

Crawley Tunnel, Burdiehouse Road, Edinburgh: Archaeological Evaluation Data Structure Report

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Crawley Tunnel, Burdiehouse Road, Edinburgh: Archaeological Evaluation Data Structure Report

On Behalf of: McLaren Murdoch & Hamilton
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National Grid Reference (NGR): NT 2750 6788

AOC Project No: 22628

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This document has been prepared in accordance with AOC standard operating procedures.

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Contents

	Page
List of Illustrations	2
List of Plates	2
List of Appendices	2
ABSTRACT	3
1 INTRODUCTION	4
1.1 Background	4
1.2 Site Location	4
2 HISTORICAL BACKGROUND	4
3 OBJECTIVES	5
4 METHODOLOGY	5
5 RESULTS	5
5.1 Introduction	5
5.2 Evaluation	6
6 DISCUSSION	7
7 REFERENCES	8
APPENDIX 1: TRENCH DESCRIPTION	10
APPENDIX 2: PHOTOGRAPHIC REGISTER	10
APPENDIX 3: 'DISCOVERY AND EXCAVATION IN SCOTLAND' REPORT	12

List of Illustrations

Figure 1: Site Location

Figure 2: Extract from 1st Edition, Ordnance Survey map (Edinburghshire Sheet 6), 1856 with approximate location of development area shown

Figure 3: Site location showing development area with location of trench and actual position of cast iron water main

List of Plates

Plate 1: Showing evaluation trench at c.2.5 m deep

Plate 2: Showing weathered bedrock at base of trench

Plate 3: Showing cast iron water main

List of Appendices

Appendix 1: Trench Descriptions

Appendix 2: Photographic Register

Appendix 3: Discovery and Excavation in Scotland Report

ABSTRACT

This report presents the results of an archaeological evaluation undertaken by AOC Archaeology Group on behalf of Cala Homes (East) prior to the redevelopment of a brownfield site at Burdiehouse Road, Edinburgh.

The evaluation comprised the machine excavation of single trench positioned across the suspected line of the early 19th Century Crawley Tunnel. The trench measured c.0.80 m wide by c.3.2 m deep and extended for nearly 13.0 m. The trenching revealed a thin modern topsoil over c. 0.5 m to 1.0 m of redeposited clay over what appeared to be natural clay subsoil which at 3.0 m became *in situ* weathered bedrock. No trace of the Crawley Tunnel was encountered within the trench and beyond some disturbance within the upper 1.0 m of deposits there was no indication that it had been removed.

During site clearance AOC was able to return to site and excavate two further trenches. In both of these trenches a 15" cast iron water main was noted at a depth of between 2.5 m and 3.0 m. This lay slightly to the east of the line of the Crawley Tunnel as shown on the OS map. No trace of any super structure around the pipe was noted.

1 INTRODUCTION

1.1 Background

1.1.1 A programme of archaeological works, including an archaeological evaluation is required by McLaren Murdoch and Hamilton on behalf of their client during the redevelopment at Burdiehouse Road, Edinburgh. The site lies within the administrative area of the City of Edinburgh Council, which is advised on archaeological matters by the City of Edinburgh Council Archaeology Service (CECAS). The archaeological works will be conducted in accordance with the principles as set out in *Scottish Planning Policy* (2010) and *Planning and Archaeology 2/2011* (2011).

1.2 Site Location

1.2.1 The development area at Burdiehouse Road (A701) is located to the south side of the city of Edinburgh. The A701 is one of the main routes in and out of the city passing through Liberton, Gracemount, Monktonhall, Burdiehouse and on towards Straiton which lies just beyond the Edinburgh City Bypass (A720). Burdiehouse Road follows on from Liberton Road and the development area lies to the immediate east of the A701 and is centred on NGR: NT 2750 6788 (Figure 1).

1.2.2 The development area is triangular in plan and is flanked by Burdiehouse Road to the west and Burdiehouse Terrace to the east with existing housing forming the northern edge of the development area.

2 HISTORICAL BACKGROUND

2.1 The First Edition Ordnance Survey map of 1856 shows the development area as undeveloped (Figure 1) with buildings lying to the west of 'Burdiehouse Road' with nothing on the eastern side where the current development area is situated. On the 1st Edition OS map the line of the 'Crawley Tunnel' is clearly marked as 'Course of Conduit – Edinburgh Water Works'.

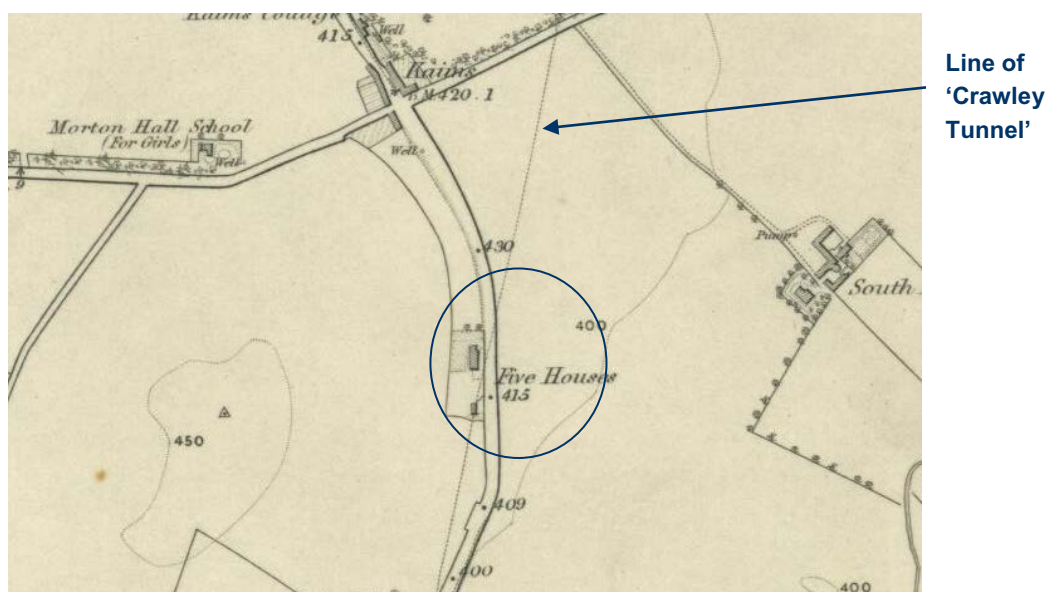


Figure 2: Extract from 1st Edition, Ordnance Survey map (Edinburghshire Sheet 6), 1856 with approximate location of development area shown

- 2.2 The Royal Commission on Ancient and Historical Monuments of Scotland, RCAHMS lists the Crawley Tunnel as a site, NMRS No.NT27SE 5844. It describes the tunnel as, 'Crawley Aquaduct' as being built in 1821. It supplied fresh water for the New Town, Leith, Newhaven and Trinity.

3 OBJECTIVES

- 3.1 The objectives of the archaeological works are:
- i) to determine and assess the character, extent, condition, quality, date and significance of any buried archaeological remains within the proposed development area through evaluation trenching, specifically to try and locate the 'Crawley Tunnel';
 - ii) to advise and implement an appropriate form of mitigation, such as excavation, post-excavation analyses and publication, given the infeasibility of preserving the 'Crawley Tunnel' or other significant archaeological material *in situ*.

4 METHODOLOGY

- 4.1 The Written Scheme of Investigation, (AOC2013) specified that the evaluation should investigate the presence of the 'Crawley Tunnel' through the excavation of a single trench across its supposed line through the development area.
- 4.2 However once on site it was apparent that the extent of this single evaluation trench was hampered by the still extant buildings on site and the presence of 40 ft high trees. This meant the evaluation trench was limited to c.13 m in length. However the trench was positioned centrally across the suspected line of the tunnel as shown on various maps.
- 4.3 The second visit to site during site clearance allowed a much greater area to be examined and a large cut was noted to the east of the suspected line of the Crawley Tunnel. Two trenches were then cut across this feature.

5 RESULTS

5.1 Introduction

- 5.1.1 All archaeological works were conducted on the 21st January 2014. Weather conditions were favourable through the course of the work conducted with the archaeological visibility good.
- 5.1.2 The various data gathered from the evaluation and excavations are presented as a series of appendices:

Appendix 1: Trench Descriptions;
Appendix 2: Photographic Register;

Appendix 3: reproduces the 'Discovery and Excavation in Scotland' entry

5.2 Evaluation

5.2.1 The evaluation comprised the machine excavation of single trench, Trench 1, positioned across the suspected line of the early 19th Century Crawley Tunnel. The trench measured c.0.80 m wide (2.00 m wide for the upper 0.40 m) by c.3.20 m deep and extended for nearly 13.0 m. The trenching revealed a thin modern topsoil, up to 0.30 m deep lying over c. 0.50 m to 1.0 m of redeposited clay. This redeposited material lay over what appeared to be natural clay subsoil which at 3.0 m became *in situ* weathered bedrock. No trace of the Crawley Tunnel was encountered within the Trench 1 and beyond some disturbance within the upper 1.0 m of deposits there was no indication that it had been removed.



Plate 1: Showing evaluation Trench 1 at c.2.5 m deep

5.2.2 No anthropic material was found at lower levels, with only modern later 20th century material encountered within the topsoil and the upper redeposited natural clay deposits.



Plate 2: Showing weathered bedrock at base of Trench 1

- 5.2.3 The return to site saw two trenches excavated across a large negative feature. At a depth of c.2.5 m in the northern trench and c.3.0 m in the southern trench a large 15” cast iron water main was uncovered. This would appear to be the water main associated with the Crawley Tunnel. No trace of a brick tunnel or super structure around the water main was uncovered.

6 DISCUSSION

- 6.1 The initial evaluation trench that was opened across the then available ground could not be extended to the west due to trees and to the east due to existing buildings. However the 13 m of trench that was excavated was positioned directly across the suspected line of the Crawley Tunnel as depicted on OS mapping and no trace of either the tunnel, water main or evidence for its possible removal were encountered.

- 6.2 The latter two trenches excavated once the trees and buildings were demolished and cleared have located the Crawley Tunnel, or at least the cast iron water main associated with the Crawley Tunnel. It is at such a depth that it is likely that the current development will be rafted over the cast iron water main leaving it *in situ*. The water main lies a little to the east of where it is suggested to lie from the cartographic evidence.



Plate 3: Showing cast iron water main

- 6.2 It is believed that the development proposals will mean that any foundations crossing the line of the water main will be rafted over the feature and therefore the water main will be left *in situ* in which case no further works will be required.

7 REFERENCES

AOC Archaeology 2014 *Crawley Tunnel, Burdiehouse Road, Edinburgh Archaeological Evaluation: Written Scheme of Investigation*. Unpublished AOC Project Design

Scottish Government 2010 Scottish Planning Policy.

Scottish Government 2010 PAN 2/2011 Planning & Archaeology.

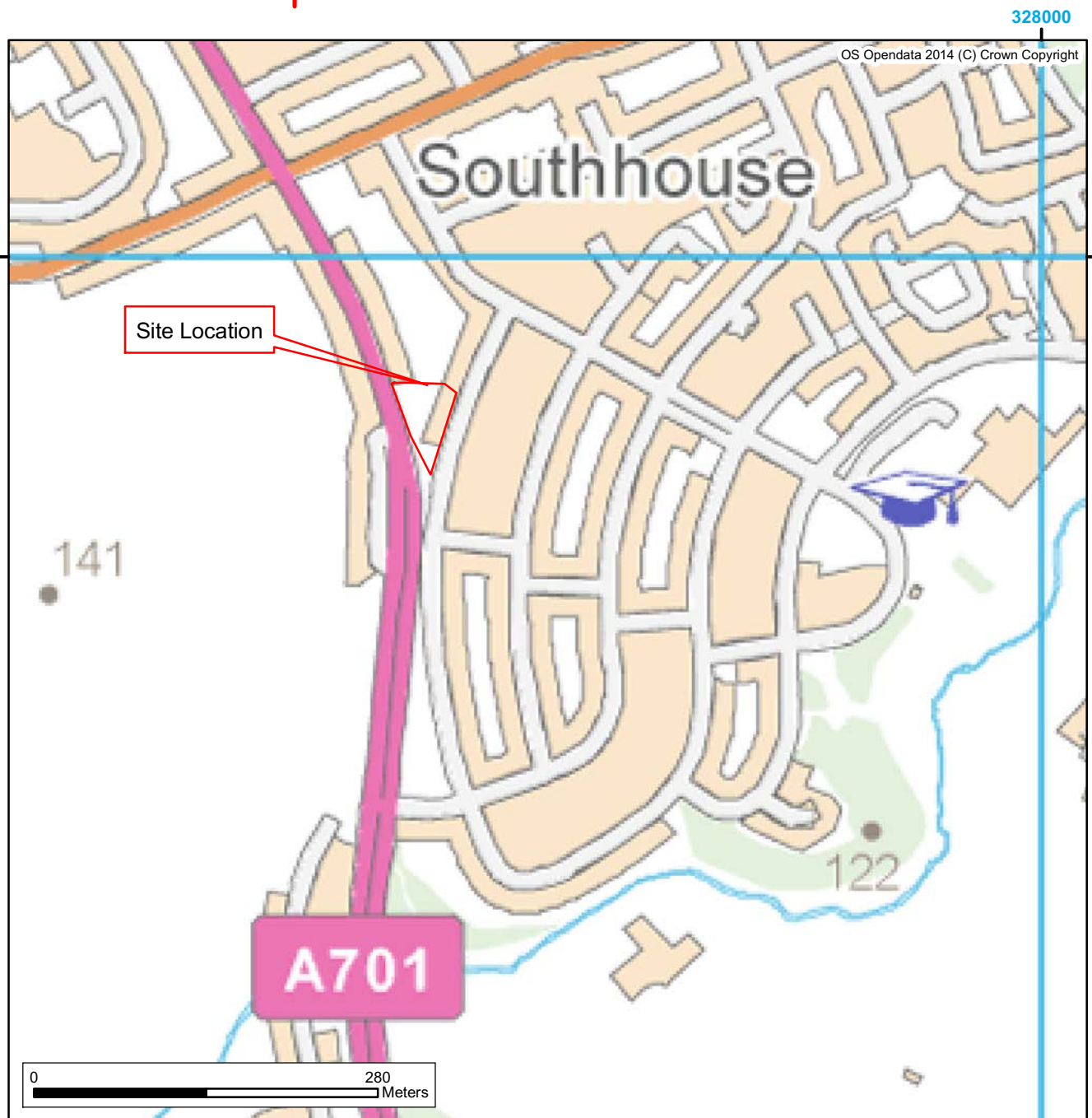
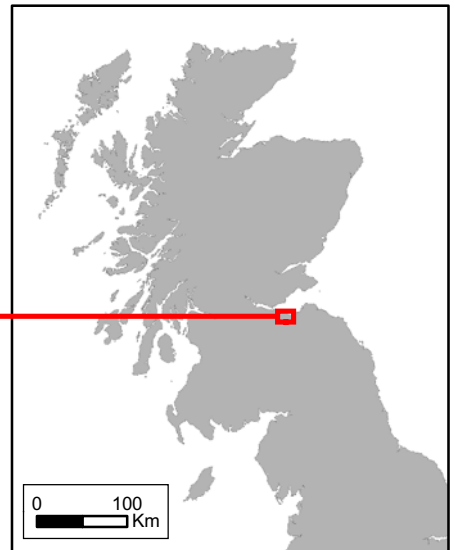
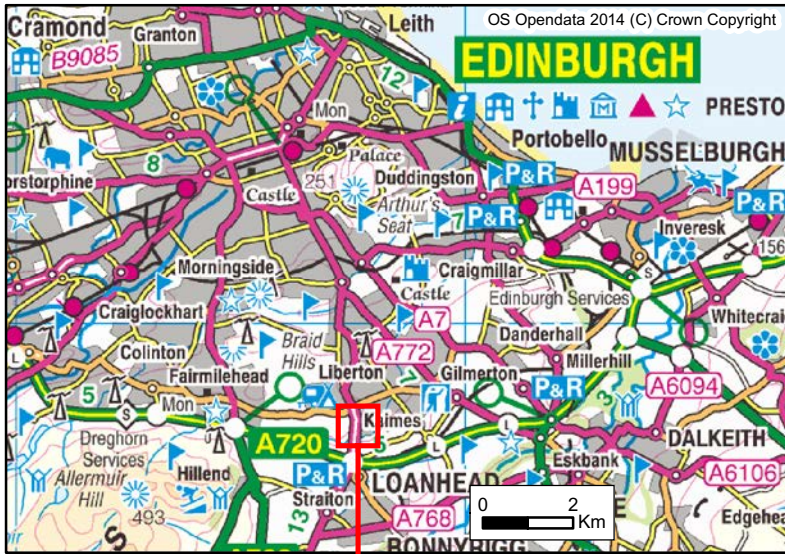
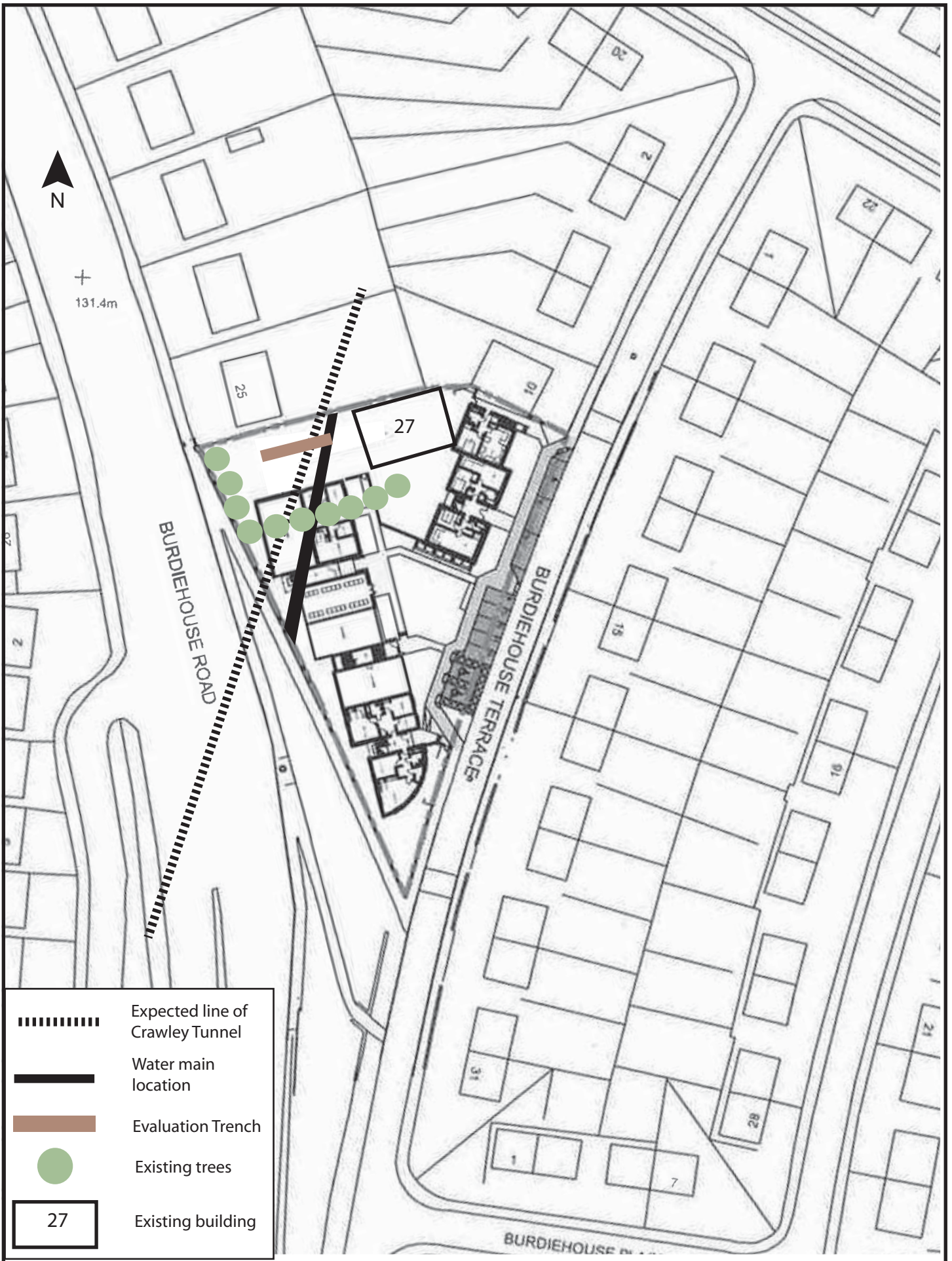


Figure 1: Site Location Plan



0 50 m

(Based on a drawing provided by the client)

Figure 3 - Trench location plan

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Edinburgh:
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Section 2: Appendices

APPENDIX 1: TRENCH DESCRIPTION

Trench 1

<i>Dimensions</i>	13.0 m by 2.0 m with 0.8 m central trench
<i>Orientation</i>	E-W
<i>Soil make-up</i>	Topsoil (0.2-0.3 m deep) over orange clay (0.6-1 m deep) over a grey boulder clay (1 m deep) over bedrock
<i>Depth of Excavation</i>	3.6 m
<i>Significant Features</i>	None
<i>Finds</i>	None

Trench 2

<i>Dimensions</i>	6.0 m by 1.6 m
<i>Orientation</i>	NE-SW
<i>Soil make-up</i>	Topsoil (0.2-0.3 m deep) over redeposited orange/grey clay (0.6-2.5 m)
<i>Depth of Excavation</i>	3.2 m
<i>Significant Features</i>	Cast iron water main
<i>Finds</i>	None

Trench 3

<i>Dimensions</i>	5.0 m by 1.6 m
<i>Orientation</i>	NE-SW
<i>Soil make-up</i>	Topsoil (0.2-0.3 m deep) over redeposited orange clay (0.6-2.5 m deep)
<i>Depth of Excavation</i>	2.8 m
<i>Significant Features</i>	Cast iron water main
<i>Finds</i>	None

APPENDIX 2: PHOTOGRAPHIC REGISTER

Digital Photographs

Frame	Area	Description	From
1-2	Tr.1	View of Eval trench	E
3	Tr.1	View of Eval trench	W
4-5	Tr.1	View of Eval trench	E
6	Tr.1	General view of trench location	NE
7-8	Tr.1	Natural at base of trench – east end	E
9	Tr.1	S-facing section of trench 1	SE
10-11	Tr.1	Natural at base of trench – west end	W
12-13	Tr.1	Natural at base of trench – east end	E
14	Tr.1	Trench backfilled	SE
15-18	Tr.2	Views of Trench 2 showing water main	Various
19-23	Tr.3	Views of Trench 3 showing water main	various

APPENDIX 3: 'DISCOVERY AND EXCAVATION IN SCOTLAND' REPORT

LOCAL AUTHORITY:	City of Edinburgh Council
PROJECT TITLE/SITE NAME:	Crawley Tunnel, Burdiehouse Road, Edinburgh
PROJECT CODE:	22628
PARISH:	Liberton
NAME OF CONTRIBUTOR:	Lindsay Dunbar
NAME OF ORGANISATION:	AOC Archaeology Group
TYPE(S) OF PROJECT:	Evaluation
NMRS NO(S):	NT27SE 5844
SITE/MONUMENT TYPE(S):	Tunnel
SIGNIFICANT FINDS:	None
NGR (2 letters, 6 figures)	NT 2750 6788
START DATE (this season)	17th January 2014
END DATE (this season)	22 nd May 2014
PREVIOUS WORK (inc DES)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>This report presents the results of an archaeological evaluation undertaken by AOC Archaeology Group on behalf of Cala Homes (East) prior to the redevelopment of a brownfield site at Burdiehouse Road, Edinburgh.</p> <p>The evaluation comprised the machine excavation of single trench positioned across the suspected line of the early 19th Century Crawley Tunnel. The trench measured c.0.80 m wide by c.3.2 m deep and extended for nearly 13.0 m. The trenching revealed a thin modern topsoil over c. 0.5 m to 1.0 m of redeposited clay over what appeared to be natural clay subsoil which at 3.0 m became <i>in situ</i> weathered bedrock. No trace of the Crawley Tunnel was encountered within the trench and beyond some disturbance within the upper 1.0 m of deposits there was no indication that it had been removed.</p> <p>During site clearance AOC was able to return to site and excavate two further trenches. In both of these trenches a 15" cast iron water main was noted at a depth of between 2.5 m and 3.0 m. This lay slightly to the east of the line of the Crawley Tunnel as shown on the OS map. No trace of any super structure around the pipe was noted.</p>
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRATIONS:	N/A
SPONSOR OR FUNDING BODY:	McLaren Murdoch & Hamilton
ADDRESS OF MAIN	AOC Archaeology Group

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ARCHIVE LOCATION	Archive to be deposited in NMRS



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