

# Design and Access Statement

**Project: Cloughton Fields, Scarborough**

**Proposed new farm steading incorporating the conversion of an existing barn into a farm house, and formation of new agricultural buildings, and associated access and landscape works.**

**Applicant: Duchy of Lancaster**



Image 1: View of existing buildings at Cloughton Fields – Viewed from the access road

## **Scope**

This statement seeks to explain the design criteria relating to the formation of a proposed new farm steading. The new farm steading will incorporate the conversion of the existing buildings into a farmhouse and erection of new agricultural buildings, and associated access alterations landscaping and screening.

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## **0.0 Introduction**

The following Design and Access Statement (D&A Statement) has been prepared in support of the planning application submission for the proposed new farm steading to the east of Cloughton, Scarborough.

This statement should be read in conjunction with the supporting documents that accompany this application, in particular.

1. Supporting Planning Statement prepared by J A Wright BA (Hons) MSc MRTPI of Smiths Gore
2. Landscape and Visual Appraisal, prepared by SBA
3. An Agricultural Appraisal prepared by M.H. Yeadon MRICS of Smiths Gore
4. Ecology Survey Report – prepared by John Drewett

This statement considers the key principles and policies outlined in Planning Policy Statement 7 (PPS7) Sustainable Development in Rural Areas. It also considers the principals set out in the North York Moors National Park Authority Core Policies, which are referred to in greater detail within the Supporting Planning Statement.

The Design and Access Statement has been carried out in accordance with the guidance published by the Commission for Architecture and the Built Environment (CABE) regarding the preparation of such statements. The statement has been written to show the efforts that have been made to provide for a development that will be compatible with the site's surroundings, having regard to local character, and will be accessible and inclusive.

## **0.1 Background**

Cloughton village lies within the administrative district of Scarborough Borough Council. The village is situated approximately 4 miles (6.4 km) north of Scarborough town centre. Town Farm is centrally located in the village.

It is proposed to relocate the current steading (Town Farm) away from the centre of the village to Cloughton Fields, which lies to the east of the village and within the North York Moors National Park. The proposed site for the new farm also lies within the North Yorkshire and Cleveland Heritage Coast.

The Cloughton Fields site contains a range of traditional farm buildings which are thought to date from the mid 1800's. There have been various buildings constructed in this location and large mounds of loose stone scattered in particular to the south east side of the site are evidence that the original layout was larger. A small detached stone building lies to the north east side of the site but the submitted planning drawings, show the main grouping of the farm buildings.

Originally the current farm buildings served a large three storey stone built farmhouse, and other traditional buildings which have subsequently been demolished. The original layout of the farm and buildings can be seen on the ariel photograph (thought to date back to the 1970's) which is shown below. Those buildings hatched in black currently exist on site.



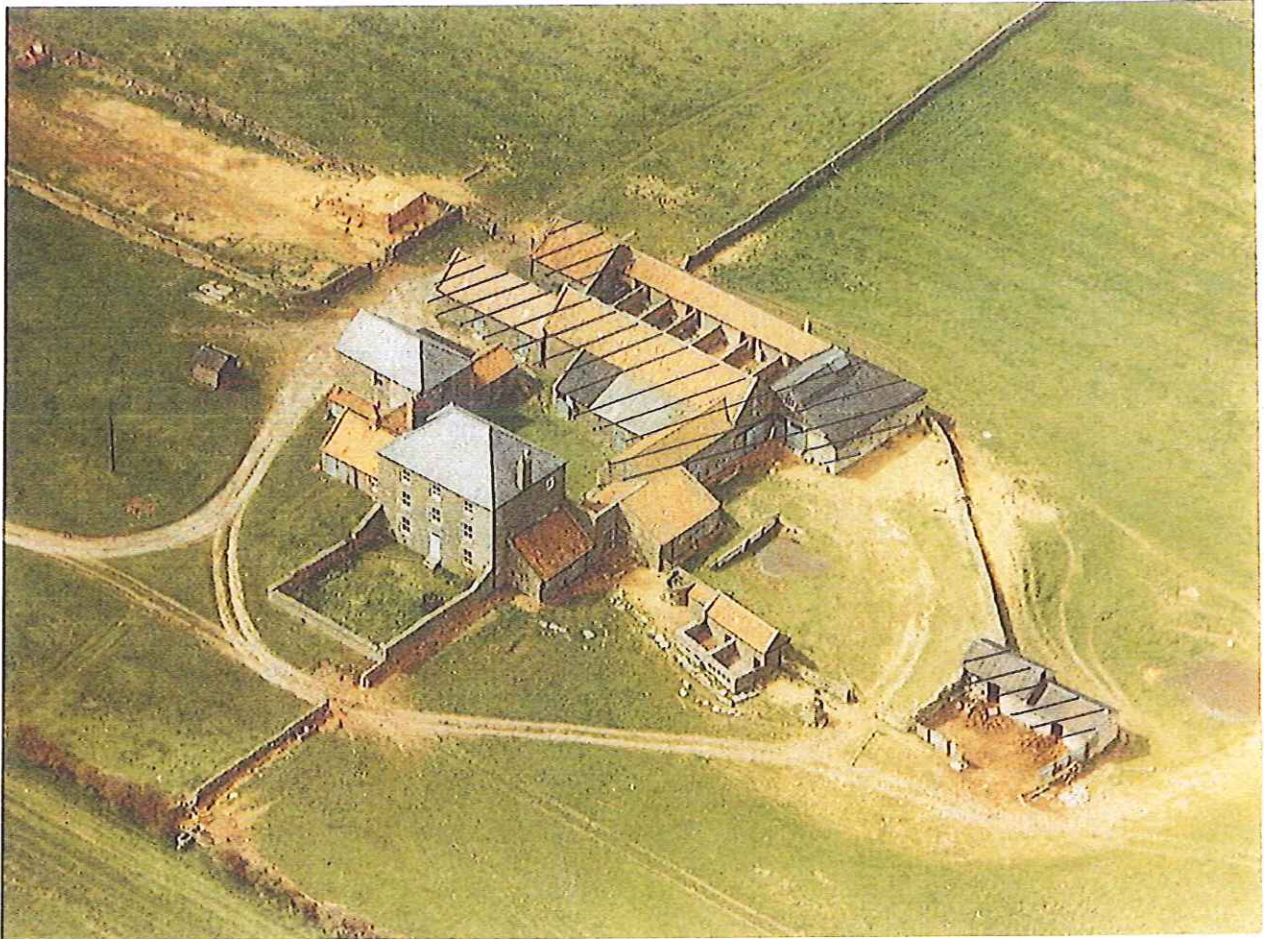


Image 2 – Ariel photograph showing how the farm looked previously prior to demolition of the none hatched buildings

During the design period, pre-application discussions have taken place with Mr Mark Hill and Mrs V A Dilcock of the North York Moors National Park Authority. These discussions have included two meetings at the council offices in Helmsley, involving ongoing review of the design / drawings, and feedback given has been taken into account and incorporated in the final design.

## **1.0 Design**

### **1.1 Site Address**

Cloughton Fields, Station Lane, Cloughton, Scarborough. YO13 0AD

### **1.2 Assessment of the site and its surroundings.**

The cluster of redundant farm buildings, and adjacent arable land forming the proposed site, are located directly east of Cloughton village. The site is accessed along the A171 via Station Lane with Burniston being to the south west.

The landscape surrounding the site is rolling coastal and coastal hinterland area, rising to a height of 233m above Ordnance Datum on Howdale Moor, Ravenscar, to the North.

The existing buildings are approximately 730m to the west of the Hundales cliff slopes.

Impressive views from the buildings to the east give uninterrupted views to the coast, but the general topography surrounding the proposal site and the existing vegetation restrict views of the coast from the A171.



The existing buildings comprise a mixture of single and two storey masonry structures under natural clay pantiles, corrugated asbestos cement roof sheets and corrugated steel sheets.

The majority of the buildings are of natural stone construction, except for the two storey central range which comprises natural clay brick with a cement render finish.

We understand that the buildings are not of Listed status.

Access to the site is via a single track leading from Station Lane.

Cloughton Fields Cottage is the sites closest neighbour and is privately owned. As part of the design process we met with the owner on 13 January 2010, to show him the proposals and receive any thoughts he may have. At this meeting we ran through the design and siting of the proposed new buildings, and also the diverted access road to the farm steading. Currently farm traffic passes directly past the south and eastern elevations of the Cottage. The proposed new road is situated to the west of the Cottage. As part of this meeting we identified the need for improved drainage leading off the fields to the west of the Cottage. Our new access road and side ditch / land drain will improve the current situation.

### **1.3 Use**

The Duchy of Lancaster recognises the constraints of the existing location of Town Farm within the heart of the village. It is considered that by relocating the steading to Cloughton Fields it will assist in alleviating the traffic and noise pressures that the village is currently facing from the agricultural business. Clearly the buildings at Town Farm are not ideal for cattle and modern farming methods and access to the site is poor. See also the Agricultural Appraisal Report prepared by Smiths Gore.

The proposal is therefore, to form a new farm steading at Cloughton Fields. The new site has been chosen for relocation of the farm as it is close to existing operations; there are existing traditional agricultural buildings at the site, and an existing access.

The Cloughton Fields site would satisfy modern agricultural needs without having an adverse impact on the existing village. New fixed equipment would ensure that the farm is geared to meet the rigorous demands of modern agriculture well into the future. This would include for the provision of a new complex of farm buildings to allow for the needs of modern agriculture.

It is proposed all of the existing buildings at Cloughton Fields are to be retained and converted to form a new farmhouse and farm office. In addition a complete set of new buildings are proposed to be constructed to the west of the existing buildings as further described in this statement and as shown on the submitted drawings.

The Agricultural Appraisal, which accompanies this application, sets out the case for the relocation of the farm, which has been produced in accordance with Annex A of Planning Policy Statement 7 'Sustainable Development in Rural Areas' (PPS7).

Paragraph 10 of PPS7 makes it clear that new development in the countryside requires special justification for planning permission to be granted. One of the few circumstances in which development may be justified is when accommodation is needed to enable agricultural workers to live at, or in the immediate vicinity of, their place of work.



## 1.4 Building Design

### 1.4.1 – Barn Conversion

In progressing the change of use proposal for conversion of the existing barns, the key principles and policies referred to in Planning Policy Statement 7 (PPS7) have been referred to, and it is considered that the proposal supports and meets many of the objectives contained therein.

It is considered that the development will provide sustainable economic benefits to the local area, the key rural character of the buildings and adjacent landscape will be maintained through careful design with the conversion scheme being sympathetic to the existing building features, materials and surroundings.

Extension of the existing buildings has been kept to a minimum (i.e. a simple open sided pantiled roof covered link between the Farm Office and the Tack Room). This has been designed so as not to detract from the existing building character. Conversion of the farm buildings to a farmhouse should offer long term protection to what is otherwise a vulnerable building.

There are many existing openings within the envelope of the barns. The re-use of existing openings has been maximised in the design to reduce the need for unnecessary intervention. Where possible the existing sizes of openings have been maintained, however where larger openings have been necessary, these have been placed where existing openings once existed. This has encouraged the un-formality of the fenestrations typical of vernacular architecture. The inclusion of the two storey glazed screen within the principal elevation (south east) replaces a panel of cement rendered brickwork, which is sat between dressed natural stone either side – see photograph below left (Image 3) of the existing rendered panel and its setting. The Photograph below right (Image 4) shows how the new glazed opening may look in terms of design and layout.



Image 3 (Existing South East Elevation)



Image 4 (How the glazed opening may look)

Due to the physical and practical constraints of the existing buildings, particularly in terms of height and the inclusion of first floor accommodation, it was necessary to raise the south wing as shown on the proposed drawings. This has been undertaken in a sympathetic and subordinate manner to the main existing two storey range. The constraints of the existing buildings are illustrated on the existing and proposed building sections (Smiths Gore Drawings 1005263/ 02 and 1005263/ 07). The proposed sections also illustrate how the design has worked with the existing building height of the two storey wing.

By working with the existing building heights (in part), the design led into the incorporation of conservation roof lights as a means of natural light and ventilation provision to the proposed first floor accommodation.



The proposed roof lights are from Conservation range of The Roof Light Company: - <http://www.therooflightcompany.co.uk/> and their layouts and design can be seen on the accompanying elevational drawings.

#### 1.4.2 Agricultural Building Design

In progressing the design of the agricultural buildings, the key principles referred to in the NYMNP Core Development Policy 12 – Agriculture, have been referred to and it is considered that the proposal supports and meets many of the objectives contained therein as follows: *Proposals for new agricultural buildings, tracks and structures or extensions to existing buildings will be permitted where:*

- *There is a functional need for the building and its scale is commensurate with that need.*

The need for the buildings and its scale have been justified in the Agricultural Appraisal

- *The building is designed for the purposes of agriculture.*

*See also proposed drawings confirming their designed use as agricultural buildings*

- *The site is related physically and functionally to existing buildings associated, with the business unless there are exceptional circumstances relating to agricultural necessity for a more isolated location.*

The proposed farm buildings have been set close to and centred about the existing farm buildings which can be seen on the proposed drawings.

- *A landscaping scheme which reduces the visual impact of the proposal on the wider landscape and is appropriate to the character of the locality is submitted as part of the proposal.*

See also the Landscape Designer SBA's designs and supporting documents.

To ease the impact on the surrounding countryside and visual amenity, the complex of agricultural buildings have been lowered into the ground at its highest point (south west Corner)- this has also enabled the levels between the existing buildings and the new to be similar – as can be seen on Smith Gores Drawing No: 1005263/06. The reducing of the building height in the landscape has also enabled the tree planting/screening along the south and west aspects of the site to be more effective. The scheme also proposes to use the spoil on site for landscaping purposes.

The colours, materials and range of exposed building types have all been chosen to reduce the visual impact on the landscape – the use of natural timber Yorkshire Boarding, Olive Green vertical sheeting, dark (anthracite) grey roofing sheets are all proposed.

There are differing eaves and ridge heights and roof pitches, which assist in breaking up the formality of the range of new agricultural buildings.

The introduction of a new traditional range of courtyard buildings (stables/private parking etc) with natural clay brick outer faces, arches and clay pantiled roof has softened the appearance of the larger agricultural buildings from the main house vantage point, and other key visual receptors. It also suggests that the courtyard buildings have been there for sometime and the new farm buildings have evolved around this, which is common in agricultural vernacular.

## 1.5 Amount

The buildings as existing and proposed, including site layout are included as part of the application and are identified / referenced as follows:

	<u>Drawing Title:</u>	<u>Drawing No.</u>	<u>Scale</u>
9.1	Existing Site Plan and Topographical Survey	1005263/01	1:500
9.2	Existing Ground & First Floor Plans + Sections	1005263/02	1:100/50
9.3	Existing Elevations - Barns	1005263/03	1:100
9.4	Proposed Site Plan	1005263/04	1:500
9.5	Proposed Agricultural Building Plans	1005263/05	1:200
9.6	Proposed Agricultural Building Elevations	1005263/06	1:200
9.7	Proposed Barn Conversion Plans & Sections	1005263/07	1:100/50
9.8	Proposed Barn Conversion Elevations	1005263/08	1:100
9.9	Proposed New Passing Places Along Access Rd	1005263/09	1:5000

The existing barns are predominantly single storey, except for the main range which is part two storey however, the eaves and ridge heights vary between each as shown on the drawings. The approximate existing gross external floor area (GEFA) of the buildings are:

- Ground Floor Area including all Existing Buildings – 518m<sup>2</sup>
- First Floor Area (Hay Loft over part of the two storey building) – 57m<sup>2</sup>
- Combined – 575m<sup>2</sup>

The proposed barn conversion designs incorporate additional floors as shown on the drawings. The approximate GEFA of the proposed conversion, including the extra floors are:

- Ground Floor Area including all Existing Buildings – 518m<sup>2</sup> (excluding footprint below new open sided walkway between Farm Office and Tack Room).
- First Floor Area – 196m<sup>2</sup>
- Combined – 714m<sup>2</sup>

The proposed agricultural building layouts are as shown on the accompanying drawings. The approximate GEFA of the proposed agricultural buildings are:

- Mill & Mix – 331m<sup>2</sup>
- Court Yard Traditional Buildings – 309m<sup>2</sup>
- Workshop – 331m<sup>2</sup>
- Mezzanine in Workshop – 96m<sup>2</sup>
- Machine Store – 643m<sup>2</sup>
- Mezzanine in Machine Store – 50m<sup>2</sup>
- Covered Bale Store - 643m<sup>2</sup>
- Cattle Building – 1,457m<sup>2</sup>

## 1.6 Layout

The proposals include the conversion of existing buildings, and therefore the design process has had to work with a number of existing physical restrictions. The layouts internally have been designed to make best use of the space afforded by the existing structures.

Particular attention has been paid to the need to preserve the existing view of the barns from the roadside and other visual receptors, explained more in detail on SBA's accompanying documents.



The layout, design and positioning of the proposed farm buildings has stemmed from the actual physical processes and intricacies of a working farm. Close consultation and meetings have been held with the current Duchy of Lancaster tenants, Joe and Debbie Green, which has helped with the design and layout process. The existing buildings have been tied into the new by the inclusion of the traditional range of courtyard buildings, which suggests and extension of the existing farm.

The new layout has also worked with the topography of the existing landscape, which slopes gradually from the top of the site down ultimately to the sea.

The arrangement for vehicle movement and parking to / from and within the development has aimed to integrate naturally into the landscape. It has also been designed to take into account and to mitigate the impact on the owner of Cloughton Fields Cottage.

The necessity for on-site parking has had to be balanced with the need to be sensitive to the layout of not only the barns, and farm buildings but the surrounding landscape.

### **1.7 Scale**

The scale and footprint of the existing barns and their related site area has been respected when considering alteration. The footprint has remained pretty much unaltered. The only additional floor area has been created at first floor level, by the formation of bedroom accommodation. The existing buildings remain significantly unchanged in appearance with penetrations kept to a minimum. The proposed raising of the south wing has been designed to be submissive to the original two storey range, and is not aimed at making its own individual statement.

The scale of the openings incorporated into the existing building has aimed to preserve a typical agricultural style. Existing door and window openings have been utilised and are to remain as entrances and windows to the farm house. Windows have been designed as elongated openings that blend into the facades, and are submissive to the wall they are set in, whilst still providing sufficient light and ventilation to the rooms they serve.

The scale of the proposed new agricultural buildings and associated soft and hard landscaping/access has been explained and justified in the Agricultural Appraisal Report, which form part of this submission.

### **1.8 Landscape**

See also SBA's detailed drawings and accompanying written submissions.

### **1.9 Appearance**

The proposal aims to maintain the rural character and appearance of the existing site and barns. Careful consideration has been given to the proposal to ensure that the design maximises the use of the site without affecting the visual amenities of the adjacent open countryside.

The appearance of the proposed buildings are detailed, and illustrated on the drawings and 3d visuals.

The barn conversion shall retain the stone and brickwork appearance. Proposals have been made to remove the harsh cement render from the elevations of the two storey brick built range.

There are many opportunities to reclaim materials from the site which shall include, stone, bricks and pantiles.

It is hoped that by adopting a range of traditional agricultural materials in the new build, and the integration of the brick built court yard range that the impact of development will be kept to a minimum.

## **2.0 Renewable Technology**

### 2.1 General.

The design has taken into account Core Policy D of the North York Moors Core Strategy and Development Polices (10% requirement for renewable energy).

Due to the location and nature of the existing site and its many attributes for integrating renewable technologies, the design includes the following proposed renewables:

#### 2.1.1 Wind Turbine

The exposed site lends itself well for the efficient running of a wind turbine which will provide a large degree of renewable energy to the site.

The size and height of the proposed wind turbine has been chosen to provide approx 6000kWh per annum. The manufacturers of the turbine have stated that the site has an average wind speed of 5 – 5.5mph, which is excellent in terms of efficiency of the turbine. The output has been based on this anticipated average speed. See also appendix A of this statement for further details of the proposed turbine.

The siting of the turbine has been chosen because of its proximity to the proposed buildings and the backdrop of the proposed trees.

The height is of a size to enable efficient use of the wind, but also takes into account its surrounding building heights.

The colour of the mast and blades shall be off white or grey.

Access to maintain the turbine is immediately adjacent in the form of the 4m wide hardcore service track which runs around the perimeter of the new buildings as shown on the submitted plans.

It is hoped that the turbine will provide a connection to the national grid for surplus energy, which will be below ground, where possible.

#### 2.1.2 Ground Source Heat Pump or Biomass Boiler to serve the heating and hotwater needs of the house.

It is proposed to utilise some form of renewable technology to provide heating and hot water to the dwelling. The exact choice of technology has not yet been agreed, however for the purpose of this submission we have assumed the location of any ground source heat pump coils to be in the field north of the house as indicated on the proposed site layout plans. The location and size are to be agreed. Any disturbed land would be put back as existing – i.e. arable land/ grassed paddock.

It is proposed that the pump would be situated within the existing building (Proposed Plant Room) as indicated on the accompanying plans.

#### 2.1.3 Water Borehole

It is proposed to sink a bore hole to provide the water needs for the site. Preliminary advice has been obtained and the site is deemed suitable.



### 2.1.4 Overview of energy use and implementation of the min 10% requirement for renewable energy

The proposed agricultural buildings will not be heated - Referring to Section 6 of the Draft Renewable Energy Supplementary Planning Document (Consultation Draft – January 2010) we have assumed that the 10% rule would be waived. However despite this we are still proposing the following renewable energy improvements to the development which is far in excess of the minimum 10% requirement as a whole. Actual details and finalised design shall be agreed with the Planning Authority.

Using the tables and information set out in the 'Implementing Core policy D documents and advice, we have assumed the following:

- Floor area of proposed dwelling –  $714\text{m}^2 \times 41.6 = 29,702.40 \text{ kgCO}_2/\text{m}^2/\text{yr}$
- 10% of  $29,702.40 = 2,970.24 \text{ kgCO}_2/\text{m}^2/\text{yr}$
- Working on 1kW offsetting  $0.568 \text{ kgCO}_2/\text{pa}$ , the wind turbine would off set  $3,408 \text{ kgCO}_2/\text{pa}$  ( $6000 \times 0.568$ )
- Using the tables provided we have also assumed that a ground source heat pump for instance would offset a further  $580 \text{ kgCO}_2/\text{pa}$  or if using a biomass boiler a further  $1300 \text{ kgCO}_2/\text{pa}$  savings.
- Therefore potential CO<sub>2</sub> savings using the above renewable technologies would be between  $3988$  and  $4,708 \text{ kgCO}_2/\text{pa}$  which is in excess of the 10% ( $2,970.24 \text{ kgCO}_2/\text{m}^2/\text{yr}$ ) figure.

### **3.0 – Biodiversity/Ecology**

An Ecology Survey Report has been undertaken by John Drewett, and his report forms part of this planning submission. Please refer to the actual report for more details and the planning Supporting Statement produced by Smiths Gore.

The mitigation measures identified within the Ecology Report shall be incorporated in to the scheme, in particular to the buildings, temporary and permanent housing for bats and barn owls will be provided.

### **4.0 - Access**

#### 4.1 General and Inclusive Access

Access to the site is via the A171 from Cloughton and Station Lane, which becomes an un-made (but adopted) track. This track also serves Westfield Farm and Cloughton Fields Cottage. It is proposed that this track will be partially retained and improved, with a new access road formed from the north west of Cloughton Field Cottage, and rejoining the existing track closer to the proposed dwelling. The track will be widened to 5m to ensure safe access and egress.

This proposal was discussed (on 13 January 2010) with Kay Aitchison of North Yorkshire County Highways. Officers have supported the route of the new farm access track curving off the public highway behind Cloughton Fields Cottage. Officers have indicated that the creation of 4 or 5 passing places would be required in view of the highway single carriageway. Further detail are contained on drawing No. 1005263/09 prepared by Smiths Gore.

Actual details, locations and specification for the passing places shall be agreed with the Highways Department at the appropriate time.

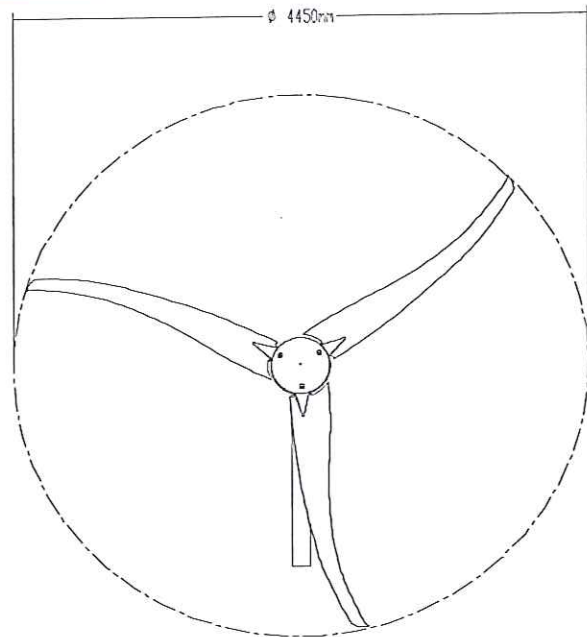
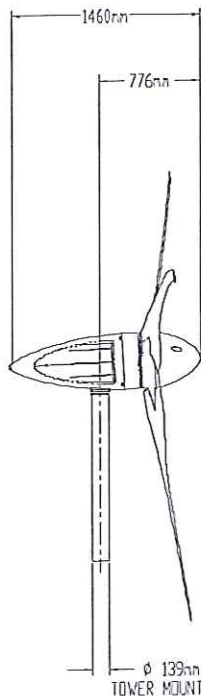
Internally, to the farm house and farm buildings, level/ramped access, W.C. and shower facilities have been provided at ground floor level as indicated on the submitted plans 05 & 06.

APPENDIX A  
DETAILS OF THE PROPOSED WIND TURBINE



# LE-3600

## Provisional Tech Spec Sheet



<b>Rotor Diameter:</b>	4.4m
<b>Rotor Type:</b>	3-Blade Downwind
<b>Blade Material:</b>	Glass Reinforced Composite
<b>Rated Wind Velocity:</b>	7.25m/s (16.2mph)
<b>Rated Output:</b>	2000watts
<b>Peak Output:</b>	3600watts
<b>Cut-in Wind Velocity:</b>	3m/s (6.7mph)
<b>Generator Type:</b>	3-Ph Brushless NIB dual rotor out-runner PMA
<b>Grid-Tie Equipment:</b>	SMA WB3800
<b>Control:</b>	Flight Computer Auto Shut-down Over Voltage
<b>Head Weight:</b>	135kg
<b>Estimated AEP:</b>	3000-6500kWh*
<b>Acoustic Levels (30m):</b>	53dB(A) Equivalent to normal speech
<b>Lifetime &amp; Servicing:</b>	20yr life, yearly service

Drawing on over 10 years of small wind turbine design and manufacture, the LE3600 has been specifically designed to allow maximum input to a grid-tie system under G83 regulations making it the ideal turbine for a domestic installation. The large rotor diameter gives excellent energy yield at everyday wind speeds whilst the active flight control computer keeps the larger swept area under control in high winds and storm conditions.

The high efficiency axial flux alternator features the latest rare earth Neodymium Iron Boron technology which gives effortless start-up with no cogging in the lowest wind speeds allowing the LE3600 to be generating power whilst other turbines remain stationary. Furthermore, the unique blade arrangement is optimised through careful engineering to maximise yield whilst keeping generic rotor noise to a minimum and eliminating tower wake effects.

The LE3600 has been engineered around the successful and proven 'Windyboy 3800' inverter designed for connection to a single phase supply. The control system works in conjunction with the inverter and provides over-voltage and general power control capabilities throughout the operating envelope of the turbine.

10m or 15m tapered, sectional free standing towers have been designed for exclusive use with the LE3600. The hydraulic lift and lower capabilities of these towers allow positioning in locations which may otherwise be impossible and allow fast, safe and easy installation and maintenance of the tower top equipment.

As with all Leading Edge products, the LE3600 has been designed and manufactured in the UK to the highest standard to give maximum value in the most demanding environments.

