

PENISTONE ALC

Locating of wind turbines within the proposed school site

Landscape and Visual Supporting Statement

Dec 2009

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1. LANDSCAPE AND VISUAL ASSESSMENT

1.1 Introduction

1.1.1 This landscape and visual statement assesses the potential landscape and visual implications of locating 5 no. 15kw, 25m high Proven wind turbines within Penistone ALC site. The landscape and visual assessment is divided into the following sections;

- Introduction and methodology
- Assessment of existing views and extent of visibility of the site
- Proposed mitigation measures
- Predicted impacts on views, landscape an amenity.
- Visual impacts and conclusions.

1.2 Assessment Methodology

1.2.1 The format of this assessment is based on the principles described in The Countryside Agency and Scottish Natural Heritage's *Landscape Character Assessment Guidance for England and Scotland*, published 2002 (ref 1-1) and The Landscape Institute and Institute of Environmental Management and Assessment *Guidelines for Landscape and Visual Impact Assessment, Second Edition*, published 2002 (ref 1-2). The assessment is also in accordance with the requirements of the Town and Country Planning (Environmental Impact Assessment) Regulations 1999.

1.2.2 A desktop study was made of published information to establish the landscape context of the site and identify potential viewpoints which may be affected by the development. These viewpoints were discussed and agreed with Barnsley MBC.

1.2.3 The application site and surrounding area was visited on 17th November 2009. The weather conditions were good and visibility was clear on the visit.

1.3 Landscape and visual assessment

- 1.3.1 The **landscape impact assessment** describes the likely nature and scale of changes on individual landscape elements known as 'receptors' and the resultant effect on the landscape character due to the proposed development. The extent to which a landscape can accommodate change due to development varies according to a range of factors such as land use, the scale and pattern of the landscape, visual enclosure, and quality of view and the value of the landscape. Changes to the fabric and character of a particular landscape may affect the perceived value of that landscape, giving rise to changes in its quality. The scale or magnitude of landscape effects ranges from negligible, through to minor, moderate and major. Such changes are described as either adverse or beneficial.
- 1.3.2 The Countryside Agency's guidelines make a clear distinction between the characterisation process (in which the attributes of the landscape are described) and the judgment making process. This section of the assessment deals with the characterisation process and later sub-sections make judgments about the potential effects of the proposed development based upon the characterisation.
- 1.3.3 The Countryside Agency guidelines describe how **landscape character assessment** can be applied at different scales, from the national or European level, to the parish level. Assessments are ideally prepared at different scales that should fit together as a nested series or a hierarchy of landscape character types and/or areas, such that each level of assessment adds more detail to the one above. The three main levels identified by The Countryside Agency are: national and regional scale; local authority scale; and local scale. This assessment uses and presents a summary of the relevant published assessments at national and regional scale and local authority scales. These wider character assessments are then used to provide the context for the local scale landscape assessment for the application site.
- 1.3.4 The Countryside Agency's guidance recommends that the characterisation process should be based on an assessment of natural factors, cultural and social factors and aesthetic and perceptual factors. These factors have been examined for the site's surroundings, the existing site as it stands today and the site, as it would be, following completion of the development.
- 1.3.5 The **assessment of visual effects** describes the changes in the visual character of available views and in the visual amenity of local receptors arising from the development. The sensitivity of visual receptors and views will be dependent on the context of the view, the importance of the view and the nature of the receptor. The scale or magnitude of visual change is affected by scale, the degree of contrast, the permanence of the effect, angle of view, distance and the extent of change.
- 1.3.6 Principal viewpoints are selected on the basis of which points provide the clearest views of the site and are also the most accessible to the public. The viewpoints selected for the production of the photomontages were identified and agreed with Barnsley MBC.

1.4 Significance Criteria

1.4.1 The potential significance of landscape and visual impact is determined by a combination of the magnitude of the potential impact and the sensitivity of the receptor to change. These two variables can be correlated as illustrated in Table 1.1, below. Thus, a landscape impact of low magnitude may nevertheless be assessed to have a moderate impact in a highly sensitive landscape such as an Area of Outstanding Natural Beauty (AONB) or a National Park. In general the following principles apply:

Table 1.1 - Principles of Assessing Significance of Landscape and Visual Impacts

Sensitivity of Receptor to change		Magnitude of Impact				Significance of Effect
		Negligible	Low	Medium	High	
	Very High	Negligible	Moderate	Moderate / Major	Major	
	High	Negligible	Minor/ Moderate	Moderate	Moderate / Major	
	Medium	Negligible	Minor	Minor / Moderate	Moderate	
	Low	Negligible	Negligible	Minor	Minor/ Moderate	

1.4.2 The above consideration of the sensitivity of the receptors with the magnitude of the potential impacts provides an overall assessment of the potential significance of impacts. However, this process is not a quantitative process; there is not an absolute scoring system. Instead, the correlation of the two factors, although reflecting recognised features and methods of working outlined in this report, is in the end a matter of professional judgment.

1.4.3 Table 1.2, below, provides a brief definition of the full range of significance criteria. It must be emphasised that both landscape and visual impacts can be either adverse or beneficial in nature:

Table 1.2: Significance Criteria for Landscape and Visual Impacts

Significance	Definition
Negligible	The proposed scheme is appropriate in its context. It may be difficult to differentiate from its surroundings and would affect very few or no receptors.
Minor	The proposed scheme would cause a barely perceptible impact, and would affect few receptors.
Moderate	The proposed scheme would cause a noticeable difference to the landscape, and would affect several receptors.
Major	The proposed scheme would completely change the character and/or appearance of the landscape for a long period of time or permanently. It would affect many receptors.

1.4.4 These ratings reflect the existing site condition, established use and existing planning consents, but also the nature and scale of the proposed development. The visual impacts arising from visual changes in the appearance of the landscape associated with the development and perceived by the visual receptor may be beneficial or adverse and are assigned a significance rating.

1.5 Determining Landscape Capacity and Sensitivity

1.5.1 Topic paper 6 of Landscape Character Assessment guidance for England and Wales seeks to define concepts of Capacity and Sensitivity. The following definitions are suggested:

- **Overall Landscape Sensitivity** refers primarily to the inherent sensitivity of the landscape itself, irrespective of the type of change that may be under consideration.
- **Landscape sensitivity to a specific type of change** is used where it is necessary to assess the sensitivity of the landscape to a particular change or development.
- **Landscape Capacity** describes the ability of a landscape to accommodate different amounts of change or development of a specific type.

1.5.2 Sensitivity is the degree to which a particular landscape type or area can accommodate change arising from a particular development, without detrimental effects on its character and will vary with:

- Existing land use;
- The pattern and scale of the landscape;
- Visual enclosure/openness of views, and distribution of visual receptors;
- The scope for mitigation, which would be in character with the existing landscape;
- The value placed on the landscape.

1.5.3 Overall landscape sensitivity to change will be judged using a three point verbal scale of high, medium or low. Judgements are then made of each of the constituent aspects of sensitivity and these assessments are tabulated to provide a profile of a particular landscape area. An overview is then taken of the distribution of the assessments of each aspect and this is used to make an informed judgement about the sensitivity of the landscape to accommodate the specific change.

Table 1.3: Principles of Assessing Landscape Sensitivity to Change

Landscape area	Landscape character sensitivity	Sensitivity of individual elements	Sensitivity of aesthetic aspects	Visual sensitivity	Landscape sensitivity	Value of Landscape	Landscape sensitivity to change
Area A	High	Medium	Medium	High	HIGH	Low	MEDIUM
Area B	Low	Medium	Low	Low	LOW	Low	LOW
Area C	High	High	High	Medium	HIGH	High	HIGH

1.6 Determining the Sensitivity of Visual Receptors

1.6.1 Principal viewpoints are selected on the basis of which points provide the clearest views of the site and are also the most accessible to the public. Secondary viewpoints represent views from areas which are not commonly used by the public, or which would provide less clear views of the proposed development. Secondary viewpoints also represent areas which may be perceived to be sensitive to the visual impact of the proposed development due to their nature or proximity, but which in reality have restricted views of the site.

1.6.2 Sensitivity of visual receptors is typically assessed by ascribing one of the following levels: very high, high, medium or low sensitivity to change. The sensitivity of visual receptors and views will depend on the context of the view, the importance of the view and the nature of the receptor.

1.6.3 Table 1.4 below provides a description of the criteria used to define the sensitivity of the visual receptors:

Table 1.4: Criteria for Assessing Sensitivity of Visual Receptors

Sensitivity	Definition of Visual Receptor
Very High	The principal views from residential buildings; beauty spots and picnic areas. Users of outdoor recreational facilities including strategic recreational footpaths, cycle routes or right of ways, whose attention may be focused on the landscape; important landscape features with physical. Cultural or historic attributes.
High	Other footpaths; secondary views from residential buildings' people travelling through or past the landscape roads, train lines or other transport routes.
Medium	People engaged in outdoor sports or recreation (other than appreciation of the landscape), commercial buildings or commercially engaged pedestrians, whose attention may be focused on their work or activity rather than the wider landscape
Low	Views from heavily industrialised areas

1.7 Determining Magnitude of Impacts on Landscape Character and Visual Receptors

1.7.1 Magnitude is determined by the distance from the viewer, the extent of change in the field of vision, the proportion or number of views affected and the duration of each from each viewpoint, or a sequence of viewpoints that may have transient views (e.g. along a road).

1.7.2 Generally, greater weight is given to visual impacts on public viewpoints than on private properties. Table 1.5, overleaf provides a description of the criteria used to assess the magnitude of impacts on landscape and visual receptors:

Table 1.5: Assessing Magnitude of Impacts on Landscape and Visual Receptors

Magnitude	Typical Criteria
High	Total loss of or major alteration to key elements/ features/ characteristics of the baseline i.e. pre-development landscape or view and/or introduction of elements considered to be totally uncharacteristic when set within the attributes of the receiving landscape.
Medium	Partial loss or alteration to one or more key elements/ features/ characteristics of the baseline i.e. pre-development landscape or view and/or introduction of elements that may be predominant but may not necessarily be considered to be substantially uncharacteristic when set within the attributes of the receiving landscape.
Low	Minor loss of or alteration to one or more key elements/ features/ characteristics of the baseline i.e. pre-development landscape or view and/or introduction of elements that may not be uncharacteristic when set within the attributes of the receiving landscape.
Negligible	Very minor loss or alteration to one or more key elements/ features/ characteristics of the baseline i.e. pre-development landscape or view and/or introduction of elements that are not uncharacteristic within the surrounding landscape - approximating the 'no change' situation.

1.8 Nature of the Development

- 1.8.1 The proposal is for the installation of 5 no. 15kw, 25m wind turbines to the west of the school site adjacent to the playing fields. Information on the location of the wind turbines and further detail on their structure is shown on drawing BP4L_PEN_AWP_DR_94_BW_LL_15.

1.9 Baseline Conditions

- 1.9.1 The site is located to the north of the village of Penistone and is divided into two by Huddersfield Road. The school buildings sit to the east of the road and the playing fields are located to the west of it. The construction of the wind turbines is proposed to be located in a 0.1km area on the south western boundary of the playing field site. The residential area of Kexbrough forms the boundary of the site to the east, farm land on hillsides form the boundary to the east and west individual residential properties on the outskirts of Penistone form the boundaries to the south and north. Existing school buildings which are to be retained are also located on the northern boundary of the site. The site topography of the land to the west of Huddersfield road is undulating but relatively flat as it is currently used as playing fields. The land to the south of the site drops away steeply to the south. The area where the wind turbines are to be located is adjacent to the proposed playing fields for the school site which are being retained. Mature tree cover is evident along some sections of the south western boundary but other than these localised pockets the edge is quite exposed. There is also a woodland belt to the west of the site.

1.10 Landscape Character Designations

Broad Landscape Character

- 1.10.1 The study area lies within Character area 37 'Yorkshire Southern Pennine Fringe' as defined in The Countryside Commission's Countryside Character, 'The character of England's natural and man-made landscape', Volume 3: Yorkshire and The Humber (Ref. 11.3). The key characteristics of area 37 'Yorkshire Southern Pennine Fringe' are as follows:
- Eastern slopes of the Pennines, dropping from upland in the west down to the east, dissected by numerous steep-sided valleys;
 - Extensive urban influences from the matrix of large and small towns;
 - Close conjunction of large-scale industry, urban areas and transport routes with open countryside;
 - Predominance of local sandstone and 'gritstone' as a building material notably in large and dominant industrial buildings;
 - Urban development mainly confined by valleys creating dramatic interplay of views between settlements and the surrounding hillsides;
 - Predominantly pastoral farming with strong linear patterns of walled enclosures on plateaux;

- Predominantly broadleaved woodlands on steep valley sides forming important backdrops to industrialised areas;
- Impression of a well-wooded landscape even though tree cover is relatively sparse overall;
- Dense network of roads, canals and railways.

Local Landscape Character

1.10.2 In terms of local character the site sits within Character Area E1: 'West Barnsley Settled Wooded Farmland' as defined in ECUS and Land Use Consultants 'Barnsley Borough Landscape Assessment' (Ref 1.4). The key characteristics of this area are:-

- Gently rolling landform with hills and broad valleys;
- Small, medium sized and large woodlands, mainly deciduous and some coniferous;
- Substantial areas of intact agricultural land, both in arable and pastoral use;
- Stone farmsteads, often with large modern outbuildings;
- Villages and hamlets set in open countryside;
- Large stone country houses set within designed parkland landscapes;
- Urban encroachment visible to east, outside the character area.

1.11 Landscape Designations

1.11.1 Having viewed the Magic website (Ref 1-5) it was found that, other than the site being located adjacent to greenbelt, there are no other national or local landscape designations within 1.5km of the site.

1.12 Visual assessment ZVI

1.12.1 A visual assessment has been made of the three principle views in and out of the site, as agreed with Barnsley MBC, to identify the extent of visual impact arising from the proposed siting of the wind turbines. In the following section there is a brief description of the existing visibility of the site in the context of the surrounding landscape and receptors.

ZVI TO THE WEST OF THE SITE

1.12.2 The extent of the ZVI to the west of the site is defined by the vegetation along Old Anna Lane and the woodland planting to the west of the site. The topography of the adjacent land also restricts views of the site.

ZVI TO THE NORTH

- 1.12.3 The site is bounded by farmland and a few individual residential properties to the north and the vegetation within these fields and gardens and the surrounding topography for the visual barriers to the north.

ZVI TO THE EAST

- 1.12.4 The land falls away to the east of Huddersfield Road. This and the existing vegetation within the surrounding area restrict views of the site. The site where the school buildings are located also prevents views of the playing field site from close to the boundary of the site. Further to the east the land rises to the A629 from where extensive views are available of Penistone and the surrounding area. From here the playing field site at the school is visible but hardly perceptible in the surrounding landscape.

ZVI TO THE SOUTH

- 1.12.5 The land drops away into a valley to the south. Residential properties within Penistone are located on the opposite side of the valley therefore some views of the site may be achievable from first floor windows although these will be heavily filtered by the woodland planting on the valley sides

RECEPTORS

- 1.12.6 The principle receptors, from where photomontages have been developed, were agreed with Barnsley MBC and are indicated in the table below.

Table 1.6: Significant Visual Receptors

	Visual Receptor	Approx. Distance from site	Grid ref
Key Visual Receptors			
1	Old Anna Lane and adjacent residential properties	0km	N 04098 E 24090
2	Leisure Centre in Penistone	0.4km	N 03694 E 24082
3	Roundabout on A628/A629	1.75km	N 10223 E 36816

1.13 Assessment of Impacts

IMPACTS ON LANDSCAPE CHARACTER

- 1.13.1 The introduction of the 5 no. wind turbines at the Penistone site will have a **negligible impact** on both the broad and local landscape character of the area due to the relatively small scale of it in relation to the existing built form within the site and surrounding area and the presence of other wind farms of larger scale within the context of the site.

IMPACTS ON VISUAL RECEPTORS

1.13.2 The assessment of impacts on visual receptors during the construction of the development and subsequent completion is summarised below and the significance of these impacts is detailed in Table 1.8.

Old Anna Lane and adjacent residential properties

1.13.3 Photomontage Penistone ALC1 (Appendix A) shows the view of the turbines from this location. Views from the adjacent residential properties will be oblique and also filtered by proposed and existing vegetation. During construction works the **impact will be adverse and of moderate significance** due to the works being seen within the context of the other works occurring in closer proximity to the site. This will also be the case on completion of the wind turbines as they will be seen with the hard games court and STP with associated floodlighting. 15 years after completion of the wind turbines the proposed woodland planting will have become established and it is likely that only sections of the hubs will be visible reducing the **adverse impact to minor/moderate adverse**.

Leisure Centre in Penistone

1.13.4 Photomontage Penistone ALC2 (Appendix A) shows the view of the turbines from this location. It is evident from the illustration that views of the turbines during any stage of development will not be possible due to the extensive mature woodland planting around the area. The screening affects of this planting will be increased in Spring/Summer when the trees are in full leaf. The wind turbines will have an impact of negligible significance on this receptor.

Roundabout on A628/A629

1.13.5 Photomontage Penistone ALC3 (Appendix A) shows the view of the turbines from this location. This view is approximately 1.75kmm from the site and is elevated above it. During construction of the wind turbines the construction work will not be evident in isolation to construction works for the main school build resulting in an impact of negligible significance. At completion and after 15 years the impact will also be of negligible significance due to the distance of the receptor from the site, the scale of the surrounding landscape forming the back drop to them and the presence of more prominent features in the view.

Table 1.8 Significance of Impact on Receptors

Visual Receptor	Sensitivity of viewpoint	Magnitude of the impact during construction	Significance	Magnitude of the impact on completion	Significance	Magnitude of the impact after 15 years	Significance	
Key Potential Visual Receptors								
1	Old Anna Lane and adjacent properties	High	Medium	Moderate Adverse	Medium	Moderate Adverse	Low	Minor/Moderate Adverse
2	Leisure Centre in Penistone	Medium	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible
3	Roundabout on A628/A629	High	Low	Negligible	Low	Negligible	Negligible	Negligible

1.14 Conclusions

The wind turbines have a negligible impact from most receptors largely due to the surrounding landform and features forming the backdrop to them and the amount of mature existing vegetation interrupting and preventing views. The only adverse affects occur closer to the site where the turbines are visible as skyline features although these impacts will reduce after 15 years due to the proposed vegetation establishing within the view.

1.15 References

- 11-1 Countryside Agency and Scottish National Heritage (2002); Landscape Character Assessment Guidance for England and Scotland.
- 11-2 The Landscape Institute and Institute of Environmental Management and Assessment, Second Edition (2002); Guidelines for Landscape and Visual Impact Assessment.
- 11-3 Countryside Commission (1998); Countryside Character. The Character of England's natural and man-made landscape, Volume 3: Yorkshire and the Humber.
- 1-4 ECUS and Land Use Consultants (2001); Barnsley Borough Landscape Character Assessment
- 1-5 www.magic.gov.uk - Multi Agency Graphic Information for the Countryside

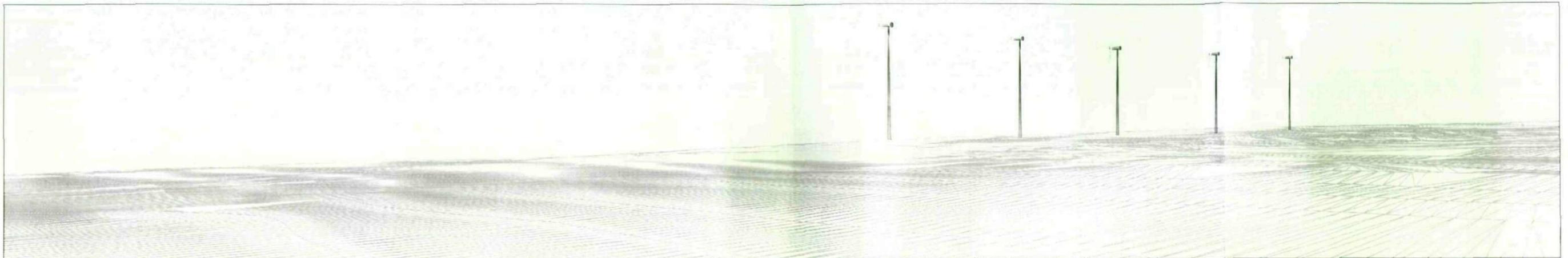
APPENDICES

APPENDIX 1

Photomontages



Before (90 degree view)



After (wireframe)



After (solid render)



Viewpoint Location

Viewpoint Parameters:

Grid reference: **N04098, E24090**

Elevation: **221m**

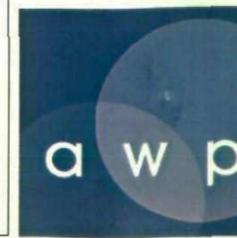
EPS (Estimated Position Error): **4m**

Tripod height: **1.75m**

Date and time of photography: **13.30PM Tuesday 7/11/2009**

Turbine: **5no. wind turbines 25m high to hub**

Note: Photographs were taken using a 35mm Digital SLR, which is equivalent to 50mm SLR.

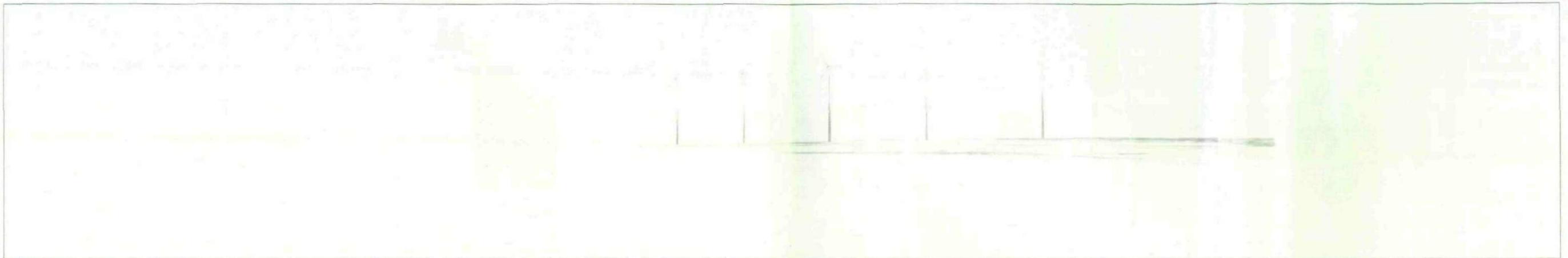


PROJECT				
Barnsley Schools BSF				
DRAWING TITLE				
Photomontage Location - Peniston ALC1				
DRAWING No.	SCALE (A3)	DATE	DRAWN	CHKD
Peniston ALC1	NTS	20/11/09	KA	JM
Anthony Walker and Partners Limited 10 Summerhill Terrace Newcastle upon Tyne NE4 6EB Tel: 0191 233 0188 Fax: 0191 261 1627 Email: info@awpnewcastle.co.uk www.awpenvironment.co.uk				

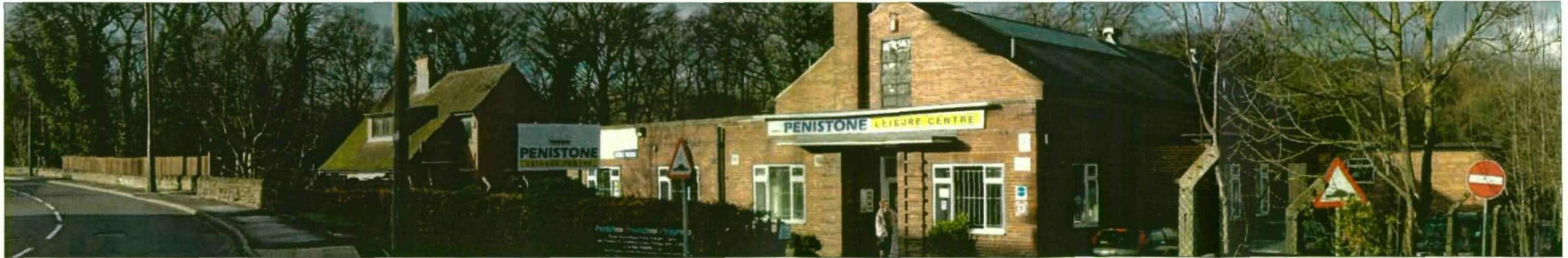
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Before (90 degree view)



After (wireframe)



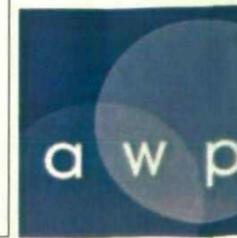
After (solid render)



Viewpoint Location

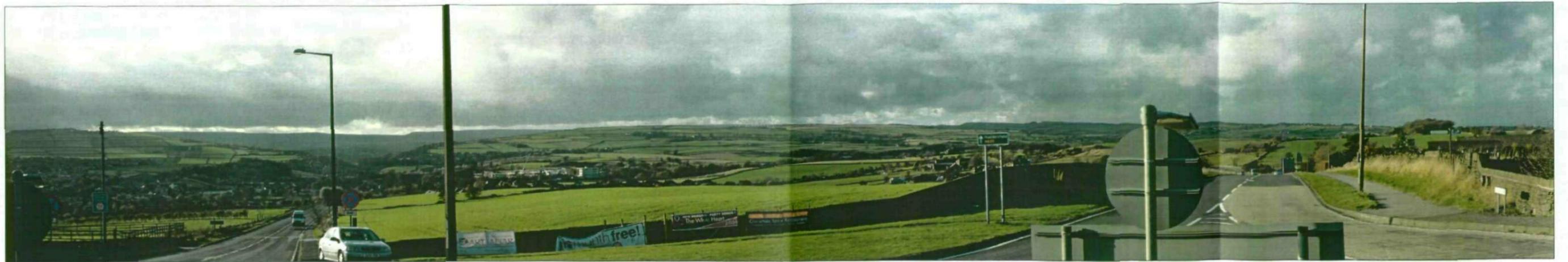
Viewpoint Parameters:

Grid reference: **N03694, E24082**
 Elevation: **202m**
 EPS (Estimated Position Error): **3m**
 Tripod height: **1.75m**
 Date and time of photography: **13.44PM Tuesday 7/11/2009**
 Turbine: **5no. wind turbines 25m high to hub**
 Note: Photographs were taken using a 35mm Digital SLR, which is equivalent to 50mm SLR.



PROJECT				
Barnsley Schools BSF				
DRAWING TITLE				
Photomontage Location - PenistoneALC2				
DRAWING No.	SCALE (A3)	DATE	DRAWN	CHKD
Penistone ALC2	NTS	20/11/09	KA	JM
<small>Anthony Walker and Partners Limited 10 Summerhill Terrace Newcastle upon Tyne NE4 6EB Tel: 0191 233 0188 Fax: 0191 261 1527 Email: info@awpnewcastle.co.uk www.awpenvironment.co.uk</small>				

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Before (90 degree view)



After (wireframe)



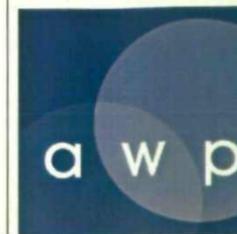
After (solid render)



Viewpoint Location

Viewpoint Parameters:

Grid reference: **N10223, E36816**
 Elevation: **62m**
 EPS (Estimated Position Error): **3m**
 Tripod height: **1.75m**
 Date and time of photography: **11.35AM Tuesday 7/11/2009**
 Turbine: **5no. wind turbines 25m high to hub**
 Note: Photographs were taken using a 35mm Digital SLR, which is equivalent to 50mm SLR.



PROJECT Barnsley Schools BSF				
DRAWING TITLE Photomontage Location - Peniston ALC4				
DRAWING No. Carlton CC 3	SCALE (A3) NTS	DATE 20/11/09	DRAWN KA	CHKD JM
<small>Anthony Walker and Partners Limited 10 Summerhill Terrace Newcastle upon Tyne NE4 6EB Tel: 0191 233 0188 Fax: 0191 261 1527 Email: info@awpnewcastle.co.uk www.awpenvironment.co.uk</small>				

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