Grantchester Mill Way Sewerage Rising Main Improvement Scheme
An Archaeological Impact Assessment

N James
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Cambridgeshire County Council
Report No. A65

Commissioned By Anglian Water
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GRANTCHESTER MILL WAY SEWERAGE
RISING MAIN IMPROVEMENT SCHEME

Summary

Archaeological implications of Anglian Water's proposal to lay a pipe from Grantchester to the Bourn Brook were assessed. Along the upper course of the route was some evidence for Post-Medieval activity. No evidence of archaeological importance was found along the rest of the route.

INTRODUCTION

Anglian Water proposed to lay a sewerage pipe about 1.25m. below ground along some 450m. from near the Grantchester mill pond to the Bourn Brook. At short notice, the County Field Unit was asked to assess archaeological implications of the scheme. The Unit, in turn, asked the writer to carry the work out.

The route traverses the shallow slope from the foot of Grantchester village to the Brook, that is from the Anglian Water pumping station toward and then alongside the mill leat (MR TL54342552 to TL54342550 to TL54352549 to TL54352547). The route lies along the edge of the Granta valley bottom. At present, the river runs against the opposite side of the valley (see Map).

The land was first put under modern plough in 1964; and recently the ground at the foot of the slope, alongside the leat, has been 'set aside' because it is very clayey, hence 'heavy' for the plough. The Development Control Officer of the County Archaeology Section found that the route runs through land which has yielded evidence of activity in the Roman and Medieval periods (including ridge & furrow); and that near by are Iron Age and Roman sites, including a villa. Parts of these remains are Scheduled as an Ancient Monument. ('Brief for archaeological evaluation', Rob Butler, Cambridgeshire County Council, facsimile message to Anglian Water Services, 9 March 1995).

The writer examined the surface of the ground along the route, then the topsoil and the subsoil, and then cut three sondages to the underlying gravel and clay. There was evidence of Post-Medieval activity in the northern part of the route but hardly any archaeological evidence was recovered elsewhere.

METHOD

Assessment was confined to a strip from 3.25 to 5m. wide within the easement set out for laying the pipe and dumping soil. After preliminary inspection of the site, the field work was carried out from 3 to 12 April inclusive. Dry and bright, the weather was favourable.

Following preliminary inspection of the surface of the ground, the route was assessed by cutting two trenches (1 and 2, separated by the farm track; Plan 1). Crops and plough soil were stripped under the writer's supervision with a JCB 820 mechanical excavator using a 4" toothless bucket. Where the topsoil was mixed into subsoil, enough of the latter was removed too to make any disturbances clear. In the eastern part of Trench 2B the soil was stripped down to the underlying gravel but in 2C the clean clay subsoil was left in place. Topsoil and subsoil were dumped in separate piles between the trenches and the edges of the easement, except at the north end of the route where Anglian Water asked for the subsoil to be put back. The total depth of soil stripped varied from 38cm, to 64cm.
Figure 1  Location plan of pipeline and main features observed in trenches
From one band of dark soil, samples were cut by machine (west part of Trench 2B; but the disturbance turned out to be a natural feature); and three sondages were cut by the machine. Other possible features were dug by hand.

The work was photographed and recorded in plan at the scale of 1:200. Features were recorded on standard County Council context sheets. Two features were recorded in section, at the scale of 1:10, and photographed. Finds were collected from four contexts and deposited with the County Council. The trenches and sections were levelled by theodolite from a temporary bench mark at the foot of the brickwork of the Anglian Water pumping station.

RESULTS

Removal of overlying soil revealed six features of archaeological interest. Each was discrete. Appendix 1 summarises these features; and Appendix 4 lists the records in full. No trace was found of the ridge & furrow expected.

In the shorter trench at the top end of the route (Trench 1), three features cut into the subsoil. Two (Contexts 9 and 10) were small disturbances. They were sectioned but their profiles not drawn. Context 10 contained pieces of Post-Medieval white brick. The form and fill of Context 9 was similar but it had no inclusions. Context 11 was an extensive spread of Modern midden. It was not excavated. At the south-east corner of the trench and at the south end were depressions filled with brown loam. These depressions corresponded to the lines of an adjacent hedge and the trackside ditch. They were not excavated or recorded (but see Plan 1). A few unstratified pieces of ceramic pottery, tile and bone were found and kept for reference (Context 1).

The longer trench (Trench 2) comprised three parts: A ran southward from the farm track, B from west to east, and C southward to the Brook. Three features of archaeological interest were found in part A. Context 4 was a ditch of irregular plan filled by three layers (See section 1) and containing one piece of clay pipe stem and an interrupted length of abandoned tile drain. Context 8 was a small ditch filled by three layers (See section 2), one of which included great deal of Post-Medieval pottery, animal bone, shell and charcoal. Context 13 was a spread of similar material found adjacent to Context 8 but without discernible cut edges (hence not excavated). In the southern stretch of the trench (Trench 2C), a few unstratified fragments of animal bone and fired clay were found in the subsoil, and a sherd of Post-Medieval ceramic pottery and an iron nail. These unstratified finds were not kept.
Three other field drains were found in Trench 2, at least two of which corresponded to ones marked on the drainage map of the County Agricultural Executive Committee (Scheme T/1026, OS23, 24 April 1953). Three natural depressions were found as deeper spreads of subsoil. The one in Trench 2B included a field drain which may have been laid along the course of a natural stream: excavation revealed a shallow profile characteristic of a stream. The southern one in Trench 2C probably corresponds to the patch of boggy ground marked on the aforesaid drainage map. Near the north end of Trench 2C, the greater part of an articulated animal skeleton was found in the undisturbed clay beneath the plough soil. The mandible and big upper vertebrae suggested a calf. The skeleton was photographed but not recorded in detail.

Three sondages were cut along Trench 2C in order to check for activity surfaces under the undisturbed clay beneath the plough soil (Plan 1). They showed no likelihood of such surfaces but did serve to demonstrate that this ground has long been water logged or submerged (Appendix 2).

DISCUSSION

The proposed pipe is very unlikely to make an archaeological impact. The only substantial archaeological features along the route were a couple of ditches (Contexts 4 and 8), one or both Post-Medieval. One of them (Context 8) had a surprisingly high amount of midden material in and (Context 13) adjacent to it. Remains of the source of these finds may lie adjacent to the route of the pipe but were not found within the easemen. In the lower part of the route, land use was probably always impeded, as it is today, by the high clay content of the soil and the high water table.

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APPENDIX 1: SUMMARY OF ARCHAEOLOGICAL FEATURES

The features were described on Council Context Sheets. See Appx. 4

Context 9
Trench 1. A shallow intrusion into the subsoil; measured 20cm. by 20cm.; filled with medium brown sandy clay; including substantial fragments of crudely made white brick. No samples taken.

Context 10
Trench 1. An intrusion into the subsoil; measured 25cm. by 25cm. by 5cm. deep; filled with dark brown sandy clay; no inclusions. No samples taken.

Context 11
Trench 1. A spread of medium brown loamy topsoil intruding into the subsoil; including a high proportion of black and grey cindery ash and sherd of modern ceramic pottery, a bottle of well made clear glass, other sherd of glass, and animal bone. Not excavated; no samples taken.

Context 4
Trench 2. A gully of irregular plan, 61cm. deep, filled with three layers (Contexts 2, 3 and 5). Included a fragment of clay pipe stem (Context 2) Marked on Plan 1, recorded in Section 1, and photographed. The find was kept. It is presumably Post-Medieval.

Context 8
Trench 2. A gully about 80cm. wide by up to 45cm. deep, cut into subsoil. Comprising three layers (Contexts 6, 7, 12). The larger part of the fill was grey sandy clay (Context 6), including coarse gravel, a great deal of broken ceramic pottery, pieces of charcoal and shell, and animal bones; this fill cuts the other and abuts natural. Marked on Plan 1, recorded in Section 2, and photographed. The finds were kept, The pottery is probably Post- Medieval.

Context 13
Trench 2. A spread of ceramic sherd, small pieces of iron including a nail. bone and shell, and small pieces of charcoal. Adjacent to Context 8, but in the subsoil without a distinctive fill, so not excavated and no stratigraphic relation to Context 8. Marked on Plan 1. The finds were kept. The pottery is probably Post-Medieval.

APPENDIX 2: SONDAGES

Trench 2C (Plan 1)

Sondage 1
120cm. deep from the bottom of the trench: 30cm. of grey clay with ochre flecks; 25cm. of grey clay with some peaty vegetable inclusions; 5cm. of vegetable matter; 25cm. of grey clay with roots and calcareous flecks; 40cm. of blue grey clay, continuing through bottom of sondage. Sondage filled with water too quickly to allow drawing. Each layer was undisturbed natural. No further record was made nor samples taken.

Sondage 2
75cm. deep from the bottom of the trench: 25cm. of grey clay with ochre flecks; 40cm. of grey clay with orange flecks and some small gravel; 10cm. of gravel, continuing through bottom of sondage. Each layer was undisturbed natural. No further record was made nor samples taken.

Sondage 3
28cm. deep from the bottom of the trench: all grey clay with ochre flecks; giving onto gravel. The clay and the gravel were undisturbed natural. Filled quickly with water. No further record was made nor samples taken.
remark
The substantial layer of grey clay with ochre flecks represents an episode of flooding while the main stream of the Granta may have flowed closer to the west side of the valley. In this layer lay the animal skeleton found in Trench 2C. The gravel may slope down southward between Sondages 2 and 1. Both the clays and gravel and the peaty material in Sondage 1 indicate that the ground here has long been saturated and flooded. The sondages were filled back immediately.

APPENDIX 3: LEVELS

TBM 100.00 m. (foot of brickwork at SW corner of pumping station)

plan
1  99.62
2  98.89
3  99.64
4  99.47
5  98.38
6  98.59
7  99.35

section 1
  99.49

section 2
  99.64

APPENDIX 4: RECORDS AND FINDS

13 context sheets
1 plan drawing
2 section drawings
photographs
4 bags of finds