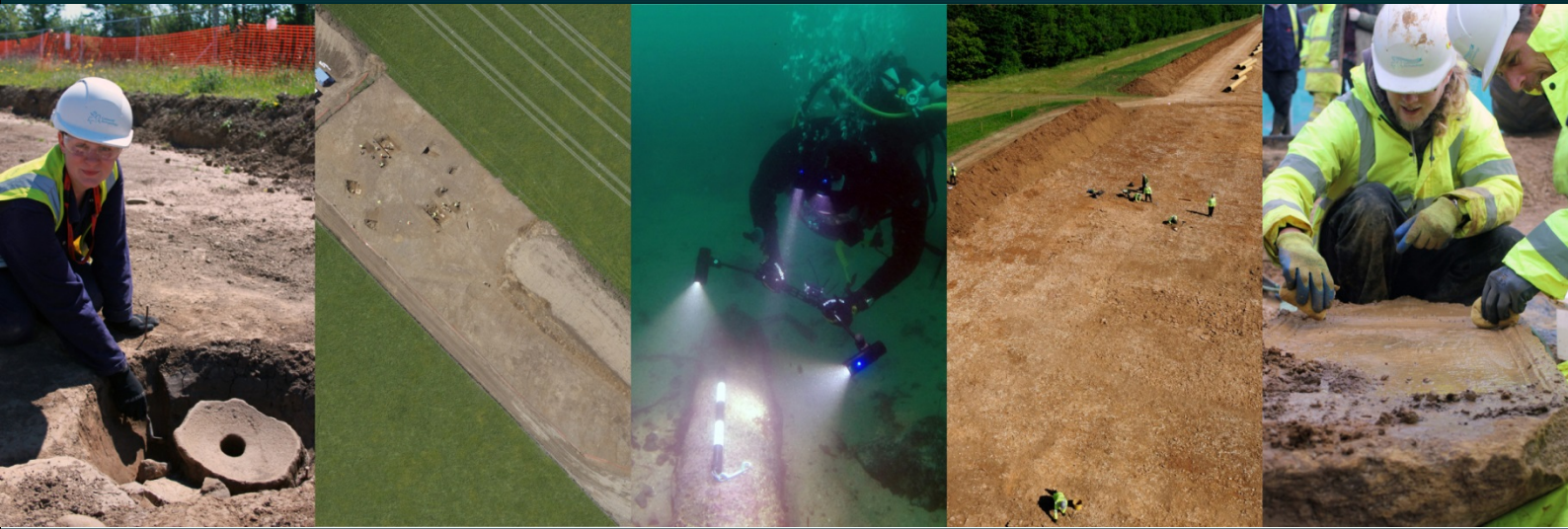


Land to the rear of Miners Court Redruth Cornwall

Archaeological Watching Brief



for:
Coastline Housing Ltd

CA Project: 880343
CA Report: 880343_1

OASIS ID: cotswold2-399371

July 2020



Land to the rear of Miners Court Redruth Cornwall

Archaeological Watching Brief

CA Project: 880343
CA Report: 880343_1

Document Control Grid						
Revision	Date	Author	Checked by	Status	Reasons for revision	Approved by
A	3 March 2020	Paul Clarke	Derek Evans	Internal review	–	Derek Evans
B	15 May 2020	Paul Clarke	Derek Evans	Curator (Sean Taylor) review	Revisions in line with Curator comments	Derek Evans
C	21 July 2020	Paul Clarke	Derek Evans	Curator (Peter Dudley) review	Added WSI & OASIS ref in line with Curator comments	Derek Evans

This report is confidential to the client. Cotswold Archaeology accepts no responsibility or liability to any third party to whom this report, or any part of it, is made known. Any such party relies upon this report entirely at their own risk. No part of this report may be reproduced by any means without permission.

Cirencester Building 11 Kemble Enterprise Park Cirencester Gloucestershire GL7 6BQ t. 01285 771 022	Milton Keynes Unit 8, The IO Centre Fingle Drive Stonebridge Milton Keynes Buckinghamshire MK13 0AT t. 01908 564 660	Andover Stanley House Walworth Road Andover Hampshire SP10 5LH t. 01264 347 630	Exeter Unit 1, Clyst Units Cofton Road Marsh Barton Exeter EX2 8QW t. 01392 573 970	Suffolk Unit 5, Plot 11 Maitland Road Lion Barn Industrial Estate Needham Market Suffolk IP6 8NZ t. 01449 900 120
e. enquiries@cotswoldarchaeology.co.uk				

CONTENTS

SUMMARY	3
1. INTRODUCTION.....	4
2. ARCHAEOLOGICAL BACKGROUND.....	5
3. AIMS AND OBJECTIVES.....	6
4. METHODOLOGY.....	6
5. RESULTS.....	7
6. DISCUSSION.....	8
7. CA PROJECT TEAM.....	9
8. REFERENCES.....	9
APPENDIX A: CONTEXT DESCRIPTIONS.....	10
APPENDIX B: OASIS REPORT FORM.....	12
APPENDIX C: WRITTEN SCHEME OF INVESTIGATION.....	13

LIST OF ILLUSTRATIONS

- Fig. 1 Site location plan (1:25,000)
- Fig. 2 Monitored areas showing archaeological features (1:250)
- Fig. 3 Area 1, sections (1:20)
- Fig. 4 Area 3, plan and photographs (1:20)
- Fig. 5 Area 5, section (1:20)

SUMMARY

Project name:	Land to the rear of Miners Court
Location:	Redruth, Cornwall
NGR:	170195 042285
Type:	Watching brief
Date:	24 October 2018–9 April 2019
Planning reference:	PA17/10383
OASIS ID:	cotswold2-399371
Location of archive:	Physical archive to be held by Cotswold Archaeology until such time as a suitable repository is established. Digital archive will be deposited with the Archaeology Data Service (ADS).
Site code:	MICO19

Between October 2018 and April 2019, Cotswold Archaeology carried out an archaeological watching brief on land to the rear of Miners Court, Redruth, Cornwall.

The watching brief recorded a substantial pit-like feature backfilled with stony material. This pit was in the location of a former shaft associated with a mine which closed prior to 1854.

The watching brief also recorded a late post-medieval/modern limestone-built culvert and an adjoining soakaway, as well as two undated ditches and two undated pits. The ditches may represent former historic field boundaries.

1. INTRODUCTION

- 1.1. Between October 2018 and April 2019, Cotswold Archaeology (CA) carried out an archaeological watching brief on land to the rear of Miners Court, Redruth, Cornwall (centred at NGR: 170195 042285; Fig. 1). This watching brief was undertaken for Coastline Housing Ltd.
- 1.2. Cornwall Council have granted planning permission for the extension of the Miners Court housing complex, to comprise the erection of 22 accommodation units, with associated parking/other works (planning ref: PA17/10383). Condition 7 of this planning permission requires the completion of an agreed programme of archaeological work. The scope of this watching brief was defined by Sean Taylor on behalf of Cornwall Council Historic Environment Planning (CCHPEP).
- 1.3. The watching brief was undertaken in accordance with a Written Scheme of Investigation (WSI) produced by CA (2018) and approved by Sean Taylor (approval reference PA18/07514). The WSI is included as Appendix C of the present report.
- 1.4. The watching brief was also in line with *Standard and guidance for an archaeological watching brief* (ClfA 2014), *Management of Research Projects in the Historic Environment (MoRPHE) PPN 3: Archaeological Excavation* (Historic England 2015) and *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide* (Historic England 2015).

The site

- 1.5. The watching brief site lies towards the centre of the Redruth urban area, approximately 275m north of Redruth Railway Station and c. 470m west of the A393. The site is approximately 0.33ha in extent. Prior to the monitored groundworks, the site comprised the westernmost portion of a playing field.
- 1.6. The watching brief site is bordered to the north and east by playing fields; to the south by the Miners Court housing complex; and to the west by a railway cutting for the Cornish Main Line, beyond which are residential properties.
- 1.7. The site's topography descends from c. 137m aOD (above Ordnance Datum) in the south-east to c. 133m aOD in the south-west.

-
- 1.8. The underlying bedrock geology of the site is mapped as Mylor Formation slate and siltstone, which formed in the Devonian period. No superficial deposits are recorded at the site (BGS 2018).

2. ARCHAEOLOGICAL BACKGROUND

- 2.1. The watching brief site was previously the subject of a heritage assessment (CA 2017) and a geophysical survey (SUMO 2017). The following text is largely summarised from these sources, which should be consulted for a full archaeological background.
- 2.2. Known prehistoric activity in the vicinity of the watching brief site is restricted to two Neolithic flint hand axes found c. 350m to the north-east and a flint scatter recorded c. 350m to the south-east.
- 2.3. The medieval core of Redruth is thought to have lain c. 1.45km to the west of the watching brief site. The watching brief site is likely to have been within the agricultural hinterland of the medieval settlement.
- 2.4. The town expanded from the late 17th century. The tithe map of 1841 shows tenements c. 50m to the south and west of the watching brief site.
- 2.5. The major industry of the post-medieval and early modern town and district was copper and tin mining. A large mine works, the Pen-and-drea Mine, was located c. 180m to the south of the watching brief site. A shaft associated with this mine is visible in the western part of the watching brief site on a parish map dating to 1841. The mine closed prior to 1854.
- 2.6. The Cathedral Boot Works was established c. 130m north-east of the watching brief site in the late 19th century.
- 2.7. The geophysical survey of the watching brief site detected no anomalies indicative of archaeological features, although the data was dominated by strong magnetic responses relating to nearby fences, buildings and features associated with the playing field.

3. AIMS AND OBJECTIVES

3.1. As defined in the WSI (CA 2018), the objectives of the archaeological watching brief were:

- to monitor development groundworks, and to identify, investigate and record any significant buried archaeological deposits/features thus revealed; and
- at the conclusion of the project, to produce an integrated project archive and a report setting out the watching brief results and the archaeological conclusions that can be drawn from the recorded data.

4. METHODOLOGY

4.1. The fieldwork followed the methodology set out in the WSI (CA 2018). An archaeologist was present during intrusive development groundworks, which comprised the machine-stripping of overburden layers from the new development footprint (Fig. 2).

4.2. Archaeological features/deposits were investigated, planned and recorded in accordance with *CA Technical Manual 1: Fieldwork Recording Manual*.

4.3. Deposits were assessed for their palaeoenvironmental potential in accordance with *CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites*. No deposits were identified that required sampling.

4.4. As there is presently no archive repository active in Cornwall, CA will hold the project archive until such time as a suitable repository is established. A digital archive will also be prepared and deposited with the Archaeology Data Service (ADS).

4.5. A summary of information from this project, as set out in Appendix B, will be entered onto the OASIS online database of archaeological projects in Britain (OASIS ID: cotswold2-399371).

4.6. A short note on the project results will be produced for inclusion in the *Cornish Archaeology* journal.

5. RESULTS

5.1. This section provides an overview of the watching brief results. Detailed summaries of the recorded contexts are given in Appendix A. Figure 2 presents a plan of the recorded features.

5.2. The natural geological substrate comprised yellow/red-brown silty clay with abundant gravel inclusions. It was exposed at a depth of 0.43m–0.6m below the pre-development ground level and was sealed by up to 0.35m of greyish brown sandy clay subsoil. The subsoil was overlain in turn by 0.25m–0.3m of topsoil.

Area 1

5.3. Area 1 contained a number of features, all of which were cut into the natural substrate. Ditch 106 (Fig. 3, Sec. AA) was oriented north/south; its southern end was truncated by shaft capping works 102 (see below). This ditch was 1.06m wide and 0.5m deep, with a single undated fill (105).

5.4. Ditch 110 (Fig. 3; Sec. BB) was 0.46m wide and 0.1m deep, with a single undated fill (109). This ditch was broadly T-shaped, with its north/south arm respecting the western edge of ditch 106.

5.5. Post pit 108 (Fig. 3, Sec. CC) was 0.84m wide and 0.5m deep. It contained a single undated fill (107) which included a number of large stones; these would have formed packing material.

5.6. Substantial pit-like feature 102 was partially exposed in the southern part of Area 1. It was infilled with stony material in a silty matrix (context 101). This feature was only partially excavated; its base was not exposed as it was below the development formation level.

Areas 2 and 3

5.7. Culvert 206/304 (Fig. 4) was constructed of limestone slabs. The base of the culvert was covered by a thin layer of yellow clay (205/307). The culvert was adjoined in Area 3 by soakaway 302, which was constructed from limestone slabs and brick. These structures had been cut into the subsoil and were sealed by the topsoil.

Area 4

- 5.8. The northern half of Area 4 contained stony material in a silty matrix (context 401). This was the continuation of the material used to infill pit-like feature 102 in Area 1 (see above).

Area 5

- 5.9. Pit 503 (Fig. 5; Section DD) was cut into subsoil layer 501. This pit was 1.48m wide and 0.3m deep, with a single undated fill (504).

6. DISCUSSION

- 6.1. The watching brief recorded two ditches and a post pit in Area 1 and a further pit in Area 5. All of these features were undated artefactually. Ditch 106 (Area 1) was cut by (and therefore pre-dates) the mid-19th century mine-capping works (see below). Ditch 106 is also on the same alignment as the extant site boundaries and continues the approximate line of a former north/south-aligned field boundary depicted to the immediate north of the site on the 1841 tithe map (reproduced in CA 2017); it is therefore possible that ditch 106 represents a former historic field boundary. Ditch 110 respected the line of ditch 106 and is therefore presumably similar in date and function.
- 6.2. Substantial pit-like feature 102 is in the location of the former mine shaft recorded in this area of the site. The mine closed prior to 1854 and feature 102 presumably relates to the capping and backfilling of the mine shaft. The stony material backfilling feature 102 continued southwards into Area 4, indicating that the mine cap continued into this area.
- 6.3. A limestone-built culvert (206/304) and an adjoining soakaway (302) were exposed in Areas 2 and 3. These structures were cut into the subsoil and sealed by the topsoil and are therefore presumably late post-medieval/modern in date. The culvert may have served to drain water away from the mine shaft. Alternatively, its north-east/south-west alignment may indicate that it is associated with the late 19th/early 20th century Cathedral Boot Works, which stood c. 130m north-east of the site.

7. CA PROJECT TEAM

- 7.1. Fieldwork was undertaken by Jerry Austin, Paul Clarke and Fuller Hughes. This report was written by Paul Clarke. The report illustrations were prepared by Esther Escudero. The project archive has been compiled and prepared for deposition by Hazel O'Neil. The project was managed for CA by Paul Clarke.

8. REFERENCES

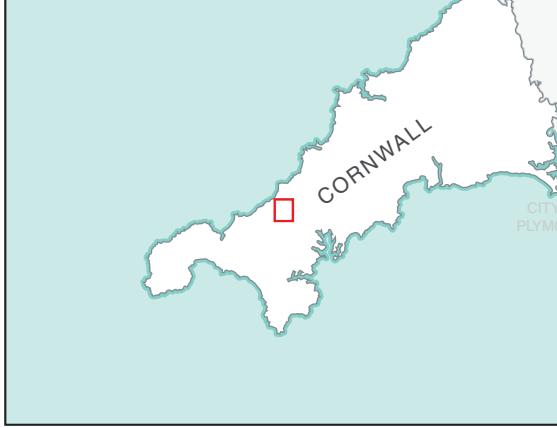
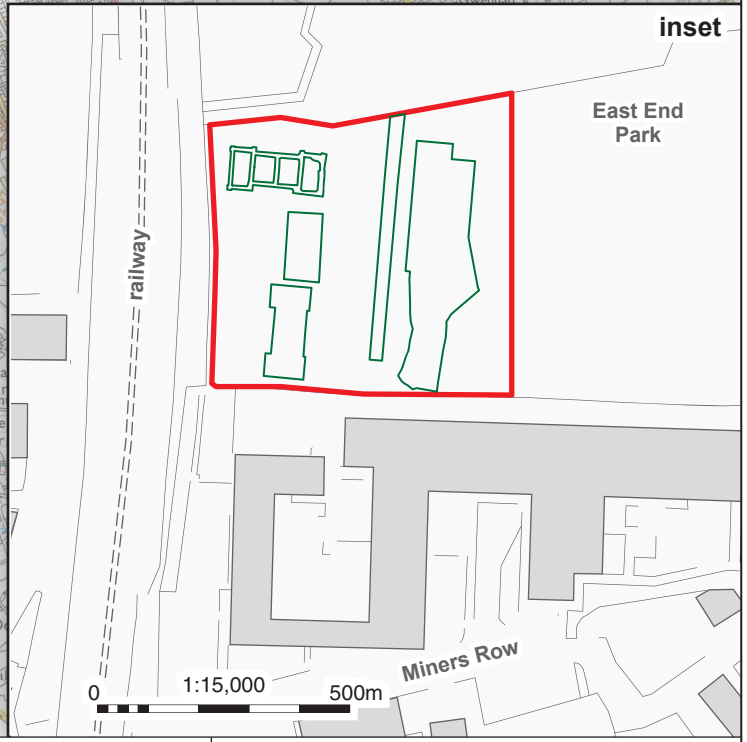
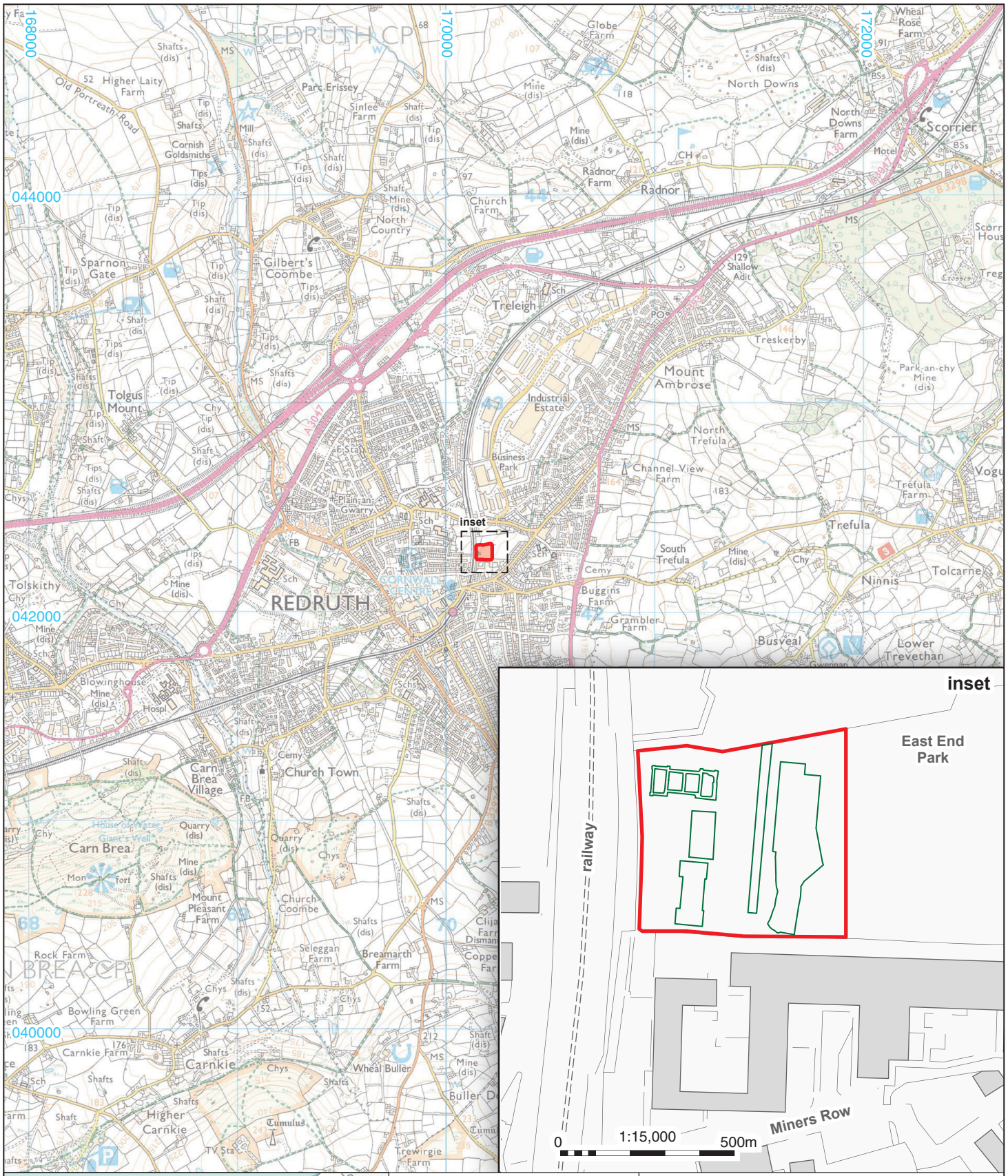
British Geological Survey 2018 *Geology of Britain*

Viewer <http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html> Accessed 18 July 2018

Cotswold Archaeology 2017 *Land to the rear of Miner's Court, Miner's Way, Redruth, Cornwall: Heritage Assessment* CA typescript report **17748**

Cotswold Archaeology 2018 *Land to the rear of Miners Court, Miners Way, Redruth, Cornwall: Written Scheme of Investigation for an Archaeological Watching Brief*

SUMO 2017 *Land to the rear of Miners Court, Miners Way, Redruth, Cornwall: Geophysical Survey Report* SUMO report **12172**



- Site boundary
- Observed groundworks



© Crown copyright and database rights 2019
Ordnance Survey 0100031673



**Cotswold
Archaeology**

Andover 01264 347630
Cirencester 01285 771022
Exeter 01392 573970
Milton Keynes 01908 564660
Suffolk 01449 900120
www.cotswoldarchaeology.co.uk
enquiries@cotswoldarchaeology.co.uk

PROJECT TITLE

Land to the rear of Miners Court,
Redruth, Cornwall

FIGURE TITLE

Site location plan

DRAWN BY	EE	PROJECT NO.	880343	FIGURE NO.	1
CHECKED BY	DJB	DATE	02/03/2020		
APPROVED BY	PC	SCALE@A4	1:25,000		



- Site boundary
- Area of observed groundworks
- Archaeological feature (excavated/unexcavated)
- Structure
- Section location

© Crown copyright and database rights 2019 Ordnance Survey 0100031673

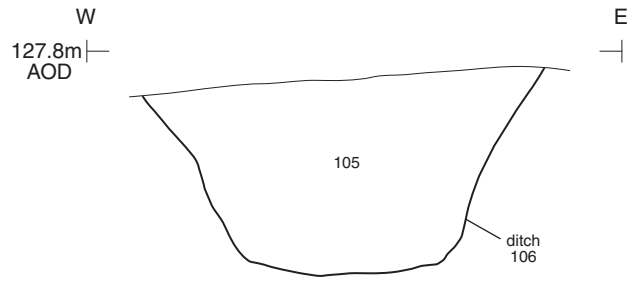
Andover 01264 347630
 Cirencester 01285 771022
 Exeter 01392 573970
 Milton Keynes 01908 564660
 Suffolk 01449 900120
www.cotswoldarchaeology.co.uk
enquiries@cotswoldarchaeology.co.uk

PROJECT TITLE
 Land to the rear of Miners Court, Redruth, Cornwall

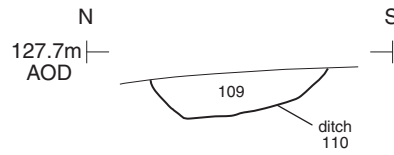
FIGURE TITLE
 Monitored areas showing archaeological features

<small>DRAWN BY</small> EE	<small>PROJECT NO.</small> 880343	<small>FIGURE NO.</small> 2
<small>CHECKED BY</small> DJB	<small>DATE</small> 02/03/2020	
<small>APPROVED BY</small> PC	<small>SCALE</small> @A3 1:250	

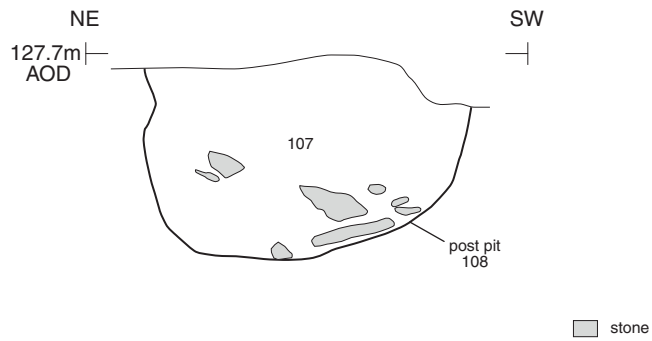
Section AA



Section BB



Section CC



Andover 01264 347630
Cirencester 01285 771022
Exeter 01392 573970
Milton Keynes 01908 564660
Suffolk 01449 900120
www.cotswoldarchaeology.co.uk
enquiries@cotswoldarchaeology.co.uk

PROJECT TITLE

Land to the rear of Miners Court,
Redruth, Cornwall

FIGURE TITLE

Area 1, sections

DRAWN BY	EE	PROJECT NO.	880343	FIGURE NO.
CHECKED BY	DJB	DATE	02/03/2020	3
APPROVED BY	PC	SCALE@A4	1:20	



Culvert 206, looking south-west (0.3m and 1m scales)



Soakaway 302 and culvert 304, looking west (1m scales)

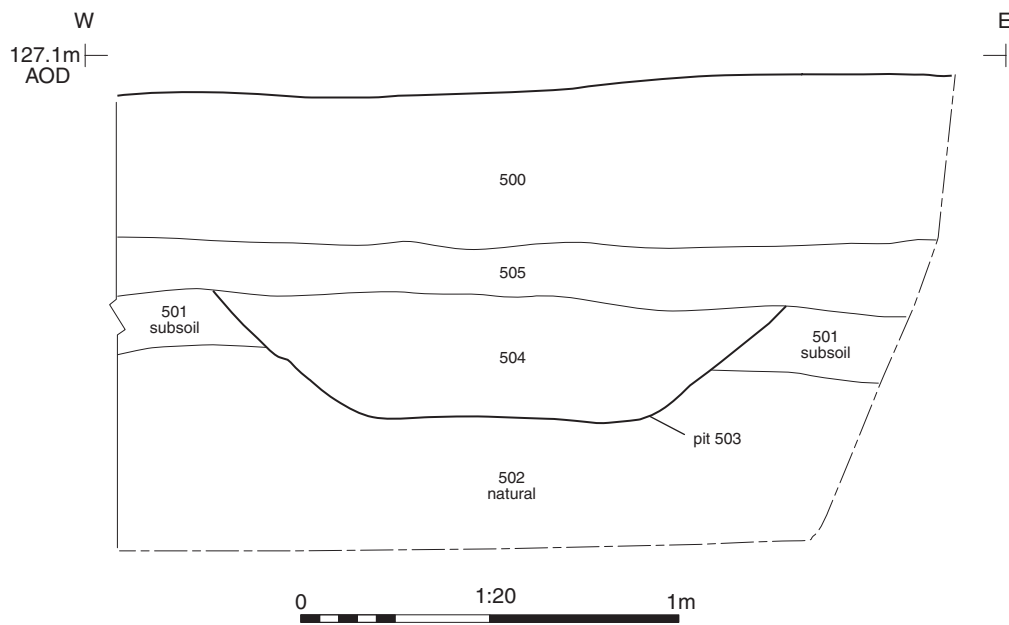

Cotswold Archaeology
 Andover 01264 347630
 Cirencester 01285 771022
 Exeter 01392 573970
 Milton Keynes 01908 564660
 Suffolk 01449 900120
 www.cotswoldarchaeology.co.uk
 enquiries@cotswoldarchaeology.co.uk

PROJECT TITLE
**Land to the rear of Miners Court,
 Redruth, Cornwall**

FIGURE TITLE
Area 3, plan and photographs

DRAWN BY	EE	PROJECT NO.	880343	FIGURE NO.
CHECKED BY	DJB	DATE	02/03/2020	4
APPROVED BY	PC	SCALE@A3	1:20	

Section DD



Andover 01264 347630
Cirencester 01285 771022
Exeter 01392 573970
Milton Keynes 01908 564660
Suffolk 01449 900120
www.cotswoldarchaeology.co.uk
enquiries@cotswoldarchaeology.co.uk

PROJECT TITLE

Land to the rear of Miners Court,
Redruth, Cornwall

FIGURE TITLE

Area 5, section

DRAWN BY	EE	PROJECT NO.	880343	FIGURE NO.
CHECKED BY	DJB	DATE	02/03/2020	5
APPROVED BY	PC	SCALE@A4	1:20	

APPENDIX A: CONTEXT DESCRIPTIONS

Area	Context No.	Type	Fill of	Context interpretation	Description	Length (m)	Width (m)	Depth/thickness (m)
1	100	Layer		Topsoil	Mid brownish grey silty clay			0.24
1	101	Fill	102	Deliberate fill	Light red silty loam with common angular pebbles and cobbles	6	3.24	1.05
1	102	Cut		Cut for mine cap	Irregular in plan, convex sides to flat base	6	3.24	1.05
1	103	Layer		Subsoil	Mid greyish brown firm silty clay			0.19
1	104	Layer		Natural substrate	Light yellowish brown silty clay with common pebbles overlying light greyish brown friable silty loam with abundant pebbles			
1	105	Fill	106	Sedimentary fill	Mid brownish grey silty clay with common pebbles and cobbles and occasional redeposited natural clay from the W edge. Well sorted	9.5	1.05	0.55
1	106	Cut		Ditch	N/S linear with straight/steep sides and flat base	9.5	1.05	0.55
1	107	Fill	108	Deliberate fill	Dark grey silty clay with common subangular boulders and cobbles, occasional pebbles, and rare charcoal. Poorly sorted	1.39	0.86	0.54
1	108	Cut		Post pit	NW/SE subrectangular discrete with straight/vertical sides and concave base	1.39	0.86	0.54
1	109	Fill	110	Sedimentary fill	Mid grey silty clay with frequent subrounded pebbles and rare charcoal. Well sorted	8.3	0.46	0.13
1	110	Cut		Drip gully	N/S and E/W irregular linear with straight/moderate sides and flat base	8.3	0.46	0.13
2	200	Layer		Topsoil	Mid brownish grey silty clay			0.21
2	201	Layer		Subsoil	Mid greyish brown firm silty clay			0.2
2	202	Layer		Weathered natural	Light yellowish brown silty clay with common pebbles and brown silty clay deposits			0.13
2	203	Layer		Natural substrate	Light yellowish brown silty clay with common pebbles overlying light greyish brown friable silty loam with abundant pebbles			
2	204	Cut		Construction cut	NE/SW linear with near vertical sides and flat base	12	0.67	0.2+

Area	Context No.	Type	Fill of	Context interpretation	Description	Length (m)	Width (m)	Depth/thickness (m)	
2	205	Fill	204	Clay lining	Firm yellow clay on base of culvert	12	0.67	0.2+	
2	206	Structure	204	Culvert	Granite and quartzstone culvert. Capstone measuring up to 0.4m x 0.3m x 0.1m. Supporting stones up to 0.5m x 0.2m x 0.13m. Stretcher coursing	12	0.6	0.38	
2	207	Fill	206	Deliberate backfill	Mid to dark brown silty clay with occasional grit to cobbles. Poorly sorted		0.14	0.32	
3	300	Layer		Natural substrate	Mid reddish brown subangular gravel				
3	301	Cut		Construction cut	Octagonal discreet	0.84	0.8	0.63	
3	302	Structure	301	Soakaway	Stone and brick lined. Five irregular course with no bonding material	0.84	0.8	0.63	
3	303	Cut		Construction cut	E/W linear with steep sides and flat base	1.5	0.7	0.4	
3	304	Structure	303	Culvert	Stone lined and capped culvert	1.5	0.7	0.4	
3	305	Fill	301	Sedimentary fill	Light yellowish brown plastic clay			0.01	
3	306	Layer		Topsoil	Dark reddish brown silty clay with common gravel				
3	307	Fill	303	Sedimentary fill	Light yellowish brown plastic clay		0.25	0.01	
4	401	Fill	404	Deliberate fill	Light pinkish red silty loam with common angular pebbles and cobbles		1.05	0.4	
4	402	Layer		Natural substrate	Mid reddish brown sandy clay occasional gravel				
4	403	VOIDED							
4	404	Cut		Cut for mine cap	Subrectangular in plan, concave sides. Not bottomed		1.05	0.4	
5	500	Layer		Topsoil	Mid to dark brown sandy clay. Extant only in W			0.25 – 0.35	
5	501	Layer		Subsoil	Greyish brown sandy clay with occasional subangular gravel			0.35	
5	502	Layer		Natural substrate	Yellowish brown silty clay with abundant gravel				
5	503	Cut		Pit	Slightly concave sides and flat base	1.5	1.2	0.35	
5	504	Fill	503	Fill of pit	Dark brown silty clay with occasional charcoal flecks and gravel – cobbles	1.5	1.2	0.35	
5	505	Layer		Made ground	Redeposited spread of subsoil and topsoil in SW corner only	3	3	0.3	

APPENDIX B: OASIS REPORT FORM

PROJECT DETAILS		
Project name	Land to the rear of Miners Court, Redruth, Cornwall: Archaeological Watching Brief	
Short description	<p>Between October 2018 and April 2019, Cotswold Archaeology carried out an archaeological watching brief on land to the rear of Miners Court, Redruth, Cornwall.</p> <p>The watching brief recorded a substantial pit-like feature backfilled with stony material. This pit was in the location of a former shaft associated with a mine which closed prior to 1854.</p> <p>The watching brief also recorded a late post-medieval/modern limestone-built culvert and an adjoining soakaway, as well as two undated ditches and two undated pits. The ditches may represent former historic field boundaries.</p>	
Project dates	24 October 2018–9 April 2019	
Project type	Watching brief	
Previous work	Desk-based assessment (Cotswold Archaeology 2017) Geophysical survey (SUMO 2017)	
Future work	Unknown	
PROJECT LOCATION		
Site location	Miners Court, Miners Row, Redruth, Cornwall	
Study area (M ² /ha)	0.33ha	
Site co-ordinates	170195 042285	
PROJECT CREATORS		
Name of organisation	Cotswold Archaeology	
Project Brief originator	Cornwall Council	
Project Design (WSI) originator	Cotswold Archaeology	
Project Manager	Paul Clarke	
Project Supervisor	Jerry Austin; Paul Clarke	
MONUMENT TYPE	Mine shaft	
SIGNIFICANT FINDS	None	
PROJECT ARCHIVES		
	Intended final location of archive	Content
Physical	N/A	N/A
Paper	TBC	Context sheets, trench sheets, photo registers, drawings
Digital	Archaeology Data Service	Digital photos, borne-digital data
BIBLIOGRAPHY		
Cotswold Archaeology 2020 <i>Land to the rear of Miners Court, Redruth, Cornwall: Archaeological Watching Brief</i> CA typescript report 880343_1		

APPENDIX C: WRITTEN SCHEME OF INVESTIGATION

(follows)

Land to the rear of Miners Court Miners Way, Redruth Cornwall

*Written Scheme of Investigation for
an Archaeological Watching Brief*



for
Coastline Housing Ltd

CA Project: 880343

July 2018



Land to the rear of Miners Court Miners Way, Redruth Cornwall

Written Scheme of Investigation for an Archaeological Watching Brief

CA Project: 880343



DOCUMENT CONTROL GRID						
REVISION	DATE	AUTHOR	CHECKED BY	STATUS	REASONS FOR REVISION	APPROVED BY
A	19 JULY 2018	PAUL CLARKE	DEREK EVANS	INTERNAL REVIEW	—	DEREK EVANS

This report is confidential to the client. Cotswold Archaeology accepts no responsibility or liability to any third party to whom this report, or any part of it, is made known. Any such party relies upon this report entirely at their own risk. No part of this report may be reproduced by any means without permission.

CONTENTS

1.	INTRODUCTION.....	2
2.	ARCHAEOLOGICAL BACKGROUND.....	3
3.	AIMS AND OBJECTIVES.....	4
4.	METHODOLOGY.....	4
5.	STAFF AND TIMETABLE.....	6
6.	POST-EXCAVATION, ARCHIVING AND REPORTING.....	8
7.	HEALTH, SAFETY AND ENVIRONMENT.....	9
8.	INSURANCES.....	9
9.	MONITORING.....	9
10.	QUALITY ASSURANCE.....	9
11.	PUBLIC ENGAGEMENT, PARTICIPATION AND BENEFIT.....	10
12.	REFERENCES.....	10
	APPENDIX A: COTSWOLD ARCHAEOLOGY SPECIALISTS.....	11

1. INTRODUCTION

- 1.1 This document sets out details of a Written Scheme of Investigation (WSI) by Cotswold Archaeology (CA) for an archaeological watching brief to be maintained at land to the rear of Miners Court, Miners Way, Redruth, Cornwall (centred at NGR: 170195 042285), hereafter referred to as the site. This WSI has been commissioned by Coastline Housing Ltd.
- 1.2 Cornwall Council have granted conditional planning permission for the erection of 22 units of older persons' accommodation, with associated parking, turning headscooter and bin stores (planning ref: PA17/10383). Condition 7 of this planning permission requires the completion of an agreed programme of archaeological work. The scope of this work was defined as a watching brief by Cornwall Council Historic Environment Planning (CCHPEP), to pay particular attention to works associated with the capping of a former mine shaft within the site.
- 1.3 This WSI has been guided in its composition by *Standard and guidance for an archaeological watching brief* (ClfA 2014), *Management of Research Projects in the Historic Environment (MoRPHE) PPN 3: Archaeological Excavation* (Historic England 2015) and *Management of Research Projects in the Historic Environment (MoRPHE): Project Manager's Guide* (Historic England 2015).

The site

- 1.4 The watching brief site lies towards the centre of the urban area of Redruth, approximately 275m north of Redruth Railway Station and 470m west of the A393. The site is subrectangular in shape and approximately 0.33ha in extent. The site comprises the western portion of a playing field.
- 1.5 The watching brief site is bordered to the north and east by playing fields; to the south by Miners Court housing complex; and to the west by a railway cutting for the Cornish Main Line, beyond which are residential properties.
- 1.6 The site topography descends from c. 137m aOD (above Ordnance Datum) in the south-east to c. 133m aOD in the south-west.

1.7 The bedrock geology across the site is mapped as Mylor Formation slate and siltstone which formed during the Devonian period. No superficial deposits are recorded (BGS 2018).

2. ARCHAEOLOGICAL BACKGROUND

2.1 The site was previously the subject of a heritage assessment (CA 2017) and a complementary geophysical survey (SUMO 2017). The following section is largely summarised from these sources, which should be consulted for a more complete archaeological background to the site.

2.2 Prehistoric activity near to the site is restricted to two Neolithic flint hand axes located 350m to the north-east and a flint scatter 350 to the south-east.

2.3 The original medieval nucleus of Redruth was likely 1.45km to the west of the site. The town became prosperous with twice-weekly markets and three annual fairs.

2.4 The site is located in the middle of four small medieval settlements recorded in documents. It is 400m–500m from the ascribed location of each. The whole of the wider area around the site is described as ‘settled areas from larger farming settlements upwards’ in the Historic Landscape Characterisation.

2.5 The town expanded from the late 17th century, with tenements shown 50m to the south of the site and to the west of the site on the tithe map of 1841. Areas to the north and west of the site were developed in the late 19th and early 20th centuries.

2.6 The major industry of the post-medieval and early modern town and district was copper and tin mining. An important mine works, the Pen-and-drea Mine, was located 180m to the south of the site. A shaft for this mine was located within the western part of the site and has been identified on the 1841 Tithe Map. The mine closed prior to 1854.

2.7 The geophysical survey was unable to identify features of archaeological origin due to a preponderance of ‘iron spikes’ across the site, possibly the remains of the mine shaft.

3. AIMS AND OBJECTIVES

3.1 The objectives of the archaeological watching brief are:

- to monitor development groundworks, and to identify, investigate and record any significant buried archaeological deposits/features thus revealed;
- to record the form of the former mine shaft (see *Archaeological background*, above); and
- at the conclusion of the project, to produce an integrated project archive and a report setting out the watching brief results and the archaeological conclusions that can be drawn from the recorded data.

3.2 If significant archaeological remains are identified, reference will be made to the appropriate research framework so that the remains can, if possible, be placed within their local and regional contexts.

4. METHODOLOGY

4.1 The archaeological watching brief will comprise the observation by a competent archaeologist of all intrusive groundworks at the site. Should it become apparent that no further significant archaeological features or deposits are present, the watching brief (with the exclusion of the monitoring of works associated with the capping of the mine shaft) may be concluded prior to the completion of groundworks with the agreement of CCHEP.

4.2 Non-archaeologically significant deposits will be removed by the groundworks contractors under archaeological supervision. Where mechanical excavators are used, these will normally be equipped with toothless buckets, although toothed buckets and breakers may be used on a limited basis if necessary to remove difficult deposits.

4.3 Any archaeological features exposed/disturbed by the groundworks will be investigated and recorded in accordance with *CA Technical Manual 1: Fieldwork Recording Manual*. Each context will be recorded on a pro-forma recording sheet by written and measured description. Principal deposits will be recorded by drawn plans (scale 1:20 or 1:50, or electronically using Leica GPS as appropriate) and drawn sections (scale 1:10 or 1:20 as appropriate). Should detailed feature planning be

undertaken using GPS, this will be carried out in accordance with *CA Technical Manual 4: Survey Manual*.

- 4.4 A digital photographic record of the archaeological works will be compiled in accordance with *Digital Image Capture and File Storage: Guidelines for Best Practice* (Historic England 2015). All excavated features and deposits will be photographed. A selection of representative feature group/area shots will also be taken.
- 4.5 In the event of archaeological deposits/features being found for which the resources allocated are not sufficient to support treatment to a satisfactory and proper standard, or which are of sufficient significance to merit an alternative approach, Coastline Housing Ltd and CCHEP will be contacted immediately. Destructive work in the affected area(s) will cease until agreement has been reached on an appropriate archaeological response.

Artefacts

- 4.6 Any artefacts will be recovered and retained for processing and analysis in accordance with *CA Technical Manual 3: Treatment of Finds Immediately after Excavation*. Artefacts from topsoil, subsoil and unstratified contexts will normally be noted but not retained unless they are of intrinsic interest. All artefacts from stratified excavated contexts will be collected, except for large assemblages of post-medieval or modern material. Such material may be noted and not retained or, if appropriate, a representative sample may be collected and retained.

Environmental remains

- 4.7 Due care will be taken to identify deposits which may have environmental potential and, where appropriate, a programme of environmental sampling will be initiated. This will follow the guidelines outlined in *Environmental Archaeology: A guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (English Heritage 2011) and *CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites*. The sampling strategy will be adapted for the specific circumstances of this site, in close consultation with the CA Environmental Officer.

- 4.8 Sample processing will be undertaken in conjunction with the relevant specialist(s). Flotation or wet sieve samples will be processed to 0.25mm. More specialist samples, such as those for pollen, will be prepared by the relevant specialists.
- 4.9 Further details of the general sampling policy and the methods of taking and processing specific sample types are contained within *CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites*.

Treasure

- 4.10 Upon discovery of treasure, CA will notify Coastline Housing Ltd and CCHEP immediately. CA will comply fully with the provisions of the Treasure Act 1996 and the Code of Practice referred to therein. Findings will be reported to the Coroner within 14 days.

Human remains

- 4.11 Where human remains are encountered, these will not be excavated unless their disturbance by the development is unavoidable. Where disturbance is unavoidable, or where full exhumation of the remains is otherwise deemed necessary, this will be conducted following the provisions of the Coroner's Unit in the Ministry of Justice. All excavation of human remains and associated post-excavation processes will be in accordance with the standards set out in *ClfA Technical Paper No 7: Guidelines to the Standards for recording Human Remains* (ClfA 2004).

5. STAFF AND TIMETABLE

- 5.1 This project will be under the management of Derek Evans, MCIfA, Project Manager, CA and Paul Clarke, Project Officer, CA.

Project Manager: Derek Evans, MCIfA

MSc (Dist) Human Osteology and Human Archaeology; Sheffield University

BA (Hons) Archaeology; University of Wales, Lampeter

Project Manager with 14 years of professional Heritage Consultancy experience. Has worked with Cotswold Archaeology for 10 years at their Kemble (Glos.), Milton Keynes and Exeter Offices; also worked with Northern Archaeological Associates

(Barnard Castle, Co. Durham) and the Worcestershire County Council Field Archaeology Unit.

Project Officer: Paul Clarke

BSc. (Hons) Archaeology; University of Reading

Project Officer with 13 years of professional Archaeology and Heritage Consultancy experience. Has worked with Cotswold Archaeology for one year at their Exeter Office; has also worked with, amongst others, Exeter Archaeology, Oxford Archaeology, Wessex Archaeology (Wiltshire and Kent), AOC Archaeology (York) and Museum of London Archaeology.

- 5.2 The field team will be confirmed once the project programme has been finalised. All team members will be drawn from CA's core of appropriately qualified and experienced staff.
- 5.3 The staffing structure will be organised as follows: the Project Manager will direct the overall conduct of the archaeological works as required during the period of fieldwork. Day-to-day responsibility will, however, rest with the Project Leader, who will be on-site throughout the project.
- 5.4 Specialists who may be invited to advise and report on specific aspects of the project as necessary are:

Ceramics	Ed McSloy MCIfA (CA) Jacky Sommerville PCIfA (CA) Henrietta Quinnell (freelance)
Metalwork	Ed McSloy MCIfA (CA)
Flint	Jacky Sommerville PCIfA (CA)
Animal bone	Andy Clarke BA (Hons) MA (CA) Matty Holmes BSc MSc ACIfA (freelance)
Human bone	Sharon Clough MCIfA (CA)
Environmental remains	Sarah Wyles PCIfA (CA)
Building recording	Peter Davenport MCIfA, FSA (CA)

- 5.5 Depending upon the nature of the deposits and artefacts encountered, it may be necessary to consult other specialists not listed here. A full list of specialists currently used by CA is contained within Appendix A.

6. POST-EXCAVATION, ARCHIVING AND REPORTING

Reporting

- 6.1 A full illustrated typescript report on the results of the archaeological watching brief will be prepared. The draft report will be issued in pdf format to Coastline Housing Ltd and CCHEP within three months of the confirmed completion of the archaeological fieldwork.

Academic and public dissemination

- 6.2 As the limited scope of this work is likely to restrict its publication value, it is anticipated that a short publication note only will be produced, suitable for inclusion within an appropriate local archaeological journal.
- 6.3 A summary of information from the project will be entered onto the OASIS online database of archaeological projects in Britain. This entry will include a copy of the final typescript report, which will also appear on the Archaeology Data Service (ADS) website once the OASIS record has been verified.
- 6.4 A digital copy of the final typescript report will also be made available for public viewing via Cotswold Archaeology's *Archaeological Reports Online* web page (<http://reports.cotswoldarchaeology.co.uk>).

Archive

- 6.5 An ordered, indexed and internally consistent site archive will be prepared and deposited in accordance with *Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer and Curation* (Archaeological Archives Forum 2007) and Royal Cornwall Museum guidelines.
- 6.6 CA will make arrangements with the Royal Cornwall Museum for the deposition of the site archive and, subject to agreement with the legal landowner(s), the artefact collection (if any). A digital archive (comprising digital photographs and other relevant born-digital data) will be submitted to the ADS.

7. HEALTH, SAFETY AND ENVIRONMENT

- 7.1 CA will conduct all works in accordance with the Health and Safety at Work Act 1974 and all subsequent health and safety legislation, as well as CA's health and safety and environmental policies and the CA *Safety, Health and Environmental Management System (SHE)*. A site-specific *Project Health and Safety Plan* (form *SHE 017*) will be formulated prior to commencement of fieldwork.

8. INSURANCES

- 8.1 CA holds Public Liability Insurance to a limit of £10,000,000 and Professional Indemnity Insurance to a limit of £10,000,000.

9. MONITORING

- 9.1 Notification of the start of site works will be made to CCHEP so that there will be opportunities to visit the site and check on the quality and progress of the work. Access will also be facilitated for visits by specialists as necessary.

10. QUALITY ASSURANCE

- 10.1 CA is a Registered Organisation (RO) with the Chartered Institute for Archaeologists (RO Ref. No. 8). As a RO, CA endorses the *Code of Conduct* (CIfA 2014) and the *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* (CIfA 2014). All CA Project Managers hold Member status within the CIfA.
- 10.2 CA operates an internal quality assurance system in the following manner: projects are overseen by a Project Manager, who is responsible for the quality of the project. The Project Manager reports to the Chief Executive, who bears ultimate responsibility for the conduct of all CA operations. Matters of policy and corporate strategy are determined by the Board of Directors and, in cases of dispute, recourse may be made to the Chairman of the Board.

11. PUBLIC ENGAGEMENT, PARTICIPATION AND BENEFIT

- 11.1 It is not anticipated that this project will afford opportunities for public engagement or participation during the course of the fieldwork. However, the project results will be made publicly available on the ADS and CA websites, as set out in Section 6.

12. REFERENCES

BGS (British Geological Survey) 2018 *Geology of Britain Viewer*
<http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html>
Accessed 18 July 2018

CA (Cotswold Archaeology) 2017 *Land to the rear of Miner's Court, Miner's Way, Redruth, Cornwall. Heritage Assessment*. CA typescript report **17748**

SUMO 2017 *Land to the rear of Miners Court, Miners Way, Redruth, Cornwall. Geophysical Survey Report*. Survey report **12172**

APPENDIX A: COTSWOLD ARCHAEOLOGY SPECIALISTS

Ceramics

Neolithic/Bronze Age	Ed McSloy BA MCIFA (CA) Emily Edwards (freelance) Dr Elaine Morris BA PhD FSA MCIFA (University of Southampton)
Iron Age/Roman (Samian) (Amphorae stamps)	Ed McSloy BA MCIFA (CA) Kayt Marter Brown BA MSc MCIFA (freelance) Gwladys Montell MA PhD (freelance) Dr David Williams PhD FSA (freelance)
Anglo-Saxon	Paul Blinkhorn BTEch (freelance) Dr Jane Timby BA PhD FSA MCIFA (freelance)
Medieval/post-medieval	Ed McSloy BA MCIFA (CA) Kayt Marter Brown BA MSc MCIFA (freelance) Stephanie Ratkai BA (freelance) Paul Blinkhorn BTEch (freelance) John Allan BA MPhil FSA (freelance)
South-West	Henrietta Quinnell BA FSA MCIFA (University of Exeter) John Allan (freelance)
Clay tobacco pipe	Reg Jackson MLitt MCIFA (freelance) Marek Lewcun (freelance)
Ceramic building material	Ed McSloy MCIFA (CA) Dr Peter Warry PhD (freelance)

Other finds

Small finds	Ed McSloy BA MCIFA (CA)
Metal artefacts	Katie Marsden BSc (CA) Dr Jörn Schuster MA DPhil FSA MCIFA (freelance) Dr Hilary Cool BA PhD FSA (freelance)
Lithics (Palaeolithic)	Ed McSloy BA MCIFA (CA) Jacky Sommerville BSc MA PCIFA (CA) Dr Francis Wenban-Smith BA MA PhD (University of Southampton)
Worked stone	Dr Ruth Shaffrey BA PhD MCIFA (freelance) Dr Kevin Hayward FSA BSc MSc PhD PCIFA (freelance)
Inscriptions	Dr Roger Tomlin MA DPhil, FSA (Oxford)
Glass	Ed McSloy MCIFA (CA) Dr Hilary Cool BA PhD FSA (freelance) Dr David Dungworth BA PhD (freelance; English Heritage)
Coins	Ed McSloy BA MCIFA (CA) Dr Peter Guest BA PhD FSA (Cardiff University) Dr Richard Reece BSc PhD FSA (freelance)
Leather	Quita Mould MA FSA (freelance)
Textiles	Penelope Walton Rogers FSA Dip Acc. (freelance)
Iron slag/metal technology	Dr Tim Young MA PhD (Cardiff University) Dr David Starley BSc PhD
Worked wood	Michael Bamforth BSc MCIFA (freelance)

Biological Remains

Animal bone	Andy Clarke (CA) Dr Philip Armitage MSc PhD MCIFA (freelance) Dr Matilda Holmes BSc MSc ACIFA (freelance)
Human bone	Sharon Clough BA MSc MCIFA (CA)
Environmental sampling	Sarah Wyles BA PCIFA (CA) Sarah Cobain BSc MSc ACIFA (CA) Dr Keith Wilkinson BSc PhD MCIFA (ARCA)
Pollen	Dr Michael Grant BSc MSc PhD (University of Southampton) Dr Rob Batchelor BSc MSc PhD MCIFA (QUEST, University of Reading)
Diatoms	Dr Tom Hill BSc PhD CPLHE (Natural History Museum) Dr Nigel Cameron BSc MSc PhD (University College London)
Charred plant remains	Sarah Wyles BA PCIFA (CA) Sarah Cobain BSc MSc ACIFA (CA)
Wood/Charcoal	Sarah Cobain BSc MSc ACIFA(CA) Dana Challinor MA (freelance)
Insects	Enid Allison BSc D.Phil (Canterbury Archaeological Trust) Dr David Smith MA PhD (University of Birmingham)
Mollusca	Sarah Wyles BA PCIFA (CA) Dr Keith Wilkinson BSc PhD MCIFA (ARCA)
Ostracods and foraminifera	Dr John Whittaker BSc PhD (freelance)
Fish bones	Dr Philip Armitage MSc PhD MCIFA (freelance)
<i>Geoarchaeology</i>	Dr Keith Wilkinson BSc PhD MCIFA (ARCA)
Soil micromorphology	Dr Richard Macphail BSc MSc PhD (University College London)
<i>Scientific dating</i>	
Dendrochronology	Robert Howard BA (NTRDL Nottingham)
Radiocarbon dating	SUERC (East Kilbride, Scotland) Beta Analytic (Florida, USA)
Archaeomagnetic dating	Dr Cathy Batt BSc PhD (University of Bradford)
TL/OSL Dating	Dr Phil Toms BSc PhD (University of Gloucestershire)
<i>Conservation</i>	Karen Barker BSc (freelance) Pieta Greaves BSc MSc ACR (Drakon Heritage and Conservation)

Andover Office

Stanley House
Walworth Road
Andover
Hampshire
SP10 5LH

t: 01264 347630

Cirencester Office

Building 11
Kemble Enterprise Park
Cirencester
Gloucestershire
GL7 6BQ

t: 01285 771022

Exeter Office

Unit 53
Basepoint Business Centre
Yeoford Way
Marsh Barton Trading Estate
Exeter
EX2 8LB

t: 01392 826185

Milton Keynes Office

Unit 8 - The IO Centre
Fingle Drive
Stonebridge
Milton Keynes
Buckinghamshire
MK13 0AT

t: 01908 564660

e: enquiries@cotswoldarchaeology.co.uk



Andover Office

Stanley House
Walworth Road
Andover
Hampshire
SP10 5LH

t: 01264 347630

Cirencester Office

Building 11
Kemble Enterprise Park
Cirencester
Gloucestershire
GL7 6BQ

t: 01285 771022

Exeter Office

Unit 1, Clyst Units
Cofton Road
Marsh Barton
Exeter
EX2 8QW

t: 01392 573970

Milton Keynes Office

Unit 8 - The IO Centre
Fingle Drive, Stonebridge
Milton Keynes
Buckinghamshire
MK13 0AT

t: 01908 564660

Suffolk Office

Unit 5, Plot 11, Maitland Road
Lion Barn Industrial Estate
Needham Market
Suffolk
IP6 8NZ

t: 01449 900120

e: enquiries@cotswoldarchaeology.co.uk

