

**An Archaeological Evaluation
at The Former Marconi Works
New Street, Chelmsford
Essex**

NGR: TL 70704 07295

Planning Ref: 12/01463/DEM & 12/01462/LBC

**ASE Project No: 8099
Site Code: CF80
ASE Report No: 2014076
OASIS ID: 172561**

**Lukasz Miciak
Illustrations by Andrew Lewsey**



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Abstract

Archaeology South-East (ASE), the contracting division of the Centre for Applied Archaeology (CAA), Institute of Archaeology (IoA), University College London (UCL) were commissioned by Bellway Homes Ltd. to undertake an archaeological evaluation on the site of former Marconi Works, New Street, Chelmsford.

Guglielmo Marconi is regarded as the father of radio and the earliest factories of his Wireless and Signal Co. Ltd were located in Chelmsford. The first, established in 1899, was situated at Hall Street, housed in a converted silk mill. In 1912 the New Street works were constructed and were the first purpose built wireless factory in the world, as well as the site of the first official public radio broadcast in 1920. In the late 1930s the works were expanded and a new office building was added. Additional buildings were constructed through the subsequent decades, particularly in the 1950s and 1960s. Following various mergers the site came under the ownership of Selex Communications in 2001, who vacated the site in 2008.

A test-pitting exercise undertaken in 2007 demonstrated that much of the site had been heavily truncated, down onto natural clays/sand and gravel, with the result that any archaeological remains that may have been present prior to the construction of the Works are likely to have been badly damaged or destroyed. It was however suggested that the southern edge and southwest corner of the site may have been better preserved, lying outside the footprint of the Works

This southwest area had most recently been used as a car park, but was formerly occupied by a number of 19th century buildings, including a Steam Mill, a covered reservoir and a Maltings. The 2007 test pitting had shown that the Steam Mill was constructed on concrete foundations to in excess of 2m deep.

Five evaluation trenches, varying in length between 7.5m and 24.9m, were excavated along the southern edge of the site. Due to demolition constraints no trenches could be excavated in the southwest corner. No archaeological features were discovered in any of the excavated trenches, with further, extensive, modern ground disturbance noted in all trenches. Given this, and in light of the likely disturbance to the southwestern corner of the site arising from the construction of the Steam Mill and covered reservoir, it was agreed with the archaeological advisor to the local planning authority that the outstanding trenches in this area could be abandoned and no further archaeological work would be required.

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1.0 INTRODUCTION

1.1 Site Background

1.1.1 In September 2013, Archaeology South-East (ASE), the contracting division of the Centre for Applied Archaeology (CAA), Institute of Archaeology (IoA), University College London (UCL) undertook an archaeological evaluation on land at the former Marconi Works, New Street, Chelmsford, in advance of residential development. The evaluation targeted those parts of the site that had potentially not been disturbed by extensive ground works associated with the construction of the Marconi Works in 1912.

1.2 Location, Topography and Geology

1.2.1 The Marconi site is located in the modern centre of Chelmsford (Fig. 1). The site comprises an irregular shaped plot, located adjacent to the railway line which forms its southern boundary. The northern boundary is defined by Marconi Road and the east by New Street. To the west of the site lies a large office block, Eastwood House. The site is situated on land which rises gently from east to west but there are noticeable drops in level between Marconi Road and Eastwood House and the site, suggestive of levelling in the past. Most of the buildings on site have been demolished, but the Grade II Listed New Street office building, the Power House and Water Tower have been retained.

1.2.2 The local geology of the site as mapped by the British Geological Survey comprises Head, a clay and sand deposit. To the east of New Street the superficial geology comprises river terrace deposits of sands and gravels, while the River Chelmer, with its associated alluvial floodplain deposits, lies c. 350m to the east.

1.3 Planning Background

1.3.1 The site has a long planning history, only the more-recent aspects of which are discussed below. Two applications (12/01463/DEM & 12/01462/LBC) for the demolition of all buildings to the west and south of the water tower: to include; the factory, factory extension, weigh house, cottages, Marconi House and 720 building (to exclude the listed 1912 building, the Power House and the water tower) were submitted to Chelmsford City Council in September 2012. These works are a precursor to comprehensive redevelopment plans for the site, submitted in December 2012, which comprise the construction of 337 residential units, commercial premises, pedestrian and cycle routes through the site and the conversion of the 1912 building fronting New Street into offices (12/01789/FUL).

1.3.2 Given the importance of the site in relation to the development of the radio industry and the potential of presence of earlier archaeological deposits, ECC Place Services (Historic Environment), in their capacity as archaeological advisors to Chelmsford City Council, recommended that an English Heritage Level 3 standard historic building record should be completed prior to the demolition and refurbishment works, followed by an archaeological trial trenching investigation. This recommendation was made in line with guidance contained in the National Planning Policy Framework (DCLG 2012) and also followed recommendations made for previous applications relating to the site.

1.3.3 The recommendation states that:

No demolition/ conversion or preliminary groundworks of any kind shall take place until the applicant has secured the implementation of a programme of building recording and archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved by the local planning authority. All recording work should be conducted by a professional recognised archaeological contractor.

2.3.4 Building recording works were completed in advance of and during demolition works and are the subject of a separate report (ECC FAU 2013).

1.2.3 A design brief was then subsequently issued by the ECC Place Services Historic Environment team (ECC Place Services) for a trench-based evaluation of the site, to which this report pertains.

1.3 Aims and Objectives

1.3.1 The aim of the archaeological evaluation was to determine the presence or absence of any archaeological remains within the site and to establish their character, location, extent, date, quality and significance.

1.3.2 In the event that significant discoveries were made this report would have sought to identify appropriate research objectives for any future work, with reference to those laid out in *Research and Archaeology: a Framework for the Eastern Counties, 2. research agenda and strategy* (Brown and Glazebrook 2000) and *Research and Archaeology Revisited: a revised framework for the East of England* (Medlycott 2011). However, given the negative results of the evaluation the project has no potential to contribute to any research objectives.

1.4 Scope of the report

This report describes the results of an archaeological evaluation at the Former Marconi Site in Chelmsford carried out by Tom Rugg and Lukasz Miciak between 2nd and 3rd of September 2013, in advance of the redevelopment of the site. The fieldwork was managed by Adrian Scruby and the post-excavation work by Mark Atkinson.

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 The site has been the subject of several phases of archaeological work to date. An Archaeological Desk Based Assessment, followed by a test pit investigation was carried out in 2006 and 2007 respectively (CAU 2006 & CAU 2007). The Marconi factory buildings were also the subject of an Historic Building Impact Assessment (Burgess 2006) and Level 3 Historic Building Recording (ECC FAU 2013) prior to their demolition. An Archaeological Scoping Study, collating all of the known information to date regarding the site, was undertaken in 2012 (ECC FAU 2012). The results of these works are summarised below.

2.2.2 Guglielmo Marconi is regarded as the father of radio and the earliest factories of his Wireless and Signal Co. Ltd were located in Chelmsford. The first,

established in 1899, was situated at Hall Street, housed in a converted silk mill. In 1912 the New Street works were constructed and were the first purpose built wireless factory in the world, as well as the site of the first official public radio broadcast in 1920. In the late 1930s the works were expanded and a new office building was added. Additional buildings were constructed through the subsequent decades, particularly in the 1950s and 1960s. Following various mergers the site came under the ownership of Selex Communications in 2001, who vacated the site in 2008.

- 2.2.3 The test-pitting exercise comprised the excavation and recording of thirteen 2m x 2m test pits. The principle findings of this investigation were that much of the site had been heavily truncated, down onto natural clays/sand and gravel across much of the site, with the result that any archaeological remains that may have been present prior to the construction of the works are likely to have been badly damaged or destroyed.
- 2.2.4 The southwest part of the site, outside of the footprint of the Works buildings and most recently used as a car park, was formerly occupied by a number of 19th century buildings, including a Steam Mill, a covered reservoir and a Maltings. The 2007 test pitting had shown that the Steam Mill was constructed on concrete foundations to in excess of 2m deep.

3.0 ARCHAEOLOGICAL METHODOLOGY

3.1 Fieldwork

- 3.1.1 The original evaluation methodology comprised the machine excavation under archaeological supervision of six trenches of varying lengths. However, due to a number of significant constraints the original trench plan was modified on the ground, resulting in the excavation of only five trenches, located primarily along the southern edge of the site (Fig.1). The trenches were positioned using a Leica Viva GPS system.
- 3.1.2 Following the removal of any hardstanding, the trenches were mechanically excavated using a toothless ditching bucket. Excavation was undertaken to the surface of natural geology. Backfilling and compaction were undertaken by machine on completion of the work, with the agreement of the ECC Place Services monitoring officer.
- 3.1.3 Standard ASE excavation, artefact collection and recording methodologies were employed throughout, with all work carried out in accordance with the IfA (Institute for Archaeologists) Code of Conduct, by-laws and relevant Standard and Guidance guidelines (IfA 2013a, 2013b) and in compliance with *Standards for Field Archaeology in the East of England* (Gurney 2003).
- 3.1.5 All stratigraphy was recorded using the ASE context recording system, with all exposed archaeological features and deposits recorded and excavated, except obviously modern features and disturbances.
- 3.1.5 A 50% sample of all contained features was excavated. Post-medieval and modern features were excavated as necessary in order to establish their date and significance. Features were excavated using hand tools and planned

using digital survey equipment. Sections were drawn at 1:10 scale. A digital photographic record was also created.

3.1.6 Finds were identified by context number to a specific deposit, and have been properly processed according to ASE and IfA guidelines. All pottery and other finds where appropriate were marked with the site code and context number.

3.1.7 No deposits judged to have significant potential for environmental analysis were identified. Consequently, no bulk soil samples were collected.

3.2 The site archive

The site archive is currently held at the offices of ASE and will be deposited with Chelmsford Museum in due course. The contents of the archive are tabulated below (Table 1).

Number of Contexts	N/A
No. of files/paper record	5
No. of plan and sections sheets	N/A
Photographs	10 (colour digital)
Bulk finds	None

Table 1: Quantification of site archive

4.0 RESULTS (Fig.2-5)

4.1 The length of the trenches varied over the site and measured 24.9m, 18.4m, 11.5m, 10.9m and 7.5m for trenches 1 to 5 respectively. All trenches were 1.8m wide and their depths ranged from 0.72 m to 1.28m.

4.2 A layer of modern made ground varying in thickness from 0.12m to over 1.2m was revealed in all trenches.

4.3 Subsoil and natural geology were discovered only in trench 1 at the depth of 0.43m and 0.88m respectively below existing ground level. Excavation of the remaining trenches ceased at a depth of 1.2 – 1.3m with the exception of trench 5, which was diagonally bisected by a live electricity cable, uncovered at the depth of 0.72m below the existing ground surface.

4.4 Each trench revealed extensive modern truncation and no archaeological features or artefacts were discovered.

Trench number	Context	Type	Description	Deposit Thickness m
1	1/001	Layer	Concrete	0.12
1	1/002	Layer	Made ground	0.43-0.70
1	1/003	Layer	Subsoil	0.26-0.52
1	1/004	Layer	Natural	-
2	2/001	Layer	Made ground	1.25
3	3/001	Layer	Made ground	1.20
4	4/001	Layer	Tarmac	0.08

4	4/002	Layer	Hard core	0.14-0.26
4	4/003	Layer	Made ground	0.14-0.33
4	4/004	Layer	Made ground	0.76
5	5/001	Layer	Tarmac	0.11
5	5/002	Layer	Hard core	0.33-0.51
5	5/003	Layer	Made ground	0.12-0.36

Table 2: Trenches 1 – 5 list of recorded contexts

5.0 FINDS

- 5.1 No pre-modern finds were recovered from any of the trenches, no doubt reflecting the fact that the site had been stripped down to the natural horizon in the early part of the 20th century.

6.0 DISCUSSION AND CONCLUSIONS

- 6.1 The evaluation has demonstrated that, coupled with the results of a 2007 test-pitting exercise undertaken by the Cambridge Archaeological Unit, the entire site has been heavily disturbed, presumably during the construction of the Marconi Works buildings. Potential archaeological remains, if ever present on the site, will have been damaged or destroyed by these works and it appears that the current development proposals will not have any impact upon the archaeological record. Given this, and in light of the likely disturbance to the southwestern corner of the site arising from the construction in the 19th century of the Steam Mill and covered reservoir, it has been agreed with the archaeological advisor to the local planning authority that the outstanding trenches in this area can be abandoned and no further archaeological work would be required.

ACKNOWLEDGEMENTS

ASE would like to thank Bellway Homes Ltd. for commissioning the work and Alison Bennett at Essex County Council Place Services for her guidance and monitoring the project.

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Appendix 1: HER Summary Form

Site name/Address: <i>The Former Marconi Works, New Street, Chelmsford</i>	
Parish: <i>Chelmsford</i>	District: <i>Chelmsford</i>
NGR: <i>TL 70704 07295</i>	Site Code: <i>CF80</i>
Type of Work: <i>Archaeological Evaluation</i>	Site Director/Group: <i>L. Miciak, Archaeology South-East</i>
Date of Work: <i>02 - 03 September 2013</i>	Size of Area Investigated: <i>131.76 sqm</i>
Location of Finds/Curating Museum: <i>Chelmsford Museum</i>	Funding source: <i>Landowner/developer</i>
Further Seasons Anticipated?: <i>No</i>	Related HER Nos: <i>n/a</i>
Final Report: <i>EAH roundup</i>	OASIS No: <i>172561</i>
Periods Represented: <i>Modern</i>	
<p>SUMMARY OF FIELDWORK RESULTS: <i>Archaeology South-East (ASE), the contracting division of the Centre for Applied Archaeology (CAA), Institute of Archaeology (IoA), University College London (UCL) were commissioned by Bellway Homes Ltd. to undertake an archaeological evaluation on the site of former Marconi Works, New Street, Chelmsford.</i></p> <p><i>Guglielmo Marconi is regarded as the father of radio and the earliest factories of his Wireless and Signal Co. Ltd were located in Chelmsford. The first, established in 1899, was situated at Hall Street, housed in a converted silk mill. In 1912 the New Street works were constructed and were the first purpose built wireless factory in the world, as well as the site of the first official public radio broadcast in 1920. In the late 1930s the works were expanded and a new office building was added. Additional buildings were constructed through the subsequent decades, particularly in the 1950s and 1960s. Following various mergers the site came under the ownership of Selex Communications in 2001, who vacated the site in 2008.</i></p> <p><i>A test-pitting exercise undertaken in 2007 demonstrated that much of the site had been heavily truncated, down onto natural clays/sand and gravel, with the result that any archaeological remains that may have been present prior to the construction of the Works are likely to have been badly damaged or destroyed. It was however suggested that the southern edge and southwest corner of the site may have been better preserved, lying outside the footprint of the Works</i></p> <p><i>This southwest area had most recently been used as a car park, but was formerly occupied by a number of 19th century buildings, including a Steam Mill, a covered reservoir and a Maltings. The 2007 test pitting had shown that the Steam Mill was constructed on concrete foundations to in excess of 2m deep.</i></p> <p><i>Five evaluation trenches, varying in length between 7.5m and 24.9m, were excavated along the southern edge of the site. Due to demolition constraints no trenches could be excavated in the southwest corner. No archaeological features were discovered in any of</i></p>	

the excavated trenches, with further, extensive, modern ground disturbance noted in all trenches. Given this, and in light of the likely disturbance to the southwestern corner of the site arising from the construction of the Steam Mill and covered reservoir, it was agreed with the archaeological advisor to the local planning authority that the outstanding trenches in this area could be abandoned and no further archaeological work would be required.

Previous Summaries/Reports:

ECC FAU, 2013, The Marconi Works, New Street, Chelmsford, Essex: Level III Historic Building Record. ECC FAU report no. 2580

Author of Summary: *L. Miciak*

Date of Summary: *February 2014*

Appendix 2: OASIS Form

OASIS ID: [archaeol6-172561](#)

Project details

Project name	The Former Marconi Site - evaluation
Project dates	Start: 02-09-2013 End: 03-09-2013
Previous/future work	Yes / No
Any associated project reference codes	8099 - Contracting Unit No.
Type of project	Field evaluation
Current Land use	Industry and Commerce 1 - Industrial
Monument type	NONE None
Significant Finds	NONE None
Methods & techniques	"Sample Trenches"
Development type	Housing estate
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	After full determination (eg. As a condition)

Project location

Country	England
Site location	ESSEX CHELMSFORD CHELMSFORD The Marconi Site, New Street
Postcode	CM1 1NZ
Study area	4.07 Hectares
Site coordinates	TL 70704 07295 51.7378255653 0.47256808622 51 44 16 N 000 28 21 E Point
Lat/Long Datum	Position derived from charts

Project creators

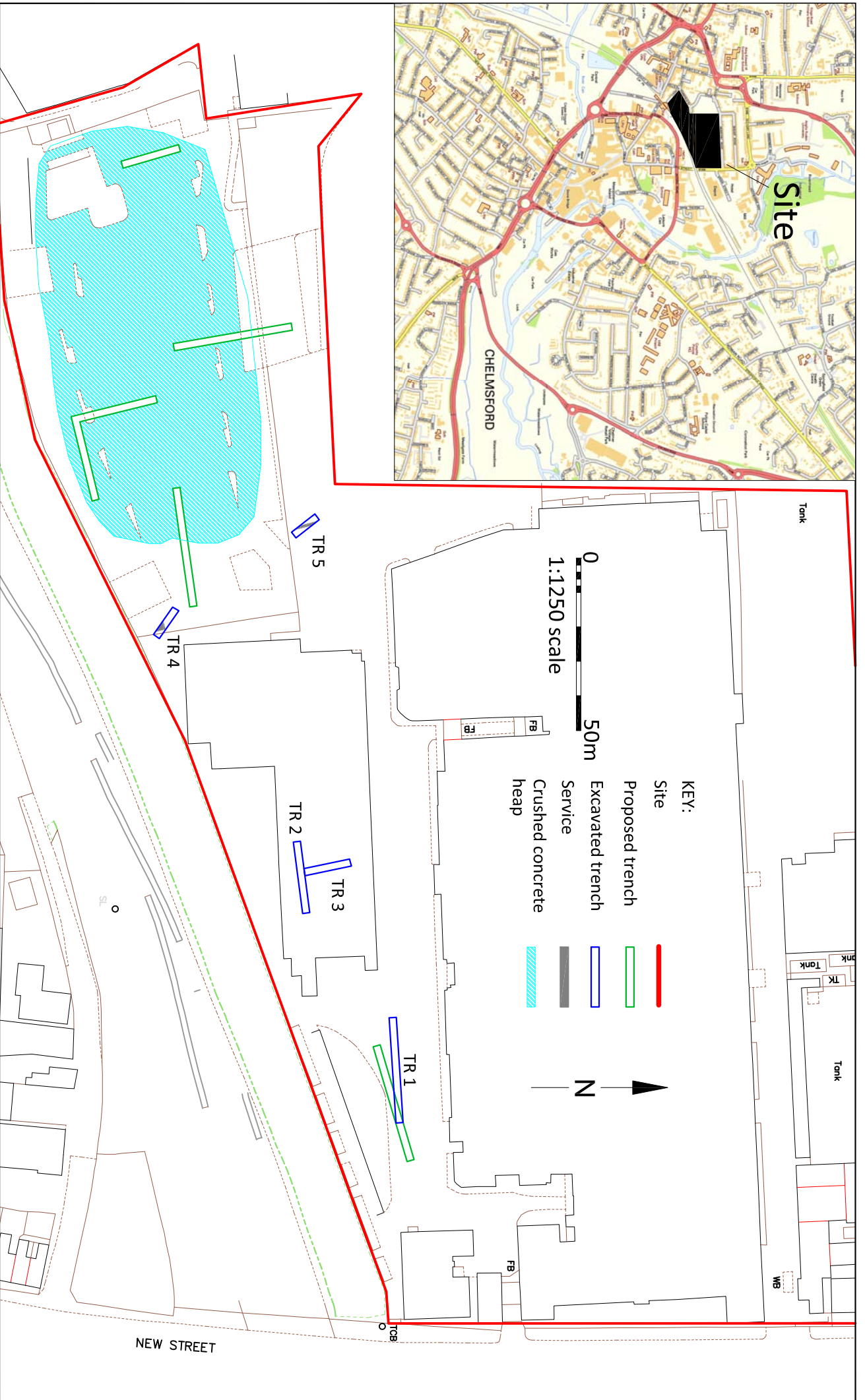
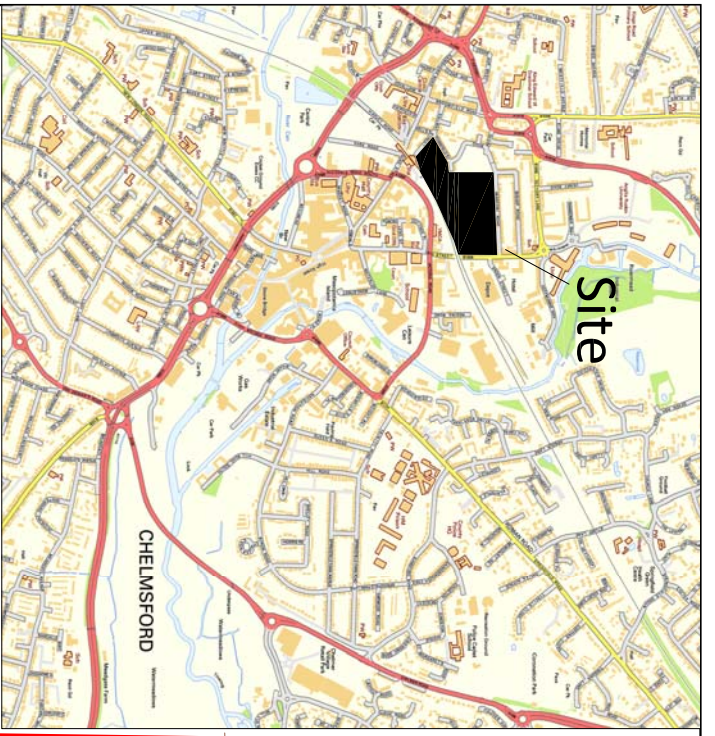
Name of Organisation	Archaeology South East
Project brief originator	Essex County Council Place Services
Project design originator	Essex County Council Field Archaeology Unit
Project director/manager	Adrian Scruby
Project supervisor	Lukasz Miciak

Type of sponsor/funding body	Developer
Name of sponsor/funding body	Bellway Homes Ltd.

Project archives

Physical Archive Exists?	No
Digital Archive recipient	Chelmsford Museum
Digital Contents	"Survey"
Digital Media available	"Images raster / digital photography", "Survey", "Text"
Paper Archive recipient	Chelmsford Museum
Paper Contents	"Survey"
Paper Media available	"Photograph", "Report", "Survey ", "Unpublished Text"

Entered by	Lukasz Miciak (l.miciak@ucl.ac.uk)
Entered on	25 February 2014



- KEY:
- Site
 - Proposed trench
 - Excavated trench
 - Service
 - Crushed concrete heap

0
1:1250 scale
50m

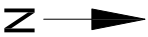




Fig. 2: Trench 1



Fig. 3: Trench 2



Fig. 4: Trench 3



Fig. 5: Trench 5