

wardell-armstrong.com

ENERGY AND CLIMATE CHANGE  
ENVIRONMENT AND SUSTAINABILITY  
INFRASTRUCTURE AND UTILITIES  
LAND AND PROPERTY  
MINING AND MINERAL PROCESSING  
MINERAL ESTATES  
WASTE RESOURCE MANAGEMENT



**ELECTRICITY NORTH WEST LTD**

**KNOTT LANE, RAISBECK, CUMBRIA**

**ARCHAEOLOGICAL WATCHING BRIEF REPORT**

**APRIL 2022**

**DATE ISSUED:** MARCH 2022  
**JOB NUMBER:** CL12645  
**SITE CODE:** RST-A  
**GRID REFERENCE:** NY 6396 0821  
**OASIS REFERENCE:** wardella2-504934  
**REPORT VERSION NUMBER:** V1.0

**ELECTRICITY NORTH WEST LTD**

**KNOTT LANE, RAISBECK, CUMBRIA**

**ARCHAEOLOGICAL WATCHING BRIEF REPORT**

**APRIL 2022**

**PREPARED BY:**

Cat Peters Principal Archaeologist



**REVIEWED BY:**

Dave Jackson Technical Director



**APPROVED BY:**

Chloe Brownlee-Chapman Regional Director



*This report has been prepared by Wardell Armstrong LLP with all reasonable skill, care and diligence, within the terms of the Contract with the Client. The report is confidential to the Client and Wardell Armstrong LLP accepts no responsibility of whatever nature to third parties to whom this report may be made known.*

*No part of this document may be reproduced without the prior written approval of Wardell Armstrong LLP.*



## CONTENTS

EXECUTIVE SUMMARY .....	1
ACKNOWLEDGEMENTS.....	2
1 INTRODUCTION.....	3
1.1 <b>Project Background</b> .....	3
1.2 <b>Project Documentation</b> .....	3
2 METHODOLOGY .....	4
2.1 <b>Standards and Guidance</b> .....	4
2.2 <b>Site Archive</b> .....	4
3 BACKGROUND.....	6
3.1 <b>Location and Geology</b> .....	6
3.2 <b>Archaeological and Historical Background</b> .....	6
4 ARCHAEOLOGICAL WATCHING BRIEF RESULTS.....	8
4.1 <b>Introduction</b> .....	8
4.2 <b>Results</b> .....	8
5 CONCLUSION.....	9
7 BIBLIOGRAPHY .....	10
APPENDIX 1: CONTEXT TABLE.....	11
APPENDIX 2: PLATES .....	12
APPENDIX 3: FIGURES .....	15

## ILLUSTRATIONS

### PLATES (APPENDIX 2)

Plate 1: Knott Lane, Facing North.

Plate 2: View north, 1m scale.

Plate 3: Trench section facing east, 1m scale.

Plate 4: Cable Joint Pit 1, facing SSW, 1m scale.

Plate 5: Cable Joint Pit 2, facing SSW, 1m scale.

### FIGURES (APPENDIX 3)

Figure 1: Site Location

Figure 2: Excavations monitored during archaeological watching brief

## EXECUTIVE SUMMARY

Wardell Armstrong LLP were commissioned by Electricity North West Ltd (the Client) to undertake a programme of archaeological monitoring along Knott Lane, Raisbeck, during groundworks associated with the undergrounding of electricity cables (centred on NGR NY 6396 0821).

The existing electricity cable is overhead, and runs adjacent to Gamelands embanked stone circle, a scheduled monument (NHLE 1011138). The works are part of a wider scheme in the area and have been designed to improve visual amenity. The site also lies within a National Park. Sarah Whiteley, Senior Historic Environment Officer at the Yorkshire Dales National Park Authority (YDNPA), confirmed the requirement for archaeological monitoring, based on the potential for the cable trench excavations to encounter associated sub-surface archaeological remains.

The archaeological monitoring was undertaken over nine days between Monday 14<sup>th</sup> February and Tuesday 1<sup>st</sup> March 2022. It comprised the archaeological monitoring of a linear cable trench excavation, extending for approximately 400m along the centre of Knott Lane, an access trackway to Knott Scar and agricultural land at its foot.

The excavations associated with the undergrounding of electricity cables along Knott Lane monitored under archaeological supervision encountered an existing trackway surface, topsoil, and natural substrate, despite occurring in close proximity to the scheduled monument. No archaeological finds or features were encountered during the groundworks.

---

## **ACKNOWLEDGEMENTS**

Wardell Armstrong LLP (WA) thanks the client, Electricity North West Ltd, for commissioning the project, and for all assistance throughout the work and Network Plus for their assistance during the project. Also, WA thank Sarah Whiteley, Senior Historic Environment Officer at the Yorkshire Dales National Park Authority, for all advice.

The archaeological watching brief was undertaken by Cat Peters and Jo Beaty and the report was written by Cat Peters. The figures were produced by Helen Phillips. The project was managed by Dave Jackson, who also reviewed the report.

## **1 INTRODUCTION**

### **1.1 Project Background**

1.1.1 In February and March 2022 Wardell Armstrong LLP (WA) undertook an archaeological watching brief during groundworks at Knott Lane, Raisbeck, Cumbria, centred on National Grid Reference (NGR): NY 6396 0821. The groundworks were associated with the undergrounding of existing overhead electricity cables, as part of a wider scheme designed to improve visual amenity within this area of the Westmorland Dales, part of the Yorkshire Dales National Park.

1.1.2 Knott Lane runs adjacent to Gamelands embanked stone circle, a scheduled monument (NHLE 1011138). It was confirmed that excavations along the lane should be subject to archaeological monitoring, as these excavations had the potential to encounter associated sub-surface archaeological remains.

### **1.2 Project Documentation**

1.2.1 The archaeological watching brief conformed with the methodologies defined in the approved WSI (Wardell Armstrong 2021). The WSI was approved by Sarah Whiteley, Senior Historic Environment Officer at the Yorkshire Dales National Park Authority, prior to any groundworks taking place. The archaeological work comprised a pre-works photographic survey of the area of the proposed cable route and the archaeological monitoring of the excavation of the linear cable trench and two associated cable joint pits.

1.2.2 This report outlines the results of the archaeological watching brief monitoring, the subsequent programme of post-fieldwork analysis, and the results of this scheme of archaeological watching brief.

## **2 METHODOLOGY**

### **2.1 Standards and Guidance**

2.1.1 The archaeological watching brief was undertaken following the Chartered Institute for Archaeologists *Standard and Guidance for an archaeological watching brief* (CIfA 2020) and their Code of Conduct (CIfA 2019), and in accordance with the WA fieldwork manual (2020).

2.1.2 The general aims of the archaeological the watching brief were to:

- Monitor all groundworks occurring along Knott Lane to determine the presence or absence of any buried archaeological remains that may be affected by the scheme;
- Identify, investigate and appropriately record any identified archaeological remains including condition and extent under the watching brief remit, where possible, prior to groundworks continuing;
- Determine (as far as possible) any stratigraphic sequences, the character, date and distribution of the deposits or features revealed;
- Assess the significance of any archaeological remains found;
- Highlight the need for and scope of any further archaeological investigation/mitigation (if applicable);
- Analyse, conserve and store any artefacts or ecofacts recovered; and
- Disseminate the results through an appropriate level of reporting.

2.1.3 Deposits considered not to be significant were removed by a mechanical excavator with a toothless ditching bucket to maximise the chance for identification of archaeological remains should they be present. All intrusive groundworks were monitored under close archaeological supervision by a suitably trained archaeologist. No archaeological remains were observed, no artefacts were encountered, and no environmental samples were taken.

### **2.2 Site Archive**

2.2.1 A full professional archive has been compiled in accordance with the project specification, and the Archaeological Archives Forum recommendations (Brown 2011). The archive will be deposited with an appropriate repository with copies of the report sent to The Yorkshire Dales National Park Authority and Cumbria County

Council's Historic Environment Service, available upon request. The archive can be accessed under the unique project identifier **WA22/CL12645/RST-A**.

- 2.2.2 Wardell Armstrong LLP supports the **Online Access** to the Index of Archaeological InvestigationS (OASIS) project. This project aims to provide an on-line index and access to the extensive and expanding body of grey literature, created as a result of developer-funded archaeological work. As a result, details of the results of this project will be made available by WA as a part of this national project. The OASIS reference for the project is: **wardella2-504934**.



### **3 BACKGROUND**

#### **3.1 Location and Geology**

3.1.1 Knott Lane is located to the north-west of the hamlet of Raisbeck and east of the village of Orton, within the Westmorland Dales, part of the Yorkshire Dales National Park, though in the county of Cumbria, NGR: NY 6396 0821 (Figures 1 and 2).

3.1.2 The bedrock geology of the area is mapped as sandstone of the Ashfell Sandstone Formation, a sedimentary bedrock formed approximately 343 to 345 million years ago in the Carboniferous Period. This is overlain by superficial deposits of Diamicton, Devensian Till, formed up to 2 million years ago in the Quaternary Period (BGS 2022).

#### **3.2 Archaeological and Historical Background**

3.2.1 Gamelands embanked stone circle (NHLE 1011138) is located on gently sloping land to the immediate south of the foot of Knott Scar, and c.850m to the north-west of the hamlet of Raisbeck (centred on NGR: NY 6400 0816). It comprises an oval enclosure c.43m east to west and 38m north to south defined by 40 large stones of up to 0.9m in height, all of which have fallen, and three smaller stones set into a bank approximately 2.5m wide and up to 0.2m high. The circumferences of the stones vary between 1.9m and 3.8m. All are Shap pink granite, except one which is limestone. There is a single entrance to the south-east, which is 4m wide.

3.2.2 The site has remained as agricultural land throughout the post medieval period, located to the south of the Knott Scar and east of an access lane to the scar. In 1823, the site was known as Thunder Stones (Greenwood 1823) and Druidical Circle in 1828 (Hodgson 1828). Limited investigation of the Gamelands example in the late 19<sup>th</sup> century revealed a sandstone slab within the circle, interpreted as the cover of a burial, and two pieces of worked flint, indicating that the stone circle was a focus for rituals associated with death.

3.2.3 In North West England, stone circles are one of the most widely known prehistoric monuments and are considered to be amongst the earliest examples within the British Isles (Burl 1976, 59). Most stone circles date from between the Late Neolithic and the Middle Bronze Age (c.2400-1000BC), with Gamelands thought to have Neolithic origins (Barrowclough 2010, 108). Considering their national significance, remarkably little work has been undertaken on the stone circles of the North West under modern conditions, and few sites have been scientifically dated (Brennand et al 2007, 38).

3.2.4 Of the 250 or so stone circles identified in England, only 45 examples of large irregular circles are known. The Gamelands example has survived unaffected by later development and is the only complete example of an embanked stone circle in Cumbria.

## 4 ARCHAEOLOGICAL WATCHING BRIEF RESULTS

### 4.1 Introduction

4.1.1 The watching brief was undertaken over nine days between 14<sup>th</sup> February and 1<sup>st</sup> March 2022. The archaeological watching brief monitored the excavation of a linear cable trench and two associated cable joint pits along Knott Lane (Figure 2). All groundworks were excavated by a 360° mechanical excavator with a toothless ditching bucket under close archaeological supervision.

### 4.2 Results

4.2.1 **Linear Cable Trench:** the linear cable trench was excavated north-south along the centre of Knott Lane, with the northernmost extent positioned at a 45-degree angle extending across the western verge to meet the existing telegraph pole. The trench varied between 0.4m and 0.5m in width across its distance, and between 0.7m and 0.9m in depth. Along the extent of the cable trench, a mid grey-brown compacted soil and gravel deposit of between 0.15m and 0.25m depth was encountered (**101**). This was the existing trackway surface. This overlay a mid red-brown sandy clay, with occasional grey clay and boulder inclusions of between 0.4m and 0.6m diameter (**102**). At the northern extent of the cable trench, where it left the trackway and crossed the verge to meet the telegraph pole, the mid red-brown sandy clay (**102**) was overlain by a mid brown silty topsoil (**100**).

4.2.2 **Cable Joint Pit 1:** measured 1.4m in width, east to west, and 2.3m in length north to south. The pit was excavated to the north-west of Gamelands Stone Circle, 9m south of an adjacent field boundary, and was centred on the recently excavated cable trench (Figure 2). No additional deposits were encountered within the pit, with the same mid grey-brown compacted soil and gravel deposit (**101**) and mid red-brown sandy clay (**102**) revealed.

4.2.3 **Cable Joint Pit 2:** measured 1.1m in width, east to west, and 2.1m in length north to south. The pit was excavated to the south-west of Gamelands Stone Circle, 7m north of a sheepfold, and was centred on the recently excavated cable trench (Figure 2). The pit further revealed the same mid grey-brown compacted soil and gravel deposit (**101**) and mid red-brown sandy clay (**102**), with no additional deposits encountered.

## **5 CONCLUSION**

- 5.1.1 The excavations associated with the undergrounding of electricity cables along Knott Lane near Raisbeck monitored under archaeological supervision, encountered only an existing trackway surface, topsoil, and natural substrate, despite occurring in close proximity to a scheduled monument of National significance.
- 5.1.2 No archaeological finds or features were disturbed by the groundworks.

## 7 BIBLIOGRAPHY

- Barrowclough, D. 2010, *Prehistoric Cumbria*, The History Press: Oxfordshire
- BGS: British Geological Survey, 2022, *Geology of Britain Viewer*, <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>, British Geological Survey, accessed 25<sup>th</sup> February 2022
- Brennand, M. (ed) 2007, *Research and Archaeology in North West England: An Archaeological Research Framework for North West England Volume 2: Research Agenda and Strategy*, Archaeology North West 9, Manchester
- Brown, D.H. 2011, *Archaeological archives: A guide to best practice in creation, compilation transfer and curation*
- Burl, A. 1976, *The Stone Circles of the British Isles*. New Haven, Yale University Press
- CIfA 2019, *Code of Conduct*, Chartered Institute for Archaeologists, Reading
- CIfA 2020, *Standard and Guidance for an archaeological watching brief*, Chartered Institute for Archaeologists, Reading
- Greenwood, C. 1823, *Map of the County of Westmorland*, Pringle & Co: London
- Hodgson, T. 1828, *Plan of the County of Westmorland*, T. Hodgson: Lancaster
- NHLE: National Heritage List for England, 2022, *online list of designated heritage assets*, <https://historicengland.org.uk/listing/the-list/map-search>, accessed 25<sup>th</sup> February 2022
- Wardell Armstrong 2020, *Archaeological Fieldwork Manual*, unpublished internal document, Wardell Armstrong LLP
- Wardell Armstrong 2021, *Knott Lane, Raisbeck, Cumbria: Written Scheme of Investigation for an Archaeological Watching Brief*, Wardell Armstrong LLP unpublished document

## APPENDIX 1: CONTEXT TABLE

Context Number	Context Type	Area	Description
100	Topsoil	Northern extent of cable trench excavation	Mid brown silty topsoil 0.3m in depth
101	Deposit	Majority of cable trench excavation and both cable joint pits	Mid grey-brown compacted soil and gravel deposit - trackway surface to Knott Lane 0.15-0.25m in depth
102	Natural	All areas	Mid red-brown firm sandy clay with occasional grey clay, and boulder inclusions averaging between 0.4-0.6m in diameter

## APPENDIX 2: PLATES



Plate 1; Knott Lane, Facing North.



Plate 2; View north, 1m scale.



Plate 3; Trench section facing east, 1m scale.



Plate 4; Cable Joint Pit 1, facing SSW, 1m scale.

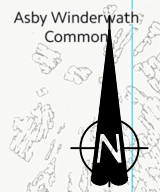
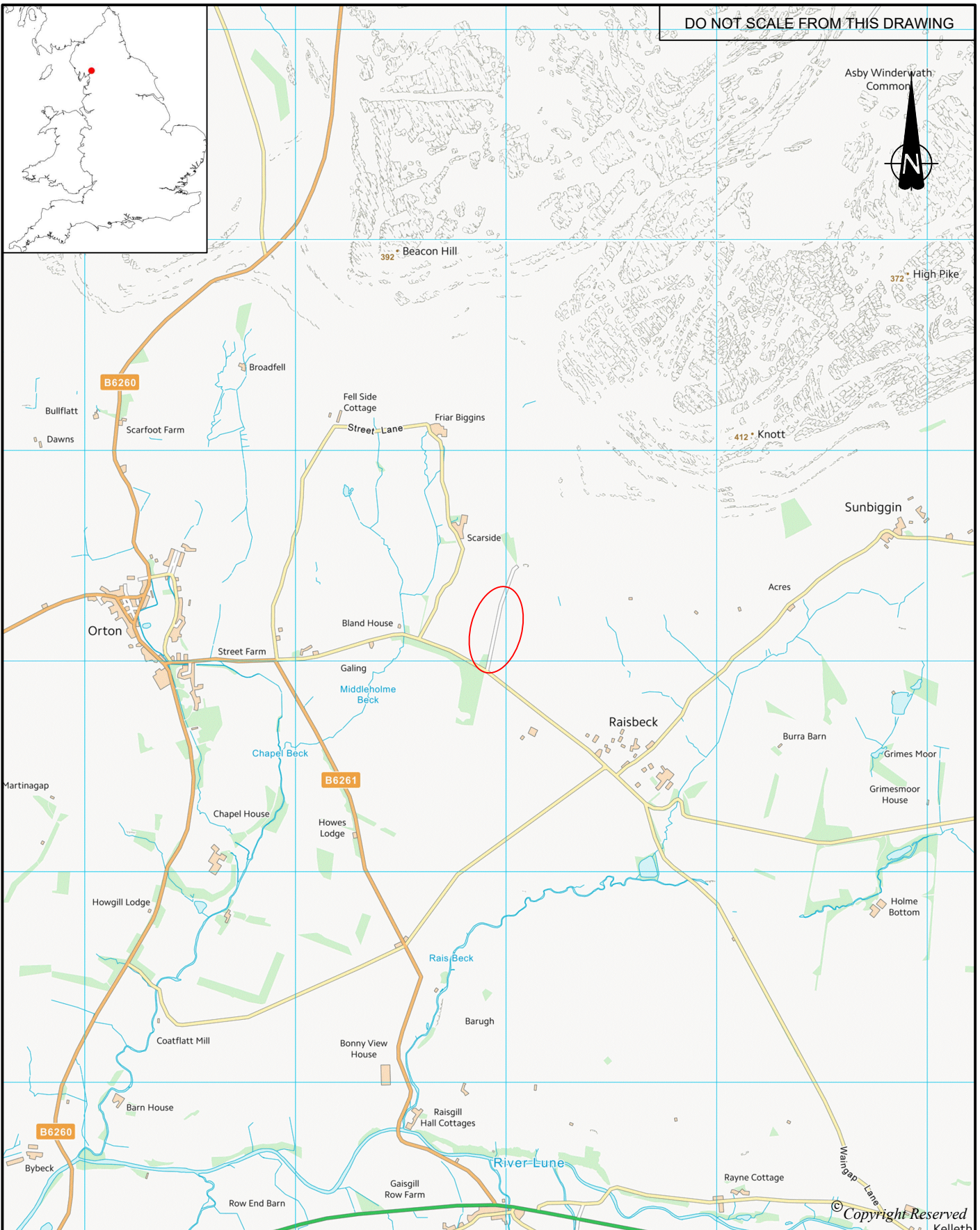




Plate 5; Cable Joint Pit 2, facing SSW, 1m scale.

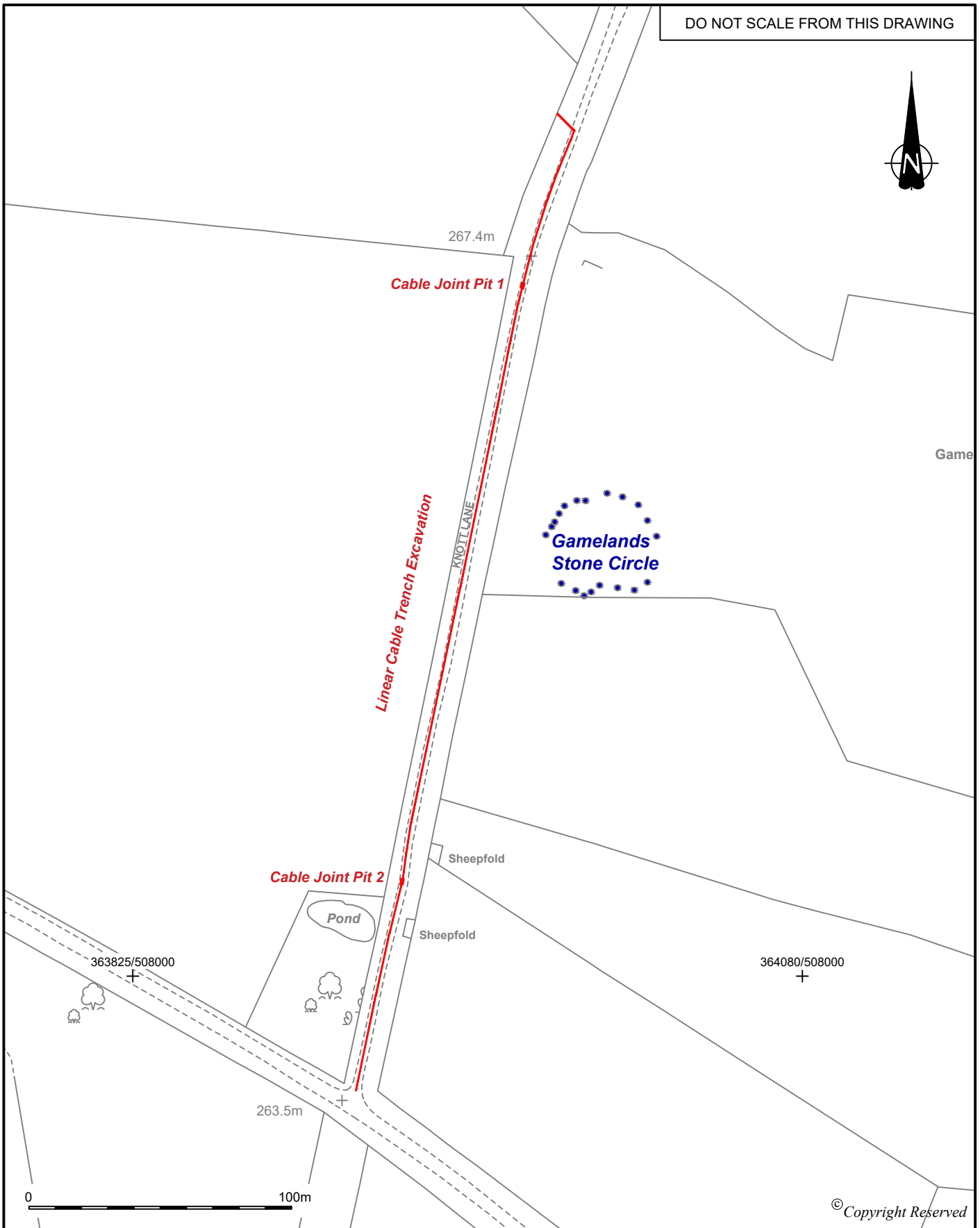
## **APPENDIX 3: FIGURES**

DO NOT SCALE FROM THIS DRAWING



CLIENT	Electricity North West Ltd		DRG No.	CL12645-101		REV	A	
PROJECT	Knott Lane, Raisbeck Cumbria		SIZE	A4		SCALE	1:25,000	
			DATE			April 2022		
DRAWING TITLE	Figure 1: Site location		DRAWN BY	HP/CP		CHECKED BY	DJ	
			APPROVED BY			DJ		
						■ CARLISLE   TEL 01228 550 575 WWW.WARDELL-ARMSTRONG.COM <input type="checkbox"/> BIRMINGHAM <input type="checkbox"/> LEEDS <input type="checkbox"/> BOLTON <input type="checkbox"/> LONDON <input type="checkbox"/> CARDIFF <input type="checkbox"/> MANCHESTER <input type="checkbox"/> EDINBURGH <input type="checkbox"/> NEWCASTLE UPON TYNE <input type="checkbox"/> GLASGOW <input type="checkbox"/> STOKE ON TRENT		

DO NOT SCALE FROM THIS DRAWING



© Copyright Reserved

CLIENT Electricity North West Ltd	DRG No. CL12645-101		REV A
	SIZE A4	SCALE 1:2,000	DATE April 2022
PROJECT Knott Lane, Raisbeck, Cumbria	DRAWN BY HP/CP	CHECKED BY DJ	APPROVED BY DJ
	DRAWING TITLE Figure 2: Excavations monitored during archaeological watching brief		
		■ CARLISLE   TEL 01228 550 575 WWW.WARDELL-ARMSTRONG.COM	
		<input type="checkbox"/> BIRMINGHAM <input type="checkbox"/> LEEDS <input type="checkbox"/> BOLTON <input type="checkbox"/> LONDON <input type="checkbox"/> CARDIFF <input type="checkbox"/> MANCHESTER <input type="checkbox"/> EDINBURGH <input type="checkbox"/> NEWCASTLE UPON TYNE <input type="checkbox"/> GLASGOW <input type="checkbox"/> STOKE ON TRENT	

**STOKE-ON-TRENT**

Sir Henry Doulton House  
Forge Lane  
Etruria  
Stoke-on-Trent  
ST1 5BD  
Tel: +44 (0)1782 276 700

**BIRMINGHAM**

Two Devon Way  
Longbridge Technology Park  
Longbridge  
Birmingham  
B31 2TS  
Tel: +44 (0)121 580 0909

**BOLTON**

41-50 Futura Park  
Aspinall Way  
Middlebrook  
Bolton  
BL6 6SU  
Tel: +44 (0)1204 227 227

**BRISTOL**

Desk Lodge  
2 Redcliffe Way  
Bristol  
BS1 6NL

**BURY ST EDMUNDS**

9 Lamdin Road  
Bury St Edmunds  
Suffolk  
IP32 6NU  
Tel: +44 (0)1284 765 210

**CARDIFF**

Tudor House  
16 Cathedral Road  
Cardiff  
CF11 9LJ  
Tel: +44 (0)292 072 9191

**CARLISLE**

Marconi Road  
Burgh Road Industrial Estate  
Carlisle  
Cumbria  
CA2 7NA  
Tel: +44 (0)1228 550 575

**EDINBURGH**

Great Michael House  
14 Links Place  
Edinburgh  
EH6 7EZ  
Tel: +44 (0)131 555 3311

**GLASGOW**

24 St Vincent Place  
Glasgow  
G1 2EU  
Tel: +44 (0)141 428 4499

**LEEDS**

36 Park Row  
Leeds  
LS1 5JL  
Tel: +44 (0)113 831 5533

**LONDON**

Third Floor  
46 Chancery Lane  
London  
WC2A 1JE  
Tel: +44 (0)207 242 3243

**NEWCASTLE UPON TYNE**

City Quadrant  
11 Waterloo Square  
Newcastle upon Tyne  
NE1 4DP  
Tel: +44 (0)191 232 0943

**TRURO**

Baldhu House  
Wheal Jane Earth Science Park  
Baldhu  
Truro  
TR3 6EH  
Tel: +44 (0)187 256 0738

**International offices:**

**ALMATY**

29/6 Satpaev Avenue  
Hyatt Regency Hotel  
Office Tower  
Almaty  
Kazakhstan  
050040  
Tel: +7(727) 334 1310

**MOSCOW**

21/5 Kuznetskiy Most St.  
Moscow  
Russia  
Tel: +7(495) 626 07 67