



DESIGN AND ACCESS STATEMENT



CHARTERED ARCHITECTS ~
SURVEYORS

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Project
Anaerobic Digester Plant.
The Site
Land Adjacent to Existing Plant Based Protein Extraction Facility. Naylor Nutrition, Low End / Rangell Gate Spalding
Client
Naylor Farms
Job No. 3899b
Revision

Introduction

This Design and Access statement is submitted in support of a full planning application for the provision of an Anaerobic Digester Plant on the land adjacent to the new Plant Based Protein extraction facility together with landscaping, SUD's features, car park and associated infrastructure.

Naylor Farms are a family run business established in 1909 who have grown as a company over the years growing a range of cabbages, potatoes and daffodils in a sustainable and ethical manner over a 1500 hectare estate.

Evolving to stay up to date with modern techniques the Farm is situated in the heart of Lincolnshire's Farmland and has grown to be one of the UK's largest cabbage suppliers and is a major employer in the area.

Innovation has led to the breeding of new products such as the pink cabbage developed in partnership with Syngenta, and links with Lincoln University through training and technology as well as the new Food Enterprise Zone in Holbeach.

As part of the ongoing investment in research and new technologies Naylor farms are seeking to extent their site with the provision of an anaerobic digester plant adjacent to their current site on the site of an existing farmyard in fields on the corner of Low Road and Rangell Gate.

This facility will be the first of its kind in South Holland will both highlight and strengthen Spalding and South Holland's Environmental Credentials.

The site has been chosen because of its accessibility, being to transport links and proximity to local labour sources with the creation up to 60 full time equivalent members of staff.

The proposal will create a positive environmental impact on the area reducing waste, transport and carbon footprint in addition to biodiversity enhancements on the site itself which will improve the local area.

Supporting Information

The application is supported by a team of consultants, this Design and Access statement to be read in conjunction with the following Consultation Reports to be provided as part of the planning process.

Turley
Planning Statement
Economic Statement
Sustainability Statement

Portess and Richardson Drawings

3899b LP01 Location Plan
3899b S01 Existing Site Plan

3899b P01 Proposed Site Plan
3899b P02 Proposed AD site elevations
3899b P03 Proposed Waste Transfer plans and elevations
3899b P04 Proposed Digestate processing plans and elevations

Grange Geo
Phase 1 Contamination Desk Study (completed as part of Naylor Nutrition application)

Ellingham Consulting Ltd
Flood Risk Assessment (to be updated to include the new facility)

Jackson Consulting Engineers
Drainage Strategy to be updated and extended

Lockhart Garratt (completed as part of the Naylor Nutrition Application)
Preliminary Ecological Appraisal,
Bat Survey
Biodiversity Impact Assessment.

Northern Transport Planning Ltd
Transport Statement

Portess and Richardson Landscape Design.

TBC
Landscape and Visual Impact Assessment.

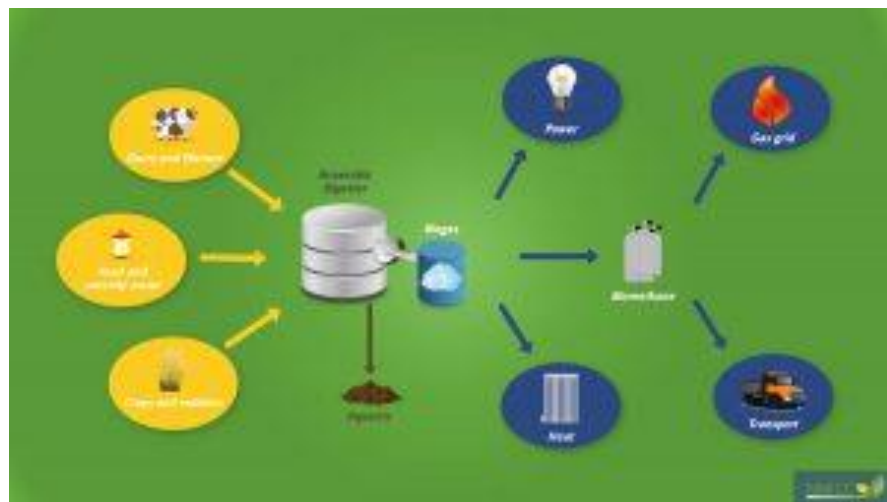
TBC
Noise Assessment.

TBC
Air Quality Assessment.

What is an Anaerobic Digester Plant

Anaerobic Digestion (AD) is a natural process where plant and animal materials (biomass) are broken down by micro-organisms in the absence of air. The AD process begins when biomass is put inside a sealed tank or digester.

Naturally occurring micro-organisms digest the biomass, which releases a methane-rich gas (biogas) that can be used to generate renewable heat and power; this helps cut fossil fuel use and reduce greenhouse gas emissions. The remaining material (digestate) is rich in nutrients, so it can be used as a fertiliser.



Many forms of feedstock are suitable for AD; including food waste, slurry and manure, as well as crops and crop residues. However, woody biomass cannot be used in AD because the micro-organisms can't breakdown the lignin, the compound that gives wood its strength.

AD is not a new technology, it has been used in the UK since the late 1800s, but now an increasing number of AD plants are being built in the UK to generate clean renewable energy. AD is also used to treat the waste produced in homes, farms, supermarkets and industries across the UK. This helps divert waste from landfill.

There are several options for diverting wet organic waste from landfill: home composting; large-scale composting, either in-vessel or windrow; thermophilic aerobic digestion; and AD – a comparison of these options is provided below.

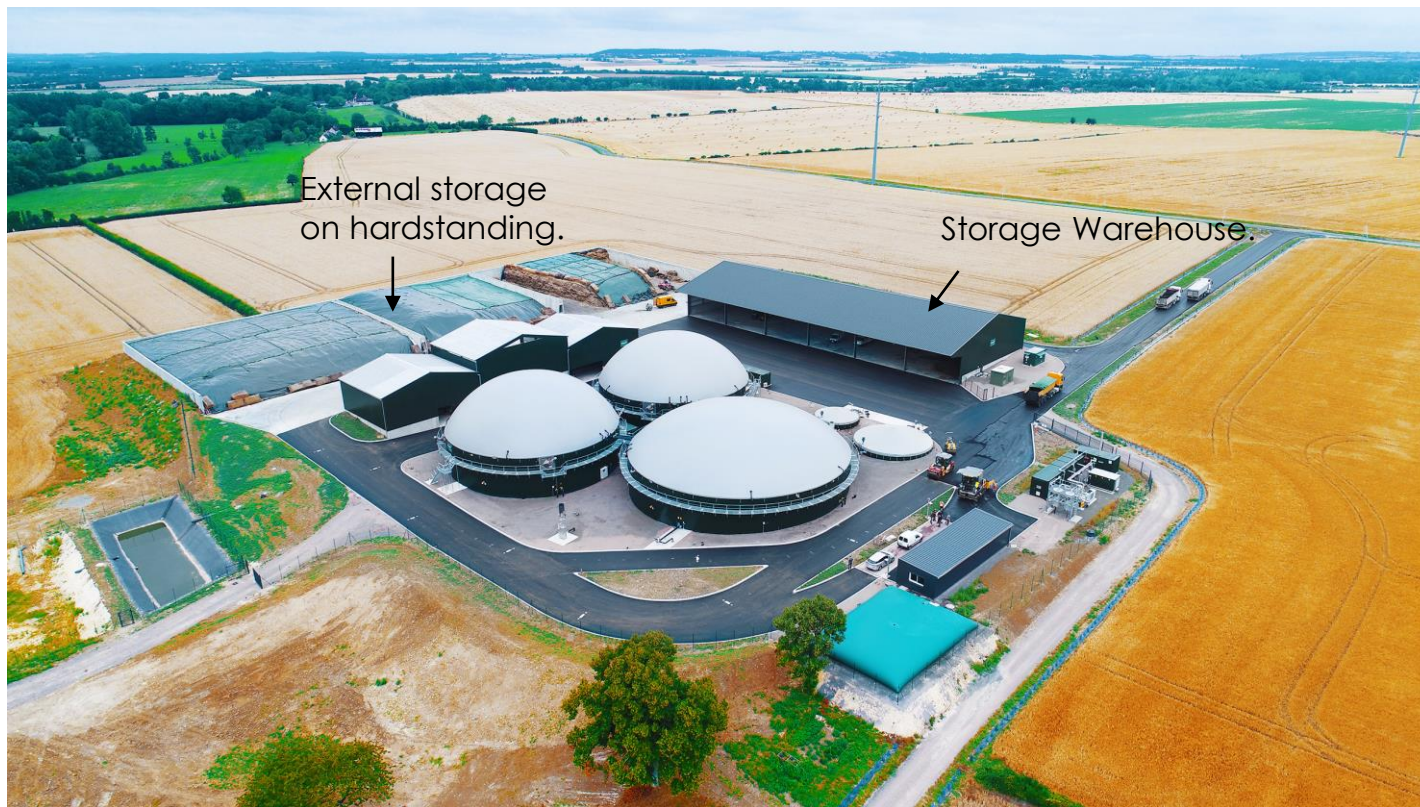
Approach	Takes all food waste	Takes garden waste	Reduces emissions	Saleable product	Energy Recovery
Home composting	-	+	+	-	-
Industrial composting	+	+	+	+	-
Thermophilic aerobic digestion	+	-	+	+	-
Anaerobic digestion	+	-	+	+	+

AD is the only one of the four options that produces renewable energy as well as recovering the nutrients in the waste in the form of digestate.

Source <https://www.biogas-info.co.uk/>

In terms of gas yield the AD plant would be expected to generate around 70GWh of biomethane to be produced from the plant and injected into the grid per year.

In addition the plant will generate around 8GWh of power which will feed the adjacent plant based extraction facility and fed into the grid.



Typical Anaerobic Digester Plant Installation.

Site Assessment

The site is located approximately 2.0km east of Spalding, a town in the South Holland District of Lincolnshire.

The site is immediately adjacent to the A16 which bounds the site to the West. Access off of the A16 onto Low Road bounds the North of the site. Low Road then merges into Rangell Gate which abuts the East of the Site.

The Coronation Channel lies approximately 250m to the East of the site and the A16.

The site is essentially rectangular in shape and covers an area of approximately 6 hectares.

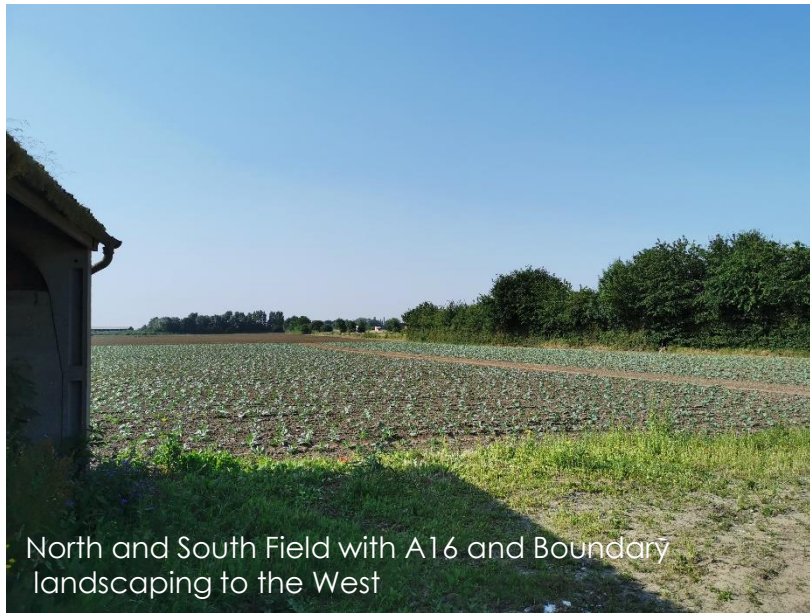
Adjacent to the new processing plant there are two large fields currently growing cabbages. The land appears to have been divided in the 1880s and the Bourne and Lynn Joint Railway bisecting the lower part of the site until it was dismantled in the late 1960s.

The site is predominantly flat and like most of the area just above sea level, the land slightly higher to the North adjacent Low Road.

Boundaries are mainly open except for some tree and hedgerow growth adjoining the A16 and there are ditches around both the fields.

The proposed site will retain the Southern Field for Agriculture.





The land has remained largely undeveloped. There was a cottage on the North East end of the site believed to have been demolished in the 1960s. Naylor's Farm yard remains in the North West corner of the site where there are two single storey concrete and asbestos sheeting sheds, one enclosed and one open as illustrated on the previous page. The barns are used for storage purposes and accessed off of Low Road to a stoned Farmyard and track.

Access to the land is proposed to be directly from the A16 providing a vehicular, pedestrian and cycle route into the centre of Spalding.

The new access will be subject to a full design.

Two of the larger businesses/developments lie immediately to the South of the site, David Bowman and Flamingo Flowers. To the West of the site adjacent the A16 and between the Coronation Chancel are a number of glass houses beyond which is the residential development of Spalding.

Further site assessment is and will be provided within the transport, landscape impact, ecological and other consultant statements.



Consultations and Background

Proposals for the plant based protein extraction facility emerged during 2020 with the first concepts developed the first quarter of 2021. Following approval and construction of the extraction factory discussions have turned in the last few months to the Anaerobic Digesters Plants and Rangell Gate and also the Surfleet site.

The location of the site has always been an important consideration and this was expanded upon within the planning statement. However the Low Road /Rangell Gate site has always been seen as a strategically well placed site in terms of being central to the raw materials that will supply the site, transport links, and accessibility for labour and visitors.

Members of South Holland District Council have been consulted on the proposals and planners have been made aware of the proposals through pre consultation meetings.

Sustainability and biodiversity enhancements have been at the forefront of the proposals from the outset, with additional planting, balancing ponds and flower meadows part of the conceptual proposals.

Naylor Farms own two fields between Rangell Gate and the A16 and to the North of the large units occupied by David Bowman and Flamingo Flowers.

Consideration was given to using the Southern most field which would have placed the new plant next to the larger sheds to the south as indicated by the plan below.



However the presence of the dismantled railway line, proximity to other businesses and lack of pedestrian or cycle access balanced out any benefits in visual amenity over the Northern Site.



Design Proposals

Use and amount

To follow

Floor Plan