

St. Margaret's Primary School & Nursery, Cowie, Stirling: Archaeological Evaluation Data Structure Report

AOC Project 22997
Oasis No. aocarcha1-203016
9th February 2015



St. Margaret's Primary School & Nursery, Cowie, Stirling:

Archaeological Evaluation Data Structure Report

On Behalf of: Robertson Construction Ltd.
Robertson House
Castle Business Centre
Stirling
FK9 4TZ

National Grid Reference (NGR): NS 83560 89271

AOC Project No: 22997

Planning Application No. 14/00726/FUL

Prepared by: Kevin Paton

Illustration by: Kevin Paton

Date of Fieldwork: 5th February 2015

Date of Report: 9th February 2015

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

Author: Kevin Paton **Date:** 9th February 2015
Approved by: Martin Cook **Date:** 9th February 2015
Draft/Final Report Stage: Draft **Date:** 9th February 2015

Enquiries to: AOC Archaeology Group
Edgefield Industrial Estate
Edgefield Road
Loanhead
EH20 9SY

Tel. 0131 440 3593
Fax. 0131 440 3422
e-mail. admin@aocarchaeology.com



Contents

	Page
List of Illustrations	3
List of Plates	3
List of Appendices	3
Abstract.....	4
1 INTRODUCTION	5
1.1 Background	5
1.2 Location.....	5
1.3 Archaeological Background.....	5
2 OBJECTIVES	5
3 METHODOLOGY	6
4 RESULTS	6
5 CONCLUSION AND RECOMMENDATIONS.....	7
6 REFERENCES	7
APPENDIX 1: Trench Descriptions	11
APPENDIX 2: Photographic Record	13
APPENDIX 3: ‘Discovery and Excavation in Scotland’ Report.....	14

List of Illustrations

Figure 1	Site location
Figure 2	Extract from Roy's map of 1752-55
Figure 3	Extract from Ordnance Survey 1899
Figure 4	Extract from Ordnance Survey 1951
Figure 5	Evaluation trench location plan

List of Plates

Plate 1	Made ground depth in Trench 4
Plate 2	Made ground depth in Trench 6
Plate 3	General view of Trench 1
Plate 4	Original topsoil under made ground in Trench 7

List of Appendices

Appendix 1	Trench Descriptions
Appendix 2	Photographic Record
Appendix 3	' <i>Discovery and Excavation in Scotland</i> ' Report

Abstract

This report presents the results of an archaeological evaluation undertaken in relation to a proposed development of a new school and nursery at parkland behind Main Street, Cowie, Stirling.

The evaluation required up to 100 m² of linear trench throughout the development area to establish the extent of the former Polmaisie Quarry. From the initial trenches excavated it became clear that the majority of the area had been previously stripped during the use of the area as a quarry. However, only the SE half of site showed signs of gravel extraction with the remainder most likely having contained banded material.

After consultation with Stirling Councils Planning Officer (Archaeology) a 10 % evaluation of the NW half of the site was conducted, which included the proposed building footprint and the hard standing around it.

The additional trench (Trench 7) indicated that the former topsoil still remained in the far NW corner of the development site but no archaeological features or artefacts were revealed throughout the evaluated area.

No further works are considered necessary within the development area. This recommendation requires the approval of the Stirling Council Planning Officer (Archaeology).

1 INTRODUCTION

1.1 Background

1.1.1 AOC Archaeology Group was commissioned by Robertson Construction Ltd. to undertake an archaeological evaluation of a proposed development of a school and nursery on parkland to the NW of Main Street, Cowie, Stirling. The evaluation was undertaken in order to satisfy the requirements of the local planning authority, Stirling Council. The works were conducted according to the terms of a *Written Scheme of Investigation* (AOC 2015) approved by Stirling Council and in accordance with the principles set out in *Scottish Planning Policy* (Scottish Government 2014) and *PAN 2/2011 Planning & Archaeology* (Scottish Government 2011).

1.2 Location

1.2.1 The proposed development lies within parkland to the SW of the centre of Cowie, Stirling. The development is centred on NGR: NS 83560 89271 (Figure 1). The site is bounded to the NW, NE, W and SW by open ground containing parkland, sparse woodland and fields. To the E and SE are the backs of houses and warehouses that front onto Main Street.

1.3 Archaeological Background

1.3.1 The RCHAMS database suggests that two large prehistoric enclosures were formerly situated within or around the proposed development site. The first of these is known as 'Berryhills' Fort (NS88NW 10) and was recorded by Roy on his Military Survey of Lowland Scotland 1752-55 (Figure 2) surrounding the summit of Berryhills. A visit to this site by the Royal Commission in 1952 recorded the site as being pear-shaped in plan and measuring 150 ft N-S by 170 ft enclosed by triple defensive ramparts. At the time of this survey the fort was being eroded by ploughing and no internal features existed.

1.3.2 During the same visit in 1952, an enclosure to the W of the fort (NS88NW 4) was also recorded as being formed by an earthen bank measuring 60 ft by 50 ft internally. Both of these enclosures indicate that the development area lies within a rich, later prehistoric environment. Earlier prehistoric activity was found to the N of the development area in the form of a Neolithic settlement that included houses, pottery kilns and other features. The combination of the early Neolithic site and later Iron Age fort indicate that modern day Cowie was probably occupied from an early prehistoric period.

1.3.3 Unfortunately, upon return visits to the enclosures in 1974 and 1979 the fort and enclosure have both been destroyed by quarrying. This quarry activity is noted on the maps from the late 19th century and by the 1899 Ordnance Survey (Figure 3), it is clear that the area has been used mainly for quarrying activities with a number of quarries and collieries – with their associated railway systems – marked.

1.3.3 The quarry that affects the development area the most is the Polmaisie Quarry. From cartographic evidence this quarry is out of use by 1951 (Ordnance Survey 1951; Figure 4) and its extents have potentially impacted upon the development site which is situated to the NW of the quarry centre.

1.3.4 No evidence of further development is noted on the site and no archaeological investigations have previously taken place within the development area.

2 OBJECTIVES

2.1 The objectives of the archaeological evaluation were:

- i) to determine and assess the character, extent, condition, quality, date and significance of any buried archaeological remains within the proposed development area;
- ii) to advise and implement an appropriate form of mitigation, such as excavation, post-excavation analyses and publication given the infeasibility of preserving the archaeological material *in situ*, should significant archaeological remains be encountered.

3 METHODOLOGY

- 3.1 The evaluation was initially proposed to excavate 100 m² of linear trench throughout the development area, with a view to establishing the extents of the former Polmaisie Quarry. Trenches were also positioned in order to evaluate the developments largest impact, in this case the building footprint. After initial trenching a 10% evaluation of the NW half of site was recommended (equating to 81 m²).
- 3.2 All excavation was undertaken by a JCB 3CX excavator with 1.6 m wide ditching bucket. Excavation was undertaken in shallow units/spits until the first significant archaeological horizon. All machine excavation was supervised by an experienced field archaeologist and according to AOC Archaeology Group's standard operating procedures, and as per the methodology within the *Written Scheme of Investigation* (AOC 2015). The trenches were backfilled on completion of the evaluation.

4 RESULTS

- 4.1 The archaeological evaluation was undertaken on 5th February 2015. Weather conditions were good, allowing for good archaeological visibility throughout the evaluation. In total, 120 m² of linear trench was opened, varying in alignment and length (Figure 5).
- 4.2 The initial trenches forming part of the required 100 m² indicated that the quarry did encroach into the development area, but that the NW half of the site was potentially only stripped of topsoil and used for storage of soil (see Figure 4). The soils in trenches 2-6 consisted of a thin layer of turf overlying a made ground of orangey brown sandy clay with occasional brick, ash, red blaes and pink clay inclusions, varying in depth from 0.3 m in Trench 4 to 1.5 m in Trench 6 (Plate 1 & 2). In trenches 2, 5 and 6 this made ground was also overlain by a layer of small rounded gravels similar to modern type 1 material (0.2 m thick).
- 4.3 Trench 1 to the NW varied from the others as it consisted of a mixed topsoil and made ground layer up to 0.35 m thick overlying the natural geology of orange and brown sand and gravel (Plate 3). From these initial trenches it is clear that the area to the SE of Trenches 1, 4 and 5 has had sand and gravel extracted from it given the amount of made ground required to level the area.
- 4.4 After an on-site consultation with the Stirling Council Planning Officer (Archaeology) it was agreed that no further evaluation works were required within the SE half of the site where the quarry had been found to have destroyed all potential archaeology. However, further works involving a 10% evaluation were recommended in the NW half of the site where archaeological potential was greatest (the NW half). This required one further trench in this area (Trench 7) which was located to the NW of Trench 1. This indicated that the far NW corner had not been stripped during the quarry activity with the original topsoil still present under a grey and orange sandy clay made ground (Plate 4).
- 4.5 No archaeological features or artefacts were located within the evaluation trenches.

5 CONCLUSION AND RECOMMENDATIONS

- 5.1 From the trenches excavated it has been demonstrated that the development area has been impacted upon by previous quarry activity in the SE half of site. To the NW, the quarry activity has stripped the former topsoil off the area, but does not seem to have extracted the underlying sands and gravels. In the far NW corner, the original topsoil still exists in situ, however no archaeologically significant features or artefacts were revealed during the evaluation.
- 5.2 The evaluation has clearly demonstrated that the potential for undiscovered archaeological features existed, but they were not identified. The results would appear to agree with the Royal Commission field surveys that the fort and enclosure that formerly occupied Berryhills have been removed by quarrying.
- 5.3 No further archaeological works are deemed necessary within this part of the development area. This recommendation will require the approval of the Planning Officer (Archaeology) for Stirling Council.

6 REFERENCES

AOC Archaeology 2015, *St. Margaret's Primary School & Nursery, Cowie: Archaeological Evaluation Written Scheme of Investigation* Unpublished AOC project design

Scottish Government 2014 *Scottish Planning Policy*, 2014

Scottish Government 2011 *Planning And Archaeology 2/2011*



Plate 1 - Made ground depth in Trench 4



Plate 2 - Made ground depth in Trench 6



Plate 3 - General view of Trench 1



Plate 4 - Original topsoil under made ground in Trench 7

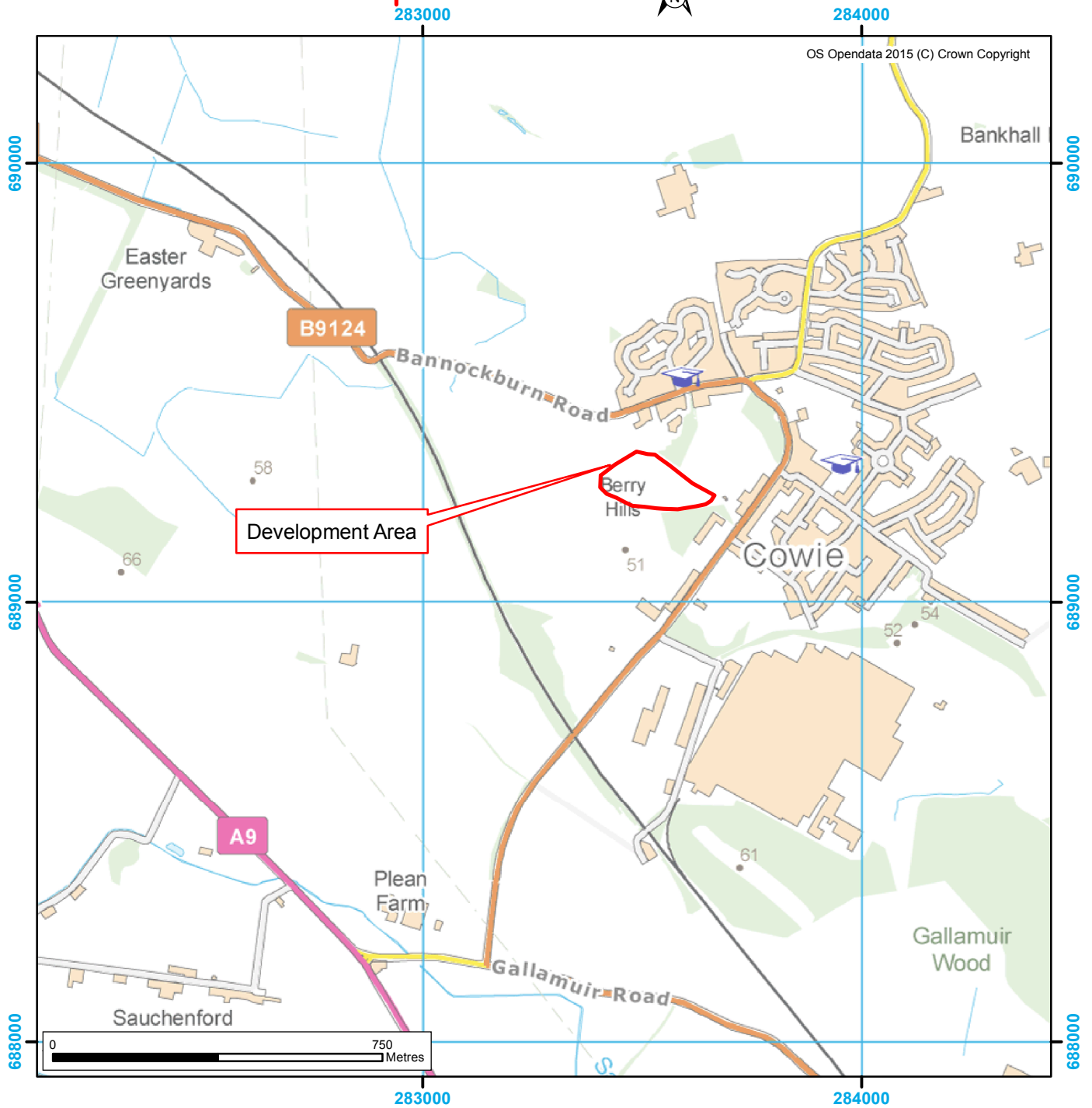
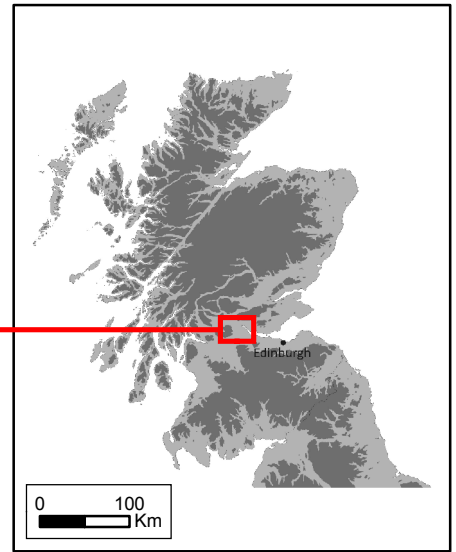
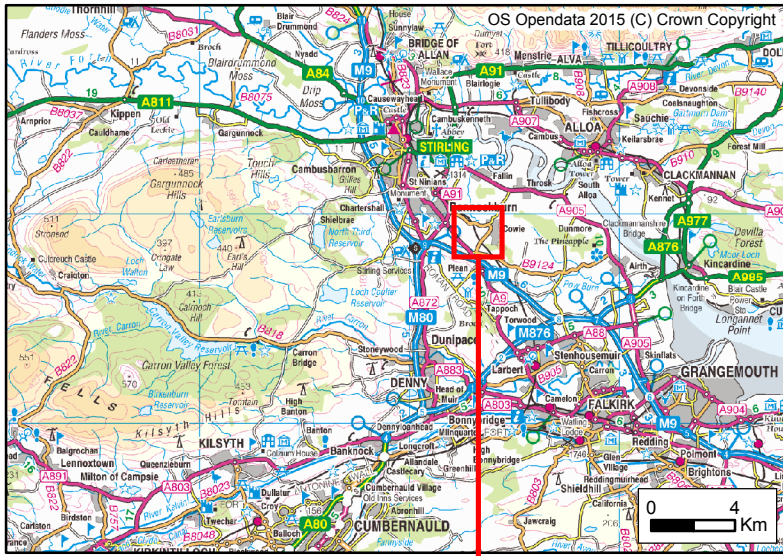


Figure 1: Site Location Plan



Reproduced with the kind permission of the Trustees of the National Library of Scotland

Figure 2 - Extract from Roy's Map of 1752-5

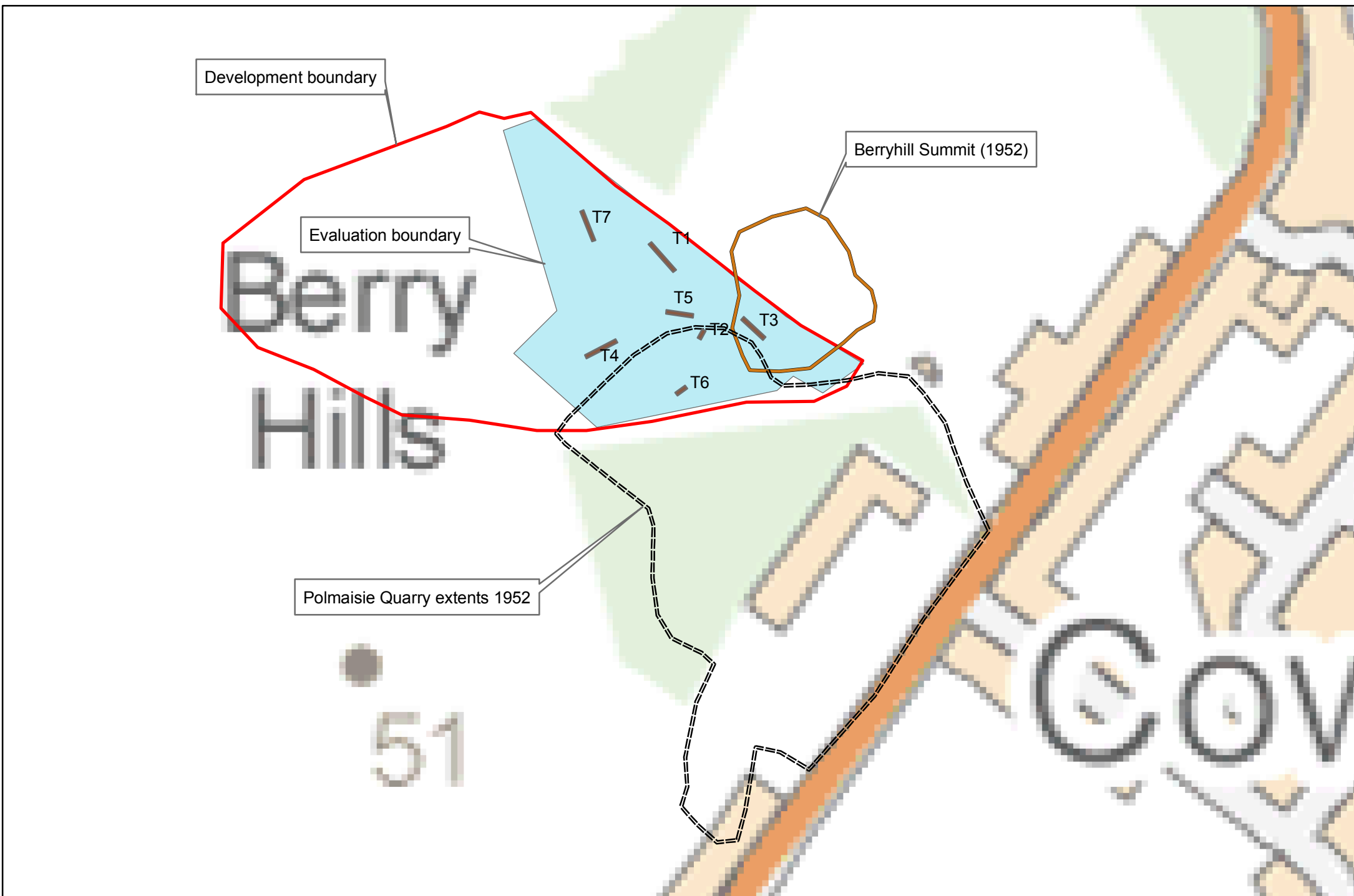


Figure 5 - Evaluation trench location plan

**St. Margaret's Primary School & Nursery,
Cowie, Stirling:
Archaeological Evaluation
Data Structure Report**

Section 2: Appendices

APPENDIX 1: Trench Descriptions

Trench 1

<i>Dimensions</i>	15 m by 1.6 m
<i>Total Area</i>	24 m ²
<i>Excavated Orientation</i>	NW to SE
<i>Soil Make-up</i>	Topsoil – dark brown sandy loam with frequent stone inclusions and occasional patches of red blaes and grey ash and coal – max depth 0.34 m
<i>Depth of Excavation</i>	0.4 m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Dark orange and brown sand and gravel.
<i>Finds</i>	None

Trench 2

<i>Dimensions</i>	4 m by 1.6 m
<i>Total Area</i>	6.4 m ²
<i>Excavated Orientation</i>	ENE to WSW
<i>Soil Make-up</i>	Topsoil – turf layer – max depth 0.06 m; Made ground 1 – small rounded gravels – max depth 0.2 m Made ground 2 – mixture of orange brown clayey sand with brick, stone, red blaes and pink clay – max depth 0.8 m.
<i>Depth of Excavation</i>	2.1 m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Reddish brown sand and gravel.
<i>Finds</i>	20 th Century white ceramics within Made Ground 2 (not retained)

Trench 3

<i>Dimensions</i>	12 m by 1.6 m
<i>Total Area</i>	19.2 m ²
<i>Excavated Orientation</i>	NW to SE
<i>Soil Make-up</i>	Topsoil – turf layer – 0.06 m Made ground - mixture of orange brown clayey sand with brick, stone, red blaes and pink clay – max depth 0.55 m
<i>Depth of Excavation</i>	0.6 m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Reddish brown sand and gravel.
<i>Finds</i>	None

Trench 4

<i>Dimensions</i>	14 m by 1.6 m
<i>Total Area</i>	22.4 m ²
<i>Excavated Orientation</i>	SW to NE
<i>Soil Make-up</i>	Topsoil – turf layer – 0.06 m Made ground - mixture of orange brown clayey sand with brick, stone, red blaes and pink clay – max depth 0.4 m
<i>Depth of Excavation</i>	0.5 m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Dark orange and brown sand and gravel.
<i>Finds</i>	None

Trench 5

<i>Dimensions</i>	11 m by 1.6 m
<i>Total Area</i>	17.6 m ²
<i>Excavated Orientation</i>	E to W
<i>Soil Make-up</i>	Topsoil – turf layer – max depth 0.06 m; Made ground 1 – small rounded gravels – max depth 0.2 m Made ground 2 – mixture of orange brown clayey sand with brick, stone, red blaes and pink clay – max depth 0.4 m; At 5 m made ground is a pink clay – max depth 0.3 m
<i>Depth of Excavation</i>	0.65 m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Reddish brown sand and gravel.
<i>Finds</i>	None

Trench 6

<i>Dimensions</i>	5 m by 1.6 m
<i>Total Area</i>	8 m ²
<i>Excavated Orientation</i>	E to W
<i>Soil Make-up</i>	Topsoil – turf layer – max depth 0.06 m; Made ground 1 – small rounded gravels – max depth 0.2 m Made ground 2 – mixture of orange brown clayey sand with brick, stone, red blaes and pink clay – max depth 1.25 m
<i>Depth of Excavation</i>	1.6 m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Greenish brown small gravels and fine sand.
<i>Finds</i>	None

Trench 7

<i>Dimensions</i>	13 m by 1.6 m
<i>Total Area</i>	20.8 m ²
<i>Excavated Orientation</i>	N to S
<i>Soil Make-up</i>	Topsoil – turf layer – 0.06 m Made ground – greyish and orange sandy clay with occasional modern ceramics and coal flecks – max depth 0.4 m B-horizon (original topsoil) – dark brown stony sandy loam – max depth 0.3 m.
<i>Depth of Excavation</i>	0.5 m
<i>Significant Features</i>	None
<i>Other Features</i>	Grey ash deposit under the made ground from 7 m to 10 m along trench and no B-horizon present
<i>Natural Subsoil</i>	Orange sand and gravel.
<i>Finds</i>	None

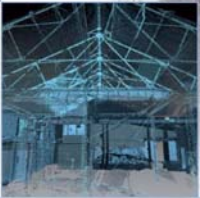
APPENDIX 2: Photographic Record

Digital Photographs

Frame	Description	From	Date
1-2	View from road end	SE	5/2/15
3-4	View from path	Var	5/2/15
5-6	View from NW	NW	5/2/15
7-12	Previously excavated and backfilled SI pits	Var	5/2/15
13	Post ex 1	SE	5/2/15
14	Depth of T2 – made ground onto natural	SE	5/2/15
15	Post ex 2	WSW	5/2/15
16	Made ground in T3	WSW	5/2/15
17	Post ex 3	SE	5/2/15
18	Made ground in T4	SE	5/2/15
19	Post ex 4	NE	5/2/15
20	Gravel under turf in T5	S	5/2/15
21	Post ex 5	E	5/2/15
22	S-facing section of T6	S	5/2/15
23	N-facing section of T6	NE	5/2/15
24	Topsoil under made ground in T7	W	5/2/15
25	Post ex T7	S	5/2/15
26	Grey ash under made ground in T7	W	5/2/15
27	Topsoil in T7 at S end	E	5/2/15
28	T6 Backfilled	E	5/2/15
29	T3 Backfilled	W	5/2/15
30	T2 & T5 Backfilled	S	5/2/15
31	T1 Backfilled	S	5/2/15
32	T7 Backfilled	S	5/2/15

APPENDIX 3: 'Discovery and Excavation in Scotland' Report

LOCAL AUTHORITY:	Stirling Council
PROJECT TITLE/SITE NAME	St. Margaret's Primary School & Nursery, Cowie, Stirling
PROJECT CODE:	AOC 22997
PARISH:	St. Ninians
NAME OF CONTRIBUTOR:	Kevin Paton
NAME OF ORGANISATION:	AOC Archaeology Group
TYPE(S) OF PROJECT:	Archaeological Evaluation
NMRS NO(S)	NS88NW 4; NS88NW 10
SITE/MONUMENT TYPE(S):	Fort and Enclosure
SIGNIFICANT FINDS:	N/A
NGR (2 letters, 6 figures)	NS 83560 89271
START DATE (this season)	5 th February 2015
END DATE (this season)	5 th February 2015
PREVIOUS WORK (incl. DES ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>An archaeological evaluation was undertaken in relation to a proposed development of a new school and nursery at parkland behind Main Street, Cowie, Stirling.</p> <p>The evaluation required up to 100 m² of linear trench throughout the development area to establish the extent of the former Polmaisie quarry. From the initial trenches excavated it became clear that the majority of the area had been previously stripped during the use of the area as a quarry. However, only the SE half of site showed signs of gravel extraction with the remainder most likely having contained banded material.</p> <p>After consultation with Stirling Councils Planning Officer (Archaeology) a 10 % evaluation of the NW half of the site was conducted, which included the proposed building footprint and the hard standing around it.</p> <p>The additional trench (Trench 7) indicated that the former topsoil still remained in the far NW corner of the development site but no archaeological features or artefacts were revealed throughout the evaluated area.</p> <p>No further works are considered necessary within the development area. This recommendation requires the approval of the Stirling Council Planning Officer (Archaeology).</p>
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	---
SPONSOR OR FUNDING BODY:	Robertson Construction Ltd
ADDRESS OF MAIN CONTRIBUTOR:	Edgefield Road Industrial Estate, Loanhead, Midlothian, EH20 9SY
EMAIL ADDRESS:	admin@aocarchaeology.com
ARCHIVE LOCATION (intended/deposited)	Archive to be deposited in NMRS



AOC Archaeology Group, Edgefield Industrial Estate, Edgefield Road, Loanhead EH20 9SY
tel: 0131 440 3593 | fax: 0131 440 3422 | e-mail: admin@aocarchaeology.com

www.aocarchaeology.com