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TINKER LANE LANDSCAPE MITIGATION SCHEME

For the Discharge of Condition 39 of Planning Permission

1/16/00773/CDM

Prepared for: IGas Energy Plc

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DRAWINGS

05251.00006.29_LMS Landscape Mitigation Scheme

1.0 Introduction

Condition 39 of planning permission 1/16/00773/CDM states the following:

- 39. Prior to the commencement of the Construction Phase a landscape mitigation scheme shall be submitted to, and approved by, the MPA. The scheme shall include:**
- a. tree replacement, using locally sourced native trees, for those to be removed at the site access and visibility splays;**
 - b. hedge infilling measures, including location and species to be used, prior to the Construction Phase;**
 - c. the establishment of a wildflower or pollen and nectar seed mix on the soil storage bunds;**
 - d. management measures for the life of the development;**
 - e. the provision of five years of aftercare;**
 - f. a timetable for providing the above.**

The scheme shall be in line with Paragraph 11.236 of Chapter 11 of the Environmental Statement – received by the MPA on 12 May 2016. The scheme shall thereafter be implemented in accordance with the approved details.

Reason: Details are required prior to the commencement of the Construction Phase to minimise visual impact in accordance with Policy M3.4 of the Nottinghamshire MLP.

The following report, and accompanying Drawing 05251.00006.29_LMS, set out the details of the proposed Landscape Mitigation Scheme.

Chapter 10 of the Environmental Statement (ES) identified a landscape strategy (Paragraph 10.31) to mitigate potential adverse effects as a result of the construction and operation of the site. This strategy includes the effective management around the site of existing hedgerows, allowing them to grow in height, and infilling of hedgerows, using native trees to improve landscape structure both of which offer enclosure/screening and habitat connectivity. Such measures would also be of benefit to local ecology; for example, by increasing nesting opportunities for birds (as suggested in Paragraph 11.236 of the ES). The strategy allows the site to be returned to agricultural use when restored.

1.1 Tree Replacement

Subject to approval by the MPA, individual native trees (as indicated on Drawing 05251.00006.29_LMS) will be planted between November 2017 and March 2018, along the eastern edge of the site replacing those lost for the site access and visibility splays whilst also improving landscape structure, enclosure/screening and habitat connectivity. Trees will be planted on the roadside of the existing hedgerow to avoid damaging its integrity.

1.2 Hedgerow Infilling Measures

The southern hedgerow boundary will be reinforced/infilled with additional native hedgerow plants providing improving landscape structure, enclosure/screening and habitat connectivity. Planting will be at 5 plants per linear metre in a double staggered row, species evenly distributed (refer to Drawing 05251.00006.29_LMS for species mix). Planting will take place between November 2017 and March 2018.

1.3 Establishment of Wildflower Seed Mix on Soil Storage Bund

The soil storage bund shall be seeded at the first appropriate opportunity, and no later than the end of the first available seeding season following the construction of the mound. Similarly, bare ground shall be seeded at the first available opportunity and no later than the end of the first available seeding window following the construction phase. The ground will be sown at a rate of 5g/m² with a species mix such as or similar to Emorsgate Seeds EM3 special general purpose meadow mixture, which conforms to the requirement of Condition 39.c. The source will be blue label certified, complying with EC regulations for purity and germination.

The mix is a relatively low maintenance one and once established provides a diverse sward helping to assimilate the site with its surroundings (refer to the schedule on Drawing 05251.00006.29_LMS for list of wildflowers and grasses).

1.4 Management Measures for the Life of the Development

1.4.1 Monitoring and Personnel

All areas of the Landscape Scheme within the application boundary will be monitored by a suitably competent ecologist until the end of the restoration phase, at which time the field will be put back under agricultural production. Monitoring enables the most appropriate management regime to be defined on an area-by-area basis. On an annual basis, a visual inspection will be carried out to check for good strong foliage growth and the success of vegetation; enabling the most suitable management regime to be defined for the forthcoming year.

1.4.2 Sources of Plant Stock

The proposed individual trees will be native bagged Feathers, 200-250cm in height. All other hedgerow plants will be well-grown nursery stock as seed-raised transplants, 1+1, 1/1 (2 year old transplant, one year in seedbed, transplanted and grown for one year) or 1+2, 1/2 (one year in seedbed, transplanted and grown for 2 years) up to 80cm in height (for shrubs), depending on species and form. All effort will be made to source stock of native genetic origin. All plant handling and planting operations will comply with relevant clauses of the Committee for Plant Supply and Establishment (CPSE) 'Handling and Establishing of Landscape Plants' (obtainable from the Horticultural Trades Association). The health and well-being, including root condition, of all planting stock will be ensured before commencing work.

Trees will be pit planted with a slightly raised bottom to the pits and scarified sides. Feathered trees will be planted with a pit size of approximately 1000mm x 1000mm x 750mm depth or as necessary to accommodate their root systems. Two Stakes (100mm ϕ) will be driven vertically at least 300mm into the bottom of the pit, one on either side of the tree position before planting. The stakes will be cut off just below the lowest branch of the tree and expanding ties used to firmly but not rigidly secure the tree to the cross bar. Backfill will consist of previously excavated material and sanitized and stabilised, friable compost to PAS 100 (1:3 ratio) per tree. Other transplants will be planted with a pit size to be a nominal 300mm diameter by 300mm depth or as necessary to accommodate their root systems. When planted, the top of the root collar must be level with the surrounding soil surface and the ground around each plant will be firmed in by treading and then watered; taking care to avoid scuffing or damage. The completed planting pits will be either at ground level or slightly domed to prevent waterlogging. Tubex type shelters and mulch mats will be used for every tree. Infill hedgerow shrub planting will be individually protected either by 0.6m height translucent plastic spiral guards supported by a single stout cane or, in the case of the more bushy, species, a 0.6m high shrub shelter and softwood timber stakes of no less than 80mm diameter.

1.4.3 Vegetation Management

Initial Weed growth within the grassland will be controlled by cutting/strimming during the first growing season. However, some thistle growth is to be encouraged as it is a good food source for birds.

In the second and subsequent years the grass is to be managed as a meadow. Grasses are to be allowed to grow tall, flower and seed from May through to July/August. The grass may then be cut back in late summer to approximately 75-100mm. Prior to cutting, all debris/litter in grassed areas is to be removed. Other areas of grassland adjacent to the hardstanding areas will be cut short as required.

During each spring, fresh seed would be broadcast over areas of bare ground or poorly established grasslands as deemed necessary by a suitably qualified ecologist, since some areas of bare ground are beneficial from an ecological perspective. The seed mix will be hand sown, after raking the surface to produce a medium tilth and removing weeds, and should not be sown on compacted ground. Bulking up the seed with an inert carrier such as sand can make distribution easier. Rolling is not necessary. This will retain an open matrix and encourage the ongoing natural development of wild grasses and wildflowers of benefit to local wildlife including: bees, birds and reptiles.

All existing hedgerows immediately edging the site will be managed annually, to encourage the hedgerows to grow whilst maintaining an effective screen to views into the site. All cutting will take place outside of the bird nesting season (bird nesting season is the beginning of March to end of August inclusive). If any hedgerow maintenance is required for highway safety purposes then checks will be undertaken by a suitably qualified ecologist to ensure there are no breeding birds present before work is undertaken.

1.4.4 Weed Control

Monitoring will include checking for invasive plant species, on at least an annual basis, during the growing season (Section 14 of the Wildlife and Countryside Act 1981 prohibits the establishment of particular non-native invasive species listed in Schedule 9 Part 2 (variation 6th April 2010)). Where these invasive plant species are identified and where possible, appropriate mechanical or chemical measures, ideally specific to the plant species, will be taken to eradicate them.

Where weeds are to be controlled by the application of herbicides this will be carried out by a certified competent person, according to the manufacturer's instructions. Herbicides will not be used within 10m of ponds, ditches or streams.

All tree and shrub planting areas will be maintained free of vegetative competition (i.e. weeds) by the application of herbicide to a 1m diameter around the base of each plant, using a controlled droplet applicator, or similar, minimising spray drift. Hand weeding will also be undertaken with minimal disturbance to planting and reinstatement of soil depth as required.

1.4.5 Fertiliser

If deemed necessary, planted trees and shrubs may receive slow-release fertiliser at the end of the second growing season. The fertiliser would be applied to the base of each tree in accordance with the fertiliser manufacturer's instructions.

1.4.6 Replacements

To ensure the success of the landscape mitigation scheme, planting failures will be replaced on an annual basis during the planting season (November to March) to ensure the appropriate density of planting is maintained.

All replacements will use plants of the same species or other such species as may be agreed with the Local Planning Authority. If abnormal plant failures persist then investigations and proposals for the remedying of site conditions will be prepared and agreed with the Local Planning Authority.

1.4.7 Tree and shrub accessories

Each spring all tree shelters and stakes which have become loose, over-tight or broken will be re-adjusted and any plants that have become loose will be re-firmed and/or adjusted. All accessories will be removed upon the establishment of planting or at the conclusion of the 5 year aftercare period, whichever is the soonest.

1.5 Aftercare Operations

The new tree and hedgerow planting will be subject to a further 5 year aftercare period following the restoration of the site.

The table below presents a summary of main annual management operations and timings until the conclusion of the 5 year aftercare period.

Table 1
Summary of Main Annual Management Operations

Timings	Standard Operations, to be carried out as required
WINTER	<ul style="list-style-type: none"> • Complete record of previous year's operations (Year 2 onwards) • Hedgerow siding up as required • Replacement planting if required
SPRING	<ul style="list-style-type: none"> • Visual inspection of vegetation • Weed control • Readjustments and firming of planting areas, stakes and ties. Removal as required. • Year 2 onwards - Assessment of fertiliser requirements for proposed tree and hedgerow planting
SUMMER	<ul style="list-style-type: none"> • Weed control • Assess irrigation / watering requirements
AUTUMN	<ul style="list-style-type: none"> • Visual inspection of vegetation • Weed control

1.6 Timetable

Tree and Hedge planting will take place between November 2017 and March 2018.

The soil storage bund shall be seeded at the first appropriate opportunity, following the construction of the bunds. Similarly, bare ground shall be seeded at the first available opportunity and no later than the end of the first available seeding window following the construction phase.

DRAWING

05251.00006.29_LMS Landscape Mitigation Scheme

WILDFLOWER GRASSLAND MIX	
Erosgate Seeds EM3 - Special General Purpose Meadow Mixture or similar approved, at a rate of 5g/m ²	
Grasses	%
<i>Cynosurus cristatus</i>	40
<i>Festuca rubra</i>	28
<i>Agrostis capillaris</i>	8
<i>Phleum bertolonii</i>	4
<i>Achillea millefolium</i>	0.5
<i>Betonica officinalis - (Stachys officinalis)</i>	0.6
<i>Centaura nigra</i>	2.5
<i>Centaura scabiosa</i>	0.8
<i>Daucus carota</i>	1
<i>Filipendula ulmaria</i>	0.6
<i>Galium album - (Galium mollugo)</i>	0.6
<i>Knautia arvensis</i>	2
<i>Leontodon hispidus</i>	0.4
<i>Leucanthemum vulgare</i>	0.3
<i>Lotus corniculatus</i>	0.6
<i>Organum vulgare</i>	0.5
<i>Plantago media</i>	0.1
<i>Potentilla sanguisorba</i>	0.5
<i>Primula veris</i>	1
<i>Prunella vulgaris</i>	0.4
<i>Ranunculus acris</i>	2.5
<i>Rhinanthus minor</i>	1
<i>Rumex acetosa</i>	0.6
<i>Silene dioica</i>	1.2
<i>Silene fls-cucull - (Lycinus fls-cucull)</i>	0.2
<i>Tithellum pratense</i>	0.1
TOTAL	100

REPLACEMENT NATIVE TREE PLANTING						
Tree/Shrub species	Form/habit	Root condition	Min. no. of Breaks	Age/Condition Times or Number of Transplanted	Overall Height (cm)	Total
<i>Fagus sylvatica</i>	Beech	Rootballed	5	2x	200-250	5
<i>Quercus robur</i>	English Oak	Rootballed	5	2x	200-250	6
<i>Tilia cordata</i>	Small Leaved Lime	Feathered	5	2x	200-250	3
TOTAL						14

HEDGEROW INFILL PLANTING							
Tree/Shrub species	Form/habit	Root condition	Min. no. of Breaks	Age/Condition Times or Number of Transplanted	Overall Height (cm)	% Mix	Total
<i>Catalpa monogyra</i>	Hawthorn	Bagged/Bareroot	2	1+1 or 1/1	60 - 80	70	65
<i>Prunus spinosa</i>	Blackthorn	Bagged/Bareroot	2	1+1 or 1/1	60 - 80	25	25
<i>Rosa canina</i>	Dog rose	Bagged/Bareroot	3	1+1 or 1/1	60 - 80	5	5
TOTAL						100	95



EXISTING HEDGEROW STRUCTURE STRENGTHENED BY THE ADDITIONAL TREE PLANTING. TREES TO BE LOCATED ROADSIDE OF HEDGE. EXACT LOCATIONS TO BE DETERMINED ON SITE.

PROPOSED WILDFLOWER MEADOW MIX SOWN ON SOIL BANDS HELPING THE LANDFORM TO ASSIMILATE WITH ITS SURROUNDINGS



NOTES

Based on R Elliott Associates Ltd Drawing No. TL303 May 2016
For planning purposes only. Not to be relied upon for construction purposes.

LEGEND	DESCRIPTION
[Red line]	APPLICATION SITE
[Blue line]	LAND UNDER CONTROL OF APPLICANT
[Dashed line]	INDICATIVE CONTOURS (0.5M INTERVALS)
[Wavy line]	HERAS FENCE
[Dotted line]	HOARDING
[Green circle]	EXISTING TREES TO BE RETAINED
[Pink circle]	EXISTING TREES TO BE REMOVED
[Green circle with +]	PROPOSED FAGUS SLYVATICA
[Green circle with +]	PROPOSED TILIA CORDATA
[Green circle with +]	PROPOSED QUERCUS ROBUR
[Green circle with +]	EXISTING HEDGE TO BE RETAINED AND POSITIVELY MANAGED
[Green line]	PROPOSED INFILL HEDGE PLANTING
[Green line]	ARABLE FIELD MARGIN TO BE RETAINED AS PART OF STEWARDSHIP SCHEME
[Green line]	PROPOSED WILDFLOWER MEADOW MIX
[Grey line]	HARDS TANDING AREA

ASPECT HOUSE
BENNETTLEY ROAD
NOTTINGHAM, NG8 8WR
F: 01169 251576
www.slrconsulting.com

ASPECT BUSINESS PARK
BENNETTLEY ROAD
NOTTINGHAM, NG8 8WR
F: 01169 251576
www.slrconsulting.com

LAND WEST OF A634, BARNBY MOOR
BLYTH, NOTTINGHAMSHIRE

APPLICATION REF: 1/16/00773/CDM
CONDITION 39

LANDSCAPE MITIGATION SCHEME

05251_00006_29_LMS

Scale: 1:1,000 @ A3
Date: JULY 2017

EUROPEAN OFFICES

United Kingdom

AYLESBURY

T: +44 (0)1844 337380

BELFAST

T: +44 (0)28 9073 2493

BRADFORD-ON-AVON

T: +44 (0)1225 309400

BRISTOL

T: +44 (0)117 906 4280

CAMBRIDGE

T: + 44 (0)1223 813805

CARDIFF

T: +44 (0)29 2049 1010

CHELMSFORD

T: +44 (0)1245 392170

EDINBURGH

T: +44 (0)131 335 6830

EXETER

T: + 44 (0)1392 490152

GLASGOW

T: +44 (0)141 353 5037

GUILDFORD

T: +44 (0)1483 889800

LEEDS

T: +44 (0)113 258 0650

LONDON

T: +44 (0)203 691 5810

MAIDSTONE

T: +44 (0)1622 609242

MANCHESTER

T: +44 (0)161 872 7564

NEWCASTLE UPON TYNE

T: +44 (0)191 261 1966

NOTTINGHAM

T: +44 (0)115 964 7280

SHEFFIELD

T: +44 (0)114 245 5153

SHREWSBURY

T: +44 (0)1743 23 9250

STAFFORD

T: +44 (0)1785 241755

STIRLING

T: +44 (0)1786 239900

WORCESTER

T: +44 (0)1905 751310

Ireland

DUBLIN

T: + 353 (0)1 296 4667

France

GRENOBLE

T: +33 (0)4 76 70 93 41