Environmental Statement

PREPARED FOR:

Land at Pear Tree Hill Road

532615,317390

Grid Ref TF32611738

Whaplode Drove

Spalding

PE12 0SL

26th March 2025

acorus®

acorus.co.uk

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CONTENTS

CHAPTER 1 ENVIRONMENTAL IMPACT ASSESSMENT

1.1 Purpose of Report

1.1.1 Stuart Adams of Holbeach Poultry Ltd/Bowler Adams LLP (the 'Applicant') has instructed Acorus Rural Property Services Ltd (Acorus) to prepare an Environmental Statement (hereinafter referred to as the 'ES') to be used in conjunction with a planning application for the provision of a new poultry development on land at 532615,317390, Pear Tree Hill Road, Whaplode Drove, Spalding.

1.1.2 Acorus Rural Property Services is a rural planning and design consultancy and part of the NFU group of companies. The author is James Whilding, a qualified Chartered Surveyor (MRICS) and Fellow of the British Institute of Agricultural Consultants (BIAC). As a rural planning consultant, he has been engaged by Defra, LPAs and private clients to advise on planning matters, and this has been the case for 30 years. In relation to the poultry sector, he advises some of the main integrators in the UK, in addition to smaller scale private producers.

1.1.3 The proposal relates to a green field site accessed off Pear Tree Hill Road and the provision of 12 poultry houses each measuring 80ft x 360ft (28,800sqft or 2,675sqm). The total footprint of the buildings extends to 345,600sqft (32,100sqm). Built to Best Available Technique, the new structures will be fit for purpose and provide 50 years+ of production space.

1.1.4 In addition to the growing area, the following will also be provided as part of the planning application:

- New field access
- Vehicle parking and turning
- Hardstanding for generator
- Substation
- Gas tanks
- Dead bird building
- Attenuation basin as part of SuDS scheme

1.1.5 An application relating to an agricultural workers dwelling will be submitted separately.

1.1.6 The proposal is for broiler (chicken meat) production whereby chicks are placed within the buildings as day olds and finished birds removed in 2 stages; 35% of the crop is thinned at day 30 with the remainder cleared day 42. A further 7-10 days at the end of each cycle are required for cleanout and preparation of the buildings for the incoming flock.

1.1.7 On average, there will be 7 crops per annum. Bird numbers will be permitted for no more than 690,000 bird places, however with reduced stocking due to higher welfare requirements from the customer, output will be at 552,120 places and an annual output of approximately 3,865,000 birds.

1.2 Environmental Impact Assessment

1.2.1 The EIA Regulations require that, for certain types of development under the Town and Country Planning Act 1990, an EIA be undertaken before planning permission can be granted. Government guidance on the regulations is provided on the Government's Planning Practice Guidance website:

https://www.gov.uk/guidance/environmental-impact-assessment

1.2.2 The main aim of the EIA Regulations is to ensure that the authority giving the primary consent (the 'competent authority') for a particular project makes its decision in the knowledge of any likely significant effects on the environment. The EIA Regulations, therefore, set out a procedure that must be followed for certain types of projects before they can be given 'development consent'.

1.2.3 This procedure, known as Environmental Impact Assessment (EIA), is a means of drawing together, in a systematic way, an assessment of a project's likely significant environmental effects.

1.2.4 The requirements of Environmental Impact Assessment are provided within the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. These are referred to as the EIA regulations within this document. These regulations require that any development which is listed in Schedule 1 be subject to EIA.

1.2.5 Section 17 of Schedule 1 defines 'Installations for the intensive rearing of poultry or pigs' as being installations with more than —

(a) 85,000 places for broilers or 60,000 places for hens;

(b) 3,000 places for production pigs (over 30 kg); or

(c) 900 places for sows.

1.2.6 As the planned installation is for 552,120 broiler places, the proposal is Schedule 1 development and as a result the proposed project falls within the remit of the Regulations.

1.3 Assessment and Reporting Methodology

1.3.1 Following identification of environmental effects, technical assessments were carried out to predict potential effects associated with the development and where necessary proposed measures to mitigate the effects. These assessments are contained within the Environmental Statement.

1.3.2 In terms of effects, these have been graded as follows:

None	The development will not produce any effects beyond those which may be experienced within the current farming regime.
Low	There will be an effect, this will be localised and will not impact on the environment and other features to their detriment when relating to existing uses (e.g. distance too far).
Medium	There will be an effect which will impact on the environmental features, but not significantly.
High	A significant effect.

1.4 The Environmental Statement

1.4.1 The Town and Country Planning (Environmental Impact Assessment) Regulations 2017, Schedule 4, requires that an Environmental Statement should include a description of the development, including in particular:

(a) a description of the location of the development;

(b) a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases;

(c) a description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used;

(d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases.

1.4.2 Point 4 of Schedule 4 requires a description of the factors likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.

1.4.3 Point 5 requires that an Environmental Statement should include a description of the likely significant effects of the development on the environment resulting from:

(a) the construction and existence of the development, including, where relevant, demolition works;

(b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;

(c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;

(d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);

(e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;

(f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;

(g) the technologies and the substances used.

1.4.4 Whilst an ES should provide a full factual description of the development, the emphasis of Schedule 4 of the EIA Regulations is on the "main" or "significant" environmental effects to which a development is likely to give rise. The ES should therefore be proportionate and not be any longer than is necessary to assess properly those effects. Where, for example, only one environmental factor is likely to be significantly affected, the assessment should focus on that issue only. Impacts which have little or no significance for the particular development in question will need only very brief treatment to indicate that their possible relevance has been considered.

1.5 The Developer and Project Team

1.5.1 The Applicant is the developer of the proposed development. Acorus has prepared the Environmental Statement which draws on the technical information supplied by the following experts:

Drainage & Surface Water Management	-	Acorus/Ellingham Consulting Ltd
Odour, Ammonia & Nitrogen Deposition	-	AS Modelling & Data Ltd
Ecology	-	Eco-Check Consultancy Ltd
Drawings & Site Layout	-	Clarke Group Construction Ltd
Noise	-	Matrix Acoustics
Topographical Survey	-	Clarke Group Construction Ltd
Flood Risk	-	Ellingham Consulting Ltd
Percolation	-	Clarke Group Construction Ltd
Landscape Impact Assessment	-	LVIA Ltd
Heritage	-	Archaeological Building Recording Services

1.5.2 Under Regulation 18 (5)(b) of the EIA Regulations 2017, it requires a statement from the developer outlining the relevant expertise or qualifications of such experts, (that is those preparing the ES – Regulation 18 (5) (a)).

1.5.3 Acorus is part of the NFU group of companies. James Whilding is Managing Director of the firm, a qualified Chartered Surveyor (MRICS) and Fellow of the British Institute of Agricultural Consultants (BIAC). As a rural planning consultant, he has been engaged by Defra, LPAs and private clients to advise on planning matters and this has been the case for more than 30 years. In relation to the poultry sector, he advises some of the main integrators in the UK, in addition to small scale producers. In many cases, such planning applications relating to intensive operations have required EIAs which he has prepared. In addition, he also prepares and submits poultry–related permit applications to the EA. He is also a member of the South West NFU Poultry Forum. He is therefore sufficiently experienced in drafting Environmental Statements.

1.6 Copies of the Statement

1.6.1 Copies of the ES are available from:

Acorus Rural Property Services Ltd
Addlepool Business Centre
Woodbury Road
Clyst St George
Exeter
EX3 0NR

1.6.2 A fee of £75 is charged for a hard copy of the report to account for the cost of reproducing and postage.

1.6.3 Copies of the ES will otherwise be available at the planning department of South Holland District Council.

CHAPTER 2 ENVIRONMENTAL PERMIT

2.1 An Environmental Permit is required for poultry operations exceeding 40,000 bird places. The Environment Agency (EA) issues such permits under the Environmental Permitting Regulations 2016. The purpose of the legislation is to minimise the risk of pollution. Pollution is defined in the Regulations as:

'any emission as a result of human activity which may be harmful to human health or the quality of the environment, cause offence to any human senses, result in damage to material property, or impair or interfere with amenities and other legitimate uses of the environment.'

2.2 A permit is required for the business to operate. The EA will only issue a permit or variation if they believe that significant pollution will not be caused and the operator has the ability to meet the conditions of the permit. As part of the application process, the EA consider the following in detail:

1	**Proximity and impacts to local residents**	Considered via environmental risk assessments and mitigated by actions within noise/odour/dust management plans which need to be agreed with the Environment Agency, and are a requirement of the permit.
2	**Odour**	Considered via an environmental risk assessment and controlled by mitigation actions within an odour management plan which need to be agreed with the Environment Agency, and are a requirement of the permit.
3	**Noise**	Considered via an environmental risk assessment and controlled by mitigation actions within a noise management plan which need to be agreed with the Environment Agency, and are a requirement of the permit.
4	**Dust and bio-aerosols**	For all applications considered as part of a basic environmental risk assessment. The national policy is that dust or bio aerosol monitoring is not required.
5	**Land spreading of manure and wash water**	In cases where the plan is to spread some or all of the by-product on the same farm (and by the same operator), a manure management plan is required.

		In cases where the by-product is to be transferred to another legal entity (e.g. removed from the farm), the permit holder is required to keep records of dates and quantities removed. If the land is in the Nutrient Vulnerable Zone then the Nitrates Regulations will apply and will be the main form of regulation. The Code Of Good Agricultural Practice (COGAP) may apply but it is a statutory guidance document which makes reference to statutory requirements.
6	**Manure storage (field heaps)**	Some control will be possible via the actions set out in the manure management plan. Some control will also be possible via Nitrates Regulations if the farm is in a Nitrate Vulnerable Zone.
7	**Traffic, access and vehicle movements**	This is not considered directly. The mitigating actions in the noise management plan may control hours of operation for certain night time activities, e.g. to reduce noise when vehicles are inside the permitted boundary.
8	**Visual impacts**	These are not considered in the permitting process.
9	**Bird place numbers**	Considered for example when assessing the potential for pollution to the environment (e.g. noise, odour, dust and ammonia emissions). Less than 40,000 birds would not be subjected to an environmental permit.
10	**Flies and vermin**	Considered by the environmental risk assessment. A vermin management plan may be required.
11	**Biomass boilers and their air emission points**	Regulated. The predicted emissions are screened for public health protection.
12	**Flood via risk assessment**	Should be considered to mitigate pollution from flooding e.g. a flood risk assessment and flood management plan may be required.
13	**Animal welfare**	Not considered directly. However, the permit may require a high degree of good site management, for example management of fallen stock, and bio security measures.
14	**Alternative locations**	Not considered.
15	**Operational hours**	Not directly considered. The noise management plan may restrict certain noisy activities to times during the day.

16	**Ammonia emissions**	Considered to ensure that ammonia emissions do not impact on statutory and certain non-statutory designated habitats.
17	**Protection of statutory and non-statutory designated habitats**	Considered through consultation with Natural England and both internal ecologists and the Local Authority Ecology section.

2.3 As part of the on-going permitting process, the EA carry out, as a minimum, annual compliance assessments such as inspections on the activity and follow up any reports on incidents made to them. Non-compliance can result in the EA taking enforcement action which for serious cases can include prosecution and permit revocation.

2.4 It is therefore in the best interest of the operator to ensure that that the facility is managed in accordance with the requirements of the approved permit. Failure to do so would have serious implications on the progression of the business and its ability to generate any income.

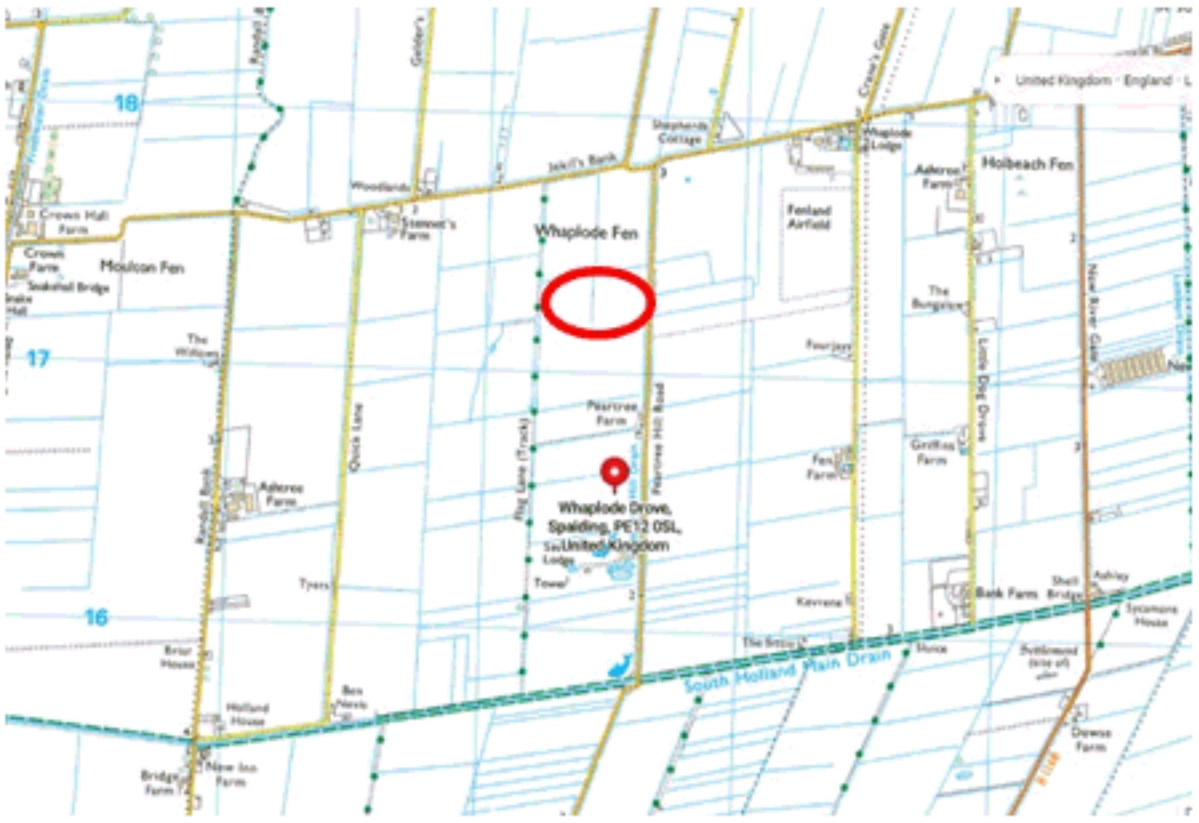
2.5 A permit application was duly made by the Environment Agency on 28th April 2025, confirming that the scheme meets the necessary requirements to control and minimise pollution from the site. Subject to planning permission, the installation can operate as a poultry unit based on agreed parameters.

2.6 The permit legally requires the operator to control and monitor pollution risk, follow best practice, and regularly report to the EA, with significant operational, financial and legal implications. The proposed housing will operate according to Best Available Techniques (BAT) to minimise emissions to air, water and land.

CHAPTER 3 BACKGROUND

3.1 Site History

3.1.1 The application site is located north of Pear Tree Cottage and south of Jekils Bank and is located within the open countryside but outside of any landscape designation. The site is approximately 2.4 km to the east-south-east of the village of Moulton Chapel in Lincolnshire, at an altitude of around 3 m on level drained fenland.



Source: Promap

3.1.2 The site comprises agricultural land extending to an area of 9.2 hectares (circa 23 acres) and is surrounded by other agricultural land.


Source – Google Earth

3.2 Physical Characteristics

Designations

3.2.1 A site check of the holding against data provided by the Multi-Agency Geographic Information for the Countryside (MAGIC) Interactive Map has identified the following:

Designation	Designation Present	Designation Not Present
AONB (2km)		X
Ancient woodland (2km)		X
Local Nature Reserve (2km)		X
National Nature Reserves (2km)		X
SSSI (5km)		X
RAMSAR Sites (10km)		X
SAC (10km)		X
SPA (10km)		X

3.2.2 The provisional Agricultural Land Classification based on Natural England's East Midlands Region 1:250 000 Series Agricultural Land Classification indicates that the land is Grade 2 (Land with minor limitations that affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown. On some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops, such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than grade 1).

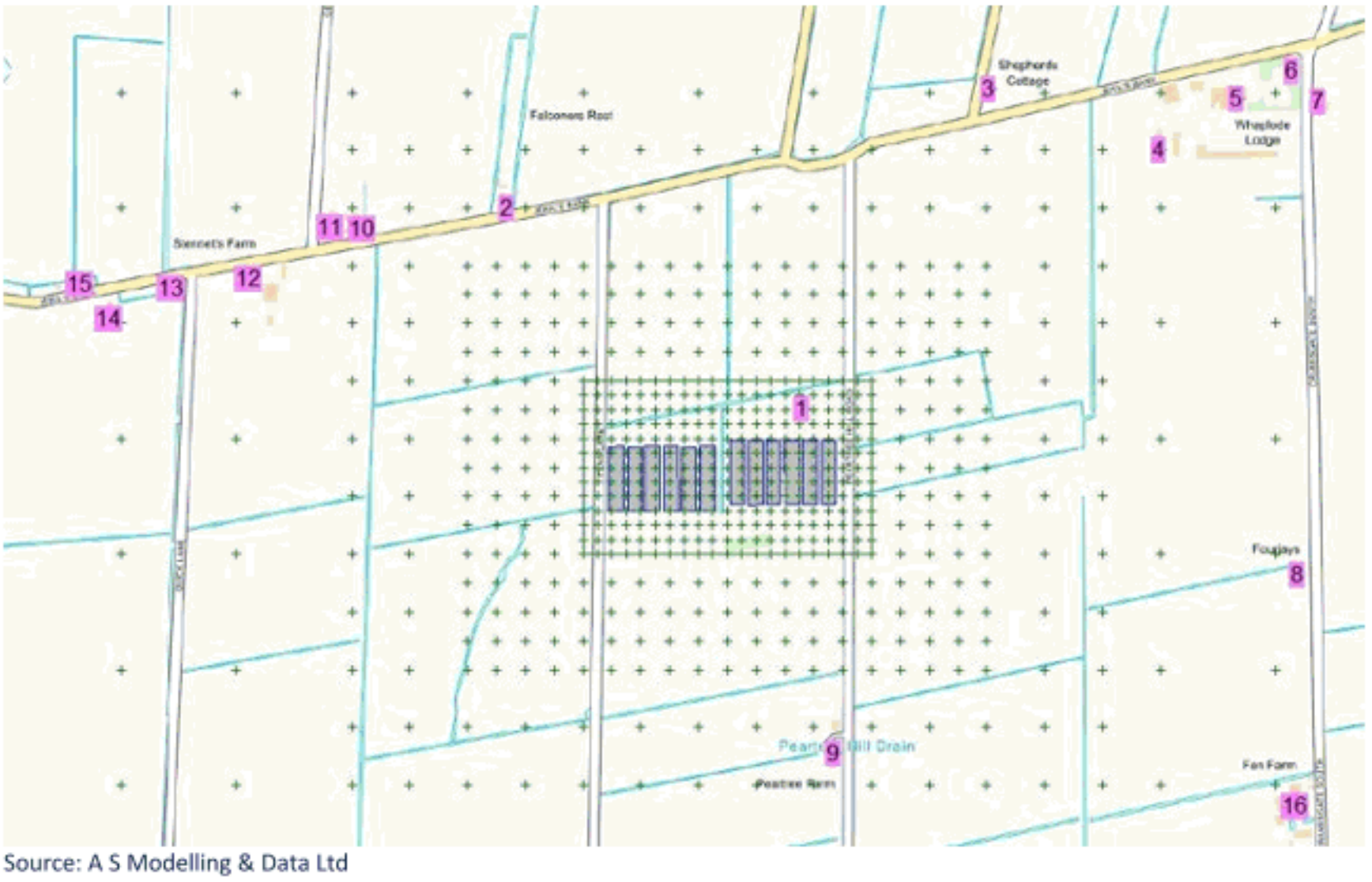
3.2.3 The proposed agricultural development and will not result in the loss of any agricultural land use area, as the proposal is agricultural development.

3.2.4 According to Soilscape, the soil is categorised as Soilscape 21 which is described as loamy and clayey soils of coastal flats with naturally high groundwater. Soils are mostly drained with shallow groundwater and marginal ditches.

3.3 Nearby Buildings and Dwellings

Surrounding Properties

3.3.1 There are no apparent residential properties within 400m of the site. The closest residential properties are Peartree Farm, approximately 410 m to the south, Falconer's Rest, approximately 450 m to the north-west and Shepherds Cottage, approximately 660 m to the north-east.



Source: A S Modelling & Data Ltd

Surrounding Towns and Villages

3.3.2 The site is approximately 2.4 km to the east-south-east of the village of Moulton Chapel and 4.4 km north – north east of Whaplode Drove. In addition, Spalding lies 8.5 km to the north west and Wisbech 17.5km to the south east.

3.4 Cultural Heritage

3.4.1 A Heritage Assessment has been undertaken by Archaeological Building Recording Services (ABRS) – refer to **Appendix 1**. A search of the Lincolnshire Historic Environment Record (HER) covering a radius of 1km of the site identifies a number of Romano British archaeological sites in the vicinity of the proposed development area.

3.4.2 Except for cultivation work, the subject area has remained undeveloped over the years.

3.4.4 The proposed development area is not within the setting of any listed buildings or other designated heritage assets.

3.4.5 It is noted that Peartree Wood, located to the south of the site, is subject to a Tree Preservation Order (TPO). In response, the position of the proposed attenuation basin has been adjusted to ensure the preservation of these protected trees. The accompanying block plan confirms that the area covered by the TPO lies entirely outside the red line development boundary.

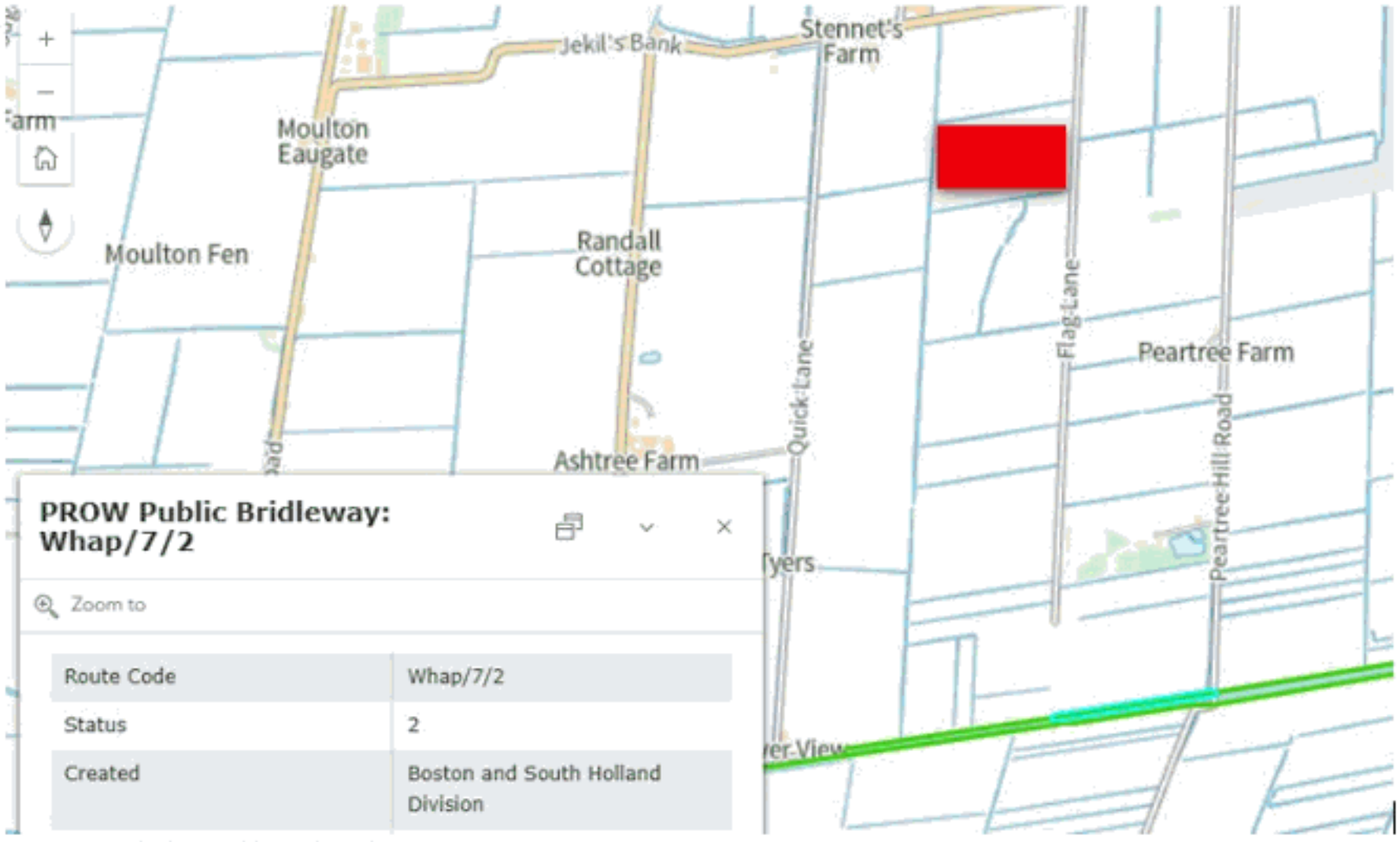
3.5 Access and Road Network

Road Network

3.5.1 Access to the site is gained off Pear Tree Hill Road Lane which runs to the east of the site. Accessing the site in a northerly direction, this leads on to Jekils Bank to Moulton Chapel and onto the A16 with Spalding to the north and Peterborough to the south.

Public Rights of Way

3.5.3 Referring to the Lincolnshire Definitive Map, there is a bridleway to the south of the site, however this route will be unaffected by the development.



Source: Lincolnshire Public Rights of Way

CHAPTER 4 PLANNING POLICY & CONSULTATION

4.1 National Planning Policy

4.1.1 The National Planning Policy Framework sets out the Government's planning policies for England. The presumption is in favour of sustainable development. Paragraph 8 details the three dimensions to sustainable development; economic, social and environmental.

an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;

a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities health, social and cultural well-being; and

an environmental objective – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

4.1.2 Paragraph 9 states that Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area.

4.1.3 Section 6 is entitled 'Building a strong, competitive economy' and paragraph 85 states: Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future.

4.1.4 To support a prosperous rural economy, local and neighbourhood planning policies and decisions should enable (paragraph 88):

- the sustainable growth and expansion of all types of business in rural areas, both through conversion of existing buildings and well-designed new buildings;
- the development and diversification of agricultural and other land-based rural businesses.

4.2 Local Plan Policy

4.2.1 South East Lincolnshire Local Plan - Adopted: March 2019. Key policies and comment are as follows:

Policy 1: Spatial Strategy

The site is designated as Countryside where development will be permitted that is necessary to such a location and/or where it can be demonstrated that it meets the sustainable development needs of the area in terms of economic, community or environmental benefits. In this case, the proposal is agricultural and given the need to be isolated from other dwellings and designated land, the location away from designated land and third party receptors is considered acceptable.

The scheme will provide income and employment benefit to the Applicant's business in addition to ancillary businesses in support (contractors, feed mills, vets etc). The scheme meets sustainability principles providing economic, environmental and social benefit through farm income and employment, regional food security and the provision of healthy food (with the health benefits being potassium, vitamin D, iron, and calcium and helping to build stronger muscles and promote healthier bones).

Policy 2: Development Management

This agricultural proposal provides buildings designed to Best Available Technique and seeks to maximise green credentials in terms of performance and energy efficiency. The scheme meets sustainability principles providing economic, environmental and social benefit as outlined in the above policy response. The other policy considerations are detailed in the following chapters.

Policy 3: Design of New Development

Agricultural buildings of this nature are take on a certain appearance to satisfy the scale and function. However, careful consideration is given to siting and orientation to maximise green energy technologies for the lifetime of the development. Further details are outlined in the following chapters including landscape character and planting specification to mitigate any potential harm.

Policy 4: Approach to Flood Risk

A detailed Flood Risk Assessment and SuDS drainage proposal is provided to outline the acceptability of the scheme within Flood Zone 3.

Policy 7 – New Employment

This agricultural proposal should be supported on the basis that it is an acceptable use of agricultural land. Being purpose-built buildings designed and erected to Best Available Technique, it is not suitable to convert an existing building. This is a green field site which offers considerable potentially for rearing chicken and does not conflict with neighbouring land uses.

Policy 28: The Natural Environment

As detailed in the attached Provisional Ecological Assessment and accompanying BNG proposal, a scheme is proposed to protect, enhancing and managing natural assets on the site. The scheme does not impact on Internationally-designated sites, Nationally or locally-designated sites and protected or priority habitats and species.

Policy 29: The Historic Environment

The attached Heritage Assessment considers the historic archaeological landscape of the area and the potential need for further archaeological works as a condition of planning consent. Every reasonable step will be undertaken to protect any significance.

Policy 30: Pollution

As detailed in the attached appendices relating to odour, ammonia, dust and noise, the subject proposals will not lead to unacceptable adverse impacts on people and the environment.

Policy 31: Climate Change and Renewable and Low Carbon Energy

Agriculture is working hard to adapt to climate change and reduce greenhouse gas emissions, by driving productivity, improving energy efficiency, and reducing the impact of inputs like feed, fertiliser and fuel, while producing more climate-friendly food and increasing green energy use. Through the use of efficient materials, building to BAT and implementing habitat enrichment through BNG will contribute to conserving and enhancing the natural environment and reducing pollution.

Policy 32: Community, Health and Well-being

The proposal does not impact on public rights of way and as a site where biosecurity is at the forefront (noting Avian Influenza), public access within the site is limited so discouraging crime and disorder. The growing of chicken helps support UK food security and self-sufficiency as a healthy food, general well-being.

Policy 33: Delivering a More Sustainable Transport Network

Policy seeks to encourage sustainable forms of travel and for agriculture and other rural businesses in countryside locations, this is not always easy. In this case, cycle racks will be provided for staff and an EV charging point installed for cars and other vehicles using the site. With biosecurity in mind, traffic numbers to the site are intentionally kept to a minimum and timing of deliveries and collections planned to fall outside peak times.

Policy 36: Vehicle and Cycle Parking

Parking provisions on the site will be fit for the intended use in terms of size and design and located outside the confines of the growing area in order to provide security in addition to biosecurity.

4.3 Consultation

4.3.1 Pre-application consultation was undertaken with the LPA with the written response received on 14th November 2024 (reference PE-00393-24). This application was not a request under Regulation 15 for the Council's view on what matters should be scoped in with regard to EIA legislation. As the Council's pre-application process does not seek consultation responses, the extent of the officer response is limited to matters of basic principle and relevant policies, as considered above and in the following chapters.

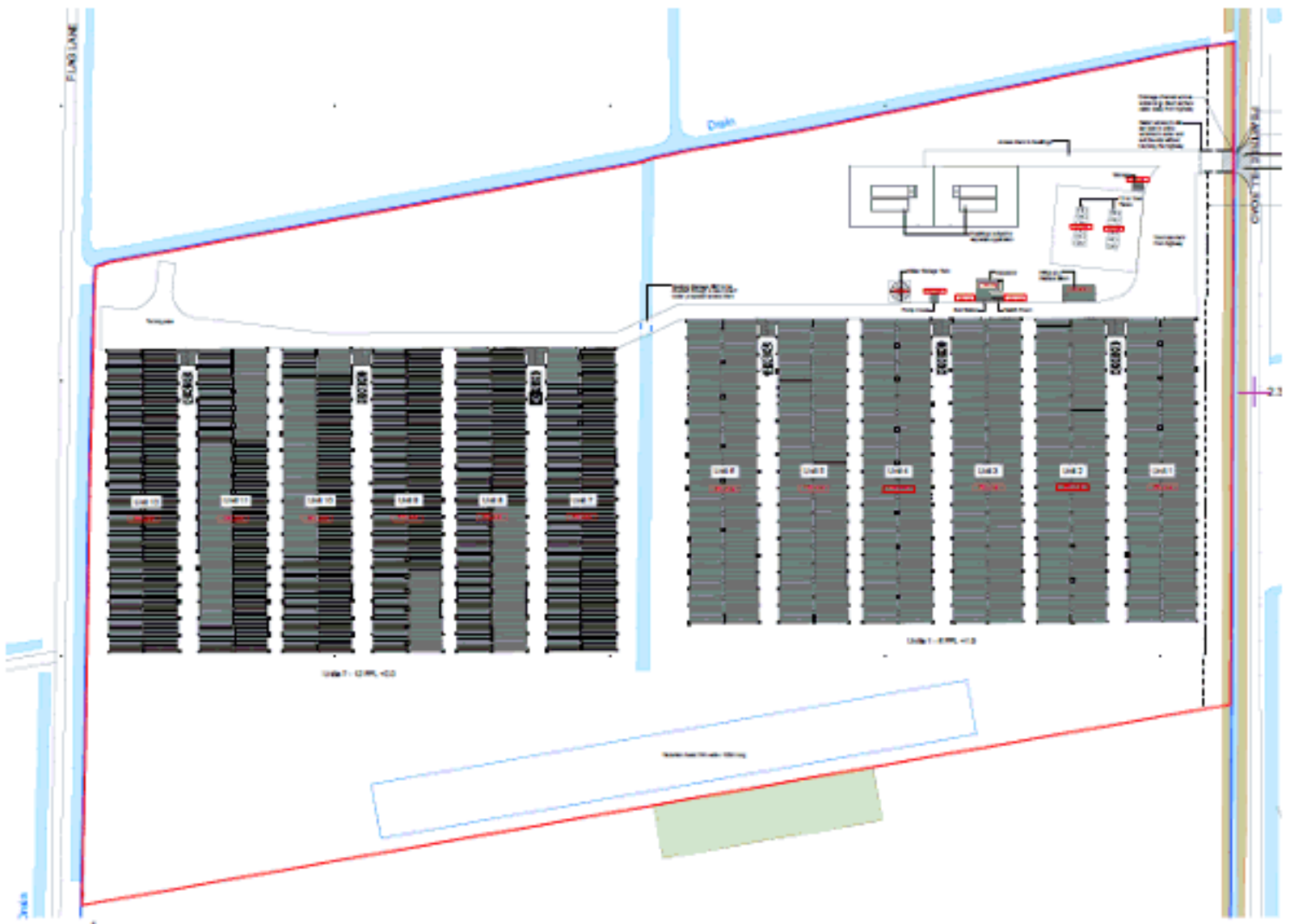
CHAPTER 5 THE DEVELOPMENT

5.1 Project Description

5.1.1 The proposed development involves the provision of 12 poultry houses each measuring 80ft x 360ft (28,800sqft or 2,675sqm). The total footprint of the buildings extends to 345,600sqft (32,100sqm). Built to Best Available Technique, the new structures will be fit for purpose and provide 50 years+ of production space. In addition to the growing area, the following will also be provided as part of a future planning application:

- New field access
- Vehicle parking and turning
- Hardstanding for generator
- Substation
- Gas tanks
- Dead bird building
- Attenuation basin as part of SuDS scheme

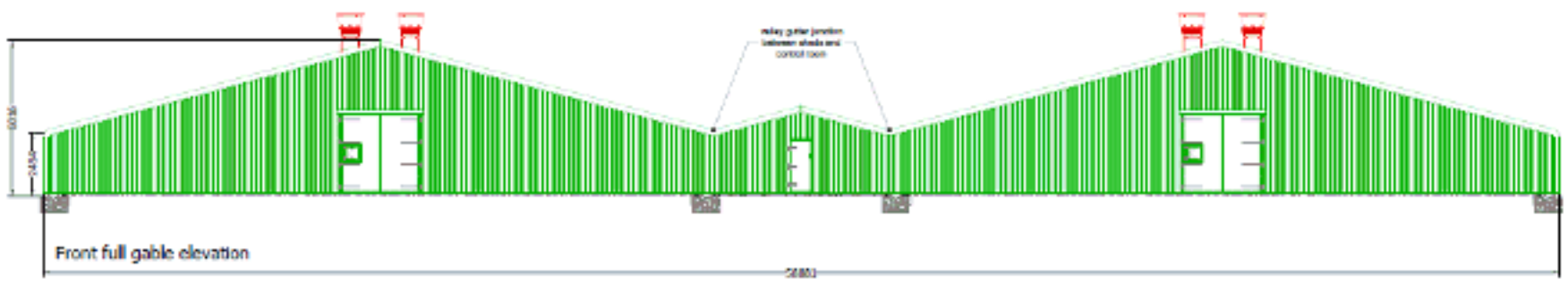
5.1.2 Details of the site layout are outlined below.

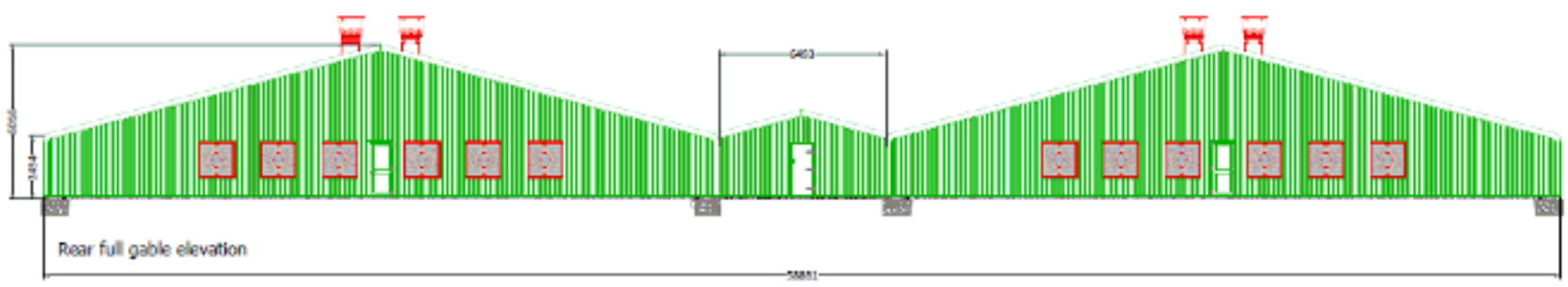


Source: Clarke Group Proposed Drawing

5.1.3 The new buildings are to be built in a typical modern construction consisting of dwarf concrete walls supported on strip foundations with an internal concrete floor poured over continuous DPM. The insulated roof will be insulated to 200mm fibre glass, with the walls containing 100mm insulation to achieve a U-value not less than 0.4 W/m² ºC thus eliminating condensation on the inner linings and minimising solar heat gain. Erected with smooth and easily washable concrete floors on a continuous damp proof membrane, the dwarf walls will be reinforced on a poured concrete foundation and contain all dirty water and prevent the ingress of ground water.

5.1.4 The insulated roof and side walls will be clad in polyester coated profiled steel sheeting (olive green – RAL 12B27), as depicted in the examples below.





Source – Clarke Group - Example elevations

Source - Example external appearance

5.1.5 Internally, the buildings will have pan feeders and non-drip nipple drinkers, as shown below. The drinkers are nipple drinkers with drink cups, with rows running parallel to the long axis of the house. These drinkers are used not only for ease of management, coupled with good bird performance and maximum hygiene, but also to keep the moisture content of the litter as low as is practicable.

Example internal layout (Source – Clarke Construction)

5.1.6 Feed from a UFAS accredited mill will be delivered in 28 tonne capacity covered lorries and stored on-site in the feed bins. A centreless auger will convey feed to a trough and chain system. A total of 18 bins will be required, with likely bins details being Collinson Model S1D0833C (Cubic Capacity 32.9m³, height 6.81m

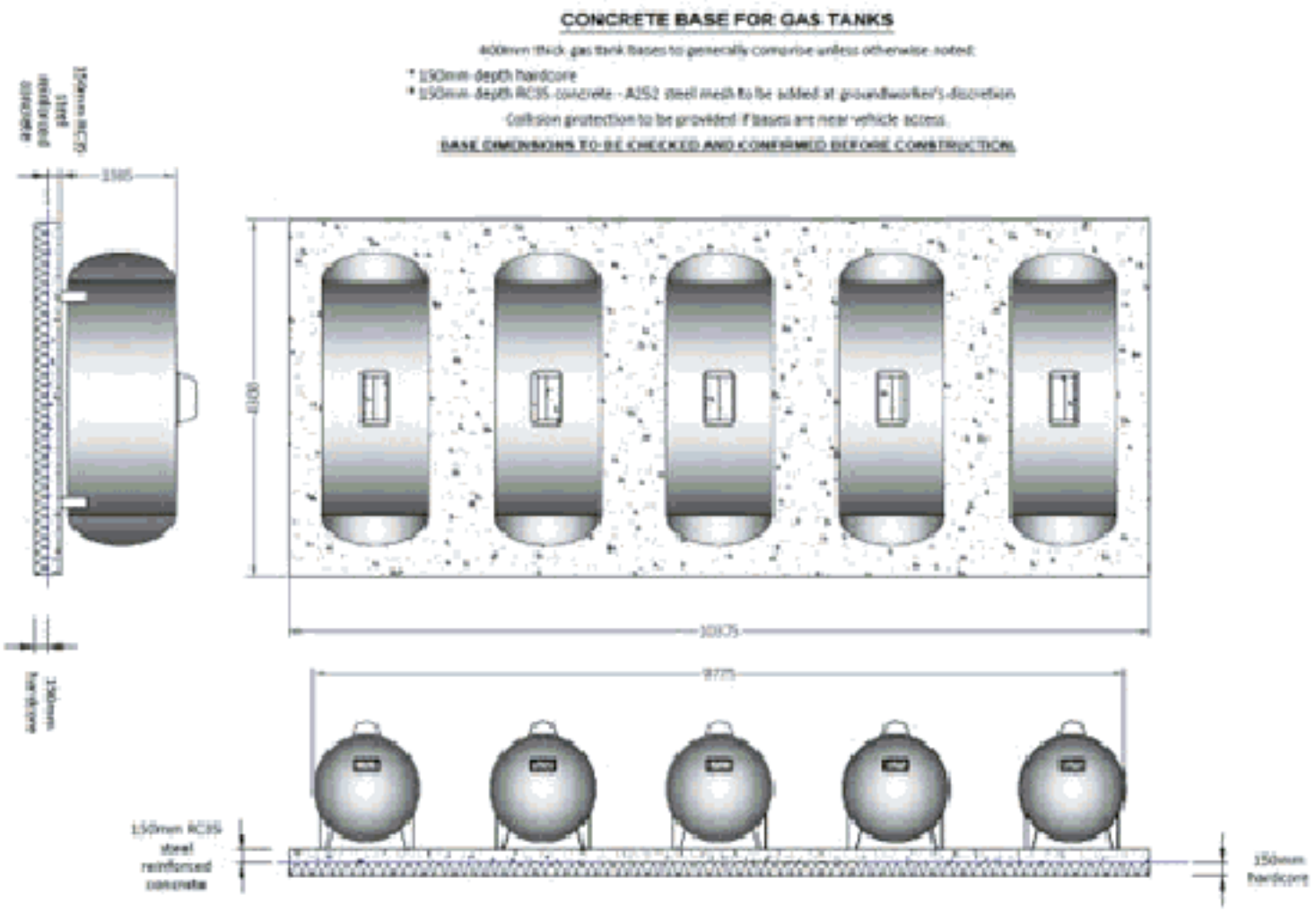
and a 4m wide concrete pad.

Source: Collinson

5.1.7 All houses will be ventilated by roof mounted extraction fans with an emission point higher than 5.5m above ground level and an efflux speed greater than 11m/s, and gable end fans for summer use and side wall inlets (see above photo). These meet the necessary standards and the Environmental Permit.

5.18 The ventilation will be thermostatically controlled with 18 offset ridge chimneys each with Ziehl 630/710mm fans (or similar) on each building.

5.1.9 During the growing cycle, the temperature will be controlled within the buildings, with each pre-warmed to a temperature of 32ºC on day 1 of the cycle, reducing to 18ºC over the growing cycle. The temperature will be controlled by the heating and ventilation systems. The heating of the buildings will be fuelled by LPG, example arrangement below, although the layout plan shows 2 lines of 6 tanks (12 in total).



5.1.10 The system will be alarmed for high and low temperature, feeding system failure and power failure and will be linked to an 'auto dial' computer system which alerts personnel via mobile phone to any system failures. A backup generator will also be available in the event of failure in power supply.

5.1.11 The permit submission is based 12 houses and a standard cropping contract based on 690,000 bird places. However, with supermarkets now seeking a higher welfare product, this requires a reduction in stocking rate which is approximately 20% less than the standard contract. In this case, modelling is now based on higher welfare birds and a total of 552,120 birds places. The growing cycle is otherwise broadly the same, with a 39 day growing cycle, with 7-10 days at the end of each cycle for cleanout and preparation of the buildings for the incoming flock. On average, there will be 7 crops per annum.

5.1.12 At the end of each cycle the buildings are washed out with high pressure power-washers by contractors. The inside of the buildings and concrete apron are then drained to a sealed concrete dirty water tank which is emptied following each cleanout of the building by tanker. The waste bedding and wash water is taken to power stations and some to spread on land in accordance with COGAP and outside of any nutrient neutrality designation.

5.1.13 Any mortalities are checked for and collected on a daily basis prior to removal offsite by a specialist contractor, ensuring the welfare of the stock is maintained and there is no opportunity for odour generation to occur. The carcasses are disposed of in accordance with the Animal By Products Regulation. Bins are treated with an odour neutraliser. Following each site depletion, carcass bins are washed and disinfected to avoid any build up, washings directed to underground holding tanks and removed along with other contained dirty water. Carcass bins are located away from sensitive receptors and where possible stored in a cool shaded areas.

5.2 Characteristics and Production Processes

5.2.1 The use of the proposed buildings is for the rearing of broiler chickens or turkeys.

5.3 Expected Residues and Emissions

5.3.1 The facility operates in accordance with the IPPC permitting regime. The permit takes into account the whole environmental performance of the poultry installation, covering e.g. emissions to air, water and land, generation of waste, use of raw materials, energy efficiency, noise, prevention of accidents, and restoration of the site upon closure. The purpose is to ensure a high level of protection of the environment taken as a whole.

5.3.2 As the poultry unit will continue to be controlled under the IPPC permitting regime, the likelihood of significant impact on the environment from the redevelopment is considered to be negligible due to the strict regime of control.

5.3.3 Expected residues and emissions from the site are limited to:

- Airborne emissions in the form of odour, ammonia, nitrogen and dust.
- Noise emission from mechanical ventilation.
- Production of waste in the form of poultry manure and dirty water.

5.4 Forecasting Methods

5.4.1 The forecasting methods used within this assessment are detailed within the individual chapters and assessments. With few exceptions, the assessment for impacts for a development of this nature is controlled through the Environmental Permitting Regulations, with specific regulatory requirement as to how the impacts are forecast.

CHAPTER 6 FARM WASTE AND CLEAN WATER MANAGEMENT

6.1 Farm Waste

6.1.1 The process and environmental risk assessment regarding the removal and disposal of the farm waste is considered by the EA as part of a permit application and will be monitored regularly.

6.1.2 The cleaning process of the proposed buildings will be undertaken at the end of each flock cycle. The buildings will be dry cleaned by means of compressed air being used to remove dust build up from the building internals and equipment before litter is removed. No manure will therefore be stored on site, even for a short period. Spent litter will be taken from site by sheeted trailers and transported and spread to third party land outside of any nutrient sensitive catchment area. Note, the recipients of the bi-product are required to spread in accordance with the NVZ legislation (where applicable), otherwise the Code of Good Agricultural Practice (COGAP). Alternatively, the waste is taken to the nearest AD unit for green energy.

6.1.3 The bi-product (spent litter) to land in particular provides environmental and cost saving benefits, with a reduced reliance on inorganic fertilisers. The use of organic fertiliser helps improve the fertility and productivity of the soil. Under COGAP no more than 250kg/ha of total nitrogen per annum from livestock manures can be spread on agricultural land or 170kg/ha within NVZ areas.

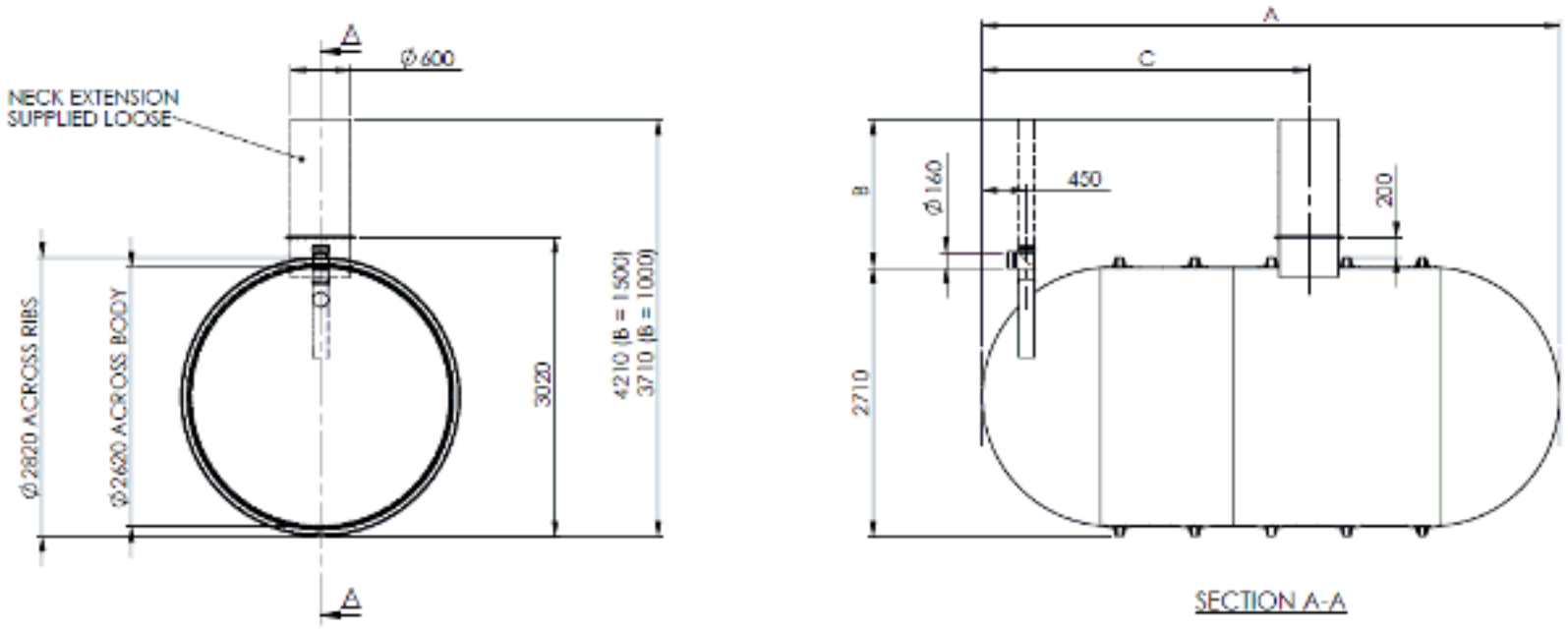
6.1.4 The total quantity of used litter produced by 552,120 broilers is approximately 715 tonnes per stock cycle.

6.1.5 Post removal of waste, the buildings will be washed clean using high pressure water which is collected and removed from site for land spreading before all building internals are disinfected to point of run. The buildings will be ready for clean bedding with shavings and pre-warmed in readiness of the incoming flock. Clearing out and washing down will take 5-7 working days during which parts or all of the access pads at the front of the houses will be considered dirty.

6.2 Dirty Water

6.2.1 All dirty water generated at the site during the washing down process will be contained on site using diverter valves installed into the new drainage system, as shown on the drainage plan.

6.2.2 During depletion and cleanout, a valve located at the collection point will be manually changed over and all surface water and shed washings discharged to the dirty water collection tanks (2no. 18,000 litre tanks as detailed below and positioned on the drainage plan) which will be closely monitored to remain at a manageable level throughout the process. To ensure no pollution risks are posed, this effluent must be handled appropriately.



Nominal Volume (Litres)	Nominal Volume (Gallons)	Weight (Kg)	Overall Length A	Inlet Invert B = 1.5 Metres	Inlet Invert B = 1.0 Metres	Dimension to neck C
15,000	3,960	646	4,317	1,500	1,000	2,547
22,000	4,889	828	5,073	1,500	1,000	3,302
26,000	5,720	981	5,837	1,500	1,000	3,302

Source: Kingspan

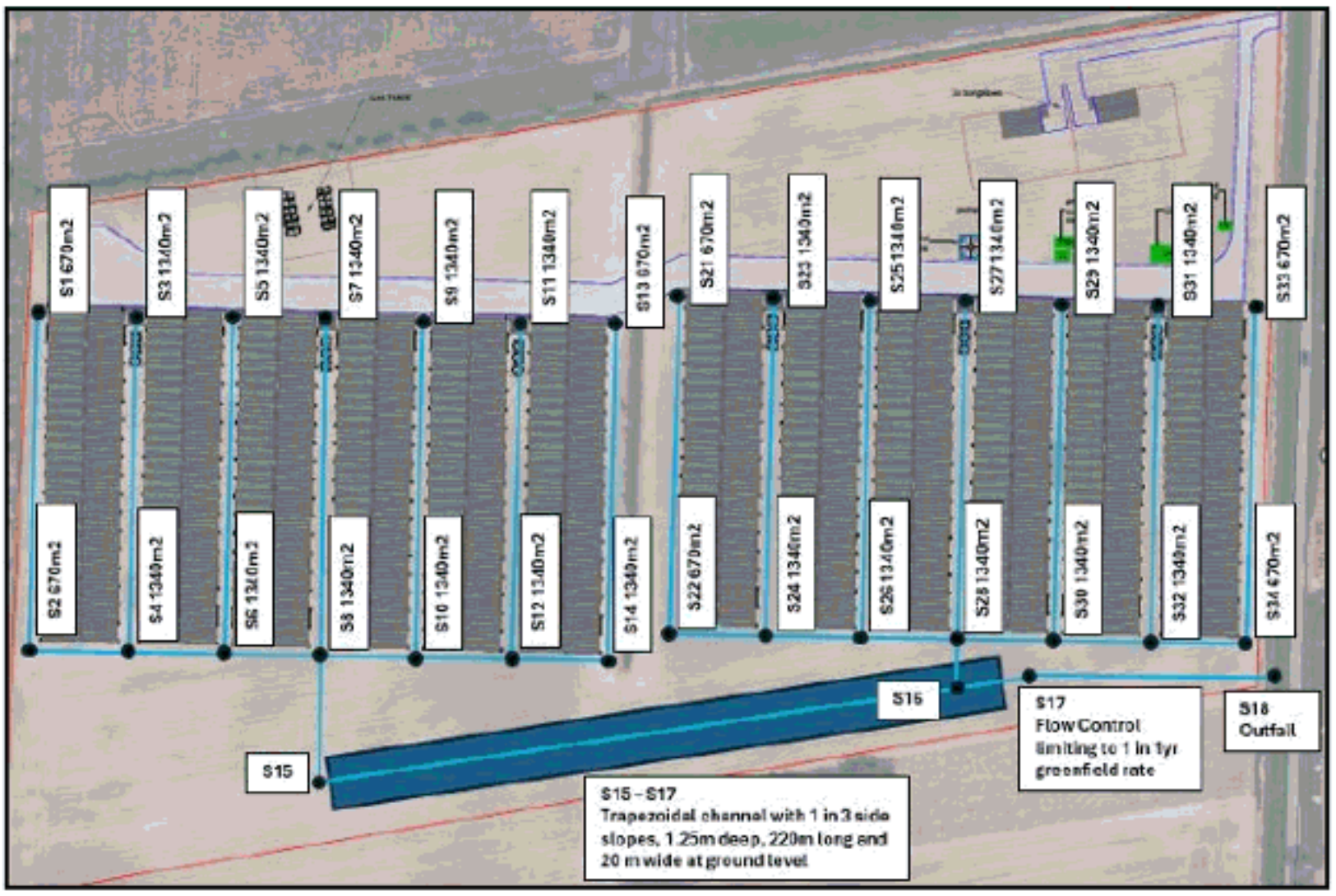
6.2.3 Dirty water will be removed from the storage tanks via a vacuum tanker and taken off site by a registered contractor for water treatment.

6.2.4 The provision of separate drainage systems is a requirement of the IPPC permit and the facilities and methods of disposal in this case will be agreed and monitored by the EA.

6.2.5 Foul drainage for the welfare unit will be taken to a package treatment plant (or similar).

6.3 Clean Water

6.3.1 The surface water runoff from the impermeable areas of the site will be directed to a new detention basin and then discharge to the riparian drain running along the eastern boundary of the site. The location of the basin is shown below and on the site plan and detailed within the Drainage report (updated).



6.3.2 The watercourse located adjacent to the eastern boundary of the site is an Internal Drainage Board (IDB) owned and maintained watercourse. Works are proposed to alter this watercourse through the installation of a new access culvert. To facilitate these works, consent will be sought under Section 23 of the Land Drainage Act 1991, and the applicant will enter into a Deed of Easement or an appropriate alternative agreement to enable the proposed culvert installation.

6.3.3 The applicant also proposes to install two discharge outfall pipes into the bank of the IDB's watercourse. An application for consent to the IDB will be submitted, which will form a condition of the planning consent.

6.3.4 In line with the IDB's recommendations, a flat, unobstructed margin of between 3 and 5 metres will be maintained adjacent to the riparian watercourse. This will ensure sufficient access for ongoing maintenance by future riparian owners or a designated maintenance contractor or company.

6.3.5 With respect to the siting of the proposed poultry units and associated concrete track, it is confirmed that no structures will be erected within 9 metres of the IDB's owned and maintained watercourse, thereby maintaining an appropriate buffer.

6.3.6 The management of clean and dirty water on site will follow current legislative requirements regulated by the Environment Agency. The system will be operated in accordance with the guidance set out in "How to comply with your environmental permit for intensive farming" (Environment Agency, 2010). Given the grant of the Environmental Permit by the EA, the proposed system is considered fit for purpose and will be managed and maintained in accordance with the permit requirements and relevant legislation.

6.4 Impact Significance

6.4.1 The management of waste and clean/dirty water conforms to best practice and is approved and monitored by the EA.

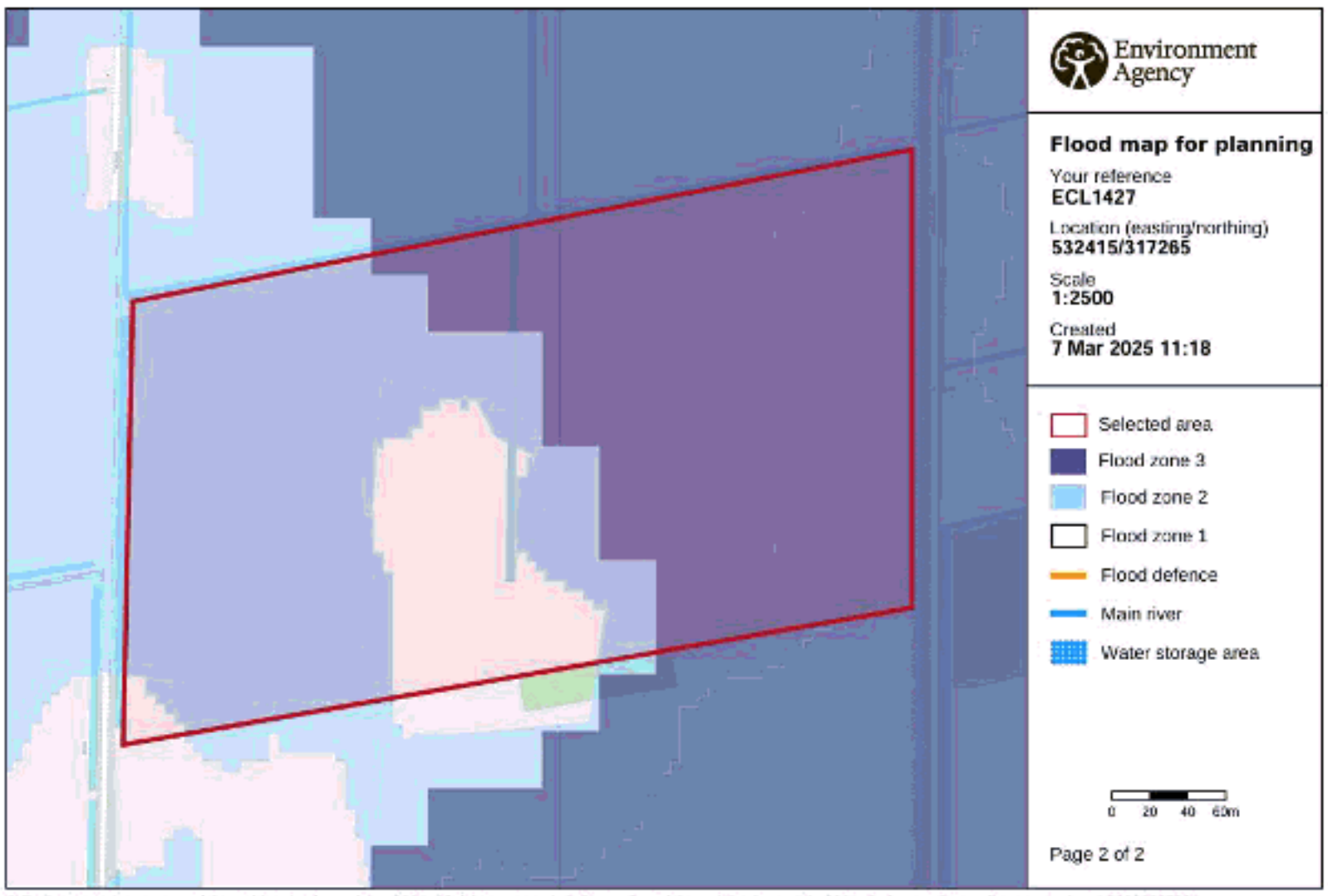
Impact Assessment ***LOW/NONE***

CHAPTER 7 FLOOD RISK ASSESSMENT

7.1 Assessment

7.1.1 A Flood Risk and Drainage Assessment (updated) has been prepared by Ellingham Consulting Limited, a copy of which is provided in **Appendix 2**.

7.1.2 The following Environment Agency Flood Map for Planning shows the site is partly located within Flood Zone 3, an area with a high probability of flooding. It is noted that large parts of the South Holland district lie within Flood Zone 3, and as such, development opportunities at an alternative site with a lower flood risk are limited. In this context, it is noted that SE Lincolnshire Local Plan residential allocations are within flood risk areas due to the lack of availability of sites within areas of lower flood risk.



River Flooding Map

7.2.2 The refined flood risk information contained in the South East Lincolnshire Level 1 and Level 2 Strategic Flood Risk Assessment (SFRA) prepared in June 2017 demonstrates the site is not at risk during the 1% fluvial or 0.5% tidal event. The site therefore has a low probability of flooding and is considered to pass the Sequential Test.

7.3 Summary of Principle Findings

7.3.1 The following conclusions can be made:

- The probability of this development flooding from localised drainage systems is low.
- The probability of the site flooding from any Environment Agency system is less than 1% annual probability (1 in 100 chance each year) because of the standards of the existing flood defences.
- During the design life of the development, it is not anticipated that the site would flood.
- The SFRA mapping shows that the site is not at risk.
- The development increases the impermeable area and therefore has the potential to increase flood risk elsewhere.

7.4 Mitigation

7.4.1 The proposed provisions are considered adequate and will comply with EA requirements. Considering the actual risk of flooding and the type of development there are no specific mitigation measures proposed associated with the design of the poultry units.

7.4.2 Infiltration testing at the site was undertaken in September 2024 and confirmed that the site is not suitable for soakaways. Based upon the test results, it is proposed that surface water runoff is attenuated on site before being discharged to a watercourse at a reduced rate.

7.5 Impact Significance

7.5.1 The drainage provisions on the unit conform to best practice. The new poultry buildings do not present any potential for negative impact on water resources or unacceptable impacts on residential amenity.

Impact Assessment ***LOW***

CHAPTER 8 ODOUR ASSESSMENT

8.1 Introduction

8.1.1 An Odour Impact Assessment has been completed by AS Modelling & Data Ltd, a copy of which is provided in **Appendix 3**. The assessment of odour and the intensity of impact is controlled through Environment Agency benchmark requirements which are set out within the Environmental Permitting (England and Wales) Regulations 2016 and the 2011 H4 Odour Management guidance produced by the EA.

8.1.2 Odour pollution can generally be avoided and is certainly not anticipated at this site where the buildings will be designed and built using Best Available Techniques (BAT), ensuring performance, bird welfare and environmental protection are enhanced.

8.1.3 A key guide is the Protection of Water, Soil and Air - A Code of Good Agricultural Practice for Farmers, Growers and Land Managers. It describes the main causes of air pollution from different agricultural activities and provides a practical guide to help farmers and growers avoid causing air pollution from odours, ammonia, smoke and greenhouse gases. For a poultry unit, the most important factors relating to potential air pollution are ammonia and odours and the terms of the code will be strictly adhered to in the management practices used on the site.

8.1.4 The process and environmental risk assessment regarding the odour is considered by the EA as part of a permit application and monitored regularly.

8.2 Assessment

8.2.1 The following sources have been identified as contributing to a potential medium - high risk odour source.

- Odour emissions from compound feed selection
- Odour emissions from feed delivery and storage
- Odour emissions from ventilation techniques
- Odour emissions from litter conditions and management

- Odour emissions from carcass storage and disposal
- Odour emissions from drinking water systems
- Odour emissions from final depletion
- Odour emissions from cleanout (litter removal)
- Odour emissions from dirty water generation and storage (washout)
- Odour emissions from litter/manure
- Odour emissions from dust build up

8.2.2 The pathway for all of the above sources would be via the atmosphere, with the most sensitive receptors being inhabitants of nearby residential dwellings. The wind direction will significantly influence how receptors are affected. Local receptors have been identified as follows:

Source: AS Modelling & Data Ltd

8.3 Summary of Principle Findings

8.3.1 Odour emission rates from the proposed poultry houses have been assessed using computer modelling and quantified based upon an emissions model that takes into account the likely internal odour concentrations and ventilation rates of the poultry houses. The odour emission rates so obtained have then been used as inputs to an atmospheric dispersion model which calculates odour exposure levels in the surrounding area.

8.3.2 In April 2011, the Environment Agency published H4 Odour Management guidance (H4). In Appendix 3 – Modelling Odour Exposure, benchmark exposure levels are provided which are based on the 98th percentile of hourly mean concentrations of odour modelled over a year at the site/installation boundary. The benchmarks are:

- 1.5 ouE/m^3 for most offensive odours.
- 3.0 ouE/m^3 for moderately offensive odours.
- 6.0 ouE/m^3 for less offensive odours.

8.3.3 Odours from poultry rearing are usually placed in the moderately offensive category. Therefore, for this study, the Environment Agency's benchmark for moderately offensive odours, a 98th percentile hourly mean of 3.0 ouE/m^3 over a one year period, is used to assess the impact of odour emissions from the proposed poultry unit at potentially sensitive receptors in the surrounding area. However, it should be noted that considerable tolerance of odour may develop, particularly in rural communities.

8.3.4 Odour emission rates from the proposed poultry houses have been assessed and quantified based upon an emissions model that takes into account the likely internal odour concentrations and ventilation rates of the poultry houses. The odour emission rates so obtained have then been used as inputs to an atmospheric dispersion model which calculates odour exposure levels in the surrounding area.

8.3.5 The modelling predicts that, should the poultry unit at Pear Tree Hill Road be developed, as proposed:

- There would be exceedances of the Environment Agency's benchmark for moderately offensive odours, which is a maximum annual 98th percentile hourly mean concentration of 3.0 ouE/m^3 at receptor 1 (the proposed workers residences at Pear Tree Hill Farm itself).

- At all other residences considered, the odour exposure would be below the Environment Agency's benchmark for moderately offensive odours.

8.4 Mitigation

8.4.1 The dispersion modelling has predicted that the proposed poultry farm would likely result in a 'low' adverse impact on local receptors (excluding the farm dwellings). Therefore, no further mitigation measures to control odour emissions would be required if the development were to go ahead.

8.5 Impact Significance

8.5.1 As 'low' adverse effects are predicted at local receptors (excluding the farm dwellings), the overall odour effect of the proposed poultry farm is likely to be Low

Impact Assessment ***LOW***

CHAPTER 9 NOISE

9.1 Introduction

9.1.1 A Noise Impact Assessment has been completed by Matrix Acoustic Design Consultants, a copy of which is in **Appendix 4**.

9.1.2 Noise from a poultry unit can be caused by:

- Feed delivery
- Bird delivery and removal
- Removal of litter and cleaning
- Ventilation fans

9.2 Baseline Conditions

9.2.1 A noise survey has been undertaken to establish representative background noise levels at the nearest private dwellings. Noting light road traffic on surrounding roads, occasional airplane movements related to the nearby airfield and birdsong, the general underlying noise environment was considered to be very quiet. Typical background noise levels have been established as:

- Day (07:00 – 20:00hrs): LA90 29dB
- Evening (20:00 – 23:00hrs): LA90 24dB
- Night (23:00 – 07:00hrs): LA90 22dB

9.3 Assessment

9.3.1 The noise assessment for the proposed development is centred on ventilation fans and transport noise.

Extract fans:

Day: -2dB with just the roof fans running (normal operating capacity) and 1dB with the addition of the gable end fans (only required during period of very hot weather).

On the basis that a 1dB change in noise level is imperceptible, the BS4142 noise impact will be low for both day period operating capacities.

Evening: -1dB; indicates a low noise impact

Transport (stock collection/deliveries on the concrete apron): -6dB day; indicates a very low noise impact.

Aggregate (extract fans + transport):

Day: -2dB (with roof fans running) and 1dB (with addition of gable end fans); indicates a low noise impact

Evening: -1dB; indicates a low noise impact

9.4 Mitigation

9.4.1 For the assessment the following mitigation measures were included:

- Forklift: electric forklift used on the concrete apron for the movement of stock and the loading/unloading of HGVs
- Noise barrier: 2m high noise barrier between 5 – 15m south of the poultry units. The barrier (close-boarded timber fence, masonry wall or earth bund) must fully block the noise path between the gable end fans and the receptor (Pear Tree Farm).

9.5 Cumulative Impacts

9.5.1 To mitigate potential impact of noise from the site, a Noise Management Plan is in place at the Farm and forms an integral part of IPPC compliance.

9.6 Impact Significance

9.6.1 On the basis that the proposed poultry units, with the inclusion of the mitigation measures will not result in an adverse noise impact at the nearest receptors, it is concluded that on noise grounds they are acceptable.

Impact Assessment ***LOW***

CHAPTER 10 DUST

10.1 Introduction

10.1.1 Within a poultry building, the main sources of dust are the birds, their food and the floor litter. The particles of dust inside the building are emitted to the atmosphere via the ventilation system. The amounts of dust emitted are influenced by the level at which the ventilation system is operating. In hot summer weather, for example, the system will be operating at a high rate.

10.1.2 The larger dust particulates found within the building tend to fail to migrate to the ventilation fans. With a ridge extract ventilation system in place the smaller particles of dust will be carried on the wind, with deposition continuing under the natural turbulent flow of the air.

10.1.3 With increasing distance from the source there will come a point where the concentration of dust particles which originate from poultry buildings fall into a level below air quality guideline values as laid down by the EU and eventually be indistinguishable from normal background dust levels.

10.2 Baseline Conditions

10.2.1 Dust is unlikely to cause any problems to nearby protected properties because:

- Receptor properties are located sufficient distances away from proposed buildings.
- Modern ventilation systems ensure that any fugitive dust particles will be quickly dispersed thus reducing localised concentrations.
- Appropriate litter management will ensure that dust generation is minimal.

10.2.2 Feed delivery systems are sealed to minimise atmospheric dust. Cyclone dust catchment systems will be in place on all silos. At the end of each cycle the cyclones are emptied onto the litter within the house ready for disposal. Each unit is then cleaned and checked ready for the next flock.

10.3 Assessment and Cumulative Effect

10.3.1 It is recognised that dust from poultry houses may contain small particulate matter (PM10's and PM2.5) and that in certain circumstances this can have an unacceptable effect on local air quality including for dwellings inhabited by persons directly involved with the poultry farming operation.

10.3.2 The assessment of dust from poultry farms formed part of a DEFRA research project (AC0104) and found that bioaerosol concentrations in the building represent a risk to poultry workers in terms of respiratory allergy or disease, but the levels emitted are sufficiently diluted over a short distance from the building so as not to pose a risk to those living in the vicinity of poultry operations. PM10 particulate levels were reduced to background levels by 100m downwind of even the highest emitting poultry houses, therefore are unlikely to pose a risk to those living in the vicinity of poultry operations.

10.3.3 AS Modelling & Data Ltd has assessed the impact of dust emissions from the proposed development, details of which are found in **Appendix 5**. The Assessment Emissions of PM from the proposed poultry houses have been assessed and quantified based upon the Environment Agency's standard dust emission factors for broiler chickens, Defra research and peer reviewed scientific data. The PM emission rates have then been used as inputs to an atmospheric dispersion and deposition model which calculates exposure levels in the surrounding area.

Annual mean PM10

There are no predicted exceedances of the EAL of 40 µg/m3 for annual mean. The air quality impact descriptor at the proposed workers residences is Slight and at all other nearby residences/amenity areas/commercial premises is Negligible.

24 hour mean PM10

At receptors 1, 2 and 3 (the proposed farm workers residences, Falconer's rest and Shepherds Cottage) the predicted PC exceeds 10% of the EAL but is within normally acceptable thresholds; at all other nearby residences/amenity areas/commercial premises the PC is less than 10% of the EAL and therefore would normally be deemed insignificant.

Total dust deposition

The modelling predicts dust accumulation would be below noticeable rates at all residences/amenity areas/commercial premises, except the proposed farm workers residences.

10.4 Impact Significance

10.4.1 The scale of the operation and the mitigation in place will ensure that dust emissions are kept to a minimum.

Impact Assessment ***LOW***

CHAPTER 11 ECOLOGY

11.1 Introduction

11.1.1 An Ecology assessment and BNG requirements have been undertaken by Eco-Check Consultancy Ltd please see **Appendix 6**.

11.1.2 Any new development in the countryside can have an impact on ecology, namely:-

a) The site of the new buildings removing habitat, especially any elements constructed on previously undeveloped land.

b) The impact on species that might use the site temporarily or immediate surrounding area.

c) The impact of emissions on sites of ecological interest further afield, principally ammonia (refer to Chapter 12).

11.2 Baseline Conditions

11.2.1 The application site extends to approximately 92,663m² or 9.2ha. It is entirely arable land with a 2m wide modified grassland headland and with drains to the north, east and west and a central drain running north to south through the site. A mixed species hedge is on the west boundary.

11.2.2 There are no statutory designated nature conservation sites within 2km of the Site. There are no Local Wildlife Sites LWS (Formerly Sites of Nature Conservation Interest SNCI) within 2km of the proposed development site. No international level statutory ecological designations have been identified within 5km of the site, whilst information available on the MAGIC database identifies that the site is outside of any Impact Risk Zones (IRZs) for SSSI sites. Priority habitats recorded within the search radius included broadleaved deciduous woodland and floodplain grazing marsh.

11.3 Assessment/Cumulative Impact

11.3.1 The summary findings are as follows:

- A minor but negative impact on arable habitat within the footprint of the proposed buildings and concrete aprons.
- A potential negative impact to any on-site bat population via light disturbance, which is to be mitigated by adopting a wildlife-sensitive lighting scheme.
- A potential for a minor negative impact on local hedgehogs and small mammals (including badger), which can be mitigated by fitting any open excavations with escape ramps and having precautionary methods of site clearance, material storage and movement as well as maintaining a minimum 30m stand-off from the badger sett.
- A potential for a minor negative impacts to on-site nesting birds during clearing and construction works, which is to be mitigated by the timing of works or using watching briefs to confirm nest absence.
- A potential minor negative impact on water voles using the ditches/drains (if present) to be mitigated for with a suitable stand-off from these areas.

7.2. The assessment suggest that ecological impacts will be minimal given the historical arable land use.

11.4 Mitigation

11.4.1 The proposals for redevelopment have been considered in terms of the mitigation hierarchy (BSI 2013). This consists of a 4-point framework of reference focusing on avoidance, mitigation, compensation and enhancement measures which can be secured through planning conditions or obligations.

11.4.2 Avoidance, mitigation, compensation, and enhancement measures can be secured through planning conditions or obligations.

- Avoidance should be the primary objective of any proposal.

If protected species are discovered on site either before or during the proposed works, all works should stop a suitably qualified ecologist should be contacted for advice on mitigation before continuing. Requirements below outline how impacts to reptiles, great crested newt, birds and small mammals such as hedgehogs can be avoided.

- Mitigation measures aim to reduce or remove impacts.

Mitigation for this site should take the form of informed landscape planting and retention of boundary habitats to maintain a corridor for wildlife around and through the site.

- Compensation is considered to be the last step on the hierarchy

Compensation 'should only be used in exceptional circumstances and as a last resort after all options for avoidance and mitigation have been fully considered' (BSI 2013). No compensation measures are considered necessary for these proposals.

11.5 Enhancement measures

11.5.1 The report outlines a range of mitigation measures, subject to which the proposals are unlikely to result in any significant adverse effects on ecological receptors at the site. Such enhancements include:

- Protection of boundary hedges, ditches and drains during all stages of the development.
- Sensitive design of any lighting scheme.
- Precautionary approach to clearance works in relation to small mammals.
- New tree and shrub planting within the site
- An area of existing arable land to set to grassland and managed to achieve other neutral grassland habitat.
- To increase bird nesting opportunities generally, nest boxes should be installed.
- To provide a shelter for small mammals and herpetofauna.
- Areas of bare soil and disturbed ground to be seeded with a species rich wildflower grass seed mix.

11.5.2 As part of BNG requirements, the scheme will compensate for the loss by providing habitat replacement plus 10% as a minimum.

11.6 Impact Significance

11.6.1 The proposals are expected to have no or only minor adverse impact on ecology and some gains biodiversity gains.

Impact Assessment ***LOW***

CHAPTER 12 AMMONIA

12.1 Introduction

12.1.1 An Ammonia assessment has been completed by AS Modelling & Data Ltd, details of which are provided in **Appendix 7**. AS Modelling & Data Ltd has used SCAIL to assess the impact of ammonia, nitrogen and acid deposition from the proposed broiler chicken rearing houses

12.1.2 Problems posed by ammonia are well known and mitigation is included in several international agreements and regulations, including the UNECE Gothenburg Protocol, the EU National Emissions Ceiling Directive (NEC), and the Integrated Pollution Prevention and Control Directive (IPPC).

12.1.3 The IPPC Directive requires certain types of installations, including pig and poultry farms above a given size, to implement best available technologies for a wide range of pollutants including NH_3 (Commission, European 2006).

12.2 Baseline Conditions

12.2.1 A search of statutory sites within 10 km (the normal screening distance for statutory sites) has been conducted within SCAIL. The search found one Special Site of Scientific Interest (SSSIs), Cow Bit Wash SSSI, which is designated for geological features. There are no internationally designated sites within 10 km. A search for non-statutory sites within 2 km (the normal screening distance for non-statutory sites) has also been conducted, none have been identified.

12.3 Assessment/Cumulative Effect

12.3.1 The SCAIL modelling confirms that Cow Bit Wash SSSI has no sensitive habitat or species (as it is a geological designation) and therefore permits the Local Authority to proceed to the determination stage without the necessity for any further assessment.

12.4 Impact Significance

12.4.1 Based on the SCAIL assessment, no further assessment is required.

Impact Assessment ***NONE/LOW***

CHAPTER 13 LANDSCAPE

13.1 Introduction

13.1.1 A Landscape and Visual Impact Assessment (LVIA) has been completed by LVIA Ltd please see **Appendix 8**.

13.1.2 The site has an overall assessed medium landscape sensitivity and will be subject to a medium magnitude of landscape impact. The significance of the landscape character impact is moderate adverse (i.e. not a significant change) as a worst case.

13.2 Landscape Character

13.2.1 The site falls within national character area (NCA) 46: The Fens, with key characteristics reported. The NCA covers a relatively wide and diverse area. The context of the site shows very few of the key characteristics, but this is to be expected due to the relatively large scale of the character area. The points of relevance to the site and its context are predominantly related to the current agricultural use of the landscape.

13.2.2 The Historic Landscape Characterisation Project for Lincolnshire (September 2011) document was published to consider the development of the landscape character, at a sub-regional level that gives a further understanding of the landscape resource. The site falls within Regional Character Area (RCA) 9: The Fens. A description of the present landscape of the RCA is reported.

13.2.3 As above, the description of the RCA does not provide distinctive characteristics that relate closely to the site and its context. The description notes that the landscape is mainly laid to rectilinear arable fields that are bounded by a network of drainage channels. The site and its context are not generally representative of the description of RCA 9 in which they fall so can be scoped out and no further assessment of the RCA is needed.

13.2.4 The character of the site and its context may be summarised as agricultural, but the local Fenland Airfield and telegraph poles that cross the landscape have an effect on the experience of the landscape. There is potential for the improvement of the landscape through as part of the proposal in relation to the creation of woodland. It has a simple, sparse and somewhat fragmented landscape character, with existing agricultural built form also exerting an influence. The overall receptor is judged to be of a medium susceptibility to the type of change proposed.

13.2.5 Based upon the judgements of susceptibility and value as detailed within the assessment, the overall sensitivity of the identified landscape receptors is judged to be as follows:

- Vegetation Pattern: Medium
- Overall Character of the Site and Context: Medium

13.2.6 The proposal will result in an introduction of built form on the site, although this will be experienced from limited locations in the local landscape. The proposal includes the retention of the overall existing structure of the landscape, with a comprehensive reinforcement an improvement of the landscape features that contribute to the current experience of the site. The magnitude of change upon this receptor is judged to be medium. The overall impact upon this receptor is therefore assessed as moderate adverse.

13.3 Visual Impact

13.3.1 Some effects on landscape and visual amenity as a result of any development are inevitable, as with any new or replacement structure located in either an urban or a rural location. The importance in this instance is the magnitude of change that would be experienced due to the proposal and the resultant scale of the effect of such change on receptors of varying sensitivity.

13.3.2 Landscape character strongly influences visibility. The character of the site, when viewed from within the site boundary, is dominated in the foreground and near-distance by the established and prominent hedgerows and trees with background views of largely open farmland. These all add to a settled rural character as described in the district-level landscape character assessment.

13.3.3 The sensitivity of the large majority of visual receptors in closest proximity to the proposed construction activities can be classified as high or medium (users of publicly accessible routes and road users). Consequently, with a high receptor sensitivity set against a medium magnitude of visual change, the temporary visual effect during the construction period would, as a worst case, result in a major adverse effect (i.e. a significant change).

13.3.4 The visual effects at the operational stage have been assessed as being subject to a major adverse change (i.e. a significant change) as a result of the proposed development.

13.4 Mitigation

13.4.1 Mitigation measures may be considered under two categories:

- Primary mitigation measures that intrinsically comprise part of the identification of proposed works through an iterative process. This form of mitigation is generally the most effective; and
- Secondary mitigation measures designed to specifically address the remaining (residual) adverse effects arising from the proposed works.

13.4.2 The hierarchy for landscape and visual impact mitigation is first avoidance of impact, the minimisation of impact and finally compensation of impact. The current proposals have been undertaken to fulfil the following objectives:

- Minimisation of potential impacts on the existing landscape resources in this case the protection of existing boundary vegetation by review of the orientation, alignment and location of the dwellings. This will allow for the proposed elements to be situated within the site.
- Heights of the built form is to be kept to the minimal possible height. This will allow mitigation measures along the site boundaries to form dense visual filters and barriers and link into the local green infrastructure network.
- The proposals will be situated close to the location of existing agricultural related elements that sit in the landscape due to the agricultural nature of the area.
- Review of the proposals to ensure that sufficient space is reserved for compensatory planting and other landscape works.

13.4.3 In terms of secondary mitigation, built form will be kept back from the site's boundaries to allow for boundary planting and visual barrier elements to minimise the potential impact of the built form once established. Additional trees and native hedgerow species will be planted along the field boundary to strengthen the existing vegetation and create additional green infrastructure features.

13.4.4 The assessment has concluded that the site occupies a relatively small visual envelope mainly on account of the surrounding relatively flat landform and sequential mature vegetation that sits in the wider landscape. The road users of Pear Tree Hill Road to the east of the site would generally experience a prominent change but would be experienced for a relatively short section of the road. It further concluded that users of Flag Lane to the west would experience a prominent change where gaps in intervening vegetation allow.

13.4.5 Residential receptors are considered to be of high sensitivity but have no right to a view in planning terms. The change that they are subject to will be limited to their property and will not be publicly accessible so less people will experience the change. There is likely to be a limited visual change to a handful of residents from a single façade of their property of dwellings (separate application to follow) based within agricultural complexes.

13.4.6 The visual effect would result in a significance of effect that can be assessed as major adverse (i.e. a significant change) as a worst case. The residual impact assessment will be reduced from all viewpoints as a result of a successful mitigation strategy.

13.4.7 A landscaping scheme including boundary treatment (revised to account for the IDB owned and maintained watercourse along the eastern boundary of the site) is shown on drawing no ACO1572-11 rev B and 200-02 rev B.

13.5 Impact Significance

13.5.1 The proposed development is anticipated to result in no significant adverse impacts to the landscape baseline at a residual stage. There will be significant effects from three of the ten receptors assessed due to their close proximity to the site boundary.

Impact Assessment ***MEDIUM***

CHAPTER 14 HISTORIC ENVIRONMENT

14.1 Introduction

14.1.1 As stated previously, a Heritage Assessment has been undertaken (refer to **Appendix 1**). A search of the Lincolnshire Historic Environment Record (HER) covering a radius of 1km of the site has identified a number of Romano British archaeological sites in the vicinity of the proposed development area. Except for cultivation work, the subject area has remained undeveloped over the years.

14.1.2 Further advice has been sought from the Senior Historic Environment Officer Heritage Lincolnshire who suggests that much work needs to be undertaken during the planning process and prior to determination of the application. However, it is considered that conditioning this work on an approved application would be acceptable, based on the following.

No development shall commence, except archaeological investigation work, until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted to and approved in writing by the Local Planning Authority.

The programme of archaeological work should provide a controlled excavation of all significant deposits and features which are to be disturbed by the proposed development and shall be carried out by a competent person(s) and completed in accordance with the approved written scheme of investigation. Thereafter the building works shall incorporate any building techniques and measures necessary to mitigate the loss or destruction of any further archaeological remains.

14.1.3 The key question is one of proportionality. Paragraph 207 of the National Planning Policy Framework sets out that:

"In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation".

14.1.4 As noted previously, the implementation of a standard model condition is suitable and sufficient to secure a programme of intrusive investigation post-determination but, importantly, prior to development commencing. The condition would ensure that archaeological remains are preserved in situ or investigated and recorded as appropriate and to ensure that the information is made available.

14.1.5 The proposed development area is otherwise not within the setting of any listed buildings or other designated heritage assets.

14.2 Impact Significance

14.2.1 Overall, the site is considered to be of low historic importance with no listed buildings or other designated heritage assets in the area. There are a number of Romano British archaeological sites in the vicinity, however despite cultivation work on the subject land, no evidence has been found to date. Therefore, considered of medium importance.

Impact Assessment ***MEDIUM***

CHAPTER 15 HIGHWAYS

15.1 Introduction

15.1.1 This Transport chapter is considered to be an appropriate and proportional Transport Assessment given the nature of the application, however much of the following has also been incorporated into a Transport Statement.

15.1.2 The assessment details the proposed development including the scale, design layout and access arrangements for the development proposals and details of vehicular trip generation and impact.

15.2 Baseline Conditions

15.2.1 Access to the site will be gained off Pear Tree Hill Road Lane which runs to the east of the site. Exiting the site in a northerly direction, this leads on to Jekils Bank to Moulton Chapel and onto the A16 with Spalding to the north and Peterborough to the south.

15.2.2 There is currently no existing field access from Pear Tree Hill Road. Accordingly, a new site entrance is proposed onto this unclassified highway. The proposed access has been designed to provide adequate forward visibility and safe stopping distances, in accordance with the guidance set out in Manual for Streets.

15.2.3 As Pear Tree Hill Road is subject to the national speed limit of 60 mph, visibility splays of 215 metres will be provided in both directions from the new access point. This ensures that vehicles can safely enter and exit the site without adversely affecting highway safety.

15.2.4 The access will be constructed to appropriate highway standards, including a suitably bound and consolidated surface to reduce the risk of debris being carried onto the carriageway. The proposed access width will accommodate the turning requirements of larger agricultural and delivery vehicles, and vehicle tracking has been undertaken to confirm that these manoeuvres can be safely achieved within the site boundary (see dwg 200-04 rev A).

15.2.5 Gates will be set back 18m from the highway to allow vehicles to pull clear of the carriageway before opening. This design approach ensures that waiting vehicles do not obstruct the flow of traffic on Pear Tree Hill Road.

15.2.6 There will be adequate existing hardstanding and concrete with the yard area for parking and turning with vehicles exiting the site in a forward direction.

15.2.7 There is a bridleway to the south of the site, however this route will be unaffected by the development.

15.2.8 Overall, the proposed access arrangement is considered to be acceptable in planning and highway safety terms, supporting the safe and efficient operation of the proposed development without giving rise to an unacceptable impact on the surrounding road network.

15.3 Assessment

15.3.1 The proposed relates to the provision of 12 buildings and 552,120 bird places. Based on a 7 week crop cycle, there are approximately 7 crops per annum and an annual output of approximately 3,865,000 birds.

15.3.2 Traffic movements for a unit such as this is relatively easy to establish due to the cyclical nature of the enterprise. Movements include:

- Day old chicks in
- Feed, bedding and gas
- Birds out
- Spent Litter
- Staff & Workers

15.3.3 The proposed facility generates a total of approximately 206 HGV/tractor & trailer trips per crop (412 two-way movements).

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Gas	1	1	0	0	0	0	1
Bedding	0	0	0	0	0	0	16
Chicks in	11	0	0	0	0	0	0
Feed	8	16	16	20	12	8	0
Birds out	0	0	0	0	14	55	0
Waste Litter	0	0	0	0	0	0	26

15.3.11 On average, there are 2-3 trips per week. Week 6 is the busiest HGV traffic period of the cycle with bird depletion and the clean out process, and at worst this equates to around 9 trips (18 two-way movements) per day.

15.3.13 Whilst the proposal will generate HGV traffic movements, with relatively low daily vehicle numbers, there is unlikely to be any detrimental impact on the operation or safety of the existing highway network.

15.4 Mitigation

15.4.1 Aside from maintaining the new entrance and visibility splays, it is considered that there are no road safety issues that would warrant mitigation measures as a result of the current proposals.

15.5 Impact Significance

15.5.1 The impact of the development is not severe. On this basis it is concluded that there are no grounds for refusal on highway grounds.

Impact Assessment ***NONE***

CHAPTER 16 CLIMATE CHANGE AND SUSTAINABILITY

16.1 Built to Best Available Technique, the new structures will be fit for purpose and provide 50 years+ of production space.

16.2 The new steel portal framed buildings will match existing and be of typical, modern construction, comprising dwarf concrete walls supported on strip foundations with an internal concrete floor poured over stabilised soil. The insulated roof and side walls will be clad in polyester coated profiled steel sheeting (juniper green - BS12B29).

16.3 The roof will be insulated with 200 mm fibreglass and the walls with 100 mm to achieve a U-value not less than 0.4 W/m² ºC thus eliminating condensation on the inner linings and minimising solar heat gain. This U-value meets The Carbon Trust recommended performance levels of insulation for poultry related buildings.

16.4 Erected with smooth and easily washable concrete floors on a continuous damp proof membrane, the dwarf walls will be reinforced on a poured concrete foundation and contain all dirty water and prevent the ingress of ground water.

16.5 The design provides a vapour barrier between the liner and the insulation which minimises thermal bridging. All the external cladding joints will be sealed with mastic sealant which significantly reduces the potential for air (heat) leakage.

16.6 Switched and low energy lighting, based on a single low energy 30W flood light will be installed, and as outlined, and the provision of windows within the building will reduce the artificial light input required.

16.7 Solar panels, battery storage to store the electric, heat exchangers and rain water harvesting will look to be incorporated into the design.

CHAPTER 17 OTHER POTENTIAL IMPACTS

17.1 Flies/Vermin

17.1.1 There is a legal and permit responsibility on the keeper to ensure that adequate pest control measures are in place. The successful control of flies is based on preventive measures, monitoring and recording both inside and outside of the building.

17.1.2 Flies are not a problem on a well-managed and hygienically run site, however, like other environmental issues the applicant is keen to ensure that there is a management process in place to deal with any such events.

17.1.3 Fly problems in the poultry industry are mainly associated with deep pit egg production units, where the long-term storage of manure in the pit beneath the birds often results in common housefly (Musca domestica) being able to breed successfully in damp conditions.

17.1.4 Rats can be attracted to poultry units, but are rarely a problem on well managed modern poultry units, and particularly permitted sites, because:

- Modern building construction does not allow rats to enter the building easily, whereas older sheds are more difficult to control, particularly timber.
- Bait points will be provided at regular intervals, which will control any rats that do appear.
- Vermin control is currently undertaken on a flock by flock basis by an approved specialist contractor, with weekly inspections undertaken to comply with farm assurance.

Impact Assessment ***LOW***

17.2 Lighting

17.2.1 The level of external lighting to be provided will be of a modest amount and represent the bare minimum required to allow farming operations to be carried out in a safe manner. Any external lights will be set on a motion detector and positioned to ensure they do not shine on nearby field hedgerows or tree canopies.

17.2.2 Low intensity lighting is proposed. This will minimise disturbance to foraging and commuting bats. In accordance with the Bat Conservation Trust's publication Bats and Artificial Lighting (BCT, 2018), light pollution by artificial lighting will be kept to a minimum and light spillage avoided. The following mitigation strategies have been taken from Bat Conservation Trust Landscape and Urban Design for Bats and Biodiversity (Gunnell et al., 2012) and other referenced sources, to minimise disturbance to bats caused by the lighting of the site.

- Minimise light spill by eliminating any bare bulbs and upward pointing light fixtures. The spread of light will be kept near to, or below the horizontal plane, by using as steep a downward angle as possible and/or shield hood.
- The use of light sources that emit minimal ultra-violet light and avoid white and blue wavelength of the light spectrum. This is to avoid attracting insects and thus potentially reducing numbers in adjacent areas;
- Limiting the height of lighting to below eight metres to reduce the spill of light into unwanted areas;
- Avoid the use of reflective surfaces under lights or light reflecting off windows;
- Only the minimum amount of light required for safety and access will be used, and/or even turned off when/if the site if not in use;
- Artificial lighting proposals should ensure that they do not directly illuminate boundary habitats, which may be of certain value to foraging or commuting bats and birds (e.g. green corridors);
- Lighting that is required for security reasons will use a lamp of no greater than 2000 lumes (150 Watts) and be PIR sensor activated. This will ensure that lights are on only when required.

Impact Assessment ***LOW***

CHAPTER 18 ALTERNATIVE SITES

18.1 Introduction

18.1.1 The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 requires an ES to cover alternatives studied, including a 'no development' or 'do nothing' alternative.

18.1.2 Consideration below is also given to the need for the development, both in terms of a wider industry need and the applicant's business need.

18.2 Industry Need

18.2.1 Within the poultry sector, and particularly the intensive broiler sector, there is some growth. With the continued focus on COVID-19, Brexit, food tariffs and prices, food security and reducing food miles, the efficient volume production of quality UK bred and reared chickens has become a clear driver for the poultry industry. Therefore this increased demand has promoted the need to expand to meet market requirements.

18.2.2 The industry need for more floorspace is also due to the implementation of the higher welfare standards and stocking rates being imposed by the supermarkets.

18.2.3 The UK poultry industry provides an integrated supply chain; breeding, farming and food manufacturing. Poultry is half the meat eaten in this country and is growing. It is on course to grow 1 billion birds every year. The gross value added contribution (GVA) is £5.5 billion per year and the tax contribution to the Exchequer is over £1.2 billion per year. The industry directly employs over 38,000 people and it does not receive subsidies through the common agricultural policy.

18.2.4 Whilst demand has increased there is always pressure on margins due to increases in costs and large modern units are usually more efficient and therefore at an advantage. As with other sectors of agriculture, there is an on-going trend of production being concentrated in the hands of fewer producers, with average flock sizes doubling over ten years. Consolidation has also taken place at the processor level.

18.3 Business Need

18.3.1 The applicant has reviewed his portfolio of land and dismissed those that are impacted in some way by the proximity of designated land, and nutrient neutrality catchment areas and neighbouring receptors. In addition, is accessibility to the public highway. Furthermore, with biosecurity and Avian Influenza in mind, distance from other livestock farms and the risk of cross-contamination is also a key consideration.

18.3.2 Farms and modern poultry units in particular are located in countryside locations, typically remote from other property.

18.3.3 Unlike many other forms of agricultural production, poultry production has and is continuing to grow on the back of rising demand for poultry meat. Whilst a considerable financial investment at more than £10m, there is an opportunity for the business to take advantage of this increased demand, and to enhance its presence in the marketplace.

18.3.4 The business will look to employ 4 full time workers and 2 part time workers as a result of the development with staff being sourced locally. In addition, the business will look to various third party business to supply the facility e.g. wash down contractors, vets, feed company, pest control etc.

CHAPTER 19 CONSTRUCTION PHASE

19.1 Introduction

19.1.1 The construction of the unit will most likely involve the following phases:-

- Demolition of existing buildings
- Site clearance/levelling
- Preparation of site and delivery of materials
- Installation of services
- Concreting and building works

19.1.2 It is anticipated that the works will take approximately 24 weeks and comprise the following:

- Demolition, Groundworks and New Foundations - 14 weeks
- Shed Build - 14 weeks
- Fitting Out (electric and equipment etc) - 8 weeks

19.2 Traffic Management

19.2.1 During construction, there will be an increase in vehicle movements, but these will last for only a short period whilst materials are being delivered. This will not cause any significant impact.

19.2.2 Deliveries will be accepted during site working hours and will be by appointment (ring ahead) only. This will ensure that timings and numbers of vehicles accessing and egressing from the site can be controlled and monitored, to avoid peak periods.

19.2.3 Car parking facilities for staff and visitors of the poultry farm will be provided on site. Full turning arrangements will be provided within the site boundary to ensure all vehicles will exit in a forward direction.

19.2.4 All site operatives and visitors will park in a designated area within the boundaries of the site, as shown on the site plan.

19.3 Storage of Materials, Loading and Unloading

19.3.1 All plant and materials for the development will be stored on areas of hardstanding within the site boundary. These areas will not affect the construction process or access to the remainder of the agricultural land.

19.3.2 During construction period the filtration basin will be installed at the early stages of the development to ensure surface water will be contained and prevent going on to the highway during the construction phase.

19.3.3 No vehicles will unload on the public highway and no materials or equipment will be stored outside of the site boundaries. Wheel washing facilities will be provided within the facility and road sweeping carried out where necessary to avoid debris on the highway.

CHAPTER 20 CONCLUSION

20.1 The term 'environmental impact assessment' (EIA) describes a procedure that must be followed for certain types of project before they can be given 'development consent'. The procedure is a means of drawing together, in a systematic way, an assessment of a project's likely significant environmental effects. This helps to ensure that the importance of the predicted effects, and the scope for reducing them, are properly understood by the public and the relevant competent authority before it makes its decision.

20.2 From the information appraised through the Environmental Statement and, taking into account the mitigation measures proposed, it is advised that the proposed development will have a **LOW/MEDIUM** impact on the environmental features identified.

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