Northern Archaeological Associates

CAPITOL PARK, BARNSLEY, SOUTH YORKSHIRE

POST-EXCAVATION ASSESSMENT REPORT

on behalf of

STERLING CAPITOL ESTATES LTD

NAA 05/120

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Summary

This document presents the assessment of the results of a programme of archaeological evaluation, excavation and monitoring of groundworks on the Capitol Park development area at Dodworth, near Barnsley, South Yorkshire (SE 3170 0600). Following a programme of trial trench evaluation in July 2005, three areas were subject to detailed excavation in advance of construction works. Topsoil stripping within the remaining areas of the site was monitored either continuously or intermittently.

Archaeological features comprising a boundary ditch, several short gullies, fence lines and a small number of widely dispersed pits were recorded during the excavations. Although no dating evidence was recovered from any of these features, their general form suggested a prehistoric date. If contemporary, these features represent a field system that pre-dates the post-medieval enclosure field system. A section was also machine excavated across the line of two hedgerows depicted on a plan dated 1806. These hedgerows also demarcated the course of a former trackway that may have had its origins in the early post-medieval or medieval period.

The cultural assessment (NAA 2004) identified a find spot of 'Mesolithic type' flints, and an unknown number of Roman coins, as the only previous evidence of prehistoric or Roman activity in the local area. The archaeological remains, if prehistoric, are of local significance and it is recommended that this date should be confirmed through radiocarbon dating of charcoal collected from within the deposits of ditch 304, feature 361 and pit 1180. The results of these investigations together with the radiocarbon dates should then be published as a short summary report in an appropriate local publication.

Geophysical anomalies thought to have been related to small-scale coal extraction (NAA 2004) have been shown to relate to natural geological conditions rather than archaeology. The only archaeological features identified by the geophysical survey were the sub-surface remains of former post-medieval field boundaries related to the enclosure system depicted on an 1806 survey plan.

1.0 INTRODUCTION

1.1 This document has been prepared by Northern Archaeological Associates (NAA) on behalf of Sterling Capitol Estates. It presents the assessment of the results of a programme of archaeological investigation undertaken as part of the Capitol Park development at Dodworth, near Barnsley, South Yorkshire (SE 3170 0600) (Fig. 1). Barnsley Metropolitan Borough Council granted planning permission for the development on 23 February 2005. An archaeological condition (Condition 26) placed on the scheme required a staged programme of investigation within the fields outside the boundaries of the two farm complexes, Lane Head Farm (north) and Lane Head Farm (south). The planning condition also required historic building surveys of both farm complexes and the results of this work are presented in separate reports (NAA 2006a, NAA 2006b and NAA 2006c).

1.2 The first stage of investigation comprised a programme of archaeological trial trench evaluation undertaken during July 2005. This was then followed by a subsequent programme of excavation and monitoring of ground works undertaken from 24th August to 26th September 2005. Three areas were subject to archaeological investigation by excavation, the remaining area of ground disturbance was monitored during topsoil removal either continuously or intermittently (Fig. 2). This report combines the results of both phases of work.

1.3 The project design for the final stage of investigation (NAA 2005d) was formulated using the findings of a cultural heritage assessment (NAA 2004) combined with the results of the geophysical survey (GSB 2004), monitoring of geotechnical test pits (NAA 2005b, Appendix A) and the results of the initial programme of trial trench evaluation (NAA 2005c). All stages of work were agreed in writing with South Yorkshire Archaeology Service (SYAS).

2.0 LOCATION, TOPOGRAPHY AND GEOLOGY

Site location (Figure 1)

2.1 The development site lay within the northern part of the parish of Dodworth, approximately 4km west of Barnsley and about 0.7km north of the historic core of Dodworth village. It was located to the north-west of Junction 37, M1 and was a triangular area of land approximately 14.2ha in extent. The site comprised agricultural land and two small farmhouse complexes, Lane Head Farm (north) and Lane Head Farm (south). It was located upon a low ridge overlooking a small valley that separated it from the broad east to west ridge on which the village of Dodworth is located. It was divided into two separate areas by the Barnsley to Huddersfield railway line. The new Dodworth Bypass, which was under construction at the time of the investigations, ran through the southern half of the development area to the north and south of the railway (Fig. 2).

Development description

2.2 The development was for a large employment park comprising office units, industrial units, hotel complex and associated roads, parking areas and landscaping. It involved the demolition of the existing buildings at Lane Head Farm (north) and Lane Head Farm (south), removal of hedgerows from the interior of the site and extensive cut and fill civil engineering works in order to replace the existing natural slopes with a series of level building platforms.

Geology and soils

2.3 The site was underlain by the carboniferous coal measures, and drawings provided by the South Yorkshire Mining Advisory Service (Drawing No. M3289) indicated that the Top Haigh Coal Seam and the Low Haigh Coal Seam outcropped across the site (Fig. 2). Across the majority of the area the soils were typical heavy clay loams of the Dale association 712a (Jarvis *et al.* 1984).

3.0 ARCHAEOLOGICAL BACKGROUND

3.1 The excavation and monitoring represented the final phase of a staged approach to the archaeological remains within the area of the development. A summary of these earlier stages of desktop assessment, geophysical survey and trial trenching is set out below.

Assessment

3.2 In order to determine the predicted impact of the development upon the built historic environment, NAA were commissioned by Sterling Capitol Estates to undertake a cultural heritage assessment. As part of this assessment a geophysical survey was undertaken during May 2004 (GSB 2004). The detailed results of the cultural heritage assessment and geophysical survey are set out in the Environmental Statement, Section 8 which accompanied the planning application approved by Barnsley Metropolitan Borough Council in February 2005 (Sterling Capitol Estates Ltd 2004; NAA 2004).

3.3 Following receipt of planning permission, a programme of geotechnical site investigation comprising boreholes and nineteen test pits was carried out during April 2005. Archaeological monitoring of the test pits was undertaken by NAA. With the exception of a possible in-filled coal pit, no archaeological features or deposits were encountered during this survey (NAA 2005b, Appendix A).

3.4 The cultural heritage assessment concluded that there would be construction impacts on several locally important cultural heritage sites. It was agreed with SYAS that all

impacts could be appropriately mitigated through a staged programme of post-determination investigation prior to development commencing.

Lane Head Farm (north) and Lane Head Farm (south)

3.5 The development proposals included the demolition of Lane Head Farm (north) and Lane Head Farm (south) situated on the western margins of the development (Figure 2). Both building complexes were considered to be of local architectural and historic interest and it was agreed that their loss should be mitigated through a programme of building survey followed, if appropriate, by excavation. A project design for the recording of these buildings was agreed with SYAS (NAA 2005a) and separate reports on the survey of both buildings have been produced (NAA 2006a and NAA 2006b). Following the completion of the surveys, it was agreed with SYAS that no further work would be required at Lane Head Farm (south) but that a programme of detailed excavation should be undertaken at Lane Head Farm (north). This work was undertaken during March and April 2006 and the results provided in a separate report (NAA 2006c).

Enclosure field system and trackway

3.6 Construction impacts included the removal of five hedgerows that formed part of the fragmented remains of an enclosure field system depicted on a plan dated 1806. Given this date, these hedgerows were classed as 'important' in terms of archaeology and history under criteria 5(a) of The Hedgerow Regulations (DoE 1997, 12). Sub-surface remains of removed sections of this enclosure system were also identified by the geophysical survey.

3.7 Two of these hedgerows marked the course of a trackway shown on the 1806 plan running east from Higham Lane towards Gawber and Barnsley and their slightly sinuous nature suggested that they might have formed part of a boundary system pre-dating the more rectilinear enclosure boundaries. On the 1806 plan, this trackway was also shown continuing west of Higham Lane to join with the Turnpike Road and former Salt Road. The age and original purpose of this trackway was not known but it may have had its origins in the medieval or early post-medieval period and could have served as a former cattle road. The funnel entrance arrangement into the paddock area between the two farm complexes was of interest and may have been related to stock control.

3.8 As part of the programme of archaeological mitigation it was agreed with SYAS that there should be an excavated cross-section through the hedgerows and the course of the former trackway.

Coal pit complexes

3.9 The site was underlain by the carboniferous coal measures and a plan provided by the South Yorkshire Mining Advisory Service (1989) indicated that the Top Haigh Coal seam and the Low Haigh Coal Seam outcropped across the site (Fig. 2). Aerial photographs showed parallel parch marks following the line of the seams running south-east from Lane Head Farm (north) towards the Huddersfield railway. The geophysical survey recorded a series of pit-type anomalies running north-west to south-east (Fig. 3) along the line of these parch marks and it was suggested that these anomalies may have related to surface quarry pits along the line of both seams.

3.10 The Top Haigh coal seam was encountered in two test pits during the recent geotechnical site investigation works (NAA 2005b, Appendix A). It was suggested that a mixed clay and coal deposit encountered may represent a backfilled feature larger in size than the test pits and could relate to the pit anomalies shown on the geophysical survey plot.

3.11 No documentary or cartographic references to coal extraction specifically within this development area was found during the assessment and according to the South Yorkshire Mining Advisory Service there were no official records of any shallow workings within the site. This suggested that if coal workings were present, they were likely to be either medieval or early post-medieval in date.

3.12 The English Heritage assessment of the coal industry undertaken as part of the Monuments Protection Programme, concluded that survival of coal mining remains from the Roman, medieval and early post-medieval (16th to 17th centuries) periods was quite rare and that such sites were in general very under-studied (English Heritage 1994, 8; 1995a, 6;). It was therefore agreed with SYAS that the pit-type anomalies identified by the geophysical survey should be further investigated during the trial trench evaluation.

Geophysical survey *(Figure 3)*

3.13 The geophysical survey also identified three areas of increased magnetic response within the proposed development area. One of these coincided with a slight plateau immediately east of Lane Head Farm (south). Although it was considered that these were most likely to relate to surface quarry activity, the survey report stated that agricultural or settlement activity could not be discounted.

3.14 During the geotechnical investigations, test pit 10 encountered bedrock within 1m of the existing ground surface. This was overlain by 0.8m of weathered bedrock and 0.2m of topsoil. It was therefore considered that there was a strong possibility that some areas of increased magnetic response recorded in the geophysical survey were a result of outcropping bedrock rather than reflecting the presence of archaeological remains.

3.15 A number of linear anomalies were also identified by the geophysical survey. These were probably related to former sections of the enclosure field system depicted on the 1806 plan and the former trackway noted in section 3.7 above.

Trial trenching *(Figure 2)*

3.16 A total of nine archaeological trial trenches were excavated within the boundaries of the site in July 2005 (NAA 2005c), a tenth trench (Trench 6) was intended but could not be excavated for ecological reasons. The nine trial trenches were spread across the site, located principally to target the areas where new buildings would potentially disturb possible archaeological anomalies identified from geophysical survey. The trenches were all sited to avoid areas affected by the Dodworth Bypass construction and also areas of known disturbance associated with the former opencast area and former Penistone and Barnsley Railway.

3.17 Of the nine trenches excavated, two contained no archaeological features at all (Trenches 1 and 2). Five trenches contained the remains of past agricultural activity in the form of relict plough furrows and recent field drains, one of these, Trench 7, contained two gullies from which late post-medieval pottery was recovered. Only Trench 3 contained archaeological remains that were considered to warrant more detailed investigation. This trench was subsequently enlarged several times until an irregular P-shaped area approximately 260m² was investigated.

3.18 Following completion of the trial trenching, an archaeological mitigation strategy was agreed with SYAS (NAA 2005d). This included provision for the following programme of further investigation:

- the more detailed excavation of the extended Trench 3 area (Areas 1 and 3);
- an excavated section across the former enclosure field boundaries and trackway (Area 2);
- the almost continual archaeological monitoring of topsoil stripping within the northwest part of the development area (Area 4), and
- the intermittent monitoring of topsoil stripping within the remainder of the site (Area 5).

The location and extent of these areas are shown on Figure 2.

4.0 AIMS AND OBJECTIVES

4.1 The main objectives of the programme of more detailed excavation and archaeological monitoring are outlined below:

- to investigate and record any archaeological features identified in advance of, and during the course of, the topsoil stripping;
- to recover any associated artefacts and sample appropriate deposits;
- to establish the date, nature, extent, degree of preservation and significance of archaeological deposits within the development area;
- to prepare an illustrated report on the results of the archaeological investigations to be deposited with the South Yorkshire Archaeology Service and the National Monuments Record, and
- to undertake further analysis and publish the results in a local, regional or national journal, as appropriate.

5.0 METHODOLOGY

5.1 The site was split into five areas of varying archaeological interest each with different requirements for mitigation (Fig. 2). Areas 1 and 3 were considered to have the highest archaeological potential with Area 5 possessing the lowest. Within each area, all archaeological features, finds and deposits were investigated and recorded in accordance with the excavation methodology set out below in paragraphs 5.7 to 5.13.

Area 1: Possible prehistoric settlement

5.2 Topsoil within this part of the site was stripped using a back-acting mechanical tracked excavator with a toothless bucket under archaeological supervision until the full extent of archaeological remains was revealed.

Area 2: Historic hedgerows and early trackway

5.3 All topsoil within this part of the site was stripped using a back-acting mechanical tracked excavator with a toothless bucket under archaeological supervision. It was decided that a machine-dug section excavated across the area was sufficient to record any ditches associated with the hedgerows and the trackway, as the archaeology revealed was obviously post-medieval in date.

Area 3: Continuation of possible prehistoric settlement

5.4 Due to the lack of archaeological remains relating to prehistoric settlement activity within Area 1, a smaller section was investigated within Area 3. This was to establish the relationship of the ditch identified during the evaluation stage, with any ditches associated with the hedgerow. All topsoil within this part of the site was stripped using a back-acting mechanical tracked excavator with a toothless bucket under archaeological supervision.

Area 4: Permanent presence monitoring

5.5 A watching brief was required within Area 4 during all topsoil stripping operations. The purpose of this was to ensure that any unexpected remains were rapidly recorded on plan, and sampled. The area was machined by bulldozer and no archaeological features, finds or deposits were recorded. However, the condition of the stripped surface, with respect to visibility of archaeological features, was poor due to disturbance and compaction caused by the caterpillar tracks of the excavating machines.

Area 5: Intermittent watching brief

5.6 On the basis of the earlier evaluation there was considered to be limited potential for significant archaeological remains to be encountered during construction works on this part of the site. Removal of topsoil within this area was intermittently monitored by an archaeologist. The area was machined by bulldozer and no archaeological features, finds or deposits were recorded. However, the condition of the stripped surface, with respect to visibility of archaeological features, was poor due to disturbance and compaction caused by the caterpillar tracks of the excavating machines.

EXCAVATION METHODOLOGY

5.7 The area of any archaeological features, finds and deposits identified during the monitoring of topsoil stripping or deeper excavations within the area of the detailed archaeological investigation was demarcated and sufficient time was allowed for investigation and recording by the archaeological team. The areas remained un-trafficked by construction plant until the completion of the archaeological works.

5.8 Archaeological features identified were hand-cleaned, planned and recorded. Discrete features were excavated by hand constituting 50% of their total area, sample sections of linear features were excavated totalling a minimum of 20% of the overall length of the feature. Where appropriate, sections were located at either junctions or interruptions of features in order to establish the relationship and phasing between site components.

5.9 Significant archaeological features were located using a Leica TC 500 electronic station. Information was transferred to AutoCAD R2000 software and reproduced for incorporation within the report. All levels were tied in to Ordnance Datum.

5.10 All archaeological features were photographed and recorded at an appropriate scale. Sections were drawn at a scale of 1:10. Detailed archaeological plans were drawn at a scale of 1:20, less detailed location plans were drawn at a scale of 1:50. A written description of features was recorded using the NAA context recording system. A photographic record of the site was taken using black and white prints and colour slides at a format of 35mm.

5.11 Archaeological artefacts were collected as bulk samples and were recorded, processed and submitted to specialists for post-excavation assessment. All finds recovered were appropriately packaged and stored under optimum conditions. Finds recovery and storage strategies were in accordance with published guidelines (English Heritage 1995b; Watkinson and Neal 1998).

5.12 Forty-litre bulk palaeoenvironmental samples were taken from appropriate deposits (such as ditch and pit fills) and submitted for assessment. Recovery and sampling of environmental remains were in accordance with guidelines prepared by the English Heritage (2002).

5.13 Secure contexts were sampled for C-14 dating purposes. Samples will be processed subsequent to initial post-excavation assessment.

6.0 EXCAVATION RESULTS

6.1 Within this report the archaeology recorded during both the evaluation and excavation stages will be assessed so although they were excavated and recorded separately, the results have been combined to produce a clearer picture. Two broad phases of activity were recorded. Phase I, which may relate to the prehistoric period and Phase II, which was dated to the post-medieval period.

Phase I (prehistoric)

6.2 The main feature was a possible prehistoric boundary ditch that was recorded during the evaluation stage as 304 within Trench 3 and as feature 1176 within Areas 1 and 3 during the excavation stage (Fig. 4). It emerged from an area of disturbance along north-eastern edge of Area 1 running approximately north-south for 52m before turning to the south-west and running for a further 65m where it extended beyond the limit of Area 3. The continuation of this feature was not seen during monitoring within Area 4 due to poor visibility within the subsoils.

6.3 The ditch varied in width from 2.6m to 0.8m and its depth ranged from 0.3m to 0.8m. The edges of the ditch were irregular. They tended to be steep on one side and stepped on the other, with a narrow vertically-sided section near the base (Fig. 5, Sections 9 and 10 and Fig. 6, Sections 29 and 31). Post-voids were recorded in some of the excavated sections (Fig. 6, Section 31) which suggested that the trench may have been dug to hold a fence. The only artefacts recovered from the fills of this ditch were fragments of daub. An environmental sample taken from one of the segments excavated contained sufficient wood charcoal for a radiocarbon date to be obtained. The ditch as yet remains undated, however, the form of the ditch and its apparent irregularities in shape suggest a prehistoric date for the feature.

6.4 Within Trench 3, to the west of where ditch 304 turned to the south-west were two other boundary features (361 and 393) which if contemporary may represent part of a smaller enclosure within the area enclosed by 304. The short sinuous ditch 361 ran approximately east to west for 6m but was curved and seemed to respect the positions of both ditch 304 and feature 393. It was 1.8m wide and 0.9m deep in its central section (Fig. 6, Section 33) but shallowed out towards either end. Within the re-deposited clay and coal fills, six post-voids were recorded representing at least two separate phases of posts within the feature. Some of these post-voids measured up to 0.4m in width suggesting the use of substantial timbers within the feature. Feature 393 was similar to 361 measuring 5.8m long, 2m wide and 0.6m deep close to its centre (Fig. 6, Section 43). It also became shallower at both ends. Six possible post voids were recorded in the base of 393.

6.5 To the north of these two boundary features was a short gully (1155). It was aligned north-west to south-east measuring 8m long, up to 1.4m wide and between 0.25m and 0.35m deep (Fig. 5, Section 1). Postholes and post-impressions were recorded within the excavated sections of this feature suggesting it represents a short section of fence.

6.6 The only other potentially prehistoric archaeological feature recorded in Area 1 was a fire-pit (1180), located to the west of the main linear ditch 304. It measured 1.05m by 1m and had a maximum depth of 0.16m. The primary fill of the feature was a 0.08m thick layer of charcoal and silt (1185), which was sampled for radiocarbon dating. Below this fill, the natural clay had been discoloured by heating.

6.7 In the area south of features 393 and 361 and west of ditch 304 a truncated pit (382) and a single gully (390) were recorded within Trench 3. The pit measured 0.58m by 0.44m by 0.18m deep. The gully was 3.08m long, up to 1.4m wide and 0.17m deep, however, its shape and fill suggested that it was probably a natural feature.

6.8 Within Trench 3, several features were recorded in the area to the east of ditch 304. These comprised three gullies (326, 338 and 332), three pits (308, 314 and 312) and a broad shallow feature (310). Gullies 326 and 338 were similar in shape and depth, both were shallow and irregular in shape and may have formed part of a boundary feature aligned east to west. Gully 332 was more irregular with a bulbous end and

may have been a natural feature. All three pits were similar in nature to pit 382. Feature 310 measured 1.7m wide and 5m long with a maximum depth of 0.25m. No dateable artefacts were recovered from any of these features, which were generally very truncated and ephemeral in nature.

Phase II (Post-medieval)

6.9 A series of truncated plough furrows (315) running south-west to north-east crossed Trench 3 cutting most of the features mentioned above. The furrows were filled with subsoil (301). Pottery found within the subsoil date the furrows to the post-medieval period. Remnants of similar plough furrows were recorded within evaluation Trenches 1, 2, 8 and 9 (NAA 2005c).

6.10 Boundary features dated to this phase were recorded within evaluation Trenches 7 and 8 (Figs. 2 and 7). Cut into natural clay in the middle of Trench 7 was a right-angled linear boundary gully (706) measuring on average 0.5m wide. The feature ran north to south then turned east to west extending beyond the limit of excavation at both ends. The excavated segments of the gully had a maximum depth of 0.23m and pottery dated to the late post-medieval period was recovered from within its fill. This feature seemed to correspond with a linear anomaly recorded during the geophysical survey, and also field boundaries shown on the enclosure field system depicted on a plan dated 1806.

6.11 Another shallow gully (703) was recorded at the north-western end of Trench 7. It was aligned north to south and extended beyond the trench limits in both directions. It measured approximately 0.6m wide and 0.13m deep and although no dating evidence was found within the excavated segment, the feature was on the same alignment at gully 706 and probably relates to the post-medieval field system. A linear feature (807) running north to south across Trench 8 was interpreted as a robbed out stone wall, possibly part of the same boundary represented by gully 706. It was cut by a modern service trench (811). Two plough furrows (802 and 804) were recorded within Trench 8, they were located to the west of feature 807 and ran parallel to the boundary.

6.12 When the hedges running across the site were removed, a section of trackway was uncovered within Area 2 (Fig. 2). A machine-cut section across the trackway (Fig. 5, Section 4) revealed a hollow-way (1174) and a series of episodes of in-filling and surface repairs. Post-medieval brick fragments noted within these deposits suggested that the feature was part of the trackway shown on the 1806 plan running east from Higham Lane towards Gawber and Barnsley. The trackway deposits were cut by a modern drainage ditch (1191) that ran along the south and east side of the northern hedge, and also cut the Phase I ditch 1176 (Fig. 5, Section 9).

7.0 ASSESSMENT OF THE SITE ARCHIVE

Initial analysis

7.1 As part of the assessment of the site records the initial archive consolidation has been undertaken. A provisional matrix has been drawn up for the excavation site showing the stratigraphic relationships between the individual contexts. Initial dating from the recovered artefacts has been integrated into the matrix in order to allow the site to be divided into chronological phases. Plans and sections were checked against context record sheets to ensure full cross referencing. Catalogues of context and illustration records have been input onto a computerised database. Catalogues of slide and print photographs have been input onto a computerised database.

Primary archive inventory

Context descriptions	512
Plans	44
Sections	60
Colour slides (films)	10
Black and White photographs and negatives (films)	9

Recommendations for further analysis

7.2 The archaeological features recorded during the excavations, if prehistoric, are of local significance and this date should be confirmed through radiocarbon dating of charcoal collected from within the deposits of ditch 304, feature 361 and pit 1180. The results of these investigations together with the radiocarbon dates should then be published as a short summary report in an appropriate local publication

Storage and curation

7.3 The written, drawn and photographic records are currently held by NAA. Provisional analysis of the palaeoenvironmental samples has been undertaken to assessment level.

7.4 Subject to finalisation of discard policies after further analysis (particularly with respect to environmental material) it is intended that the site archive (paper records, artefactual and environmental material) will be transferred to the appropriate repositories. All material would be appropriately packaged for long-term storage in

accordance with both national guidelines and to the requirements of the appropriate museum.

8.0 SPECIALIST FINDS ASSESSMENTS

Pottery (Sarah Wilkinson, Northern Archaeological Associates)

Archaeological Potential

8.1 A small pottery assemblage comprising twenty-nine sherds was recoverd during the investigations. Twenty-two sherds were recovered from either topsoil or subsoil layers in Trenches 1, 3 and 4. The remaining sherds were recovered from features or layers in Trenches 7 and 8. All the pottery was post-medieval with a date range between the 17th and 20th centuries, however, one piece of green glazed pottery from subsoil 301 could be of 16th century date.

Recommendations

8.2 No further analysis is recommended.

Daub (Sarah Wilkinson)

Archaeological Potential

8.3 A total of 80 fragments of daub were recovered from within Trench 3, 79 of these fragments came from ditch 304. A small proportion had visible vegetation marks such as straw impressed upon the surface and one fragment showed signs of burning. A more detailed summary is provided within Appendix A.

Recommendations

8.4 No further analysis is recommended.

Environmental (Paul Johnson, Northern Archaeological Associates)

Archaeological Potential

8.5 Six bulk samples (Contexts 320, 362, 386, 1108, 1160 and 1185) taken during the investigations but only five were processed for the recovery of plant macrofossils,

vertebrate and invertebrate remains, using a modified Siraf flotation system. The flots and residues resulting from processing were air-dried and a preliminary inspection of the flots was undertaken. Very small quantities of carbonised plant remains including pieces of wood charcoal was identified within the samples. Sufficient charcoal was recovered from fills within ditch 304 (deposit 386) and fire pit 1180 (deposit 1185) to permit AMS radiocarbon dating, but they were composed of wood charcoal and may produce artificially early dates for the contexts. Whilst precise dating would not be achieved, it would confirm whether these remains are late prehistoric/early Roman or much later in date.

Recommendations

8.6 Approximately twenty litres of unprocessed sediment from each sample remains and this may yet yield sufficient carbonised material to enable AMS dating to be undertaken for contexts 320 (ditch 304), 362 (feature 361) and 1108 (feature 393). The wood charcoal fragments noted during this preliminary inspection are likely to be unidentifiable as to species and as a result further study of these remains is not warranted. It is recommended that the remainder of sample 362AA be processed with the aim of collecting charcoal for radiocarbon dating.

9.0 CONCLUSION AND STATEMENT OF POTENTIAL

9.1 The archaeological investigations at the Capitol Park development area have recorded previously unknown remains of human activity on the site. The features comprised a boundary ditch, several short gullies and fence lines and a small number of widely dispersed pits. Although no dating evidence was recovered from any of these features, the general form suggested a prehistoric date. If contemporary, these features represent a field system that pre-dates the fragmented remains of an enclosure field system depicted on a plan dated 1806.

9.2 The cultural assessment (NAA 2004) identified a find spot of 'Mesolithic type' flints, and an unknown number of Roman coins, as the only previous evidence of prehistoric or Roman activity in the local area. Therefore the archaeological remains, if prehistoric, are of local significance and it is recommended that this date should be confirmed through radiocarbon dating of charcoal collected from within the deposits of ditch 304, feature 361 and pit 1180. Further processing and examination of the environmental samples targeted at the recovery of sufficient material to provide dates for feature 361 (sample 362AA) by radiocarbon assay is therefore required. The results of these investigations together with the radiocarbon dates should then be published as a short summary report in an appropriate local publication

9.3 The pit-like geophysical anomalies thought to have been related to small-scale coal extraction (NAA 2004) have been shown to relate to natural geological conditions

rather than archaeology. Similarly the areas of increased magnetic response were caused by geological conditions. The only archaeological features identified by the geophysical survey were the sub-surface remains of former post-medieval field boundaries related to the enclosure system depicted on an 1806 survey plan.

9.4 It was noted within the cultural heritage assessment that there appeared to be very few prehistoric or Roman cropmark sites recorded on the coal measures west of Barnsley. Riley (1987, 86-87) stated that it was not known whether this absence of sites reflects an absence of settlement, or whether it was as a result of soils that are not conducive for cropmark development.

9.5 The investigations at the Capitol Park development area certainly suggests that late prehistoric settlement/agriculture was occurring on these coal measures indicating that the apparent absence of such sites from aerial photography probably does not reflect a true distribution pattern. However, later features such as ploughed out enclosure field boundaries are recorded as cropmarks on aerial photographs, as are the natural features arising from changes in geological conditions and therefore it cannot be argued that the soils are not conducive to cropmark development. Perhaps therefore the apparent absence of prehistoric/Roman cropmarks reflects an infilling of prehistoric/Roman features with a subsoil which does not provide sufficiently nutrient rich conditions to generate variation in crop growth.

9.6 This lack of cropmarks, combined with severe truncation of prehistoric/Roman remains through agricultural activities, paucity of artefactual material and the difficulty of identification of archaeological remains pre-dating the post-medieval period through geophysical survey, means that future identification of this period of site is going to be very difficult in this region. In the case of Capitol Park, the natural subsoil around the outcroppings of coal consisted of layers of grey-brown clay and coal, which caused difficulty in differentiating archaeological features from these changes in the drift geology. The Phase I features had been in-filled with subsoil, which compounded this difficulty; the fills of ditch 304 were virtually indistinguishable from the natural subsoil except when damp.

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Appendix A
FINDS SUMMARY

Sarah Wilkinson
Northern Archaeological Associates

Introduction

A quantity of material was recovered from Capitol Park, Junction 37 (table A1). A total of 80 fragments of daub weighing 299g was recovered from Trench 3. The majority of the daub (79 pieces) was recovered from ditch 304 (table A2). A small proportion of the daub had visible vegetation marks such as straw impressed upon the surface and one fragment showed signs of burning.

The pottery assemblage comprised 44 sherds weighing 437g. All the pottery was post medieval with a date range between the 17th and 20th centuries, however, one piece of green glazed pottery from subsoil 301 could be of 16th century date. A total of 37 sherds was recovered from either topsoil or subsoil layers in Trenches 1, 3, 4, and during the area excavation. The remaining seven sherds were recovered from features or layers in Trenches 7 and 8.

The remaining materials were all post-medieval in date. The small burnt bone fragment from context 340 is probably animal. The copper alloy coin from topsoil 300 was dated to AD 1865, the copper alloy coin from disturbance layer 1154 remains undated. The clay tobacco pipe bowl from layer 808 was decorated in a floral design with a pointed spur dating to the first half of the 19th century.

Potential for further study

Although a small assemblage of artefacts was recovered during the excavations, these were of very limited interpretative value and no further study is warranted.

Recommendations

No further work on the assemblage is recommended.

Retention and disposal

Subject to finalisation of the project, all of the above material may be discarded.

Archive

All of the material discussed above and the paper and electronic records of the work so far undertaken on this material, is currently held by Northern Archaeological Associates.

Table A1 Finds Quantities

Material	Quantity	Weight g
daub	80	499
pottery	44	437
sample	25	
ceramic	3	4
cbm	2	106
bm	1	33
fe	2	
glass	1	17
cu alloy	2	
clay pipe	1	9
bone	1	0

Table A2 Finds Descriptions

Material	Context	Description	Artefact description	No.
bone	340	fill of ditch 304	small burnt bone fragment, probably animal	1
bm	1150	topsoil	brown-glazed drain fragment	1
cbm	1150	topsoil	non-diagnostic post-medieval	2
ceramic	300	topsoil	porcelain head, military style	1
ceramic	311	fill of shallow ditch 310	very, very tiny fragment, possibly recent!	1
ceramic	339	fill of gully 338	very small fragment	1
clay pipe	808	layer	decorated bowl with pointed spur. First half of C19th .	1
cu alloy	300	topsoil	dated 1865 (lost)	1
cu alloy	1154	disturbance layer	coin (undated)	1
daub	301	subsoil	possibly daub, very small piece	1
daub	340	fill of ditch 304	straw impressions, various sized lumps	36
daub	348	fill of ditch 304	thought to be pot but probably not	1
daub	348	fill of ditch 304	straw impressions, various sized lumps	26
daub	360	fill of ditch 304	straw impressions, various sized lumps	5
daub	387	fill of ditch 304	very small fragments, probably daub.	11
fe	705	fill of boundary 706	lost	1
fe	815	fill of post hole 816	lost	1
glass	700	topsoil	pale green stopper, slightly chipped, probably C20th.	1
pottery	100	topsoil	2 staffs slipware: 1 brown glaze, 1 yellow glazed earthenware. C17th–18th.	2
pottery	300	topsoil	1 stoneware, 2 staffs slipware, 4 red earthenware (3 brown glazed), 6 white earthenware with blue and white print. C17th–19th/20th.	13
pottery	301	subsoil	5 brown glazed red earthenware, C18th. 1 green glazed poss C16th.	6
pottery	400	topsoil	brown glazed earthenware. C18th.	1
pottery	705	fill of boundary 706	1 stoneware, 1 staffs slipware, 1 white earthenware. C17th/18th–19th/20th.	3
pottery	805	fill of plough furrow 804	brown glazed, buff fabric, probably C19th or even 20th. Unsure.	2
pottery	808	layer	brown glazed red earthenware. C18th.	2
pottery	1150	topsoil	post-medieval	14
pottery	1151	subsoil	post-medieval	1
sample	320	fill of ditch 304		4
sample	362	fill of post hole 363		4
sample	386	fill of ditch 304		4
sample	1108	fill of post filled sinuous ditch 393		4
sample	1160	fill of gully 1155		4
sample	1181	upper fill of pit 1180		3
sample	1185	lower fill of pit 1180		2

Appendix B

PALAEOENVIRONMENTAL

Paul Johnson
Northern Archaeological Associates

Methods

Five bulk samples obtained from a programme of archaeological evaluation at Capitol Park, Barnsley, South Yorkshire, were submitted for assessment, each comprising approximately 40 litres. All of the samples were inspected prior to processing and their lithologies recorded on NAA *pro forma* recording sheets. Sub-samples, comprising twenty litres of sediment, were processed for the recovery of plant macrofossils, vertebrate and invertebrate remains, using a modified Siraf flotation system, with both flots and residues being captured in 500 micron mesh.

The flots and residues resulting from processing were air-dried and a preliminary inspection of the flots was undertaken, by visual scanning with a 5x magnification hand-lens, in order to confirm the presence of plant and invertebrate remains.

Results

CONTEXT 320, SAMPLE 320AA (PRIMARY FILL OF DITCH 304)

The sample produced a small flot composed mainly of modern rootlets and small mineral grains, almost certainly coal. Two or three small fragments, <2mm, of unidentifiable wood charcoal were also present. No vertebrate or invertebrate remains were identified.

CONTEXT 362, SAMPLE 362AA (FILL OF POSTHOLE 363, WITHIN FEATURE 361)

The sample produced a small flot composed mainly of modern rootlets and small grains of coal. Some tiny fragments, <1mm, or carbonised plant remains were noted. No vertebrate or invertebrate remains were identified.

CONTEXT 386, SAMPLE 386AA (FILL OF DITCH 304)

The sample produced a small flot composed mainly of modern rootlets and grains of coal. However the flot contained approximately 15-20% carbonised plant remains including pieces of wood charcoal up to 10mm. No vertebrate or invertebrate remains were present.

CONTEXT 1108, SAMPLE 1108AA (FILL OF FEATURE 393)

The sample produced a relatively large flot the bulk of which was composed of modern rootlets. A large quantity of small coal fragments was noted but carbonised plant remains were restricted to a few tiny, <1mm, particles of charcoal. Vertebrate and invertebrate remains were absent.

CONTEXT 1185, SAMPLE 1185AA (FILL OF FIRE PIT 1180)

This sample produced no flot but the residue contained a quantity of waterlogged charcoal fragments. After the residue was dried it was split into two fractions through a 4mm mesh and the coarse fraction, >4mm, sorted in order to recover any plant, faunal and artefactual remains present in the residue. The residue only contained charcoal, this comprising 12g of fragments of carbonised roundwood up to 11mm. The species was not determined but all of the fragments appeared to be of the same close-grained wood. Vertebrate and invertebrate remains were absent.

Potential for further study

Ancient biological remains recovered from the processed sub-samples were restricted to very small quantities of unidentifiable wood charcoal of no particular interpretative value. Sufficient charcoal was recovered from contexts 386 (ditch 304) and 1185 (fire pit 1180) to permit AMS radiocarbon dating, but this is composed of wood charcoal and may produce an artificially early date for the context and is not recommended if precise dating is required. However, the dating of this charcoal would be of some value in determining whether the features from which the sample was obtained are of prehistoric or later date. All of the material examined had been subjected to modern root penetration and should radiocarbon dating be attempted then it would be essential to remove all of this material prior to submitting the sample.

Recommendations

Approximately twenty litres of unprocessed sediment from each sample remains and this may yet yield sufficient carbonised material to enable AMS dating to be undertaken for contexts 320 (ditch 304), 362 (feature 361) and 1108 (feature 393). The wood charcoal fragments noted during this preliminary inspection are likely to be unidentifiable as to species and as a result further study of these remains is not warranted.

Retention and disposal

Subject to the examination of the residues from the samples and a decision regarding the desirability of radiocarbon dating, the remaining sediment samples may be discarded.

Archive

All of the palaeoenvironmental material discussed above and the paper and electronic records of the work so far undertaken on this material, is currently held by Northern Archaeological Associates.

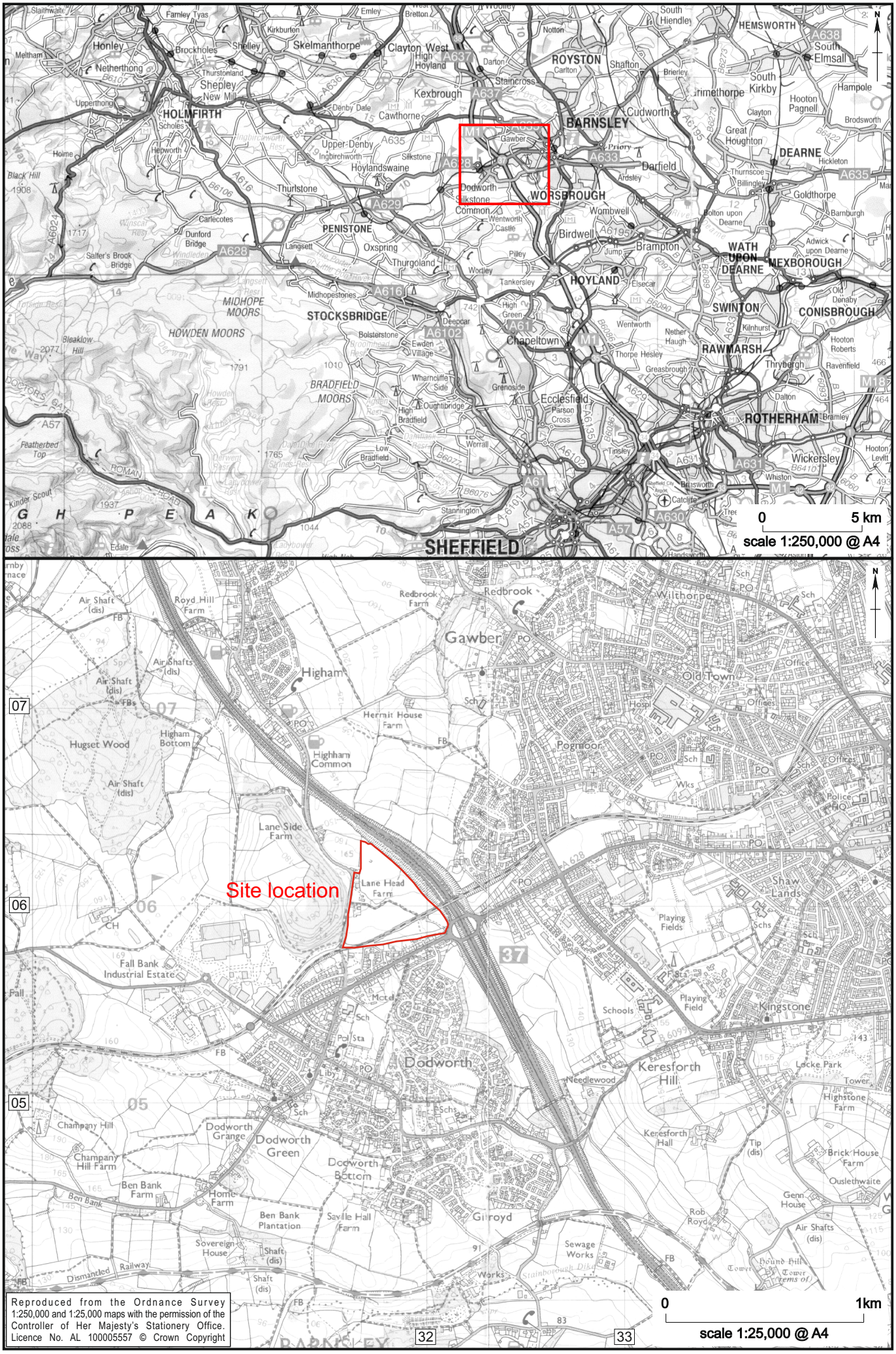

Figure 1 Capitol Park, Barnsley: site location

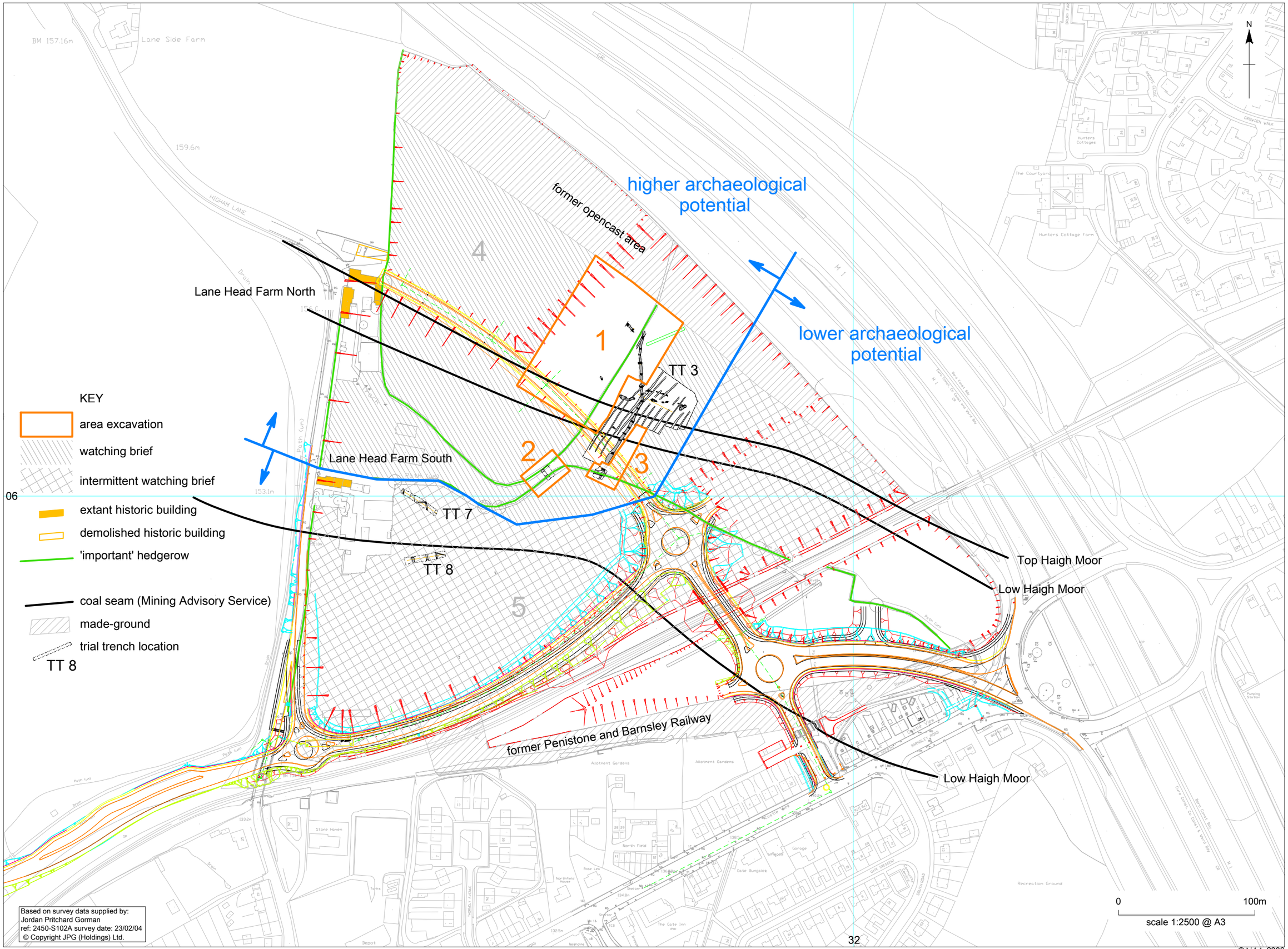

Figure 2 Capitol Park, Barnsley: areas of excavation and monitoring

KEY

extant historic building

demolished historic building

'important' hedgerow

development boundary

coal seam (Mining Advisory Service)

made-ground

trench location 8

GEOPHYSICAL SURVEY KEY

survey area

? archaeology

area of increased magnetic response

plough/ridge and furrow

ferrous

N

former opencast area

Area A

Area B

Area C

Area D

1 2 3 4 5 6 7 8 9 10

Top Haigh Moor

Low Haigh Moor

Low Haigh Moor

former Penistone and Barnsley Railway

0 100m

scale 1:2500 @ A3

Based on survey data supplied by:
Jordan Pritchard Gorman
ref: 2450-S102A survey date: 23/02/04
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06

32

Figure 3 Capitol Park, Barnsley: trial trench locations and geophysical survey results

KEY

earlier feature

post-medieval feature

N

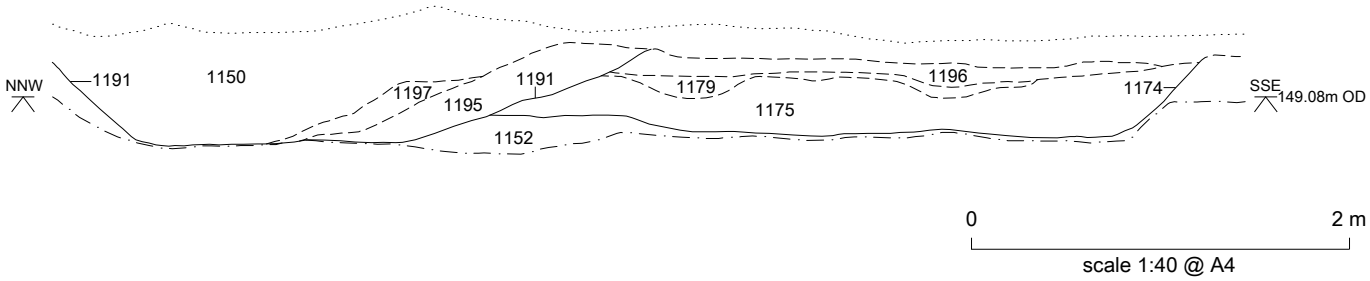
1155
section 1
1158
1155
1191
1176
section 9
section 10
1176
1180
section 29
326
338
section 43
1170
393
304
scorching
361
section 33
332
308
314
325
312
310
315
section 31
390
315
382
304
1176
1199
1198
1176

0 25 m

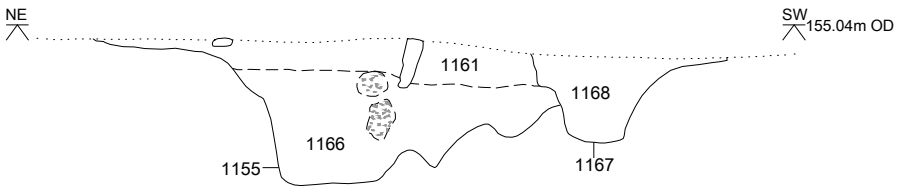
scale 1:40 @ A3

Figure 4 Capitol Park, Barnsley: features within areas 1 & 3

Area 2
Section 4



Area 1
Section 1



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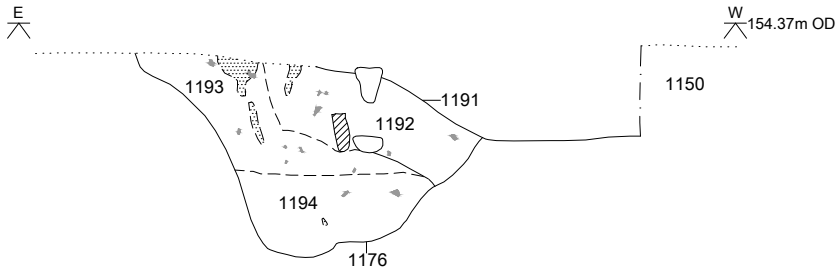

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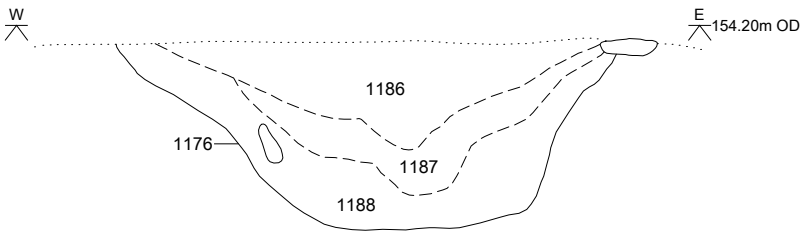
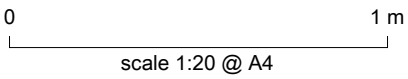




KEY

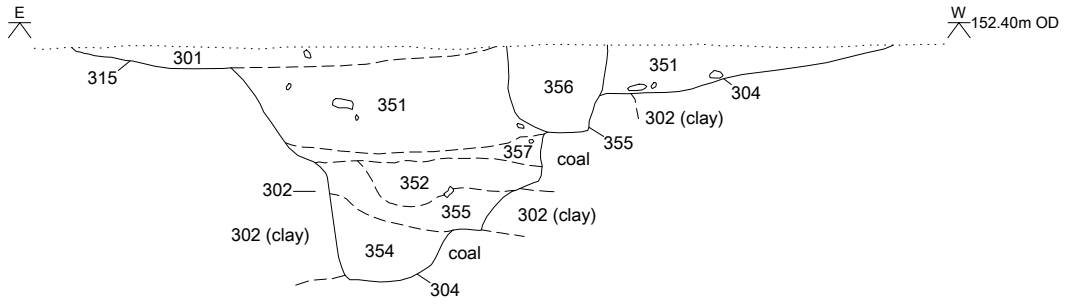
coal

root disturbance

stone void

Figure 5 Capitol Park, Barnsley: sections

Section 29



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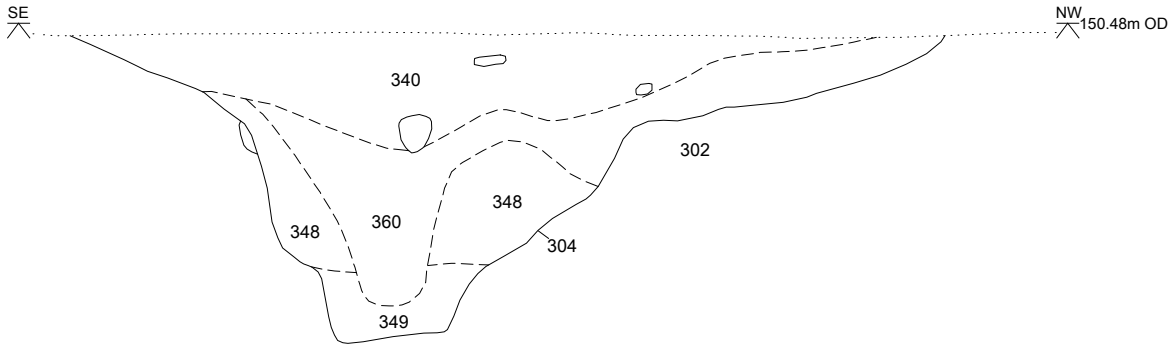
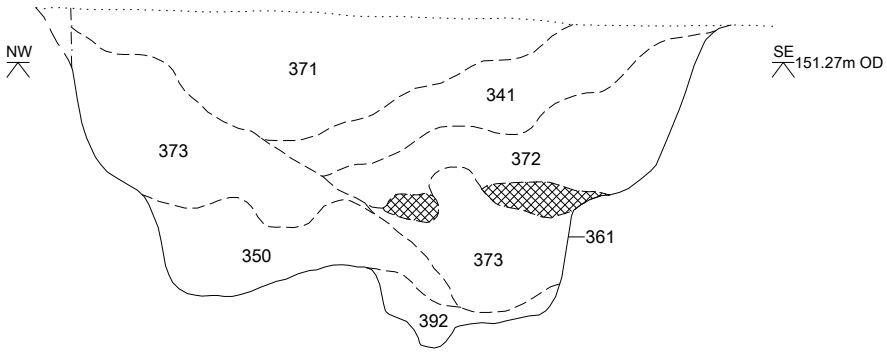


Section 33



Section 43

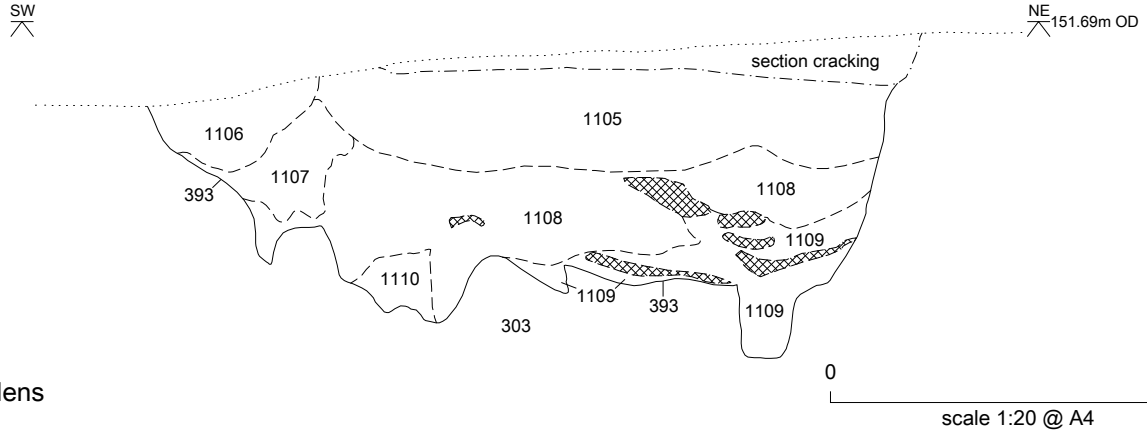
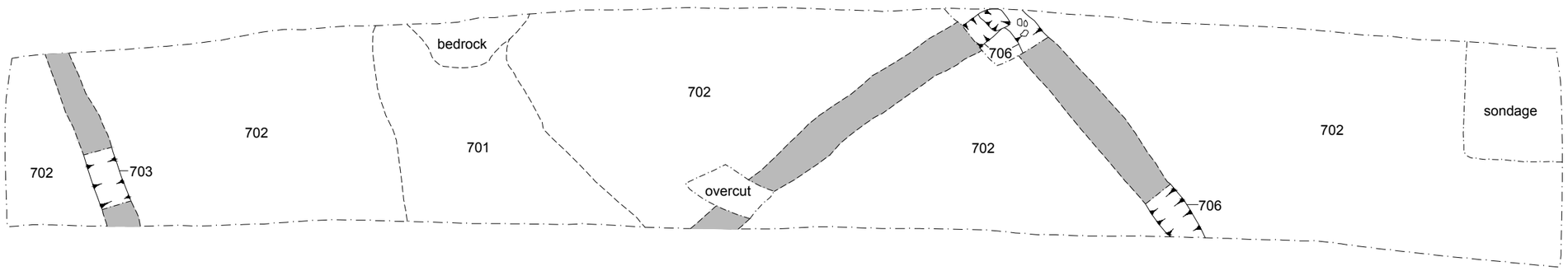
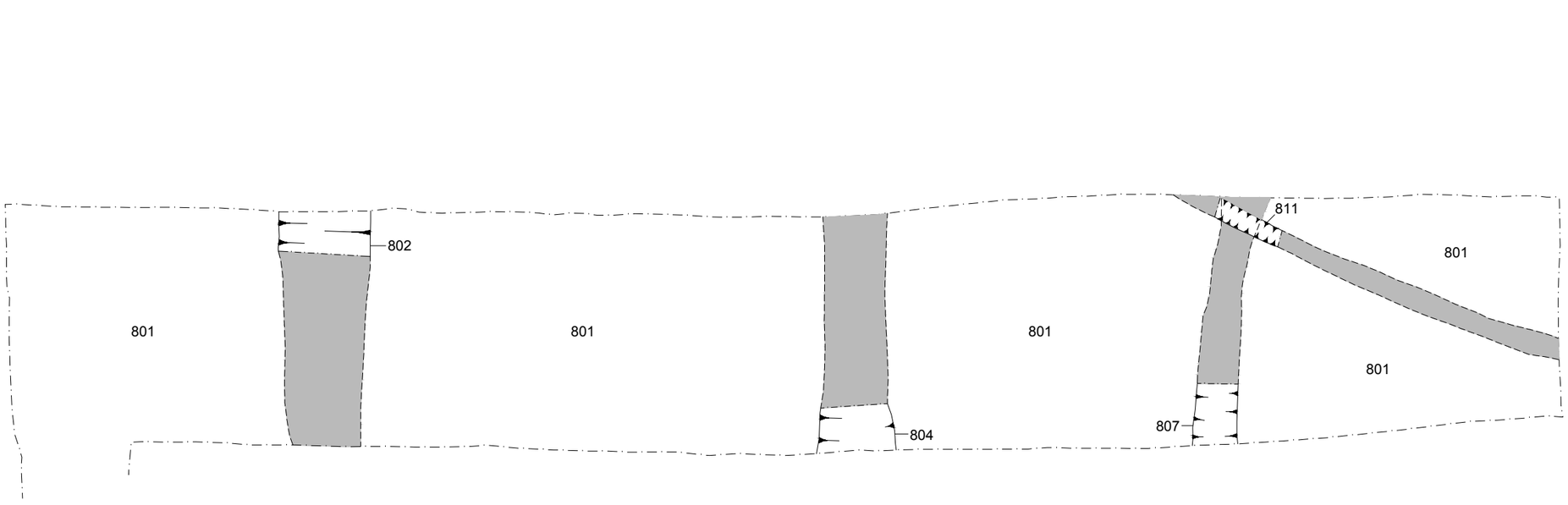


Figure 6 Capitol Park, Barnsley: sections

Trench 7



Trench 8



KEY

post-medieval feature

0 5 m

scale 1:100 @ A3

Figure 7 Capitol Park, Barnsley: plans of trenches 7 and 8