

LAND ADJACENT TO COVELLS DRAIN, SWAVESEY, CAMBRIDGESHIRE:

An Archaeological Evaluation



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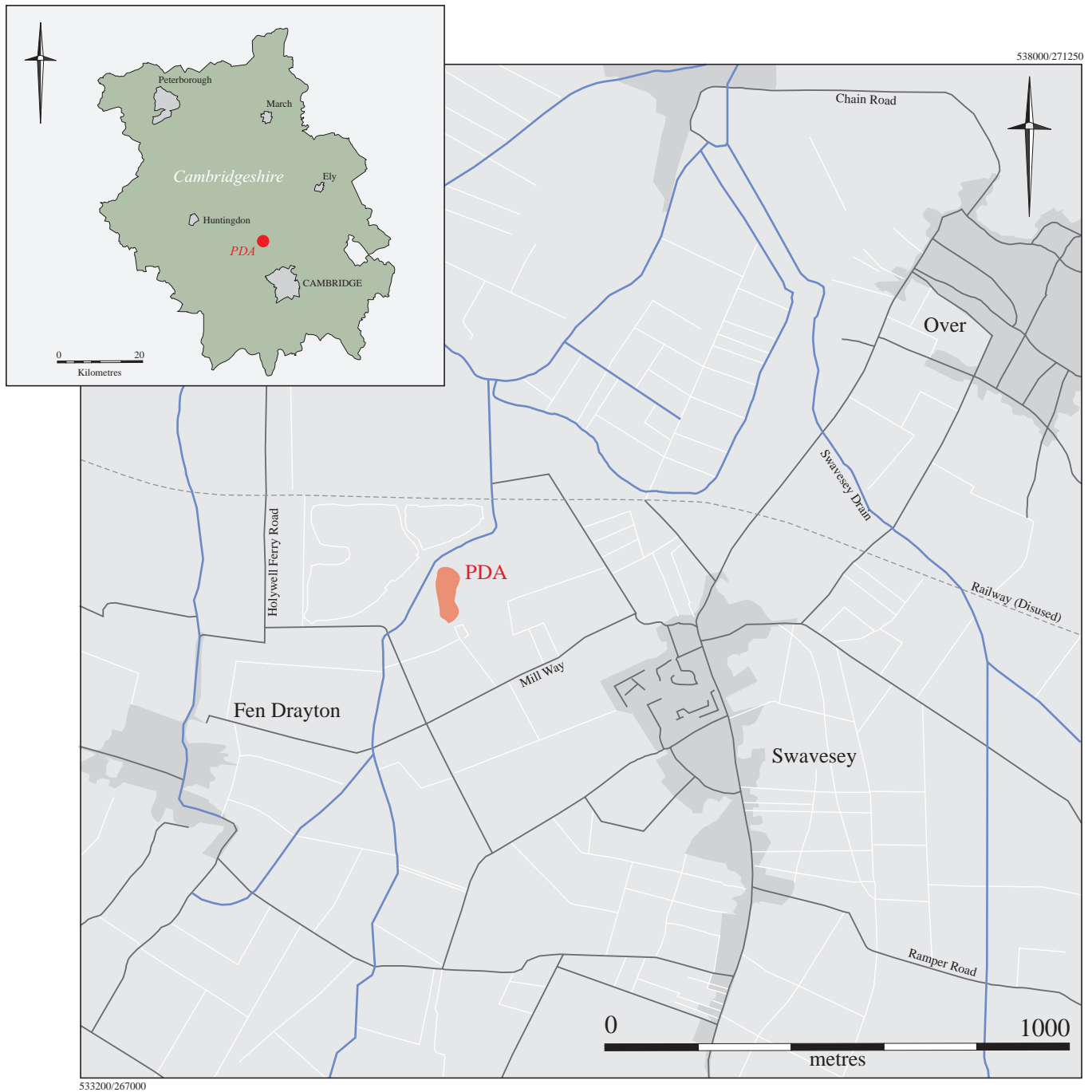


Figure 1: Location map

An archaeological evaluation was undertaken on land adjacent to Covells Drain on Freisland Farm, Swavesey, Cambridgeshire. Archaeological features were recorded in seven of the nine trenches machined. A total of forty eight Romano British features were present and the bulk of these were confined to the north of the proposed development area (PDA). The majority of the features were part of a late Romano-British droveway with associated enclosure ditches indicative of a extensive area of agriculture possibly attached to a substantial structure when considered with the material culture assemblage.

Introduction

As part of a planning application an archaeological evaluation was carried out at Covells Drain, Swavesey (CDS07), Cambridgeshire (TL 3505 6910) between 12.03.2007 and 23.03.07. The project was undertaken on behalf of John Johnson of Freisland Farm. The site code was CDS07

Geology and Topography

The site comprises 1.9ha of land on the north-western side of Swavesey village. The site occupies a height between 4.04m OD and 5.79m OD with an underlying geology of first and second terrace river gravels.

Archaeological Background

Cropmark traces of probable Late Iron Age and/or Roman enclosures extend into the proposed development area (Historic Environment Record Number 09126). This area is outside the study area fieldwalked as part of the Fenland Survey and given its alluviated nature and the old land surface being buried there is likely to be little in the way of surface finds to more closely date it. Cropmarks to the west indicate late prehistoric and Roman activity in the vicinity (HER 09176). As part of this evaluation Air Photo Services has conducted aerial photographic assessment (see Appendix 6) of the PDA and has plotted more detailed cropmarks than indicated on the HER record (see trenching plan). The presence of two mounds c.200m to the east of the PDA may mark the sites of Bronze Age burial mounds but could equally well be plough-eroded natural high spots of river terrace deposit (Palmer 2007).

Methodology

The evaluation comprised six machine excavated 2m wide trenches with a total length of 475m located within the proposed area of development, which amounted to a 5% sample of the overall area (1.9 ha). Trench 5 was then extended and three more trenches were machine excavated to make a total of nine trenches totalling 655m (6.9% sample). Trenches were planned at 1:50 and sections were drawn at 1:10. 1m sections were excavated across linear features and recording was conducted using the CAU modified Museum of London system. All trenches were surveyed into the OS grid using GPS.

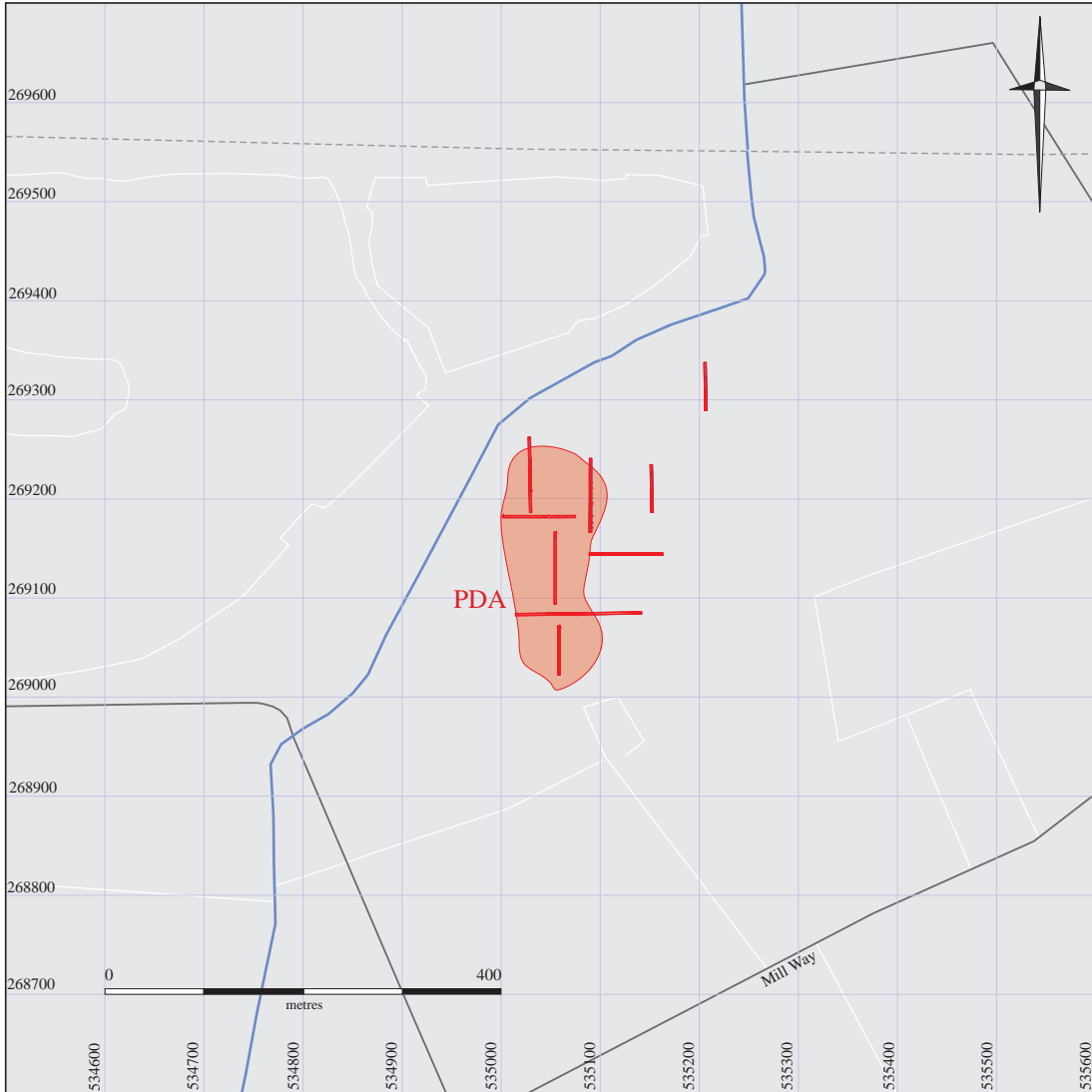


Figure 2: Intermediate location map

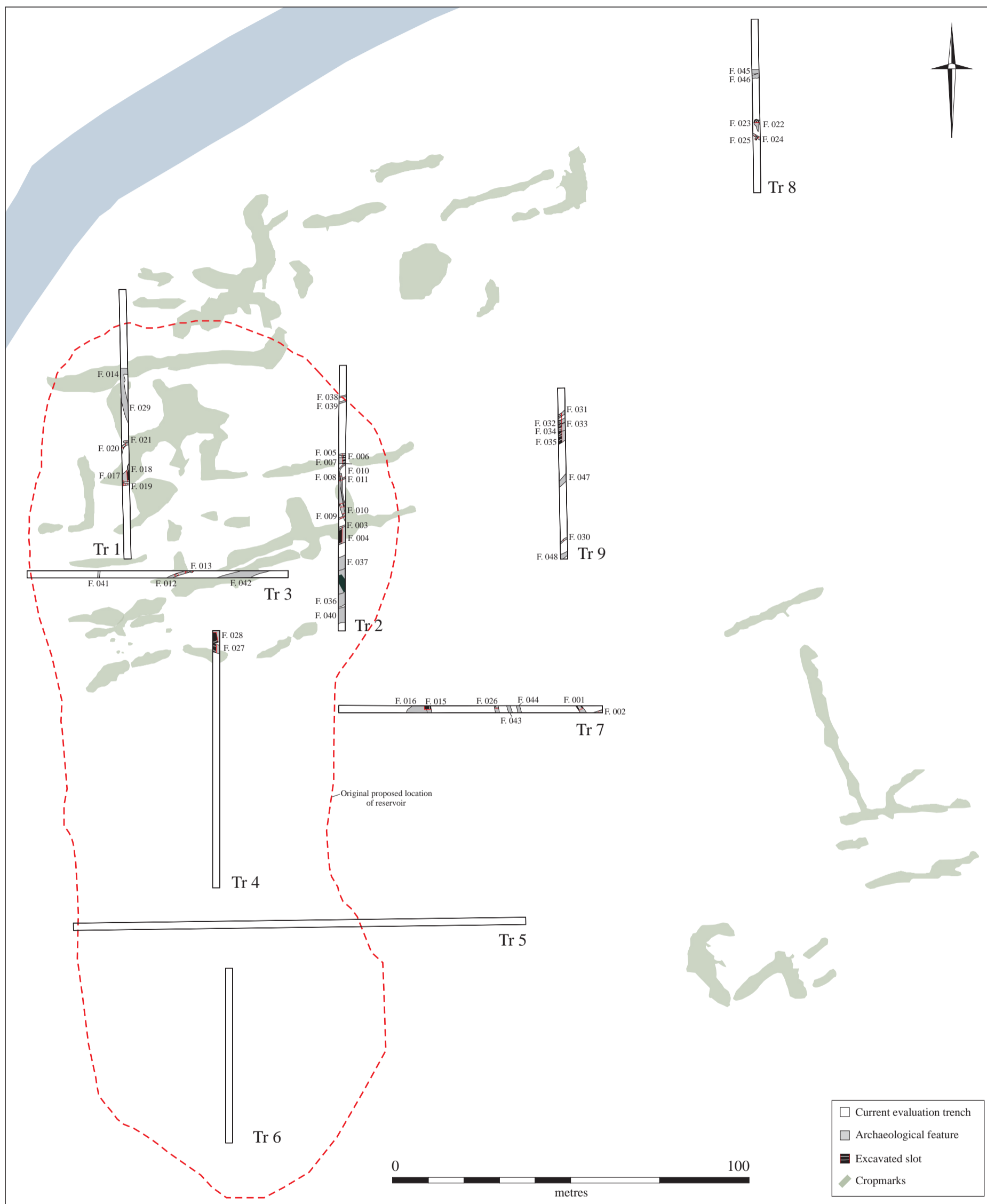


Figure 3. Archaeological results

Excavation Results

Of the nine trenches excavated, seven contained archaeological features (see table 1) and several of the linears continue between trenches. The maximum feature depth was 0.95m, and the majority of the features were ditches containing late Roman Pottery (3rd & 4th Century), (see figure 3). Alluvial subsoil deposits were present in seven of the nine trench profiles which were concentrated towards the lower lying south western part of the PDA, remaining only in patches in some trenches.

Trench	Co-ordinates		Length (m)	Depth (m)	Archaeology
1	535028.6274/269262.2237	535030.0484/269187.0539	75	N 1.50 – S 0.65	Yes
2	535090.1586/269241.0528	535090.1855/269166.5864	75	N 0.80 – S 1.15	Yes
3	535001.6593/269182.2089	535075.0665/269182.2774	75	W 0.98 – E 0.74	Yes
4	535054.8909/269166.4536	535055.0070/269094.1768	75	N 0.90 – S 0.80	Yes
5	535015.1430/269083.4394	535141.9212/269084.9686	130	W 0.90 – E 0.90	No
6	535058.7094/269071.7880	535058.9434/269022.7408	50	N 0.85 – S 1.00	No
7	535163.5606/269144.2521	535089.5766/269144.7419	75	W 1.40 – E 0.95	Yes
8	535206.3503/269388.4277	535207.2213/269289.5933	50	N 1.70 – S 0.55	Yes
9	535151.8639/269234.6354	535153.1917/269186.6453	50	N 0.70 – S 0.65	Yes

Table 1: Trench Summary

Trench Descriptions

Features without context numbers are unexcavated.

Trench 1

Trench 1 had between 0.22m and 0.30m (north-south respectfully) of dark greyish brown silty clay topsoil and between 0.25m and 0.48m of dark reddish brown silty clay subsoil, which overlay a mid orangey clayey gravel natural. At the north end of trench 1, heading towards to channel, there was up to 0.98m of made ground (mostly clay) currently in use as flood defence. There was no evidence of alluvium in trench 1.

Trench 1 contained seven Romano-British features; four ditches and three gullies. Two of the ditches (F.14 and F.29) form a right angle and produced Roman pottery surface finds. Only one of the three gullies (F.19) produced Roman pottery along with animal bone, the other two (F.20 & F.21) run parallel to each other and form part of a ring gully, F.19 may be the return of this ring gully. One Romano-British pottery sherd was found in the topsoil.

F.17 Ditch. Cut [53] NE-SW linear with shallow sides, base unknown because of water table (length approx. 4.5m+; width 1m; excavation depth 0.15m). Fill [52] light grey firm sandy silt, occasional rounded and sub-angular stones, contained one Romano-British pottery sherd and one animal bone. Cut by F.19 on its SE edge.

F.18 Ditch. Cut [55] E-W linear with shallow broad sides, base unknown because of water table (length 2.05m+; width 4.28m; excavation depth 0.17m). Fill [54] light to mid grey firm sandy silt, occasional rounded and sub-angular stones, contained two Romano-British pottery sherds, fourteen animal bones and one burnt flint. Cut by F.17 to the north.

F.19 Ring gully? Cut [57] E-W linear with shallow sides and an irregular concave base (length 2m+; width 0.48m; depth 0.1m). Fill [56] dark grey firm sandy silt, rare small gravels, contained five Romano-British pottery sherds, twenty five animal bones and one limestone, sample no. 2 taken. Related to F.20 (ring gully).

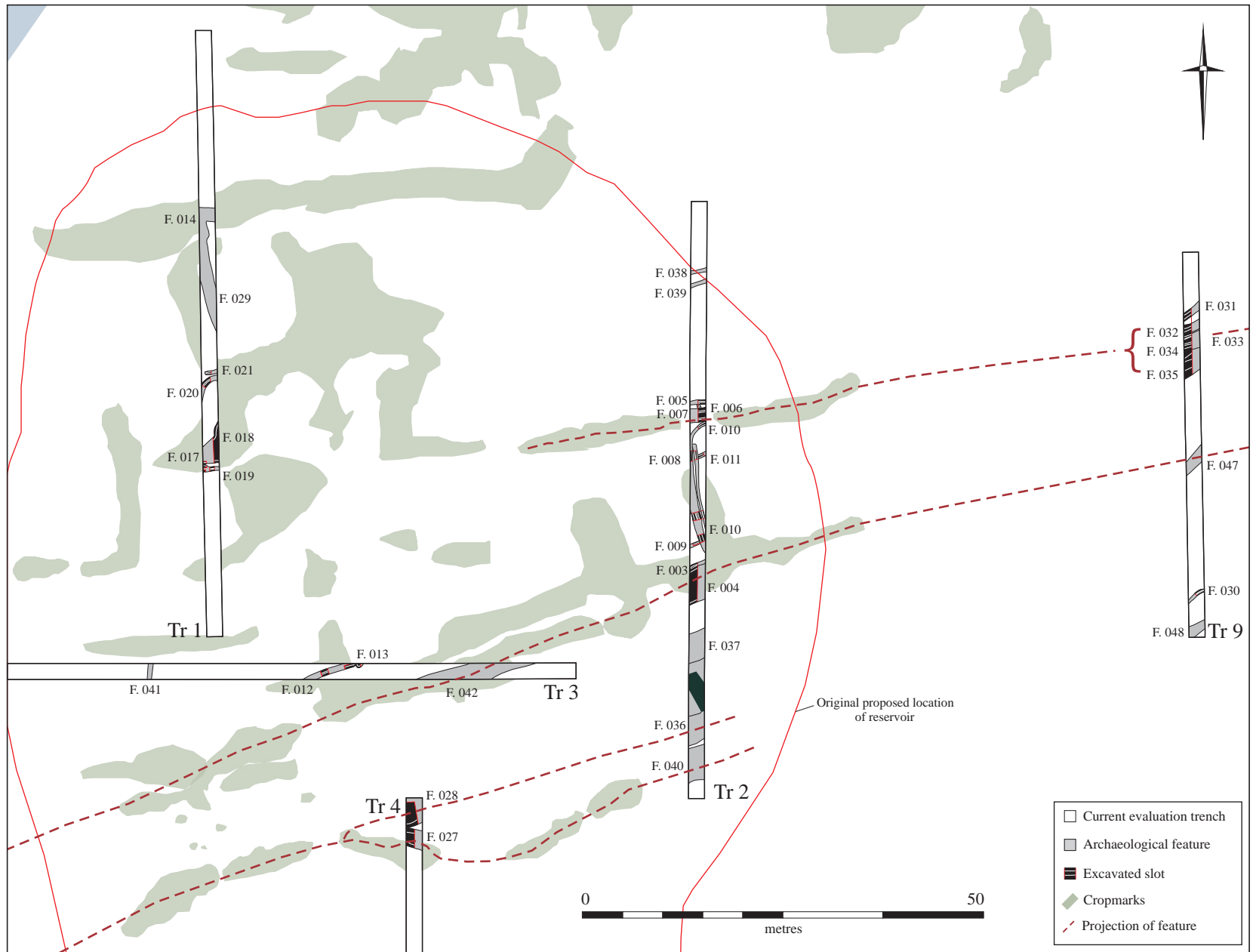


Figure 4. Archaeological feature projections

Roman tile, eight pieces of burnt clay and one flint, sample no.5 taken. Cuts F.06 to the north and F.08 to the south.

F.08 Gully/ditch. Cut [22], [24], [30] and [34] NE-SW turning to NW-SE curvilinear with sharp break of slope, moderately steep sides and base ranging from concave to flat (length 17m+; width 0.40m – 1.1m; depth 0.27m – 0.44m). Fill [21], [23], [29] and [33] mid greyish brown loose silty sand, occasional small (10-60mm) well sorted rounded, sub-angular and angular stones, rare/occasional flecks of charcoal, contained twenty three Romano-British pottery sherds, six animal bones and one worked flint, sample no. 6 taken. Cut by F.07 to the north, cuts F.10 and F.11 to the east, and cuts F.9 to the west.

F.09 Gully. Cut [28] ENE-WSW linear with shallow sides and a concave base (length 1.35m+; width 0.45m; depth 0.13m). Fill [27] light greyish brown loose silty gravel with frequent well sorted small and medium rounded and sub-angular stones. Cut by F.08 to the northeast.

F.10 Gully. Cut [32] and [36] N-S turning to NW-SE curvilinear with shallow sides and base ranging from concave to flat (length 10.0m+; width 0.27m – 0.45m; depth 0.11m – 0.15m). Fill [31], [35] light greyish brown loose silty sand with occasional-frequent small rounded and sub-angular stones. Cut by F.08 at its terminal to the NW.

F.11 Gully. Cut [38] ENE-WSW linear with shallow sides and a rounded base (length 1.35m+; width 0.42m; depth 0.16m). Fill [37] mid greyish brown loose silty sand, occasional small and medium well sorted stones, contained one worked flint. Cut by F.10 to the WSW.

F.36 Ditch. NE-SW linear (length 2.1m+; surface width 2.3m). Two Romano-British pottery sherds and one Roman tile surface finds. Related to F.37 and F.40 and is in line with F.28 (tr4)

F.37 Ditch. NE-SW linear (length 2.1m+; surface width 6.5m). Three Romano-British pottery sherds on surface. Related to F.36 and F.40.

F.38 Gully. ENE-WSW linear (length 2.0m+; surface width 0.5m). Has the same dimensions and appearance as F.39.

F.39 Gully. ENE-WSW linear (length 2.0m+; surface width 0.5m). Has the same dimensions and appearance as F.38

F.40 Ditch. E-W linear (length 2.1m+; surface width 5.5m). Related to F.36 and F.37 and in line with F.28 (tr4).

Trench 3

Trench 3 had between 0.20m and 0.40m of dark greyish brown silty clay topsoil and between 0.23m and 0.28m of dark reddish brown silty clay subsoil, which overlay a mottled dark orangey and grey clayey gravel natural. There was evidence of light-mid pinkish orange slightly sandy silt alluvial along most of trench 3 undulating between 0.18m and 0.43m deep with the exception of the very eastern end.

Trench 3 contained four features; F.41 (gully) aligned N-S appears to be an outlier while the three ditches are aligned NE-SW with the exception of F.13 terminus being at 90° to F.12. F.42 has an equivalent in trench 2 (F.04) which is part of the drove way. Of the excavated ditches, one (F.12) contained Roman pottery. one piece of roman amphora came from the subsoil.

F.12 Ditch. [41] [45] NE-SW curvilinear with moderately shallow but straight sides and a flat base (length 6.02m+; width 0.78m; depth 0.28m-0.31m). Fills [25] [39] dark grey loose fine silt, contained four Romano-British pottery sherds, one animal bone and one worked flint; [26] [40] dark orangey grey loose fine silty sand basal fill with occasional lenses of fine gravel, random small sub-angular stones throughout. Cut by F.13 to the east.

F.13 Ditch. Cut [44] NW-SE linear with moderately steep sides and irregular flat base (length 0.6m+; width 1.05m; depth 0.39m). Fills [42] dark grey firm fine silt, contained two animal bones; [43] mid orange firm gravel slump. Cuts F. 12 to the west.

F.41 Gully. N-S linear (length 2.0m+; surface width 0.5m).

F.42 Ditch. ENE-WSW linear (length 6m+; surface width 3.5m). In line with F.04 (tr2).

Trench 4

Trench 4 had between 0.30m and 0.40m (fairly consistent along the length) of dark greyish brown silty clay topsoil and between 0.20m and 0.45m of dark reddish brown silty clay subsoil (deeper towards the south), which overlay a mottled mid orangey and greyish brown clayey gravel natural. There was evidence of mid pinkish orange slightly sandy silt alluvial 0.15m only at the very north of trench 4.

Trench 4 contained two large ditches F.27 & F.28 at the most northern part of the trench, the equivalent of which can be seen in trench 2 (as F.40 & F.36). Both of these ditches produced Roman pottery and animal bone. One worked flint from topsoil.

F.27 Ditch. Cut [76] ENE-WSW linear with moderately shallow break of slope breaking into steep sides towards base, base unknown because of water table (length 2.05m+; width 2.3m; excavated depth 0.4m). Fills [74] mid brown firm sandy silt with occasional small rounded stones, contained three Romano-British pottery sherds, sample no. 3 taken; [75] mid brown loose sandy silt and gravel mix. Cut by F. 28 to the north.

F.28 Ditch. Cut [79] ENE-WSW linear, comparatively shallow with moderately steep irregular south side and a flat base (length 2.15m+; width 3.6m+; depth 0.69m). Fills [77] dark brown firm silty sand with frequent small sub-angular stones, contained three Romano-British pottery sherds and one animal bone, sample no. 4 taken; [78] dark greyish brown firm fine sandy silt basal fill. Cuts F.27 to the south, related to F.36 and F.37 in trench 2.

Trench 5

Trench 5 had between 0.25m and 0.30m (very consistent along the length) of dark greyish brown silty clay topsoil and between 0.30m and 0.50m of dark reddish brown silty clay subsoil (undulating along its length), which overlay a light orangey brown clayey gravel natural. There was a patch of alluvial between 72m and 79m from the western end of trench 5 which appeared light pinkish orange slightly sandy silt 0.20m deep at its maximum.

Trench 5 contained no archaeology. One worked flint was recovered from the topsoil.

Trench 6

Trench 6 had between 0.20m and 0.40m (north-south respectfully) of dark greyish brown silty clay topsoil and between 0.13m and 0.39m of dark reddish brown silty clay subsoil (undulating along its length), which overlay a light-mid orangey brown clayey gravel natural. Alluvium was located along the entirety of trench 6 between 0.17m and 0.55m in depth (undulating, but generally deeper towards the south) which was a light pinkish orange slightly sandy silt.

Trench 6 contained no archaeology.

Trench 7

Trench 7 had between 0.20m and 0.40m of dark greyish brown silty clay topsoil and between 0.30m and 0.55m of dark reddish brown silty clay subsoil, which overlay a mottled mid orangey and brown clayey gravel natural. There was a light-mid pinkish orange sandy silt alluvium located towards the west end of trench 7 between 0.30m and 0.50m deep.

Trench 7 contained a total of six ditches, four of which (F.9, F.26, F.43 and F.44) are aligned N-S, and equidistant from each other. F.01 and F.02 form a slightly obtuse right angle at the eastern end of the trench aligned NE-SW and NW-SE. Of the features excavated all produced Roman pottery and animal bone and F.01 produced residual flint. A box section was excavated through silty hollow F.16 to the west of F.15 (ditch) also produced Roman finds. All of these Romano-British features are situated outside of the area of previously identified cropmarks.

F.01 Ditch. Cut [04] NW-SE linear, v-shaped with steep relatively straight sides with slightly rounded v-shaped base (length 2.5m+; width 1.48m; depth 0.74m). Fills [01] light-mid yellowish brown moderately soft silty clay with occasional small (2mm-30mm) rounded and sub-angular stones and rare flecks of charcoal, contained ten sherds of Romano-British pottery, twenty eight animal bones, one flint; [02] mid orangey yellow dirty firm clay with very rare very small (2mm-10mm) well sorted stones, contained two Romano-British pottery sherds, two animal bones; [03] mid orangey grey firm silty clay basal fill with very rare very small (2mm-10mm) rounded stones and occasional charcoal flecks, sample no. 1 taken.

F.02 Ditch. Cut [08] NE-SW linear with sharp break of slope, steep sides and a flat base (length 2.25m+; width 0.85m+; depth 0.51m). Fills [05] mid brown firm silt with rare small rounded stones, contained three Romano-British pottery sherds and one flint; [06] dark brownish grey fine silt with occasional small stones, contained one Romano-British pottery sherd; [07] dark brownish grey fine silt mottled with redeposited natural clay with rare charcoal flecks.

F.15 Ditch. Cut [47] N-S linear, v-shaped with steep straight sides, base unknown because of water table (length 2.0m+; width 1.25m; excavated depth 0.52m). Fills [46] mid grey soft silty clay with occasional small stones, contained three Romano-British pottery sherds, thirty seven animal bones, one burnt clay sherd, two Roman tiles (one flue) and one worked flint; [50] mid yellowish grey moderately firm silty sand, contained three animal bones. Cuts deposit F.16 to the west.

F.16 Hollow. (length 1.2m+; width 2.0m+ depth 0.52m+). Fill [48],[51] mid reddish brown moderately firm silty clay with rare small stones, contained four Iron age pottery sherds, nineteen animal bones, three pieces of baked clay, three flints, four burnt stones and a lump of charcoal. Cut by F.15 to the east.

F.26 Ditch. Cut [73] N-S linear with irregular moderately steep eastern side and shallow western side with flat base (length 2.0m+; width 1.16m; depth 0.31m). Fills [71] mid brown moderately soft silt with occasional small stones, contained seven Romano-British pottery sherds, eight animal bones, one worked flint and one burnt flint ; [72] mid orangey brown firm silty clay with frequent small sub-angular stones, contained two Romano-British pottery sherds and two animal bones.

F.43 Ditch. N-S linear (length 2.0m+; surface width 1.2m). Has the same dimensions and appearance as F.26 and F.44.

F.44 Ditch. N-S linear (length 2.0m+; surface width 1.2m). Has the same dimensions and appearance as F.26 and F.4

F.20 Ring gully. Cut [59] NE-SW curvilinear with shallow sides and a concave base (length 2.9m+; width 0.78m; depth 0.13m). Fill [60] mid grey loose sandy silt, no inclusions. Related to F.19 (ring gully).

F.21 Gully. Cut [61] (terminal slot) E-W linear with shallow sides and a concave base (length 1.25m+; width 0.42m; 0.11m). Fill [60] light greyish orange loose sandy silt, frequent well sorted small stones. Related to F.19 & F.20 ring gully.

F.14 Ditch. E-W linear (length 2.0m+; surface width 1.7m). Related to F.29.

F.29 Ditch. NW-SE linear (length 12m+; surface width 1.75m), surface find; one Romano-British pottery sherd. Related to F.14.

Trench 2

Trench 2 had between 0.30m and 0.40m (north-south respectively) of dark greyish brown silty clay topsoil and between 0.30m and 0.45m of dark reddish brown silty clay subsoil, which overlay a mottled dark orangey and grey clayey gravel natural. There was a patch of light pinkish orange slightly sandy silt alluvial towards the southern end of trench 2 up to 0.20m deep.

Trench 2 contained a series of seven intercutting gullies and seven ditches. The majority of features are ENE –WSW or E-W in alignment apart from F.06 (gully) which is very truncated by ditch F.07, and two ditches (F.08 & F.10) which run parallel as part of a ring gully system. Most features produced Roman pottery and animal bone and two contained residual flint. An equivalent of F.04 (large ditch) can also be seen at the eastern end of trench 3 as F.42, and ditches (F.27 & F.28) from trench 4 can be seen in the southern end of this trench as F.40 & F.36. All features are possibly contemporary as part of the same drove way system, with the exception of features F.38 and F.39 which appear similar and are comparable in size and alignment to F.5, F.9 and F.11 (gullies) but are c.14.5m north of the rest of the complex.

F.03 Gully. Cut [10] (terminal slot) ENE-WSW linear with shallow-moderately steep concave sides and a concave base (length 2.25m+; width 0.49m; depth 0.19m). Fill [09] mid greyish brown moderately loose silty sand, occasional small (≤ 45 mm) rounded stones. Cut by F.04 to the south.

F.04 Ditch. Cut [14] ENE-WSW linear with sharp break of slope and moderately steep straight sides, base unknown because of water table (length 2.1m+; width 4.73m; excavation depth 0.58m). Fills [11] mid greyish brown loose sandy silt moderate small (≤ 40 mm) rounded stones, occasional flecks of charcoal. Contained one Romano-British pottery sherd, six animal bones, two flints; [12] dark orangey grey friable silty gravel, frequent small and medium rounded and sub-angular stones; [13] dark orangey grey friable silty gravel, frequent small and medium rounded and sub-angular stones, estimated to be the same fill as [12] but relationship is concealed by water table. Cuts F.03 to the north. Is aligned with F.42 of trench 3.

F.05 Gully. Cut [16] E-W linear with moderately sharp break of slope and moderately steep slightly concave sides with a rounded v-shaped base (length 2.0m+; width 0.51m; depth 0.28m). Fill [15] mid greyish brown loose silty sand with occasional small rounded stones, contained one Romano-British pottery sherd, six animal bones, and one burnt stone. Cuts F.06 to the south.

F.06 Gully. Cut [18] NNW-SSE linear with sharp breaks of slope, steep sides and rounded base (length 0.50m; width 0.40m; depth 0.25m). Fill [17] mid brownish grey loose silty sand with moderate small rounded stones, contained one Roman building stone with mortar. Cut by F.05 to the north and F.07 to the south.

F.07 Ditch. Cut [20] E-W linear with sharp steep break of slope and straight edges, base unknown because of water table (length 2.0m+; width 1.81m; excavation depth 0.7m). Fill [19] dark greyish brown loose silty sand, occasional small and medium (5-50mm) well sorted rounded and sub-angular stones, occasional flecks of charcoal, contained twenty two Romano-British pottery sherds, twenty three animal bones, one burnt

Trench 8

Trench 8 had between 0.20m and 0.35m of dark greyish brown silty clay topsoil and between 0.25m and 0.58m of dark reddish brown silty clay subsoil, which overlay a mottled mid orangey and brown clayey gravel natural. At the north end of trench 8, heading towards to channel, there was up to 1.30m of made ground (mostly clay) currently in use as flood defence. There was no evidence of alluvium in trench 8.

Trench 8 contained two ditches, two gullies and one post hole (F.25) which produced Roman pottery and is associated with gully F.24 to its north. F.23 is a curvilinear gully and has an earlier truncated hollow (F.22) underneath. Ditches F.45 and F.46 are similar in form and appear to be sympathetic to each other. Roman pottery was found in all excavated features and curvilinear (F.23) also contained animal bone, tile, oyster shell and an Iron object. The features are all on different alignments. one piece of Roman pottery from the topsoil.

F.22 Hollow. Cut [63] sub-circular shallow feature with shallow break of slope and irregular base (length 1.3m+; width 1.25m+; depth 0.03m-0.17m+). Fill [62] mid yellowy brown moderately soft sandy silt with rare very small (≤ 3 mm) evenly dispersed stones. Cut by F.23 to the west.

F.23 Ditch. Cut [66] N-S turning to NW-SE curvilinear with moderately steep sides and a concave base (length 3.52m; width 1.35m; depth 0.3m). Fills [64] mid greyish brown relatively soft silty sand with rare small (≤ 3 mm) evenly dispersed stones; [65] dark greyish brown loose silt with moderate small (≤ 7 mm) rounded stones towards the base, contained eleven Romano-British pottery sherds, four Roman tiles, five pieces of baked clay, one worked stone, one building stone, six animal bones, five oyster shells and one large iron rod, sample no. 7 taken. Cuts F.22 to the east.

F.24 Ditch. Cut [68] NW-SE linear with steep, almost vertical sides and a flat base (length 2.3m+; width 0.58m; depth 0.47m). Fill [67] mid grey brown moderately firm sandy silt with moderate small (≤ 7 mm) sub-angular and rounded stones towards the base and rare-occasional charcoal flecks, contained four Romano-British pottery sherds, four animal bones, one Roman tile, two oyster shells and one burnt stone.

F.25 Posthole. Cut [70] sub-circular/oval feature with straight almost vertical sides and a sharp top and basal break of slope and a concave base (length 0.6m; width 0.33m; depth 0.33m). Fill [69] mid greyish brown moderately soft sandy silt with frequent small stones towards the base and occasional charcoal flecks throughout, contained two Romano-British pottery sherds.

F.45 Ditch. E-W linear (length 2.0m+; surface width 1.2m). Has the same dimensions and appearance as F.46.

F.46 Ditch. E-W linear (length 2.0m+; surface width 1.2m). Has the same dimensions and appearance as F.45.

Trench 9

Trench 9 consistently had 0.25m of dark greyish brown silty clay topsoil and between 0.30m and 0.36m (south-north respectfully) of dark reddish brown silty clay subsoil, which overlay a mid orangey brown clayey gravel natural. There was a light-mid pinkish orange sandy silt alluvium deposit located between 12m and 35m from the northern end of the trench, varying in depth from 0.25m to 0.3m.

Trench 9 contained seven ditches and one gully all of which are on the same alignment NNE-SSW. All features bar one (F.33) contained Roman pottery and the majority contained animal bone with the gully (F.30) at the southern end of the trench containing an Fe object. Features



Figure 5. Photo of Evaluation Trench 9

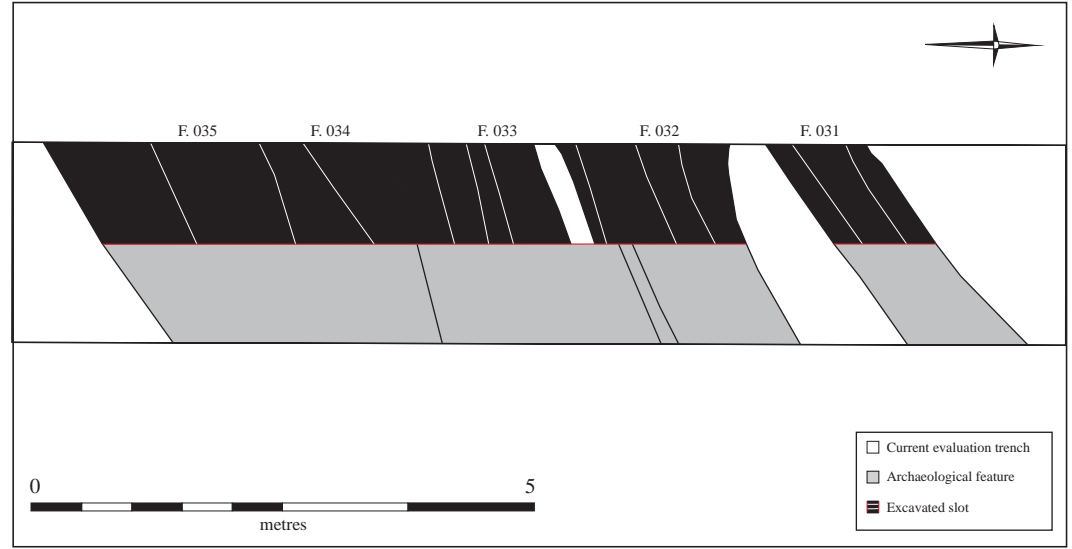


Figure 6. Plan of F. 31, F. 032, F. 33, F. 34, F. 35 (Trench 9)

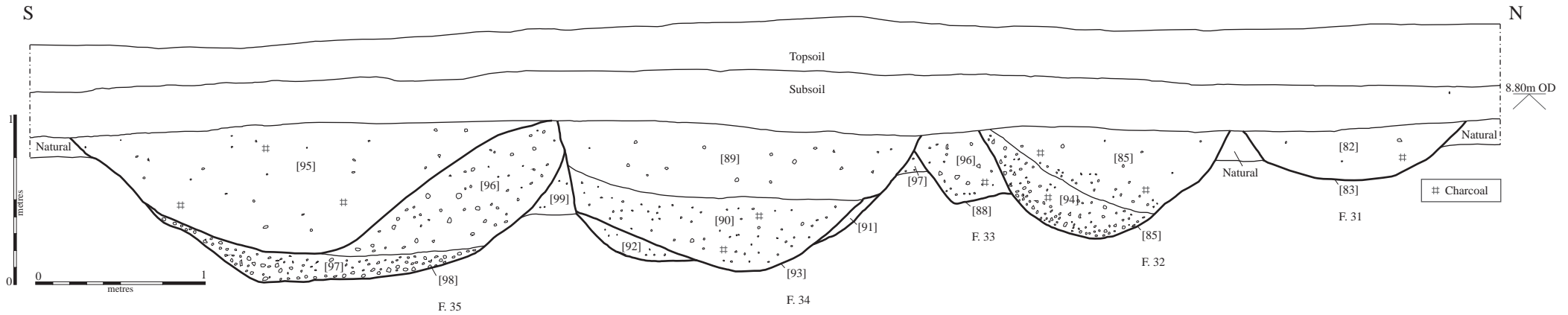


Figure 7. Section of F. 31, F. 32, F. 33, F. 34, F. 35 (Trench 9)

F.31, F.32, F.33, F.34, F.35 are part of a series of intercutting ditches which line up with F.07 (tr2), while F.47 lines up with F.42 (tr3), F.04 (tr2), and F.48 lines up with F.40 (tr2), F.27, F.28 (tr4), potentially all these features are part of the same drove way system. (See figures 4 & 5).

F.30 Gully. Cut [81] E-W turning to NE-SW curvilinear with shallow top break of slope, sharp base of slope and irregular sides with a concave base (length 2.5m+; width 0.43m; depth 0.19m). Fill [80] mid brownish grey soft silty sand with occasional small stones and rare flecks of charcoal, contains thirteen Romano-British pottery sherds, eleven animal bones, fifteen pieces of daub and three iron fragments one of which is bent.

F.31 Ditch. Cut [83] NE-SW linear with shallow top and basal breaks of slope, shallow sides and a concave base (length 2.5m+; width 0.75m; depth 0.35m). Fill [82] mid orangey brown soft sandy silt with rare small sub-angular stones and occasional flecks of charcoal, contained thirteen Romano-British pottery sherds and three animal bones.

F.32 Ditch. Cut [85] ENE-WSW linear with sharp top and basal breaks of slope, slightly concave but steep sides and a concave base (length 2.1m+; width 1.48m; depth 0.67m). Fills [84] mid orangey brown soft loose sandy silt with occasional small rounded stones and occasional flecks of charcoal, contained two Romano-British pottery sherds; [94] mid greyish brown loose-firm silty sand and gravel amalgamation with $\geq 30\%$ small-medium stones and occasional charcoal flecks. Cuts F.33 to the south.

F.33 Ditch/gully. Cut [88] ENE-WSW linear with no top break of slope and a sharp basal break of slope on its southern side with an irregular but relatively flat base (length 2.1m+; width 0.68m; depth 0.43m). Fills [86] mid greyish brown loose-firm silty sand and gravel amalgamation with $\geq 30\%$ small sub-angular stones and rare charcoal flecks; [87] mid orangey brown loose fine sandy silt with rare small rounded stones and rare charcoal flecks. Cut by F.32 to the north and F. 34 to the south.

F.34 Ditch. Cut [93] ENE-WSW linear with sharp top and basal breaks of slope, steep almost vertical on the southern side with a stepped but concave base (length 2.1m+; width 2.15m depth 0.89m). Fills [89] mottled dark grey and green grey loose soft sandy silt with rare small sub-angular stones and occasional charcoal flecks, contained two Romano-British pottery sherds, seven animal bones, and two Roman tiles; [90] mottled dark grey and green grey moderately soft sandy silt with frequent small rounded stones and occasional charcoal flecks; [91] light grey and mid orange mix of re-deposited dirty clay; [92] mid grey and mid orange mix of re-deposited slightly silty dirty clay. Cuts F.33 to the north and F. 35 to the south.

F.35 Ditch. Cut [98] ENE-WSW linear with sharp top and basal breaks of slope, steep almost vertical on the northern side with a slightly concave almost flat base (length 2.1m+; width 2.91m; depth 0.95m). Fills [95] mid orangey grey loose sandy silt with occasional small rounded stones and occasional charcoal flecks, contained one Romano-British pottery sherd and seven animal bones; [96] mid orangey brown moderately firm silty gravelly sand with $\geq 40\%$ small rounded and sub-angular stones and rare charcoal flecks; [97] dark orangey red moderately firm slightly silty gravel slump; [99] dark orangey brown moderately firm silty sand with rare small rounded stones and rare charcoal flecks, contained one worked stone. Cut by F. 34 to the north.

F.47 Ditch. NE-SW linear (length 2.5m+; surface width 2.15m). Is in line with F.04 (tr2) and F.42 (tr3).

F.48 Ditch. NE-SW linear (length 2.3m+; surface width 1.3m). Is in line with F.40 (tr2).

Discussion

The site lies within an area of dense activity and high archaeological potential; a possible Roman barrow was identified at Mill Way in Swavesey (TL 355691) which yielded fragments of quern and some pottery (Wilkes, *et al* 1978), and Mortimer's excavations (1995) to the west of the current site revealed evidence for a substantial mid 4th century Roman settlement, with ditches that appear to demarcate small garden plots and enclosures.

The archaeology was concentrated in the area of identified cropworks as expected, but did extend eastwards towards the second set of cropworks (see figures 1&3). These features may not have been visible as cropmarks due to a thicker cover of subsoil and topsoil.

Iron Age

There was minimal evidence for the Iron Age activity within the excavation area with only one feature (F.16 trench 7) containing pottery from this date and it is truncated by a later Roman ditch. This could simply be a natural hollow that has filled with alluvial or a sizable pit but not enough of the feature was visible in the trench to be able to correctly characterise it.

Romano-British

The archaeology identified in the excavation was Romano-British except for one feature. The alignment of features; F.27, F.28 (trench 4), F.40, F.36, F.37, F.3, F.4, F.5, F.7 (trench 2), F.42 (trench 3), and F.31, F.32, F.33, F.34, F.35, F.47 (trench 9) are suggestive of a drove way. This drove way has associated perpendicular features; F.8, F.9 F.10 (trench 2) and F.13 (trench 3), which appear to be part of an enclosure system either attached to or contemporary with this drove system. At the terrace of Bare Fen, Over, to the east of the current PDA, Hall (1996) found droves and enclosures, lying on a north-east/south-west alignment and perpendicular to it, which matches up with the alignment of the drove way we see here at the present PDA. The main ditches from the drove way are shallow and wide with gradual top and basal breaks of slope similar to the dimensions of ditches found at Fen Drayton (Wills, 2003). The pottery from within was Roman in date.

A potential round house was identified in trench 1 (F.19, F.20 & F.21) which contained Roman pottery, and is situated north of the drove way in the middle of an area of dense cropmarks. F.17 & F.18 are probable internal features of this roundhouse but yielded no dating evidence. Enclosure ditches F.14 & F.29 from the same trench lie slightly further north-east placing the round house outside of the enclosure. These features appear to be contemporary as the pottery found is all 3rd-4th century. There is evidence for another enclosure in trench 7 (F.01 & F.02) and part of an outlying field system.

Pottery found within the excavation area is all, apart from a couple of sherds, 3rd-4th century Roman in date, with no variation in age which is suggestive of a single event. To the north east of Fen Drayton towards the PDA, Roman ditches and field systems were found to be contemporary not accumulative (Mortimer 1995), this fits with what was found at CDS07 as the majority of the ditches included within the drove way appeared to be cutting one another but yet had no distinctive difference in fill from one feature to another.

The presence and nature of the Roman roof and flue tiles (F.7, F.15, F.23, F.24, F.34, F.36) is suggestive of a nearby building or structure as the box flue tiles displayed geometric patterning which may have facilitated the keying of mortar (Wilkes *et al* 1978). This is indicative of a building of quality such as a villa or bathhouse as opposed to a kiln or corn dryer which is less likely to have been rendered, however there were only a small number of tiles found and they were well dispersed. To the west of excavations at Fen Drayton, evidence of the remains of a villa were found (Mortimer 1995), also the presence of box flue tiles were noted at Cold Harbour Farm, Over with plaster still attached, (Hall, 1996). The PDA is situated between these two sites

Conclusion

The archaeology recorded within the evaluation area was Late Romano-British in date (3rd & 4th century AD). The pottery assemblage, animal bone assemblage and particular variety of features are all in keeping with what would be expected of this period. The nature of the archaeology with the presence of roof tile and heating tile together with sooting on the pottery indicating cooking would suggest habitation although no occupation horizon or floor deposits were revealed within the trenches. The absence of post holes together with the large number of field system ditches and drove ways are indicative of a substantial area of agriculture perhaps attached to a farmstead or even larger structure, perhaps a villa outside the area of investigation.

Acknowledgements

The on-site assistance of John Johnson was much appreciated. The project was successfully completed with the assistance of Dan Britton, Ross Stranger, Donald Horne Martin Toresson and Elizabeth Carlton. Many thanks to Gwladys Monteil for processing the finds, Iain Forbes and Bryan Crossan for compiling the graphics. Andy Thomas, Senior Archaeologist at CAPCA monitored the project and the project manager was David Gibson. Richard Bream of M. Dickerson Ltd. arranged the plant hire.

Appendix 1 – Roman Pottery (Katie Anderson)

The site yielded a total of 150 sherds of Roman pottery, weighing 3499g and representing 4.97 EVEs. All of the material was examined and details of fabric, form, decoration, usewear, EVE and date were recorded, along with any other information deemed important.

The pottery will initially be discussed by trench, followed by a further discussion of the nature and character of the assemblage.

Trench 1

Ten sherds, weighing 412g were collected from four different features as well as the topsoil. Feature 17 contained one sandy greyware jar, with a slightly uneven rim, suggesting a possible waster and dating mid 2nd-4th century AD. Feature 18 contained two sherds (19g), comprising one oxidised sandy ware and one shell-tempered ware which date 2nd-4th century AD. Two sherds (48g) were recovered from Feature 19, consisting of a Hadham red-slipped, imitation Dragendorff 38 bowl dating 3rd-4th century AD and a non-diagnostic sandy ware. One Nene Valley colour-coated body sherd was collected from Feature 29, dating mid 2nd-4th century AD. Finally, one sherd from a Nar Valley mortaria was recovered from the topsoil of this trench, dating 2nd-4th century AD.

Trench 2

A total of 51 sherds of pottery (1233g) were collected from Trench 2. Feature 7 contained 22 sherds weighing 563g. This included one Nene Valley colour-coated convex dish and three sherds from a Hadham red-slipped vessel, all dating 3rd-4th century AD. There was also one shell-tempered storage jar (2nd-4th century AD). Feature 8, a gully, also contained 22 sherds (406g) from four slots (representing one fill). Four Nene Valley colour-coated sherds were recorded, including one dish and the base from a vessel which was heavily abraded. There were also two sherds from a Hadham black-burnished dish (3rd-4th century AD) from context [021], while a further four sherds, probably from the same vessel, were collected in contexts [033] and [023]. The sherds from this vessel all had evidence of sooting on the base.

Two Nene Valley colour-coated sherds were collected from the surface of Feature 36 and three sherds from a wide-mouth, shell-tempered jar were recovered from the surface of Feature 37, dating 2nd-4th century AD.

Trench 3

Trench four contained four sherds, weighing 22g from Feature 12. This comprised three oxidised sandy wares and one shell-tempered ware, all of which were non-diagnostic, and date 2nd-4th century AD.

Trench 4

Six sherds were collected from two features within Trench 4. Feature 27 contained three Hadham red-slipped sherds from another imitation Dr38 bowl, dating 3rd-4th century AD. Feature 28 contained three sherds, including one shell-tempered dish, dating 2nd-4th century AD.

Trench 7

A total of 29 sherds weighing 532g were recovered from five different features within Trench 7. Feature 1 contained 12 sherds (171g), which included three Nene Valley colour-coats from a wide mouth bowl/jar, dating 3rd-4th century AD. There was also one shell-tempered jar with sooting on the exterior. Four sherds were recovered from Feature 2, weighing 48g. This included one Hadham greyware sherd dating 2nd-4th century AD. Feature 15 contained three sherds of pottery weighing 71g, including one Hadham greyware beaded, flanged bowl, dating 3rd-4th century AD. Four sherds were collected from Feature 16 from two fills. However, the three sherds from context [048] were Iron Age in date, while [051] contained one shell-tempered sherd dating 2nd-4th century AD. Nine sherds were collected from Feature 26, weighing 235g from two contexts. [071] contained seven sherds, comprising four shell-tempered sherds, one of which was from a large storage jar, dating 2nd-4th century AD. There were also two Nene Valley colour-coated sherds from a jar, dating 3rd-4th century AD. Context [072] contained two sherds one of which was from a Nene Valley whiteware mortaria, dating 2nd-4th century AD.

Trench 8

19 sherds of Roman pottery, weighing 634g were collected from Trench 8. Feature 23 contained 11 sherds (375g), including two Horningsea greywares, two Hadham greywares and one Nene Valley colour-coat, all of which date 2nd-4th century AD. Four sherds were recovered from Feature 24, including one Horningsea greyware jar and a Nene Valley colour-coated sherd, both dating 2nd-4th century AD. Feature 25 contained one Nene Valley colour coat, and one sandy greyware sherds, while a further Nene Valley sherd was recovered from the surface. The subsoil produced a single sherd from a Late Baetican amphora.

Trench 9

The pottery from Trench 9, comprised 31 sherds, weighing 497g, from five features. Feature 30 contained 13 sherds (92g), six of which were Nene Valley colour-coats, including one dish sherd, with sooting on the base, dating mid 2nd-4th century AD. Feature 31 also contained 13 sherds (348g), which included two Late Iron Age sherds, and 11 sherds from a coarse sandy, Romanizing jar (mid 1st century AD), thus making this one of the earliest features on the site. Feature 32 contained two sandy, non-diagnostic sherds which could only be dated Romano-British, while Feature 34 contained one Nene Valley colour-coat, dating mid 2nd-4th century AD, along with a black-slipped sherd. Finally Feature 35 contained one sherd from a Nene Valley whiteware mortaria, dating 2nd-4th century AD.

Assemblage Composition

The condition of the pottery was varied, although overall the sherds were small to medium in size, with a mean weight of 23.3g. The level of abrasion was also variable with some sherds showing high levels of abrasion, while others were relatively fresh.

A relatively wide variety of fabrics were present (see Table 2), although it was dominated by locally made coarsewares, which represented c. 75% of the assemblage. Coarse sandy greywares were the most commonly occurring, which is a common pattern. Other wares which were well represented included oxidised sandy wares and shell-tempered wares, the latter also commonly occurring in later Roman assemblages in this area. There were a small number of established

coarsewares, comprising Hadham wares, Horningsea wares and a single example of a Nar Valley vessel

Fabric	No.	Wt(g)
Black-slipped	5	29
Buff sandy	1	14
Coarse sandy greyware	47	511
Hadham black burnished	6	154
Hadham reduced ware	5	192
Hadham red-slipped	7	185
Horningsea greyware	3	214
Baetican amphora	1	188
Nar Valley oxidised ware	1	47
Nene Valley colour-coat	27	558
Nene Valley whiteware	2	32
Oxidised sandy	22	399
Shell-tempered	21	911
White-slipped	2	65
TOTAL	150	3499

Table 2: All pottery by fabric

Finewares represented 25% of the assemblage, although only two sources were identified. Nene Valley colour-coated wares were the most common, with a total of 27 sherds. Seven Hadham red-slipped wares were recorded. These wares are however, counted as 'local'. The only definite non-local ware was the sherd of Baetican amphora from Spain. There were no other imported wares in the assemblage, in particular the lack of any sherds of Samian ware stands out. However, the date when this site appears to have peaked (3rd-4th century AD) is the most likely explanation for this, since the peak period of import was the mid 1st-3rd century AD (Webster 1996), thus its absence is not entirely unexpected. It should also be remembered that this was an evaluation and further work may indeed reveal other wares.

Due to the condition of the assemblage only a relatively small number of vessel forms were identified (see Table 3). However, those sherds where a vessel form could be identified showed a fairly typical domestic assemblage. Jars dominated, representing 64% of all diagnostic sherds (21% of the assemblage as a whole), and included medium sized jars, probably used for cooking, as well as examples of large storage jars. Bowls and dishes were relatively well represented, if only the diagnostic sherds are considered, representing 12% and 16% respectively. The only other vessel forms identified consisted on three mortaria and one amphora.

Form	No.	Wt(g)
Amphora	1	188
Bowl	6	279
Dish	8	302
Jar	32	1448
Mortaria	3	79
Unknown	100	1203
TOTAL	150	3499

Table 3: All pottery by form

A number of sherds were noted as having sooting on the exterior, which supports the view that this is a domestic assemblage, as it suggests certain vessels were used as cooking vessels.

Although a number of sherds were noted as being very abraded, there does not appear to be any consistency within contexts, to suggest that this was post-depositional. This therefore implies that those sherds showing higher levels of abrasion, may have been left on the surface for a period of time before being deposited within the features.

Discussion

Although only a relatively small quantity of pottery was recovered from the evaluation, the material contributes greatly to the understanding of the site. The vast majority of the material is late Roman in date, and although many of the sherds could only be dated 2nd-4th century AD, those which could be more specifically dated, were all 3rd-4th century AD in date. This included Nene Valley colour-coated jars, and Hadham beaded, flanged bowls. It therefore seems plausible that the majority of the assemblage is also of this date, especially with the absence of any typically 2nd century AD vessel forms.

The only exception to this are the sherds recovered from Feature 31, Trench 9, which comprised two Late Iron Age sherds alongside 11 sherds from a Romanizing jar. This feature therefore stands out as being the only evidence of early Roman activity, with the condition of the sherds supporting a view that they were not residual. One of the most interesting elements of this is that it creates a 'gap' in the pottery record between the immediate post-conquest period and the late Roman period. Whether this is a real occurrence could only be proved by further work on the site, since the lack of mid 1st-2nd century AD material, may simply be a reflection of the area the evaluation focused on.

The pottery forms and fabrics suggest that this was a rural, domestic site, although the presence of an amphora sherd may suggest that the site had access to wider trade networks. The presence of a small number of finewares also suggests that this was not a completely impoverished site. In terms of pottery procurement, the site fits into a broader pattern of later Roman sites, see at Longstanton (Evans *et al* 2006) and Somersham (Wills 2004) etc, with established local wares, in particular sandy greywares, Nene Valley wares and shell-tempered wares, forming a significant part of the assemblage.

Appendix 2 – Roman Tile

A total of 13 pieces of tile, weighing 1102g were recovered from the evaluation. All of the material was examined and details of fabric and form were noted. The tile came from six different features, as well as the surface of Trench 7.

Trench 2, Feature 7 contained a single fragment of tile, weighing 51g. The form of this piece was unidentifiable. One non-diagnostic tile was collected from Feature 36, weighing 31g. Two fragments (143g) were collected from Feature 15, Trench 7, comprising one floor tile and one flue tile with exterior combing. A further two non-diagnostic pieces were collected from the surface of this trench, weighing 10g. Feature 23, Trench 8 contained four pieces of tile, weighing 693g. These consisted of three different tegula and one large flue tile with sooting on the interior. Feature 24, also Trench 8 contained one unidentifiable piece of tile, weighing 4g. Two fragments (170g), were recovered from Feature 34, including one combed flue tile.

Three main fabric groups were identified within this assemblage, comprising fine, moderately coarse and coarse sandy fabrics. Within each of these categories there were variations, with differing types and quantities of inclusions, however, the overall fabric matrix appeared to be fairly consistent.

The tile is fairly difficult to date, since most pieces were small and fragmented. However the combing on several of the flue tiles suggests a later Roman date (3rd-4th century AD, which is supported by the evidence from pottery that was found alongside most of the tile fragments, which is of the same date.

Overall although the tile assemblage is small, it provides evidence that a tile built structure is likely to have been in the vicinity. Further work on the site may help explain the exact nature of this building(s).

Appendix 3 – Lithics (Emma Beadsmoore)

A total of 18 (239g) flints were recovered from the site; 13 (99g) of which are worked, two (5g) are worked and burnt, whilst the remaining 3 (135g) are just burnt. The flints are listed by feature and type in Table 4

Feature	Type									Totals
	chip/chunk	secondary flake	tertiary flake	discoidal core	piercer	end scraper	miscellaneous retouched flake	serrated blade	unworked burnt chips/chunk	
1				1						1
2		1								1
4	1	1								2
7			1							1
8		1								1
11		1								1
12						1				1
14		1	1							2
15						1				1
16								1		1
18									1	1
26							1		1	2
stray trench 4					1					1
stray trench 5			1							1
stray trench 7									1	1
Sub totals	1	5	3	1	1	2	1	1	3	18

Table 4 Flint types and quantities

All of the material recovered from the site was residual in later contexts; Romano-British features yielded the majority of the flints, a single flint was recovered from a hollow that also contained Iron Age pottery, whilst the remaining three flints were collected as stray finds. None of the material recovered from the site is clearly chronologically diagnostic; however, a few of the flakes and tools are the potential products of comparatively systematic flake production/core reduction that was prevalent during the Neolithic. The single flint recovered from hollow F.16 is a fragment of a Neolithic serrated blade, whilst F. 2 and F. 13 also yielded potentially Neolithic material. Possible evidence for a potentially slightly later phase of activity was provided by a discoidal core, an end scraper and a couple of flakes that are more compatible with Late Neolithic/Early Bronze Age technologies.

Although the flint recovered from the site was not contemporary with the features, it provides evidence, albeit limited, for earlier background activity in the area.

Appendix 4 – Faunal Remains (Chris Swaysland)

The total number of fragments recovered was 222, with a weight of 5208 grams.

The assemblages were recovered from a series of evaluation trenches. The condition of the assemblage was variable though in general good.

Methodology

The animal bones were identified using the reference collection of the Cambridge Archaeological Unit. The assemblage was quantified using a modified version of the methodology of Davis (1992). In brief, all mandibular and maxillary teeth and a predetermined restricted suite of elements, predominantly the distal articulations, are counted. Results are presented by NISP (Number of Identified Specimens). It can be difficult to distinguish between the bones of sheep and goat; certain elements however can be identified (Boessneck 1969, Halstead et al 2002). All caprine bones that could be confidently identified were sheep, therefore it will be assumed that all caprine bones are from sheep. Information on gnawing, butchery and pathology was recorded where present. Butchery was recorded by type (i.e. chop, knife cut, sawn), location and orientation (using standard anatomical terms and orientation). Pathological conditions were categorised where possible and detailed descriptions made as to form and location. The age at death of the major domestic animals was analysed using Halstead (1985) for cattle, Payne (1973) for sheep and Hambleton (1999) for pigs.

Measurements were taken following von den Driesch (1976) and withers heights were calculated using the recommendations of von den Driesch and Boessneck (1974).

The assemblage was recovered from features dating to the late Romano-British period (3rd & 4th century AD).

Results

Species	NISP
Cattle	10
Sheep	6
Pig	1
Horse	4
Dog	1
Chicken	2

Table 5 Animal Species and Quantities

The assemblage is dominated by cattle and sheep, a mixture of meat and non-meat bearing bones are present. Two ageable cattle mandibles were recovered both were adult (wear stage G). One ageable sheep mandible was recovered; this was aged 6-8 years at death (wear stage H). Pig is represented by one bone. Four horse elements were recovered, three of which were teeth. One dog jaw and two chicken bones were found.

Conclusion

The assemblage is very small and results should be treated with caution. The assemblage is however broadly in keeping with that which may be expected of the period and location.

Appendix 5 – Bulk Environmental Samples (Anne deVereilles)

Methodology

Five of the seven bulk soil samples taken on site were processed using an Ankara-type flotation machine at the Cambridge Archaeological Unit. The flots were collected in a 300µm mesh and the remaining heavy residues washed over a 1mm mesh. The flots were dried indoors and scanned for the presence of charred plant macro remains and other ecofacts.

Sorting and identification of macro remains were carried out under a low power binocular microscope. Identifications were made using the reference collection of the George Pitt-Rivers Laboratory, McDonald Institute, University of Cambridge. Floral nomenclature follows Stace (1997). All environmental remains are listed in table 6.

Preservation

All plant remains preserved through carbonisation, their condition is average. The poor density of plant macro remains in four of the five flots may simply be a reflection of the low volumes sampled. Intrusive rootlets present in all samples, modern seeds and the burrowing snail *Ceciloides acicula* are indicative of bioturbation through which ecofacts may have been lost and/or displaced.

Results and Discussion

Excluding F.7, the samples contained a little charcoal (probably not *in situ*) and:

- F.1 – six small (<1mm) wild grass seeds and one indeterminate seed
- F.19 – one emmer or spelt wheat glume base (*Triticum dicoccum/spelta*), and one spike-rush seed (*Eleocharis* sp.)
- F.28 – one indeterminate wild plant seed
- F.23 – two hulled barley grains (*Hordeum vulgare sensu lato*); one emmer or spelt glume base; four grass seed fragments (wild or cultivated), and one clover seed (*Trifolium* sp.)

The pit F.23 also contained many small frog bones and fish bones and scales. Though the heavy residue was not sorted it was noted to contain many fish and possibly other types of bone. It would appear that food waste, including that of fish and cereals, was discarded into this pit. The pit was probably seasonally wet to be attractive to frogs; the bones show no signs of having been eaten and are too small to have been picked out were those frogs eaten.

An 18 litre sample was taken from ditch F.7. Although total numbers are low, this sample contained the most plant remains. Hulled barley, spelt (*T. spelta*) and possible finds of emmer wheat were recovered. One possible oat grain (cf. *Avena* sp.) and a few arable weeds (mainly grasses) were identified. A single spike-rush seed was also found; spike-rushes grow in wet/damp open environments.

Conclusion

Barley, spelt and possibly emmer were processed and eaten. Waste from food preparation was recovered from F.23, which appears to have been a damp (at least seasonally), shallow pit attractive to frogs. For a more detailed description of the pit's environment the faunal assemblage should be analysed by a zooarchaeologist. Four of the samples measured no more than eight litres, representing only a small fraction of the features. Consequently, the almost complete absence of plant remains is not necessarily meaningful. No conclusive remarks can be made about the local Romano-British agricultural economy and environment. The heavy residues should be sorted to retrieve any remaining ecofacts

Table 6: Plant and Animal Remains from the Bulk Environmental Samples

Sample number		<1>	<2>	<4>	<5>	<7>
Context		[3]	[56]	[77]	[19]	[65]
Feature		1	19	28	7	23
Feature type		Ditch	Ditch	Ditch	Ditch	Pit
Phase/Date		Romano - British				
Sample volume – litres		6	5	8	18	5.5
Flot fraction examined		1/1	1/1	1/1	1/1	1/1
Cereal grains						
<i>Hordeum vulgare sensu lato</i>	Hulled barley grain				2	2
<i>Triticum dicoccum/spelta</i>	Emmer or Spelt wheat grain				2	
<i>Triticum</i> sp.	Unspecified Wheat grain				2	
<i>Triticum / Hordeum</i>	Wheat or Barley grain				7	
Indeterminate cereal fragments					5	
Cereal chaff						
<i>Triticum</i> sp. glume base	Wheat glume base				1	
<i>T. spelta</i> glume base	Spelt wheat glume base				3	
<i>T.dicoccum/spelta</i> g. base	Emmer or Spelt glume base		1			1
Wild Plant Seeds						
<i>Chenopodium</i> sp.	Goosefoot				2	
<i>Trifolium</i> sp.	Clover				1	1
<i>Eleocharis</i> sp.	Spike-rush		1		1	
cf. <i>Avena</i> sp.	Possible Oat grain				1	
Large Poaceae	Large wild grass seed				2	
Small Poaceae	Small wild grass seed	6				
Poaceae fragments	Wild or cultivated grass				2	4
Indeterminate wild seed		1		1		
Charcoal						
>4 mm		-	-		+	
2 – 4 mm		-		-	+	+
<2 mm		+	++	+	++	++
Vitrified				-	-	
Parenchyma - Undifferentiated plant storage tissue			-	-	+	++
Frog bones						+++
Fish bones						+
Fish scales						++
<i>Ceciloides acicula</i>	Blind burrowing snail			+	+	+
Modern seeds			+	+		

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**LAND NORTH OF FREEZELAND FARM, SWAVESEY,
AREA CENTRED TL350691,
CAMBRIDGESHIRE:**

AERIAL PHOTOGRAPHIC ASSESSMENT

REPORT No: 2007/4

FEBRUARY 2007

COMMISSIONED BY

CAMBRIDGE ARCHAEOLOGICAL UNIT
DEPARTMENT OF ARCHAEOLOGY
DOWNING STREET
CAMBRIDGE CB2 3DZ

**LAND NORTH OF FREEZELAND FARM, SWAVESEY,
AREA CENTRED TL350691,
CAMBRIDGESHIRE:
AERIAL PHOTOGRAPHIC ASSESSMENT**

SUMMARY

This assessment of aerial photographs was commissioned to examine an area of some 67 hectares (centred TL350691) in order to identify and accurately map archaeological, recent and natural features.

Probable archaeological features include two concentrations of ditched features that are likely to be parts of one larger occupation system. These will be affected by the proposed development.

Towards the east of the study area are two small light-toned and roughly-circular areas that may indicate sites of bronze age burials.

There are traces of medieval cultivation in the south of the study area.

Original photo interpretation and mapping was at 1:2500 level.

**LAND NORTH OF FREEZELAND FARM, SWAVESEY,
AREA CENTRED TL350691,
CAMBRIDGESHIRE:
AERIAL PHOTOGRAPHIC ASSESSMENT**

Rog Palmer MA MIFA

INTRODUCTION

This assessment of aerial photographs was commissioned to examine an area of some 67 hectares (centred TL350691) in order to identify and accurately map archaeological, recent and natural features and thus provide a guide for field evaluation. The level of interpretation and mapping was to be at 1:2500.

ARCHAEOLOGICAL AND NATURAL FEATURES FROM AERIAL PHOTOGRAPHS

In suitable cultivated soils, sub-surface features – including archaeological ditches, banks, pits, walls or foundations – may be recorded from the air in different ways in different seasons. In spring and summer these may show through their effect on crops growing above them. Such indications tend to be at their most visible in ripening cereal crops, in June or July in this part of Britain, although their appearance cannot accurately be predicted and their absence cannot be taken to imply evidence of archaeological absence. In winter months, when the soil is bare or crop cover is thin (when viewed from above), features may show by virtue of their different soils. Upstanding remains, which may survive in unploughed grassland, are also best recorded in winter months when vegetation is sparse and the low angle of the sun helps pick out slight differences of height and slope.

Such effects are not confined only to archaeological features as any disturbance of soil and bedrock can produce its own range of shadow, crop and soil differences. Deeper soil, for example may appear darker because it is wetter than surrounding areas and it can also affect the growth of crops and become visible at the same times as archaeological features. The visible edges and extents of deep soil areas tend to vary from year to year with the amount of ground moisture content.

PHOTO INTERPRETATION AND MAPPING

Photographs examined

The most immediately informative aerial photographs of archaeological subjects tend to be those resulting from observer-directed flights. This activity is usually undertaken by an experienced archaeological observer who will fly at seasons and times of day when optimum

results are expected. Oblique photographs, taken using a hand-held camera, are the usual products of such investigation. Although oblique photographs are able to provide a very detailed view, they are biased in providing a record that is mainly of features noticed by the observer, understood, and thought to be of archaeological relevance. To be able to map accurately from these photographs it is necessary that they have been taken from a sufficient height to include surrounding control information.

Vertical photographs cover the whole of Britain and can provide scenes on a series of dates between (usually) 1946-7 and the present. Many of these vertical surveys were not flown at times of year that are best to record the archaeological features sought for this Assessment and may have been taken at inappropriate dates to record crop and soil responses that may be seen above sub-surface features. Vertical photographs are taken by a camera fixed inside an aircraft and with its exposures timed to take a series of overlapping views that can be examined stereoscopically. They are often of relatively small scale and their interpretation requires higher perceptive powers and a more cautious approach than that necessary for examination of obliques. Use of these small-scale images can also lead to errors of location and size when they are rectified or re-scaled to match a larger map scale.

Cover searches were obtained from the Cambridge University Collection of Aerial Photographs (CUCAP) and the National Monuments Record: Air Photographs (NMRAP), Swindon. Photographs included those resulting from observer-directed flights and routine vertical surveys.

Photographs consulted are listed in the Appendix to this report.

Base maps

Digital data from original surveys at scales of 1:2500 or greater were provided by the client. These were used as a base on to which the Ordnance Survey First Edition Six-inch map was transformed to add former field boundaries for use with the older aerial photographs.

Study area

Photographs were examined in detail for an area extending at least 300 metres beyond the proposed development.

Photo interpretation and mapping

All photographs were examined by eye and under slight (2x) magnification, viewing them as stereoscopic pairs when possible. Photographs at NMRAP were examined by Chris Cox (Air Photo Services Ltd) who obtained a selection as laser copies that were interpreted by the writer. Scanned digital copies of the most informative were transformed to match the digital data using the specialist program AirPhoto (Scollar 2002). All scanned photographs were enhanced using the default setting in AirPhoto before being examined on screen. Transformed files were set as background layers in AutoCAD Map, where features were overdrawn, making reference to the

original prints, using standard conventions. Layers from this final drawing have been used to prepare the figure in this report and have been supplied to the client in digital form.

Accuracy

AirPhoto computes values for mismatches of control points on the photograph and map. In all transformations prepared for this assessment the mean mismatches were less than $\pm 1.50\text{m}$. These mismatches can be less than the survey accuracy of the base maps themselves and users should be aware of the published figures for the accuracy of large scale maps and thus the need to relate these mismatches to the Expected Accuracy of the Ordnance Survey maps from which control information was taken (OS 2007).

COMMENTARY

Soils

The Soil Survey of England and Wales (SSEW 1983) shows the area to have a base soil of Oxford Clay (soil association 411c: EVESHAM 3) on which there is a local deposit of river terrace and chalky drift (soil association 512f: Milton) along the south side of the old railway line. Immediately west of the proposed development the land falls slightly to define a palaeochannel that contains river alluvium (soil association 813b: FLADBURY 1).

Archaeological features

The figure shows two groups of probable ditches that have been recorded on more than one date and are almost certainly of archaeological origin. One set of photographs (TF3569/1/99-100) shows the features in discrete areas of lighter-coloured crop that may show they are on locally-high ground, or that those are patches of different soil. Because of these height or soil differences it is very likely that the mapped groups are parts of a continuous system of ditched features. The alignment of these features is similar to those lying to the south west (not mapped here) although they are separated by a palaeochannel and this coincidence may be accidental.

These ditched features have been visible on two (perhaps three) dates but were never very distinctly marked by the crops. However, their regularity and shapes are more probably archaeological than of natural origin and a likely date range for them would be iron age and/or Romano British.

East of those features are two possible mounds. These were photographed as light-toned roundish shapes in 1956 and 1982. They may mark the sites of bronze age burial mounds but could equally well be plough-eroded natural high spots or 'islands' of the river terrace deposit. A pair of similar features are visible about the same distance west of the ditched features, beyond the present study area.

Slight traces of ridge and furrow, indicating medieval cultivation, were recorded in the southern part of the study area.

Non-archaeological features

The mapped palaeochannel can be seen, on some photographs, to lie in lower ground. According to the Soil Survey map this originates in a pool just south of the study area and flows into the River Great Ouse and/or fenland to the north.

Land use

Most of the land within the study area, including the proposed development, has been in arable use on all dates of photography. A block of allotments occupied the south east part of the study area and there was some soft fruit cultivation in and before 1956.

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APPENDIX

Aerial photographs examined

Source: Cambridge University Collection of Aerial Photographs

Oblique photographs

WG 32-33	28 February 1957
AFY 75	9 July 1962
AZA 4	22 July 1969
BGU 73-75	22 July 1971
BJG 8-9	5 July 1972
CBT 32-33	4 February 1977
CCL 21	22 June 1977

Vertical photographs

K17-AR 26-27	31 January 1977	1:14100
RC8-EC 134-135	24 March 1982	1:10000
RC8-EI 131-132	11 May 1982	1:10000
RC8-JL 61-62	30 June 1987	1:10000
RC8-knBO 12	26 August 1988	1:10000
RC8-knCP 216-217	3 August 1990	1:10000
RC8-knCR 116-118	21 August 1990	1:10000

Source: National Monuments Record: Air Photographs

Specialist collection

TL3469/1/296-297	3 August 1977
TL3469/2/298-303	3 August 1977
TL3469/3/305-307	3 August 1977
TL3569/1/99-100	30 June 1986

Vertical collection

RAF/106G/UK/1557: 1363-1365	7 June 1946	1:9800
RAF/CPE/UK/1952: 1249-1250	25 March 1947	1:10000
RAF/CPE/UK/1952: 3010-3011	25 March 1947	1:10000
RAF/CPE/UK/1952: 3021-3022	25 March 1947	1:10000
RAF/CPE/UK/2021: 4048-4050	21 April 1947	1:9800
RAF/CPE/UK/2405: 4137-4138	24 November 1947	1:10000
RAF/58/1983/F22: 87-89	20 April 1956	1:10000
MAL/68061: 52-53	12 August 1968	1:10000

MAL/68061: 59	12 August 1968	1:10000
MAL/69055: 216-217	9 June 1969	1:10500
MAL/69068: 59-60	18 July 1969	1:10500
MAL/69068: 109	18 July 1969	1:10500
OS/70210: 296	15 August 1970	1:8000
OS/73316: 532-533	16 June 1973	1:7500
OS/94279: 11-13	15 August 1994	1:8000

Most informative photographs

RC8-CP 216
RAF/58/1983/F22: 88
MAL/68061: 52
TL3569/1/100

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That transcriptions, documentation, and textual reports presented within this assessment report shall be explicitly identified as the work of Air Photo Services.

Air Photo Services has consulted only those aerial photographs specified. It cannot guarantee that further aerial photographs of archaeological significance do not exist in collections that were not examined.

Due to the nature of aerial photographic evidence, Air Photo Services cannot guarantee that there may not be further archaeological features found during ground survey which are not visible on aerial photographs or that apparently 'blank' areas will not contain masked archaeological evidence.

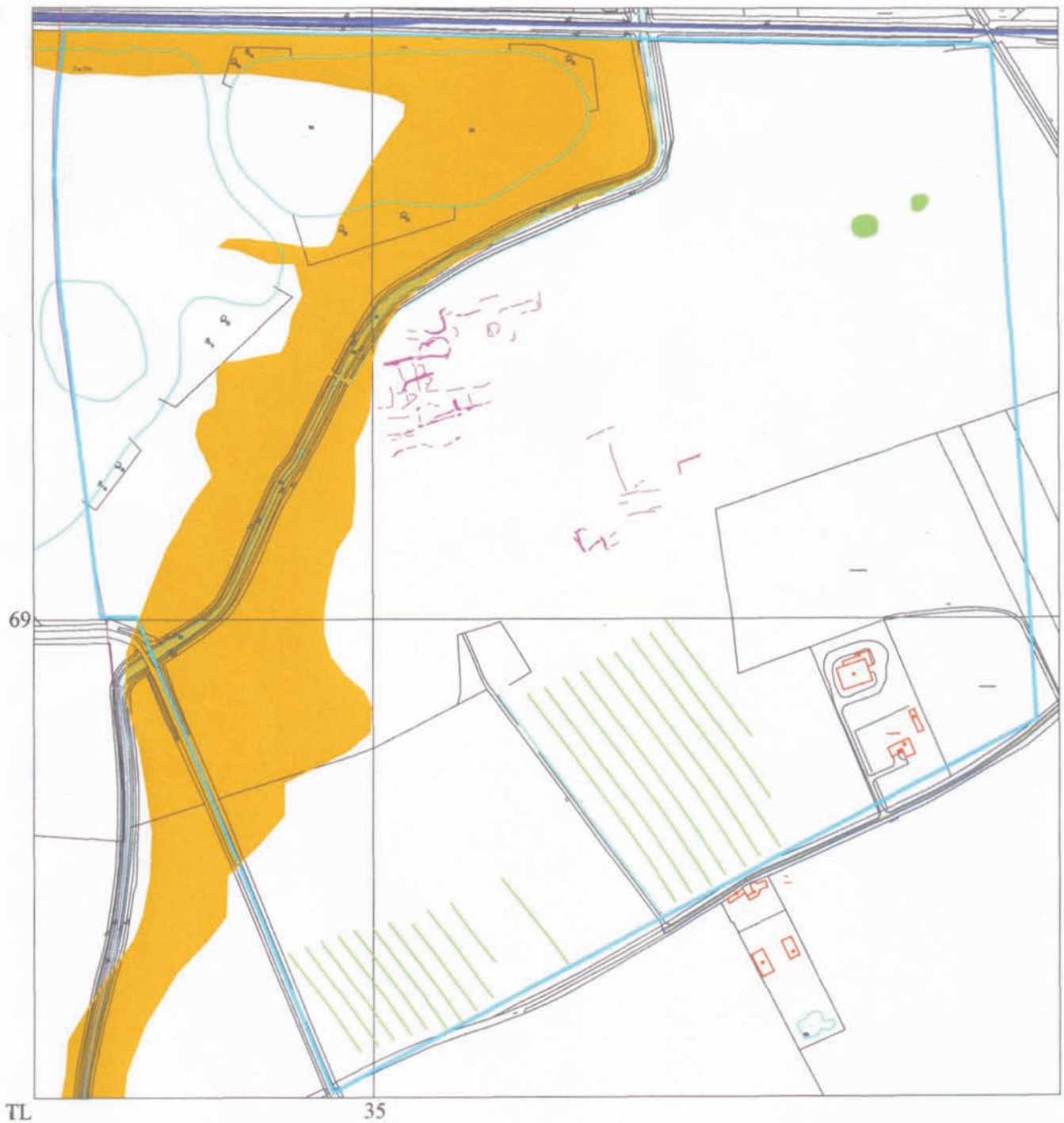
We suggest that if a period of 6 months or more elapses between compilation of this report and field evaluation new searches are made in appropriate photo libraries. Examination of any newly acquired photographs is recommended.

That the original working documents (being interpretation overlays, control information, and digital data files) will remain the property of Air Photo Services and be securely retained by it for a period of three years from the completion date of this assessment after which only the digital files may be retained.

It is requested that a copy of this report be lodged with the relevant Sites and Monuments Record within six months of the completion of the archaeological evaluation.

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Land north of Freezeland Farm, Swavesey, Cambridgeshire:
Features identified on aerial photographs



- Study Area
- Archaeological features
- Probable ditch
- Mound
- Ridge and furrow (schematic)
- Natural feature
- Palaeochannel

Original photo interpretation and mapping at 1:2500
level based on aerial photographs
at CUCAP/ULM and NMRC.
Air Photo Services Cambridge
February 2007
Drawing: 0704FenDray.dwg

Appendix 7 – OASIS Form

OASIS ID: cambridg3-26392

Project details

Project name	Land Adjacent to Covells Drain, Swavesey, Cambridge; An Archaeological Evaluation
Short description of the project	An archaeological evaluation was undertaken on land adjacent to Covells Drain on Freisland Farm, Swavesey, Cambridgeshire. Archaeological features were recorded in seven of the nine trenches machined. A total of forty eight Romano British features were present and the majority of these were confined to the north of the proposed development area (PDA).
Project dates	Start: 12-03-2007 End: 23-03-2007
Previous/future work	Yes / Yes
Type of project	Field evaluation
Current Land use	Cultivated Land 4 - Character Undetermined
Monument type	FIELD SYSTEM AND DROVEWAY Roman
Significant Finds	POTTERY Roman
Significant Finds	ANIMAL BONE Roman
Significant Finds	LITHICS Early Bronze Age
Methods & techniques	'Sample Trenches','Aerial Photography - interpretation','Documentary Search','Environmental Sampling'
Development type	Mineral extraction (e.g. sand, gravel, stone, coal, ore, etc.)
Prompt	Planning condition
Position in the planning process	Pre-application

Project location

Country England

Site location	CAMBRIDGESHIRE SOUTH CAMBRIDGESHIRE SWAVESEY Land Adjacent to Covells Drain
Postcode	CB24 4QP
Study area	1.90 Hectares
Site coordinates	TL 3505 6910 52.3029836564 -0.01910010594880 52 18 10 N 000 01 08 W Point
Height OD	Min: 2.84m Max: 4.76m

Project creators

Name of Organisation	Cambridge Archaeological Unit
Project brief originator	City/Nat. Park/District/Borough archaeologist
Project design originator	David Gibson
Project director/manager	David Gibson
Project supervisor	Kerry Murrell
Type of sponsor/funding body	Developer
Name of sponsor/funding body	John Johnson

Project archives

Physical Archive recipient	Cambridge Archaeological Unit
Physical Archive ID	CDS07
Physical Contents	'Animal Bones','Ceramics','Environmental','Worked stone/lithics','other'
Digital Archive	Cambridge Archaeological Unit

recipient

Digital Archive ID CDS07

Digital Contents 'Animal Bones','Ceramics','Environmental','Worked stone/lithics','other'

Digital Media available 'Database','GIS','Images raster / digital photography','Spreadsheets','Text'

Paper Archive recipient Cambridge Archaeological Unit

Paper Archive ID CDS07

Paper Contents 'Animal Bones','Ceramics','Environmental','Worked stone/lithics','other'

Paper Media available 'Context sheet','Correspondence','Drawing','Map','Miscellaneous Material','Notebook - Excavation','Research',' General Notes','Plan','Report','Section','Unpublished Text'

Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)

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