VISUAL IMPACT ASSESSMENT of

BIOGAS PLANT on BARRYSHALL HOUSE

BARRYSHALL

TIMOLEAGUE

BANDON

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14th May 2013)

NRGE
Nutrient Recovery to Generate Electricity

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1. Introduction

A further Information request has been issued in regarding the Planning Application by Timoleague Agri gen for permission to construct a Biogas Plant consisting of 2 no. Digester Tanks, 2 no validation Tanks, 1 no Homogenising tank, 3 no Geo-Membrane-lined manure storage tanks, 1 no Fibre Store, 1 no Feed Tank, Reception Building, Plant Building, Pasteurisation Tanks, Weighbridge and associated site works including an Integrated Constructed Wetlands.

Item 9 of the FI states *"Submit a visual impact assessment of the impact of the proposed development on Barryshall House (CO 136-0 16). Views to and from Barryshall House should be assessed in the context of the proposed development and views from all adjacent roads and approach roads to the house should be assessed in relation to the impact of the proposed works on the house. The visual assessment should include a 3D photomontage or annotated photomontage overlaid with the proposed development. The location from which photographs were taken should be clearly indicated."*

This report with its accompanying drawings photographs and photomontages assesses the visual impact of the proposed development on Barryshall House.

2. Existing Setting

Barryshall House is a detached seven-bay two-storey country house, built in 1550 and rebuilt in 1745. The house is located in a mature park land setting setback approximately 200m from the public road. The road side boundary adjacent to the house consists of stone wall construction with hedgerow planting on top of the wall. The hedgerows are predominantly black thorn (Prunus) and ash (Fraxinus).

The mature Trees surrounding the House vary in height from 8m to 25m and provide substantial screening and shelter to the house.

3. Proposed Development setting in relation to the House.

The proposed development consists of 2 no Digester Tanks, 2 no validation Tanks, 1 no Homogenising tank, 3 no Geo-Membrane-lined manure storage tanks, 1 no Fibre Store, 1 no Feed Tank, Reception Building, Plant Building, Pasteurisation Tanks, Weighbridge and associated site works including an Integrated Constructed Wetlands. The location of the structures is approximately 150m south east of the House and adjoining farm yard complex.

There are more than 50 mature trees between the proposed biogas plant and the House. These are identified on *Drawing No 031* with their species and approximate height tabulated.

The general topography slopes South-eastward and the ground level of the proposed biogas complex will be approximately 3m lower than the House. The maximum height of the biogas Structures will be 18.7m tall which is below the trees at surrounding the House (the trees vary from 8m to 25m tall and are at a higher ground level - 3m approximately).

4.0 Assessment

There is substantial mature park land screening between the House and the proposed biogas plant.

The proposed development will not remove any of the existing trees. The site of the biogas plant at the location chosen was primarily because of the mature screening which mitigates the visual impact of the proposed development.

The extent of the screening obscures the proposed Biogas Plant from the dwelling. Photographs attached both from the first floor and the front of the House demonstrates the extent of the screening between the Biogas Plant and Barryshall House. A wide angle collage has been made from photographs taken at the Northeast corner and the North West Corner of the house which confirms the extent of the screening. ***(****Photograph 4 and 5* ***Appendix 1)***

We have not been able to find any vantage point on the public road network surrounding the facility where the House and the Biogas Plant site can both be seen together.

There are a number of locations where the on the public road network where the proposed biogas plant will be visible, these are indicated on *Drawing No 031* ***Appendix 3***.

Photomontages No 1 – 3 illustrate the extent of the existing screening in place and to be maintained with the proposed development. We have also attached *Photomontages 1.2 and 3.2* highlights the extent of the screened area of the proposed structures by the existing planting without taking into account the proposed augmented landscaping plan. These also have the location of Barryshall House relative to the location of the image.

5.0 Conclusion

We have not been able to find any vantage point on the public road network surrounding the facility where the House and the Biogas Plant site can both be seen together. The *Satellite Image* in ***Appendix 1*** demonstrated the extent of the screening between the House and the proposed development site.

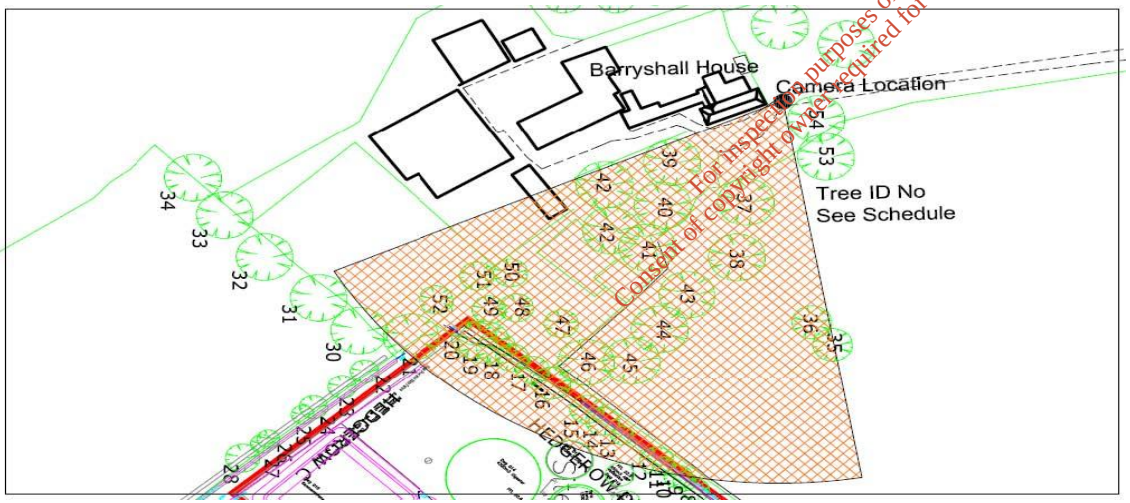
Appendix 1 - Photographs, Montages and Photograph Locations

1.0 Satellite Image of Barryshall House and surrounding screening

2. 0 Photo in the direction of the Biogas Plant Site from the first floor Window at the Northern End of the dwelling.

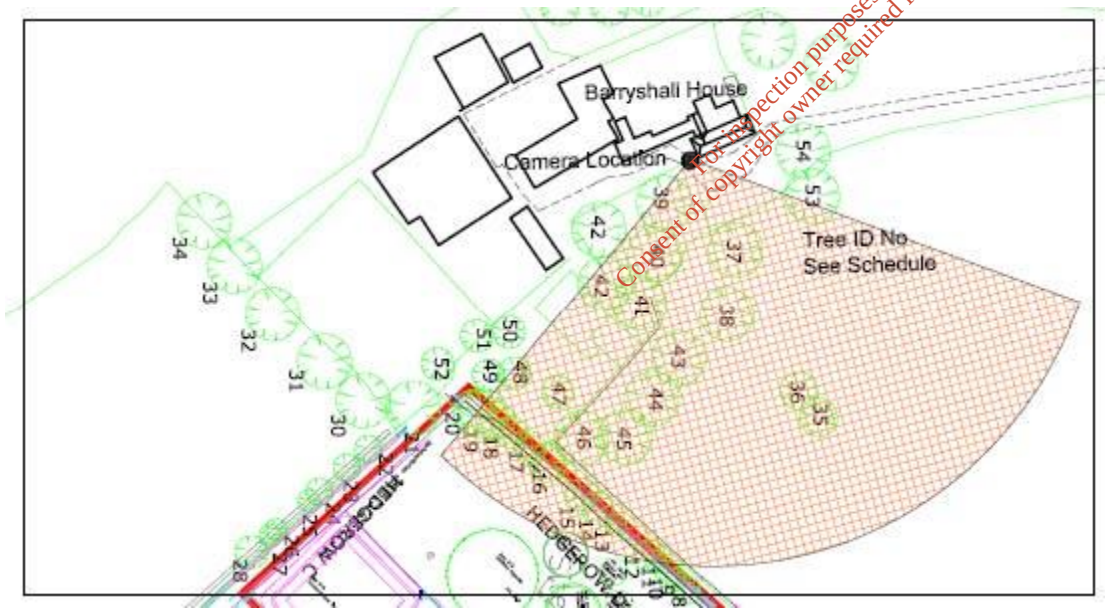
3.0 Photo in the direction of the Biogas Plant Site from the ground floor at the Northern End of the dwelling

4.0 Panoramic view of the proposed Biogas Plant site from the Northeast corner of Barryshall House.



Map Showing Extent of Panoramic View 4.0

5.0 Panoramic view of the Proposed Plant Site from the Northwest corner of Barryshall House



Map Showing Extent of Panoramic View 5.0

Appendix 2 – Images

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.

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 wherby 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 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.

Note:
Outline of vessels & structures shown dashed in red as they are not visible from this viewpoint due to the natural screning by the existing hedgerow

DIGITAL HORIZONS
KILBEHENNY,
MITCHELSTOWN
CO.CORK
TEL: 025 86872

Image: Photomontage No.1

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.

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 wherby the camera was levelled on both axes.
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Barryshall House located behing the Trees

Note:
Outline of vessels & structures shown dashed in red as they are not visible from this viewpoint due to the natural screning by the existing hedgerow

DIGITAL HORIZONS
KILBEHENNY,
MITCHELSTOWN
CO.CORK
TEL: 025 86872

Image: Photomontage No. 1.2

Extent of Existing Screening of Proposed Structures Highlighted in Red

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.

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 wherby 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 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.

Inportant Note:
This photomontage was created based on a photograph taken at an eye level of 2.2m above the public road level, ie from a viewpoint when standing on the 600mm high wall at the eastern side of the public road at Stauntons factory.

DIGITAL HORIZONS
KILBEHENNY,
MITCHELSTOWN
CO.CORK
TEL: 025 86872

Image: Photomontage No.2

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.

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 wherby 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 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.

Important Note:
This photomontage was created based on a photograph taken at an eye level of 3.0m above the public road level, ie from a viewpoint when standing on the 1400mm high ditch at the north-eastern point of adjacent field to the site.

DIGITAL HORIZONS
KILBEHENNY,
MITCHELSTOWN
CO.CORK
TEL: 025 86872

Image: Photomontage No.3

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.

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 wherby 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 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.

Important Note:
This photomontage was created based on a photograph taken at an eye level of 3.0m above the public road level, ie from a viewpoint when standing on the 1400mm high ditch at the north-eastern point of adjacent field to the site.

DIGITAL HORIZONS
KILBEHENNY,
MITCHELSTOWN
CO.CORK
TEL: 025 86872

Image: Photomontage No. **3.2**

Extent of Existing Screening of Proposed Structures Highlighted in Red

Appendix 3 – Drawings

Visual Impact - Photomontage No3

Partial and glimpsed views of the main built structure are possible in winter months form the Public Road. The visual impact is of a low magnitude. Note : Camera Elevation raised for unobstructed view of facility location over the maize crop

Barry's Hall House located behind Mature Screening.

Biogas Plant to be located behind Mature Screening.

Barry's Hall House

Visual Impact - Photo B

Partial and glimpsed views of the main built structure are possible in winter months form the Public Road. The visual impact is of a low magnitude.

Roadside hedgerow - Primary species : Crataegus monogyna, Prunus spinosa, Fraxinus excelsior. Average Height : 5.5 m Notes. High level of emergent trees, Medium sized specimens primarily Fraxinus (Ash) on top of Stone wall (2m high) Screening Value: Good screening. Occasional sections where hedge has become drawn and thinned and glimpsed partial views are possible.

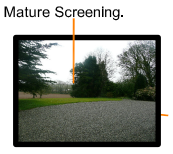
Biogas Plant to be located behind Mature Screening.

Barry's Hall House

Visual Impact - Photo A

Partial and glimpsed views of the main built structure are possible in winter months form the Public Road. The visual impact is of a low magnitude.

View From Barry's Hall House Biogas Plant to be located behind Mature Screening.

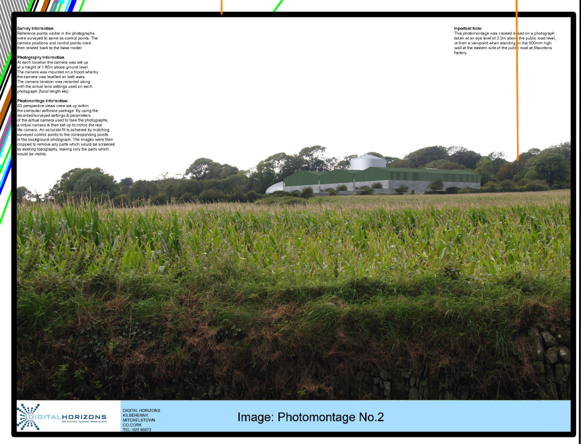


Field Boundary Hedgerow Primary species : Crataegus monogyna, Prunus spinosa, Fraxinus excelsior. Average Height : 3.5 m Screening Value: Low/moderate level of visual screening due to the low height of the hedge and elevated level of facility

Visual Impact - Photomontage 2

The main built structure is prominent in views from this location Note : Camera Elevation for unobstructed view of facility location over the maize crop

Barry's Hall House located behind Mature Screening.

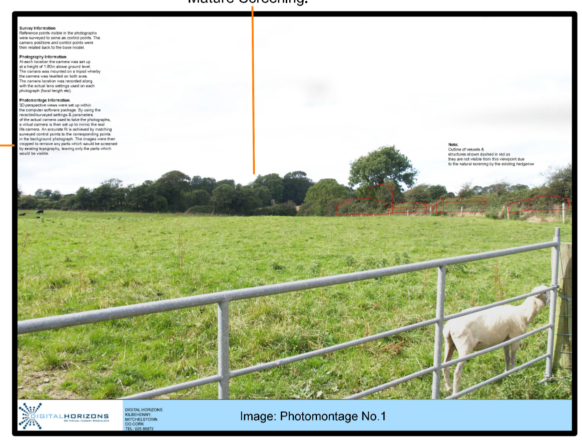


Field Boundary Hedgerow Primary species : Crataegus monogyna, Prunus spinosa, Fraxinus excelsior. Average Height : 4.0 m Screening Value: Moderate screening value. Sections have thinned allowing glimpsed partial views into the site.

Identification of Screening Around Barry's Hall House

Ref No	Description	Section/Location	Approx Height
1	Ash (Fraxinus)	Hedgerow D	10
2	Ash (Fraxinus)	Hedgerow D	20
3	Sycamore (Acer Pseudoplatanus)	Hedgerow D	10
4	Ash (Fraxinus)	Hedgerow D	20
5	Sycamore (Acer Pseudoplatanus)	Hedgerow D	8
6	Sycamore (Acer Pseudoplatanus)	Hedgerow D	6
7	Sycamore (Acer Pseudoplatanus)	Hedgerow D	10
8	Ash (Fraxinus)	Hedgerow D	12
9	Ash (Fraxinus)	Hedgerow D	10
10	Ash (Fraxinus)	Hedgerow D	10
11	Sycamore (Acer Pseudoplatanus)	Hedgerow D	10
12	Sycamore (Acer Pseudoplatanus)	Hedgerow D	12
13	Sycamore (Acer Pseudoplatanus)	Hedgerow D	12
14	Ash (Fraxinus)	Hedgerow D	15
15	Ash (Fraxinus)	Hedgerow D	15
16	Ash (Fraxinus)	Hedgerow D	18
17	Sycamore (Acer Pseudoplatanus)	Hedgerow D	12
18	Sycamore (Acer Pseudoplatanus)	Hedgerow D	18
19	Sycamore (Acer Pseudoplatanus)	Hedgerow D	18
20	Ash (Fraxinus)	Hedgerow D	20
21	Ash (Fraxinus)	Hedgerow C	20
22	Elm (Ulimus minor)	Hedgerow C	12
23	Elm (Ulimus minor)	Hedgerow C	12
24	Elm (Ulimus minor)	Hedgerow C	12
25	Elm (Ulimus minor)	Hedgerow C	12
26	Elm (Ulimus minor)	Hedgerow C	12
27	Elm (Ulimus minor)	Hedgerow C	12
28	Elm (Ulimus minor)	Hedgerow C	12
29	Ash (Fraxinus)	Hedgerow C	12
30	Ash (Fraxinus)	Hedgerow A	15
31	Ash (Fraxinus)	Hedgerow A	15
32	Ash (Fraxinus)	Hedgerow A	15
33	Ash (Fraxinus)	Hedgerow A	15
34	Ash (Fraxinus)	Hedgerow A	15
35	Ash (Fraxinus)	Front Field	20
36	Sycamore (Acer Pseudoplatanus)	Front Field	20
37	Pine (Pseudotsuga)	Front of Dwelling	20
38	Beech (Fagus Sylvatia)	Front of Dwelling	20
39	Beech (Fagus Sylvatia)	Front of Dwelling	20
40	Beech (Fagus Sylvatia)	Front of Dwelling	20
41	Beech (Fagus Sylvatia)	Front of Dwelling	20
42	Beech (Fagus Sylvatia)	Front of Dwelling	20
43	Chestnut (Castanea)	Front of Dwelling	15
44	Chestnut (Castanea)	Front of Dwelling	15
45	Lawson Cypress (Chamaecyparis lawsonia)	Front of Dwelling	20
46	Ash (Fraxinus)	Front of Dwelling	22
47	Poplar (Populus)	South of Yards	18
48	Beech (Fagus Sylvatia)	South of Yards	10
49	Beech (Fagus Sylvatia)	South of Yards	10
50	Ash (Fraxinus)	South of Yards	12
51	Ash (Fraxinus)	South of Yards	12
52	Ash (Fraxinus)	South of Yards	12
53	Lime ((Tilia)	Front of Dwelling	25
54	Lime ((Tilia)	Front of Dwelling	25

Barry's Hall House located behind Mature Screening.

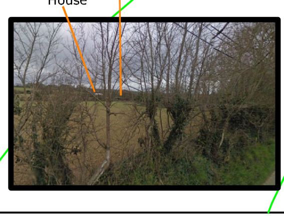


Visual Impact - Photomontage No1

Partial and glimpsed views of the main built structure are possible in winter months form the Public Road. The visual impact is of a low magnitude. Predominant structures outlined in Red

Biogas Plant to be located behind Mature Screening.

Barry's Hall House



Visual Impact - Photo C

Partial and glimpsed views of the main built structure are possible in winter months form the Public Road. The visual impact is of a low magnitude.

Field Boundary Hedgerow Primary species : Crataegus monogyna, Prunus spinosa, Fraxinus excelsior. Average Height : 5.0 m Notes. No emergent trees. Hedge has become thin and stretched in sections but still form a complete belt. Screening Value: Moderate screening value. Sections have thinned allowing glimpsed partial views into the site.

Application Boundary

Existing Trees to be Retained.

Existing Trees to be Removed.

Application Boundary

Area affected by Visual Impact. Extent of public area from which the proposed structure intrudes into view

Existing Hedgerow. Native Hedgerow with emergent trees as indicated

Significant Visual Impact. Views in which the proposed structure is prominent

Low/ insignificant Visual Impact. Minor glimpsed or partial views of the proposed structure

N W E S

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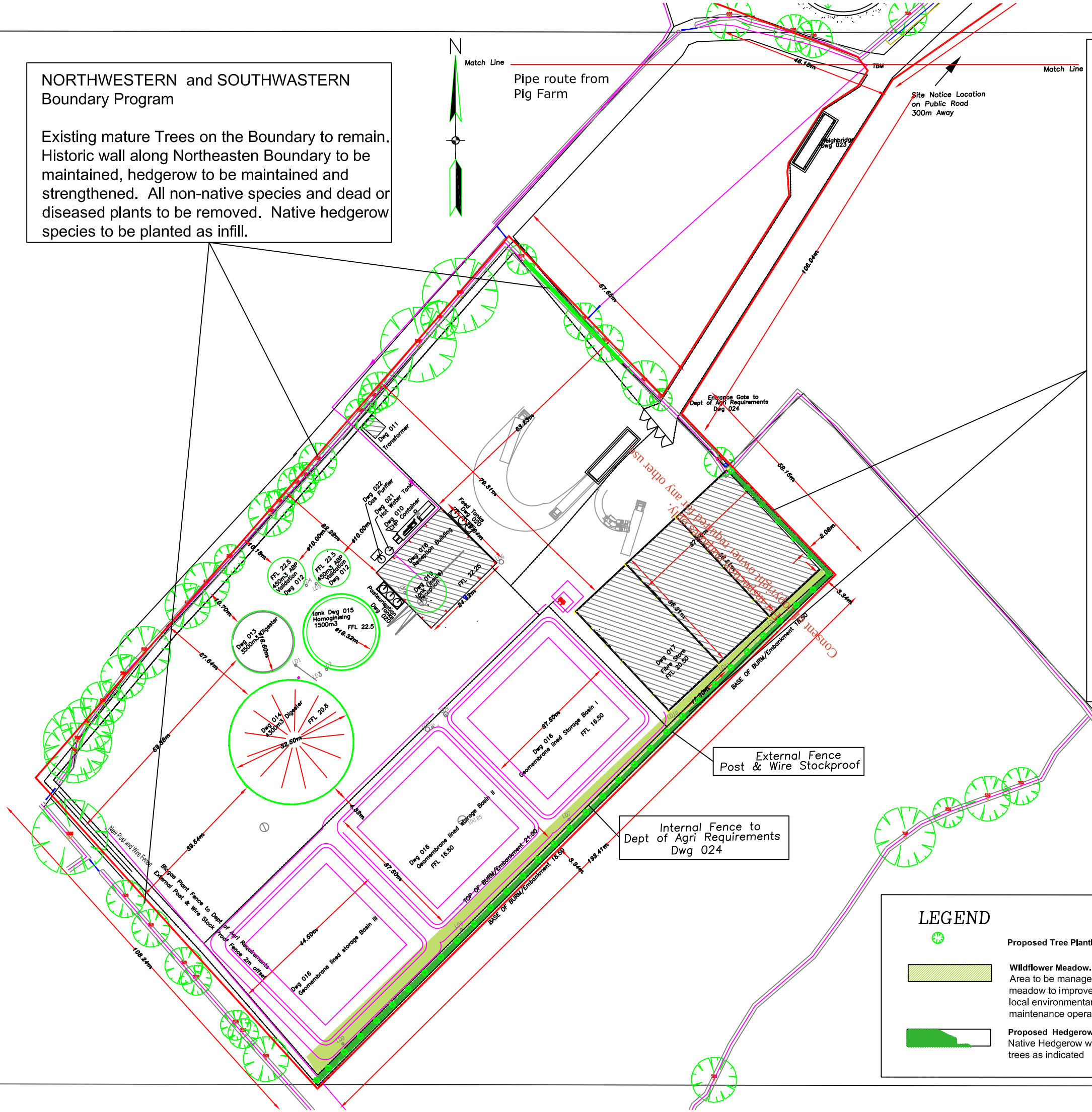
NRGE
Mooresfort
Lattin
Co Tipperary
Phone 062 55385
Fax 062 55483
Email NRGE@iol.ie

Timoleague Agriglass
Visual Impact

Date		Drawing No	Drawn By
April 2013	1:2000/A1	031	

NORTHWESTERN and SOUTHWASTERN Boundary Program

Existing mature Trees on the Boundary to remain. Historic wall along Northeasten Boundary to be maintained, hedgerow to be maintained and strengthened. All non-native species and dead or diseased plants to be removed. Native hedgerow species to be planted as infill.



NORTHEASTERN and SOUTHEASTERN Boundary Program

The perimeter fence surrounding the biogas plant will be a double fence in accordance with the Department of Agriculture's requirements. It is proposed to screen plant in the area between the fences in the first growing season after the plant is constructed as follows

Trees: 42 No

Plant: Sycamore (*Acer pseudoplatanus*), Ash (Fraxinus), Alder (*Alnus spp)*
Hazel (*Corylus*)*saplings each 1.5m high at 6.0m spacings , 1m out from the inner fence surrounding the biogas plant*

Screen fencing 415 No

Plant hawthorn/ beech and holly 0.6m high in single rows (at c.600 mm centres) between the trees.

Aftercare

Aftercare is essential for the successful establishment of the newly planted hedge! Trim back spindly top growth of hawthorn to encourage basal growth.

Grass and weeds must be controlled by the any or a multiple of the following methods :
- o Black polythene
- o Biodegradable mulches egg wood chippings
- o Mechanical/manual control
- o Herbicides

Replace dead plants at the appropriate time

LEGEND

Proposed Tree Planting

Wildflower Meadow.
Area to be managed as a wildflower meadow to improve the biodiversity of the local environmentand reduce maintenance operations

Proposed Hedgerow .
Native Hedgerow with emergent trees as indicated

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Lattin
Co Tipperary
Phone 062 53385
Fax 062 53483
Email NRGE@iol.ie

Timoleague Agrigen
Site Plan Landscape Planting

Date		Drawing No	Drawn By
Apr 2013	1:1000/A3 1:500/A1	032	