

DESIGN AND ACCESS STATEMENT

NAYLOR FARMS EST. 1909

P&R ARCHITECTS

CHARTERED ARCHITECTS ~ SURVEYORS

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Project Plant Based protein extraction facility. **The Site** Naylor Farms, Low End / Rangell Gate Spalding
Client Naylor Farms
Job No. 3899
Revision

Introduction

This Design and Access statement is submitted in support of a full planning application for the demolition of existing farm buildings and construction of a new Plant Based Protein extraction facility and ancillary office space 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 construct a new plant based protein extraction facility 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 not only in the UK but within Europe which will both highlight and strengthen Spalding and South Holland as a key agricultural hub within the UK.

The site has been chosen because of its accessibility, being central to the raw product supply, transport links and proximity to local labour sources with the creation of 43 full time equivalent members of staff.

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

The market potential across the whole of the UK is vast with this potential extending into Europe and eventually worldwide.

Supporting Information

The application is supported by a team of consultants, this Design and Access statement to be read in conjunction with the following documents.

Turley
Planning Statement
Economic Statement
Sustainability Statement

Portess and Richardson Drawings

3899 S01 Location Plan
3899 S02 Existing Site Plan
3899 S03 Barns Elevations and plans

3899 P01 Proposed Site Plan
3899 P02 Factory Floor and Roof Plan
3899 P03 Factory Elevations
3899 P04 Office floor plans and elevations
3899 P05 Naylor Office – Plans and Elevations
3899 P06 Proposed security hut and cycle helter

Grange Geo
Phase 1 Contamination Desk Study

Ellingham Consulting Ltd
Flood Risk Assessment

Jackson Consulting Engineers
Preliminary Drainage Strategy

Lockhart Garratt
Preliminary Ecological Appraisal,
Bat Survey
Biodiversity Impact Assessment.

Northern Transport Planning Ltd
Transport Statement

Andrew Belson Arboricultural Consultant
Tree Assessment and Landscape Design.

Liz Lake Associates
Landscape and Visual Impact Assessment.

Nova Acoustics
Noise Assessment.

Site Assessment

The site and existing farm buildings are 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 2.86 hectares.

In addition to the farm buildings 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 approximately two thirds of the Northern field for Agriculture, the Southern field remaining untouched



Site Location



North and South Field with A16 and Boundary landscaping to the West



View from Low Road to the South



Open view from Farm Buildings to Rangell Gate and Allotments beyond.



Views from A16 across to Rangel Gate









Existing Farm Yard and Buildings

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 and farmyard is off of Low Road, the nearby A16 provides a vehicular, pedestrian and cycle route into the centre of Spalding.

There is a single dwelling , Cottage Farm to North West of the site also accessed via an existing road and there are further dwellings to the North East of the site screened by trees and hedging. There are allotments to the East of the site and the Rangell Gate/Kellett Gate development to the South and East, comprising horticultural and commercial businesses.

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 Chanel are a number of glass houses beyond which is the residential development of Spalding.

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


Low Road, Site Access and junction with A16


Cottage Farm and Farm Yard Access to the side of the house

Consultations and Background

Proposals for the plant based protein extraction facility emerged during 2020 with the first concepts developed the first quarter of 2021.

The location of the site has always been an important consideration and this is expanded upon within the planning statement. However the Low Road /Rangell Gate site has always been seen as the most 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.

Having considered other locations and arriving at the Low Road / Rangell Gate site early designs focused on the North of the site an early concept plan presented opposite.

A key consideration from an early stage was the impact on Cottage Farm, the location of the facility positioned away from the boundary to the dwelling to maximize the distance from the new entrance to the site, whilst still maintaining access off of Low Road. The demolition of the existing farm buildings and subsequent removal of the original farmyard access will allow for boundary planting and screening around the dwelling.

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.



Early Concept Plan

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 building 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, in addition to reusing the access and site of the existing farm yard



Design Proposals

Use and amount

The proposals seek to demolish two agricultural barns / storage sheds amounting to a gross area of 249 sq.m (enclosed shed 117 sq.m and open barn 132 sq.m). The overall site area is 2.86 hectares.

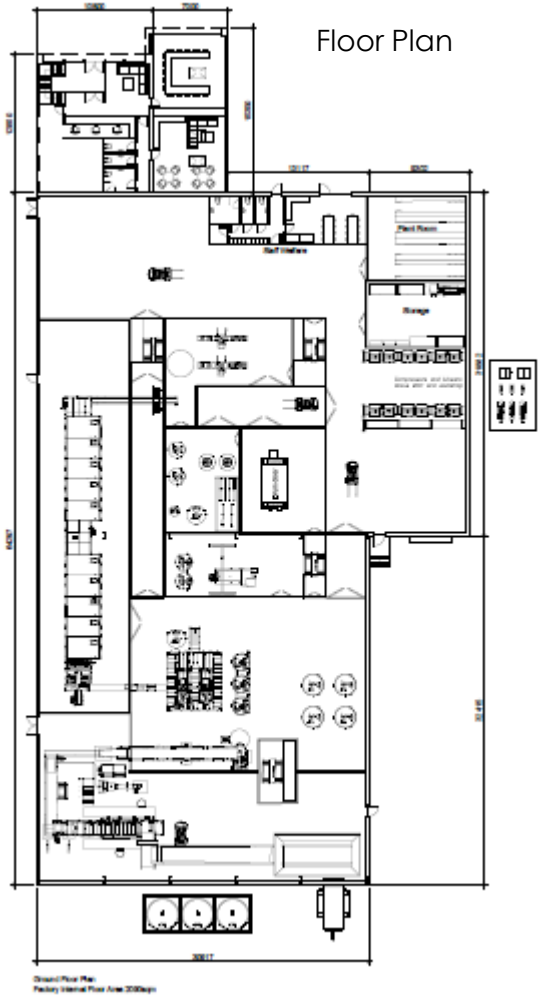
The main plant based protein extraction facility will provide a ground floor area of 2222 sq.m within which in addition to the protein extraction machinery will be staff facilities, canteen and change spaces, a loading bay area and plant. There is a small plant mezzanine above the staff area.

Ancillary office accommodation will be provided to the North of the main facility providing a total 330 sq.m over two floors. This space will be used for general administration and reception of visitors with meeting and training / teaching spaces, one of which will be used in conjunction with Lincoln University.

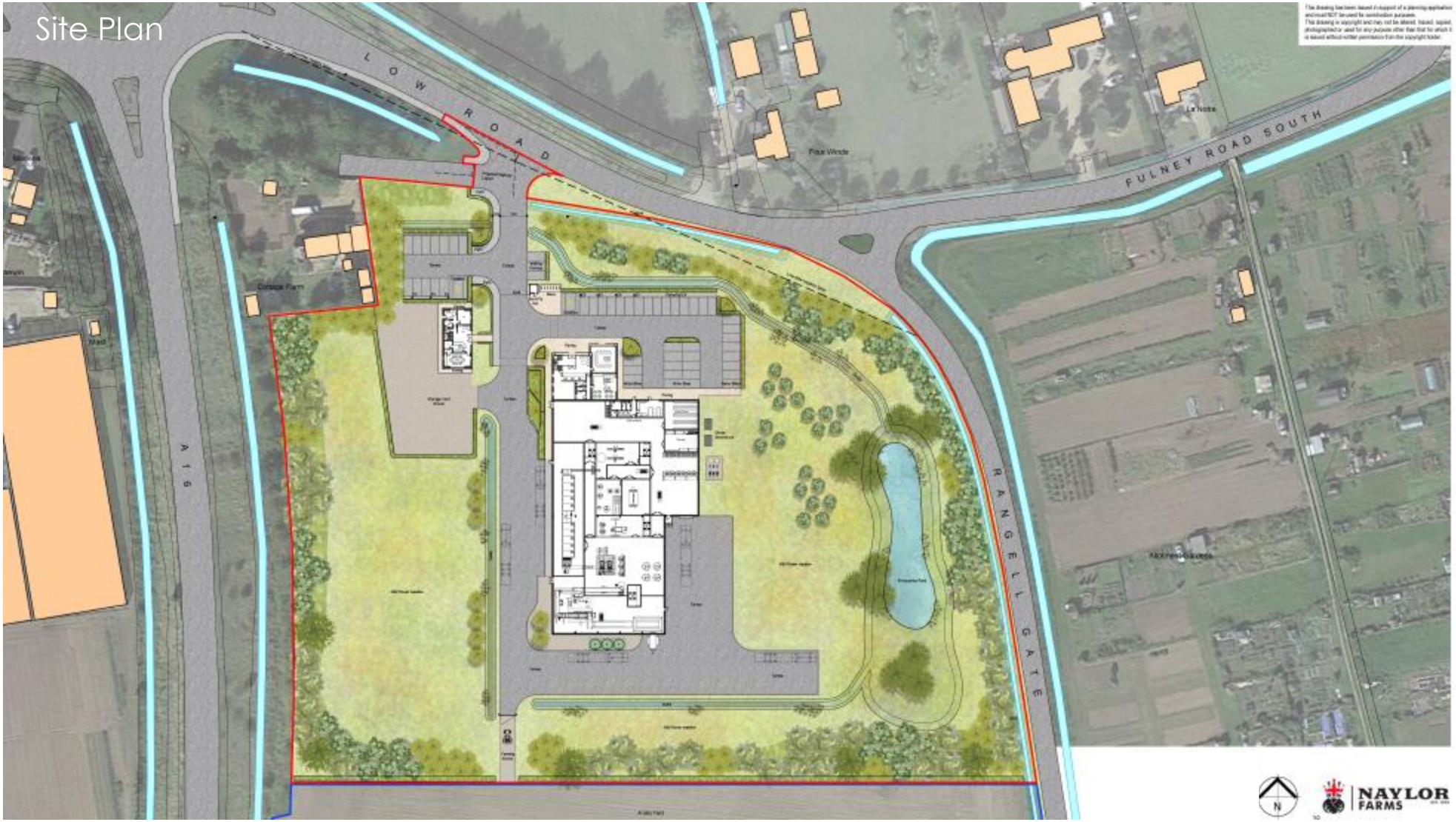
A further office building providing 214 sq.m of accommodation will be developed at a slightly later stage for Naylor Farms operations and expansion of the training / teaching facility.

The office accommodation will be supported by staff facilities.

Floor Plan



Site Plan


LOW ROAD
FULNEY ROAD SOUTH
RANGELL GATE
A16
Four Winds
Le Notre
Cottage Farm
N
NAYLOR FARMS

Scale and Appearance

The main Protein Extraction Facility will be of simple appearance, understated in respect of the technology inside which will itself be based in a food appropriate 'white box'. The skin of the main building is essentially rain screen cladding to the facility inside.

The main building is 7.5 m to eaves height with a 15° roof pitch and ridge height of 11.6m, the eaves height dictated by the plant inside the building but also but also comparable to other surrounding buildings in the area.

The rain screen steel cladding to the main cladding will be powder coated in a graduated tone from green to light grey to blend in with the surrounding landscape and provide a backdrop to the landscape screening to be planted as part of the proposals.

In addition to the main building there are 3 liquid silos that sit outside the main enclosure but will sit below the eaves height of the main building and coloured green to blend with the main building.

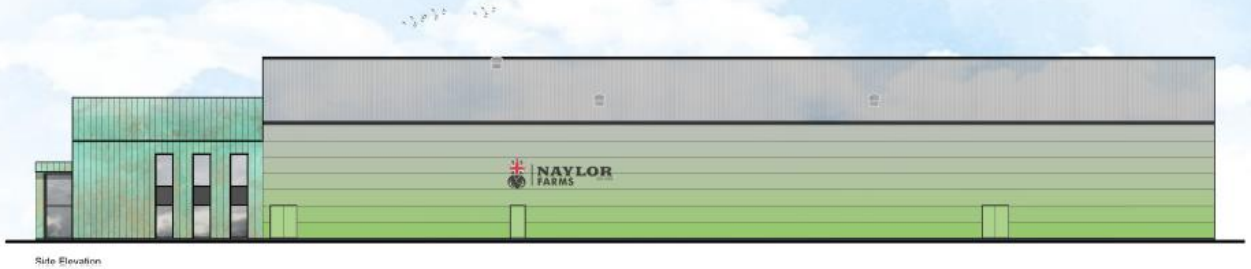


Indicative Graduated Cladding to main shed



Part office elevation





The office buildings will be of a reduced eaves height of 6.2m and ridge height of 9.1m. A contemporary office appearance clad in insulated standing seam cladding in coloured in weathered "copper" green.



Sample Panel



Front Elevation



Side Elevation



The Naylor Farm office building to the front of the site has an eaves height of 5.0 metres and ridge height 7.3m. The appearance is that of a Dutch barn with a contemporary feel similar to the main facility offices but with brick and metal cladding.





Sustainability and Energy Efficiency

The proposal has been designed with a long term future in mind and will be constructed to a high standard using high quality materials.

The roof structure has been designed for the future installation of PV panels and cabling will be installed as part of the construction. Heat recovery will be used from the protein extraction process reducing the energy demand of the building. Water from the extraction process will be recycled for the washing process, and grey water technology will be employed within staff facilities.

A separate sustainability statement has been provided by Turley to demonstrate that the proposals meet the strategic priorities of the South East Lincolnshire Local Plan to;

- Deliver sustainable development that meets social and economic needs whilst protecting and enhancing its environment its environment for future 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 floor risk and promoting sustainable development; and
- Promote the efficient use of land.

Landscape and Visual Impact Assessment.

Andrew Belson Arboricultural Consultants and Liz Lake Associates, Landscape Architects have worked in close consultation with ourselves as the architects.

A tree survey was undertaken at the pre planning stage of the project to asses the quality of boundary planting to the A16 and any arboricultural impact of the scheme, all development deemed to be of sufficient distance not to require a full arboricultural impact assessment.

The LVIA was drafted prior to the landscaping design for the scheme and the assessment which identified the edge of settlement character of the site and surrounding areas characterized by commercial and agricultural buildings with edge of field planting creating distinctive linear hedging and belts of trees.

In consideration of this assessment these principles have been continued in the landscape design to retain and enhance the existing native hedgerow vegetation along the A16 and introducing similar landscaping along Low Road, Rangell Gate and the new boundary between the retained agricultural land and proposed development.

Within the site local wildlife resources will be enhanced integrating the sustainable drainage scheme, new ditches and pond with open space, wild flower meadows, orchard and flowering trees to enhance the biodiversity of the site.

Ecology

Lockhart Garratt carried out a preliminary Ecological Assessment of the site noting most of the site to be of low ecological value with the exception of the boundary planting medium ecological value, ditches, low to medium.

A follow up Bat Survey of the two barns was carried out. There was no evidence of Bat roosting but foraging and commuting across the site was recorded.

Recommendations for biodiversity enhancements included native species landscaping planting to build upon the potential of the existing boundary planting on the site and provision of replacement habitats for the barns to be removed.

The proposals will deliver;

- Enhancement of aquatic habitats such as the SuDs ponds and swales, through new wetland habitat creation and marginal and aquatic planting of native species.
- Enhancement of grassland areas through planting of wildflower areas and appropriate mowing regimes / establishment of tussocky grassland margins.
- Planting of nectar, fruit and nut producing tree species.
- Provision of bird and bat boxes.

Light Spillage and Intrusion

New Lighting will avoid uplighting, LED lighting with hoods, low level bollard lighting for parking and paths will provide a dark sky for foraging and commuting bats.

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 benefitting from protection by flood defences.

Jackson Consulting Engineers have provided a drainage strategy, both foul and surface water for the site.

The proposed surface water drainage strategy makes use of the site landscaping with swales leading to an attenuation pond for hard surface run off. Water collection from the building is collected into rainwater harvesting tanks prior to surplus discharge into the Swales.

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 sewerage treatment plant will be provided on site discharging to a water course. Failing this a drainage field would be considered a possibility.

Parking, Access and Highways.

49 Car Parking spaces are provided to the North of the site, together with 14 covered cycle spaces located next to the entrance / site security hut plus designated motorcycle parking.

The site is highly accessible by foot and bicycle, large parts of Spalding and the surrounding area accessible within 2km walking distance (25 minute walk) or 5km cycle ride (15 minute ride) with a shared footway and cycle path along the Northern boundary of the site. A 2m wide footway will be extended into the site.

There are also good public transport links to the area, bus and rail.

As part of the environmental credentials of the scheme 8 spaces will have electric vehicle charging points with a further 6 spaces ready for future installation of charging points.

Staff will be encouraged to travel on foot, cycle, public transport or car share.

It is proposed that the existing vehicular access off of Low Road will be modified to create a priority junction into the site, with new road markings.

Vehicular tracking paths and analysis have been provided as part of the submission by Northern Transport Planning Ltd.

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, access to all required accommodation on the ground floor of each building.

Disabled facilities are provided within each office and staff welfare area.

Noise Assessment

Nova Acoustics have provided a noise assessment within the application package.

This has addressed any noise from within the facility itself, sound attenuation and insulation used where appropriate.

Lorry and tractor movements will be restricted to normal working hours and will not materially add to the noise generated from the A16, Low Road and Rangell Gate.

Air Quality Assessment

The site is not in an Air Quality Management area however odour control to extracts and vents will be provided as part of the plant installation. It is not anticipated that odour will be a product of the process.

Utilities

New Gas, Water and Electricity supplies will be required for the development, services are readily available and will brought onto the site by the main entrance road.

Ground Conditions and Contamination

A Phase 1 desk study has been carried out by Grange Geo, and included within the application package, most of the site comprised of undeveloped land.

The report concludes based on historic use, current use and proposed development the overall risk from land contamination is considered highly unlikely that the site would be considered contaminate land.

Should any evidence of contamination be found during ground works then a ground investigation survey would be carried out.

An Asbestos survey will be carried out on the two existing farm buildings and all services documented prior to demolition.

Archaeology

Turley's heritage team have looked at the Heritage Gateway with few findings in the area, the site believed to be of low Archaeological interest.