

ENVIRONMENTAL IMPACT STATEMENT

In respect of

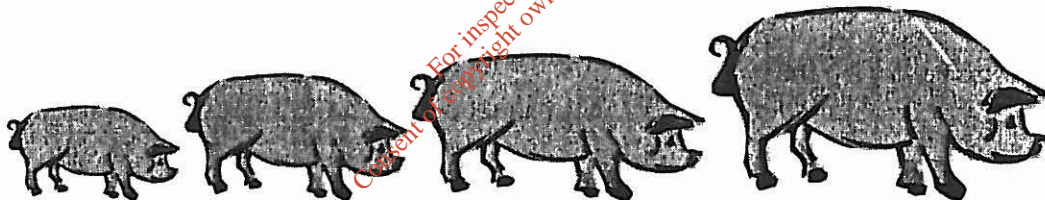
PAT RYAN'S PIG FARM

AT

BALLYFAUSKEEN,

BALLYLANDERS,

CO. LIMERICK.



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For

Mr Pat Ryan

Ballyfauskeen, Ballylanders, Co. Limerick.

June 2007

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ATTACHMENT HEADERS

<u>NO.</u>	<u>DESCRIPTION</u>
1	Location Maps
2	Plans & Drawings of Proposed pig farm
3	Report prepared by Devenish Nutrition Ltd
4	Register of Visual inspection of storm water monitoring point
5	Carcass Disposal Agreement
6	Flora & Fauna Report
7	Disposal of Carcasses in the Event of a Category A Disease outbreak
8	Archaeological Report
9	Well Report
10	Fluorescent tubes Register
11	Code of Good Practice & Buffer Zones
12	Calculation of pig manure volume
13	Pig Manure Register
14	Refuse Waste Register
15	Farm Structures Table
16	Contract for Disposal of Veterinary Waste
17	Carcass Register
18	Veterinary Waste Register
19	Landscaping Report
20	Register of Vermin Control
21	Emergency Response Procedure
22	Climatology Report
23	Development of National Pig Industry

Non-Technical Summary

This Statement is prepared in respect of an 400 Sow Integrated Unit in accordance with the Planning & Development Regulations 2002. It is in support of this application for permission to construct a new Store, Cover existing open pig manure storage tank with a house for Hospital Pens, Replace 4 No existing pig houses with 2 new modern design buildings, and construct a covered Geomembrane lined storage basin adjacent to his existing pig farm, to provide additional space per animal in compliance with new Animal Welfare Regulations and in accordance with the New Nitrates Directive S.I. No. 378 of 2006. A separate application was submitted previously for a Loose Dry Sow House and planning was granted 15 March 2007(planning Ref 06/3801). The proposed development would in part be a replacement of existing old pig houses and an extension to pig housing in an existing farm yard at Ballyfauskeen, Ballylanders, Co. Limerick.

The pigs to be housed would be reared for sale to the pig meat processing industry. The capacity of the site following the proposed development is 400 sows and their progeny to be reared to bacon weight.

That is greater than the capacity for which an Integrated Pollution Prevention and Control Licence is required, and so an application is to be submitted to the EPA shortly.

This Enterprise will now provide full-time employment for the owner Mr. Pat Ryan, supported by 3 full time staff. The site drains naturally through a field drain to an unnamed stream and ultimately to the River Aherlow. Storm water from roofs and clean yards will discharge to field Drainage via a storm water collection system, which will flow through 1 No storm water monitoring point. The location of which is identified on the site layout plan in attachment 2. There will be no discharge of any soiled water or any effluent from the site to any watercourse. There will be no discharge of soiled Water or effluent to groundwater.

The site is in a rural area. The activity on the site is and will be farming activity appropriate to the area and consistent with the development plan for Co. Limerick. The existing site is adjacent to a local road. It currently Accommodates an integrated herd of 400 sows and their progeny reared to bacon weight. The structure for which permission is sought

would be about 13m and 130m respectively from the public road. The purpose of the new facilities is to replace old throbridge style pig houses with new modern design low emission house systems, while providing separate covered storage capacity for pig manure, to ensure compliance with new animal welfare regulations, and Nitrate Directive Regulations. The planting of shrubs and trees on a low embankment on the perimeter of the site would blend the site into the landscape. The site is not in and is not near any NHA, SAC or SPA site and does not threaten any such site in any way.

The only hazardous waste generated at this site would be spent Fluorescent lighting tubes and veterinary waste (medicine containers, Syringes and needles). The annual quantity of each of these classes of waste generated in the site would be less than 50kg. It is proposed to accumulate the used fluorescent tubes in a specialised storage area in the site pending periodic disposal at a civic waste site. It is proposed to accumulate the veterinary waste in a specified location in the site pending collection by an authorised collector for disposal at an authorised disposal site.

Weekly output of bacon pigs from this site would be about 250 animals. The associated weekly output of 153 M3 pig manure would equate to about 7950 m3 per year. There is strong local demand from other farmers for pig manure for use by them on their farmlands instead of manufactured chemical fertiliser products imported from outside the State. The application of animal manure to farmland is now regulated Under S.I. 378 of 2006 and distribution of manure from the site will Comply with those Regulations. The Applicant is entitled to give manure to any local farmer who wants it and is obliged to record all despatches from the holding and the farmers acquiring manure are obliged to record all consignments acquired and to use it in compliance with the Regulations.

Storage of manure in the site will be in compliance with the relevant Regulations that have given effect to the Nitrates Directive in Ireland. It is proposed that all despatches of manure from the site be recorded and the record will be maintained and be available at the site for inspection by an officer of the Local Authority at all reasonable times.

It is proposed that on-site storage capacity for pig manure including the new developments will be about 13489m3, of which 7409 is located in channels and tanks under the houses, which will now act as a collection

system to deliver pig manure to the covered storage basin with 6080 m³ capacity, sufficient for about 40 weeks production of manure, and well in excess of the 6 months storage capacity generally required for pig manure. It is also proposed that manure will not be supplied to customer farmers between 15th October and 31st January in any year except with consent of the planning authority or any other relevant authority. Outside that period, manure will be despatched from the site to a farmer customer only in response to an order from a customer. Managed and used in that way, manure produced in the site will not have any adverse impact on environmental parameters either inside the site or outside the site.

Emissions to air from the site would be small, and would be mostly attributable to the animals that are currently on the site and the pigs that would be fattened in the proposed development on the site. The provision of a covered engineered geomembrane storage basin will ensure reduction of emissions on site, and convert existing tanks and channels to collection systems only. The odour associated with a site of the proposed capacity does not and will not cause annoyance and will not interfere with amenity outside the boundary of the site. The family's own dwelling is the only dwelling within 200 metres of the site.

A small proportion of animals born and maintained in a farm die prematurely. These carcasses are stored in a covered sealed container on site. Duggan Waste is an authorised contractor who regularly removes these carcasses that will die in the site to an authorised rendering plant (Waterford Proteins), in compliance with existing law.

The potential of the proposed development for adverse impact on environmental parameters is negligible because of the nature and scale of the development, and because all wastes would be removed from the site for either disposal or use elsewhere. While waste generated in the site would be accumulated and stored temporarily in the site, there would be no disposal or recovery of any waste undertaken on the site.

2.2. ORGANISATIONS AND BODIES CONSULTED

The scoping exercise of the EIS was carried out in line with previous submissions to Local Authorities. Other organisations and bodies consulted include: -

Geological Survey of Ireland

Met Eireann
Central Fisheries Board
Office of Public Works
Department of Agriculture
Department of the Environment
National Parks and Wildlife Service
Teagasc, Johnstown Castle
Environmental Protection Agency

1. Introduction

This Environmental Impact Statement (EIS) is compiled following an Environmental Impact Assessment of a proposed extension to an existing Pig rearing enterprise operated on a site at Ballyfauskeen, Ballylanders, Co. Limerick. The Statement is to be submitted to Limerick County Council in support of an application for Planning Permission for the construction of a new Store, Cover existing open pig manure storage tank with a house for Hospital Pens, Replace 4 No existing pig houses with 2 new modern design buildings, and construct a covered Geomembrane lined storage basin adjacent to his existing pig farm, to provide additional space per animal in compliance with new Animal Welfare Regulations and in accordance with the New Nitrates Directive S.I. No. 378 of 2006.

The proposed development will result in an installation that belongs in a class listed in Schedule 5, Part 2 of the Planning and Development Regulations 2001, and so the submission of an EIS is a mandatory requirement. The scale of the proposed development is above the threshold for Class 1(e)(ii) activity, "*Installations for intensive rearing of pigs not included in Part 1 of this Schedule which would have more than 2,000 places for production pigs (over 30 kilograms) in a finishing unit, more than 400 places for sows in a breeding unit or more than 200 places for sows in an integrated unit*"

The proposed installation is to be an integrated unit for the rearing of pigs, based on a maximum herd of 400 sows. This statement is drafted with particular regard to Article 94 and Schedule 6 in the 2001 regulations and is submitted to provide information that may be helpful to the planning authority in making its decision on this application.

1.1 Description of the proposed development

The proposed development will not result in the expansion of breeding animal numbers on site which currently accommodates 400 sows but will

make it a fully integrated pig production unit, and provide compliance with Animal Welfare regulations, and Nitrate Directive Regulations. The permission sought is specifically designed to construct a fully integrated pig production unit to comply with Animal Welfare Regulations providing for the rearing of pigs for sale to the meat processing industry for the production of pig meat products for human consumption. The purpose of the new structures is to provide extra accommodation for pigs in order to comply with animal welfare regulations, and storage to comply with Nitrate Directive Regulations.

The location of the proposed development is in a rural, farming area in Ballyfauskeen, Ballylanders, Co. Limerick. It is accessed by the local by-road that links dwellings and farmland to the main Mitchelstown to Tipperary road.

The site is level ground, elevated about 170mOD with the adjacent access road.

According to the Geological Survey of Ireland the aquifer classification appropriate to the site and the surrounding area is a **Locally Important Aquifer**. It is protected in the vicinity of the proposed development by a layer of boulder clay greater than 3m deep, verified by the previous excavation for existing underground manure tanks of the existing site.

The location of this farm yard is identified on the location maps included in Attachment 1. The layout of the proposed developments is shown on the Site Layout plan included in Attachment 2. The site is small and compact, and is designed to be safe, secure and efficient in operation.

The proposed development comprises steel framed structures with insulated concrete or steel side cladding, to enclose slatted pens in which pigs will be accommodated and fed, and under-slat tanks in which manure will be collected and stored pending despatch to farmers who order a supply for use by them on their farmlands. It also includes an **area on which a container for dead pigs will be parked pending periodic collection for transport to an authorised rendering plant (Waterford Proteins)**.

All despatches of pigs from the site will be through the loading bay adjacent to the fattening house. All despatches of pig manure from the site would be from one or other of the manure extraction points to be located around the perimeter of the structures, and through the yard gate, to the public road. Lay-out and facilities are designed to provide for best

practice within this industry and to minimise potential sources of pollution.

The scale of the proposed development is average by current industry standards. Output of pigs will be about 250 pigs per week, (13,000 pigs per year)

The structure of the proposed developments will have a total floor area about 2693, made up of 1083 m² of which will be for the accommodation of pigs or to provide access to pigs, and 1600 for the provision of a covered engineered pig manure storage basin. The main structures of this proposed development will be 49.85m long and 186m wide, 12m long and 12m wide, for the 2 No new pig houses which will be 2.4m high at the eaves and 3.75m high at the apex. The dimensions of the proposed covered engineered pig manure storage basin will be 49.2m x 49.2m to the outside of the earthen embankment. It will not be intrusive in the landscape. The full drawing details are included in Attachment 2. Access from the public road is to be direct into the farmyard via an existing entrance, 5m wide.

1.2 Measures envisaged in order to avoid, reduce and if possible, Remedy significant adverse effects

The measures considered necessary are:

- (1) Provision of sufficient and safe access to the site and measures to avoid excessive soiling of the public road during construction on the site.
- (ii) A secure fence around the site and effective landscaping, comprising hedging, trees, and landscaped earth embankments where necessary, to screen the installation from obtrusive view from the public road and to blend it into the rural landscape.
- (iii) Provision of a storm water drainage system to properly collect and discharge to field drainage all clean rainwater from roofs and clean surfaces.
- (iv) Provision of soiled water drains to properly collect any effluent or soiled water and diverts it to the nearest manure tank.
- (v) The collection and the removal from the site of all animal manure and soiled waters to be used by local farmers and fertiliser on their farmlands.

- (vi) The collection and the removal from the site of hazardous waste materials (spent fluorescent lighting tubes, empty aerosol containers and veterinary waste) generated on the site. Such wastes removed from the site are to be removed only to sites authorised or agreed as appropriate for the disposal or recovery of the waste concerned.
- (vii) The collection and the removal from the site of all dead animals and all animal tissues. Collection is currently undertaken by Duggan Waste, an authorised waste collector, who transports the carcasses for disposal or recovery at an authorised rendering plant.
- (viii) Ensure collection of animal tissue from the site is in appropriate watertight and covered containers, and timely removal so as to ensure minimal generation or release of odours either at the site, or during transit to the disposal/recovery destination.
- (ix) Monitor and maintain records of all monitoring of storm water discharged from the site.
- (x) Record and maintain required records of all consignments of waste despatched from the site.

Implementation of the above will ensure that significant effects on the environment will be avoided and the risk of incidents of environmental significance will be near zero.

1.3 Data required to identify and assess the main effects that the Proposed development is likely to have on the environment

- (i) Knowledge of the environment in which the installation is to be sited.
- (ii) Knowledge of the processes in the proposed installation.
- (iii) The emissions to air.
- (iv) The emissions to groundwater.
- (v) Characteristics of the effluent to be treated on site.
- (vi) The emissions to surface waters.
- (vii) The ambient quality of receiving waters.
- (viii) Availability of contractors to transport and treat wastes sent off-site

This is considered in some detail later in this statement.

1.4 Alternatives studied by the developer and reasons for choice, Taking into account the effects on the environment.

If and when the installation for which permission is being sought is authorised and constructed it would be integrated into the existing farm and farmyard enterprise operated by the applicant. The only realistic site for the proposed developments which provide the required additional space per animal place to comply with the new animal welfare regulations is adjacent to the existing pig rearing yard, so that access and services can be easily shared. Accordingly, no other site was considered and there is no other site available to the applicant for consideration.

2. Further information

2.1.1 Description of the physical characteristics of the whole proposed Development and the land use requirements during construction And operation.

The physical characteristics of the proposed development will comprise;-

An entrance through an existing gated access at the public road.

Landscaping plantations along the boundary between the site and the road and between the site and adjoining farmlands.

Steel frame structures within which the pigs would be accommodated on slatted floors and fed (See Farm Structures Table in Attachment 15).

Underground, under slat reinforced concrete manure tanks in which manure would be collected and stored pending despatch from the site in response to orders from local farmers who would acquire it to maintain the fertility of their farmland.

Except for the entrance from the public road, all of the structures on the site will be screened or blended in to the surrounding landscape by the green colour proposed for the structures and the landscaping features described. A landscaping programme is included in Attachment 19.

During the construction phase, which would extend over a period of about 6 months, that part of the site in the vicinity of the area on which the proposed developments are to be constructed would be a typical farmyard construction site. All of the construction materials and equipment required would be transported in to the site by road. It is planned that all of the soil that would be moved during the laying on of services and site preparation works would be deposited and used within the site for land levelling and landscaping. It is not intended to remove any soil from the site. The construction contractor would be required to remove any construction wastes other than soil from the site for disposal or recovery in authorised site elsewhere.

2.1.2 A description of the main characteristics of the production Processes, nature and quantity of materials used.

The processes on the proposed site would be:-

The breeding and feeding of pigs.

The despatch of all animal tissue and other solid waste materials from the site for disposal or recovery at agreed/approved sites and

The collection of all animal manure and wash waters generated within or around the new animal housing in manure tanks pending despatch to a customer farmer for use on this farmland in accordance with S.I. No 378 of 2006.

The main input materials to be used in the proposed development are water and animal feed. Water will be from the existing wells on site, and analyses of water samples from same are included in Attachment 9. Pig feed will be industry standard pig rations appropriate to the nutritional requirements of the pigs. These diets are prepared by a Nutrition list company who specialise in this area Devenish Nutrition Ltd. A statement from this company is included in Attachment No 3. There will also be small inputs of veterinary medicines administered in accordance with relevant regulations. Electricity would be used to power all the processes and services on the site, and to heat small areas occupied by piglets.

2.1.3 An estimate, by type and quantity, of expected residues and emissions (including water, air and soil pollution, noise vibration, light, heat and radiation) resulting from the operation of the proposed development

The expected residues and emissions that will result from the operation of the proposed development are set out in the table below:-

Table 1: Waste volumes and disposal routes.

Residue/emission	Quantity/year	Ultimate destination	Transporter
Veterinary Waste	10 kg	Sterile Technologies Irl Ltd	Healthcare Initial Ltd
Fluorescent tubes	20 No	Civic Bring Centre	Applicant
Aerosol cans	50 Kg	Civic Bring Centre	Applicant
Dead animals	50 tonnes	Duggan Waste	Waterford Proteins
Packaging	150 kgs	Civic Bring Centre	Applicant
General Refuse	100 Kgs	Mr. Binman	Limerick Co Council Landfill

Veterinary waste includes used syringes, needles and the plastic containers in which veterinary medicines and similar products (anthelmintics, antibiotics, pesticides, rodenticides, etc.) are acquired. It will be accumulated on the site pending a collection every 6 months by Healthcare Initial Ltd who are an appropriate authorised waste collector. A copy of their contract is included in Attachment No 16.

Fluorescent tubes are preferred for lighting in animal houses. While they are “long life” it is expected that about 20 will be replaced annually. As the volume is so small, they can be delivered by Mr. Pat Ryan to the local Bring Centre, or an annual collection from the site by an authorised waste collector can be agreed with the planning Authority.

Packaging (paper and cardboard) derived from the outer covers of various inputs like the veterinary medicine products, and the minor feed ingredients is the only “domestic-type” waste to be disposed from the site. It is collected every two weeks by Mr. Binman and delivered to the Landfill facility.

Dead animals and animal tissues will be accumulated in a sealed water proof steel container on site for collection by Duggan Waste at 2 week intervals for transport to an authorised rendering facility at Waterford

Proteins. See correspondence issued by Duggan Waste which is included in Attachment No 5.

Animal manure produced in the existing facility is currently distributed to local farmers in response to their demand and for their use on their farmland. The manure that would be produced by animals to be housed in the proposed development would be similarly distributed. Local demand for pig manure is buoyant. The applicant has more customers and more demand than can be satisfied from the existing herd. The applicant is entitled to supply it to his customer farmers who want it and are not prohibited from using it. The use of animal manure to fertilise farmland is subject to statutory control under S.I. 378 of 2006.

Manure from the site would be supplied in response to customer farmers' demand and in compliance with law. The calculation of expected manure production is shown in Attachment 12, and of the manure storage capacity which is calculated on the Farm Structures Table in Attachment No 15.

There is no canteen or other staff facilities within the site. Accordingly, there will not be any domestic refuse for disposal from the site. There is a small office and dry store in the site. The small volume of waste paper will be disposed of with the packaging referred to in Table 1.

Lighting in the premises will in so far as is possible, be by fluorescent tubes and other energy efficient lighting devices. Spent fluorescent and other specialised light tubes are hazardous waste. The number of tubes to be replaced annually will be small, probably no more than 20. They will be accumulated in the store area pending delivery periodically to a local Civic Bring Centre, by Mr. Pat Ryan.

Normal operations on the site of the proposed development will not cause any pollution of soil.

Noise generated in the proposed development in the site would not exceed legal limits at the site boundary. Lighting of the site would be the normal for farmyard sites and would not exert influence or interference outside the site boundary. There would not be any source of significant vibration on the site. There would not be any significant dissipation of heat from the proposed development. There would be no source of radiation on the site that could exert significant influence outside the site.

Measures to prevent any significant effect of the proposed installation and the proposed activity on environmental parameters are directed towards ensuring that the systems for collecting wastes and removing them from the site for appropriate treatment in authorised waste treatment installations will be adequate for that purpose. Animal manure will be supplied to local farmers who want it to fertilise their farmland. Waste materials generated in the site will be collected and transported off the site by appropriately authorised waste contractors to be agreed with Planning Authority, for disposal or recovery or recycling in appropriately authorised installations, to be agreed with the Planning Authority, as may be required by conditions included in the Planning Permission if and when granted.

Implementation of the control measures proposed will ensure in so far as it is possible that significant adverse effects on environmental parameters will not occur and that accidental emissions are unlikely.

2.2 Description of the aspects of the environment likely to be Significantly affected by the proposed development.

There will be no aspects of the environment significantly affected by these proposed developments. The potential affects on the environment may be subdivided into affects on people, flora and fauna, soil, water, air, the landscape and material assets including archaeological heritage. There is no known potential for any adverse issues in relation to architectural or cultural heritage.

Effect on people

Significant effects on people are not anticipated. There are no dwellings so close to the proposed development as to be adversely affected by, or experience significant impairment of amenity due to the proposed development. The dwelling nearest to the proposed development is owned and occupied by the applicants family.

The proposed development is unlikely to generate or release sounds or odours that will significantly impair amenity beyond the site boundary. The experience of other similar sites indicates that the legal limits for such emissions, 55db daytime and 45db night-time are highly unlikely to be exceeded beyond the site boundary.

There are no processes proposed which will constantly or regularly release odorous emissions from the site at nuisance levels. Fugitive odour emissions at the site will not be significant and will be limited to

times at which animal manure is being removed from collection/storage tanks. In so far as is possible odour emission is to be managed so as to occur at times when the effect within the site or outside it will be minimal.

Based on experience at similar sites elsewhere in the country significant effects are not anticipated. If there are significant affects, people will object and their objections will have to be investigated and have to be corrected if found to be real and justified.

Effect on flora and fauna

The site of the proposed developments is currently a farmyard. There is no special or natural flora or fauna associated with this. Structures and new paved surfaces will cover a significant fraction of the site and the proposed landscaping will cover and so influence the flora and fauna in a significant fraction of the remainder of the site. The changes will affect such a small area that any impact will be close to zero or neutral with the local area. The site is not in or close to any NHA, SAC or SPA. It is surrounded by farmland and a public road. It is considered that the development will not impact in any way on the flora or fauna in any of the surrounding area.

It is considered that the developments, managed as is proposed, which will have to operate under IPPC License regulations, will have no measurable impact on either flora or fauna outside the site boundary.

Effect on Soil

The structures proposed for the site would be constructed on land that is already part of a farmyard. There is no significant potential for any effect on soil.

It might be argued that the 7950m³ of pig manure (containing no more than 6.8 tonnes of phosphorus (P)), to be taken from the site and used by local farmers as fertiliser on their farmland might impact on their land. **The farmers concerned are and will be entitled to use their farmlands for the production of crops and animals, and to fertilise the farmlands in accordance with good farming practice as specified in S.I 378 of 2006.** Fertiliser nutrients (P and N) acquired from the local pig farm will not have to be imported as chemical fertiliser products from outside the state. The fertiliser nutrients in the volume of manure likely to be available for distribution from the site, is small in relation to local farm requirement for chemical fertiliser products. It would contain at most 6.8 tonnes of P and 34.8 tonnes of N. It would be sufficient to supply a very modest

input of fertiliser to no more than 500ha farmland that has a significant requirement for fertiliser. Pig manure used by local farmers would be used for the purpose of supplying plant nutrients that the farmers would otherwise be acquiring from another source. Accordingly, the potential effect of such use of manure on land outside the site is minimal, if it exists at all.

Effect on Water

Adverse effect on ground water should be nil, as there would be no discharge to ground and minimal risk of accidental leakage or spillage of polluting liquid on the site. Abstraction of the volume of water needed for proposed operations from either surface water (the local stream) or from ground water would have an insignificant impact and water reserves and resources.

The proposed structures on the site from which dirty/contaminated water might escape to ground, (that is the underground manure tanks) are designed to be watertight and leak proof. As a precaution, leak detection drains are to be installed under the new tanks, which drains will lead to a sump at which the impact on drainage water of any significant leak from the tank would be detected.

The only discharge from the site to surface waters will be the discharge of rainwater from roofs and clean yards to field drainage, to the adjacent unnamed stream which ultimately flows to the River Aherlow. There will be no discharge of soiled water or effluent to surface water and so the development cannot have any significant impact on surface waters.

Effect on Air

The potential effects of the proposed development on air are limited to the odour emissions that may be associated with pigs and pig manure stored in the manure tanks. While it would be practically impossible to separate the potential emissions from the proposed development from the **emissions out of the existing development in the site, it is safe to say that odorous emissions from the enlarged site as whole are not likely to cause nuisance or impair amenity beyond the site boundary.** Management of operations on the site to prevent significant pulse releases of odour at times when the effect might be perceptible beyond the site boundary should ensure minimal impact on air in the vicinity of the site.

Effect on archaeological heritage

There are no known archaeological sites and no reason to suspect the presence of such sites within or near the site of the proposed developments.

2.3 Description of likely significant effects of the proposed Development arising from:-

(i) The existence of the proposed development

The proposed developments are small but it would add to the economic activity on the farm, with consequent “trickle down” positive effect in the region and the local community. Their impact on the landscape would be neutral following the implementation of proposals in relation to landscaping of the perimeter of the site. The impact on traffic on the local road would be insignificant and virtually imperceptible.

(ii) The use of natural resources

There are no significant negative effects expected in relation to the use of natural resources. There are no processes involved that have a high requirement for fuel energy input. There is a definite requirement for a small volume of water readily available from the existing water source serving the existing site. The function of the development is to breed and rear pigs to be fed on the site and processed elsewhere to produce food for human consumption. The main resource to be consumed would be pig feed, which is classifiable as a natural resource that is a renewable resource.

(iii) The emission of pollutants

Clean storm water will be discharged to the local stream. Such clean water is not an emission. Site management is to be focused **on ensuring that all storm water collection surfaces and facilities are maintained in clean and fully functional condition at all times** so that the possibility of storm water carrying significant pollution to the stream is effectively eliminated. The emission of pollutants is to be effectively controlled and prevented by the regular removal of all solid waste materials from the site to authorised disposal/recovery sites elsewhere, and by the distribution of pig manure to local farmers who seek a supply and have a demonstrable need and use for the manure. Accordingly, it is

expected that there should not be any significant emissions of pollutants from the site and that there should be no perceptible environmental effect arising from emission of pollutants from the site.

(iv) The creation of nuisance

The proposed developments combined with the management routine proposed and required, is not expected to create any significant nuisance.

(v) The elimination of Waste

The volumes of waste materials to be generated in the proposed developments are very small. The opportunity to eliminate any of the waste products does not exist. The opportunity to reduce the volume of waste materials below, that which are generated under Good Farming Practice and which will be generated in these proposed developments is very small and is near zero. For example, some pigs die prematurely in the site and none that can be saved at an economic cost, are allowed to die. Accordingly, the waste that is dead pigs cannot be eliminated and cannot realistically be planned to reduce below the level achievable under current best practice. Similarly, with regard to the hazardous waste in the form of spent fluorescent tubes and veterinary medicine containers, used syringes and needles. The volumes are small and already minimised. Similarly, there is no realistic opportunity to reduce the amount of dry matter in the volume of pig manure produced per animal reared to a particular marketable standard. While the applicant can be forever conscious of the Reduce, Reuse and Recycle principle in relation to all waste, there is relatively little that can be done to effect significant further gains in these proposed developments.

(vi) The forecasting methods used to assess the effects on the Environment

Forecasting relies heavily on accumulated experiences of operations in similar developments, and on the knowledge that wastes removed from the site for disposal or recovery elsewhere will have negligible impact on the environment around the proposed developments.

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Surveyed 1840 - 1841
 Revised 1904 - 1924
 Levelled 1924

Record PLACE Map



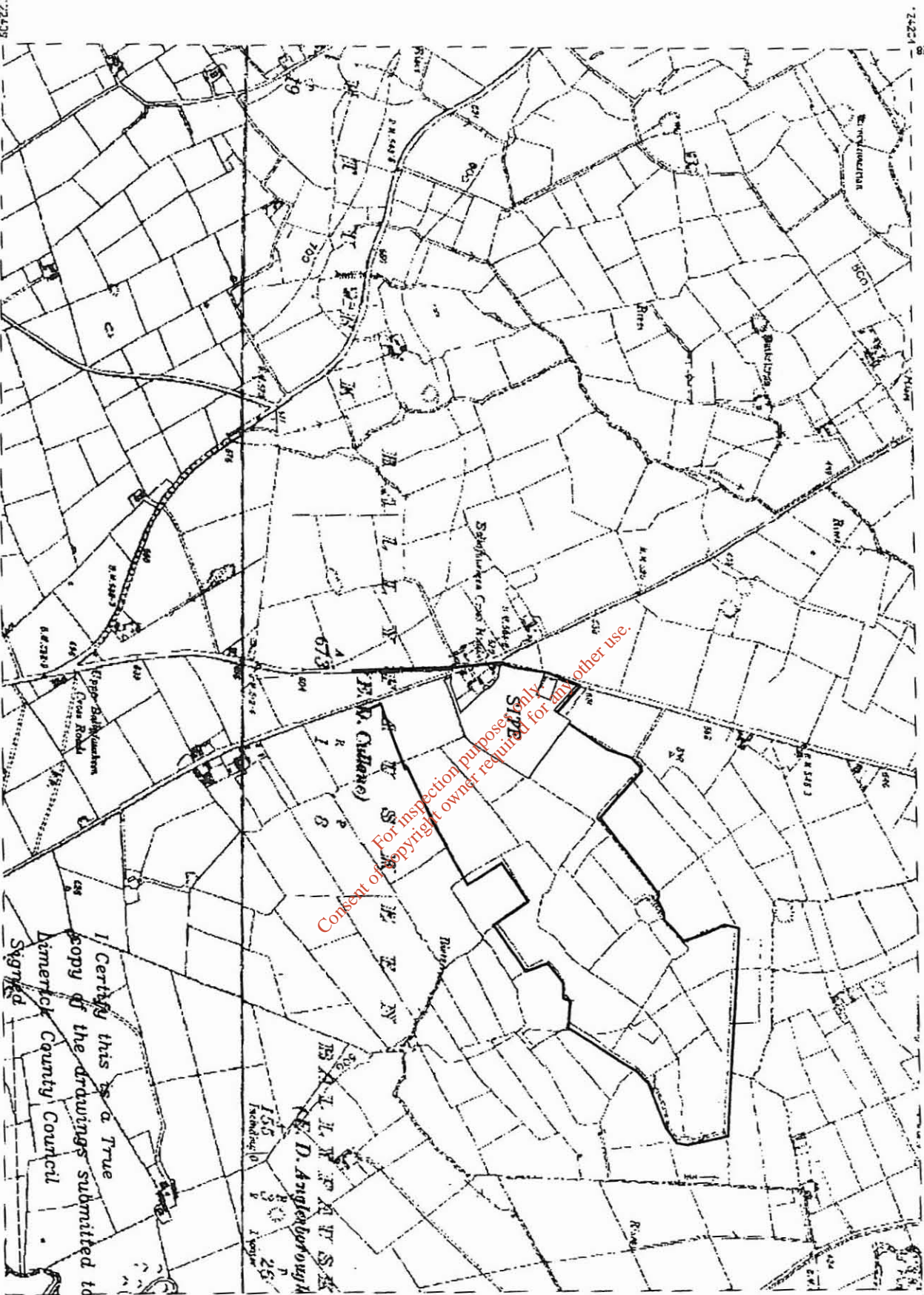
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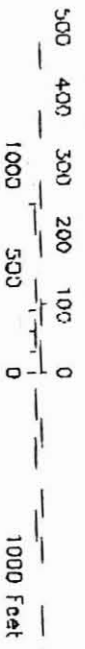


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Scale: 1:10560
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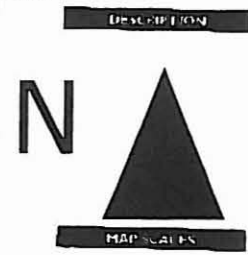


Plot Ref. No. 45761_8_7
 Date 04-AUG-2006

I Certify this as a True
 copy of the drawings submitted to
 Dimerick County Council
 Signed

Surveyed 1988
 Revised 0
 Levelled 1987

Rural PLACE Map



1:2500
 5418-B

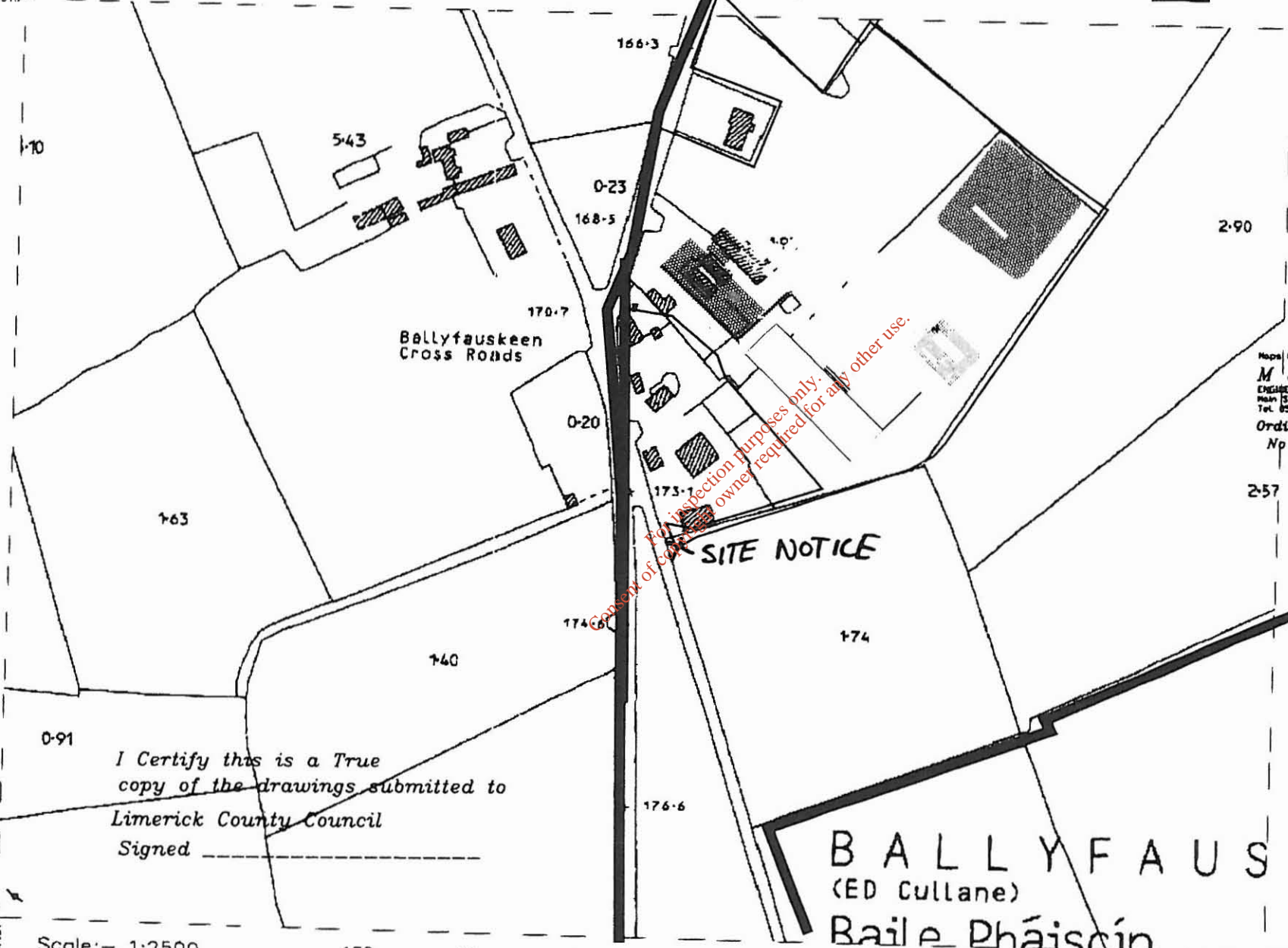
Maps Prepared By
M & J. Mc Eniry
 ENGINEERS
 Main Street, Ballygreen, Co Tipperary.
 Tel. 052 67151 Fax 052 671851 E-mail mjeniry@olc
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Each Order or contract, if carried out, shall be subject to the terms and conditions of the contract and shall be subject to the terms and conditions of the contract and shall be subject to the terms and conditions of the contract

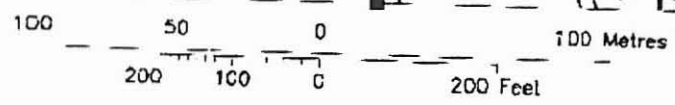
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Scale: - 1:2500
 Scála: - 1:2500



Plot Ref. No. 43761_8_2
 Plot Date 04-AUG-2006

PAT RYAN'S PIG FARM

APPENDIX NO. 2

PLANS AND DRAWINGS
OF
THE PROPOSED PIG FARM

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MAY 2007

NRGE LTD

LEGEND

Boundary of Boundary Line
 Site No. 101
 Storage
 Storage/Other Structure (Shaded)
 Stone cleared
 Reduced Stone Pile
 Structure Approved
 Existing Structure
 Proposed Structure

DATE 12.01.03 03.04 04



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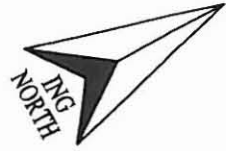
ARGE Manufacture
Leads
Oxide
Plant
at
Ballycullane
Glen

Patrick Ryan, Ballyfuskeen, Galbally

Proposed Phased Re-development of Pig Unit at Ballycullane Glen
 Site Plan **New**

Nov 06	1:500	001	
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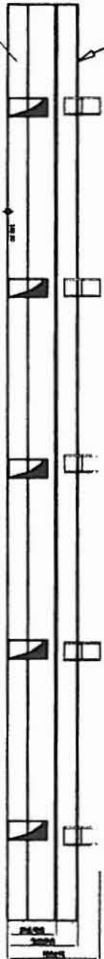


1. The roof shall be constructed of a reinforced concrete slab supported by a steel frame. The roof shall be finished with a 100mm thick reinforced concrete slab with 100mm insulation panels under steel structure.

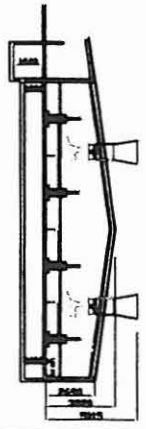
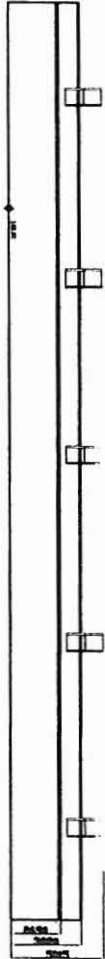
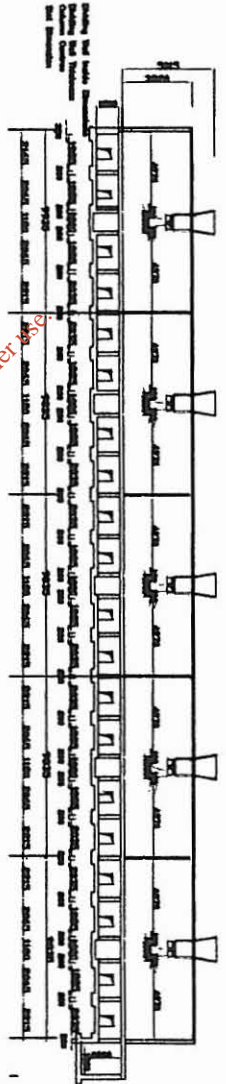
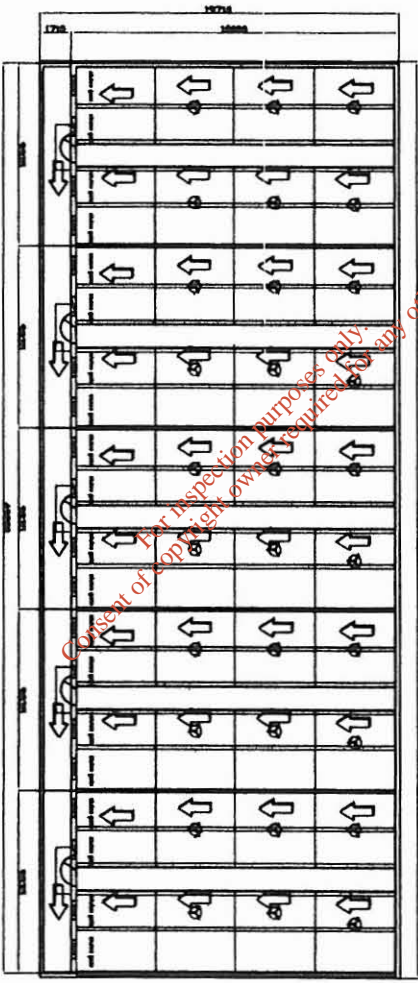


roof cladding to be galvalume sheet piling on steel structure to engineers detail with 100mm insulation panel under steel structure

grey masonry to all side walls



Side Elevation



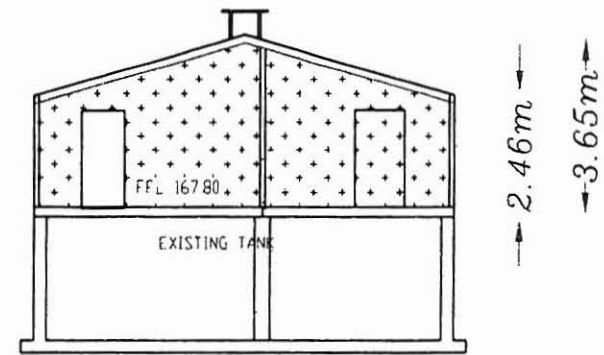
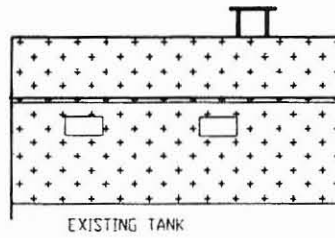
Notes:
 1. The roof shall be constructed of a reinforced concrete slab supported by a steel frame. The roof shall be finished with a 100mm thick reinforced concrete slab with 100mm insulation panels under steel structure.
 2. The roof cladding to be galvalume sheet piling on steel structure to engineers detail with 100mm insulation panel under steel structure.
 3. The side walls shall be constructed of grey masonry.
 4. The floor shall be finished with a 100mm thick reinforced concrete slab with 100mm insulation panels under steel structure.
 5. The foundation shall be constructed of concrete and shall be designed to support the building.
 6. The building shall be constructed in accordance with the specifications of the Limerick County Council.
 7. The building shall be constructed in accordance with the specifications of the Limerick County Council.
 8. The building shall be constructed in accordance with the specifications of the Limerick County Council.
 9. The building shall be constructed in accordance with the specifications of the Limerick County Council.
 10. The building shall be constructed in accordance with the specifications of the Limerick County Council.

I certify that this is a true copy of the drawing submitted to Limerick county council
 Signed _____

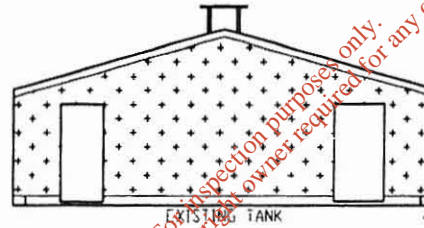
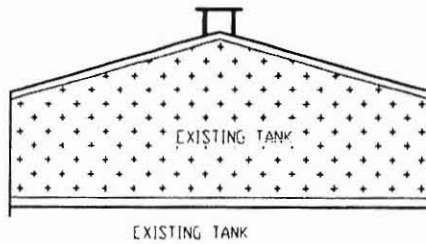
NRCE Microchips
 Limerick
 Co. Tipperary
 Tel: 052 262222
 Fax: 052 262222
 Email: info@nrce.ie

Patrick Ryan
 Planning House A-1
 June 07 1:200 003

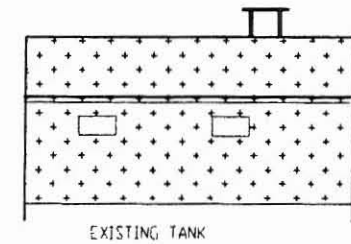
Spine Wall and Beam to be constructed inside the existing tank to support FDS Approved Slabs and in the Workshop and Slats in the Hospital Pins



8.35m

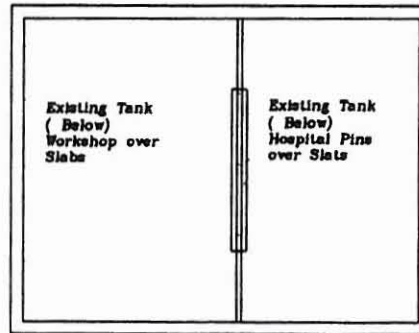


3.34m

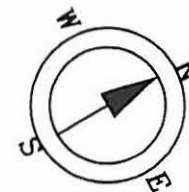


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Structures Proposed



Existing Structure

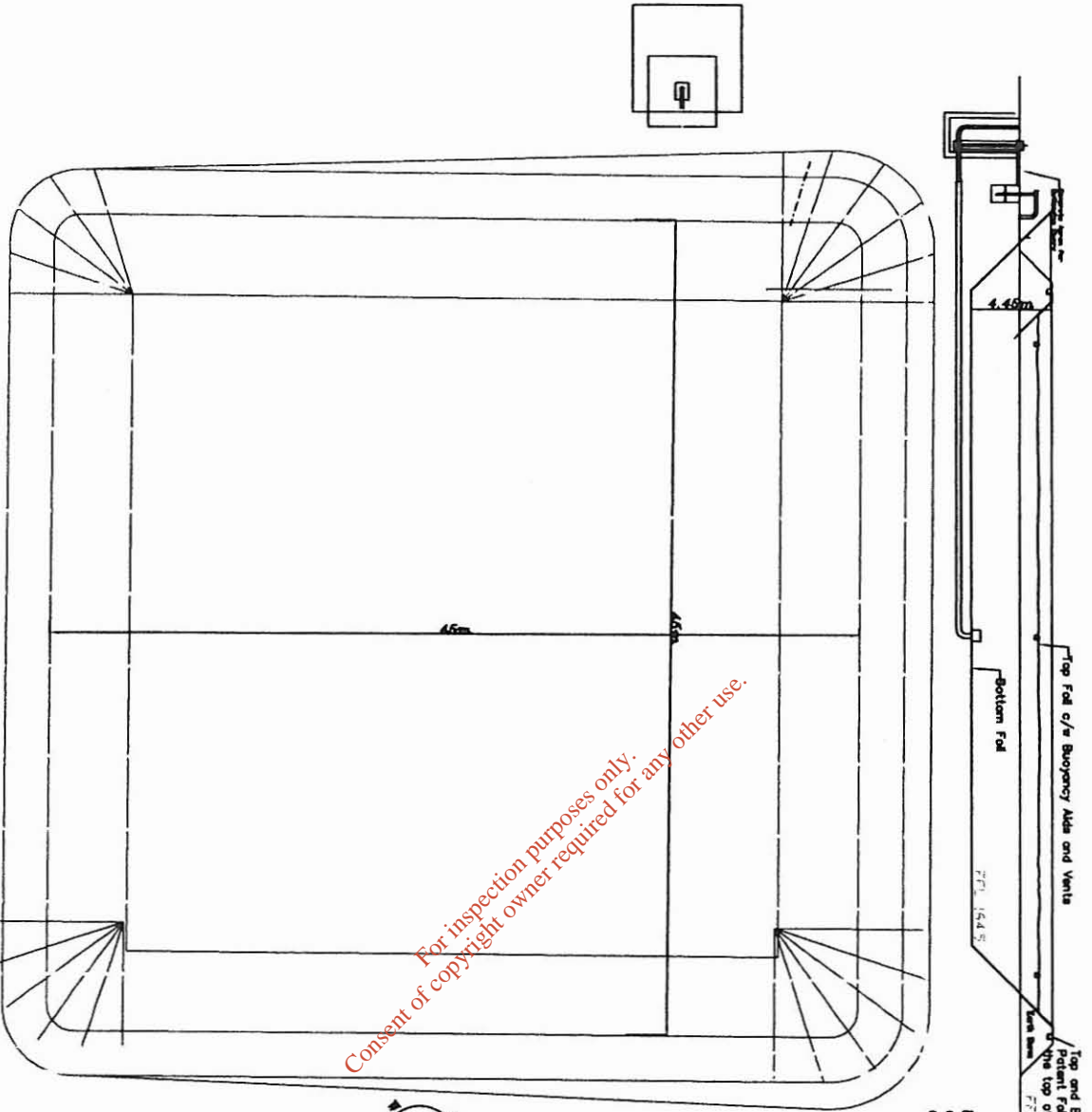


NRGE Moonsfort
Lattin
Co Tipperary
Phone 051 8336
Fax 051 8341
Email NRGE@tdi.ie

Author: Patrick Ryan

Title: Hospital Unit/ Workshop

Date: june 07	Scale: 1:150	Drawing No: 005	Drawn By: A Kelly
---------------	--------------	-----------------	-------------------



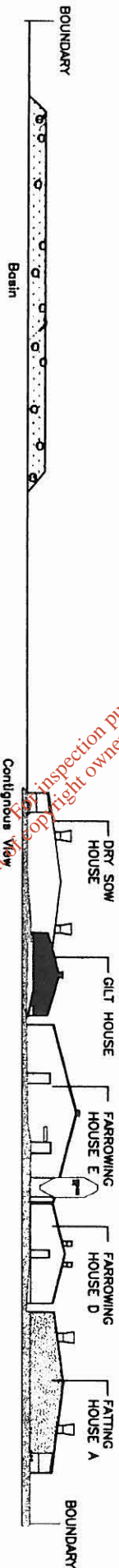
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I certify that this is a true copy of the Drawings Submitted to Limerick County Council
Signed _____

NRCE Manufacture
Limerick Technology
No. 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

Patrick Ryan
Storage Basin

Aug 2005 1/200 0006



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MRCA
 Environmental
 Engineering
 & Services
 Ltd. (Incorporated
 in Ireland)

Client: Patrick Ryan, Ballyfruskeen, Galbally

View: Contiguous View

Issue: JUNE 07

Time: 1250

Page: 007

PAT RYAN'S PIG FARM

APPENDIX NO. 3

REPORT PREPARED BY
DEVENISH NUTRITION LTD

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Mr Mike Sweeney
MS Farm Services
Mooresfort
Lattin
Co Tipperary

23rd October 2006

Dear Mike

I am writing to you in connection with Pat Ryan's pig farm at Ballyfauskeen, Ballylanders, Co Limerick.

I wish to confirm that Mr Pat Ryan is a longstanding customer of Devenish Nutrition Ltd who is using and will continue to use DeviCare low protein diets which we have developed with him for his site.

If you have any further queries please do not hesitate to call.

Yours Sincerely

Aidan O'Toole

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PAT RYAN'S PIG FARM

APPENDIX NO. 4

REGISTER OF VISUAL
INSPECTION OF
STORM WATER
MONITORING POINT

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MAY 2007

NRGE LTD

PAT RYAN'S PIG FARM

APPENDIX NO 5.

CARCASS DISPOSAL
AGREEMENT

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For inspection purposes only.*

MAY 2007

NRGE LTD

Michael Duggan Skip Hire Ltd.,
Tyuva,
Cahir,
Co. Tipperary.

052 41484

Licence Approval Number: 002
15/10/06

Re: Mr. Patrick Ryan,
Ballyfaukeen,
Ballylanders,
Co. Limerick.

Dear Sirs,

We have been engaged by the above named to collect pig carcasses from his premises at the above address.

All such carcasses are collected in sealed skip containers and are brought directly to Waterford Proteins, Christendom, Waterford for rendering.

All pig carcasses are removed on a regular basis as requested by Mr. Ryan.

We may be contacted on the above telephone number to deal with any queries in relation to this.

Yours truly


Michael Duggan

PAT RYAN'S PIG FARM

APPENDIX NO. 6

FLORA & FAUNA REPORT

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MAY 2007

NRGE LTD

FLORA & FAUNA REPORT

FOR

MR. PAT RYAN'S

PIG FARM

AT

BALLYFAUSKEEN, BALLYLANDERS,
CO. LIMERICK

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May 2007

1. Introduction:

This report which reviews the ecology of the site of the proposed site whereupon it is proposed to construct a new Store, Cover existing open pig manure storage tank with a house for Hospital Pens, Replace 4 No. existing pig houses with 2 new modern design buildings, and construct a covered geomembrane lined pig manure storage basin adjacent to the existing pig farm at Ballyfauskeen, Ballylanders, Co. Limerick.

2. FLORA & FAUNA IN THE EXISTING ENVIRONMENT

2.1 Habitat types

The survey area around the existing pig farm is currently a farmyard, adjacent to open grassland areas, which appear to be paddocked for grazing

From an ecological viewpoint the survey area is somewhat barren, but the adjacent grassland areas and hedges are of interest

2.1(a)

(a) Grassland/tillage

The grassland areas adjacent to the site are all obviously well managed land which has also been fertilised with manures resulting in fields dominated by agricultural grasses such as ryegrass (*Lolium sp.*) Although other grasses such as fescue (*Festuca sp.*), cocksfoot (*Dactylis glomerata*), Yorkshire fog (*Holcus lanatus*) and bents (*Agrostis sp.*) are present and although some of these grass species will be wild strains, the vegetation is dominated by agricultural cultivars selected for their vigour. Such a distribution is to be expected where farming is intensive and where much of the land is improved pasture. Where broad-leaved plants are present they consist primarily of clover (*Trifolium sp.*), dock (*Rumex sp.*), thistle (*Cirsium sp.*), ragwort (*Senecio jacobacea*) and nettle (*Urtica dioica*). These are all common species, many of which thrive in fertile ground

Given the nature of the grassland areas, it is considered extremely unlikely that any rare, endangered or uncommon

species are present within these habitats and no such species were noted

2.1.(b) (b) Hedgerows

In intensive managed agricultural systems species diversity is often greatest at habitat interfaces such as hedges, ditches and herbaceous strips between fields. Studies have shown that almost 45% of flora may exist in these habitats, which may cover 8 - 10% of the landscape (Buckley 1989). Mature hedgerows therefore fulfil an important role on intensively farmed land where, in addition to providing food and nesting sites, they function as wildlife corridors allowing fauna to move easily from one habitat to another.

Typical tree hedgerow species include hawthorn (*Crataegus monogyna*), ash (*Fraxinus excelsior*) and sycamore (*Acer pseudoplatanus*) and these species make up the majority of the hedges surveyed. Other less numerous trees species include oak (*Quercus robur*), willow (*Salix*), and blackthorn (*Prunus spinosa*). Other woody species include furze (*Ulex europeas*), elder (*Sambucus nigra*), bramble (*Rubus fruticosus*), ivy (*Hierera helix*) honeysuckle (*Lonicera periclymenum*) and bindweed (*Calystegia sepium*). Typical understorey plants include hartstongue fern (*Phyllitis Scolopendrium*), nettle (*Urticadiocia*), Woodavens (*Geun Urbalum*), Hedge woundwort (*Stachys Sylvaticia*), Herb Robert (*Geranium Robertianum*), umbellifers such as hogweed (*Heraclbum Sphondylium*) and Cow Parsley (*Anthriscus Sylvestris*) and barren strawberry (*Potentilla sterils*)

2.1(e) Fauna

Birds noted during the survey included species normally common in mixed farmland of this type including members of the crow family (*corvus sp*), pigeon (*columba palumbus*) and blackbirds (*turdus merula*), wren (*trogloodytes troglodytes*), and kestrel (*falco tinnunculcus*). Other common birds include wagtail (*montacilla sp*), members of

the tit family (*parus sp*), thrushes (*turds sp*), and other finch species

A number of the mammal species utilize farmland habitats including field mouse (*apodmus sylvatica*), brown rat (*rattus norvegicus*), rabbit (*oryclalagus coliculus*), fox (*vulpes*), badger (*meles meles*), irish hare (*lepus timidus hibernicus*). Of the three Irish amphibians, only the common frog (*rama tenporaria*) is likely to be present in low numbers.

Invertrabraes species on this type of ground will include a number of common species but the presence of rare species is considered unlikely.

It is considered very unlikely that these developments will impact negatively on vertebrate life as these lands are already intensively farmed. As such the vertebrate present on this type of ground will be typical of intensively farmed agricultural land and no additional impacts would be expected from a continuation of this type of farming.

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PAT RYAN'S PIG FARM

APPENDIX NO. 7

DISPOSAL OF CARCASSES IN THE EVENT OF A CATEGORY A DISEASE OUTBREAK

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MAY 2007

NRGE LTD

Michael Duggan Skip Hire Ltd.,
Tyuva,
Cahir,
Co. Tipperary.

052 41484

Licence Approval Number: 002
15/10/06

Re: Mr. Patrick Ryan,
Ballyfaukeen,
Ballylanders,
Co. Limerick.

Dear Sirs,

We have being engaged by the above named to collect pig carcasses from his premises at the above address.

All such carcasses are collected in sealed skip containers and are brought directly to Waterford Proteins, Christendom, Waterford for rendering.

All pig carcasses are removed on a regular basis as requested by Mr. Ryan.

We may be contacted on the above telephone number to deal with any queries in relation to this.

Yours truly


Michael Duggan

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PAT RYAN'S PIG FARM

APPENDIX NO. 8

ARCHAEOLOGICAL REPORT

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MAY 2007

NRGE LTD

ARCHAEOLOGICAL REPORT

FOR SITE

OF

PAT RYAN'S PIG FARM

AT

**BALLYFAUSKEEN, BALLYLANDERS,
CO. LIMERICK**

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1. SCOPE OF THE STUDY.

This report assesses the impact on the archaeological environment if any, of the construction of a new store, cover existing open pig manure storage tank with a house for Hospital pens, replace 4 No. existing pig houses with 2 new modern design buildings, and construct a covered geomembrane lined pig manure storage basin, adjacent to the existing farm at Ballyfauskeen, Ballylanders, Co. Limerick.

2. RESOURCE MATERIAL CONSULTED.

The archaeological status of the lands where it is proposed to construct these developments, adjacent to the existing pig farm was established by consulting the 'SITES AND MONUMENTS RECORD' (SMR) for County Limerick.

3. ARCHAEOLOGICAL MONUMENTS IDENTIFIED.

This review indicates that there are no archaeological sites on or adjacent to the area referenced.

4. IMPACT OF PROPOSED DEVELOPMENT OF NEW BUILDINGS ADJACENT TO EXISTING PIG FARM ON THE ARCHAEOLOGICAL ENVIRONMENT.

The construction of these proposed developments will require minimal ground disturbance, which when overlaid with the lack of evidence of any historical sites from SMR Records for Co. Limerick, it is clear these proposed developments poses no immediate danger to any listed sites.

5. THE SITE.

A review of the archaeological Sites & Monuments Record Maps (1925), indicates that there are no archaeological sites recorded on or adjacent to this proposed site (See attached Map-Limerick Sheet 49)

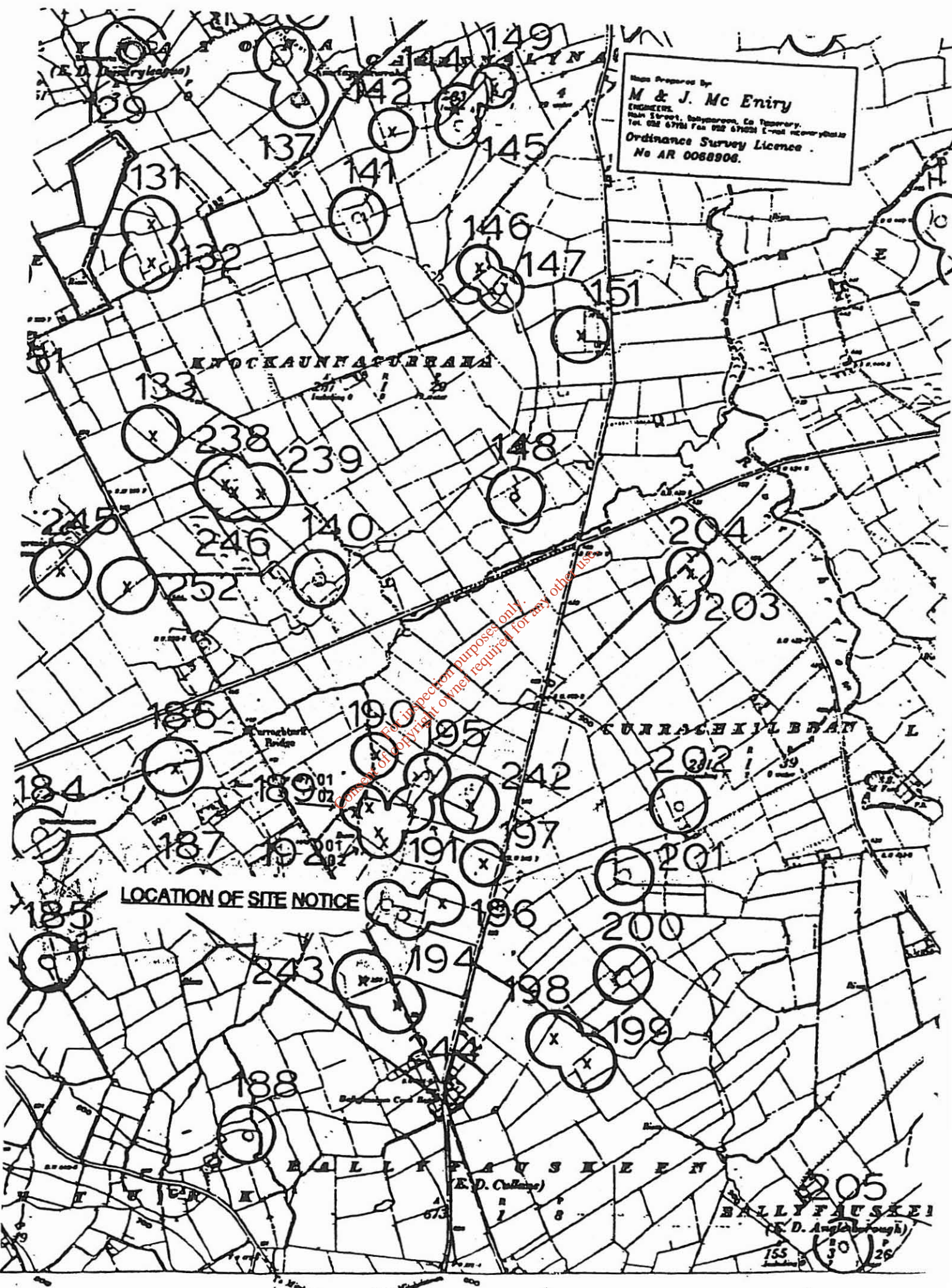
SUMMARY

- (i) There are no archaeological sites recorded on or adjacent to this proposed development site.

- (ii) There is no known archaeological reason to prohibit the construction of a new store, cover existing open pig manure storage tank with a house for Hospital pens, replace 4 No. existing pig houses with 2 new modern design buildings, and construct a covered geomembrane lined pig manure storage basin.

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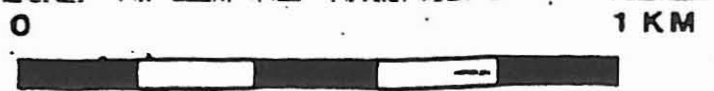
Map Prepared By
M & J. Mc Entry
 ENGINEERS
 Main Street, Ballymore, Co. Tipperary.
 Tel. 052 6784 Fax 052 67828 E-mail mentry@bt.ie
 Ordinance Survey Licence
 No AR 0088906.



LOCATION OF SITE NOTICE

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BY _____ DATE OF _____



PAT RYAN'S PIG FARM

APPENDIX NO. 9

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WELL REPORT

MAY 2007

NRGE LTD

FBA Laboratories Ltd.

Cappoquin,
Co. Waterford.

ANALYSTS: Agricultural and Environmental
CONSULTANTS: Agricultural and Nutritional

Tel: 058-52861
Fax: 058-52865
tom@fba-labs.com

CERTIFICATE OF ANALYSIS

MS Farm Services,
Moorefort,
Lattin,
Co. Tipperary.

Client:
Sample Ref: W1
Date Received: 28.11.2006
Lab Ref: 10427

Parameter	Units of analysis	Result
Total Ammonia	mg/l NH ₃ -N	0.01
Nitrate	mg/l NO ₃ -N	0.2
Total Coliforms	MPN/100mls	12
Faecal Coliforms	MPN/100mls	Absent

Signed *[Signature]*

Date 1/12/06

DIRECTORS: T.M. BUTLER M.AGR.SC., PHD
C.M. BUTLER DIP SCI.

Co. REG. No: 250639



PAT RYAN'S PIG FARM

APPENDIX NO. 10

FLUORESCENT TUBES
REGISTER

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MAY 2007

NRGE LTD

PAT RYAN'S PIG FARM

APPENDIX NO 11.

CODE OF GOOD PRACTICE
& BUFFER ZONES

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MAY 2007

NRGE LTD

**TEAGASC CODE OF GOOD PRACTICE
(A) FOR SLURRY SPREADING AND (B) TO REDUCE ODOUR EMISSIONS**

A. Code of Good Practice for Slurry Spreading

A concise summary of the guidelines is the Teagasc Code of Good Practice for Slurry Spreading.

- * Spread slurry at rates which take account of the crops nutrient requirements. Limit annual applications of cattle and pig slurry to 55 and 35 t ha.
- * Where possible spread slurry earlier rather than later in the growing season.
- * Avoid spreading slurry (a) on wet or waterlogged soils, (b) on frozen or snow covered soils, (c) in areas near watercourses or wells
- * Check weather forecast before spreading. If heavy rain is forecast within 48 hours avoid spreading on heavy wet soils.
- * Avoid direct contamination of surface and ground water by leaving a sufficient margin.
- * Use Teagasc Code of Practice to Reduce Odour Emissions.

B. Teagasc Code of Practice to Reduce Odour Emissions at Spreading Time

A sensible approach to spreading minimises the impact of odour

- * Direct slurry downwards towards the soil using a low trajectory splash plate.
- * Switch off the vacuum pump immediately the tanker empties to minimise mist production.
- * Avoid using rain guns to spread slurry
- * Avoid spreading slurry when the wind direction is towards population centres or neighbours houses.
- * Avoid spreading slurry at times when the risk of causing odour nuisance to the public is greatest, e.g. weekends or public holidays.
- * Spreading in damp or light rain conditions will minimise smell drift.
- * Where slurry is spread on tilled soil or land that is to be ploughed it should be incorporated into the soil as quickly as possible following application.

PAT RYAN'S PIG FARM

APPENDIX NO. 12

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CALCULATION OF PIG MANURE VOLUMES

MAY 2007

NRGE LTD

**PAT RYAN'S PIG FARM
BALLYFAUSKEEN BALLYLANDERS CO LIMERICK**

TABLE 1: CALCULATION OF PIG MANURE VOLUMES

PIG TYPE	NUMBER OF STOCK	NEAT excreta Pig/week (litres)	Total Litres	Total M3
Farrowing Sows	127	97	12319	12.32
Dry Sows	273	44	12012	12.01
Boars	5	44	220	0.22
Gilts	100	44	4400	4.40
Weaner	2300	12	27600	27.60
Fattener	2500	34	85000	85.00
Total Pig Manure per week			141551	142
Total Pig Manure per annum			7360652	7361
Extreanous water 8%			588852	589
Total annual production pig manure			7949504	7950

S.I. 378 of 2006

Table 6
Table 6

87 Kgs N /Sow Place
17 Kgs P /Sow Place

with 400 Sows		7950	M3
34800	Kgs N	4.38	Kgs N
6800	Kgs P	0.86	Kgs P

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PAT RYAN'S PIG FARM

APPENDIX NO. 13

PIG MANURE REGISTER

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MAY 2007

NRGE LTD

PAT RYAN'S PIG FARM

APPENDIX NO. 14

REFUSE WASTE REGISTER

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MAY 2007

NRGE LTD

PAT RYAN'S PIG FARM

APPENDIX NO. 15

FARM STRUCTURES TABLE

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FARM STRUCTURES TABLE REV 1

Patrick Ryan, Ballyfaskin

*Covered Structures to Stormwater System 6718
 Paved Areas to Stormwater System only
 # Paved Areas to Foul/Stormwater System 0
 Paved Areas to Foulwater System Only 152
 Unpaved Areas 1075

TITLE	STATUS	CLASS	STRU LGT (M)	CTURE WITH (M)	AREA SQ MTS	TOTAL AREA B/F	TANK WIDTH	TANK LENGHT	TANK DEPTH	CAPACITY CUBIC MTS	TOTAL CAPACITY	EFFECTIVE CAPACITY WITH 200 FREE BOARD	TOTAL EFFECTIVE CAPACITY
A Fattening House	Existing	6	23.0	7.3	167.9	167.9	7.3	23.0	0.6	100.7		67.2	
B Fattening House	Existing	6	20.5	5.3	108.7	276.6	5.3	20.5	1.8	195.6		173.8	
C Fattening House	Existing	6	43.3	5.1	220.8	497.4	5.1	43.3	1.8	397.5	397.5	353.3	0.0
D Farrowing	Existing	6	12.0	12.0	144.0	641.4	12.0	12.0	0.6	86.4	483.9	57.6	57.6
E Farrowing	Existing	6	30.5	12.7	387.4	1028.7	12.7	30.5	0.9	348.6	832.5	271.1	328.7
F Farrowing	Existing	6	14.8	13.0	192.4	1221.2	13.0	14.8	0.9	173.2	1005.7	134.7	463.4
G Gilt House	Existing	6	18.3	11.8	215.0	1436.2	11.8	18.3	0.9	193.5	1199.2	150.5	614.0
					0.0						1199.2		614.0
H Open Tank	Existing	7	8.7	6.6	57.0	57.0	6.6	8.7	2.5	142.5	1341.7	114.0	728.0
					0.0		0.0	0.0	0.0	0.0	1341.7	0.0	728.0
I Fattening House	Existing	6	69.2	19.9	1376.7	1376.7	19.9	69.2	1.8	2478.0	3819.8	2202.7	2930.7
J 1st Stage Weaner	Existing	6	30.3	11.0	333.7	1710.3	11.0	30.3	0.6	200.2	4020.0	133.5	3064.1
K 1st Stage Weaner	Existing	6	15.5	11.2	173.6	1883.9	11.2	15.5	0.6	104.2	4124.1	69.4	3133.6
L 2nd Stage Weaner	Existing	6	29.4	17.9	524.8	2408.8	17.9	29.4	1.2	629.8	4753.9	524.8	3658.4
M 2nd Stage Weaner	Existing	6	16.4	11.3	184.8	2593.6	11.3	16.4	1.2	221.8	4975.7	184.8	3658.2
N Dry Sow	Existing	6	46.4	20.6	956.5	3550.1	20.6	46.4	1.8	1721.6	6697.3	1530.3	5373.6
O Fattening	Existing	6	21.7	21.5	466.3	4016.4	21.5	21.7	1.8	839.4	7536.7	746.1	6119.7
P Fattening	Existing	6	23.6	10.4	246.1	4262.5	10.4	23.6	1.8	443.0	7979.7	393.7	6513.4
													152.2
Pump House AA	Existing		1.8	1.5	2.8	4789.6							
Generator AB	Existing		8.0	3.1	24.7	24.7							
Meal Bin 1	Existing		2.2	2.2	3.8	28.5							
Meal Bin 2	Existing		2.2	2.2	3.8	32.3							
Meal Bin 3	Existing		2.2	2.2	3.8	36.1							
Meal Bin 4	Existing		2.2	2.2	3.8	39.9							
Meal Bin 5	Existing		2.8	2.8	6.0	46.0							
Meal Bin 6	Existing		2.2	2.2	3.8	144.0							
Meal Bin 7	Existing		2.2	2.2	3.8	147.8							
Meal Bin 8	Existing		2.2	2.2	3.8	151.6							
Fattening A-1	Proposed		49.58	18	892.44	892.44	18	43.5	4	3132.0	12055.4		
Farrowing D-1	Proposed		12	12	144.0	1036.4	12	12	0.6	86.4	12141.8	57.6	7409.9
Manure Storage Basin	Proposed		40	40	1600		40	40	4	6400	18541.8	6080.0	13489.9

PAT RYAN'S PIG FARM

APPENDIX NO. 16

CONTRACT FOR DISPOSAL
OF VETERINARY WASTE

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MAY 2007

NRGE LTD

SERVICE AGREEMENT

Initial Healthcare
 Rentokil Initial Limited,
 47 Terenure Road East, Dublin 6

Invoice Name M.S Form Services
 Address Moorefort
Leitrim
Co. Tipp
 Postcode

Order No.

Commencement date

VAT rate VAT exempt No.
 (attach copy)

PAT RYAN.
 BALLYFAWKEEVIN.
 BALLYLANDERS.
 CO. LIMERICK

PRODUCT/SERVICE	QUANTITY	COST PER WEEK	COST PER ANNUM	SERVICE FREQUENCY
Sharps 6pk.	3	€70		2 services p.A monthly

- The client agrees to pay a one off installation charge of € plus an annual charge of €. All payments are subject to VAT at the appropriate rate. Initial charges are due on commencement of the agreement and subsequent payments annually in advance. In the event of late payment, interest may accrue, at the sole discretion of Rentokil Initial Limited, at a rate of 10% per month until payment is received. All payments are to be made to Rentokil Initial Limited at 47 Terenure Road East, Dublin 6, where this agreement shall be deemed to have been made. Rentokil Initial Limited reserves the right to increase charges following expiry of the first year.
- This agreement may only be terminated or service deleted on an anniversary of the commencement date, provided that written notification is given by the party terminating it to the other at least 3 months prior to such anniversary date. Addition of a new service to this agreement automatically extends the anniversary date by 12 months after the addition date.
- The person signing this agreement warrants that he/she has the authority of the client to make this contract on the clients behalf.

I clearly understand that this service agreement is for a minimum of 1 year.

Signed for client Michael Sweeney
 Name in block capitals MICHAEL SWEENEY
 Position M. Director
 Date 25-07-01

Signed for RENTOKIL INITIAL LIMITED
Rose Connolly

PAT RYAN'S PIG FARM

APPENDIX NO 17.

CARCASS REGISTER

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PAT RYAN'S PIG FARM

APPENDIX NO. 18

VETERINARY WASTE REGISTER

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APPENDIX NO. 19

LANDSCAPING REPORT

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**Liam O'Connor, Forest and Tree-care Services,
West End,
Kilfinane,
Co Limerick.**

03-05-07

**LIMERICK COUNTY COUNCIL
County Hall
LIMERICK**

**Subject: Mr. Pat Ryan's Pig Farm at Ballyfauskeen,
Ballylanders, Co. Limerick.**

**I inspected the above site at the request of NRG Ltd,
Mooresfort, Lattin Co. Tipperary. I found that the site is at the
base of an incline and is partially visible from a number of
locations on the adjacent public roadway. There is some existing
screening, but these proposed developments, with an earthen
burn adjacent to them, provide an ideal opportunity to screen
this site.**

**In order to minimise the visual impact of the site I propose the
planting of a minimum of three rows of native species Holly (*Ilex
Aquifolium*), Alder (*Alnus Glutinosa*), Hazel (*Corylus*). These
native species trees will act as a screen around this site.
The proposed specifications for the planting schedule are;**

- 1. Planting to take place in October (as soon as transplants
become available.**

- 2. Use 60 90 cm transplants.**
- 3. Spray the site with round up pre-planting to eliminate competing weeds at 4 litres/Ha.**
- 4. Pit plant all trees at 2.5m spacings for good silvacultural practice.**
- 5. Three rows will be adequate to achieve screening i.e. 2 deciduous and 1 evergreen.**
- 6. Some specimen plants to be planted at site entrance.**

**Liam O' Connor
Forester.**

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PAT RYAN'S PIG FARM

APPENDIX NO. 20

REGISTER OF VERMIN CONTROL

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PAT RYAN'S PIG FARM

APPENDIX NO. 21

EMERGENCY RESPONSE PROCEDURE

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MAY 2007

NRGE LTD

**PAT RYANS PIG FARM
BALLYFAUSKEEN, BALLYLANDERS, CO LIMERICK
IPC LICENCE REG NO 000**

PHONE: PAT RYAN 086-8398366

EMERGENCY RESPONSE PROCEDURE

In the event of any emergency situation developing on site which may create an environmental risk, make contact with the following:

NOTIFY THE ENVIRONMENTAL PROTECTION AGENCY:

During Office Hours Phone: 021-4875540 Fax: 021-4875545

Outside Office Hours Phone: 053-60600 Fax: 053-60699

1. NOTIFY LIMERICK COUNTY COUNCIL

During office hours Phone: 061-496264 Fax: 061-496008

2. NOTIFY THE REGIONAL FISHERIES BOARD

Phone: 052-80055 Fax: 052-23971

*** IF JCB's or Excavating machinery are required, make contact with**

NAME. JOHNNY DILLION Phone: 086-8403426

*** If Slurry tankers are required to move slurry, make contact with**

NAME. MIKE MEEHAN Phone: 086-8687604

*** If Structural damage has occurred to any buildings on site, contact**

**NAME: JOHNNY CARTHY Phone:
TOM RICHARDSON Phone: 087-6881592**

*** In the event of a problem with the ventilation system contact**

IDS : Phone 057-8621224

Doctor: phone Dr Frank O Connor 025-24554

CAREDOC: 1850-334999

Fire Brigade: 999

Garda Station 999

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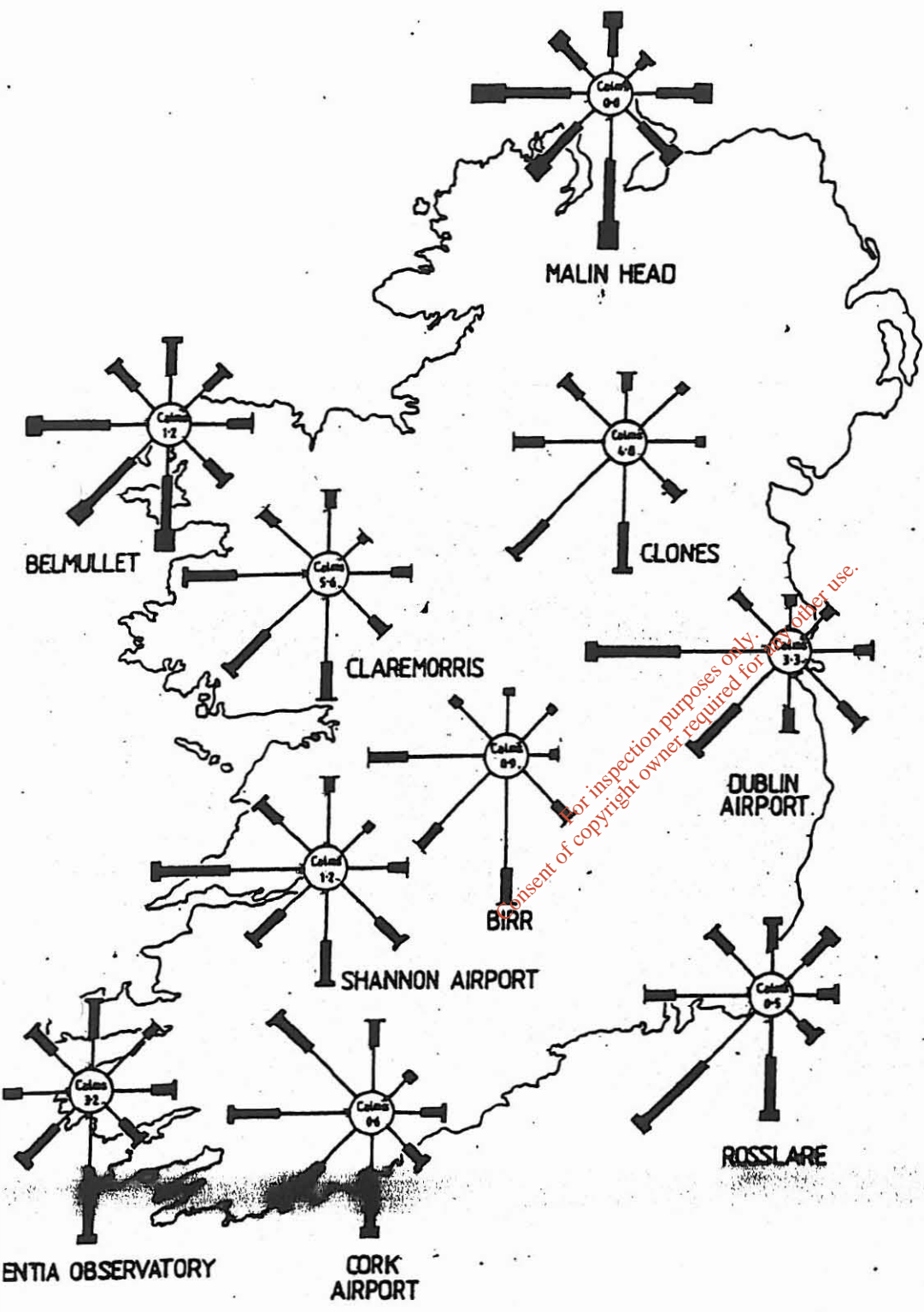
monthly and annual mean and extreme values
1962-1991

lat. 51° 50' N
long. 8° 29' W
height 154 metres above mean sea level

TEMPERATURE (degrees Celsius)	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	year
mean daily max.	7.6	7.5	9.3	11.3	13.8	16.6	18.5	18.2	16.0	13.1	9.9	8.5	12.5
mean daily min.	2.6	2.5	3.1	4.2	6.5	9.2	11.1	10.9	9.4	7.5	4.5	3.7	6.3
mean	5.1	5.0	6.2	7.7	10.2	12.9	14.8	14.5	12.7	10.3	7.2	6.1	9.4
absolute max.	12.8	13.5	15.5	20.5	23.6	25.7	28.7	27.5	24.7	19.0	15.9	13.6	28.7
absolute min.	-8.5	-8.6	-6.1	-2.4	-0.9	2.4	4.8	4.9	2.3	-0.4	-3.3	-5.9	-8.6
mean no. of days with air frost	6.7	5.8	3.4	1.8	0.1	0.0	0.0	0.0	0.0	0.0	2.4	3.9	24.0
mean no. of days with ground frost	15.0	12.7	12.0	9.4	2.9	0.2	0.0	0.0	0.4	2.6	9.5	12.2	76.8
RELATIVE HUMIDITY (%)													
mean at 0900UTC	90	90	88	83	81	81	83	86	88	91	90	90	87
mean at 1500UTC	84	80	75	71	71	72	72	73	76	82	83	86	77
SUNSHINE (hours)													
mean daily duration	1.70	2.28	3.51	5.21	6.02	5.73	5.40	5.14	4.13	2.80	2.16	1.58	3.80
greatest daily duration	7.3	9.3	11.8	13.8	15.4	15.9	15.9	14.2	12.8	9.9	8.5	6.7	15.9
mean no. of days with no sun	11	9	6	4	2	3	2	2	4	7	9	12	69
RAINFALL (mm)													
mean monthly total	138.3	115.6	98.7	67.7	83.4	88.8	66.4	88.7	96.4	125.4	111.1	133.8	1194.4
greatest daily total	55.1	48.2	39.3	44.9	49.3	43.3	83.8	64.8	51.8	86.7	69.9	52.2	86.7
mean no. of days with ≥ 0.2 mm	20	17	18	14	16	15	14	16	16	19	19	20	204
mean no. of days with ≥ 1.0 mm	16	13	13	10	12	10	9	11	12	15	14	16	151
mean no. of days with ≥ 5.0 mm	9	8	6	4	5	5	4	5	6	8	7	8	75
WIND (knots)													
mean monthly speed	12.9	12.6	12.3	11.0	10.6	9.5	9.1	9.2	10.3	11.2	11.6	12.4	11.1
max. gust	94	83	70	63	60	51	57	54	64	75	66	68	94
max. mean 10-minute speed	58	54	44	41	41	36	40	38	45	48	46	48	58
mean no. of days with gales	3.2	2.2	1.7	0.7	0.4	0.1	0.1	0.2	0.7	1.2	1.8	2.5	15.0
WEATHER (mean no. of days with...)													
snow or sleet	4.5	4.7	3.0	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.6	2.3	16.4
snow lying at 0900UTC	2.7	1.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	5.6
hail	1.0	1.1	1.9	1.9	1.1	0.3	0.1	0.1	0.1	0.4	0.3	0.6	8.8
thunder	0.4	0.1	0.1	0.2	0.4	0.5	0.8	0.5	0.2	0.4	0.1	0.1	3.7
fog	7.4	7.3	7.9	5.9	7.7	8.6	8.5	9.8	10.7	10.4	7.3	8.0	99.5

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Frequency of simultaneous occurrence of specified ranges of wind speed and direction, 1962-1994.



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Scale of frequency 0 5 10 15 20 25%

Scale of speed 0.3 to 5.4 5.5 to 10.7 10.8 or more metres/sec
Beaufort force 1 to 3 4 & 5 6 or more



Estimated maximum 10-minute mean wind speed (*m/s*) with return period 50 years. Valid for a height of 10m. above terrain of category II (farmland with boundary hedges, occasional small farm structures, houses or trees).

- Notes: (1) Terrain of category II is now the standard for Eurocodes. Maps published by Met Éireann prior to 1993 used open, level country (category I) as standard. This category II map of 10-minute mean wind speed is some 8% lower.
- (2) For sites on the south, west and north coasts increase by 8 to 10%.



KILKENNY

monthly and annual mean and extreme values
1961-1990

lat. 52° 39' N
long. 7° 16' W
height 66 metres above mean sea level

TEMPERATURE (degrees Celsius)	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	year
mean daily max.	7.7	7.9	10.0	12.4	15.1	18.1	19.9	19.6	17.2	13.9	10.1	8.4	13.4
mean daily min.	1.4	1.6	2.3	3.4	5.6	8.4	10.4	9.9	7.9	6.1	2.8	2.1	5.2
mean	4.6	4.8	6.1	7.9	10.3	13.3	15.2	14.7	12.6	10.0	6.4	5.3	9.3
absolute max.	14.1	15.1	18.5	23.5	26.0	31.5	31.4	30.5	25.6	22.2	17.4	14.8	31.5
absolute min.	-14.1	-11.1	-7.9	-5.4	-3.7	0.5	2.3	1.2	-1.6	-4.4	-7.0	-10.8	-14.1
mean no. of days with air frost	10.8	8.7	7.4	4.1	0.8	0.0	0.0	0.0	0.4	2.0	8.4	10.5	53.0
mean no. of days with ground frost	18.2	14.9	14.3	12.4	7.3	2.0	0.4	0.8	3.4	6.8	14.2	16.8	111.5
RELATIVE HUMIDITY (%)													
mean at 0900UTC	88	87	85	79	76	76	79	82	85	88	89	89	84
mean at 1500UTC	80	74	68	64	64	65	65	66	69	76	78	82	71
SUNSHINE (hours)													
mean daily duration	1.71	2.29	3.32	4.85	5.47	5.15	4.65	4.50	3.82	2.71	2.22	1.48	3.51
greatest daily duration	8.2	9.7	12.1	14.0	15.8	16.3	16.0	14.2	11.8	10.2	9.0	7.3	16.3
mean no. of days with no sun	11	8	6	3	2	2	2	2	3	6	9	12	65
RAINFALL (mm)													
mean monthly total	86.3	66.1	63.9	51.4	61.9	50.5	52.5	69.4	73.5	64.9	73.8	88.6	822.8
greatest daily total	31.5	32.3	29.9	24.5	23.9	30	66.4	49.8	30	34.6	29	45.8	66.4
mean no. of days with >= 0.2mm	19	15	17	15	17	14	13	15	15	18	17	18	192
mean no. of days with >= 1.0mm	15	11	12	10	12	10	9	11	11	13	12	13	137
mean no. of days with >= 5.0mm	7	5	5	4	5	4	3	4	5	6	5	6	58
WIND (knots)													
mean monthly speed	7.4	7.4	7.7	6.7	6.4	5.8	5.6	5.6	5.9	6.4	6.4	7.1	6.5
max. gust	77	72	60	53	54	45	46	56	65	74	56	65	77
max. mean 10-minute speed	44	39	36	33	32	28	27	29	40	45	35	40	45
mean no. of days with gales	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	1.4
WEATHER (mean no. of days with...)													
snow or sleet	5.1	5.0	3.1	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.5	2.6	17.3
snow lying at 0900UTC	1.7	1.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	4.1
hail	1.1	1.0	2.7	2.4	1.3	0.5	0.1	0.1	0.1	0.3	0.4	0.3	10.4
thunder	0.1	0.1	0.2	0.4	0.8	0.9	1.1	0.8	0.3	0.2	0.0	0.1	5.0
fog	4.6	2.9	2.3	2.0	2.4	2.3	2.6	4.6	5.6	5.9	4.3	4.9	44.4

PAT RYAN'S PIG FARM

APPENDIX NO 23

DEVELOPMENT OF NATIONAL PIG INDUSTRY

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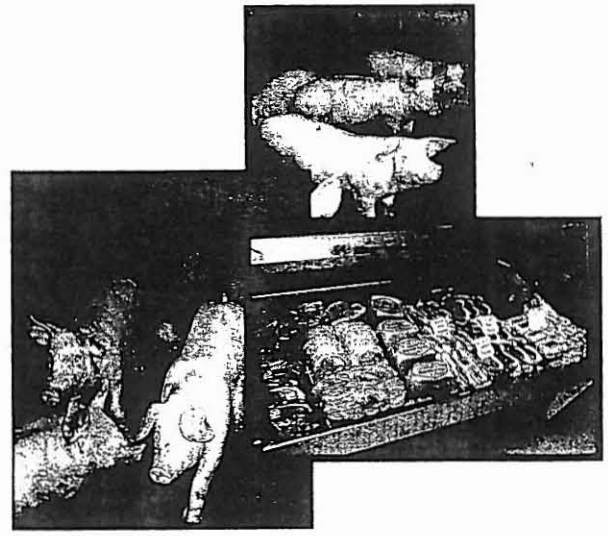
MAY 2007

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Teagasc

- Teagasc have appointed an additional full-time researcher to meet the research needs in production areas unique to Ireland
- Teagasc are committed to providing two additional pig advisers to service existing clients and provide the necessary support for new and expanding units
- Training of new entrants to the pig industry starts primarily at agricultural colleges. Each agricultural student will be encouraged to take a 25 hour module in pig production
- Training courses in personnel management which are needed by many of the managing staff working in large pig units will be developed



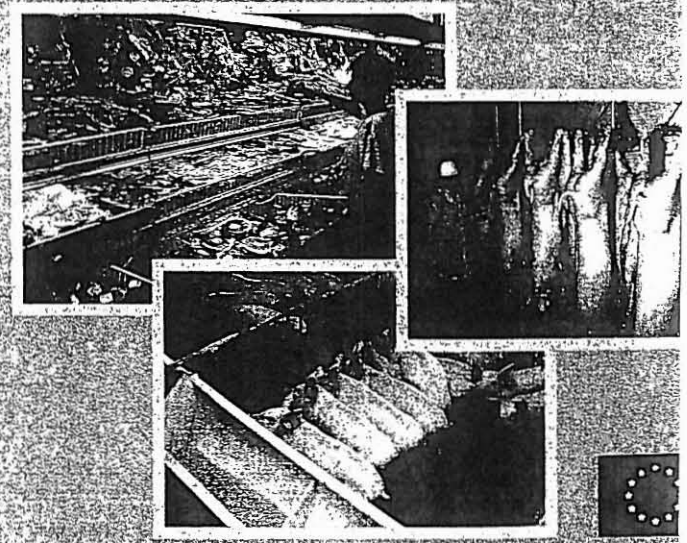
Teagasc Pig Advisers

ADVISER	COUNTIES	ADDRESS	TELEPHONE
	Louth Meath Westmeath Dublin Kildare	Teagasc, Slane Road, Drogheda, County Louth	041-33006
	Clare Galway Mayo Roscommon Sligo Leitrim Longford	Teagasc Rural Development Division, Athenry, County Galway	091-844473
	Wexford Wicklow Kilkenny Carlow	Teagasc, Barrett St., Bagenalstown, County Carlow	0503-21267/21305
	Laois Offaly Tipperary N.E.	Teagasc, Barrett St., Bagenalstown, County Carlow	0503-21267/21305
	Tipperary S.E. Waterford	Teagasc, Moorepark, Fermoy, County Cork	025-33344
	Cork E. Limerick	Teagasc, Moorepark, Fermoy, County Cork	025-33344

Teagasc Pig Researchers

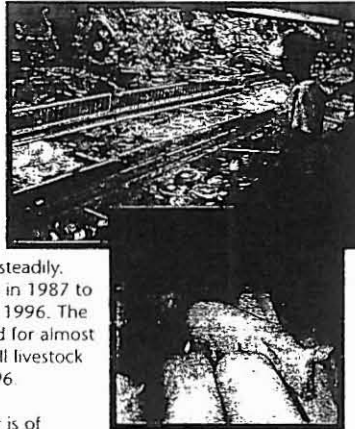
NAME	ADDRESS	TELEPHONE NUMBER
	Teagasc, Moorepark, Fermoy, County Cork	025-31422

Development of the National Pig Industry (1997-2000)



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Development of the National Pig Industry 1997-2000



Irish pig output is increasing steadily. Output grew from 2.1m pigs in 1987 to approximately 3.25m pigs in 1996. The farmgate pig value accounted for almost 10% of the output value of all livestock and livestock products in 1996.

Increasing pig output further is of national importance for a number of reasons:

- One million extra pigs produced would create over 2,000 extra jobs. This would provide well paid, permanent employment in rural areas.
- All increased pig output would be exported, earning an estimated extra £150m per year.
- Significant market opportunities are likely to arise for Irish pigmeat in the EU market over the next few years as a reduction in pigmeat production in some other EU countries is likely to occur.

The Teagasc document "Development of the National Pig Industry (1997-2000)" identifies the critical issues in the sectors of relevance to the Irish pig industry. The following commitments are needed by each of the key sectors to ensure that continued development of the industry is obtained.

The Producer

- The average breeding herd size in Ireland is the largest in the EU providing a good base for expansion.
- Expansion of sow numbers is possible because it is profitable and because there are no quota restrictions on pig numbers. However it is unwise to develop sow units with more than approx. 500 sows.
- To ensure that top class operatives continue to enter the industry working conditions and pay rates must be attractive.
- Maintain a high pig herd health status and use the Teagasc Pig Evaluation Programme when selecting sires. This will ensure maximum feed conversion efficiency and carcass quality.
- Pig manure must be managed carefully to protect the environment. Look to tillage areas to expand pig production.
- Comply with welfare regulations on dry sow housing and stocking rates for growing pigs.

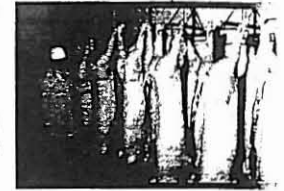
Feed Compounders



- Issue pig suitability values for essential amino acids and phosphorus in feeds to more closely match nutrient requirement at different growth stages. This would reduce nitrogen and phosphorus in pig manure.
- List the feed ingredients used in pig diets in descending order.
- Check imported raw materials carefully before inclusion in pig diets.

The Processor and the Slaughterhouse

- Slaughterhouses must implement an Integrated Quality Control Scheme to guarantee product safety and traceability.
- Food safety is of paramount importance. Slaughterhouses and processors must liaise closely with producers and wholesalers on all aspects of food safety.
- Orderly slaughtering of pigs is essential. Planned expansion in pig output requires additional capital investment to cater for the increase in throughput, particularly in the North Eastern part of the country.
- Constant liaison of pig processors with pig producers is essential. Producers should receive regular summaries of pigs delivered showing average weight, lean meat percentage and weight range. Processors should discuss with producers future changes in carcass weight, quality and type of pig required by the market.



The Department of Agriculture, Food and Forestry

- Ireland is free of many serious diseases which are now endemic in Europe. A computerised system of recording health problems on the slaughter line by veterinary inspectors should be introduced to record less serious pig ailments and reports returned to each producer.
- A scheme to eradicate Aujeszky's disease over a three year period should be introduced.
- A number of EU member states employ a Net Energy System to evaluate feed ingredients. This system should be introduced to Ireland allowing compounders to declare the energy level in pig feeds.

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