

# CFA Archaeology Ltd

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*Geophysical Survey*

## **Fernhill Service Reservoir to Dyce Drive Water Pipeline, Aberdeen**

### **Archaeological Watching Brief**

**Report No. 3177**

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**Fernhill Service Reservoir to  
Dyce Drive Water Pipeline,  
Aberdeen**

**Archaeological Watching Brief**

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## **1. INTRODUCTION**

### **1.1 General**

This report presents the results of an archaeological watching brief undertaken by CFA Archaeology Ltd (CFA) between 22 April and 4 July 2014 during the installation of a new water pipeline from Fernhill Reservoir (NGR: NJ 8836 0721), to the intersection of the A96 trunk road and Dyce Drive (NGR: NJ 8797 1075). The work was commissioned by Scottish Water.

A Written Scheme of Investigation (WSI) was produced by CFA on behalf of Scottish Water. The WSI was designed to fulfil the requirements of Judith Stones: Lead Curator, Local History and Archaeology on behalf of Aberdeen City Council.

### **1.2 Background**

A new water pipeline approximately 4.5km in length is being constructed from Fernhill Reservoir just west of Sheddocksley on the western fringes of the City of Aberdeen to the A96 trunk road south of Dyce.

A number of sites recorded by The Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) lie along the vicinity of the route. These are predominantly late 18<sup>th</sup> and 19<sup>th</sup> century cottages and farmsteads; however, the remains of the Lang Stracht possible prehistoric roundhouse (NGR: NJ 8841 0872) also exist just to the west of the proposed route.

Judith Stones, Lead Curator, Local History and Archaeology on behalf of Aberdeen City Council indicated that a watching brief was not required on disturbed ground (the road or road margins and where the route crossed a previously evaluated area at Hopcroft. Based on this the areas requiring evaluation are marked in red on the accompanying plans.

### **1.3 Objectives**

The objectives of the watching brief were:

- To conduct a watching brief during ground breaking works in order to establish the presence or absence of archaeological deposits within the development area, and propose mitigation measures where necessary.

## 2. WORKING METHODS

### 2.1 General

CFA Archaeology Ltd follows the Institute for Archaeologists' Code of Conduct, Standards and Guidance for Archaeological Fieldwork. Recording of all elements followed established CFA methods, as detailed in the approved WSI.

### 2.2 Archaeological Watching Brief

The terms of the WSI required a watching brief to be maintained during the excavation of a wayleave and trench for the pipeline route in sections of undisturbed ground where no previous archaeological investigations had taken place.

Where the route passed through these areas, the trench was excavated using a tracked excavator with a toothless bucket, under constant archaeological supervision.

## 3. ARCHAEOLOGICAL RESULTS

Context numbers are included in parentheses and in bold in the below text, and are compiled in Appendix 1.

The entire route section from Fernhill Reservoir (NGR: NJ 8836 0721) north-north-east to Newhills Avenue (NGR: NJ 8845 0901) on the western fringes of Bucksburn was excavated under constant archaeological supervision (Fig. 1-3). Within this section the topsoil (**001**) was recorded to be 0.3-0.4m deep, directly overlying orange/yellow sandy silt natural (**004**).

Two features were uncovered within this section. A north to south aligned linear feature [**012**] (Fig. 6) was interpreted to be an old hedge line due to the irregular edges of the cut and alignment with existing hedge lines also running in the same direction. A possible enclosure ditch cut [**014**] (Fig. 7) was uncovered in the same section, approximately 0.5m wide. The ditch ran north from the trench edge for approximately 4.5m before turning almost due west and running back into the trench edge. Due to the fill of the ditch (**015**) being the same as topsoil (**001**), the feature was interpreted to be relatively modern; potentially a backfilled drainage ditch. Vestigial traces of cultivation rig-and-furrow were also uncovered with a 5m wavelength and 1.5m wide furrows aligned north-west to south-east.

Further north, the next section of the route under archaeological supervision ran from Kepplehills Road (NGR: NJ 8845 0937) to a field boundary directly south of a cul-de-sac on Cloverfield Place (NGR: NJ 8837 0964) (Fig. 4). A single linear feature [**016**] (Fig. 8) with irregular base and sides, 2.2m wide and 0.18m deep, was uncovered in this section, with a north-west to south-east alignment. The feature was interpreted to be a field boundary or a hedge line due to the irregularly shaped sides, existing analogous features and fill (**017**) which was again the same as topsoil (**001**), within which one piece of Victorian pottery was recovered.

The next section to be supervised ran from a crossroads to the north of Hope Farm (NGR: NJ 8835 1003) west north-west to a crossroad just east of Eastside of Craibstone (NGR: NJ 8799 1013) (Fig. 5). Topsoil **(001)** had deepened to c. 0.5m at this point in the route, again directly overlying natural silty subsoil **(004)**. Apart from several rubble-filled field drains no archaeologically significant remains were uncovered in this section of excavation.

The furthest north and final section of excavation under supervision ran west north-west along the northern bank of the A96 from an embankment south of Dairy Cottage (NGR: NJ 8821 1055) to the terminus of the pipeline route at the Dyce Drive junction on the roundabout (NGR: NJ 8797 1075) (Fig. 5). This was the only section of the supervised excavation route in which there was uncovered stratified subsoil.

To the south-east of a stand of beech trees which the route passed through, topsoil **(001)** overlay beige sand subsoil **(002)** which did not continue north-west of the trees. This layer overlay a layer of natural peat **(003)**, which overlay natural substrate **(004)** consisting of silty clay and small rocks. These layers of subsoil seemed to be largely archaeologically sterile, although several types of agricultural field drains were encountered throughout. There was a layer of buried topsoil **(005)** in this area which was removed and shown to be concealing no archaeological features.

North-west of the stand of trees, topsoil **(001)** overlay an orange beige rocky sand **(006)**, as well as peaty layer **(003)**, which again overlay natural **(004)**. In the area north-west of the trees there were traces of a layer of natural silty sand subsoil **(007)** visible in section.

The sole archaeological feature to be uncovered in this section was a ha-ha wall/bank feature (Fig. 9). This feature consisted of a shallow foundation ditch cut **[011]** (Fig. 10) filled with an inner packing core of mid brown stony sand **(009)**, with large stones **(008)** on the outer face to solidify the construction. On top of this natural substrate was re-deposited **(010)** to form the uphill bank of the ha-ha wall. This is probably part of the plantation bank visible on the First Edition Ordnance Survey map of 1869.

Also uncovered in this section was a modern service trench for a surge vent.

#### 4. CONCLUSION

A watching brief was carried out during the excavation of a wayleave and trench for a water pipeline from Fernhill Reservoir to the A96 trunk road to the north near Dyce, Aberdeen.

Various agricultural features were recorded including a probable field boundary ditch and a ha-ha wall/bank which was probably part of the plantation bank visible on the 1869 Ordnance Survey map. Along with the various field drains uncovered in the excavation, it is probable that these features are related to the agricultural background of the area in the Victorian period. This would potentially link the features uncovered in the watching brief to the various farmstead and cottage sites in the area recorded and mapped by RCAHMS.

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 Aberdeen City Council Sites and Monuments Record.

A summary statement of the results of this watching brief will be submitted for publication in *Discovery and Excavation in Scotland* (Appendix 3) and an online OASIS form will be completed.

## APPENDIX 1: Context Register

Context No.	Description
001	Humic dark brown/ black sandy silt topsoil
002	Subsoil – beige sand
003	Natural peaty subsoil
004	Natural orange/yellow silty sand with occasional rocks
005	Buried topsoil
006	Orange-beige rocky sand
007	Natural silty sand with rocks
008	Outer face of ha-ha wall/bank – large stones
009	Inner clay/sand core of ha-ha wall/bank
010	Re-deposited natural soil as levelling for ha-ha wall/bank
[011]	Cut of ha-ha wall/bank foundation ditch
[012]	Cut for hedge line/linear feature
013	Fill of cut 012 – same as topsoil 001
[014]	Cut of enclosure/drainage ditch
015	Fill of linear ditch cut 014 – same as topsoil 001
[016]	Cut of possible field boundary ditch
017	Fill of cut 016 – same as topsoil 001 & includes one piece of Victorian era pottery

## APPENDIX 2: Digital Photographic Register

Number	Description	From	Conditions
1	Topsoil stripping looking North to Bucksburn	S	Overcast
2	Topsoil stripping looking South	N	Overcast
3	Topsoil stripping looking south	NW	Overcast
4	As above	N	Overcast
5	As above	N	Overcast
6	Hedge line/boundary section [012]	N	Overcast
7	Topsoil stripping	N	Overcast
8	As above	E	Overcast
9	As above	W	Overcast
10	As above	E	Overcast
11	Enclosure ditch/drainage ditch [014]	E	Sun
12	As above	E	Sun
13	Section of enclosure ditch/drainage ditch [014]	N	Sun
14	As above	N	Sun
15	Topsoil stripping	N	Mist
16	Topsoil stripping Bucksburn – South	N	Overcast
17	As above	N	Overcast
18	Pre-ex topsoil stripping of wheat field	E	Sun
19-22	Topsoil stripping of wheat field	E	Sun
23	Topsoil stripping general shot	E	Overcast
24	Gas service found during topsoil stripping	SE	Sun
25	Shot of peat layer 003 below layer 002	NW	Sun
26	Shot of topsoil stripping near tree stand	NW	Sun
27-30	Shot of ha-ha wall/bank [011]	SE-E	Sun
31-32	SW facing section of ha-ha wall/bank [011]	NE	Sun
33-34	NE facing section of ha-ha wall/bank	SW	Sun
35	Plan of ha-ha wall/bank foundation cut [011]	NW	Sun
36	General shot showing surge vent service pipe	SE	Partial cloud
37	General shot of subsoil stratification near beech tree stand showing 007 and 004	NW	Partial cloud
38	General shot of section through possible boundary ditch [016]	S	Partial cloud

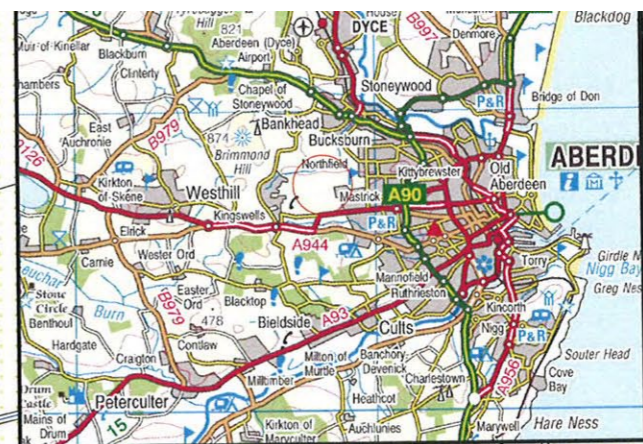
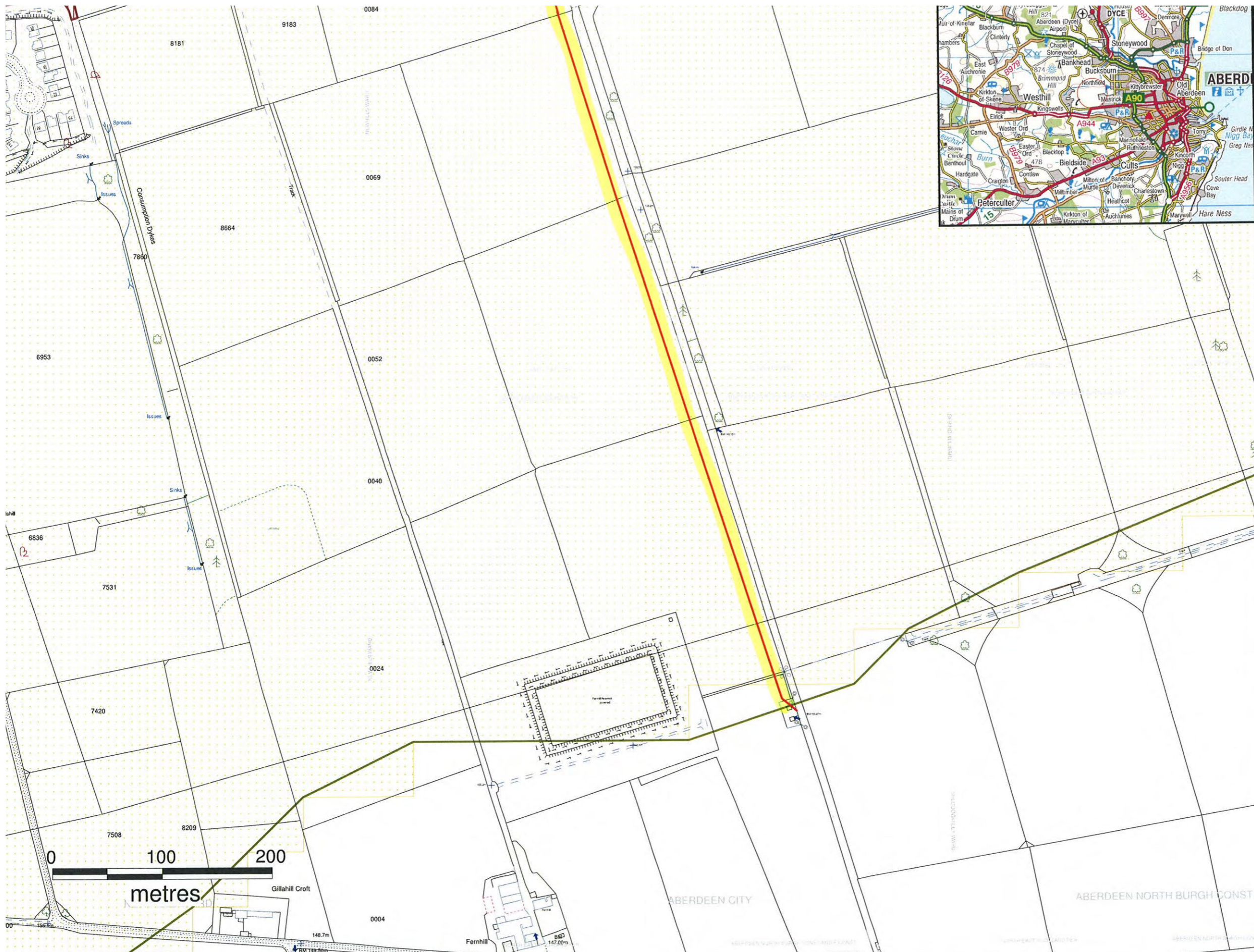


### APPENDIX 3: Field Drawing Register

Drawing Number	Sheet Number	Description	Section/ Plan	Scale
01	1	Section through ha-ha wall/bank [011]	Section	1:10
02	1	Plan of ha-ha wall/bank [011]		

### APPENDIX 4: Discovery and Excavation in Scotland Entry

<b>LOCAL AUTHORITY:</b>	City of Aberdeen Council
<b>PROJECT TITLE/SITE NAME:</b>	Fernhill Service Reservoir Pipeline
<b>PROJECT CODE:</b>	FESR
<b>PARISH:</b>	Newhills, City of Aberdeen
<b>NAME OF CONTRIBUTOR:</b>	Ewan MacNeilage
<b>NAME OF ORGANISATION:</b>	CFA Archaeology Ltd
<b>TYPE(S) OF PROJECT:</b>	Watching Brief
<b>NMRS NO(S):</b>	-
<b>SITE/MONUMENT TYPE(S):</b>	-
<b>SIGNIFICANT FINDS:</b>	-
<b>NGR (2 letters, 10 figures)</b>	NJ 8836 0724 – NJ 8797 1075
<b>START DATE (this season)</b>	April 2014
<b>END DATE (this season)</b>	July 2014
<b>PREVIOUS WORK (incl. DES ref.)</b>	N/A
<b>MAIN (NARRATIVE) DESCRIPTION:</b> (May include information from other fields)	<p>A watching brief was carried out during the excavation of a wayleave and trench for a subterranean water pipeline from Fernhill Reservoir to the A96 trunk road to the north near Dyce, Aberdeen.</p> <p>Various agricultural features were recorded including a probable field boundary ditch and a ha-ha wall/bank. Along with the various field drains uncovered in the excavation, it is probable that these features are related to the agricultural background of the area in the Victorian period. This would potentially link the features uncovered in the watching brief to the various farmstead and cottage sites in the area recorded and mapped by RCAHMS.</p>
<b>PROPOSED FUTURE WORK:</b>	None
<b>CAPTION(S) FOR ILLUSTRS:</b>	N/A
<b>SPONSOR OR FUNDING BODY:</b>	Scottish Water
<b>ADDRESS OF MAIN CONTRIBUTOR:</b>	The Old Engine House, Eskmills Park, Musselburgh, EH21 7PQ
<b>EMAIL ADDRESS:</b>	cfa@cfa-archaeology.co.uk
<b>ARCHIVE LOCATION (intended/deposited)</b>	National Monuments Record of Scotland (archive) Aberdeen City Council Sites and Monuments Record (report)



Key

- Areas Requiring Archaeological Watching Brief



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Fig. No:	1	Revision	A
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Title  
 Map of Areas excavated under archaeological supervision from NGR: NJ 8836 0721 to NJ 8845 0901 (1 of 3)

Project  
 Fernhill Service Reservoir Pipeline - Archaeological Watching Brief

Client  
 Scottish Water

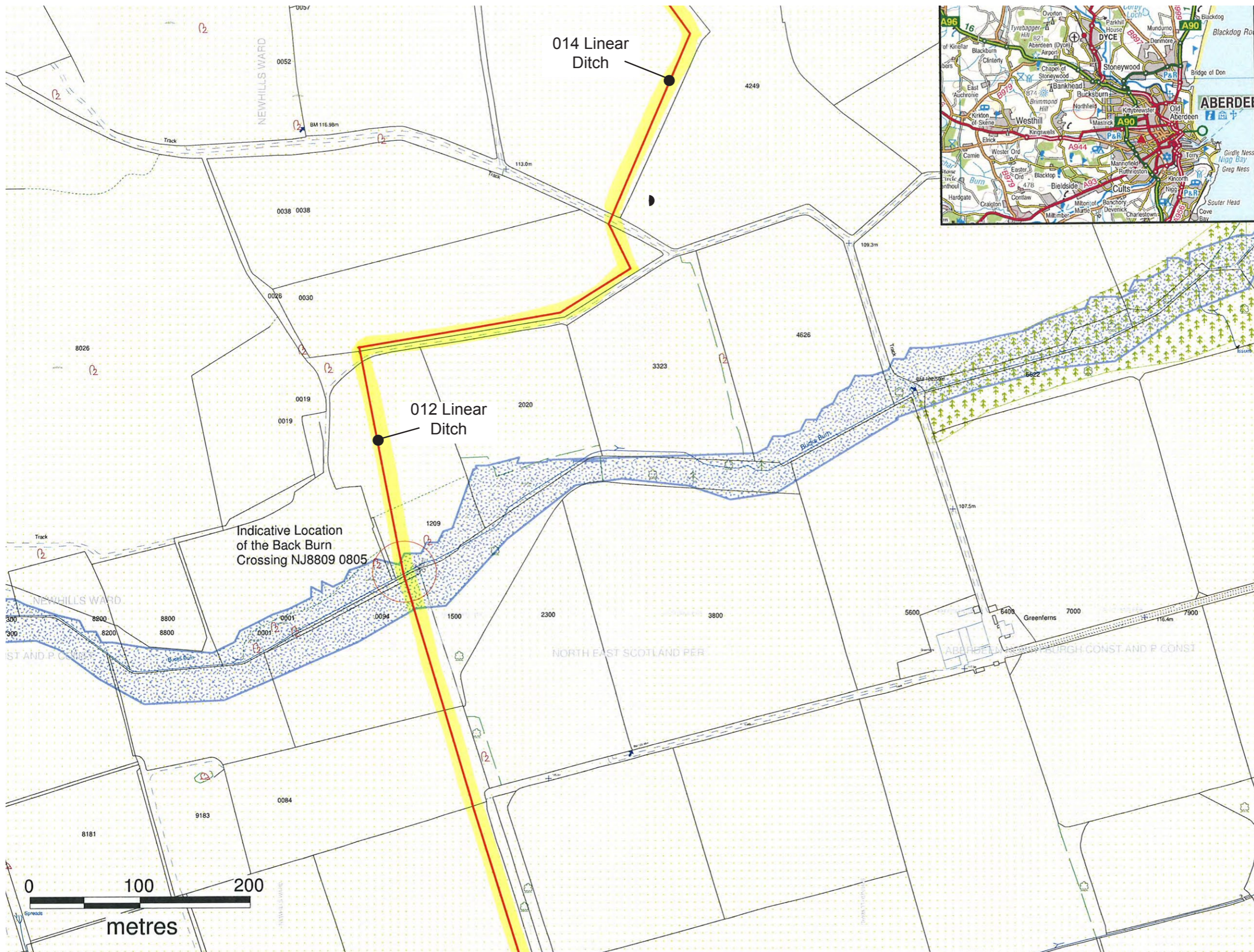
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Fig. No:	2	Revision	A
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Title  
 Map of areas excavated under archaeological supervision from NGR: NJ 8836 0721 to NJ 8845 0901 (2 of 3) showing location of features 012 and 014

Project  
 Fernhill Service Reservoir Pipeline - Archaeological Watching Brief

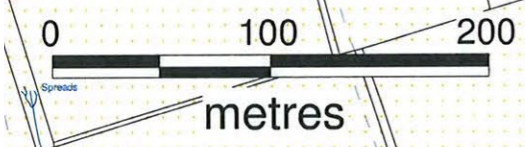
Client  
 Scottish Water

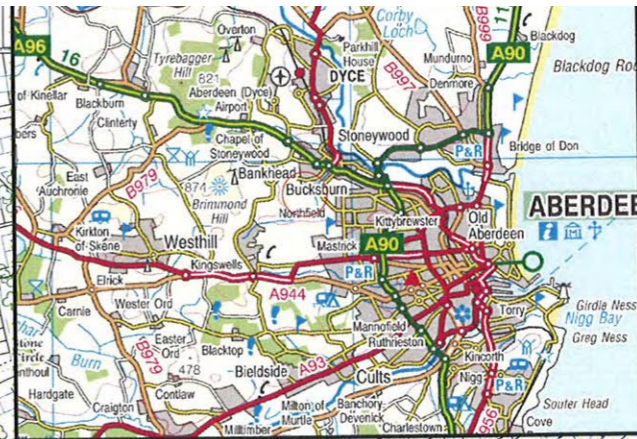
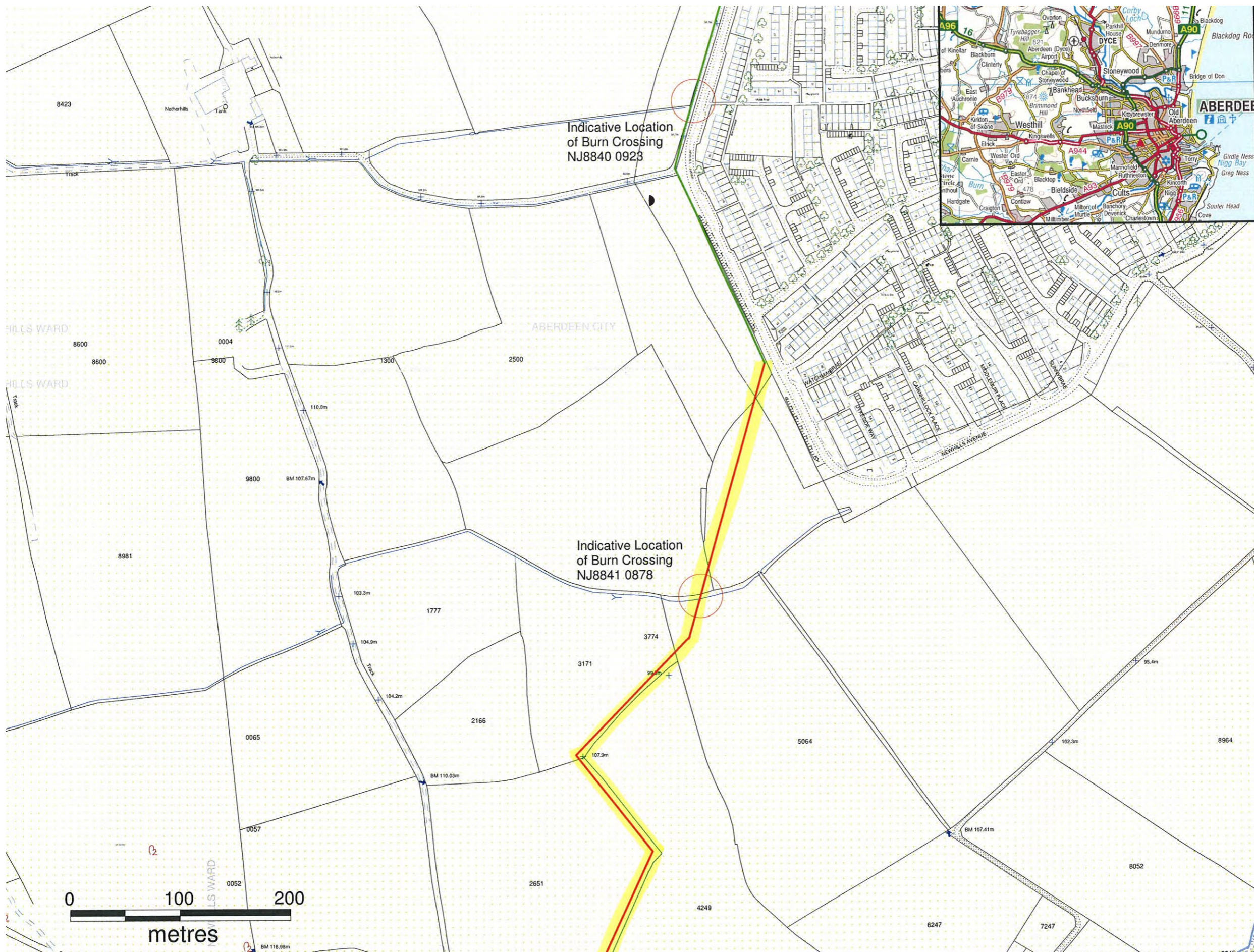
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Fig. No: **3** Revision **A**

Title  
 Map of areas excavated under  
 archaeological supervision from  
 NGR: NJ 8836 0721 to NJ 8845 0901  
 (3 of 3)

Project  
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 Pipeline - Archaeological  
 Watching Brief

Client  
 Scottish Water

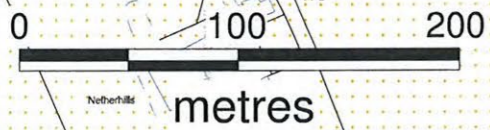
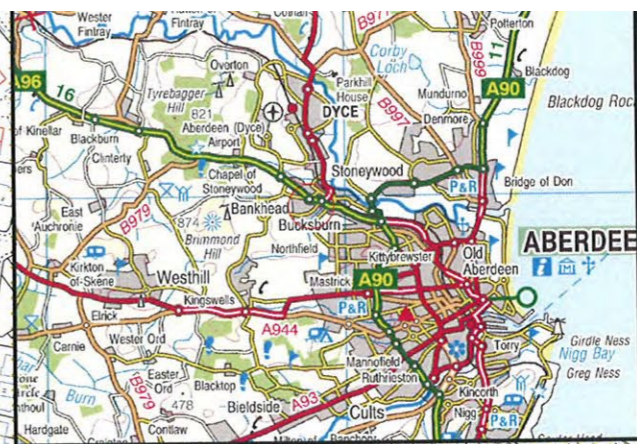
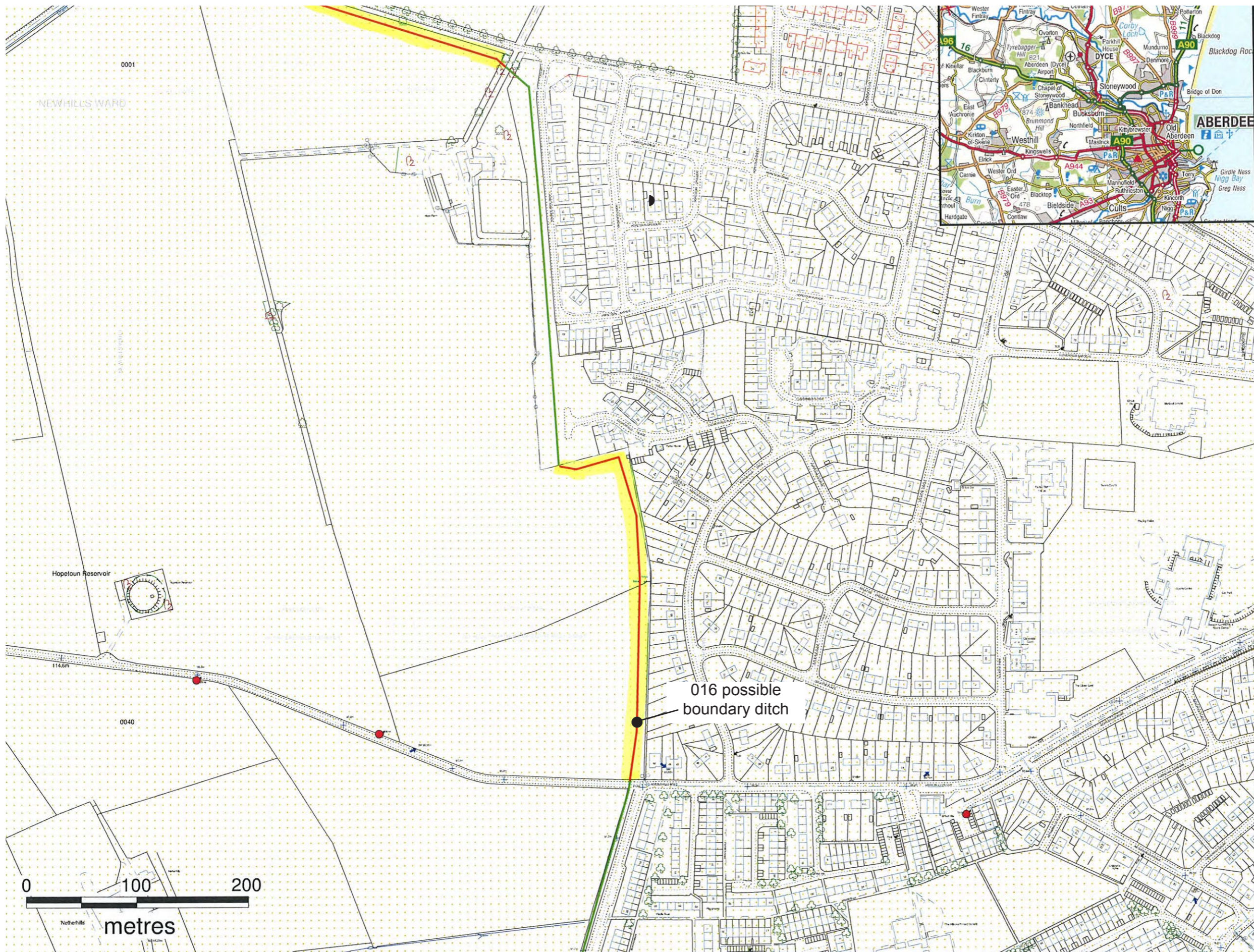
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Fig. No:	4	Revision	A
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Title  
 Map of areas excavated under archaeological supervision from NGR: NJ 8845 0937 to NJ 8837 0964 showing location of feature 016

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 Fernhill Service Reservoir Pipeline - Archaeological Watching Brief

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 Scottish Water

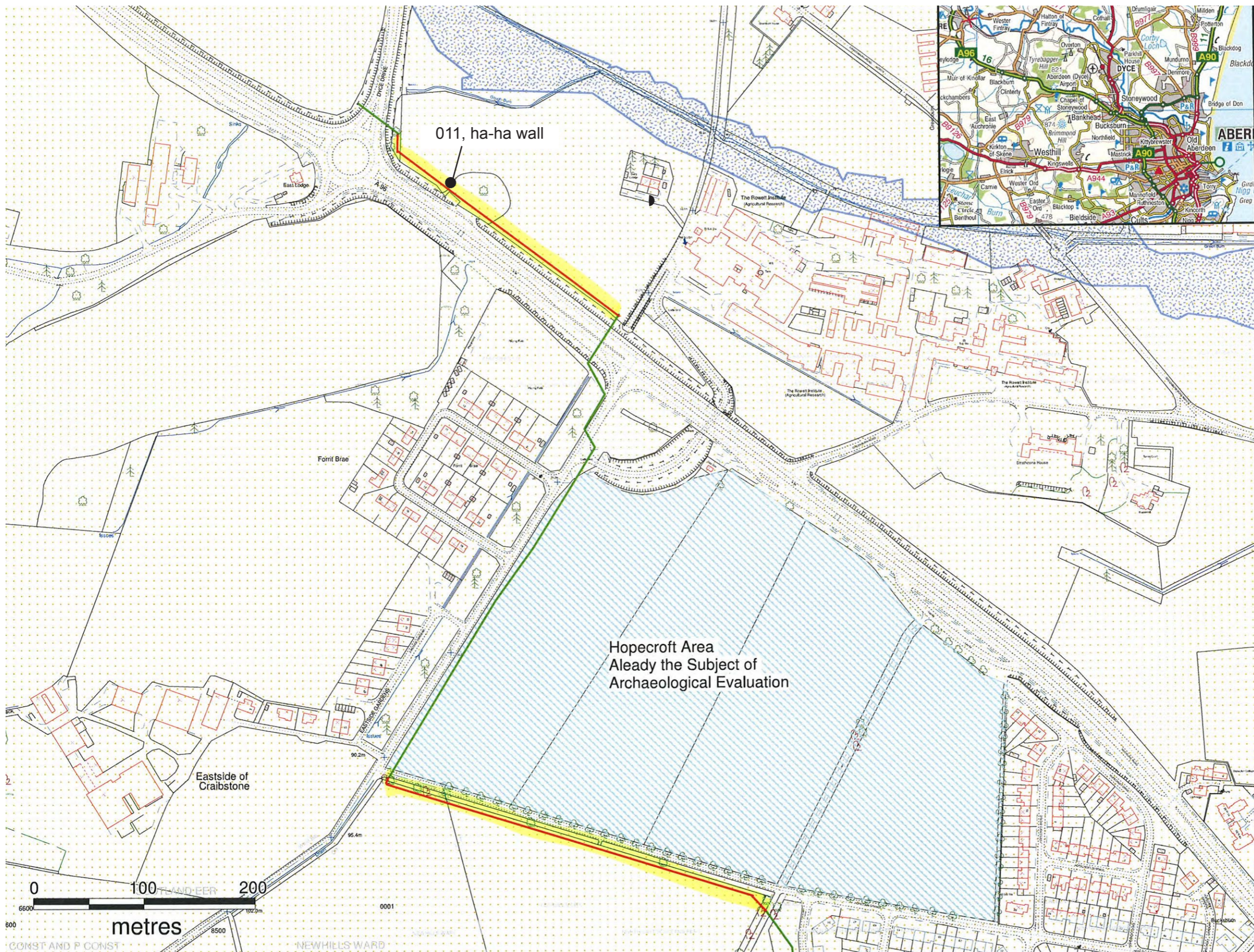
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Fig. No:	5	Revision	A
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Title  
 Map of areas excavated under archaeological supervision from NGR: NJ 8835 1003 to NJ 8797 1075 showing location of feature 011

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*Fig. 6 - Photograph of north facing section through linear ditch 012*



*Fig. 7 - Photograph of east-facing section through enclosure/drainage ditch 014*



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**Figures 6 and 7**

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Fig. No: 6-7	Report: 3177	Drawn: TB	CKD: MJ	Date: 15/07/14
Client: <b>Scottish Water</b>				
Scale:				





*Fig. 8 - Photograph of south-facing section through possible field boundary ditch 016*



*Fig. 9 - Photograph of SW facing section of ha-ha wall/bank 011*



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**Figures 8 and 9**

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Fig. No: 8-9	Report: 3177	Drawn: TB	CKD: MJ	Date: 15/07/14
Client: <b>Scottish Water</b>				

Scale:







*Fig. 10 - Plan photograph of ha-ha wall/bank foundation cut 011*



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**Title:**  
 Figure 10

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<b>Fig. No:</b> 10	<b>Report:</b> 3177	<b>Drawn:</b> TB	<b>CKD:</b> MJ	<b>Date:</b> 15/07/14
<b>Client:</b> Scottish Water				
<b>Scale:</b>				

