

Viking CCS Pipeline

9.40 Design Changes 3 and 4: Environmental Technical Note

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a Harbour Energy Company
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Table of Contents

1	Introduction	1
1.1	Background	1
1.2	Purpose of this document.....	1
2	Description of Design Changes	2
2.1	Overview	2
2.2	Details of Design Change 3.....	2
2.3	Details of Design Change 4.....	8
3	Review of Impact of Design Changes on the Original ES and other Environmental Documents.....	10
3.1	General Approach.....	10
3.2	Design Change 3.....	10
3.3	Design Change 4.....	10
3.4	Review of the Original ES.....	11
4	Conclusion.....	22
5	References	23
	Appendix A - Updated Viewpoint 22	24
A.1	Viewpoint 22: Cherry Tree Lane/ PRow Alvingham	24

Figures

Figure 1: Design Change 3 – Re-location of Block Valve Station 3 (Close up view) ..	4
Figure 2: Design Change 3 – Updated figure showing location of all Block Valve Stations	5
Figure 3: Indicative layout of Block Valve Station 3 (Louth Road BVS).....	6
Figure 4: Design Change 3 – Re-location of temporary laydown and access area	7
Figure 5: Design Change 4 Close up view	9

Tables

Table 1: Summary of changes to significant effects reported within the Original ES	12
Table 2: Summary of changes to findings reported within other environmental reports	21

1 Introduction

1.1 Background

- 1.1.1 This Environmental Technical Note is provided in relation to two design changes within the Development Consent Order (DCO) Site Boundary/Order Limits for the Viking CCS Pipeline (hereafter referred to as the 'Proposed Development') DCO application.
- 1.1.2 The Viking CCS Pipeline is an onshore CO₂ transportation system comprising a buried approximately 55.5 kilometre (km) 24-inch diameter onshore pipeline commencing at the Immingham Facility and ending at the Theddlethorpe Facility. Here the onshore pipeline will connect into the existing 36-inch Lincolnshire Offshore Gas Gathering System (LOGGS) offshore pipeline by means of a crossover at the Theddlethorpe Facility and continue to Mean Low Water Springs (MLWS) tide mark.
- 1.1.3 Design Changes 1 and 2 were explained and reviewed within the Design Change 1 and 2 Environmental Technical Note, which was submitted to the Examining Authority on 19th March 2024.
- 1.1.4 Notification of the Applicant's intention to submit a further change request for Design Changes 3 - 8) was submitted to the Planning Inspectorate on 14th June 2024 [AS-059]. This Environmental Technical Note considers Design Changes 3 and 4.
- 1.1.5 Design Change 3 relates specifically to a relocation of Block Valve Station 3 (Louth Road Block Valve Station) within the existing Order Limits, moving it from north of Louth Road to south of the road. Note, this road is often labelled incorrectly as Alvingham Road on mapping services. Design Change 4 relates to a narrowing of the Order limits over land owned by Anglian Water, immediately south east of Block Valve Station 3.
- 1.1.6 The likely environmental impacts and effects resulting from the Proposed Development during construction, operation and decommissioning are reported in the Environmental Statement (ES) [APP-041 to APP-117] or as since amended, submitted as part of the DCO application for the Proposed Development.
- 1.1.7 The DCO application for the Proposed Development was submitted by the Applicant to the Planning Inspectorate on 23 October 2023. The application was accepted for Examination on 17 November 2023, with a Preliminary Meeting was held on 26 March 2024.

1.2 Purpose of this document

- 1.2.1 This Environmental Technical Note has been produced to assess the proposed design changes and document any alterations to the findings or content of the ES [APP-041 to APP-117] and other environmental reports [APP-118 to APP-128] as submitted to the Planning Inspectorate on 23 October 2023 or as since amended. This note has been developed to ensure that the environmental impacts of Design Change 3 and Design Change 4 have been appropriately assessed ensuring any new or different likely significant effects are identified, to satisfy the requirements of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended).
- 1.2.2 This document therefore provides further information relating to the specific changes to the Proposed Development as a result of Design Changes 3 and 4 and then provides a systematic review of these changes in terms of the findings of the original ES and other environmental reports submitted in support of the Applicant's application.

2 Description of Design Changes

2.1 Overview

2.1.1 The DCO application included a degree of flexibility and optionality around the design of the Proposed Development. However, within ES Volume II Chapter 3: Description of the Proposed Development [APP-045] an area within which Block Valve Station 3 was proposed to be located was identified.

2.1.2 Since the submission of the original application, the Applicant has continued to engage with the landowner upon whose land the Block Valve Station is proposed to be located. Consequently, Design Change 3 is as a result of this direct engagement and consultation. Similarly, the applicant has held further discussions with Anglian Water in relation to their land and the Louth Water Recycling Centre (LWRC) approximately 200 m south of Block Valve Station 3. As a result, the Applicant is now in a position to be able to narrow the Order Limits over their land.

2.2 Details of Design Change 3

2.2.1 Block Valve Station 3 (Louth Road BVS) is proposed to be located on arable land to the south east of the village of Alvingham and is accessed off Louth Road. The nearest residential receptor is approximately 340 m to the east of the station on Lock Road, Alvingham. The location of the BVS at the application stage was to the north of Louth Road.

2.2.2 A summary of the key changes associated with Design Change 3 are provided here:

- The proposed location of Block Valve Station 3 is proposed to be moved from arable land north east of Louth Road, approximately 20 m south to arable land south east of Louth Road. Importantly, this change does not require any change to the Order Limits for the Proposed Development;
- The Block Valve Station would have a permanent access point off the south side of Louth Road, rather than to the north;
- A proposed temporary access and laydown area that was originally south east of Louth Road would be relocated to the north west side of Louth Road; and
- As outlined within the Applicant's response to the first written Questions [REP1-045], it has been confirmed that the physical footprint of all Block Valve Station's will be approximately 43 metres x 38 metres (rather than the originally quoted 50m x 40 m in paragraph 3.8.15 in APP-045).

2.2.3 **Figure 1** provides a close-up overview of the change in location of Block Valve Station 3, whilst **Figure 2** provides an updated version of Figure 3-10 as originally presented within ES Volume II Chapter 3: Description of the Proposed Development [APP-045]. **Figure 3** shows the indicative layout of Block Valve Station 3, with only the orientation changed. **Figure 4** shows the new location of the temporary access and laydown area, compared to the original location.

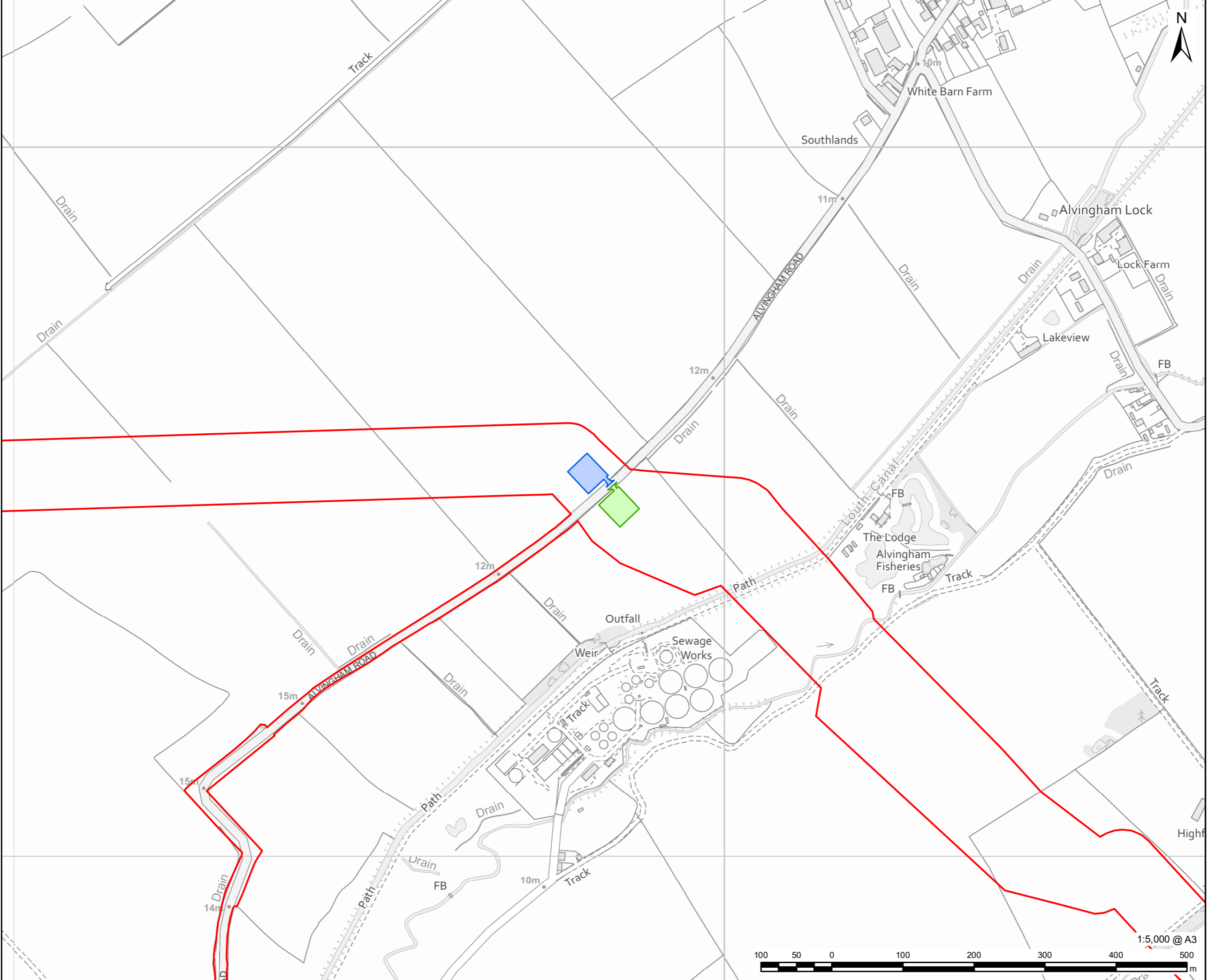
2.2.4 All other design principles around Block Valve 3 remain unchanged. Consequently, key design features, which will remain the same as previously presented, include:

- The Block Valve Stations would require mesh type security fencing, typically 3.2 m high with double-leaf access gates for vehicles with access from the adjacent road network, access tracks or similar. The ground surface within this fenced area will predominantly comprise stone with minimal tarmac/concrete internal access roads;
- The Block Valve Stations will be remotely monitored from the main control centre, with

local control monitoring capable when maintenance personnel are physically on site;

- The Block Valve Stations would include a 10m wide planting strip to provide screening, as outlined in the Outline Landscape and Ecological Management Plan [REP2-026]. Outside this visual landscaping, the Block Valve Station will have a smaller 1.5m high three bar, post and rail perimeter fence and access gate. Block Valve Stations would be unlit except during maintenance or potential breakdown/emergency requirements, when task lighting columns (approximately 4 m high) would be employed;
- The valve itself would be buried with a valve actuator extended above ground (circa 1.5 m), with bypass valves and pipework potentially located above ground subject to operational/maintenance requirements. The valves may be operated remotely for which the necessary equipment on site will be housed in a kiosk, which would be typically between 2-3 m in height, subject to final design. The current design at the Block Valve Stations includes a local vent (up to 4 m high) to ensure that bypass pipework maintenance activities can be performed safely, however it is not the intention for routine pipeline venting to be undertaken at these locations. Further front end engineering (FEED) work is currently being undertaken which may negate the need for venting to be included at the Block Valve Stations;
- Provision will be provided for maintenance operatives to safely park their vehicle(s) off the highway and open the gates;
- Each Block Valve Station would be electrically connected to the electricity distribution system. The nearest connection points have been identified with the Local Distribution Network Operator (Northern Powergrid) and have been included in the Order limits/DCO Site Boundary;
- The electrical system will have the ability to connect a portable generator for maintenance purposes. The Low Voltage (LV) switchgear will supply all process and utility consumers, lighting, socket outlets, UPS, cathodic protection, etc. at the station. In order to either limit or avoid interruption to electricity supplies, a UPS system arrangement will be provided and housed in the Kiosk in order to maintain the operability and functionality of the equipment in the event of a power cut; and
- The anticipated appearance is expected to remain the same as that shown in Figure 3-14 of ES Volume II Chapter 3: Description of the Proposed Development [APP-045], with the orientation updated to reflect its new location as shown in **Figure 3**.

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LEGEND

	Revised DCO Site Boundary (June 2024 Submission)
	Indicative Block Valve Station Location (October 2023 Submission)
	Indicative Block Valve Station Location (June 2024 Submission)

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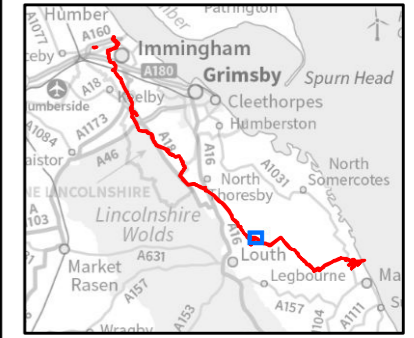
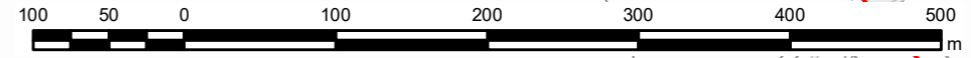
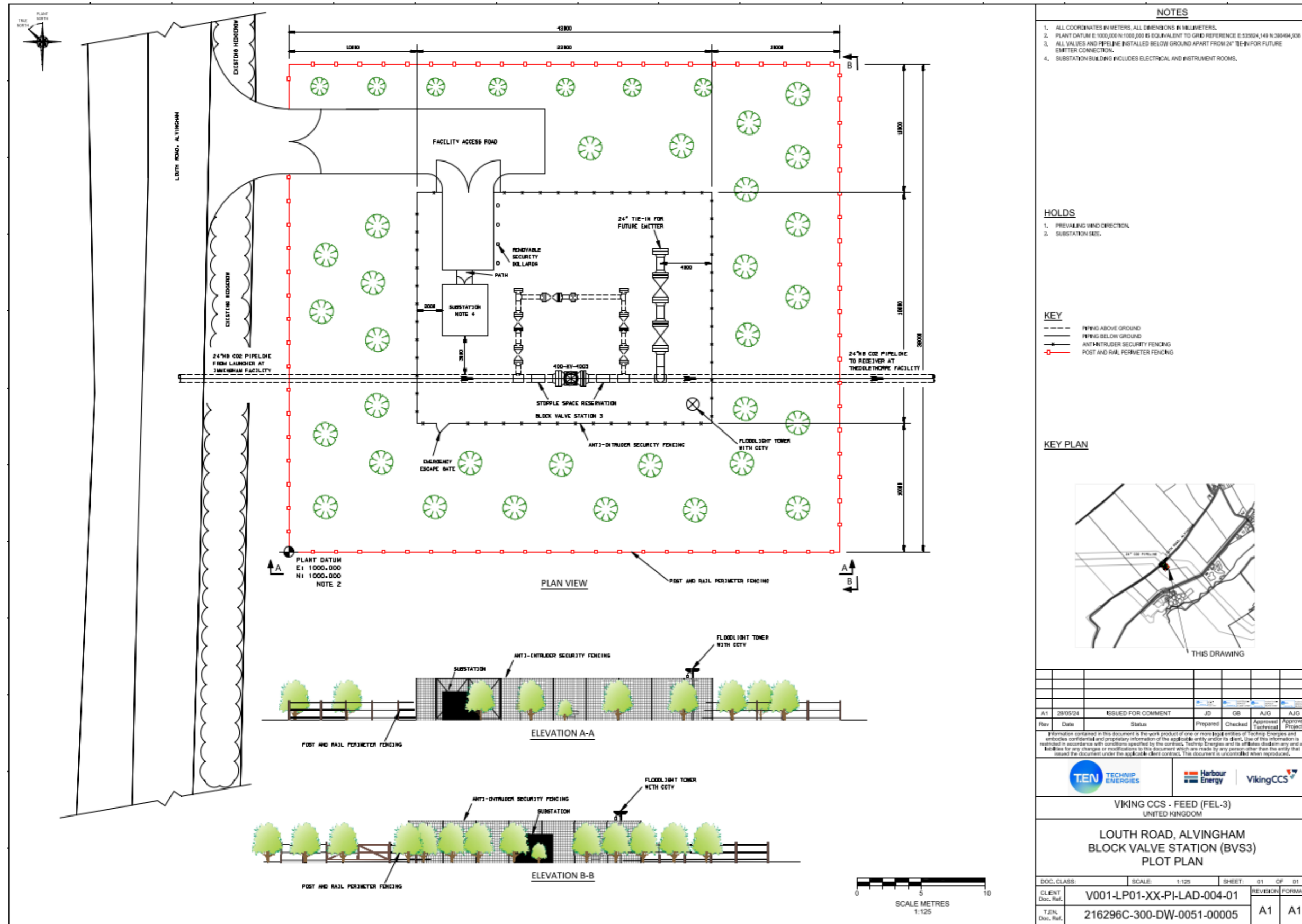


FIGURE TITLE
Figure 1
Design Change 3 - Relocation of Block Valve Station 3

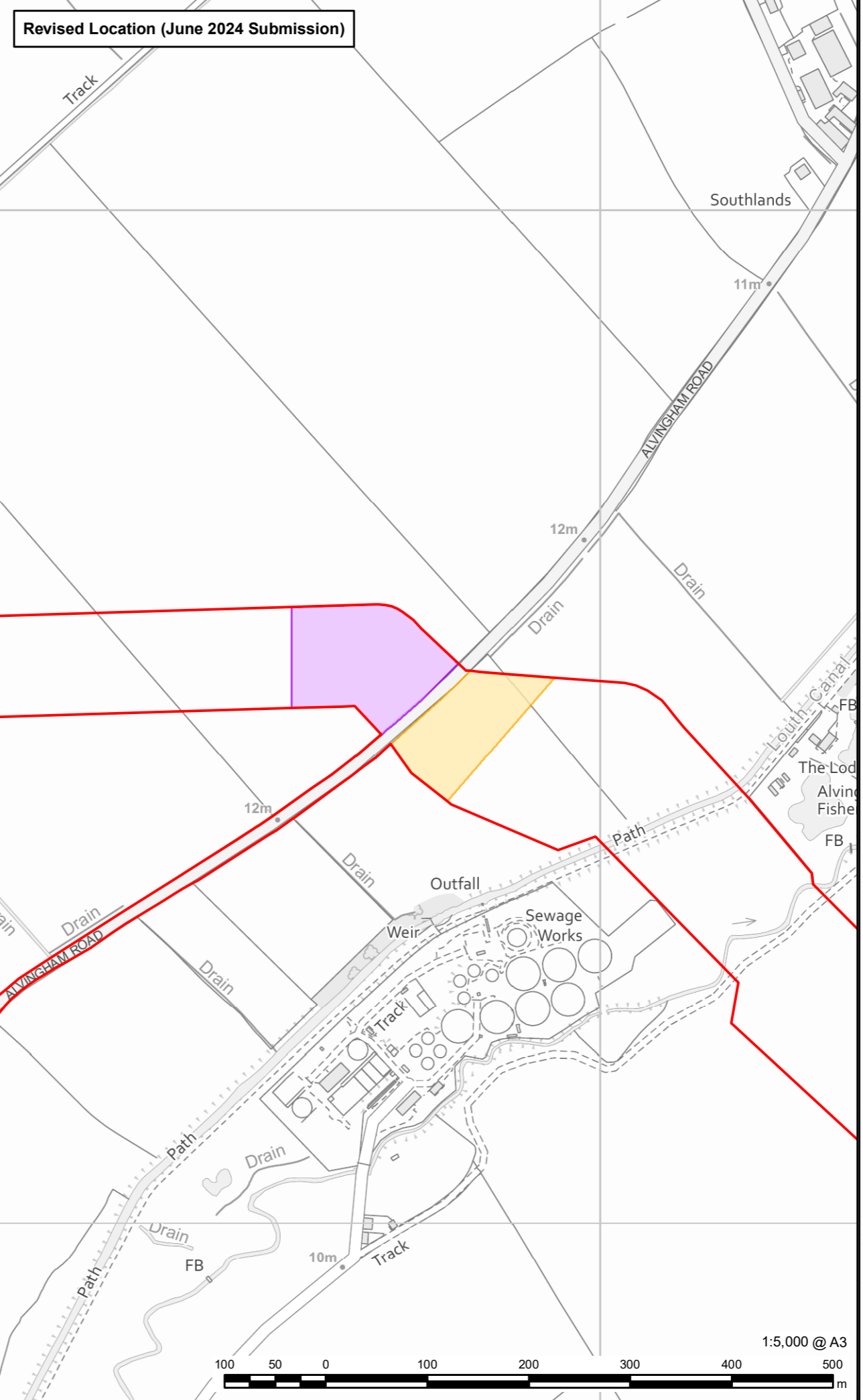
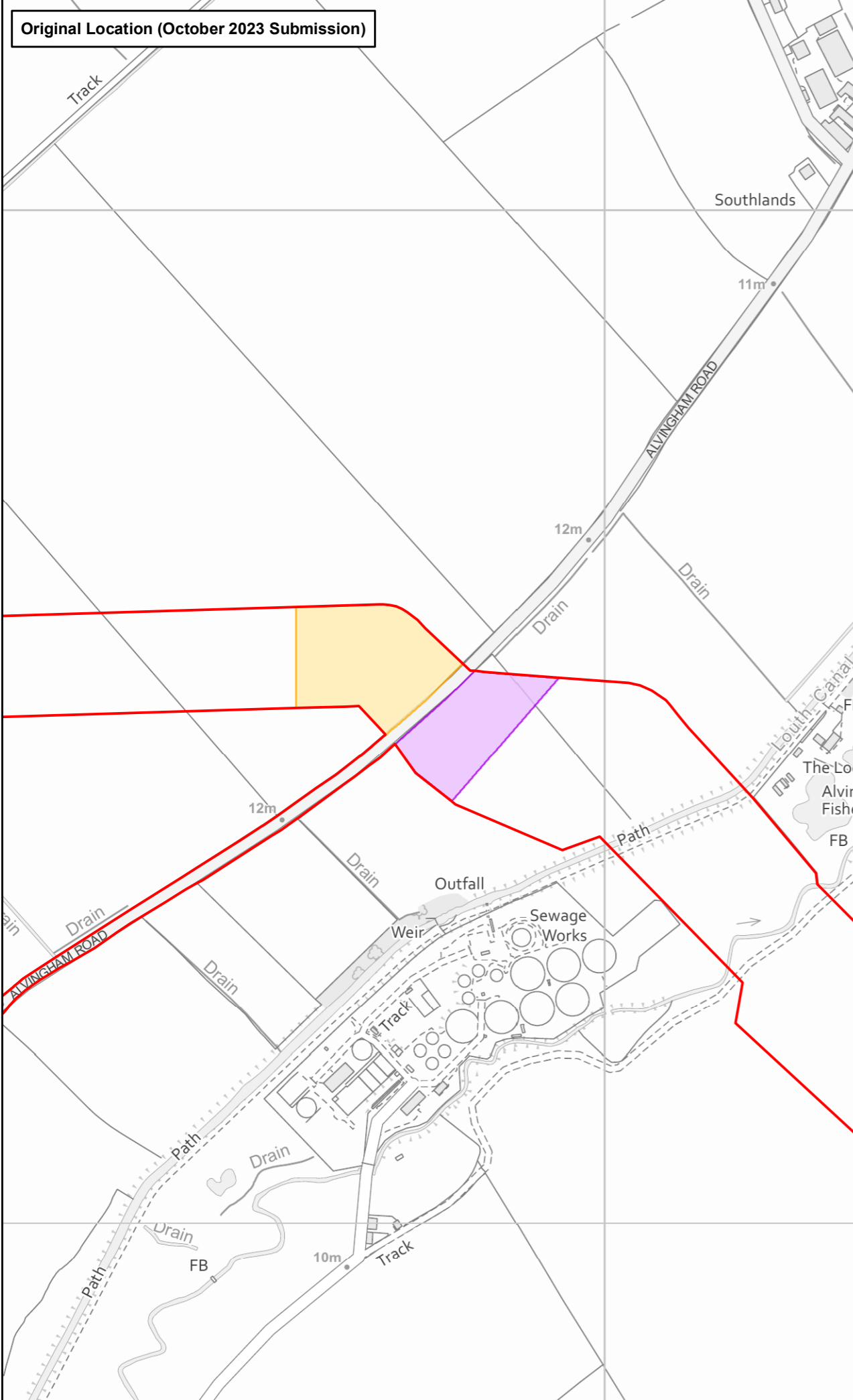


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Figure 3: Indicative layout of Block Valve Station 3 (Louth Road BVS)



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- LEGEND**
- Revised DCO Site Boundary (June 2024 Submission)
 - Louth Road Block Valve Station and Temporary Works Area
 - Temporary Access & Laydown Location

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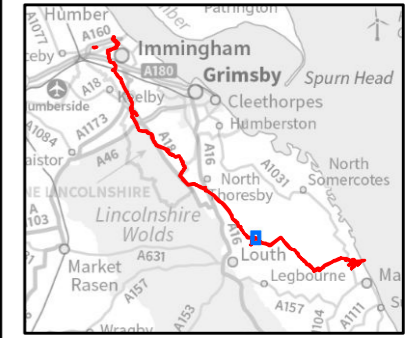


FIGURE TITLE
Figure 4
Design Change 3 - Relocation of Temporary Laydown and Access Area

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ENVIRONMENTAL REPORT
PROJECT NUMBER / REFERENCE
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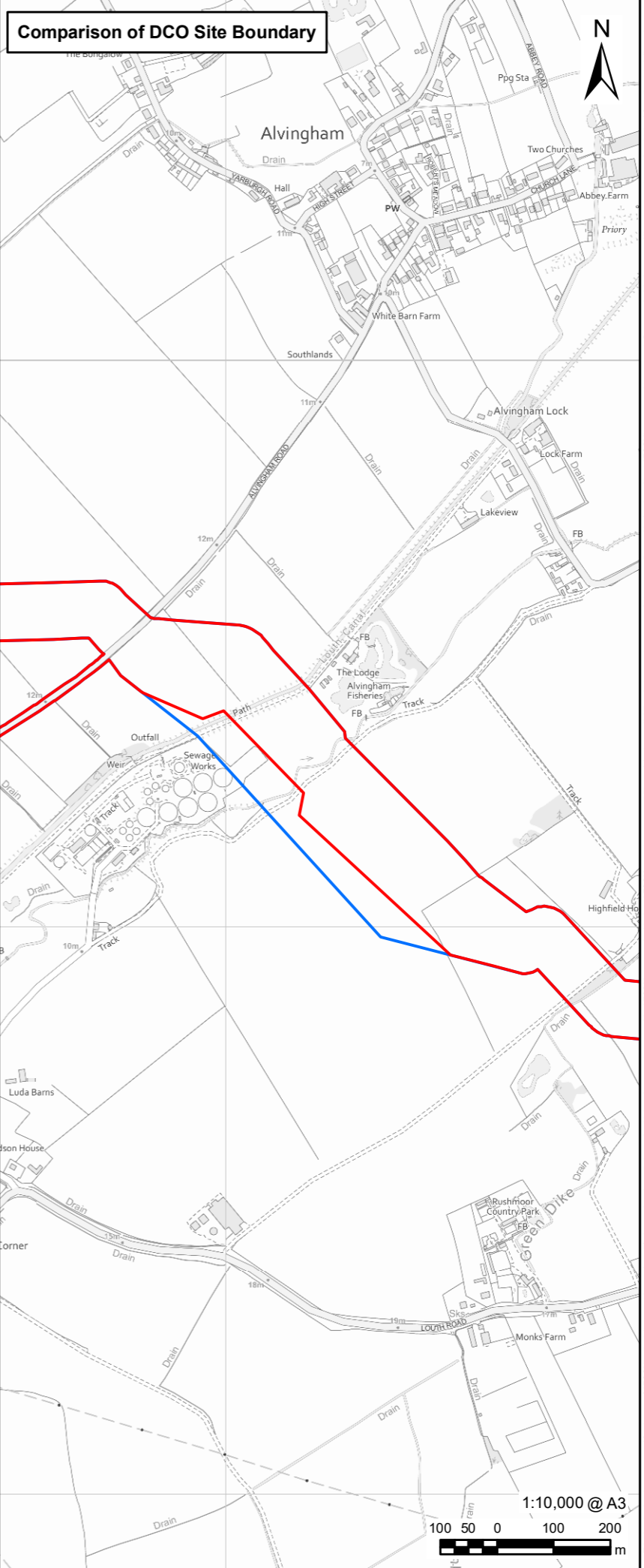
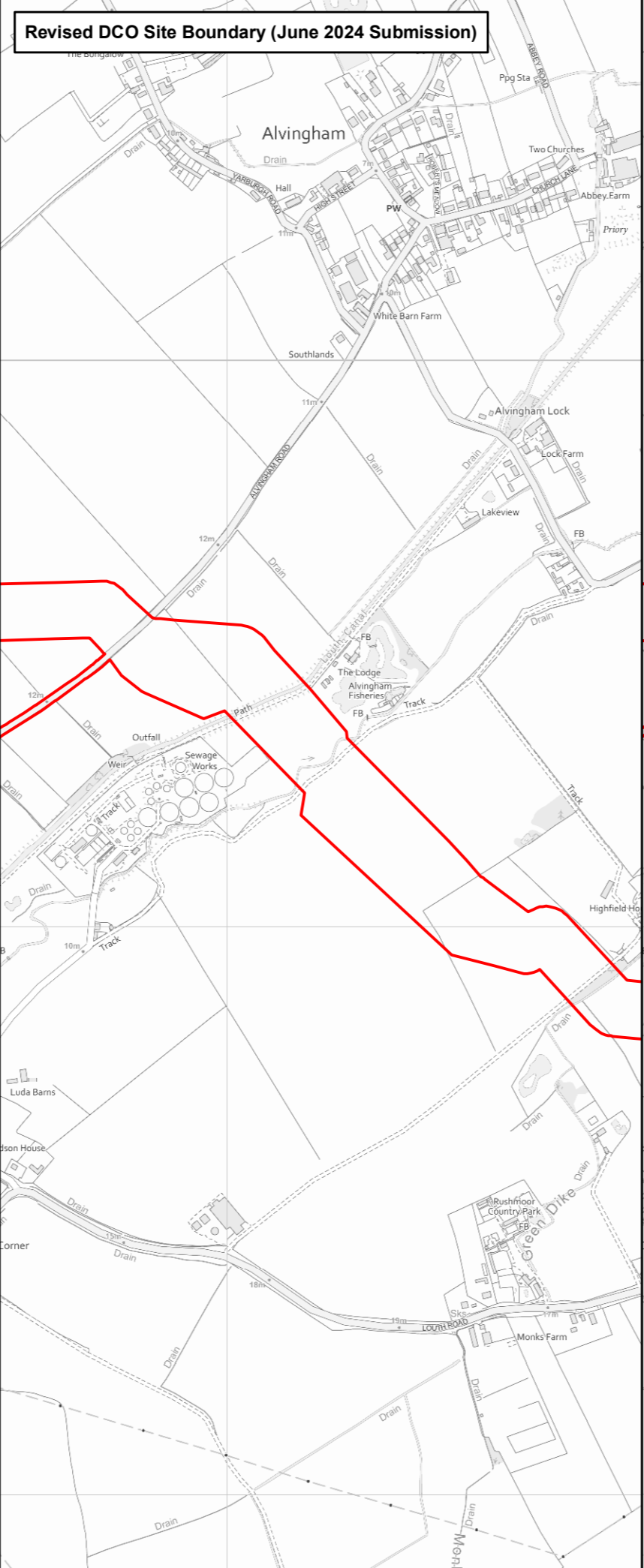


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2.3 Details of Design Change 4

- 2.3.1 Following on from further consultation and discussions with Anglian Water, the Applicant has agreed to reduce the width of the Order Limits over a parcel of land that they own that is east of the LWRC. This has resulted in the order limits being reduced from 200 m wide to 135 m wide. No other changes are anticipated at this location and the LWRC will still be crossed using a trenchless technique (currently assumed as Horizontal Directional Drilling).
- 2.3.2 The Order limits to the south east of the field owned by Anglian Water have also been reduced in width, from 200 m wide to 150 m wide, as a consequence of the above change. **Figure 5** shows the change to the Order Limits for Design Change 4.

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PROJECT
Viking CCS Pipeline

LEGEND

- Revised DCO Site Boundary (June 2024 Submission)
- Original DCO Site Boundary (October 2023 Submission)

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FIGURE TITLE

Figure 5
Design Change 4 - Re-alignment of Order Limits at Anglian Water WTC

ISSUE PURPOSE

ENVIRONMENTAL REPORT

PROJECT NUMBER / REFERENCE

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3 Review of Impact of Design Changes on the Original ES and other Environmental Documents

3.1 General Approach

3.1.1 Each technical topic reported within the ES has been reviewed to see if the changes proposed could alter the assessment findings included within the original ES [APP-041 to APP-117] submitted with the DCO application in October 2023, or as amended. As part of the review, factors which have been considered include:

- Whether it increases or decreases the Order Limits;
- Whether the changes result in any amendments to the key components of the Proposed Development;
- Whether the changes introduce any new receptors which should be considered within the assessment;
- Whether the changes could alter the proposed construction phase works or programme;
- Whether the changes could alter the proposed operation of the Proposed Development; and
- Whether the changes could alter the proposed decommissioning of the Proposed Development.

Further details specific to design changes 3 and 4 are provided below.

3.2 Design Change 3

3.2.1 The proposed change to the location of Block Valve Station 3 has been reviewed. This change results in the relocation of Block Valve Station 3 to the south east of Louth Road, within the existing Order limits, but does not alter the components, size, or operation of the Block Valve Station itself. The temporary access and laydown area is also proposed to be moved to the north east of Louth Road. No new receptors have been identified as a result of this change. This change will also not lead to any changes to the construction programme or methodology, nor to any of the proposals for decommissioning.

3.2.2 **Table 1** provides a summary of the review of the impact of Design Change 3 on the findings presented within the original ES Volume II. **Table 2** provides a summary of the review of the impact of Design Change 3 on the findings provided in a number of other environmental reports which are of particular relevance.

3.3 Design Change 4

3.3.1 The proposed change to the Order Limits as a result of Design Change 4 has been reviewed. This change results in a reduction of the Order Limits by 3.3 hectares, narrowing the order limits over the field to the east of the Anglian Water LWRC, from 200 m at its widest point down to 135 m. The proposed trenchless crossing under Louth Canal, River Lud, and land owned by Anglian Water is still expected to be via horizontal directional drilling.

Additionally, the Order Limits have also been reduced to the south of the Anglian Water LWRC, down from 200 m to 150 m at its widest point.

- 3.3.2 No new receptors have been identified as a result of this change. This change will also not lead to any changes to the construction programme or methodology, nor to any of the proposals for decommissioning.
- 3.3.3 **Table 1** provides a summary of the review into the impact of Design Change 4 on the findings presented within the original ES Volume II. **Table 2** provides a summary of the review into the impact of Design Change 4 on the findings provided in a number of other environmental reports which are of particular relevance.

3.4 Review of the Original ES

- 3.4.1 **Table 1** below provides a summary of any potential changes to the findings reported in the application version of the Environmental Statement, included in Volume 6 of the application, as a result of either Design Change 3 or Design Change 4.
- 3.4.2 **Table 2** below provides a summary of any potential changes to the findings reported in the application versions of the Other Documents included in Volume 6 of the application, resulting from either Design Change 3 or Design Change 4.

Table 1: Summary of changes to significant effects reported within the Original ES

Application Document Number	Relevant Topic and chapter of the ES	Change as a result of Design Change 3	Change as a result of Design Change 4
APP-048	Chapter 6: Ecology and Biodiversity	<p>BVS 3's proposed location has moved from one arable field to another arable field, on the opposite side of Louth Road, within the existing Order limits. The temporary access and laydown area is proposed to be moved from the south of Louth Road to the north. No different significant environmental effects have been identified as the original assessment assumed that all existing habitat was lost as a result of the BVS and the temporary access and laydown area. The original assessment also included loss and replanting of sections of hedgerow to the north and south. There were no other habitats or species of note identified in these two areas. Swapping these two areas would therefore not result in potential impacts of a different magnitude from those assessed in the ES and the text provided within Paragraph 7.8.139 [APP-048] still remain valid.</p>	<p>As this change only results in a reduction of the Order Limits, there are no new ecological receptors affected. Part of the reduction is in a location where the pipe would be installed using a trenchless technique, so no habitats or species were affected anyway. The reduction in the field to the south is in an area of arable land, with no species or habitats of note present. Consequently, no new or different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>
APP-049	Chapter 7: Landscape and Visual	<p>BVS 3's proposed location has moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. The temporary access and laydown area is proposed to be moved from the south of Louth Road to the north. As a result, an update of viewpoint 22 has been developed and is provided in</p>	<p>As this change only results in a reduction of the Order Limits, there are no new landscape and visual receptors affected. Consequently, no new or different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>

Application Document Number	Relevant Topic and chapter of the ES	Change as a result of Design Change 3	Change as a result of Design Change 4
		<p>Appendix A of this document, showing the relocated BVS 3. Whilst this change moves BVS 3 slightly closer to Louth canal, from where the viewpoint is located, it is not expected to lead to any changes in the visual amenity. As the BVS is of the same design and approximate location, it is also not anticipated to have any new or different effects on local landscape character. Moving the temporary access and laydown area from the south of Louth Road to the north would not introduce any new or different significant effects. Consequently, the design change would therefore not result in potential impacts of a different type or magnitude from those assessed in the ES</p>	
<p>APP-050 and updated version AS-023</p>	<p>Chapter 8: Historic Environment</p>	<p>BVS 3's proposed location has moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. The temporary access and laydown area is proposed to be moved from the south of Louth Road to the north. Eroded ridge and furrow was recorded on both sides of the road, impacts upon which were not considered to be significant. As the assessment assumed topsoil would be stripped in both areas it is not anticipated that there would be any change to the impacts on this eroded ridge and furrow, or any other buried archaeology. Neither the</p>	<p>As this change only results in a reduction of the Order Limits, there is no potential for new historic environment receptors to be affected. Consequently, no new or different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>

Application Document Number	Relevant Topic and chapter of the ES	Change as a result of Design Change 3	Change as a result of Design Change 4
		<p>previous nor newly proposed BVS or temporary access and laydown locations are within the setting of any designated or non-designated built heritage assets. As such no different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>	
APP-051	Chapter 9: Geology and Hydrogeology	<p>The proposed locations of BVS 3 and the proposed temporary access and laydown area location have moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. No differences in features/ receptors were identified north or south of Louth Road. As such, no different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>	<p>As this change only results in a reduction of the Order Limits, there are no new geological receptors affected. Consequently, no new or different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>
APP-052	Chapter 10: Agriculture and Soils	<p>The proposed locations of BVS 3 and the proposed temporary access and laydown area location have moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. The temporary access and laydown area is proposed to be moved from the south of Louth Road to the north. Land on both sides of Louth Road is identified as Grade 3</p>	<p>There are no new agriculture/soil receptors affected as this change only results in a reduction of the Order Limits. Consequently, no new or different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>

Application Document Number	Relevant Topic and chapter of the ES	Change as a result of Design Change 3	Change as a result of Design Change 4
		<p>agricultural land and so there would be no difference in terms of the temporary and permanent loss of agricultural land. No different significant environmental effects have therefore been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>	
<p>APP-053 and updated version REP2-004</p>	<p>Chapter 11: Water Environment</p>	<p>BVS 3's proposed location has moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. The temporary access and laydown area is proposed to be moved from the south of Louth Road to the north. There are no additional watercourses crossed or otherwise affected. No different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>	<p>There are no new water environment receptors affected as this change only results in a reduction of the Order Limits. Consequently, no new or different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>
<p>APP-100 and updated version Rep2-020</p>	<p>ES Appendix 6.4.11.4 Water Framework Directive (WFD) Assessment</p>	<p>No new or different consequences for WFD water bodies have been identified as a result of the proposed move in location of BVS 3 or the temporary access and laydown area, as no new WFD waterbodies have been introduced as a result of this change nor any different impacts identified.</p>	<p>As the change resulted in a reduction to the Order Limits there would be no new or different consequences for WFD water bodies.</p>

Application Document Number	Relevant Topic and chapter of the ES	Change as a result of Design Change 3	Change as a result of Design Change 4
APP-101 and updated version REP2-022	ES Appendix 6.4.11.5 Flood Risk Assessment	Both locations are in Flood Zone 1 and there are no flood storage areas or flood defences in either location. Therefore, no new or different consequences for the FRA have been identified as a result of this move in location of BVS 3.	As the change results in a reduction to the Order Limits considered previously in the Flood Risk Assessment, there is no potential for new or different flood risk impacts.
APP-054 and updated version REP2-006	Chapter 12: Traffic and Transport	BVS 3's proposed location has moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. Louth Road and Alvingham Road would both still be used for accessing the BVS and temporary access and laydown area. There is a potential benefit in that the fewer sections of pipe would need to be moved across Louth Road once delivered from the pipe stores at the compounds. No different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.	There are no new traffic and transport receptors affected as this change only results in a reduction of the Order Limits. The same construction access routes would be used and construction material quantities and vehicle movements will be identical. Consequently, no new or different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.
APP-055	Chapter 13: Noise and Vibration	BVS 3's proposed location has moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. No different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES and the assessment presented for	There are no new noise receptors affected as this change only results in a reduction of the Order Limits. The previous assessment assumed the HDD drill rig would be located #m from Receptor R29. The changes to the order limits would not change the drill rig location as assessed. Consequently, no new or different significant environmental effects have been identified. The design change would therefore

Application Document Number	Relevant Topic and chapter of the ES	Change as a result of Design Change 3	Change as a result of Design Change 4
		Receptors 29 (The Lodge - Residential) and 29a (The Lodge – Non-residential) would remain valid.	not result in potential impacts of a different magnitude from those assessed in the ES.
APP-056	Chapter 14: Air Quality	The proposed locations of BVS 3 and the proposed temporary access and laydown area location have moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. There is no change to the traffic related emissions and the assessment of dust was based on the Order Limits, which have not changed as a result of the proposed change to the BVS location. No different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.	There are no new air quality receptors affected as this change as the change only results in a reduction of the Order Limits. Consequently, no new or different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.
APP-057 and updated version REP2-008	Chapter 15: Climate Change	The proposed locations of BVS 3 and the proposed temporary access and laydown area location have moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. The type of permanent habitat loss is the same and the quantity construction materials required will be nearly identical. There would be no change in the number of vehicle and plant movements required. No different significant environmental effects have been identified. The design change would therefore not result in potential	There are no new climate change receptors affected as this change only results in a reduction of the Order Limits. These works proposed would be the same, just with a narrower area for them to occur in. Consequently, no new or different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.

Application Document Number	Relevant Topic and chapter of the ES	Change as a result of Design Change 3	Change as a result of Design Change 4
		impacts of a different magnitude from those assessed in the ES.	
APP-058	Chapter 16: Socio-Economics	<p>The proposed locations of BVS 3 and the proposed temporary access and laydown area location have moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. Alvingham Fishing Lakes is the only visitor attraction identified close by, which would remain a receptor of medium sensitivity. The assessment of potential effects on this business draws on assessment information relating to noise and vibration, traffic and transport, landscape and visual amenity, and air quality assessments. As there were no new or different significant effects identified under these topics, no different significant socioeconomic effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>	<p>There are no new socio-economic receptors affected as this change only results in a reduction of the Order Limits. Consequently, no new or different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>
APP-059	Chapter 17: Health and Wellbeing	<p>The proposed locations of BVS 3 and the proposed temporary access and laydown area location have moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. The health and wellbeing assessment draws on the findings of the following assessments:</p>	<p>There are no new health and wellbeing receptors affected as this change only results in a reduction of the Order Limits. Consequently, no new or different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>

Application Document Number	Relevant Topic and chapter of the ES	Change as a result of Design Change 3	Change as a result of Design Change 4
		<ul style="list-style-type: none"> - Landscape and Visual - Water Environment - Traffic and Transport - Noise and Vibration - Climate Change; and - Socio-economics. <p>As there were no changes to the effects reported within these assessments, no different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>	
APP-060 and updated version REP2-010	Chapter 18: Materials and Waste	The proposed locations of BVS 3 and the proposed temporary access and laydown area location have moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. The amount of material and waste would be the same irrespective of the location of the BVS. No different significant environmental effects have therefore been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.	There are no new materials and waste receptors affected as this change only results in a reduction of the Order Limits. Consequently, no new or different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.
APP-061	Chapter 19: Major Accidents and Disasters	The proposed locations of BVS 3 and the proposed temporary access and laydown area location have moved from one arable	There are no new receptors affected as this change only results in a reduction of the Order Limits. Consequently, no new or different

Application Document Number	Relevant Topic and chapter of the ES	Change as a result of Design Change 3	Change as a result of Design Change 4
		<p>field to another one, on the opposite side of Louth Road, within the existing Order limits. No different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>	<p>significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>
APP-062	Chapter 20: Cumulative Effects Assessment	<p>The proposed locations of BVS 3 and the proposed temporary access and laydown area location have moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. No additional cumulative projects would need to be considered and the effects as previously reported would be the same. There would be no change to the sources of intra-project effects and therefore no different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>	<p>There are no new receptors affected as this change only results in a reduction of the Order Limits. Consequently, no new or different significant environmental effects have been identified. The design change would therefore not result in potential impacts of a different magnitude from those assessed in the ES.</p>

Table 2: Summary of changes to findings reported within other environmental reports

Application Document Number	Relevant Topic/Report	Change as a result of Design Change 3	Change as a result of Design Change 4
APP-118 and updated version REP2-024	Report to Inform the Habitat Regulations Assessment	The proposed locations of BVS 3 and the proposed temporary access and laydown area location have moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. The newly proposed location is no on functionally linked land and is no closer to any European Sites. No new or different effects on water quality have been identified. It is therefore concluded that there are no changes to the findings as reported in the HRA report as a result of this change.	The change results in a reduction to the Order Limits considered previously in the HRA, and the areas removed as a result of the change were not required to mitigate or compensate for any potential effects on the Integrity of European Sites. As such it is concluded that there are no changes to the findings as reported in the HRA report.
APP-127 and updated version REP2-026	Outline Landscape and Ecological management Plan (OLEMP)	The proposed locations of BVS 3 and the proposed temporary access and laydown area location have moved from one arable field to another one, on the opposite side of Louth Road, within the existing Order limits. The mitigation proposed in the OLEMP remains appropriate for the changes proposed to BVS3.	There are no new receptors affected as this change only results in a reduction of the Order Limits. Consequently, no new or different significant environmental effects have been identified.
APP-124	Statement of Statutory Nuisance	As this document draws information about impacts from the ES, and there are no new or different significant effects in the ES, as set out in Table 1, it is concluded that there are no changes to the Statement of Statutory Nuisance as a result of Change 3.	As this document draws information about impacts from the ES, and there are no new or different significant effects in the ES, as set out in Table 1, it is concluded that there are no changes to the Statement of Statutory Nuisance as a result of Change 4.

4 Conclusion

- 4.1.1 The changes resulting from Design Change 3 and Design Change 4 have been reviewed and assessed by the same environmental specialists that drafted the ES and other supporting documents. The extent to which the changes are likely to lead to new or different significant environmental effects in line with the methodologies set out in the Original ES, have been considered.
- 4.1.2 Based on the re-assessment work undertaken it is confirmed that design changes 3 and 4 would not result in any changes to the conclusions presented in the ES or other environmental documents submitted as part of the application.

5 References

HM Government, (2023). The Planning Inspectorate. *Advice Note Sixteen: Requests to change applications after they have been accepted for examination.*

Appendix A - Updated Viewpoint 22

5.1.1 Block Valve Station 3 (Louth Road Block Valve Station) is proposed to be relocated to a field south of Louth Road, immediately south east of the previously proposed location. Visualisations that included the previous and proposed locations have been reviewed and updated where necessary to reflect the change in location (see below).

A.1 Viewpoint 22: Cherry Tree Lane/ PRow Alvingham

5.1.2 The Louth Road Block Valve Station (BVS) has been relocated to the southern field off Louth Road. We have undertaken updated visualisations to reflect the change in location. It is judged that the assessment within the ES Chapter 7 [APP-6.2.7] on recreational/ PRow receptors would not differ as a result of the alternative location. Although the BVS is closer to the viewpoint, it is not more prominent than was the case for the previous location.

5.1.3 This is primarily because:

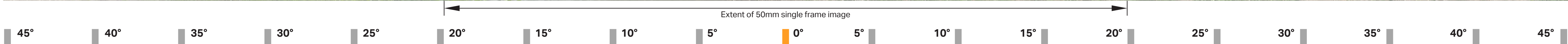
- 1. It is set lower in the landscape (originally at circa 14m AOD now at circa 11m AOD);
- 2. Intervening vegetation provides a higher degree of screening; and
- 3. Vegetation to the rear provides a backdrop, reducing skyline effects.

5.1.4 The original assessment identified the recreational/ PRow receptors at Viewpoint 22: Cherry Tree Lane/ PRow Alvingham as high sensitivity and the impact arising from the Proposed Development at construction would result in a low magnitude and a minor adverse (not significant) effect. The impact at operation Year 1 would result in a low magnitude and a minor adverse (not significant) effect reducing to a very low magnitude at operation Year 15 and negligible adverse (not significant) effect.

5.1.5 These conclusions remain valid for the relocated BVS, as a conservative “worst case” at construction, year 1 and year 15. Noting that by year 15 the mitigation planting would effectively screen all aspects of the BVS from this location.



BASELINE (WINTER)



Visualisation Type: 3
 Projection: Cylindrical
 Enlargement Factor: 96%
 Paper Size: A1
 Date / Time: 22/03/2023, 13:57

Camera: Nikon D700
 Lens: Nikon 50mm f/1.4
 Horizontal Field of View: 90°
 Direction of View: West
 Location: E536218, N390514

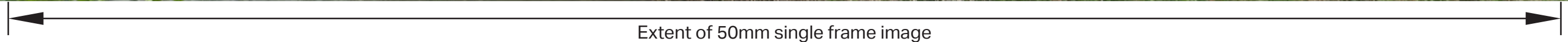
Eye level: 8.0m
 Height of Camera: 1.6m

Note:
 Images to be viewed at a comfortable arm's length.

Figure 34 Viewpoint Photomontages - Viking CCS Pipeline
 Viewpoint 22: Cherry Tree Lane/PRoW, Alvingham



PROPOSED (YEAR 1)



AECOM Delivering a better world

Visualisation Type: 3
 Projection: Cylindrical
 Enlargement Factor: 96%
 Paper Size: A1
 Date / Time: 22/03/2023, 13:57

Camera: Nikon D700
 Lens: Nikon 50mm f/1.4
 Horizontal Field of View: 90°
 Direction of View: West
 Location: E536218, N390514

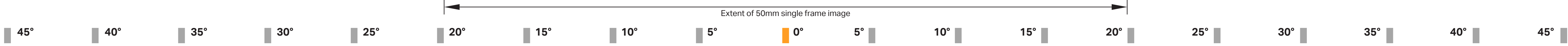
Eye level: 8.0m
 Height of Camera: 1.6m

Note:
 Images to be viewed at a comfortable arm's length.

Figure 36 Viewpoint Photomontages - Viking CCS Pipeline
 Viewpoint 22: Cherry Tree Lane/PRoW, Alvingham



BASELINE (SUMMER)



AECOM Delivering a better world

Visualisation Type: 3
 Projection: Cylindrical
 Enlargement Factor: 96%
 Paper Size: A1
 Date / Time: 22/06/2023, 11:25

Camera: Canon EOS 6D
 Lens: Canon EF50mm f/1.8 STM
 Horizontal Field of View: 90°
 Direction of View: West
 Location: E536224, N390522

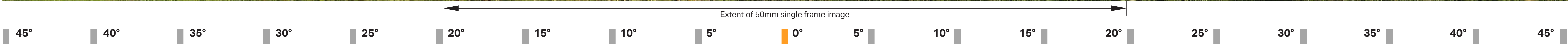
Eye level: 8.0m
 Height of Camera: 1.6m

Note:
 Images to be viewed at a comfortable arm's length.

Figure 35 Viewpoint Photomontages - Viking CCS Pipeline
 Viewpoint 22: Cherry Tree Lane/PRoW, Alvingham



PROPOSED (YEAR 15)



AECOM Delivering a better world

Visualisation Type: 3
 Projection: Cylindrical
 Enlargement Factor: 96%
 Paper Size: A1
 Date / Time: 22/06/2023, 11:25

Camera: Canon EOS 6D
 Lens: Canon EF50mm f/1.8 STM
 Horizontal Field of View: 90°
 Direction of View: West
 Location: E536224, N390522

Eye level: 8.0m
 Height of Camera: 1.6m

Note:
 Images to be viewed at a comfortable arm's length.

Figure 37 Viewpoint Photomontages - Viking CCS Pipeline
 Viewpoint 22: Cherry Tree Lane/PRoW, Alvingham

