

PLANNING DESIGN AND ACCESS STATEMENT

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REFERENCE 14/785
Planning Application for the erection of a Steel Frame Building to house a Biomass Heating System with Associated Flue

DATED 7th December, 2015

SITE LLOYDS ANIMAL FEEDS, DUNSTER ROAD, WREXHAM INDUSTRIAL ESTATE, WREXHAM, LL13 3PS

CLIENT **Lloyds Animal Feeds Ltd**

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1.INTRODUCTION

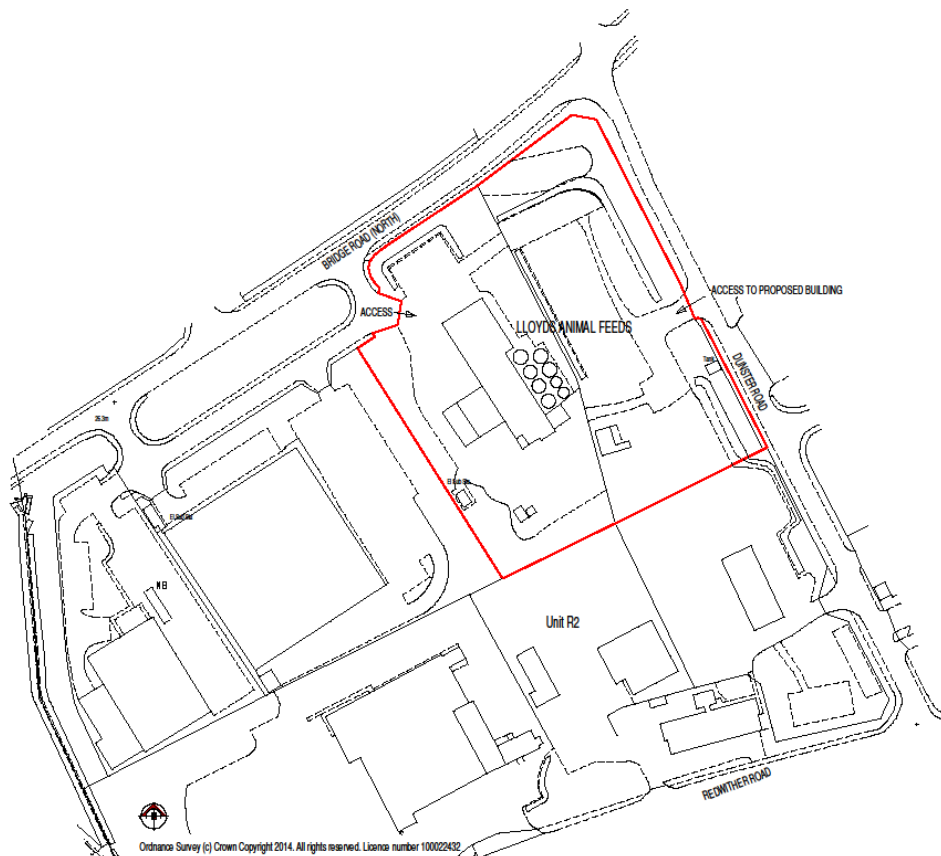
This statement has been prepared to support the proposal for a steel frame building to house a wood chip heating system and associated flue.

This statement explains the key design and access principles that have been used to develop details of the scheme and should be read in conjunction with the drawings submitted as part of the application.

Drg nos.14/785/01 LOCATION PLAN
14/785/02 SITE PLAN
14/785/03 FLOOR PLANS
14/785/04 ELEVATIONS
BOILER INFORMATION SHEET

1.1 Location

The site is located on Land at Lloyds Animal Feeds, off Dunster Road, Wrexham Industrial Estate comprising a total area of approximately 1.718 hectares, the application site covers 0.78 hectares. This is an existing animal feed processing unit operated by the applicant Lloyds Animal Feeds Western Ltd.



1.2 Background

The Mill at Wrexham Industrial Estate is an established business and forms part of the wider Lloyds Agricultural Food Group incorporating food processing units throughout England and Wales. High energy demand in the production process has resulted in the proposal for the installation of a wood chip heating system to lower carbon emission, reduce overheads and sustain employment.

1.3 Objective

The proposed building is to hold a heating system manufactured by Kara, the company is a worldwide provider of tailor made and turn-key installations for the socially responsible generation of heat and/or electricity supplies. Kara has over 100 years experience in the supply and installation of energy systems and has the credibility to justify the capital outlay required. The proposed boiler system will exceed the emission criteria laid out by the government for systems eligible for the renewable heating incentive scheme.

The plant will be fitted with either a multi cyclone fly ash removal system (which centrifugally removes larger particulates from the flue gasses) and a back filter to remove any remaining smaller particulates or an Electrostatic filter to remove particulates.

Current Fuel – Gas burning 5500 mwh/year = 1017ton/year reduced to 87 ton/year under proposal saving of 930 ton/year (Carbon Dioxide CO₂).

2. PLANNING

2.1 Local Planning Policy

Current Policies

Planning Policy Wales (Feb 2014)

As set out in paragraph 4.2.2, the Welsh planning system “*provides for a presumption in favour of sustainable development.*”

Section 4.3 details the core principles which underpin the approach to planning policy for sustainable development

Section 4.4 sets out the sustainability objectives that the Welsh Assembly Government seeks to deliver through planning policies, decisions and proposals, including:

Support the need to tackle the causes of climate change by moving towards a low carbon economy. This includes facilitating development that reduces emissions of greenhouse gases in a sustainable manner, provides for renewable and low carbon energy sources at all scales and facilitates low and zero carbon developments.

As noted in paragraph 4.5.1, tackling climate change is considered to be a “*fundamental part of delivering sustainable development.*” The Welsh Assembly Government has set out a commitment to tackling climate change and reducing the carbon footprint of Wales.

Technical Advice Note 8: Planning for Renewable Energy (July 2005) With regard to the TANs, TAN 8: Planning for Renewable Energy, is focused on delivering renewable energy targets through the planning system and is therefore of particular relevance to this proposal.

The relevant local planning framework is made up of the **Wrexham Unitary Development Plan**, adopted in 2005.

Policy PS2 Development must not materially detrimentally affect countryside, landscape/townscape character, open space, or the quality of the natural environment.

Policy PS3 Development should use previously developed brownfield land comprising vacant, derelict or underused land in preference to the use of greenfield land, wherever possible, particularly so where greenfield land is of ecological, landscape or amenity value, or comprises agricultural land of grades 1, 2 or 3a quality.

Policy PS11 Encouragement will be given to proposals which improve the biodiversity value of sites and to the establishment of local nature reserves where the nature conservation and landscape interest of the land will be protected and enhanced.

Policy PS12 Proposals for the generation of energy from renewable sources will be supported provided that the wider environmental benefits are not outweighed by any detrimental impacts of the proposed development (including any electricity transmission facilities needed) on the landscape, public safety, and the local environment.

This framework sets the presumption in favour of renewable energy developments, provided any adverse effect associated with them is not unacceptable, which is consistent with National Policy.

Policy GDP1 inter alia states that all new development should ensure that the scale, design and layout accords with the character of the area; ensure safe and convenient pedestrian and vehicular access to and from development sites; ensure the safety and amenity of the public and safeguard the environment from the adverse effects of pollution, noise, odour and vibration; safeguard sites and areas of nature conservation and wildlife and provide new habitats where there is an unavoidable loss

Policy E4 states that employment development on unannotated land within settlement limits will be permitted.

Policy EC6 states that development either within or close to sites of biodiversity interest will only be permitted where it can clearly be demonstrated that the need for the development outweighs the need to safeguard nature conservation of the site, Damage should be kept to a minimum and compensatory measures should be provided.

2.2 National Planning Policy

The National Planning Policy Framework provides a number of objectives/directives in support of renewable energy including

NPPF Paragraph 17 *meeting the challenge of climate change, flooding and coastal change.*

NPPF Section 14 *at the heart of National Planning Policy Framework is a presumption in favour of sustainable development*

The government's objective is that planning should fully support the transition to a low carbon economy in a changing climate. There should be a positive strategy to promote energy from renewable and low carbon sources.

The UK Renewable Energy Strategy – A directive which includes a legally binding target to secure energy from renewable sources

The Climate Change Act 2008, requires gas emission reductions of at least 80% by 2050, and reductions in CO2 emissions of at least 26% by 2020, against a 1990 baseline. As set out in paragraph 4.2.2, the Welsh planning system “*provides for a presumption in favour of sustainable development.*”

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2.3 Planning History

Application no. P/2012/0204 was granted on 15th May, 2012 and in accordance with Condition 1 (the development should be commenced within 5 years) there is a current planning approval on the site.

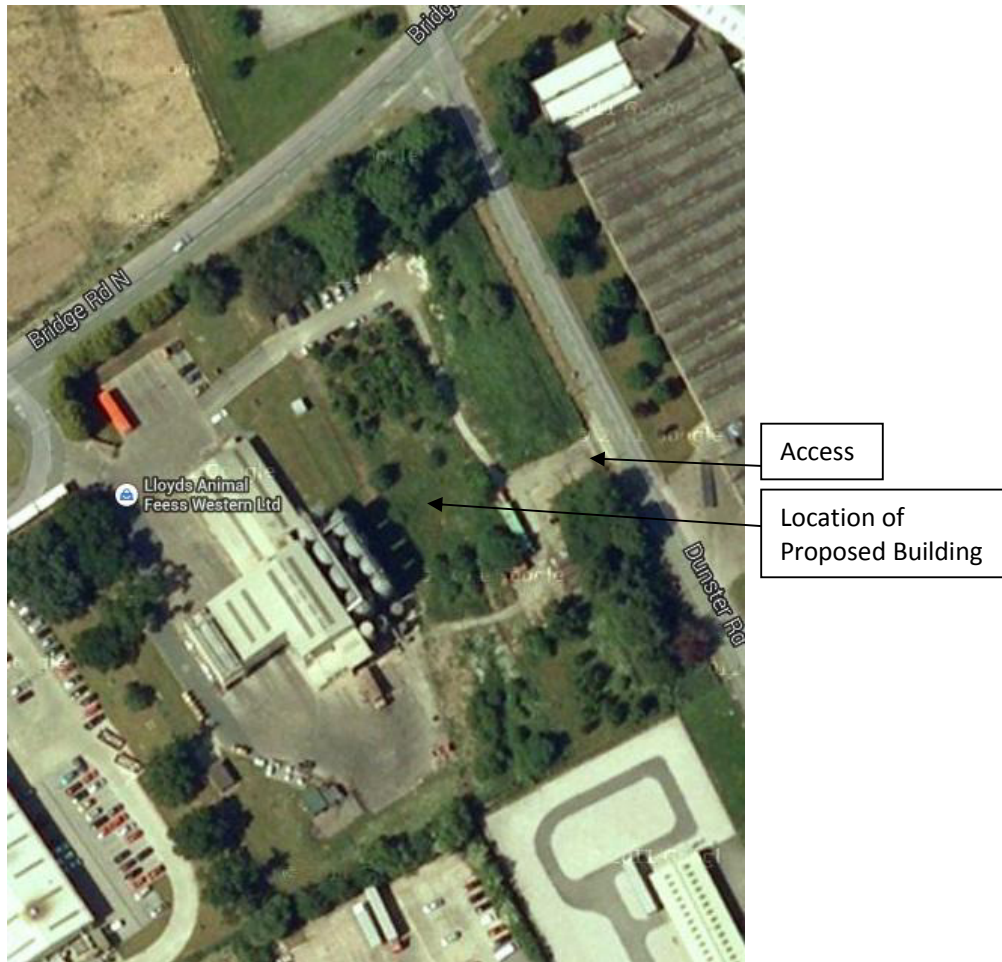
The previous application was for the Erection of a Biomass Gasification CHP Plant, with the further development of Biomass Boilers it is now considered that the Boiler should be enclosed within a purpose made building that would contain the fuel and produce energy more efficiently. The visual aspect of the area would be improved and environmental impact of the site enhanced under the new proposal.

3. CHARACTER OF THE SITE

3.1 Proposal

The proposed building housing the heating system is positioned on redundant land providing good access from Dunster Road and utilising existing hardstanding for Lorries to manoeuvre easily. Connection pipes will be laid within the covered walkway to the adjacent building then internally through to the plant room.

The boiler will be contained within the building, the fuel will be delivered by an Arctic truck with a walking floor, the truck will reverse into the fuel bunker inside the building and push the fuel out at the rear of the vehicle whilst moving forwards. The fuel will be then fed onto a conveyor to the boiler.



3.2 Layout

The building is positioned to avoid dispersal of buildings on the site and to reduce external pipework connections resulting in minimum heat loss.

The building will be steel frame construction to house the heating system with a pitch roof, Lorries will reverse into the gable end to deliver fuel. There is a covered walkway for staff to monitor the plant incorporating a services connection with the existing buildings.

Wrexham Industrial Estate includes a variation of industrial units therefore the development would not be detrimental to the area.

3.3 Scale

The building will be 16.5m x16.5m, 9.55m high at ridge level, the flue will extend to 19m above ground level. The existing large buildings on the site are approximately 15.5m high, therefore the proposed building is negligible as part of the site.



3.4 Appearance

The cladding will be steel insulated panels, coated with Plasticsol, colour: Mushroom BS10B19 to merge into the existing buildings. the flue will be stainless steel in colour. There are large existing silos as shown on the above photograph, these will reduce the impact of the flue height.



3.5 Landscaping

The site has established hedges/trees to all boundaries. There is an concrete access road within the site and adequate turning area laid to hardsurfacing in front of the building.

There will be no trees removed as part of the application and boundary hedges/trees will be retained. There is an area designated for the habitat of Great Crested Newts in accordance with the Ecologist recommendations.

3.6 Community safety

All visitors to the site report to the office, there is a supervised barrier across the main entrance on Bridge Road (North), security within the site is strict and not available to the general public. There will be gates at the entrance off Dunster Road opened for fuel deliveries only. Company Health and Safety Policies are maintained and monitored as daily routine.

4. ENVIRONMENTAL SUSTAINABILITY

4.1 Building Design

The building is steel frame with quality steel cladding designed for minimal maintenance, it will be purpose built specifically to house the heating system and its requirements thus ensuring the building's sustainability.

4.2 Flood Plain

The site is outside the Environment Agency's Indicative Floodplain which shows the 0.1% annual probability of flooding.

4.3 Drainage

There are existing surface water drains on the site. The rainwater from the building will be piped to the Great Crested Newt habitat area to ensure the sustainability of the species, wet areas will be agreed with the ecologist during the construction of the protected area.

4.4 Ecology and the Environment

An Ecology Survey was undertaken by CES Ecology, there will be protection measures for Great Crested Newts as specified within the report and shown on the site plan Drawing no. 14/785/02

Air quality

The flue gasses will be thoroughly cleaned before being released. The proposed heating system will exceed the emission criteria laid out by the government for systems eligible for the Renewable heating incentive scheme, the emission criteria are <30mg/MJ particulates and <150mg/MJ nitrous oxides.

A D1 Chimney calculation will be undertaken to ensure Water Vapour and the cleaned products of combustion are properly dispersed.

Dust

As the fuel (timber) will be provided by the same BSL Certified supplier, the material will go through a sorting system and agitated prior to loading reducing the dust content. The fuel will be delivered by an Arctic truck with a walking floor, the truck will reverse into the fuel bunker inside the building and push the fuel out at the rear of the vehicle whilst moving forwards. There will be no 'blown' material within the operation.

Noise

The building has covered with an insulated profile sheeting, there will be no noise from the boiler, the flue stack is also insulated containing noise from the plant. There will be minimum noise from the conveyor, the flue is also insulated, 1m from the flue terminal 50db (flue fan).

D1 chimney calculation will ensure flue is designed to disperse products of combustion safely.

Lighting

There will be 2 external lights to either side the front gable end of the building. These will be used in the winter in operation times only.

Waste

The system will produce Ash waste (up to 5% of fuel intake), this will be removed in containers from site by the same lorries delivering the fuel. Wood ash provides high levels of potassium and is an important component of garden and vegetable fertilizers, by the re-use of this waste product the operation is a totally efficient sustainable solution providing renewable energy.

5. ACCESS

5.1 Vehicle Access

There is an existing access of Dunster Road suitable for HGV use, providing a tarmac surfaced/concrete route direct to the new building.

The metal access gates will be removed and set back 10m from the road in accordance with the highway authority recommendations and provide security for the site.



There is ample hardstanding for turning and maneuvering within the site to allow HGV Lorries to reverse and leave site in a forward direction.

It is estimated there will be approximately 100 arctic lorry deliveries of fuel per year (90-110 cubic metres, 2000 tonnes), equating to maximum of 2 per week, as the ash waste is removed on the same lorry the increase in vehicles will have little effect on the existing traffic movements to and from the site.

5.2 Parking

Staff and visitor parking is provided adjacent to the offices. There is further staff parking as shown on the Site Plan drg no 14/785/02 to the North East of the site.

5.3 Disabled Access

Not applicable to this application.

6. LABOUR & HOURS OF OPERATION

6.1 Staff

The proposal will require one member of staff to monitor the heating system once per day, supervise deliveries of the timber and the reloading of the ash containers.

6.2 Operation

The plant will operate on a 24 hour process (B2 use), arctic lorry deliveries will be in standard business hours (8am to 5pm).

7. CONCLUSIONS

The proposals have been drawn up having regard to Wrexham Planning Policy Documents and the National Planning Policy Framework. It is considered that the key issues in the determination of the planning application are the principle of development, the impact on visual and general amenity, on ecology and the environment and the need for the production of renewable energy.

The proposed scheme meets the requirements as itemised above and in associated documentation and is respectfully requested that the planning application is approved.

Dawn Minshall

CUSTOM DESIGN PROJECTS