



**Bristol and Region
Archaeological
Services**

Archaeological Evaluation
**ARMY SAILING ASSOCIATION SITE,
VARSITY ROAD, WEST THORNEY
THORNEY ISLAND,
WEST SUSSEX.**

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BaRAS

Archaeological Evaluation
at the
**ARMY SAILING ASSOCIATION SITE,
VARSITY ROAD, WEST THORNEY, THORNEY ISLAND,
WEST SUSSEX.**

Centred on NGR 76875 02315

Prepared for **Rollalong Ltd**

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A handwritten signature in black ink, appearing to read 'Ian Greig', with a horizontal line underneath.

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Abbreviations

AD	Anno Domini	EH	English Heritage
aOD	Above Ordnance Datum	EHA	English Heritage Archive
BaRAS	Bristol & Region Archaeological Services	HER	Historic Environment Record
BC	Before Christ	IfA	Institute for Archaeologists
BL	British Library	Km	Kilometre
c	Circa	m	Metre
C	Century	NGR	National Grid Reference
DCLG	Dept. for Communities & Local Government	OASIS	Online Access to Archaeological Investigations
DCMS	Dept. for Culture Media & Sport	OS	Ordnance Survey

Adopted Chronology

Prehistoric	Before AD43
Roman	AD43-410
Anglo Saxon/Early Medieval	AD410-1066
Medieval	AD1066-1540
Post-medieval	AD1540-present

NOTE

Notwithstanding that Bristol and Region Archaeological Services have taken reasonable care to produce a comprehensive summary of the known and recorded archaeological evidence, no responsibility can be accepted for any omissions of fact or opinion, however caused.

March, 2014

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SUMMARY

An archaeological evaluation at the Army Sailing Association Site, on Varsity Road, West Thorney, revealed a simple sequence of modern topsoil overlying natural brickearth. A moderate amount of burnt flint and Bronze Age struck flint, and a very small quantity of medieval and post-medieval ceramics was recovered from the interface between the brickearth and the overlying topsoil. The finds suggest that there is likely to be prehistoric activity somewhere in the vicinity of the site, but they are not thought to be indicative of occupation within the development site itself.

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1. INTRODUCTION

- 1.1 This report presents the results of an archaeological evaluation carried out by Bristol and Region Archaeological Services (BaRAS) on the Army Sailing Association Site, Varsity Road, in West Thorney, Thorney Island, West Sussex.
- 1.2 The evaluation was commissioned by Rollalong Ltd in order to comply with a planning condition associated with the construction of a new army sailing school (Application No. WT/13/01879/FUL).
- 1.3 The purpose of the evaluation was to provide data on the date, character, degree of survival, extent, significance, and location of any archaeological features or deposits within the proposed development area.
- 1.4 The archaeological work took place on the 11th of February 2014.
- 1.5 The project archive will be deposited with The Novium museum in Chichester under Accession Number CHCDM 2014.5. A digital copy of the report will be sent to the Chichester District Historic Environment Record (CD HER) and the English Heritage Archive. The project has been entered in the OASIS Online Access to the Index of Archaeological Investigations as: bristola1-171046.

2. THE SITE

- 2.1 The site (centred on SU 76875 02315) comprises a sub-rectangular plot of open ground between Varsity Road and Church Road in West Thorney, Thorney Island, West Sussex (**Figs 1-2**).
- 2.2 Thorney Island, which is defined by the Emsworth Channel to the west, the Great Deep to the north and Thorney Channel to the east, lies within Chichester Harbour; West Thorney village is located on the east side of island.
- 2.3 The site slopes slightly from north to south; ground levels range between 4m and 4.5m aOD. According to the British Geological Survey (2014), the site lies along the boundary between Cretaceous chalk and Palaeogene silt, clay and sand of the Lambeth Group, which is overlain by superficial deposits of Pleistocene brickearth.

3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 3.1 There has been no previous archaeological work on the site. A history of West Thorney is provided in *A History of the County of Sussex* (Salzman 1953, 195-97), a brief summary of which is provided below with some additional information drawn from the Chichester District Historic Environment Record and Chichester Harbour Conservancy (2014).
- 3.2 At the beginning of the Mesolithic period (c 10,000 BC) the sea was approximately 35m lower than its present level, as a result the coast lay some 40km to the south of the site, and what is now Thorney Island was then a low inland hill overlooking two rivers (along the lines of the Emsworth Channel and Thorney Channel) that flowed southward towards the 'Solent River' (the valley of which is now submerged beneath the Solent). Sea levels rose throughout the Mesolithic period, and by the early Neolithic the sea had overtopped of the river valleys to the east and west of Thorney Island and began expanding onto the surrounding plateaux. As a result the woodlands near the coast began to be replaced with extensive areas of estuarine mudflats. Sea levels appear to have stabilised during the Bronze Age, which allowed some of the mudflats to be reclaimed by more stable wetland environments and alder carr woodland. At the Bronze Age / Iron Age transition oak, beech and ash woodland began to develop in the dryer areas, and some of the coastal mudflats were replaced by saltmarsh.
- 3.3 The area around West Thorney village is slightly higher than the rest of the island, which is likely to have made it an attractive location for settlement in an area which was, from the Neolithic onwards, dominated by wetland environments. The evidence for prehistoric activity in West Thorney comprises a Bronze Age cremation burial (CD152) 200m to the north of the site, and finds of Neolithic and Bronze Age worked flint (CD168-9) on the foreshore 180m and 300m to the north-west of the site, and Early Iron Age pottery (CD166) 300m to the west of the site.
- 3.4 The evidence for Romano-British activity in the village comprises finds of pottery 170m to the north-west of the site and from the foreshore 320m to the south.
- 3.5 The manor of West Thorney (*Tornei*) is recorded in the Domesday Book of 1086. The manor formed part of the Chapelry of Bosham, which was held by Osbern, Bishop of Exeter. West Thorney was held by Mauger. The manor comprised a church with 12 hides of land, which supported 32 villeins. The Bishops of Exeter retained overlordship of Thorney throughout the medieval period, but a subdivision of the manor in the 13th century led to a complex late medieval and post-medieval history of ownership.
- 3.6 There has been a church in West Thorney since at least the 11th century, but the earliest parts of the present building (CD164), which is dedicated to St Nicholas, date from the 12th century. The church was substantially enlarged in the 13th century, with the addition of a nave, north and south aisles, and a tower. The north and south aisles have subsequently been demolished, but the tower and nave survive.
- 3.7 The village of West Thorney was set in a predominantly open landscape that survived until the enclosure of the common fields in 1812. During the 19th century the construction of sea walls and drainage ditches, particularly on the north side of the island, has allowed a large area to be reclaimed from the sea.
- 3.8 In 1935 Thorney Island was acquired by the military for use as an airfield known as RAF Thorney Island (CD172). Construction of the airfield, hangers, accommodation, and administration blocks involved demolishing almost all of the pre-existing buildings on the island. The airfield was completed in 1938 and used as a base for fighter aircraft involved in the Battle of Britain; the airfield was bombed in August 1940 (Tangmere Military Aviation Museum 2012). RAF Thorney Island remained in use as an airbase until 1976; it was subsequently used as a naval base, and since 1982 it has been controlled by the Royal Artillery. The military base is now known as Baker Barracks, which is home to 12 Regiment & 47 Regiment of the Royal Artillery.

4. AIMS AND METHODOLOGY

- 4.1 The fieldwork complied with the methodology outlined in a *Written Scheme of Investigation* (Greig 2014) and followed the *Standard and Guidance for archaeological field evaluation* (IfA 2009). The aim of the evaluation was to determine the date, character, degree of survival, extent and location of archaeological deposits that might be preserved within the development area.
- 4.2 The evaluation comprised a single trial trench, which exposed an area totalling 56m². The trenches were dug using a 360° tracked excavator fitted with a toothless grading bucket under the direction of a BaRAS archaeologist. Mechanical excavation proceeded to the top of undisturbed natural geology.
- 4.3 The site was recorded in accordance with the BaRAS Site Recording Manual (BaRAS 2009). A photographic record of the trench was made using 35mm monochrome and digital colour photographs.

5. RESULTS

- 5.1 The evaluation comprised a single, 35m long and 1.6m wide trench, which was excavated to a maximum depth of 0.6m (**Fig. 2; Plates 1 – 2**). No archaeological features were uncovered during the evaluation. Detailed descriptions of the deposit sequence are provided in **Appendix 2**. The results are summarised below.
- 5.2 The evaluation revealed a simple sequence of natural Pleistocene brickearth (102) overlain by a 0.3m thick topsoil/natural interface layer (101), which was in turn sealed by a 0.2m thick layer of modern topsoil (100). A moderate quantity of burnt flint and Bronze Age struck flint, and a very small quantity of medieval and post-medieval ceramics was recovered from layer 101. Most of the burnt flint was recovered towards the southern end of the trench.

6. THE FINDS

- 6.1 A total of 119 finds were recovered during the evaluation, all of which were recovered from layer 101. The finds comprise 92 pieces of burnt flint, 23 pieces of struck flint, 3 potsherds and 1 piece of roof tile. The finds were cleaned, identified, and catalogued according to material type. Burnt flint was discarded after quantification. The retained finds will be marked with Accession Number CHCDM 2014.5 and a context number. The finds are discussed separately by type below. The finds are of no more than site importance and no further work is recommended.

Flint

By Dr. Ian Powlesland

- 6.2 The assemblage is very small, consisting of only 23 pieces of flint (530.1 g) derived from a single context representing a topsoil/natural interface layer (101) removed during machining. Such a small collection is unsuitable for detailed statistical analysis and would usually be expected to contain a mix of flint of different periods, but during initial inspection it became clear that the assemblage was more coherent than expected and could be derived from prehistoric activity within the immediate area. For ease of analysis the collection was grouped together as a single Total Assemblage and a few simple statistical analyses attempted, which are set out in **Appendix 3** below.
- 6.3 The assemblage consists of debitage in the form of chips, chunks, broken & complete flakes (56.5%), with only 2 cores (8.7%) & 8 utilized flakes (34.8%), but no formally retouched pieces, such as scrapers. The complete flakes are predominantly secondary flakes (64%), with a smaller number of tertiary flakes (36%), but no primary flakes and the overall size of the flakes would suggest the working of small nodules or simple cores to fabricate flakes. No obvious blades were identified, with the majority of identifiable flakes being quite large, comprising a majority of squat or proportional forms with plain platforms & hinge terminals, indicating the use of hard hammer techniques. Although there is evidence for edge damage on many of the pieces, the high number of utilized flakes with evidence of simple retouch or discrete areas of use wear in the form of notches or scraping edges is unusual, especially considering the absence of more formal retouched tools.
- 6.4 Very little of the assemblage has any form of patination (8.7% with partial patination), but many pieces display evidence for edge damage & rolling, indicating that the material has either been disturbed from its original context or may have been subjected to secondary disturbance prior to its primary deposition. Only one piece has obvious signs of burning; suggesting that its original deposition is probably related to activities at some distance from intensive occupation or settlement. The large size of much of the assemblage and the absence of smaller pieces of debitage may be biased by the process of excavation & collection, but if typical of the original assemblage it would indicate a very simple style of casual flint working, utilizing simple nodules to produce plain flakes, rather than utilizing carefully prepared cores to produce formal tools.
- 6.5 Whilst the original context of this flint is unknown, the source of the flint which was being utilized is fairly uniform, with the majority of pieces being fabricated from a mottled mid grey flint, with a smooth & discoloured cream to yellow cortex typical of gravel flint, probably derived from a tertiary gravel deposit (possibly including a clay with flints source). There are a couple of pieces fabricated from a darker grey flint and a lighter yellow brown flint, but the surviving cortex suggests a similar surface gravel source, rather than in situ chalk or beach flint sources. The surviving cortex & patination patterns visible on the two cores indicate the casual collection of surface nodules or previously worked lumps of flint, suggesting utilization of a readily available surface source.
- 6.6 Overall, the assemblage is remarkably uniform in the flint sources being utilized, the similarity of flint working techniques & the surviving flake forms, which indicate that the assemblage is broadly contemporary in date or function. The flint working strategies being utilized were reliant on hard hammer techniques utilizing plain platforms and a high percentage of hinge

fractures indicative of casual flint working techniques to produce flakes (utilising simple flint nodules rather than prepared cores), which are typical features of later Neolithic & Bronze Age flint working. The general absence of formal retouched pieces and the high numbers of complete proportional or squat flakes with evidence of secondary utilization in the form of simple notches, scraping & cutting edges, is more typical of later Bronze Age flint working (Ford *et al* 1984), when more ad hoc use of flint was undertaken.

Ceramics

By Luke Barber

Pottery

- 6.7 The evaluation produced just three sherds of pottery from the site, all being recovered at the topsoil/subsoil interface (context 101). The earliest consists of a heavily abraded oxidised bodysherd tempered with moderate chalk and rare flint grits (4g). This is likely to be of mid-11th – 12th-century date and is a common type at Chichester. The second sherd (3g), also very heavily abraded, is tempered with abundant fine sand with occasional iron oxide inclusions. It is medium fired, relatively thin-walled and from a buff vessel of uncertain form. Such fabrics are quite common on the Coastal Plain in the 14th – mid-15th centuries, with the Binsted kiln, north-east of Chichester, being one possible source. However, the sherd is not particularly diagnostic and an earlier date cannot be ruled out. The final sherd is much fresher (17g) and comes from an internally clear-glazed jar with club rim in a sandy buff earthenware probably from the Verwood kilns in Hampshire. A date between the mid-17th and mid-18th century is probable.

Ceramic Building Material

- 6.8 A single piece of peg tile was recovered from context 101. This consists of a 9mm thick well-fired example tempered with moderate ill-sorted white flint grits to 2mm. Such flint-tempered tiles are common in the area in the 13th century and are known to have been made at both Binsted and Chichester.

7. DISCUSSION AND CONCLUSIONS

- 7.1 The archaeological evaluation uncovered no evidence of any archaeological features within the development area. A moderate quantity of burnt flint and Bronze Age struck flint, and a very small quantity of medieval and post-medieval ceramics were recovered from the interface between the topsoil and the underlying brickearth. The finds suggest that there is likely to be prehistoric activity somewhere in the vicinity of the site, but they are not thought to be indicative of occupation within the development site itself.

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APPENDIX 1: Policy Statement

This report is the result of work carried out in the light of national and local-authority policies.

NATIONAL PLANNING POLICY (ENGLAND)

The *National Planning Policy Framework* (NPPF) for England published by the UK Government in March 2012 states that the historic environment, which includes designated and non-designated heritage assets, is an irreplaceable resource and, as such, should be taken into account by Local Planning Authorities when considering and determining planning applications. This is taken to form part of a positive strategy set out in the respective Local Plan to ensure the conservation and enjoyment of the historic environment. The assigned significance of heritage assets will be key factor in terms of their conservation.

Given their irreplaceable nature, any harm to, or loss of, a heritage asset, or heritage assets, should be clearly and convincingly justified as part of a planning application. As part of this, applicants are required to describe the significance of any heritage assets affected by a proposal, including any contribution made by their setting. Where a heritage asset, or assets, are to be harmed or lost as the result of a proposal, the applicant will be required to record and advance the understanding of the significance of that asset or assets, to include making the evidence arising publicly accessible, but this will be in proportion to the significance of the asset/assets in question. While the NPPF takes into account the historic environment as a whole, additional protection is afforded to designated heritage assets under current English Law. Any proposal that would result in harm or loss of a designated heritage asset is also required to be justified by the applicant in meeting strict criteria set out in the NPPF.

LOCAL POLICY

Chichester District Local Plan First Review (adopted April 1999) policy BE3 states that: The destruction of, or damage to, scheduled ancient monuments and other features and sites of archaeological interest by development will be prevented wherever possible. There is a presumption in favour of the preservation in situ of important monuments. Where proposed development is likely to affect a known or suspected site of archaeological interest, one or more of the following requirements will be imposed.

Archaeological Assessment and Field Evaluation

Applicants will be required to include, as part of their research into the development potential of a site, a desk-based archaeological assessment and where appropriate a field evaluation of the archaeological remains. A statement of the findings will be required to accompany the planning application.

Preservation in situ

In order to secure the preservation of archaeological features and their setting in situ, the District Planning Authority may require developers to modify their proposals. The use of conditions or an agreement under section 106 of the Town and Country Planning Act 1990 may be required to secure a modification. Planning applications must indicate how preservation in situ will be secured.

Arrangements for excavation, recording and publication

If the District Planning Authority decides that the preservation in situ of archaeological remains is not justified and development resulting in their destruction should proceed, criteria is met before granting planning permission. The developer has made satisfactory provision for the excavation, recording and publication of the remains before development commences. This work will be carried out to a specification approved by the district planning authority. In some cases an agreement under section 106 of the Town and Country Planning Act 1990 will be required to secure the investigation.

Conditions to secure excavation and recording

Where the District Planning Authority has decided that preservation in situ is not justified, it may impose a condition delaying the start of development until excavation and recording have been carried out in accordance with a written scheme of investigation submitted by the applicant and approved by the District Planning Authority. Such schemes shall include proposals for the publication of any findings.

Watching Brief

The developer will be required to give notice of an intention to start development and to satisfy the District Planning Authority that adequate provision has been made for access and subsequent observation and recording of any finds and other evidence which may be revealed during the development works. The developer will also be required to notify an archaeologist approved or appointed by the District Planning Authority of any items unearthed during development which he knows or suspects to be of interest. Developers are required to allow adequate time for records to be made by the archaeologist.

Field Monuments

Where development is likely to affect the setting of a nationally important field monument, whether scheduled or not, permission will be refused.

APPENDIX 2: Context Descriptions

Context No.	Type	Description	Date
100	Layer	Topsoil. Soft dark greyish brown silty clay with occasional rounded to angular flint gravel. 0.2m thick	Modern
101	Layer	Topsoil/natural interface layer. Firm brown silty clay with occasional rounded to angular flint gravel and occasional larger flint nodules. 0.35m thick.	Unknown
102	Layer	Natural brickearth. Orangey brown silty clay with occasional rounded to angular flint gravel and larger flint nodules.	Pleistocene

APPENDIX 3: Flint Classification

Primary Classification.				
	Number	(% Burnt)	Weight (g)	(%)
Chips, spalls, chunks, etc.	5	-	94.9	-
Waste/broken flakes	2	-	12.6	-
Complete flakes	6	-	112.7	-
Tools/retouched pieces	8	(1)	103.2	(22.1)
Cores	2	-	206.7	-
Total	23	(1)	530.1	(22.1)
Secondary Classification.				
	Number	(% Burnt)	Weight (g)	(%)
Complete Flakes.				
Primary Flakes	-	-	-	-
Secondary Flakes (+ 4 utilized flakes)	5	-	102.6	-
Tertiary Flakes (+ 4 utilized flakes)	1	-	10.1	-
Tools/retouched pieces.				
End scrapers	-	-	-	-
Side scrapers	-	-	-	-
Utilised flakes/notched pieces	8	(1)	103.2	(22.1)
Awl/piercers	-	-	-	-
Cores	2	-	206.7	-
Other	-	-	-	-
Totals	10	(1)	309.9	(22.1)
Total Assemblage, Ratios and Percentages.				
	Number		Weight	
	Ratio	Percentage	Ratio	g
Complete Flakes to Tools	0.75:1	75%	0.92:1	112.7-
Scrapers to Tools	-	-	-	-
Cores to Tools	0.25:1	25%	2:1	206.7-
Scrapers to Total Assemblage	-	-	-	-
Cores to Total Assemblage	0.09:1	8.7%	0.39:1	206.7-
Burnt Flint to Total Assemblage	0.04:1	4.3%	0.04:1	22.1-
Tools/Utilized Flakes to Total Assemblage	0.35:1	34.8%	0.19:1	103.2-
Display of Breadth-Length Ratios (complete flakes including retouched pieces).				
		Ratio	No.	Weight
	Squat	<0.5-1	5	66.5g
	Proportional	1-1.5	5	90.4g
	Elongated	1.5-2	4	59g
	Blades	2-2.5+	0	0
	Totals:		14	215.9g
Key to Length-Breadth Ratios				
<0.5:1-1:1	1:1-1.5:1	1.5:1-2:1	2:1-2.5+:1	
Squat Flakes	Proportional Flakes	Elongated Flakes	Blades	

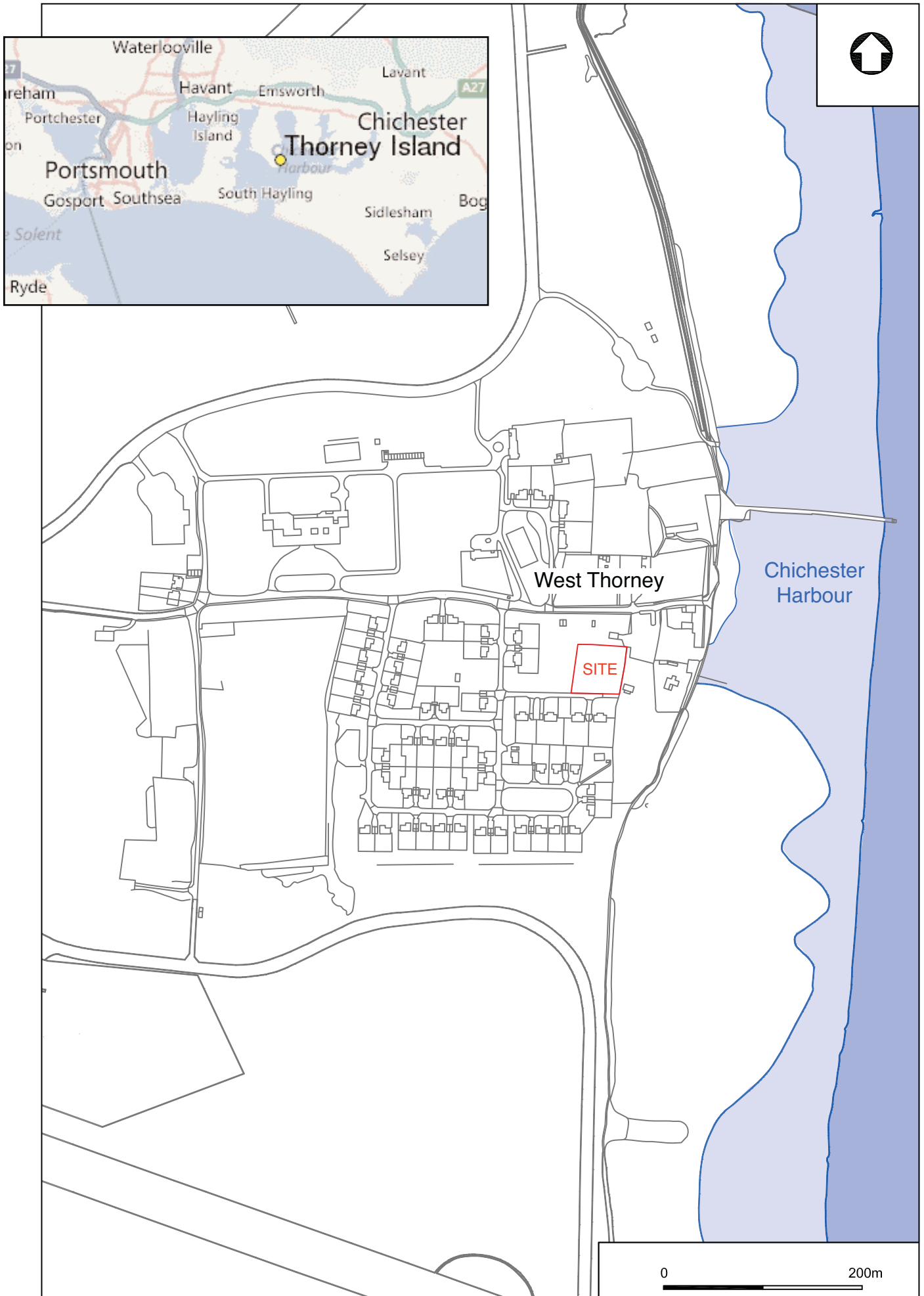


Fig.1 Site location plan, scale 1:5,000

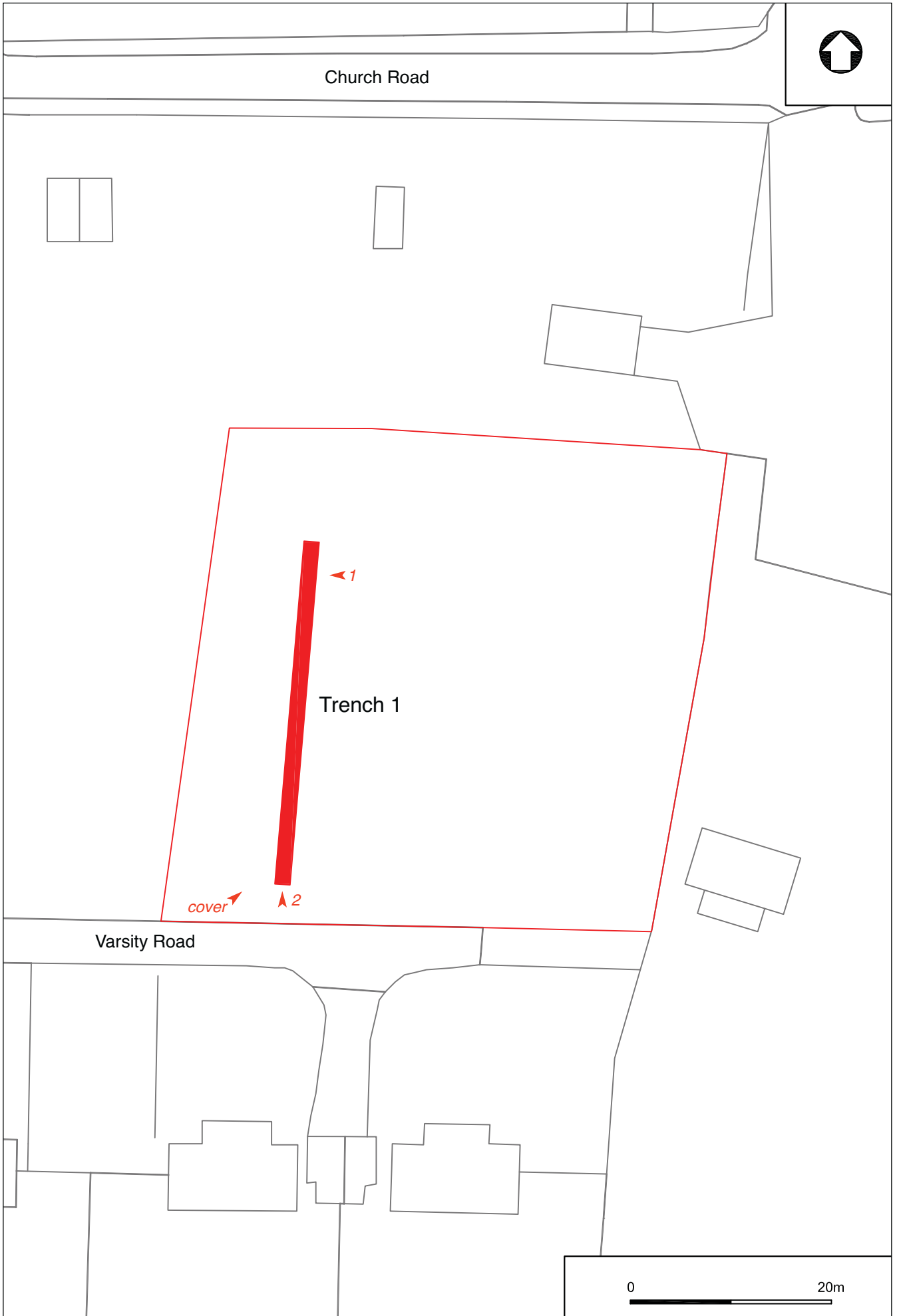


Fig.2 Site plan, scale 1:500, showing plate directions



Plate 1 Trench 1, looking north



Plate 2 Trench 1, representative section, looking west (1m scale)