

Historic Building Recording

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Geophysical Survey



Aberdeen Western Peripheral Route/Balmedie-Tipperty Lot 4 - Fastlink **Invasive Archaeological Investigations**

Mitigation Excavation

AWPR/B-T/FL/002

Report No. 3186

















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NON-TECHNICAL SUMMARY

As part of a programme of mitigation investigations along the Fastlink section of the Aberdeen Western Peripheral Route/Balmedie-Tipperty (AWPR/B-T) the south-west quadrant of a possible cairn at Fishermyre, site AWPR/B-T/FL/002, was excavated. The quadrant was excavated to a maximum depth of 0.6m at which point it became evident the mound was not archaeological in origin and the excavation was halted.

1. INTRODUCTION

1.1 General

- 1.1.1 This report presents the results of mitigation excavations undertaken by CFA Archaeology Ltd (CFA) in May 2014 at site AWPR/B-T/FL/002 (abbreviated to FL/002 in this report) for the Fastlink section (Lot 4) of the Aberdeen Western Peripheral Route/Balmedie-Tipperty (AWPR/B-T).
- 1.1.2 The possible cairn FL/002 was located at Fishermyre (NGR: NO 87022 90309; 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 Previous archaeological work was undertaken in 2012 and consisted of a programme of non-invasive archaeological investigations comprising a desk-based assessment, topographic surveys, photographic surveys, palaeoenvironmental assessment, geophysical surveys, field walking, metal detecting and building recording. These were carried out in areas with suitable ground conditions within the Land Made Available (LMA) for the AWPR/B-T

- project. The general aim of these archaeological investigations was to identify the extent and character of known and unknown archaeological remains in order to enable a programme of further archaeological evaluation and mitigation to be designed.
- 1.3.2 Chapter 43 (Part D: Fastlink) of the Environmental Statement (ES) (Jacobs 2007) undertaken for the project identified 43 cultural heritage sites within a study area extending c.250m either side of the centreline of the road alignment. Sites of potentially early prehistoric date included Cantlayhills Cairn (Site 28) and Kempstone Hill Complex (Site 491). Both of these sites lie within close proximity of Site FL/002.
- 1.3.3 Cantlayhills Cairn is a large cairn approximately 1000m east of the site Fl/002 which is surrounded by a number of cairnfields. The Aberdeenshire Sites and Monuments record (SMR) states that this site was partially excavated in 1880 and probably dates to the Neolithic Period. The Kempstone Hill Complex consists of a field system, two cairns and a standing stone which possibly date to the Bronze Age.
- 1.3.4 Later prehistoric sites were similarly few in number. A leaf shaped Bronze Age sword was discovered during drainage work at the Moss of Cowie, c.350m south-south-west of site FL/002. A small field system containing two hut-circles is located approximately 1.3km to the west-south-west of site FL/002, on the northern and western flanks of White Hill.
- 1.3.5 Few sites dating to the medieval period were found to be present within the study area. The only site thought to have its origins in the medieval period is the original village of Cowie which was located on Megray Hill, 2.6km south of site FL/002. The village was destroyed by the Marquis of Montrose in 1645 and subsequently rebuilt on the coastal site at the mouth of the Cowie Water.
- 1.3.6 The majority of the post-medieval and modern sites within the vicinity of site FL/002 relate to the 18th/19th century agricultural improvements and consist of farmsteads, clearance cairns, consumption dykes and field systems. These improvements saw the creation of larger enclosed fields which dominate the surrounding landscape.
- 1.3.7 Topographic surveys were carried out in November 2012 (Headland Archaeology 2012c) at Howieshill Farmstead (Site 32), Burnhead Cairns (Site 121) and Crossley Cairn (Site 506). A further survey should have been carried out in relation to the Scottish North Eastern Railway (Site 257), but this was postponed due to health and safety reasons.
- 1.3.8 The geophysical survey carried out in December 2012 (Headland Archaeology 2012a) identified several anomalies, notably those in close proximity to the former village of Cowie (Site 490). Thirty-five trenches excavated as part of the invasive archaeological investigations were positioned to target these anomalies.

- 1.3.9 A palaeoenvironmental survey carried out in October 2012 (Headland Archaeology 2012b) identified areas of peat within Red Moss Wetland (Site 67) and Backburn Moss Wetland (Site 119). The earlier find of a Late Bronze Age sword reportedly from the base of the peats at Red Moss indicates peat formation in this area may be relatively late, beginning in the Late Bronze Age. However, the initial estimate for peat formation in Aberdeenshire is 10,600–9800 cal BP (Tipping 2007) possibly suggesting that the depth at which the sword was recovered was not accurately recorded. This early date for peat formation was supported by palaeoenvironmental sampling and analysis carried out by CFA at Backburn Moss Wetland as part of this programme of works. The report on this has been produced under separate cover (Cressey and McCulloch 2013).
- 1.3.10 A programme of intrusive trial trenching was undertaken by CFA in 2013 within Lot 4 (Fastlink) of the Aberdeen Western Peripheral Route (Kirby 2014). Crossley Cairn lay within the road corridor and was excavated as part of this programme of works.
- 1.3.11 Four sites were revealed by the trial trenching, including: two areas of pits and linear features (trenches FL0034 and FL0242); a possible alignment of shallow pits (trench FL0381); and a stone spread or surface (trench FL0328) which was situated on the site of a farmstead annotated 'Broomhill' on the First Edition Ordnance Survey map (1868). A sherd of prehistoric pottery was recovered from one of the areas of pits and linear features, but lithics from the other area of pits and linear features proved undiagnostic, and there was no secure dating evidence from the pit alignment.
- 1.3.12 Following the trial trenching, nine sites were identified for further mitigation works. These consisted of four sites identified during trial trenching (FL/001, FL003B, FL/004, FL/005), two cairns identified as upstanding features (FL/002, FL/006), and an additional three areas identified by Jacobs following the trial trenching programme (FL/003A, FL/007, FL/008).
- 1.3.13 It was agreed with the Consultant, and with the approval of Historic Scotland, that the mitigation measures relating to the two cairns, one located at Fishermyre and the other located near Stranog Hill, would take the form of a topographic survey, followed by hand excavation of a quadrant of the possible cairns. The results of the topographic surveys of FL/002 and FL/006 are covered in separate reports (See Mitchell 2014a and 2014b; see Figure 2).
- 1.3.14 It was agreed with the Consultant, and with the approval of Historic Scotland, that the mitigation measures relating to the other sites identified during the trial trenching should take the form of a strip and map, with hand excavation of any features revealed subject to further agreement. These are reported under separate cover.

1.3.15 The areas which required further mitigation work are summarised below.

Mitigation site ref	Trench Number	Description
AWPR/B-T/FL/001	FL0034/FL0034a	Pit and curvilinear feature
AWPR/B-T/FL/002	N/A	Cairn (near Fishermyre NO 870
		903)
AWPR/B-T/FL/003A	N/A	Historical map evidence for earlier
		settlement.
AWPR/B-T/FL/003B	FL0328	Stone surface (Broomhill Farm)
AWPR/B-T/FL/004	FL0242/FL0242a	Pit/linear feature. Prehistoric
		pottery
AWPR/B-T/FL/005	FL0381	Pit alignment
AWPR/B-T/FL/006	N/A	Cairn (near Stranog Hill NO 870
		969)
AWPR/B-T/FL/007	N/A	Historical map evidence for earlier
		settlement
AWPR/B-T/FL/008	N/A	Historical map evidence for earlier
		settlement

Sites requiring further mitigation

1.3.16 This report covers the programme of mitigation excavation for trench FL/002, as agreed with the Consultant and set out in the topographic survey report (Mitchell 2014a). This consisted of excavating the south-west quadrant of the cairn. However, during the course of the excavation it became evident the mound was natural. After consultation with the Consultant it was decided that sufficient excavation had been carried out to illustrate the mound was natural and not a cairn as previously thought.

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 mitigation excavation
- 2.1.2 CFA Archaeology Ltd follows the Institute for Archaeologists' Code of Conduct, Standards and Guidance for Archaeological Fieldwork.
- 2.1.3 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. An Ecological Clerk of Works conducted walkover surveys prior to any work commencing and consulted regularly to ensure that any ecological matters were dealt with promptly and correctly.

2.2 Surveying

- 2.2.1 The excavation was carried out at the location shown on Fig. 1. The location was accurately surveyed as excavated and tied in with the Ordnance Survey National Grid and Ordnance Datum using a GPS with a survey grade accuracy of ±10mm. Any alteration to the pre-agreed trench layout was carried out with the prior agreement of the Consultant.
- 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 0.03m 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 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 Hand Excavation and Recording

2.3.1 All of the excavation work was undertaken by hand. No archaeologically significant features or deposits were identified. However, the stratification of the excavated area was recorded and contexts were recorded.

- 2.3.2 Photographic records in digital form were taken of the trench using a camera with a minimum resolution of ten megapixels. The excavated area was surveyed using a GPS with a survey survey-grade accuracy of ± 10 m (horizontal)/ ± 30 mm (vertical).
- 2.3.3 The excavation trench was backfilled by hand at the end of the excavation.

2.4 Archiving

- 2.4.1 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), ADS guidelines for digital archives (Richards and Robinson 2001), and the IfA's 'Standard and Guidance for the collection, documentation, conservation and research of archaeological materials' (IfA 2013).
- 2.4.2 A summary statement of the results of this excavation will be submitted for publication in *Discovery and Excavation in Scotland* once all archaeological works are completed (Appendix 3). An *OASIS Scotland* entry will be completed.

3. ARCHAEOLOGICAL RESULTS

3.1 General

- 3.1.1 Numbers in bold refer to contexts, a full list of which is contained in Appendix 2.
- 3.1.2 The potential cairn site (Fig. 1) was located to the east of the public road running between Fishermyre and Hill of Muchalls, and to the south of the access road to Wyndford Farm. The land use was unimproved, open marshy moorland with some gorse, with roughly level topography at about 110m above Ordnance Datum (AOD).
- 3.1.3 The mound was roughly oval in plan, measuring 33m in maximum length and 13.5m in maximum width, and up to 1.4m in height (Fig.3). The long axis was NW-SE. It was heavily grass-covered with occasional rounded to sub-rounded protruding stones of approximately 0.3-0.5m in diameter.
- 3.1.4 The overall topography of the mound was relatively uniform, with no sharp breaks in slope angle. The main body measured 21m in length, with a more shallowly sloping 'tail' extending a further 12m to the south-east which lay outside of the Land Made Available (LMA). The south-eastern end was covered in gorse

3.2 Archaeological Results

- 3.2.1 It was agreed with the Consultant that excavation of the south-western quadrant of the possible cairn would be sufficient to establish the construction methods and the presence of any deposits or features preserved either beneath it or within it. The trench was intended to measure 15m by 8m at maximum (Fig. 3).
- 3.2.2 During the course of the excavation it became evident that the body of the possible cairn was not composed of stone. Therefore, a reduced area measuring 7.5m by 6m was excavated down to natural, to a maximum depth of 0.6m, to establish the composition and nature of the feature.
- 3.2.3 The deposits consisted of between 0.1m and 0.2m of mid-dark brown fine sandy topsoil (001) overlying an orange/red silty sand (002). Underlying (002) was orange/grey silty sand (003) (Fig. 4), which is the natural substrate. Occasional boulders were present, both embedded within the natural and within deposits 001 and 002, protruding through the turf. These boulders did not form any structures.
- 3.2.4 The mound had been affected in places by relict badger burrowing activities, which can be seen at the base of the trench in front of the south-west-facing section on Fig. 4, and which likely accounts for the deeper profile encountered at this location before natural was reached. The soil profile had also undergone some bioturbation as a result of gorse roots.

- 3.2.5 This trench illustrated that the feature was neither a burial cairn nor a clearance cairn, but nevertheless may have been anthropogenic in origin, composed of natural deposits but formed into a mound through human agency in recent times and which had subsequently been affected by badger burrowing. A possible explanation is the mound was the result of modern dredging activities carried out on the nearby watercourse (Fig. 3). After consultation with the Consultant it was agreed that no further excavation was required.
- 3.2.6 No finds were recovered and no soil samples were retained. The feature has no archaeological value.

4. CONCLUSIONS

- 4.1 The excavation of possible cairn FL/002 at Fishermyre identified that the mound was not archaeological in origin but may have been anthropogenic in origin, composed of natural deposits formed into a mound through human agency in recent times.
- 4.2 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 Aberdeenshire Council Sites and Monuments Record.
- 4.3 A summary statement will be submitted for publication in *Discovery and Excavation in Scotland* (See Appendix 3) and the investigation will be reported through *OASIS Scotland*.
- 4.4 No further work or reporting is required in relation to site FL/002.

5. REFERENCES

Aberdeen City Council 2013, Aberdeen Western Peripheral Route/Balmedie-Tipperty. Competition for Invasive Archaeological Investigations Contract. Lot 4 – Fastlink. Volume 2. Tender Document. March 2013.

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English Heritage 2007 Understanding the Archaeology of Landscapes. A Guide to Good Recording Practice.

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Headland Archaeology 2012c Aberdeen Western Peripheral Route Package (Fastlink): Topographic Surveys, Unpublished data structure report carried out for Aberdeen City Council.

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Jacobs 2007, Aberdeen Western Peripheral Route Environmental Statement (Chapter 43, Cultural Heritage).

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Ordnance Survey 1868 Kincardine Sheet XII.7 (Fetteresso)

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APPENDIX 1: Digital Photograph Register

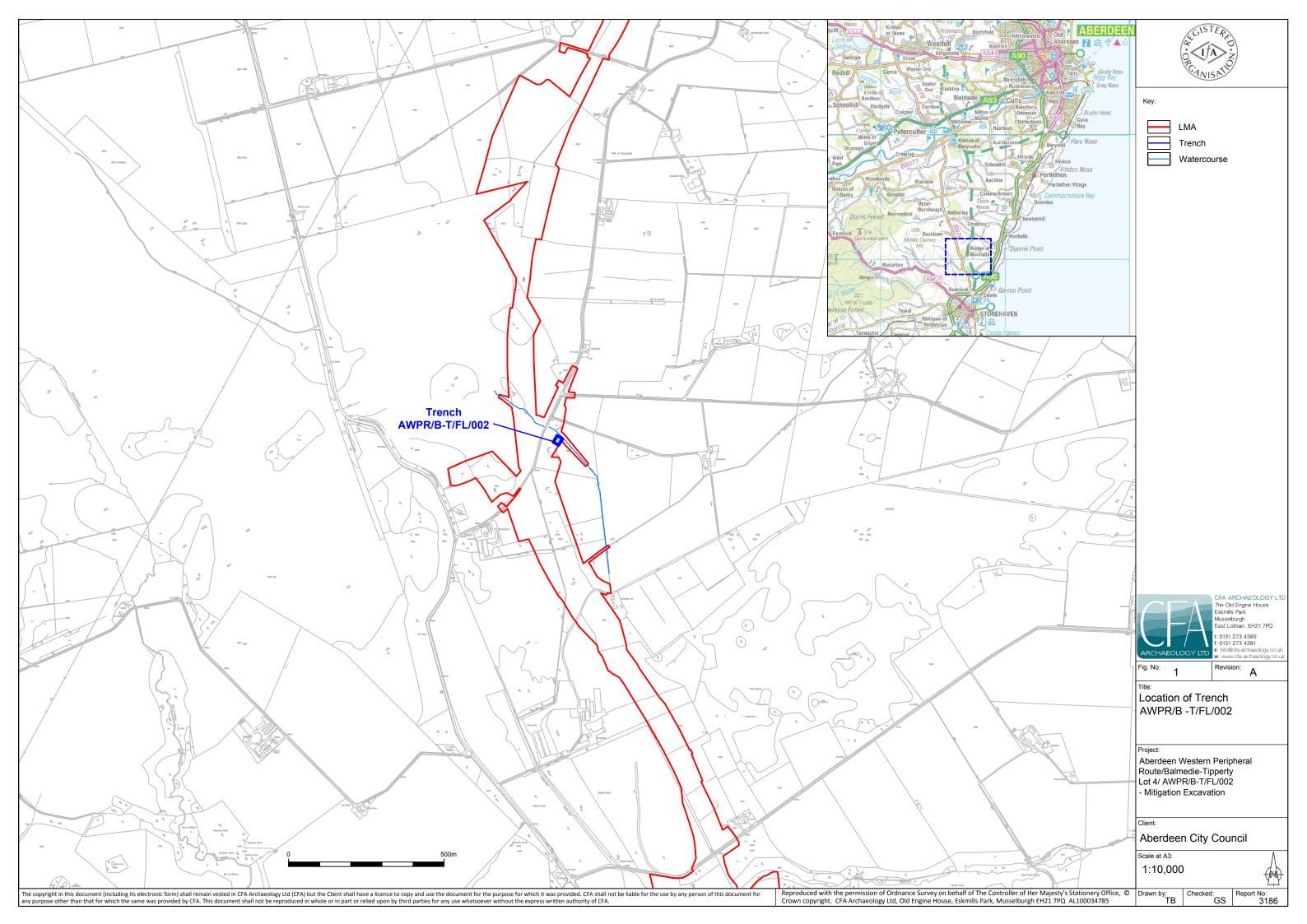
Photo No.	Contexts/description	Taken from	Conditions
001	South-west-facing section of FL002	S	Overcast
002	Oblique of south-west-facing section of FL002	SE	Overcast
003	Detail of south-west-facing section of FL002	S	Overcast
004	South-east-facing section	Е	Overcast
005	North-west-facing section	W	Overcast
006	General shot of south-west-facing section and north-west-	W	Overcast
	facing section		

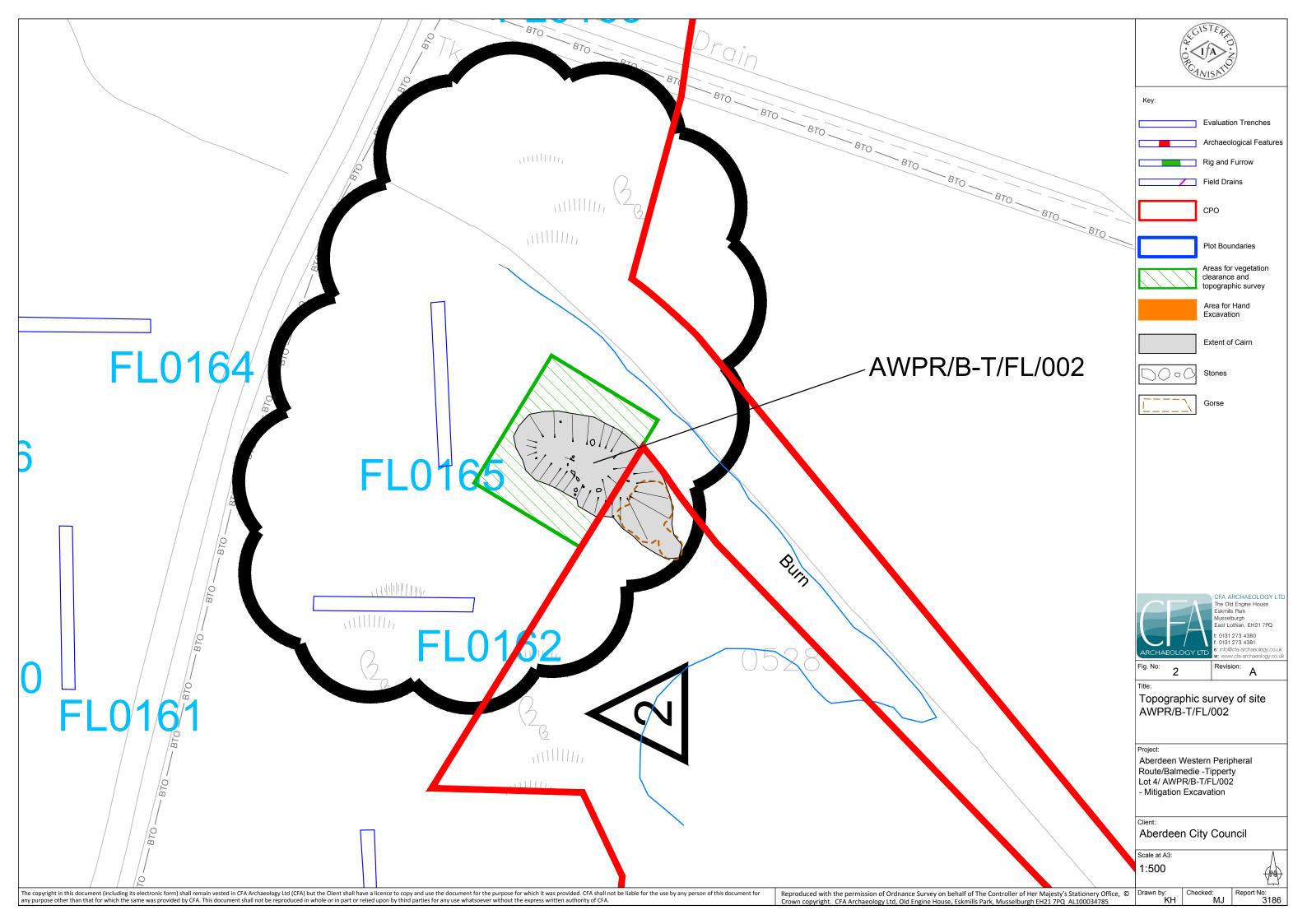
APPENDIX 2: Context Register

Context	Fill of	Description
001		Mid to dark brown fine sandy topsoil
002		Orange/red silty sand
003		Orange/grey silty sand

APPENDIX 3: Discovery and Excavation in Scotland Entry

LOCAL AUTHORITY:	Aberdeenshire
PROJECT TITLE/SITE NAME:	Aberdeen Western Peripheral Route/Balmedie-Tipperty, Lot 4 – Fastlink, Invasive Archaeological Investigations
PROJECT CODE:	FAST
PARISH:	Fetteresso
NAME OF CONTRIBUTOR:	Gary Savory
NAME OF ORGANISATION:	CFA Archaeology Ltd
TYPE(S) OF PROJECT:	Partial excavation
NMRS NO(S):	N/A
SITE/MONUMENT TYPE(S):	N/A
SIGNIFICANT FINDS:	N/A
NGR (2 letters, 8 or 10 figures)	NO 87022 90309
START DATE (this season)	March 2014
END DATE (this season)	April 2014
PREVIOUS WORK (incl. DES ref.)	N/A
MAIN (NARRATIVE) DESCRIPTION:	As part of a programme of mitigation investigations along the Fastlink section of the Aberdeen Western Peripheral Route/Balmedie-Tipperty (AWPR/B-T) the south-west quadrant of a possible cairn at Fishermyre, aite AWPR/B-T/FL/002, was excavated. The quadrant was excavated to a maximum depth of 0.6m at which point it became evident the mound was not archaeological in origin and the excavation was halted.
PROPOSED FUTURE WORK:	N/A
CAPTION(S) FOR ILLUSTRS:	N/A
SPONSOR OR FUNDING BODY:	Aberdeen City Council
ADDRESS OF MAIN CONTRIBUTOR:	CFA Archaeology Ltd, Old Engine House, Eskmills Park, Musselburgh, EH21 7PQ
EMAIL ADDRESS:	cfa@cfa-arcaheology.co.uk
ARCHIVE LOCATION (intended/deposited)	Royal Commission on the Ancient and Historical Monuments of Scotland
	Aberdeenshire Council Sites & Monuments Record





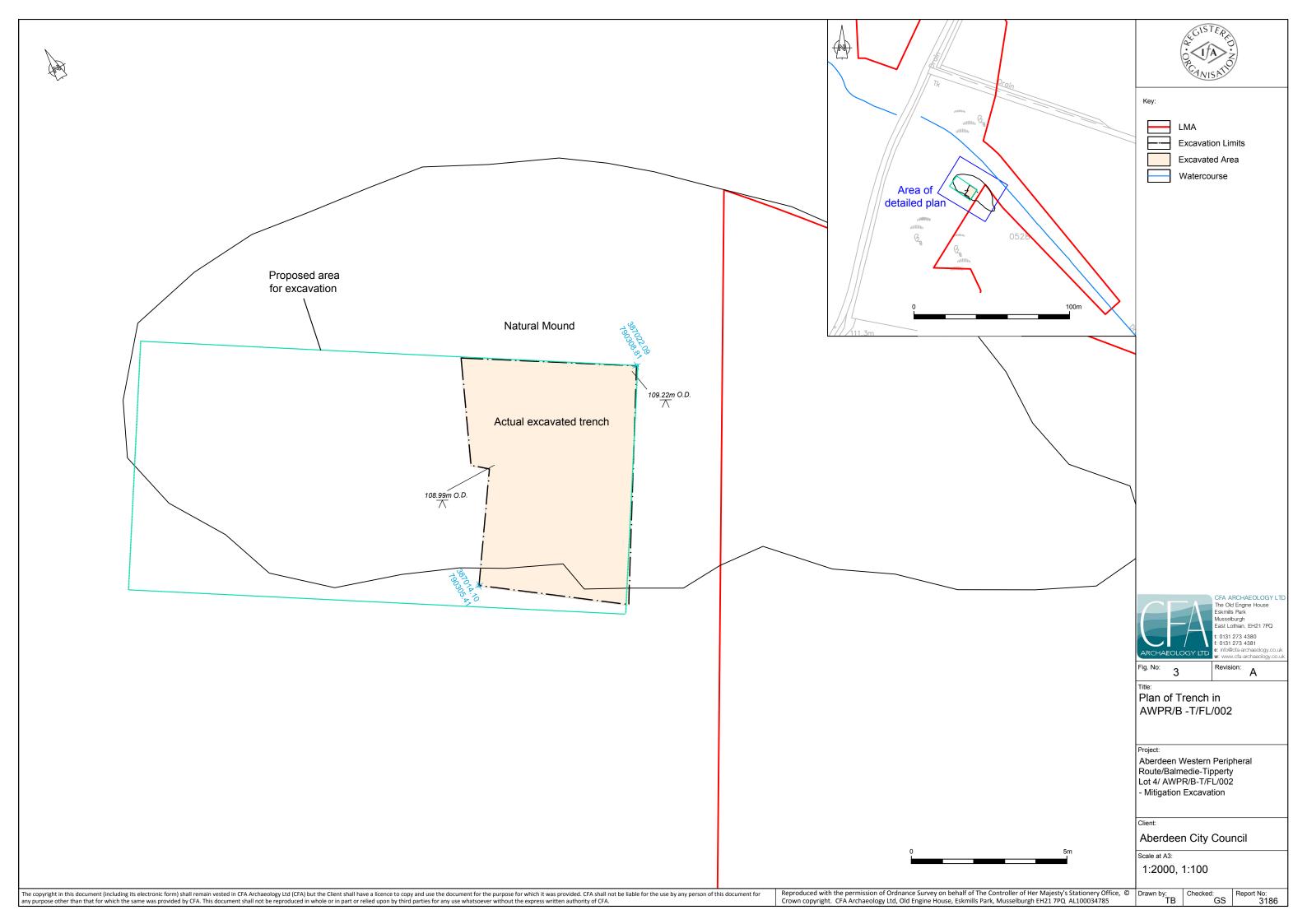




Fig. 4 - West and south-facing sections of FL/002, taken from the south-west



CFA ARCHAEOLOGY LTD Old Engine House Eskmills Park Musselburgh East Lothian, EH21 7PQ

0131 273 4380 0131 273 4381

Title: Selected photo Fig. 4

Scale:

Report: 3186 Drawn: TB CKD: GS Date: 21/11/14

Aberdeen City Council



Aberdeen Western Peripheral Route/Balmedie-Tipperty Lot 4/ AWPR/B-T/FL/002 - Mitigation Excavation