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NORMANTON GOLF COURSE

NORMANTON

WEST YORKSHIRE

EXCAVATION AND EVALUATION

REPORT

MAY 2005

EXCAVATION AND EVALUATION SECTION

EVALUATION AND EXCAVATION

NORMANTON GOLF COURSE

NORMANTON

WEST YORKSHIRE

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REPORT

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Summary

A scheme of archaeological evaluation and excavation was undertaken in advance and during development on the site of a former golf course at Normanton, West Yorkshire (NGR SE 3952 2210). The fieldwork was undertaken on behalf of Mike Griffiths and Associates for Bellway Homes between November 1997 and November 1999, with a final phase of watching brief in 2001.

Activity from the Neolithic to post-medieval periods was encountered during fieldwork. A Neolithic flint knife was recovered from topsoil at the site and is the earliest indicator of activity. The investigation was concentrated a substantial rectilinear enclosure dated by pottery and radiocarbon dating to between the 5th century BC and the 2nd century AD. Eight principal phases of prehistoric activity were defined, two of which preceded the excavation of the square-ditch enclosure and may represent continuity from the Bronze Age. Subsequent phases of activity centred around the enclosure ditch, which was fully excavated, and appeared to have been recut several times from the Iron Age to Early Roman period. Associated features consisted of a series of five curvilinear structures within the enclosure, defined by gullies, post- and stakeholes, as well as rare pits. Investigation of the surrounding area and hinterland revealed the enclosure was set within a contemporary managed landscape, which continued to be divided from the Iron age to Roman period onwards.

Later periods were represented by three principal phases of activity. A waterlogged oak log recovered from a ditch was radiocarbon dated to the 7th century AD. The medieval period was characterised by a system of ridge and furrow cultivation encountered in most zones of the site. Post-medieval activity was confined to partial levelling of the medieval ridge and furrow cultivation in some areas of the site with associated drainage schemes.

Acknowledgements

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1.0 INTRODUCTION

This document reports on a programme of archaeological fieldwork carried out by Field Archaeology Specialists on the site of Normanton Golf Course, West Yorkshire, undertaken on behalf of Mike Griffiths and Associates for Bellway Homes. Fieldwork commenced in November 1997 but was delayed due to adverse ground conditions until the beginning of the following year. Subsequently, a scheme of archaeological evaluation, excavation and monitoring was undertaken in two separate sessions. The first of these began in February and continued to November 1998; the second from February to November 1999, with a final phase of watching brief in 2001.

1.1 AIMS AND OBJECTIVES

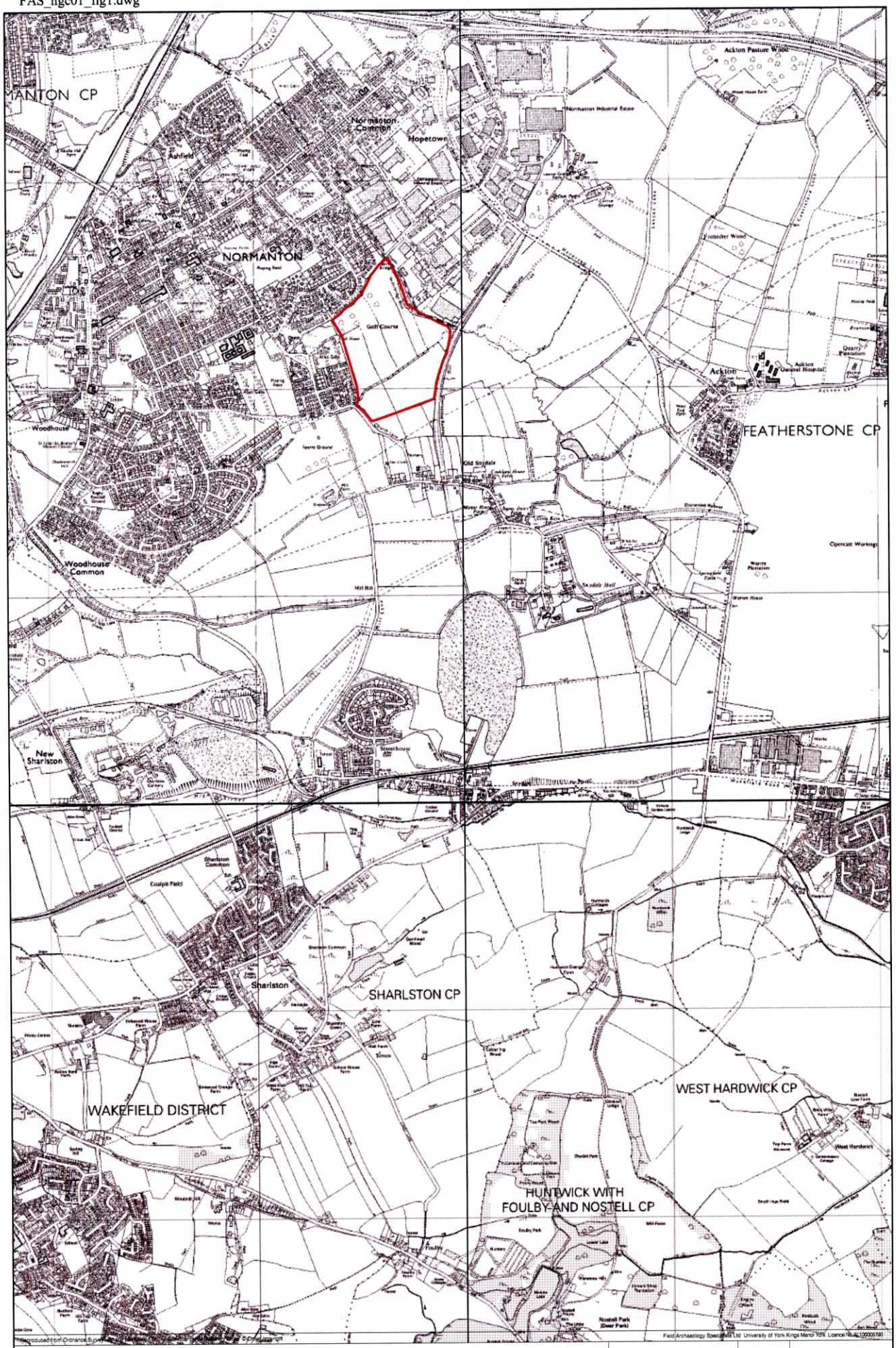
The scheme of archaeological evaluation, excavation and monitoring was designed to define, characterise and record archaeological remains present within the development area in advance of the construction of six hundred and fifty new houses. The presence of potential archaeological features on the site had been suggested from aerial photographs. These had indicated the location of a possible ditched field system running across the southern half of the site.

The scale of the groundworks associated with the proposed development were to be of a scale that would lead to the destruction of *in situ* archaeological deposits and features. In this respect the prime objective of the archaeological evaluation programme was to map the archaeology across the development area. In addition to defining areas for further investigation this process recorded an extensive area of the buried historic landscape. Archaeological features that were identified during this evaluation were sampled at an appropriate level in order to recover information regarding their construction, sequence, function and date.

The construction programme was undertaken in several separate stages. The archaeological evaluation was designed to reflect this. Each development area was defined and incorporated into a construction timetable. Archaeological fieldwork was carried out at least four weeks prior to the planned onset of groundworks in each of these areas. It was intended that the archaeology on the site could be defined, recorded and sampled within the constraints of the development timetable without causing disruption to the construction programme.

1.2 LOCATION AND LAND USE

The town of Normanton lies approximately 5 kilometres to the northeast of Wakefield, West Yorkshire (NGR SE 3952 2210) (Figure 1). The site comprises an irregular parcel of land some 530m (SW-NE) by 520m (SW-NE) located at the base of a hill on the southeastern edge of the town. The largest part of the site was formerly used as a nine hole golf course. This covered an area of approximately 13.8ha in the northern half of the development area. Adjacent to this on its western side was a rectangular arable field 3.3ha in area. The southern side of the development area comprised another parcel of arable land, 6.55ha in area, separated from the golf course by a small stream, Whin Beck. In total, the entire site covered an 23.77ha and was bound to the north and west by existing residential development, to the south by a new relief road and to the east by Sewerbridge Beck.



Site Location | Scale 1:25000 | Figure 1

The site is situated in an area of poorly drained soil, located in the base of a shallow valley and lies at a height of around 28.5m AOD. To the south of Whin Beck the ground slopes up to a height of 34.0m and, beyond the southern limits of the development area, continues to rise to form low hills. To the north of the site the rise in ground level is more gradual and the limestone escarpment at Methley is clearly visible on the horizon some 3.5km away. The town of Normanton is situated on high ground to the west and northwest of the site. The site therefore lies in an a shallow bowl of marginal land which is prone to flooding and surrounded by well draining higher ground on all sides.

The geology of the area consists of heavy clay with out-crops of sandstone bedrock, mudstone and occasional exposed seams of coal. Coal mining earlier this century is deemed to have been responsible for a substantial east-west aligned fault running across the northern end of the site (Plate 1). This subsidence has caused the ground level to the north of the fault to drop by up to 1.2m with dramatic effect.

Plate 1 Normanton fault

The golf course comprised a well managed area of turf, small shrubs and trees. Within this, a system of ridge and furrow earthworks were clearly visible running from north to south in a slight curve across the development site (Plate 2). These medieval remains, which had been ploughed away in the two arable fields, were subject to a topographic survey undertaken by Headland Archaeology Ltd prior to the start of groundworks and are discussed below. Running parallel to the system of ridge and furrow were two dykes. These features drained excess water on the golf course into Whin beck at the southern end of the site as well as feeding a large temporary pond in the northeastern corner of the golf course.

Plate 2 Ridge and furrow earthworks

1.3 ARCHAEOLOGICAL BACKGROUND

An archaeological planning condition was placed on the proposed development at Normanton Golf Course due to the presence of cropmarks on an aerial photograph taken over the site in July 1992 (PRN 4577, NGR SE 395 219). The photograph (Plate 3) showed a number of fragmentary, linear cropmarks. These were thought to represent the remains of a recent field boundary as well as a number of earlier rectilinear features running

Plate 3 Aerial photograph

across the southwestern corner of the proposed development area.

Prior to the proposed development no archaeological investigation had taken place on the site. With the exception of recent evaluation work at Newlands Park and a limited gradiometer survey undertaken on the Normanton Bypass, little in the way of archaeological investigation of any sort has taken place in the town of Normanton or its surrounding area despite recent extensive development. A study of the aerial photographic evidence for this part of West Yorkshire shows a patchy but informative pattern of ditches and enclosures of which very few have been subject to further investigation. These vary considerably from single rectilinear enclosures, such as at Syndale (PRN 887, NGR SE 400 221) some 700m to the southeast of the golf course, to the extensive ladder settlement on the limestone escarpment at Methley (PRN 4413, NGR SE 403 256 and PRN 4422, NGR SE 403 257) which overlooks the River Calder only 3.5km to the north.

The date, function and organisation of much of these cropmarks is not well understood. Traditionally an interpretation has been offered on the basis of morphology, scale and analogy with other well known sites. Recent fieldwork in South Elmsall, Hemsworth and at Wakefield Europort (WYAS 1995;1997) suggested that many of the cropmarks may be of a Romano-British date. This fieldwork also highlighted some of the problems with interpreting these landscape features. Virtually all of the sampled sites had been subject to truncation by medieval and modern ploughing. This had generally removed any occupation levels and vertical stratigraphy. There was also a distinct lack of pottery and datable finds in the archaeological record, even in apparent Romano-British contexts. This paucity of evidence is further complicated by observations which suggest that many of the ditches may have been long lived features within the landscape, having been reused and recut at different times.

The complex picture of settlement and land use in prehistoric and Roman times in this area of West Yorkshire is further exacerbated by the bias in the distribution of cropmarks which has been caused by the character of underlying geology and the pattern of urban centres.

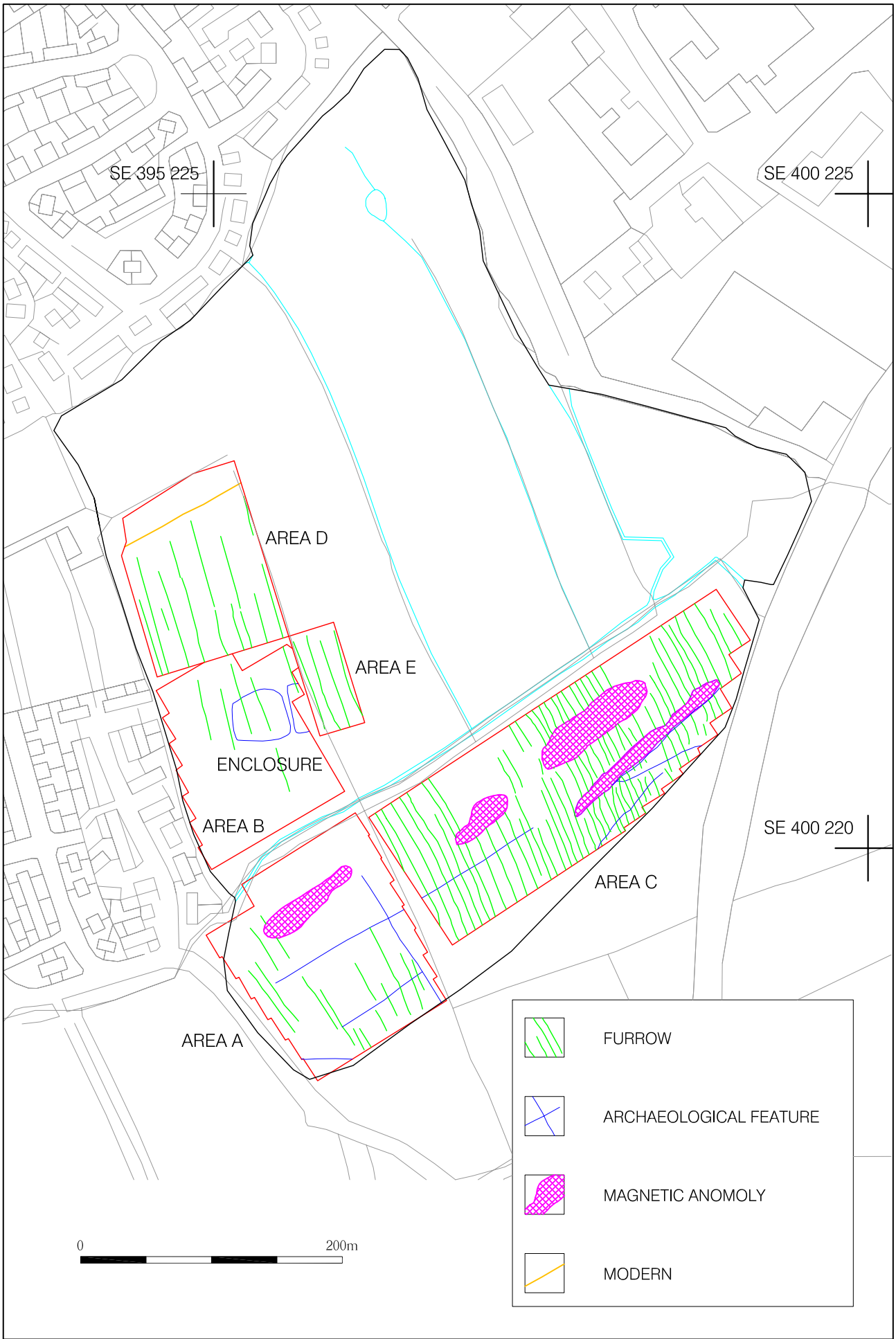
Against this background the archaeological fieldwork at Normanton Golf Course was undertaken.

2.0 RECONNAISSANCE (INTERVENTION 1)

Initial reconnaissance work was undertaken prior to the design of an archaeological scheme of investigation and mitigation strategy. This consisted of a series of gradiometer surveys carried out by West Yorkshire Archaeology Service (WYAS) in 1997 over the area of cropmarks, and a general topographic survey undertaken by Headland Archaeology Ltd in October 1997 over the golf course. For the purpose of this report both of these surveys are described as Intervention 1 and summarised below.

2.1 GEOPHYSICAL SURVEY (Figure 2)

As a result of cropmarks being identified within the development area, West Yorkshire Archaeology Services were commissioned by Mike Griffiths and Associates to undertake a gradiometer survey over the southwestern part of the site. The initial survey was carried out in two areas. Area A (160m x 150m) was located on the



Intervention 1 - Results of geophysical survey (WYAS) | Scale 1:4000 | Figure 2

southern side of Whin Beck and was positioned directly over the putative cropmarks. Area B (140m x 120m) was situated on the northern side of the stream, in the arable field adjacent to the golf course.

In Area A the survey defined three linear anomalies (see Figure 2). These appeared to represent a system of ditches or drains which corresponded with the features recorded on the aerial photographs. In addition to this, the gradiometer also identified a number of linear anomalies, which were interpreted as furrows, and an amorphous area of magnetic disturbance. The results from Area B to the north suggested the presence of a rectilinear enclosure, 40m x 45m, with a possible second enclosure immediately to the east. Only the western edge of this second feature was visible within the sample area although it was assumed that it continued into the golf course.

Due to the possibility that a string of enclosures was present across the site, a second gradiometer survey was commissioned in three additional adjacent areas (Areas C, D and E). Area C (320m x 120m), on the southern side of Whin Beck, was positioned immediately to the northeast of Area A. The results showed the continuation of the SW/NE aligned ditch or drain from the previous survey and alluded to the presence of a further two ditches running across eastern corner of the site.

Area D (140m x l00m) was situated to the north of the rectilinear enclosures detected in the first survey. The results from this survey showed the continuing pattern of furrows across the site in addition to a modern service trench running across the northern end of the arable field.

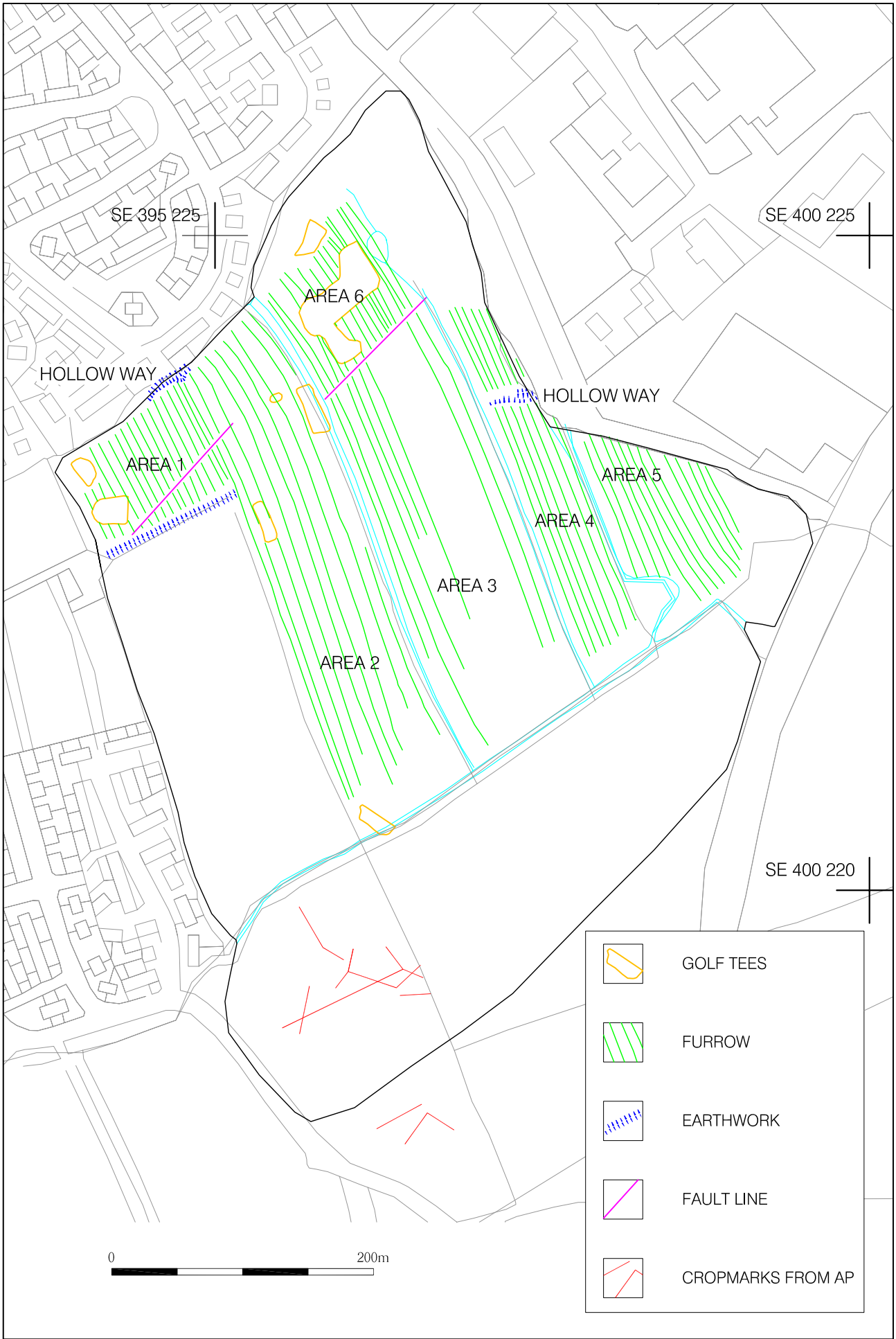
The third area was located on the golf course over an area of earthwork ridge and furrow and was positioned immediately to the east of Area B, over the line of the second putative enclosure ditch. The gradiometer failed to detect anything other than the furrows themselves.

2.2 TOPOGRAPHIC SURVEY (Figure 3)

Extant ridge and furrow was a predominant feature of the golf course. Headland Archaeology Ltd were commissioned by Mike Griffiths and Associates to undertake a general topographic survey in order record the form and distribution of the visible earthworks.

The golf course was divided into four strips of land by deep drainage ditches running along the same NW-SE alignment as the ridge and furrow. Later disturbance by landscaping associated with the creation of tees and greens by the golf course was present but fairly minimal. The furrows survived to an average depth of 0.2m and varied from area to area in both their spacing and intervals. All of the furrows were aligned NW/SE and gently curved in the form of a reversed ‘S’ across the survey area.

In addition to detecting six separate divisions of cultivation (Areas 1 to 6), the survey also identified evidence for two possible hollow ways. At the northern end of the site a slightly curved shallow ditch 3.5m wide and 0.2m deep followed the boundary of the site on a rough SW/NE alignment and could be traced on the ground for a distance of 40m. The second possible hollow way was located halfway along the eastern site boundary. It comprised a 40m long, 6m wide shallow ditch which ran into the site in a slight curve on an east-west alignment. Low banks were recorded to either side of this feature.



Intervention 1 - Results of topographic survey (Headland) | Scale 1:4000 | Figure 3

No interpretation of these features was offered in the report. However, the remains appear to represent a general pattern of ridge and furrow cultivation which is likely to be medieval in origin. Differences in the distribution and spacing of the furrows implies that the original arrangement of land use was altered and redefined at various points in at least Area 3. The variation in the spacing of furrows recorded in each of the surveyed areas may represent different regimes of cultivation in separate fields. The different fields were defined by the four dykes that divided up the present golf course. This implies that the dykes which were recorded in this survey represent old boundaries which were contemporary with the medieval system of cultivation. A study of the 1852 Ordnance Survey Map (Figure 4) supports this notion as it clearly shows a contemporary subdivision of land which is reflected in the position of the ditches on the present golf course.

Opportunities to investigate these dykes were limited by their use as drains during the course of the archaeological investigation. All of the dykes had been subject to regular cleaning and re-excavation by golf course staff.

3.0 ARCHAEOLOGICAL SCHEME AND MITIGATION STRATEGY

In order to test the results of the geophysical survey, an area measuring 70m x 60m (Intervention 2) was stripped of topsoil over the site of the putative enclosures (see Figure 2). The western enclosure ditch was clearly visible against the natural clay subsoil in addition to a number of internal features. These included at least one sub-circular structure and a number of linear gullies. Adverse weather conditions in the winter of 1997, however, meant that further fieldwork on the site was postponed until the following year.

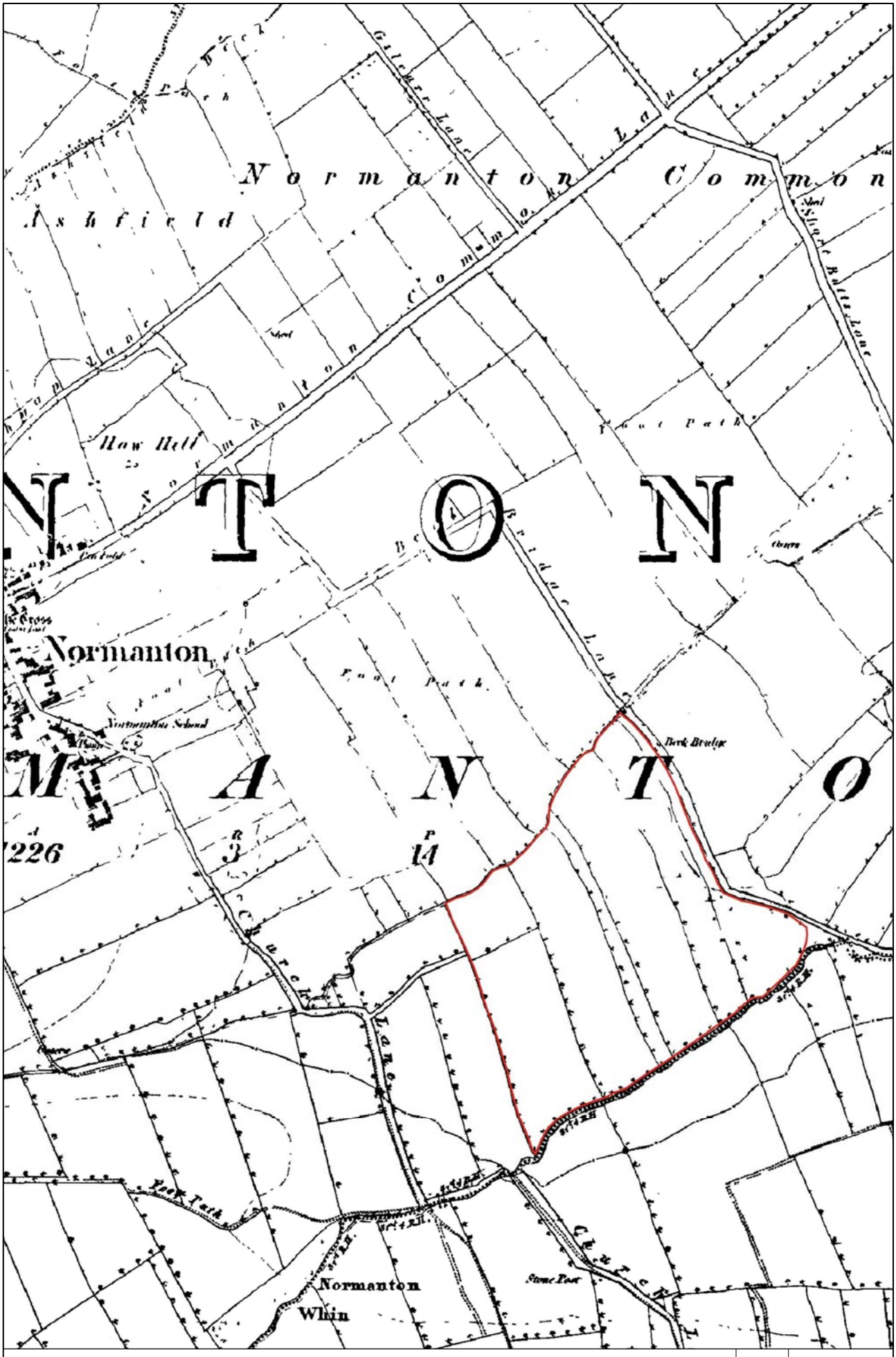
A scheme of archaeological works was prepared by Mike Griffiths and Associates (Appendix A). This document outlined the specification for the phased evaluation, excavation and monitoring of groundworks across the entire development area. The residential development of the site was to be undertaken in eight separate phases (Figure 5) over a five year period and the archaeological scheme of works was designed to reflect this. The main points from this document are summarised thus:

Archaeological Impact

The geophysical survey (Intervention 1) had only succeeded in identifying substantial archaeological features in areas where the topsoil cover was shallow. It had failed to detect archaeological features in areas of extant ridge and furrow where they were known to continue. Consequently the nature of the archaeology across the site could only be fully evaluated through the stripping of topsoil. The scale of the development meant that any *in situ* archaeological remains on the site would effectively be destroyed by road and house construction.

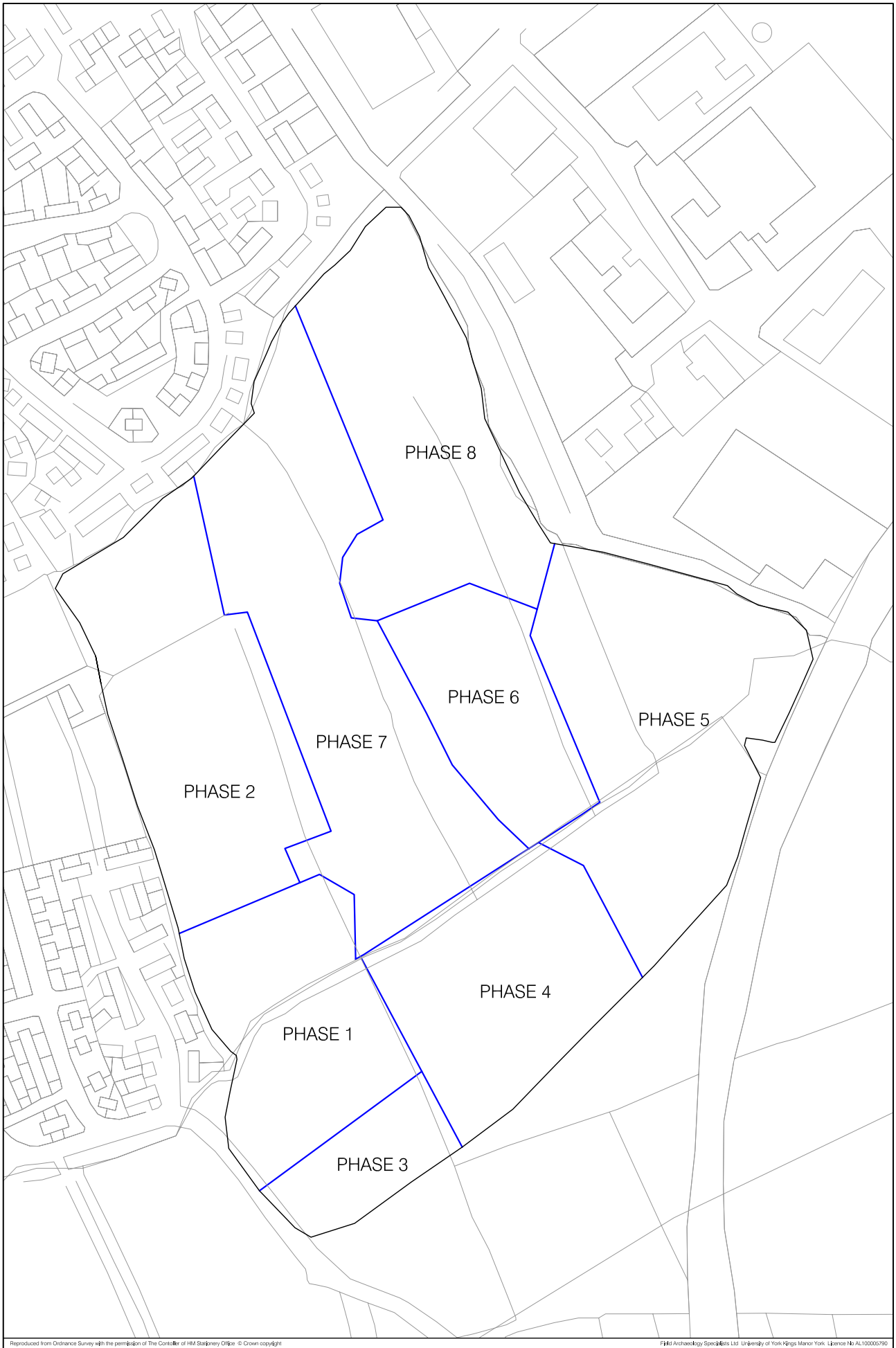
Mitigation

Accordingly, any archaeological sites within the development area which would be damaged or destroyed were to be "fully investigated, recorded, analysed and reported" (see Appendix A, Aiv). This involved a phased programme of evaluation in advance of development where areas of archaeological potential were to be stripped of topsoil under archaeological supervision with at least four weeks to map, sample and record archaeological



1852 Ordnance survey map

Figure 4



Phased programme of works | Scale 1:4000 | Figure 5

deposits before groundworks commenced. During these planned phases of evaluation a watching brief would be maintained on other intrusive works across the site. The level and nature of archaeological intervention would be agreed in consultation with the Local Planning Archaeologist.

Site Investigation

Phase 1, which included the area of the enclosure, was to be stripped of topsoil by machine under archaeological supervision. In order to determine chronology and function, the sampling of archaeological features within this area would involve a minimum of 10% up to 100% hand and machine excavation. Linear features would be minimum 10% sampled. Structures, funerary features and occupation levels would be 100% sampled by hand or to a degree whereby their extent , nature, form, chronology, function and relationships could be determined. Other cut features were to be half sectioned. These working methods were to be employed in the evaluation of the other areas of arable land in Phases 2, 3,4 and 5.

In the areas of extant ridge and furrow over the golf course area (Phases 2,3,7 and 8) the preservation of archaeological deposits was to be evaluated by the excavation of a 5m x 5m trench over a surviving ridge. If horizontally stratified deposits were identified, then topsoil was to be stripped along the lines of the ridges by machine followed by hand-excavation of all archaeological deposits. The remains of the furrows would then be removed by machine to expose any surviving features which would be hand-excavated as above. If horizontal stratigraphy was not present within the test trench, then areas of ridge and furrow were to be dealt with in the same manner as the arable fields discussed above.

4.0 FIELDWORK PROCEDURE

The excavation of features and deposits in Intervention 2 recommenced in February 1998 in accordance with the archaeological scheme of works. The evaluation of the remainder of the site was undertaken in stages. This initially involved the stripping of the road lines and roundabouts for the development using mechanical excavators fitted with toothless ditching buckets under strict archaeological supervision. Further trenches were then excavated to answer specific questions relating to the archaeology within the site.

4.1 STRATEGY

The size and timescale of this development created the need for a innovative approach to the archaeological fieldwork. The deployment of a small, full-time fieldwork team was considered to be a far more effective use of resources than evaluating the site with a large team within a fixed shorter period. This allowed each phase of intervention to be tackled within the development timetable while additional groundworks could be monitored when required. If extra manpower was required to complete an intervention to deadline, then additional staff were temporarily deployed on the site. Consequently, a permanent team of three archaeologists were resident on the site for the duration of the phased groundworks.

The excavation of the enclosure (Intervention 2), with such a small team, proved to be a long-term undertaking and continued, intermittently, throughout 1998. This allowed work to be carried out on the development almost

continuously between other phases of intervention. Due to the variable nature of the ground certain areas of the site were prone to flooding. The location of Intervention 2 on the top of a low rise in the centre of the site meant that working conditions in Intervention 2 were often acceptable when bad weather had stopped fieldwork in other areas of the site. This factor alone resulted in only three working days being lost due to adverse weather conditions between March and November 1998.

4.2 FIELD OPERATING PROCEDURES

A local site grid was used for recording purposes in Intervention 2. For the remaining Interventions recording was undertaken using OS coordinates obtained from a series of stations set out by the developer. The results from Intervention 2 were later aligned to the OS National Grid. All heights were recorded in metres (AOD). The recording system employed followed *Field Research Procedure* (Carver, 1990), the standard operating system employed by Field Archaeology Specialists. A single index was created for contexts starting at C1000 and for features starting at Fl. This was used to allocate numbers to deposits and features recorded within all of the Interventions.

All of the interventions were stripped of topsoil using either a tracked or wheeled mechanical excavator fitted with a toothless ditching bucket under strict archaeological direction. Exposed soil surfaces were scanned for archaeological deposits and features. Archaeological features present were then fully defined by hand-cleaning and their edges tagged. The points along the outlines of these soil features were surveyed using a total station theodolite and plotted out to scale before being enhanced in the field to create a pre-excavation plan. The edges of furrows, drains, edge of excavations and the site boundary were all recorded in this manner.

The level of sampling was undertaken in accordance with the scheme of works (see Appendix A). In some cases this was exceeded to answer specific questions relating to the date or sequence of the recorded features.

The natural subsoil was predominately an impervious boulder clay. This created several problems in the identification and excavation of archaeological deposits on the site, particularly in Intervention 2. When wet, this material would degenerate into a sludge which became too plastic to work and very difficult to move on safely. In periods of dry weather, the exposed soil surfaces quickly became hard and cracked. This made the definition and excavation of deposits difficult, particularly in the case of shallow or ephemeral features. Within Intervention 2 a policy of covering small areas of the site in plastic sheeting overnight kept the exposed soils damp in dry weather and workable in periods of wet. A series of boarded barrow runs were also used to minimise damage to deposits and provide safe access.

Intervention 2 was originally opened in November 1997 and was left exposed to the elements over the winter of that year. Initially, concerns were expressed that leaving the site for that period of time would be detrimental to the archaeology. It soon became apparent, however that weathering of the clay had actually enhanced the definition of several ephemeral features which may not otherwise have been detected.

4.3 THE INTERVENTIONS

In accordance with the archaeological scheme of works (see Appendix A) a total of twenty four separate

archaeological interventions were carried out across the site. These are summarised in Table 1 and are shown in Figure 6. Interventions 2 to 14 were excavated in 1998. Interventions 15 to 24 were excavated during 1999. Intervention 25 was carried out in 2001.

Table 1 Summary of Interventions

Int	Size	Type	Description	Zone
2	70m x 60m	AREA EXCAVATION	Complete excavation of rectilinear enclosure and its internal features	2
3	1120m x 5-15m	ROAD PULL	Machine strip, map and sample of road lines and roundabouts in the field to the south of Whin Beck	1
4	10m x 5m	EVALUATION TRENCH	Hand excavation over ridge and furrow to test for deposit survival and second enclosure	3
5	10m x 5m	EVALUATION TRENCH	Hand excavation over ridge and furrow to test for deposit survival and second enclosure	3
6	5m x 5m	EVALUATION TRENCH	Hand excavation over ridge and furrow to evaluate soil sequence	4
7	5m x 5m	EVALUATION TRENCH	Hand excavation over ridge and furrow to evaluate soil sequence	4
8	5m x 5m	EVALUATION TRENCH	Hand excavation over ridge and furrow to evaluate soil sequence	4
9	5m x 3m	EVALUATION TRENCH	Hand excavation to test for presence of second enclosure	3
10	715m x 10m	ROAD PULL	Machine strip, map and sample of road lines and roundabouts across golf course	4
11	3.5m x 3m	EVALUATION TRENCH	Hand excavation to test for presence of second enclosure	3
12	282m x 12m	ROAD PULL	Machine strip, map and sample of road line	3
13	28m x 3m	AREA EVALUATION	Machine strip, map and sample small area to evaluate northern area of site	5
14	132m x 113m	AREA EVALUATION	Extend area around Int 2 to map and excavate external features and ditches to the main enclosure	3
15	64m x 20m	AREA EVALUATION	Machine strip, map and sample archaeological features to the north of Whin Beck and test for earlier watercourses	3
16/17	70m x 8m	ROAD PULL	Machine strip, map and sample road line	4
18	variable	EVALUATION TRENCHES	series of nine trenches evaluating NE quadrant of the site	4
19	variable	EVALUATION TRENCHES	series of eight trenches excavated to extend Int 12 and further evaluate the NW quadrant of the site	3
20	variable	EVALUATION TRENCHES	Series of eleven trenches excavated to expose and define an east-west aligned ditch running across the northern end of the site	5
21	27m x 21m 28m x 3m	EVALUATION TRENCHES	Two trenches excavated to evaluate NE part of the site	4
22	140m x 5m	ROAD PULL	Machine strip of road line and roundabout to the south of Whin Beck	1

SE 395 225

SE 400 225

SE 400 220

INT25

INT13

INT10

INT21

INT24

INT18

INT20

INT2

INT10

INT18

INT10

INT7

INT23

INT19

INT17

INT18

INT12

INT14

INT6

INT22

INT19

INT4

INT5

INT2

INT9

INT11

INT3

INT12

INT15

INT3

Location of Interventions

Scale 1:2500

Figure 6

Int	Size	Type	Description	Zone
23	125m x 35m	EVALUATION TRENCHES	Series of ten trenches excavated to evaluate eastern corner of the site	4
24	9.5m x 4.5m	EVALUATION TRENCH	Trench located against northern boundary of the site	5
25		WATCHING BRIEF	Archaeological monitoring of the lagoon excavation and associated landscaping	5

Intervention 2

Intervention 2 was situated 50m north of Whin Beck along the eastern boundary of the arable field adjacent to the golf course and comprised a rectangular trench measuring 70m x 60m. It was positioned over the site of a possible rectilinear enclosure detected by the gradiometer survey (Intervention 1). The enclosure was fully defined within the excavation area and the features were mapped prior to the start of excavation. The scheme of works required 100% excavation of the enclosure ditch and all of the internal features. The enclosure itself measured 43m x 43m. Initially the area of the whole enclosure was cleaned by trowel and features were defined, tagged and a pre-excavation plan was produced.

A total of eight hand excavated samples of the enclosure ditch were undertaken at intervals along its circuit. These comprised locations in each corner and mid way along each length. All sections were photographed and drawn to create a series of profiles through which deposits could be followed around the whole circuit of the enclosure. This proved to be an invaluable tool in phasing the enclosure and identifying recutting of the ditch circuit. Approximately 44% (68m) of the enclosure circuit was excavated by hand. The remaining 66% (88m) was removed using a mechanical excavator fitted with a 1.80m wide toothless ditching bucket once the excavation of the internal features had been completed.

Intervention 3

Intervention 3 was allocated to the machine stripping of the road line of the proposed development located in the field to the south of Whin Beck. The road line was marked out by the developer and topsoil was removed using a tracked mechanical excavator fitted with a toothless ditching bucket. The total length of Intervention 3 was 1100m which varied in width between 15m and 5m. Several additional trenches were excavated during this operation to establish the extent and alignment of ditch features defined in the main trench. Exposed archaeological features were mapped then sampled in accordance with the scheme of works (see Appendix A). The presence of linear features was anticipated in Intervention 3 as both the aerial photographs and the gradiometer survey had indicated that a linear field system across existed in this area of the site.

Intervention 4, 5, 9, and 11

Interventions 4, 5, 9 and 11 comprised a series of four hand-excavated trenches immediately to the east of Intervention 2. These were located within the limits of the former golf course over an area of extant ridge and furrow. Intervention 4 (10m x 5m) was excavated to establish the presence of a putative second enclosure which had been suggested from the results of the gradiometer survey. Intervention 4 also served to evaluate the survival of stratified soils underneath the medieval ridges. Whether buried soils survived in this context would

effect the sampling strategy for the rest of the development as outlined in the scheme of works (see Appendix A). The second enclosure ditch was not identified within Intervention 4. With the possibility that this trench had been positioned over a break or entranceway to the putative enclosure, a second hand-excavated trench (Intervention 5) was excavated 5m to the east. This trench measured 5.0m x 2.0m.

Intervention 9 (5.0m x 3.0m) and Intervention 11 (3.5m x 3.0m) were positioned to define the limits of a boundary ditch which had been identified running eastward from the enclosure in Intervention 2 and had doglegged southwards into the golf course within Intervention 5.

Interventions 6, 7 and 8

Interventions 6, 7 and 8 were allocated to three 5.0m x 5.0m hand-excavated trenches positioned across the golf course. These were excavated to evaluate the sequence and survival of deposits in areas of ridge and furrow prior to the machine stripping of the main road lines (Intervention 10). Intervention 6 was located 30m northwest of Whin Beck in an area of ephemeral ridge and furrow earthworks. Intervention 7 was located 110 m to the north of Intervention 6, centrally within the planned location of a roundabout. Intervention 8 was situated 120m to the northwest of Intervention 7 again in the centre of a proposed roundabout. On the basis of the results from Interventions 6 and 7 it was deemed adequate that Intervention 8 would measure 5m x 2m.

Intervention 10

Intervention 10 was allocated to the machine stripping of the main central road line running through the northern half of the development area. At its southern end it was bound by Whin Beck, on the other side of which, the road line continued as Intervention 3. At its northern end, Intervention 10 turned eastward 60m south of the northern boundary of the site and westward as the main road line out of the development through the site's western boundary. Intervention 10 measured approximately 605m in length and, like Intervention 3, was excavated using a tracked mechanical excavator fitted with a 2.0m wide toothless ditching bucket. Exposed archaeological features were mapped then sampled in accordance with the scheme of works (see Appendix A).

Intervention 12

Intervention 12 was allocated to the main north-south road line running parallel with the western boundary of the development area immediately to the west of Intervention 2. This trench was stripped of topsoil in the same manner as Intervention 10 and measured 280m in length and was, on average, 12m in width. The southern limit of Intervention 12 was marked by Whin Beck, the other side of which it continued as Intervention 3. Intervention 12 joined Intervention 10 at its northern end. The same strategy of mapping and sampling was employed that had been used in Intervention 3 and Intervention 10.

Intervention 13

Intervention 13 consisted of a sub-rectangular evaluation trench 23m long by 28m wide, stripped of topsoil using a tracked mechanical excavator fitted with a toothless ditching bucket. Intervention 13 was located between the northeastern arm of Intervention 10 and the northern site boundary in order to evaluate the extent and character

of archaeological deposits in this area of the site.

Intervention 14

Intervention 14 comprised the extension of Intervention 2 to form a sample area, sub-rectangular in shape which measured 132m in length and 113m in width. This joined with Intervention 12 to the west and was undertaken to define and sample archaeological features around the periphery of the enclosure in addition to identifying ditches and boundaries which may relate to its use or disuse.

Intervention 15

Intervention 15 consisted of a rectangular sample area, 64m long and 20m wide, positioned along the northern edge of Whin Beck. This was excavated to investigate the origins of the present watercourse and establish the role and function of any earlier features in this area. The trench was stripped of topsoil using a wheeled mechanical excavator fitted with a toothless ditching bucket. The excavation area was extended to the north to define the full extent of a series of small gullies.

Intervention 16 and 17

Intervention 16 and 17 comprised the stripping of topsoil along a road line running west from Intervention 10. This trench proved to be 70m long and approximately 8m wide.

Intervention 18

Intervention 18 was allocated to a series of nine machine excavated trenches positioned to evaluate the area of the golf course to the east of the main road line of Intervention 10. The zig-zag alignment of these trenches reflected the most efficient way to test for the presence of linear features across this area. The trenches were stripped of topsoil using a wheeled excavator fitted with a toothless ditching bucket and any exposed archaeological features were mapped and sampled in accordance with the scheme of works (see Appendix A).

Intervention 19

Intervention 19 was allocated to a series of eight machine excavated trenches of varying sizes and orientation. These were excavated to evaluate the area to the east and west of Intervention 12. Additional trenches were excavated to fully define a system of irregular boundary ditches running across this area.

Intervention 20

Intervention 20 comprised a series of eleven machine excavated trenches situated across the northern zone of the development area, between the northern limits of Intervention 10 and the site boundary. These trenches were located to define an east-west aligned ditch identified in the northeastern spur of Intervention 10 and follow its route westward. This feature was exposed along its entire length in order to establish whether it was associated with any additional ditched boundaries or field systems running across the site.

Intervention 21

Intervention 21 was allocated to two trenches located to the east of the northeastern spur of Intervention 10. They were positioned to define the extent and nature of heavily gleyed deposits and possible post features previously identified at the eastern end of Intervention 10. This sequence of deposits was thought to relate to a possible ancient lake and associated activity. The trenches were initially excavated by machine with several hand-excavated sondages then cut through the exposed clay soils to record deposits in section.

Intervention 22

Intervention 22 was allocated to the machine stripping of topsoil along the road lines to the south of Whin Beck and to the east of Intervention 3. This intervention proved to be 140m long and 5m wide.

Intervention 23

Intervention 23 consisted of a series of ten machine excavated trenches, all of which were 2.0m wide and set at angles to each other. These were excavated in order to evaluate an area of the site to the east Sewerbridge Beck and to the north of Whin Beck. These trenches were stripped of topsoil using a wheeled excavator fitted with a toothless ditching bucket.

Intervention 24

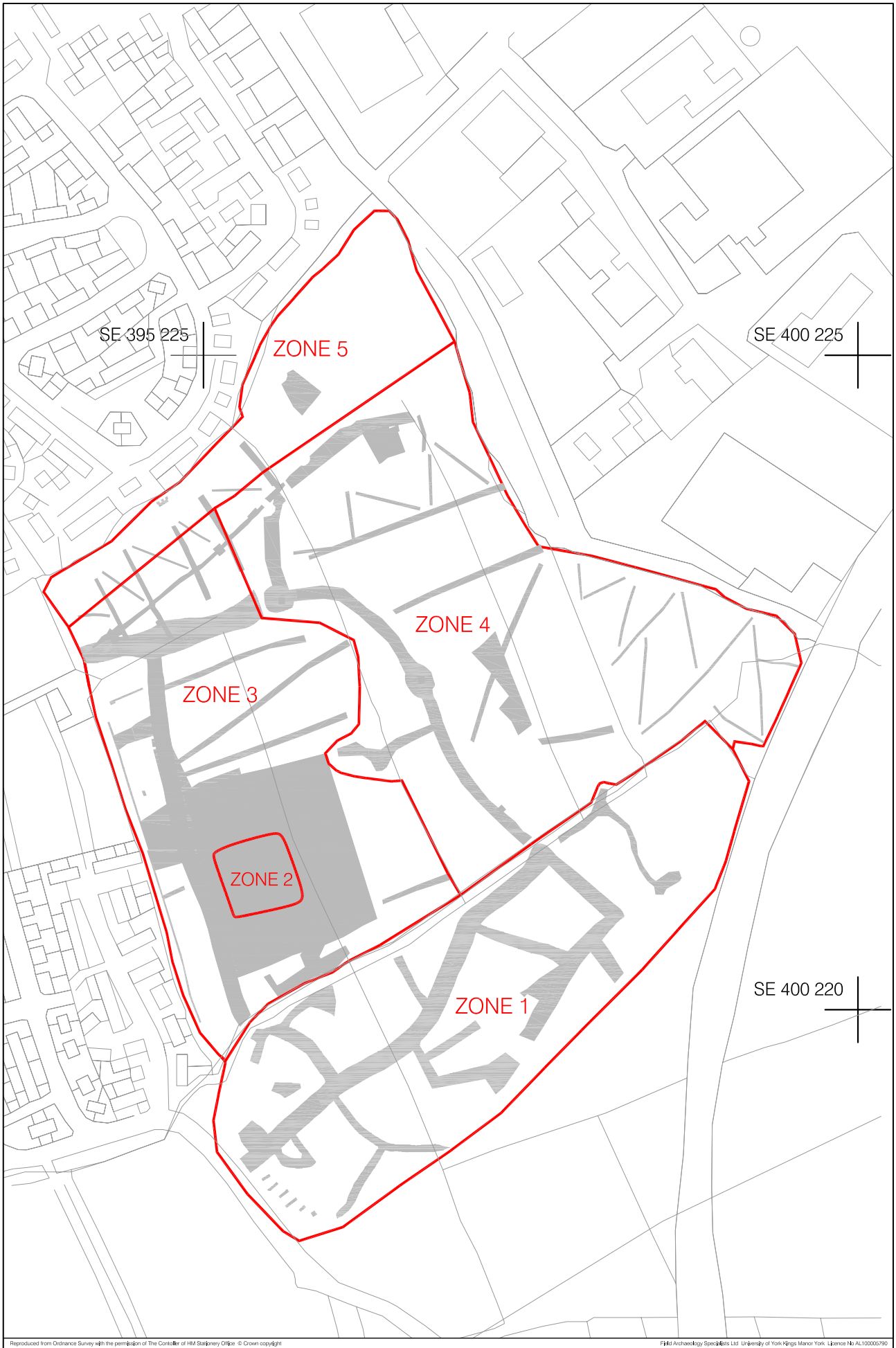
Intervention 24 was allocated to a small rectangular trench, 9.5m by 4.5m, situated against the northern boundary of the site.

Intervention 25

Intervention 25 was allocated to the archaeological monitoring of the excavation of a lagoon through an area of made ground located in the far northern corner of the site. This and the associated landscaping were carried out between June and August 2001 and comprised the last phase of archaeological fieldwork to be undertaken on the site.

5.0 FIELDWORK RESULTS

For the purpose of presenting the results of the fieldwork, the site has been divided into five separate zones (Figure 7). These zones were defined according to logical topographic boundaries or meaningful groups of archaeological deposits. This method of dividing the site was used to amalgamate the results from several interventions into a meaningful format and avoid undue repetition of information.



Location of Archaeological Zones | Scale 1:4000 | Figure 7

Table 2 Index of zones

Zone	Interventions	Description
1	3, 22	area of the development to the south of Whin Beck
2	2	rectilinear enclosure
3	2, 4, 5, 9, 11, 12, 14, 15, 19	archaeological features and boundaries surrounding Int2 identified within area of arable field and 40m eastward into golf course
4	6, 7, 8, 10, 16, 18, 21, 23	eastern quadrant of the site, defined to the south by Whin Beck, to the east by Sewerbridge Beck and to the north by Intervention 10
5	13, 20, 24, 25	northern area of the development area defined by zones 2 and 3 to the south

With the exception of Intervention 2, recorded features and deposits are presented by period. A summary of the contexts excavated is included in Appendix B and a summary of features is included in Appendix C.

5.1 ZONE 1 (Figure 8)

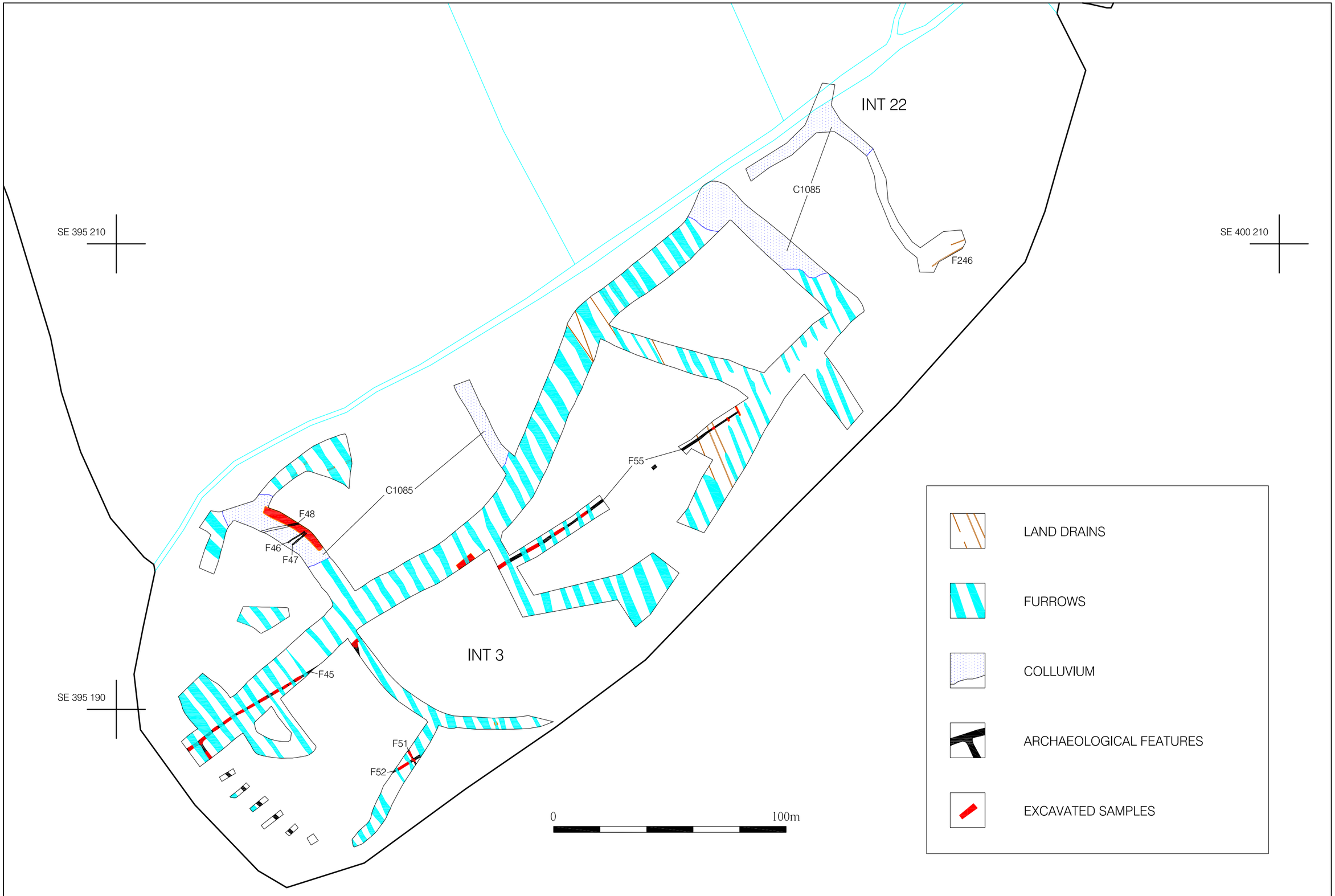
Zone 1 consisted of the area of arable field to the south of Whin Beck. Aerial photographs had indicated the presence of a series of linear cropmarks running SW/NE across the hillside. These had then been the subject of a gradiometer survey (Intervention 1), the results from which (see Figure 2) not only confirmed the presence of the cropmark ditches but also revealed the presence of ploughed out ridge and furrow cultivation.

Zone 1 was evaluated by the excavation of two separate roadlines, Intervention 3 (in 1998) and Intervention 22 (in 1999) (Figure 8). The ploughsoil (C1000) varied in depth between 0.3m and 0.4m and was removed by machine to reveal a variable natural subsoil (C1001). At the western end of the site, this deposit comprised outcrops of friable sandstone covered in areas by layers of variable boulder clay. To the east C1001 became predominately sandier before changing to a homogenous yellow clay in which seams of coal were visible. A series of linear features aligned NW/SE were visible cutting through the subsoil at regular intervals along the excavated road line of Intervention 3. These represented the remains of furrows running down-slope toward Whin Beck. Between the furrows a series of earlier ditch features were defined and sampled.

Period 1

The earliest features identified within Intervention 3 comprised a series of ditches clearly defined against natural subsoil (C1001) which were cut by the medieval furrows. Despite extensive sampling no dating evidence was forthcoming from any of these features.

F45 appeared to form the main element to the field system. This feature was aligned SW/NE and was identified running into the site from the western boundary. Along with its equivalent in the eastern half of Intervention 3, F55, this ditch could be followed across the slope of the hill for a distance of 280m. At its eastern end F55 became gradually thinner and terminated. This was a result of truncation caused by modern ploughing as opposed to a deliberate terminus of the ditch. This phenomenon was also visible in the distribution of furrows which thinned and disappeared in this area on the high point of the hill.



Results from Zone 3 | Scale 1:1500 | Figure 8

F45 appeared to have a spur which ran southwards at the western end of Intervention 3. This spur was followed in a series of machine trenches running along a NW/SE alignment beyond the limits of the development. The intersection of the spur and the main SW/NE element of the ditch was sampled, the results from which, indicated that the features were contemporary and had been backfilled at the same time with the same material (C1046).

An additional fifteen hand-excavated samples were excavated through F45 and F55 between the furrows (Figure 9 and 10) (Plate 4). The resulting sections are shown in Figure 10. F45 was backfilled with a homogenous deposit of blue grey clay which contained frequent iron pan flecks and evidence of oxidisation within its matrix. Several rounded cobbles which were reddened and blackened either through mineral staining or burning were recovered from the backfill. F45 varied in width between 0.8 and 1.1m and had a distinctive U-shaped profile with a flat, slightly concave base, surviving to a depth of between 0.3m and 0.5m.

Plate 4 Intervention 3, F45, looking northeast (scale 2.0m)

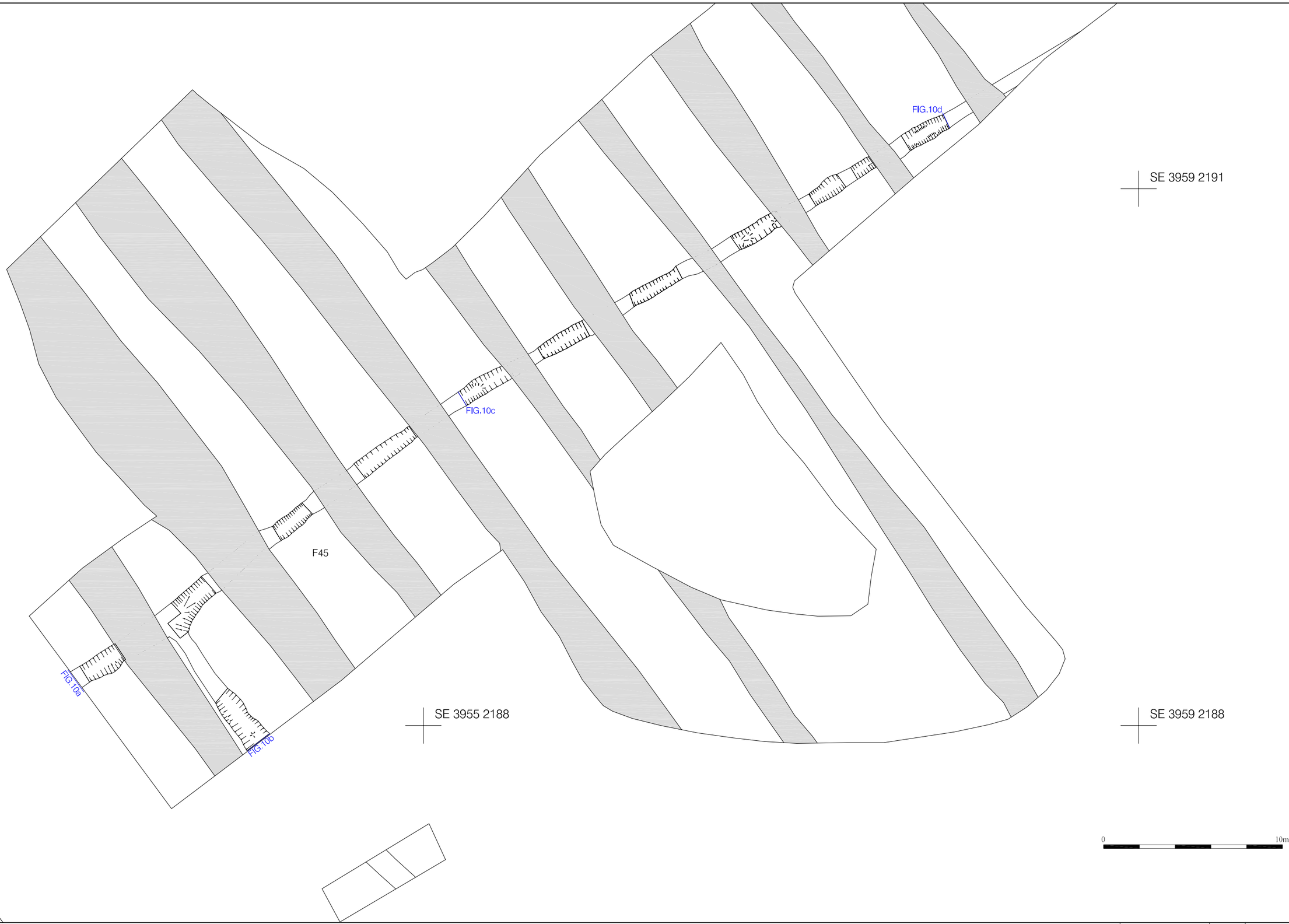
To the east of Intervention 3, where the subsoil became sandier, the backfill of the ditch (C1056, F55) consisted of a homogenous deposit of brown sandy clay which contained frequent inclusions of small sandstone fragments and rare charcoal flecks. The bottom of the feature at this point stopped on the top of a layer of natural sandstone giving the ditch profile a flat base. F55 survived to a depth of 0.4m and measured 1.5m wide at its widest point. There was no evidence for a bank or silting in any of the profiles of the ditch which suggests that it was backfilled in a single episode.

Running parallel to and 55m to the south of F45 was a second ditch (F52). This feature was defined, mapped and sampled. F52 comprised the truncated remains of a SW/NE ditch, 0.9m wide, 0.15m deep with a regular U-shaped profile. This feature was backfilled with C1053, which consisted of a firmly compacted deposit of silty clay. A distinctive band of gleyed clay was visible 0.1m from the base of the feature.

It is probable that F45, F55 and F52 represent the remains of a ditched field system of Roman date, since the landscape appears to be reorganised along these lines during this period.

F52 was cut by another linear feature (F51). The intersection between the two features was quadrant excavated (Figure 11) and the resulting sections are shown in Figure 12. F51 appeared to be heavily truncated, surviving to a depth of only 0.05m. It comprised a shallow cut with a U-shaped profile and was 0.5m wide. This feature shared the same NW/SE alignment of the adjacent furrows but was considerably narrower and did not fit into the regular intervals which were evident elsewhere in Intervention 3.

F48 was defined (after the removal of a thick deposit of colluvium, C1085) within a 2.0m wide sondage along a northern spur of the roadline Intervention 3. It was an east-west aligned ditch, 0.5m wide, and backfilled with a firm deposit of grey clay (C1049). This deposit contained lenses of orange staining and iron pan as well as



F45 - post-excavation plan | Scale 1:200 | Figure 9

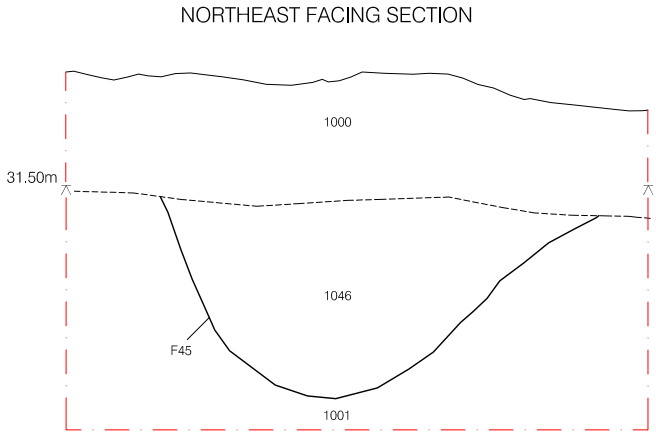


Figure 10a

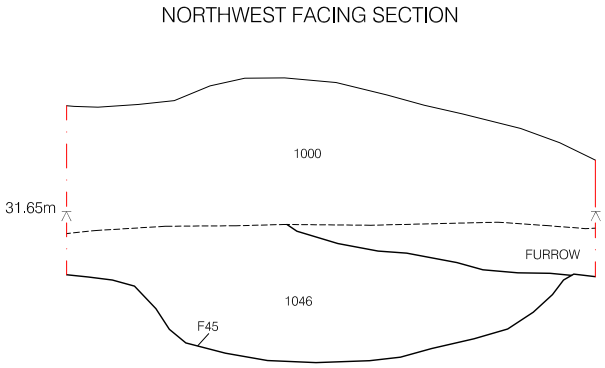


Figure 10b

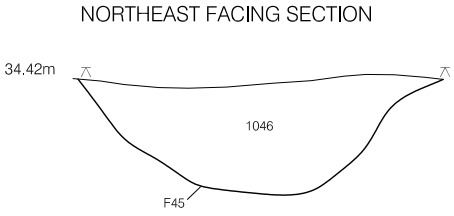


Figure 10c

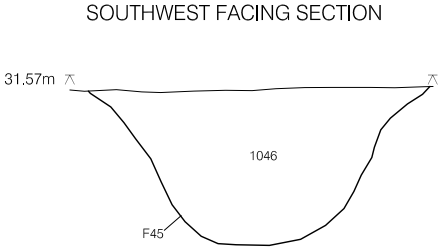
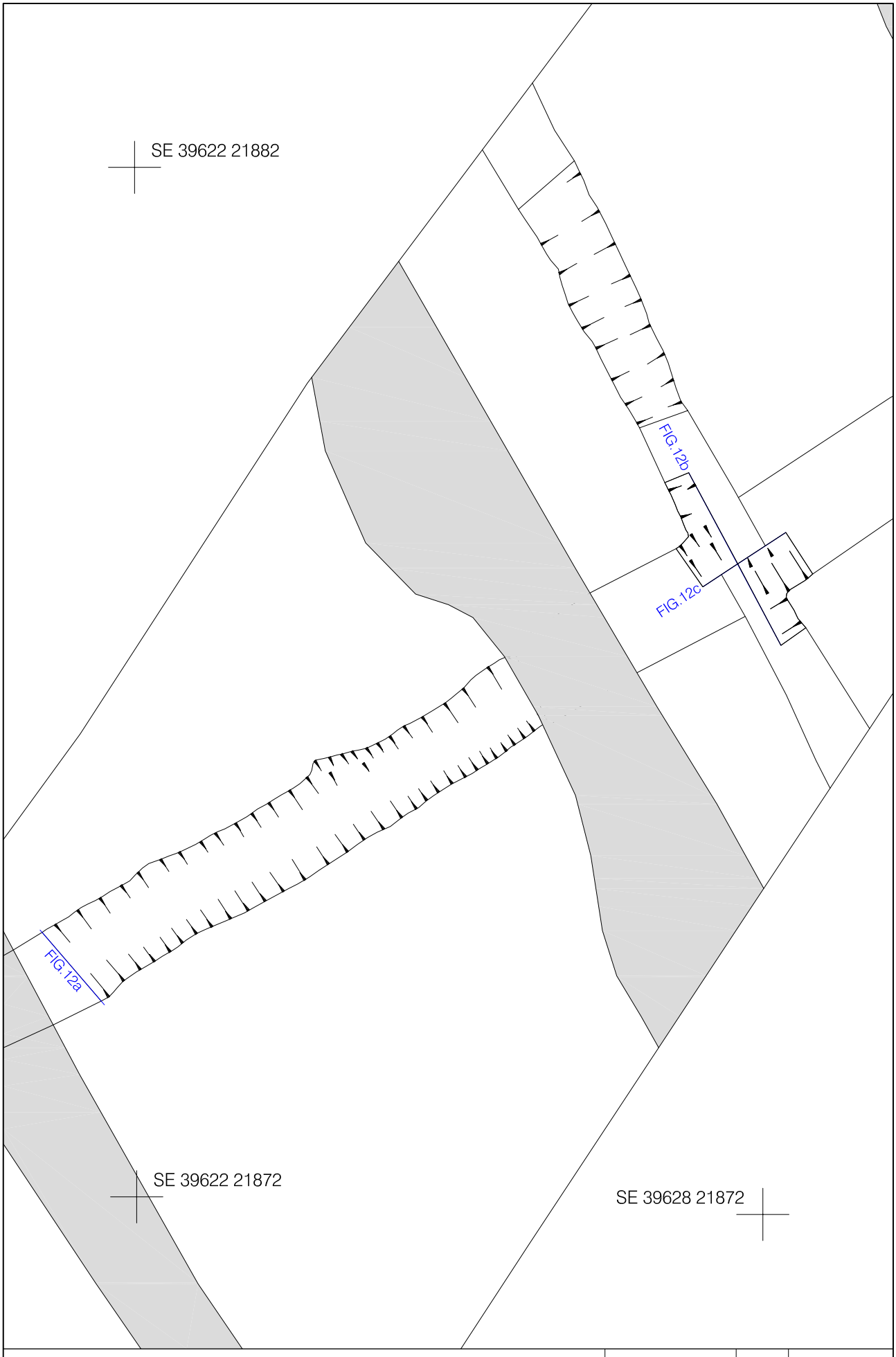


Figure 10d

Sections across F45	Scale 1:20		Figure 10



F51 and F52 - post excavation plan | Scale 1:50 | Figure 11

NORTHEAST FACING SECTION

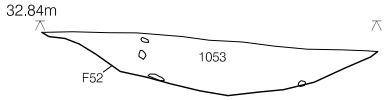


Figure 12a

NORTHWEST FACING SECTION

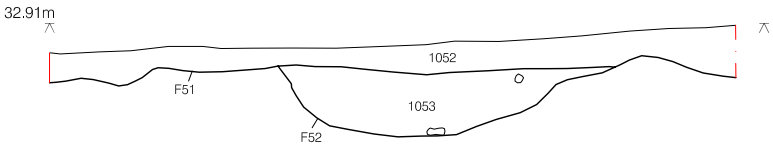


Figure 12b

SOUTHWEST FACING SECTION

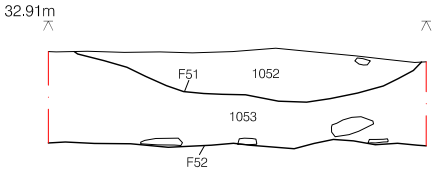


Figure 12c

Sections across F51 and F52	Scale 1:20		Figure 12

a distinctive band of gleyed clay within its matrix. The final form of F48 was that of a 0.4m deep cut with a regular U-shaped profile and a shallow concave base with sides that sloped at approximately 45 degrees. F48 was not identified elsewhere within the road system despite attempting to locate it with machine cut sondages to the east and west. The alignment of F48 suggests that it was not associated with the field system identified to the north.

Period 4

The furrows identified within Intervention 3 appeared to be part of the system of medieval cultivation which could still be seen in the form of earthworks across the golf course. All appeared to run from the top of the slope downhill to Whin Beck on a SE/NW alignment. The furrows varied in width between 0.7m and 3.5m. This difference in the recorded size of each furrow had been produced by differential truncation of the subsoil by modern ploughing. The distance between each furrow varied between 5.8m and 7.2m (centre to centre).

The furrows were sealed in two areas by a thick blanket of colluvium (C1086), one in the northwest and one in the northeast of Intervention 3 (see Figure 8). This deposit of mottled brown silty clay varied in depth between 0.1 and 0.4m and would appear to represent an accumulation of material which postdates the destruction of the ridge and furrow earthworks in this field. It is also possible, however, that it represents the remains of the ploughsoil associated with the ridge and furrow system.

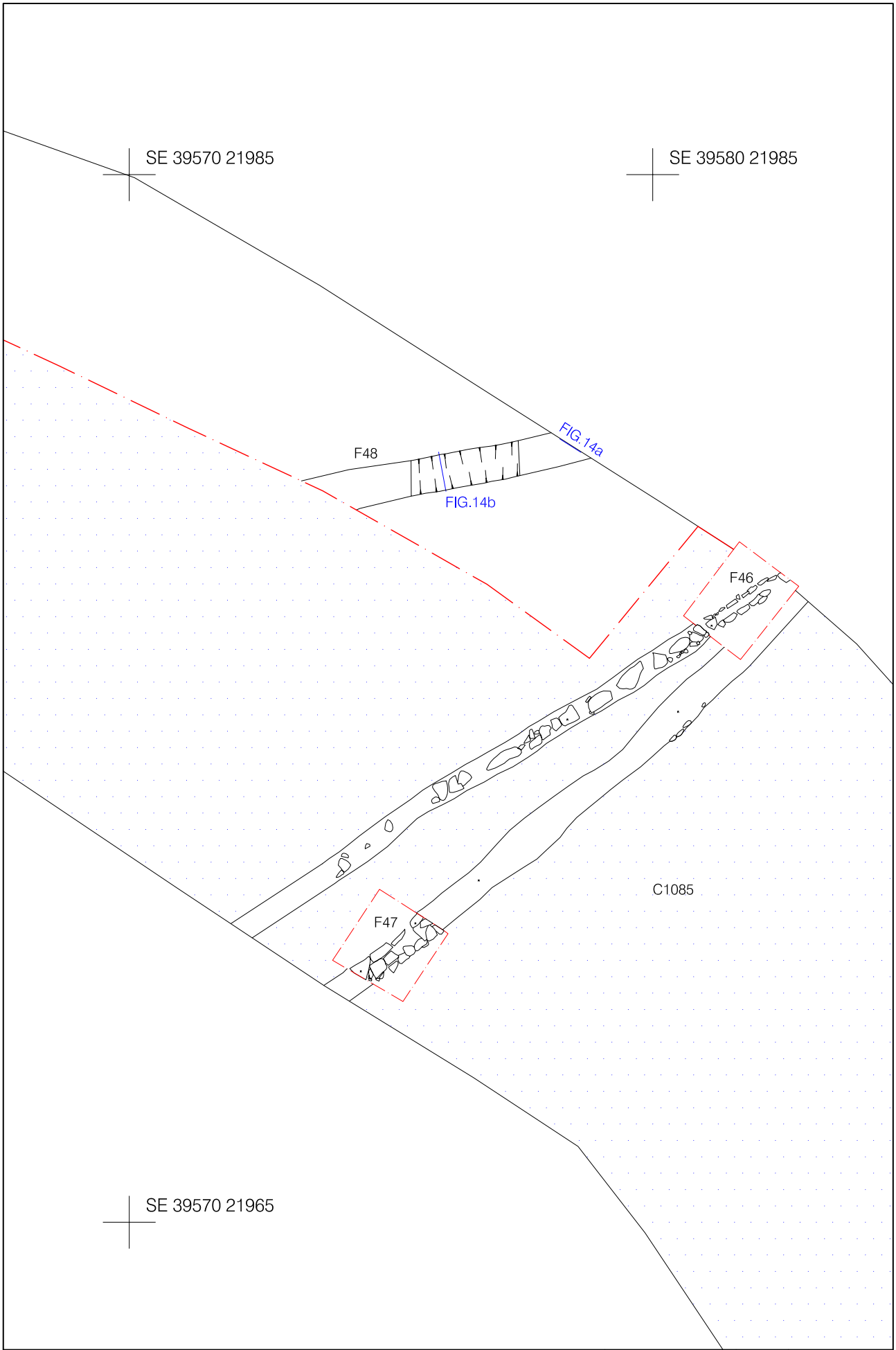
In the northwestern area of Intervention 4 the colluvium (C1086) was cut by two stone lined field drains (F46 and F47) (Figure 13 and 14); both of these features were aligned SW/NE. F46 was 0.45m wide, 0.3m deep and was lined with sandstone slabs set on edge (C1047). The top of the drain was covered with a lid formed by additional sandstone fragments. F47, 1.1m to the south was 0.6m wide, more substantial than F46, but of a similar construction.

Similar features were identified in the southwestern limits of Intervention 22. Here a slightly curving NW/SE aligned flat bottomed trench (F246), 0.3m wide, was sampled. It contained within its backfill a number of sandstone blocks in addition to an assemblage of animal bone and tile. A similar feature was identified 2.4m to the north running parallel. These stone filled trenches appear to represent a phase of drainage of post-medieval date.

A series of ceramic land drains were recorded running from SE/NW across the northeastern corner of Intervention 3. These features were aligned roughly along the base of the medieval furrows. This suggests that the earthworks were still a feature in the landscape when the drains were constructed, a phenomenon which was recorded elsewhere across the site, particularly in Intervention 2.

5.2 ZONE 2 (Figure 15)

Zone 2 was allocated to an area measuring 60m square which contained the rectilinear enclosure. The area was stripped of ploughsoil in 1997 and excavated in 1998. Zone 2 produced the most informative and significant archaeology on the site and as such became the main focus of the project.



F46, F47 and F48 - post-excavation plan | Scale 1:100 | Figure 13

NORTHEAST FACING SECTION

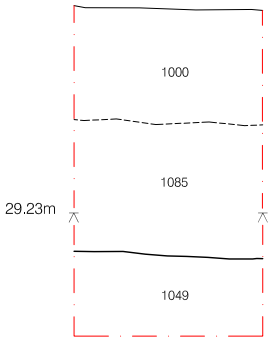


Figure 14a

WEST FACING SECTION

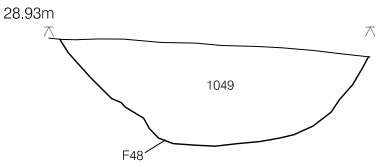


Figure 14b

Sections across F48	Scale 1:20		Figure 14

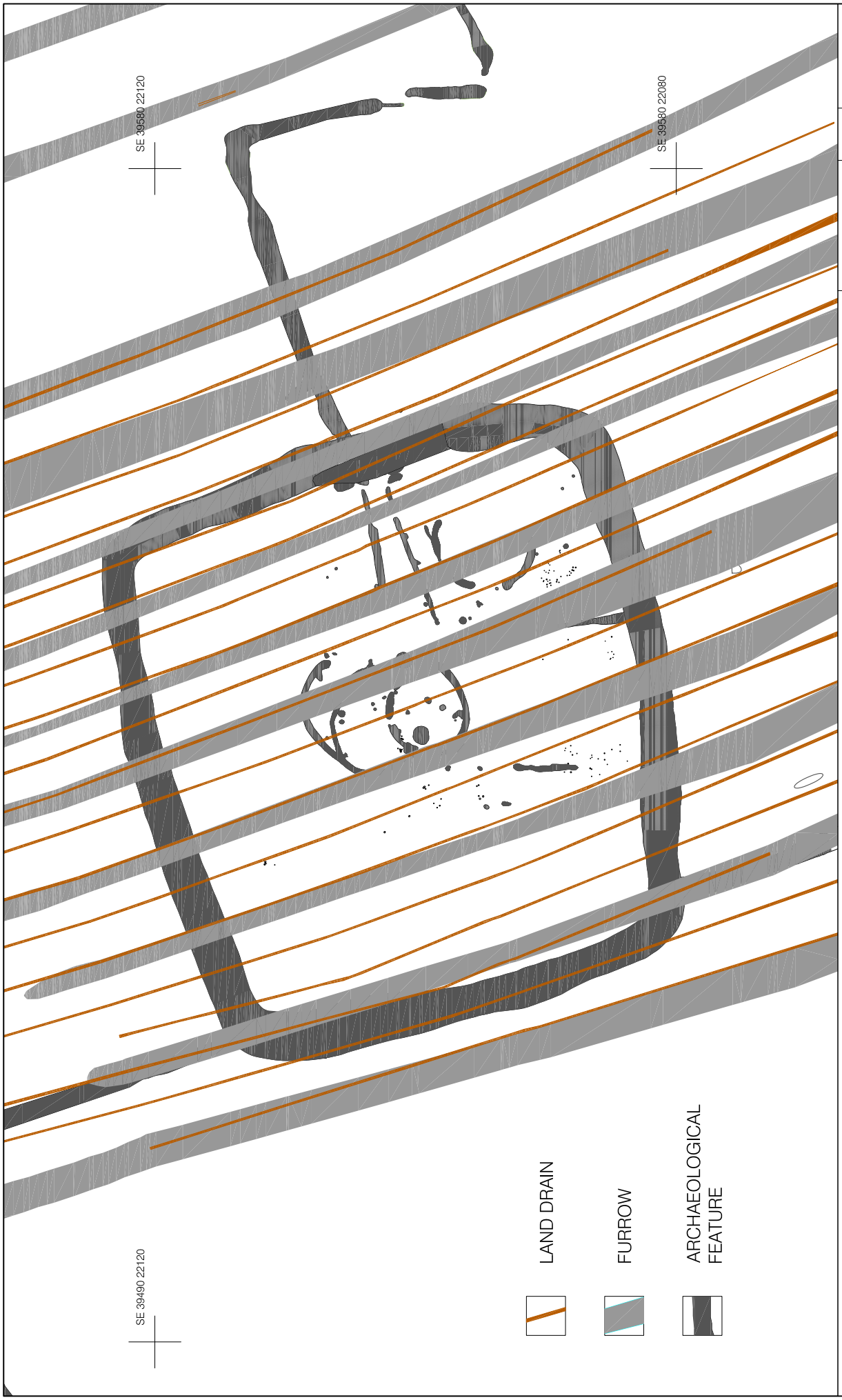


Figure 15

Scale 1:400

Zone 2 - pre-excavation plan

The ploughsoil, which varied in depth between 0.2m and 0.4m, was removed by machine to reveal a variable subsoil. This changed across the site between an outcrop of weathered sandstone in the southeast of Zone 2, to an area of orange sandy clay in the northeast and to an area of blue orange plastic clay with exposed seams of degraded coal over the western half. Visible against these deposits was the clearly defined backfill of a substantial ditch which formed a rectilinear circuit (F37). This measured 42.7m (north-south) by 46.7m (east-west) and varied in width between 2.5m and 3.5m. The ditch was traversed by a series of seven linear furrows (F24 -F30) and fifteen ceramic land drains (F3 -F17) all running from north to south across Intervention 2.

Within the enclosure, and between the furrows, several features were identified. These comprised a number of post holes, curvilinear gullies and linear features which were concentrated in the centre and eastern half of the enclosure.

5.2.1 The Enclosure Ditch

The rectilinear enclosure ditch was by far the most impressive feature on the site. When first defined within Zone 2, this feature appeared to exist as a single entity, located upon a small rise in the valley bottom with in an otherwise clear area. Once the medieval furrows had been removed, it soon became apparent that the enclosure, at least in its latest phases, was tied into a more extensive field system with ditches extending from the northwest and southeast corner.

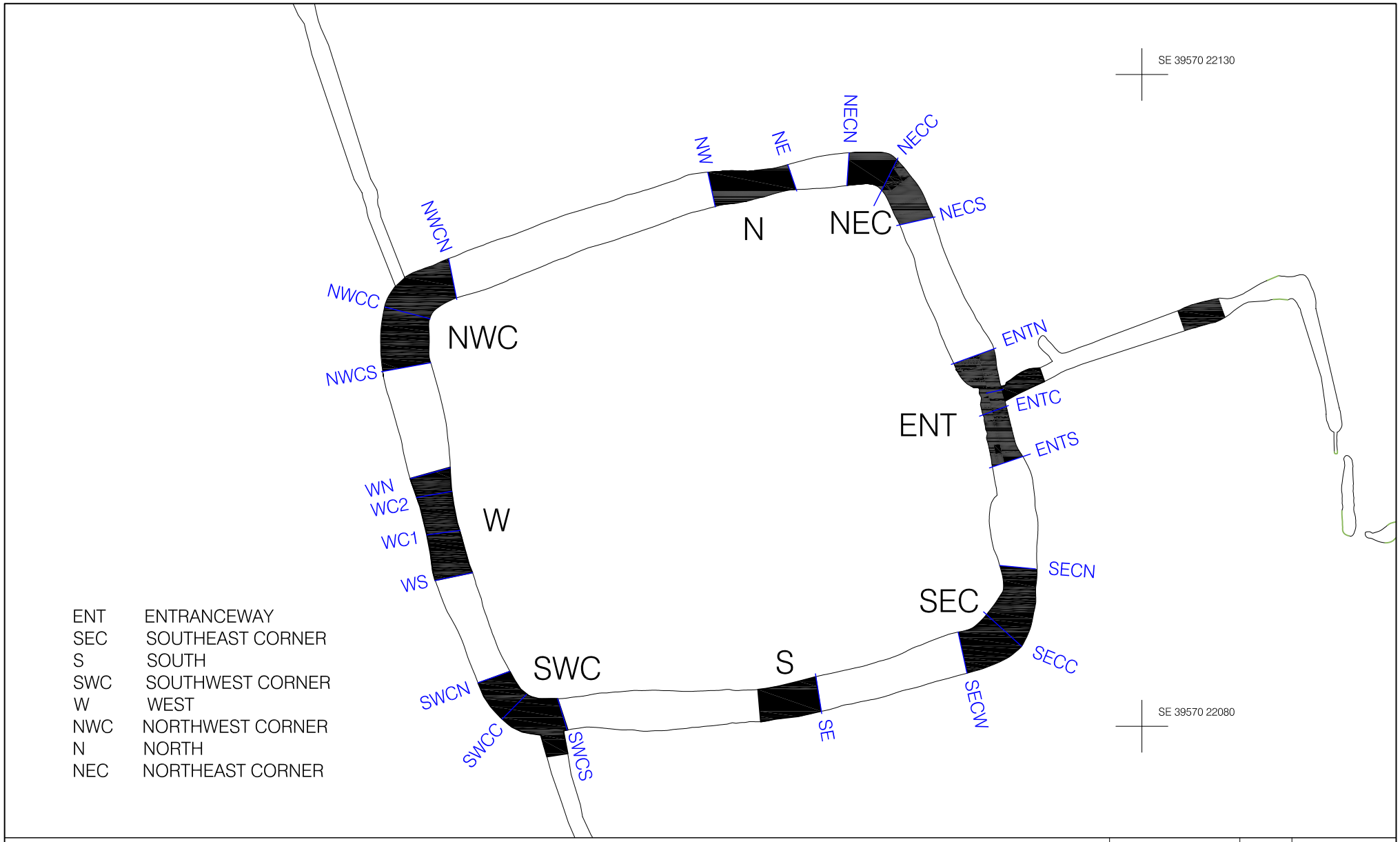
The ditch was sampled at selected points along its circuit. This comprised a hand excavated sample midway along each side of the enclosure in addition to a sample located at each corner. Due to the alignment of several internal features, the entranceway to the enclosure was expected to be on its eastern side. Consequently the ditch at this point was excavated in quadrant in order to recover additional sections through the backfill sequence.

This approach provided a total of twenty three drawn and photographed sections across the ditch from eight hand excavated segments. From these sections it was possible to identify five separate phases within the enclosure ditch. Deposits relating to these phases could be identified running around the complete circuit.

The eight hand-excavated samples were labelled according to their location as an aid to interpretation. These segments are shown in Figure 16 and the results of each are summarised in Table 3 below.

Table 3 Summary of contexts recorded within each excavated segment by ditch phase

Location / Ditch	Entrance	SE Corner	SW Corner	W	N	NE Corner
Phase 1 - F37	C1269	C1288	C1331	C1310	C1324	C1318
		C1289	C1333	C1311		C1319
Phase 2 - F234	C1267	C1287	C1330	C1273	C1322	C1317
				C1274		
	C1268	C1290	C1332	C1309	C1323	



Zone 2 - location of hand excavated samples of the enclosure ditch and drawn sections | Scale 1:400 | Figure 16

Location / Ditch	Entrance	SE Corner	SW Corner	W	N	NE Corner
Phase 3 - F43	C1168	C1286	C1328	C1307	C1067	C1315
	C1170	C1291	C1329	C1308	C1321	C1316
Phase 4 - F235	C1163	C1284	C1327	C1272	C1066	C1313
	C1166/C1169					
	C1167	C1285			C1320	C1314
Phase 5 - F236	C1164	C1038	C1038	C1038	C1038	C1038/C1312
	C1165	C1283	C1325		C1325	C1325

Information recovered from the sections was also used to create hachure plans for each phase. Ditch sections ENTC and ENTN are shown in Figure 17, and sections WS and NECC are shown in Figure 18. The remaining sections recorded across the enclosure ditch are presented in Appendix D.

Phase 1 - F37 (Figure 19)

The original enclosure ditch was rectilinear in plan measuring 42m (north-south) x 46m (east-west) and varied in width between 2.5m and 3.5m. Due to recutting of the feature in later phases, F37 was only partially visible in section at various points around the circuit. Consequently the final form of this feature was difficult to determine. Only at the entranceway (ENTN) did both the internal and external ditch edges survive.

F37 had an 8m wide causewayed entrance located along its eastern side. The northern terminus of the ditch had a wide U-shaped profile, 3.3m across and survived to a depth of 1.4m. Cut into the concave base of this was evidence for a 0.45m wide channel which appeared to be related to drainage rather than having a structural purpose. The southern terminus for this phase was only discovered during the machine excavation of the enclosure ditch beyond the limits of the hand-excavated samples. Only the western edge of this butt end survived in plan.

F37 was backfilled with a homogenous deposit of olive brown clay containing few gravel inclusions and patches of oxidisation. In some areas around the circuit the interface between this deposit and the natural subsoil was poorly defined due to post-depositional weathering of the underlying bedrock. The final form of F37 was that of a 2.5m to 3.0m wide U-shaped profile ditch, with sides sloping between 45 and 75 degrees bottoming onto a flat or slightly concave base at a depth of between 1.2m and 1.5m.

At various points around the circuit of the enclosure (W/N/NE/ENT), narrow steep sided channels were recorded cut into the bedrock along the base of F37 (NECW/ENTN/SWCE/WS/WC2/NW). These channels were backfilled or lined with a deposit of grey plastic clay (C1311) or sandy clay (C1319) which contained rare flecks of charcoal in addition to very occasional pebble inclusions. The channels appeared to be related to drainage, acting much like gutters transporting water away from the entranceway toward the western length of ditch. This phenomenon was observed during periods of wet weather after the complete excavation of the enclosure ditch.

During a period of disuse the first phase of enclosure ditch at Normanton appeared to have almost completely silted up or been backfilled. Evidence for this is suggested from sections at the entranceway, southeast corner

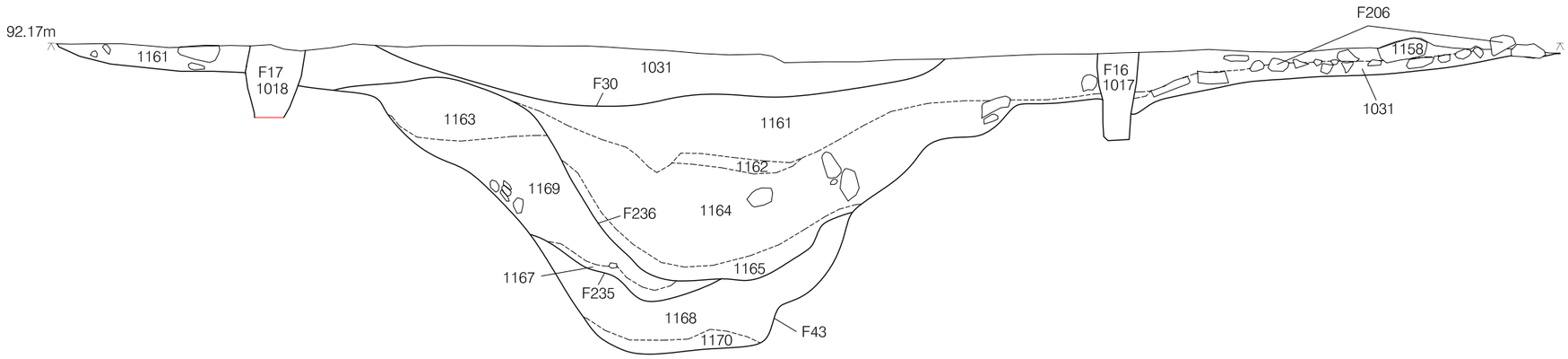


Figure 17a - North facing section across entrance way (ENTC)

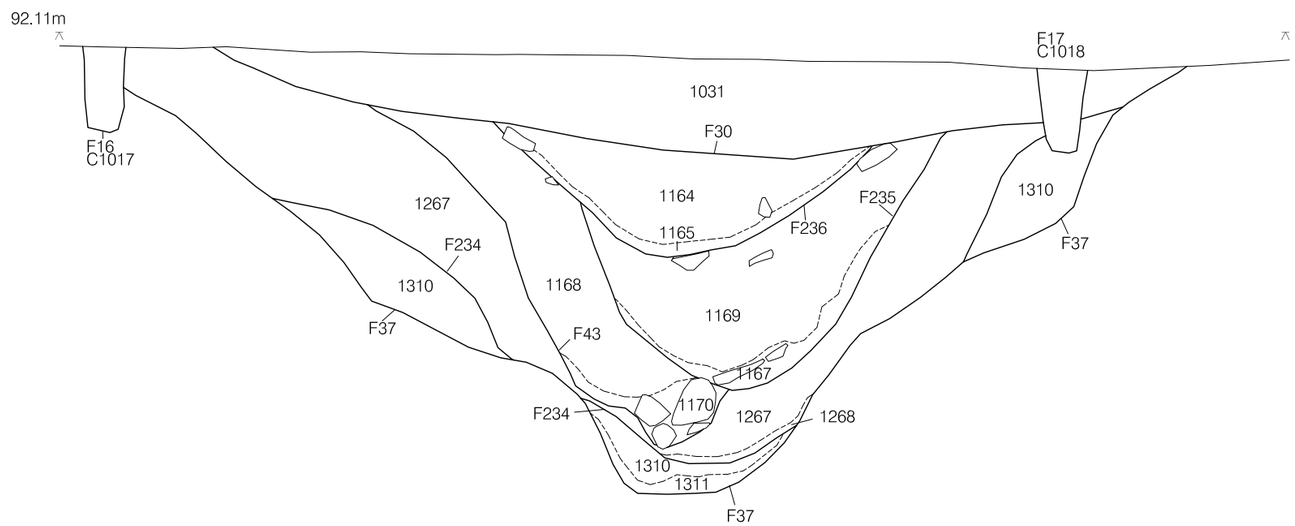


Figure 17b - South facing section across terminus of ditch (ENTN)

Enclosure ditch sections ENTC AND ENTN	Scale 1:20		Figure 17

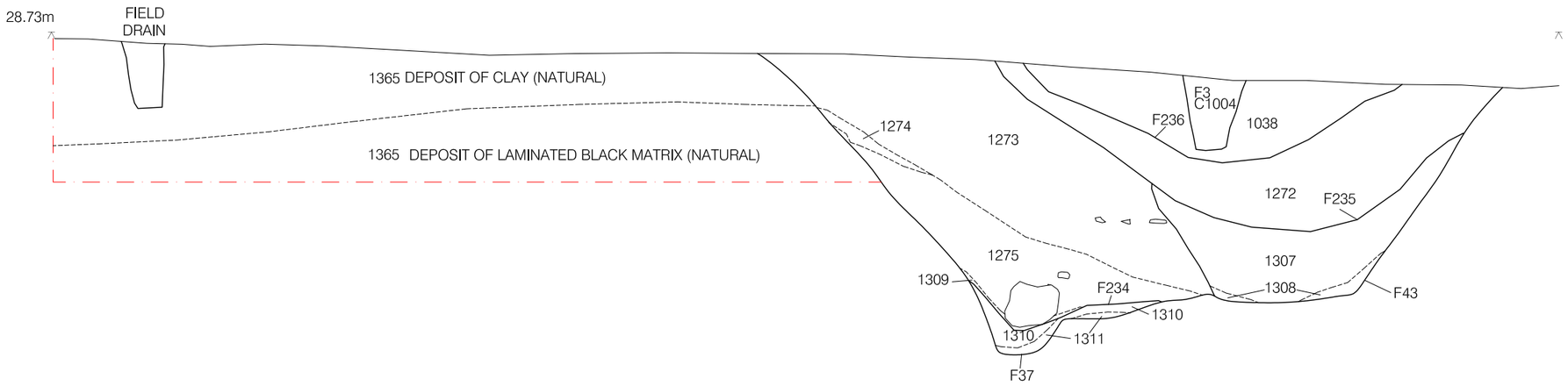


Figure 18a - North facing section of enclosure ditch along western leg of circuit (WS)

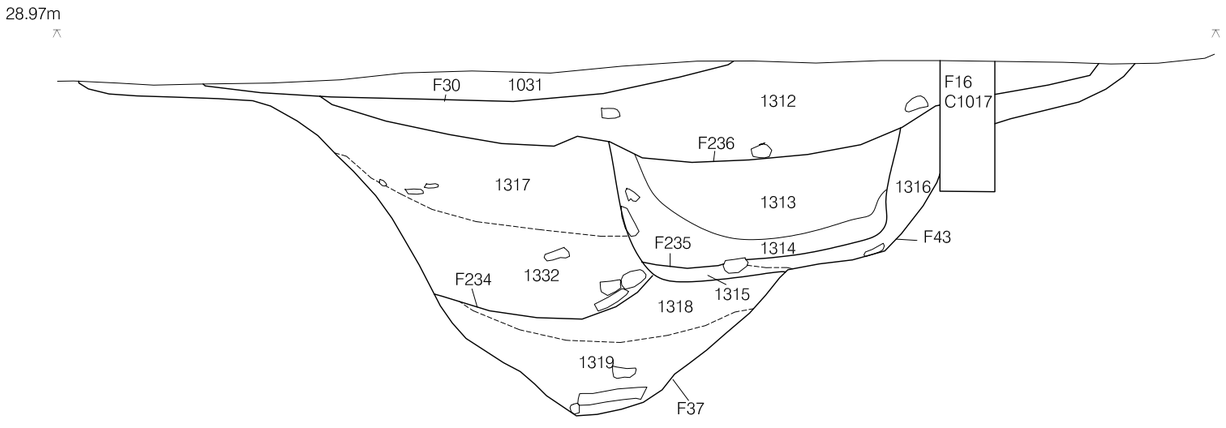
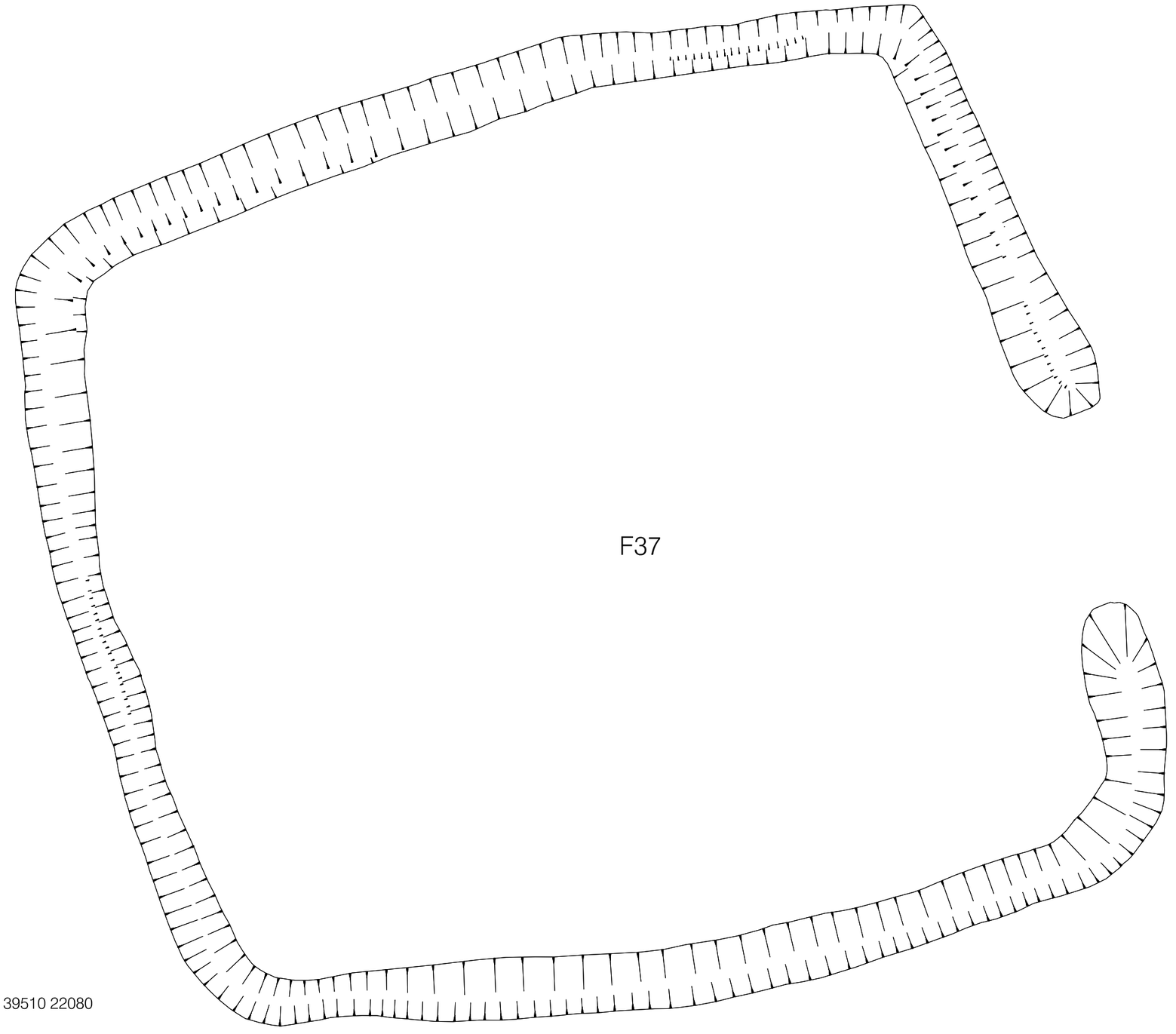


Figure 18b - Northwest facing section of enclosure ditch at northeast corner (NECC)

Enclosure ditch sections WS and NECC	Scale 1:20		Figure 18



Reconstructed hachure plan of F37

Scale 1:200

Figure 19

and along the western length of ditch circuit (ENTN/WN/SECS). At these points the backfill of F37 almost rises to the level of the present ground surface before the feature is recut by F234. This implies that the enclosure would have existed as nothing more than a shallow earthwork prior to being reestablished. Further evidence for this survived in the line of the later recut. Along most of the enclosure ditch the later cut followed the line of the original ditch often re-excavating the original drainage channels. Along the western length of ditch, however, the line of the recut veered so far off that of the original (WN) that it would appear that F37 was not visible at all at that time. This again suggests that the main purpose of the ditch was to drain water into this length of ditch which had apparently silted up completely. No datable material was recovered from the limited excavation of F37 where it survived.

Phase 2 - F234 (Figure 20)

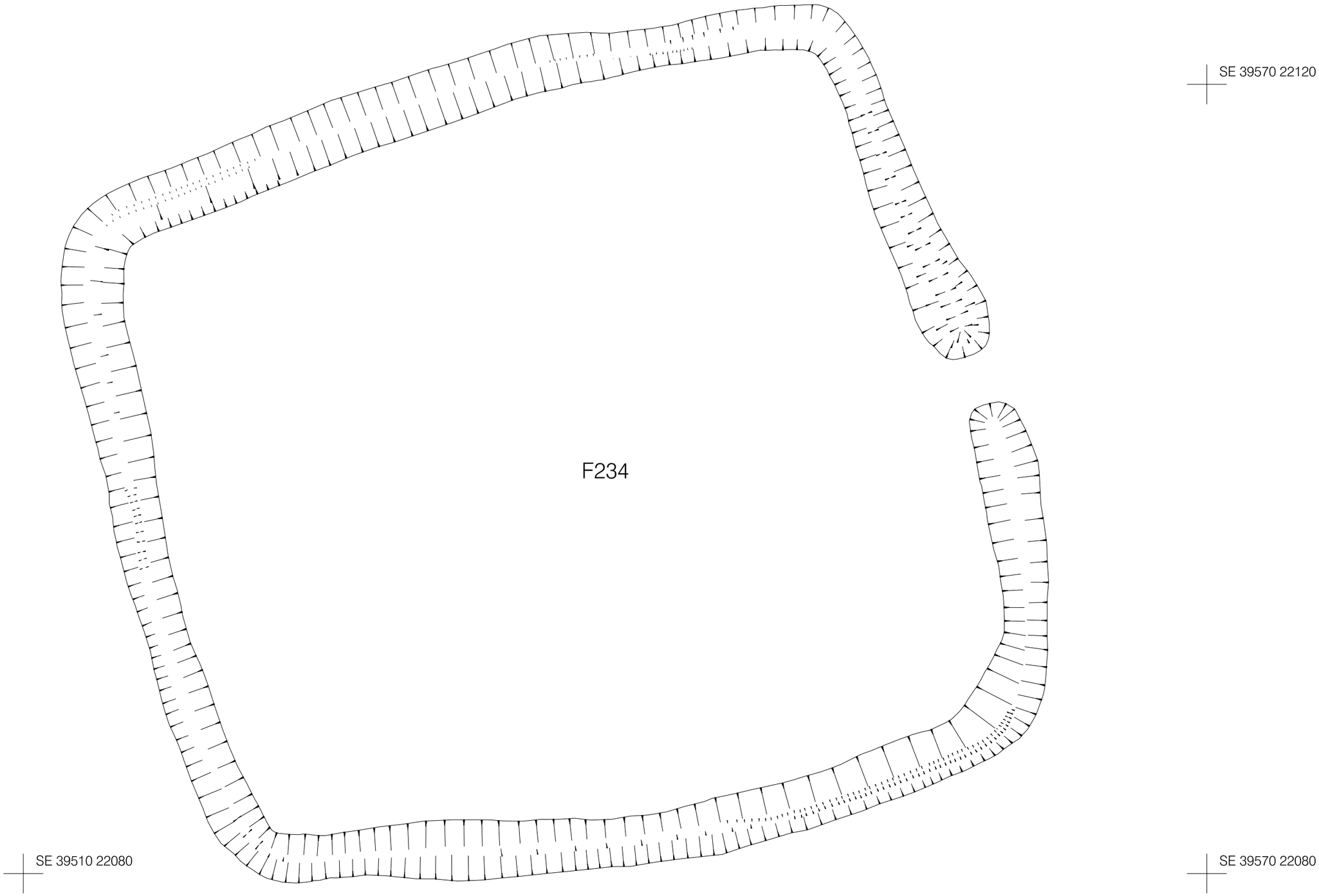
As stated, the original enclosure was recut by a second ditch, F234. As with F37, F234 had undergone truncation by later phases of the enclosure and only partially survived in sections around the ditch.

F234 measured 42.6m (N-S) x 47m (E-W). With the exception of the entranceway this feature generally followed the same layout and line as F37. The causeway entrance for F234 was remodelled and was now located centrally along the eastern side of the enclosure and measured only 2.6m in width. Although no structural features were recorded within the ditch itself, several postholes and gullies within the enclosure may relate to some form of gate structure contemporary with this phase of ditch (see 5.2.3 below).

The butt ends of the enclosure were rounded in plan with a wide U-shaped profile. Like that of F37, the base of both of the termini were stepped with a channel, between 0.3 and 0.6m wide cut into the bottom of the ditch at a depth of 1.3m. Within the bottom of the southern butt end two large rounded cobbles were recorded. The channels, like those of F37, appeared to be for drainage as opposed to representing a structural feature. It is not clear, however, whether the cobbles, both of which measured in excess of 0.4m, were merely dumped within the ditch or served a more deliberate purpose.

F234 was backfilled with a fairly homogenous deposit of olive brown clay. This deposit could be followed around the length of the enclosure and generally contained few inclusions. These consisted of occasional charcoal flecks, manganese oxidisation, gravel and small pebbles. The final form of F234 was that of a U-shaped profile ditch, between 2.5m and 3.1m wide, cut to a depth of between 1.2 and 1.4m with a flat or slightly concave base. As with F37 lengths of a shallow gully had been excavated into the base of the ditch. These were located along the southwestern and part of the northern leg of the enclosure ditch cut into the natural bedrock and varied in width between 0.25 and 0.5m and in depth between 0.1m and 0.2m. Once again, these gullies appeared to be associated with draining water away from the entrance toward the western leg of the enclosure. F234 had reused some of the earlier drainage channels within F37 in addition to cutting new ones. As with the original ditch (F37) these gullies were backfilled with a deposit of grey plastic clay up to 0.2m thick which contained inclusions of rounded pebbles and charcoal flecks (ENTN/SECS/SWCE/SWCS/WS/WC2/NW).

The only anomaly within this backfill sequence was recorded mid way along the western leg of the enclosure (WS). At this point a laminated deposit comprising lenses of yellow clay, grey clay and slightly stained brown sand (C1275) was recorded tipping into the ditch from the internal side sealing the channel below (see Figure



Reconstructed hachure plan of F234

Scale 1:200

Figure 20

18). Within this deposit frequent lenses of fine charcoal flecks and occasional flecks of fired clay were observed. The laminated structure of C1275 appeared to be the result of successive episodes of material washing into the ditch from inside the enclosure over a period of time. This deposit appeared to have accumulated before the main silting/backfill deposit of F234 had accumulated/been deposited.

C1275 was sealed by a thin patchy layer of black material (C1274) (WS). This deposit, which also had a laminated structure, appeared to be made up of very fine particles. A visual assessment carried out by Stephen Carter (Headland Archaeology) concluded that C1275 was in fact mineral in origin and appeared to be derived from material leaching into the ditch from the western cut edge originating from a weathered coal seam just below the present ground surface.

Despite extensive excavation no dating material was found within the backfills of F234. The only evidence for human occupation recovered from this phase of the enclosure ditch were the charcoal and fired clay flecks recorded in the drainage gullies and within C1274.

F234, like F37 appeared to have almost completely silted up or been backfilled before it was recut. Evidence for this survives in several of the sections recorded around the enclosure (WS/NW/NE/NECW/NECM/SECS /SWCW). This was particularly evident along the western leg (WS) where the section shows that this part of F234 would probably not have been visible at all before it was once again recut.

Phase 3 - F43 (Figure 21)

F43 was allocated to the third phase ditch within the sequence. This recut marked a distinct change in the form and development of the enclosure. F43 effectively transformed the causewayed enclosure of F37 and F234 into a complete circuit, cutting across the previous entranceway.

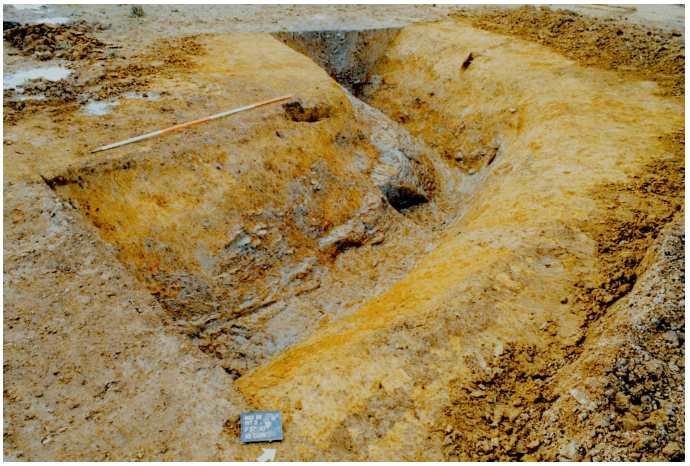


Plate 5 Northeast corner of the enclosure, looking northwest (scale 2.0m)

F43 followed the line of F234 fairly consistently but veered off its line dramatically at the northeast corner (NECC) (Plates 5 and 6) and along the western leg (WS/WC2) suggesting that the earlier ditch was not visible at these points. F43, although truncated by later ditch phases, survived sufficiently to characterise its profiles and backfills. The final form of F43 was that of a U-shaped profile cut, between 0.8m and 1.2m deep with a flat or slightly concave base and sides that sloped between 60 and 70 degrees. The top of F43 was marked by a general widening of the feature visible in most sections around the circuit. This

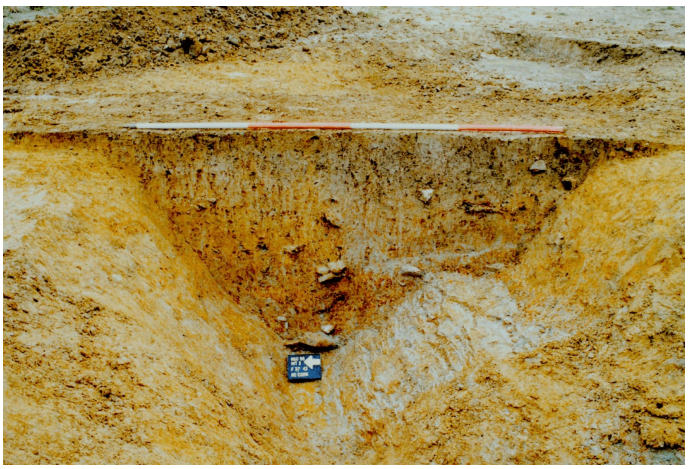
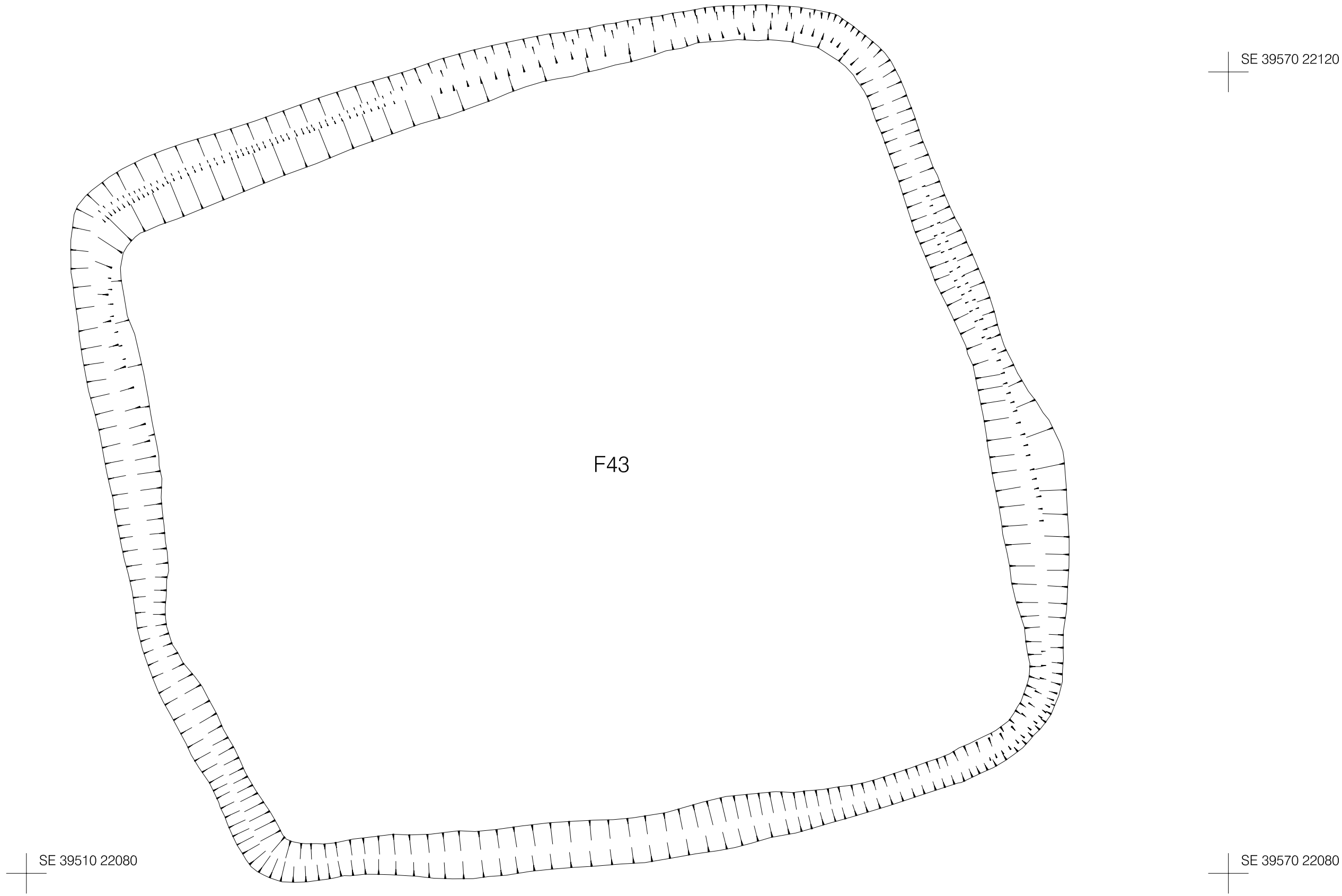


Plate 6 Section through enclosure ditch (NECC), looking southeast (scale 2.0m)



Reconstructed hachure plan of F43

Scale 1:200

Figure 21

resulted in the recorded width of the feature varying between 1.7m (WS) and 3.5m (ENTS). Several short lengths of drainage gully were identified cut into the base of F43 in the southeast corner and along the northern leg of the circuit. These gullies tended to be have a V-shaped profile and were less well defined than those recorded in earlier phases. In plan the enclosure ditch measured 41.3m (N-S) x 46.3m (E-W).

The entranceway was retained midway along the eastern leg of the enclosure circuit but the narrow causeway was replaced by a bridged crossing, the support posts for which were identified on the western side of the ditch (F212, F213, F214, F217) and were abutted by a amorphous cobble surface (F206).

F43 was backfilled with a fairly homogenous deposit of grey to greyish brown silty clay which could be followed around the circuit of the enclosure through the excavated sections. This deposit contained inclusions of charcoal flecks, fired clay flecks, gravel, pebbles and cobbles which varied in distribution around the ditch.

The base and sides of F43 was defined by a thin layer of plastic, greasy, grey clay which contained occasional flecks of charcoal and varied in depth between 0.05m and 0.2m. This deposit also contained moderate inclusions of rounded pebbles and cobbles which varied in size between 0.02m and 0.2m. Many of these stones appeared to be reddened either through natural staining or burning, most of which were concentrated within the drainage trenches cut into the base of F43. Significantly, the higher concentrations of cobbles occurring in the base of F43 were found in the entranceway and southeast corner of the enclosure.

Plate 7 Northern section of enclosure ditch, looking southeast (scale 2.0m)

Within the entranceway the lower clay fill (C1170) lined the cut edge of F43 against the bedrock where the original causeway had been cut away. This provided an important indicator of the interface of F43 and earlier deposits around the rest of the enclosure.

Only eleven fragments of pottery were recovered from the excavation of the backfill of F43. From the southeast corner (SEC) a rim sherd and body sherd from a small jar were found within C1286. In addition to this a very abraded sherd made of an orange-grey sandy fabric was also found. This pottery has been dated to the Late Iron Age or early Roman-British (Appendix E and Appendix F respectively), although this is not certain due to its poor condition and size. The black sandy fabric with quartz inclusions is suggested as having parallels at Stanwick (see Appendix E).

Plate 8 Section through enclosure ditch (NW), looking southwest (scale 2.0m)

Along the northern length of circuit (Plate 7 and Plate 8) three similar sherds were recovered from

the lowest grey clay fill of F43 (C1321) (N). It is possible, however, that these are intrusive from a later ditch phase (F235). From the later backfill (C1067) within the northern ditch segment, a further five pottery fragments were recovered, four of which were part of the same vessel. These fragments were processed as Thermoluminesence samples and, as such, were carefully recovered and located. These sherds (fabric A, Vyner) were positively identified as being pre-Roman Iron Age in date (see Appendix F). Unfortunately the fabric of this pottery was not suitable for Thermoluminesence dating and the analysis was unsuccessful.

A single cow tooth was recovered from C1168 in F43.

F43 like its predecessors appears to have virtually silted up before the ditch was recut. This is evident in several sections around the ditch circuit (SWCC/SWCW/WN/NW).

Phase 4 - F235/F78 (Figure 22)

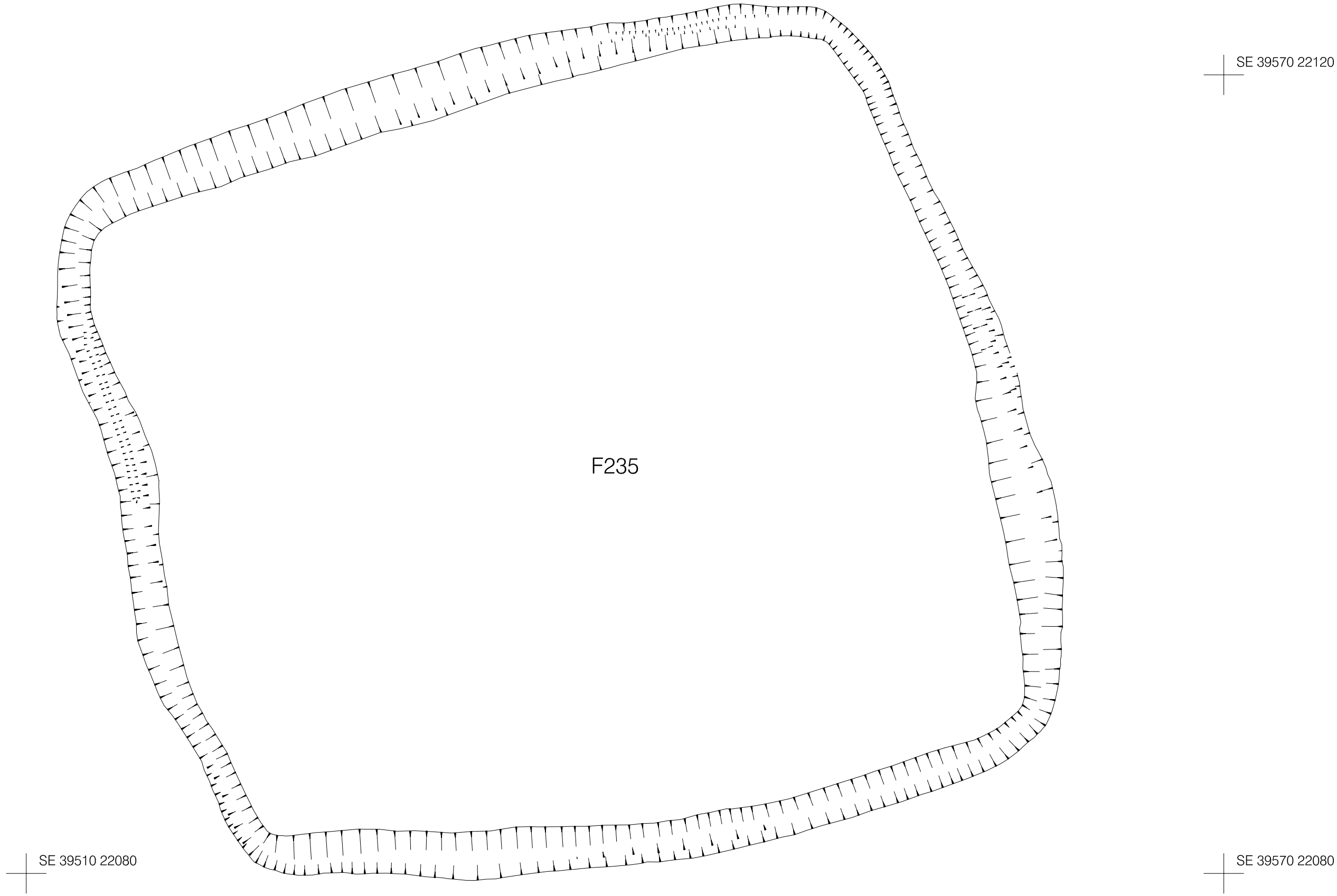
With the exception of the southwest corner (SWC), F235 recut the partially backfilled enclosure of F43 along the same line around the complete circuit. This latest phase of ditch measured 41.7m (N–S) x 46.1m (E-W). In plan the western length of F235 was considerably narrower at only 1.7m than the other sides of the ditched enclosure.

The final form of F235 was that of U-shaped cut which varied in width between 1.8m and 2.8m and in depth between 0.7 and 0.9m. The ditch had sides that sloped between 60 and 70 degrees which bottomed into a flat or slightly concave base through with a shallow channel cut into its base at various points around the circuit (SWCE/WN/NE). F235 was generally 0.2m shallower than F43. As with F43, F235 widened considerably at the top giving it a flared profile in places.

F235 was backfilled with a deposit of heavily oxidised grey clay. The composition of this varied around the circuit reflecting localised geology but generally contained occasional inclusions of charcoal flecks, gravel, pebbles and cobbles and fired clay flecks. Some of the stones were burnt and fire-cracked. Within the entranceway, this deposit contained far more iron-pan or manganese concretions than elsewhere around the enclosure circuit implying that this area had been saturated with water for a considerable period of time.

The cut edge and base of F235 were lined with a deposit of grey plastic clay. This deposit varied in depth between 0.05m and 0.2m and contained a moderate amount rounded cobbles, pebbles and charcoal flecks.

F235 appeared to be linked to a second ditch to the east of the main enclosure (F78). F78 was aligned east-west and appeared to feed into the main circuit immediately to the north of the bridged entranceway. In plan F78 ran for 25m beyond the limits of Intervention 2, before turning south at 90 degrees. After this point it continued for a further 12m before butt ending in a wide shallow scoop. A study of the levels showed that rather than feeding into the enclosure, F78 served to take excess water away from it, acting as an overflow. At its western limit, where F78 meets F235, the base of F78 was recorded at a height of 28.55m AOD. Where excavated at the edge of Intervention 2, 17m to the east, the level of the base was 28.26m AOD and a further 4m east was 27.95m AOD. The relationship between F78 and the enclosure ditch sequence was captured in a working section located 1.5m north of main entranceway quadrant.



Reconstructed hachure plan of F235

Scale 1:200

Figure 22

The levels in the base of F235, when studied, also showed a slight change in the pattern of drainage from previous phases of the ditch. The circuit of F235 appeared to drain water from the southeast and northeast corners of the enclosure back towards the entranceway as opposed to the western leg. This had significant implications for the location of the entranceway during this phase. The close proximity of F78 to the old entranceway, suggested that the bridged crossing of Phase 3 would not have fitted into the same place in Phase 4. It is possible that a new crossing, without supporting posts, was positioned to the south of F78 to bridge a gap of 2.2m into the enclosure. Alternatively, the location of the entranceway during this phase may have shifted to another point around the circuit, although little evidence for this has been found.

Until this point the central location, symmetry and formality of the entranceway in Phase 2 and 3 had been mirrored in the layout and organisation of internal structures. The shift in the entrance during this phase may have marked a change in the emphasis and function of the enclosure.

Only a single sherd of pottery was recovered from F235, and was found during the excavation of the southeast corner of the enclosure (C1285). This fragment comprised an abraded sherd of black sandy fabric of the same type found in C1286 and was considered to be of a Late Iron Age/early Romano-British date.

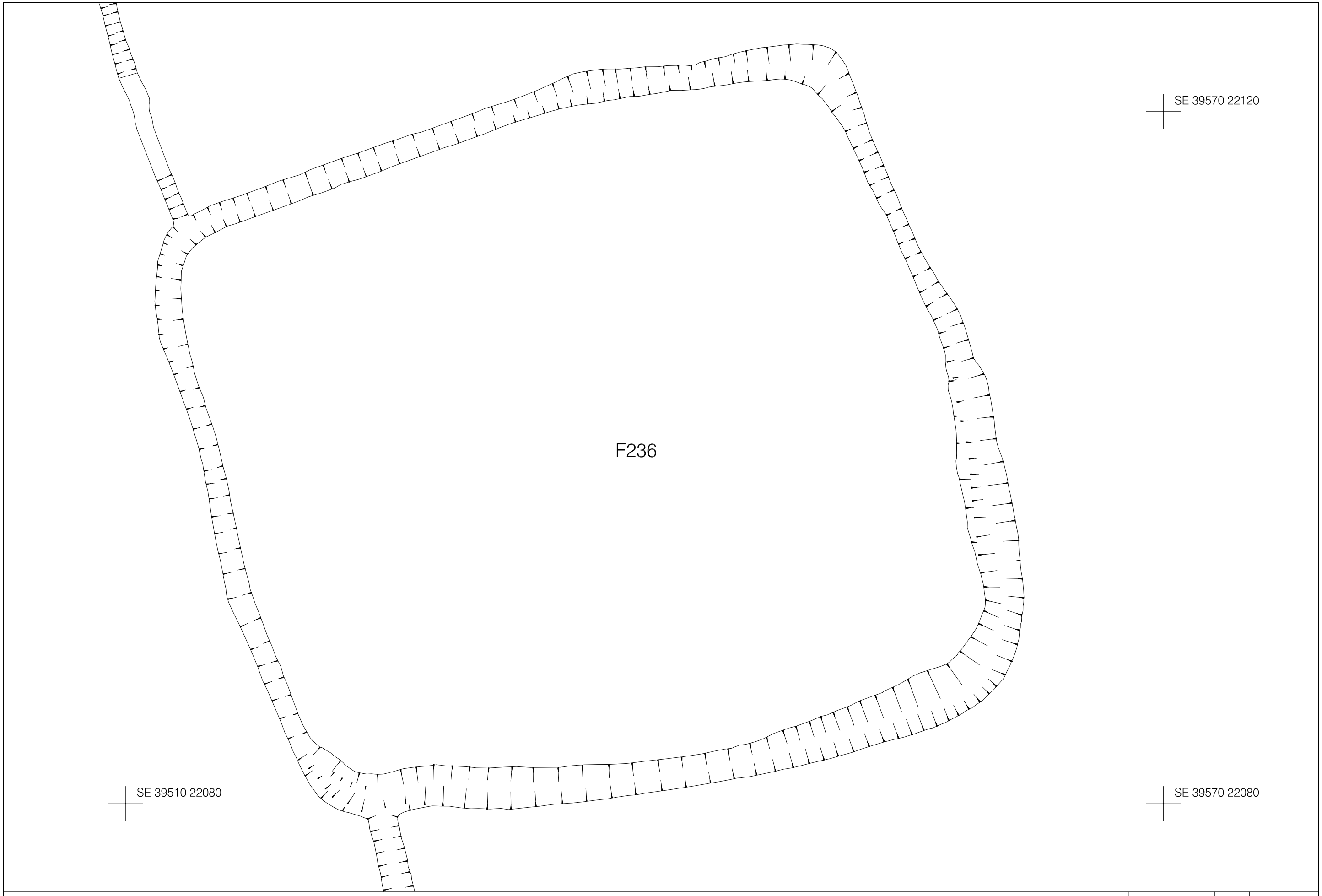
In its disuse F235 appears to have silted up before being recut by the final phase ditch (F236). This is evident in several of the sections recorded around the circuit (NECS/ENTS/SWCE/WN/NE). Whereas F235 appears to have silted up through natural processes over time, the backfill of F78 appears to suggest that this overflow ditch was deliberately backfilled with redeposited subsoil (C1088) before the enclosure was recut.

Phase 5 - F236 (Figure 23)

The final phase of ditch of the enclosure comprised not only the recutting of the entire circuit but also the incorporation of the enclosure into a wider field system. Two north-south aligned ditches were cut running from the northwest (F220) and southwest (F219) corners of the enclosure to create a western boundary or drainage ditch some 160m long (Zone 4). This activity appears to be contemporary with the deliberate backfilling of the western end of F78 (Phase 4). Once backfilled, this feature was then recut along its eastern length (F34). The recut (F34) had a western butt end which left a passable gap of 4.2m between it and the enclosure (F236). This created a system of boundaries which transformed the isolated entity of the enclosure into an integrated element of a wider landscape.

F236 measured 41.7m (N-S) by 45.9m (E-W) and recut F235 along the same line. This feature had a variable U-shaped profile which ranged in width from 0.9m along the western leg of the circuit, 1.3m along the north and 2.1m around the southeastern corner. F236 varied in depth between 0.4m (WS/WN/NECW/SECN/SECW) to 0.7m (ENT) and had sides that sloped between 30 and 70 degrees into a shallow concave base. Unlike earlier phases of enclosure, the recorded profiles and levels of F236 suggested that the emphasis of the ditch lay not in managing water around the circuit but more in defining it as a physical component within the landscape.

F236 was backfilled with a variable deposit of grey sandy clay containing occasional inclusions of rounded pebbles, cobbles and gravel. Charcoal flecks were only recorded as rare inclusions within this deposit in the southeast and southwest corners of the enclosure. The base and sloping edges of F236 were marked by a thin



Reconstructed hachure plan of F236

Scale 1:200

Figure 23

a lens of plastic grey clay in only the entranceway and southeastern corner. Elsewhere the backfill consisted of a single deposit.

A formal entranceway or bridging point was not identified during the excavation of F236. The deliberated backfilling of F78 to the east of the enclosure may suggest that some form of crossing may have been reinstated at the original entrance. However, the enclosure ditch could have been crossed fairly easily by both people and animals due to the shallow depth and narrow width of the ditch.

Plate 9 Find No.316

Two fragments of pottery were recovered during the excavation of F236. The first comprised a fragment of a Late Iron Age/early Roman-British jar found in the southeast corner (C1283). The second, the base of a Roman greyware jar, was found in the northern excavated sample (C1326) and was dated to between the 2nd or 3rd century AD. A heavily corroded bronze finger ring was also recovered from this deposit (Find No.316, Plate 9).

In its disuse F236 appears to have silted up. From this point onwards the enclosure may have only survived as a shallow earthwork.

General

No evidence for an internal or external bank was recovered during the excavation of the enclosure ditch. Only at two points (SWC/WN) did deposits indicate tips of material from one side of the ditch or the other. In the southeast corner, tip lines of stones were observed within the backfill of F235 (C1284). These pebbles and cobbles appeared to originate from outside the enclosure. The deposits recorded along the western leg tipping into the ditch from inside the enclosure (WS) are discussed in Phase 2 above (C1275). If a bank was present there is no reason to suggest that once it had become established with grass or vegetation that it would erode away.

The sheer lack of material evidence recovered from the Normanton enclosure ditch was in itself quite striking. On many Iron Age sites such features often acted as deposit traps collecting domestic refuse or ritually deposited items, particularly at the entranceway of an enclosure. A 44% hand-excavated sample of the enclosure ditch produced a total of 14 fragments of abraded pottery (Plate 10), a bronze finger ring, two cow teeth and cattle metacarpal. Whether this paucity of material is due to finds not being discarded into the ditch in the first place or is a result of a poor burial environment is an important issue for consideration.

The assumption that poor representation of skeletal elements within the enclosure ditch was a product of poor preservation conditions, was supported by the types of bone that have survived (Appendix G). In this case the two teeth (due to their enamel) and one metacarpal (due to its dense structure) were much more likely to survive

than other types of bone in this context. If this was the case, and activity was occurring on the site to produce an animal bone assemblage which included cattle bone, why are their so few bones of these types represented in the archaeological record considering the level of sampling employed during the excavation?

It can also be argued that the burial environment is responsible for the poor survival of some types of low fired, coarse pottery, particularly fabrics with grass or calcite temper which can leach or dissolve in acidic soil conditions. However, the burial environment cannot be held responsible for the lack of other artefacts such as stone objects, querns or flint.

Bulk samples were taken from various deposits within the ditch. Without exception the assessment of these samples indicated that nothing of an organic nature had survived the burial environment of the ditch. Only tiny quantities of charred wood and charcoal were recovered during processing.

Plate 10 Prehistoric pottery

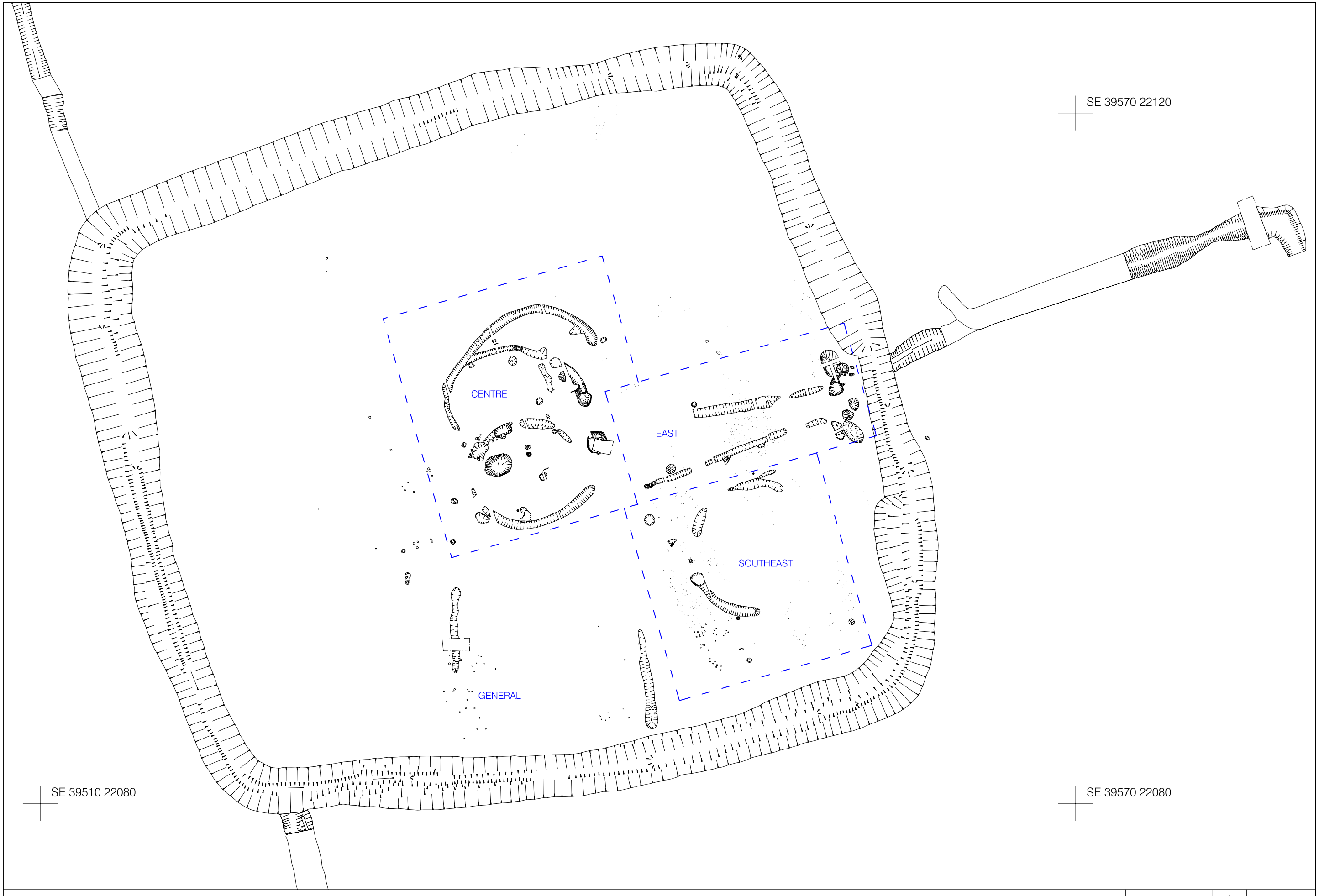
5.2.3 Internal Features

After the machine stripping of Intervention 2 a number soil features were identified within the enclosure cut by medieval ridge and furrow cultivation. Once the furrows had been excavated, the whole area was cleaned by trowel and these features were mapped and tagged. In accordance with the scheme of works every feature identified was then 100% excavated. Work on site was intermittent due to poor weather and other commitments within the development programme.

The internal layout of the enclosure included four centrally located crescentic gullies. Associated with these were a number of post holes and a single sub-oval pit. Running eastward from the centre of the enclosure were two gullies which appeared to funnel towards a point midway along the eastern length of the enclosure ditch.

Due to the lack of stratigraphic relationships and the paucity of dateable finds, the phasing and sequence of the internal components of the enclosure had to be derived from radiocarbon dates. These have been considered in combination with a comparison in the Munsell colour, inclusions and matrix of feature backfills. In this respect the results of the excavation will be presented first before the interpretation is considered.

For this purpose the enclosure has been divided into four areas. These have been defined according to their location and/or logical groups of features or structures within them and are shown in Figure 24. Within each area features will be discussed in stratigraphic order where relationships exist.



Zone 2 - post-excavation plan and location of areas

Scale 1:200

Figure 24

Table 4 Summary of areas within enclosure

Area	Features
EAST	F35, F36, F90, F91, F92, F96, F192, F195, F209, F210, F211, F212, F213, F214, F215, F216, F217, F232
CENTRE	F39, F40, F41, F42, F54, F57, F58, F59, F66, F104, F150, F152, F153, F156, F157, F159, F160, F164, F167, F168, F173, F178, F184, F188, F190, F191, F194, F196, F197
SOUTHEAST	F 84, F87, F88, F89, 96, 97, 98, F99, F100, F189, F193
GENERAL	F67, F103, F105, F106, F107, F108, F168

EAST (Figure 25)

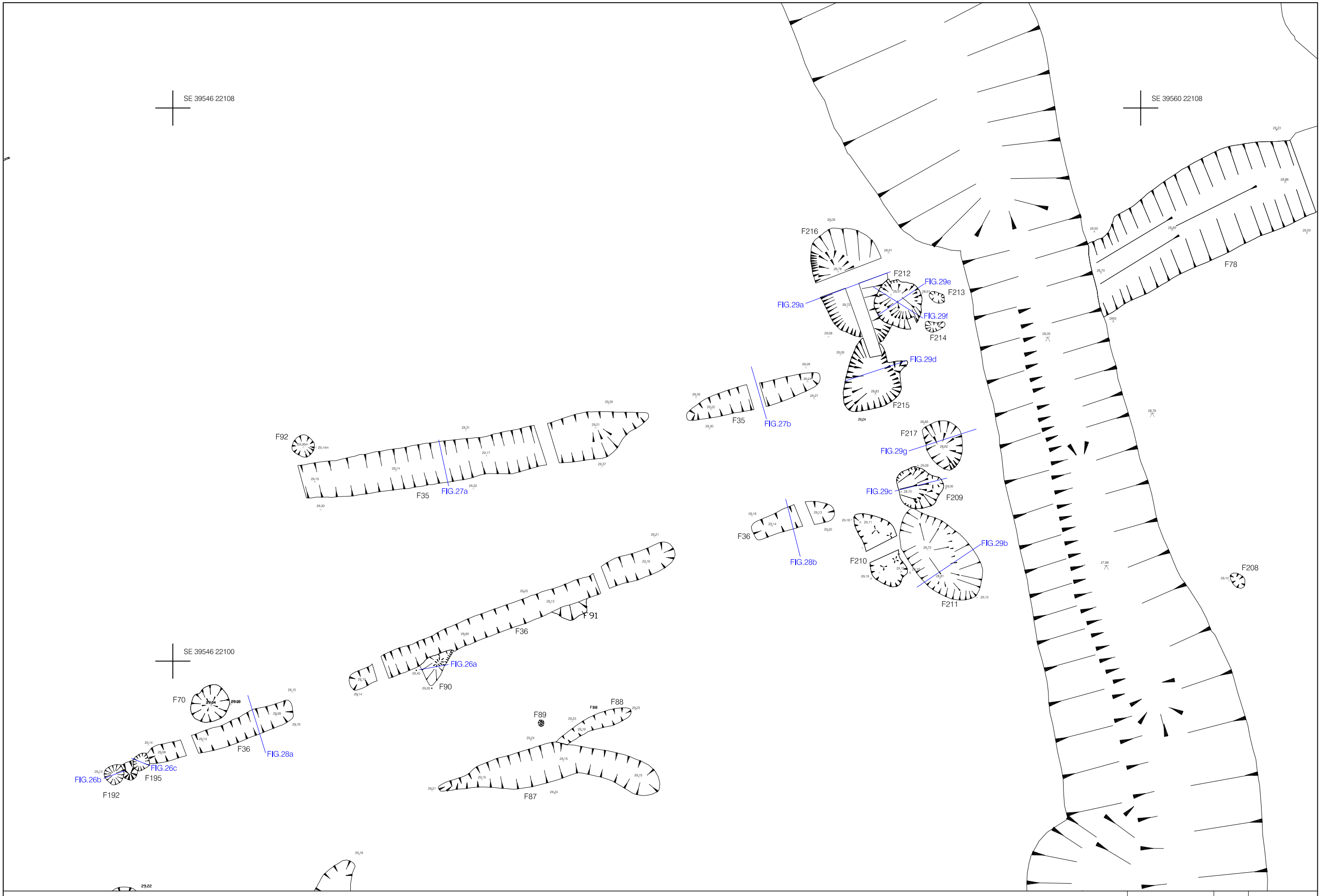
The eastern area of the enclosure was divided into two main parts. The first comprised an apparent corridor formed by two lengths of east-west aligned gully, F35 and F36, which led from the centre of the enclosure to the midpoint of the eastern ditch length. Both of these features were interrupted by medieval furrows which gave them a broken appearance in plan. Associated with these gullies were a number of postholes. To the east of this corridor, the second part of the eastern area consisted of an entranceway. This was only fully defined after the removal of furrow F30 and the backfill of the latest enclosure circuit (F236). The entranceway was made up of a series of postholes and a cobble surface which related to a sequence of gate structures and surfaces respectively. In plan these two elements appeared to be linked thereby creating, at least in one phase, an elaborate gate and corridor into the enclosure.

The earliest feature excavated within the eastern area comprised a truncated scoop (F232) which was identified during the excavation of gully F35. This feature was defined in an area which had been disturbed by a medieval furrow. F232 was a poorly defined shallow pit sub-oval in plan approximately 0.5m x 0.5m and 0.1m deep. This was filled with a deposit of grey silty clay which contained large concentrations of charcoal in addition to inclusions of gravel and pebbles (C1303). Mixed randomly throughout C1303 were fragments of calcined bone which suggested the presence of a possible cremation. As such the deposit was 100% sampled for analysis.

A total of 10.2g of bone was recovered from C1303 during flotation. Only 4.5g of this could be identified and this comprised four fragments of the right tibia of a sheep (see Appendix G). The remainder of the bone was too small or fragmentary to be of any analytical value. The majority of the bone was calcined and must have been cooked at temperatures of between 500 and 800 degrees celsius to have been transformed into this state.

Originally the excavator concluded that C1303 appeared to be within the backfill system of gully F35, but further analysis concluded that this was not the case and that F232 was earlier in date. After excavation it became clear that the full extent of F232 was outside that of the later gully and that the interface between the two backfills was not clear due to similarities in colour and a degree of mixing, probably caused when the F35 was originally excavated. A radiocarbon date from charcoal recovered from C1303 resulted in a date of between 1206BC and 917BC for the cremated bone (Appendix H; all dates are expressed as calibrated date ranges of 1 sigma level of confidence).

A series of four postholes (F90, F91, F192, F195) were identified running along the same east-west alignment



Post excavation plan of area EAST | Scale 1:50 | Figure 25

as gully F36. Two of them (F90 and F91) were clearly truncated along their northern edge by the later gully.

F90, located 2m to the south of F232, comprised an elongated post slot measuring 0.4m by 0.15m. Upon excavation it proved to be 0.15m deep with sides sloping at 50 degrees into a concave base (Figure 26a). The backfill of this feature (C1260) was made up of a deposit of greyish brown sandy clay containing frequent small sandstone inclusions in addition to moderate charcoal flecks. F91, 2.1m east of F90, was backfilled with essentially the same material (C1261). Upon excavation this feature comprised a shallow scoop 0.4m wide by 0.27m long surviving to a depth of a mere 0.05m. Within the base of F91 three well defined stakeholes were excavated.

Two further postholes were identified and excavated further to the west along this alignment. F195 and F192 were identified at the western terminus of F36. Their relationship with the gully could not be tested as F36 appeared to merely peter out at this point. F192 consisted of a circular cut, 0.24m in diameter with a U-shaped profile, and was cut to a depth of 0.22m (Figure 26b). This feature was backfilled with two deposits (C1245 and C1246), the later of which (C1245) contained frequent mudstone inclusions and appeared to relate to the levelling of the feature in its disuse. F195, located 0.5m to the east, was of a similar form and measured 0.2m in diameter and 0.2m deep (Figure 26c). F195 was backfilled with a deposit of sandy clay (C1251) similar to that recorded in F90 and F91.

This series of four postholes appear to have been part of a structure or fence which predates the gully F36. From the surviving evidence this structure would have been at least 7.5m long but was more likely to have extended the full 12m to the entranceway. It is possible that the eastern limit was marked by F210. This comprised a shallow, slightly irregular scoop, 1.1m by 0.6m, cut into the subsoil and backfilled with a deposit of greyish brown clay sand (C1276) which contained frequent inclusions of sandstone and mudstone fragments. Upon excavation F210 proved to be only 0.05m deep with steep sides and a flat base, through which four stakeholes were defined and excavated. It is possible that F210 may have been merely an area of disturbance, buts its location and spatial relationship with the post alignment suggest that they may have been contemporary features.

The funnel-shaped corridor identified in plan within the eastern area was formed by two lengths of gully, F35 and F36. The possibility that these features were not contemporary and represented individual divisions of the enclosure at separate times has been considered. However, it is far more likely that they formed part of the same structural element. The rationale for this lies in similarities recorded in their alignment, backfill and dimensions. The main factor in arguing for their contemporaneity lies in the symmetrical arrangement of the gullies with a gateway structure represented by two pairs of postholes (F211, F216 and F209, F215) at their eastern end. Within this arrangement F35 clearly terminates 0.5m to the west of posthole F215, and F36 similarly terminates to the west of F209.

On excavation F35 proved to be a 7.7m long U-shaped gully which ranged in width between 0.6m and 0.4m (Figure 27). F35 varied in depth between 0.1m and 0.2m, with edges that sloped between 25 and 40 degrees and was backfilled with three separate contexts. The latest of these (C1263) consisted of a compact deposit of mottled dark greyish brown sandy clay which contained moderate inclusions of rounded and angular pebbles, cobbles and sandstone fragments. C1263 was excavated along the whole length of the gully and represented

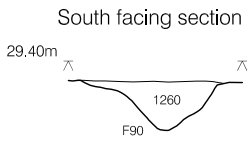


Figure 26a

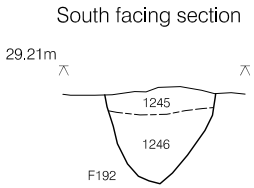


Figure 26b

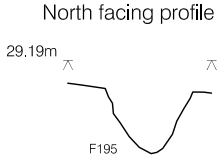


Figure 26c

Figure 26 - Sections across postholes F90, F192 and F195

Figure 27a

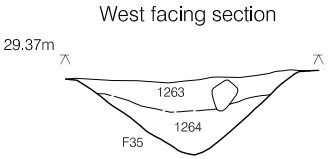


Figure 27b

Figure 27 - Sections across gully F35

Figure 28a

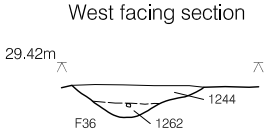


Figure 28b

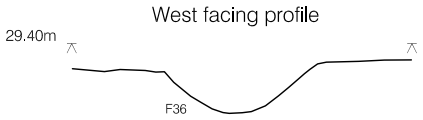


Figure 28 - Sections across gully F36

Sections across F90, F192, F195, F35, F36.

Scale 1:20

Figures 26-28

a consistent deposit relating to the disuse of the feature. The second fill (C1264), however, was only identified within the central 3.5m of the gully. This deposit comprised a dark grey silty clay with frequent charcoal flecks. At various points a patchy deposit of plastic grey clay was identified within the base (C1265) but this only survived to a depth of 0.02m.

The western end of F35 was completely truncated by a later furrow (F28). At its eastern terminus, the gully appeared to become more shallow then terminate in an ill-defined scoop. This appeared to be due to disturbance created by the remodelling the entranceway at a later date and the construction of a cobble surface (F206).

Although slightly narrower than F35, F36 (0.4m wide) was similar in form (Figure 28). This gully lay at a slightly different angle to F35 and was 2.5m to the south of F35 at it western end and 1.5m to the south of F35 at the entranceway, thus creating the funnel effect. Upon excavation F36 comprised a U-shaped cut, 10.5m long which varied in depth between 0.1m and 0.15m with a shallow concave base. F36 was backfilled with two deposits. The latest (C1244), like C1263 (F35), was a deposit of dark greyish brown sandy clay with charcoal flecks and moderate stone inclusions, some of which appeared to have been burnt. This deposit sealed an earlier backfill at the eastern end of F36 (C1262) of very mottled silty clay similar in composition to C1264 found in F35.

Despite the fact that no evidence for postholes or beam slots was recorded within the base of the gullies, it is assumed that F35 and F36 would have held some form of timber fence, palisade, or even supported a covered structure. A study of the levels recorded in the bases of the excavated features indicates that they were not used for drainage. The western end of F35 is of the same level as its eastern terminus, and, in the case of F36, the height of the base varies along its length and is 0.05m higher at the entranceway than its western limit. This also suggests that the eastern limits of these features were truncated during later phases of the entranceway.

Six pieces of pottery were recovered during the excavation of F36. Of these, three were of a size and condition that was of little use for dating purposes. The remaining sherds were recovered from the latest backfill (C1244) and were of an Iron Age date (see Appendix E and F, Vyner - Fabric B).

At the eastern end of the funnel corridor, two pairs of postholes appeared to represent the remains of a timber gate structure or structures. This left an opening or gateway of between 1.2m and 2.2m. The first pair were made up of two sub-oval post pits (F216 and F211) both aligned north-south, lying parallel to the enclosure ditch. F216 measured 1.7m by 0.7m and upon excavation proved to be 0.4m deep. The final form was that of a U-shaped cut with sides sloping between 50 and 80 degrees into a slightly concave base (Figure 29a). The backfill (C1293) comprised a mottled deposit of heavily oxidised olive grey sandy clay with frequent charcoal flecks. A moderate amount of angular and rounded stones, some of which appeared to have been burnt, were found concentrated in the southern half of the feature. Although a post pipe could not be identified in the recorded sections, these cobbles were recorded in plan and may represent the backfill of such a feature. If this was the case, F216 would originally have held a post of around 0.6m in diameter.

F211 was located 4m to the south of F216. This feature measured 1.5m by 0.8m and was backfilled with a deposit of mottled brownish grey sandy clay (C1278). This material appeared to be a redeposited natural clay which contained moderate inclusions of angular and rounded pebbles. These stones, like those in F216, were

Northwest facing section

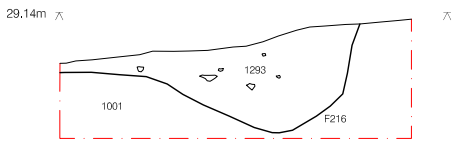


Figure 29a

Southeast facing section

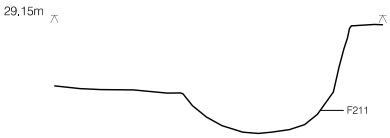


Figure 29b

South facing profile

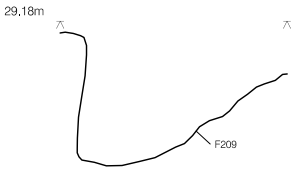


Figure 29c

South facing section

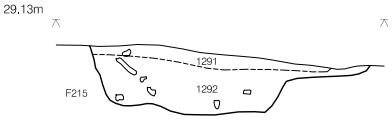


Figure 29d

North facing profile

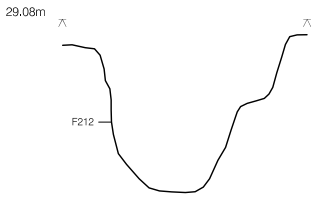


Figure 29e

Southwest facing profile

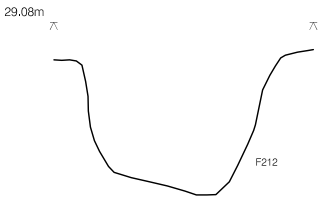


Figure 29f

South facing profile

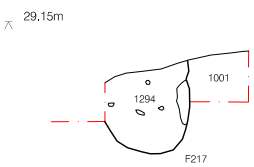


Figure 29g

Sections across postholes F209, F211, F212, F215, F216, F217	Scale 1:20		Figure 29

concentrated at one end of the feature, thus suggesting the location of a possible post pipe 0.6m in diameter. The edge of F211 was defined against bedrock along its base and sides and was 0.4m deep when excavated, with sides sloping between 60 and 80 degrees (Figure 29b).

F209 and F215 were located immediately adjacent to F211 and F216 along the same north-south axis. F215 (Figure 29d) measured 0.9m by 0.6m and when excavated proved to be 0.3m deep. The primary fill of F215 (C1292) comprised a slightly dirty redeposited subsoil which contained a number of burnt cobbles within its base. This deposit appeared to be post-robbing backfill. The top 0.05m of the posthole was backfilled with a mixed deposit of brown sandy clay (C1468). This material was present in patches in around the entranceway (1301) and appeared to represent a layer of trample or disturbed ground.

F209 was located 1.8m to the south of F215. The top of F209 was defined by a cluster of large cobbles which, when removed, revealed a setting of four sandstone blocks set within a matrix of olive grey sandy clay (C1271). These were positioned along the western edge of the feature. This deposit appeared to represent the remains of packing associated with a timber post that would have originally measured 0.45m in diameter. When fully excavated the profile of F209 was a slightly irregular U-shape with its base lying at a depth of 0.4m (Figure 29c). The eastern edge sloped between 30 and 45 degrees while the opposite side was slightly undercut behind the sandstone packing. This undercut was filled with a deposit of mottled plastic olive grey clay with frequent charcoal flecks (C1277) from which a single cattle molar was recovered. Judging from its matrix and composition C1277 may have had a relatively high organic content at the time of its deposition. A functional explanation for the position of this material behind the packing of a posthole seems unlikely. The lack of post packing along the eastern cut edge of F209, considered with the flared irregular profile suggests that the post was levered, or dug out, from this side in its disuse.

Both F209 and F215 were positioned immediately adjacent to, and along the same axis of F211 and F216 respectively. Stratigraphically, F209 was recorded as cutting F211 by one or two centimetres along its northern edge. It is not clear, however, whether this relationship represents the robbing of F209 or the construction of the posthole itself. There are therefore two possible interpretations of this arrangement. Firstly, that all four postholes are contemporary creating a large double posted gateway structure, or, secondly, that the two sets of postholes represent separate chronological phases. If these represent two phases in the gateway structure then earliest would have been marked by F211 and F216. The second phase would have consisted of F209 and F215 tied into the corridor formed by F35 and F36.

No datable finds were recovered from any of these features. Charcoal recovered from the flotation of C1271 (F209) was radiocarbon, which resulted in a date of between 402BC to 265BC (see Appendix H).

A third set of posthole features was identified in the entranceway cutting F216. The location and alignment of these features (F212, F213, F214, F217) suggests that they were constructed after the corridor (F35/F36) and its related gateway (F209, F211, F215, F216) went out of use.

F212 and F217 were fully defined after the removal of cobble surface F206. F212 comprised a sub-circular cut 0.7m in diameter and 0.55m deep. This feature had a U-shaped profile, flat base and sides that sloped between 70 and 85 degrees (Figure 29e). F212 was backfilled with a deposit which consisted mostly of large rounded

cobbles and sandstone fragments set in a matrix of dark grey sandy clay (C1280). Some of the stones appeared to be burnt. Due to the nature of this material it was not possible to record a section across this deposit. The cobbles within F212 appear to be a result of a deliberate backfilling episode as opposed to some form of packing. Immediately to the east of F212 were two small postholes (F213 and F214). This pair of features appeared to form a deliberate post setting, 0.4m apart, relating a possible structure formed by F212 and F217. F213 and F214 comprised two sub-oval cuts 0.25m by 0.15m, cut to a depth of 0.15m. In their disuse both features had been filled with cobbles and clay during the construction of a later surface.

F217 was located 2.6m to the south of F212. F217 was a sub-circular cut truncated by a later field drain along its eastern edge. Upon excavation F217 proved to be 0.6m by 0.4m and cut to a depth of 0.4m (Figure 29g). F217 had near vertical sides and a flat base and was backfilled with a deposit of grey sandy clay (C1294) with frequent cobbles and pebbles, some of which appeared to have been burnt.

Plate 11 Entranceway and cobble surface, looking southwest (scale 2.0m)

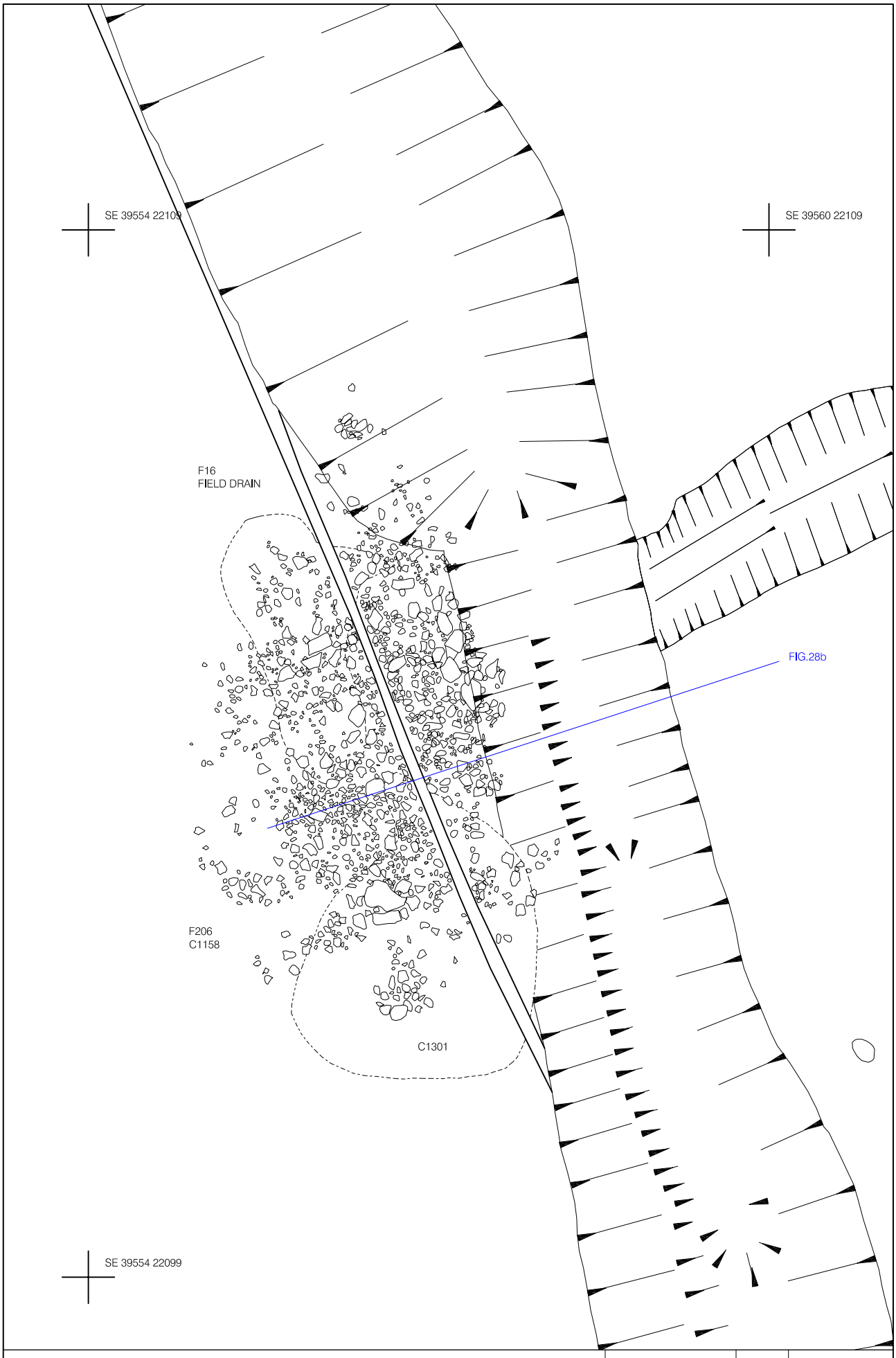
F212 and F217 appear to represent the remains of another gate structure which went out of use before the creation of a cobble surface over the entranceway. It is unlikely that this arrangement was contemporary with a recutting of the enclosure circuit, but if so, it may have held the supports for a bridged crossing as opposed to the uprights for a simple gate. The opening between F212 and F217 would have been 1.5m wide.

A patchy spread of mixed, heavily oxidised dark grey sandy clay (C1301) was identified sealing the postholes in their disuse. This deposit appeared to represent a layer of trample or disturbed ground in the area of the entranceway.

Plate 12 Cobble surface F236, looking west (scale 2.0m)

C1301 was covered by an area of cobbles which were fully exposed after the excavation of the latest phase of the enclosure circuit (F236) (Plate 11 and 12). This surface (F206) measured 4.7m (N-S) by 3.3m (E-W) and was located on the western side of the enclosure ditch covering the top and lining the western sloping edge of the feature (Figure 30). The stones (C1158) within the surface ranged in size from fine gravel to moderate sized cobbles (up to 0.4m in diameter). An estimated 95% of these were of made of sandstone, while the remainder were of granite or other igneous cobbles. Around 25% of the stones within F206 exhibited signs of having been burnt. This was evident in reddening and cracking of several of the sandstone fragments and cobbles.

The surface appears to have been constructed by pushing or ramming the cobbles into the underlying clay. In



Cobble surface F206, C1158 - Pre-excavation plan | Scale 1:50 | Figure 30

some areas the surface was more than one layer of stones thick and small areas of tumble were identified where material had slipped into the ditch. The fact that F206 lines the western edge of the enclosure ditch suggests that it was contemporary with at least one phase of continuous ditch circuit. As such, one possible purpose for F206 would have been to support some form of bridged crossing. Evidence for such a structure is difficult to find. Only a single posthole (F207) was identified as being contemporary with the cobble surface. This comprised a sub-rectangular socket 0.25m by 0.2m and 0.2m deep cut into the western sloping edge of the enclosure ditch and lined with a series of flat sandstone pieces set on edge (Plate 13). The socket void was filled with a deposit of grey silty clay (C1266) very similar to the latest backfill of the enclosure (C1161, F236). A similar feature was excavated on the eastern slope of F43 (F208).

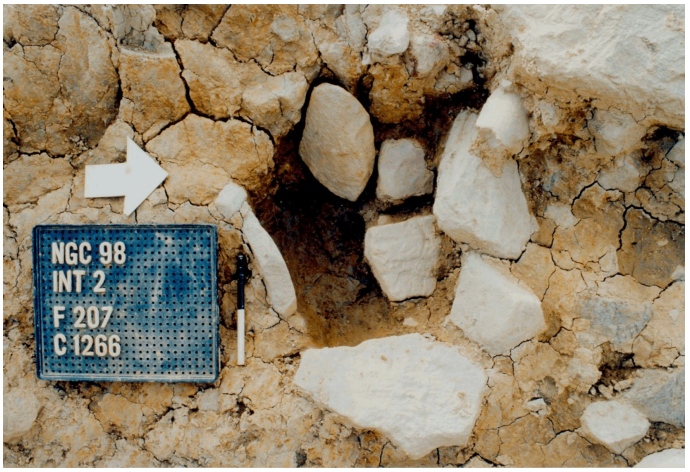


Plate 13 Posthole F207 (scale 0.1m)

Three additional postholes were identified within the eastern area of the enclosure. F92, F96 and F100 appeared to form a SW-NE alignment of associated features. F92 comprised a shallow U-shaped cut, circular in plan, 0.36m in diameter backfilled with a deposit of dark greyish brown sandy clay (C1253). This feature was only 0.08m deep with a flat base and sides that sloped at less than 30 degrees. Situated 3.8m to the southwest, F96 had a similar profile. This feature was 0.55 in diameter, 0.08m deep and backfilled with the same material (C1238). The third posthole (F71) was 0.6m in diameter and 0.12m deep. The backfill of this feature (C1252) contained a large concentration of angular sandstone fragments, some of which were burnt, within its grey sandy clay matrix. These three features appear to form a possible boundary fence or structure.

CENTRE (Figure 31)

The central area of the enclosure was characterised by a series of four crescentic gullies which appeared to be associated with a number of postholes and a large pit. Despite the density of these features, there were very few stratigraphic relationships which could be used to create a sequence. Where important stratigraphic relationships would have existed they had been truncated by later activity. Furrow (F26) was the most destructive in this respect. This single feature had obliterated the western limits of three of the gully features (F39, F59 and F159) at a point where they would have intersected. As well as destroying any stratigraphic relationships, the truncation caused by F26 also meant that none of the four gullies survived in plan in their entire form.

The function of these gullies is worthy of consideration. In plan none of the features appeared to form a true semi-circle or part of a circle. Each had a wide open end and the curve of each arc was flattened along its long axis giving it the appearance of half a distorted oval. Two of the gullies (F39, F159/F38) had an open side which faced towards the southeast. Of the other two, the open end of F66/F188 faced south while that of F59 faced toward the northeast.

SE 39533 22110

SE 39543 22110

F39

FIG.33a

Field drain

FIG.33c

F190

F194

F66

FIG.33b

FIG.32a

FIG.32b

F191

F197

F196

F187

FIG.32c

F188

FIG.32e

F57

F104

FIG.33e

FIG.32d

F38

F168

FIG.35a

F157

FIG.35b

FIG.35c

F159

F153

F156

F152

F150

FIG.35d

F54

F173

FIG.33d

F164

F41

F58

FIG.34c

F173

FIG.36b

F40

FIG.36a

Field drain

FIG.35e

F42

F106

F178

F200

Field drain

F184

F200

F59

F105

0 2m

SE 39533 22094

Post-excavation plan of area CENTRE

Scale 1:50

Figure 31

Originally it was thought that the southern arc (F59) would join with one of those to the north to form a complete round house structure. However, on the basis of shape, feature backfill and dating evidence it was concluded that each gully existed as a separate entity. The argument that each gully represented one half of a round house and that the opposite half had been truncated by later activity was also unlikely.

The excavated form of these features produced a variety of profiles and dimensions. The recorded levels within the base of these features suggested that they were not designed for drainage. The steep sides and flat bases recorded in the profiles of F39, F66 and F188 indicated that the features may have been structural in origin, designed to hold upright timbers or act as beam slots. In several cases backfilled post voids or trenches could be identified in section which resembled those recorded within the roundhouse features at Dalton Parlours (WYAS 1990). As structures, these features must have resembled a series of squat screens or huts with one open side. A study of the distribution of postholes within the central area appears to support this notion, and alignments of these can be grouped to close off each arc. Using these criteria four separate structures were recorded within the Central area.

Table 5 Summary of component features of Structures 3-6

Structure	**Features**
S3	F38, F150, F157, F159, F42, F184
S4	F59, F41, F54, F58
S5	F57, F66, F168, F172, F187?, F188, F191, F194, F197
S6	F39, F104, F173, F187?, F190

The structures are presented chronologically. The earliest feature within the central area comprised a sub-rectangular pit or posthole truncated along its northern edge by gully F159 and to the south by posthole F156. Definition of F153 was problematic due to the nature of the underlying subsoil. It comprised a steeply sided cut 0.2m deep filled with a deposit of firm mottled brown sandy clay (C1107) which contained frequent inclusions of sandstone fragments and rounded cobbles and pebbles. Many of these cobbles, particularly those visible on the within the upper part of the fill, appeared burnt and fire-cracked. The western limits of this feature were difficult to determine with certainty. The eastern sides were well defined and appeared square in plan. Charcoal recovered from C1107 during excavation provided a radiocarbon date range of 1767BC to 1642BC pushing F153 into the Bronze Age (see Appendix H). If this date is reliable it has significant implications regarding the history and development of the site. If not, the location of F153 would fit neatly as a post hole across the arc of Structure 5 (S5).

Structure 5 (S5)

Structure 5 consisted of two short lengths of gully (F66 and F188) which formed the northern wall, c.8m long, of a squat building or screen. The eastern length terminated in a large posthole (F57) while the western end of the structure was cut by a later structure (S6-F39). The western part of S6 had been completely truncated by furrow F26.

At its western end F66 had a distinctive U-shaped profile, 0.25m wide, 0.2m deep, with sides that sloped at 80 degrees into a flat base which was well defined against the natural clay subsoil (Figure 32a). At its eastern end F66 became much shallower (0.1m deep) with a wider flared profile(Figure 32b). This change occurred where the underlying subsoil changed from clay to bedrock and was marked by the presence of a sub-oval posthole (F194) cut into the base of the gully. F194 appeared to be the socket for a post measuring 0.25m in diameter which was backfilled with the same material as F66. To the east of F66, after a break of 0.6m, the line of the arc continued with a second length of gully (F188). Over bedrock this feature survived as a vague stain which, when excavated, filled a narrow V-shaped channel 0.1m deep. Further to the southeast the section across F188 showed a shallow 0.4m wide U-shaped cut with evidence for a narrow slot 0.1m deep and 0.1m wide (Figure 32c) cut into its base. Within the backfill of this feature (C1233) flecks of charcoal and small fragments of daub were recorded. Where F188 turned south to join with posthole F57, the gully had returned to its steep sided flat based form as recorded in the western half of F66.

Located along the inside edge of F66 and F188 were a series of three postholes (F187, F191, F197). F187 appeared to be the remains of two possible phases of post structure and at this point and measured 0.5m long by 0.35m wide and was cut to a depth of 0.25m. F191 and F197 were both cut to a similar depth with steep sides and flat bases.

The posthole (F57) located at the southern end of gully F188 was sub oval in plan and measured 1.2m x 0.8m. When excavated this feature appeared to have several phases of use. The earliest form appeared to be a flat based post pit 0.45m deep (F77) (Figure 32d). The original cut for F77 was badly disturbed by later phases of posthole and its limits in plan were difficult to establish. As such it is assumed to have been at least 0.5m in diameter. F77 was backfilled with a deposit of greyish brown clay and charcoal flecks (C1073).

At some point the base of F77 was cut by three separate undercut post-sockets or postholes (F73, F74, F75). These features were on average 0.15m in diameter. F73 was cut into the southern edge while F74 and F75 were cut and aligned along different angles (NW and SE respectively) into the northern edge. The form of these features indicated that the posts within these sockets were not set vertically. All three were angled inwards at between 10 and 18 degrees towards the centre of the posthole (Figure 32). This unusual arrangement seems to indicate that these sockets were placed to brace a central post possibly as some form of repair.

The latest use of this feature was marked by a well defined post pit (F57). This feature was cut through F73 to F75 to a depth of 0.4m. The base of F57 was marked by a thin layer of charcoal which dished into the robbed post-sockets. Located centrally within F57 was a well defined post void which was vertically sided, 0.3m in diameter, 0.3m deep and backfilled with a very clean deposit of dark grey sandy clay (C1058). Located centrally within C1058 was a single large sandstone block. The main backfill of F57 comprised a deposit of mottled olive brown silty clay (C1060) which was similar in composition to the backfill of F188 to the north.

Two small postholes (F172, F168) were identified forming an east-west alignment with F57 across the open face of Structure 5. Although well defined in plan F168 was only 0.03m deep when excavated. F172 was of similar dimensions measuring 0.15m in diameter by 0.08m in depth.

The evidence from F57 suggests that S5 may have been in use for a considerable period of time. The post pit

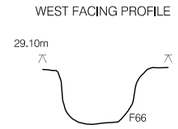


Figure 32a

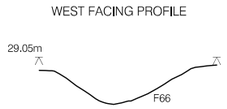


Figure 32b

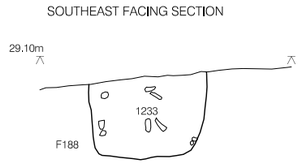


Figure 32c

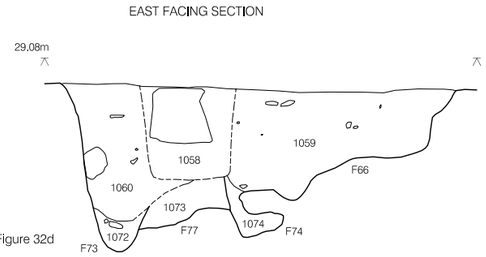


Figure 32d

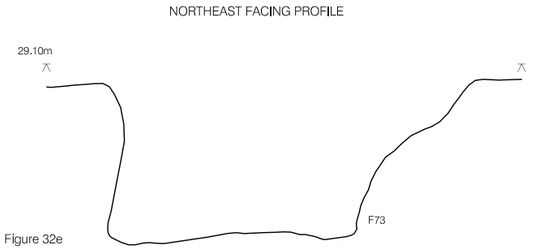


Figure 32e

Figure 32 - Sections across Structure 5

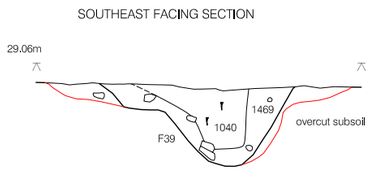


Figure 33a

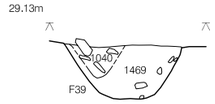


Figure 33b

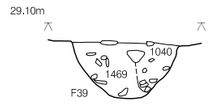


Figure 33c

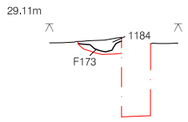


Figure 33d

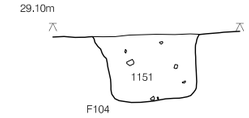


Figure 33e

Figure 33 - Sections across Structure 6

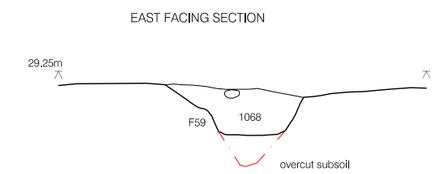


Figure 33a

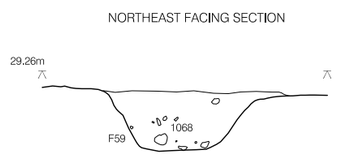


Figure 33b

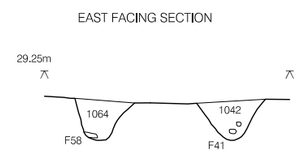


Figure 33c

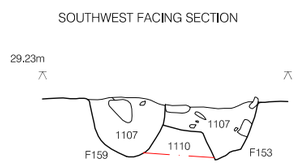


Figure 33d

Figure 34 - Sections across Structure 4

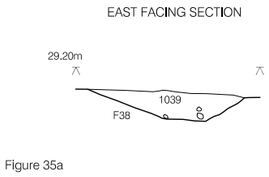


Figure 35a

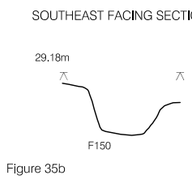


Figure 35b

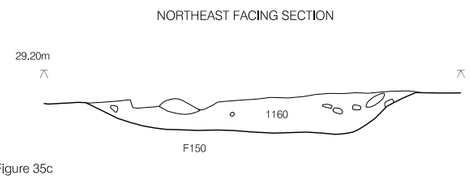


Figure 35c

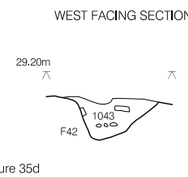


Figure 35d

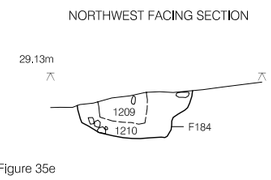


Figure 35e

Figure 35 - Sections across Structure 3

Sections across structures within the centre of the site.

Scale 1:20

Figures 32-35

indicates at least two phases of structure, possibly with an attempt to repair the earliest one towards the end of its life by bracing an existing post. This notion of repair or reuse is mirrored in the line of internal postholes (F187, F191, F197). These features may represent an earlier structure or possibly an attempt to consolidate an existing one. Although no evidence for *in situ* burning was identified within the features which made up Structure 5, the lenses of charcoal within the base of F57 may indicate an episode of clearance by fire.

No pottery or artefacts were recovered from any of the features within Structure 5. A charcoal sample from F57 (C1058) provided a radiocarbon date range of 398BC to 261BC (see Appendix H).

Structure 6 (S6)

Structure 6 was the most complete of all the structures identified within the enclosure. It comprised a crescentic gully (F39) which had an arc 4.5m wide and an open face 9.5m long. This structure was superimposed over the top of S5 with gullies overlapping at their western end. Although S5 and S6 appeared to have some similarities, the open face of S6 was aligned to face the southeast.

F39 comprised a well defined U-shaped cut, 0.4m wide and 0.3m deep with a flat or very slight concave base. With the exception of its eastern end, this feature had a consistent profile along its 13.0m length (Figure 33b and 33c). At the eastern terminus F39 became increasingly shallower and was cut to a depth of only 0.1m (Figure 33a). Within the terminus itself a sub-rectangular deposit of grey clay could be identified, 0.2m square, marking the position of a possible post-socket.

The latest backfill of F39 (C1040) was made up of dark greyish brown to grey sandy clay. Where F39 was cut through bedrock the backfill was of a more sandy composition. C1040 contained a large amount of angular sandstone gravel and pebbles throughout its matrix in addition to a frequent number of rounded cobbles. Many of these stones appeared burnt and fire-cracked. C1040 was contained within a vertical or steep sided channel located along the southern cut edge of the gully and was visible in section along the length of F39. This channel varied in depth between 0.1m and 0.2m and in width between 0.15 and 0.2m and appears to correspond with a backfilled post trench. The earlier fill of F39 comprised a deposit of heavily mottled, variable grey clay with inclusions of orange clay and sandstone fragments.

The open arc of F39 was closed by a series five postholes (F60, F104, F156, F173, F156) which could be attributed to S6. These were aligned SW-NE and included the post-socket identified in the eastern terminus of F39. F60 was sub-rectangular in plan, 0.4m by 0.2m and only 0.1m deep. F187 appeared to be reused from S5. F104 was a well defined sub-circular posthole 0.35m in diameter, 0.25m deep with a flat base (Figure 33e). Within its backfill (C1151) several burnt cobbles were recovered. F156 was of a similar size and form to F104 while F173 survived as a heavily truncated scoop only 0.05m deep (Figure 33d).

F190 was located 0.4m to the south of F39. It comprised a heavily truncated posthole 0.3m wide which had been cut centrally by a land drain leaving less than half the feature intact. This posthole, which may have been associated with S5, was 0.15m deep, with sides that sloped at 60 degrees into a concave base.

The sections from Structure 6 provide strong evidence that these gullies were structural and were designed to

hold a series of upright posts, either as a screen or wall for a small hut. No finds were recovered from the excavation of any of these features. Charcoal from C1040 (F39) provided a radiocarbon date range of 195BC to AD4 (see Appendix H).

Structure 4 (S4)

Structure 4 consisted of an arc of gully (F59), 8.0m long with the open side facing to the north. The arc was closed by a series of three postholes (F41, F54, F58) along a rough east-west alignment. F59 was heavily truncated at its western end by a medieval furrow, F26.

Upon excavation, the profile of F59 was very similar to that recorded in F39 (S6). The gully measured between 0.4 and 0.5m wide at its top and had a steep U-shaped profile and flat base at a depth of 0.2m (Figure 34a and 34b). The backfill (C1068) comprised a deposit of mottled dark grey sandy clay which contained fragments of sandstone and occasional rounded cobbles, some of which appeared to have been burnt. The presence of a backfilled post trench running along the northern edge of F59 could be inferred from section although not visible in plan.

F54 was allocated to a posthole located 1.8m to the northeast of the terminus of F59. This posthole appeared to represent the start of a line of features which ran across the open side of S4. F54 was a slightly irregular cut, 0.4m deep with a flat base and sides that sloped between 50 and 75 degrees. In plan, F54 measured 1.2m in diameter and was backfilled with a single deposit of mottled dark greyish brown sandy clay (C1055). This deposit contained frequent gravel, pebbles and reddened cobbles in addition to charcoal within its matrix. A pair of postholes (F41, F58) backfilled with a similar deposit were located approximately 3.5m to the west. Both features were circular in plan 0.25m in diameter and cut to a depth of 0.15m (Figure 35e). The western end of the arc could not be identified under furrow F26.

A total of six sherds of coarse pottery were recovered from the backfill of F59 (C1068). This pottery appears to have come from a single jar and was dated by its fabric and form to the Late Iron Age (see Appendix F). Charcoal found within F59 C1068 provided a radiocarbon date range of 201BC to AD60 (see Appendix H).

Structure 3 (S3)

Structure 3 was formed by a series of fragmented lengths of gully (F38, F150, F159) and a posthole (F152) which created a rough broken arc with its open side facing south. The open side of S3 was closed by two postholes (F42, F184) producing a structure which was 6.8m long across its open face, and 3.5m wide. In this respect S3 was the smallest of the structures on the site.

F150 comprised the eastern most length of gully. It measured 1.1m x 0.25m and upon excavation proved to be 0.15m deep (Figure 35c). At the southern terminus of S5, a single flat burnt sandstone slab, 0.25m square, was recorded (F165). This stone appears to have been the pad for a post located at the end of the gully. A longitudinal section along F150 (Figure 35d) showed that a second post was set against the northern end of the gully. This would have sat in a socket which would originally have measured 0.3m by 0.2m. F150 was backfilled with C1160, a deposit of variable greyish brown sandy clay which contained frequent small fragments

of sandstone and occasional burnt cobbles.

The second length of gully (F38) lay 0.3m to the northwest. A circular posthole, 0.2m in diameter (F152) was located in the gap between the two. When excavated this feature proved to be 0.1m deep and backfilled with similar material to that of F150. F38 was 2.0m long and 0.5m wide with a wide U-shaped profile which survived to a depth of 0.1m (Figure 35b). The backfill of F38 (C1039) was essentially the same material as that recorded in F150.

The third element of the arc of Structure 3 was another 2.0m length of gully (F159) located 0.4m to the west of F38. In form F159 was very similar to F150. It had a regular U-shaped profile cut with steep sides and flat base and measured 0.3m wide and 0.1m deep (Figure 35a). At its eastern end a 0.1m wide stake/posthole was recorded (F157). F159 was backfilled with a deposit of mottled greyish brown clay (C1153). The western end of this arrangement was disturbed by F164.

Of the two postholes that were identified across the face of S3, F42 was located centrally. This posthole was badly disturbed by a modern land drain (F10) which had truncated much of its eastern edge. F42 comprised a sub-circular cut, 0.4m in diameter and 0.2m deep (Figure 35e) and was backfilled with a C1043, a deposit of compact greyish brown silty sand.

The second posthole (F184) marked the western limits of S3 and was only defined after the removal of furrow F26. As such, its truncated remains survived to a depth of 0.1m (Figure 35f). In plan F184 measured 0.8m by 0.5m with its long axis aligned parallel to gully F150. A backfilled postpipe 0.16m wide was recorded in section at the southern end of the posthole. From the shape of the base, a second post, possibly angled to brace the first, was located at the northern end. This arrangement mirrored the post settings identified within F150. The postpipe of F184 was backfilled with a deposit of greyish brown sandy clay (C1209) in which several lenses and blocks of charcoal were recorded. The main fill of the posthole comprised a redeposited natural sandy clay (C1210).

The burnt appearance of the *in situ* post pad (F165) and the charcoal blocks within the post pipe of F184 suggest that Structure 3 may have been destroyed or cleared by fire.

Structure 3 proved to be the least well preserved of all the structures. A single abraded sherd of Late Iron Age pottery was recovered from the backfill of F38 (1039) which has be tentatively dated to between the 1st century BC to the 1st century AD (see Appendix E). A radiocarbon date of between 135 BC and 25 BC was obtained from charcoal recovered from within this deposit .

The Pit

F40 was located within the arc of S3. This pit represented the only recognisable non-structural feature within the central area. In plan F40 appeared as a sub-oval deposit of dark reddish grey sandy clay (C1041) 1.0m x 1.0m. This deposit was surrounded by three concentric bands of variable clay and charcoal which appeared to be the edges of earlier fills tipping into the pit (C1061, C1062, C1069).

F40 was excavated in quadrant to acquire both a SW-NE and SE-NW aligned section through the backfill sequence (Figure 36). The final form of F40 was that of a sub-circular pit, 1.4m x 1.2mx 0.7m, with a flat base (Plate 14). The sides of the feature sloped between 80 and 90 degrees and had a gradual break slope of at their base. The southern edge was slightly undercut at its top by up to 10 degrees. Against the eastern edge of F40 a shallow rectangular slot was identified set against the top of the feature.

Plate 14 Pit F40, looking north (scale 2.0m)

The earliest backfill within F40 comprised a thin deposit of dark grey ashy silt measuring 0.3m by 0.2m, located against the western side of the base and lower slopes of the pit (C1075). This material contained a quantity of burnt grain and charcoal within its matrix which was sampled.

Sealing this was an undulating deposit of black charcoal/silt/ash which varied in thickness from 0.01m to 0.06m (C1070). C1070 occurred within and between a tumble of burned and blackened cobbles and angular sandstone fragments (C1071) which tipped into F40 from its western side. The stones varied in size between 0.1m and 0.4m. All appeared to be burnt but none to the extent where they had been cracked or broken by very high temperature. Additionally, there was no evidence for *in situ* burning within the pit. An estimated 40% of the charcoal fill (C1070) was made up of charred grain which was recovered for analysis.

C1070 and C1071 were sealed by a deposit of firmly compacted, mottled, brownish yellow sandy clay (C1069). This deposit tipped steeply into F40 lining the sides but not the base of the pit. C1069 varied in thickness from 0.05m to 0.15m and contained flecks of charcoal in addition to a small amount of burnt grain and sandstone fragments.

C1069 was sealed by a second episode of stone dumping (C1063). C1063 comprised a substantial deposit of mixed burnt cobbles and sandstone fragments contained within a deposit of grey clay and charcoal, tipping into F40 from all sides. Although the stones were all burnt, as with C1071, none had been cracked or broken by exposure to excessive temperature, nor had any been cracked by insertion into water when hot. Again there was no evidence for in situ burning within F40. Covering C1063 and following the contours of the cobbles was a layer of greasy grey clay (C1062). This material, like C1069, appeared to form a band of lining concentrated around the edges of the pit and could be seen tipping into F40 almost vertically against its northeastern and southwestern edges. Within C1062 were rare flecks of charcoal and burnt clay. It is not clear whether this deposit, along with C1069, is an applied lining or the remains of a degraded organic deposit.

C1062 was sealed by a substantial deposit of compact redeposited subsoil (C1061). This material was made up of a homogenous deposit of brownish yellow sandy clay. The profile of C1061 within F40 was unusual in that, despite this material tipping steeply into the pit from every side, it remained a consistent thickness throughout (Figure 36). This suggests that the steep U-shaped profile of C1061 may have been the result of the post-depositional slumpage of earlier deposits, as opposed to an incidental backfill or a deliberate lining.

WEST FACING SECTION

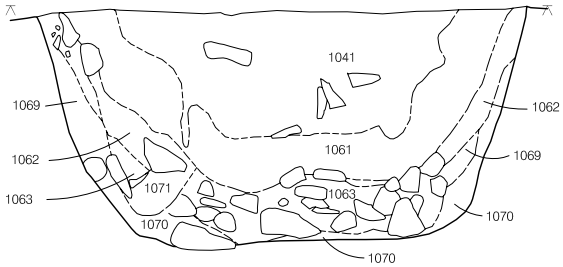


Figure 36a

NORTH FACING SECTION

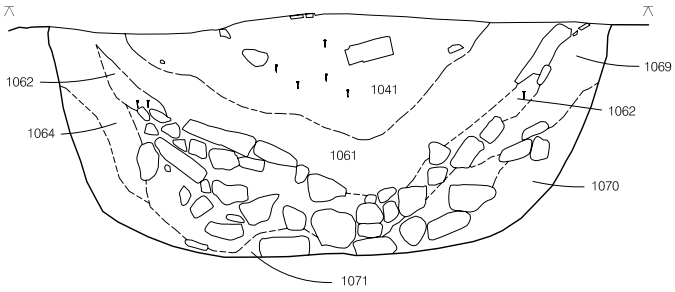


Figure 36b

Sections across F40	Scale 1:20		Figure 36

C1061, therefore may be a deliberate clay capping to the pit which has slumped over time as earlier deposits have settled.

This may explain the profiles of earlier contexts within the feature. The high ash content of C1075 and C1071 would have given these deposits a large volume at the time of their deposition. If the pit was backfilled and capped with clay within a relatively short period then, when the organic components and ash would begin to degrade and settle. This may have been exaggerated by the weight of the stones within C1071 and C1063. Recent work in York has shown that this process is a common phenomenon in Anglian rubbish pits which have a large organic content, and that it produces a similar profile to that recorded in F40.

The final backfill of F40 was a 0.3m deep deposit of dark grey clay containing charcoal flecks, cobble and gravel inclusion (C1041). This context may have been deposited to fill the depression left in the top of F40 once the earlier fills had subsided.

No pottery or datable finds were recovered from the fills of F40. The nature and composition of C1075 and C1071 suggest that the pit was being used to contain or dispose of material burnt elsewhere on the site. Samples recovered from C1069, C1070 and C1075 were taken for flotation. In addition to a large quantity of burnt grain and charcoal, a minute quantity of burnt/calcined bone was recovered during the flotation of C1070. Although the size of this sample was of little analytical use, the presence of this burnt bone within C1070 is significant. It suggests that C1070 was not simply the remains of a storage context which caught fire, but was more likely to represent the deliberate burning of the grain within a hearth, possibly with other materials.

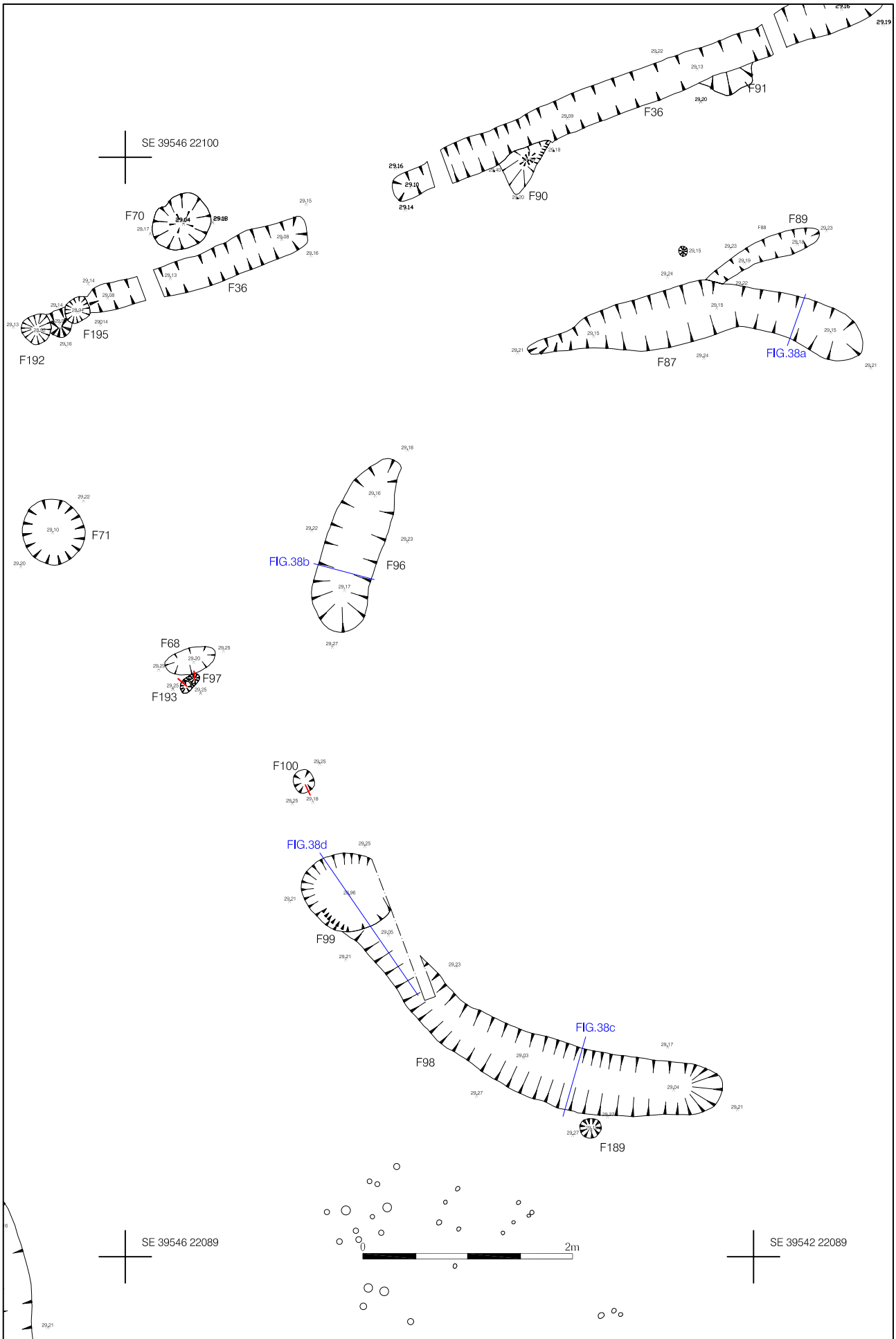
An assessment of the charred plant remains was undertaken by Headland Archaeology Ltd and is presented as Appendix I and Appendix J. A mixture of cereal grains were present throughout each context of which C1070 contained by far the largest volume. The cereals present within these deposits comprised both barley and wheat in quantity, with a background presence of oats, grass and weed seeds. The contents of the assemblage suggested that the crop had been processed and sorted before it was burnt. In addition to the cereal remains a number of hazelnut shell fragments were recovered from C1070. This may be a residue of the fuel used in a fire.

An array of three radiocarbon dates were obtained from grain from these contexts (see Appendix H). The results suggested that the grain deposited within F40 was fired between 165 and 120 BC. This suggests that F40 was of late Iron Age date and was used to dispose of grain and other material burnt elsewhere on the site. In its disuse F40 was sealed with a capping of clay which slumped through time creating a shallow depression over F40. This depression was then backfilled with C1041 to level up the area.

SOUTHEAST (Figure 37)

The earliest feature within the southeastern area comprised a short length of east-west aligned gully (F88) cut at its western end by F87. F88 proved to be a shallow U-shaped slot 1.2m long, 0.2m wide and 0.1m deep, backfilled with a very pale yellow deposit of silty clay (C1229).

The main element within the southeastern corner of the enclosure was Structure 2. This consisted of a series of three short lengths of curvilinear gully (F87, F96, F98) which formed a true semi-circle, 7.0m in diameter,



Post-excavation plan of area SOUTHEAST | Scale 1:50 | Figure 37

with its open side facing towards the southeast. The two northern lengths of gully (F87 and F96) may have originally been the same feature, the centre of which had been truncated by a medieval furrow (F28).

Table 6 Summary of component features of Structures 2

Structure	Features
S2	F87, F96, F98, F99

S2 was the only structure with the potential to have been part of a true circle. The interior and the area to the southeast of S2 was trowel cleaned on three separate occasions in order to define any possible internal features or additional gullies. The semi-circular form of S2 appeared to be its original shape.

F87 and F96 were both 0.5m wide, with shallow U-shaped profile, surviving to a depth of 0.12m (Figure 38a and 38b). Both were backfilled with a deposit of mottled greyish brown silty clay with inclusions of charcoal, gravel and pebbles, some of which appeared to have been burnt (C1228, F87 and C1238, F96). These features would have originally made up a single length of gully, defining the northern half of the arc.

The southern half of the arc was defined by F98. This gully was 3.8m in length and when excavated had steep sides (around 60 to 70 degrees) bottoming into a flat or slightly concave base. F98 proved to be 0.3m deep and varied in width between 0.4 and 0.65m. Although the gully is recorded as only having a single fill (C1220), the excavated section suggests that there may have been a post trench, 0.2m wide, set centrally within the feature which was invisible in plan. C1220 comprised a variable deposit of dark greyish brown silty clay which contained frequent inclusions charcoal flecks gravel, cobbles and sandstone fragments. As with F96 some of these stones appeared to be burnt. Crumbs and flecks of daub were also noted within C1220. The concentration of stones and cobbles became greater towards the northern end of F98. At this point the terminus of the gully was marked by a sub-circular posthole or pit 0.7m in diameter (F99). The interface between the backfill of F99 (C1221) and that of F98 (C1220) was difficult to see in section and it was concluded that the disuse of both features appeared to be contemporary. F99 was characterised by a large tip of cobbles and sandstone fragments running into the feature from its western edge. The remainder of C1221 consisted of a deposit of variable dark grey silty clay which contained a comparatively large amount of daub/fired clay and charcoal. F99 appears to represent a large posthole located at the terminus of F98. It was situated 2.0m to the southwest of F96 leaving a gap or possible entranceway of 2.0m between the two arcs of gully.

Although there was a distinct lack of pottery from any of the deposits within S2, a total of 325g of fired clay was recovered from C1221 (F99). The assessment of this material suggested that the clay had been fired to a high temperature and was thought to be the remains of some form of mould or fragmented furnace structure. Two of the pieces had distinct lateral impressions, possibly made from leather binds. Whatever the origin, this material, along with the 40g recovered from F98, was not found *in situ* and represented material deposited within the gullies and postholes of S2 in their disuse.

Charcoal recovered from F98 (C1220) provided a radiocarbon date range of 381BC to 202BC (see Appendix H).

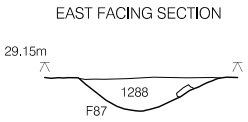


Figure 38a

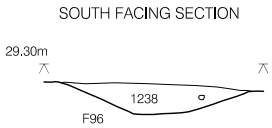


Figure 38b

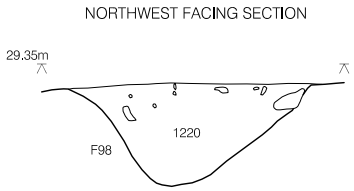


Figure 38c

Figure 38d

Sections across Structure 2	Scale 1:20		Figure 38

Several other features were recorded and excavated in the southeastern area. These included four postholes (F97, F100, F189, F193) which may have been associated with S2.

F189, F100, F97 and F193 formed a fairly convincing alignment, orientated NW-SE across the southern area, which joined with F72 (Central area) at its northwest end. F189 was found to be 0.2m in diameter, 0.1m deep and contained a deposit of sandy clay with burnt sandstone and charcoal (C1236). F100 was located in the gap between F96 and F99. When excavated this feature proved to be of a similar form and dimension to F189 and was backfilled with a light olive brown sandy clay (C1242).

Midway between F100 and F72 were F97 and F193. F97 proved to be the remains of a double stakehole, 0.15m deep. F193, to the south comprised a shallow U-shaped depression, 0.1m in diameter.

F84 was identified in the far southeastern corner of the enclosure and was circular in plan. This feature was 0.35m in diameter but when excavated proved to be only 0.06m deep. F84 was backfilled with a single deposit of olive brown sandy clay with rare charcoal fleck inclusions (C1231).

GENERAL (Figure 39)

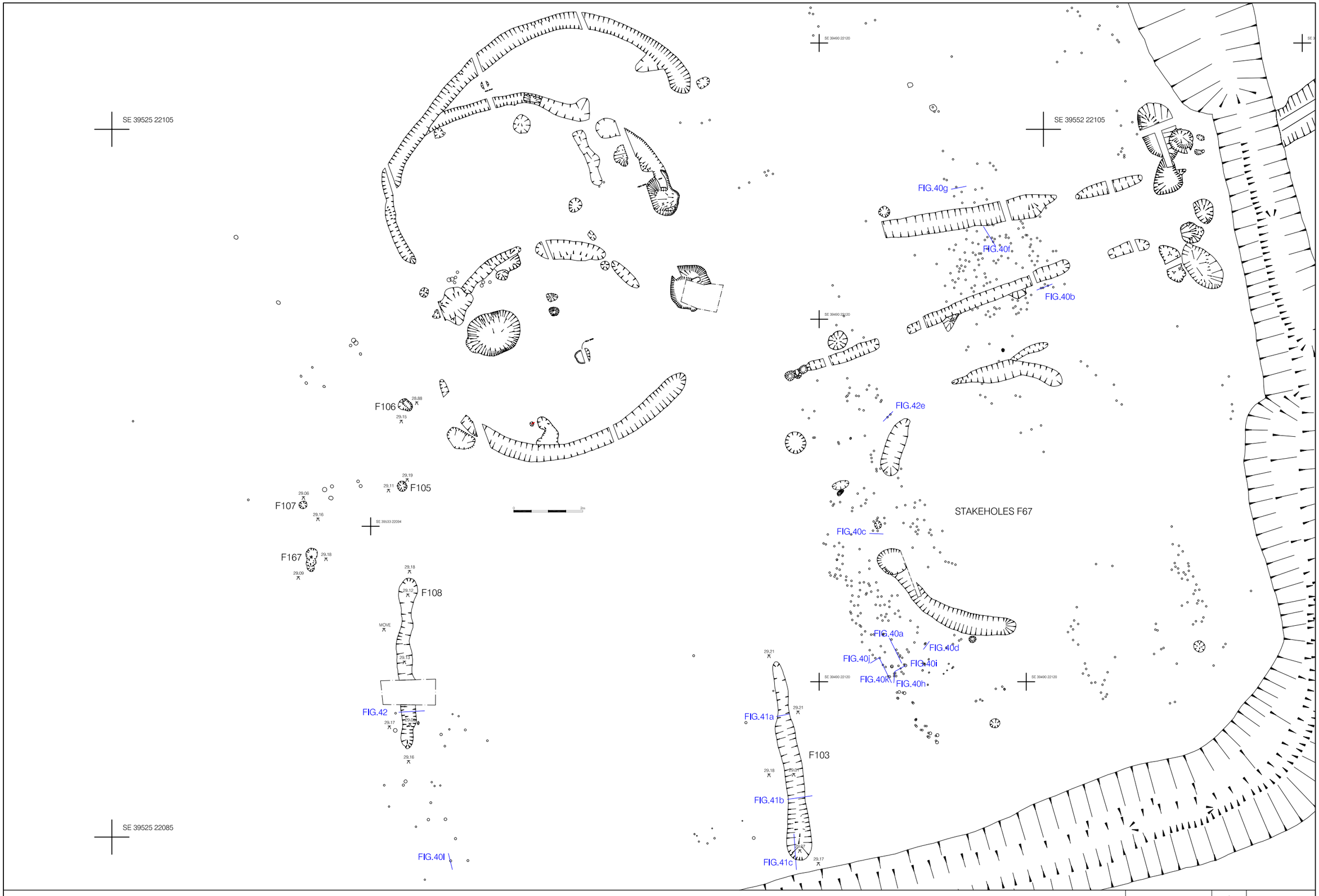
A number of other features were excavated within the enclosure. Some of these remain undated and could not be associated with any of the structures, whereas others exist as elements within the enclosure within their own right.

Stakeholes

During the cleaning of the southeastern area of the enclosure a large number of small sub-circular and sub-rectangular soil features were identified. These varied in diameter between 0.03m and 0.12m and were distributed in plan in an arc 4.6m wide which curved from its southern to its northeastern end over a distance of 16.2m. Additional concentrations of these anomalies were also identified in the northern and western areas of the enclosure. These features were allocated F67 and were planned prior to sample excavation on the basis that they may have represented the remains of stakeholes.

Of the 536 stakeholes that were planned, a total of 100 were sampled and recorded in box sections. Of these, one in four were photographed. The results from this exercise indicated that most of the excavated features were archaeological. The sections provide a range of profiles which varied between U- and V-shapes to square flat bottomed cross sections (Figure 40). These features varied in depth between 0.03m to 0.2m, were well defined against the natural subsoil and filled with a dark grey clay sand or sandy clay (C1339). The profiles showed that most of the features were vertical in section but there were several which had been formed at an angle.

In relation to the group of features located within the southeastern area of the enclosure it was difficult to see a meaningful pattern within the distribution of F67. It was noted that many of the stakeholes appeared to be concentrated in clusters, some around other features (e.g. F100), while others appeared to form short lines running at 90 degrees to each other. The curve of the band formed by F67 respected the arc of Structure 2 and was defined to the east of the line of posts and a gully formed by F70, F71, F92 and F103.



Post excavation plan of GENERAL AREA

Scale 1:100

Figure 39

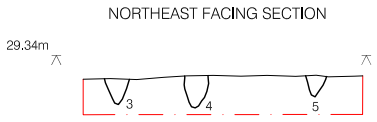


Figure 40a

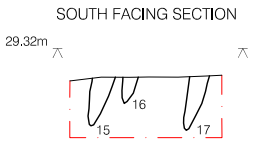


Figure 40b

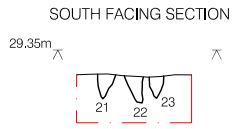


Figure 40c

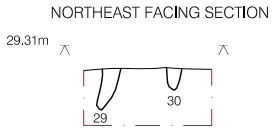


Figure 40d

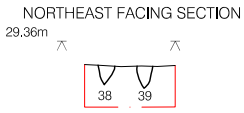


Figure 40e

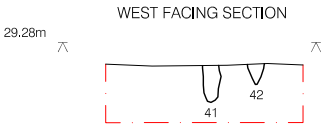


Figure 40f

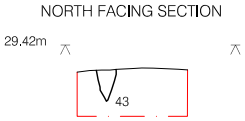


Figure 40g

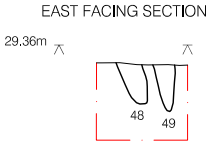


Figure 40h

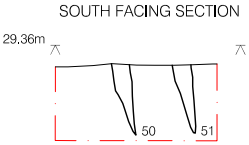


Figure 40i

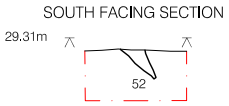


Figure 40j

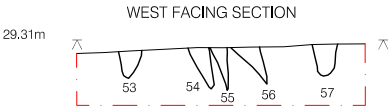


Figure 40k

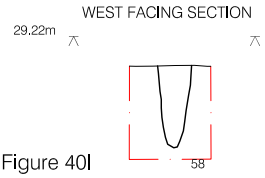


Figure 40l

Figure 40 - Sections across stakeholes F67

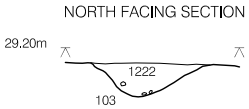


Figure 41a

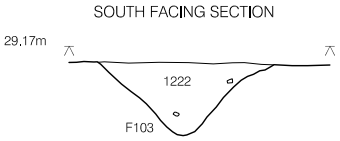


Figure 41b

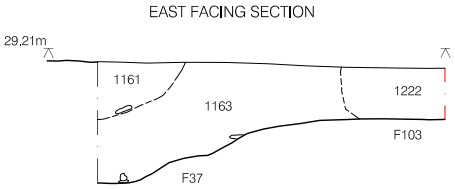


Figure 41c

Figure 41 - Sections across gully F103

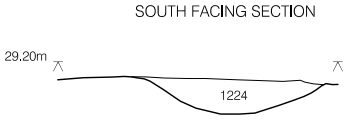


Figure 42 - Section across gully F108

Sections across stakeholes F67 and gullies F103 and F108.	Scale 1:20	Figures 40-42

Due to the ground conditions it was difficult to establish stratigraphic relationships between F67 and other features. However, it was clear that these stakeholes predated the medieval ridge and furrow cultivation. Even where features were very shallow (F96, F100, etc) the stakeholes were not seen against their edges suggesting that they may have respected existing structures or posts.

It is assumed that F67 would originally have held a series of upright stakes which would have been hammered into the subsoil. As the site is likely to have been truncated by c.0.3m by ploughing, these stakes would have been driven between 0.35m and 0.5m into the ground. What type of structure these features may have formed is difficult to envisage. The majority of stakeholes appear in a rough arc in the southeastern corner of the enclosure. In plan it is not unlike a semi-circular structure in its own right with its open face 8.5m wide and aligned to face to the east (Figure 39). If real, the alignment of this structure fits well with the location of the entranceway of the original enclosure (F37). It is not clear whether, in this case, F67 represents a single dense fence or a series of stake-built elements which were replaced over time.

The possibility that these features represent root holes has also been considered. When studying the distribution, excavated form/profile and context of these deposits this seems to be an unlikely explanation. There was no evidence for any root disturbance in any of the gullies or postholes, where the backfills of these features would presumably have provided a more attractive strata than the sterile natural clay. Nor was there any evidence for lateral roots or systems visible against the natural clay anywhere within Zone 2.

Other Features

F103 comprised a 5.7m length of gully aligned north-south running into the enclosure ditch at its southern end. This feature proved to be between 0.4m and 0.7m wide and was cut to a depth of between 0.2m and 0.3m. F103 had a U-shaped profile and was backfilled with C1222, a deposit of compact, mottled sandy clay (Figure 41). This deposit contained charcoal and pebble inclusions, of which several appeared to have been burnt. Despite F103 running into the enclosure ditch, it does not appear to have been a drainage feature as the northern end of the gully is deeper than the southern end. Both ends of F103 were well defined and rounded in plan.

F103 was cut through F234 and, as such, may have been contemporary with one of the latest phases of enclosure circuit. A radiocarbon date of between 39BC and 77AD was obtained from charcoal recovered from F103 C1222, suggesting that F103 may have been related to one of the later structures (see Appendix H). The alignment of this gully with the set of postholes F70, F71 and F92 indicated that it may have been the southern end of a sub-division of the enclosure.

If F103 was contemporary with a phase of the enclosure circuit it would indicate that the presence of an internal bank at this time is very unlikely. The division marked by these features, if real, would have served to annex the southeastern corner of the enclosure, an area of the site which had been the focus of activity related to Structure 2.

The final set of features within Zone 2 comprised a length of north-south aligned gully (F108) and a series of four postholes (F105, F106, F107 and F167) located to the south of the structures within the centre of the enclosure. F108 was 4.95m long and 0.45m wide. Upon excavation, this feature proved to be only 0.1m deep,

and was backfilled with a deposit of mottled olive brown clay with few inclusions (C1224) (Figure 42). Along the same alignment as F108 and 2.5m to the north was a sub-circular posthole (F105), 0.3m in diameter and 0.14m deep backfilled with mottled deposit of grey sandy clay (C1186). A further 2.05m along this line was a second posthole (F106). This feature proved to have an elongated rounded cut 0.3m x 0.2m x 0.25m, backfilled with a mottled grey sandy clay (C1187). Together these three features formed a structure or fence some 10.0m long which probably extended to the enclosure ditch on its southern side. To the north it is possible that this alignment may have included F173 and/or F191 thereby dividing the enclosure with a north-south aligned boundary some 23.0m long. 2.6m to the west of F108 were two more features (F107 and F167) set 1.1m apart. F107 was a well defined but shallow posthole 0.25m in diameter and 0.1m deep. 1.1m to the south of this was a shallow irregular scoop (F167) backfilled with similar material. Whereas F107 appeared to be the remains of a single posthole, F167 resembled the heavily truncated base of a double post setting which measured 0.7m by 0.3m. Both features formed a line parallel to that made by F108.

ISSUES

The results of each area have been presented by feature and structure. However, it is necessary to consider several problems with this data set before alluding to a sequence and interpretation.

Truncation

The distribution of features across Zone 2 shows a distinct lack of activity in the western and northern part of the enclosure. Although this may be a true reflection of the organisation within the enclosure, the level of truncation across the whole site by modern ploughing needs to be considered. From studying the depths of extant ridge and furrow in other areas of the Golf course (Intervention 4), it is estimated that in excess of 0.25m of subsoil has been truncated by the plough across the enclosure. With the exception of the cobble floor of F206, this has effectively destroyed the original ground surface and any trace of ephemeral features. Such features could have included beam slots, postholes, hearths and floors if originally present. Consequently the majority of features that have survived within the enclosure are the substantial structural ones. This bias in the data is unavoidable but should be acknowledged as a limiting factor for interpretation.

Dating

The chronology of features at Normanton Golf Course was heavily reliant on a series of radiocarbon dates. A total of sixteen samples were sent off for analysis. The majority of these consisted of charcoal recovered from feature backfills by flotation. The samples were chosen to provide dates for each major structure and significant feature within the enclosure.

In many cases the radiocarbon samples were derived from feature backfills which by their very nature are secondary deposits. With evidence indicating that several phases of occupation and structural activity were occurring on the site, the possibility of residuality needs to be acknowledged and may be a particular problem with structures defined within Zone 2. In these cases, charcoal was recovered from the either the construction cut backfill or the post voids in their disuse. If residual charcoal was present on the site, either in middens or surface layers, then it is possible that such fragments could have found their way into post trenches during either

construction or destruction.

Although residuality may limit the precision of radiocarbon dating, it in no way detracts from its value in providing a general date range for activity occurring on the site. A study of the radiocarbon dates from the enclosure did not reveal any obvious anomaly within the dating sequence. It dated the main phase of activity on the site to a period between 400 BC and 50 BC, and suggested that less intensive occupation occurred both before and after this time. This sequence appeared to fit with the chronology of the site based on the results of the excavation and was corroborated by the limited pottery assemblage.

Two possible exceptions were observed in this general pattern. The first, F153 provided a radiocarbon date range of 1767BC to 1642BC. This feature, therefore, predated the cremation of F232 by at least 510 years and most probably predated the enclosure itself. On this basis it could easily be discounted either as an archaeological anomaly or as a rogue date caused by residual charcoal. However, the location of F153 may suggest another interpretation which is discussed below. The second date was recovered from the backfill of F35 (C1263). This gully was radiocarbon dated to between 785BC and 399BC (see Appendix H). If this date is accurate then it could mean one of several things. Firstly, that the corridor structure leading into the enclosure (F35 and F36) from the entranceway was not contemporary with any of the structures within the enclosure. The date would also suggest that the corridor predated the gate structure itself (based on the date for F209). Although this was logically possible, the spatial relationships, organisation and similarities with other features suggest that it is very unlikely. Additionally, pottery recovered from the disuse of F36 was identified as being of a Late Iron Age date (see Appendix E). Together this suggests that the charcoal from F35 used for the radiocarbon date was probably residual in nature.

Two radiocarbon dates were obtained from reliable sources. Three samples of grain from the pit F40 were used to calibrate a date of 120 BC to 160 BC. The charcoal recovered from the cremation F232 was assumed to be related to the burning of the bone and was dated to between 1206BC and 917BC. Both of these deposits provided primary material for dating a particular event. In this respect the dating of F232 to the Early Iron Age is worthy of note.

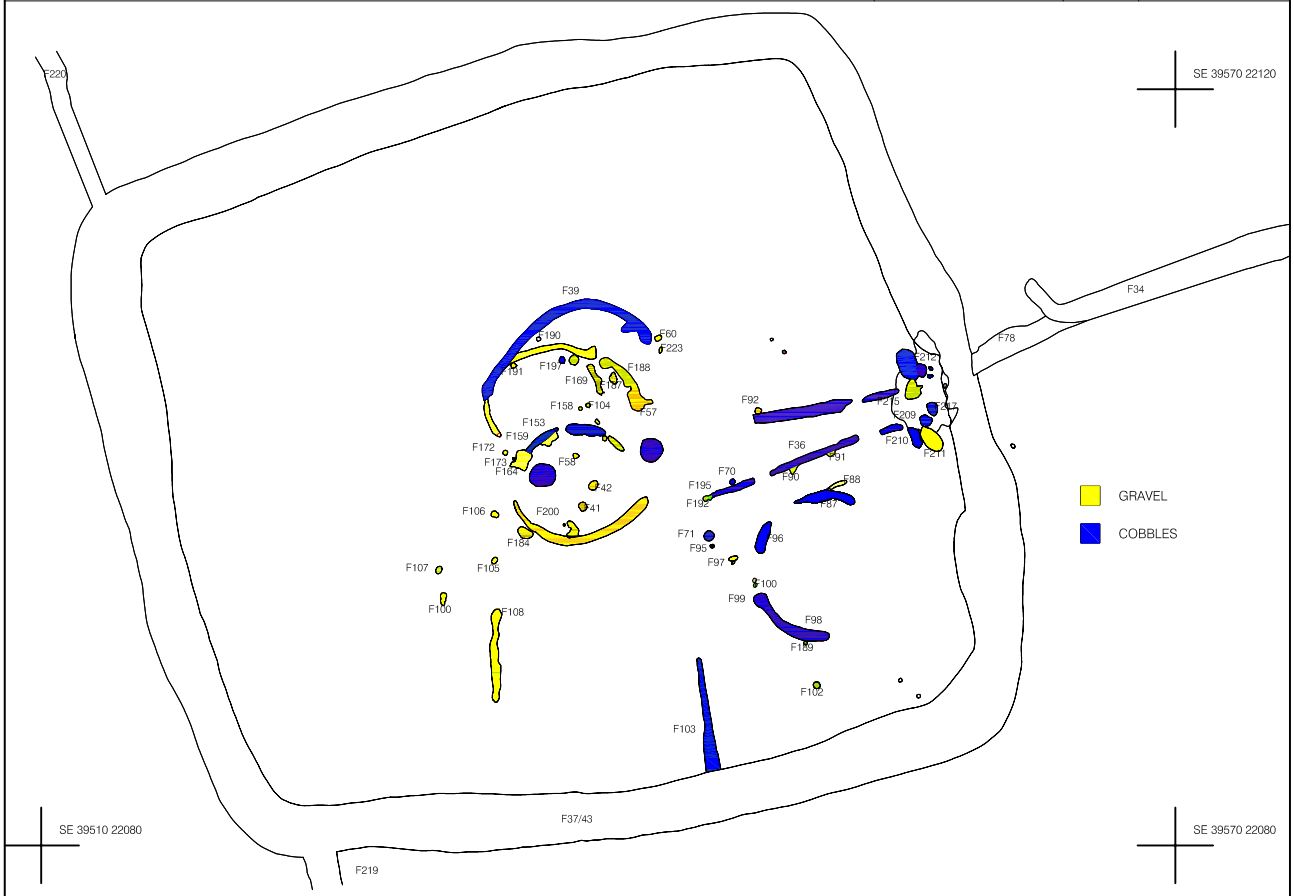
Comparative Analysis

Other techniques were also used in an attempt to correlate features during the phasing of the enclosure. Maps were produced and coded to show the concentration of charcoal, the distribution of pebbles and cobbles, burnt and unburnt stones, and the distribution of colour within the backfills of features around the enclosure. These are shown in Figures 43 to 46.

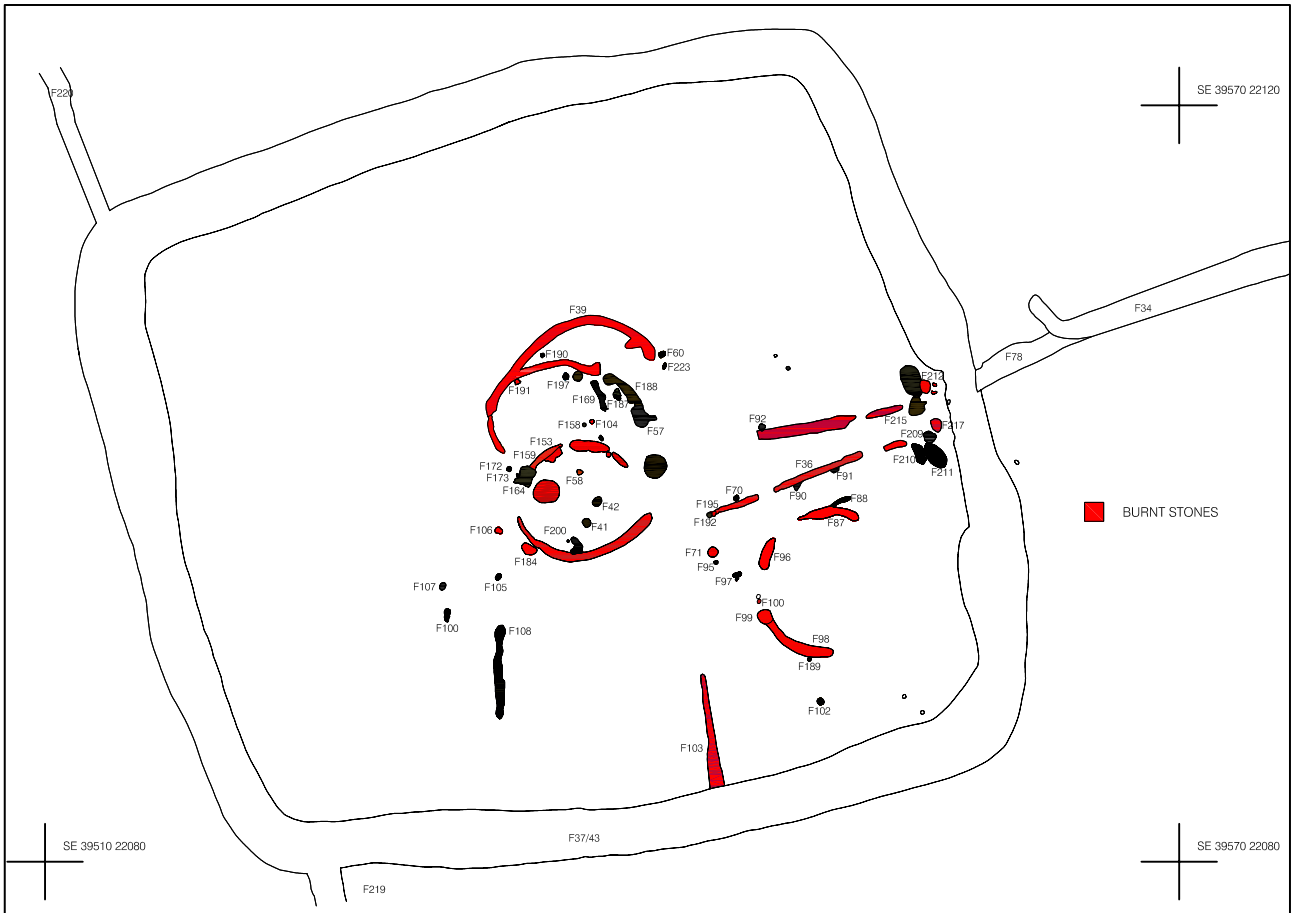
Charcoal flecks were present in small amounts as inclusions in virtually all the feature backfills. This background concentration was surpassed only in F40, F99, F212, F209 and F184. Apart from indicating fairly obvious concentrations of charcoal in certain features, the analysis did not allude to any meaningful spatial or chronological patterns.

After the discovery of a cobbled surface (F206) within the entranceway it was hypothesised that the whole of the interior of the enclosure may have been cobbled at some point. It was hoped that by studying concentrations

Concentrations of charcoal inclusions within features | Scale 1:400 | Figure 43



Concentration of gravel vs cobble inclusions within features | Scale 1:400 | Figure 44



Distribution of features containing burnt stones | Scale 1:400 | Figure 45

Schematic plan of backfill colours | Scale 1:400 | Figure 46

of gravel and cobbles within feature backfills, it would be possible to determine whether this was the case, and if so, to distinguish between features which would have predated or post dated such a surface. The results, however, showed that cobbles were present throughout most of the features within the enclosure and apart from S4 and S5 having slightly less cobble inclusions than the other structures, little in the way of a distinguishable pattern could be detected. A similar result was obtained from the distribution of burnt cobbles. These were effectively found in all phases of the enclosure and do not appear to relate to a specific period or feature type.

PHASES

Due to the lack of stratigraphic relationships between features, the paucity of dateable finds and the broad date ranges provided by the radiocarbon results many different phasing schemes could be derived from the enclosure data set. The following phases, therefore, represent the 'best fit' as judged by the author.

Phase 1 (1700BC) (Figure 47)

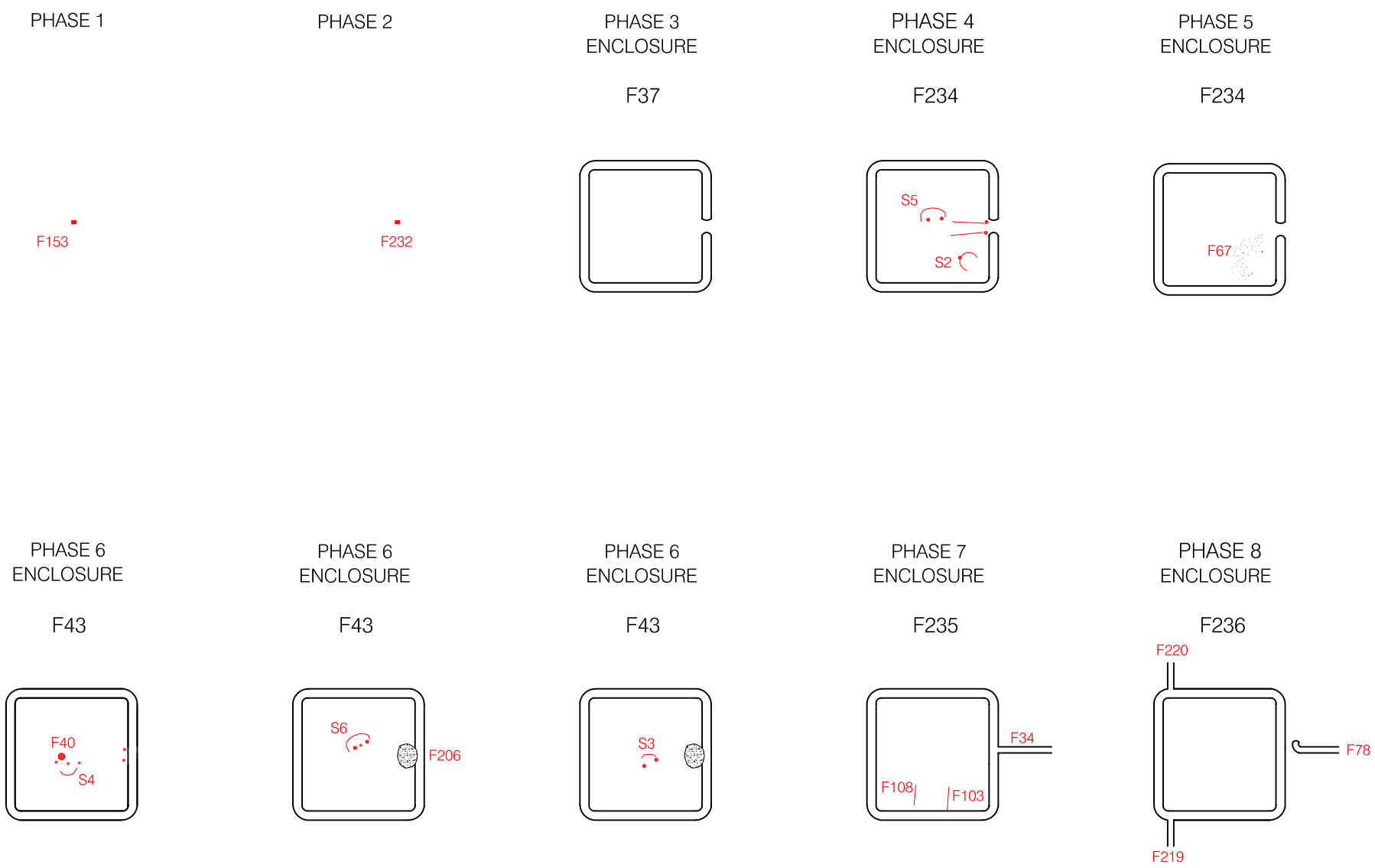
By virtue of its radiocarbon date range of 1767BC to 1642BC, F153 was the earliest feature in Zone 2 (see Appendix H). The possibility that this date was residual has already been discussed. Assuming that this date was genuine, however, F153 would most probably have predated the enclosure itself. Dated to the Bronze Age, the position of F153 on top of a visible rise in a valley bottom, and then in the Iron Age, centrally within a rectilinear enclosure may be significant. The position of F153 at a central point within the enclosure was emphasised by its pivotal position to all of the central structures. That is not to say that such a feature would still be present at the time these structures erected, rather that F153 may have been the original focus for activity or place. The place, therefore, was reused in later phases rather than the feature. Evidence for other pre-Iron Age activity within this area of the site was recovered in the form of a neolithic flint knife, some 7cm long, found during machining immediately to the north of Zone 2 (Find No.177, Plate 15).

Plate 15 Find No.177

Phase 2 (1200BC - 900BC)

Phase 2 of the enclosure was marked by the presence of a shallow pit (F232) containing cremated animal bone. The early Iron Age date of this feature (1206 BC to 917BC) placed it well before any of the main structures were constructed on the site and although it was possible that this feature occurred within the first phase of enclosure ditch, no dating evidence was recovered from F37 to corroborate this. F232 could, therefore, have been pre-enclosure in origin.

The purpose of F232 was unclear. The calcined nature of the bone assemblage suggested that it may not have



Schematic Phase Plans of Intervention 2

Figure 47

been the result of a domestic cooking fire (see Appendix G). Whatever its function, F232 indicated a presence on the site of the enclosure which dated to the Early Iron Age.

Phase 3 (600BC - 400BC)

Phase 3 formed the first phase of the rectilinear enclosure of F37 with an estimated date range of 600BC to 400BC. There was little evidence for internal structures that were contemporary with the first enclosure ditch. The spatial arrangement created by the arc of stakeholes in the southeast corner (F67) were the only element to respect the wide entranceway of F37 and, therefore, may be contemporary with this phase.

Phase 4 (400BC - 200BC)

The main elements of Phase 4 comprised the recutting of the ditch (F234) to incorporate a narrow gateway with a corridor leading into the centre of the enclosure. It is possible that there were at least two sub-phases to this arrangement. The first comprised postholes F211 and F216 forming a post gateway 2.2m wide which was linked to a corridor, the southern side of which was formed by a series of postholes (F90, F91, F192, F195). The northern side was formed by F35 or an earlier version which was obliterated when recut. The second possible sub-phase consisted of a narrower gateway, 1.2m wide, tied into a corridor composed of F36 to the south and F35 to the north.

There was no evidence of a palisade or fence or any other structure running along the inside of the ditch which the gateway could have been tied into. It is possible that the gateway was linked to an internal bank, but there is no evidence to corroborate this.

Structure 5 was located centrally within the enclosure at this time. This hut appeared to have been used for a considerable period with there being evidence that it had been repaired or reconstructed in exactly the same place. The disuse of the second sub-phase was radiocarbon dated to between 398BC to 261BC (see Appendix H).

Structure 2 was possibly contemporary with Structure 5. S2 was located in the southeastern corner of the enclosure and differed in several respects to any of the other structures found within Zone 2. Its semi-circular form, symmetry and 2.1m wide entranceway along its northwest wall, between F96 and F98, contrasted with the asymmetrical squat forms of S3, S4, S5 and S6. Additionally the open face of S2 was not closed by postholes as seen in all the other structures.

S2, therefore, may have been a very different building in form and function than S5. Rather than being constructed from a series of posts, the back of the building may have been formed by digging a screen or wall into the earthen bank of F234. This structure may even have supported a platform or deck in the corner of the enclosure.

The backfill of gully F98 and posthole F99 produced a large quantity of fired clay. This material appeared to be burnt daub in which wattle imprints could be seen in at least two fragments. Whether this material indicated that S2 had been burnt is one matter, but it does provide further proof that these features were of a structural

nature. The disuse of Structure 2 was dated by radiocarbon dating to 290 BC ± 90 years.

Phase 5 (200BC - 150BC)

The radiocarbon dates suggest that there may have been a possible hiatus in the occupation on the site until the Later Iron Age. This may have resulted in the silting up of F234 which was followed by the remodelling of the enclosure at a later date. It is also possible that the arrangement of stakeholes (F67) relate to this period of partial disuse. As the corridor became less significant, F67 may represent an attempt to continue the function and form of Structure 2 in a less formal way.

Phase 6 (150BC - 0AD)

Phase 6 comprised the remodelling of the enclosure after the funnel corridor had gone into disuse. The enclosure ditch (F234) was recut into a complete circuit (F43) and the causewayed entranceway was replaced with a bridged crossing. Originally this may have been a fixed wooden structure, supported by postholes F212 and F217, which may have had a gated element to it. The rationale behind this lay in the fact that the two smaller posts, clearly set with F212, appeared to be cut into the western slope of the enclosure ditch.

Three structures may have existed at the centre of the enclosure at this time (S3, S4, S6). The broad radiocarbon dates for these structures made it difficult to separate them into a chronological sequence. Structure 6 and Structure 4 shared similar profiles and backfills which implied that they may be consecutive. The axis of Structure 6, however, was identical to that of Structure 3 which suggested that despite their different construction they too may be consecutive. On this basis, Structure 4 must have been either the first or the last structure built in the centre of the enclosure. Pottery recovered from the backfill of F59 was of a similar fabric to that recovered in the robbing/disuse of gully F36. With this being the case, it can be argued that Structure 4 represents the first building in this sequence.

The presence of F40 within this arrangement should be considered. This pit appeared to have been backfilled between 120 BC and 160 BC. If the pit was an external feature then it must either have been contemporary with Structure 6 or have predated all the buildings within this phase of occupation. However, if it was within a building it would have been located either along the entrance of Structure 4 or centrally within Structure 3. The proximity of such a deep feature to the walls of all three structures (i.e. less than 0.5m) suggests that F40 was not contemporary with any of them.

In its disuse F40 appeared to have been deliberately backfilled and capped with clay, possibly being levelled prior to the construction of a new building. This pit does not appear to have been used for general rubbish disposal as its primary fill appeared to consist of a single deposition of burnt material with the remaining contexts being related to its backfilling and levelling. The form of F40 is not unlike that of storage pits found on other sites in the region (e.g. Dalton Parlours). It is strange, however, considering the longevity of occupation within the enclosure that there is only one such feature as well as a distinct lack of evidence relating to domestic or agricultural activity on the site.

Structure 4 was located facing to the north and may have been built over F40 in is disuse between 120 BC and

160BC and was, therefore, contemporary with the first bridge structure over F43. This building was eventually replaced by S6 to the north. The reorganisation of the centre of the enclosure may have been contemporary with the cobbling of the entranceway. The original post-supported bridge may have been replaced with a moveable structure. Structure 6 was then finally replaced with Structure 3, situated to the south but on the same axis and alignment. Structure 3, in its disuse, appeared to have been destroyed by fire.

The dating of the structures within the enclosure indicate a period of occupation which must have lasted for approximately one hundred years between 150BC and 50BC. The radiocarbon dates suggest that all of the main structures went out of use by the beginning of the 1st century AD at the latest.

Phase 7 (0AD - 50AD)

A change in the layout and possibly the function of the enclosure was marked by a recutting of the entire circuit (F235) in a period after the main structures on the site had fallen into disuse. F235 was joined to a second ditch (F78) located midway along the eastern length. The purpose of this feature was to drain water from the main circuit acting as an overflow in periods of wet weather. This may have been in response to a deterioration in local conditions and more than likely reflected a need to keep the interior of the enclosure free from flooding. This new emphasis on water management might indicate a change in the role of the enclosure. A rough north-south aligned division of the site marked by gully F103 and postholes F70, F71 and F90 appears to have been contemporary with F235. The disuse of this possible division was dated by radiocarbon analysis to between 39BC and 77AD (see Appendix H). A second sub-division of the site, marked by gully F108 and associated postholes (F105, F106), may also belong to this phase. The lack of apparent structures and formal entranceway, combined with the sub-division of the site and the loss of central focus, all indicate that a fundamental shift in the pattern of activity occurred around this time.

Phase 8 (50AD - 200AD)

In Phase 8 the enclosure circuit (F236) was recut and incorporated into a north-south aligned boundary ditch located at the northwestern and southwestern corners of the enclosure (F220 and F219 respectively). The western end of F78 was backfilled whilst the remainder of this ditch to the east was recut allowing free passage around the enclosure. Although no internal structures were identified from this phase, the enclosure appeared to continue in use. Pottery recovered from the disuse of F236 was dated to the 2nd or 3rd century AD.

This phase of the enclosure saw it incorporated into a wider, formal division of the landscape which was visible in Zones 1, 3 and 4. The very fact that the circuit of the enclosure is retained within this, in particular reusing its western leg, is significant.

Phase 9 (Early Medieval)

There was no evidence for any activity on the site between the abandonment of the enclosure in the 3rd century and the medieval period.

Phase 10 (Medieval)

The remains of eight medieval furrows were identified running across Zone 2 on a north-south alignment. A fragment of blue glass, probably Roman in origin, was recovered from the fill of furrow F24, whilst a sherd of 14th century pottery was found in furrow F30.

Phase 11 (Post-medieval)

A series of fifteen ceramic land drains were recorded running across Zone 2 which were post-medieval in date.

5.3 ZONE 3 (Figure 48)

Zone 3 was allocated to a rectangular area around the enclosure which measured 380m by 205m. This zone was evaluated with a number of interventions which ranged from a main north-south road pull (Intervention 12) to a series of hand-excavated trenches over extant ridge and furrow across the golf course (Intervention 4, Intervention 5, Intervention 11).

Phase 1 (Neolithic to Early Iron Age)

The earliest deposits to be exposed within Zone 3 were characterised by a series of features which were natural in origin. These consisted of twenty three sub-circular and irregular shaped tree boles which varied in size between 0.6m and 1.6m in diameter. The majority of these features measured approximately 1.0m in width and shared the same characteristics as others recorded at the southern end of Intervention 10 (Zone 4). A further three anomalies were detected within the sample area. These appeared as extensive patches of grey mineralised clay, sub-circular in shape, with distinctive feathered edges which varied in size between 5.15m and 7.9m (F174, F179 and F180) (Figure 49). A series of 1.0m wide sondages were excavated across these features.

The results from these sondages showed that these features were shallow, well defined, irregular scoops between 0.4m and 0.6m deep, filled with a deposit of mottled, heavily oxidised sandy clay. The interface between the natural subsoil and deposits above was marked, in at least one case (F179), by a layer of concreted iron pan (C1198)(Figure 50a). These large scoops may have represented the remains of larger tree boles.

Possibly contemporary with this was a meandering linear feature formed by three lengths of poorly defined gully (F171, F176 and F183). F176 comprised an irregular curvilinear deposit of dark grayish brown clay, poorly defined against surrounding subsoil and heavily truncated by later furrows. This feature was excavated in five 1.0m sondages positioned at appropriate points along its length. F176 was filled with a series of heavily oxidised clay deposits, some of which appeared gleyed. Only the latest fill episode (C1190) was visible in plan. The base of the feature was irregular and well defined against layers of weathered bedrock and firm clay. F176 had a shallow profile and varied in width between 6.0m and 3.0m and in depth between 0.3m and 0.5m (Figure 50b and 50c). Its uneven base and variable oxidised fills suggested that it may represent the remains of a shallow stream or watercourse running southwards then eastwards across the development area. F183 produced a similar profile and the stretch between the two features had been truncated by later furrows.

SE 3940 2236

SE 3965 2236

FIG.53c

FIG.53b

FIG.53a

F243

F243

F254

FIG.49

F248

F249

F250

F243

FIG.50a

FIG.56a

FIG.56b

F175

F220

F183

FIG.51

F78

F161

F110

F176

FIG.53d

F219

FIG.58 AND 59

F224-227

SE 3965 2202

LAND DRAINS

FURROWS

ARCHAEOLOGICAL FEATURES

EXCAVATED SAMPLES

FAS

Results from Zone 3

Scale 1:1000

Figure 48

Figure 49

Scale 1:100

SE 39475 22225

F179

FIG.50a

F243

SE 39455 22225

F243

FIG.55a

F247

FIG.55b

F249

FIG.56a

F250

SE 39455 22195

Post-excavation plan of F243

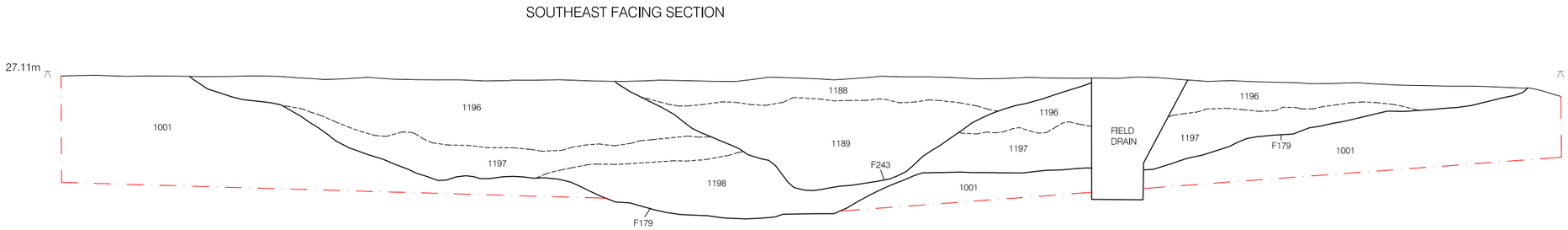


Figure 50a - Section across tree bole F179 and ditch F243

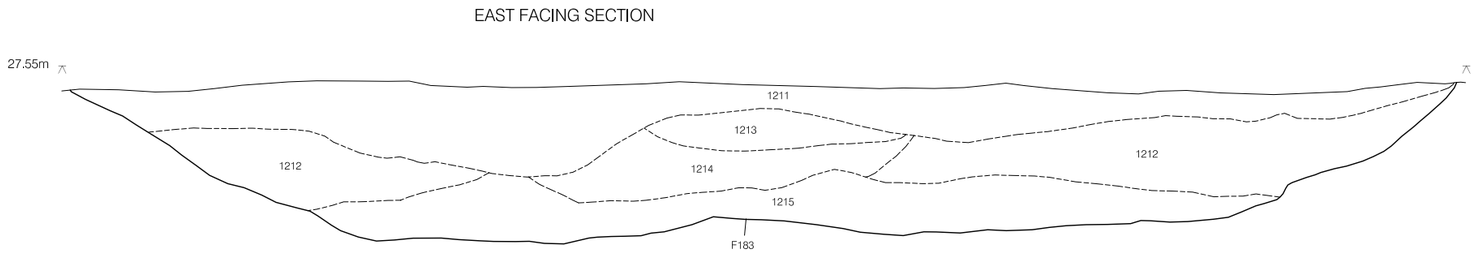


Figure 50b - Section across stream F176, F183

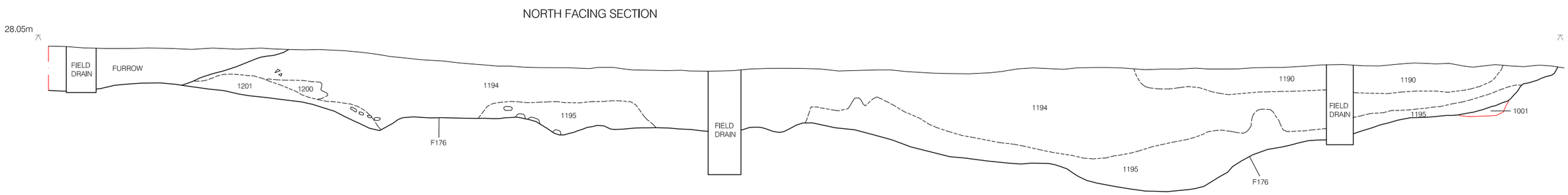


Figure 50c - Section across stream F176, F183

Sections across stream F176	Scale 1:20		Figure 50

Together these features produced a possible stream which could be followed for 120m. At its southern end F176 turned eastward for 20m, where it was recorded as F221 before being cut and probably canalised by a later ditch F219. The southern continuation of this feature appeared to have been completely destroyed by the later ditch and a medieval furrow.

It is assumed that this watercourse, like the ditch that cut it, fed into another stream at its southern end. This was investigated in Intervention 15. The results from this trench showed that the present Whin Beck had a long lived and complex history having been managed and recut in several major episodes. The earliest version of this stream was heavily disturbed by later management and modern trees but would have consisted of a broad shallow uneven-based waterway in excess of 4.5m wide. A total of six tree boles (F263) were recorded lining the northern bank of the stream at this time.

This first phase of Zone 3, therefore, may have been a lightly wooded landscape bound to the west and south by watercourses. Zone 2 in this context would have existed as a small island of higher ground within this environment.

Phase 2 (Late Iron Age/Romano British)

It is not known for how long the landscape remained in this form. It is also not clear whether the first phase of enclosure within Zone 2 was created while the rest of the landscape was still woodland. However, what can be said is that by the end of the Iron Age and beginning of the Romano British period, the area of Normanton was divided by a series of ditched boundaries linked to a second possible enclosure. This reorganisation of the landscape must have involved the clearance of woodland and the management and canalisation of existing water courses.

Unfortunately only two sherds of pottery were recovered from any of the ditches sampled within Zone 3. These comprised two fragments of Romano-British fabric one of which was dated to the 3rd century AD in the disuse of F243 (Intervention 19) (see Appendix E). Several stratigraphic relationships, however, were recorded which indicated the sequence and development of several of the ditches.

The earliest element within Zone 3 appeared to be the east-west aligned length of ditch which extended from the entranceway of the enclosure (F78/F34) (Figure 51). This feature was discussed within Phase 4 of the enclosure (F235). F78 comprised a well defined U-shaped ditch between 1.1m and 1.4m wide and between 0.5m and 0.8m deep, backfilled with a deposit of mottled light brownish grey clay (C1088) (Figure 52a and 52b). In plan F78 had an L-shaped appearance and ran for 25m east before turning south at 90 degrees for a further 12m. At this point the ditch ended in a well defined rounded butt end.

F78 was recut along its entire length after being deliberately backfilled at its western end. This recut (F34) consisted of a U-shaped ditch up to 1.7m wide and 0.5m deep backfilled with a sterile deposit of olive brown sandy clay (C1035). F34 appeared to be related to the extension of F78 to the south and east by two lengths of shallow gully (F161 and F110).

F161 was located 1.9m to the south of F34 and comprised a length of shallow ditch 6.2m long by 0.9m wide

SE 39565 22115

SE 39595 22115

SE 39565 22095

FIG.52a

FIG.52b

FIG.52c

29.08
28.95
28.68
28.25
29.05
28.32
28.89
28.98
28.67
28.29
29.02
28.34
29.05
F34
28.42
29.02
29.09

28.82
28.53
28.87
28.48
F34
28.58
28.80
28.84
28.72
F112
29.07
28.93
28.90
28.76

28.89
28.70
28.80
F161
28.68
28.79

28.63
28.50
28.46
28.44
F110
28.63

28.91
28.75
F110
28.85
28.72
28.70
28.97
28.81

0
5m

F34, F78 Post-excavation plan

Scale 1:100

Figure 51

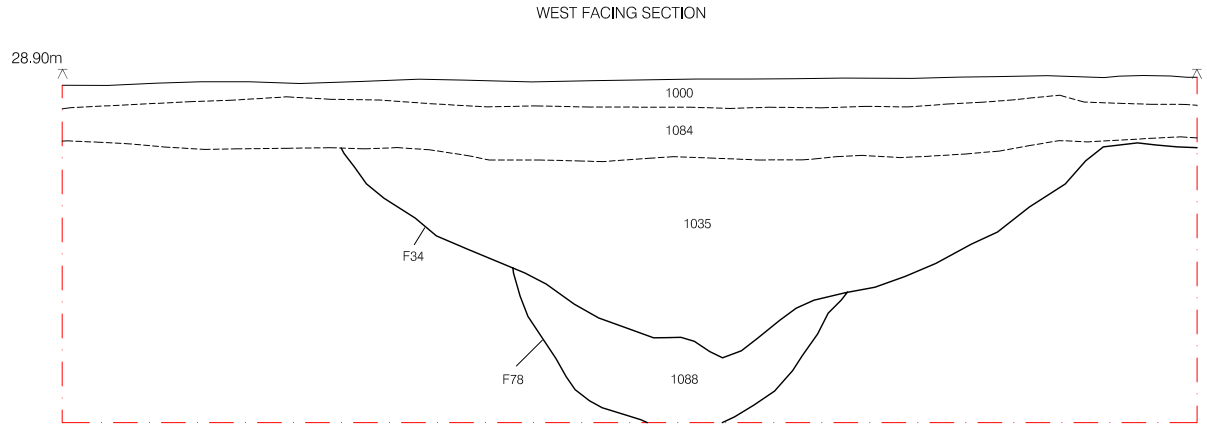


Figure 52a - Section across ditch F78 and F34

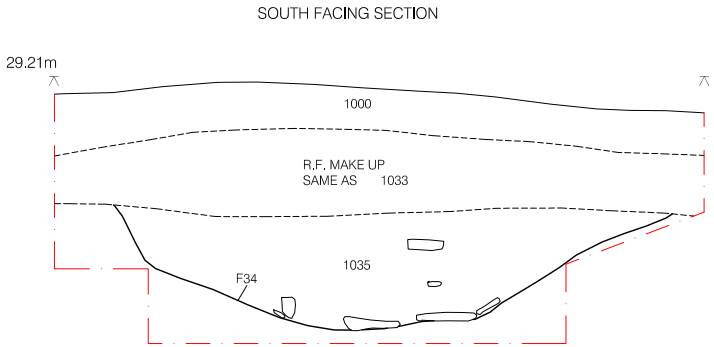


Figure 52b - Section across ditch F34

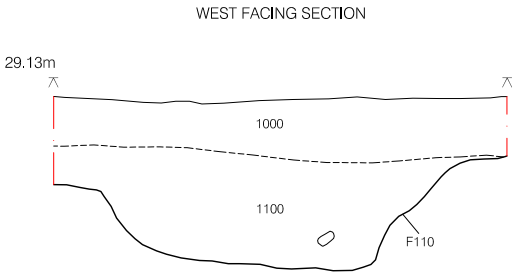


Figure 52c - Section across ditch F110

Sections across F34 and F78

Scale 1:20

Figure 52

which survived to a depth of 0.2m. F110 was located 1.5m to the east of its southern terminus and was a similar feature 10.8m long and 0.65m wide (Figure 52c). Several burnt rounded cobbles were recovered from the otherwise sterile backfills of these features. The butt end of F34 appeared to be contemporary with a short length of U-shaped gully 1.4m long by 0.35m wide (F112). Although the southern side of this feature was lost through modern disturbance, F112 appeared to form a possible overflow to the main ditch.

Together these features resembled a form of annexe to the main enclosure which was contemporary with the final phase of ditch (F236). Within this arrangement F110 lined up with the southern side of the enclosure.

Possibly contemporary with F78, at the northern end of Zone 3, a NE-SW aligned ditch was identified and sampled (F243) (see Figure 48). This feature could be followed in plan for a distance of 245m across the site into Zone 4 where it was recorded and excavated as F111 (Intervention 10). At its western end, F243 turned sharply and continued southwards for a further 120m before swinging westward for a further 45m where it continued beyond the site boundary. Along its southern length F243 became less regular in shape and proved increasingly difficult to define, resembling the watercourse F176 in plan. At its northwest limit a second ditch (F254) was identified continuing the NE-SW line of F234. This feature could be followed for 30m at which point it continued beyond the western site boundary. A further three ditches/gullies were identified running westwards from F243 midway along its southern leg (see Figure 49). These features (F248, F249 and F250) were parallel and offset from each other between 1.1m or 3.0m. In plan the general arrangement of these features appeared to form a major NE-SW boundary across the northern half of the site, with subsidiary ditches which formed an apparent enclosure, 130m long, with a series of internal subdivisions. F243 clearly cut at least two of the treeboles identified within Zone 3.

When sampled in various Interventions, F243 appeared to be the latest recut in a series of three ditches (F243, F244, F245). This arrangement was visible in sections along entire length of the ditch and was mirrored in the sequence of recutting identified in both the western continuation of F243 (F254) (Figure 53a, 53b and 53c) and the series of gullies (F248, F249 and F250) (see Figure 49). These boundaries were initially cut and then maintained along their full length in two separate episodes. The recorded sections for these features are shown in Figures 54 and 55).

The earliest ditch (F245) was badly truncated by later recutting and was only identified in section. It comprised a wide shallow U-shaped ditch with a slightly irregular, stepped profile, up to 2.5m wide and 0.65m deep. This feature was backfilled with a variable deposit of sandy clay (C1387) which contained occasional charcoal flecks and pebble inclusions. At its northwestern corner F255 was joined with F245. This extension of the boundary continued the main SW-NE alignment and proved to be 2.1m wide and 0.4m deep backfilled with two deposits of yellow brown clay (C1413, C1414). The third element within this arrangement comprised the first of three east-west aligned gullies (F248). This gully comprised a shallow U-shaped feature, 0.6m wide and 0.2m deep backfilled two deposits of sandy clay (C1398, C1402). A study of the excavated levels from F248 showed that this gully drained water from west to east into the main ditch F245. The levels from the rest of this ditch phase suggested a tendency for water within the ditches to drain towards the south and east.

The second phase saw a recutting of the whole system of ditches and may have been contemporary with the recutting of F78 to the east of the enclosure. A study of the excavated sections showed that this occurred after

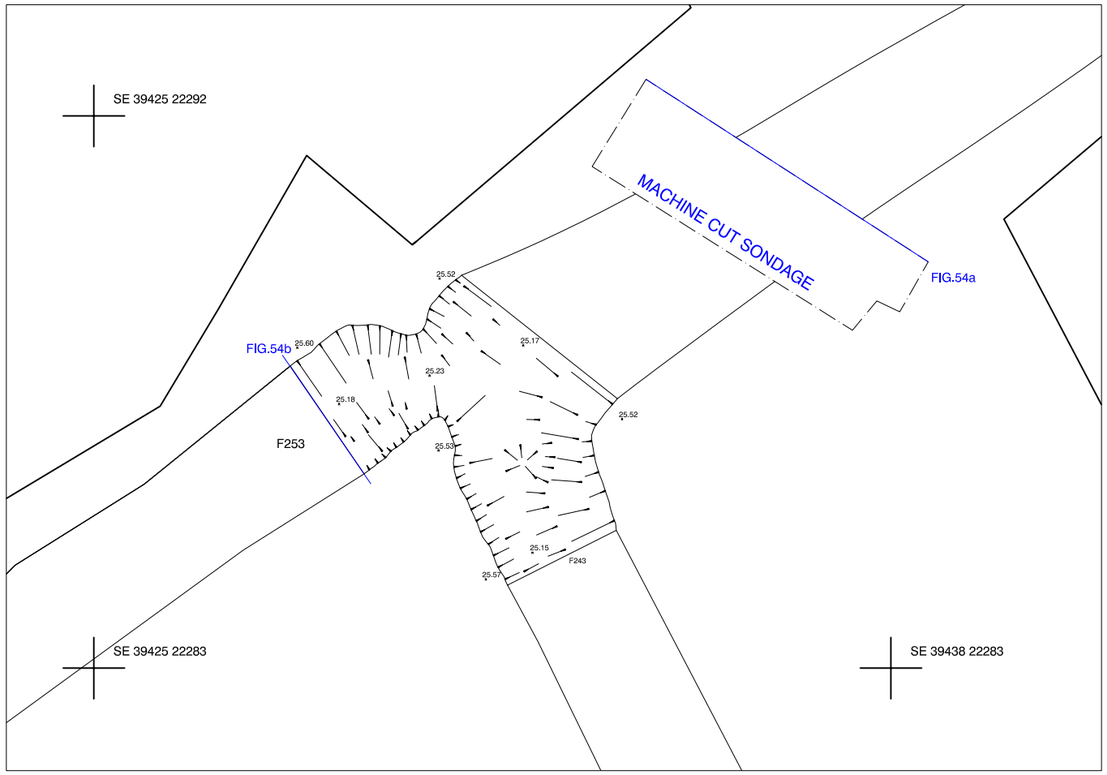


Figure 53a - F243 and F254

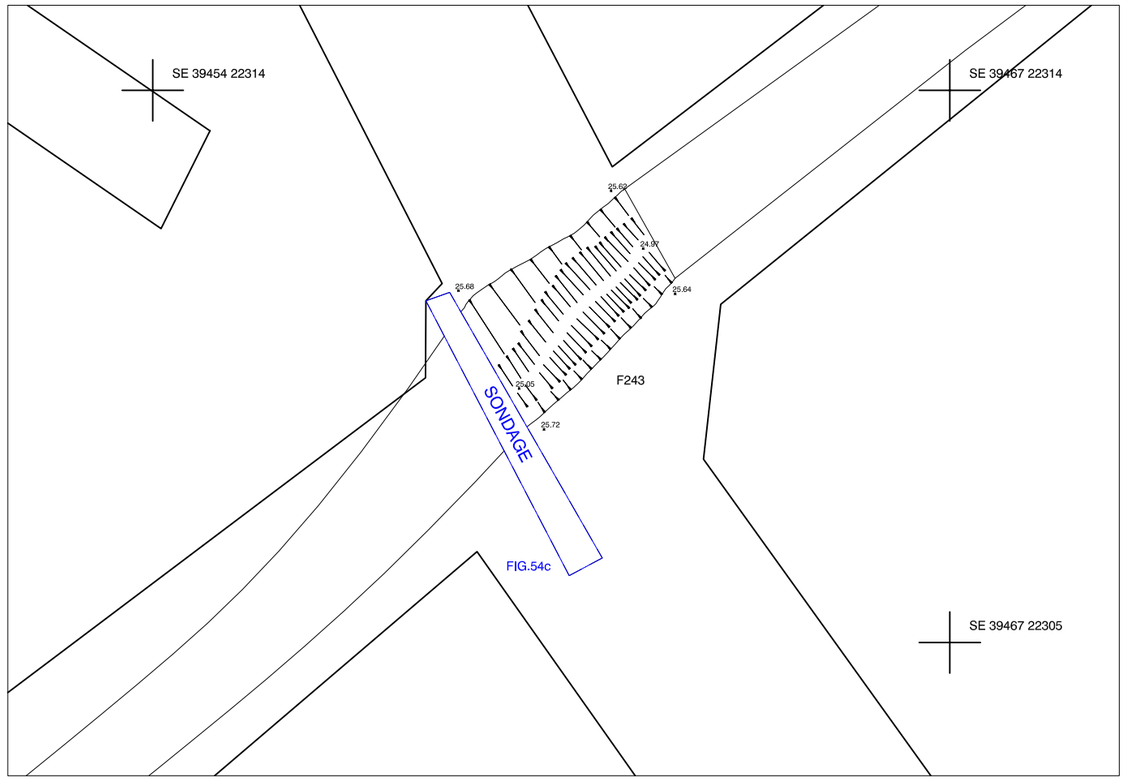


Figure 53b - F243

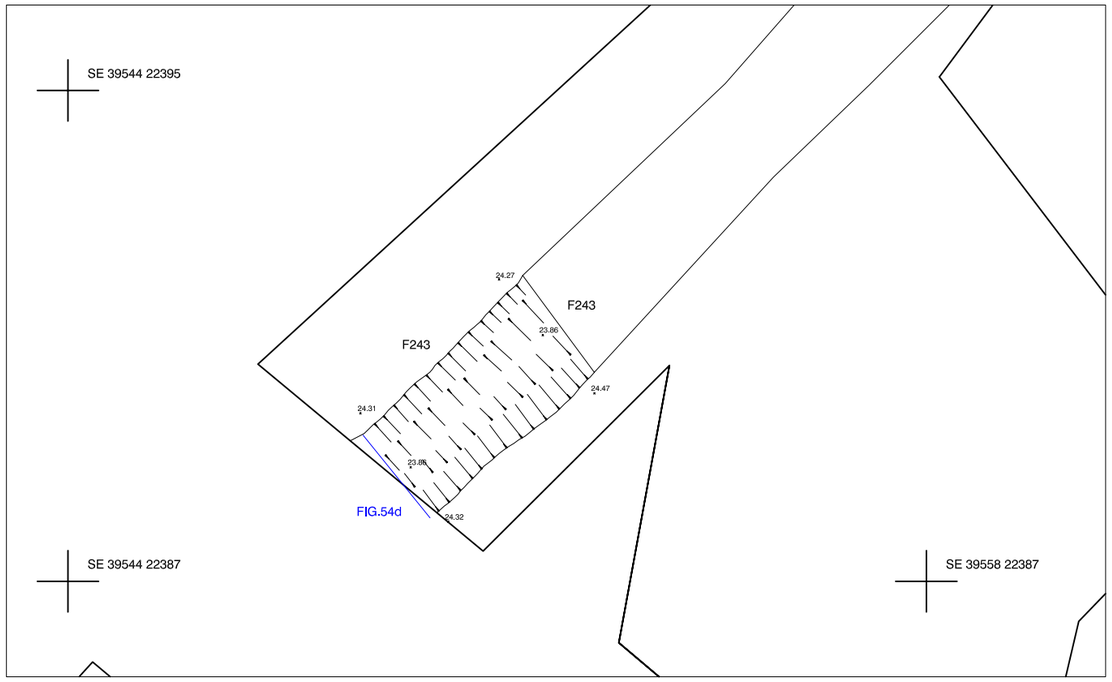


Figure 53c - F243

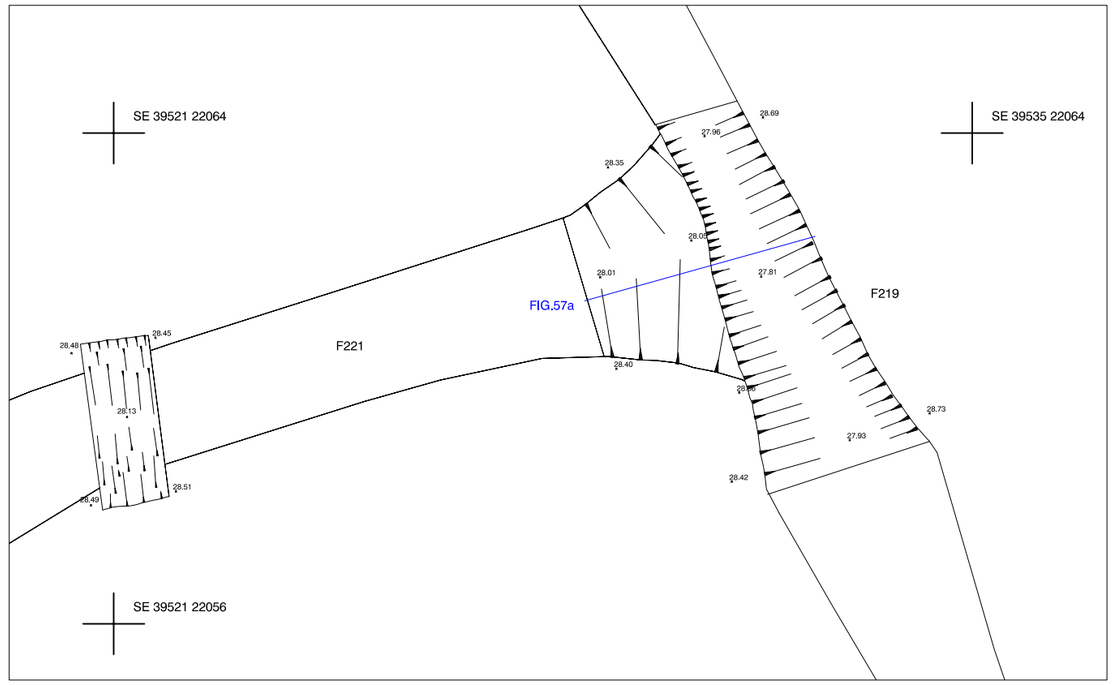


Figure 53d - F219 and F221

Post-excavation plans of F243, F254, F219 and F221

Scale 1:100

Figure 53

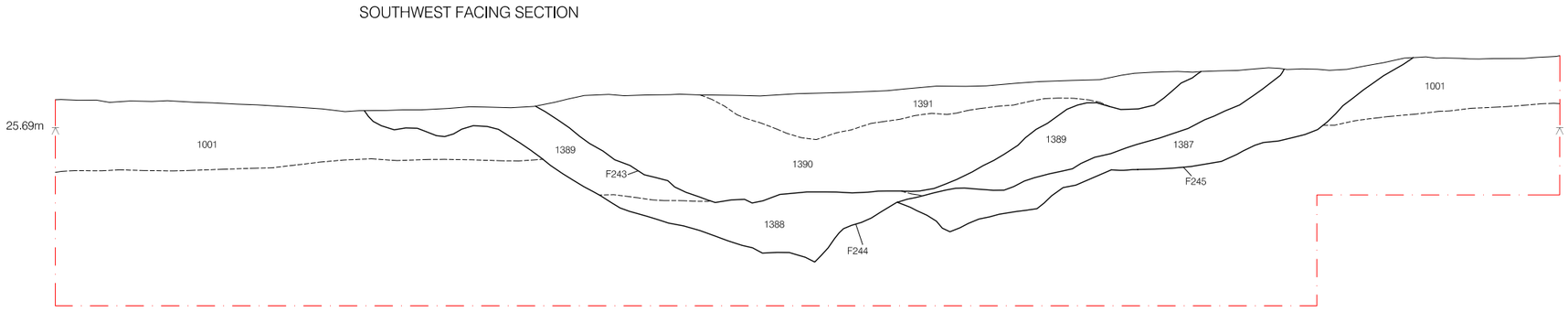


Figure 54a - Section across ditches F243, F244 and F245

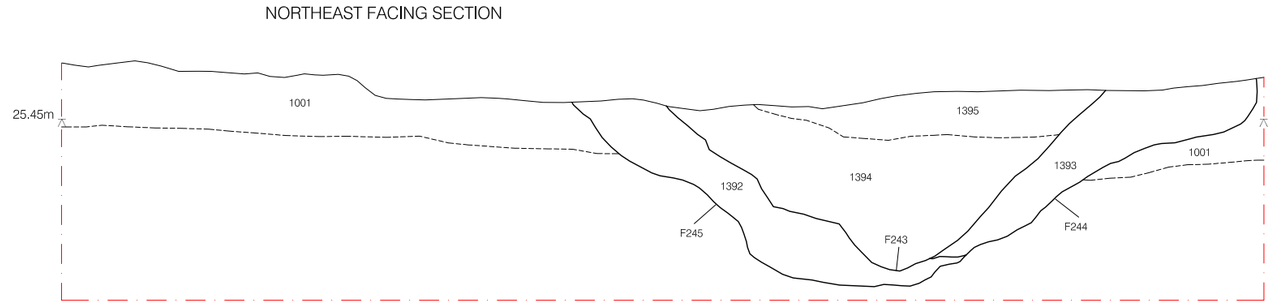


Figure 54b - Section across ditches F243, F244 and F245

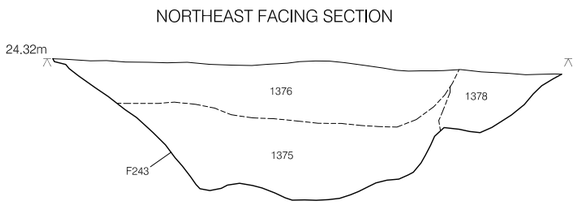


Figure 54c - Section across ditches F243, F244 and F245

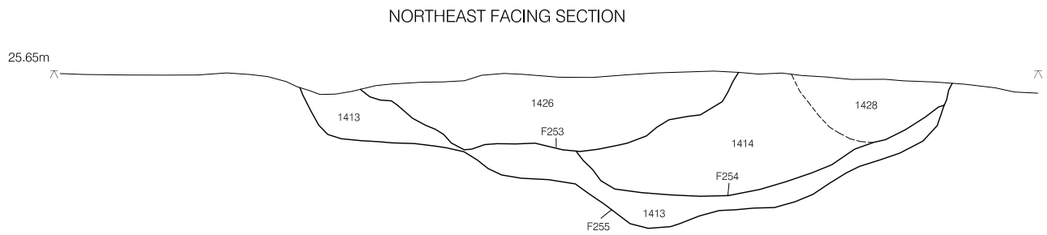


Figure 54d - Section across ditches F243, F244 and F245

Sections across ditch F243 | Scale 1:20 | Figure 54

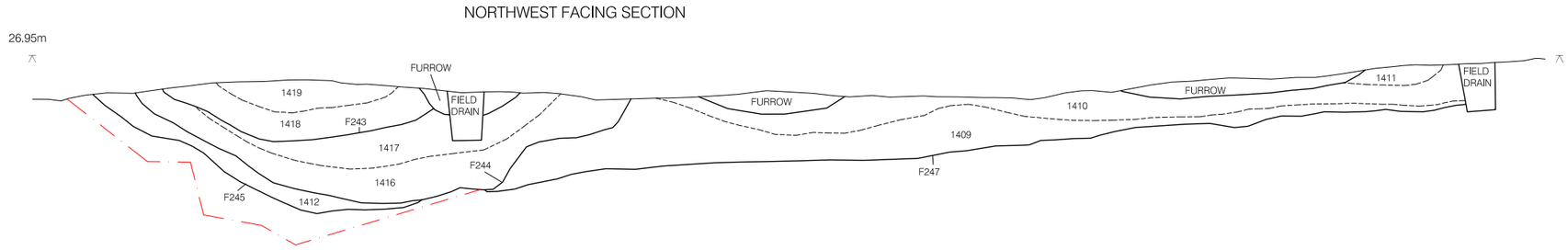


Figure 55a - Section across ditches F243, F244, F245, F247

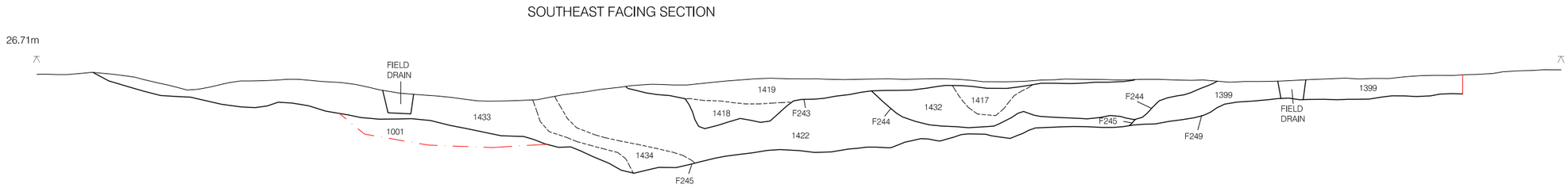


Figure 55b - Section across ditches F243, F244, F245 and F249

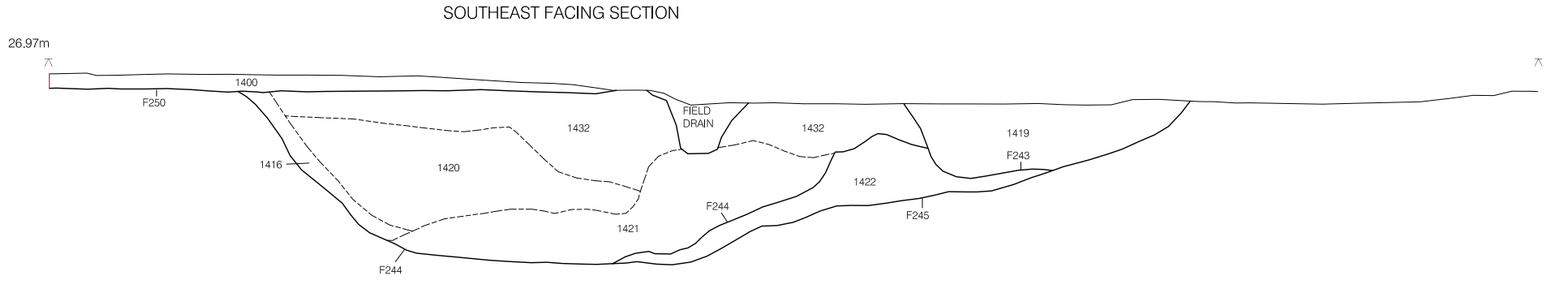


Figure 55b - Section across ditches F243, F244, F245 and F250

Sections across ditch intersections between F243, F244, F245and F247, F249 and F250	Scale 1:20		Figure 55

the original boundaries had almost completely silted up. The main ditch (F245) was replaced with a ditch of a similar scale and form (F244). F244 recut F245 but veered off the line of the original by up to 0.8m in some places. It was backfilled with a series of mottled sandy clay deposits similar in composition and matrix to C1389. Contemporary with this and recutting F255 at the northwestern corner was F253, and replacing gully F248 was a second gully (F249). F249 was off set 3.0m to the south of its predecessor and was of much the same form and dimensions.

The third phase saw a replication of the entire arrangement. In this final phase F244 was recut by F243, F253 was recut by F254, and gully F249 was replaced by F250, offset 1.0m to the south. This final recut was of a slightly smaller scale than previously seen with F243 proving to be 1.4m wide and 0.5m deep. This final phase is thought to have fallen into disuse by the 3rd century AD.

The final phase of the enclosure ditch (F236) was characterised by its incorporation into a wider system of boundaries. In addition to the recutting of the entire enclosure circuit a further two north-south aligned ditches were recorded running from the northwest and southwest corners (F220 and F219 respectively) (see Figure 48). F219 was followed in plan running for a distance of 76m before joining Whin Beck to the south. F220, meanwhile, could be followed running northwards for a distance of 52m before joining a third ditch running east-west across Zone 3 (F175/F262). The western end of F175 butt ended 5.0m before the western boundary of the site. The eastern end ran beyond the limit of excavation some 85m to the east. The recorded sections for F219 and F220 are shown in Figure 57).

F219 was masked by a medieval furrow along its length. It comprised a U-shaped cut with a concave base which survived up to 1.3m in width and up to 0.6m in depth. F219 was backfilled with a series of orange grey clay backfills (C1300, C1306, C1307, C1308) which contained charcoal and burnt cobble inclusions. The resulting sections through this feature suggested that it may have been recut at some point. Approximately 16m to the south of the enclosure F219 was cut through F176, the line of as pre-existing stream and in effect formalised its route to Whin Beck to the south (Figure 53d).

The profile and form of F219 continued northwards as ditch F220 until it joined ditch F175 (Figure 56). This ditch appeared as a deposit of light grey clay which varied in width between 1.8 and 2.5m. Upon excavation F175 comprised a broad, shallow concave ditch with well defined sloping edges, 0.6m deep and backfilled with three deposits (C1446, C1447, C1449). The western end of F175 became poorly defined in the vicinity of the possible stream F176.

This system of boundaries was allowed to silt up before the east-west ditch F175 was recut (F264). F264 comprised a shallow U-shaped cut 1.5m wide and 0.5m deep with a concave base and was backfilled with a single deposit of mottled grey clay (C1450).

At the southern end of Zone 3 various channels were recorded within Intervention 15. These channels appeared to be related to alternating episodes of management and silting of Whin Beck (Figure 58 and 59). The original form of this feature consisted of a wide shallow watercourse (F226) running from west to east. The profiles recorded in a 5.5m long section, suggested that this feature had gradually silted up until it was recut in two distinct episodes (F225 and F227). Neither episode can be dated in its own right but a wet-preserved log

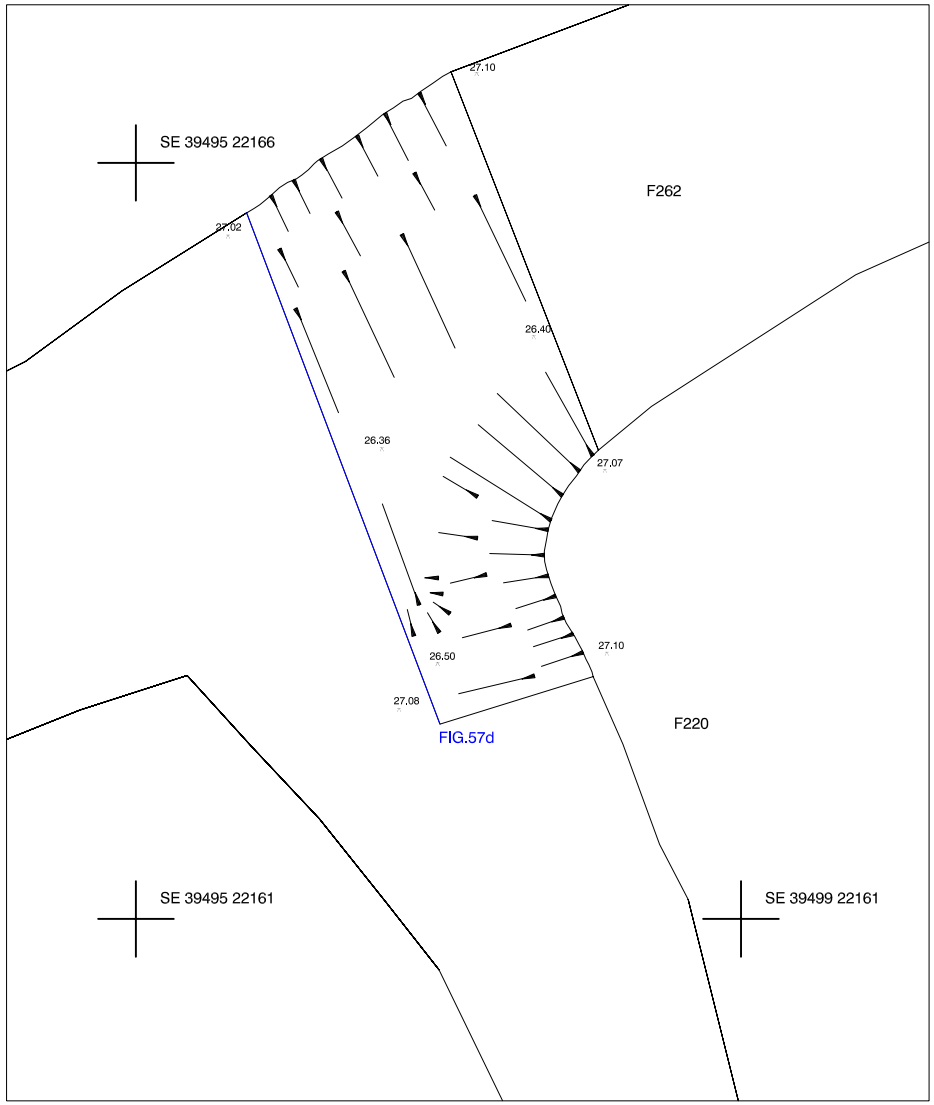


Figure 56a

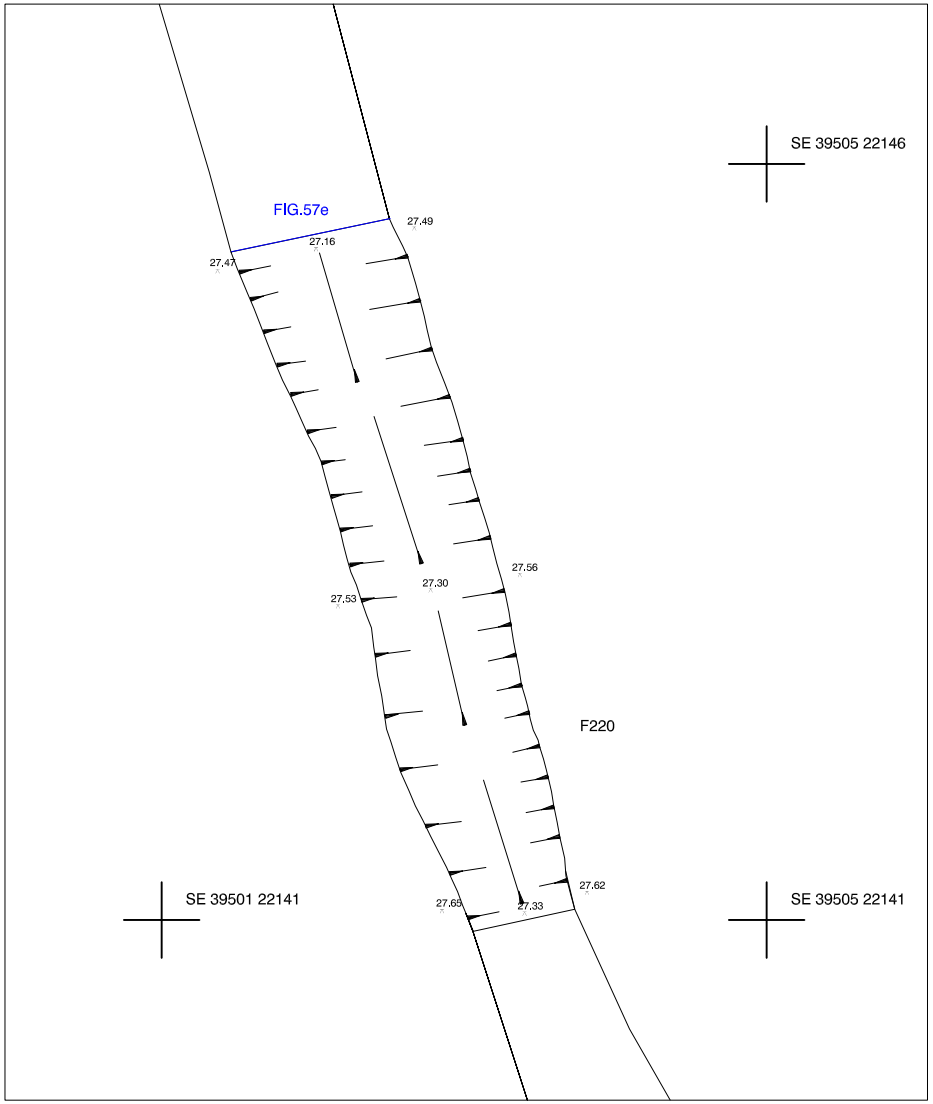


Figure 56b

Post-excavation plan of F262, F220

Scale 1:50

Figure 56

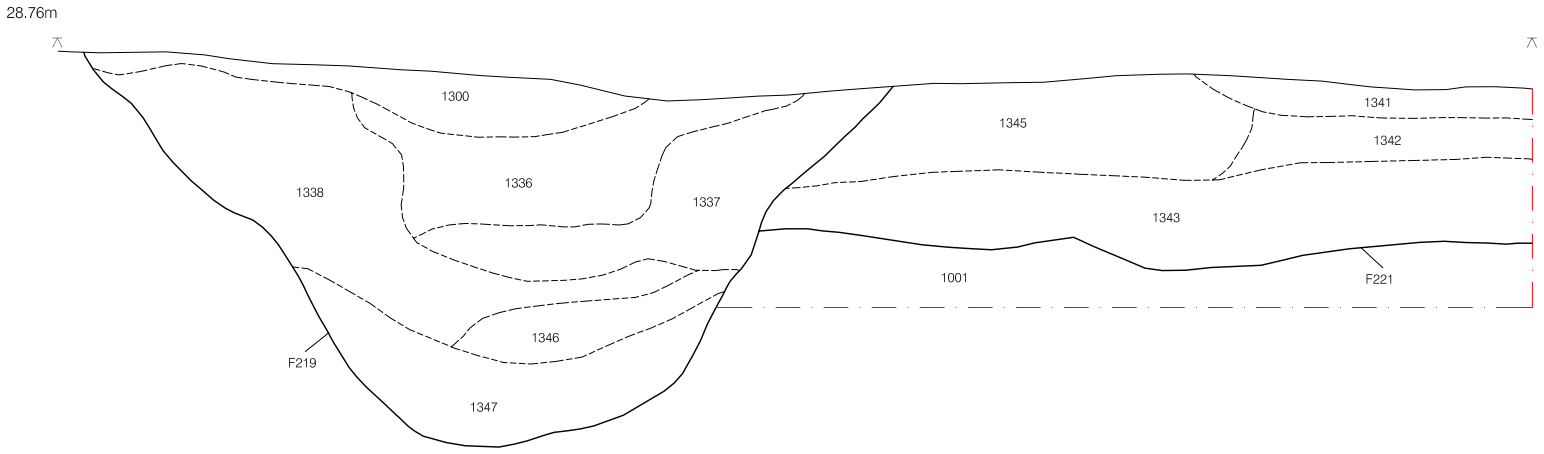


Figure 57a - Section across ditch F219 and stream F221

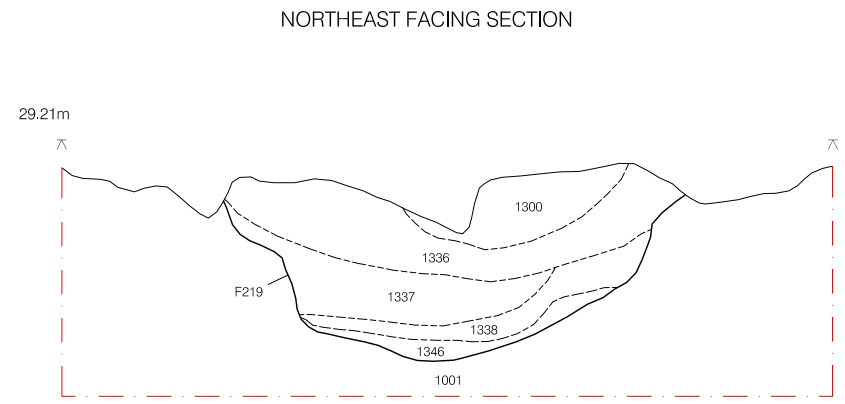


Figure 57b - F219

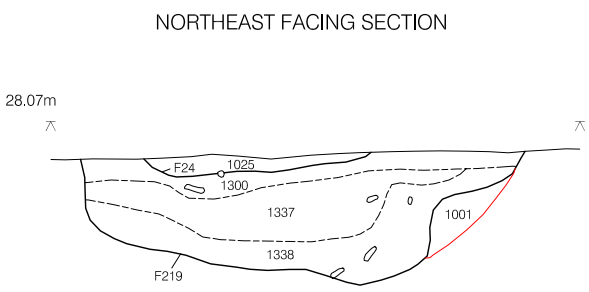


Figure 57c - F219

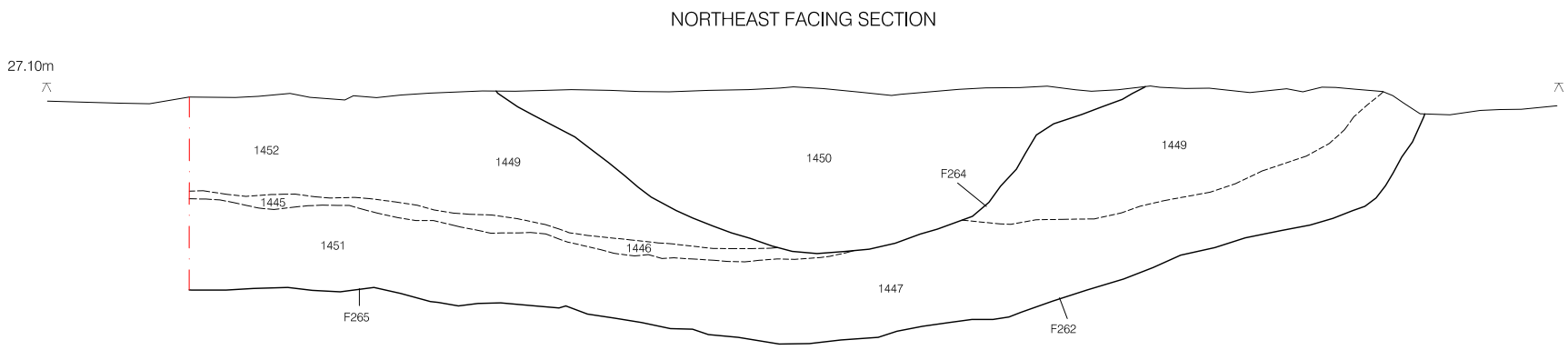


Figure 56d - Section across ditches F220, F175 and F264

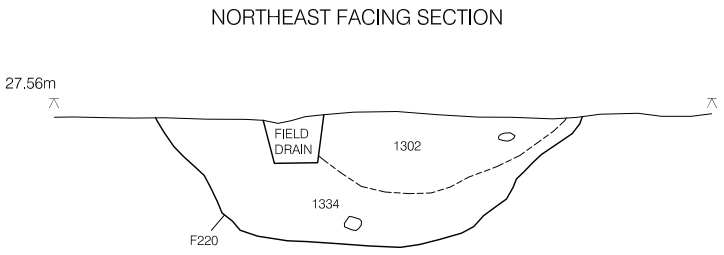
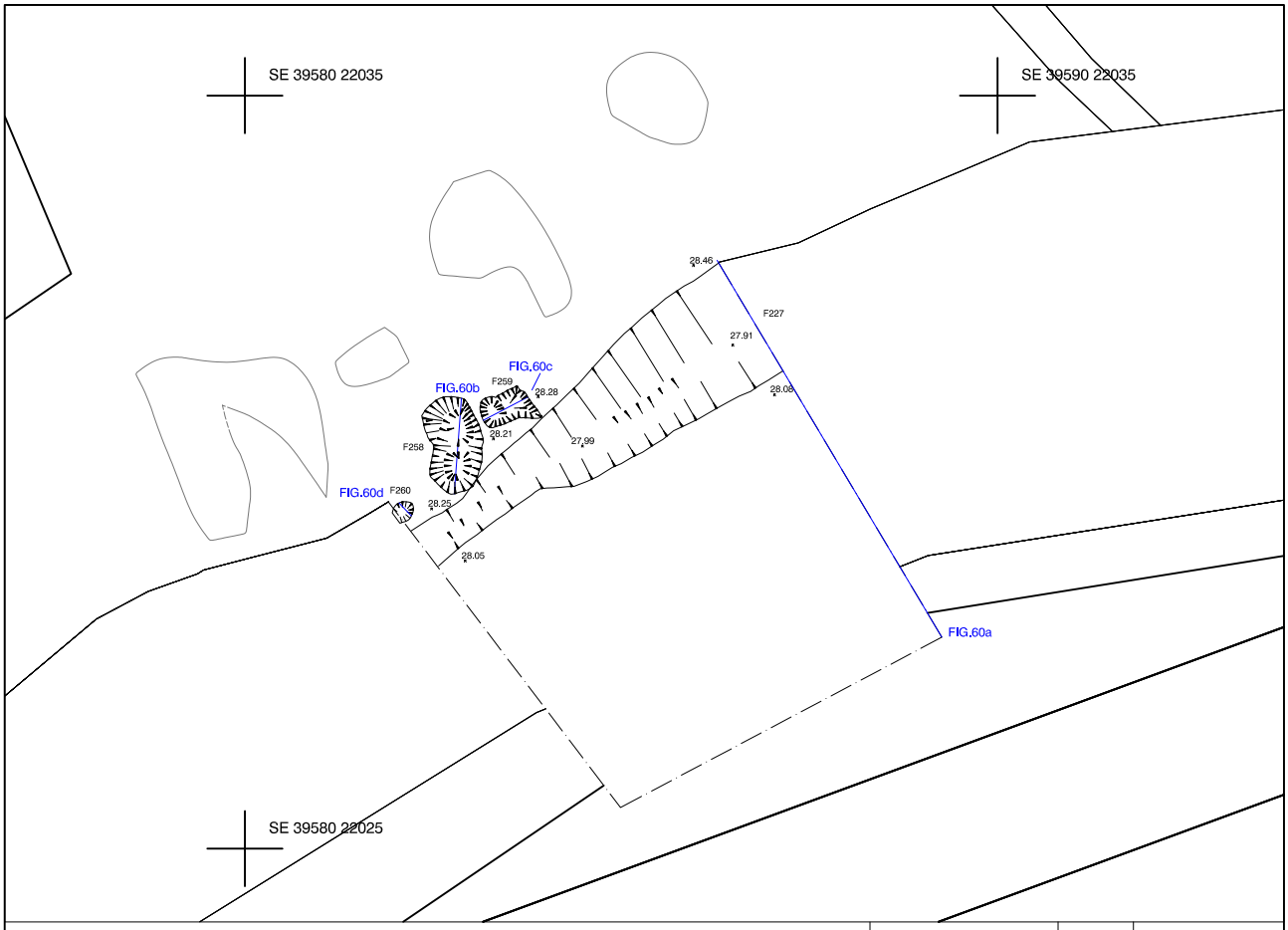


Figure 57e - F220



F227 and post settings F258, F259 and F260 | Scale 1:100 | Figure 58

F224 | Scale 1:100 | Figure 59

recovered from the fill of a later channel within the stream (F224) provided a radiocarbon date of between 645AD and 687AD (see Appendix H).

The results from elsewhere in Zone 3 have shown that during the Late Iron Age and early Romano-British period a significant campaign of land division was occurring within the Normanton landscape. In this context it is likely that F225 and F227 were part of this process. In fact, F219, the ditch which canalised the meandering watercourse of F176 and from the enclosure into Whin Beck, is probably represented by one of these cuts.

F225 comprised a well defined cut in excess of 2.4m wide, 0.8m deep. F225 had a broad U-shaped profile with evidence for 0.3m V-shaped channel cut into its base along its southern side (Figure 60a). This feature was filled with a deposit of sandy clay which comprised at least fifty percent gravel and pebbles (C1360). The lower half of this material was allocated C1368 as a result of it being heavily iron stained.

F225 was truncated along its northern edge by F227. This consisted of an irregular cut, defined against natural clay, which varied in width between 1.4 and 0.7m and in depth between 0.7m and 0.9m. The fills of F227 contained very few gravel or pebble inclusions comprising mainly of a sequence of heavily mottled sandy clay deposits (C1353, C1438) separated by layers of gleyed clay (C1437, C1439). In plan, the base of F227 appeared to narrow into a 0.3m wide channel towards the western end of the section. This appeared to correspond with a flat shelf on the northern side of the ditch through which three postholes were cut (F258, F259, F260).

Together these features appeared to form the eastern component of a bridge or crossing on the northern bank of the stream. F258 comprised a double posthole, sub oval in plan, 1.1m x 0.6m, which was aligned along a north-south axis (Figure 60b). This feature survived to a depth of 0.5m at its northern edge. Located either side of F258 were two shallow flat bottomed scoops (F259 and F260). F259 (Figure 60c) appeared to be set with the northern post socket within F258 while F260 (Figure 60d) was set with the southern one. All the features were backfilled with a similar dark grey sandy clay which contained occasional gravel inclusions.

Phase 3 (Early Medieval)

There is little evidence to indicate how long the channel and crossing represented by F227 were in use. If these features followed the general pattern that was recorded throughout the later ditches at Normanton, then F227 had probably silted up by the 3rd century AD.

This notion is supported in the sections of Intervention 15. Sometime after F227 had fallen into disuse, the stream was recut to produce a broad east-west aligned channel, in excess of 6.0m wide and 0.8m deep, which had a distinctive U-shaped profile (F244) (Figure 60a). The earliest fill of this stream comprised C1351, a greasy deposit of yellow brown clay sand and water-borne gravel which had been dumped along the northern side of the base. This deposit was sealed by an undulating layer of dark greyish brown sandy clay (C1357) which varied in depth between 0.15 and 0.35m. In turn C1357 was covered along its northern edge by a third deposit. This mottled grey silty clay (C1358) with frequent charcoal inclusions, contained numerous small pieces of wood along its base. One large fragment which measured 1.9m long by 0.4m wide, was allocated C1435 and lifted whole (Plate 16). When analysed C1435 comprised the outer part of an oak trunk which would have originally had a circumference of 2.5m. Bark was still visible on the wood and no evidence for working

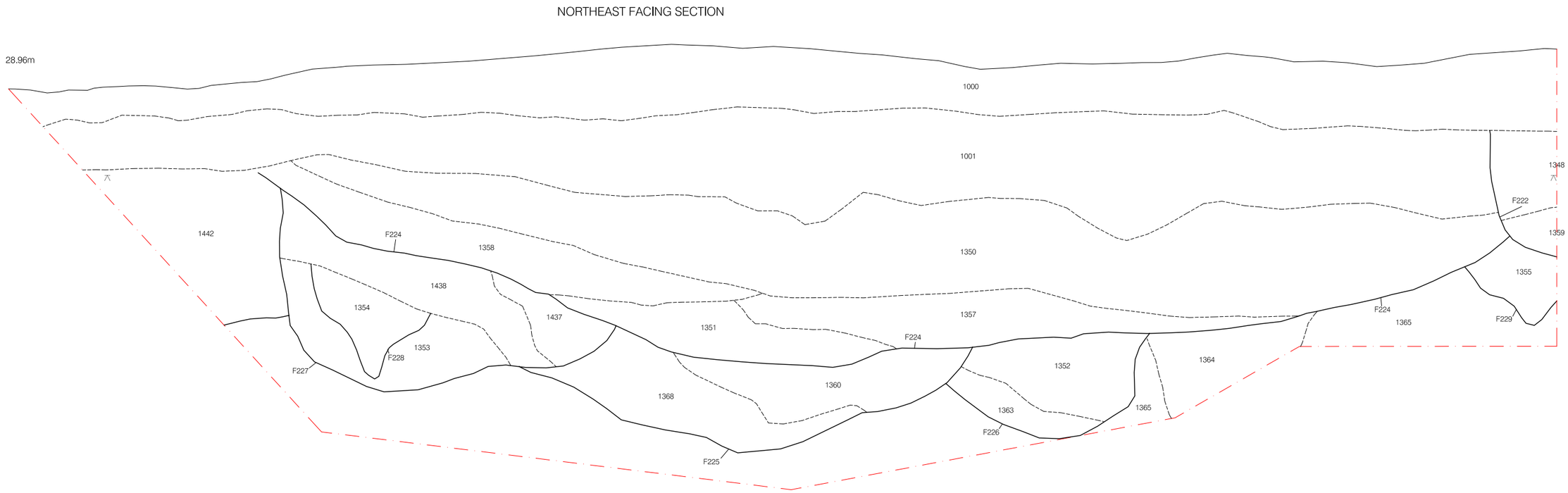


Figure 60a - F224, F225, F226 and F227

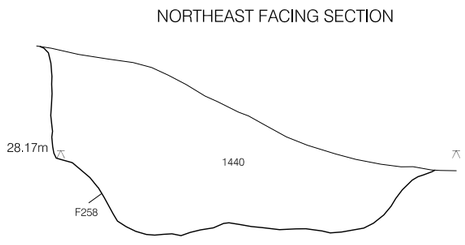


Figure 60b - F258

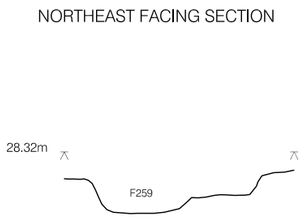


Figure 60c - F259

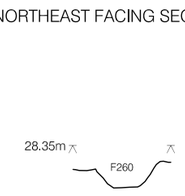


Figure 60d - F260

Sections across watercourse F224, F225, F226 and F227 | Scale 1:20 | Figure 60

or tool marks were found during further investigation. The conservation assessment report for C1435 is shown in Appendix K. A sample of C1435 was sent for radiocarbon dating which provided a date of between 645AD and 687 AD (see Appendix H).

Plate 16 Excavation of C1435

The latest fill of F224 consisted of a 0.5m thick deposit of compact sticky greyish brown clay (C1350). This deposit contained no gravel or pebble inclusions and appeared to be the product the settling of fine water-borne particles.

The sequence within F224 suggested that the energy of the initial flow within the stream was quite considerable and had resulted in the deposition of gravel, pebbles and clay along the northern edge of the base. The flow then appeared to have slowed until it eventually stopped. This was reflected in the deposition of the detritus within C1358 followed by the accumulation of fine clay (C1350). This process of stagnation may have occurred relatively quickly if F224 had not been managed after its initial construction.

Accepting the fact that the oak (C1435) within C1357 is likely to have represented heartwood of a tree which could have lived for a considerable time before being deposited within the stream, its date is still significant. It suggests that F244 was created sometime after the late 7th century, possibly up to 200 years afterwards and as such may represent the original later Saxon township boundary.

Contemporary with F224 were a series of drainage features running into the stream along its northern bank. F266, F267, and F268 comprised an arrangement of three shallow gullies with U-shaped profiles, each on average 6.0m long, 1.2m wide and 0.3m deep, which converged into a single ditch (F269). F269 ran for a distance of 10m becoming progressively narrower (0.6m) before joining F224. All of the gullies were backfilled with a reddish brown clay which was punctuated with occasional lenses of plastic grey clay. It was considered that these features would have formed a series of drains which would originally have continued northwards into Zone 3, but later truncation caused by medieval ridge and furrows in addition to modern ploughing had removed any trace.

Phase 4 (Medieval)

The line of approximately twenty separate furrows were mapped within Zone 3 (see Figure 54). These features followed the same pattern recorded within the earthwork survey of the golf course (Intervention 1). Pottery recovered during the topsoil stripping of Interventions 14, 19 and 20 produced a small quantity of 13th or 14th century pottery from the tops of the furrows. A sample of extant ridge and furrow was excavated by hand in an area of the golf course immediately to the east of Zone 2 (Intervention 4, Intervention 5, Intervention 9, Intervention 11). The fill of one furrow produced the handle of a 14th century jug. This feature measured 6.5m in width and was filled with a light yellowish brown clay which contained charcoal and gravel inclusions in addition to two sherds of 13th century pottery. Where the ridges had survived they suggested that up to 0.3m

of subsoil had been truncated through modern ploughing in the arable field to the west.

Phase 5 (Post-medieval)

The excavation of the extant ridge and furrow in Intervention 4 showed that the earthworks had undergone a scheme of ploughing prior to them becoming grassland within the golf course. This system of ploughing was either not intensive or long-lived enough to have resulted in the eradication of the ridge and furrow earthworks as seen in the adjacent fields to the south and west. The pattern of ceramic land drains recorded within Zones 1 and 2 continued across most of Zone 3.

5.4 ZONE 4 (Figure 61)

Zone 4 comprised an area measuring 350m by 205m representing most of the eastern section of the development area. This part of the site was extensively evaluated by the stripping of a major road line (Intervention 10) followed by a campaign of 2m wide machine excavated trenches (Intervention 18, Intervention 23). The results from Zone 4 indicated that the eastern part of the site was virtually devoid of archaeological evidence.

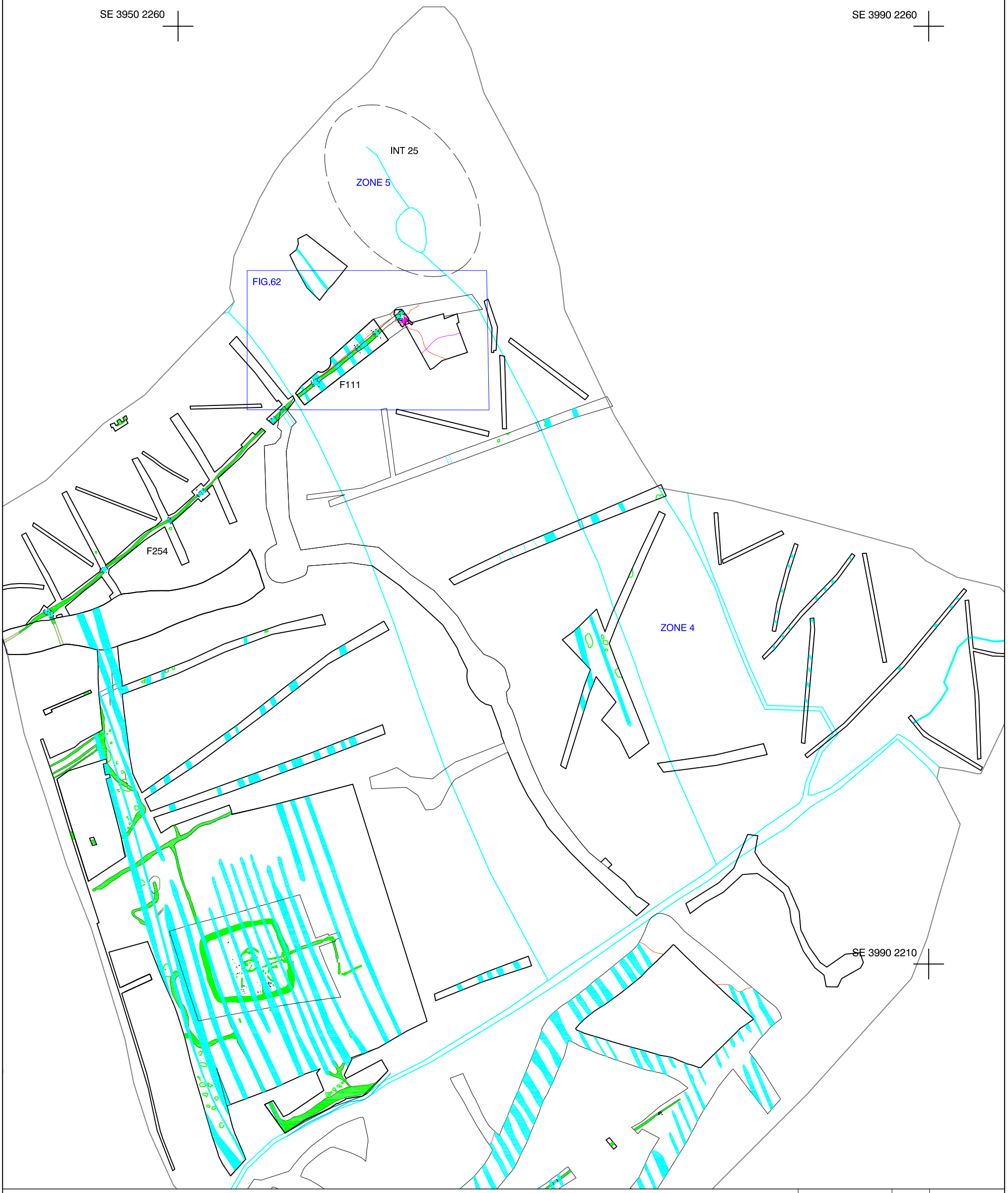
The earliest anomalies encountered within Zone 4 comprised a series of eighteen sub-circular deposits of distinctive grey clay. These were located within the southern 140m of the machine strip (Intervention 10) and varied in diameter between 0.9m and 4.2m. When sampled these deposits proved to be the backfill of a series of shallow scoops with irregular and undulating bases. Their fill comprised a gleyed clay, heavily mineralised in places with manganese and iron concretions. These features appear to be the remains of tree boles and were cut by the medieval furrows. A further six tree boles were recorded within Intervention 18.

These features appeared to be sealed, at least at the southern end of the site, by a deposit of heavily mottled grey blue clay up to 0.2m thick. This material appeared to be natural overburden created by a prolonged period of wet conditions. A similar phenomenon was recorded at the eastern end of Intervention 10, where apparent wet conditions in the past had caused a gleying effect over a large area of the intervention.

Phase1 (Late Iron Age)

At the northern end of Intervention 10 a SW-NE aligned ditch (F111) was identified running along the northeastern spur of the roadline. This feature was a continuation of F243 as recorded in Zone 3 to the west. F111 appeared as a linear deposit of mid grey sandy clay (C1099) which varied in width between 1.7m and 2.1m (Figure 62). Initially three sections of F111 were excavated between the line of the medieval furrows. These are shown in Figure 63 and Figure 64.

At the northwestern corner of Zone 4 the subsoil consisted of yellow clay sand which was friable in nature. The latest backfill of the ditch reflected this and consisted of a dark grey mottled clay sand containing occasional angular pebbles (C1099) and had been disturbed by roots from adjacent trees. This deposit became lighter in colour with depth and contained a band of gleyed light grey clay along its base. C1099 sealed an earlier backfill of F111 (C1148). This comprised a mottled and veined orange grey/brown clay. In many respects this deposit was very similar to the natural subsoil, but the edges of F111 could be defined and followed through variations



Results from Zone 4 and Zone 5

Scale 1:2000

Figure 61

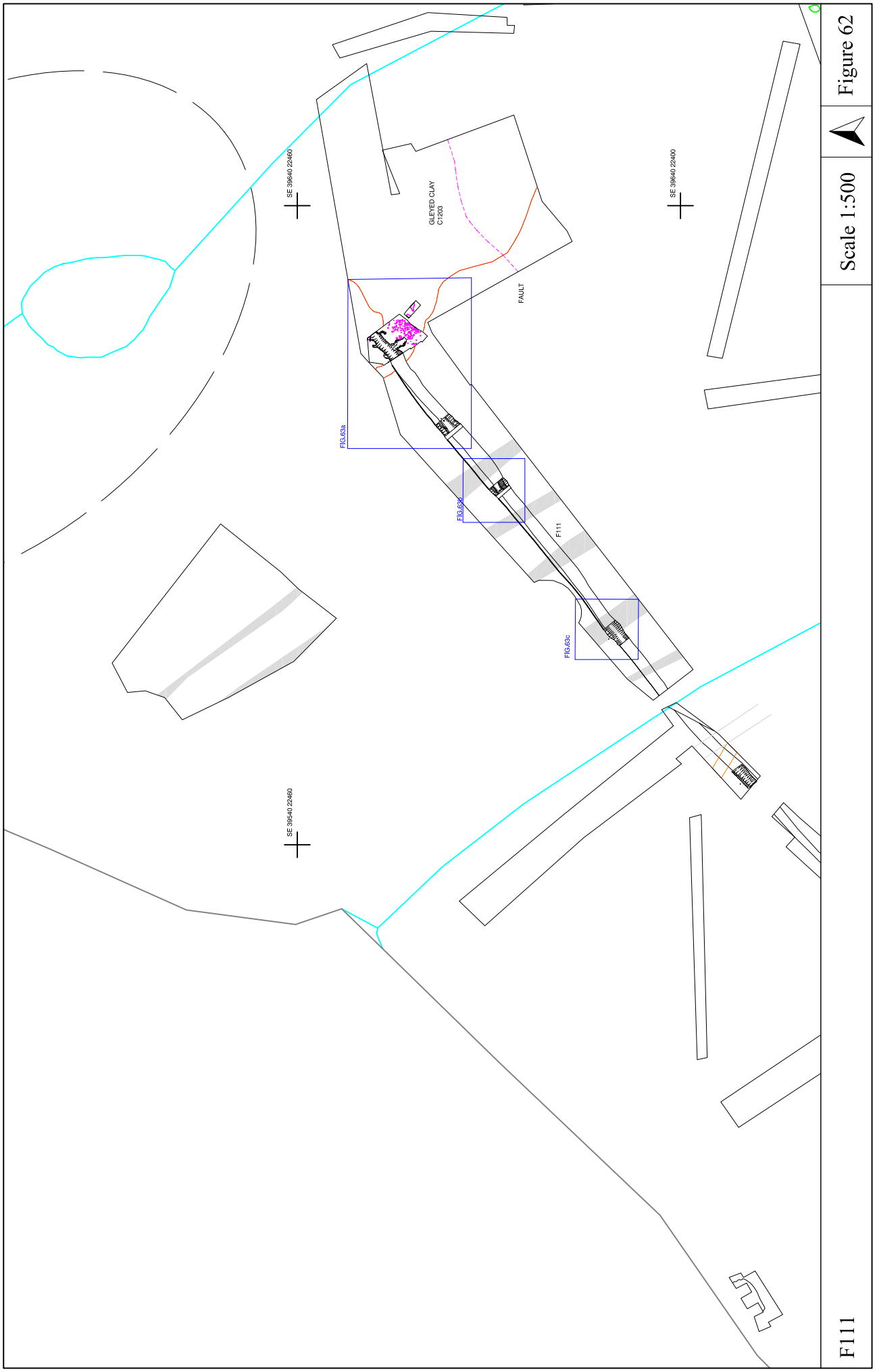


Figure 62

Scale 1:500

F111

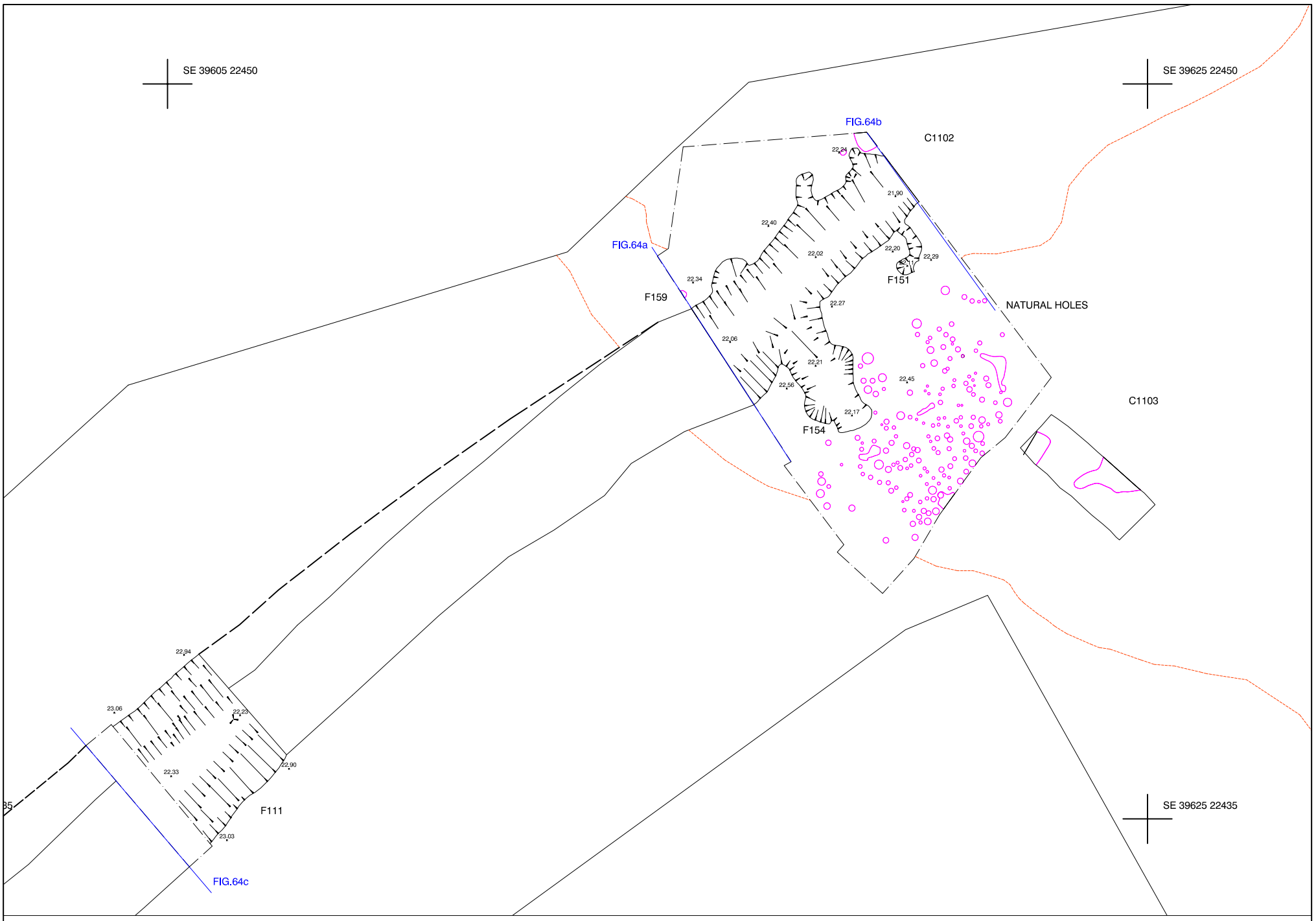


Figure 63a

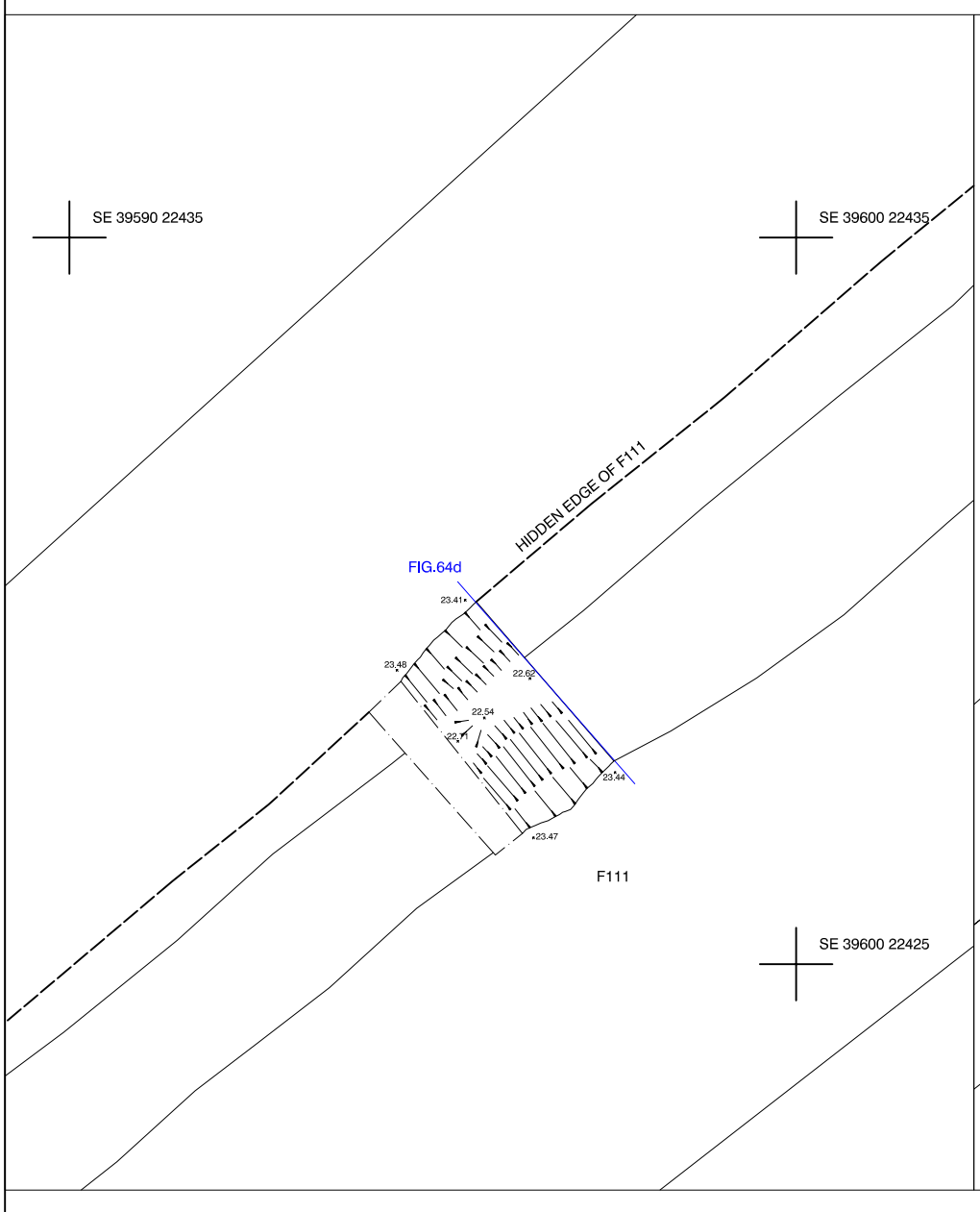


Figure 63b

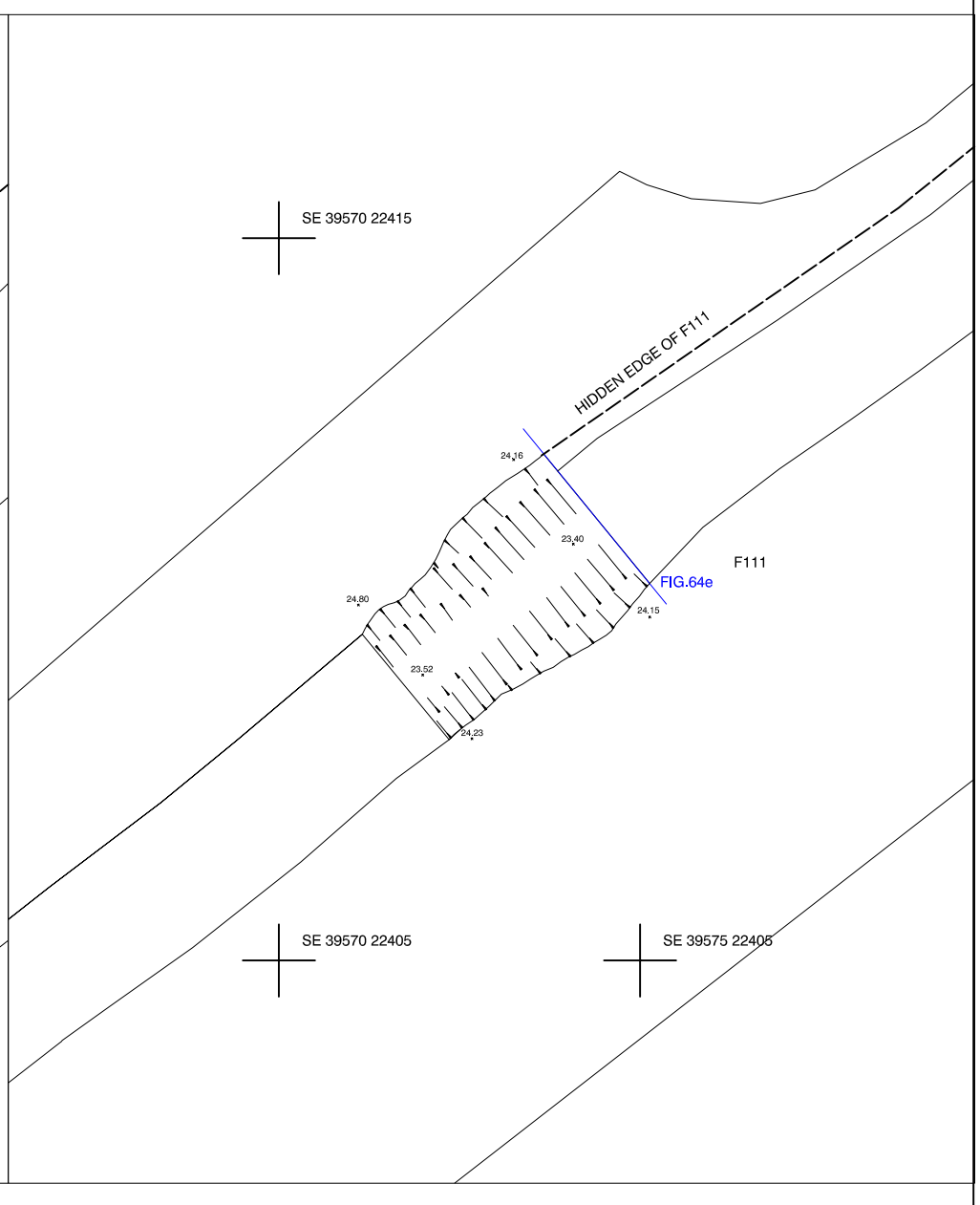


Figure 63c

Post-excavation plans of F111 | Scale 1:100 | Figure 63

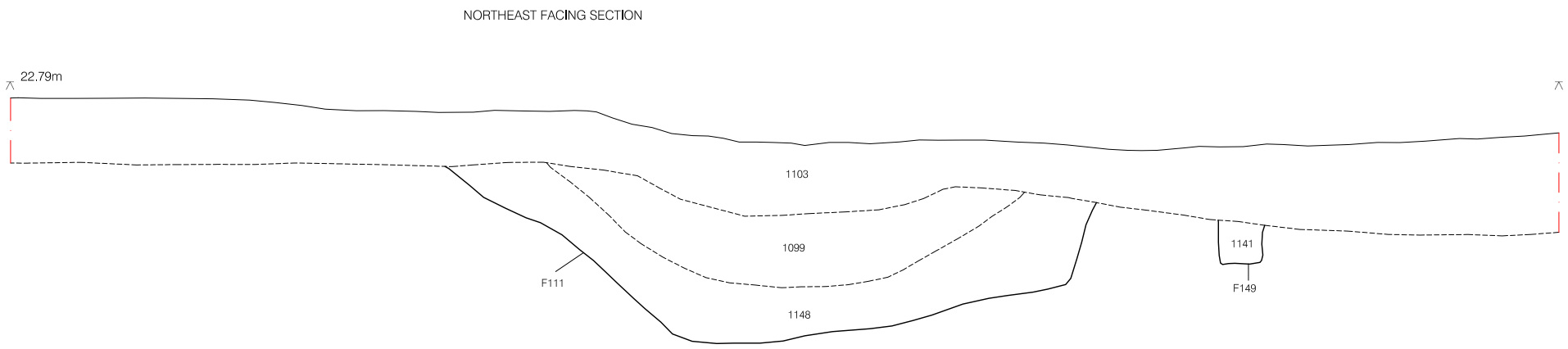


Figure 64a - F111, F149 and C1103

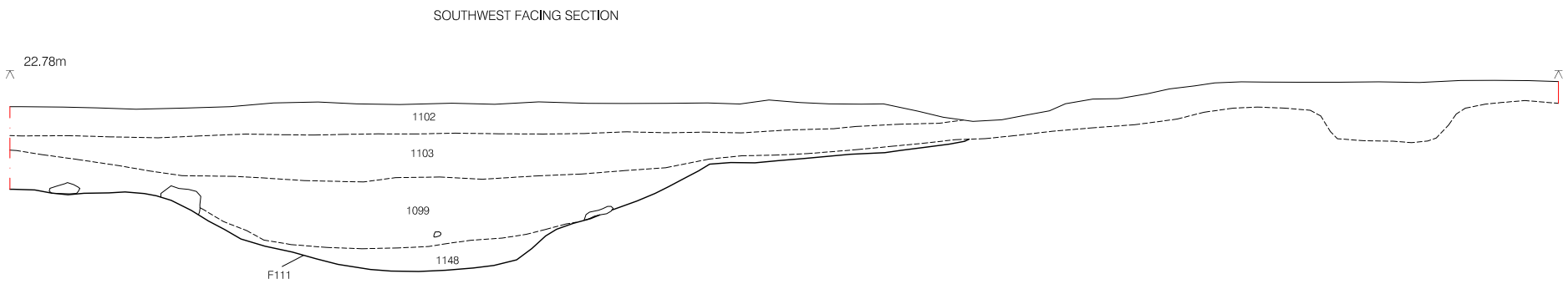


Figure 64b - F111, C1102 and C1103

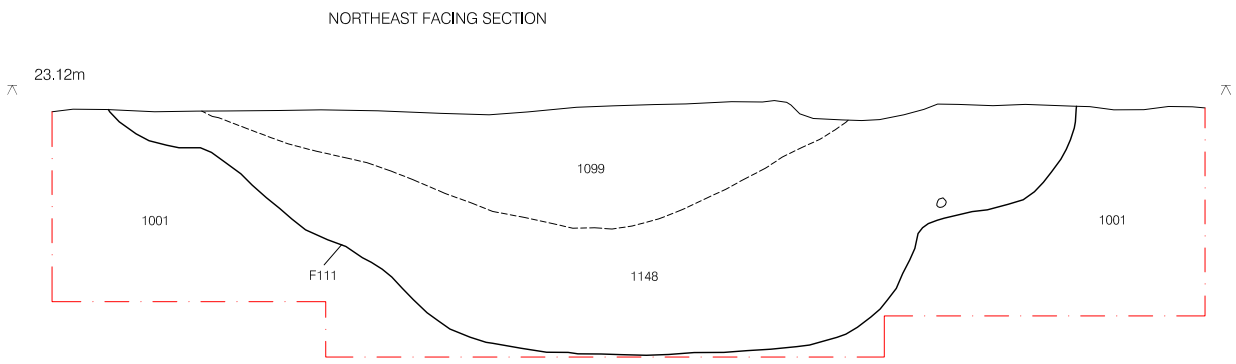


Figure 64c - F111

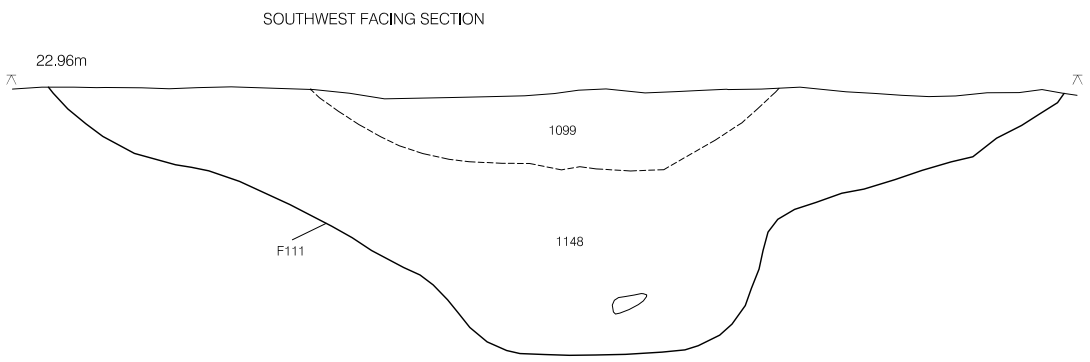


Figure 64d - F111

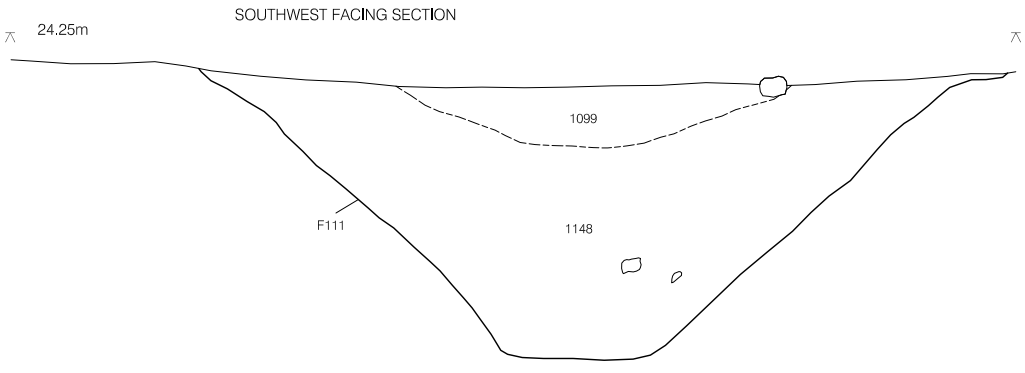


Figure 64e - F111

Sections across ditch F111 | Scale 1:20 | Figure 64

in texture and colour, as well as the presence of a number of rounded cobbles, some of which appeared stained or burnt, within C1148. The final form of F111 within this sample was that of a well defined, regular cut, 2.15m wide with sides that sloped between 45 and 55 degrees onto a flat base at a depth of 0.8m. A single fragment of slag from C1099 was the only find recovered during the excavation.

Unlike F243 to the west, poor definition within the earlier backfills of F111 made it impossible to distinguish any recutting or earlier phases to the ditch. This was particularly evident further downslope to the east where excavated sections showed that the edges were only clearly defined at a lower level where the feature had cut through strata of weathered sandstone, clay and lenses of mudstone. The upper 0.15m of C1148 appeared to have partially merged with the surrounding subsoil due to post-depositional processes.

At its eastern end F111 became progressively shallower and was masked by two distinct layers (C1102 and C1103). The latter of these (C1102) comprised a deposit of mottled grey clay 0.1m thick containing frequent inclusions of iron pan flecks and concretions. This deposit appeared to respect the general alignment of the ditch. Underneath C1102, was a deposit of variable orange grey clay and iron pan concretions 0.1m thick (C1103). This deposit was far more extensive than C1002 and appeared to cover the width of Intervention 10, continuing northwards for a further 20m. Both of these layers were removed within a sample area measuring 5.0m x 6.0m prior to further investigation of F111 (see Figure 63a) (Plate 17).

Plate 17 Ditch F111, C1102 and C1103, looking northeast (scale 2.0m)

The natural subsoil in this area consisted of a heavily mineralised orange grey clay containing frequent iron pan concretions. The edge of F111 was well defined with concentrations of mineralised deposits lining both shoulders of the ditch. The backfill of F111 changed in character as the ditch was excavated.

At the southwestern end, the sequence of deposits were similar to those excavated further upslope. The latest fill comprised a variable grey clay with frequent iron pan inclusions (C1099). The lower fill comprised a deposit similar to the natural subsoil and had a poorly defined interface with adjacent layers within the upper 0.1m (C1148). At the northeastern end of the sampled ditch, the backfill of F111 was very different. At this point C1148 consisted of a firmly compacted concretion of iron pan which contained veins and lenses of gleyed grey clay. The transformation of this deposit occurred gradually along the line of the ditch and corresponded with a shallowing of the feature as it ran downslope. The variable nature of these deposits appeared to be the result of post-depositional processes associated with the presence of standing water. This implied that the northeastern end of F111 was located in an area of wet land and possibly served to drain water from higher ground into a lake or marsh.

A series of anomalies were identified around, and running from, the ditch. The first of these comprised a short length of gully, 2.6m long, 0.95m wide (F154) which joined F111 along its southern edge. F154 contained two

fills, the latest of which (C1099) was similar to the fill of F111 and was contemporary with the main ditch. The lowest fill was a deposit of heavily mineralised reddish yellow clay (C1149). F154 had a shallow U-shaped profile with a flat base which sloped from 22.17m AOD in the southwest to 22.05m AOD where it joined F111, thus suggesting that it may have served as a short length of drain. Cutting through the base and slopes of this gully were three poorly defined features.

Two possible postholes (F113 and F114) were defined centrally within F154 after the removal of C1099, cutting through the lower fill, C1149. They appeared to correspond with a north-south aligned slot (F155) which measured 1.6m x 0.8m cut across the edges of the gully. All three features were filled with a deposit of orange grey sandy clay, with C1099 dishing in above. F113 comprised a shallow cut, sub-rectangular in shape, which was 0.5m in length, 0.34m in width and excavated to a depth of 0.1m. F114, to the south, was sub-circular in plan, 0.4m in diameter and survived to a depth of 0.27m. These two features may represent the remains of a double posthole set within F155 which was in use at the same time as F111.

On the opposing side of F111 three small irregular features (F146-F148) were located in the base of a shallow depression set against the edge of the ditch. These features varied in diameter between 0.1m and 0.2m, and in depth between 0.05m and 0.2m. Although the position of these features suggested that they were related to gully F154, their backfill and profile suggested that they may be natural in origin.

No pottery was recovered from any of the backfills associated with F111. Charcoal recovered from the backfill of gully F111 was radiocarbon dated to 145BC to 25BC (see Appendix H). This suggested a late Iron Age or early Romano British date for at least one phase of this boundary.

After the removal of C1103, a number of sub-circular and irregular deposits of mottled orange brown clay were defined against the heavily iron panned subsoil to the south of F111. When sampled, these deposits appeared to fill well defined cuts which varied in depth between 0.1m and 0.2m, and in diameter between 0.1m and 0.3m (F123-F143, F145, F149 and F151). These features occurred in three distinct clusters to the east of F154. With the possibility that they may be archaeological in origin, the sample area was extended a further 2.6m to the southeast. When cleaned by hand an additional 163 clay filled anomalies were exposed and planned. Of these, 125 were sampled. Within the extended sample area these features took on a random appearance and the clusters which were visible in the original intervention were not apparent.

At this stage of the investigation the form of F111, combined with the character of the subsoil and the origin of a heavily mineralised overburden (C1103), indicated that this part of the site had once been subject to extensive periods of standing water, possibly as an area marsh or lake. F111 appeared to have been deliberately constructed to respect this, widening and shallowing as it entered the wet area, possibly acting as a drain for land on higher ground to the west. The presence of gully F154, and of postholes F113 and F114, indicated that contemporary features of a possible structural nature existed and were possibly related to some form of wetland activity. Within this context the origin of the of the clay filled anomalies had to be considered.

The origin of these features was not established until the excavation of Intervention 21, in 1999. Two additional trenches were excavated by machine to establish the extent and character of the wet area deposits and associated features. Further sampling of the clay anomalies and a site visit by Dr Stephen Carter (Headland Archaeology)

concluded that these features were natural in origin. The clay anomalies were in fact pockets of gleyed clay inclusions, which existed throughout a layer of periglacial till. When they were exposed at the surface they appeared to be discrete negative features with edges that were well defined against a heavily mineralised clay.

Phase 2 (Medieval)

The scheme of medieval ridge and furrow cultivation visible in the extant earthworks was identified and recorded within Zone 4.

5.5 ZONE 5 (see Figure 61)

Zone 5 consisted of a 50m wide strip of the development area located against the northern boundary of the site. The northeastern corner of this area was characterised by a large mound of made ground, post-medieval in origin, which comprised bricks, earth and possibly contaminated soils. The landscaping of this was monitored under watching brief conditions (Intervention 25). The remainder of Zone 5 was investigated in two evaluation trenches.

Phase 2 (Medieval)

There were no archaeological deposits exposed within Zone 5 which predated the regime of medieval cultivation. Two furrows (F201 and F204) were sampled within Intervention 13. The fill of F204 (C1258) contained a fragment of clay tobacco pipe as well as a single sherd of medieval pottery (see Appendix E).

Phase 3 (Post-medieval)

Four amorphous soil features (F198, F199, F202 and F203) were all sampled within Intervention 13. F199 comprised an irregular shaped deposit of mixed grey brown sand, 1.3m long and 0.5m wide, containing frequent fragments of charcoal and burnt sandstone. Upon excavation F199 proved to be an irregular scoop which varied in depth between 0.05 and 0.15m. This feature appeared to be the result of root disturbance.

F198, F202 and F203 were all characterised by a distinctive reddish brown silty sand with occasional iron pan inclusions. These deposits varied in size between 0.2m and 0.5m in diameter and filled shallow amorphous scoops to a depth of between 0.02m and 0.05m. Like F199 these features all appeared to be the result of root disturbance.

Against the northern boundary of the site a stone surface was exposed and recorded within Intervention 24. This feature (F276) contained several bricks within its makeup and material recovered from its disuse suggested it was Victorian in date. F276 measured 7.0m by 2.0m within the area of investigation.

6.0 SUMMARY OF SITE SEQUENCE (Figure 65)

The results from the fieldwork undertaken at Normanton Golf Course provided an insight into the development of a buried landscape from the Iron Age to the present day. In terms the of density of remains, the western half of the site proved to contain much more archaeological evidence than the eastern half. This was mainly due to the concentration of activity in and around the enclosure in Zone 2. The recovery of stratigraphic relationships and targeted radiocarbon dates made it possible to create a sequence of development for the whole site.

6.1 PERIOD 1

In the late Bronze Age and early Iron Age, evidence suggested that the site consisted of an area of woodland and marsh divided by a series of natural boundaries. A north-south aligned stream (F176) fed into a main east-west channel (F226) which ran along the line of present day Whin Beck. The eastern half of the site appeared to be wetter than the west with an area of extensive marshland or shallow lake located in the northeast corner. This marsh was probably fed by a second stream, now known as Sewerbridge Beck which forms the current eastern boundary of the site. There was little evidence for human activity dating to this period although a Neolithic knife was recovered from the ploughsoil in Zone 3.

30m to the east of the stream (F176), on an area of high ground a posthole possibly dating to the Bronze Age (F153) was recorded during the investigation of Zone 2. Although no other features or structures relating to this were recorded, the posthole may indicate that this area was a focus for some form of activity at this time.

6.2 PERIOD 2

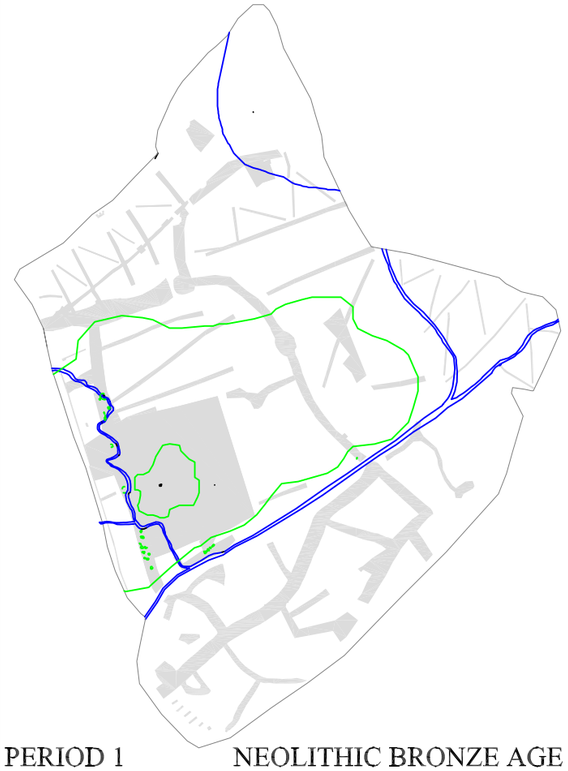
Period 2a

15m to the east of F153, a shallow pit (F232) was excavated which contained burnt animal bone and charcoal. Like F153, this feature appeared to be an isolated event on the area of high ground adjacent to the stream. A radiocarbon date placed this activity between 1206BC to 917BC (see Appendix H). This area of high ground within the valley bottom was located between three streams.

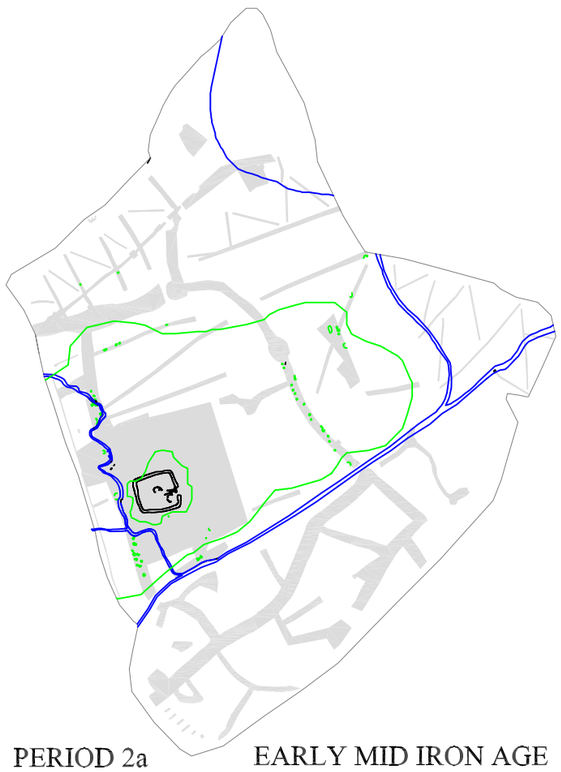
Period 2b

At some point during the mid-Iron Age, possibly between the 700 to 600 BC, a rectilinear enclosure (F37) was excavated to the east of the stream. This feature defined an area of approximately 1850m^2, effectively bounding the top of the highest rise in the valley bottom. This enclosure appeared to be superimposed centrally over the disuse of earlier activity (F153, F232). No evidence for internal structures were identified for this phase although they may have been present, but not in a substantial enough form to survive later truncation.

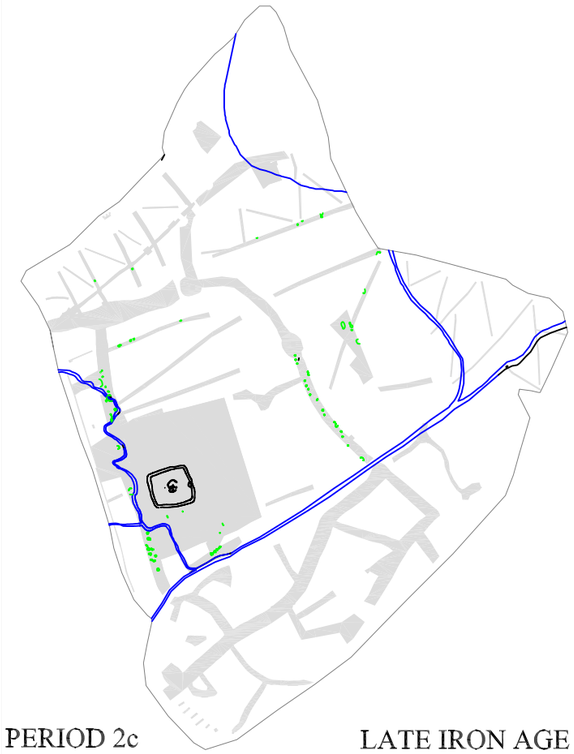
The enclosure appeared to have existed in isolation within the landscape. Its location near to the confluence of two streams (F176 and F226) may be deliberate and suggests that these natural boundaries may have had political or ritual significance. The ditch of the enclosure appeared to be designed to drain water from its entranceway on the eastern side, downslope to its western leg, where it would have overflowed in times of



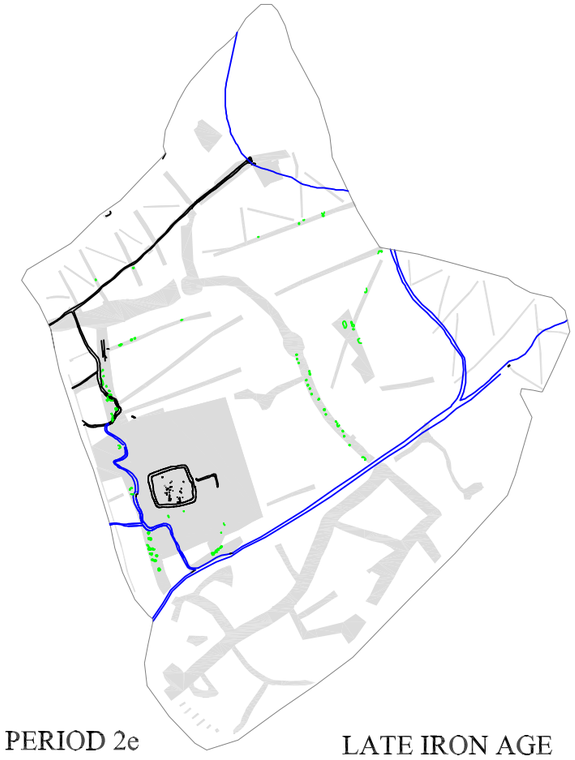
PERIOD 1 NEOLITHIC BRONZE AGE



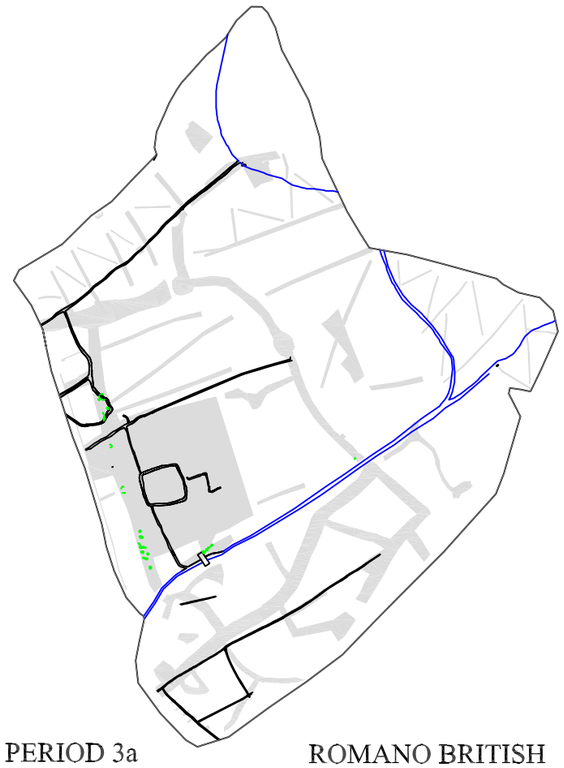
PERIOD 2a EARLY MID IRON AGE



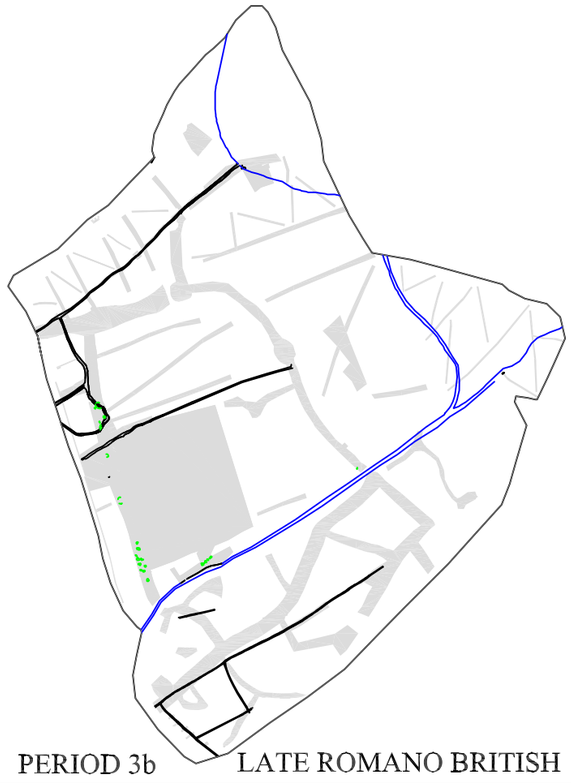
PERIOD 2c LATE IRON AGE



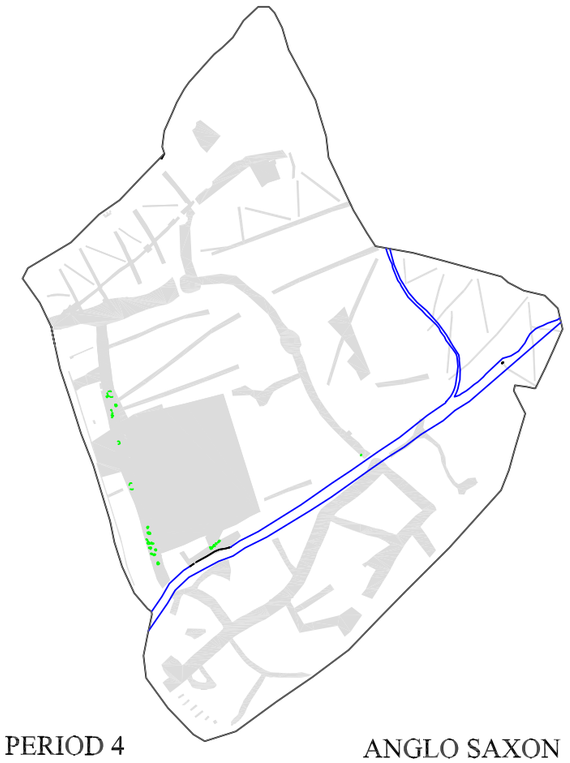
PERIOD 2e LATE IRON AGE



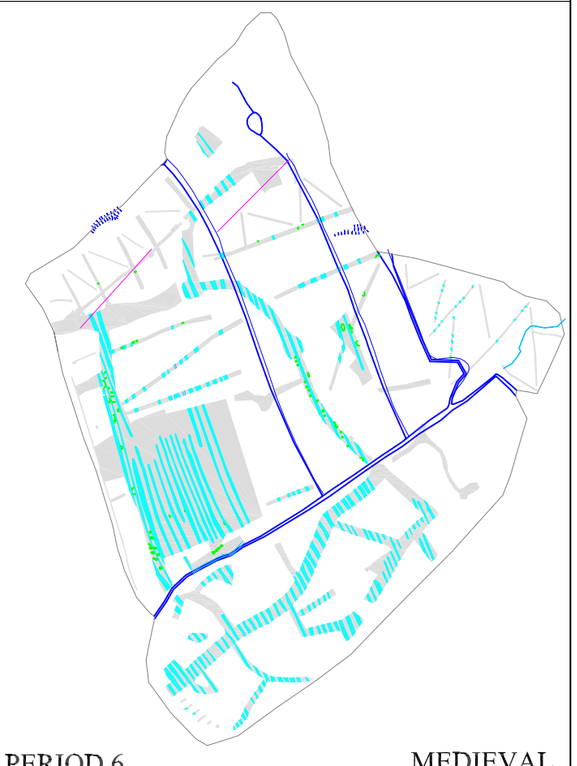
PERIOD 3a ROMANO BRITISH



PERIOD 3b LATE ROMANO BRITISH



PERIOD 4 ANGLO SAXON



PERIOD 6 MEDIEVAL

Normanton Golf Course Site Phases

Figure 65

particularly wet weather into the adjacent stream.

Period 2c

After a period of disuse the enclosure ditch was recut (F234) and the entranceway remodelled. The new enclosure was characterised by a substantial gateway (F211, F216) and a symmetrical corridor (F35, F36) leading to a central structure (S5). This structure comprised a squat screen or hut built from upright posts set within a trench. In the southeastern corner, there was a second structure, possibly built into the makeup of an internal bank (S5). This arrangement of buildings appeared to have been in use for a considerable period and efforts appear to have been made to maintain and repair them along with the funnel corridor and gateway.

There is nothing within the landscape to indicate any great change at this time and it appeared that the enclosure continued to exist as an isolated unit within the valley bottom, located within a system of natural boundaries. It is possible that activity on the site was associated with the gradual erosion of the woodland around it.

These buildings appear to have gone into disuse around 250BC and may have been occupied for up to 150 years. Structure 2 contained a significant amount of burnt daub within its backfill which indicated that this phase of occupation may have ended with the building being destroyed or levelled by fire.

Period 2d

After a period of silting the enclosure was recut into a complete circuit (F43). This was associated with the construction of a bridged and gated crossing over the site of the original entranceway. The grand corridor arrangement had disappeared but the central focus of the enclosure was maintained. A succession of three buildings (S4, S6, S3) were built over the disuse of previous activity centrally within of the enclosure. Within this sequence was a large pit (F40) the primary fill of which comprised a deposit of ash and burnt grain. Once this material had been deposited, the pit appeared to have been deliberately backfilled and capped with clay, possibly in preparation for a new structure.

The entranceway was covered with a cobble surface which may have extended over much of the site. If this had been the case, such a surface would have been ploughed away by later agriculture. The buildings within the enclosure appeared to have been in use between 150BC and 0AD. Evidence was recorded which suggested that the latest of these structures (S3) may have been destroyed by fire.

This period marked the hey day of activity within the enclosure. Evidence from outside the site suggested that the enclosure remained an isolated unit within a naturally defined landscape during this period.

Period 2e

By the late Iron Age the structural phases within the rectilinear enclosure appear to have ended. This was marked by a recutting of the ditch circuit (F235) and the sub-division of the enclosure with a series of fences (F103, F108). An annex was formed on the eastern side of the enclosure by an L-shaped ditch (F78). As well as defining a new area, this feature acted as an overflow for water accumulating along the eastern length of the

ditch circuit.

This dramatic change in focus and activity relating to the enclosure appeared to be contemporary with other fundamental changes visible in the Normanton landscape. 200m to the north of the enclosure a major NE-SW aligned boundary (F245/F111) was created. The eastern end of this feature ran to the edge of the marsh or lake area in the northeastern corner of the development area. To the south, this ditch appeared to link with the northern end of the existing stream before turning westward to form a large bounded area some 130m wide. A subdivision of this enclosure was identified draining water from west to east (F248).

This episode of land division appeared to have been carried out in a cleared landscape and F234 was recorded as cutting two of the tree boles identified within Zone 3. It is not certain when or how the clearance of woodland was undertaken but it seems that it had been completed by the early 1st century AD. At this time the stream to the south of the enclosure (presently Whin Beck) may have been cleaned or evenly recut (F245). It is possible too that a major east-west boundary (F45) located on the slope to the south of this stream was also created at this time.

Consequently the evidence suggests that there was a fundamental change in the pattern of land division and expression of boundaries occurring in the late Iron Age which appears to have been contemporary with a change in use of the main rectilinear enclosure.

6.3 PERIOD 3

Period 3a

The division of the landscape which started in the late Iron Age continued into the Romano-British period. The enclosure circuit (F236) was recut and incorporated along its western side into a north-south aligned boundary ditch (F219, F220). Along its eastern side, the annex created by F78 was recut (F34) and modified to allow passage around the enclosure. F219 ran 70m southwards from the enclosure and effectively canalised an existing watercourse (F176). This appeared to coincide with a recutting of the main east-west aligned stream (F227, presently Whin Beck) and the creation of a bridged crossing (F258, F259, F260). 50m to the north of F236, F220 joined another east-west aligned ditch (F175) which was aligned parallel to F227 as well as F45 on the southern side the stream. This arrangement appeared to annex the enclosure into a bound area 160m wide between F175 and F227. The eastern side of this area would presumably have been bound by the wet area or Sewerbridge Beck.

In addition to these new divisions, existing boundaries at the northern end of the site were also recut (F244, F249, F255). The incorporation of the enclosure within this scheme appears to be significant, providing continuity of place rather than function in an otherwise changing landscape. This suggests once again that the site of the enclosure may have retained some significance. Much of this phase of land division was undertaken by effectively redefining natural boundaries (F176, F225) with formal ditches. This suggests that the natural features may have had political, territorial or ritual significance in the earlier periods.

Period 3b

The rectilinear enclosure at Normanton lost its relevance within the landscape in the mid- to late Roman period. F236 appeared to have silted up and gone into disuse at the same time as the north-south aligned boundary ditch located along its western length (F219, F220).

F175, the east-west aligned ditch to the north of the enclosure, was recut (F264). This appeared to be contemporary with a recutting of the boundaries to the north (F245, F245) and irregular enclosed area to the northwest (F248).

The eventual demise of the rectilinear enclosure made way for the creation of a series of east-west aligned long parcels of land bound at their eastern end by Sewebridge Beck. It was almost as if the enclosure had defined a claim to an area of land which included the confluence of three watercourses. This area was formally defined by ditches then finally incorporated into a single large field. This scheme of land division appeared to have fallen into disuse by the late Roman period.

6.4 PERIOD 4

From the archaeological evidence this area of Normanton appeared to be devoid of any human activity that would have left a trace in the ground for several hundred years. The next major event that occurred on the site was the creation of a major boundary. This was formed by the recutting of the east-west aligned stream (presently known as Whin Beck) to create a canalised channel in excess of 6.0m wide (F224). After a period of initial flow, the stream appeared to have silted up fairly quickly and collected debris. A radiocarbon date suggested that this may have occurred in the late 7th century AD. F224 appeared to continue in use as a slow-flowing, possibly stagnant stream for a considerable period after this.

Although there was no evidence for settlement activity contemporary with this feature, a series of drains were identified feeding into F224 along its northern bank. These features may be evidence that this area was in agricultural use at time.

In addition to forming the present parish boundary, Whin Beck was also the township boundary of Normanton. The redefinition of this channel on such a large scale during the 7th century, therefore, has significant implications for dating the creation of the township of Normanton.

Documentary evidence suggests that the stream is believed to have formed part of a township boundary in the late Anglo-Saxon period (Faull and Moorhouse 1981, map 12), surrounding the *vill* of Normanton. The place-name of Normanton, *Normantone*, occurs in the Domesday Book of 1086, and has been interpreted as meaning '*tun* of the Norwegians,' 'i.e. Vikings who came to England from the west via Ireland' (Faull and Moorhouse 1981, 197).

The origin of township boundaries is not clear, and they form only one part of a complex division of land that occurred in the medieval and earlier periods. 'The responsibilities that went with these were important enough for it to be necessary for the inhabitants to know exactly where the boundaries lay. Consequently a great deal

of time and effort was expended in defining them - banks, ditches, hedge, walls, large cut stones, gates - all testify to this abiding need to know their precise course. Any alteration could be to the detriment of the inhabitants and could result in action - legal or illegal' (O'Hare 1993, 17). Townships were frequently subdivided into smaller hamlets, which would in many cases contain their own field systems with boundaries of the larger manors and parishes often subdivided into townships (Faull and Moorhouse 1981, 265). Within townships the territory itself was less likely to be altered. Alexander (1993, 46), notes that the mostly widely used boundary marker in the past, as today, were watercourses. 'In addition to being topographical boundaries...they were unmistakable and needed no extra landmarks to clarify them...Where the river changed course, the old course tended to remain the boundary' (Alexander 1993, 46).

The early tenurial history of Normanton is obscure, complicated by the fact that in 1086, while the vill is recorded to have been within the soke of Wakefield, the church itself was not, and so no earlier documents have been found which describe this boundary. However, a study of historical sources has allowed for the compilation of a series of maps of West Yorkshire, which infer that the boundary represented by Winn Beck was of considerable importance from the Anglo-Scandinavian period onwards, and is likely to reflect earlier divisions of the landscape (Faull and Moorhouse 1981, Volume 4).

As already mentioned, the reconstructed township boundaries of West Yorkshire show the beck dividing Normanton from the township of Snydale to the south-east. The larger parish of Normanton, dedicated to All Saints, encompassed the townships of Normanton, Snydale, and also Altofts to the north-west. In 1066, the area of Normanton is recorded as having been held by Godric and Knutr, with the area of Altofts, whilst Snydale to the south-east was held by Earnwig (Faull and Moorhouse 1981, map 18).

6.5 PERIOD 5

Throughout the investigation the development area of Normanton Golf Course was dominated by the remains of ridge and furrow cultivation which was visible as extant earthworks and ploughed out furrows. It is not known exactly how long this regime of agriculture was in use, but the earliest pottery recovered from the furrows dates from the 13th century which suggests that the original field system was medieval in date. The latest material recovered from a furrow comprised fragments of clay tobacco pipe (Intervention 13). Together with observations made concerning the pattern of earthworks and their spacing (Intervention 1), this indicates that the original field system may have continued in use for a considerable period and had undergone different schemes of cultivation and development into the post medieval period. This pattern of cultivation was recorded continuing on the slopes of the hill on the southern side of Whin Beck.

6.6 PERIOD 6

A series of four north-south aligned ditches were created which ran from Whin Beck across the development area. These features were later divisions of the site which may have formalised existing furrows in a system of enclosure, and are clearly shown on the 1852 Ordnance Survey map. The ditches also served to drain water into the stream.

A system of ceramic land drains was implemented in the 19th century. The majority of these were located in

the arable fields in the western and southern portions of the site. However, several were recorded running along the base of furrows where extant earthworks survived across the golf course.

7.0 DISCUSSION

An overriding theme at Normanton was the development of boundaries and division of land through time. Central to this process was the small rise in the valley bottom located near the junction of two streams. This area appeared, at first, to be the focus of small scale insubstantial activity which may have carried on over a period of several hundred years starting in the Bronze Age, if not before. This rise was defined and enclosed by a substantial ditch in the mid-Iron Age and was occupied in one form or another until its abandonment in the late Iron Age, some 400 years later. The abandonment of the enclosure appeared to coincide with the division of the surrounding landscape. This firstly involved the establishment of boundaries to the north at the very end of the Iron Age, which was then followed in the Roman period by a system of ditches which formalised existing natural boundaries. In both these phases the enclosure was retained as an element within the landscape either as a functional unit or as a defined space. It was only later in the Roman period that the enclosure disappeared as a physical component to make way for a more open, regular field system.

This concept of place rather than activity was a recurring theme. The natural boundary to the south, which the enclosure was so close to, was possibly reused in the 7th century to define the township limits. As such this same watercourse marks the present parish boundary.

This raises several questions regarding the nature of the enclosure. Why was it placed where it was and what was it for? Answers to these questions can be offered on a number of different levels. These range from traditional functional and economic models to symbolic and political ones. In reality the creation and development of the enclosure at Normanton and the importance of the *place* was probably a combination of all of these factors. An understanding of the dynamics which have created the site probably lie in its relationship with other enclosures and boundaries in the surrounding area.

Hinterland Study

The recognition of many supposedly Iron Age settlements has been through cropmark evidence. This in itself is not without its own problems and without recourse to excavation relies purely on analogy with other known examples. This reinforces a type site approach to archaeology of this period. The representation of archaeological sites as cropmarks is also not a certain phenomenon. There is a marked lack of visible cropmarks on clay soil which contrasts with the many recorded on sand and gravel. In this respect the pattern of identified boundaries and enclosures would appear to be geologically determined. The distribution of urban centres also increases the bias in cropmark sites.

The fieldwork at Normanton has also shown that cropmark evidence should not be considered as providing either a representative picture of what survives beneath the ploughsoil, nor an accurate picture of the pattern of settlement and land division for any particular period. Its value lies in indicating the presence of major archaeological features in certain areas within a far denser unseen buried landscape.

With this in mind, an attempt was made to put the results from Normanton Golf Course into context by studying cropmarks visible on aerial photographs within a sample area of 3.5km from the centre of the site. These were rectified and plotted onto the Ordnance Survey map. The results of this exercise are shown in Figure 66. A list of rectified aerial photographs is included in Appendix L.

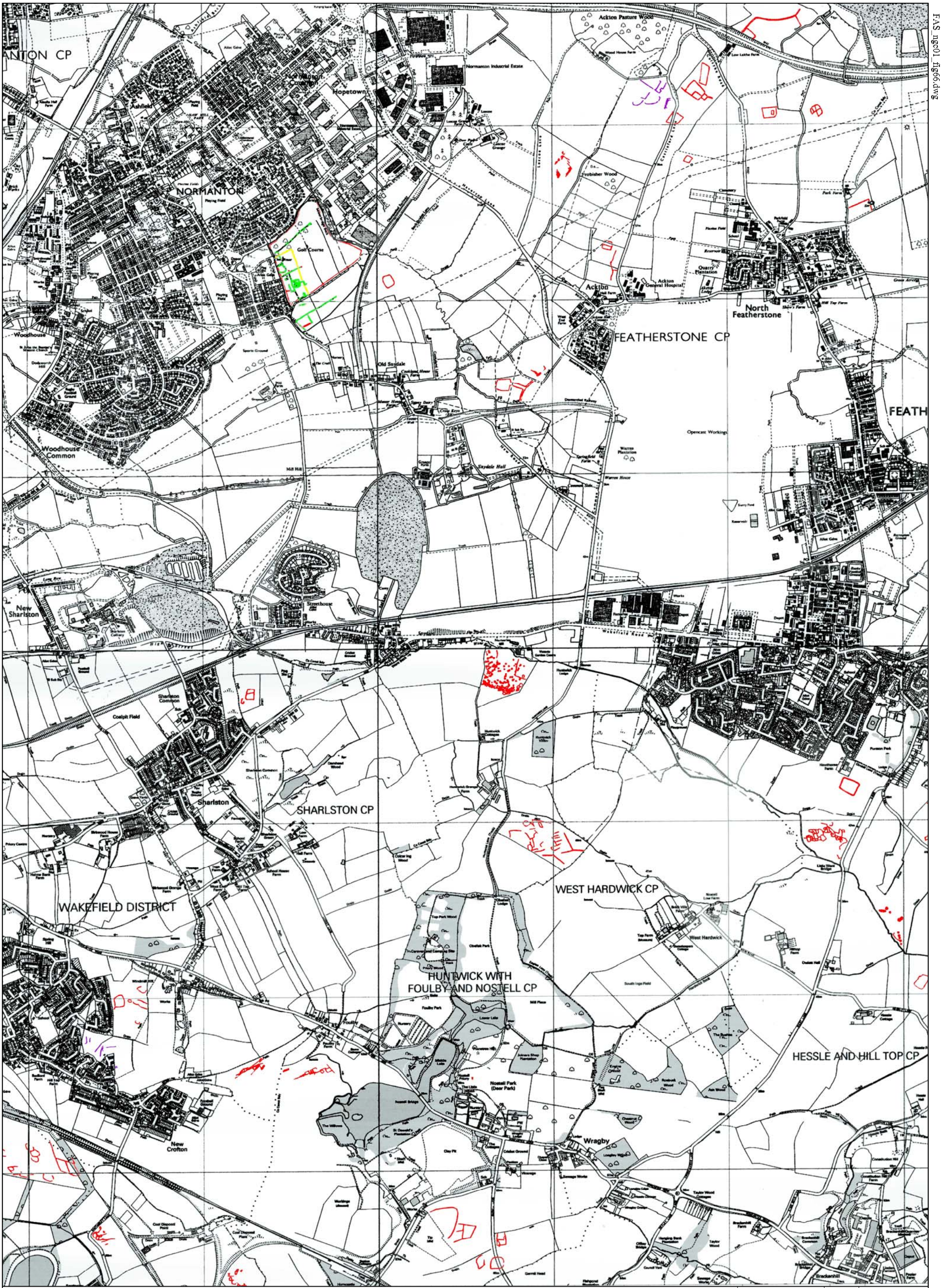
The results from this survey showed an informative scatter of ditches and possible enclosures across a large area. Despite this, a definitive pattern into which the results of Normanton investigation could be placed was not forthcoming. Several elements, however, were worthy of note.

Plate 18 Aerial photograph of Syndale enclosure

Approximately 700m to the southeast of Zone 2, a second enclosure (Plate 18) was located on top of the high ground (PRN 887, SE 400 221) near Syndale. This feature was rectilinear in plan and measured approximately 70m by 55m. Other anomalies which could have represented pits and gullies could be seen both inside and outside the enclosure. If this feature was occupied at any point during the Iron Age or early Romano-British period then it would have been contemporary with at least one phase of the Normanton enclosure. Interestingly, the Syndale enclosure lies 170m on the southern side of Whin Beck and is located only 100m from the Sewerbridge Beck on its northern side. Sewerbridge Beck is recorded as representing another township boundary of possibly early medieval date. The close location of both enclosures to either side of a natural boundary may not be a coincidence, particularly when the streams that form these boundaries are later redefined as important political and territorial divisions in the early medieval period. A similar phenomenon is visible to the east of Old Syndale (PRN886, SE 407 215) and at Ackton (PRN 4092, SE 413 223) where two other enclosures are visible near similar boundaries. This may suggest that at certain times enclosures may have been positioned to emphasise or protect important divisions in the landscape. The fragmentary nature of these cropmarks must mask a more complex and continuous pattern of land division which would only be visible using different investigative techniques.

Interpretation of Iron Age Sites

Iron Age studies have traditionally fallen into a type-site mentality (Hingley 1994). A functional approach has led to a search for predetermined patterns in feature types, finds assemblages and settlement types with little regard to trying to understand archaeological sites within their own regional, local and intra-site context. Consequently, the interpretation is already predetermined and it has just become a matter of slotting the latest site into an existing classification. This has affected the policy of data retrieval employed in the excavation of such sites. This is a factor can be seen recurring in the PPG 16 environment where sites are commonly excavated without a research agenda and little time is allowed to provide an interpretational context in post-excavation. Sampling strategies and recovery levels employed on excavation sites are often arbitrary and may not be appropriate to answer specific questions regarding sequence and form. In particular the 2% sample may succeed in recording the presence and date of archaeological remains but may fail in identifying their nature,



Cropmark evidence around Normanton Golf Course | Scale 1:20000 | Figure 66

extent and quality (Chadwick 1999). The methodology employed, therefore, may preset a traditional interpretation.

In this respect the enclosure at Normanton, by analogy with other sites, such as Great Ayton Moor, Roxby and Coxhoe, would be classified as a "bog-standard enclosed farmstead" (see Appendix E). The archaeological evidence from the site suggests that such a simple description provides little by way of explanation for the from and development of the enclosure.

The traditional (inductive) approach of accepting the archaeological record as a *prima facie* translation of what really went on has been questioned by Hingley (1994) and Hills (1994). These authors emphasise the need to look at how certain deposits and feature types have found their way into the archaeological record by focussing on the post-depositional processes which may have created the sometimes superficial patterns upon which many archaeologists base their assumptions. Examples of this include assessing economic practices and wealth from faunal assemblages which may have been selectively placed in pits and ditches, or describing spatial organisation from finds scatters which are of a secondary nature and may relate to waste disposal as opposed to use. Another criticism levelled at the traditional approach to Iron Age studies was the tendency to construct patterns of social organisation based on site analogy without regard to chronology or local factors. Hills remarks on the fact that most of the material used in the Iron Age, even on the finds-rich sites of Wessex, never makes its way into the archaeological record (1995).

One reason for the prevalence of the traditional approach lies in the nature of the archaeological evidence itself. Most of the recent and not so recent work on Iron Age sites has taken place in southern England where the archaeological record for this period and others is rich and accessible. The resulting type-sites (e.g. Little Woodbury, Danebury, Gussage All Saints) and their models of settlement have conditioned the interpretation of the Iron Age throughout the country. This appears to be unrepresentative of the picture elsewhere where there is a marked difference in the history, chronology and density of population and settlement as well as very different Bronze Age traditions from which they have developed. Recent work by Hill and Hingley suggests a more complex picture of Iron Age society and its settlement evidence.

A preliminary survey of the Iron Age in the North gives a dramatically different picture where the settlement pattern is characterised by few recognised, let alone excavated, examples of settlements or cemeteries and poorly represented material culture, including pottery and metalwork. The lack of typologically classifiable material culture has led to Cunliffe and others defining an area from the whole of the north midlands to Scotland simply as the territory of the *Brigantes*, identified only by their lack of a diagnostic pottery type. A survey of excavated sites and cropmarks reveals a more complex picture of Iron Age society with a marked variation in settlement forms throughout the area. For example, the single enclosures of Cleveland and Durham as opposed to Ladder settlements in East Yorkshire. The lack of excavated examples is a severe problem in studying this period in the north and west of England.

Factors Contributing to Variation in Material Culture

There are many factors which may have created differing patterns of settlement across the country at this time. Not least would have been the late Bronze Age society, culture and traditions in a particular area. Elements of

material culture, settlement form, ritual practice and social organisation in the late Bronze Age must have had some bearing on the form of a society in later periods as it developed through time. In particular the arrangement of territories, political or ritual divisions in the landscape and their expression as boundaries. Similarly the nature of Romano-British settlement and the impact of Romanisation may have had more to do with the values and dynamics of the native Iron Age population than the allure and power of Roman institutions and their material culture.

Regional factors such as geography, topography and type of land and soil would have affected subsistence strategies and settlement form. Available and acceptable local resources may have affected the range of material culture and its subsequent survival into the archaeological record, for example, wooden tools or containers as opposed to pottery or metalwork. Other factors such as access to water, communication, the proximity of one settlement to another would also affect patterns of social organisation and trade. With this in mind it is certainly fair to say that too much has been assumed about the Iron Age, especially in northern England.

Limitations of the Data

The location and study of Iron Age settlement has not on the whole been dictated by research. Most excavated sites in recent years have resulted form commercial development on peripheral urban or greenfield sites. These combined with those discovered during quarrying or gravel extraction allude to the probability that there is a significant bias in the distribution of excavated material from which we form our assumptions about settlement patterns.

Research priorities have also affected the distribution of excavated archaeological sites. For example the understanding of Iron Age society in East Yorkshire has been hampered by the marked preference in excavating the materially rich Arras cemeteries to the exclusion of settlement sites which can clearly be seen from cropmarks. This preference to excavate the richer and more unusual sites has led to a distortion in our understanding of Iron Age settlement. Only more recent work by Dent (1995) has attempted to provide context to these discoveries by using cropmarks to study other aspects of the buried landscape.

This distortion is unfortunate as the evidence derived from research excavations is often a valuable source of comparable data for archaeologists working on the commercial projects who do not always have access to the time, resources and specialist expertise afforded to many research excavations. Dalton Parlours is a good example, its size, unusual development and later succession by a Roman Villa complex may be more a reflection of its own social and economic importance within a localised, politically defined, Iron Age landscape as opposed to an accurate reflection of a general pattern, if indeed one exists.

General patterns in settlement form and organisation can be seen but whether they are superficial or meaningful depends on a closer regard to context and chronology. A list of enclosure sites referred to in this discussion and their summaries is presented in Appendix M.

Many Iron Age settlements have been identified during the excavation of Romano-British rural settlements and enclosures. This concept of continuity is an important aspect in understanding the landscape but also poses several problems. Why did certain settlements continue in use and others did not? There may be a continuity

of occupation but is there continuity of function? These questions have relevance to the site at Normanton where the enclosure continues as an element of the landscape well into the Romano-British period.

Very few Iron Age settlements or enclosures have been completely excavated. This is also the case for some of the type-sites of southern England. At Little Woodbury only two thirds of the interior of the enclosure was excavated, yet, from this, a model of single farmstead enclosure was constructed and applied across the nation. Similar concepts of subsistence, settlement and ritual were created and used in a similar way from the results of excavations at Danebury. Wainwright, after fully excavating the kite-shaped enclosure at Tollard Royal, Cranbourne Chase, remarked on how, if he had only excavated a sample of the interior of the enclosure, the site would either have been interpreted as a stock enclosure or a heavily occupied site depending on where he put his trenches (Wainwright, 1968, 139). It would appear therefore that within many enclosed settlements there is a distinct spatial organization of activity and features which can only be fully appreciated with complete excavation. Without this a reliable interpretation of the site cannot be offered. This is an important factor when assessing some of the enclosures excavated in the northeast where little more than selected transects across the ditches, entranceways and central area have been carried out, for example, West Burradon, Coxhoe, Great Ayton Moor, Roxby.

Many enclosed settlement sites have also provided evidence for pre-enclosure structures and features, for example, Haddenham, West Brandon, Little Waltham, South Elmsall. This presents a further problem in their interpretation. With the lack of horizontally stratified deposits which is so characteristic of rural archaeology, the only way to establish the chronology of the site is through direct stratigraphic relationships and a reliance on datable finds. Where these do not exist, as is the case on many sites, it is difficult to establish, with certainty, whether features and structures are contemporary with the enclosure or pre- or post-date it. A recourse to other forms of analysis such as feature morphology and spatial distribution within the enclosure is often the only way to provide a possible sequence.

This has also created problems in defining the limits and nature of the pre-enclosure settlement. Where an enclosure site has been identified from cropmarks and/or geophysical survey the excavation that follows is usually centred upon the ditches and internal area with little margin for extra-enclosure features. At Dalton Parlours the suggested sequence involved the enclosure of pre-existing structures rather than the two elements being created simultaneously.

The level of sampling of the archaeological features is also an issue. The selective deposition of bone and artefacts in selected areas of enclosure ditches is a phenomenon recognised on a number of sites such as Harrow Hill (Manning, 1995), Winard Down (Hill, 1995) and may have occurred within a *ritual* context. It is in this regard that Hill suggests that a minimum of 25% of the enclosure should be excavated in attempt to establish patterns within the data. On many sites a 10% minimum sample is already required. In the context of many of the rural sites of West Yorkshire it could be argued that the enclosure ditches provide one of the few deposit traps where datable material and other finds are likely to be recovered, irrespective of a possible ritual origin. The enclosure at Normanton, it should be added, contained very little in the way of material despite extensive sampling.

A major factor which limits the understanding of most Iron Age sites is that of modern truncation by ploughing.

Many ephemeral features within settlements and enclosures have simply disappeared without trace which leads Knight (1984) to comment that any clear area within an enclosure should not be assumed to have been devoid of structures or divisions when the settlement was in use. These ephemeral features could include hedges, light weight fences, houses, animal pens, granaries, hearths or middens. The issue of truncation has long been recognised in the interpretation of roundhouse buildings where, in a number of cases at Little Watham (Drury, 1978), internal roof supports for structures are lacking on the ground. Consequently floor surfaces and occupation levels are rarely found associated with structures with the loss of primary deposits.

The lack of faunal material from excavated settlements in the northern England is a particular problem. Unfavourable soil conditions on many sites that have been excavated in recent years have left only the remains of burnt bone, leaving in most incidences, no trace of animal waste. Those bones that have been found have often been within disused storage pits or the enclosure ditch. Recent work by Hill (1995) has suggested that the deposition of some bone assemblages within disused pits may be far more deliberate than the casual disposal of rubbish and in this respect may not be representative general subsistence patterns, for example, assemblages from Harrow Hill and Danebury.

The Nature of Ditches

When the archaeological assemblage is limited in this way it is not hard to see how some archaeologists, Cunliffe for example, using a processual framework, appear to regard the north and west of Britain as a form of Iron Age cul-de-sac. However, Chadwick (1995) would argue that the approach itself limits the archaeological data, both in its recovery, in terms of the methodology and sampling strategy it advocates, and in its interpretation. His work in South Yorkshire has shown that many of the enclosures and field systems within the region have a "chronological depth" with evidence for recutting and redefinition throughout the Iron Age and Romano-British periods. By looking at these features and their development within their cultural, geographical and symbolic context he suggests that the landscape at this time is far more dynamic than previously envisaged.

Ditches in this context have a functional, economic and social significance. They bound areas, control movement and require the agreement and cooperation of different groups. The recutting of boundaries, rather than representing cleaning and maintenance, often involved redigging completely backfilled ditches (Chadwick 1995). This would have been a communal act, reinforcing group identities and expressing them as features in the landscape. Ditches, therefore are seen as an expression of human activity structuring behaviour and beliefs in addition to performing functional and economic roles. This is opposed to passive, static elements in a functional and solely environmentally determined landscape.

Ritual or Secular?

It has been suggested that the enclosure at Normanton, with its unusual structures and location within marginal, wetland with few finds and a lack of domestic or agricultural activity was ritual in origin. The recognition of ritual within the Iron Age is a difficult problem although the recognition of shrine sites is one area that archaeologists have pursued vigorously over the last twenty years. However, this has been based, once again, on the type-site mentality which in itself makes many assumptions about the nature and geographical

cohesiveness of Iron Age belief. Appendix N forms a summary of excavated Iron Age "shrines" in Britain.

Most possible Iron Age Shrines have been identified incidentally during the excavation of a number of Romano-Celtic Temples, often partially surviving as ephemeral postholes and bedding trench structures or merely implied by the presence of pottery, coins and brooches. Consequently from their remains a pre-Roman Iron Age shrine model has been established. In rural contexts this is basically understood to be a square temenos enclosure within which a small square, rectangular or round structure once stood. Often associated with these shrines are votive deposits of coins, brooches, iron objects and most characteristically miniature bronze shields or weapons. Many of the objects appear to have been deliberately broken prior to deposition in pits or dumps. Many of these shrines show evidence for continuity into the Roman period. Those that do not have often been identified on their unusual characteristics when compared to the surrounding archaeology, for example, rectangular structures among and slightly offset from a roundhouse settlement such as at Heathrow, Danebury and Cadbury.

Heathrow is commonly held up as the archetypal Iron Age shrine sitting within a sub-rectangular enclosure. However, it should be noted that no special or votive objects were found in association with this structure.

It would be fair to say that common elements exist between many of these sites but none of them are the same. Their recognition has been based on an inability to explain their purpose in any other way. Subsequently once one has been established as a shrine then it provides an analogy for others. The limited geographical distribution of these sites in the south of England may be a reflection of several factors:

i. a true representation of their distribution and consequently the limited area of that particular religious practice
ii. a reflection of the incidence of fieldwork predominating in the south of England
iii. an inability to recognise religious structures and practice elsewhere in the country whether they be of a different type or whether they survive in the archaeological record

If the first point were true then it would imply that a nationally advocated shrine-type is representative of a religious tradition which may be confined to a political, geographical or cultural area and is, therefore, not representative of other regions. This would lead to the third point, where ritual practice could be carried out in other regions in a way which, so far, has either not been recognised within the archaeological record or it has not survived.

The nature of ritual practice is another issue. Many of the activities associated with Celtic religion have been handed down from documentary Roman sources or are implied by analogy with finds from sites on the continent. These include elements of sacrifice, human and animal, ritual enclosures containing votive offerings, war booty, sacred pits and totems, prevalence with wooded clearings, sanctuaries and water offerings. It is notable that none of the identified shrines readily conforms to any of the stated practices for the period.

The notion of ritual and secular as two separate spheres of human behaviour is also a recent one. The possibility that Iron Age people undertook supposedly ritual activity as part of their everyday lives has rarely been considered, mainly because such activity would be difficult to interpret from the archaeological record when approached from a traditionally functional viewpoint. Hills' recent work on finds assemblages in Iron Age pits

in Wessex has defined two issues; firstly material discarded in disused storage pits may contain patterns of deliberate deposition and association which may have served some religious function. Secondly, she proposes a model which shows a shift from an integrated ritual domestic lifestyle in the early Iron Age toward a much more separate division of sacred and profane in the later Iron Age. This move may be reflected in the comparably late dates for many of the shrine sites that have been identified as well as patterns in settlement organisation.

What can be constituted as ritual activity? Burial? Unusual patterns within the archaeological record which cannot be explained in a functional way? Is ritual behaviour accessible through the archaeological record outside the recognition of certain structural types?

To this end, the site at Hayling Island, by the excavator's own admission, could easily have been interpreted as a domestic settlement on its structural evidence alone. In fact palisade enclosures are relatively common in the northeast and are assumed to be associated with domestic settlements. Archaeologists appear to have enough problems identifying function and status of domestic structures and settlements, let alone ritual activity.

8.0 CONCLUSION

The enclosure at Normanton does not fit readily into a traditional model of an Iron Age shrine. Similarly, the material culture of the northern England does not fit with that of the south during the same period. Typologically, the enclosure in plan resembles a farmstead enclosure. In either case there are many arguments which suggest that it may be a "special" place. These are summarised below:

i. location in a shallow valley within marginal land associated with water and trees
ii. pre-enclosure activity possibly beginning in the Bronze Age
iii. long lived use possibly in excess of 400 years
vi. unusual semi-circular huts or screens
v. lack of domestic structures or finds
vi. continued use within landscape after internal activity ceased

The lack of domestic structures or finds could be countered as an argument for reasons addressed earlier within this document. For example, poor preservation of faunal material, ceramic and destruction by modern truncation.

The buildings or structures within the enclosure, although unusual are not unique. Examples have been found on other sites around England. Nearly all of these appear to be trench built with their open arc closed by a series of postholes (Knight, 1984). Two such structures were found during excavations at Corby, Northhamptonshire. These features had an open face 9.5m in diameter which were open to the southeast and were dated to the late Bronze Age or early Iron Age. Similar structures from this period were also found at Falmersham, Stricton, and Weekly Hall Wood.

Dating to the early Iron Age, several trench built semi-circular structures were excavated at Mucking, Essex.

These were located in the western part of the main enclosure and appeared to be associated with a number of roundhouses. Of an early Iron Age date, a two phase building was discovered at Aldwick, Barley, Herts. This feature had an open face orientated to the southwest and an open arc which was approximately 10m across. Pottery, recovered from the feature's disuse, was dated to between the 3rd and 1st century BC. The function of these structures is not clear. The building at Aldwick appeared to be associated with a number of refuse pits of which two contained a relatively large amount of iron smelting blooms and iron objects.

These buildings could easily have been roofed. Knight (*op. cit*) suggests the open side may have been closed with a series of removable panels and suggests an analogy with smithy workshops of the post-medieval period.

At Garton-Wetwang and Welton Wold a series of semi-circular structures within ditched enclosures have also been excavated (Dent 1996). It has been suggested by the excavator (Brewster) that due to the lack of domestic refuse within the enclosures, they may have had a ritual function. Others have argued that the enclosures were for corralling animals and that the semi-circular gullies were the foundation trenches for animal shelters (Dent 1996).

At Normanton nothing found within the structures alluded to their function. What can be said is that they occupied the same position through several phases over several hundred years and at least one of them showed evidence for repair. Throughout this time the centre of the enclosure was the focus for activity. This was emphasised dramatically by the funnel corridor of the second enclosure ditch as well the location of the only pit on the site. The pre-enclosure activity was also concentrated in this area. It is unlikely from the available evidence that we will be able to assign a definitive function to the site. However, the recurring theme, before, during and after the enclosure was almost certainly the *place*.

The fact that this *place* may have been similar to the 'haunted groves' as described by Roman travellers of Celtic shrines (ie. wooded landscape with streams) may be a coincidence. Whatever the case, its position in relation to a series of natural streams which later become formalised as significant boundaries which are valid in the present day suggests that it was a strategic place in defining a claim or marking a division between peoples well into the past. Whether this claim was expressed in a "ritual" form is another matter, but the place was important enough to mobilise groups of people to redefine it through hard labour on four separate occasions.

Only when the results from the site can be studied in the context of other settlements in the landscape can the significance and function of the enclosure at Normanton be fully appreciated. In this light it would be credible to test models of the site in a more contextual framework than has been seen in the past.

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