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Advice on Archaeology & Planning

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Geophysical Survey

Clyde Wind Farm Cable Route: Site 20, Near Crawford, South Lanarkshire

Archaeological Excavations Report No. 1807

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Commissioned by	Scottish Power EnergyNetworks
Date issued	February 2011
Version	3
OASIS Reference	cfaarcha1-94108
Planning Application No	N/A
Grid Ref	NS 9634 1864

This document has been prepared in accordance with CFA Archaeology Ltd standard operating procedures.

Clyde Wind Farm Cable Route: Site 20, Near Crawford, South Lanarkshire

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1. INTRODUCTION

1.1 General

1.1.1 This report presents the results of an archaeological excavation undertaken by CFA Archaeology Ltd (CFA) in August 2010 at Site 20, near Crawford, South Lanarkshire (NGR: NS 964 187) (Fig. 1). The work was commissioned by Scottish Power EnergyNetworks (Scottish Power).

1.1.2 A Project Design dated 23rd August 2010 was produced by CFA as an addendum to a previously agreed Project Design dated 26th February 2009 for the archaeological mitigation required as a result of the construction of the interconnect cables from the Clyde Windfarm substations to the national grid. The Project Design was produced on behalf of Scottish Power and designed to meet the requirements of the West of Scotland Archaeology Service (WoSAS).

1.2 Background

1.2.1 Scottish Power is installing an electrical cable between the Clyde Wind Farm substations (North Substation at Whelphill and South Substation at Archibald Gair Head) and the new electricity substation at Elvanfoot, South Lanarkshire. The line of the cable route passes through the route of a Roman Road (Site 20) (NMRS No. NS91NE 8). As a consequence of this, mitigation measures were implemented requiring the excavation of the features that were to be affected by the proposed development.

1.2.2 A Baseline Report for this project was undertaken by CFA in 2008 (Haines 2008). Site numbers above and in the following text refer to sites identified in that report.

1.3 Objectives

1.3.1 The objectives of the excavation were:

- To preserve by record the archaeological evidence for the Roman Road and any associated remains at the point where it will be intersected by the cable route
- To produce a report on the excavation
- To produce a project design for post-excavation work, and publication, if appropriate
- To inform wider regional, national and period based research frameworks.

2. WORKING METHODS

2.1 CFA follows the Institute for Archaeologists' Standards and Guidance and Code of Conduct.

2.2 The cable route wayleave encompassing the land-take required for the cable trench was stripped under archaeological supervision under the terms of a previously agreed Project Design.

2.3 An area within the monitored topsoil strip trench measuring c. 35m long by the full width of the stripped wayleave (2m wide) was fully excavated. The road is c. 6m wide and runs obliquely across the trench, with possible kerb stones visible and an area of gravel and stones spread to a distance of c.25m downhill from the feature. Context numbers and samples from the monitored topsoil strip are contained in Appendices 1 and 4.

2.4 The road was cleaned by hand, planned and excavated. The road was to be sectioned perpendicular to the line of the road as it crosses the cable wayleave. Sections were stepped in order to achieve this; it was not possible to achieve a single continuous transverse section due to the oblique angle of the road within the trench. All deposits were removed stratigraphically, with any distinct phases of use/construction recorded, and the relationship to the gravel spread downslope established. The other half of the road was subsequently removed. The sections at both sides of the trench were recorded, as were any deposits and/or features beneath the road.

2.5 All excavation and on-site recording was carried out according to standard CFA procedures, principally by drawing, photography and by completing standard CFA record forms. All features, excluding modern intrusions such as field drains, were subject to complete excavation by hand tools. Superimposed features were investigated in stratigraphic sequence.

2.6 The positions of all archaeological features were surveyed using industry standard electronic surveying equipment.

3. ARCHAEOLOGICAL RESULTS

3.1 General

3.1.1 Numbers in bold in the following text refer to contexts, a full list of which is contained in Appendix 1.

3.1.2 The area comprised rough pasture and was surfaced with grass. Topography was undulating, the site being situated on the slope of a small knoll on the edge of a steep eroded bank above the River Clyde. Topsoil (**121**) varied from 0.1m to 0.3m thick. Natural subsoil (**102**) was a 0.1m thick layer of slopewash comprising sterile grey clay rich sand overlying pale orangey-grey boulder clay (**000**). Following full excavation of all features, the slopewash (**102**) was removed by machine under archaeological supervision to check for any earlier archaeological remains that may have been masked by the slopewash.

3.1.3 The Roman Road ran very obliquely across the trench (Fig. 7) and so it was recorded both in section along the edge of the trench and in a series of stepped sections to provide a section perpendicular to the direction of the road. These are illustrated on Figs. 4, 5 and 8-14.

3.2 Archaeological Features

Roman Road (Figs. 2-14)

3.2.1 The road is described below in stratigraphic sequence, earliest/lowest deposit first.

3.2.2 A mid grey-brown silty deposit (**122**) overlay the natural (**101**) and was present roughly along the full extent of the road, and continued slightly beyond it, thinning out at roughly the same point that loose stones spreading out from the road edge disappeared. The deposit was up to 0.2m thick but was mostly thinner. It is interpreted as being the old ground surface, upon which the road was directly built, its fibrous consistency reflecting it being old compressed and decomposed turf. It is also likely to have an element of slopewash in its makeup, as the overlying road would have acted as a soakaway drain, depositing water-washed sediments along the base of the road.

3.2.3 The foundation of the road comprised large sub-rounded stones and cobbles (**125**) set onto the surface of the old ground surface (**122**). The width of the foundation is c.8m, and although some stones are spread loosely beyond this extent, it is likely that these represent eroded and disturbed stones rather than part of the original structure. The foundation includes a possible cup-marked stone which may have been robbed from an earlier monument in the vicinity; such previously extant monuments would have provided an easy source of suitable stones. Both edges of the road are fairly well defined, although the west edge, which faces downhill, has been more subject to erosion.

3.2.4 A possible kerb (**123**) comprising a straight alignment of single stones defines the east edge of the road. An alignment of stones (**126**) close to the west edge was, prior to excavation, initially recorded as a possible opposite kerb, but was shown to have an alignment which did not correspond to the visible edge of the road or where a kerb might reasonably be expected to run. It was thus suspected to be a possible cross drain; however, excavation indicated that it resulted from nothing more than the coincidental laying and depiction of stones forming what initially appeared to be an alignment.

3.2.5 A levelling course (**127**) comprising small angular stones, possibly the result of manual breaking, was set into the gaps between the foundation stones (**125**). This layer was contained largely within the bounds of the road and was up to 0.25m thick, although lay in very uneven deposits, being set within voids rather than on an even surface.

3.2.6 A compact gravel deposit (**124**) overlay the levelling course and was spread across the road's width in its entirety. It was up to 0.05m thick and thinned out downslope beyond the edge of the road, reflecting erosion. This deposit represents the running surface of the Roman Road. It is sealed by the surface topsoil and turf, which is very thin over the road, generally c.0.05m thick although occasional foundation stones break through the surface. Several such stones are visible on the road alignment outwith the trench.

Stone Spread

3.2.7 A large spread of stones (**134**) was situated downslope of the Roman Road, covering an area measuring c.7m long and the full width of the trench (Fig. 15). It comprised medium and large sub-angular stones and cobbles, and included a possible cup-marked stone. It was set directly onto the natural subsoil surface. The old ground surface layer visible under the road was not present.

3.2.8 The spread had no clear form or shape; its continuation could be faintly traced outwith the trench but without any definitive clarity. The stones were not densely packed like the Roman Road foundation layer, and mostly lay in a single layer up to 0.2m thick (Fig. 16). It was sealed by the surface turf and topsoil. It is suggested that this may have been a stockpile, dumped by stone gatherers delivering stone to the road builders at convenient intervals along the road's route.

Quarry Pit and Upcast Mound

3.2.9 An irregular feature which crossed the trench downslope from the road and the spread was sectioned and shown to be part of a probable pit. The cut (**130**) was 2.3m wide and 0.4m deep with shallow sides and a flattish base (Fig. 17). A single large boulder was situated in the base, and the fill (**131**) comprised dark brown silt. It appeared to continue as a linear cut to the north-west although this was very shallow and irregular and is probably a result of groundwork around the pit at its time of excavation. A mound of gravel and soil (**136**) lay nearby, sealed by topsoil; most likely upcast from the pit. The purpose of the

pit is not entirely clear, although it seems most likely to be a quarry for gravel or small stones. It could also be a refuse pit although the uniform nature of the fill and its similarity to the overlying topsoil do not suggest this.

4. CONCLUSIONS AND DISCUSSION

4.1 An archaeological excavation was carried out on the Roman Road and associated features at Crawford (Site 20) in advance of the installation of an electrical cable.

4.2 The well preserved remains of what conforms to known characteristics of Roman roads were excavated and recorded. The road was built directly onto the old ground surface, and was founded on closely packed large sub-rounded stones and boulders, with the voids packed with coarse angular gravel. The road was levelled and surfaced with fine gravel. Much of this surface layer had eroded downslope off the edge of the road; nevertheless a sufficient deposit remained in situ to be certain of its nature.

4.3 A large spread of stones was excavated downslope to the road. This had no structure and the stones were loosely spread. It is not entirely clear what it is, although it is clear that the stones have been imported and dumped, so it is possible that the spread represents a stockpile of material for road building or maintenance.

4.4 Part of a possible pit lay within the trench. Excavation showed it to contain a single large in situ boulder, too large for use in the Roman road, thus it is interpreted as a possible quarry pit. While it would appear to be a simple matter to source stones from the nearby river Clyde, the inclusion of what appear to be cup-marked stones in the road and the spread point to robbing stones from earlier monuments and structures, thus a pragmatic methodology for sourcing stones may be reflected here.

4.5 The project archive, comprising all CFA record sheets, maps and reports, will be deposited with the National Monuments Record of Scotland (NMRS) and copies of reports will be lodged with the WoSAS Sites and Monuments Record.

4.6 A summary statement of the results of this programme of works will be submitted for publication in *Discovery and Excavation in Scotland* (Appendix 5) and reported via the online OASIS form.

APPENDIX 1: Context Register

Excavation

No.	Description
000	Natural subsoil, orangey-grey boulder clay
102	Natural subsoil, grey slopewash
119	Natural subsoil seen in evaluation trench
120	B horizon
121	Topsoil
122	Old ground surface. Brown silt and small gravel
123	Possible kerb stones on north-east edge of road
124	Running surface of Roman Road: brown silt, small stones & gravel
125	Foundation course of Roman Road: large stones
126	Suspected alignment of stones representing kerb or cross-drain
127	Levelling course of Roman Road: orange sand, gravel and small stones
128	As 124, possibly not road surface
129	Layer of small gravel
130	Cut of probable large pit
131	Silt upper fill of 130
132	Trackway or eroded wheel ruts, parallel to 130
133	As 131
134	Spread of stones, possible stockpile
135	Lower fill of 130, compact stones with a gritty grey matrix
136	Dump of soil and stones, probably upcast from pit 130

APPENDIX 2: Photographic Register

Aerial Mast Digital Photos

Shot	Description
1-15	Panorama of trench
16-50	Panorama of trench
51-52	Working shots
53-69	Detail shots of trench
70-76	Working shots

Digital Photos

Shot	Description	From
1-2	Section A-B	SE
3-4	Section B-C	NE
5-6	Section D-E	SE
7	Section E-F	NE
8	General view of sections and sondage	NE
9	Section F-G	NE
10	General view of road and sections	N
11	Section G-H	SE
12	General view of road and sections	N
13	General view of road and sections	SW
14	Section H-I	NE
15	General view of road and section I-J	SE
16	General view of road and sections	N
17	General view of road and sections	SW
18	General view of road and sections	NE

19	Working shot	
20	General view of road and sections	S
21	Section A-B	SE
22	Section C-D	SE
23	Section E-F	SE
24	Section G-H	SE
25	Section I-J	SE
26	N/A	
27	Section K-L	
29	Section M-N	SE
30	Section O-P	SE
31-37	N/A	
38-41	General views/working shots	
42	Section J-K	NE
43	Section K-L	SE
44	Section L-M	NE
45	Section G-H	SE
46-47	Section H-I	NE
48	Section I-J	SE
49	Section K-L	SE
50	Section L-M	NE
51	Section M-N	SE
52	Section N-O	NE
53	Section O-P	SE
54	Section of possible pit (130)	N
55	N/A	
56	View of trench	W
57	View of trench	E
58	Trench section through road with kubiena tin *in situ*	S
59-70	Left to right section of trench	S
71	Section of 136	S
72	View of fully excavated trench	W
73-76	N/A	
77	View of stone spread (134)	E
78	View of stone spread (134)	W
79-82	Detailed views of the Roman Road surface	Various
84	General view of Stone spread half-sectioned	NW
85-88	Right to left panorama of Stone spread half sectioned	N

Colour Slide (Film 1)

Shot	**Description**	**From**
1	Registration	
2-9	Pre-ex working shots	E
10-11	Detail of kerb (**123**)	SW
12-13	Detail of kerbing and road (126)	SW
14-15	Detail of kerbing and road (126)	W
16-17	Detail of road surface (124)	W
18-19	Detail of stone spread (134)	W
20-21	Detail of stone spread (134)	E
22-23	Section of pit (130)	N
24-31	Section of stone spread	N
32-33	Section of stone spread, general view	NW
34-35	Roman road, section A-B	SW

Colour Slide (Film 2)

Shot	Description	From
1	Registration	
2-3	Roman road, section C-D excavated down to 125	SW
4-5	Roman road, section E-F excavated down to 125	SW
6-7	Roman road, section G-H excavated down to 125	SW
8-9	Roman road, section I-J excavated down to 125	SW
10-11	Roman road, section K-L excavated down to 125	SW
12-13	Roman road, section M-N excavated down to 125	SW
14-15	Roman road, section O-P excavated down to 125	SW
16-17	General view of road foundation	SW
18-19	General view of road foundation	NE
20-21	Working shot	
22-23	Roman road, section D-E	SE
24-25	Roman road, section E-F	SW
26-27	Roman road, section F-G	SE
28-29	Roman road, section G-H	SW
30-31	Roman road, section H-I	SE
32-33	Roman road, section I-J	SW
34-35	Roman road, section J-K	SE

Colour Slide (Film 3)

Shot	Description	From
1	Registration	
2-3	Roman road, section K-L	SW
4-5	Roman road, section L-M	SE
6-7	Roman road, section M-N	SW
8-9	Roman road, section N-O	SE
10-11	Roman road, section O-P	SW
12-13	Working shot	
14-15	Section of pit 1	N
16-17	General of fully excavated trench	W
18-19	General of fully excavated trench	E
20-21	Trench section within Roman Road, kubiena tin *in situ*	S
22-35	Left to Right section of trench	S

Colour Slide (Film 4)

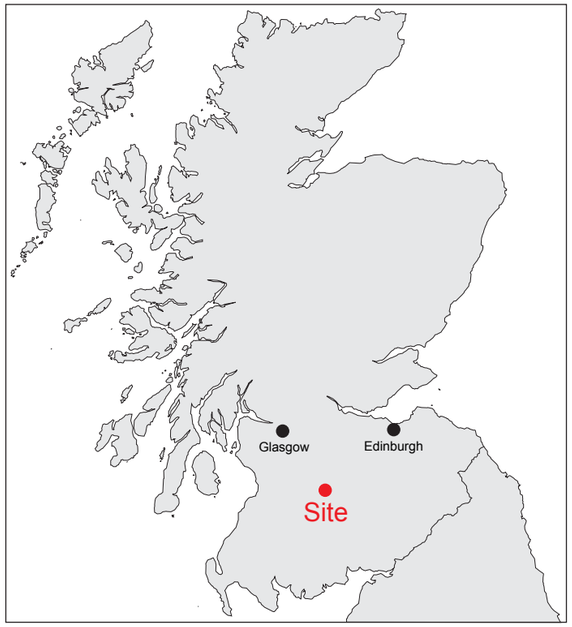
Shot	Description	From
1	Registration	
2-9	Left to right oblique section of Roman Road	S
10-11	Section of stone spread	S
12-15	General shot of fully excavated trench	W
16-27	Left to right section of stone spread in trench section	S

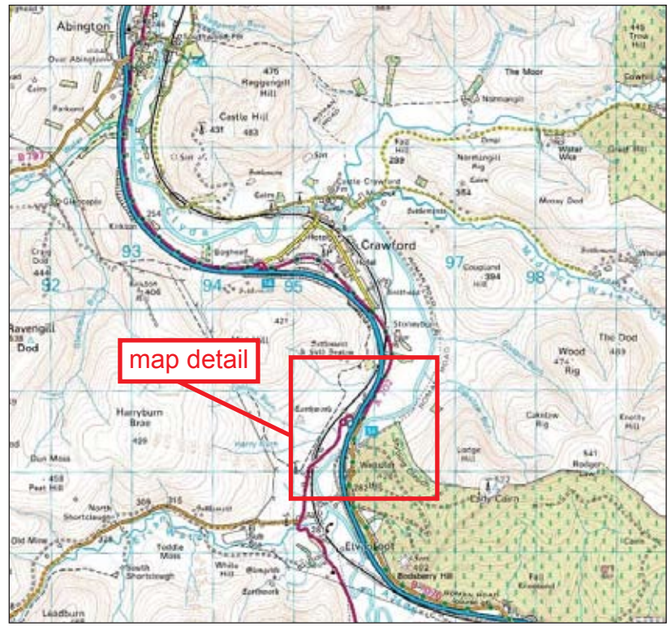
APPENDIX 3: Field Drawings Register

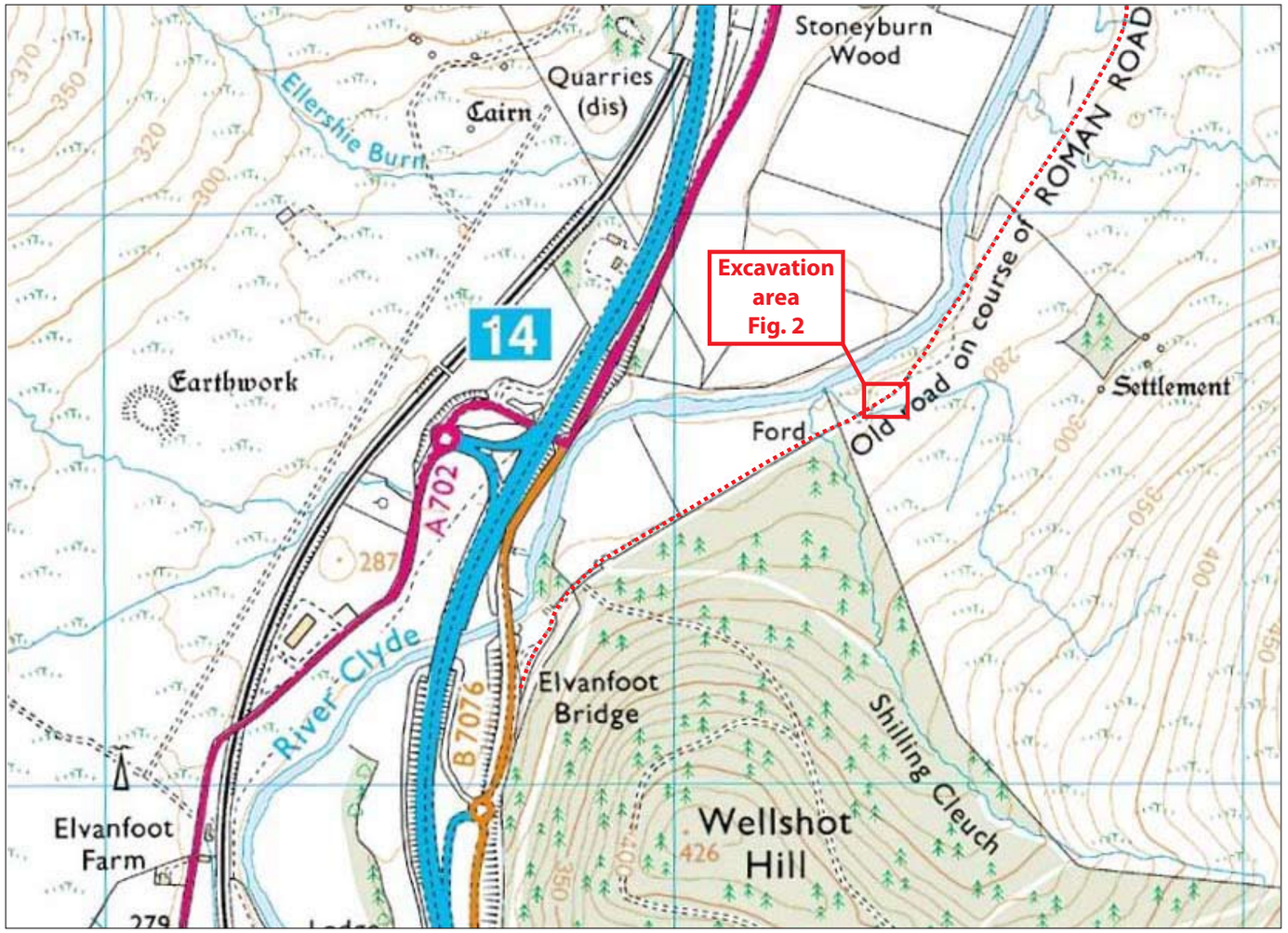
Sheet No	Drawing No	Scale	Section/Plan	Description
1-5	1	1:20	Plan	Trench, Roman Road excavated to foundation, showing position of sections.
6-8	2	1:20	Plan	Roman Road cleaned down to running surface.
9	3	1:20	Section	Stone spread (134)
10	4	1:10	Section	Pit (130)
11	5	1:10	Section	Roman Road Section A-B
11	6	1:10	Section	Roman Road Section B-C
11	7	1:10	Section	Roman Road Section C-D
11	8	1:10	Section	Roman Road Section E-F
11	9	1:10	Section	Roman Road Section G-H
11	10	1:10	Section	Roman Road Section I-J
11	11	1:10	Section	Roman Road Section K-L
12	12	1:10	Section	Roman Road Section G-F
12	13	1:10	Section	Roman Road Section J-K
13	14	1:10	Section	Roman Road Section L-M
14	15	1:10	Section	Roman Road Section M-N
14	16	1:10	Section	Roman Road Section O-P
14	17	1:10	Section	Roman Road Section D-E
14	18	1:10	Section	Roman Road Section N-O
15-17	19	1:20	Section	Trench, fully excavated

APPENDIX 4: Discovery & Excavation in Scotland Entry

LOCAL AUTHORITY:	South Lanarkshire (WoSAS)
PROJECT TITLE/SITE NAME:	Clyde Windfarm Cable Route
PROJECT CODE:	EVOL3
PARISH:	Crawford
NAME OF CONTRIBUTOR:	Stuart Mitchell
NAME OF ORGANISATION:	CFA Archaeology Ltd
TYPE(S) OF PROJECT:	Archaeological Works
NMRS NO(S):	NS91NE 8
SITE/MONUMENT TYPE(S):	Roman road
SIGNIFICANT FINDS:	
NGR	NS 9634 1864
START DATE (this season)	August 2010
END DATE (this season)	September 2010
PREVIOUS WORK (incl. *DES* ref.)	CFA (1991ah) 'Crookedstane Farm (Crawford parish): settlement complex' *Discovery Excav Scot* (p.64).
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	An archaeological excavation was carried out on a section of Roman road in advance of the installation of an electrical cable. The road comprised a foundation of large cobbles and sub-rounded stones set directly onto the old ground surface, with the voids packed with angular coarse gravel. It was surfaced with small grained coarse gravel. A large spread of stones located close to the road was excavated and is interpreted as a stockpile for road builders or menders. A shallow pit and a nearby mound of upcast was also discovered. The pit contained a large in situ boulder and is interpreted as a quarry pit for the road.
PROPOSED FUTURE WORK:	Post-excavation analysis
CAPTION(S) FOR ILLUSTRS:	N/A
SPONSOR OR FUNDING BODY:	Scottish Power EnergyNetworks
ADDRESS OF MAIN CONTRIBUTOR:	The Old Engine House, Eskmills Park, Musselburgh, EH21 7PQ
EMAIL ADDRESS:	cfa@cfa-archaeology.co.uk
ARCHIVE LOCATION (intended/deposited)	National Monuments Record of Scotland /WoSAS Sites and Monuments Record







IFA-registered archaeological organisation

Route of Roman Road

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Fig. No:	Revision:
1	0

Title:
Site location

Project:
Clyde Wind Farm Cable Route

Scale:
1:10000@A3

Client:
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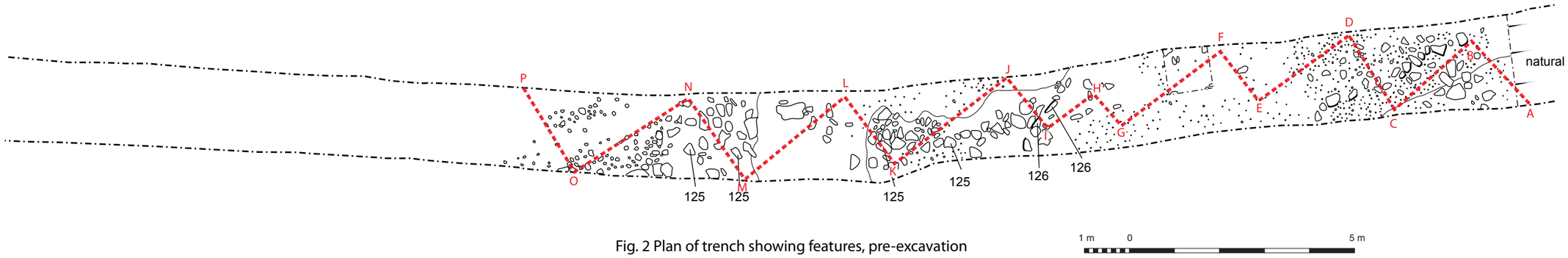


Fig. 2 Plan of trench showing features, pre-excavation

1 m 0 5 m

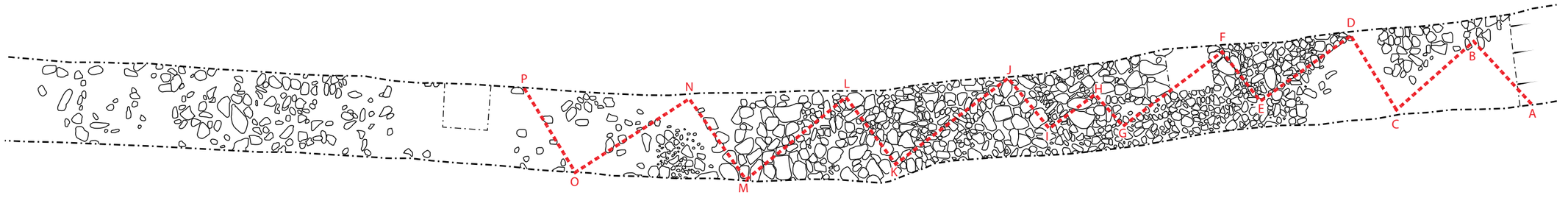
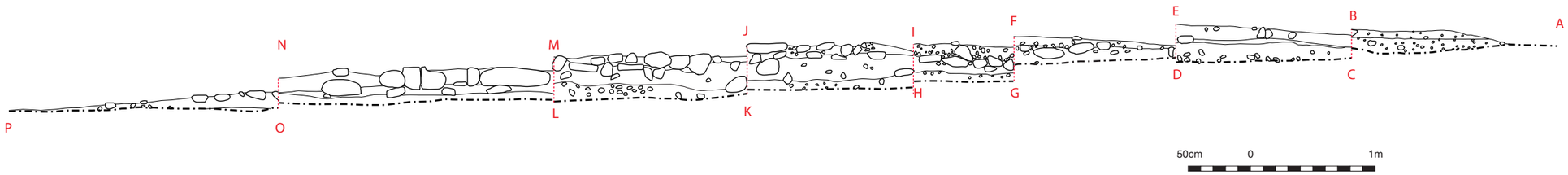


Fig. 3 Plan of Roman Road foundation layer

1 m 0 5 m



50cm 0 1m

Fig. 4 Stepped section through Roman Road

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Fig. No:	Revision:
2-4	0

Title:
Plan of trench showing features pre-excavation

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Scale:
Plan 1:100@A3
Section 1:40@A3

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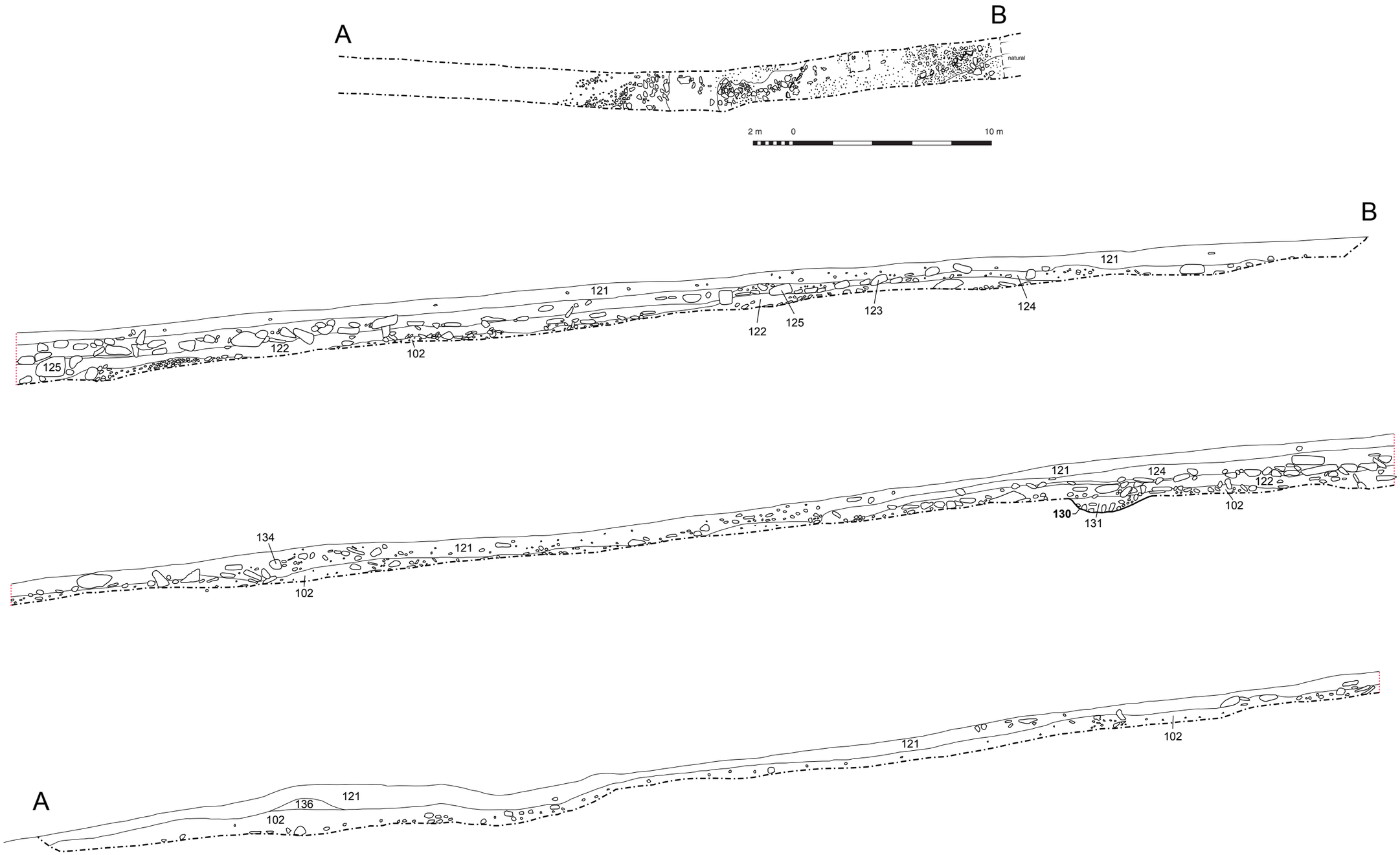

Fig. 5 South-facing section of trench

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Fig. No:	Revision:
5	0

Title:
South-facing section of trench

Project:
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Scale:
Section 1:50@A3

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Fig. 6 Overhead view of Roman road pre-excavation

Fig. 7 Overhead view of Roman road partially excavated, showing approximate alignment of road

Key:	Fig. No:	Revision: A	Client: SP Energy Networks	CFA ARCHAEOLOGY LTD The Old Engine House Eskmills Park Musselburgh East Lothian, EH21 7PQ t: 0131 273 4380 f: 0131 273 4381 e: info@cfa-archaeology.co.uk w: www.cfa-archaeology.co.uk
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	Project: Clyde Wind Farm Cable Route			
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Fig. 8 General view of stepped sections in Roman Road

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Fig. 9 Section A-B

Fig. 10 Section C-D

Fig. 11 Section E-F

Fig. 12 Section G-H

Fig. 13 Section I-J

Fig. 14 Section O-P

Key:	Fig. No: 9-14	Revision: A	Client: SP Energy Networks	CFA ARCHAEOLOGY LTD The Old Engine House Eskmills Park Musselburgh East Lothian, EH21 7PQ t: 0131 273 4380 f: 0131 273 4381 e: info@cfa-archaeology.co.uk w: www.cfa-archaeology.co.uk
	Title: Stepped transverse sections of Roman road			
Scale:	Project: Clyde Wind Farm Cable Route			Drawn by: GC / Page No: / Report No: 1807

Fig. 15 General view of stone spread (134)

Fig. 16 Oblique view of stone spread (134) sectioned

Key:	Fig. No: 15-16	Revision: A	Client: SP Energy Networks
	Title:		
	Project: Clyde Wind Farm Cable Route		
Scale:			

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Fig. 17 Section of (130)

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	Project: Clyde Wind Farm Cable Route			
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