

**An Archaeological Evaluation
At former GlaxoSmithKline, Dartford, Kent**

**NGR: 55423 17553
(TQ 5422 7553)**

Planning Ref: DA/08/000168/FUL

**ASE Project No: GSK 13
Site Code: 6195**

**ASE Report No: 2014008
OASIS id: archaeol6-167814**

**Gary Webster
Illustrations by Justin Russell and Antonio Reis**

January 2014

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By Gary Webster

January 2014

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Abstract

Archaeology South-East was commissioned by CgMs Consulting to undertake an archaeological evaluation at GlaxoSmithKline, Dartford, Kent, before the construction of a link road between Central Road and Bob Dunn Way.

The natural gravels were encountered in six of the seven evaluation trenches. There was a large amount of modern debris over the entire site, particularly to the north, where there was in excess of 2.3 metres of made ground. No archaeological remains were identified in any of the trenches. No struck flints were recovered from the gravels.

CONTENTS

- 1.0 Introduction
- 2.0 Archaeological Background
- 3.0 Archaeological Methodology
- 4.0 Results
- 5.0 Discussion and Conclusions

Bibliography
Acknowledgements

HER Summary Sheet
OASIS Form

FIGURES

- Figure 1: Site location
- Figure 2: Trench location
- Figure 3: Photographs

TABLES

- Table 1: Quantification of Site Archive
- Table 2: Trench 1 list of recorded contexts
- Table 3: Trench 2 list of recorded contexts
- Table 4: Trench 3 list of recorded contexts
- Table 5: Trench 4 list of recorded contexts
- Table 6: Trench 5 list of recorded contexts
- Table 7: Trench 6 list of recorded contexts
- Table 8: Trench 7 list of recorded contexts

1.0 INTRODUCTION

1.1 Site Background

1.1.1 Archaeology South-East (ASE), the contracting division of the Centre for Applied Archaeology (CAA), Institute of Archaeology (IoA), University College London (UCL) was commissioned by CgMs Consulting to undertake an archaeological evaluation at the former GlaxoSmithKline site, Dartford, Kent, hereafter referred to as 'The Site' (Figure 1).

1.2 Geology and Topography

1.2.1 The underlying geology of the site is the Seaford and Newhaven Chalk formation, with superficial deposits of the Taplow Gravel Formation, consisting of sand and gravel (BGS 2013).

1.2.2 The site lies just to the south of Bob Dunn Way, and to the West of the A282. The QE2 bridge lies just to the north-east. The river Thames runs on an east-west alignment north of the site. The site itself is a long, narrow grassy embankment, with marshland directly to the west, and a footpath, on a north-south alignment, to the east. An industrial estate lies directly to the south. The site is considerably higher at the northern end.

1.3 Planning Background

1.3.1 A planning application was submitted for a link road between Central Road and Bob Dunn Way (Planning Ref. DA/08/000168/FUL).

1.3.2 An Archaeological Desk Based Assessment was carried out by CgMs in 2011, which considered that there was a high potential for prehistoric and Roman remains (CgMS 2011). Subsequently, a Written Scheme of Investigation (WSI) for evaluation of the site was produced by CgMs in October 2013 (CgMs 2013).

1.4 Aims and Objectives

1.4.1 As described in the WSI (CgMs 2013), the aims of the archaeological evaluation were;

- To establish the presence or otherwise of prehistoric or Roman activity
- To determine the survival, extent and depth below ground of archaeological remains
- To determine the nature and significance of any such deposits
- To establish the environmental context of prehistoric and Roman activity
- To evaluate the likely impact of past land use and development
- To allow the archaeological advisor at KCC Heritage to make an informed decision as to the requirement of any further archaeological work at the site in order to fulfil any archaeological planning condition

1.5 Scope of Report

- 1.5.1 This report details the findings of an archaeological evaluation of the link road which took place on the 17th and 19th of December 2013. The work was carried out by Gary Webster (Archaeologist), Jim Ball (Assistant Archaeologist) and Vasilis Tsamis (Surveyor). The work was project managed by Andy Leonard (Project Manager) and the post excavation work was managed by Dan Swift (Post-Excavation Manager).

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 Overview

- 2.1.1 A summary of the archaeological background is given in the WSI (CgMs 2013), which is summarised here with due acknowledgement.
- 2.1.2 Historically, the site lay on the Thames floodplain. Prior to reclamation in the later medieval period, possibly earlier, the site would have been marshland. During the post-medieval period it was freshwater marsh, such as is found in low-lying, frequently flooded, areas, with the water remaining on or near the surface for extended periods of time during the growing season. It is possible that prior to human interaction it was salt marsh and frequently inundated by salt water at high tide. Surface levels recorded prior to in-filling for the GlaxoSmithKline development in the late 1970's fell from the south-eastern corner of the site at c.2.1m AOD to the north-western corner of the site at 1.56m AOD. (CgMs 2013).
- 2.1.3 The archaeological desk-based assessment considered the site of the link road to have a moderate to high potential for late prehistoric remains and a high potential for Roman remains.

3.0 ARCHAEOLOGICAL METHODOLOGY

3.1 Evaluation Methodology

- 3.1.1 Seven trenches were mechanically excavated under the archaeological supervision of the author using a 13 tonne machine excavator fitted with a flat-bladed 1.8m wide bucket. The total length of the trenches excavated was 173m. Some of the trenches were moved slightly from the proposed layout, or shortened due to on-site constraints. The layout can be seen in Figure 2.
- 3.1.2 All trenches were scanned with a Cable Avoidance Tool (CAT) before excavation commenced, to ensure that live services were not encountered.
- 3.1.3 Trenches were excavated to the top of archaeological deposits or to the surface of the natural geology, whichever was uppermost. However, natural geology was not exposed Trench 1 because made ground only was present to a depth of 2.3m.
- 3.1.4 All deposits were recorded on standard ASE recording sheets and trenches and features were planned using digital GPS survey equipment.
- 3.1.5 Natural gravel was identified in Trenches 2, 3, 4, 5, 6 and 7. Where exposed, this was carefully checked for worked flint and/or other artefacts through the use of sondage trenching.
- 3.1.6 Upon completion of the evaluation the trenches were backfilled and compacted, but no formal re-instatement took place.

3.2 Site Archive

- 3.2.1 ASE informed Dartford Museum prior to the commencement of fieldwork that a site archive would be generated. The site archive is currently held at the offices of ASE and will be deposited at Dartford museum in due course. The contents of the archive are tabulated below (Table 1).

Number of Contexts	29
No. of files/paper record	1
Plan and sections sheets	1
Bulk Samples	0
Photographs	43
Bulk finds	1
Registered finds	0
Environmental flots/residue	0

Table 1: Quantification of site archive

4.0 RESULTS (Figures 2 and 3)

4.1 Trench 1

25m x 1.8m

Context	Type	Description	Max. Length m	Max. Width m	Deposit Thickness m
1/001	Layer	Topsoil	Tr.	Tr.	0.2
1/002	Layer	Made Ground	Tr.	Tr.	2.3

Table 2: Trench 1 list of recorded contexts

4.1.1 Natural Geology was not reached in this trench, despite the fact that a sondage was dug to a depth of 2.5m (3.64m AOD). Made ground [1/002] was identified throughout the entire trench at a height of 5.94m AOD, and contained a variety of modern detritus including bricks, metal, plastics and other assorted rubble. This was directly overlain by the topsoil, [1/001], a dark brown silty clay, with small pebble inclusions.

4.1.2 This trench, along with Trench 2, was situated in an elevated position at the north of the site. This location was c.2m higher than the rest of the trenches on site.

4.1.3 No archaeological remains were identified within Trench 1.

4.2 Trench 2

26m x 1.8m

Context	Type	Description	Max. Length m	Max. Width m	Deposit Thickness m
2/001	Layer	Topsoil	Tr.	Tr.	0.2
2/002	Layer	Made Ground	Tr.	Tr.	2.0
2/003	Layer	Natural	2	Tr.	-

Table 3: Trench 2 list of recorded contexts

4.2.1 Natural Geology [2/003] (the Taplow gravel formation) was reached at a height of 2.73m AOD. This was only seen within the confines of a sondage excavated at the southern end of the trench. Above this, and forming the base of the rest of the trench, was made ground [2/002] which forms part of the same deposit as [1/002]. This was overlain by topsoil [2/001] over the entire area of the trench.

4.2.2 No archaeological remains were identified within Trench 2.

4.3 Trench 3

25m x 2m

Context	Type	Description	Max. Length m	Max. Width m	Deposit Thickness m
3/001	Layer	Topsoil	Tr.	Tr.	0.37
3/002	Layer	Made ground	Tr.	Tr.	0.25
3/003	Layer	Natural	Tr.	Tr.	-

Table 4: Trench 3 list of recorded contexts

4.3.1 The natural geology [3/003] was encountered at depth of 3.27m AOD, overlain by made ground [3/002] comprised of a mid brown silty clay, with frequent flint inclusions, overlying this was the topsoil, [3/001].

4.3.2 There was a slight variation in the gravels towards the south of the trench, which was most likely the path of some previous watercourse activity.

4.3.3 No archaeological remains were identified within Trench 3.

4.4 Trench 4

25m x 2m

Context	Type	Description	Max. Length m	Max. Width m	Deposit Thickness m
4/001	Layer	Topsoil	Tr.	Tr.	0.32
4/002	Layer	Made ground	Tr.	Tr.	0.12
4/003	Layer	Made ground	Tr.	Tr.	0.13
4/004	Layer	Natural	Tr.	Tr.	-
4/005	Deposit	Modern	18	1.6	-

Table 5: Trench 4 list of recorded contexts

4.4.1 The natural geology [4/004] was encountered at a depth of 4.07m AOD. This was overlain by made ground [4/003] a brown, silty clay frequent medium and large flints. Overlying this was made ground [4/002] a light brown silty clay, with frequent flints and pebbles, overlain by topsoil, [4/001].

4.4.2 Modern disturbance, [4/005], was visible in the base of the trench. This was confined to the south-western edge of the trench and contained a variety of modern detritus of fairly recent origin.

4.4.3 No archaeological remains were identified within Trench 4.

4.5 Trench 5

23m x 2m

Context	Type	Description	Max. Length m	Max. Width m	Deposit Thickness m
5/001	Layer	Topsoil	Tr.	Tr.	0.45
5/002	Layer	Made ground	Tr.	Tr.	0.2
5/003	Layer	Natural	Tr.	Tr.	-

Table 6: Trench 5 list of recorded contexts

4.5.1 The natural geology, [5/003], was encountered at a depth of 3.71m AOD. This was overlain by made ground [5/002], a loose, gravelly silt with occasional flint inclusions, and very occasional modern CBM (discarded on site). This was overlain by topsoil [5/001].

4.5.2 No archaeological remains were identified within Trench 5.

4.6 Trench 6

24m x 2m

Context	Type	Description	Max. Length m	Max. Width m	Deposit Thickness m
6/001	Layer	Topsoil	Tr.	Tr.	0.45
6/002	Layer	Made ground	Tr.	Tr.	0.26
6/003	Layer	Natural	Tr.	Tr.	0.30
6/004	Layer	Natural	Tr.	Tr.	-

Table 7: Trench 6 list of recorded contexts

4.6.1 The natural geology [6/004] was encountered at a depth of 3.74m AOD. [6/004] was overlain by made ground [6/002], which comprised silty clay with frequent flint and pebble inclusions. This was in turn overlain by topsoil [6/001]. Toward the south of the trench a darker patch of gravel, [6/003], was identified beneath [6/002]. This was interpreted as a geological variation.

4.6.2 No archaeological remains were identified within Trench 6.

4.7 Trench 7

25m x 2m

Context	Type	Description	Max. Length m	Max. Width m	Deposit Thickness m
7/001	Layer	Topsoil	Tr.	Tr.	0.5
7/002	Layer	Made ground	Tr.	Tr.	0.5
7/003	Layer	Natural	Tr.	Tr.	-
7/004	Layer	Chalk	Tr.	Tr.	0.1

Table 8: Trench 7 list of recorded contexts

4.7.1 The natural geology [7/003] was encountered at a depth of 2.26m AOD. This was overlain by made ground, a silty gravel [7/002] which contained frequent flint and pebble inclusions. [7/002] was in turn overlain by [7/004] which comprised a thin layer of mixed chalk and silt. Topsoil [7/001] covered the entire area.

4.7.2 No archaeological remains were identified within Trench 7.

5.0 DISCUSSION AND CONCLUSIONS

5.1 Stratigraphic sequence and degree of disturbance

5.1.1 The evaluation generally revealed a simple stratigraphic sequence of natural gravels overlain by made ground, overlain by topsoil (Trenches 3-7). The surface of the natural gravel occurred at 2.26m – 4.07m AOD and was exposed in all of the evaluation trenches except Trench 1, where only made ground, to an excavated depth of 2.5m, was present. This indicates that a significant phase of modern disturbance has taken place within the area of the evaluation.

5.1.2 Trench 2 exhibited a sequence comprising natural geology (exposed in sondage only) at a depth of 2.20m below the ground surface, (2.73m AOD), overlain by made ground. The depth at which gravel was reached in Trench 2, and the fact that gravel was not reached in Trench 1 at all, suggests that the northern part of the site was disturbed to some depth.

5.2 Conclusions

5.2.1 No archaeological features or deposits were identified during the evaluation and no artefacts were recovered.

5.2.2 Despite careful scanning, no struck flint was recovered from the gravels.

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ACKNOWLEDGEMENTS

ASE would like to thank CgMs for commissioning the work and for their assistance throughout the project, and Wendy Rogers, Senior Archaeological Officer at Kent County Council for her guidance and monitoring. Illustrations were compiled by Justin Russell and Antonio Reis.

HER Summary Form

Site Code	GSK 13					
Identification Name and Address	Former GlaxoSmithKline, Central Road Dartford					
County, District &/or Borough	Dartford, Kent					
OS Grid Refs.	55423 17553					
Geology	Taplow Gravel					
Arch. South-East Project Number	2014008					
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. 17 th – 19 th Dec 2014	Excav.	WB.	Other		
Sponsor/Client	CgMs					
Project Manager	Andy Leonard					
Project Supervisor	Gary Webster					
Period Summary	Palaeo.	Meso.	Neo.	BA	IA	RB
	AS	MED	PM	Other Modern ✓		
<p>Summary</p> <p><i>Archaeology South-East was commissioned by CgMs Consulting to undertake an archaeological evaluation at GlaxoSmithKline, Dartford, Kent, before the construction of a link road between Central Road and Bob Dunn Way.</i></p> <p><i>The natural gravels were encountered in six of the seven evaluation trenches. There was a large amount of modern debris over the entire site, particularly to the north, where there was in excess of 2.3 metres of made ground. No archaeological remains were identified in any of the trenches. No struck flints were recovered from the gravels.</i></p>						

OASIS Form

OASIS ID: archaeol6-167814

Project name An archaeological evaluation at the former GlaxoSmithKline

Short description of the project Archaeology South-East was commissioned by CgMs Consulting to undertake an archaeological evaluation at GlaxoSmithKline, Dartford, Kent, before the construction of a link road between Central Road and Bob Dunn Way.

The natural gravels were encountered in six of the seven evaluation trenches. There was a large amount of modern debris over the entire site, particularly to the north, where there was in excess of 2.3 metres of made ground. No archaeological remains were identified in any of the trenches. No struck flints were recovered from the gravels..

Project dates Start: 17-12-2013 End: 19-12-2013

Previous/future work Not known / Not known

Any associated project reference codes GSK 13 - Sitecode

Type of project Field evaluation

Current Land use Other 13 - Waste ground

Methods & techniques "Sample Trenches"

Development type Road scheme (new and widening)

Site location KENT DARTFORD DARTFORD Former GlaxoSmithKline, Central Road

Postcode DA1 5JN

Site coordinates NGR - TQ 5422 7553
LL - 51 0 (decimal)
LL - 51 27 25 N 000 13 12 E (degrees)
Point

Height OD / Depth Min: 2.73m Max: 4.07m

Name of Organisation Archaeology South East

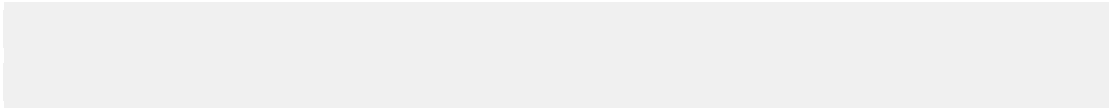
Project brief CgMs Consulting

originator

Project director/manager Andy Leonard

Project supervisor Gary Webster

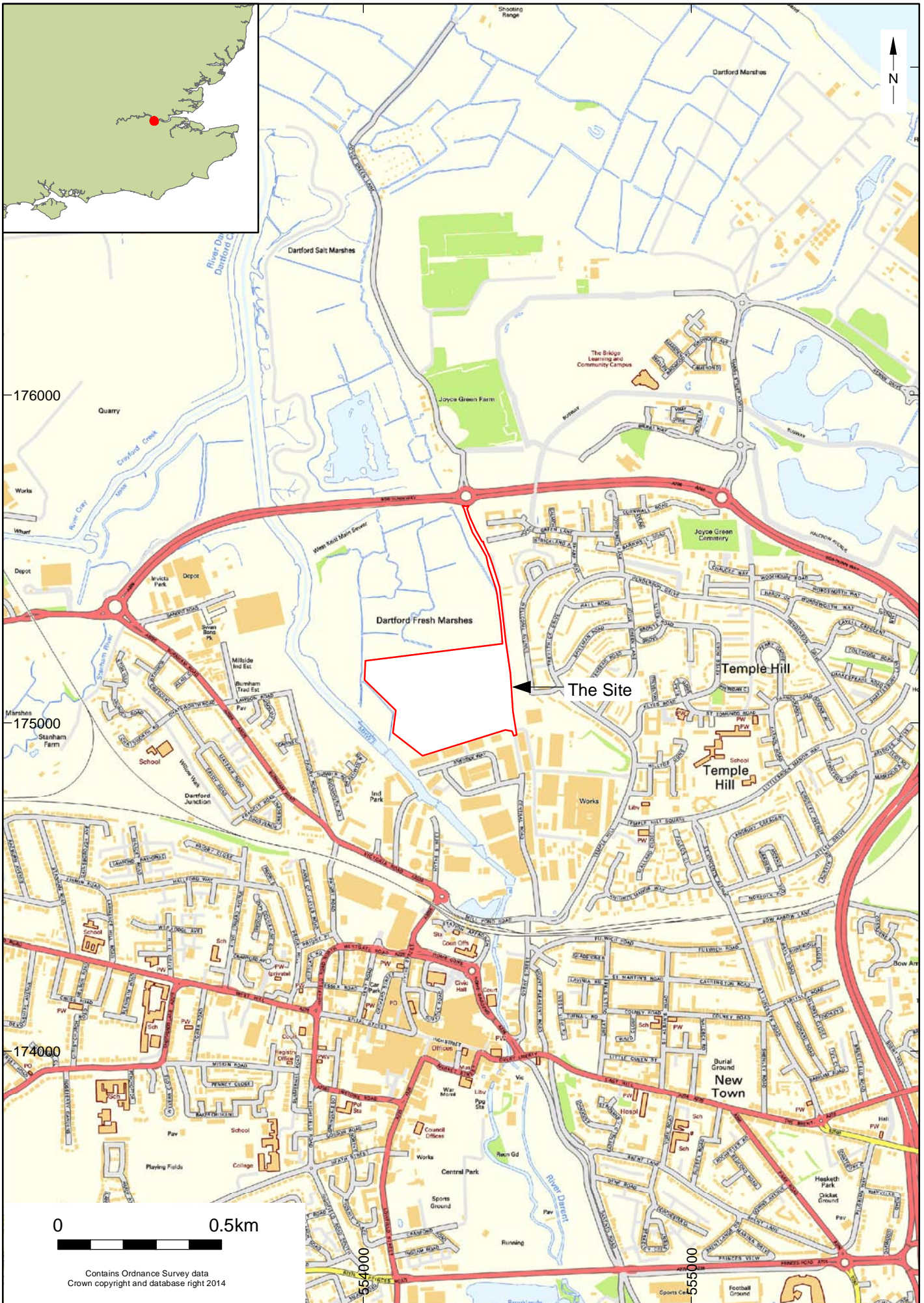
Type of sponsor/funding body CgMs Consulting



Physical Archive recipient Dartford Museum

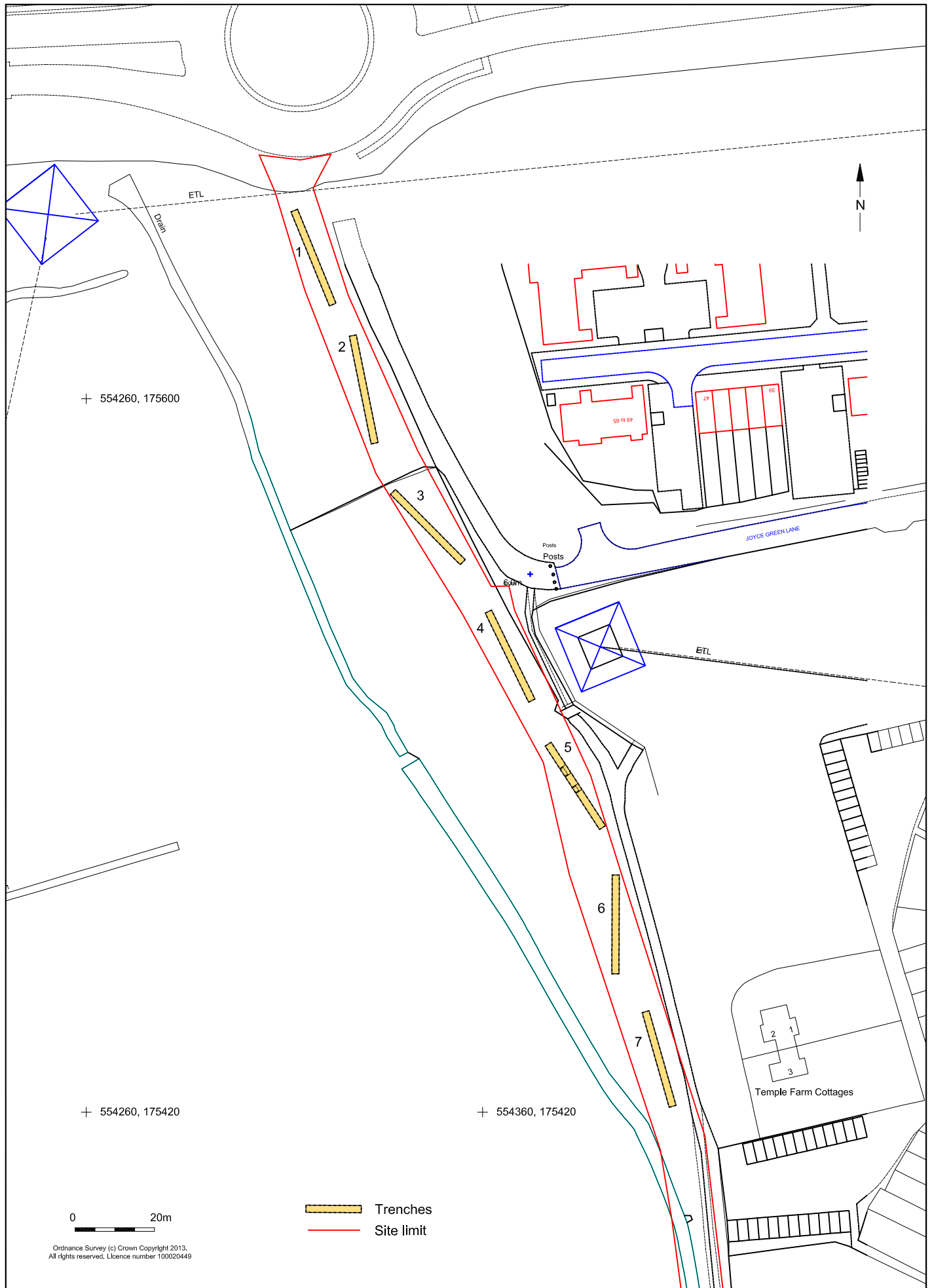
Digital Archive recipient Dartford Museum

Paper Archive recipient Dartford Museum



Contains Ordnance Survey data
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© Archaeology South-East		Former GlaxoSmithKline, Dartford, Kent	Fig. 1
Project Ref: 6195	Jan 2014	Site location	
Report Ref: 2014008	Drawn by: AR		



© Archaeology South-East		Former GlaxoSmithKline, Dartford, Kent		Fig. 2
Project Ref: 6195	Jan 2014	Trench location		
Report Ref: 2014008	Drawn by: AR			



Trench 1, looking north east



Trench 2, looking north east



Trench 3, looking north west



Trench 4, looking north east



Trench 5, looking south east



Trench 6, looking south west



Trench 7, looking south west

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