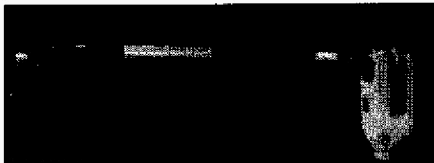
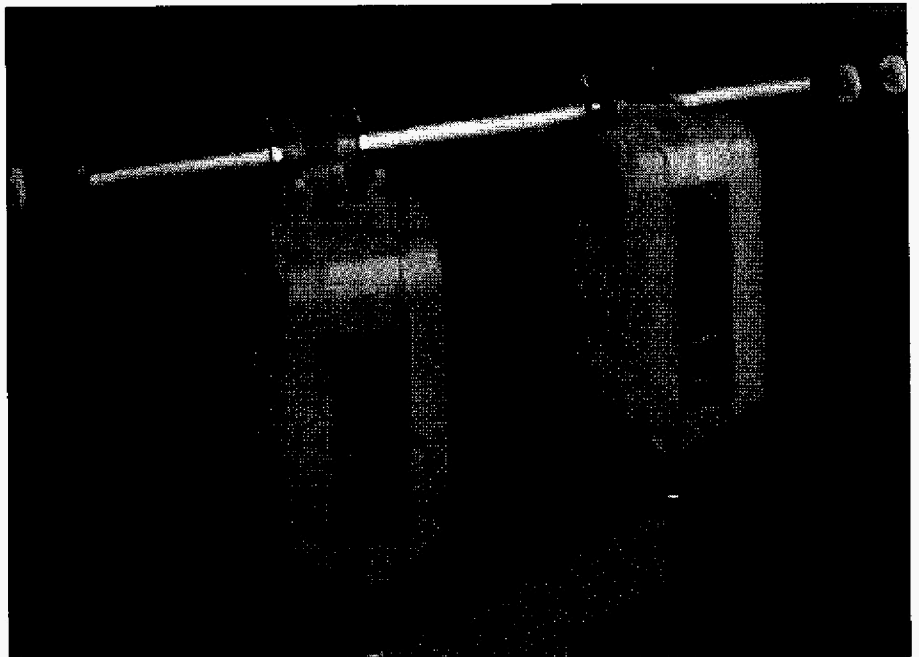


Feeding systems for sows – dry or liquid feeding are possible

The sows can be fed either dry or liquid. If dry feed is used, the flexible, high-performance DryRapid tube conveyor system is the system of choice (DR 850/DR 1500). It transports feed reliably to the volume dispensers by means of a conveyor chain. The volume dispensers are available with 6 or 8 l and can be operated manually or automatically.



Automatic release – for simultaneous release of up to 100 volume dispensers



Volume dispensers 8 and 6 litres

If sows are to be fed with liquid feed, HydroMix is the right system. It can be used flexibly for all different types of management and housing methods. The feeding computer controls the entire system, collects the consumption data and signals disturbances. The required feed dosing precision is done by a frequency converter which accurately controls the conveying capacity of the system. In the gestation area several sows can be fed from one valve as a group. Additional information can be found in a separate brochure.



Feed kitchen with HydroMix

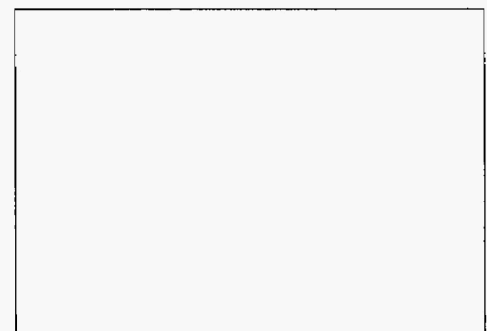


Big Dutchman Pig Equipment GmbH

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Technical details subject to change. e 8/2010



Big Dutchman®



Milling and Mixing Systems

for the production of feed mixes
from home-grown cereals

Other machinery for on-farm feed production; custom-made so

Dry mixer

high mixing accuracy, versatile use

The vertical and horizontal mixers offered by Big Dutchman can be used to mix different ingredients such as cereals, soya, dry minerals, vitamins and fats together to produce high quality feed

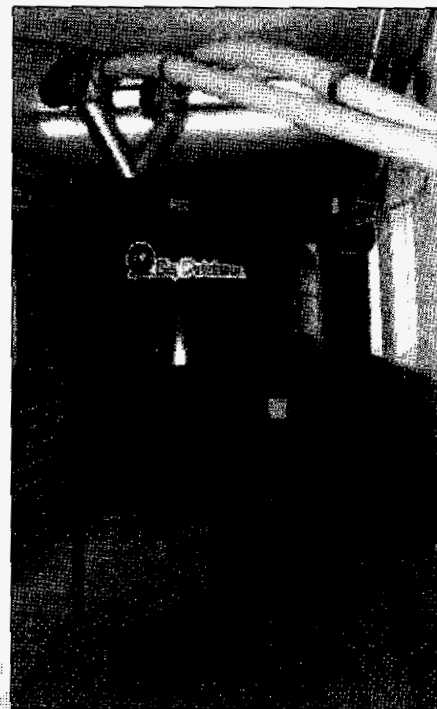
mixes. Both large amounts and small amounts can be mixed with a high mixing accuracy.

Advantages of the vertical mixer

- ✓
- ✓
- ✓
- ✓

The **vertical mixer** is available in different sizes starting from 900 l up to 10 000 l. The individual mixing ingredients are supplied to the mixer either from above through an opening in the lid and/or via an infeed from below. The mixer can be emptied by means of a discharge at the side.

- 1 3 load cells for accurate weighing
- 2 manual addition of small amounts via the bottom funnel
- 3 discharge



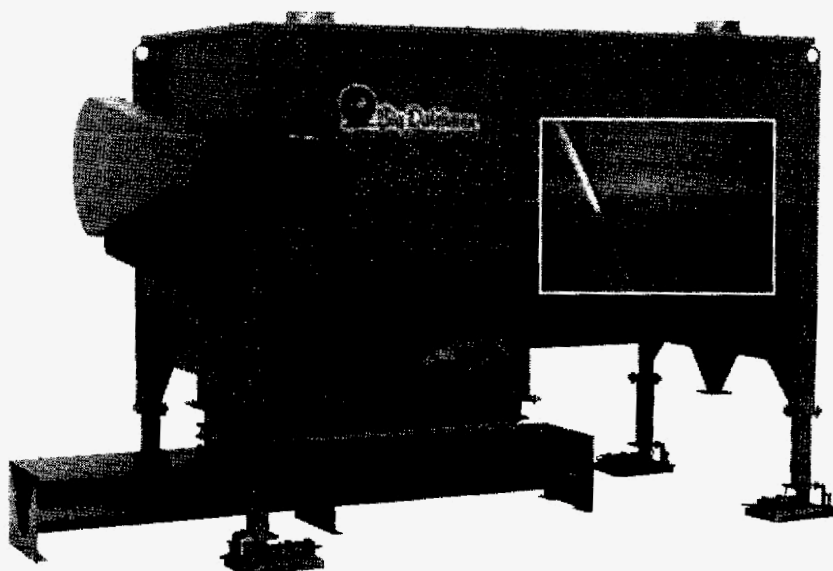
3-leg vertical mixer

The **horizontal mixer** is available in different sizes up to 4000 l. The mixing capacity can be increased by installing additional containers before or after the mixer (modular design). 3 or 4 load cells ensure accurate weighing. The mixer can be cleaned completely by means of an opening at its bottom which can be opened and closed automatically or manually.

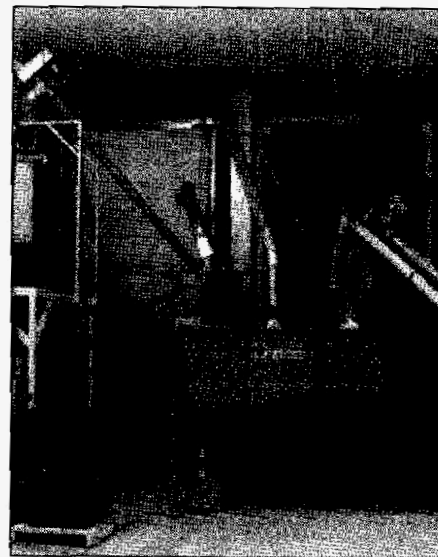
Advantages of the horizontal mixer

- ✓
- ✓
- ✓
- ✓

- ✓
- ✓
- ✓
- ✓



4-leg horizontal mixer with double, counter-rotating screw



A horizontal mixer supplies the finished feed-mix to a HydroAir liquid feeding system

Solutions for small and large operations

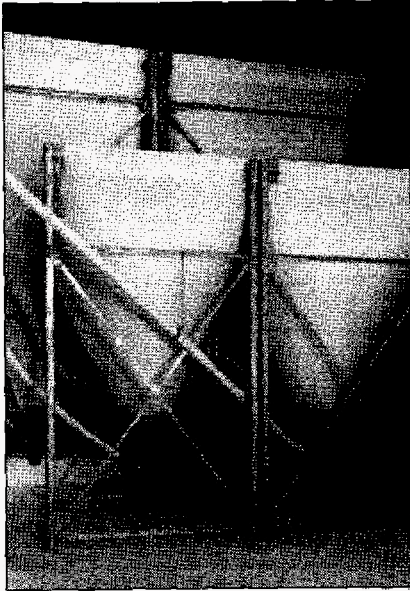
Silos for indoor and outdoor use for storage of primary ingredients and finished feed mixes

Big Dutchman can offer their customers a variety of silos made from different materials and in different sizes for safe storage of ingredients and of finished

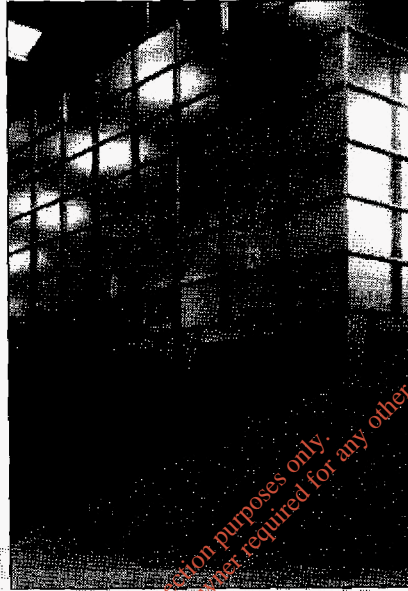
feed mixes.

The number and size of the silos are planned according to the individual requirements on a farm.

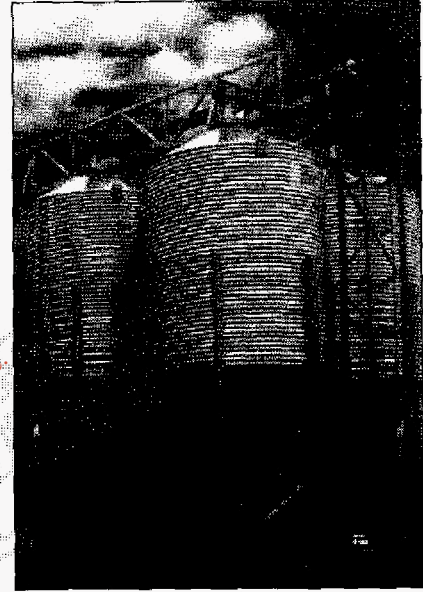
For slow-flowing materials there are special auger silos available.



Indoor silos made of fabric



Indoor silos for storage of ready-prepared mixes



Outdoor silos for storage of ingredients

Hoppers for minerals and premixes for storage of small amounts

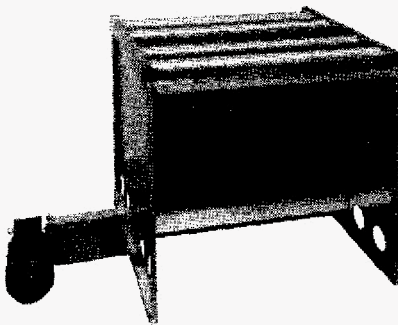
Different types of hoppers are available for premixes and other additives.

- ✓ hopper T 100 for 0.5 m³
- ✓ hopper T 160 for 0.65 m³
- ✓ hopper with agitator for 0.45 m³; for

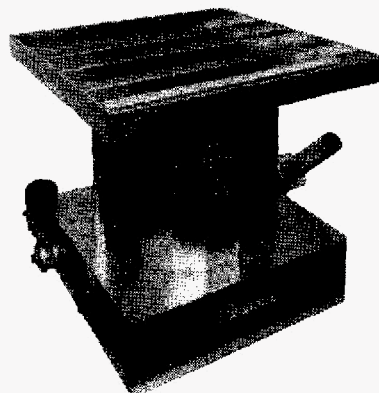
slow-flowing premixes.

Other sizes are available on request. The transport of the additives from the hopper to the mixer can be done by means of augers (Ø 102 mm) or spirals

(Ø 75 mm). If a hopper with agitator is used, the material is exclusively transported by means of augers (Ø 102 mm).



Hopper for minerals in Big-Bags



Hopper for slow-flowing premixes



Hoppers for minerals up to 2 t

Pelleting equipment for pelleting of finished feed mixes

If the mixed feed is not to be supplied as meal but as pellets, Big Dutchman can also supply the respective technology.

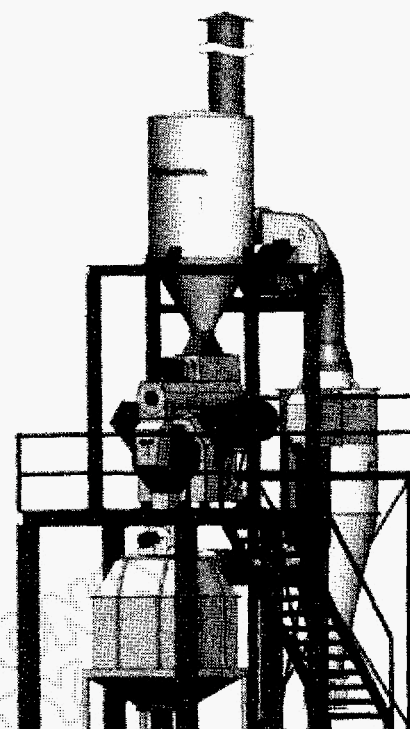
The pelleting equipment comprises the actual pellet press which is preceded by a hopper for the meal-type feed. The feed is transported from the hopper to the conditioner by means of a frequency-regulated dosing auger. In the conditioner the feed is treated with hot steam to facilitate pressing and for better hygiene (by reducing salmonella and bacteriae). From there, the feed is transported to the actual press. The press itself is a rugged, low-maintenance ringdie press. A cooler installed downstream ensures that the pellets can be stored stable and safe in a silo. The dimensioning of the pelleting equipment depends on different factors, among others this includes which type

of ingredients are used and for which type of animal the feed is being produced.



Legend

- 1 press pre-hopper
- 2 dosing auger
- 3 conditioner
- 4 ringdie press
- 5 counter stream cooler
- 6 ventilator
- 7 cyclone filter (dust separation)
- 8 exhaust



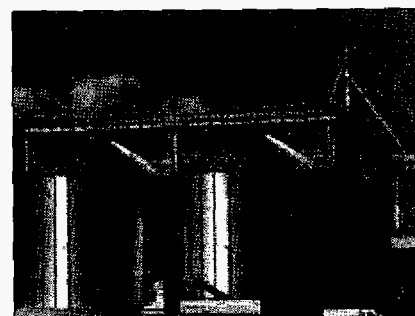
Pelleting equipment for pelleting of mixed feed

Grain storage including cleaning and drying

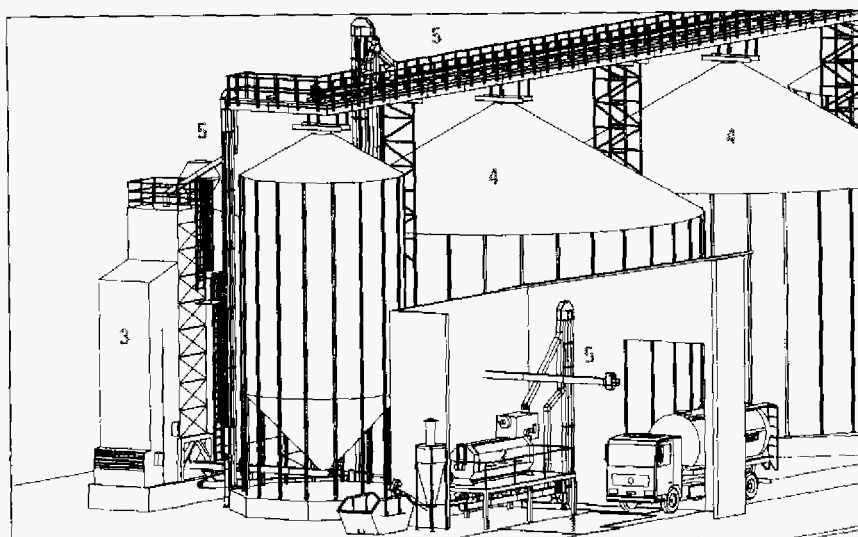
With on-farm grain storage the farmer has the entire production line under control from the harvest up to the finished mixed feed and is thus able to save costs for storage, cleaning and drying. In order to achieve this, certain technical conditions are required which Big Dutchman can help you create:

- 1 cereal receipt
- 2 cleaning
- 3 drying
- 4 silos
- 5 conveying technology

For storage of large amounts of grain (up to 2000 t), we recommend the installation of outdoor silos.



Silos for grain storage



Schematic illustration of a complete grain storage facility

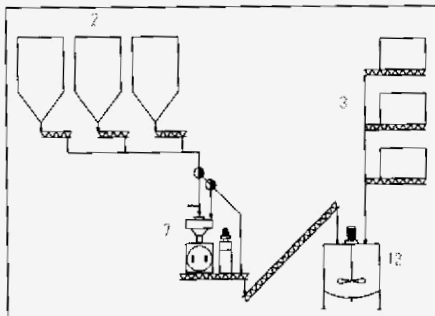
These are much better than heap storage, especially in regard to hygiene and labour requirements. Before storing the grain, it has to be cleaned and dried. For this purpose we offer our customers a revolving screen with aspiration. It removes unwanted material which might be larger than the grain (straw etc.) or smaller (sand, herb seeds, dust etc.). The subsequently installed continuous flow dryer with intermediate storage hopper for the wet cereal gently dries the grain.

Examples of milling and mixing systems

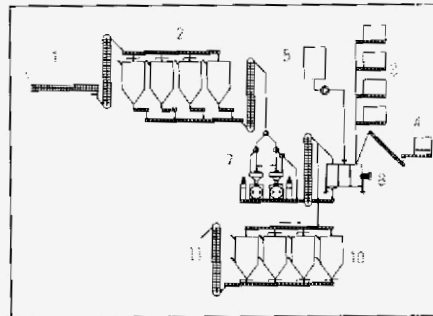
No two projects are alike. A lot of different information has to be considered when planning a milling and mixing system. This includes the number of animals and the type and number of feed ingredients and

minerals. In pig production, for example, it is also important to know whether the pigs are to be fed liquid or dry. In order to present every customer with an ideal concept for his farm, intensive

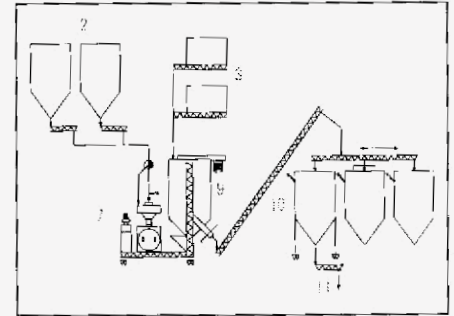
preparation beforehand and excellent advisory service are absolutely necessary. Only then will the results be successful



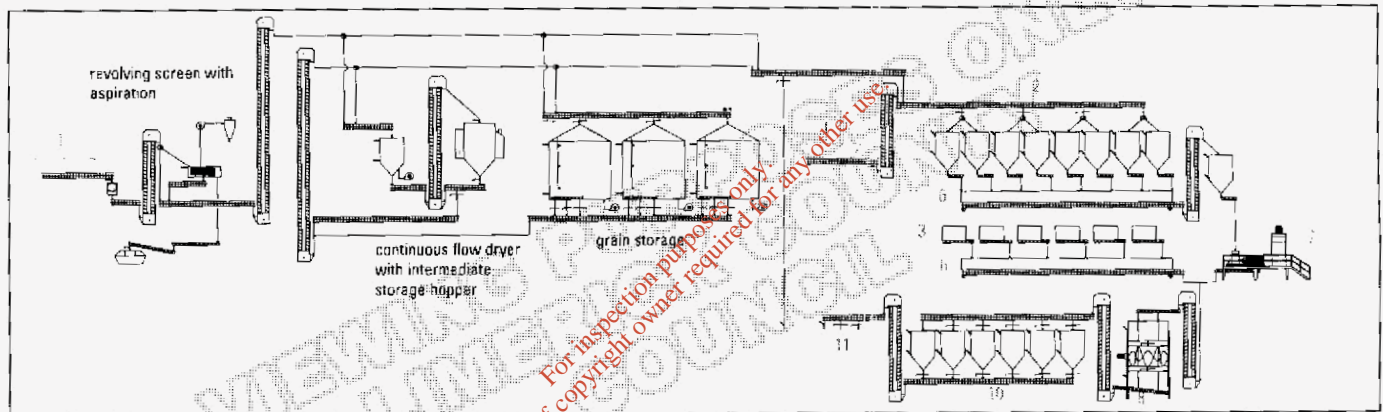
Use of a hammer mill in combination with a HydroMix liquid feeding system



Schematic illustration of a milling and mixing system



Hammer mill and vertical mixer



Schematic illustration of a milling and mixing system including grain storage, cleaning and drying with a capacity of 8 to 15 t/h

Legend

- 1 cereal receipt
- 2 silos for ingredients
- 3 mineral hoppers
- 4 storage of slow-flowing goods
- 5 fat metering unit
- 6 weighing hopper
- 7 hammer mill
- 8 horizontal mixer
- 9 vertical mixer
- 10 silos for finished feed
- 11 loading
- 12 mixing tank for liquid feeding

We recommend ...

In addition to the milling and mixing systems described in this brochure, Big Dutchman also offers you a variety of additional products to complete an installation. This includes, for example, conveyor spirals, bucket and chain elevators, tube and trough augers. Let our experts advise you on the different possibilities Big Dutchman can offer you for successful production of home-grown

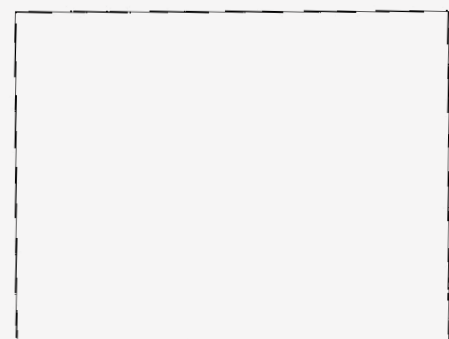
feed, including on-farm grain treatment and storage.



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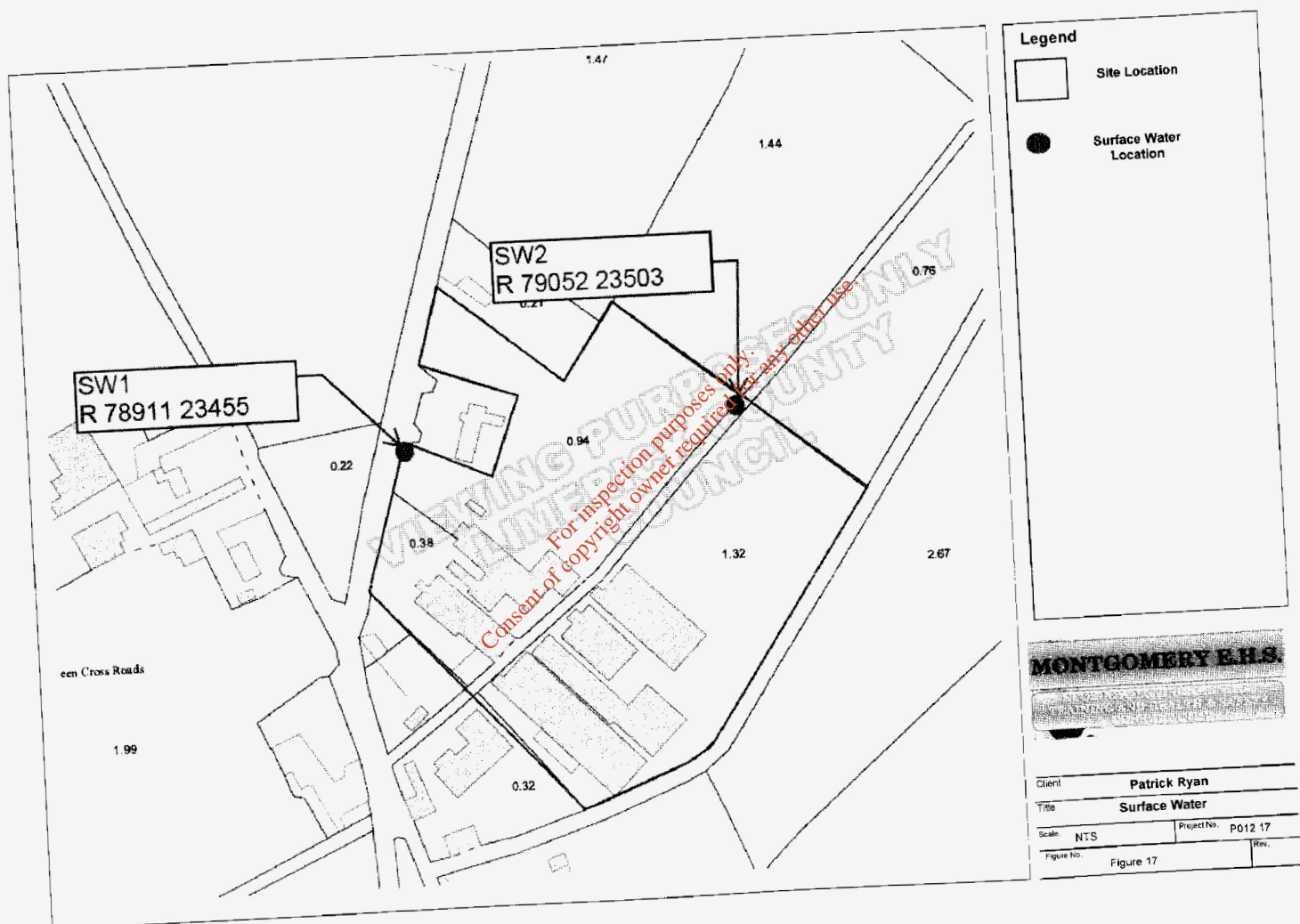
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Surveyed 1840-1841
Revised 1904-1924
Levelled 1924

Record PLACE Map



57808

624799

ITM CENTRE PT. COORDS

578952,623421

DESCRIPTION

MAP SHEETS

6 inch
TY073+07 LK057
LK049

OS Authorised
Internet Map

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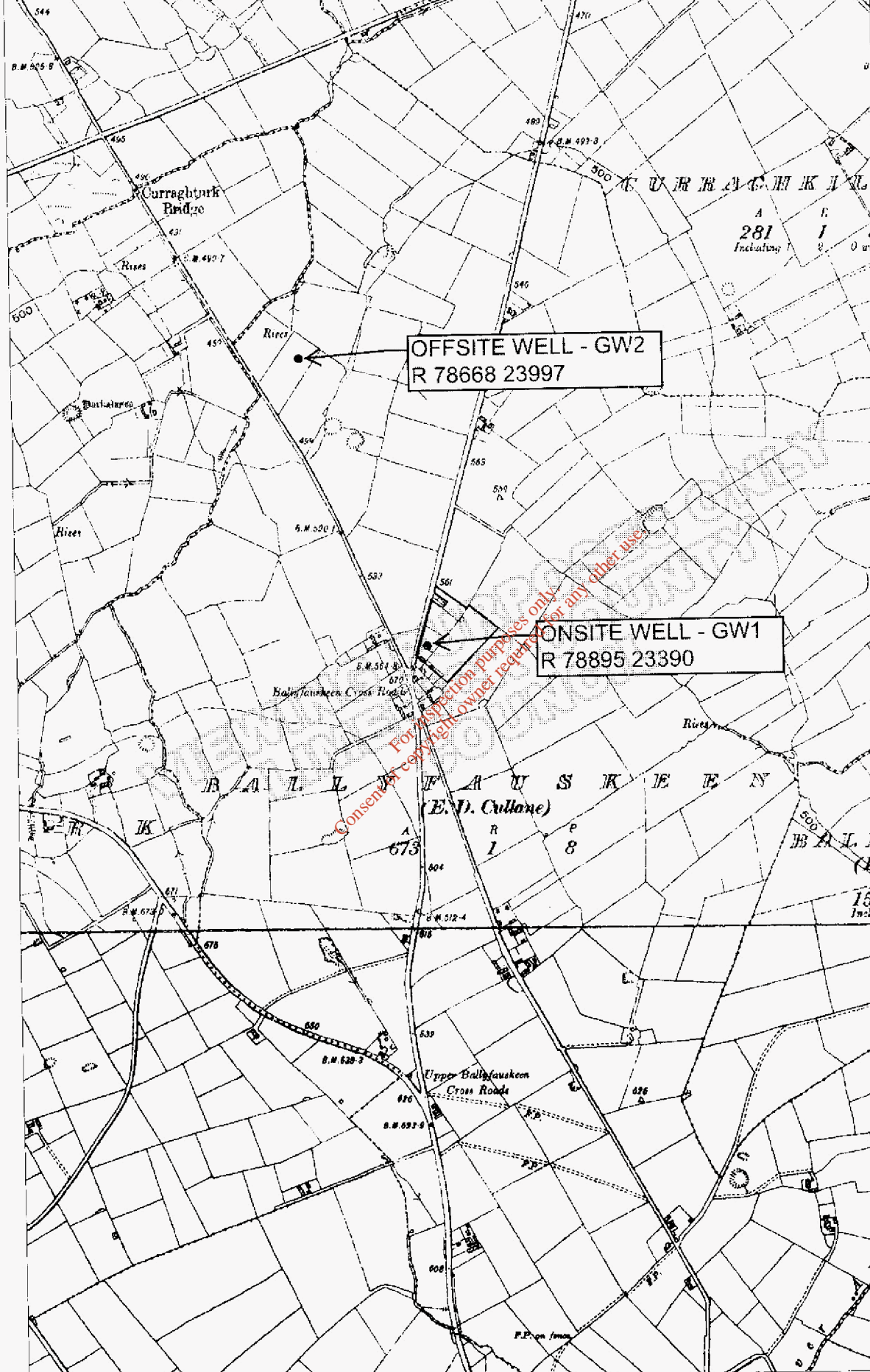


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Scale: 1:10,560
Scale: 1:10,560

0 100 200 300 400 500 Metres
0 500 1,000 1,500 2,000 2,500 Feet

Plot Ref. No. 19619869_1
Plot Date 20-APR-2012

MONTGOMERY E.H.S.

ECOLOGICAL, ENVIRONMENTAL,
TRAINING AND HEALTH & SAFETY
CONSULTANTS

October 2012

Karen Burke,
Planning Department,
Limerick County Council,
County Hall,
Dooradoyle,
Co Limerick

Kantoher Business Park
Killeedy, Ballagh
Co Limerick
Tel 069 85896
Mob 087 2390421
Email: trevor@mehs.ie

Re: Planning Application by Ballyfaskin Enterprises Ltd (12/306)

Dear Karen,

Please find supplementary information in relation to application Ref: 12/306

Point 1 Traffic Management

The road design and the new site entrance have been designed to maximise the sight lines. The design has achieved the 160 metres to the east of the proposed site entrance. To the west this has not been achieved but due to the road layout it is unlikely that vehicles travelling can reach 80 km/hr. We have had discussions with the road engineer in relation to the development of the new site entrance. He is in agreement that whilst not meeting the required standard it is substantially better than the existing entrance. (Attachment 1)

The closure of the existing entrance is included in the landscaping design.

Point 2 Visual Impact

The photomontage report by Digital Horizons is attached and shows that the visual impact of the proposed development along the R513 and R662. The R513 has no visual impact from the proposed development. The R662 the mill building is visible but is not considered visually intrusive and this is without and landscaping. (Attachment 2)

Point 3 Tree Survey & Landscaping

Attachment 3 contains a tree survey and landscaping report by Declan Moher.

Point 4 Nearby Residences

Attachment 4 shows Pat Ryan and his parents houses there are no family members within 500 meters of the development.



Point 5**Building Areas**

The tables below show the existing and proposed building areas

Table A Existing building areas

Building	Building length	Building Width	Building Area
	m	m	m ²
Fattening hse no. <i>a</i>	23.0	7.3	167.9
Fattening hse no. <i>b</i>	20.5	5.3	108.7
Fattening hse no. <i>c</i>	43.3	5.1	220.8
Farrowing hse no. <i>d</i>	12.0	12.0	144.0
Farrowing hse no. <i>e</i>	30.5	12.7	387.4
Farrowing hse no. <i>f</i>	14.8	13.0	192.4
Gilt hse no. <i>g</i>	18.3	11.8	215.9
Open tank no. <i>h</i>	8.7	6.6	57.4
Fattening hse no. <i>i</i>	69.2	19.9	1377.1
First weaner hse. <i>j</i>	30.3	11.0	333.3
First weaner hse no. <i>k</i>	15.5	11.2	173.6
2nd stage weaner hse no. <i>l</i>	29.4	17.9	526.3
2nd stage weaner hse no. <i>m</i>	16.4	11.3	185.3
Dry sow hse no. <i>n</i>	46.4	20.6	955.8
Fattening hse no. <i>o</i>	21.7	21.5	466.6
Fattening hse no. <i>p</i>	23.6	10.4	245.4

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16 OCT 2012

Proposed and existing buildings as part of the proposed development

Table B

	Building	Building length	Building Width	Building Area
		m	M	m ²
Proposed	Fattening hse no. <i>a, b, c</i>	48.8	21.9	1068.1
Proposed	Farrowing hse no. <i>d + FH2</i>	52.9	12.0	634.6
	Farrowing hse no. <i>e</i>	30.5	12.7	387.4
	Farrowing hse no. <i>f</i>	14.8	13.0	192.4
Proposed	Gilt hse no. <i>g + FHI</i>	52.9	12.8	676.9
	Fattening hse no. <i>i</i>	69.2	19.9	1377.1
	First weaner hse. <i>j</i>	30.3	11.0	333.3
	First weaner hse no. <i>k</i>	15.5	11.2	173.6
	2nd stage weaner hse no. <i>l</i>	29.4	17.9	526.3
	2nd stage weaner hse no. <i>m</i>	16.4	11.3	185.3
	Dry sow hse no. <i>n</i>	46.4	20.6	955.8
	Fattening hse no. <i>o</i>	21.7	21.5	466.6
	Fattening hse no. <i>p</i>	23.6	10.4	245.4
Proposed	Dry sow hse no. 1	52.9	22.6	1192.4
Proposed	Fattening 1	71.8	21.3	1531.8
Proposed	Fattening 2	71.8	21.3	1531.8
Proposed	Fattening 3	71.8	21.3	1531.8

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Point 6

Staff Facilities

with a new portakabin.

Point 7 **Fallen Animals**

Dead animals are stored in plastic bags and then placed into a wheelie bin and the bins are Fallen animals must be disposed of by a suitable method as set out under the Animal By-Products Regulations. Pigs that die on-farm cannot be disposed of by burial, open burning or disposal to landfill. Fallen stock can only be disposed of by the following methods:

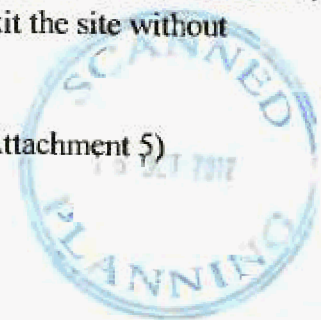
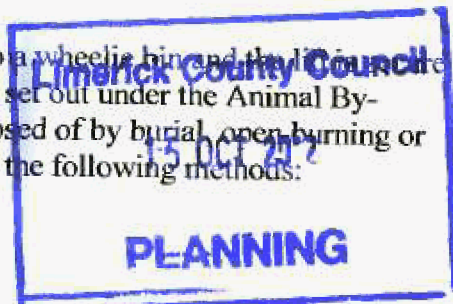
- Incineration in an approved incineration plant; or
- Rendering at an approved rendering plant.

This provision applies to the disposal of stillborn piglets and foetuses, as well as to older pigs.

Standard Wheelie bins are used for the storage of fallen stock. They must be:

- clean, disinfected and intact before they are left on holdings
- sited so that they are not accessible to livestock and in a place where the collection vehicle has sufficient room to enter the site, collect and exit the site without encroaching on livestock areas
- leak-proof and lidded.

The Map attached shows the location of the fallen animal containers. (Attachment 5)



Point 8 & 9

Nutrient Management Requirements

The nutrient management requirements have been discussed extensively with Aidan Leonard. Attached is a letter stating that no slurry material will be supplied to farms in Aherlow and Munster Blackwater catchments. Attachment 6

Information on land banks and nutrients statement has been supplied to planning authority as confidential information

Point 10

Best Available Techniques

The operator is obliged to meet the requirements of the national legal acts concerning animal housing on minimal conditions of farm animal housing set up the conditions for pig housing. The most important issues covered by the national regulations are:

- Lighting: the pigs are housed in a room which is illuminated at least 8 hours a day with a brightness of more than 40 lux. Light can be artificial or a natural entering through the windows.
- In pigsty air circulation, dusting, temperature, air relative humidity and gases concentrations should be kept on the level safe for animals.
- Automatic ventilation system should be connected with an alarm system and an emergency ventilation system.
- The animals should have permanent access to water.
- Animals receive fodder at least twice a day, adequately to their age, weight physiological state.
- Pigs are housed in the pens or clatters with litter (straw) or without, in an individual- or in group housing -system.
- Pigs cannot be captive (lashed).

Farm animals are housed in conditions safe for animal health and enabling them to keep eye contact with other animals. The farm design is the group housing system animals and they will be in a similar age group. The operator will undertake measures to minimize aggressive behaviour and prevent fights. Animals which are ill, wounded, aggressive or attacked by other animals should be temporally housed in an individual housing system. A pen for pigs should be equipped with materials such as straw, hay, sawdust, wood which can catch animal attention. Material must be safe for animal health.

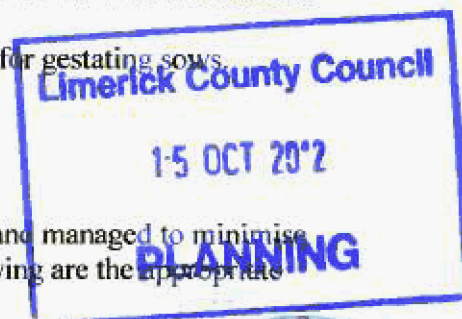
Minimum standards for protection of sows and gilts before farrowing:

- Sows and gilts in a week before expected time of farrowing can be kept in conditions which ensures that sows have no an eye contact with other animals.
- Sows and gilts should be kept in groups from 4 weeks after service to 1 week before an expected time of farrowing.
- National regulations provide detailed requirements to the pen for gestating sows.

Housing Design and Management

The aim of the design is to ensure that housing systems are designed and managed to minimise environmental impact, particularly of ammonia and odour. The following are the appropriate measures that you should take to comply with the condition.

Examples of housing designs which meet BAT are available from the Reference Document on Best Available Techniques (BAT) for Intensive Rearing of Poultry and Pigs, commonly referred to as the BREF, published in July 2003 by the European IPPC Bureau, namely:



- Housing should be designed and managed to minimise emissions.
- Any water used for cleaning within housing shall be collected and stored safely in a tank until export from the permitted installation can take place.
- Drinkers and troughs shall be designed and operated to prevent leakage.
- The operator shall implement and maintain a system to record the number of animal places and movements.

Measures for Housing Design

- All buildings and associated infrastructure i.e. feed storage bins, should be specifically designed to accommodate the required feeding regime.
- Drinkers and troughs should be designed and operated to prevent leakage
- Slat design and slurry channels should comprise:
 - slats which facilitate maximum transfer of dung and urine to the transfer channels;
 - channels which transfer slurry to storage facilities (and not store slurry).
- Slurry systems for sows should comprise either:
 - a partly-slatted floor with a reduced area manure pit; or
- Slurry systems for farrowing sows including piglets should comprise a part or fully slatted floor with:
 - a combination of water and manure channel;
 - Farrowing pens should provide a slurry channel at the rear of the sow, away from the feeding area.
- Slurry systems for weaners should comprise a pen:
 - or flatdeck with a fully-slatted floor with a system for frequent slurry removal;
- Slurry systems for growers/finishers should comprise:
 - a fully-slatted floor with system for frequent removal;
- Solid floor systems should comprise:
 - Scraped areas that prevent ponding or build-up of urine.
 - dung passages and bedded areas sloped to drain urine and prevent ponding

The equipment design is by Big Dutchman and the company is the leading supplier of pig and poultry feeding systems in the world. It is the leading supplier in Europe and there are no BAT standards for the equipment within the pig unit but the Big Dutchman equipment is the best on the market from a number of viewpoints:

- Energy efficiency
- Water control
- Feed spillage minimisation
- Integration of feed, water and climatic condition into one holistic system
- Easy to use and reliable
- Big Dutchman is a one stop shop of piggery equipment as they can supply everything for the piggery internals (silos, feed system, water system, climatic controls, roof fans, floor mats and even odour control.

Point 11 Surface water Monitoring

Ambient surface water is sampled at monitoring point reference numbers SW1 and SW2 on a weekly basis for visual examination & COD and quarterly basis and analysed for COD, Ammonia, Total Nitrogen and Total Phosphorus.

Sampling and testing of surface water in any temporary drains at the site and at the proposed piggery buildings will continue for as long as construction work are underway and for a short time thereafter.

Monitoring locations are shown in Figure attached in attachment 7.

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Point 12 Domestic Wastewater Treatment.

Ballyfaskin Enterprise

It is envisaged that a new purpose built operations building will be constructed. Offices, changing rooms, sleep accommodation, spare part store, toilets, showers, etc. Ballyfaskin Enterprise will replace the current changing accommodation with a new port-a-cabin in 2012 comprising of changing area, canteen, etc.

Point 13 Well Analysis

Attached is the analysis for the on-site and off-site wells, both wells has good chemical and microbiological results. (Attachment 8). Well 1 is the on-site well and Well 2 is the off-site well

Point 14 Pest Control

The Pest control bait points are shown on the attached map and the procedure covering this is also attached. (Attachment 9)

Please contact me if you require further information on the matter.

Yours sincerely



Trevor Montgomery, Post Grad Dip, BSc. Dip Mgmt, Dip Roll Ass & C,
Cert Env'n Mont, Cert HSWW
Environmental and Health & Safety Consultant.

Limerick County Council

15 OCT 2012

PLANNING



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DIGITAL HORIZONS

ARCHITECTURAL DESIGN SOLUTIONS

KILBEHENNY, MITCHELSTOWN, CO. DORK, IRELAND

TEL: +353 (0)25 86872

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EMAIL: info@digitalhorizons.ie

3D PHOTOMONTAGE

STUDY

OF

PROPOSED

MILL BUILDING

AT

BALLYFAUSKIN,

BALLYLANDERS,

CO. LIMERICK

FOR

MR. PATRICK RYAN

Limerick County Council

15 OCT 2012

PLANNING



CONTENTS

1. Project Description
2. Photomontage Creation Method
3. Key Plan
4. Original Photographs
5. Final Photomontages

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1. PROJECT DESCRIPTION

Digital Horizons have been commissioned by Mr Patrick Ryan to carry out a 3D Photomontage study of a proposed development on his pig processing unit at Ballyfauskin, Ballylanders.

This 3d Photomontage study is to be carried out following a request for such by the planning department, Limerick County Council. Two no. Photomontages have been requested. The first one is to be created with a viewpoint taken from the highest point of the R513(Ballylanders to Mitchelstown road), c.700m south-west of the proposed development. The second is to be created from a viewpoint from the highest point of the approach road to the farm (R662), c.700m south of the development.

Although the proposed development comprises of several low rise sheds etc, the 3d Photomontages will only be concerned with the tallest structure proposed, ie a Mill building. This building as an 18.2m high, steel clad structure to be situated in the centre of the farm yard curtilage.

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2. PHOTOMONTAGE CREATION METHOD:

Photography Information.

At each location the camera was set up at a height of 1.60m above ground level. The camera was mounted on a tripod whereby the camera was levelled on both axes. The camera location was recorded along with the actual lens settings used on each photograph (focal length etc).

Survey Information.

Reference points visible in the photographs were surveyed to serve as control points. The camera positions and control points were then related back to the base model.

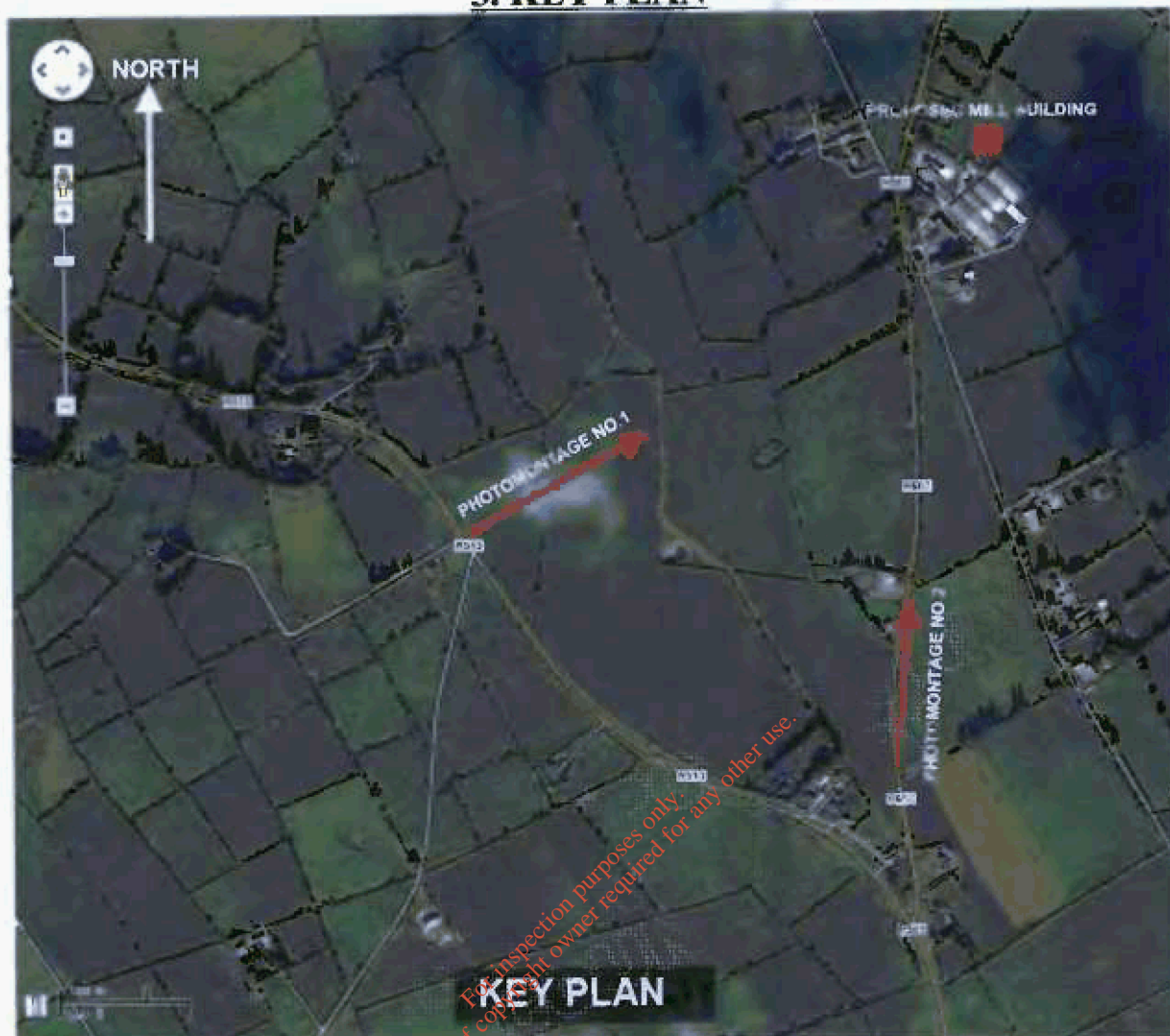
3D Photomontage Information.

3D perspective views were set up within the computer software package. By using the recorded/surveyed settings & parameters of the actual camera used to take the photographs, a virtual camera is then set up to mimic the real life camera. An accurate fit is achieved by matching surveyed control points to the corresponding points in the background photograph. The images were then cropped to remove any parts which would be screened by existing topography, leaving only the parts which would be visible.

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3. KEY PLAN



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KILBEHENNY
MITCHELSTOWN
CO. CORK
TEL: 025 86672

Image: Original Photograph No.2

Image Information

Reference points were used in the photographing process to ensure the accuracy of the image. The reference points are shown in the image.

Photography Information

At each location the camera was set up at a height of 1.05m above ground level. The camera was mounted on a tripod whereby the camera was levelled on both axes. The camera location was recorded along with the actual lens settings used on each photograph (focal length etc).

Photomontage Information

3D perspective views were set up within the computer software package. By using the recorded surveyed settings & parameters of the actual camera used to take the photograph, a virtual camera is then set up to mimic the real life camera. An accurate fit is achieved by matching surveyed control points to the corresponding points in the background photograph. The images were then cropped to remove any parts which would be screened by existing topography, leaving only the parts which would be visible.

Note:

Outline of proposed Mill Building shown dashed in red as is not visible from this viewpoint due to the natural topography of the locality



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DIGITAL HORIZONS
200 West Hill, Ballycotton, Co. Cork

DIGITAL HORIZONS
KILBEHANNY
MITCHELSTOWN
CO. CORK
TEL: 025 86872

Image: Photomontage No.1

Client: Patrick Ryan

Survey Information
Reference points visible in the photographs
are surveyed to serve as control points. The
camera positions and control points were
then related back to the base model.

Photography Information
At each location the camera was set up
at a height of 1.80m above ground level
the camera was mounted on a tripod whereby
the camera was levelled on both axes.
The camera location was recorded along
with the actual lens settings used on each
photograph (focal length etc).

Photomontage Information
30 perspective views were set up within
a computer software package. By using the
recorded/surveyed settings & parameters
the actual camera used to take the photographs,
a virtual camera is then set up to mimic the real
camera. An accurate fit is achieved by matching
surveyed control points to the corresponding points
in the background photograph. The images were then
cropped to remove any parts which would be screened
by existing topography, leaving only the parts which
could be visible.



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KILBERRYPARK
MITCHELLSTOWN
CO. DUBLIN
TEL: 0125 85872

Image: Photomontage No.2

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PATRICK RYAN PIG UNIT

Aherlow Catchment Area

Nitrogen and Phosphorus Statements numbers 7 & 12, shown here are inside the Aherlow Catchment area, and as such cannot receive any pig manure from our farm.

In the past these have received pig manure, but in the future neither of the above or any other farmer with the Aherlow Catchment Area will be supplied with pig manure without the prior consent of Limerick County Council Environment section.

Blackwater Catchment Area

We have no customer farms within the Blackwater Area.

PATRICK RYAN.
Patrick Ryan

15 Oct '12.
Date



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Landscaping Survey and Plan for :

**Patrick Ryan
Ballyfaskin Enterprises Ltd.
Ballyfaskin, Ballylanders,
Co. Limerick**

Survey of Site of existing Trees and Hedgerows: 15 OCT 2012

(See drawing)

(also see arial view)

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Section A :

This area contains the entrance to the farm on the north side and bounding the R662 road. Either side of the entrance contains a dense hedgerow of Crataegus monogyna - whitethorn and X Cupressocyparis Leylandii on average 3m high.

Growing through these are a line of mature Fraxinus excelsior - Ash about 4m apart and 12m high approx.

A line of tall Leylandii grow inside the mound at 7m approx

These are dense enough to create a screen from the north.

Section B :

This area contains a line of mature trees on a hedgerow of mainly briars with trees as marked

Section C:

Contains a hedgerow of whitethorn with mature trees as marked and a group of 3 mature Ash



Section D:

A new Whitethorn hedge has been planted two seasons ago as part of the REPS scheme. It consists of plants two rows staggered and 0.6m apart. It is 1.2m high and 0.6m wide. A row of eight *Fagus sylvatica* – Beech have been planted just beside hedge at 5m spacing. They are 3m high and a girth of 12cm.

Section E:

This area contains a section of Whitethorn hedging as marked planted last season . They are 0.3m in height .

Section F :

A low mounded hedgerow exists of whitethorn and briars 1.5m high. Towards the east are 3 mature Beech as shown.

Section G:

Contains a mature dense hedgerow of Whitethorn with mature trees as indicated.

Section H:

A mature mounded hedgerow of Whitethorn trees (5m high) interspersed with mature Ash, Crab apple and Beech as indicated. A high dense screen exists.

Section I:

Contains an entrance to the field from the R662 road with sparse Whitethorn on either side 2m high.

Section J:

A 3m high *Leylandii* surrounds this bungalow giving a full screen.

Section K:

This mounded Hedgerow is of Whitethorn at 2m high approx. .

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Notes on Existing REPS Planting

- Over the past two seasons 70 native trees and over 200m of Whitethorn hedging have been planted.
- 20 Saplings approx of 1m high were planted on the existing mounded hedgerows marked M, N, O and P highlighted on arial map. A mixture of native Ash , Oak and Alder were planted
- A grove of six natives over 3m high were planted in the corner of the field (marked R) also part of REPS
- The existing hedgerow Marked P was thickened with a row of Whitethorn 0.3m apart last winter. They now stand 0.3m high. Every 5m a native sapling 1m high was planted.

Dwelling

14 Trees have been planted along the drive into the dwelling to increase screening(T). A mixture of Tillia, Acer and Salix were used. Height 3m. girth 12-14cm

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New Landscaping Scheme

(see accompanying plan)

Old Entrance:

This is to be closed off to move to better site. An earth mound constructed and planted with Whitethorn and some Holly - 15%. Three rows staggered planted at 0.3m intervals. Inside this 3 Ash are to be planted 3m apart in keeping with rest of hedgerow.

New entrance:

- The existing hedgerow is to be removed to give better sight lines.
- New kerbing will finish in line with garden wall of Bungalow giving maximum sight lines and space.
- Planting along this entrance will screen the new buildings.
- A mixture of native trees will be used with a standard girth of 8-10cm. Interspersed with these will be evergreen Holly to screen low down.
- As the Trees grow they screen up at a higher level, and the Holly trees habit is to stay full from the base to the crown keeping a full screen low down.
- The length and orientation of the drive and the planting at both sides practically eliminates any sight lines into the site from the road.

Screening the Mill:

- Extra attention is to be paid to the sight lines to the mill.
- **Evergreen** native Pinus sylvestris – (Pine) and **extra high growing** Populus alba (Popular) to be planted beside the mill to the north and the east. These trees are used on the new boundary screen also.
- A mature Pine reaches over 20m in height and Popular over 25m in height.
- More mature trees will be planted here with girth 14-16cm and height over 4m at planting.
- The surrounding of the mill with trees lessens its impact as in time less and less protrude above them. There is a stepping down of heights from the mill to the trees to the ground, a tiered effect so the mill does not stand out.
- The mature beech to the south of the mill is to be retained helping to screen it from this view immediately.
- The mill is to be **Green** in colour so it melts into the trees beside it and the landscape when it may be seen from a distance on higher ground to the south.

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15 OCT 2012

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Side E:

- A new Whitethorn hedge two rows staggered and 0.3m apart to be planted along passageway.
- Outside these two rows trees planted 2.5m apart

Side G and H:

The two rows of tress are to be continued along these sides.

Planting along existing hedgerows (see google map)

- An integrated approach of using the existing hedgerows as a planting area to enhance the screening is proposed.
- REPS planting have already been done on the hedgerows marked **M, N, O and P.**
- Another thirty native saplings of oak, ash and alder, 1m high to be planted on M,N and O.
- The hedgerow marked P already has been planted and these are to be thickened with the addition of 15 more saplings of oak and ash

Hedgerows Q and S

- The hedgerow marked **Q** is to be planted with native saplings again every 4m to strengthen the screening from the R662 road and from the Anglesborough road.
- The same planting is to be done inside the hedgerow marked **S** keeping them back from the road.

Choice Of Trees

Native trees and hedging have been chosen to fit in with the landscape. Ash, Oak , Pine, Poplar and Alder are tolerant of wet and exposed areas. They have been chosen for their hardiness ensuring the few failures and the establishment of a quick screen.

Pine is an evergreen giving added benefits.

Alder is an extremely fast growing tree . One reason for this is comes in leaf before other trees and the last to lose its leaf in the autumn.

These trees are beneficial to the wildlife of the area also

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Size of Trees

- All trees to be planted on new **boundary** screen are to be standards of **8-10cm** girth and over 2m high.
- The trees around the **mill** are to be larger at **14-16cm** and over 4m in height.
- Saplings of 1m height are to be used on the existing hedgerows away from the site boundary

Timing of Planting

Planting of hedgerows away from the site to commence this winter. Areas M, N,O, P, Q and S.

Old entrance: as soon as new entrance constructed

New entrance: as soon as constructed

All other areas to be planted in first planting season after construction completed.

Notes on Maintenance

- New planting areas to be fenced from livestock
- If a plant is failing or dead it is to be replaced in the next planting season.
- A circle of 0.6 dia. is to be kept weed free for 3 years around each tree to help establishment.
- Hedging to be trimmed back each year for the first 3 years. Important to cut spindly growth at sides and top to ensure growth from the base.
- Grass and weeds to be controlled under hedge to stop them competing with hedge.
- All trees to be staked and tied with the appropriate strength stake.

Limerick County Council

15 OCT 2012

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Raffeen Industrial Estate
Ringaskiddy Road
Monkstown
Co. Cork
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Fax: 021 4387299
Email: micro@enva.ie
www.enva.ie

Certificate of Analysis

Mr Patrick Ryan
Ballyfaskin
Ballylanders
Co Limerick

Analysis Report

Sample Description	Condition	Our Ref:	Date Received
ZM003 Farm Well	Normal	302/06/12	04.06.12

Test Parameter	Test Date	Result (cfu/100ml)	Test Method
E. Coli	04.06.12	<1	Standard Method
Enterococci	04.06.12	<1	Standard Method

NOTE 1 : All analysis carried out as per "Standard methods for the examination of water and wastewater", 21st Ed., 2005 (APHA, AWWA, WEF) or associated BS standard.

NOTE 2 : The above test results only apply to test item as described in sample description.

Signed:

Lab Analyst

Date:

11/6/12

Approved:

Lab Team Leader

Limerick County Council

15 OCT 2012

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Fax: 021 4387299
Email: micro@enva.ie
www.enva.ie

Certificate of Analysis

Mr Patrick Ryan
Ballyfaskin
Ballylanders
Co Limerick

Analysis Report

Sample Description	Condition	Our Ref:	Date Received
ZM003 House Well	Normal	302/06/12	04.06.12

Test Parameter	Test Date	Result (cfu/100ml)	Test Method
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NOTE 1: All analysis carried out as per "Standard methods for the examination of water and wastewater", 21st Ed., 2005 (APHA, AWWA, WEF) or associated BS standard

NOTE 2: The above test results only apply to test item as described in sample description

Signed:

Lab Analyst

Date: 11/6/12

Approved:

Lab Team Leader

Limerick County Council

15 OCT 2012

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Fax: (01) 613 6008
Email: info@cityanalysts.ie
www.cityanalysts.ie

Certificate of Analysis

Customer: Montgomery EHS

Report Reference: 11-01563-

Customer Address: 2 Beechwood Gardens
Newcastlewest
Co Limerick

Date Received: 22/08/2011

Customer Contact: Trevor Montgomery

Page 2 of 13

Sample Description: WELL 1
Sample Type: Ground Water
Date Sampled: 22/08/2011
Lab Reference Number: 110404

Site/Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value	Accreditation Status
L/1041	22/08/2011	pH	7.58	pH Units	-	INAB
L/1201	22/08/2011	E.coli	<1.00	MPN/100ml	-	INAB
L/1201	22/08/2011	Total Coliforms	<1.00	MPN/100ml	-	INAB
D/3000	07/09/2011	Nitrite as NO2	<0.00	mg/l	-	INAB
D/3000	07/09/2011	Nitrate as NO3	<0.77	mg/l	-	INAB
D/3000	07/09/2011	Orthophosphate as P04	<1.5	mg/l	-	INAB
D/3000	07/09/2011	Sulphate	<20	mg/l	-	INAB
D/3000	07/09/2011	TON as N	<2	mg/l	-	INAB
D/3000	07/09/2011	kjn	0	-	-	INAB
D/3086	06/09/2011	Dry residue at 180°C	0.04	%	-	NON
D/3011	23/08/2011	Conductivity	492	µs/cm at 20°C	-	NON
D/3001	07/09/2011	Boron, Total	<100	ug/l	-	INAB
D/3001	07/09/2011	Calcium	63.7	mg/l	-	NON
D/3001	07/09/2011	Magnesium, Total	29.7	mg/l	-	INAB
D/3001	06/09/2011	Barium	167.0	ug/l	-	NON
D/3001	06/09/2011	Cadmium, Total	<0.5	ug/l	-	INAB
D/3001	06/09/2011	Chromium, Total	<5	ug/l	-	INAB
D/3001	06/09/2011	Copper, Total	<20	ug/l	-	INAB
D/3001	06/09/2011	Iron, Total	1523	ug/l	-	NON
D/3001	06/09/2011	Lead, Total	<2.5	ug/l	-	INAB
D/3001	06/09/2011	Manganese, Total	190	ug/l	-	INAB
D/3001	06/09/2011	Nickel, Total	<2	ug/l	-	INAB
D/3001	06/09/2011	Zinc, total	245	ug/l	-	INAB

Note:

NAC & ATC - No abnormal change and acceptable to customers.

PV Value is the parametric value, taken from European Communities, (Drinking Water) (No. 2) Regulations, 2007: S.I. No. 278 of 2007, and relates only to drinking water samples.

Site D = Analysed at City Analysts Dublin. Site L = Analysed at City Analysts Limerick

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Template 1146
Revision 012



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Email: info@cityanalysts.ie
www.cityanalysts.ie

Certificate of Analysis

Customer: Montgomery EHS

Report Reference: 11-01563-

Customer Address: 2 Beechwood Gardens
Newcastlewest
Co Limerick

Date Received: 22/08/2011

Customer Contact: Trevor Montgomery

Page 3 of 13

Sample Description: WELL 1
Sample Type: Ground Water
Date Sampled: 22/08/2011
Lab Reference Number: 110404

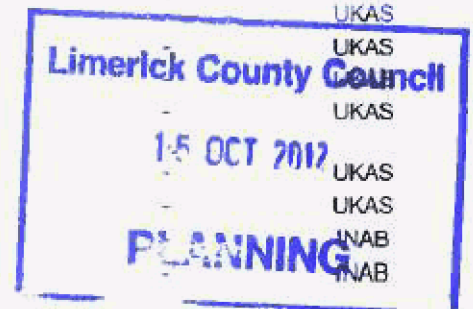
Site Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value	Accreditation Status
D/3001	07/09/2011	Phosphorus, total as P	216.8	ug/l	+	NON
D/3000	07/09/2011	Chloride	50.18	mg/l	+	INAB
SUB C		Arsenic, Total as As	0.440	ug/l	+	UKAS
SUB C		Cyanide, Total	1.4	ug/l	+	UKAS
SUB C		Mercury, Total as Hg	0.0120	ug/l	+	UKAS
Phenols: Clean Waters						
SUB C		2,4 Dichlorophenol	<0.0120	ug/l	+	UKAS
SUB C		2,4,6 Trichlorophenol	<0.0280	ug/l	+	UKAS
SUB C		2-Chlorophenol	<0.0060	ug/l	+	UKAS
SUB C		2,4 Dimethylphenol	<0.0240	ug/l	+	UKAS
SUB C		3,5 Dimethylphenol	<0.0200	ug/l	+	UKAS
SUB C		4 Chlorophenol	<0.0160	ug/l	+	UKAS
SUB C		Phenol	<0.0560	ug/l	+	UKAS
SUB C		2,5 Dimethylphenol	<0.023	ug/l	+	UKAS
SUB C		2 Methylphenol	<0.021	ug/l	+	UKAS
SUB C		4 Methylphenol	<0.025	ug/l	+	UKAS
SUB C		3 Methylphenol	<0.027	ug/l	+	UKAS
SUB C		Total Phenol	0.000	ug/l	+	UKAS
SUB C		Selenium, Total as Se	<0.2200	ug/l	+	UKAS
Sub C		Silver	<0.080	ug/l	+	UKAS
D/3001	07/09/2011	Potassium	<5	mg/l	+	INAB
D/3001	07/09/2011	Sodium	48.880	mg/l	+	INAB

Note:

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Site D = Analysed at City Analysts Dublin Site L = Analysed at City Analysts Limerick



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VAT Number IE 8269424H Registered in Ireland



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Environmental Laboratories

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Customer Contact: Trevor Montgomery

Page 4 of 13

Sample Description: WELL 1
Sample Type: Ground Water
Date Sampled: 22/08/2011
Lab Reference Number: 110404

Site/Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value	Accreditation Status
D/3015	23/08/2011	Fluoride	0.3	mg/l	-	INAB
D/3000	07/09/2011	Alkalinity as CaCO ₃	223	mg/l	-	INAB
SUB C		Total organic carbon	0.75	mg/l	-	UKAS

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Revision 012

16 OCT 2012

Directors: Miriam Byrne, Ireland John Rahill, Ireland Alan Shattock, Ireland
VAT Number IE 8265424H Registered in Ireland



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Customer Contact: Trevor Montgomery

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Sample Description: WELL 2
Sample Type: Ground Water
Date Sampled: 22/08/2011
Lab Reference Number: 110405

Site/Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value	Accreditation Status
L/1201	22/08/2011	E.coli	<1.00	MPN/100ml	-	INAB

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Note:

NAC & ATC - No abnormal change and acceptable to customers.

PV Value is the parametric value, taken from European Communities (Drinking Water) (No. 2) Regulations, 2007 S.I. No. 278 of 2007, and relates only to drinking water samples.

Site D = Analysed at City Analysts Dublin. Site L = Analysed at City Analysts Limerick

Template 1146
Revision 012

Directors: Miriam Byrne, Ireland John Rahill, Ireland Alan Shattock, Ireland.
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Bait Stations for Controlling Rats and Mice

Bait stations increase both the effectiveness and safety of the toxic baits used to control rats and mice.

Toxic baits are often used to reduce the damage caused by Norway rats (*Rattus norvegicus*) and house mice (*Mus musculus*). Bait stations used in rodent control programs increase both the effectiveness and safety of rodent baits (rodenticides).

- Bait stations are useful because they:
- protect bait from moisture and dust;
- provide a protected place for rodents to feed, allowing them to feel more secure and consume more bait;
- keep nontarget species, including pets, livestock, wildlife, and children away from toxic baits;
- allow bait to be placed in otherwise difficult locations given weather or potential hazards to nontarget animals;
- help prevent accidental spillage; and
- offer the applicator easy access to bait, making it easier to determine the amount of bait consumed by rodents, and to refill.
-



Figure 1. Bait Station holding a glueboard. Many manufactured bait stations are designed with the flexibility to be used with traps, glueboards and toxicants.



Types of Bait Stations

To meet the variety of demands for rodent control, manufacturers have developed designs for several bait stations. The designs are based on whether the station needs to:

- target rats or mice,
- contain solid (pellets and block) or liquid bait,



- sustain indoor or outdoor use,
- resist tampering,
- hold traps (snap and glue) (*Figure 1*).

Stations also differ in the type of materials used for their construction, including plastic, metal and other materials.

To protect people and nontarget species, good practice mandates that a commercially produced bait station meet eight safety criteria before it receives the designation “tamper resistant.” Tamper resistant stations must be:

1. Resistant to destruction or weakening by weather.
2. Strong enough to prohibit entry or destruction by dogs or children under 6 years of age using their hands, feet or objects.
3. Capable of being locked or sealed.
4. Equipped with rodent entrances that readily allow target animals access to baits but deny access to larger animals and birds.
5. Capable of being anchored (and must be anchored when used).
6. Equipped with internal structures for containing baits and minimizing spillage and tracking of bait outside of the station or into readily accessible parts of the station.
7. Made of design and colour not especially attractive to children.
8. Capable of displaying precautionary statements in a prominent location.

Manufacturers meet the safety criteria by constructing bait stations out of sturdy plastic, designed with two chambers positioned in a way that forces the rodent to take a 90 degree turn to access the bait (*Diagram 1*). Finally, the station must be securable to the floor, heavy patio stone or a wall to prevent the bait from being removed by shaking. If the station is in proximity of hoofed livestock or wildlife such as raccoons, stronger building materials (aluminum) may be needed.



Open Bait Station

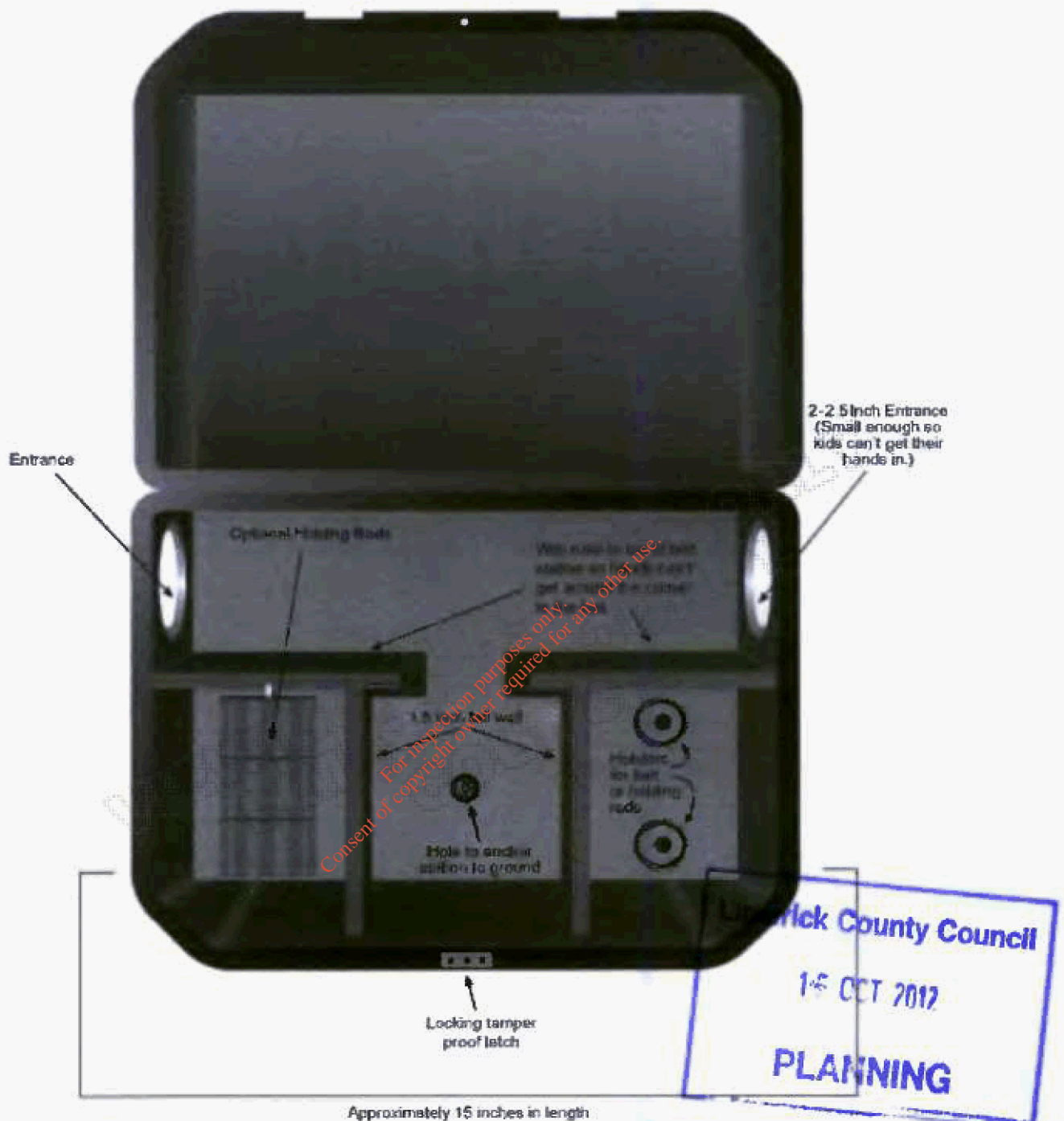
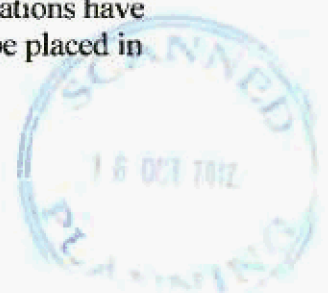


Diagram 1. Open bait station illustrating entrance holes, interior walls, holding rods, anchor points and locks.

The colour of the bait station plays a critical role in station success when used outside. When placed in direct sunlight, black and clear stations become solar collectors. Internal station temperatures can reach as high as 50°C and melt the bait. Also, clear plastic stations have been known to become brittle during freezing temperatures. If stations are to be placed in areas exposed to direct sunlight, choose those that are gray or white.



Manufactured bait stations are available through vendors of farm and chemical supply stores or can be ordered through the Internet or pest management suppliers.

Bait Selection

Bait stations work best when used with commercial rodent baits. Today, most of these baits are anticoagulant rodenticides. For these baits to be effective, rodents must feed on them over a period of days. Baits are available in several forms — loose grain, pellet-grain mixtures, paraffin-grain blocks, extruded blocks, and water-soluble concentrates. The best approach is to use extruded bait blocks that can be anchored inside the bait station to prevent them from being removed. Loose grain and pelleted baits are often sold packaged in small “place packs” that can be placed intact into the bait station. Use caution with loose and pelleted grain formulations of toxicants, as rodents may relocate them to unsafe areas.

Liquid baits work well in locations where rodents have few water sources, such as granaries. Simply mix the dry concentrate with a measured amount of water to create an enticing rodent bait. Rats will often come to water stations because they need water daily unless they are feeding on very moist food. Although mice can survive without drinking water, they will use it when it is available. Because many nontarget animals drink water, receptacles containing liquid rodenticides should be enclosed within bait stations to reduce hazards to pets, livestock, and wildlife.

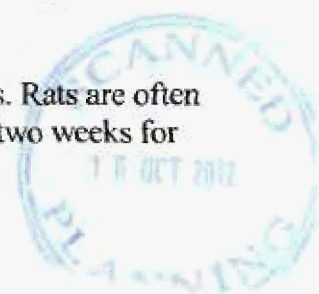
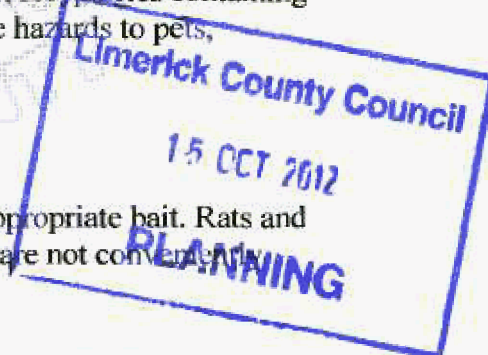
Bait Station Placement

Proper placement of bait stations is just as important as using the appropriate bait. Rats and mice will not visit bait stations, regardless of their contents, if they are not conveniently located in areas where rodents are active.

When possible, place the stations between the rodents' food supply and their shelter. Position bait stations near rodent burrows, against walls, and along their travel routes. Look for signs of activity such as droppings, gnawing, tracks, and rubmarks to help identify sites to place bait stations. Rodents usually will not go out of their way to find baits. House mice seldom venture more than 20 metres from their nests or food, so place bait stations no more than 4 metres apart in areas where mice are active. Norway rats will travel up to 30 metres from their nests so rat stations can be placed 5 to 20 metres apart. It is important to be patient when controlling rats. Rats are often suspicious of new or unfamiliar objects. Do not be surprised if it takes up to two weeks for



Figure 2. Rat bait station properly placed against the exterior wall of a building.



rats to enter and feed in recently placed bait stations. Landscape versions of bait stations are available that look like rocks, thereby blending in with overall surroundings.

On piggery farms, placement of bait stations depends on building design and use. In confined buildings, it may be possible to attach bait stations to wall ledges or to the top of dividing walls. Bait stations also can be placed in attics, along walls, or in alleys where rodents are active (*Figure 2*).

Never place bait stations where livestock, pets or other animals can disturb them. Spilled bait may pose a potential hazard, particularly to smaller animals. Rodent baits are poisonous to all animals, in varying degrees. Dogs are especially susceptible to anticoagulants.

Permanent bait stations can be placed inside buildings and along the outside walls of buildings that are not rodent-proof. Avoid placing stations away from structures, such as along fence lines or the perimeter of the property. Perimeter placements may endanger non-target species, while not substantially increasing target species control. Bait stations, however, may be necessary along the perimeter when structures are within 25 metres of thick vegetative covers and there is a large rodent population.

Bait Station Maintenance

Maintain the bait stations regularly with fresh anticoagulant bait to keep rodent numbers at a low level, as rodents will move in from other areas. When using baits, monitor their freshness and quality, as rats and mice will often reject spoiled or stale foods. Provide enough fresh bait for rodents to eat sufficiently, but don't overfill bait stations. When initially positioning bait stations check them daily and add fresh bait as needed. After a short time, rodent numbers and feeding will decline, and surveillance of stations will only be necessary every two weeks or so. If the bait becomes mouldy, musty, soiled, or insect-infested, empty the bait station, clean it, and refill it with fresh bait. Always wear appropriate safety equipment as specified by the label, including disposable gloves, glasses/goggles, and a mask during the cleaning process to protect workers from exposure to the toxicant and rodent excrement in the station. Dispose of spoiled or uneaten bait in accordance with the label. If possible, dispose of the spoiled toxicant at a qualified toxic-waste facility. If ants are a problem, treat the station interior (especially the bait tray) with a low-odour, liquid pyrethroid insecticide. Let the insecticide dry before filling the station with toxicant. Insecticides will not likely deter rodents, provided that the insecticide is applied at labelled rates. Another option is to sprinkle insecticide granules on and around the immediate area before placing the station. **Never** directly treat rodent bait with insecticide. **Always follow all label directions** for the products you are using.

Safety

Follow all safety guidelines when handling pesticides. Wear latex, nitrile or vinyl gloves when handling all toxicants. Avoid breathing dust when pouring granulated-pelletized pesticides. Don't smoke, eat or drink when handling pesticides. When finished applying toxicants at a location, wash your hands and face thoroughly and change your clothes. These pesticide precautions are also helpful in protecting yourself from biological hazards, such as salmonella. Deer mice, a species known to carry Hanta-virus, commonly take up residence

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inside empty stations. Avoid stirring up dust when opening. Hanta-virus can be disinfected with a 10 percent bleach solution or with Lysol®.

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Baiting Record Sheet

Use a copy of this sheet for each treatment within the baiting programme.							
Farm name							
Name and type of bait used							
Bait point number	Date of first baiting	Date of bait replacement or top-up applications				Signature	Comments
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
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REFER TO DRAWING C-007 FOR EXISTING PIG UNIT ELEVATIONS AS INDICATED BY SECTION MARKER A-A & SECTION MARKER B-B

EXISTING PIG UNIT BUILDINGS	
FATTENING HSE NO. A, B & C	EXISTING
FARROWING HSE NO. D	EXISTING
GILT HSE NO. G	EXISTING
FARROWING HSE NO. E	EXISTING
OPEN TANK NO. H	EXISTING
FATTENING HSE NO. I	EXISTING
FIRST WEANER HSE. J	EXISTING
FIRST WEANER HSE NO. K	EXISTING
2ND STAGE WEANER HSE NO. L	EXISTING
2ND STAGE WEANER HSE NO. M	EXISTING
DRY SOW HSE NO. N	EXISTING
FATTENING HSE NO. O	EXISTING
FATTENING HSE NO. P	EXISTING

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