouther Farm is located directly east and on a similar elevation to Glenouther Moor. - Glenouther Farm is a two storey, stone built property. - Access is via a 1 km farm track from the Clunch Road to the west. - The property is oriented with principal views facing south and north. - An outbuilding adjoins the east facing gable end of the property. - The garden adjoins the southern façade and western gable end. - A yard area is located on the northern side (rear) of the property.		 View from yard area looking north-east, towards Glenouther forest
Description of existing views and visual amenity:		
The property was visited during fieldwork. Extensive views over open moorland towards High Clunch Farm to the south are obtainable from the front (south) of the property. Views towards the coniferous woodland at Glenouther Moor are available from the yard area located at the back of the property. Direct views towards Glenouther Moor are also obtained from the access road. There are no windows located on the eastern gable end of the property (facing towards Glenouther Moor) due to the outbuildings on this side of the property.		
Description of likely effect on views and visual amenity as a result of the proposed wind farm:		
Wireframe from Glenouther shown on Figure A5.2.18		

Property/ Property Group Name	Glenouther Farm
Wireframes, based on bare-ground models, indicate that all of the 5 proposed turbines will be theoretically visible in views looking east from this location. The five turbines will read as a group of turbines, with a slight gap between T2 and T4. T1 is the closest at 1.3 km distance. When visible, the Proposed Development will be seen behind and above a belt of coniferous woodland which is being retained initially (to be managed as part of the long term forest plan (LTFP) for the wider Glenouther Forest) to the west of the Site. This forestry, whilst it remains in place, will help to provide some degree of visual separation and screen the lower level ancillary elements and access tracks within the Site. In terms of views from the property itself, views are focused to the north and south so any views towards the proposed turbines will be highly oblique in nature. There are no direct views from the eastern façade of the building (looking towards the proposed site) due to outbuildings on this side of the property. Therefore, views of the proposed turbines are typically obtainable from the yard area located to the back of the property and the approach road. Cumulative Context The operational Whitelee Wind Farm and consented Moorshield Wind Farm is theoretically visible beyond the Proposed Development. Retained coniferous forest in the Site will largely screen views of these schemes, seen beyond the Proposed Development. They are also of a distance where effects on residential visual amenity are not likely to be influenced. Aviation Lighting Aviation lighting on the four lit turbines will be apparent, during the hours of darkness. Due to the viewing angle, with the property sat well below the horizontal of the proposed lighting, this lighting will be seen on the edge of the 20 to 13 and <13 candela range, when dimmed to 10% (which represents the worst case scenario view when the lights are seen in clear weather conditions). Refer to Figure A5.2.5.	
RVA Findings	
When considering the changes in visual amenity 'in the round' (including cumulative effects and effects from lighting) it is judged that the turbines will not appear dominant, oppressive or overwhelming such that this property would become an unattractive place in which to live. This judgement takes account the orientation of primary views (to the north and south and not towards the proposed Site); the nature of available views (from the access road and yard to the rear); and the viewing distance (1.3 km). It is also noted that the forestry, to the west of the proposed turbines, will provide a degree of visual separation/ screening of low level elements, whilst this remains in place. No breach of the RVA Threshold	

Table 1.5 Blacklaw Cottage (Group)

Property/ Property Group Name	Blacklaw Cottage (Group)	
Property Reference no.	29, 30 and 31	
OS grid reference	246288, 649349 (property 31)	
Property used in visualisations	Blacklaw Cottage (property 31)	
Direction of view to Proposed Development	East	
Distance to nearest turbine and turbine no.	1.4 km	T1

Property/ Property Group Name		Blacklaw Cottage (Group)	
Potential No. of turbines visible	Hubs visible	5	
	Blade tips visible	5	
Description of property, location and context:			
- Property group located on the northern side of the B769 and the Annick Water valley, on a slightly lower elevation to Glenouther Moor. - Blacklaw Cottage (Group) represents three properties; a small single storey property (Dounne Law Cottage); a period single storey cottage with two storey extension to the west (Laverockhall); and a period two storey cottage with upper dormer windows (Blacklaw Cottage). - Dounne Law and Blacklaw are accessed via short driveways from the B769. Laverockhall has a drive directly off the B769. - All properties are generally oriented to the south-east. - Dounne Law and Blacklaw have private front gardens to the front (south). Dounne Law and Laverockhall have private rear gardens to the north.		 Southern frontage of Dounne Law  Southern frontage of Blacklaw	
Description of existing views and visual amenity:			
The properties were observed from the B769. From Laverockhall, open views over a front hedge and the road towards the coniferous woodland on Glenouther Moor (seen on the other side of the Annick Water valley) are obtainable from the front of the property. Views from the rear garden are likely to be screened by vegetation and the property itself. From Dounne Law and Blacklaw Cottage, filtered views from the front aspect windows and garden towards Glenouther Moor on the other side of the valley are also obtainable. A line of mature deciduous trees set behind a low stone wall which edges the B769 would partially obscure the view. Views from Blacklaw Cottage would also be somewhat contained to the east by a long farm outbuilding. Views from the rear garden of Dounne Law are likely to be screened by the property.			
Description of likely effect on views and visual amenity as a result of the proposed wind farm:			
Wireframe from Blacklaw Cottage (Group) shown on Figure A5.2.23 Wireframes, based on bare-ground models, indicate that all of the 5 proposed turbines will be theoretically visible in views looking south-east from this location. The five turbines will read as a coherent group of turbines, with T1 the closest at 1.4 km distance. The Proposed Development would be seen beyond the Annick Water valley behind and above a belt of coniferous woodland, which is being retained initially to the north of the proposed turbines. This forestry would then be subject to long term management as part of the wider Glenouther Forest LTFP. Whilst it remains in place, this forestry will help to provide some further degree of visual separation and screen the lower level ancillary elements and access tracks within the site. Open views of the proposed turbines are likely to be obtained from windows located to the front of Laverockhall and from its associated driveway. However, views from lower storey windows are likely to be			

Property/ Property Group Name	Blacklaw Cottage (Group)
partly filtered by the front hedge. From Dounne Law and Blacklaw Cottage, views of the proposed turbines are likely to be filtered by the line of mature deciduous trees which edges the B769. Cumulative Context In views towards the Site, there is theoretical visibility of the consented Moorshield Wind Farm. Retained coniferous forest in the Site will largely screen views of this scheme. It is also of a distance where effects on residential visual amenity are not likely to be influenced. Aviation Lighting Aviation lighting on the four lit turbines will be apparent, during the hours of darkness. Due to the viewing angle, with the property sat well below the horizontal of the proposed lighting, this lighting will be seen in the range of 20 to 13 candela, when dimmed to 10% (which represents the worst case scenario view when the lights are seen in clear weather conditions). Refer to Figure A5.2.5.	
RVA Findings	
When considering the changes in visual amenity 'in the round' (including cumulative effects and effects from lighting) it is judged that the turbines will not appear dominant, oppressive or overwhelming such that any of the properties within this group would become an unattractive place in which to live. This judgement takes account of screening/filtering of views provided by vegetation; the viewing distance to the proposed development (over 1.4 km away) and the degree of visual separation provided by the B769 and the Annick Water valley. It is also noted that the forestry, to the north-west of the proposed turbines, will provide a degree of visual separation/ screening of low level elements, whilst this remains in place. No breach of the RVA Threshold	

Table 1.6 Lowtoun of Blacklaw Farm

Property/ Property Group Name	Lowtoun of Blacklaw Farm	
Property/ Property Group Name	Lowtoun of Blacklaw Farm	
Property Reference no.	33	
OS grid reference	246641, 649909	
Property used in wireframe	Lowtoun of Blacklaw Farm (property 33)	
Direction of view to Proposed Development	South-east	
Distance to nearest turbine and turbine no.	1.4 km	T1
Potential No. of turbines visible	Hubs visible	5
	Blade tips visible	5
Description of property, location and context:		

Property/ Property Group Name	Lowtoun of Blacklaw Farm
Lowtoun of Blacklaw Farm has a private garden to the front (south) plus an ornamental lake set within a larger field which may also be used for recreation.	 View towards property frontage from B769.
Description of existing views and visual amenity:	
Property observed from the B769. The property is set back from the road on rising ground and has views focused to the south-east over the Annick Water valley towards the coniferous forest in Glenouther Moor. Primary views are focused to the south-east. Views may be partially filtered by garden vegetation. Direct views from the long private drive likely.	
Description of likely effect on views and visual amenity as a result of the proposed wind farm:	
Wireframe from Lowtoun of Blacklaw Farm shown on Figure A5.2.25 Wireframes, based on bare-ground models, indicate that all of the 5 proposed turbines will be theoretically visible in views looking south-east from this location. The five turbines will read as a group of turbines, with T3 reading as a slight outlier to the left of view. T1 is the closest at 1.4 km distance. The Proposed Development would be seen beyond the Annick Water valley behind and above a belt of coniferous forest, which is being retained initially to the north of the proposed turbines. This forestry would then be subject to long term management as part of the wider Glenouther Forest. Whilst it remains in place, this forestry will help to provide some further degree of visual separation and screen the lower level ancillary elements and access tracks within the site. Views of the proposed turbines are likely to be obtainable from the south-east facing widows and from the garden area. However, these views are likely to be somewhat filtered by trees the line the ornamental lake to the south. Cumulative Context The operational Whitelee and consented Moorshield Wind Farm is theoretically visible beyond the Proposed Development. Retained coniferous forest in the Site will partly screen views of these schemes, seen beyond the Proposed Development. Where visible, they are also of a distance where effects on residential visual amenity are not likely to be influenced. Aviation Lighting Aviation lighting on the four lit turbines will be apparent, during the hours of darkness. Due to the viewing angle, with the property sat well below the horizontal of the proposed lighting, this lighting will be seen in the range of 20 to 13 candela, when dimmed to 10% (which represents the worst case scenario view when the lights are seen in clear weather conditions). Refer to Figure A5.2.5.	
RVA Findings	

Property/ Property Group Name	Lowtoun of Blacklaw Farm
When considering the changes in visual amenity 'in the round' (including cumulative effects and effects from lighting) it is judged that the turbines will not appear dominant, oppressive or overwhelming such that the property would become an unattractive place in which to live. This judgement takes account of the screening/filtering of views provided by garden vegetation; the viewing distance to the Proposed Development (1.4 km away) and the degree of visual separation provided by the B769 and the Annick Water valley. It is also noted that the forestry, to the north-west of the proposed turbines, will provide a degree of visual separation/ screening of low level elements, whilst this remains in place. No breach of the RVA Threshold	

Table 1.7 Corsehouse

Property/ Property Group Name	Corsehouse	
Property Reference no.	37	
OS grid reference	247767, 650233	
Property used in visualisations	Corsehouse (property 37)	
Direction of view to Proposed Development	South	
Distance to nearest turbine and turbine no.	1.2 km	T3
Potential No. of turbines visible	Hubs visible	5
	Blade tips visible	5
Description of property, location and context:		
- Corsehouse is located to the north-west of Corsehouse Reservoir on rising ground to the north of Glenouther Moor. - Single storey isolated farm. - Access via a long drive from the B769 to the north. - Property is orientated to the north-west with yard to north. - Large private garden to the rear of the property (south-east).		 View of rear (southern) Site facing façade.
Description of existing views and visual amenity:		
This property was observed from the B769 and access was also obtained from the private curtilage. Open views from the rear, south-east facing façade of the property and rear garden towards the reservoir and coniferous forest in Glenouther Moor beyond are available.		
Description of likely effect on views and visual amenity as a result of the proposed wind farm:		
Wireframe from Corsehouse shown on Figure A5.2.29 Wireframes, based on bare-ground models, indicate that all of the 5 proposed turbines will be theoretically visible in views looking south from this location. The Proposed Development will read as a coherent single group of turbines, with T3 the closest at 1.2km distance.		

Property/ Property Group Name	Corsehouse
Open views of the proposed turbines are likely to be obtainable from windows located on the south-east and south-west facing façade (which includes a lounge with 180 degree windows) and from the large garden located to the south of the property. Foreground trees in the garden will offer some limited screening of turbines. The proposed turbines will be seen set in coniferous forest (whilst this remains in place) on the other side of Corsehouse Reservoir. The body of water will help to provide a degree of visual separation between the property and the proposed turbines. Open views of the proposed turbines are also likely to be obtained from the long private access road to the north. Cumulative Context A number of operational and consented wind farms are theoretically visible beyond the Proposed Development. Retained coniferous forest at the Site will provide screening, and these schemes are of a distance where effects on residential visual amenity are unlikely to be influenced. Aviation Lighting Aviation lighting on the four lit turbines will be apparent, during the hours of darkness. Due to the viewing angle, with the property sat well below the horizontal of the proposed lighting, this lighting will be seen on the edge of the 39 to 20 candela range, when dimmed to 10% (which represents the worst case scenario view when the lights are seen in clear weather conditions). Refer to Figure A5.2.5.	
RVA Findings	
When considering the changes in visual amenity 'in the round' (including cumulative effects and effects from lighting) it is judged that the turbines will not appear dominant, oppressive or overwhelming such that this property would become an unattractive place in which to live. This judgement takes account of the viewing distance to the proposed development (1.2 km distant from property), partial screening provided by trees in the foreground and the degree of visual separation provided by Corsehouse Reservoir. During the hours of darkness aviation lighting on the four lit turbines would be apparent. Due to the viewing angle, this would be seen at a much reduced intensity. It is also noted that the forestry, to the north of the proposed turbines, will provide a degree of visual separation/ screening of low level elements, whilst this remains in place. No breach of the RVA Threshold	

Conclusion

1.43 This Residential Visual Amenity Assessment (RVAA) describes the changes in views likely to be experienced by residents at properties within 2 km of the proposed turbines.

1.44 All properties with a high magnitude of change were assessed in terms of potential effect on 'living conditions' by judging whether the introduction of the Proposed Development will potentially lead to a breach of the Residential Visual Amenity Threshold, in accordance with the Landscape Institute's Residential Visual Amenity Assessment (RVAA) Technical Guidance Note 2/19 (LI TGN 2/19).

1.45 However, the Proposed Development has not been found to breach the Residential Visual Amenity Threshold from any residential property or group of properties considered in the assessment. That is, the Proposed Development will not appear so overbearing, overwhelming, unpleasantly encroaching, inescapably dominant or detrimental to living conditions that the property would become widely regarded as an unpleasant place to live.

References

The Landscape Institute (2013) Guidelines for Landscape and Visual Impact Assessment 3rd Edition

The Landscape institute (2019) Residential Visual Amenity Assessment (RVAA) Technical Guidance Note 2/19 (LI TGN 2/19)

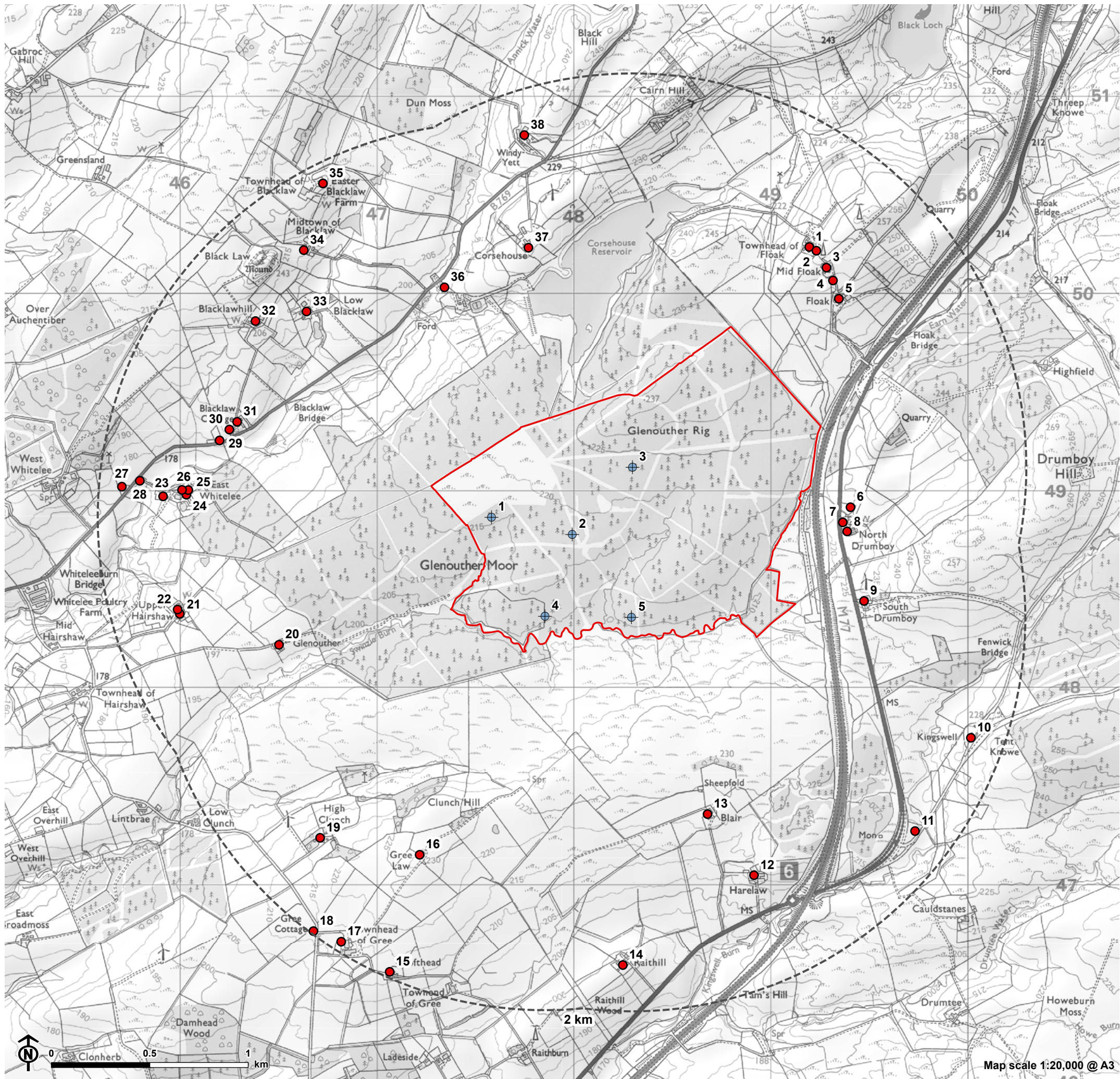


Figure A5.2.1: Residential Property Locations

- Site boundary
- Turbine
- 2 km from outermost turbines
- Residential property

- | | |
|------------------------------------|--------------------------------------|
| 1: Townhead of Floak Farm | 20: Glenouther Farm |
| 2: Townhead of Floak Bungalow | 21: Owl Cottage, Upper Hairshaw Farm |
| 3: Mid Floak Farm | 22: Upper Hairshaw Farm |
| 4: Mid Floak Bungalow, Floak | 23: Kelvedon Cottage |
| 5: Floak (Group) | 24: Easterhouse of Whitelee |
| 6: Marramead (North Drumboy Group) | 25: East Whitelee Farm (Group) |
| 7: North Drumboy | 26: Pebblebank, East Whitelee |
| 8: Greenfinch | 27: Windmill Cottage |
| 9: South Drumboy Farm | 28: Glen-A-Moor |
| 10: Kingswell Country House | 29: Laverockhall Cottage |
| 11: Best Friends Cottage | 30: Dounne Law Cottage |
| 12: Harelaw Farm | 31: Blacklaw Cottage (Group) |
| 13: Blair Farm | 32: Blacklawhill Farm |
| 14: Raithill Farm | 33: Lowtown of Blacklaw Farm |
| 15: Crofthead of Gree Farm | 34: Meadowlands Farm |
| 16: Greelaw Farm | 35: Easter Blacklaw Farm |
| 17: Townhead of Gree Farm | 36: Corsehouse Cottage |
| 18: Gree Cottage | 37: Corsehouse |
| 19: High Clunch Farm | 38: Windy-Yett Farm |

Note:
Where property is followed by '(Group)' this denotes location where a wireline has been prepared from to represent a group of properties. Refer to Appendix 5.2 for details.



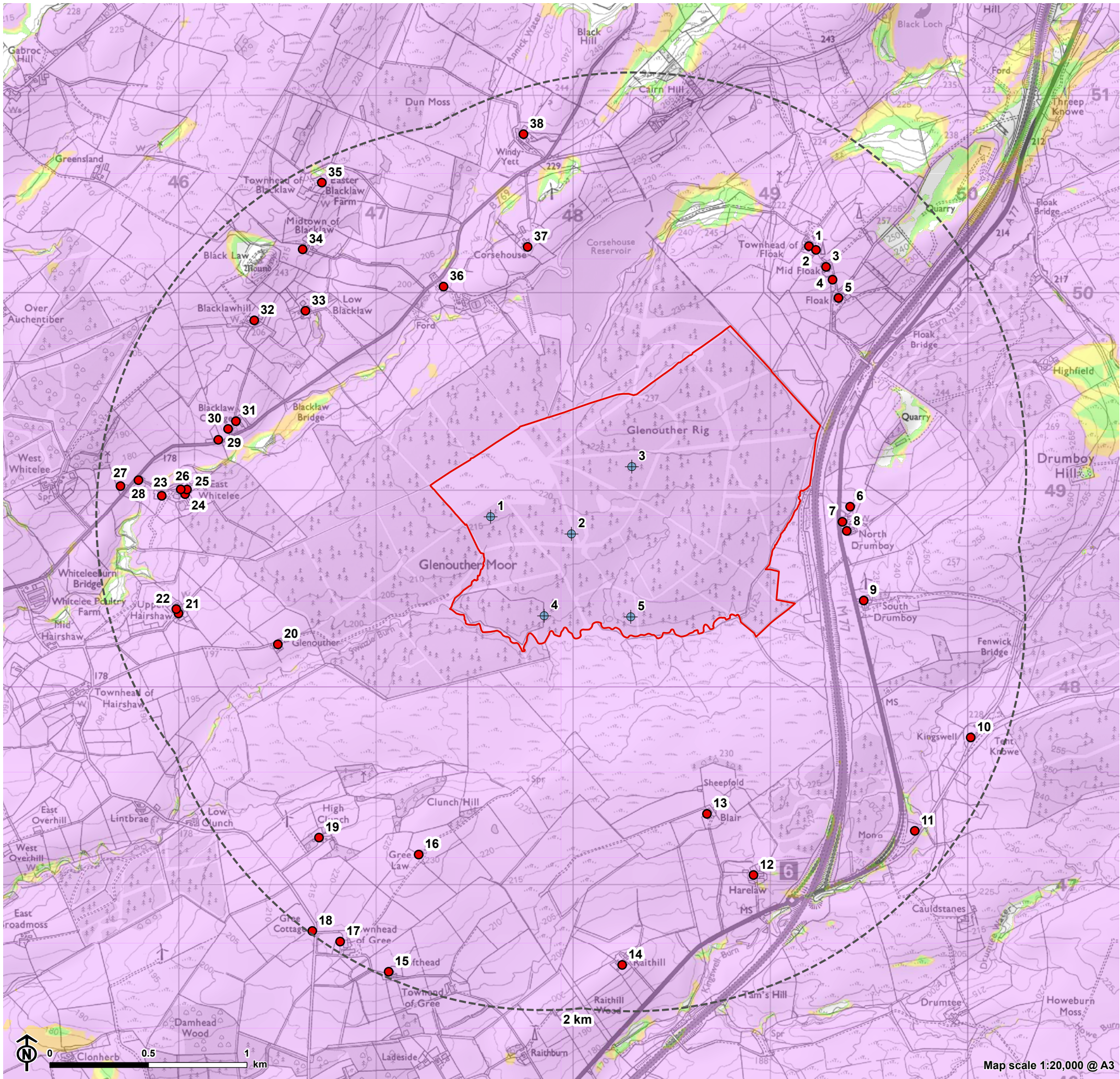


Figure A5.2.2: Residential Property Locations and Blade Tip Height (200 m) Zone of Theoretical Visibility (ZTV)

- Site boundary
- Turbine
- 2 km from outermost turbines
- Residential property

- | | |
|------------------------------------|--------------------------------------|
| 1: Townhead of Floak Farm | 20: Glenouther Farm |
| 2: Townhead of Floak Bungalow | 21: Owl Cottage, Upper Hairshaw Farm |
| 3: Mid Floak Farm | 22: Upper Hairshaw Farm |
| 4: Mid Floak Bungalow, Floak | 23: Kelvedon Cottage |
| 5: Floak (Group) | 24: Easterhouse of Whitelee |
| 6: Marramead (North Drumboy Group) | 25: East Whitelee Farm (Group) |
| 7: North Drumboy | 26: Pebblebank, East Whitelee |
| 8: Greenfinch | 27: Windmill Cottage |
| 9: South Drumboy Farm | 28: Glen-A-Moor |
| 10: Kingswell Country House | 29: Laverockhall Cottage |
| 11: Best Friends Cottage | 30: Dounne Law Cottage |
| 12: Harelaw Farm | 31: Blacklaw Cottage (Group) |
| 13: Blair Farm | 32: Blacklawhill Farm |
| 14: Raithill Farm | 33: Lowtown of Blacklaw Farm |
| 15: Crofthead of Gree Farm | 34: Meadowlands Farm |
| 16: Greelaw Farm | 35: Easter Blacklaw Farm |
| 17: Townhead of Gree Farm | 36: Corsehouse Cottage |
| 18: Gree Cottage | 37: Corsehouse |
| 19: High Clunch Farm | 38: Windy-Yett Farm |

Theoretical blade tip visibility (turbine blade tip height 200 m)

- 1 - 2 turbines visible
- 3 turbines visible
- 4 turbines visible
- 5 turbines visible

Note:
The ZTV illustrates the extent of visibility of the proposed Glenouther Wind Farm (turbine blade tip height 200 m). Visibility is shown to a distance of 2 km from the outermost turbines in all directions. The ZTV is calculated to turbine blade tip height from a viewing height of 2 m above ground level. The terrain model is derived from OS Terrain 5 and OS Terrain 50 height data (obtained from Ordnance Survey in 2026). Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcGIS Pro 3.6.1 software.
Where property is followed by '(Group)' this denotes location where a wireline has been prepared from to represent a group of properties. Refer to Appendix 5.2 for details.



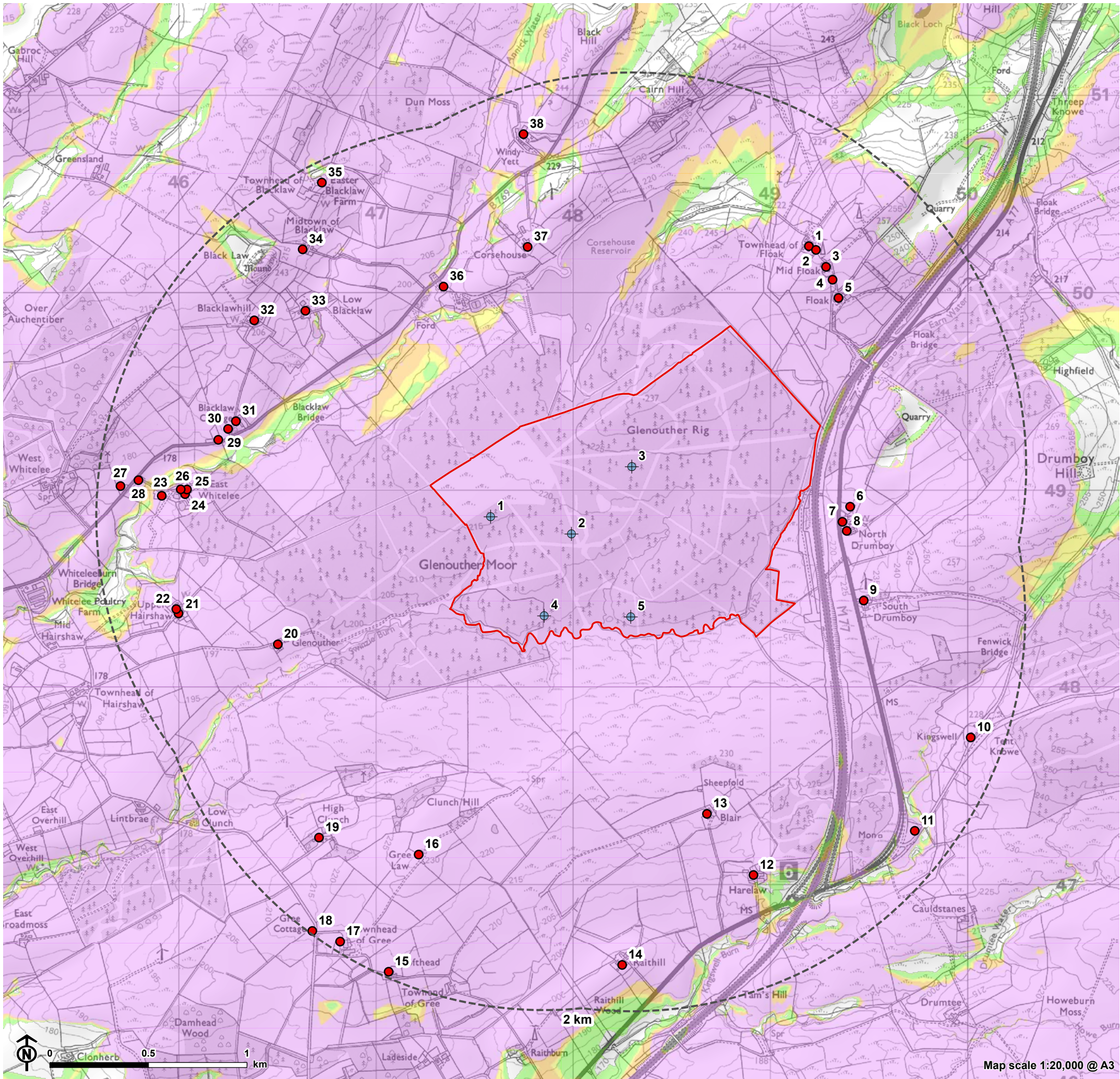


Figure A5.2.3: Residential Property Locations and Hub Height (119 m) Zone of Theoretical Visibility (ZTV)

- Site boundary
- Turbine
- 2 km from outermost turbines
- Residential property

- | | |
|------------------------------------|--------------------------------------|
| 1: Townhead of Floak Farm | 20: Glenouther Farm |
| 2: Townhead of Floak Bungalow | 21: Owl Cottage, Upper Hairshaw Farm |
| 3: Mid Floak Farm | 22: Upper Hairshaw Farm |
| 4: Mid Floak Bungalow, Floak | 23: Kelvedon Cottage |
| 5: Floak (Group) | 24: Easterhouse of Whitelee |
| 6: Marramead (North Drumboy Group) | 25: East Whitelee Farm (Group) |
| 7: North Drumboy | 26: Pebblebank, East Whitelee |
| 8: Greenfinch | 27: Windmill Cottage |
| 9: South Drumboy Farm | 28: Glen-A-Moor |
| 10: Kingswell Country House | 29: Laverockhall Cottage |
| 11: Best Friends Cottage | 30: Dounne Law Cottage |
| 12: Harelaw Farm | 31: Blacklaw Cottage (Group) |
| 13: Blair Farm | 32: Blacklawhill Farm |
| 14: Raithill Farm | 33: Lowtown of Blacklaw Farm |
| 15: Crofthead of Gree Farm | 34: Meadowlands Farm |
| 16: Greelaw Farm | 35: Easter Blacklaw Farm |
| 17: Townhead of Gree Farm | 36: Corsehouse Cottage |
| 18: Gree Cottage | 37: Corsehouse |
| 19: High Clunch Farm | 38: Windy-Yett Farm |

Theoretical hub visibility (turbine hub height 119 m)

- 1 - 2 turbine hubs visible
- 3 turbine hubs visible
- 4 turbine hubs visible
- 5 turbine hubs visible

Note:
The ZTV illustrates the extent of visibility of the proposed Glenouther Wind Farm (turbine hub height 119 m). Visibility is shown to a distance of 2 km from the outermost turbines in all directions. The ZTV is calculated to turbine hub height from a viewing height of 2 m above ground level. The terrain model is derived from OS Terrain 5 and OS Terrain 50 height data (obtained from Ordnance Survey in 2026). Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcGIS Pro 3.6.1 software. Where property is followed by '(Group)' this denotes location where a wireline has been prepared from to represent a group of properties. Refer to Appendix 5.2 for details.



Note:
The ZTV illustrates the nacelle lighting visibility of the proposed Glenouther Wind Farm calculated to nacelle lighting height (turbine hub height 119 m) from a viewing height of 2 m above ground level. The turbines that are proposed to have nacelle lighting are turbines 1, 3, 4 and 5. Visibility is shown to a distance of 2 km from the lit turbines in all directions. The ZTV is calculated to turbine hub height from a viewing height of 2 m above ground level. The terrain model is derived from OS Terrain 5 and OS Terrain 50 height data (obtained from Ordnance Survey in 2026). Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcGIS Pro 3.6.1 software.
Where property is followed by '(Group)' this denotes location where a wireline has been prepared from to represent a group of properties. Refer to Appendix 5.2 for details.

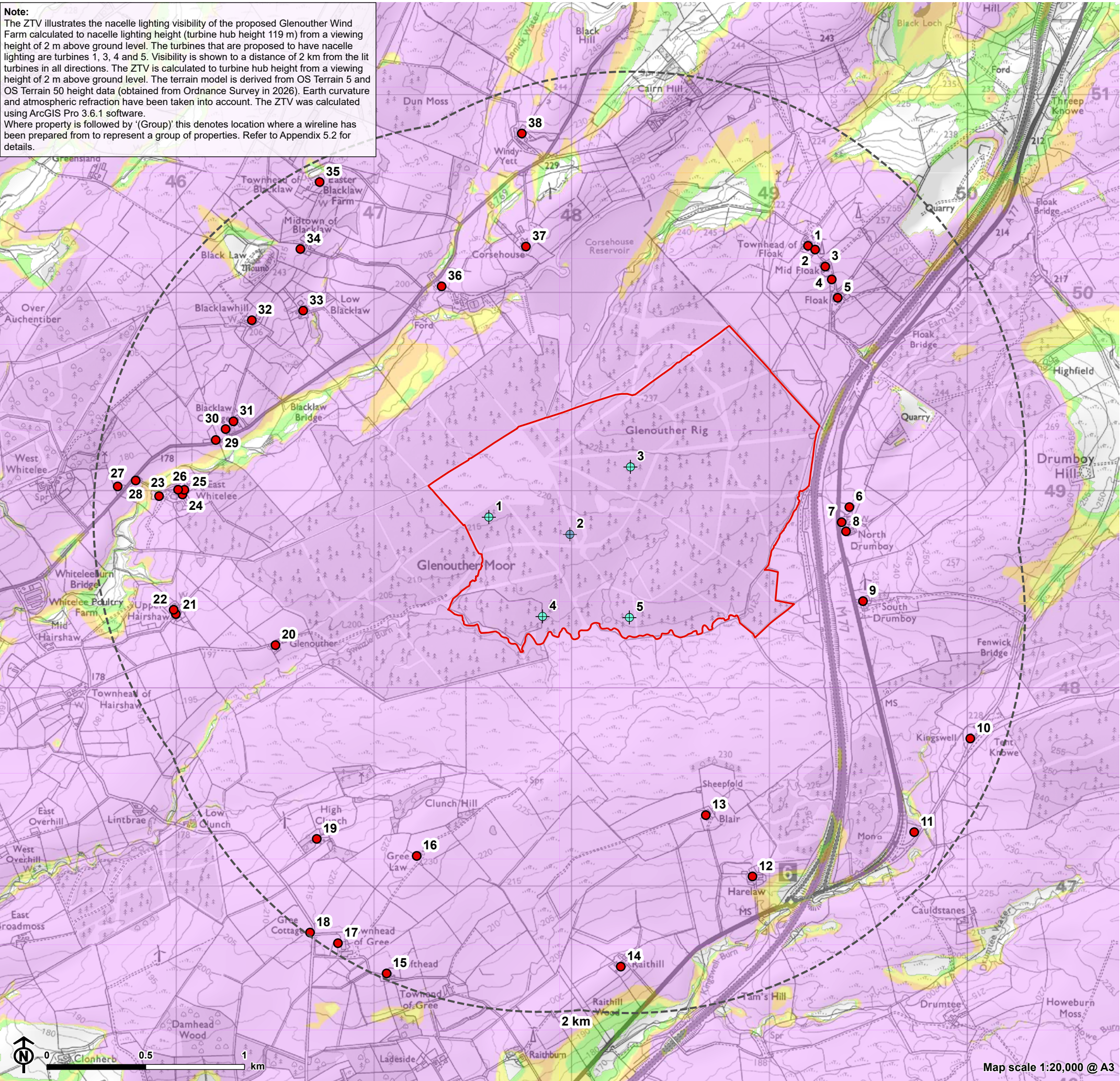


Figure A5.2.4: Residential Property Locations and Aviation Lighting Zone of Theoretical Visibility (ZTV) - Nacelle Lighting

- Site boundary
- Lit turbine
- Turbine
- 2 km from outermost turbines
- Residential property

- | | |
|------------------------------------|--------------------------------------|
| 1: Townhead of Floak Farm | 20: Glenouther Farm |
| 2: Townhead of Floak Bungalow | 21: Owl Cottage, Upper Hairshaw Farm |
| 3: Mid Floak Farm | 22: Upper Hairshaw Farm |
| 4: Mid Floak Bungalow, Floak | 23: Kelvedon Cottage |
| 5: Floak (Group) | 24: Easterhouse of Whitelee |
| 6: Marramead (North Drumboy Group) | 25: East Whitelee Farm (Group) |
| 7: North Drumboy | 26: Pebblebank, East Whitelee |
| 8: Greenfinch | 27: Windmill Cottage |
| 9: South Drumboy Farm | 28: Glen-A-Moor |
| 10: Kingswell Country House | 29: Laverockhall Cottage |
| 11: Best Friends Cottage | 30: Dounne Law Cottage |
| 12: Harelaw Farm | 31: Blacklaw Cottage (Group) |
| 13: Blair Farm | 32: Blacklawhill Farm |
| 14: Raithill Farm | 33: Lowtoun of Blacklaw Farm |
| 15: Crofthead of Gree Farm | 34: Meadowlands Farm |
| 16: Greelaw Farm | 35: Easter Blacklaw Farm |
| 17: Townhead of Gree Farm | 36: Corsehouse Cottage |
| 18: Gree Cottage | 37: Corsehouse |
| 19: High Clunch Farm | 38: Windy-Yett Farm |

Zone of Theoretical Visibility (nacelle lighting turbine hub height 119 m)

- 1 nacelle light visible
- 2 nacelle lights visible
- 3 nacelle lights visible
- 4 nacelle lights visible



Note:
The ZTV illustrates the nacelle lighting visibility of the proposed Glenouther Wind Farm calculated to nacelle lighting height (turbine hub height 119 m) from a viewing height of 2 m above ground level. The turbines that are proposed to have nacelle lighting are turbines 1, 3, 4 and 5. Visibility is shown to a distance of 2 km from the lit turbines in all directions. The ZTV is calculated to turbine hub height from a viewing height of 2 m above ground level. The terrain model is derived from OS Terrain 5 and OS Terrain 50 height data (obtained from Ordnance Survey in 2026). Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcGIS Pro 3.6.1 software. The highest candela value calculated by Contamex for the CEL-WT-MIC aviation warning light was 2206cd. This occurs at a vertical angle of 0.6° and so may occur in the 0° to 1° range shown in this table and on Figure A5.3.2-A5.3.3. Where property is followed by '(Group)' this denotes location where a wireline has been prepared from to represent a group of properties. Refer to Appendix 5.2 for details.

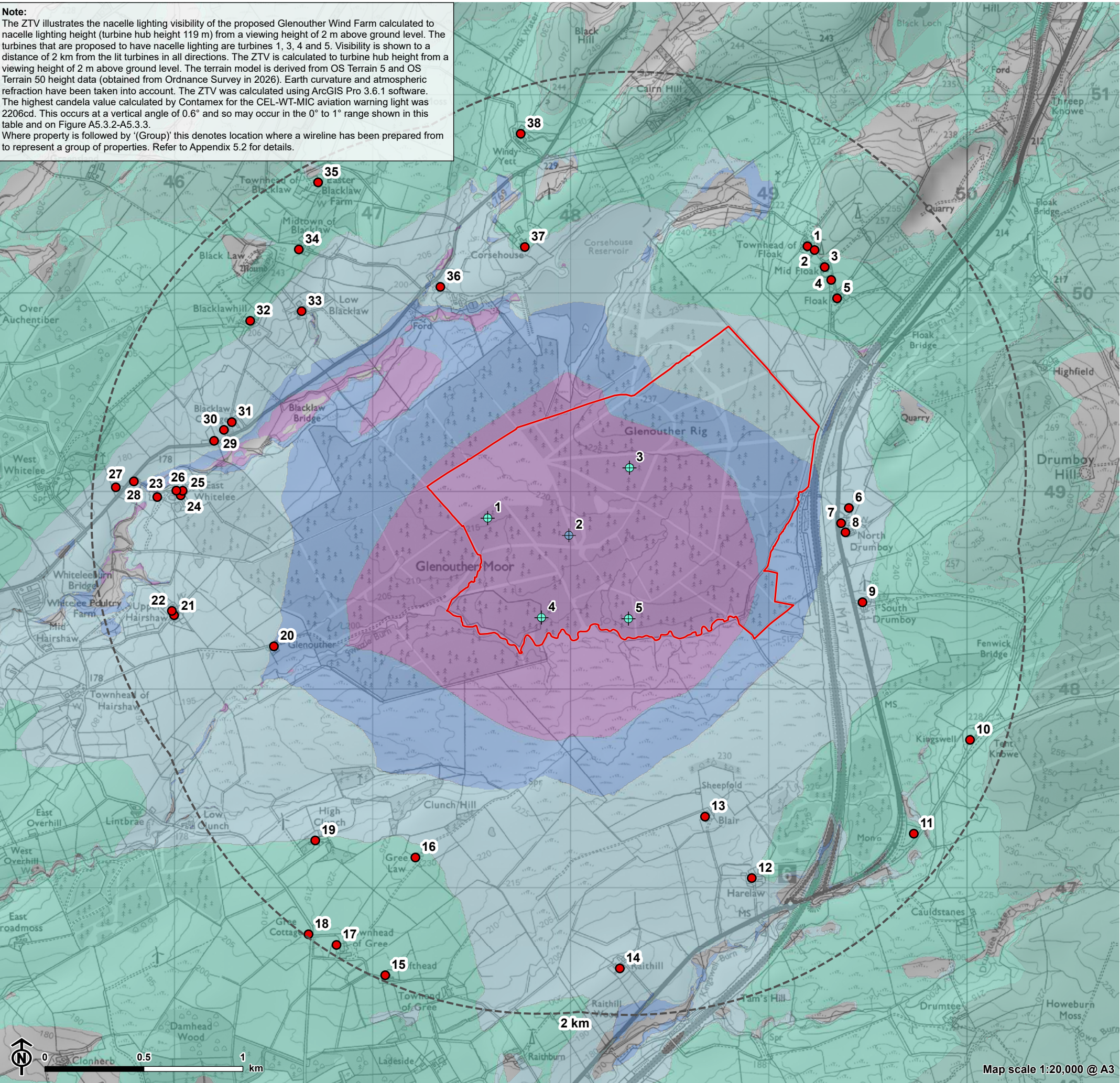


Figure A5.2.5: Residential Property Locations and Visible Aviation Light Intensity Zone of Theoretical Visibility

- Site boundary

Lit turbine

Turbine

2 km from outermost turbines

Residential property

1: Townhead of Floak Farm

2: Townhead of Floak Bungalow

3: Mid Floak Farm

4: Mid Floak Bungalow, Floak

5: Floak (Group)

6: Marramead (North Drumboy Group)

7: North Drumboy

8: Greenfinch

9: South Drumboy Farm

10: Kingswell Country House

11: Best Friends Cottage

12: Harelaw Farm

13: Blair Farm

14: Raithill Farm

15: Crofthead of Gree Farm

16: Greelaw Farm

17: Townhead of Gree Farm

18: Gree Cottage

19: High Clunch Farm

20: Glenouther Farm

21: Owl Cottage, Upper Hairshaw Farm

22: Upper Hairshaw Farm

23: Kelvedon Cottage

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25: East Whitelee Farm (Group)

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28: Glen-A-Moor

29: Laverockhall Cottage

30: Dounne Law Cottage

31: Blacklaw Cottage (Group)

32: Blacklawhill Farm

33: Lowtoun of Blacklaw Farm

34: Meadowlands Farm

35: Easter Blacklaw Farm

36: Corsehouse Cottage

37: Corsehouse

38: Windy-Yett Farm

Vertical angle of lighting from nacelle	Maximum luminous intensity (cd)	Minimum luminous intensity (cd)	10% Maximum luminous intensity (cd)	10% Minimum luminous intensity (cd)
Above 5°	146.74	33.98	14.67	3.40
4° to 5°	247.02	134.45	24.70	13.45
3° to 4°	481.39	236.85	48.14	23.69
2° to 3°	1159.9	481.34	115.99	48.13
1° to 2°	2118.8	1169.6	211.88	116.96
0° to 1°	2205.5	1968.4	220.55	196.84
-1° to 0°	2035.9	986.85	203.59	98.69
-2° to -1°	995.52	382.92	99.55	38.29
-3° to -2°	393.66	197.24	39.37	19.72
-4° to -3°	199.15	130.89	19.92	13.09
-5° to -4°	130.79	91.7	13.08	9.17
Below 5°	94.03	38.37	9.40	3.84