

Report 2382

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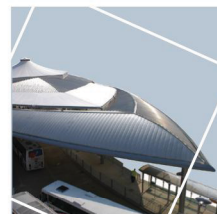
An Archaeological Watching Brief on the Mousehold WTW replacement pipe, Norwich, Norfolk

ENF 124264

Prepared for
Anglian Water

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Plate 1 Machining the pipe trench, looking west

Location:	Mousehold WTW
District:	Norwich
Grid Ref.:	TG 2454 0880
HER No.:	ENF 124264
Client:	Anglian Water
Dates of Fieldwork:	2 March – 19 March 2010

Summary

An archaeological watching brief was conducted for Anglian Water during the installation of a new sewer drain at Mousehold WTW. The deposits encountered along the entire length of the pipeline were the re-deposited fills of other service and pipe cuts. Metal detecting found no finds of archaeological worth. A 19th-century thimble was found through metal detecting the spoil.

1.0 INTRODUCTION

The watching brief was designated as constant attendance whilst below ground excavations were undertaken by the Anglian water's sub contractor Claret. The new drainage pipe was designed to run between two large reservoirs, alongside existing pipes and was 115m in length (Fig. 1). The work involved excavating around 1.50m in depth in order to feed the new pipe under existing pipes (Fig. 2).

This work was undertaken in accordance with a Brief issued by Norfolk Landscape Archaeology (Ref. CNF42718) and was commissioned and funded by Anglian Water (Ref. 4501333657).

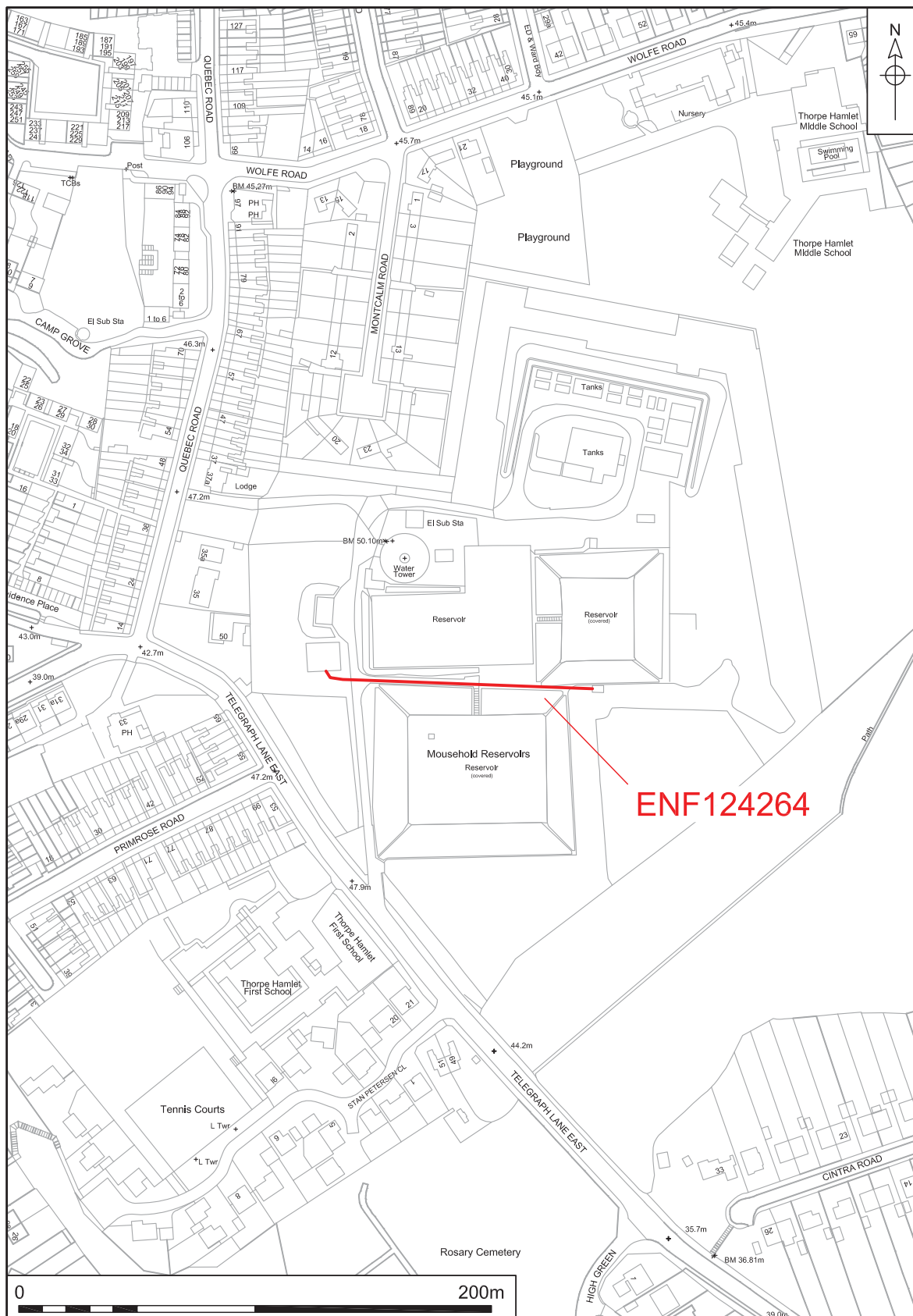
This programme of work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, following the guidelines set out in *Planning and Policy Guidance Note 16: Archaeology and Planning* (Department of the Environment 1990). The results will enable decisions to be made by the Local Planning Authority about the treatment of any archaeological remains found.

The site archive is currently held by NAU Archaeology and on completion of the project will be deposited with the Norfolk Museums and Archaeology Service (NMAS), following the relevant policies on archiving standards.

2.0 GEOLOGY AND TOPOGRAPHY

The solid geology consists of Norwich Crag Sand and Gravels and the superficial geology consisted of Happisburgh Formation and Lowestoft Formation Sand and Gravel (British Geological Survey).

The sand and gravel was often observed at the base of the pipe trench and specifically consisted of bright orange coarse sand with frequent flint gravel. There was no topsoil and subsoil visible in the walls of the pipe trench. The project was undertaken at the Anglian Water WTW water reservoir complex situated on a spur of Mousehold Heath with the River Yare to the south and the River Wensum to the west. This spur of land is one of the highest locations in Norwich, situated at around 47m O.D.



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Figure 1. Site location. Scale 1:2500

The deposits allowed for very good drainage. The area of the pipe trench sloped down gently to the west.

3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

An Historic Environment Record (HER) search was requested and the most relevant entries presented below.

Prehistoric and Roman

Little has been found relating to the prehistoric period near to the site, though the high points around the city of Norwich were generally exploited in the prehistoric period, especially during the Bronze Age. A Bronze Age socketed axe head was found to the south-west of the site sometime before 1996 (NHER 892).

Through a combination of map research and crop marks the Roman road between Bawburgh and Bishop Bridge (NHER5244) has been located close to the site of the proposed pipe trench and appears to run just metres to its south. This road is thought to leave the city along the line of the current Dereham Road. Several slots have been excavated across the line of the proposed road, some of which have revealed undated chalk or gravel surfaces. A further roadway lay to the north of the site (NHER 9690). It was marked as 'Yermouthe Way' on a map of Mousehold Heath, dated to 1585. The road is definitely medieval, though its orientation suggests that it may also have been of Roman date.

A number of Roman coins have been found to the east of the pipe trench. In the immediate vicinity of the site (NHER 534) records the finding of two Roman coins in 1963. Other NHER entries record the site of 50 Roman coins that were found through metal detecting, dating to the 1st and 4th centuries (NHER 540) and other Roman coins (NHER 541); they may form part of a disrupted coin hoard. Further to the east of the site a Roman headstud brooch was found by metal detector in Lion Wood in 1992. All of these finds hint at the area being actively used in the Roman period.

Medieval

The site of St Leonard's Priory lay to the west of the site (NHER 359). It was founded around 1094 and was initially designed to give temporary accommodation for the monks whilst the cathedral was being built. It is one of the earliest medieval religious precincts in Norwich, though little is known of it and most if not all of its structure has been removed.

Post-medieval

The general area of the waterworks is thought to have been part of Robert Kett's encampment during the rebellion of that name in the 16th century (NHER 26447).

There are two post medieval windmills situated close to the site. NHER 26557 records the site of an 'Old Windmill,' marked on a map of 1883 and NHER26570 marks the site of another, on the same map. A further windmill had probably been turned into a sawmill (NHER 26562).

Jubilee Heights (NHER 26481) defines an area which contains a series of other NHER records. The ruined St Michael chapel (NHER 600) lies within it and the area was turned into a walking and picnic area during the Victorian period. This area was later possibly run by a gasworks company and in the Second World War

was turned over to allotments and piggeries to assist in the war effort. In recent years the Norwich City Council have taken over the land and defined it as a conservation area, renaming it 'Jubilee Heights'

Mousehold House which lies to the north of the site was built in 1820 by William Mear (NHER 48127). It lay to the north of the site and Rosary Cemetery lies to the south (NHER26477).

4.0 METHODOLOGY

The objective of this evaluation was to determine as far as reasonably possible the presence or absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.

The Brief required that an archaeologist attend the site constantly during sub-surface excavations. The operatives of Claret (the construction company engaged by Anglian Water to undertake this work) were excavating a 0.60m wide pipe trench, designed to take a new pipe (Plate 1). The pipe was a 300mm diameter Ductile Iron pipe which was designed to provide extra drainage in connection with the water reservoirs. Only a small part of the work of Claret was involved with the excavation of the pipe trench and this limited visits to between half an hour to one hour for the archaeologist. Work was often slowed down by the presence of other high pressure water pipes or important services which had to be carefully avoided. The majority of the day was involved with fitting pipe. The JCB used by Claret was fitted with a 0.60m wide toothed trenching bucket (Plate 2). The spoil from the excavations was scanned with a metal detector

Spoil, exposed surfaces and features were scanned with a metal-detector. All metal-detected and hand-collected finds, other than those which were obviously modern, were retained for inspection.

No environmental samples were taken as no suitable deposits were encountered.



Plate 2 Position of pipe trench, looking north

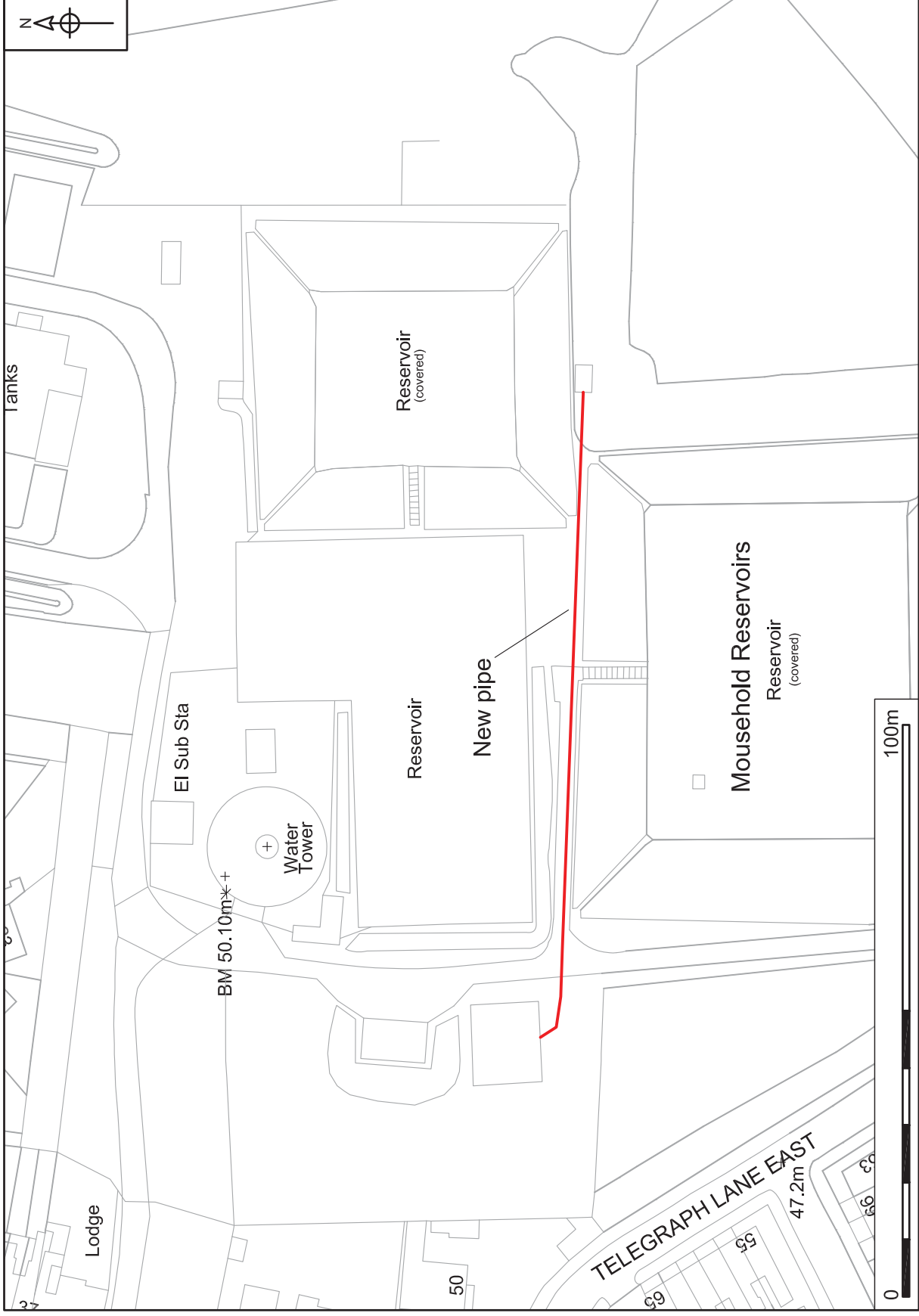


Figure 2. Location of new pipe. Scale 1:1000

There were no archaeological features visible in the pipe trench. The deposits that were observed were overwhelmingly of re-deposited fills of other pipe trench cuts, and consisted of gravelly and sandy hardcore and hoggin of various types (Plates 3 and 4). Towards the western end of the pipe trench there were two small areas where there were *in-situ* deposits. This undisturbed ground consisted of a mid greyish brown sandy silt with moderate small to medium stones and flint.



Plate 3 Close-up of pipe trench walls showing backfill of other pipe cuts, looking south

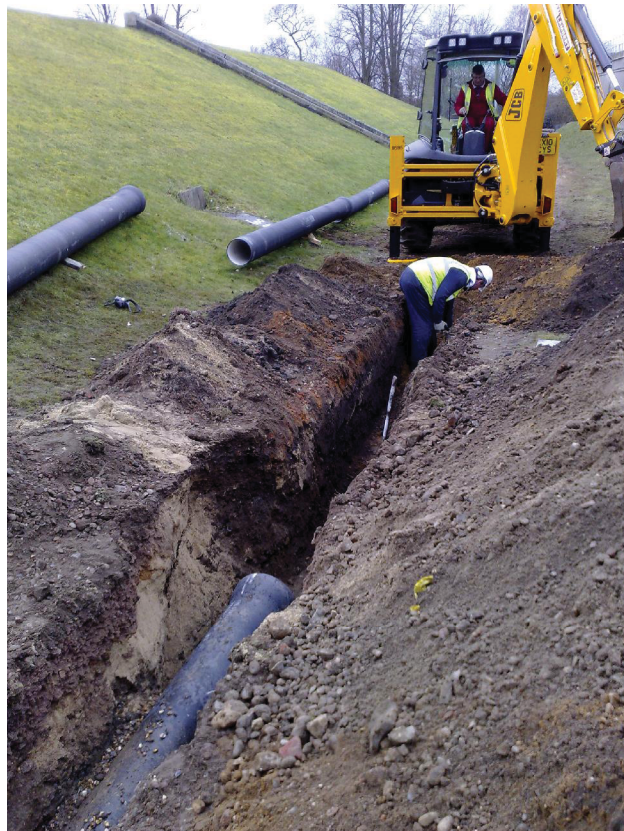


Plate 4 Pipe being laid, looking east

The work took place in fine and cold weather, and access was controlled due to the sensitive nature of the complex

5.0 RESULTS

There were no archaeological features found within the pipe trench. A single 19th-century thimble was found via metal detecting the spoil from the excavations and one flint was recovered from backfilled spoil within the trench (below).

6.0 THE FINDS

6.1 Flint

By Sarah Percival

A single flint flake weighing 8g was recovered from the redeposited back fill of the pipe trench (01). The flake is prehistoric but is otherwise not closely datable.

6.2 Metal Finds

By Sarah Percival

A complete copper alloy one piece thimble with machine-milled decoration was also found in the backfill of the trench (001). The thimble dates to the 19th century.

7.0 CONCLUSIONS

The visits by an archaeologist to the site were required due to the likely presence/position of the Bawburgh to Bishop Bridge Roman Road believed to lie only metres to the south of the monitored pipe trench. The fact that Roman coins were found around 100 metres to the east of the work indicated activity during the Roman period and hence metal detection of upcast soil and monitoring of the edges of the pipe trench was appropriate. The large amount of disturbance in the area of the reservoirs has however removed the in-situ deposits from the area of the pipe trench.

The results of this monitoring exercise add no new information to what is already known about the archaeology and history area.

Acknowledgements

The watching brief was undertaken by the author and Andy Phelps. The finds were processed and analysed by Sarah Percival. The figures were prepared by David Dobson after initial digitising by the author. The base map was prepared by Suzie Westall and the report was edited by Jayne Bown. The author would like to especially thank the Claret operatives for their help and interest in the project.

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- 2010 <http://www.bgs.ac.uk/opengeoscience> (British Geological Survey)

Appendix 1a: Context Summary

Context	Category	Type	Fill Of	Description	Period
1	Deposit			Various re-deposited fills of pipe cuts	Unknown
2	Deposit			natural sand and gravel	Unknown

Appendix 2a: Finds by Context

Context	Material	Qty	Wt	Period	Notes
1	Flint – Struck	1	8g	Prehistoric	
1	Copper-Alloy	1	3g	Modern	C19th

Appendix 2b: OASIS Finds Summary

Period	Material	Total
Prehistoric	Flint – Struck	1
Modern	Copper-Alloy	1