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Glen App Windfarm Grid Connection, Ballantrae, South Ayrshire

Archaeological Watching Brief

Report No. 3463

 0131 273 4380

 0131 273 4381

 info@cfa-archaeology.co.uk

 www.cfa-archaeology.co.uk

CFA ARCHAEOLOGY LTD

The Old Engine House
Eskmills Business Park
Musselburgh
East Lothian
EH21 7PQ

Tel: 0131 273 4380
Fax: 0131 273 4381
email: info@cfa-archaeology.co.uk
web: www.cfa-archaeology.co.uk

Author	Tomasz Jenorowski MA
Illustrator	Marta Perlinska
Editor	Melanie Johnson MA PhD FSA Scot MCifA
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Grid Ref	NX 0778 7389 to NX 1811 8042

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

**Glen App Windfarm Grid Connection,
Ballantrae, South Ayrshire**

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1. INTRODUCTION

1.1 General

This report presents the results of an archaeological walkover survey and watching brief undertaken by CFA Archaeology Ltd (CFA) between September and November 2016 for works associated with a new grid connection, comprising a wood pole overhead line and underground cable between a new substation within Glen App Windfarm and the existing Arecleoch Windfarm Substation, South Ayrshire (NGR: NX 0778 7389 to NX 1811 8042) (Fig. 1). The work was commissioned by WSP Parsons Brinckerhoff (WSP | PB).

A Written Scheme of Investigation (WSI) dated 22nd September 2016 was produced by CFA and agreed by the West of Scotland Archaeology Service (WoSAS) on behalf of South Ayrshire Council.

1.2 Background

A planning application (15/01463/DEEM) under section 37 of Schedule 8 of the Electricity Act 1989 to the Scottish Ministers has been granted for the construction of a 10.8km wooden pole overhead line and 5.9km of underground cabling to connect Glen App Windfarm to the Arecleoch Substation. A programme of archaeological works was required prior to and during construction.

A walkover survey was carried out by WSP | PB (Vallance 2016), which identified a number of sites within close proximity to the route and proposed mitigation measures. Site numbering used within this report is based upon the walkover survey report and these reports should be read together.

Four upstanding archaeological features were found to be located within close proximity to the wooden pole overhead line and underground cables: an old field boundary associated with the former farmstead of Old Mark (GA1), an earth and stone bank (GA3), possible remains of a cairn (GA4) and an earth bank possibly forming an enclosure or stock pen (GA5) (Vallance 2016).

1.3 Objectives

The objectives of the programme of archaeological works were:

- To survey and record the extent of Site GA3
- To fence off sites GA1, GA4 and GA5
- To undertake a post-tree felling walkover survey between poles 46-60
- To provide a watching brief during construction work on targeted areas.

2. WORKING METHODS

2.1 General

CFA Archaeology Ltd follows the Chartered Institute for Archaeologists' Code of Conduct, Standards and Guidance for Archaeological Watching Briefs.

2.2 Post- felling Survey

The route of the wood pole overhead line, from pole number 46 to number 60, was subject to a walkover survey following tree felling and prior to construction.

Any upstanding remains were to be recorded photographically, written records completed and their locations recorded with a GPS.

2.3 Demarcation

Archaeological features GA1, GA4 and GA5 were fenced off and recorded prior to ground breaking works within close proximity to them. The sites were temporarily demarcated with bunting and the importance of the features explained to construction personnel.

2.4 Watching Brief

Topsoil was removed by a mechanical excavator equipped with a smooth-bladed bucket, under constant archaeological supervision. All further excavation required to fulfil the objectives of the WSI was carried out by hand.

The stratification of all excavated areas was recorded, whether or not significant archaeological deposits were identified.

2.5 Topographic Survey

The topographic survey of site GA3 was not required as the bank was not impacted upon by the works at pole 5.

3. ARCHAEOLOGICAL RESULTS

3.1 Post-felling Survey

The post-felling survey covered the area to be impacted upon by the construction of wood poles 46-60 (Fig. 4, Fig. 10) and found no evidence of any new upstanding archaeological remains.

3.2 Demarcation

The field boundary GA1 was surveyed and photographed during ground breaking works for the cable trench at the southern end of the route (Fig. 2, Fig. 7).

The earth bank (GA3) was situated 20 metres to the south-west of the location of Pole 5. The monument was located at a sufficient distance from the construction area as to be in no danger from damage from the development (Fig. 2, Fig. 6).

Potential archaeological features GA4 and GA5 (Fig. 5) were identified and photographed before reaching the location of Pole 103. The monuments were located at a sufficient distance from the construction site as to be in no danger from damage from the development (Fig. 8, Fig. 9).

All of the construction personnel working within proximity to the upstanding monuments were instructed not to disturb the above features.

3.3 Watching Brief

The excavation of foundations for Poles 1-6 (Fig. 2), 15-19 (Fig. 3), 64-71 (Fig. 4) and 89-115 (Fig. 5) was monitored by the attending archaeologist. All of the slots for the pole foundations measured approximately 2m long and 1m wide, with topsoil on average 0.3m deep (Fig. 12). Natural substrate varied along the route from stony brown silt to orange sandy silt. No archaeological deposits, features or artefacts were found during the excavation of the slots.

The topsoil strip at the area designated for cabling at the southern end of the route started at Pole 1. Approximately 60 metres in length and 3 metres in width of an area running south was monitored (Fig. 11). Natural substrate was angular stones and mid greyish-brown sandy silt. No archaeological deposits, features or artefacts were found during the excavation. The cable route then turned east where it joined an existing track running uphill to the proposed substation. The first part of the cable trench excavation into the track was monitored.

The cable trench was to be excavated into the middle of the existing track, which had been terraced into the steeply sloping hillside, and so natural had already been truncated by the track's construction. Initial monitoring of the cable trench demonstrated that the track deposits were disturbed made ground. It was agreed in consultation with WSP | PB that further archaeological supervision on this stage of the project was not needed.

4. CONCLUSION

The Glen App Windfarm Grid Connection consisted of a new wood pole overhead line and sections of underground cable. The archaeological work consisted of a post-felling walkover survey, demarcation of known sites and a targeted watching brief during the excavation of wood pole foundations and cable trench. None of the recorded monuments within close proximity to the poles and cable were directly affected by its construction and no new upstanding remains were found during the post-felling survey. Targeted areas of ground breaking works were observed and these produced no evidence of archaeological deposits or finds.

A summary statement of the results of this evaluation will be submitted for publication in *Discovery and Excavation in Scotland* (Appendix 3) and the project will be reported through *OASIS*.

The project archive, comprising all CFA record sheets, maps and reports, will be deposited with the National Record for the Historic Environment and copies of reports will be lodged with the South Ayrshire Council Sites and Monuments Record.

5. REFERENCES

Vallance, C 2016 *Glen App Windfarm Connection Scheme. Archaeological Walkover Survey*. WSP Parsons Brinckerhoff client report.

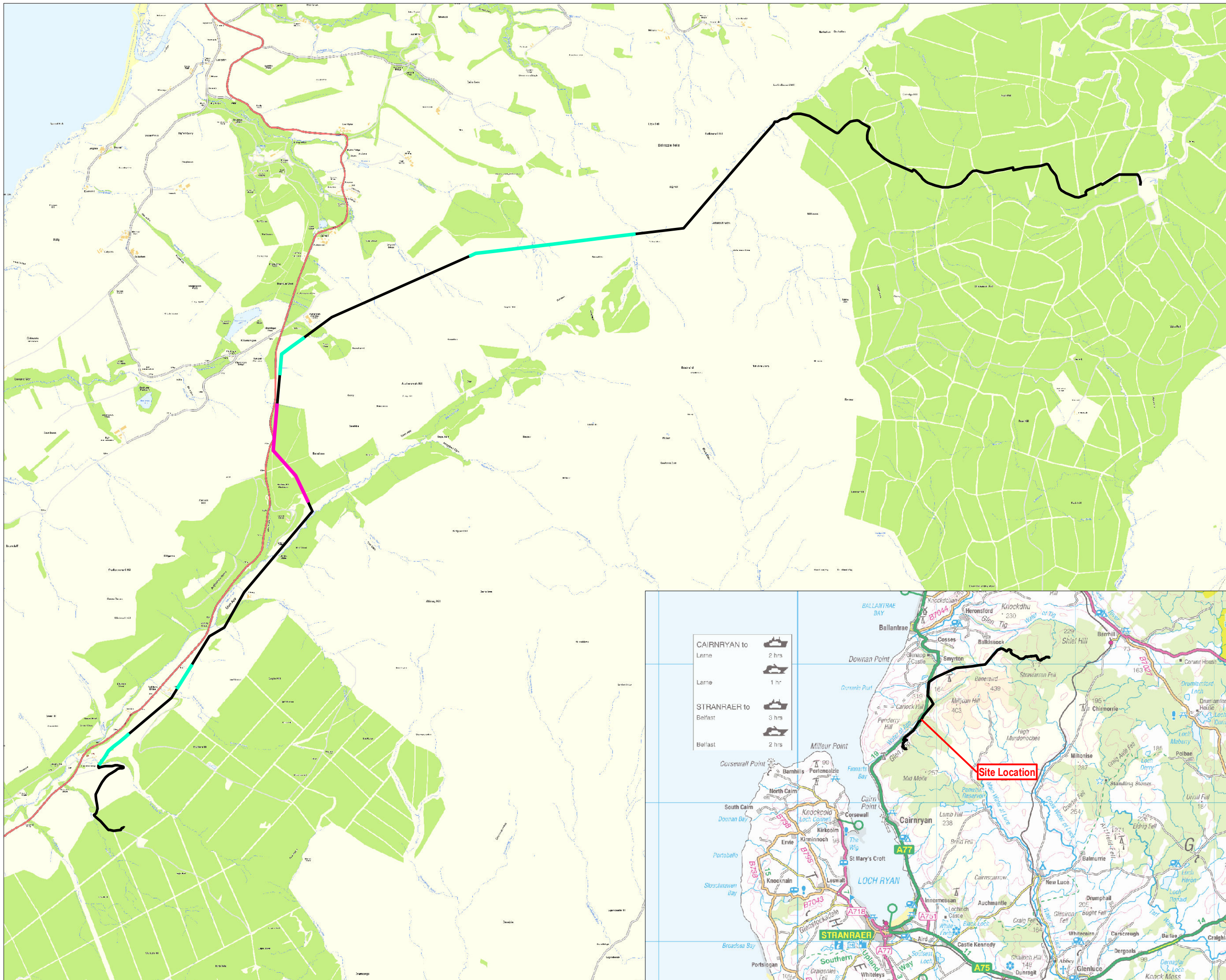
APPENDIX 1: Photographic Register

Photo number	Description	Taken from
1	View from Pole 54	S
2	View from Pole 56	S
3	View from Pole 59	S
4	View from Pole 53	NW
5	View from Pole 50	W
6	Pheasant pens and Pole 47	W
7	View of bracken and GA3	SW
8	Pole 19 excavation	NNE
9	Pole 18 excavation	NNE
10	Pole 17 excavation	NNE
11	Pole 16 excavation	NNE
12	Pole 15 excavation	W
13	Pole 7 excavation	N
14	Pole 6 excavation	E
15	Shot showing earth bank GA3	W
16	Shot showing GA3 and Pole 7 area	S
17	Pole 5 excavation	NE
18	Pole 4 excavation	NE
19	Pole 2 excavation	NE
20	Pole 3 excavation	NE
21	Pole 1 excavation	W
22	Pole 67 excavation	
23	Pole 68 excavation	
24	Pole 69 excavation	
25	Pole 71 excavation	
26	Pole 70 excavation	
27	Working shot, area designated for cabling	E
28	60m strip for cable at Pole 1	SE
29	60m strip for cable at Pole 1	SE
30	60m strip for cable at Pole 1	NW
31	Pole 89 excavation	SW
32	Pole 90 excavation	SW
33	Pole 91 excavation	SW
34	Made ground, cabling route	SW
35	Top of the hill, showing proposed cabling route	S
36	Overgrown field boundary- proposed cabling route	SE
37	Feature GA1	Various
38	Feature GA1	Various
39	Feature GA1	Various
40	Feature GA1	Various
41	Road designated for cabling GA1 on right	W
42	Working shot, cable trench dug in existing road	W
43	Pole 102 excavation	W
44	Pole 104 excavation	W
45	Pole 105 excavation	W
46	pole 106 excavation	W
47	GA4	Various
48	GA4	Various
49	GA4	Various
50	GA4	Various
51	Pole 107 excavation	W
52	Pole 108 excavation	W
53	Pole 109 excavation	W
54	Pole 110 excavation	W
55	Area of GA5, between Pole 108 and 109	SE

Photo number	Description	Taken from
56	Area of GA5, between Pole 108 and 109	N
57	Pole 112 excavation	W
58	Pole 113 excavation	W
59	pole 114 excavation	W
60	Shot from Pole 115 showing poles running west	E
61	Pole 115 excavation	E
62	Working shot, Pole 96 excavation	E
63	Working shot, Pole 96 excavation	E
64	Working shot, Pole 97 excavation	E
65	Working shot, Pole 98 excavation	E

APPENDIX 3: Discovery and Excavation in Scotland Entry

LOCAL AUTHORITY:	South Ayrshire
PROJECT TITLE/SITE NAME:	Glen App Windfarm Grid Connection
PROJECT CODE:	GAGC
PARISH:	Ballantrae
NAME OF CONTRIBUTOR:	Tomasz Jenorowski
NAME OF ORGANISATION:	CFA Archaeology Ltd
TYPE(S) OF PROJECT:	Watching Brief
NMRS NO(S):	N/A
SITE/MONUMENT TYPE(S):	N/A
SIGNIFICANT FINDS:	N/A
NGR (2 letters, 10 figures)	NX 0778 7389 to NX 1811 8042
START DATE (this season)	September 2016
END DATE (this season)	November 2016
PREVIOUS WORK (incl. DES ref.)	N/A
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	The Glen App Windfarm Grid Connection consisted of a new wood pole overhead line and sections of underground cable. The archaeological work consisted of a post-felling walkover survey, demarcation of known sites and a targeted watching brief during the excavation of wood pole foundations and cable trench. None of the recorded monuments within close proximity to the poles and cable were directly affected by its construction and no new upstanding remains were found during the post-felling survey. Targeted areas of ground breaking works were observed and these produced no evidence of archaeological deposits or finds.
PROPOSED FUTURE WORK:	N/A
CAPTION(S) FOR ILLUSTRS:	N/A
SPONSOR OR FUNDING BODY:	WSP Parsons Brinckerhoff
ADDRESS OF MAIN CONTRIBUTOR:	The Old Engine House, Eskmills Park, Musselburgh, EH21 7PQ
EMAIL ADDRESS:	cfa@cfa-archaeology.co.uk
ARCHIVE LOCATION	NRHE (archive) South Ayrshire Council HER (report)

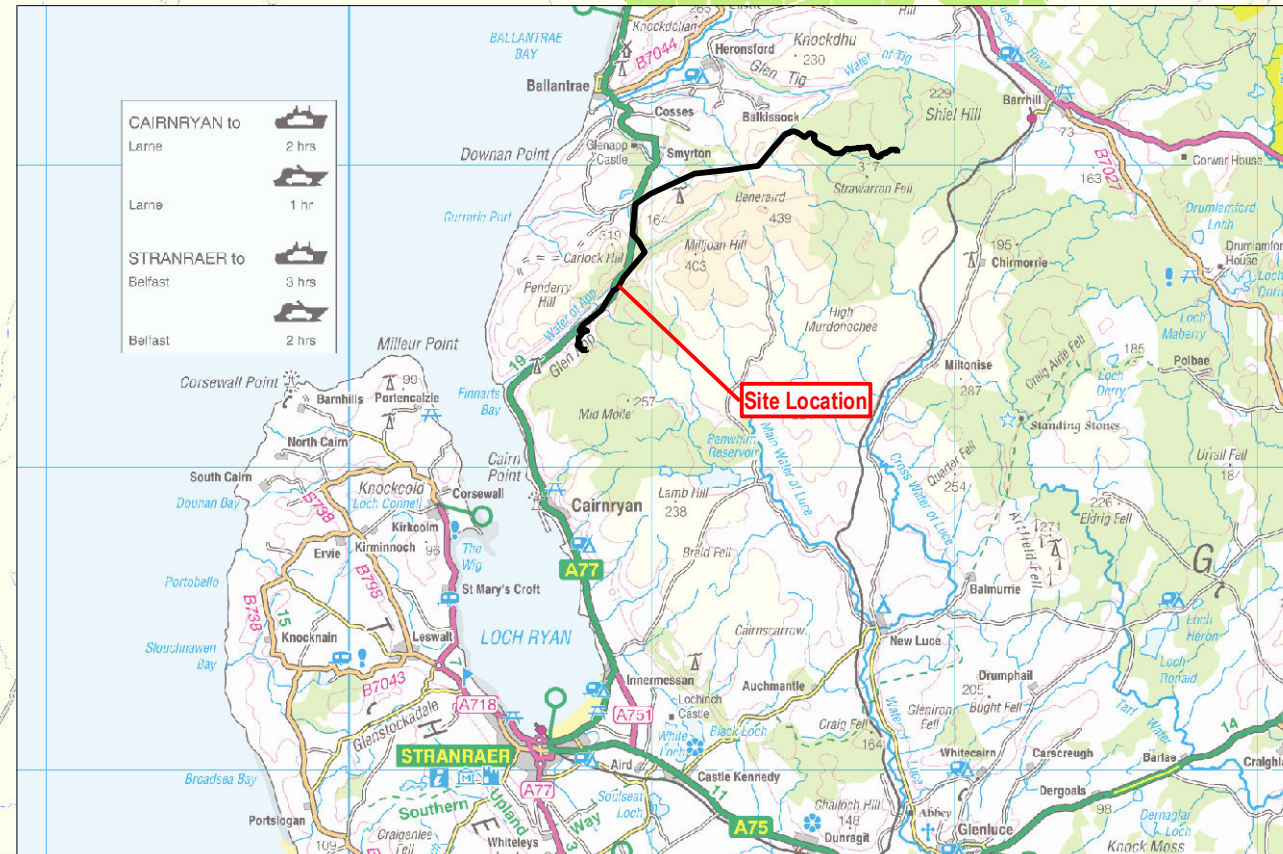


Key:

- Proposed Grid Connection
- Watching Brief Area
- Walk over survey area



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CAIRNRYAN to		2 hrs
Larne		1 hr
STRANRAER to		3 hrs
Belfast		2 hrs

CFA ARCHAEOLOGY LTD
 The Old Engine House
 Eskmills Park
 Musselburgh
 East Lothian, EH21 7PQ
 T: 0131 273 4380
 F: 0131 273 4381
 info@cfa-archaeology.co.uk
 www.cfa-archaeology.co.uk

Title:
Site Location

Project:
Glen App Grid Connection

Client:
WSPPB

Scale at A3:
1:35,000

Drawn by: MP	Checked: GC	Date: 28/11/2016
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Report No: 3463	Fig. No: 1
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Key:

- Proposed SP distribution cable 33kV
- Existing overhead line
- Proposed overhead line
- Watching Brief Area
- Cultural Heritage Site (point)
- Cultural Heritage Site (linear)



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CFA ARCHAEOLOGY LTD
The Old Engine House
Eskmills Park
Musselburgh
East Lothian, EH21 7PQ
T: 0131 273 4380
F: 0131 273 4381
info@cfa-archaeology.co.uk
www.cfa-archaeology.co.uk

Title:
Detail of site location showing poles 1-6 and cable route

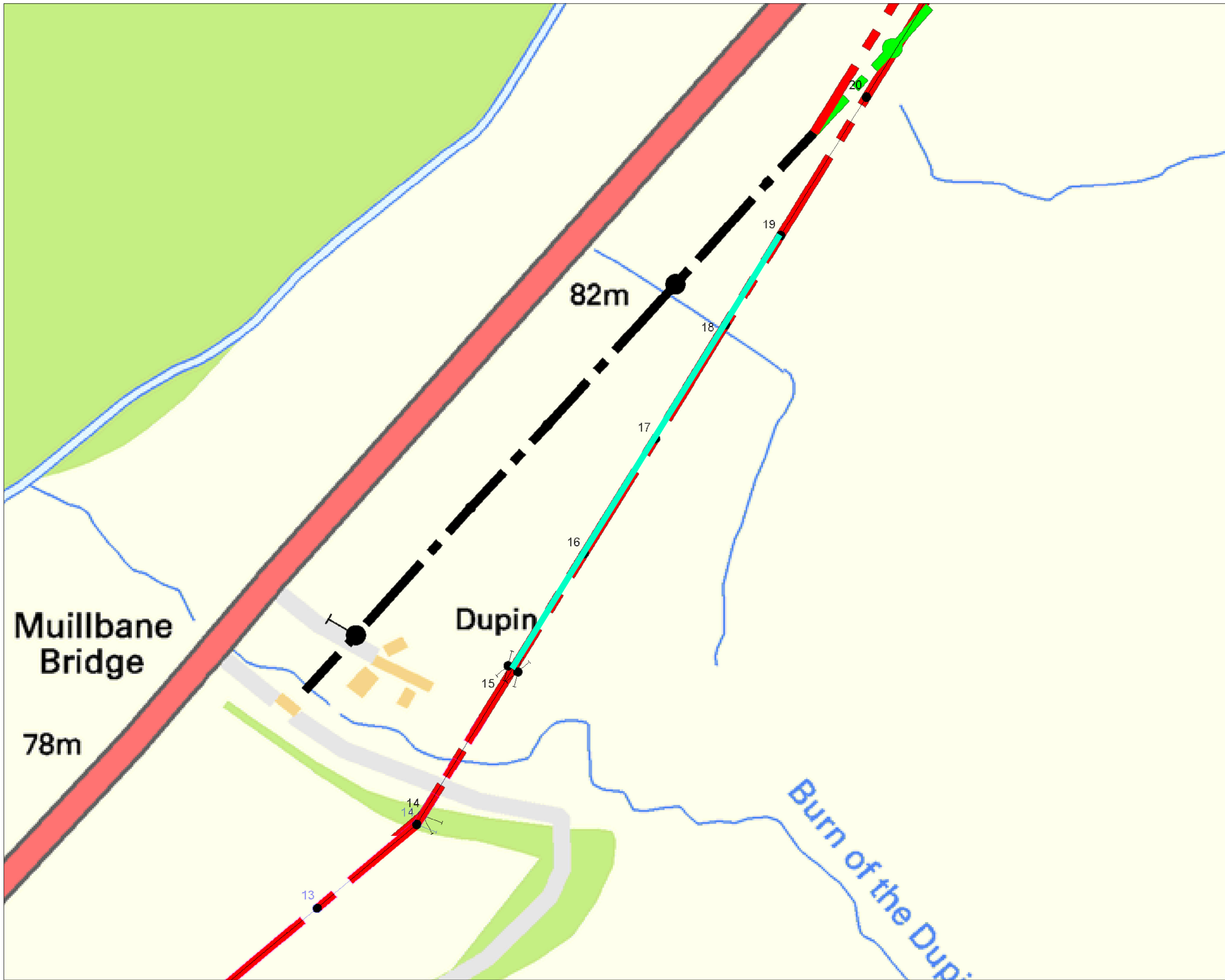
Project:
Glen App Grid Connection

Client:
WSPPB

Scale at A3:
1:6,500

Drawn by: MP	Checked: GC	Date: 01/12/2016
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Report No: 3463	Fig. No: 2
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Key:

- Proposed overhead line
- Existing overhead line T.O.O.U
- Existing overhead line
- Watching Brief Area



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 The Old Engine House
 Eskmills Park
 Musselburgh
 East Lothian, EH21 7PQ
 T: 0131 273 4380
 F: 0131 273 4381
 info@cfa-archaeology.co.uk
 www.cfa-archaeology.co.uk

Title:
Detail of site location showing poles 15-19

Project:
Glen App Grid Connection

Client:
WSPPB

Scale at A3:
1:2,000

Drawn by: MP	Checked: GC	Date: 01/12/2016
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Report No: 3463	Fig. No: 3
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Key:

- - - Proposed overhead line
- Watching Brief Area
- Walk over survey area



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 The Old Engine House
 Eskmills Park
 Musselburgh
 East Lothian, EH21 7PQ
 T: 0131 273 4380
 F: 0131 273 4381
 info@cfa-archaeology.co.uk
 www.cfa-archaeology.co.uk

Title:
Detail of site location showing poles 46-60 and 64-71

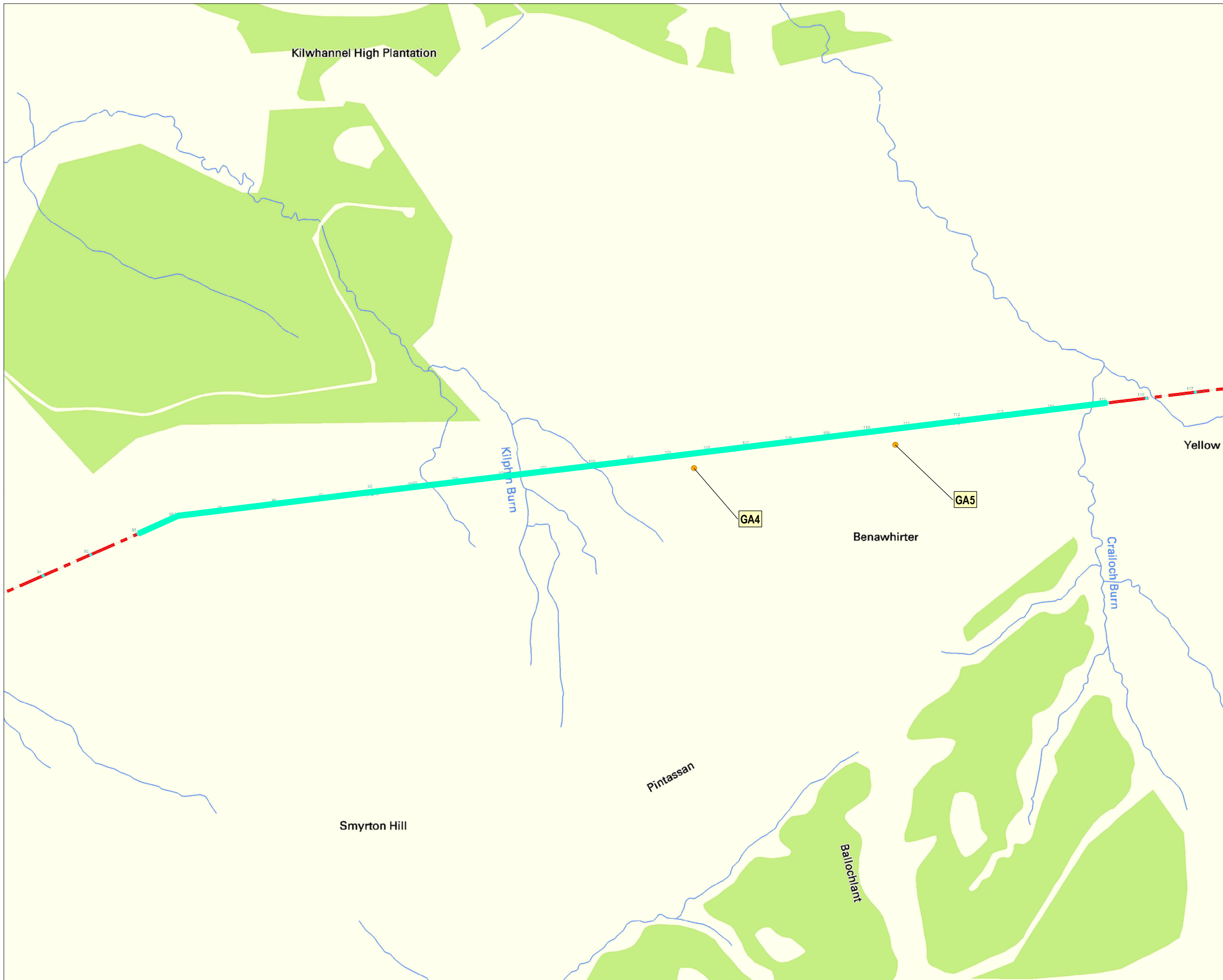
Project:
Glen App Grid Connection

Client:
WSPPB

Scale at A3:
1:7,000

Drawn by: MP	Checked: GC	Date: 01/12/2016
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Report No: 3463	Fig. No: 4
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Key:

- - - Proposed overhead line
- Watching Brief Area
- Cultural Heritage Site (point)



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CFA ARCHAEOLOGY LTD
The Old Engine House
Eskmills Park
Musselburgh
East Lothian, EH21 7PQ
T: 0131 273 4380
F: 0131 273 4381
info@cfa-archaeology.co.uk
www.cfa-archaeology.co.uk

Detail of site location showing poles 89-115

Project:
Glen App Grid Connection

Client:
WSPPB

Scale at A3:
1:6,000

Drawn by: MP	Checked: GC	Date: 01/12/2016
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Report No: 3463	Fig. No: 5
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Fig. 6 - Field boundary GA3



Fig. 7 - Field boundary GA1

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The Old Engine House
Eskmills Park
Musselburgh
East Lothian, EH21 7PQ
T: 0131 273 4380
F: 0131 273 4381
info@cfa-archaeology.co.uk
www.cfa-archaeology.co.uk

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Fig. 8 - Area showing GA4



Fig. 9 - Area between pole 108 and 109

Project:
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CFA ARCHAEOLOGY LTD
The Old Engine House
Eskmills Park
Musselburgh
East Lothian, EH21 7PQ
T: 0131 273 4380
F: 0131 273 4381
info@cfa-archaeology.co.uk
www.cfa-archaeology.co.uk

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Fig. 10 - Post-felling survey area



Fig. 11 - Area showing pole no. 1 and stripped area designated for cabling

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CFA ARCHAEOLOGY LTD
The Old Engine House
Eskmills Park
Musselburgh
East Lothian, EH21 7PQ
T: 0131 273 4380
F: 0131 273 4381
info@cfa-archaeology.co.uk
www.cfa-archaeology.co.uk

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Fig. 12 - Foundation for pole 107

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CFA ARCHAEOLOGY LTD
The Old Engine House
Eskmills Park
Musselburgh
East Lothian, EH21 7PQ
T: 0131 273 4380
F: 0131 273 4381
info@cfa-archaeology.co.uk
www.cfa-archaeology.co.uk

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