THAMES WATER MAINS REPLACEMENT WORKS

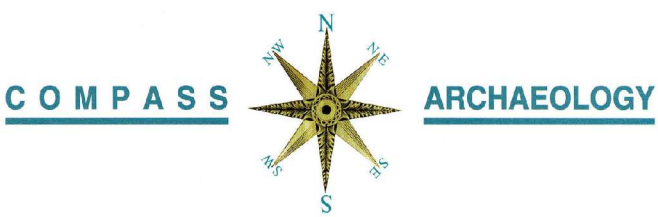
DARTFORD DISTRICT

KENT

SOUTHFLEET 06 2CKG/F43

AN ARCHAEOLOGICAL WATCHING BRIEF

August 2008



THAMES WATER MAINS REPLACEMENT WORKS

DARTFORD DISTRICT

KENT

SOUTHFLEET 06 2CKG/F43

AN ARCHAEOLOGIAL WATCHING BFIEF

SITE CODE: DAR 08
SITE CENTRE NGR: TQ 57938 70906

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August 2008

Abstract

An archaeological watching brief was carried out by Compass Archaeology Ltd. on Thames Water mains replacement works in streets within the Dartford district of Kent. The groundworks were monitored between the 17th January and the 27th May 2008. The work formed a response to consultation by Thames Water Utilities with Archaeological Officers at Kent County Council who advised that the groundworks should undergo the archaeological watching brief.

The project was considered to have archaeological potential due to the existence of known archaeological sites and finds spots in close proximity to the study area. At the northern end, ring ditches and a polished axe are believed to belong to the Bronze Age and Neolithic periods respectively. Further south there is significant evidence of Roman land use for burials, industrial buildings and settlements.

The monitored groundworks largely comprised open cut trenching; however, pipe bursting and drilling was also carried out within the study area. Despite the known archaeological potential, no archaeological finds or features were observed in the monitored areas. Exposed sequences largely consisted of modern road surface make up, over fairly recent made ground and sterile natural deposits – mainly Terrace Gravels and Thanet Sand.

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1. Introduction

1.1 This report details the results of an archaeological watching brief undertaken during groundworks for Thames Water water main replacement works in the Dartford district of Kent. Compass Archaeology carried out the archaeological fieldwork between 17th January 2008 and the 27th May 2008.

1.2 The archaeological fieldwork programme formed a response to consultation by the Ecology and Heritage team at Thames Water Utilities with the Archaeological Officer at Kent County Council, who advised that the groundworks undergo an archaeological watching brief.

1.3 The study area measured approximately 2.8 square kilometres and was approximately centred at National Grid Reference: TQ 57938 70906. The study area is shown in figure 1, in relation to the Ordnance Survey. Various streets and areas were monitored within this area, and receive a street-by-street discussion below, with more detailed location maps as appropriate.

2. Acknowledgements

The archaeological watching brief was commissioned by Arabella Bramley, Ecology and Heritage at Thames Water Utilities.

Ngaire Kingsbury, Thames Water Utilities Engineering Division, also provided information on the project.

Ben Found, Archaeology Officer at Kent County Council, provided advice on the required nature of the archaeological fieldwork, and provided information about the archaeological potential of the study area. Further information was supplied by Andrew Mayfield of the Kent Historic Environment Record.

Morne Cloete of Skanska and Gary Rich of Thames Water both provided information about the on site contractors' groundworks programme.

During the fieldwork further assistance was provided employees of Skanska, the on-site contractors.

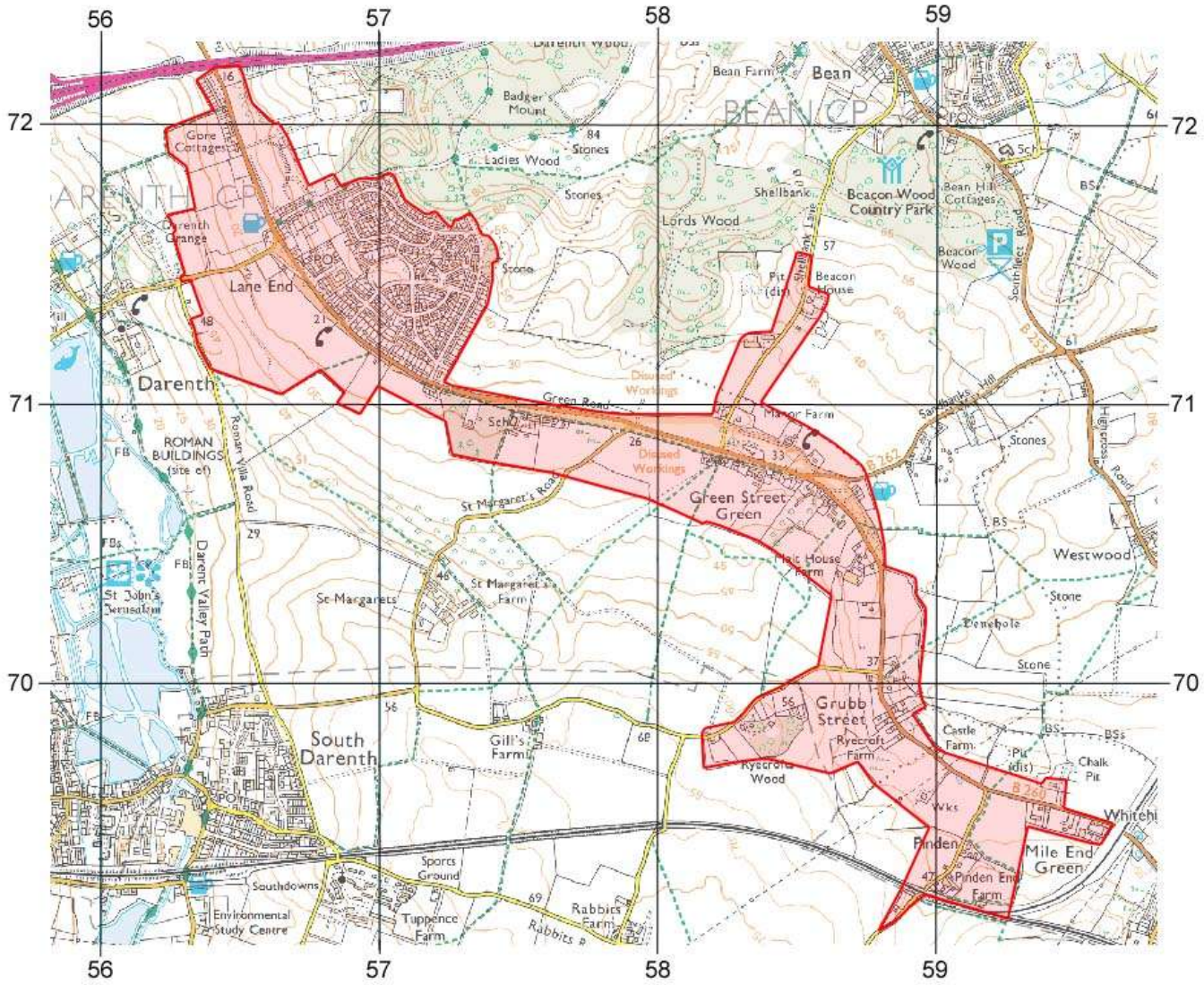

Fig. 1 The study area highlighted in relation to the Ordnance Survey

Area outline based on plans provided by Thames Water Utilities.

Map base reproduced with the permission of the Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office, ©Crown Copyright. Compass Archaeology Ltd., licence no. AL 100031317.

3. Site location and geology

3.1 The study area was approximately centred at National Grid Reference: TQ 57938 70906 in the Dartford district of Kent. The study area extended from the A2 (Watling Street) southeast through the villages of Darenth and Green Street Green and stopped just to the west of the village of Longfield. The study area was generally centred around the main street of Green Street Green Road, although archaeological monitoring was carried out on the roads connected (both north and south) to this main one.

3.2 Spot heights within the study area indicate that the ground level rises towards the southeast towards Longfield (successive levels from the north of the A2 towards Longfield: *c* 16m, 26m, 33m, 37m, 38m & 42m OD). The Green Street Green Road also is lower than the connecting roads both to the north and the south. The highest ground within the study area is in the north of the housing estate north of Green Street Green Road in Darenth; a 56m spot height is found on Wood Lane.

3.3 Figure 2 below shows the relevant area of the British Geological Survey. This shows that the route of Green Street Green Road overlies Taplow Gravels. There are areas of Head (glacially reworked clay, *etc.*) in the southeast, with a number of branches of this geology connecting to the Taplow Gravels along Green Street Green Road. A further quaternary deposit exists in the form of Lynch Hill gravel, in the area just south of the mid-north section of Green Street Green. There are large swathes of Thanet Sand formations both north and south of the Taplow Gravels, and Upper Cretaceous chalk comprises the rest of the study area.

This geological information suggests the Green Street Green Road may follow a palaeochannel of River Darenth or one of its former tributaries. The hashed and cross-hashed lines within the study area represent areas of worked or made ground. These are often related to road or railway embankments, or ground that was once used for chalk, sand, gravel or clay extraction. This suggests some areas within the overall study area may be disturbed, and any potential archaeology therefore previously truncated.

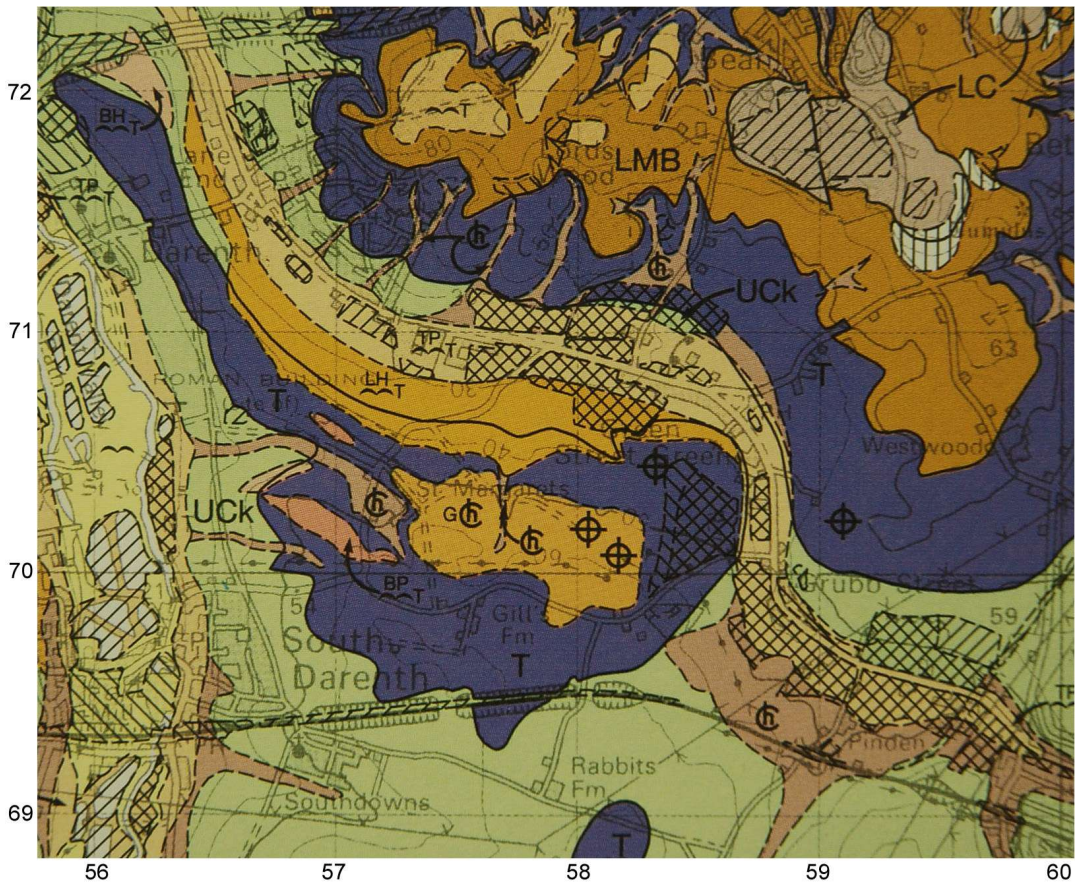

Fig. 2 Extract from the British Geological Survey (BGS 1998 *Sheet 271: Dartford)*

4. Archaeological and historical background

The Dartford district has a number of significant archaeological sites and find spots. The County Historic Environment Record details a number of known archaeological sites in the area, the principle archaeological records being summarised as follows:

To the northern end of the study area shown on figure 1 there are a series of ring ditches believed to belong to Bronze Age barrows, and a Neolithic polished axe has been found nearby. At Green Street Green Roman cremation burials, an undated round barrow and a Roman industrial building are known, and at the Grubb Street end of the scheme Romano-British cremations, limekilns and an Iron Age/Romano British settlement are recorded[1].

Further information on the above archaeology, and further sites and finds, can be found in Appendix III of this report. This summarises the search results of the Kent Historic Environment Record (formerly the Sites and Monuments Record) within the general study area.

[1] Information provided by Ben Found, Archaeological Officer, Kent County Council

5. Objectives

The objectives of the archaeological watching brief were to contribute to heritage knowledge of the area through the recording of any archaeological remains exposed as a result of excavations in connection with the groundworks.

6. The archaeological programme

6.1 Standards

The field and post-excavation work was carried out in accordance with English Heritage guidelines (in particular, *Standards and Practices in Archaeological Fieldwork, Guidance Paper 3*[2]). Works also conformed to the standards of the Institute of Field Archaeologists (*Standards and Guidance for Archaeological Watching Briefs*[3]). Overall management of the project was undertaken by a full Member of the Institute.

6.2 Fieldwork

6.2.1 Attendance

All fieldwork followed the project design as set out in the previously approved Specification for an Archaeological Watching Brief[4]. Groundworks were monitored by intermittent visits by an archaeologist, mainly to areas of open cut excavation.

Where archaeological remains were exposed, adequate time was allowed for investigation and recording, although every effort was made not to disrupt the contractor's programme.

The Archaeological Officer at Kent County Council was advised of the on site start date. Both the client and Kent County Council were kept informed of the progression of works, and nature of deposits encountered during the course of the archaeological watching brief. An interim summary of the archaeological results of the project was produced midway through the archaeological programme.

6.2.2 Methodology

Excavation of areas of open cut trenching was carried out by machine, but where possible archaeological deposits or remains were encountered excavation was ceased to allow these areas to be investigated further by hand. Reasonable time was provided by the Main Contractor where further inspection and recording was required, although in the event no significant remains were encountered.

[2] English Heritage 1998
[3] IFA 1999
[4] Compass Archaeology Ltd. January 2008, approved by Ben Found, Archaeological Officer of Kent County Council.

During site visits the archaeologist inspected all exposed deposits. All recording was carried out in accordance with the procedures set out in the Museum of London *Archaeological Field Manual*. All deposits were recorded in section and by written record on *pro forma* recording and drawing sheets, which are designed to be directly compatible with those developed by the Museum of London. A photographic record was maintained of exposed deposits, sections and working shots.

6.2.3 Post-Excavation Work

The fieldwork was followed by off-site assessment and compilation of this report, which will be supplied to the Client, the County Archaeologist at Kent County Council, the Local Planning Authority at Dartford District Council and the local studies library. A copy will be kept with the project archive.

6.2.4 The site archive

In the absence of any finds, the site archive will consist of all the written and drawn project records, and this watching brief report. It will be prepared in accordance with *Guidelines for the preparation of excavation archives for long-term storage*[5]. On completion of the project the archive will be deposited in a museum or similar repository as agreed with the County Archaeological Officer and the Local Planning Authority.

[5] UKIC 1990

7. The archaeological watching brief

To simplify discussion of the study area, it has been divided up into three areas: the Darenth area, Green Street Green area, and the Mile End Green area. Each area will have a location plan, and a street-by-street discussion of the results of the watching brief. This section will be concluded with a summary of the archaeological watching brief for the entire study area.

7.1 The Darenth area

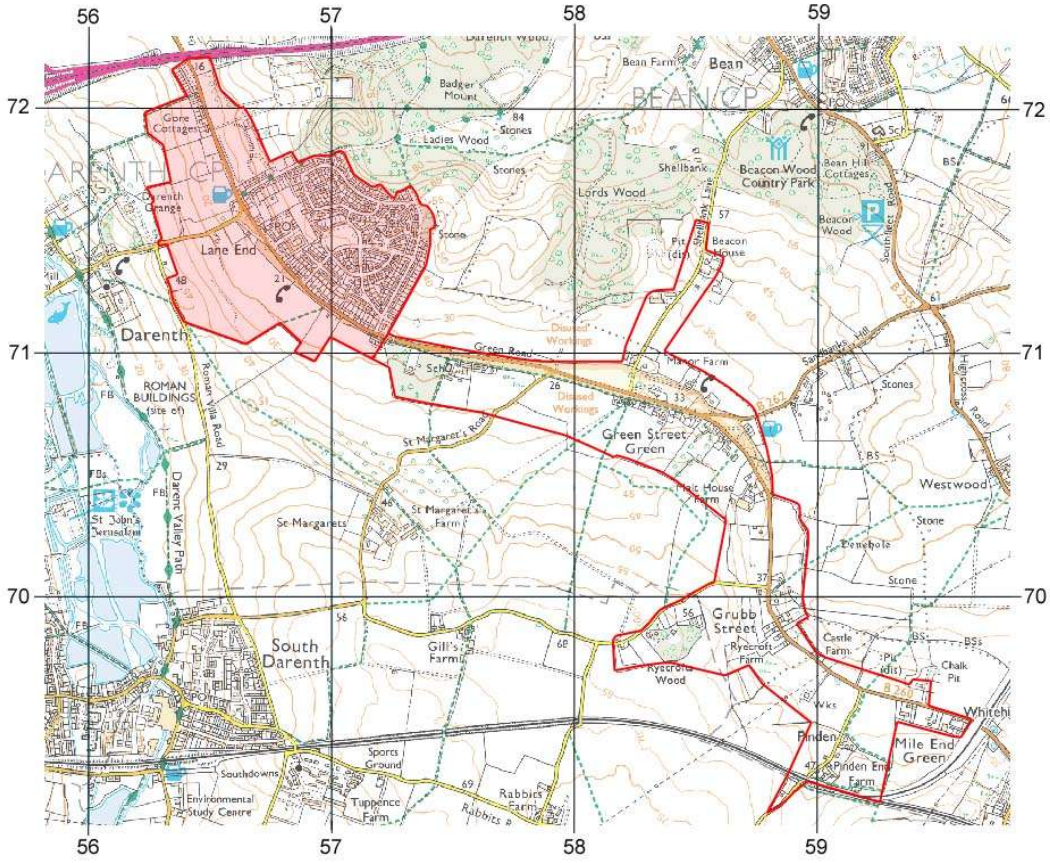

Fig. 3 The Darenth area, in relation to the overall study area and the Ordnance Survey

7.1.1 Coombefield Drive

A series of pits and trenches were observed running along the north side of Coombefield Drive. Generally these revealed only present road make up layers and natural deposits (Thanet Sands) with no archaeological finds, features or deposits.

The first of these was located opposite the Lordswood Close junction adjacent to the northern kerb line. It measured 7m in length (east to west) and was 0.6m wide; a depth of at least 0.5m was reached (the maximum depth could not be determined due to water obscuring the lower part of the trench). A simple sequence of tarmac road surface over mixed red and yellow brick rubble road

make up overlaid truncated natural Thanet Sands (exposed at 0.4m below the existing road surface). This suggests the road levels in this area are contemporary with the housing estate, as the brick rubble matches the nearby housing building materials.

A second trench had similar dimensions as the above trench, but had a north-south offshoot at the eastern end, making a 'T' trench. This was located at the very eastern end of Coombefield Drive, at the northern part of the junction with Ladywood Road. The trench had a depth of approximately 1.4m and showed the same sequence of deposits as in the previous trench.

Just west of the junction with Lordswood Close, a small 2.2m by 0.5m pit was observed with a depth of just 0.9m. This shallow pit revealed only tarmac and tarmac base over ground make up deposits of clay with brick inclusions.

Further west still two similar trenches measured 2.4m (east to west) by 0.5m wide with a depth of 1.3m. Both of these revealed a deposit sequence of rubble road make-up over disturbed clay.

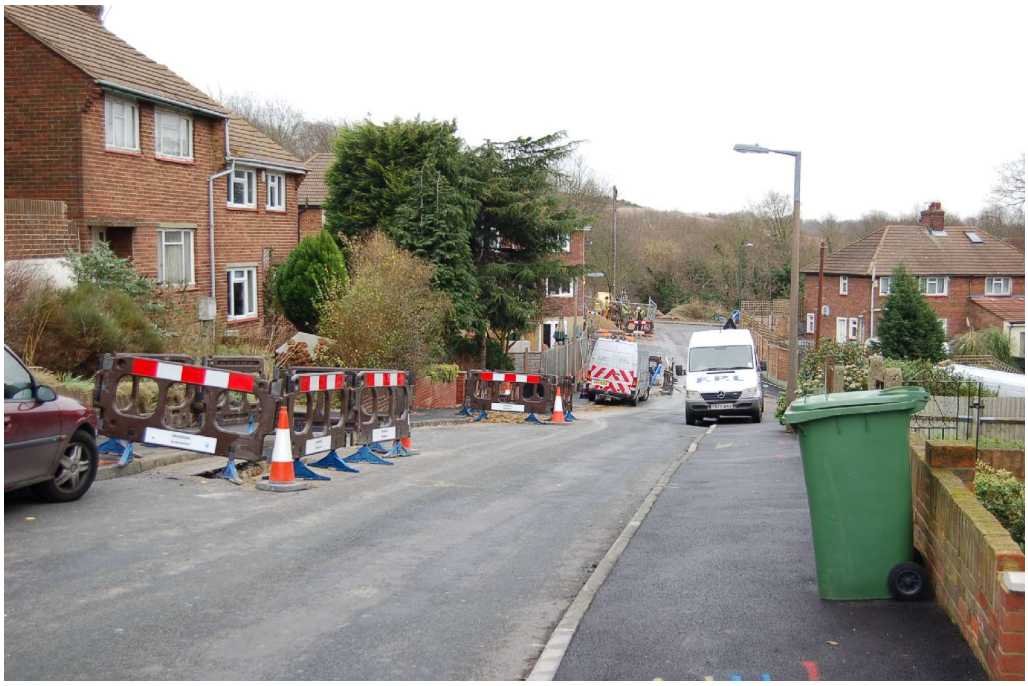

Fig. 4 View looking east down Coombefield Drive and towards the junction with Ladywood Road

A later monitoring visit examined test pits and trenching on both sides of the Coombefield Drive carriageway to the west of the junction with Hill Rise. Four test pits were recorded in total; outside No. 176 Coombefield Drive, outside No. 182, and two just east of the junction with Hill Rise on the northern side of Coomefield Drive. The first two measured 0.5m by 0.3m and revealed only tarmac overlying clay, while the latter two were of similar dimensions and revealed tarmac, over rubble and thence clay.

Three trenches were located west of these latter two test pits. These were all in the northern carriageway or eastern side when the road curves up to the north. From east to west, these measured approximately 3m (east to west) x 1.1m x 1.1m (depth), 4.5m (northwest-southeast) x 0.7m x 1.1m and 2.3m (north to south) x 0.5m by 1.9m respectively. All revealed tarmac and a shallow concrete base which overlaid brick and rubble and compacted hardcore road make up deposits, overlying natural Thanet Sands and clays.

Fig. 5 Further view in Coombfield Drive, showing the natural Thanet Sand deposit directly below modern road make-up

7.1.2 Hill Rise

Groundworks in this area largely involved drilling and pipe bursting, but a few connection pits (generally about 1m x 0.6m in size) allowed deposits to be observed. These were all located at junctions with most minor roads that connect to join Hill Rise (e.g. Hill Side). Concrete and tarmac composed the upper 200mm of deposits with approximately 300mm of made ground/ road make up beneath. These deposits overlaid a natural silty stony sub-soil.

7.1.3 Ladywood Road

Short trenches were observed running up the western side of Ladywood Road, for its entire length from the junction with Green Street Green Road north to the junction with Coombefield Drive. The largest of these measured 8.5m (north to south) by 1m wide, and the smallest measured just 0.5m by 0.5m. Trenches and pits were excavated to varying depth, but no greater than 1.3m below the present ground surface. These pits and trenches revealed existing tarmac ground surface with varying thickness (200mm to 400mm) of deposits of either coarse tarmac or concrete base beneath. Beneath were road make up layers and made ground deposits. These either comprised rubble (red/yellow bricks like those of the

surrounding houses) or dumped mid brown soil with broken brick inclusions. In the northern part of Ladywood Road natural Thanet Sands were exposed at the base of the trench whereas in the south chalk bedrock could be seen. No archaeological finds or features were observed.

Fig. 6 Views of trenching on Ladywood Road, on the east side of the Darenth area housing estate, with locations marked on the enlarged Ordnance Survey

7.1.4 Langlands Drive

A 3m (east to west) long trench was located on the south pavement of Langlands Road, just east of the junction with Ridgeway. This trench had a depth of 1.3m and was 1m wide. The sequence exposed revealed turf and topsoil overlying compact mid brown silty soil with increasing proportions of small stones from a depth of 600m and beyond.

7.1.5 Ridgeway

Eight sections of open cut trenching were monitored along the full length of the Ridgeway carriageway, pavements and verges. With a single larger exception (7.5m in length, east to west) these all averaged around 3m in length (north to south) by less than 1m wide, and with depths between 1.0m-1.4m. Tarmac overlying tarmac/concrete base was observed in all trenches, although to varying depths. Beneath this was a mainly crushed brick and rubble hardcore deposit which extended to a depth of no more than 0.65m below the present ground surface. The natural deposit, where encountered beneath the made ground road make up in the deeper trenches, varied between clay, Thanet Sands and chalk bedrock. In some cases these deposits were exposed as little as 0.4m below the present road surface, and had evidently truncated with the loss of previous soil horizons by recent activity.

7.2 The Green Street Green area

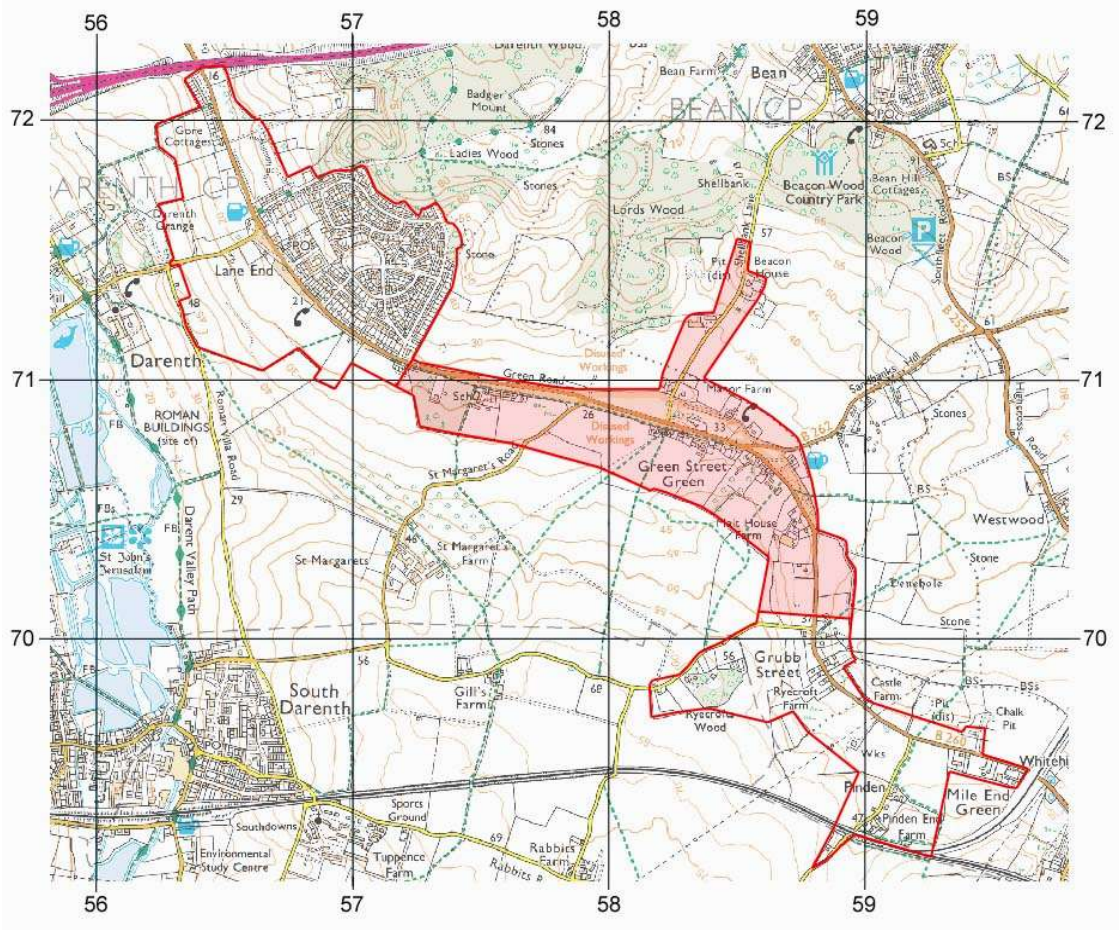

Fig. 7 The Green Street Green area, in relation to the overall study area and the Ordnance Survey

Trenching on Green Street Green Road was intermittently observed along the entire east-west orientated section of the road (from the edge of the Darenth area housing estate east to the junction with Sandbanks Hill).

The first monitored trench ran east from just east of the junction with St. Margaret's Road for an approximate length of 120m. This trench was 0.6m wide, and was excavated to an average depth of 1m (Fig. 9). It was located within the registered common land turfed area on the south side of Green Street Green, running parallel with the road. The topsoil (below the turf) comprised mid grey-brown silty clay with occasional flint inclusions and was 0.25m to 0.34m thick. Beneath was a mid orange brown sandy silt subsoil with gravel inclusions which was 0.2m thick. This overlaid very loose natural Terrace sands and gravels with very frequent flint nodules.

The second section of monitored open cut was a continuation of the previous trench, also being located on the south side of Green Street Green. At the time of observation, approximately 32m of trench was entirely open, with further

areas being stripped on turf ahead of excavation. The trench was 0.6m wide, and again averaged a depth of 1m. The friable topsoil was the same as before, but with additional flint inclusions to a depth of up to 0.34m. The subsoil, also similar to the previous section, was mid orange brown sandy silt with gravel inclusions. However, this appeared to be truncated, and it is suggested that this area was levelled to lay turf at the time of construction of the properties just to the south of the trenching. Sand and gravels natural was again observed at the base of the trench with frequent downland flint nodules within the loose matrix. All deposits were completely sterile of finds, with no archaeological features present.

The third trench observed was located immediately east of the first trench. This was also located on the south side of the carriageway within the grassy verge, 55m of trenching running west from opposite the junction with Shellbank Lane. The trench had an average depth of 1.2m with a width of 0.6m. The exposed topsoil was broadly the same as in the other previously recorded trenches, but this section of soil did have occasional red and yellow brick fragments. The subsoil was comprised of very loose sand and silt with frequent nodular flints, which merged with Thanet Sand formations at the base of the trench. No archaeological finds and features were observed, but a number of modern services crossed the trench.

A later visit monitored a trench located just to the west and running for a further length of 33m west to outside Pumping Station Cottage. It was 0.55m wide with a depth of approximately 0.8m. Although generally similar to that in the other trenches, the topsoil in this area of trenching showed more disturbance with frequent broken &/or thermally shattered flint and occasional brick and chalk fragments. The subsoil in this area was stony, having a light yellowish brown silty clay matrix with very frequent shattered and rounded nodular flint fragments (50-60% flint content). Presumed Thanet Sands and gravels were observed at the base of the trench. This simple stratigraphic sequence was quite sterile, and revealed no archaeological finds or features.

The final two trenches observed in Green Street Green Road were located between the junction with Shellbank Lane and Sandbanks Hill. The deposits here were like those observed seen previously in Green Street Green; a simple soil profile was observed over natural and was cut by a few modern services, but no archaeological finds or features were observed.

Fig. 8 General views of trenching works in the Green Street Green area:

Top right: the trenching west of the Thames Water pumping station

Top left: the north facing section in the third trench on Green Street Green Road.

Lower right: first trench monitored in Green Street Green Road.

Lower left: The fifth trench in Green Street Green Road, looking west.

Fig. 9 Views of the first trench monitored in Green Street Green, on the south side of the road and just east of the junction with St. Margaret's Road *(1.0m scale)*

Fig. 10 The second trench to be monitored in Green Street Green, following on from that in Figure 9 *(1.0m scale)*

7.3 The Mile End Green area

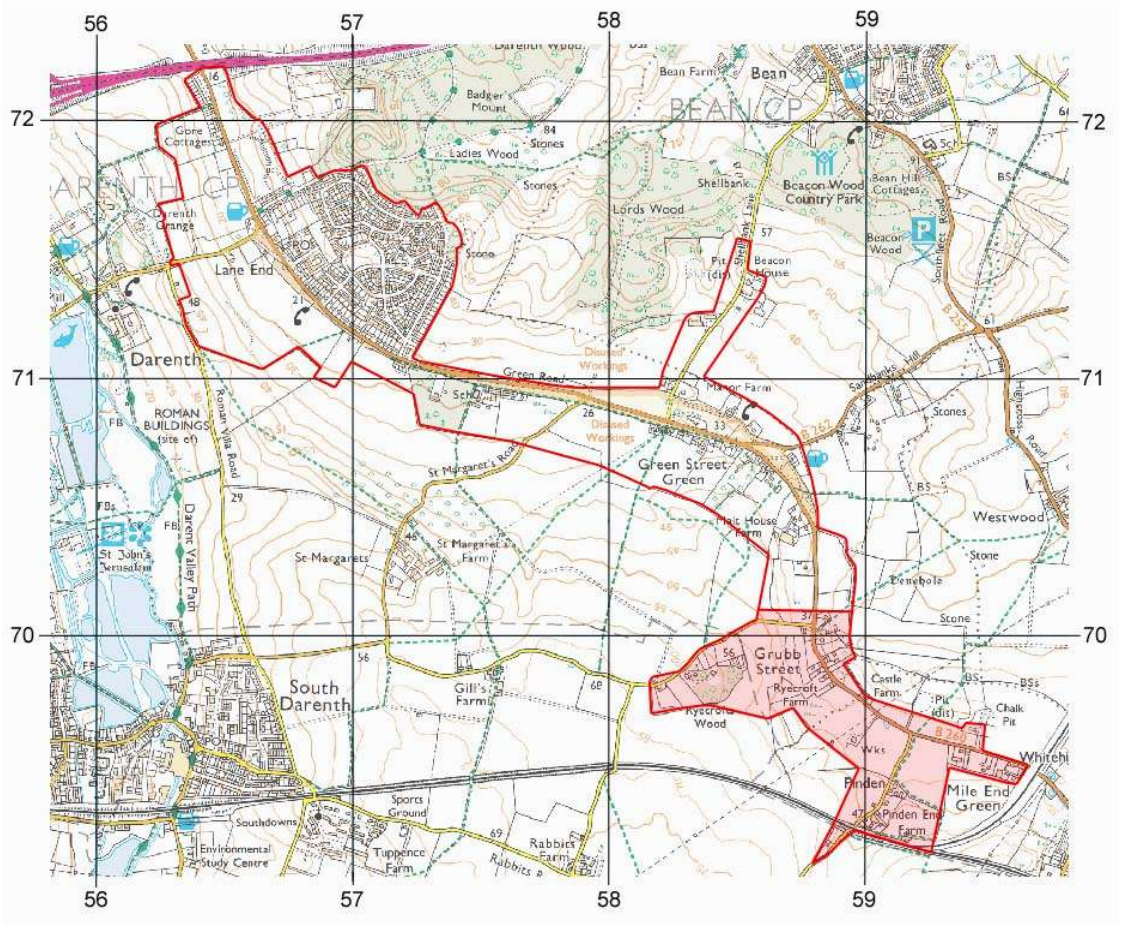

Fig.11 The Mile End Green area in relation to the study area and the Ordnance Survey

7.3.1 Canada Farm Road

Trenching on Canada Farm Road was located in the western carriageway, running south from the junction with Green Street Green Road. The trench measured approximately 120m in north-south length by 0.6m wide, but with a varying depth. Tarmac surfacing and a shallow concrete base comprised the upper 300mm of deposits. Below this was compacted layer of sand and gravel (flint) deposits, thought to be part of the preparatory road make up/ levelling.

No natural deposits were observed in this area, nor any archaeological finds or features.

Fig. 12 Localised trenching on the north side of Green Street Green Road and just west of the junction with Canada Park Road *(0.5m scale)*

7.3.2 Green Street Green Road/ Main Road

The first monitoring of this area occurred near the southeastern limit of the study area, close to where Green Street Green Road becomes known as Main Road. This trench was located in the northern carriageway, adjacent to the kerb and verge. The trench ran for approximately 22m west from the railway bridge entrance and was 0.6m wide, with an average depth of 1.2m. In the south-facing section of trenching mid grey brown silty topsoil with flint inclusions comprised the upper deposits, whilst in the north-facing section, tarmac and tarmac base formed the present road surface and upper deposits. In the majority of the north-facing section this was followed by an underlying layer of crushed and compacted red brick with flints, presumably also a road make up deposit. No natural deposits were encountered.

At the far eastern end of this trench a loose greyish brown soil with frequent nodular flints was noted. This was sterile of any finds, and was interpreted as redeposited natural and make up material from the period of road and railway bridge construction. Also at the eastern end of the trench a former cast iron water main was exposed, crossing the new trench on an approximately northwest-southeast line (at *c* 45˚ to the sections) and measuring approximately 0.6m (2 feet) in diameter. The pipe had an associated and somewhat wider construction cut, which had been backfilled with imported sand and flints (yellowish grey) but was also sterile of finds. No markings or other features were visible on the relatively short section of pipe that was exposed.

Fig. 13 *Top:* General view towards the eastern end of Green Street Green Road.
Bottom: Detail of the south-facing section in this area of trenching *(1.0m scale)*

Further works were monitored at the very southeastern limit of the works. One small pipe bursting connection pit was located at the junction leading to the large chalk quarry on the northern carriageway, with one opposite this junction in the south carriageway, and the last one also in the south carriageway very near the railway which crosses the road on an approximately north to south alignment. The largest of these measured 1.0m by 0.4m, but due to their shallow depth revealed only recent concrete.

8. Conclusions

Areas of open cut trenching and a number of other pits, *etc.*, were observed throughout the study area, through a series of intermittent monitoring visits. These open cut pits and trenches revealed no archaeological finds or features, despite the known potential in this area for prehistoric and Roman remains. Exposed sequences were almost entirely comprised of layers of road make up and made or disturbed ground over sterile subsoil and natural deposits. Other areas showed truncated and/or reworked natural deposits, but again these were sterile of finds. Natural deposits were encountered at depths as high as 0.4m below the present ground surface, and there was evidence of truncated natural within the housing estate in the north of the study area.

9. Bibliography

British Geological Survey 1998 *Dartford. England & Wales Sheet 271. Solid & Drift Geology*. 1: 50 000

Compass Archaeology Ltd. January 2008 *Specification for an Archaeological Watching Brief in the Dartford District, Kent, Southfleet* 06 2CKG/F43

English Heritage, 1998 *Standards and Practices in Archaeological Fieldwork, Guidance Paper 3*

Institute of Field Archaeologists, 1999 *Standards and Guidance for an Archaeological Watching Brief*

Appendix I **OASIS** DATA COLLECTION FORM: England

OASIS ID: compassa1-47069

Project details

Project name	Thames Water Main Replacement Works. Dartford District, Kent. Southfleet 06 2CKG/F43
Short description of the project	An archaeological watching brief was carried out by Compass Archaeology Ltd. on Thames Water mains replacement between the 17th January and the 27th May 2008. The project was considered to have archaeological potential due to the existence of known prehistoric and Roman sites and find spots in close proximity to the study area. The monitored groundworks largely comprised open cut trenching; however, pipe bursting and drilling was also carried out within the study area. Despite the archaeological potential no archaeological finds or features were observed in the monitored areas. Exposed sequences largely consisted of modern road surface make up, over fairly recent made ground and sterile natural deposits (mainly Terrace gravels & Thanet Sand).
Project dates	Start: 17-01-2008 End: 27-05-2008
Previous/future work	No / No
Any associated project reference codes	DAR 08 - Sitecode
Type of project	Recording project
Site status	None
Current Land use	Other 11 - Thoroughfare
Monument type	NONE None
Significant Finds	NONE None
Development type	Pipelines/cables (e.g. gas, electric, telephone, TV cable, water, sewage, drainage etc.)
Prompt	Water Act 1989 and subsequent code of practice

Project location

Country	England
Site location	KENT DARTFORD SOUTHFLEET Dartford, Kent from A2 crossing along Green Road/Green Street Green and to Longfield
Postcode	DA2 & DA4
Site coordinates	TQ 56408 72103 51.4258333333 0.25 51 25 33 N 000 15 00 E Line
Site coordinates	TQ 58247 70738 51.4130555556 0.275833333333 51 24 47 N 000 16 33 E Line
Site coordinates	TQ 59584 69419 51.4008333333 0.294444444444 51 24 03 N 000 17 40 E Line
Height OD / Depth	Min: 16.00m Max: 42.00m

Project creators

Name of Organisation	Compass Archaeology
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Compass Archaeology
Project director/manager	Gill King
Project supervisor	Rosie Cummings
Type of sponsor/ funding body	Water Authority/Company
Name of sponsor/ funding body	Thames Water Utilities

Project archives

Physical Archive Exists?	No
Digital Archive Exists?	No
Digital Media available	'Images raster / digital photography'
Paper Archive recipient	Unknown at this stage
Paper Contents	'Stratigraphic'
Paper Media available	‘Map’,'Context sheet', ‘Plan’,'Report'

Entered by	E. Coen (mail@compassarchaeology.co.uk)
Entered on	15 August 2008

Appendix II Kent County Council SMR Summary Form

Site Name: Dartford District, Kent, Southfleet 06 2CKG/F43	
Site Address: Dartford District, Kent (areas of Darenth, Green Street Green and Mile End Green)	
Summary: An archaeological watching brief was carried out on Thames Water watermain replacement works on roads in the Dartford district of Kent. The work formed a response to consultation by Thames Water Utilities with Kent County Council. The project was considered to have archaeological potential due to the existence of known archaeological sites and findspots in close proximity to the study area. At the northern end ring ditches and a polished axe are believed to date to the Bronze Age and Neolithic respectively. Further south there is significant evidence of Romano-British cremations, industrial workings and settlement. The monitored groundworks largely comprised open cut trenching, with some pipe bursting, *etc*. Despite the known potential no significant archaeological finds or features were observed. Exposed sequences largely consisted of modern road surface make up, over made ground and sterile natural deposits, the latter mainly Terrace Gravels and Thanet Sand.	
District/Unitary: Dartford	**Parish:** Darenth; Longfield
Period(s): N/A Modern made ground and natural soil sequences and geology observed.	
NGR (centre of site: 8 figures): TQ 57938 70906	
Type of archaeological work: Watching Brief	
Date of Recording: 17th January 2008 – 27th May 2008	
Unit undertaking recording: Compass Archaeology Ltd.	
Geology: Clay, sands and chalk.	
Title and author of accompanying report: Thames Water Mains Replacement Works. Dartford District, Kent, Southfleet 06 2CKG / F43. An Archaeological Watching Brief (Katie Johnson)	
Summary of fieldwork results (begin with earliest period first, add NGRs where appropriate) No archaeological finds or features were encountered in the watching brief.	
Location of archive/finds: Currently - Compass Archaeology Ltd. (no retained finds)	
Contact at Unit: Gill King	**Date:** 6th August 2008

Appendix III Kent HER Search Results

A search for archaeological and historical references in the vicinity of the groundworks was undertaken by the Kent Historic Environment Record. The basis of the search area was defined as northwest to southeast line some 4kms in length, between NGR 5565 1722 and NGR 5596 1694. The search parameters extended 800m on either side of this line and a further 100m at each end. The following results were obtained:

Prehistoric - Palaeolithic		
Monarch UID	**National Grid Reference**	**Description**
413219	TQ 60 69	Rough grey flake, with point askew. Perhaps used as a borer.
-	TQ 580 718	Palaeolithic handaxe.
-	TQ 55870 72280	Palaeolithic handaxe and three pieces of debitage.
Prehistoric – Bronze Age		
410927	TQ 5620 7192	Possible features (ditches) noted in aerial photographs.
410928	TQ 564 720	Bronze Age ring ditch.
1031114	TQ 56057 72482	Evaluation in 1993 revealed prehistoric features; two groups of pits and a ditch.
-	TQ 59876 69780	During Channel Tunnel Rail Link works a double ring ditch barrow was discovered just west of Whitehill Road. No primary burial was found, but a flexed adult burial with associated amber bead necklace was recovered cutting through the backfill of the inner ditch.
-	TQ 5987 6976	An early Bronze Age barrow surviving as a double ditch recorded during excavation work for the Channel Tunnel Rail Link (1999).
Prehistoric – Iron Age		
409905	TQ 5951 6889	Iron Age farmstead – pentagon shaped enclosure seen in aerial photographs.
409998	TQ 5949 6891	Banjo enclosure with antennae aligned NE. Rectilinear feature nearby and curvilinear feature to west.
-	TQ 5580 7187	Evaluation produced evidence for pits and postholes, plus some potsherds and a single flint flake (Bronze/ Iron Age). There has probably been heavy damage by ploughing, and many features may have been lost.
-	TQ 56166 72115	A right-angled ditch dated by a single pottery sherd to the late Iron Age. Possibly part of a settlement enclosure, or a more peripheral agricultural feature.
-	TQ 56020 72163	Evidence that the late Iron Age settlement of the area may be more extensive than currently known is suggested by a series of undated postholes. *c*80m to the west of the ditched enclosure and south of the A2 an undated hearth, pit and gullies were discovered.
Prehistoric – Undated		
410816	TQ 563 714	Polished axe.

Roman		
Monarch UID	**National Grid Reference**	**Description**
409868	TQ 5829 6986	In 1900 a Romano-British cremation ritual pit was discovered in a field near Ryecrofts Wood. Finds included a large two-handled urn, cremated bone, a small Castor urn, a Samian saucer and a red goblet.
409882	TQ 5854 6945	An aerial photograph from 1947 revealed double banks and ditches with straight sides and one rounded corner. This was thought to be a Roman camp but only numerous flint flakes have been discovered.
409945	TQ 5942 6978	Iron Age and Romano-British occupation evidence and several Romano-British inhumation burials were found during quarrying in 1953 in a chalk pit on Pinden Farm.
409948	TQ 5978 6943	Romano-British coin found in 1951.
409962	TQ 597 689	1st century AD Romano-British ditch or pit and pottery, recorded in 1971.
410012	TQ 5938 6980	Romano British ditch reported in 1977.
410929	TQ 5764 7100	Roman cremation burials (1st and 2nd *c* AD).
413213	TQ 603 690	Roman pottery found with objects of very different dates in a denehole.
	TQ 5600 7250	Evaluation in 1993 revealed pits, kilns/ovens and stoke holes, one containing 1st-2nd century Roman pottery. A watching brief in 1996 revealed two small ditches, and later work a further 14 ovens and 9 stokeholes. The ovens contained 29 potsherds of distinctive character dating to the second half of the 1st century. Some of the stokeholes also contained potsherds and one circular bronze disc - possibly a decorative mount for a belt or wooden object. Works in1999 - 2000 found further pits and ditches forming an enclosure.
1031114	TQ 55957 72518	Romano-British field system or track way.
-	TQ 55987 72513	Romano-British kiln site (1st-2nd C date).
-	TQ 59203 69189	Groundworks for the Channel Tunnel Rail Link revealed six ditches, probably field boundaries, plus some pits, an oven and a possible cremation burial. The features date to the late Iron Age or Roman period.
-	TQ 5910 6918	Iron Age/Roman activity recorded during excavation for the Channel Tunnel Rail Link (1998-2000). A series of N-S parallel ditches were cut by four later pits. The pottery and animal bone indicate that the ditches probably enclosed part of a settlement, rather than fields – and that this expanded over time, hence the later pits.

Medieval		
Monarch UID	**National Grid Reference**	**Description**
410756	TQ 5658 7288	Excavations in 1954 and 1978, plus chance find in 1881, revealed 5 graves and scatters of bone in an early Medieval cemetery. Grave goods found in 1978 include a unique 5th century glass bowl with Christian monogram of the Chi-Rho type.
413273	TQ 603 690	The site of Longfield Court, a late 14th or early 15th century court lodge, now covered by a road.
1030476	TQ 5638 7235	A minor medieval-post-medieval settlement/farmstead and roadside settlement, recorded as Gare in 1226. The post-medieval settlement is depicted on the 1841 Tithe Map, and the farm buildings shown on later OS maps.

Post-medieval		
Monarch UID	**National Grid Reference**	**Description**
410776	TQ 5852 7057	Two pre-19th century deneholes, converted in 1812 into an icehouse. Marked as Dungeons on the 3rd Ed OS.
410906	TQ 5852 7072	Four cottages (Forge Cottages) set back from the road through Green Street Green but near the centre of the hamlet and the old forge. The second cottage from the NW is the oldest and has a chimney of late Tudor brick.
501382	TQ 601 688	Fawkham railway station
1031071	TQ 562 714	Icehouse listed Grade II, probably early 19th century. Brick arch visible, but the entrance sealed with a slab.
1029654	TQ 6010 6890	Longfield railway station
-	TQ 5775 7210	Remains of brick/tile works including workings through earlier field boundary banks. A substantial bank and ditch defines the N/E boundaries, the earthworks in the enclosed area indicating intense industrial activity and a possible kiln. Pottery finds and cartographic evidence indicate a late 17th century date, and kilns are recorded in 1769, but production had apparently ceased by 1800. Much of the earthworks and earlier field boundary banks may have been removed by ploughing.
1030492	TQ 5616 7238	The site of a building named as Littledale on tithe plans, and formed part of Blackdale Farm as a house and plantation. Shown on the 1st to 4th ED OS
1030495	TQ 5615 7210	1840-1 Tithe map depicts a close named Brick Kiln Field, forming part of Blackdale Farm, although field survey has found no evidence to support this.
1031237	TQ 5870 7040	Malt House Farm, therefore possibly included maltings although evidence of this survives on the site.
1031810	TQ 585 705	Icehouse Grade I, 1812 inscribed above door
1032848	TQ 5842 6981	A single kiln was operating at the north edge of Ryecroft Wood in the 1860's, but the site now appears to be in agricultural use or private gardens. Two further kilns were situated in the wood just to the south.

-	TQ 571 722	In 1883 a temporary smallpox convalescent hospital was set up by the Metropolitan Asylum Board, comprising tents and marquees for 300 beds. In 1890 a permanent hospital was built on higher ground, the two areas being known as the "Upper" and "Lower" hospitals. From 1903 the hospital catered for general convalescent fever cases, and was later transferred to the LCC and then to the NHS. The site has now been demolished and built over.
-	TQ 55919 72677	Chalk quarry in operation from the early to mid 19th century, shown on OS maps.
-	TQ 58599 70476	Excavation in 2000 partly revealed a large posthole.
-	TQ 5997 6985	Channel Tunnel Rail Link excavations revealed a boundary ditch system, of uncertain date but probably associated with Whitehill Road.
-	TQ 5923 6918	Channel Tunnel Rail Link works at Fawkham Junction revealed a 17th century pit cutting through backfill of a Roman ditch.
-	TQ 5923 6918	Channel Tunnel Rail Link works in 1999 revealed a 20th century pit cutting backfill of the inner ditch of Whitehill Road Bronze Age barrow, plus a possible fence posthole connected with the Gravesend West Railway.
-	TQ 59890 69773	Channel Tunnel Rail works revealed a pit and postholes associated with the disused Gravesend West Railway.

Undated		
Monarch UID	**National Grid Reference**	**Description**
409981	TQ 596 697	Two rectangular enclosures, one on top of the other, with 2 linear features and a pit cluster in one corner.
410822	TQ 5853 7028	Four deneholes (remains).
410913	TQ 572 714	Probable denehole discovered 1979.
410923	TQ 578 702	Ring ditch.
413275	TQ 6000 6955	Triangular or rectilinear enclosure, plus curvilinear feature (?trackway) and possible ring ditch to east.
413281	TQ 6042 6918	Rectilinear feature/cropmark/enclosure.
413282	TQ 6010 6938	Rectilinear feature/cropmark/enclosure.
413290	TQ 6020 6947	Three sides of possible rectangular structure, two small pits in one corner and possible remains of a ring-ditch, may be associated with entry UID 413282
413291	TQ 6037 6952	Pit – cropmark.
-	TQ 5605 7201	Assessment of aerial photographs for the proposed A2/A282 indicated embanked features, probably pre-modern field boundaries, plus possible cut/pit features.
-	TQ 59692 69842	2006 geophysical survey in advance of quarry extension identified a number of archaeological features, not thought to represent large-scale activity.
410779	TQ 58424 70806	Remains of circular mounds, perhaps a barrow?
-	TQ 57040 71646	Denehole discovered in 2001.