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DESIGN AND ACCESS STATEMENT

NAYLOR FARMS EST. 1909

P&R ARCHITECTS

CHARTERED ARCHITECTS ~ SURVEYORS

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Project Anaerobic Digester Plant.
The Site Land adjacent to Surfleet Bank and the A16 , Surfleet , Spalding.
Client Naylor Farms
Job No. 3952
Revision

Introduction

This Design and Access statement is submitted in support of a full planning application for the construction of an Anaerobic Digestor Plant and ancillary office space together with landscaping, SUD's features, car park and associated infrastructure on land adjacent to Surfleet bank, Surfleet Seas End.

The proposed Outer Dowsing Substation, part of the Outer Dowsing windfarm onshore cable corridor is located to the North-East of the site, Access off of the A16 will be shared via a newly constructed access point and the Northern part of the site contains the proposed Outer Dowsing access road to the proposed Substation as well as planting to screen the Substation.

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 intend to construct a new plant based protein extraction facility and research facility together with an Anaerobic Digestor Facility on existing farmland off of Surfleet Bank, to the East of the A16 and North of Naylor Farms existing farmyards.

The Protein Extraction Facility, research Facility and AD plant were first submitted to South Holland District Council in December 2023, planning reference H16-1096-23, to which there have been several consultee responses. Where relevant these consultee responses have been addressed and included within this revision of the Design and access statement.

Subsequently Lincolnshire County Council have advised that the AD plant as a waste processing facility cannot be determined by District necessitating this application.

Developed with Naylor Farms Consultant Waste Powers Limited, the proposed Anaerobic Digestate plant will receive 'feedstock' in the form of commercial food waste principally from processing, packaging and retailing food with the possibility of some crop residues from local farms. All feedstock to be collected from within a 50 mile distance from the site.

Renewable energy in the form of Biogas will be produced and fed directly into the grid on site. As a Biproduct electricity will also be produced and may be used to feed the adjacent plant based extraction facility, the remainder fed directly into the grid. CO_2 will be removed from the process and purchased by a third party to be used in food production systems within a 75 mile radius. Digestate will be used as fertilizer on local farms.

The site has been chosen because of its accessibility, being to transport links and proximity to local labour sources with the creation of 51 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 will be 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.

Portess and Richardson Drawings

3952 LP01 Location Plan
3952 S01 Rev A Existing Site Plan

3952 P01 Rev C Proposed Site Plan
3952 P07 Rev B Proposed Waste transfer and Digestate plans.
3952 P08 Rev B Proposed Waste transfer and Digestate Processing elevations
3952 P09 Rev A Interior and Site elevations
3952 P10 Proposed AD plant plan

3952 Statement on Fire Fighting Strategy

Ellingham Consulting Ltd
Flood Risk Assessment

Jackson Consulting Engineers
Preliminary Drainage Strategy

Nicholsons
Preliminary Ecological Appraisal,
Biodiversity Impact Assessment.

Northern Transport Planning Ltd
Transport Statement

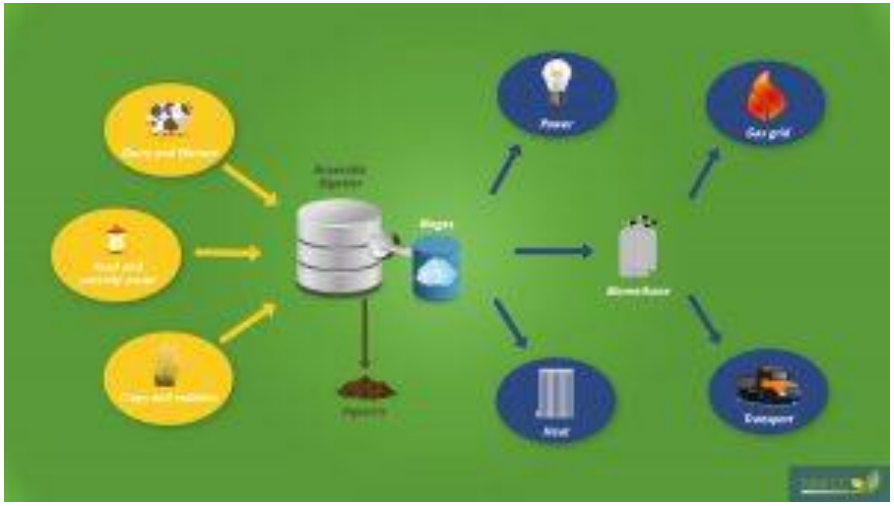
Nova Acoustics
Noise Assessment.

P&R and Centriair
Odour Control Statement RevA and Technical Description
Dewatering building layout – indicative details

The Anaerobic Digestate Process

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 the plants at Surfleet and Rangell Gate are aimed predominantly at processing waste produced in homes, farms and supermarkets and food processing factories making the location in the heart of rural Lincolnshire ideal.

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 and Lincolnshire to generate clean renewable energy. The AD process will 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 8GHh of power which will feed the adjacent plant based extraction facility and fed into the grid and CO_2 which will be tankered from the site to food production facilities.

Below is a typical digestate installation although the facilities proposed at Rangell Gate and Surfleet there will be no external storage and the facilities will be odour controlled to a high level and EA compliant.



Site Assessment

The site is located approximately 2km North of Surfleet Seas End.

The site is immediately adjacent to the A16. Accessed off of the A16, Surfleet Bank bounds the West of the site and runs around the south of the site.

The site is one large field and is essentially rectangular in shape and covers an area of approximately 14.3 hectares.

There are farm buildings to the South East and South West of the site with two dwellings to the South East of the site part of Naylor Farms. There is an abandoned dwelling to the west of the site off of Surfleet bank and North East of Surfleet.

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 hedgerow growth and there are ditches around the fields.

The Outer Dowsing Windfarm cable corridor lies to the North and East of the Site, Access off of the A16 will be shared and the outer dowsing access road runs along the Northern part of the site with space for screening.



Application Site Area outlined in red, Proposed Outer Dowsing access and screening in blue and green



Access off of the A16 from the North



View of the site for the Protein Extraction facility and Ad plant from the junction into the site off of Surfleet Bank



Access onto Surfleet Bank



View of the site from Surfleet Bank to the South of the site



View of the site from the South West off of Surfleet Bank



View of the site from Gosberton Road



View of the site from Marsh Lane to the North of the site.

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 Digester Plants for 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.

The Surfleet site in addition to 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.



Protein Extraction Facility at Rangell Gate nearing completion

The Protein Extraction and Anaerobic Digestor Plant together with the possibility of a future Waste Transfer station to the South of the site (not part of this application) will significantly contribute towards the sustainability credentials of the South Holland District.

Design Proposals

Use and amount

The proposed use of the site is for an anaerobic digestion plant under the use category of waste processing and as such has been referred to County following an initial District application. The overall site area for the anaerobic digestion process is just over 3.3 ha (33,409 sqm) set within a bunded enclosure, the overall area of the application site, inclusive of landscaping, balancing ponds and biodiversity enhancements extends to 6.8ha (68,920sqm). The new Digestor plan will receive and process 'feed stock'.

In order to comply with incentives available to support the development of new renewable gas projects such as this application, at least 50% of the biomethane, by energy content needs to come from waste or residue feedstock. This project goes further in that the majority of the feedstock will come from waste streams, maximising the amount of local waste that can be processed into useful co-products and minimising competition for land with food crops whilst also reducing the need for waste streams to be directed to landfill.

The major waste streams are all non-hazardous commercial food waste from processing, packaging and retailing of food with the possibility of some crop residues from local farms to produce renewable energy and also digestate to be used locally as natural fertiliser.

Feedstock will vary throughout the year and which can be seasonally sensitive, below are a further details of currently available feedstock:

- Food waste to be depackaaged
- Residue from food manufacturing processes
- Food processing Effluents and fat traps
- Commercial fruit and Vegetable – spoiled, offcuts, remnants and past sell by date

The process is estimated to produce 70 Gwh of biomethane gas injected into the grid, 8 Gwh of Electrical power to be used by the adjacent factory, and/or injected into the grid.

Digestate volumes will vary with the quality of feedstock with c.10-15% of the digestate recirculated. The following estimates describe co-product materials which will be taken off site either for further processing or use locally:

- Wet Digestate 61000 te
- Dry Digestate 16600 te
- CO_2 11300 te
- Packaging 3000 te

Digestate

Digestate is produced at the end of the digestion process, a liquid digestate is formed, which consists of a liquid (wet) and solid (dry) fraction. The solid fraction is a fibrous material held in partial suspension that is separated from the liquid fraction via a screw press. The solid fraction is compost-like in appearance and this is can be put back on the land as an organic fertiliser and soil improver. The liquid fraction, which provides useful quantities of nitrogen, potassium, and phosphorus, can also put back on the land as a fertiliser. The use of the digestate enables a significant reduction in the reliance of fossil fuel dependant nitrogen on the land, much of which is now imported into the UK.

Carbon dioxide

The process also produces CO_2, which is a valuable commodity. Historically, CO_2 has been produced in the UK as part of the production of nitrogen fertiliser. With increased energy costs, the production of fertiliser in the UK dropped significantly, as did the associated production of CO_2 for the food and drinks industry meaning that volumes of CO_2 now need to be imported. Capturing and upgrading and guaranteeing the quality of CO_2 to food grade levels is within the scope of the project and outlined in the plans. Producing CO_2 locally from renewable sources supports local food companies, improves the UK food security, reduces imports and reduces the carbon footprint of food production systems.

Packaging

Packaging types and volumes will depend on what is processed once the plant is operational, the ethos of the applicant is to ensure that there is zero waste to landfill from our processes, and it is intended that downstream uses will be found for all materials

Scale and Appearance

The proposal seeks to maximize the operational synergies of the site, the equipment and buildings will comprise of the following main elements and infrastructure,

Reception Building, Waste transfer/sorting 60 m x 40 m with an overall height of 11.3 metres, feedstock is delivered to the building which is designed to allow tipping trailers to tip inside the building.

The digestate processing building measures 80 m x 62 m with a height of 12.45 metres.

Externally the buildings will be clad in plastisol coated profiled steel sheeting/cladding panels, colours to be agreed light grey or green with the low profile roof and hidden gutters.

Negative pressure is applied to the buildings and vehicle entrances operated with high speed shutters for the control of odours and flies, with an odour control system described further within the application package.

The main AD tanks consist of 2 primary digestors, a secondary digestor and thin fraction storage tank, 32 m in diameter, 8 metre wall with gas domes in light grey.

The AD plant area will be surrounded by a impermeable pre cast concrete wall to provide secondary containment, the height of the wall and watertight access gates calculated to provide at least 110% of the largest tank or 25% of the total tankage volume (whichever is greatest) in accordance with Environment Agency requirements..


Indicative Colour pallette


Indicative Colour pallette

2 No pre storage tanks , 15 metre diameter with 6 m walls, buffer tanks and pasteurization Tanks are included within the bunded area and 9 metre flare is located in the corner of the bunded area.

Outside of the main bunded areas are 3 further 15 metre diameter storage tanks (in a smaller bund) in addition to the plant for the AD process, decanter, biogas upgrading.

CO_2 liquefaction unit, central heating plant, generator, heating and control units, a table of lengths below.

Ø32x8m Tanks	15.71 m
Ø15x6m Tank	9.63 m
Heating Header Container - 40 feet	2.60 m
Control and utility container - 20 feet	2.60 m
External Heat Exchanger	2.60 m
100 m3 Polyester Silo	11.20 m
50m3 Pasteurization tank	4.50 m
O2 Generator	1.75 m
Biogas Upgrading Unit	7.20 m
CO_2 Liquefaction Unit	6.75 m
CO_2 Storage Tank - 50 m3	10.9 m
Flare	9.00 m
Natural Gas CHP - 1000 kW (incl. chimney)	10.00 m

At the entrance to the site will be a weighbridge and the gas grid connection unit.

Floor levels of the main buildings and yard are determined by the flood risk assessment and drainage scheme for the site and finalised floor level of 3.400 proposed, approximately 700mm above the existing field levels.

The overall site is rectangular, running alongside Surfleet Bank and parallel to the A16 with a landscaped bund around the whole of the site. Outside of the site and to the West between the AD Plant and Surfleet Bank is the main SUDs drainage feature which will also be landscaped to provide further screening to the site and biodiversity enhancement.

The entrance to the site is located at the North West corner of the site.



4-4.5 m High landscaped banks will be provided around the site similar to the banks around Flamingo Flowers above

Economic Benefits

The proposed development of the AD plant will add to the economic benefits of the adjacent protein extraction and research facility.

The proposals are strongly aligned with local and sub regional priorities to support the areas agricultural and food production sectors and the need to generate new employment and business opportunities.

The Agri-food sector employs 75,000 people across greater Lincolnshire and processes 12% of the UK's food supply.

Delivery of a new anaerobic digestion facility will enable renewable energy to be generated from waste produce from the surrounding area. It would also directly contribute to reducing the CO_2 emissions of South Holland and the UK by contributing to their renewable energy mix and it would be expected to support the areas farming and food production industries by ensuring that there is an appropriate local facility to receive food waste.

The proposed development will create 51 full-time equivalent permanent jobs across the following shift patterns

- AD Plant - 4 people across two shifts.
- Waste Transfer – 2 Shifts of 10 people 5 days a week
- Digestate processing – 10 people in 2 shifts of 8 hours
- Plus overnight, weekend cover/monitoring during digestate process.
- Weighbridge 2 people 8 hours

In addition to direct site staff, employment will also be created in the delivery of feedstock to the site and distribution of digestate out the site.

The benefits of construction activity will be made up of direct jobs involved in the construction of the plant, indirect jobs in businesses providing materials, goods and services to support the construction process (supply chain) and indirect jobs supported in business which benefit from the expenditure of salaries by workers paid from the construction process.

There will be an element of training and skills development in both the proposed development and construction activity

Wider benefits will include the generation of business rate revenue, reduction in greenhouse gas emissions in providing a localised facility.

The project aligns with the national planning policy framework in promoting sustainable development, Regional Economic Strategy such as the greater Lincolnshire LEP Local Industrial Strategy (January 2021 and Protecting, Progressing Prospering: Greater Lincolnshire's Economic plan for growth (March 2021).

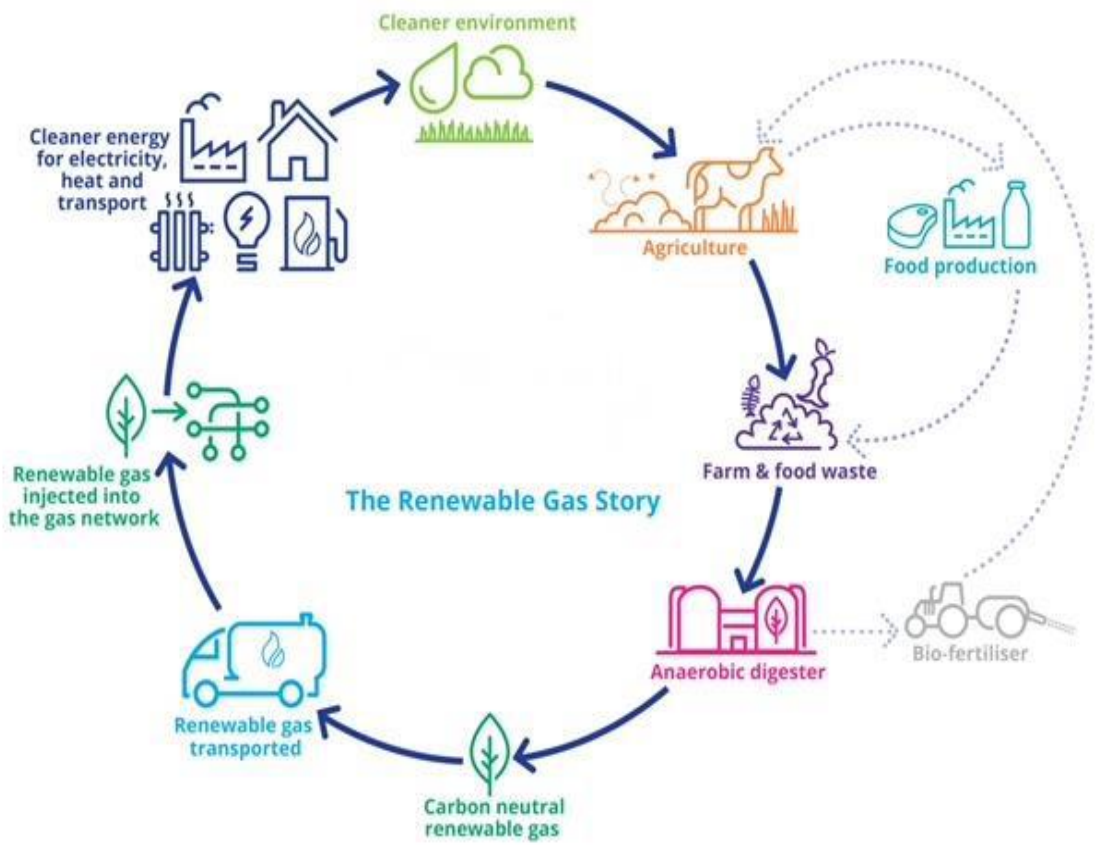
Local Policy context Includes the South East Lincolnshire Local Plan (March 2019) and boosting South Holland Local Economy.

Sustainability and Energy Efficiency

The proposed development of an Anaerobic digestor plant will be on the site adjacent to a state of the art plant based protein extraction facility.

The development will produce biomethane gas which will be exported to the National grid together with electricity for use in the adjacent extraction facility, run the Anaerobic digestor process and export the remainder to the national grid. Some of the digestate outputs will be put back through the digestate process, CO_2 used in food production and the remaining digestate used as natural agricultural fertilisers, limiting waste to a minimum.

The sustainability and circulatory of biomethane production is highlighted in the illustration opposite.



Providing such a facility locally will also reduce Transport facilities further away which in turn will help improve local air quality

The proposed construction work will be appropriately managed in terms of waste, pollution prevention and ecology, and the facility will be designed to mitigate flood risk through the use of Sustainable Drainage Systems (SUDs) in accordance with Environmental Agency requirements.

The retention of existing features of nature conservation interest including the hedgerow and ditches and provision of native and biodiverse planting including enhancement of the proposed surface water feature and wetland habitat will deliver a net gain in biodiversity relative to the site's current generally low ecological value.

This site is accessible by sustainable transport modes in various measures or proposed to reduce reliance on single occupant combustion engine cars.

The orientation of the buildings and their roof design would enable the installation of solar photovoltaic (PV) arrays on the South facing roofs, thereby promoting future proofing and putting further electricity into the grid.

Any noise associated with the facility is addressed separately as part of the noise assessment but will not materially harm the surroundings and measures will be put in place to control odours.

Risk from historic contaminated land is low due to the absence of any viable contaminant source on the site and no previous development.

In view of sustainability, the proposals are considered to fully support relevant UN sustainable development goals to which the NPPF aligns. These global imperatives include innovation, responsible production and consumption, zero hunger, climate action, economic growth and decent jobs.

The proposals also demonstrably meet the strategic priorities of the southeast Lincolnshire local plan to:

- Deliver sustainable development that meets social and economic needs whilst protecting and enhancing its environment for future in generations.

- Conserve and enhance the natural environment

- Minimise the impact of and adapt to climate change through more sustainable use of land and resources reducing exposure to flood risk and promoting sustainable development and

- Promote the efficient use of land.

Landscaping and Visual Impact Assessment

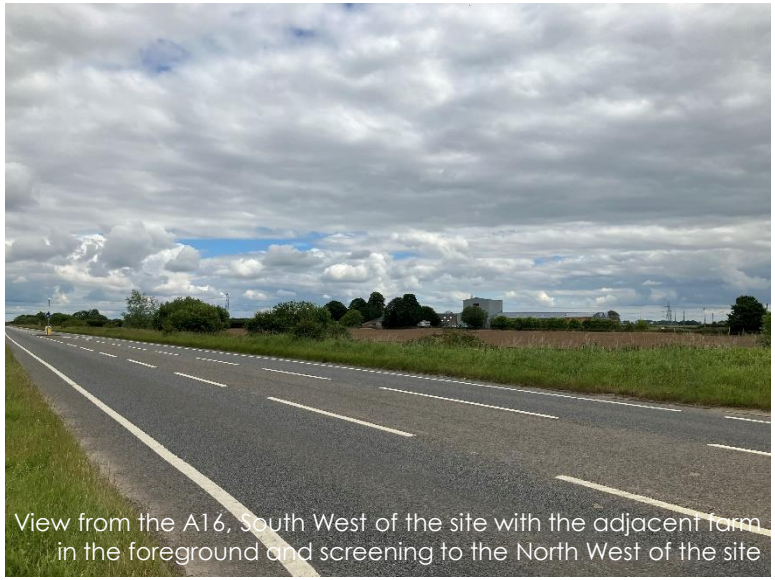
The approach to Landscaping around the proposed anaerobic digestion plant and adjacent protein Extraction and research facility will follow the principles of the landscaping scheme and visual impact assessment established for the protein extraction facility at Rangell Gate, planning reference H16-0959-21.

However, in the context of the wider area the outer Dowsing project will have a greater impact and the proposed Protein Extraction facility will benefit from the screening provided by the Outer Dowsing project. This of cause assumes the latter is approved and as such the proposals for the AD plant have been designed on the assumption of a stand alone project (without the Outer Dowsing Landscape Enhancements).

Not withstanding the Outer Dowsing screening proposals, on a National, Regional and District level the character of the site is acknowledged as a low lying flat landscape with drainage ditches, dykes, medium to large fields given over to agricultural use with locally strong hedgerow elements, views fore shortened and restricted by hedgerows, shelterbelts and woodlands.

There are two significant farm yards either side of the proposed site, the Western Boundary to the opposite side of Surfleet bank is heavily planted and there are limited views of the site from the A16. The northern, southern and eastern boundaries to the site are currently more open and typical of the Fenland landscape.

The approach to landscaping and mitigation strategy will mitigate potential adverse landscape and visual effects and help to integrate the proposed development into the surrounding landscape.



View from the A16, South West of the site with the adjacent farm in the foreground and screening to the North West of the site



Screening to the entrance of the site from the south on the A16

The principle of the landscape strategy include

- Provision of existing native hedgerow vegetation (including hedgerow and mature tree lines) and mature vegetation along existing boundaries.

- Strengthening the character of road frontage along Surfleet Bank to maintain rural character by introducing appropriate tree planting.

- Reinstating historic field boundaries with native hedgerow planting and key trees to reflect historic character.

- High banks around the AD plant site that replicate the high banks along rivers and drains, a strong Fenland feature, that will provide additional visual screening. The banks will also be planted with trees and shrubs

- New planting, using native trees will continue to help support integration associated with the adjacent A16.

- Maintaining the rural character of the Surfleet Bank, by ensuring there is an enhanced landscape fringe beyond the new built form that incorporates new planting to maintain the green and blue infrastructure resource of the drain, also helping to integrate the buildings, which are set back within new native tree groups.

- Provision of local wildlife resource (as part of SUDs by creating new linear ditches with diverse planting mixes), open space and species rich planting and longer grass, including meadow grass and/or pasture to enhance the biodiversity and the open landscape characteristics of the area.

- Provision of orchard trees and other flowering trees on the north west side of the site to help support the diversity of species.

- The building finishes will be developed with an appropriate RAL colour(s), comprising muted light grey and green to grey in graduated tones to reflect the colouring in the local landscape.

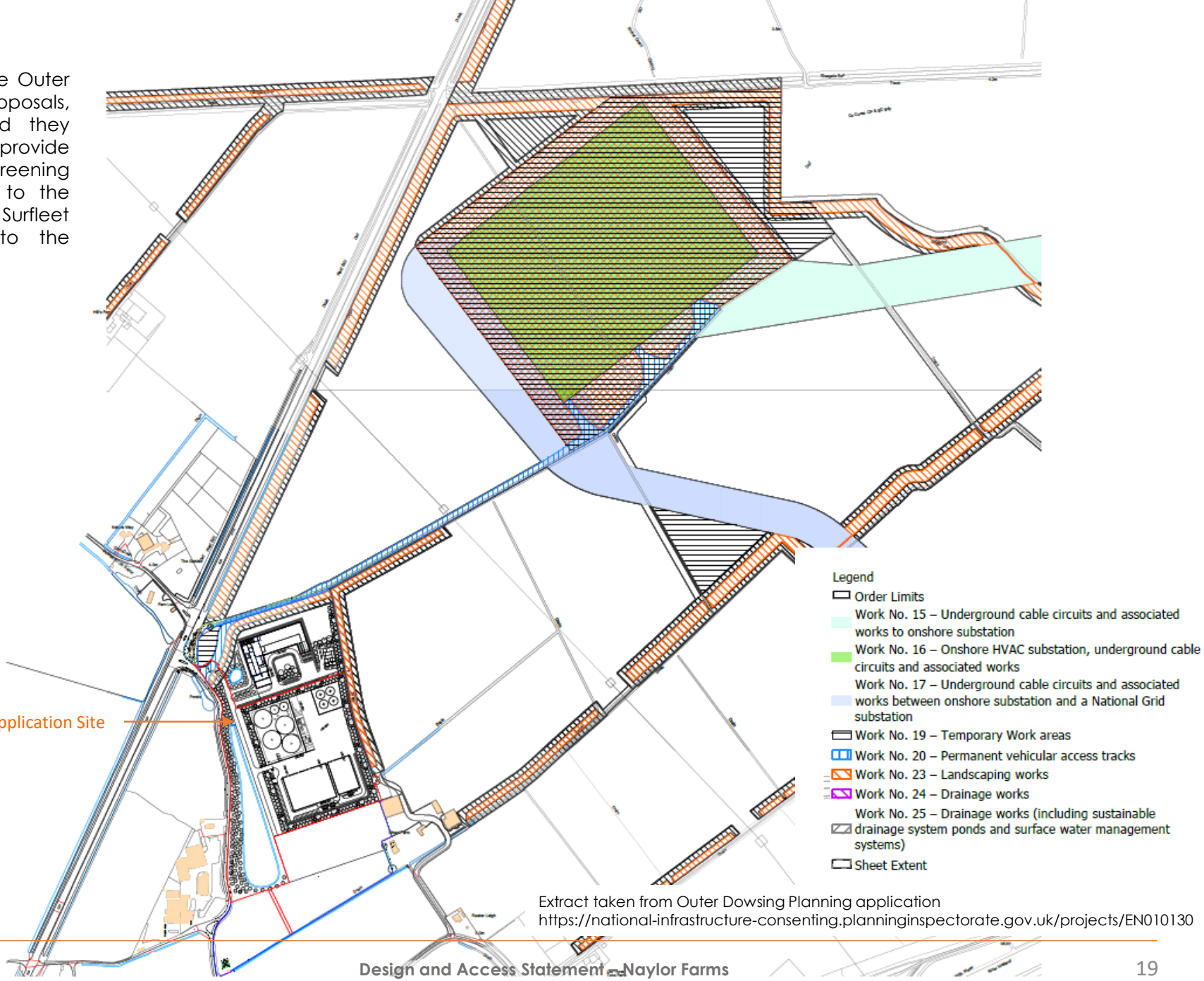


View of the site from Surfleet Bank, South of the site, views will be restricted by bunding around the AD plant and planting on the bunding.

The change in use of the land will lead to alterations in the landscape and visual appearance of the site but these will be relatively localised and reduced in impact by the landscaping

The proposals are considered to have a limited effect on the landscape resource and local landscape character, the change of agricultural land to commercial off set by the new planting which over time will reduce the impact of the development on the area. A significant number of enhancements to the landscape will enhance the biodiversity and appearance of the site

Extract of the Outer Dowsing Proposals, which should they progress, will provide significant screening to the A16 to the West, and Surfleet Seas end to the South.



Extract taken from Outer Dowsing Planning application
https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN010130

Ecology

Nicholson's provided an Ecological Impact Assessment of the site comprising agricultural land enclosed by grassland margins, a small area of grassland, bare ground, mixed scrub, a non-native hedgerow and ornamental hedgerow, wet ditches, a line of trees, and scattered trees. There were limited opportunities for a wide range of species to forage, commute, and shelter, which are elaborated further in their report.

Evidence of common fauna such as montjac, grey heron and rabbit tracks and signs were observed throughout the survey, potential water vole burrows were observed particularly in the banks of the ditch to the south of the site, a scoping survey and associated camera trapping recommended to be conditioned as part of any decision.

It is requested that any water vole surveys be conditioned as part of any approval.

A Biodiversity Net Gain Assessment has been carried out in relation to a proposed development
of an anaerobic digestion plant with associated infrastructure and factory on land at Surfleet
Bank.

The proposed development will result in a net gain in habitat biodiversity of +58.99% (+18.24 habitat units), a net gain in hedgerow biodiversity of +125.74% (+0.12 hedgerow units), and a net gain in watercourse biodiversity of +15.29% (+0.99 watercourse units).

The Proposed Development does not violate any trading rules within the Metric.

There are no irreplaceable habitats within the Site.

The change in biodiversity value, as assessed here, is dependent upon the implementation of an appropriate habitat management plan within the Site upon completion of the proposed development.

The report notes that Biodiversity Net Gain is being considered at two scales (County and District), and that the Biodiversity Net Gain Assessment covers all aspects of both applications.

The production of separate assessments is not possible, as the two applications overlap, and only one assessment can be approved and implemented. An overall, significant net gain over the wider application, as assessed here, should be considered sufficient evidence that BNG has been achieved.

Given the significant net gain in habitat units, the client would like to retain the potential to revisit this same assessment in order to trade/sell units in addition to the +10% requirement. There would be no changes or amendments to the assessment during this process, with the exception of splitting habitat parcels (retaining the same area/condition), further comments or reference numbers where required.

Flood, Risk and Drainage

A flood risk assessment is provided by Ellingham Associates which identified the site within defended flood zone 3 an area like most of Spalding, at risk of fluvial flooding but benefiting from protection by flood defences.

Jackson consulting engineers have provided a drainage strategy both foul and surface water for the site, in general accordance with Lincolnshire County Council's "Sustainable drainage design and evaluation guide" and CIRA's C753 – The SUDs manual.

The proposed combined surface water drainage strategy for both the factory and AD plant structures makes use of the site landscaping with swales leading to a pond which will in turn lead to an attenuation pond for hard surface run off

Foul water connections to a public sewer have been deemed unsuitable due to the length of connections and disruption this would cause. Subject to a successful Environment Agency application it is likely that a sewage treatment plant will be provided on site discharging to a water course, an IDB drain to the South of the site. Wastewater from the commercial processes on site will be recycled evaporated into the air and turned into gel as indicated within the drainage strategy.

Comments from the Environment Agency of 14 June 2024 and Welland Drainage Board of 5 June 2024 on planning application reference H17-1097-23 have been positive with no objections to the proposals.

Fire Fighting Strategy

The pond will be used for firefighting facilities, Lincolnshire Fire and Rescue service requesting a minimum of 45,000 litres of water to be available at all times with suitable access and parking around the pond for fire tender access.





SUDs Drainage features used at Naylor Nutrition, Rangell Gate similar to these proposed for the new AD plant.

Parking, Access & Highways

A transport assessment has been provided by Northern Transport Planning which should be read in conjunction with this Design and Access statement.

Based on the proposed staff numbers and shift patterns, 40 Car Parking spaces are provided the site, together with 28 covered cycle spaces located next to the entrance plus designated motorcycle parking.

The site is highly accessible by foot and bicycle, large parts of Spalding and the surrounding area accessible within 5km.

There are also good public transport links to Spalding, bus routes exist along the A16

As part of the environmental credentials of the scheme 8-10 spaces will have electric vehicle charging points with further spaces ready for future installation of charging points.

Staff will be encouraged to car share.

It is proposed that a new vehicular access will be provided off of Surfleet Bank, with adequate visibility splays, turning circles etc the main access off of the A16 will remain unchanged.

Although significant, the anticipated vehicle movements from the site will not have a material impact on the highway network.

Accessibility

Disabled parking bays will be formally provided in front of the building.

Level access to ground floor accommodation will be provided throughout the development.

Disabled facilities will be provided within office and staff welfare area within each of the main two buildings.

Noise

A Nosie Impact Assessment has been provided by Nova Acoustics.

The proposed development has been assessed against the requirements of BS4142 and the LPA's policies and guidance.

In order to achieve a low likelihood of adverse impact, the following mitigation will be implemented:

- All buildings must provide a minimum sound reduction of 40 dB RW .
- The CHP units must be housed in enclosures capable of reducing noise emissions by a minimum of 45 dB. It is thought that this can be achieved with a 100mm enclosure such as the 'WA-ACPA100S' from Wakefield Acoustics or a bespoke product from the manufacturer of the CHP.
- Noise from the flare must be reduced to a maximum of 80 dBA at 1m.
- An acoustic fence and gate should be installed by the entrance to the site to reduce noise emissions from HGVs traversing the site.

The site will operate with best practicable means in mind. In line with good acoustic practices, the following procedures will be adopted:

- All HGVs will be courteous to the surrounding neighbours and abide to on-site speed restrictions. Use of horns will be prohibited unless required for safety purposes.
- All mobile plant and fixed plant will be turned off when not in use. HGVs will be discouraged from waiting outside nearby residential properties and not left in idle during loading or unloading.
- The use of mobile plant will be strictly prohibited during the night-time period (between 23:00 and 07:00 hours).
- All plant will be routinely serviced and maintained to ensure it is operating at optimal efficiency.
- Plant will be placed sympathetically to the surrounding NSRs with a direct line of sight to fixed plant and ductwork terminations avoided wherever possible.
- Shouting and external radios will be discouraged given the proximity to the nearby farms.
- All façade openings to internally noisy areas will remain closed when in use whenever possible, including roller shutter doors or other façade openings, particularly in the AD plant buildings.
- Any heavy or mobile plant required for the proposed recycling centre will be assessed separately to ensure that no adverse impact is anticipated at the surrounding NSRs.

Refer to Nova Acoustics full Noise Impact Assessment.

Air Quality / Odour Control

A statement of Odour Control has been provided by Naylor Farms Consultant, Waste Powers Limited, Odour Control a key requirements in obtaining and keeping an Environment Agency (EA) permit to operate the plant.

The AD plants will operate in a closed system – waste will be received in a well-designed reception handling area designed to minimise odour release. The waste will then be pumped through to the digesters and after-digesters in a closed system. Methane generated through the process will be injected into the local gas network, CO_2 will be liquified and transported to local food production companies, other gasses will be scrubbed using appropriate techniques. Digestate will be processed on site in a closed system with the product being a stable material.

With regards to the buildings, these will be operated under a negative pressure system for odour and fly control developed by Centriair whom have provided a Technical Description contained within this submission.

Under the District application H17-1097-23 both the SHDC Environmental Protection officer and the EA have accepted the Odour and Fly management plans noting that an EA permit will be required and full compliance maintained.

Ground Conditions and Contamination

A partial in house desktop study has been carried out, looking at Historic maps, the site has remained undeveloped since the drainage of the area for farmland.

As such the overall risk from land contamination is considered highly unlikely.

The proposed use is also unlikely to contaminate the land, measures in place to protect the digestible tanks from leakage and drainage filtered as necessary to remove any contaminants before reaching the water course.

Should any evidence of contamination be found during ground works then a ground investigation survey would be carried out. This could be conditioned as part of any decision.

Archeology

As part of consultation responses to the District application, H17-1097-23 the County Archaeologist has recognised that the wider area of the Fens are an area of archaeological potential associated with Pre-historic and Roman settlement and salt production activity. As such a trail trench evaluation has been requested which we would ask to be condition as part of any decision.