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

Mitigation Excavation

AWPR/B-T/FL/001

Report No. 3185





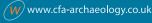












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NON-TECHNICAL SUMMARY

As part of a programme of mitigation investigations along the Fastlink section of the Aberdeen Western Peripheral Route, a strip and map investigation was completed close to Megray, off the B979 north of Stonehaven, site AWPR/B-T/FL/001. Five pits, two spreads and a linear feature were excavated, all of which contained charcoal or evidence of burning activities. A fragment of flint and a fragment of prehistoric pottery were recovered. Rig-and-furrow cultivation was also identified and there were a large number of rubble-filled and clay field drains within the trench. The majority of the features identified related to post-improvement agriculture.

1. INTRODUCTION

1.1 General

- 1.1.1 This report presents the results of strip, map and excavate undertaken by CFA Archaeology Ltd (CFA) between April and June 2014 at trench AWPR/B-T/FL/001 (abbreviated to FL/001 in this report) for the Fastlink section (Lot 4) of the Aberdeen Western Peripheral Route/Balmedie-Tipperty (AWPR/B-T).
- 1.1.2 Trench FL/001 was located close to Megray, off the B979 north of Stonehaven (NGR: NO 87244 87498; 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 potential early prehistoric date included Cantlayhills Cairn (Site 28) and Kempstone Hill Complex (Site 491).
- 1.3.3 The location of FL/001 has two farmsteads dating to the 18th or 19th century nearby, as well as a Roman coin hoard found around 700m to the north-west, at the Hill of Megray. Also at Hill of Megray, a prehistoric field system is recorded, giving weight to evidence of early human activity in the area.
- 1.3.4 Later prehistoric sites within the vicinity were few in number. A leaf-shaped Bronze Age sword was discovered during drainage work on the Moss of Cowie. A small field system containing two hut-circles is located on the northern and western flanks of White Hill (Site 25).
- 1.3.5 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.
- 1.3.6 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.
- 1.3.7 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).
- 1.3.8 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.

- 1.3.9 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.
- 1.3.10 Following the trial trenching, nine sites were identified for further mitigation works. These consisted of four sites identified during trial trenching (FL/001, FL/003B, 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).
- 1.3.11 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. The results of the topographic surveys of FL/002 and FL/006 are covered in separate reports (See Mitchell 2014a and 2014b).
- 1.3.12 It was agreed with the Consultant, and with the approval of Historic Scotland, that the mitigation measures relating to the other sites identified during and following trial trenching should take the form of a strip and record, with hand excavation of any features revealed subject to further agreement. These are reported under separate cover.
- 1.3.13 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

1.3.14 This report covers the mitigation for trench FL/001, as agreed with the Consultant. This consisted of strip and map followed by hand excavation of the features.

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 trench location was provided by the Consultant, as 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 ± 10 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 0.03m 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 Mechanical Excavation

2.3.1 All topsoil/subsoil was stripped from the agreed area by a tracked mechanical

excavator equipped with a toothless ditching bucket. All groundbreaking operations were undertaken under the direct and continuous supervision and control of the Contractor. Mechanical excavation ceased either at the first archaeological horizon or at the level of the natural geological deposits where it could be demonstrated that no archaeological horizon existed.

- 2.3.2 Immediately after the removal of the topsoil and any other overburden, the whole area was hand cleaned and inspected for archaeological features. The suspected features then received further cleaning and were assigned feature numbers. A list of the features was then presented to the Consultant along with a plan showing their respective positions within the trench. After further consultation with the Consultant, all of the features were partially excavated in order to determine the character, condition, quality and date of any archaeological features. The cleaning extended for 10m beyond any archaeological feature.
- 2.3.3 An overall plan of all visible features was prepared by instrument survey and, where appropriate, hand planning. The plan also showed any areas of visible damage or destruction of the archaeology caused by recent activity e.g. service trenches, quarry pits etc. The survey data and any hand-drawn plans were accurately tied in to the Ordnance Survey National Grid and Ordnance Datum.
- 2.3.4 Following the completion of the topsoil stripping, a composite drawing showing information from the instrument survey and the hand planning was prepared and submitted to the Consultant. Features shown on the drawing were annotated with a preliminary archaeological interpretation. The drawing was submitted to the Consultant with detailed costings and programme for undertaking excavation of features present, and for a post-excavation assessment and preparation of a post-excavation assessment report. Following agreement with the Consultant, the mitigation excavations were then undertaken as described in Section 2.4.
- 2.3.5 Topsoil and subsoil were segregated into separate spoil heaps on either side of the trench. Spoil from the excavation of any archaeological features was stored on the subsoil side. All backfilling was undertaken following inspection by, and with the prior agreement of, the Consultant. The material was backfilled in reverse order of removal in a series of layers no more than 250mm thick, each layer compacted as appropriate by the mechanical excavator prior to placement of the next layer.

2.4 Hand Excavation and Recording

- 2.4.1 As outlined in the ITT, hand excavation was undertaken of all the archaeological features as follows:
 - 50% of each pit or post-hole (half-sections or two quarter-sections as appropriate). Where necessary to obtain dating evidence or sufficient material for soil samples, such features were then fully excavated.
 - at least 20% of each simple linear feature within the whole stripped area with no individual section being less than 1.0m wide.

- in addition to the above, all intersections between features and all terminals of linear features.
- 2.4.2 All excavated contexts were fully recorded by detailed written context records giving details of location, composition, shape, dimensions, relationships, finds, samples, cross-references to other elements of the record and other relevant contexts. At least one plan and at least one section were drawn at an appropriate scale. Photographic records in digital form were taken of all trenches and archaeological features using a camera with a minimum resolution of ten megapixels. Feature locations were surveyed using a GPS with a survey survey-grade accuracy of ±10m (horizontal)/±30mm (vertical). All artefacts were recovered from site for specialist examination and analysis. All soil from the excavation of archaeological features was metal detected.

2.5 On-site Palaeoenvironmental Sampling Strategy

2.5.1 Samples comprising at least 40 litres per context or 100% of smaller contexts were taken for the recovery of small plant remains, small bones and finds. The soil samples were processed during fieldwork to allow a continuous reassessment and refinement of sampling strategies.

2.6 Archiving

- 2.6.1 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 CIfA's 'Standard and Guidance for the collection, documentation, conservation and research of archaeological materials' (CIfA 2013).
- 2.6.2 All artefactual material is allocated through the Treasure Trove process. *Treasure Trove in Scotland: A Code of Practice* (Scottish Government 2008) will be followed for the notification of finds to the Treasure Trove Unit. The finds/ecofacts will be archived according to the Scottish Museums Council guidelines (Scottish Museums Council 2000). Copies of specialists' reports, finds, illustrations, and x-rays will be included with the deposition where appropriate. Packing lists (paper and digital), and site information recorded on Museum Transfer Forms will be included with each deposition. Signed receipts for deposition will be retained. A discard policy is not appropriate for material collected in Scotland.
- 2.6.3 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 (Appendix 7). 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 A summary of the excavated features is contained in Appendix 5 and the locations of the features are shown on Figs. 2-4.
- 3.1.3 The deposits within the trench predominantly consisted of between 0.3m and 0.7m of dark brown sandy silt topsoil (001). The natural geology consisted of free-draining, red/brown sandy gravels (002). All features were isolated, cut in to natural and lay under topsoil.
- 3.1.4 Figure 5 contains the section drawings for all of the excavated features.

3.2 Features

- 3.2.1 Circular pit (003) measured 0.40m in diameter and survived to a maximum depth of 0.08m. The pit contained a single fill of dark brown/black silty sand (004) which contained oak charcoal and carbonised hazelnut shells.
- 3.2.2 Sub-circular spread of dark brown/black sandy soil (**005**) measured 0.25m in diameter and surviving to a maximum thickness of 0.05m. The spread contained charcoal, which may represent the vestigial remains of burning.
- 3.2.3 Pit (006) was irregular shaped in plan and measured 0.48m by 0.32m and survived to a maximum depth of 0.04m. It contained a single black/dark grey silty sand fill (007) which contained oak charcoal and small amounts of carbonised hazelnut shell.
- 3.2.4 Pit (008) was irregular shaped in plan, measuring 3.50m by 1.20m, and survived to a maximum depth of 0.25m. The primary fill (009) of this feature was dark grey/brown silty sand, and contained abraded carbonised plant buds, hazelnut shell and charcoal. The secondary fill consisted of mid-grey/brown silty sand (010). This feature was the same as feature 005 recorded during the evaluation in Trench FL0034.
- 3.2.5 Pit (011) was irregular in plan with gently sloping sided and a flat base. It measured 0.70m by 0.40m and, survived to a maximum depth of 0.08m. The pit contained a single fill (012) dark grey silty sand with oak charcoal and carbonised hazelnut shell.
- 3.2.6 Pit (013) was oval in plan with sloping sides and a flat base (Fig. 6). It measured 2.40m by 1.30m and, survived to a maximum depth of 0.40m. The primary fill (015) consisted of dark brown/black silty sand which contained small amounts of hazelnut shell, charcoal and fire-cracked stones. The secondary fill (014) consisted of light grey/brown silt containing small amounts of charcoal, and a small fragment of undiagnostic prehistoric pottery

- was recovered from it (see Section 4.2). The feature had been truncated by a modern field drain.
- 3.2.7 A linear feature (016) was aligned north-east/south-west and measured 3m by 0.20m (maximum), surviving to a depth of 0.12m. The south-west half of the feature contained yellow/beige clayey sand (017). The north-east end contained dark grey silt (018) which was charcoal-rich (mainly oak charcoal). A piece of flint was also recovered from the fill (see Section 4.1).
- 3.2.8 A mixed mid-grey/brown sandy clay spread (019) was identified at the southern end of the trench. The sub-circular spread measured 2.05m by 1.80m and survived to a maximum thickness of 0.06m. Within the deposit were small quantities of charcoal.
- 3.2.9 The remains of cultivation furrows were identified across the trench, orientated north-north-west to south-south-east. The furrows survived to an average width of 2.00m and depth of 0.20m. Two furrows (020) and (022) were excavated and found to contain a mid-grey/brown mixed silt/clay/sand fill (021) and (023).

4. THE FINDS

Find type	No.	Wt (g)
Fired Clay	242	79
Lithic	1	26
Pottery	1	2

Table 1- Summary of finds

4.1 Lithics, by Ann Clarke

- 4.1.1 A piece of flint was recovered from **017**, the fill of linear feature **016**. This is a probable heat spall, rather than a flake, as there is no clear bulb of percussion. A gloss down the centre of the ventral face may have developed from heating though it is not certain whether it was a deliberate act or not. It is not diagnostic of a particular period.
- 4 1 2 No further work is recommended on the lithic find

Catalogue

FL/001; Context 017; SF1

Large primary spall of mottled brown/grey flint. ML 46mm; MW 46mm; MTh 13mm

4.2 Pottery and Fired Clay, by Christina Hills

- 4.2.1 A small fragment of undiagnostic prehistoric pottery was found during sample processing in context **014**, the fill of pit **013**.
- 4.2.2 Undiagnostic small lumps of fired clay were found in most of the samples.
- 4.2.3 No further work is recommended on the ceramic finds.

5. ARCHAEOBOTANICAL ANALYSIS by Mhairi Hastie

5.1 Methodology

- 5.1.1 Each sample was processed through a Siraf style flotation tank, washed over a 250µm mesh and re-floated. The floating organic material (flot) was collected in a 250µm sieve and the material remaining in the tank (retent) was washed through a nest of sieves of 10mm, 5mm, 2mm, 1mm and 250µm size. Both flot (organic) and retent (inorganic) fractions were then air-dried under controlled conditions. A 10 litre sub-sample of each bulk soil sample was processed and assessed unless the sample was less than 10 litres in total, in which case the whole sample was processed (see Table 1 for details).
- 5.1.2 The retents were sorted by eye for small finds and any non-buoyant archaeobotanical remains, and scanned with a magnet to pick up ferrous debris, and any archaeologically significant material was removed and bagged.
- 5.1.3 The flots were scanned using a binocular microscope (x10-x200 magnifications) and the presence of any charred plant remains recorded.
- 5.1.4 Identifications of archaeobotanical material were carried out with reference to seed atlases and in-house reference collection.

Sample number	Context number	Context description	Sample vol. (litres)	Vol. of sample processed (litres)
number		7771 0 1 (000)	1	processed (intres)
1	004	Fill of pit (003)	5	5
2	005	Charcoal-rich deposit	1	1
3	007	Fill of pit (006)	10	10
4	009	Basal fill of pit (008)	40	10
5	010	Upper fill of pit (008)	5	10
6	012	Fill of pit (011)	10	10
7	014	Basal fill of pit (013)	40	10
8	015	Basal fill of pit (013)	4	4
10	018	Fill of linear (016)	10	10
11	019	Sandy clay deposit	40	10

Table 2 - Sample details

5.2 Results

5.2.1 Small finds and artefacts recovered from the samples are discussed above in Section 4.

Wood charcoal:

High concentrations of wood charcoal were recovered from all the samples. Initial identification of the wood species present suggests that the bulk of the charcoal is oak. Fragments of non-oak charcoal sufficiently large enough for AMS dating were recovered from five pit fills (009), (010), (012), (014) and (015).

Hazelnut Shell:

Fragments of hazelnut shell were recovered from the fills of five pits, (003), (007), (008), (011), and (013); and a sandy clay deposit (019). The largest amount of hazelnut

shell was recovered from the fill of an irregular pit (011), recovered along with a high concentration of oak charcoal.

<u>Wild Taxa</u>: What are likely to be carbonised plant buds were recovered

from the fill of pit (008); they were abraded and could not

be identified to species level.

Sample	Context	Context description	Pottery	Fired	Nutshell	Chai	coal
number	number		frag.	clay		Qty	AMS
1	004	Fill of pit (003)		++	+(5)	++	No
						(vsf)	
2	005	Spread		+		+ (vsf)	No
3	007	Fill of pit (007)		++	+(2)	+ (vsf)	No
4	009	Basal fill of pit (008)		+	++ (29)	++ (sf)	Yes
5	010	Upper fill of pit (008)		+	+ (4)	++ (sf)	Yes
6	012	Fill of pit (011)		++	+++ (60)	++ (sf)	Yes
7	014	Basal fill of pit (013)	+(1)	+	+(2)	+ (sf)	No
8	015	Upper fill of pit (013)		+		++ (sf)	Yes
10	018	Fill of linear (016)		++		+ (sf)	No
11	019	Sandy clay deposit		+	+(1)	+ (sf)	No

Table 3 - Composition of retents

Sample	Context	Context description	Flot vol	Sub-	Wild	Nutshell	C	Charcoal
number	number		(ml)	sample	Taxa		Qty	AMS
1	004	Fill of pit (003)	150	1/2		+(x10)	++++	Mostly oak
2	005	Charcoal rich deposit	20				+++	Yes
3	007	Fill of pit (007)	100	1/3			++++	All oak
								charcoal
4	009	Basal fill of pit (008)	30		+(x5)	+(x7)	+++	Yes
5	010	Upper fill of pit (008)	20				++ (sf)	No
6	012	Fill of pit (011)	100	1/2		+++ (x63)	++++	Mostly oak
7	014	Basal fill of pit (013)	20				++	Yes
8	015	Upper fill of pit (013)	20			+(x3)	+++	Yes
10	018	Fill of linear (016)	100				++++	Mostly oak
11	019	Sandy clay deposit	20				+++	No
							(sf)	

Key: + = rare, ++ = occasional, +++ = common and ++++ = abundant

sf = small fragments (<5mm dia.)

vsf = very small fragments (<2mm dia.)

Table 4 - Composition of flots

5.3 Statement of potential

5.3.1 Hazelnut shell was present in most of the features uncovered on the site; a particularly rich deposit of nutshell was noted from the fill of one pit (011). Overall, the nutshell is generally abraded and fragmentary suggesting that the material has undergone some movement prior to being incorporated into the pit fills. Some of the nutshell may have been brought in with wood collected for fuel; nevertheless, the high concentrations recorded in a number of the features does suggest that hazelnuts were being collected as a specific food source. Hazelnuts have been consumed throughout prehistory and the later historic period; with nutshell recovered from the fills of pits from sites ranging from the Mesolithic to the medieval period. Large quantities of nutshell recorded on Mesolithic and Neolithic sites has been interpreted as evidence of

- on-site roasting of the nuts. Whilst there is no direct evidence of nut roasting at this site, the large quantities of nutshell recovered along with wood charcoal from a number of the features would be in keeping with other early prehistoric Scottish assemblages.
- 5.3.2 Samples containing sufficiently large fragments of non-oak wood for AMS dating were recovered from six samples (2 and 4-8). The wood species present would need to be identified prior to dating. In addition, hazelnut shell from those that contain high concentrations of nutshell (samples 4 and 6) would be suitable for AMS dating.

5.4 Storage and Curation Policy

- 5.4.1 All processing, recording, storage and samples has been carried out in accordance with the Institute for Archaeologist's Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials (2001, revised 2008), with Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation (English Heritage 2011) and with reference to the Association for Environmental Archaeology's Working Paper No. 2, Environmental Archaeology and Archaeological Evaluation (1995).
- 5.4.2 The carbonised plant remains recovered from the samples have been packaged as appropriate for long-term storage in accordance with the requirements of the recipient museum and as per the contract in sealed finds bags at room temperature. The assemblages will be stored at CFA's secure storage facility until such time as the archive is ready to be deposited.

6. ASSESMENT OF ARCHAEOLOGICAL FINDINGS

- 6.1 The trial trenching evaluation exposed three features in Trench FL0034, a curving linear pit/ditch, a pit and a spread of reddish-brown silty clay with charcoal. Soil samples produced quantities of charcoal and hazelnut shell. Lithics were recovered from the linear feature but were not diagnostic of any period. Trench FL0034 was encompassed by the trench for the follow-on mitigation excavations (Trench FL/001).
- 6.2 The strip and map and mitigation excavation at Trench FL/001 identified five pits (003, 006, 008, 011, 013) (008 is the same as feature 005 from the evaluation), two spreads (005, 019) and a linear feature (016). A fragment of flint, a heat spall which is not diagnostic of any period, was recovered from the fill (017) of the linear feature (016). A fragment of undiagnostic prehistoric pottery was recovered from pit (013). The ecofacts recovered from the features consisted mainly of oak charcoal and hazelnut shell, and the presence of hazelnut shell may be attributable to food processing activities in prehistory although it remains possible that the nutshell came in attached to the branches to be used as fuel rather than for food use.
- 6.3 The features found both during the evaluation and during the strip and map comprise a scatter of shallow features containing charcoal, hazelnut shell, a fragment of flint and a sherd of prehistoric pottery, and are suggestive of low-level prehistoric activity on or in the vicinity of the site; it is possible that these features are outliers to the main concentration of activity. However, the use of hazel nutshell as a food source is not a diagnostic trait of the prehistoric period only, and could equally have been deposited in the medieval period or later. The flint recovered is also not diagnostic of any particular period and is a heat spall rather than a worked object, and again there is no particular reason to assume that this is prehistoric above any other date. The small fragment of prehistoric pottery (less than 2g) from 013 is a solitary find and is of a size that could be incorporated into the feature through bioturbation; it should be noted as well that the feature was disturbed by a modern field drain.
- 6.4 The features did not appear to be structural and their purpose is unclear, as they did not contain sufficient quantities of artefacts to be considered as rubbish pits for domestic activities or pits for the ritual deposition of artefacts. Scatters of pits are a common site type throughout prehistory. A prehistoric field system has been recorded at the nearby Hill of Megray (NMRS No. NO88NE 40) providing evidence for early settlement within this general area.
- 6.5 There is no archaeological value in undertaking any further work or reporting in relation to site FL/001. Whilst charcoal and nutshell of sufficient size for AMS dating was recovered, the condition of the nutshell suggests that it had undergone movement prior to burial. Therefore the material cannot be securely attributed to the date of the digging or backfilling of the features. The shallow nature of many of the excavated features also casts some doubt on the taphonomic security of the deposits within.

- Rig-and-furrow cultivation was identified during the excavation. There were also field drains running north-west to south-east across the trench. These later features indicate the landscape has been intensively modified in the post-medieval period reflecting a process of agricultural improvements which likely began in the 17th century and continued throughout the 18th and 19th centuries.
- 6.7 The overall results of this programme of works indicate that the landscape through which the Fastlink route will pass has been intensively utilised during the post-medieval period with a large number of features relating to post improvement agriculture. These largely consisted of field drains (ceramic and rubble), other linear drainage features, rig-and-furrow cultivation, stone extraction, and areas of clearance stones. While areas of possible prehistoric activity have been identified, the scarcity of prehistoric remains is perhaps a reflection on the level of post-improvement activity which has taken place along the route, or reflects a genuine absence of archaeologically visible prehistoric settlement in the landscape.

7. CONCLUSIONS

- 7.1 The results of the mitigation works at site FL/001 near Megray demonstrated that a scatter of pits and other shallow features of possibly prehistoric date were located here. The truncation of these remains is perhaps a reflection on the level of post-improvement activity which has taken place within this area, and cultivation furrows and field drains were recorded during both phases of the work, indicating that the landscape has been intensively utilised during the post-medieval period.
- 7.2 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.
- 7.3 A summary statement will be submitted for publication in *Discovery and Excavation in Scotland* (See Appendix 7) and the investigation will be reported through *OASIS Scotland*.
- 7.4 No further work or reporting is required in relation to site FL/001.

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APPENDIX 1: Digital Photograph Register

Strip & Map

Photo No.	Contexts/description	Taken from	Conditions
001-008	Shots of area AWPR/B-T/FL/001 prior to stripping	Various	Overcast
009	Cultivation furrow 010	SE	Overcast
010	Cultivation furrow 011	SE	Overcast
011	Cultivation furrow 012	SE	Overcast
012	Cultivation furrow 013	SE	Overcast
013	Cultivation furrow 014	SE	Overcast
014	Potential pit/spread 001	S	Overcast
015	Potential pit/spread 002	S	Overcast
016	Potential pit/spread 005	S	Overcast
017	Potential pit/spread 003	W	Bright
018	Potential pit/spread 004	S	Bright
019	Feature 006 and/or 007 (potentially the same feature)	Е	Bright
020	Potential pit/spread 008	N	Bright
021	Potential pit/spread 009	Е	Bright
022	General shot of area AWPR/B-T/FL/001 post stripping	SE	Bright
023	As above	S	Bright
024	As above	SW	Bright
025	As above	NW	Bright
026	As above	N	Bright
027	Bunded soil/edge of excavation; east of area	NE	Bright
028	General shot of area AWPR/B-T/FL/001 post stripping	NE	Bright
029	As above	Е	Bright
030	Bunded soil from area AWPR/B-T/FL/001 post stripping	N	Bright

Mitigation Excavations

Photo No.	Contexts/description	Taken from	Conditions
001	NE-facing section of pit 003	NE	Overcast
002	SE-facing section of spread 005	SE	Overcast
003-004	SE-facing section of pit 006	SE	Mist
005	S-facing section of pit 011	S	Sun
006-007	SE-facing section of pit 008	SE	Overcast
008	E-facing section of pit pit 013	Е	Overcast
009	General shot of linear feature 016	SW	Overcast
010	SW-facing section of Linear feature 016	SW	Overcast
011	General shot of linear feature 016	NE	Overcast
012	NE-facing section of linear feature 016	NE	Overcast
013	S-facing section of spread 019	S	Overcast
014	SSE-facing section of Rig & Furrow 020	SSE	Mist
015	SSE-facing section of Rig & Furrow 022	SSE	Mist

APPENDIX 2: Context Register

Context	Fill of	Description			
001		Humus dark brown ploughed topsoil			
002		Red/brown sandy gravel natural			
003		Cut of small pit			
004	003	Black sandy silt fill of pit 003			
005		Dark brown and black mixture of charcoal rich soil			
006		Cut of small pit			
007	006	Fill of 006. Black charcoal rich soil with lumps of re-deposited natural soil.			
800		Cut of pit			
009	008	Dark grey/brown silty sand basal fill of pit 008			
010	008	Mid grey/brown silty sand upper fill of pit 008			
011		Cut of small pit			
012	011	Black charcoal rich silt with lumps of orange re-deposited natural soil.			
013		Cut of medium size pit			
014	013	Fill of pit 013; Light grey/brown silty sand			
015	013	ill of pit 013; Dark brown/black silty sand with charcoal and fire-cracked rock. overs almost entire base of pit in a thin lens.			
016		Cut of linear feature			
017	016	Fill of linear feature 016; grey sandy clay			
018	016	Fill of linear feature 016; dark grey silty sand with large chunks of charcoal			
019		Spread of mid brown/grey sandy clay			
020		Cut of Rig & Furrow			
021	020	Mid brown silty fill of 020			
022		Cut of Rig & Furrow			
023	022	Mid brown silty fill of 022			

APPENDIX 3: Drawing Register

Drawing	Drawing Sheet Description/Contexts		Section/Plan	Scale
No.	No.			
1	1	Post-ex plan of pit 003	Plan	1:20
2	2	NE-facing section of pit 003	Section	1:10
3	2	Post-ex plan of spread 005	Plan	1:20
4	2	Section of spread 005	Section	1:10
5	3	Post-ex plan of pit 006	Plan	1:20
6	3	SE-facing section of pit 006	Section	1:10
7	1	Post-ex plan of pit 008	Plan	1:20
8	1	SE-facing section of pit 008	Section	1:20
9	3	Post-ex plan of pit 011	Plan	1:20
10	3	S-facing section of pit 011	Section	1:10
11	2	Post-ex plan of pit 013	Plan	1:20
12	2	Section of pit 013	Section	1:10
13	3	Post-ex plan of linear feature 016	Plan	1:20
14	3	SW-facing section of linear feature 016	Section	1:10
15	3	NE-facing section of linear feature 016	Section	1:10
16	1	Post-ex plan of spread 019	Plan	1:20
17	1	S-facing section of spread 109	Section	1:20
18	1	SSE-facing section of Rig & Furrow 020	Section	1:20
19	3	SSE-facing section of Rig & furrow 022	Section	1:20

APPENDIX 4: Samples Register

Sample	Context	Fill	Sample	Reason for collection	Sample volume
No.		of	type		
001	004	003	Bulk	Environmental Analysis	51
002	005		Bulk	Environmental Analysis	11
003	007	006	Bulk	Possible charcoal analysis	101
004	009	008	Bulk	Possible charcoal analysis	4x10l
005	010	008	Bulk	Possible charcoal analysis	51
006	012	011	Bulk	Possible charcoal analysis	101
007	014	013	Bulk	Possible charcoal analysis	4x10l
008	015	013	Bulk	Possible charcoal analysis	1 small bag
009	015	013	Bulk	Possible charcoal analysis	1 small bag
010	018	016	Bulk	Possible charcoal analysis	101
011	019		Bulk	Possible charcoal analysis	4x10l

APPENDIX 5: Summary of Excavation Results

Context	Description	Dimension	Fills/Deposit
003	Small, circular pit	0.4m diameter; 0.08m	(004) dark brown/black silty sand
		deep	
005	Spread of sandy soil	0.25m diameter; 0.05m	(005) sandy soil with charcoal
		upstanding	inclusions
006	Irregular-shaped pit	0.48m by 0.32m; 0.04m	(007) black/dark grey silty sand with
		deep	charcoal inclusions
008	Irregular-shaped pit	3.5m by 1.2m; 0.25m deep	(009) dark grey/brown silty sand with
			inclusions of charcoal and cracked
			stones
			(010) mid-grey/brown silty sand
011	Irregular-shaped pit	0.7m by 0.4m; 0.008m	(012) dark grey silty sand with
		deep	inclusions of charcoal
013	Oval-shaped pit	2.4m by 1.3m; 0.4m	(014) light grey/brown silt
			(015) dark brown/black silty sand with
			charcoal and fire-cracked rock
			inclusions
016	NE-SW orientated	3m by 0.2m; 012m deep	(017) yellow/beige clay sand
	linear feature	(max)	(018) dark grey sand
019	Sub-circular spread	2.05m by 1.8m; 0.06m	(019) mixed grey/brown sandy clay
	of soil	upstanding	with possible burnt material
020	Furrow	50m by 2m; 0.2m deep	(021) mid grey/brown silty clay sand
022		90m by 2.5m; 0.11m deep	(023) mid grey/brown silty clay sand

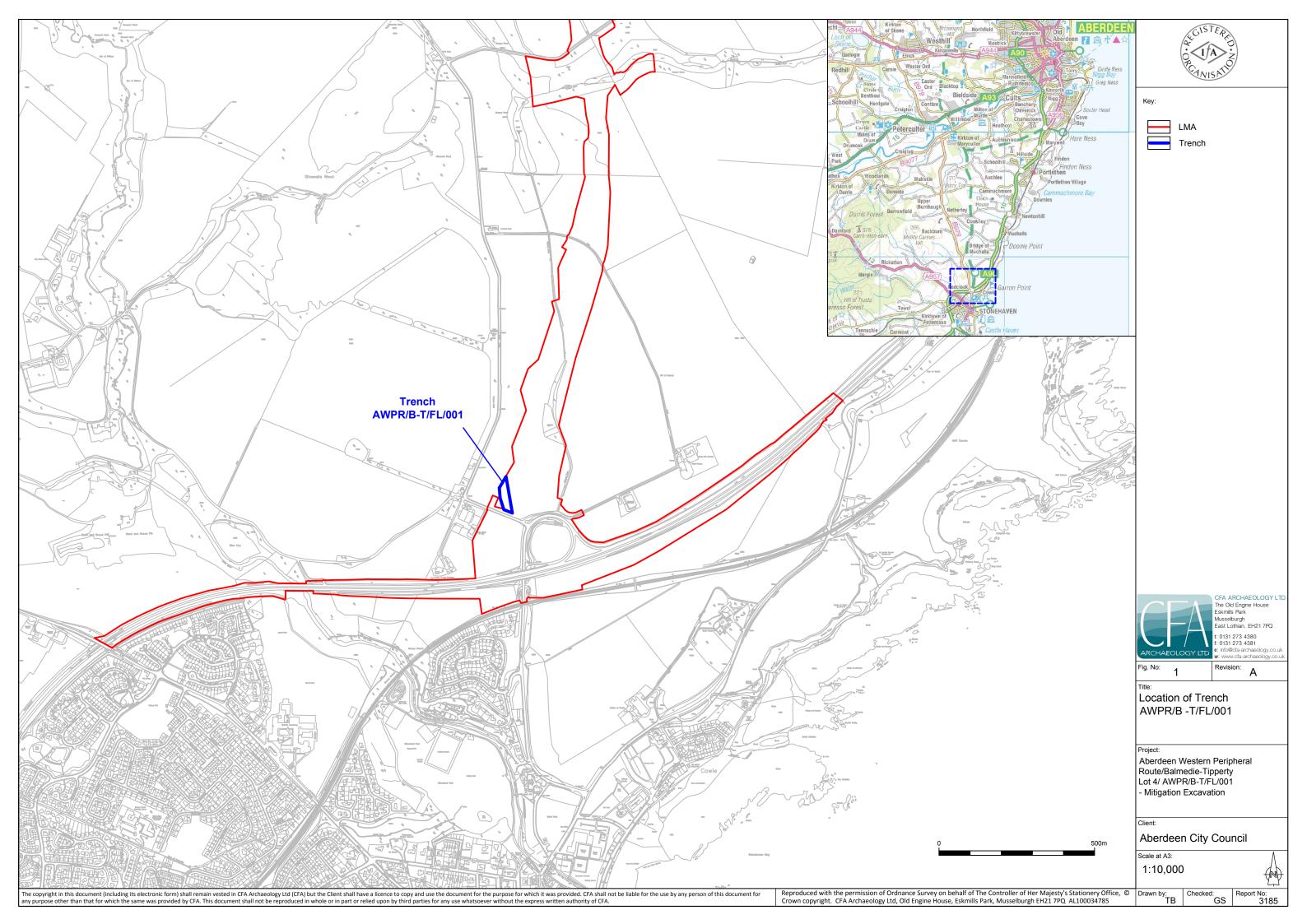
APPENDIX 6: Finds Quantification

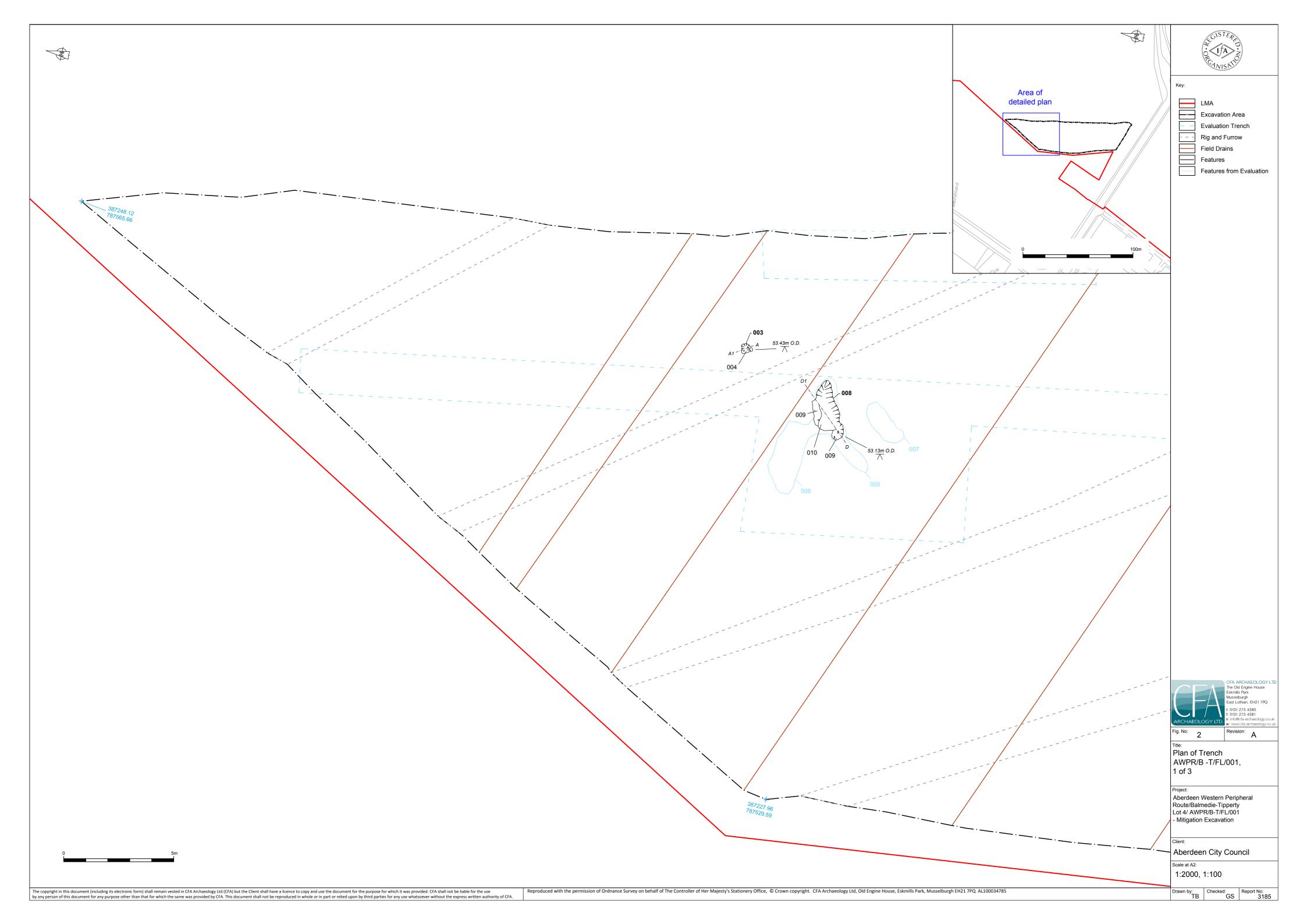
Sample	Context	Find type	No.	Wt (g)	Notes	Spotdate
7	014	Pottery	1	2		Prehistoric
	017	Lithic	1	26	SF1	
1	004	Fired Clay	34	13		
2	005	Fired Clay	15	2		
3	007	Fired Clay	30	9		
4	009	Fired Clay	6	2		
5	010	Fired Clay	12	3		
6	012	Fired Clay	45	12		
7	014	Fired Clay	13	9		
8	015	Fired Clay	17	5		
10	018	Fired Clay	60	22		
11	019	Fired Clay	10	2		

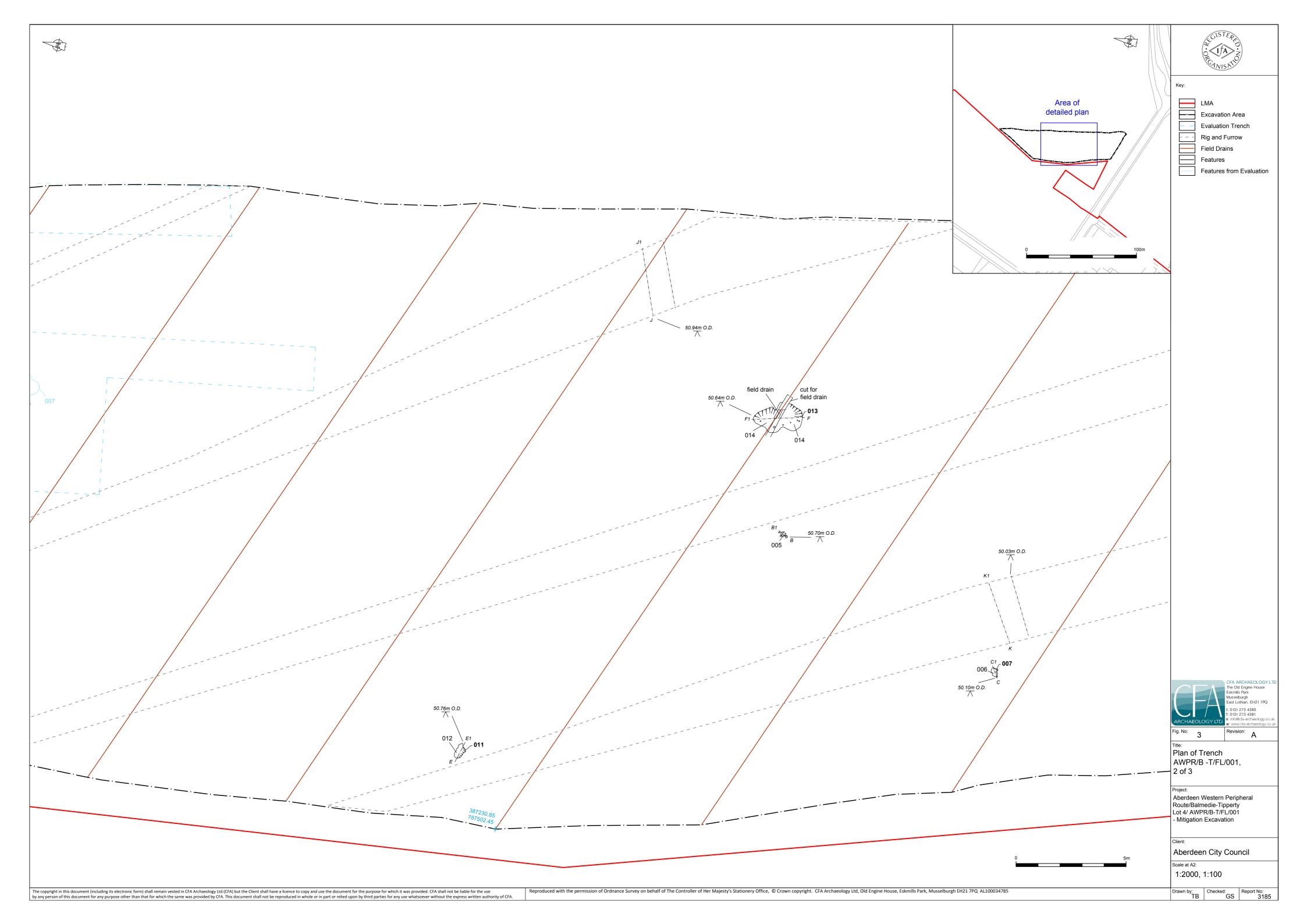
APPENDIX 7: Discovery and Excavation in Scotland Entry

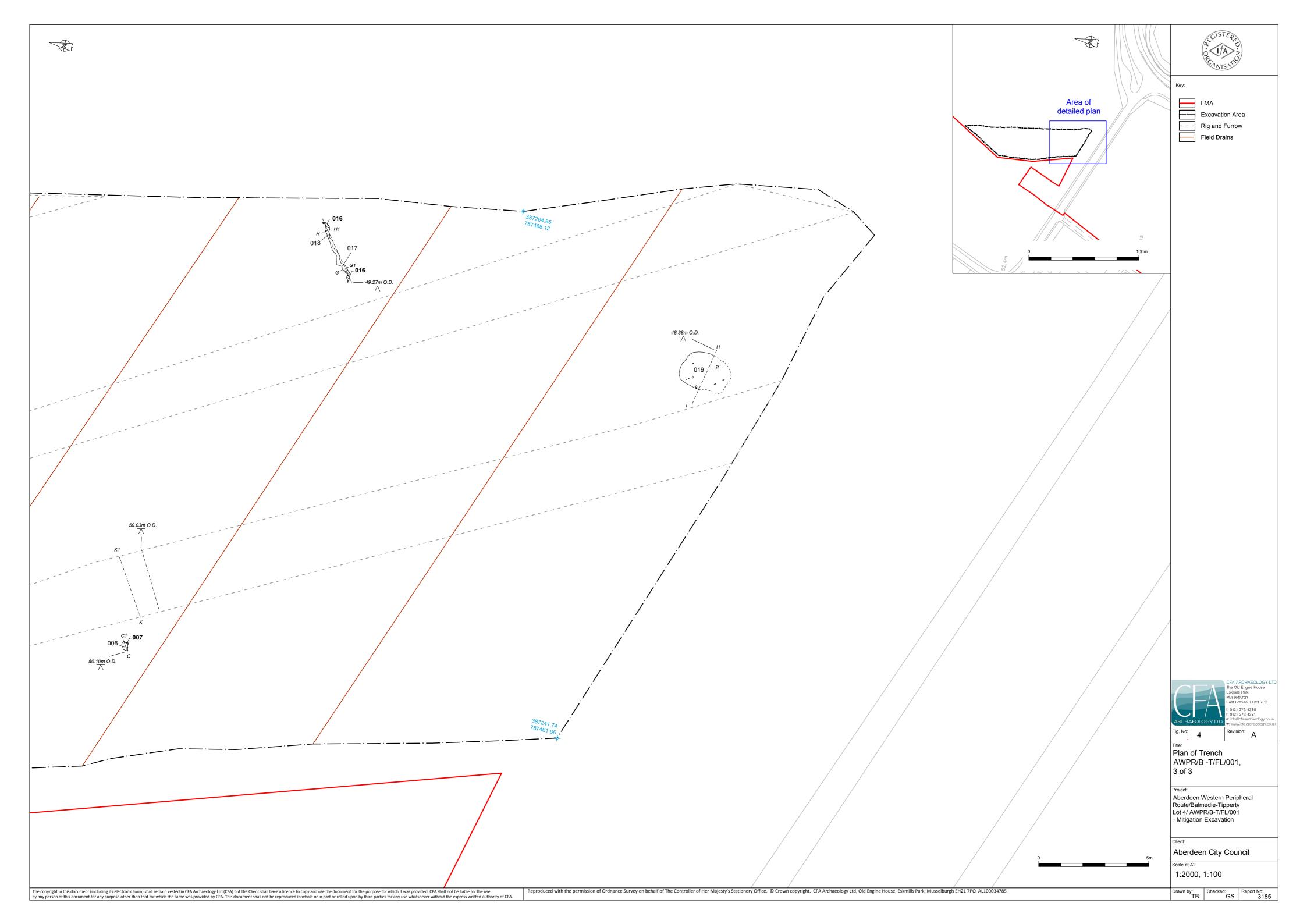
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PROJECT TITLE/SITE NAME:	Aberdeen Western Peripheral Route/Balmedie-Tipperty, Lot 4 – Fastlink, Invasive Archaeological Investigations
PROJECT CODE:	FAST
PARISH:	Fetteresso
NAME OF CONTRIBUTOR:	Gary Savory
NAME OF ORGANISATION:	CFA Archaeology Ltd
TYPE(S) OF PROJECT:	Strip and map, mitigation excavation
NMRS NO(S):	N/A
SITE/MONUMENT TYPE(S):	N/A
SIGNIFICANT FINDS:	N/A
NGR (2 letters, 8 or 10 figures)	NO 87244 87498
START DATE (this season)	April 2014
END DATE (this season)	June 2014
PREVIOUS WORK (incl. DES ref.)	N/A
MAIN (NARRATIVE) DESCRIPTION:	The results of the strip, map and excavate at site FL/001 near Megray demonstrated that a scatter of pits and other shallow features of likely prehistoric date were located here, along with a linear feature of modern date. A fragment of flint, a heat spall which is not diagnostic of any period, was recovered, along with a fragment of undiagnostic prehistoric pottery. The ecofacts recovered from the features consisted mainly of oak charcoal and hazelnut shell, and the presence of hazelnut shell may be attributable to food processing activities in prehistory. The features are suggestive of low-level prehistoric activity on or in the vicinity of the site; it is possible that these features are outliers to the main concentration of activity. The features did not appear to be structural and their purpose is unclear, as they did not contain sufficient quantities of artefacts to be considered as rubbish pits for domestic activities or pits for the ritual deposition of artefacts. The truncation of these remains is perhaps a reflection on the level of post-improvement activity which has taken place within this area, and cultivation furrows and field drains were recorded during both phases of the work, indicating that the landscape has been intensively utilised during the post-medieval period.
PROPOSED FUTURE WORK:	N/A
CAPTION(S) FOR ILLUSTRS:	N/A
SPONSOR OR FUNDING BODY:	Aberdeen City Council
ADDRESS OF MAIN	CFA Archaeology Ltd, Old Engine House, Eskmills Park,

CONTRIBUTOR:	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		









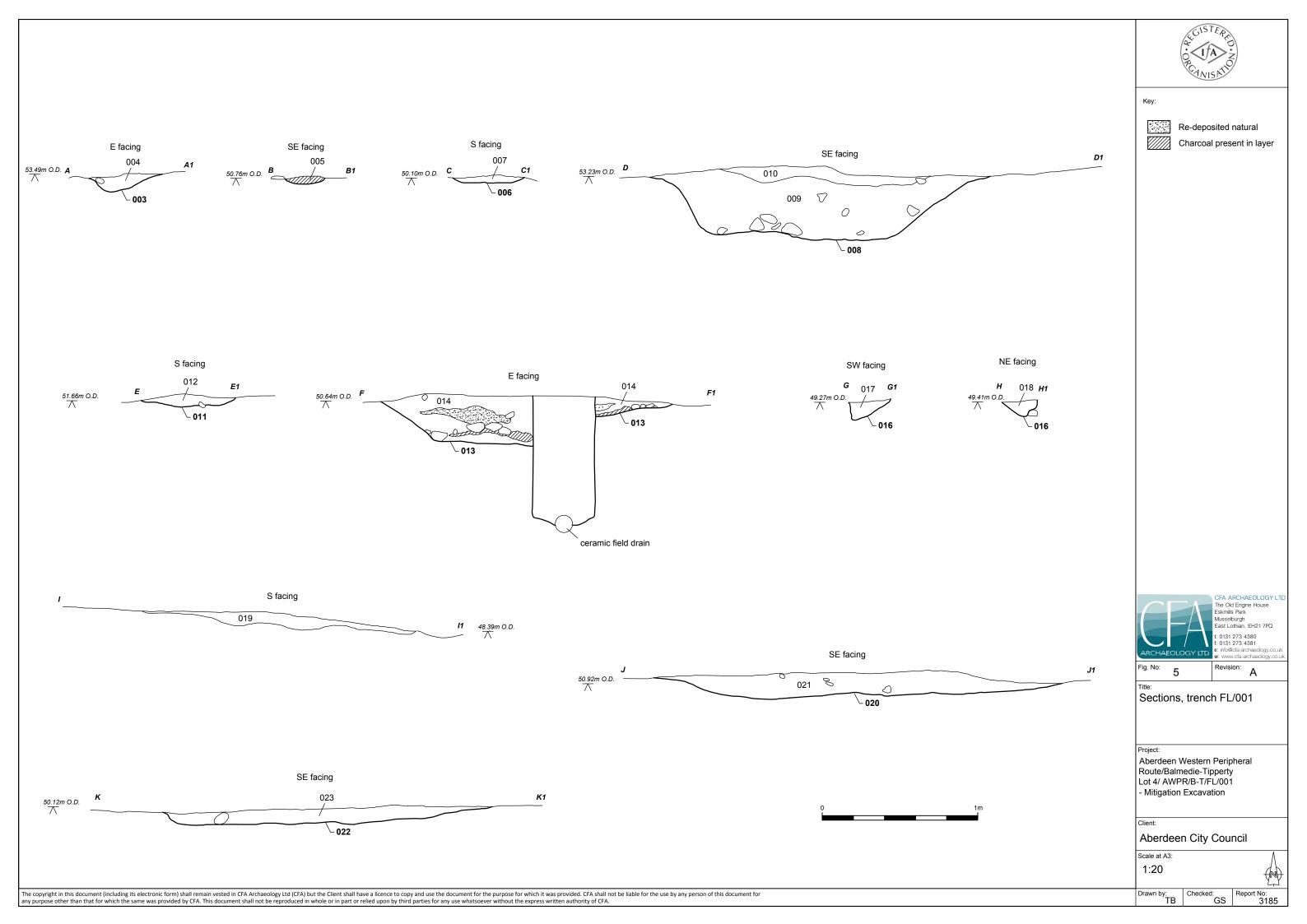




Fig. 6 - East-facing section of pit 013



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Project:
Aberdeen Western Peripheral Route/Balmedie-Tipperty
Lot 4/ AWPR/B-T/FL/001 - Mitigation Excavation

Fig. 6 Report: 3185 Drawn: TB CKD: GS Date: 05/01/15

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