

# **An Archaeological Watching Brief at 39 Greenhill Road, Otford, Kent**

**NGR (TQ) 553501 160108**

**Project No. 2815**

**Site Code GRO07**

**Report No. 2007180**



**By Clive Meaton  
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**Archaeology South-East  
Units 1 & 2  
2 Chapel Place  
Portslade  
East Sussex  
BN41 1DR**

**Tel : 01273 426830  
Fax : 01273 420866  
email : [fau@ucl.ac.uk](mailto:fau@ucl.ac.uk)  
website : [www.archaeologyse.co.uk](http://www.archaeologyse.co.uk)**

## Summary

*An archaeological watching brief was undertaken during new residential development at 39 Greenhill Road, Otford near Sevenoaks in Kent. The plot is situated on the lower reaches of the south facing scarp slope of the North Downs, directly opposite a known Early to Middle Bronze Age site in the back garden of number 46 Greenhill Road. During the course of the watching brief two possible quarry pits were recorded, although it is thought likely that both features related to localised variation in the topography and underlying geology, rather than reflecting direct cultural impacts. A buried landscape terrace of modern origin was also noted. Otherwise, no significant archaeological deposits or conclusive evidence of pre-modern cultural activity was recorded in the areas monitored.*

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## **1.0 INTRODUCTION**

- 1.1** Archaeology South-East (ASE), a division of University College London Centre for Applied Archaeology (UCLCAA), were commissioned by Oakley New Homes (South East) Ltd to undertake an archaeological watching brief during residential development at 39 Greenhill Road, Otford. The planned programme of works included the demolition of an existing building, followed by the construction of a new two-storey property. Sevenoaks District Council's planning reference for the proposal is SE/06/00944.
- 1.2** The site is located north of Otford at the foot of the North Downs, to the east of Shoreham Road, and is centred on NGR 553501 160108 (Fig. 1). The British Geological Survey shows the site to be situated close to the boundary between Lower and Middle chalk, both of which were laid down during the Cretaceous period. These strata are themselves divided by a band of Melbourne Rock, which occurs intermittently along the course of the North Downs (Sevenoaks: Sheet 287 Solid and Drift 1:50 000). The Melbourne Rock is a compacted chalk bed, containing numerous shell fragments, and other impurities, producing a more gritty texture. This material is much harder than the surrounding chalk beds and has thus frequently been used as a building material (Brandon, 2005).
- 1.3** In view of the archaeological potential of the site, Sevenoaks District Council imposed the following condition for an archaeological watching brief to be carried out on the planning consent for the extension:
- No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a watching brief to be undertaken by an archaeologist approved by the Local Planning Authority so that the excavation is observed and items of interest and finds are recorded. The watching brief shall be in accordance with a written programme and specification which has been submitted to and approved by the Local Planning Authority.*
- 1.4** A Specification for an Archaeological Watching Brief was produced by the Heritage Conservation Group, Kent County Council in January 2007 and titled *Specification for an Archaeological Watching Brief During the Demolition of an Existing Dwelling and the Erection of a Replacement at 39 Greenhill Road, Otford Near Sevenoaks in Kent*. This document outlined the elements of work that required archaeological supervision: including demolition of the existing building, the excavation of foundation trenches and terracing, the excavation of service trenches, and any associated intrusive landscaping. No details of groundwork were submitted prior to the commencement of the development.
- 1.5** The general objective of the archaeological work was to monitor the excavation of new groundworks in order to ensure that any features,

artefacts or ecofacts of archaeological interest exposed and affected by the groundworks were recorded and interpreted to appropriate standards.

- 1.6** The fieldwork was undertaken on Monday 5<sup>th</sup> March, Thursday 8<sup>th</sup> March, Wednesday 18<sup>th</sup> April 2007, and also on Tuesday and Wednesday the 5<sup>th</sup> and 6<sup>th</sup> February 2008. All fieldwork was carried out by Clive Meaton (Senior Archaeologist), and the project was managed by Darryl Palmer (Senior Project Manager).

## **2.0 ARCHAEOLOGICAL AND GEOLOGICAL BACKGROUND**

- 2.1** The site is located near the base of the south facing scarp slope of the North Downs and is set within a coombe overlooking the River Darent as it passes through the village of Otford. It lies within an area of archaeological potential associated with prehistoric and Romano-British finds. Most notably, a Middle Bronze Age collared urn, complete with cremation (Site number 6, table 1) was found during mechanical levelling for a tennis court in the garden of number 46 Greenhill Road (Pyke, 1975). This property is situated one house up, on the opposite side of the road to the development. Following the discovery of the cremation urn, further investigations were undertaken by the Otford and District Historical Society's Archaeological Group, revealing Early to Middle Bronze Age occupation deposits (Pyke, 1980). Furthermore, carbon dating from a feature sealed beneath these deposits proved to be of Neolithic origin (pers. comm. Mr R.Pitcairn-Knowles).
- 2.2** Otford Mount Bronze Age barrow is the only Scheduled Monument in the vicinity, located a little over 500 metres to the south east of the site.
- 2.3** In a 500m radius surrounding the application site many more prehistoric artefacts and features have been found, including a Neolithic axe and Romano-British pottery and tile (Table 1). In fact, the North Downs Way runs along the ridge directly above the site, and prehistoric material, as well as Romano-British structures and artefacts have been identified along the course of this ancient route (Pyke, 1980).

<b>Site Number</b>	<b>Find type</b>	<b>HER Number</b>	<b>Period</b>
1	Flint implement	TQ55 NW24 – MKE321	Undated
2	Handaxe	TQ55 NW35 – MKE332	Undated
3	Pottery and tile	TQ56 SW5 – MKE671	Romano-British

4	Flint Implements	TQ56 SW9 – MKE675	Mesolithic/Neolithic
5	Microlith	TQ56 SW21 – MKE687	Mesolithic
6	Settlement, cinerary urn	TQ56 SW27 – MKE693	Neolithic-Bronze Age
7	Scraper	TQ56 SW44 – MKE710	Undated
8	Flint implements	TQ56 SW46 – MKE712	Undated
9	Scraper	TQ56 SW47 – MKE713	Undated
10	Flint implements	TQ56 SW54 – MKE720	Undated
11	Flint implement	TQ56 SW55 – MKE721	Undated
12	PR Scraper	TQ56 SW64 – MKE730	Undated
13	Flint implements	TQ56 SW65 – MKE731	Undated
14	Flint Implement	TQ56 SW67 – MKE733	Undated

Table 1: Summary of HER find types from within 500m radius of the site

### 3.0 METHODOLOGY

**3.1** Groundworks fell broadly into two categories: either terracing into the scarp slope itself with associated footing trenches, or strip footings for the garage, as well as service trenches and a large soakaway pit located between the new building and Greenhill Road (Fig. 2). Excavation was undertaken with a tracked mechanical excavator equipped with a ditching bucket. When archaeological supervision was present, all intrusive groundworks within the footprint of the building were undertaken using a 1.8m wide toothless ditching bucket. The overburden was removed, and the resultant surface bladed clean, and inspected for archaeological features and deposits. The strip footings, service trenches and soakaway, were also mechanically excavated using a toothless ditching bucket, and were conducted under constant archaeological supervision.

**3.2** Stratigraphy was recorded according to standard UCLCAA practice, and in line with advice given in PPG16 (the government's advice on *Archaeology and Planning*). Deposits/contexts were described on standard pro-forma recording sheets used by UCLCAA, and a full photographic record was made, including digital images.

## **4.0 RESULTS (Fig. 3)**

- 4.1** Unfortunately the entire eastern half of the site was fully excavated, between 1 and 3 metres into the slope, without archaeological supervision. On arrival only sections exposed along the boundary edges, and on an internal stepped terrace remained for inspection. Other groundworks were satisfactorily conducted under archaeological supervision. A composite stratigraphic profile is recorded below.

Top Soil: Up to c.200mm thick

(Context 001: A silty clay loam top soil with chalk fragments throughout, and rare flint nodules to 30mm)

Sub Soil/Colluvium: Between c.200-500mm thick

(Context 002: A creamy yellow silty clay with chalk fragments throughout comprising up to 20% of the matrix, and rare flint nodules)

Natural (Middle) Chalk: From 300-500mm below the ground surface

(Context 003: A greyish yellow white chalk, with a gritty texture – No flint observed in the deposit)

- 4.2** During the excavation of the western half of the site, some evidence for bioturbation was noted, but no archaeological features or deposits. Exposed sections in the west, and south facing baulks, as well as the south facing internal terrace baulk, revealed a large possible feature at least 11m in diameter, and 800mm to 1m deep; cut context 004. This large feature/depression was located in the eastern half of the site, and had therefore been excavated, and thus significantly truncated, without archaeological supervision. The surviving sections revealed gently rounded sides to a flattish bottom; a diffuse boundary to the underlying chalk was noted (measured sketch sections recorded – not reproduced). This feature was filled with an homogenous light creamy yellow brown silty clay, containing very frequent chalk nodules/fragments, and frequent flint nodules comprising up to 3% of the matrix; fill context 005. Context 005 was completely sterile, and devoid of any cultural material; its composition being more indicative of a colluvial deposit.

- 4.3** In the northwest corner of the garage footprint, excavation of the strip footings revealed a substantial area of loose and jumbled chalk nodules, all contained within a mid greyish white chalk matrix; context 006. This deposit was very unstable, and excavation proceeded until a firm base had been achieved at a depth 2500mm below the existing ground surface. Due to the depth of the excavations, context 006 was not closely inspected *in situ*, although a possible cut revealing a rounded side was recorded in the north-south aligned footing trench; context 011.



**4.4** The cut of a probable landscaped terrace was also located in the strip footings for the garage, seemingly aligned east-west along the slope gradient. This cut was recorded as context 009, being at least 1000mm deep with vertical sides breaking sharply to a flat base. It was filled, or made up by context 010; a light to mid greyish brown clayey sandy silt containing very frequent chalk nodules/fragments, frequent CBM (modern bricks and tile), plastic, and occasional flint nodules. Services were also noted cutting through the terrace deposits, and a modern pit was recorded a metre or so to the north of the terrace cut; context 007-008.

**4.5** The soakaway measured 2000m x 2000m and 3500mm deep. No archaeological features were identified during its excavation.

Number	Type	Description	Max. length	Max width	Max depth
001	Layer	Topsoil	Tr.	Tr.	200mm
002	Layer	Subsoil/colluvium	Tr.	Tr.	200-500mm
003	Deposit	Natural chalk	Tr.	Tr.	n/a
004	Depression/ possible cut	Probable topographic feature	>11.0m	>6.0m	1.0m
005	Fill	?colluvium	>11.0m	>6.0m	1.0m
006	Cut	Poss. quarry fill	Tr.	Tr.	2.5m
007	Cut	Modern pit	800mm	800mm	400mm
008	Fill	Modern pit	800mm	800mm	400mm
009	Cut	Modern terracing	Tr.	Tr.	>1.0m
010	Fill	Made ground	Tr.	Tr.	>1.0m
011	Cut	Poss. quarry pit	Tr.	Tr.	2.5m

Table 2: List of recorded contexts

## **5.0 DISCUSSION**

**5.1** 39 Greenhill Road is situated at the base of the North Downs scarp slope. In archaeological terms the lower reaches of this steeply graded slope would not have been an ideal location for embedded cultural activity, whereas the Early-Middle Bronze Age site located on the opposite side of the road, lies just beyond a break of slope, on more gently inclined ground. Thus the lack of archaeological evidence on site is not unsurprising.

**5.2** Of interest though was the large truncated feature, noted in the eastern half of the site (Context 4). Whilst this feature was only observed in section, it was of a significant size, and filled with a completely sterile colluvial type deposit (Context 5). Interestingly, this deposit contained a relatively large number of flint nodules. This contrasts strongly with the surrounding natural chalk bedrock (Context 3), in which no flint nodules were noted. Hence it seems likely that

Context 3, is Middle Chalk of Cretaceous origin, and that Context 5 is derived from deposits of Upper Chalk containing abundant flint nodules, and located higher up on the slope. Furthermore, it is possible that the large feature/depression (Context 4) may indicate some quarrying activity, potentially related to the extraction of Melbourne Rock. After all, the steeply sided slope would provide ample opportunity for involuted geological processes to create discrete pockets of this material. However, the complete lack of evidence for any cultural activity either in the deposit, or the general area, would strongly indicate that this feature is a natural topographic depression, subsequently filled by colluvial deposits originating from slope.

**5.3** Similarly, context 006 may well have comprised backfill to a large pit or quarry, and this deposit did appear to be contained within a discrete cut, context 011. Alternatively, context 006 was very clean and sterile, and may therefore have been naturally degraded chalk. Indeed this area of site was located between the original garage and a revetting wall (c.1000 high). Hence water runoff could easily have accumulated and percolated down through the ground, chemically eroding the substrate.

**5.4** In summary, the watching brief at 39 Greenhill Road, Otford largely failed to reveal any significant archaeological deposits or artefacts. Two possible quarry pits were recorded (contexts 4, and 6), but as discussed above, it is thought likely that both related to localised variability in topography or geology. Some modern activity was also noted across the site, and a modern, buried landscape terrace was identified in the strip footings for the garage context 009.

**5.5** Thus, it seems that the Early to Middle Bronze Age site recorded at 46 Greenhill Road does not extend across the road, as far as number 39.

## **6.0 ACKNOWLEDGEMENTS**

Many thanks to Oakley Homes Ltd, Adam Single at Kent County Council, and also to Mr R.Pitcairn-Knowles of 46 Greenhill Road.

## **7.0 BIBLIOGRAPHY**

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in *Archaeologia Cantiana Vol. XCI*: pp.185-187

**SMR Summary Sheet**

Site Code	GRO07					
Identification Name and Address	39 Greenhill Road, Otford, Kent					
County, District &/or Borough	Kent County Council					
Ordnance Survey Grid Reference	NGR TQ 553501 160108					
Archaeology South-East Proj. No.	2815					
Type of Fieldwork	Eval.	Excav.	Watching Brief ✓	Standing Structure	Survey	Other
Type of Site	Green Field	Shallow Urban ✓	Deep Urban	Other		
Dates of Fieldwork	Eval.	Excav.	WB. 03/2007	Other		
Sponsor/Client	Oakley New Homes (South East) Limited					
Project Manager	Darryl Palmer					
Project Supervisor	Clive Meaton					
Period Summary	Palaeo.	Meso.	Neo.	BA	IA	RB
	AS	MED	PM	Other: No Archaeology ✓		
<p>An archaeological watching brief was undertaken during new residential development at 39 Greenhill Road, Otford near Sevenoaks in Kent. The plot is situated on the lower reaches of the south facing scarp slope of the North Downs, directly opposite a known Early to Middle Bronze Age site in the back garden of number 46 Greenhill Road. During the course of the watching brief two possible quarry pits were recorded, although it is thought likely that both features related to localised variation in the topography and underlying geology, rather than reflecting direct cultural impacts. A buried landscape terrace of modern origin was also noted. Otherwise, no significant archaeological deposits or conclusive evidence of pre-modern cultural activity was recorded in the areas monitored.</p>						

**OASIS ID: archaeol6-41079**

**Project details**

Project name	An Archaeological Watching Brief at 39 Greenhill Road, Otford, Kent
Short description of the project	An archaeological watching brief was undertaken during new residential development at 39 Greenhill Road, Otford near Sevenoaks in Kent. The plot is situated on the lower reaches of the south facing scarp slope of the North Downs, directly opposite a known Early to Middle Bronze Age site in the back garden of number 46 Greenhill Road. During the course of the watching brief two possible quarry pits were recorded, although it is thought likely that both features related to localised variation in the topography and underlying geology, rather than reflecting direct cultural impacts. A buried landscape terrace of modern origin was also noted. Otherwise, no significant archaeological deposits or conclusive evidence of pre-modern cultural activity was recorded in the areas monitored.
Project dates	Start: 05-03-2007 End: 06-02-2008
Previous/future work	No / Not known
Any associated project reference codes	2815 - Contracting Unit No.
Any associated project reference codes	GRO07 - Sitecode
Type of project	Recording project
Site status	None
Current Land use	Residential 1 - General Residential
Investigation type	'Watching Brief'
Prompt	Direction from Local Planning Authority - PPG16

**Project location**

Country	England
Site location	KENT SEVENOAKS OTFORD 39 Greenhill Road
Postcode	TN14 5

Study area                      600.00 Square metres

Site coordinates              TQ 553501 160108 50.9220342193 0.210547311341 50 55 19 N 000 12 37 E Point

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#### **Project creators**

Name of Organisation        Archaeology South East

Project brief originator      Kent County Council

Project design originator    Kent County Council

Project director/manager    Darryl Palmer

Project supervisor            Clive Meaton

Type of sponsor/funding  
body                              Developer

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#### **Project archives**

Physical Archive Exists?    No

Digital Archive Exists?     No

Paper Archive recipient      Local Museum

Paper Contents                'none'

Paper Media available        'Context sheet','Photograph','Plan','Unpublished Text'

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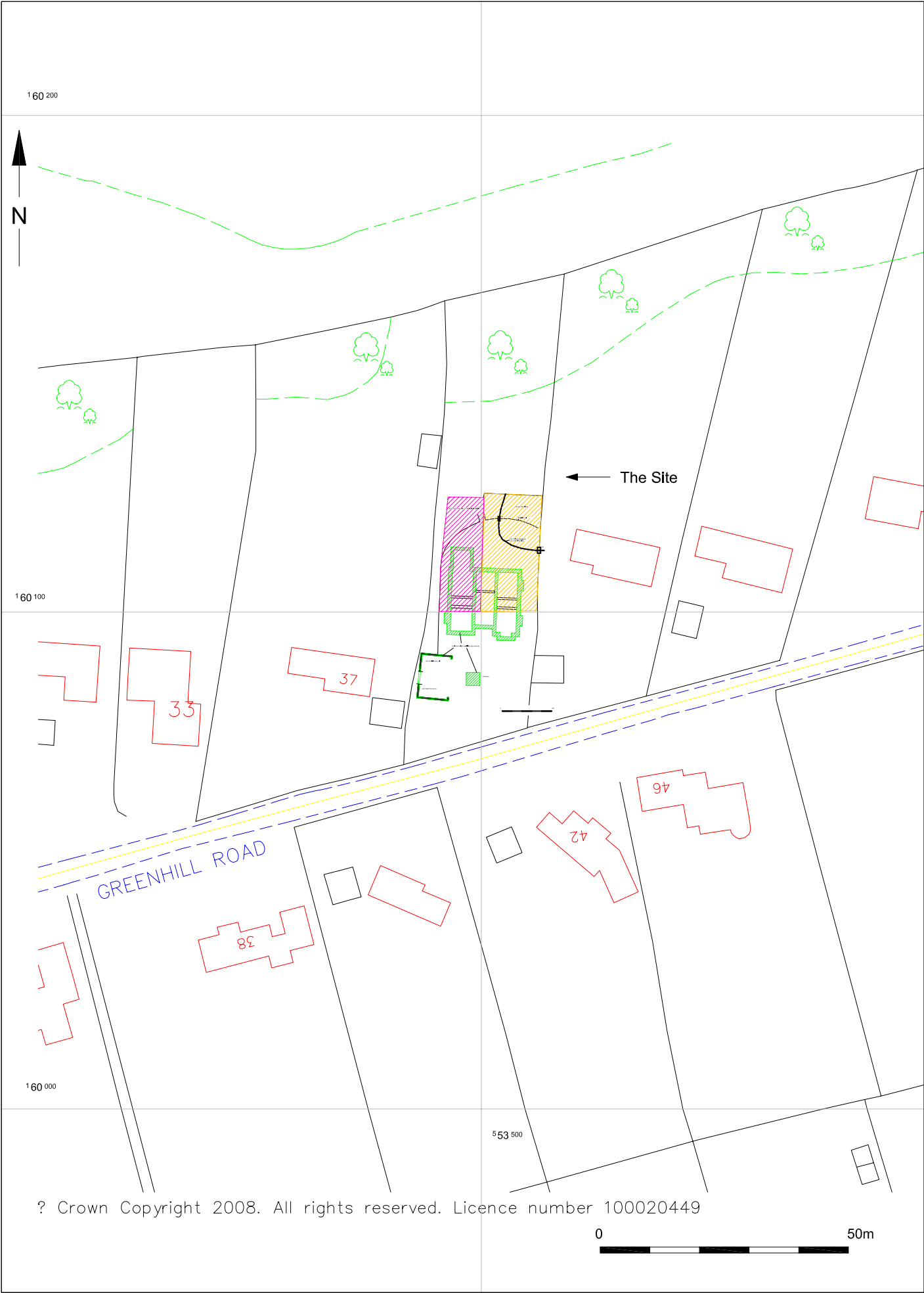




© Archaeology South-East		39 Greenhill Road, Otford, Kent	Fig. 1
Project Ref: 2815	March 2008	Site Location Plan	
Report Ref: 2007180	Drawn by: SM		

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Project Ref: 2815	March 2008	Site Plan	
Report Ref: 2007180	Drawn by: SM		

