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Aberdeen Western Peripheral Route/Balmedie-Tipperty Lot 4 – Fastlink

Invasive Archaeological Investigations

Topographic Survey of Cairn FL/006

Report No. 3150



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NON-TECHNICAL SUMMARY

1. A programme of topographic survey was carried out at a cairn site (AWPR/B-T/FL/002), which lies along the Fastlink section of the Aberdeen Western Peripheral Route/Balmedie-Tipperty.
2. Two cairns, previously unrecorded, were identified during the course of the invasive works, one located at Fishermyle and the other located near Stranog Hill.
3. It was decided in agreement with Historic Scotland and Jacobs that the mitigation measures relating to the two cairns should take the form of a topographic survey, followed by hand excavation.
4. The aim of the topographic survey was to provide a complete record and interpretation of the upstanding features, undertaken to English Heritage Level 2 (2007), consisting of a written description and a metrically accurate interpretative site plan supplemented by a photographic record.
5. The subject of this report is the topographic survey of the cairn known as site AWPR/B-T/FL/006, located at Stranog Hill (NGR: NO 87012 96942).
6. Recommendations are made for additional hand excavation of the cairn prior to construction works, to establish the cairn's form and date.

1. INTRODUCTION

1.1 General

- 1.1.1 This report presents the results of a topographic survey undertaken by CFA Archaeology Ltd (CFA) in March 2014 for the Fastlink section (Lot 4) of the Aberdeen Western Peripheral Route/Balmedie-Tipperty (AWPR/B-T).
- 1.1.2 The cairn surveyed is known as site AWPR/B-T/FL/006, and is located at Stranog Hill (NGR: NO 87012 96942; Fig. 1).
- 1.1.3 The employer for this project was Aberdeen City Council and overall responsibility for its delivery lies with the AWPR/B-T Managing Agent. Jacobs UK Ltd was appointed as the consultants, CFA Archaeology Ltd was the Contractor for this part of the programme of works, and the curator was Historic Scotland.

1.2 Background

- 1.2.1 The Aberdeen Western Peripheral Route/Balmedie-Tipperty is being developed by Transport Scotland in partnership with Aberdeen City and Aberdeenshire Councils. These two projects were individually identified as proposed transport interventions within the Modern Transport System (www.aberdeencity.gov.uk/transport_streets/roads_pavements/transport_projects/roa_wrp_mts.asp) and developed separately through the statutory process. In November 2010 the Scottish Government confirmed its intention to procure both projects under a single Non Profit Distributing contract.
- 1.2.2 The two major improvements to the trunk-road network are close to each other and together will provide significant benefits to the north-east of Scotland by reducing journey times and cutting congestion within Aberdeen City. They comprise four sections: a Northern Leg from North Kingswells to Blackdog; a Southern Leg from Charleston to North Kingswells; a Fastlink from Stonehaven to Cleanhill Junction; and the Balmedie to Tipperty improvements. The work undertaken during the construction of these four sections will consist of 34.6km of wholly new dual carriageway around the outskirts of Aberdeen along with an 11.5km Fastlink running from the A90 at Stonehaven and joining the AWPR/B-T near to Maryculter. An additional 9km of new dual carriageway will also be constructed during the Balmedie to Tipperty part of the project along with 3km of on-line improvements.

1.3 Archaeological Background

- 1.3.1 During the course of the invasive works, two large upstanding cairns were identified which were not recorded in the Environmental Statement (Jacobs 2007). These were discussed in brief in the intrusive investigations trial trenching report (Kirby 2014).

1.3.2 The two cairns are identified and located as follows:

AWPR/B-T/FL/002 Cairn (near Fishermyre NO 870 903)

AWPR/B-T/FL/006 Cairn (near Stranog Hill NO 870 969)

1.3.3 It was decided in agreement with Historic Scotland and Jacobs that the mitigation measures relating to the two cairns should take the form of a topographic survey, followed by hand excavation.

1.3.4 The cairn at Stranog Hill, named as site AWPR/B-T/FL/006, is the subject of this report.

1.4 Aims

1.4.1 The aim of the topographic survey was to provide a complete record and interpretation of the upstanding features, undertaken to English Heritage Level 2 (2007), consisting of a written description and a metrically accurate interpretative site plan supplemented by a photographic record.

2. METHODOLOGY

2.1 General

- 2.1.1 All work was carried out in accordance with the Specification (Schedule 1) contained within ITT Vol.2 (Aberdeen City Council 2013) which set out the framework for the methodologies/requirements of this programme of invasive archaeological works.
- 2.1.2 Topographic survey met the English Heritage Level 2 standard (English Heritage 2007) and guidance contained within the RCAHMS's Survey and Recording Policy (RCAHMS 2004).
- 2.1.3 CFA Archaeology Ltd follows the Institute for Archaeologists' Code of Conduct, Standards and Guidance for Archaeological Fieldwork.
- 2.1.4 A terrestrial photographic condition survey was undertaken prior to and immediately after the investigation. All equipment and footwear was cleaned and disinfected prior to entry on to any areas of land.

2.2 Surveying

- 2.2.1 The survey work was carried out at the location shown on Fig 2, based on maps provided by Jacobs and covering an area measuring 40m by 25m. The survey was carried out and tied in with the Ordnance Survey National Grid and Ordnance datum using a GPS with a survey-grade accuracy of $\pm 10\text{mm}$.
- 2.2.2 Precision topographic mapping was achieved through the use of GNSS/GPS systems. The survey achieved real-time GNSS/GPS positioning accurate to 0.01m horizontal and 0.02m vertical, through the use of a Trimble R6 GNSS system with a TSC3 controller running Trimble Access surveying software. This equipment provides centimetre-accurate RTK corrections using the Trimble VRS Now RTK GNSS service to plot / stake-out features etc within Access.
- 2.2.3 Data collection and survey control was integrated with the overall plans for the invasive investigations.
- 2.2.4 A written descriptive and interpretative account of the site, accompanied by hand drawn sketch plans, was made on pro forma recording sheets. The field record included:
 - 1. The location of the site
 - 2. The name of the compiler, the date of the investigation and reason(s) for the survey, and details of site ownership and present land use
 - 3. A summary of the salient features
 - 4. A concise description of the site, including information on plan, form, dimensions and area, function, age, developmental sequence and past land use
 - 5. Consideration of the topographical setting of the monument and its relationship to other sites and landscapes and to historic buildings in the

vicinity.

- 2.2.5 A photographic record was made of the site and its surroundings, including landscape setting as well as detailed images of individual features. Photography was undertaken using a digital camera with a minimum resolution of ten Megapixels, and RAW files were generated. A record was kept of the subject, orientation, date and any other relevant information (Appendix 1).
- 2.2.6 Survey data was exported from Trimble Access on the TSC3 controller to dxf format, retaining individual point feature codes and associated attributes, and processed in AutoCAD 2013. Model space in CAD was in metres at 1:1 and standard CFA layers and feature codes were used.

2.3 Archiving

- 2.3.1 The project archive, comprising all CFA record sheets, plans and reports, will be deposited at the RCAHMS and will conform to current guidelines in MoRPHE (English Heritage 2006). The deposition of paper and digital archives with RCAHMS will comply with their current requirements (RCAHMS 1996a, 1996b) and with the Archaeological Archives Forum (Brown 2007) and ADS guidelines for digital archives (Richards and Robinson 2001).
- 2.3.2 A summary statement of the results of this survey will be submitted for publication in *Discovery and Excavation in Scotland* once all archaeological works are completed. An *OASIS Scotland* entry will be completed.

3. TOPOGRAPHIC SURVEY

3.1 General

- 3.1.1 The cairn site (Fig. 1) was located to the south-east of Greens of Crynoch and to the north-east of Stranog Hill. The land use was unimproved, open moorland with some gorse, on a gentle north-facing slope at about 135m above Ordnance Datum (AOD). The cairn itself was located on a relatively flat natural terrace.
- 3.1.2 A ditched watercourse curved around the north-western, western and southern sides of the cairn and an overhead cable lay to the north.

3.2 Description

- 3.2.1 The cairn was roughly oval in plan, measuring 29m in maximum length and 16m in maximum width, and up to 1.9m in height. The long axis of the cairn was E-W (Fig. 2).
- 3.2.2 The cairn was heavily grass-covered with occasional sub-angular stones protruding of approximately 1-2m in diameter (Fig. 3-6).
- 3.2.3 The overall topography of the cairn indicates two peaks; a larger peak on the east and a smaller peak on the west. The ground slopes away more steeply to the north, resulting in the cairn appearing much higher from that side.
- 3.2.4 Part of the western end of the cairn, measuring 11m by 8.5m, was covered in gorse (Fig. 2).

3.3 Limitations and constraints

- 3.3.1 The cairn was covered in turf but visibility was good and its form was easily discerned. Long grass and gorse formed the ground cover around the cairn. Gorse obscured the western end of the cairn. An overhead power line lay to the north, the buffer zone for which includes the northernmost part of the cairn. The cairn lay entirely within the Land Made Available (LMA).

3.4 Interpretation

- 3.4.1 The feature is most likely to be a field clearance cairn. The presence of protruding stones, visible within the turf-covered cairn, confirm that it is composed of stone. There was no indication of any structural elements such as walls or kerbs or chambers. The heavily turfed nature of the stones indicates that the cairn is not of recent date and is likely to have been formed in the post-medieval period up to the 20th century.
- 3.4.2 The Ordnance Survey historical mapping shows the general area as being open moorland. The cairn is not recorded on the 25 inch editions dating to 1868 and 1903. The watercourse to the west and south of the cairn is also not shown,

and is known to be of 20th century date. It remains possible that the cairn is the product of material excavated out to form this ditch.

- 3.4.3 The Scheduled Monument (SM no. 4658) known as East Crossley, field systems and cairns 600m NW of, lies to the south-east of AWPR/B-T/FL/006. There are at least five sinuous field banks and over eighty clearance cairns scattered over an area of 3ha, representing field systems of at least two periods; the cairns vary between 1m and 5m in diameter, the larger ones measuring up to 0.6m in height. The Scheduled Monument includes a hut circle measuring 10.5m across, and what may be a boat shaped house in a boggy area at the SE end of the field system, measuring up to 12m in length. However, it is considered unlikely that this cairn forms part of this prehistoric monument.

4. CONCLUSIONS

- 4.1 A programme of topographic survey was carried out in advance of the construction of the Fastlink section (Lot 4) of the Aberdeen Western Peripheral Route/Balmedie-Tipperty. The surveyed site was AWPR/B-T/FL/006, a cairn located at Stranog Hill (NGR: NO 87012 96942).
- 4.2 The cairn was found to be roughly oval in plan, measuring 29m in total length by 16m in width. Protruding stones were visible within the turf-covered cairn, confirming that it is composed of stone.
- 4.3 It is considered most likely that the cairn is derived from field clearance or from the excavation of a ditch around the west and south sides of the cairn.

5. RECOMMENDATIONS FOR FURTHER WORK

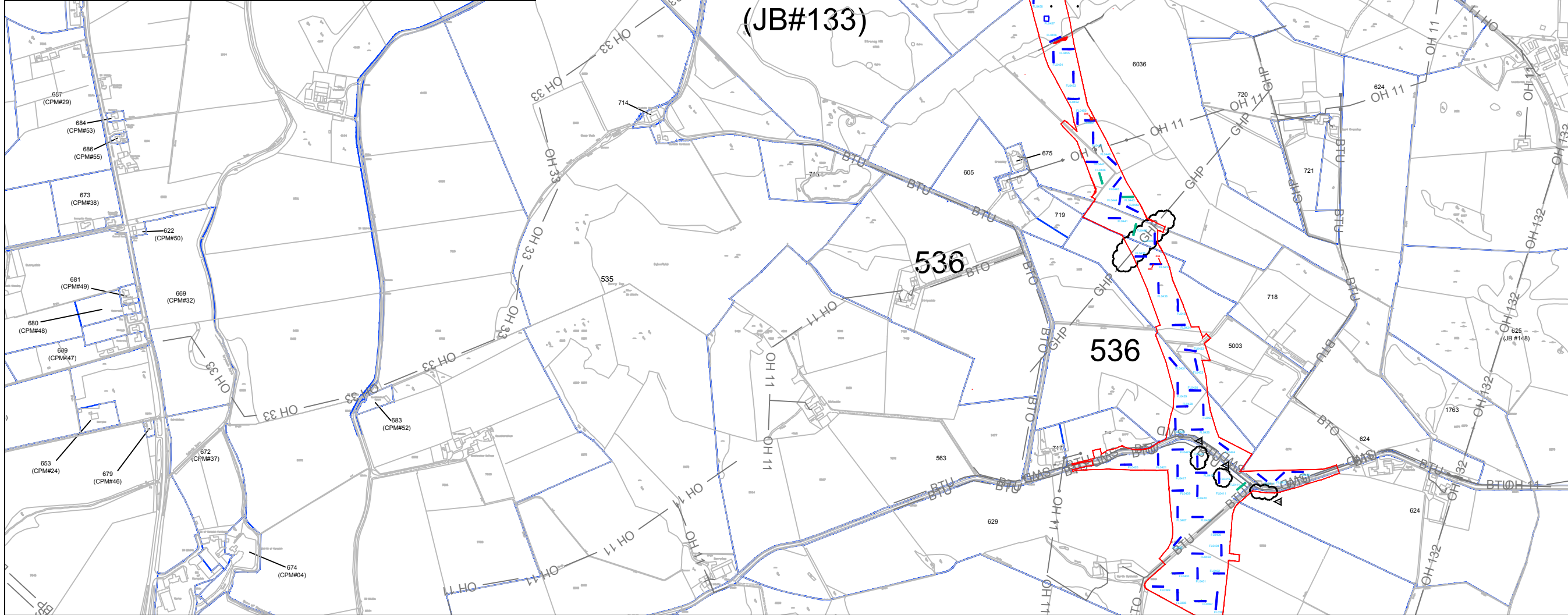
- 5.1 The excavation of a single quadrant on the south-east side of the cairn down to natural, measuring no more than 14m in length and 8m in width, would be sufficient to establish the construction of the cairn and the presence of any deposits or features preserved either beneath it or within it. Due to the large size of some of the stones noted, it may be more appropriate to excavate this quadrant by machine rather than by hand.


6. REFERENCES

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- RCAHMS 2004 *Survey and Recording Policy*.
- Richards, J and Robinson, D 2001 *Digital Archives from Excavation and Fieldwork: Guide to Good Practice*, Archaeology Data Service.







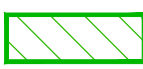

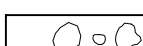

APPENDIX 1: Digital Photograph Register


Shot No.	Summary description of subject	Taken from	Conditions
18	FL/006 - View of cairn	E	Overcast
19	FL/006 - View of cairn	E	Overcast
20	FL/006 - View of cairn	S	Overcast
21	FL/006 - View of cairn	SSE	Overcast
22	FL/006 - View of cairn	SW	Overcast
23	FL/006 - View of cairn	W	Overcast
24	FL/006 - View of cairn	N	Overcast
25	FL/006 - View of cairn	N	Overcast
26	FL/006 - View of cairn	NNE	Overcast
27	FL/006 - View of cairn	NNE	Overcast
28	FL/006 - View of cairn	E	Overcast
29-35	FL/006 - Panorama from top of cairn	N-S-E-W	Overcast
36	FL/006 - View of cairn	SE	Overcast
37	FL/006 - View of cairn	SE	Overcast
38	FL/006 - View of cairn	SW	Overcast
39	FL/006 - View of cairn	NW	Overcast
40	FL/006 - View of cairn	SE	Overcast





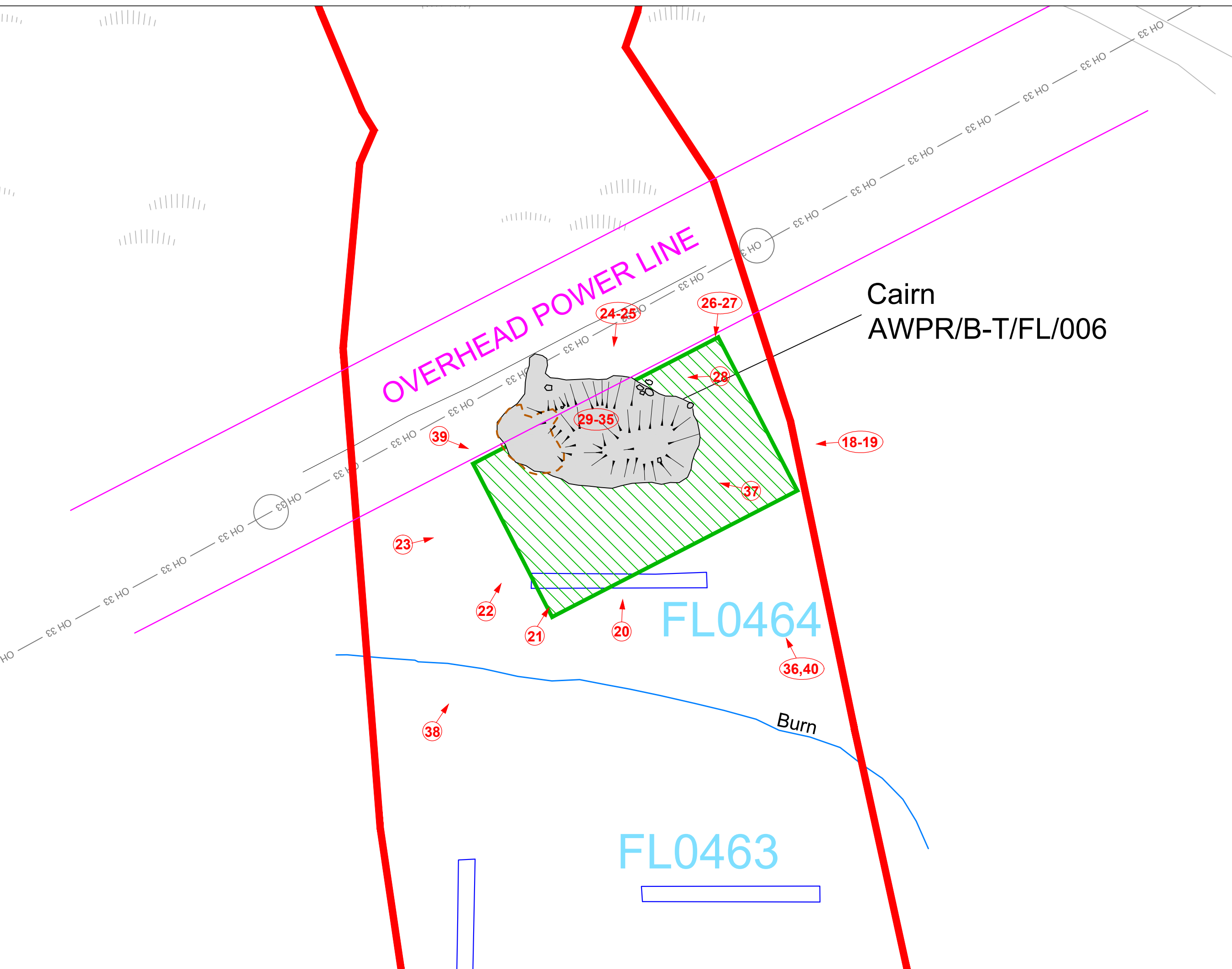
Key:

-  Evaluation Trenches
-  Archaeological Features
-  Rig and Furrow
-  Field Drains
-  CPO
-  Plot Boundaries
-  Areas for vegetation clearance and topographic survey
-  Extent of Cairn
-  Stones
-  Gorse



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Fig. No: 1	Revision: A
Title: Location Map Topographic survey of Cairn AWPR/B-T/FL/006	
Project: Aberdeen Western Peripheral Route/Balmedie -Tipperty Lot 4 - Fastlink Stonehaven to Cleanhill Junction Aberdeenshire Invasive Archaeological Investigations	
Client: Aberdeen City Council	
Scale at A3: 1:10,000	
Drawn by: KH	Checked: MJ
Report No: 3150	



- Key:
- Evaluation Trenches
 - Archaeological Features
 - Rig and Furrow
 - Field Drains
 - CPO
 - Plot Boundaries
 - Areas for vegetation clearance and topographic survey
 - Extent of Cairn
 - Stones
 - Gorse
 - Photo direction

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Fig. No: 2 Revision: A

Title:
 Topographic survey of Cairn
 AWPR/B-T/FL/006

Project:
 Aberdeen Western Peripheral
 Route/Balmedie -Tipperty
 Lot 4 - Fastlink Stonehaven to
 Cleanhill Junction Aberdeenshire
 Invasive Archaeological Investigations

Client:
 Aberdeen City Council

Scale at A3:
 1:500



Drawn by: KH Checked: MJ Report No: 3150



Fig. 3 - View of FL/006 from East



Fig. 4 - View of FL/006 from West

Fig. No: 3-4		Revision: A	Project: Aberdeen Western Peripheral route, Balmedie-Tipperty, Invasive Archaeological Investigations, Lot 4 (Fastlink), Topographic Survey of Cairn FL/006			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
Drawn by: LW	Checked: LW	Report No: 3150	Client: Aberdeen City Council			

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Fig. 5 - View of FL/006 from North



Fig. 6. - Detail view of FL/006 from East

Fig. No: 5-6		Revision: A	Project: Aberdeen Western Peripheral route, Balmedie-Tipperty, Invasive Archaeological Investigations, Lot 4 (Fastlink), Topographic Survey of Cairn FL/006			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
Drawn by: LW	Checked: LW	Report No: 3150	Client: Aberdeen City Council			
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