

## Eve O'Sullivan

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**Subject:** H0366-01 Killycronaghan historic landfill  
**Attachments:** H0366-01 Killycronaghan historic landfill response.pdf

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**From:** Kieran Duffy <[kduffy@monaghancoco.ie](mailto:kduffy@monaghancoco.ie)>  
**Sent:** Friday 29 May 2020 19:58  
**To:** Licensing Staff <[licensing@epa.ie](mailto:licensing@epa.ie)>  
**Subject:** H0366-01 Killycronaghan historic landfill

A chara,

I refer to Monaghan County Council's COA application for Killycronaghan historical landfill lodged on January 15th 2020 and the subsequent notice for further information issued by the EPA under Reg 7(4) of the Waste Management (Certification of Historic Unlicensed Waste Disposal and recovery activity) Regulations 2008.

Please find attached Monaghan County Council's response to the notice in support of our application.

Best regards all and take care.

Kieran Duffy  
A/SEE  
Monaghan County Council

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# KILLYCRONAGHAN HISTORIC LANDFILL, CO. MONAGHAN

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## RESPONSE TO EPA RFI TO SUPPORT CERTIFICATE OF AUTHORISATION APPLICATION

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Prepared for: Monaghan County Council



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# KILLYCRONAGHAN HISTORIC LANDFILL, CO. MONAGHAN

## RESPONSE TO EPA RFI TO SUPPORT CERTIFICATE OF AUTHORISATION APPLICATION

User is responsible for Checking the Revision Status of This Document

Rev. No.	Description of Changes	Prepared by:	Checked by:	Approved by:	Date:
A	For Client Review	BF/MB/MG	AB/JON	BG/ET	26/05/2020
0	Issue to Client	BF/MB/MG	AB/JON	BG/EGT	28/05/2020

**Client:** Monaghan County Council

**Keywords:** EPA, Certificate of Authorisation, Request for Information

**Abstract:** This document presents the response to the request for information issued by the EPA to support the recent Certificate of Authorisation application made by Monaghan County Council for Killycronaghan Historic Landfill.

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## 1. RESPONSE TO REGULATION 7(2) COMPLIANCE REQUIREMENTS

### 1.1 Background

Monaghan County Council (MCC) submitted an application for a certificate of authorisation for Killycronaghan Historic Landfill on 6<sup>th</sup> January 2020. The application was accompanied by the following supporting documentation.

- Tier 2 Risk Assessment, Historic Landfill at Killycronaghan, Co. Monaghan, September 2019 Rev 1, Issue to Client, 05.12.2019
- Tier 3 Risk Assessment Killycronaghan Historic Landfill Site, Co. Monaghan December 2019, Rev 1, Issue to Client, 05.12.2019

The EPA responded on 3<sup>rd</sup> April 2020, informing MCC that the application does not comply with Regulation 7(2) of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008.

In accordance Regulation 7(4), MCC are required to supply the information as requested by the EPA in the response to the certificate of authorisation application. FT has prepared responses to the following items as requested by the EPA.

### 1.2 Response

The following responses have been prepared to each query raised.

- 1. The application states that the landfill was operational from “circa 1980” to “circa 1987”. Tier 3 Assessment states however that the landfill accepted waste through the 1970s and early 1980s ceasing in 1984. Clarify the commencement and closure dates for the landfill.***

The exact timeframe of landfill operation is unknown; however, the more precise operational dates are stated on Tier 3 Assessment. The site is believed to be operational through the 1970s. Start of filling operations assumed 1970. Anecdotal evidence suggests landfilling activities ceased c.1984.

- 2. Discrepancies in the site boundary have been noted in the application. For example, the site boundaries differ in Figure 2.7 of the Tier 1 Assessment and Drawing No. P1724-0105-0002 of the Tier 3 Assessment. Explain the reason for these differences and state which site boundary is correct. Please also state the size of the entire site.***

The site boundary shown in Figure 2.7 of the Tier 1 report was initially assumed as the site boundary. The site boundary was updated after site investigations were undertaken and is reflected as per Drawing no. P1724-0105-0002, this is the correct site boundary. The size of the entire site is also the approximate area to be capped, 24,681m<sup>2</sup>, the exact area as per the design is to be confirmed by the additional S.I.



**3. Tier 1 Assessment refers to Ulster Canal to the North-west of the closed landfill. Provide a drawing showing this canal.**

Please see updated Figure 2.7 in Appendix 1.

Based on historical mapping, Ulster Canal is located to the North-west of the closed landfill. On the updated drawing, the historical mapping is overlaid over the aerial imagery demonstrating how the manmade embankment of the canal likely forms the landfill site boundary with the previous canal slope being infilled against creating the flat area today.

- 4. The record of the site walkover on 12th June 2018 states that the ditch to the southeast of the site was found to be blocked causing drainage water to stagnate.**
- a. State whether the applicant plans to unblock this drainage and if not, please explain the reason why not.**
  - b. State whether there is any evidence of impact from the landfill on the drainage ditch and the water contained therein.**

It is proposed to unblock the drain and Section 3.1.1 of the Tier 3 ERA has been updated to reflect this.

FT can confirm that the area was dry during the sampling rounds and no visual evidence of leachate was noted during sampling. It was decided to investigate the area by retrieving a surface water sample from the stream across the road. The landowner stated that the area is prone to flooding where water levels rise and overtop the road and enter the stream across the road. The Geophysical survey undertaken detected a shallow water table/possible leachate in that area (Zone B).

- 5. Two areas have been identified as the areas containing waste, Zone A (2.2 ha) and Zone B (0.08 ha), as outlined in Figure 3-2 of the Tier 2 Assessment. State how the extent of these areas correlates with the extent of the area containing waste and the area to be capped shown in Drawing No. P1724-0105-0002 of the Tier 3 Assessment.**

The extent of area to be capped was determined based on Geophysical Survey and Site Investigation evidence. Zone B was detected as possible zone containing waste by the Geophysical Survey however the results from S.I. show otherwise, TP15 encountered made ground containing a small percentage of waste 5 (CLAY with fragments of plastic) and it is possibly related to localised tipping/land raising as opposed to historic landfilling activity.

Zone B was therefore excluded from the proposed capping area as shown in P1724-0105-0002.

- 6. With reference to Drawing No. P1724-0105-0002 of the Tier 3 Assessment explain the reason for not including the entire area containing waste within the area of the landfill to be capped.**

Although the interpolated waste boundary identified on Geophysics Survey shows a north-east portion containing waste, it was removed from the area of landfill to be capped based on site observations, i.e. differing grass colour due to waste as encountered elsewhere, topography changes consistent with natural ground and intrusive Site Investigations.



As stated in the design documents the exact area as per the design is to be confirmed by the additional S.I. (slit trenching).

**7. State the final estimated volume and tonnage of waste to be taken to represent the full extent of the waste deposited at the landfill.**

The final estimated volume of waste is **106,000 m<sup>3</sup>** as stated in the Tier 2 ERA, and the final estimated tonnage of waste is **147,784 tonnes** as stated in the Tier 3 ERA.

**8. Explain how the sub-surface and surface drainage management system presented on Drawing No. P1724-0505-0001 of the Tier 3 Assessment will work.**

The proposed sub-surface drainage system will comprise of sub-surface drains constructed within the landfill cap (see Killycronaghan Sub-Surface and Surface Drainage Plan: Drawing P1724-0505-0001, dashed blue line & Section Detail P1724-0905-0001, P1724-0905-0002 and P1724-0905-0003).

The sub-surface drains will be constructed to the natural fall of the ground level, falling first from the highest portion in the centre of the site toward the north-east boundary, then contouring the site falling toward local field drains, the network will outfall to one of three possible outfall locations as depicted on Drawing P1724-0505-0001 (solid blue circle). This will allow for monitoring of the sub surface drainage systems.

The subsurface drainage shall be extended vertically as land drains to accommodate future agricultural uses. Inspection chambers will be located at all drain junctions for future maintenance and inspection.

Revised drawing P1724-0505-0001 is presented in Appendix 2 to this document with flow direction arrows added to demonstrate how the system will work.

**9. Please state the proposed use of the site post the completion of the remedial works.**

The proposed use of the site post the remedial works completion is agricultural pasture for low intensity grazing.

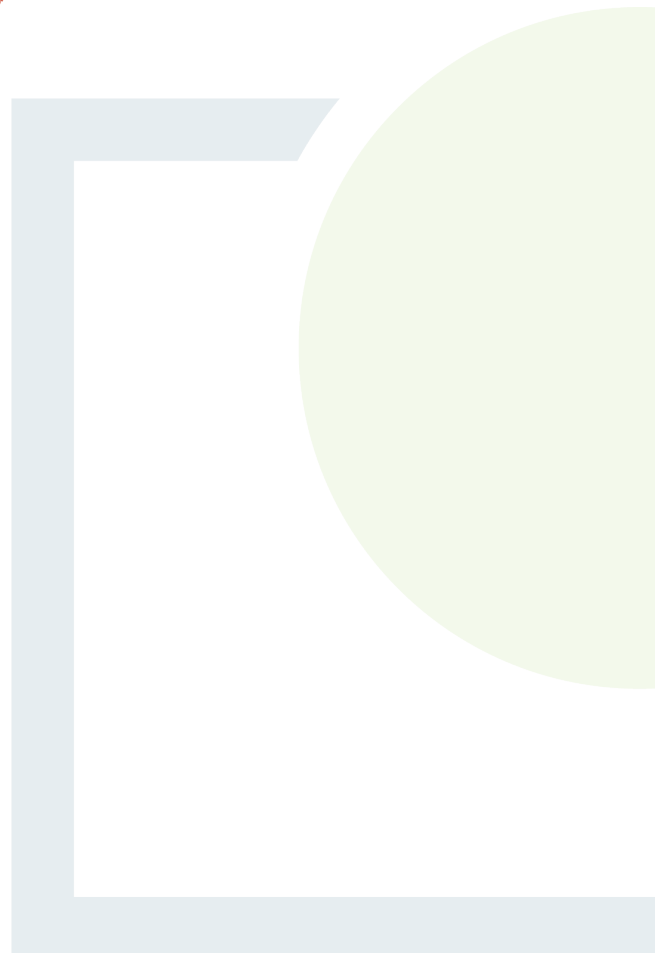


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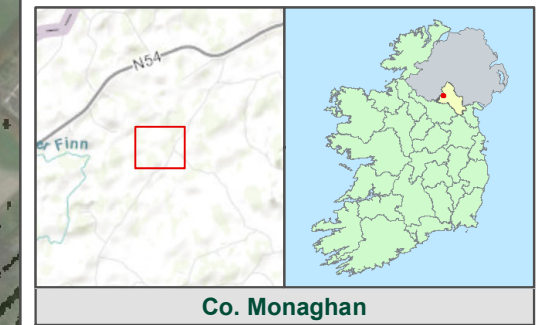
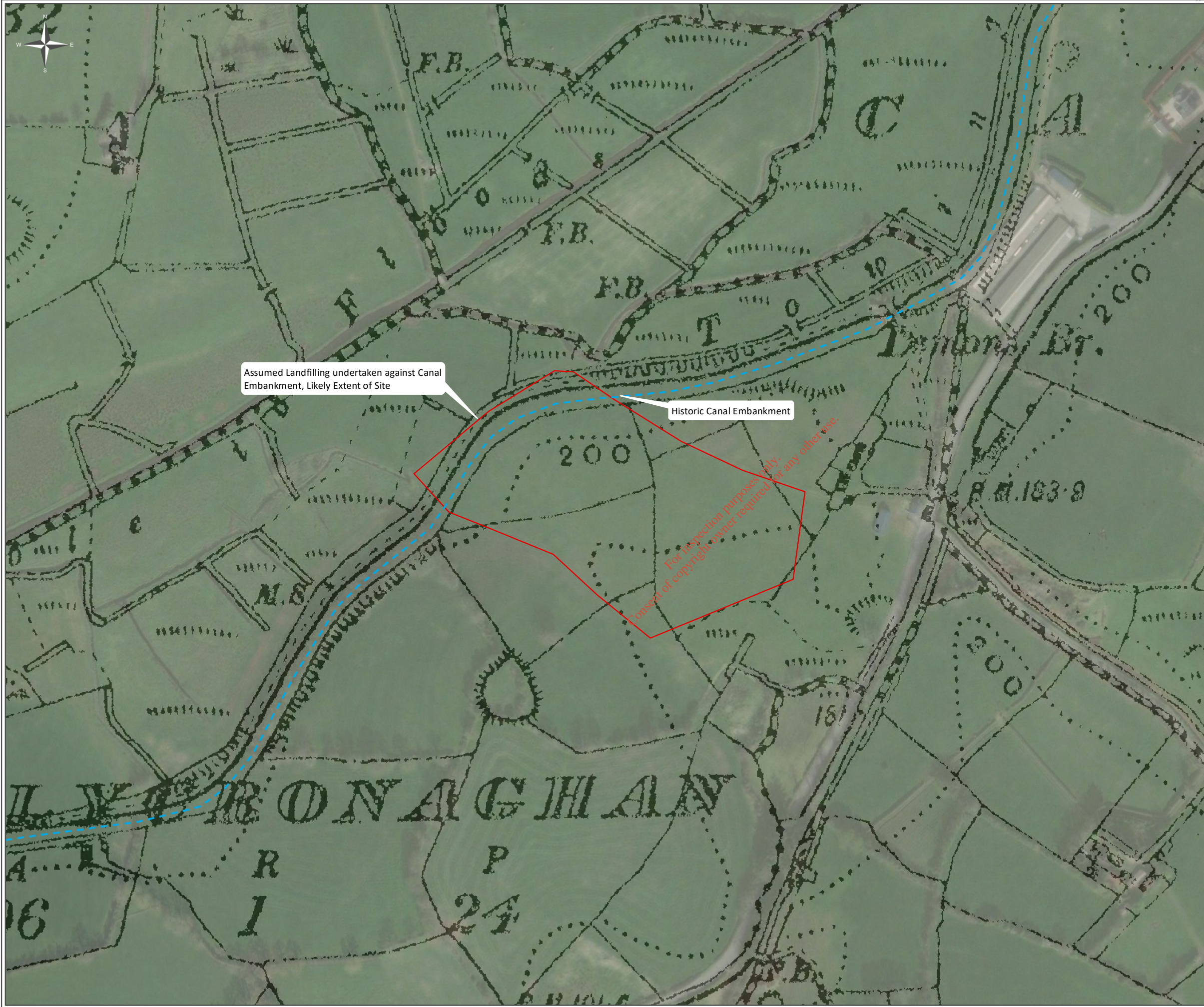
# APPENDIX 1

Revised Drawing including  
Ulster Canal

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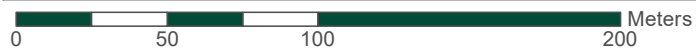
- Legend**
- Ulster Canal - historical route now abandoned
  - Landfill Capping Boundary

<b>Figure Title</b>	Existing Site Layout Knockcronaghan		
<b>Figure No.</b>	2.7		
<b>Project</b>	Tier 1 Assessment of Historical Landfills in Monaghan		
<b>Client</b>	Monaghan County Council		
<b>Scale</b>	1:2,500	<b>Page Size</b>	A3
<b>Revision</b>	A	<b>Date</b>	25/05/2020

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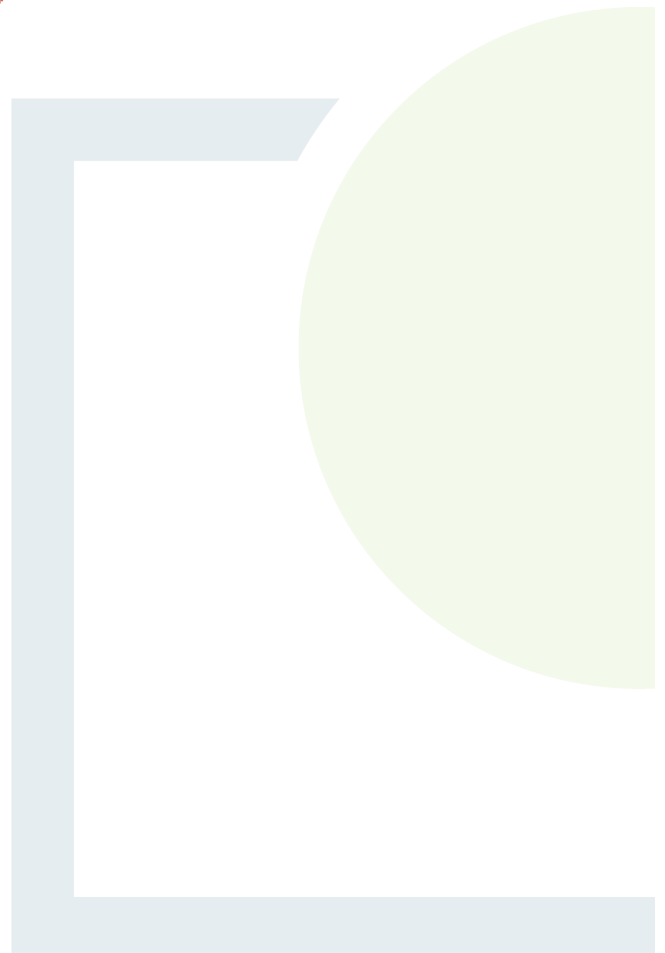


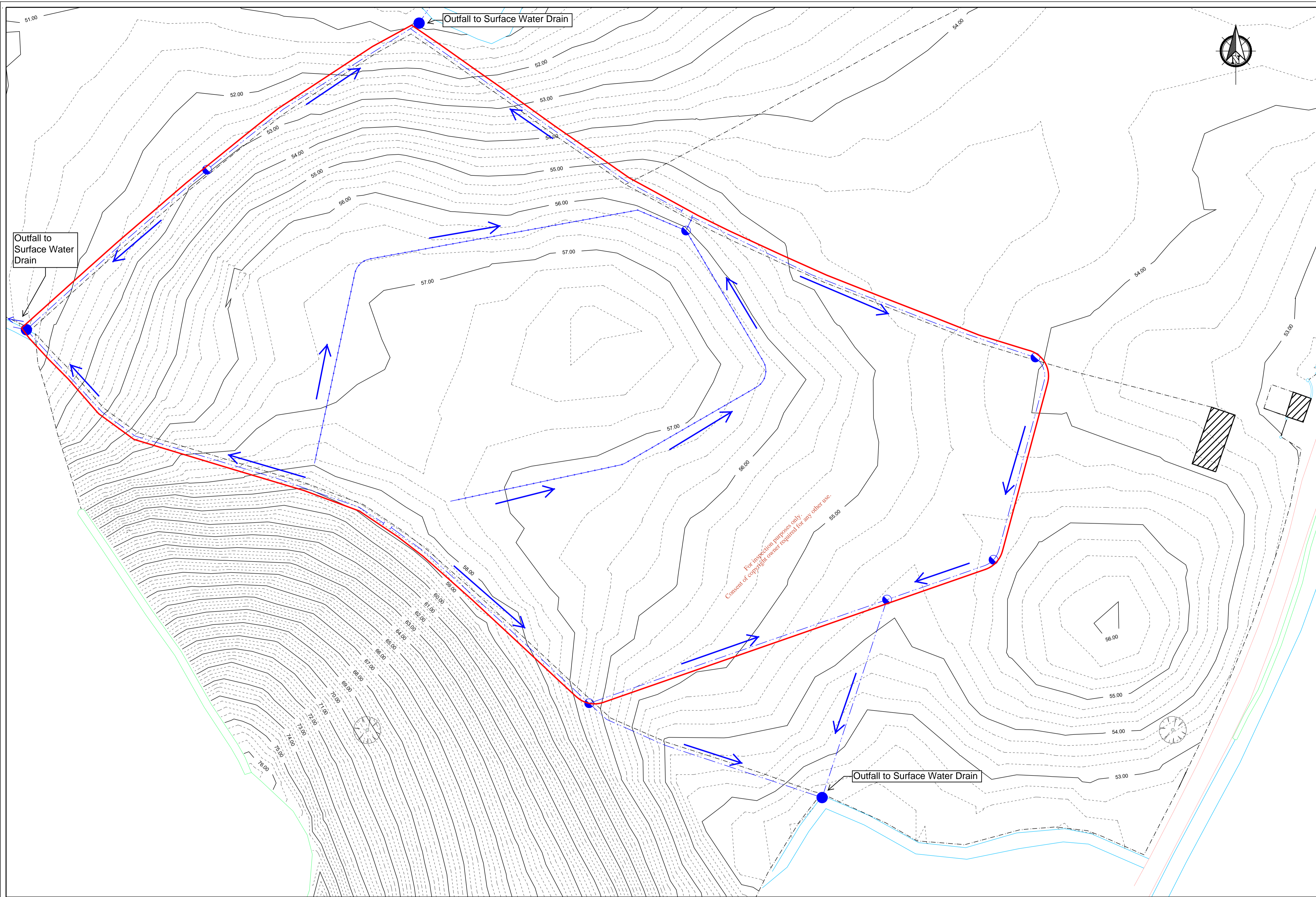
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## APPENDIX 2

Revised Drawing P1724-0505-  
0001 containing flow direction  
arrows

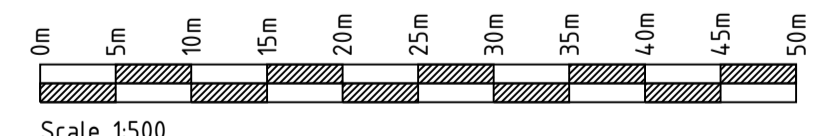
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- Legend**
- Site Boundary
  - - - Sub Surface Contour Drain
  - Combined Sub Surface/French Drain
  - Intermediate Inspection Chamber
  - Outfall Chamber
  - ⊗ Access Point/Setting Point

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Rev.	Description	App By	Date
A	ISSUE FOR DISCUSSION	BG	13.05.19

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CODE	STATUS	SUITABILITY DESCRIPTION	PURPOSE OF ISSUE

**PROJECT**  
ERA OF HISTORIC LANDFILLS AT KILLYCARD AND KILLYCRONAGHAN

**SHEET**  
KILLYCRONAGHAN SUB-SURFACE AND SURFACE DRAINAGE PLAN

**CLIENT**  
MONAGHAN COUNTY COUNCIL

Date	13.05.19	Project number	P1724	Scale (@ A1- )	1:500
Drawn by	SOC	Drawing Number	P1724-0505-0001		
Checked by	JON	Rev	A		



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