

**Nailsea Glassworks
Nailsea
North Somerset**

Archaeological Watching Brief



for
Nailsea Town Council


CA Project: 4786
CA Report: 14462

December 2014

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North Somerset

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CA Project: 4786
CA Report: 14462

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date	22 December 2014
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signed	
date	22 December 2014
issue	01

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SUMMARY

Project Name:	Nailsea Glassworks
Location:	Nailsea, North Somerset
NGR:	ST 47686 70852
Type:	Watching Brief
Date:	26 August-7 November 2014
SMC:	S00070221
Location of Archive:	Somerset Heritage Centre
Accession Number:	WESTM: 2014.2
Site Code:	NAG 14

An archaeological watching brief was undertaken by Cotswold Archaeology during groundworks associated with the removal of contaminated soils, the re-profiling of site levels/protection of extant archaeological remains and the excavation of gabion footing trenches at the former Nailsea Glassworks.

A stone wall and a cellar were revealed to the north of the site. These two structures were not previously recorded. Four other bits of masonry walls not seen before were also revealed. Other previously recorded structures from the glassworks were observed to the south, and a detached grave marker was found on the western part of the site. No artefactual material was recovered.



1. INTRODUCTION

1.1 Between August and November 2014 Cotswold Archaeology (CA) carried out an archaeological watching brief for Nailsea Town Council at the site of the former Nailsea Glassworks (centred on NGR: ST 47686 70852; Fig. 1). The watching brief was undertaken to comply with conditions (n) and (o) of the Scheduled Monument Consent (SMC; Reference S00070221) granted by English Heritage on 28 November 2013, for remediation works at the site of the former Nailsea Glassworks. The conditions required an archaeological watching brief, to be carried out during the removal of contaminated soils and re-profiling of site levels/protection of extant archaeological remains.

1.2 The watching brief was carried out with a subsequent detailed *Written Scheme of Investigation* (WSI) produced by CA (2014) and approved by the LPA. The fieldwork also followed the *Standard and guidance for an archaeological watching brief* (IfA 2009), the *Management of Archaeological Projects 2* (English Heritage 1991), the *Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide* (English Heritage 2006). It was monitored by Hugh Beamish, Inspector of Ancient Monuments, including a site visit on 3 October 2014.

The site

1.3 The site comprised an area of overgrown scrub and grassland located at the junction of High Street and Brockway in the centre of the town of Nailsea. A large standing building belonging to the former glassworks adjoins the site to the west. The site lies at approximately 35m AOD.

1.4 The underlying solid geology of the area is mapped as Downend Member Sandstone of the Carboniferous era with no overlying superficial deposits (BGS 2014). The natural substrate was not encountered during the observed groundworks.



Archaeological background

- 1.5 Nailsea is located at the centre of a small coalfield, which was exploited on a small-scale from the late medieval period. During the mid-18th century the introduction of steam production enabled the scale of coal production to be increased (Thomas 1987).
- 1.6 The glassworks at Nailsea (Scheduled monument no. SAM 28884, HA 1021462) was established in 1788 by Bristol glassmaker John Robert Lucas and became one of the major glass manufacturing centres in the country, producing window glass, bottles and ornamental pieces, before closing in 1873 (Thomas 1987; AAU 2004). The land covered by the works stretched to the north of High Street, where workers' cottages and a colliery have been documented, and to the east of Brockway, where remains of furnaces and associated works buildings have been identified during the construction of a superstore (AAU 2004).
- 1.7 The application area contained a number of buildings belonging to the glassworks, including the No.1 ("New House") cone furnace; French kilns, used for flattening glass bottles; Belgian Lehr kilns, used for annealing; cutting rooms; a six-storey warehouse and offices. The large standing building to the west of the site housed two French kilns (AAU 2004, 2-3).
- 1.8 The site has previously been extensively investigated. Between 1983-1988 several seasons of excavations by the Avon Community Conservation and Environment Scheme (ACCES) revealed most of the kiln cone structure, with associated blow pits and large supporting arches, as well as a cobbled road to the east of the cone (AAU 2004). The known archaeological remains thus exposed and previously recorded are shown on Figure 2.
- 1.9 More recently, several stages of archaeological investigation have been undertaken to the east of the site, ahead of development of a new superstore. These have revealed a further cone furnace and several other building footprints (AAU 2004). The archaeological investigations on the glassworks site have cumulatively served to confirm the accuracy of an 1870 plan of the site, which depicted four cone

furnaces augmented by several smaller kilns and crucibles as well as numerous works and administrative buildings (Fig. 8; BRO Sturge Deposit 37959).

Archaeological objectives

1.10 The objectives of the archaeological works were:

- to monitor groundworks, and to identify, investigate and record all significant buried archaeological deposits revealed on the site during the course of the development groundworks;
- at the conclusion of the project, to produce an integrated archive for the project work and a report setting out the results of the project and the archaeological conclusions that can be drawn from the recorded data.

Methodology

1.11 The fieldwork followed the methodology set out within the WSI (CA 2014). An archaeologist was present during the protection and covering of archaeological remains and the removal of identified contaminated soils as set out in Section 4.1 and Figure 9 of the Lavigne-Lonsdale document *Initial Remediation Works* (dated October 2013). An archaeologist was also present during the excavations of the gabion footing trenches (Fig. 2). Additional monitoring was undertaken following the discovery of part of a former cellar to the north-east of the gabion wall footing trench.

1.12 Where archaeological deposits were encountered written, graphic and photographic records were compiled in accordance with CA Technical Manual 1: *Fieldwork Recording Manual* (2013).

1.13 The archive from the evaluation is currently held by CA at their offices in Kemble, and will be deposited with Somerset Heritage Centre under accession number WESTM: 2014.2. A summary of information from this project, set out within Appendix B, will be entered onto the OASIS online database of archaeological projects in Britain.

2. RESULTS (FIGS 2-8)

- 2.1 The natural geological substrate was not exposed in the observed groundworks (Trenches 1, 2, 3 and 4) which were halted at an average depth of 0.6m below the present ground level (BPGL).
- 2.2 All the observed groundworks exposed a similar sequence of deposits comprising dumped demolition layers of limestone and sandstone rubble with frequent brick, mortar and ceramic building material. No artefactual material was recovered.
- 2.3 A north-west/south-east aligned rubble wall 100 was revealed to the west of Trench 1. It measured 22.1 in length and 0.5 in width. Two fragments of masonry (103 and 104) were only partially exposed in plan in that area. A detached grave marker, hewn from granite, was also found during the excavation of Trench 1 but no inscription was discernible, and the marker was not retained.
- 2.4 In Trenches 2 and 3 an east/west sandstone wall was exposed, 202/303. To the west this had a north-south aligned return, 304. These walls each measured 0.7m in width, and survived to a maximum height of 0.64m in Trench 2. They were all constructed in random courses bonded with firm sand mortar, and overlain by modern demolition deposit 201, and they appeared to form the north-west corner of a building.
- 2.5 In the south of the site (Trench 4) the excavation for the gabion trench uncovered ten more structures (Figs 2, 4 & 5). Walls and masonry fragments 401, 402, 403, 405, 409 and 410 were constructed in sandstone uneven courses bonded with sand mortar. Wall 404 was constructed in brick and sandstone bonded with lime mortar. Walls 406, 407 and 408 had a maximum height of 0.8m and were constructed in string courses bonded with modern cement. The majority of these had been recorded during previous archaeological works, the possible exceptions being 402, 403 and 408 (Fig. 2).
- 2.6 Part of a former cellar, which appeared likely to have been re-used as a cesspit for one of the 20th-century properties that later occupied the glasswork site, was revealed during groundworks to the north of the cone (Figs 2 & 6). A trench was

excavated by the contractors to establish whether there was a continuation of the cellar to the south, although this showed that it had been infilled.

3. DISCUSSION

- 3.1 The walls uncovered in Trenches 2 and 3, and cellar/cesspit 504, had not been seen in previous archaeological excavations. Walls 202, 303 and 304, observed in Trenches 2 and 3, correlate with the north-west corner of building 5 as depicted on a plan of the glassworks dated 1870 (BRO Sturge Deposit 37959). This was part of a complex of buildings attached to the north side of the furnace of the 'New House' cone. The building is recorded in the schedule attached to the 1870 plan as a cutting room (Fig. 8).
- 3.2 Cellar/cesspit 504 corresponds with the north-east corner of building 6, and according to the schedule this was a six-storey building, with two packing and cutting rooms, three pot rooms and a loft for lift machinery (Fig. 8). Wall fragment 104, only partially exposed in Trench 1, matches with the position of the west wall of that building (Fig. 8)
- 3.3 The structures revealed to the south of the site (Trench 4) including the cone wall, had largely been previously uncovered and recorded, with the possible exception of fragments 402, 403 and 408 (Fig. 8) The remains were re-surveyed during the watching brief using a Leica Viva GPS, and could be tied in with the previously excavated remains with a high degree of accuracy, demonstrating that the 1980s excavations had been surveyed to a very high standard. Both plans also correlate extremely well with the 1870 plan of the glassworks (Fig. 8).
- 3.4 The rubble wall 100 recorded west of Trench 1 does not appear on the 1870 plan, but is depicted on 20th-century mapping as a boundary wall associated with the properties built over the glassworks following its demise in the late 19th/early 20th-century.



- 3.5 The protection and covering of the archaeological remains was monitored to ensure that the remains of the glassworks would be preserved in situ beneath the newly landscaped area (Fig. 7).

4. CA PROJECT TEAM

Fieldwork was undertaken by Jonathan Orellana, Rebecca Havard, Peter Davenport and Rob Skinner. The report was written by Jonathan Orellana. The illustrations were prepared by Jon Bennett. The archive has been compiled by Jonathan Orellana, and prepared for deposition by Hazel O'Neill. The project was managed for CA by Simon Cox.

5. REFERENCES

AAU (Avon Archaeological Unit) 2004 *The Nailsea Glassworks, Nailsea, North Somerset: A study of the history, archaeology, technology and the human story*

CA (Cotswold Archaeology 2014) *Nailsea Glassworks, North Somerset: Written Scheme of Investigation for Archaeological Watching Brief*

BGS (British Geological Survey) 2014 *Geology of Britain Viewer*
<http://mapapps.bgs.ac.uk/geologyofbritain/home.html> accessed 18 February 2014

Lavigne-Lonsdale 2013 *Nailsea Glassworks. Initial Remediation Works*

Thomas, M 1987 *The Nailsea Glassworks*. Bristol, University of Bristol.

Cartographic source

BRO (Bristol Record Office) Sturge Deposit 37959 (22) 1870 annotated plan of glassworks

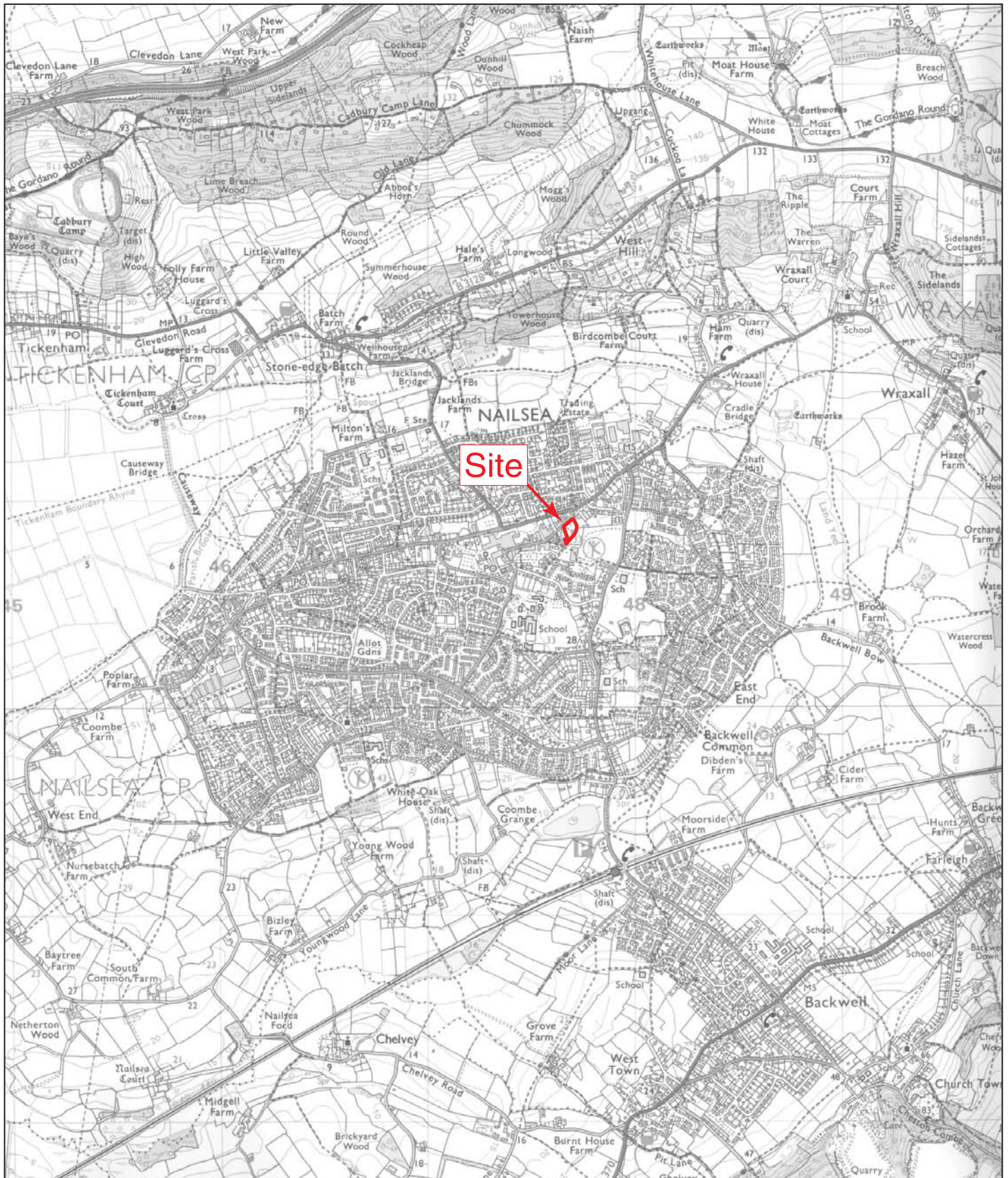


APPENDIX A: CONTEXT DESCRIPTIONS

Trench No.	Context No.	Type	Context interpretation	Description	L (m)	W (m)	Depth/thickness (m)	Spot-date
1	100	Structure	wall	NW/SE aligned rubble wall	22.1	0.5	0.78	
1	101	Layer	topsoil	light grey brown silty clay	25.1	2	0.1	
1	102	Deposit	dump	brick, limestone and sandstone in dark grey sandy silt	25.1	2	0.82	
1	103	Structure	wall	curved plan, partially revealed	2	0.6		
1	104	Structure	wall	sandstone wall, partially revealed				
2	200	Deposit	dump	dark greyish black sandy clay, to the north of wall 202	30.5	1	0.3	
2	201	Layer	demolition	mid grey sand with abundant limestone, brick, mortar	3	1	>0.7	
2	202	Structure	wall	NW/SE aligned, sandstone wall, same as 303 and 304	>2.6	0.68	>0.64	
2	203	Deposit	dump	light brown red clay and gravel	30.5	1	>0.25	
3	300	Layer	dump	dark greyish black sandy clay, to the north of wall 303	15.7	1	0.2	
3	301	Layer	demolition	mid grey sand with abundant limestone, brick, mortar	4.6	1	>0.6	
3	302	Layer	dump	light brown red clay and gravel	23.2	1	>0.25	
3	303	Structure	wall	same as 202	>2.15	0.7	>0.45	
3	304	Structure	wall	same as 202	>1.1	0.5	>0.42	
4	400	Layer	dump	sandstone, limestone, brick in mid grey sandy silty	20.9	2.9	>0.5	
4	401	Structure	wall	curved plan, NW/SE aligned	>7.3	1.3	>0.14	
4	402	Structure	wall	NW/SE aligned	>1.4	0.48	>0.05	
4	403	Structure	wall	curved plan, partially revealed	1.10	0.44		
4	404	Structure	wall	NW/SE aligned	>6.5	1.15		
4	405	Structure	wall	NW/SE aligned	>3.7	>1.8		
4	406	Structure	wall	NW/SE aligned	>2.4		>0.8	
4	407	Structure	wall	NE/SW aligned	1.7		>0.8	
4	408	Structure	wall	NE/SW aligned	>0.6	0.86	>0.76	
4	409	Structure	wall	NE/SW aligned	0.95	0.5		
4	410	Structure	wall	NE/SW aligned, partially revealed	>1.7	0.52		

APPENDIX B: OASIS REPORT FORM

PROJECT DETAILS		
Project Name	Nailsea Glassworks	
Short description	<p>An archaeological watching brief was undertaken by Cotswold Archaeology during groundworks associated with the removal of contaminated soils, the re-profiling of site levels/protection of extant archaeological remains and the excavation of gabion footing trenches at the former Nailsea Glassworks.</p> <p>A stone wall and a cellar were revealed to the north of the site. These two structures were not previously recorded. Four other bits of masonry walls not seen before were also revealed. Other previously recorded structures from the glassworks were observed to the south, and a detached grave marker was found on the western part of the site. No artefactual material was recovered.</p>	
Project dates	26 August – 7 November 2014	
Project type	Watching Brief	
Previous works	Summarised in the following Avon Archaeological Unit (AAU) 2004 reports: 1] Archaeological Desk-top Study; and 2] A Summary of the Known Archaeological Interventions 1975-2004	
Future work	Unknown	
PROJECT LOCATION		
Site Location	Nailsea Glassworks, Nailsea, North Somerset	
Study area (M ² /ha)		
Site co-ordinates (8 Fig Grid Reference)	ST 47686 70852	
PROJECT CREATORS		
Name of organisation	Cotswold Archaeology	
Project Brief originator	N/A	
Project Design (WSI) originator	Cotswold Archaeology	
Project Manager	Simon Cox	
Project Supervisor	Jonathan Orellana, Rebecca Havard, Peter Davenport, Rob Skinner	
MONUMENT TYPE		
	Glassworks	
SIGNIFICANT FINDS		
	None	
PROJECT ARCHIVES		
	Intended final location of archive (museum/Accession no.)	
Physical	None	N/A
Paper	Somerset Heritage Centre WESTM: 2014.2	Context sheets, trench forms
Digital	Somerset Heritage Centre WESTM: 2014.2	Database, digital photos
BIBLIOGRAPHY		
CA (Cotswold Archaeology) 2014 <i>Nailsea Glassworks, North Somerset: Archaeological Watching Brief</i> . CA typescript report 14462		



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PROJECT TITLE
 Nailsea Glassworks, Nailsea, North Somerset

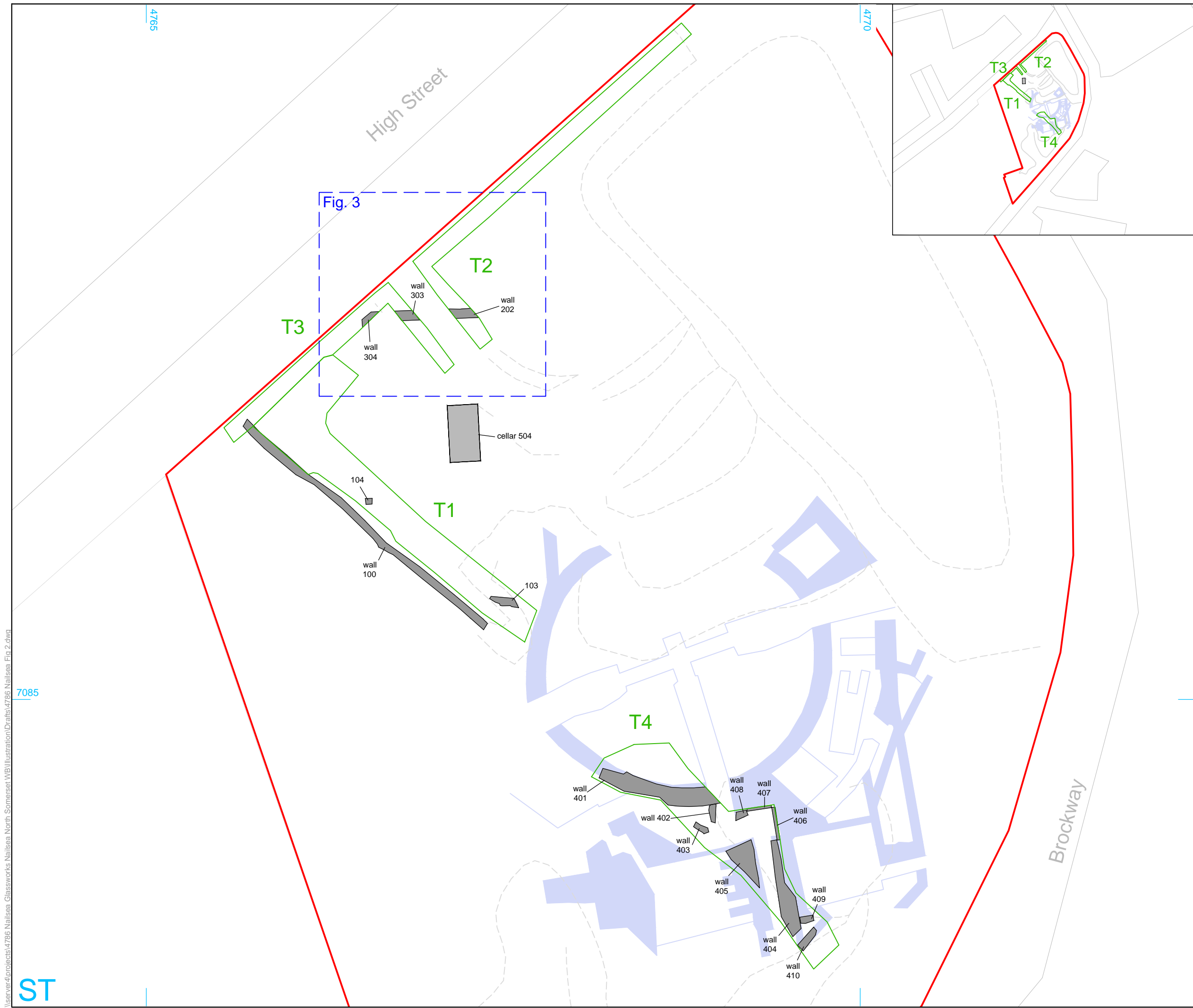
FIGURE TITLE
 Site location plan



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PROJECT NO. 4786 **DATE** 06-10-2014
DRAWN BY DJB **REVISION** 00
APPROVED BY JB **SCALE@A4** 1:25,000

FIGURE NO.
1



- ▬ site
- ▬ observed groundworks
- archaeological feature
- known archaeological remains



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PROJECT TITLE
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FIGURE TITLE
 Plan showing known archaeological remains and observed groundworks

PROJECT NO.	4786	DATE	07-10-2014	FIGURE NO.
DRAWN BY	DJB	REVISION	00	2
APPROVED BY	LM/ATB	SCALE@A3	1:250 (inset 1:2500)	

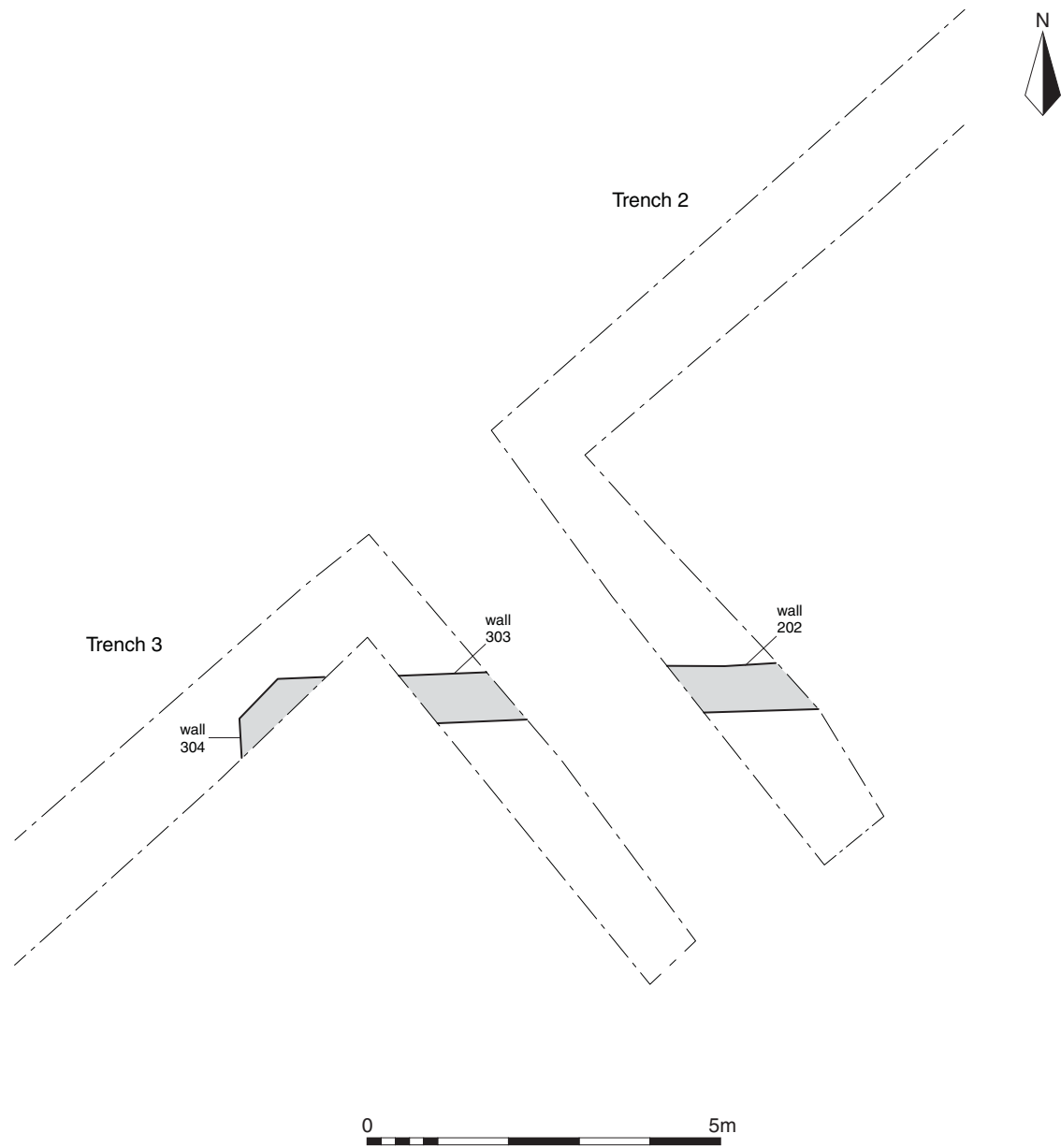
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7085

4765

4770

ST



Wall 202 looking north-west (scales 1m)



Walls 303 and 304 looking south-east (scale 1m)



4



5

4 Walls 401, 402 and 403, looking north-west (scales 1m)

5 Walls 404, 405, 407 and 408, looking north (scale 1m)



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FIGURE TITLE

Trench 4: photographs

PROJECT NO. 4786 DATE 07-10-2014
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FIGURE NO.

4 & 5



6

6 Cellar 504, looking north (scale 2m)



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FIGURE TITLE

Photograph

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DATE 09-12-2014
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 SCALE@A4 N/A

FIGURE NO.

6



7

7 Protection and covering of archaeological remains, looking north-east



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PROJECT TITLE

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FIGURE TITLE

Photograph

PROJECT NO. 4786 DATE 09-12-2014
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FIGURE NO.

7



- site
- observed groundworks
- archaeological feature
- known archaeological remains
- earthworks



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PROJECT TITLE
 Nailsea Glassworks, Nailsea, North Somerset

FIGURE TITLE
 Plan showing archaeological remains and 1870 plan of the Nailsea Glassworks

PROJECT NO.	4786	DATE	09-12-2014	FIGURE NO.
DRAWN BY	DJB/AO	REVISION	00	8
APPROVED BY	LM/ATB	SCALE@A3	1:500	

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