

SURVEY RESULTS

2006 / 65 Home Park Flower Show Area, Hampton Court

1. Survey Area

- 1.1 Following discussions with *Oxford Archaeology* magnetic survey was carried out at six locations (Areas 1-6). An area of just under four hectares was sampled - slightly less than originally planned because of the presence of trees and golf course features.
- 1.2 The survey grid was set out by *GSB Prospection Ltd* using a Trimble dGPS system.

2. Data Processing and Display

- 2.1 The magnetic data have been pre-processed by removing baseline shifts due to zig-zag data collection. Where appropriate, traverses have been corrected for minor misalignments; these are due to variations in walking speed, which are usually a result of ground conditions or topography. Unless stated it should be assumed that no filtering has been undertaken on the datasets collected in this project. In some greyscale plots the data may have been interpolated, which reduces pixelation in the image.
- 2.2 Figure 2 is a summary greyscale plot and Figure 3 a summary interpretation; both at a scale of 1:2500. Figure 4, also at 1:2500, compares features identified in the Oxford Archaeology (2006) report with the interpreted magnetic anomalies.
- 2.3 The results are also displayed as XY traces and greyscale images at a scale of 1:500 on the Archive CD. These display formats and the interpretation categories used are discussed in the *Technical Information* section at the end of the text.

3. General Considerations and Complicating factors

- 3.1 Conditions for survey were good; the areas investigated were free of obstructions and had a short grass cover.
- 3.2 While carrying out the survey numerous concentrations of debris were noted in the topsoil, presumably associated with the recent Flower Show. The debris comprised tent pegs, large iron staples and bars plus a multitude of nuts and bolts etc. All of these have clearly added to the high background magnetic levels and will have masked any weaker archaeological type responses.
- 3.3 In the following text the letters and numbers (*OA Nos*) refer to features identified in the Oxford Archaeology (2006) report and the letters (A - L) refer to geophysical anomalies highlighted in the interpretation figures. The areas were surveyed sequentially according to where the deer were present in the Park at the time of the survey; hence the apparent haphazard numbering of the sample blocks.

4. Results of Detailed Survey

Area 1

- 4.1 The main feature of archaeological interest in this area is the Coombe Conduit (*OA 165*) commissioned in 1538 by Henry VIII to provide the Palace with a reliable source of water. The line of this feature is shown on a number of maps (see Figures 1 to 3). The conduit was upgraded at various points during its history and although it is thought in places to have been originally brick built, it may have been replaced by a cast iron pipe (*OA 256*).
- 4.2 The magnetic data show a very clear linear anomaly (A) that is thought to represent the Conduit. The responses suggest the presence of an iron pipe, but it is conceivable that a brick built structure could result in similar magnetic responses, depending upon the way the Conduit was constructed and how the bricks were fired. The apparent curving nature of the response is interesting and perhaps supports a view that the feature is brick built, though the possibility that the magnetic responses relate to a totally separate, unrecorded service pipe, cannot be ignored. A tankin, reported to be in this area (*OA 152*) could be magnetic anomaly (B) but this would then lie off the projected line of Coombe Conduit. Unfortunately the presence of horses and carriages did not permit investigation of the course of the anomaly (A) up to the point where it joins the North Canal. The iron railings are also likely to have masked the magnetic readings.
- 4.3 Immediately north of Coombe Conduit is the course of (the later cut) Longford River (*OA 176*). Today it survives as a prominent earthwork comprising two clear banks. The general line of this feature shows as an area of less disturbed magnetic responses (C) that clearly reflect the infilled deposits.
- 4.4 Bomb craters have been identified from aerial photographs at (*OA 252*); allowing for a discrepancy in the plotting, the anomalies (D) could indicate one of these features.
- 4.5 A small earthwork feature (*OA 177*) and a possible pipe or conduit (*OA 278*) noted in the DBA are not visible in the data.
- 4.6 South of the line of Coombe Conduit the area alongside the trees at the edge of the Long Water is magnetically very disturbed (E). This is presumed to be associated with past Flower Shows (see Paragraph 3.2) or possibly WWII disturbance. If archaeological features are surviving in this area their presence will have been masked magnetically by the modern effects.

Area 2

- 4.7 There is a scatter of ferrous noise and disturbance in this sample block but to a much lesser extent than in Area 1 (see Figure 2). It is possible that the magnetic anomalies (F), which are indicative of ferrous (or possibly fired) material, coincide with a slight earthwork feature referred to in the DBA (*OA 178*)

Area 3

- 4.8 While the linear earthwork feature (*OA188*) does not show magnetically, there are several other linear anomalies in the data that that may be of archaeological interest. They are highlighted on the interpretation (G and H) but unfortunately lack any clear shape or form. As such it is difficult to be specific about their origin; the survey was extended by 20m to the south, outside the area of immediate interest, but this failed to resolve the issue. The responses could indicate former ditches, perhaps associated with enclosures, or they may simply represent landscaping, the golf course or WWII activity.

Area 4

- 4.9 The aim of this sample block was to investigate an area where numerous services are planned to converge (see Figure 1). Survey covered the main area threatened but was not possible south and east of the road due to one of the golf course greens and other associated obstacles.
- 4.10 The results are dominated by two strong linear responses (I and J). These are characteristic of ferrous services, or just possibly small brick built features, though the latter is an unlikely interpretation. It is interesting to note the presence of two features in the DBA (OA 181) described as former paths and very close to this location. It is possible that one of the anomalies relates to this so-called path or that the feature visible on aerial photographs is in fact a service.
- 4.11 Elsewhere the results are again magnetically disturbed; as such, no features of archaeological potential have been recognised but they could easily be masked by the disturbance.

Area 5

- 4.12 This sample lies in an area known to have WWII trenches in the vicinity (OA 168) and as such the responses at (K) could be of interest. They comprise a series of broken linear anomalies, both positive and negative, that could be interpreted in a number of ways. They may indicate land drains, former ploughing or some form of entrenchment associated with the WWII activity. Again the ground surface shows signs of recent disturbance associated with the Flower Show and this also could explain the magnetic results.
- 4.13 There are a few curvilinear trends in the data but in the absence of a wider archaeological context it is impossible to say whether they might indicate features of interest.

Area 6

- 4.14 A ferrous pipe (or possible brick feature – see Paragraph 4.10) (L) dominates the results from this area. There was also evidence of recent trenches / slots having been dug into the ground and these would account for much of the ‘noise’ in the results. Although a few trends have been highlighted on the interpretation, their significance, if any, remains unclear in archaeological terms.

5. Conclusions

- 5.1 The magnetic survey has identified the probable line of Coombe Conduit, though it is possible that a previously unrecorded service has been mapped. Other features noted in the DBA have also been recorded, though the correlation between the described features and the geophysical results is not always clear. A few features of possible archaeological interest have been mapped that were not known prior to the survey.
- 5.2 A major problem with the survey has been the extent of the magnetic disturbance that is thought to have resulted from ground disturbance associated with past Flower Shows. As a consequence the amount of geophysical survey was reduced in the sample areas.

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Date of Survey: 29th – 31st August 2006 **Date of Report:** 25th Sept 2006

References:

Oxford Archaeology, 2006

Hampton Court, Home Park: Archaeological Desktop Assessment.
Issue No: 1, OA Job No: 3324, unpublished.

SITE SUMMARY SHEET

2006 / 65 Home Park Flower Show Area, Hampton Court

NGR: TQ 165 680

Location, Topography and Geology

The study area comprises the site of an annual Flower Show held at the western end of Home Park at Hampton Court Palace (see Figure 1). The sample blocks under investigation were confined to areas of short grass within the park which is partially used as a golf course. In general, apart from localised earthworks, the areas were flat and positioned so that they were free of obstructions. The geology is gravel of the first Thames Terrace overlain in part by Brickearth which supports a light, fertile and free-draining soil. The lower areas of the parkland near to the River Thames may have alluvial deposits covering earlier archaeological deposits.

Archaeology

The archaeology of the study area is reported upon in a document prepared by Oxford Archaeology (2006). A number of features of archaeological interest may be affected by the proposed installation of services connected with the Flower Show. These features include the line of Coombe Conduit, several former park paths, some un-classified earthworks and several Second World War defences, including two possible bomb craters.

Aims of Survey

A primary aim of the geophysical survey was to establish the line of Coombe Conduit and to investigate a sample of the areas likely to be affected by the laying of new electrical and water services for the Flower Show. The work forms part of a wider archaeological assessment being carried out by **Oxford Archaeology** on behalf of the **Historic Royal Palaces**.

Summary of Results *

The magnetic survey appears to have successfully pinpointed the course of Coombe Conduit, though it is uncertain if the anomaly detected (on the projected line of the feature) relates to a brick built conduit or perhaps a replacement iron pipe, or even a combination of the two. Other features of potential interest highlighted in the Desk Based Assessment (DBA) (Oxford Archaeology 2006) have also been identified though the interpretation of some of the magnetic anomalies remains unclear.

Many of the sample areas show indications of extensive ground disturbance either associated with the construction of the golf course or in connection with past flower shows. Numerous anomalies were shown to coincide with areas that had been re-seeded or where modern debris (such as stray tent pegs etc) was visible in the topsoil. The presence of existing services has also affected the results.

Of the six sample blocks, apart from Area 1 where Coombe Conduit lies, Area 3 was seen to have the greatest archaeological potential. A number of anomalies have a shape and form that is indicative of buried ditches or similar features, though the lack of any clear pattern makes an archaeological interpretation difficult. It is possible that the responses are associated with World War II activity or indeed landscaping associated with the golf course.

*** It is essential that this summary is read in conjunction with the detailed results of the survey.**

Background information taken from Oxford Archaeology 2006.

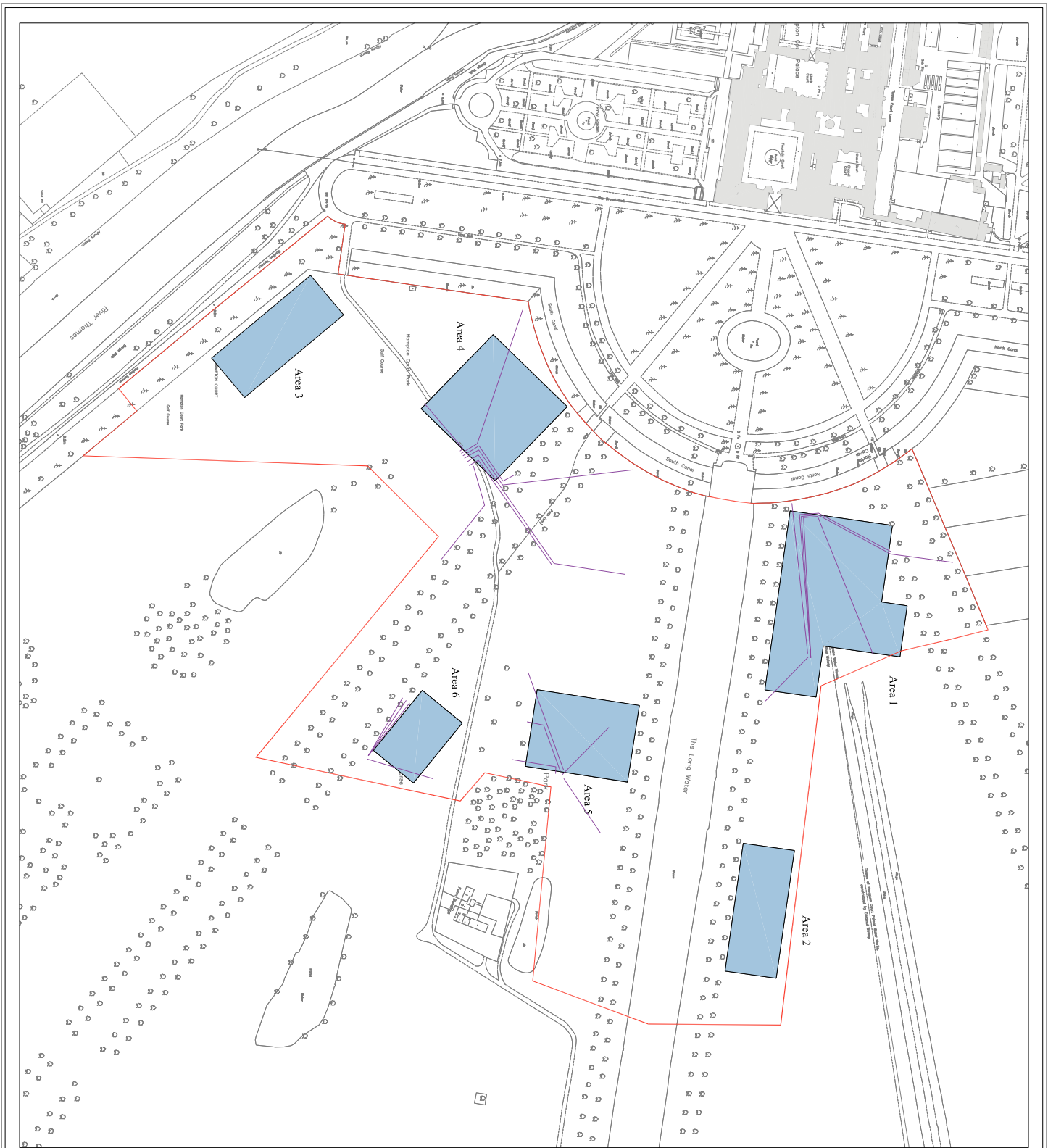
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Archive CD

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PROJECT: 2006/65 Home Park Flower Show Area,
Hampton Court Palace

TITLE: Location of Survey Areas

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-  Outline of Flower Show Area
-  Proposed Services
-  Gradiometer Survey Areas

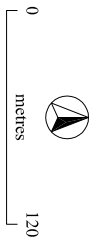


Figure 1



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PROJECT: 2006/65 Home Park Flower Show Area,
Hampton Court Palace

TITLE: Summary Greyscales

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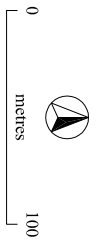
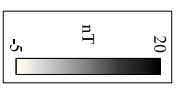
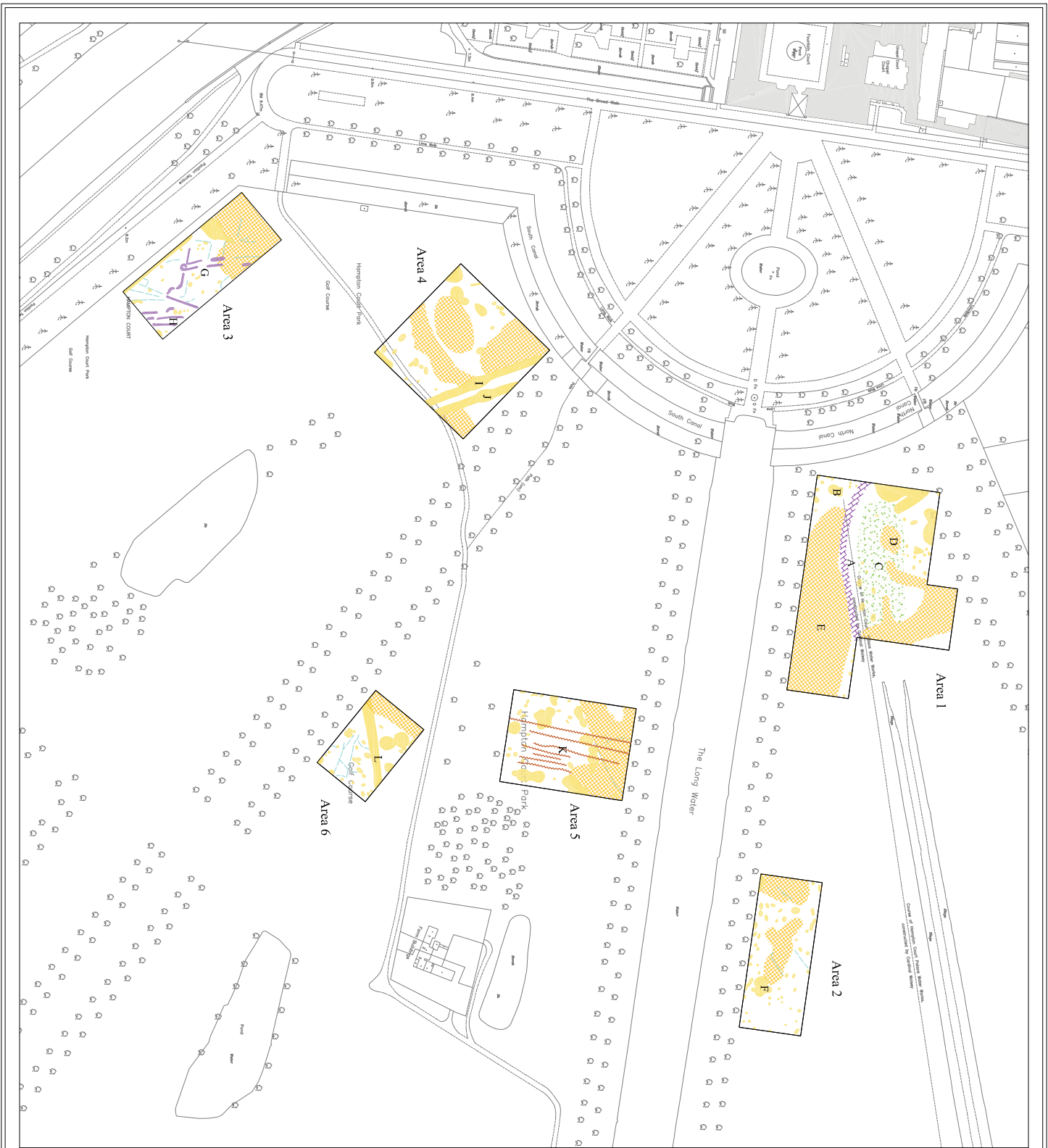


Figure 2



GSB PROSPECTION LTD.
 PROJECT: 2006/65 Home Park Flower Show Area,
 Hampton Court Palace
 TITLE: Summary Interpretations
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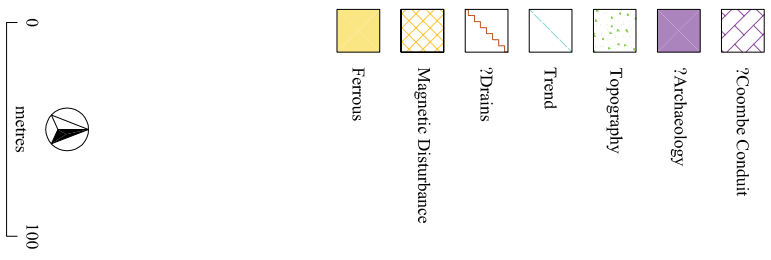
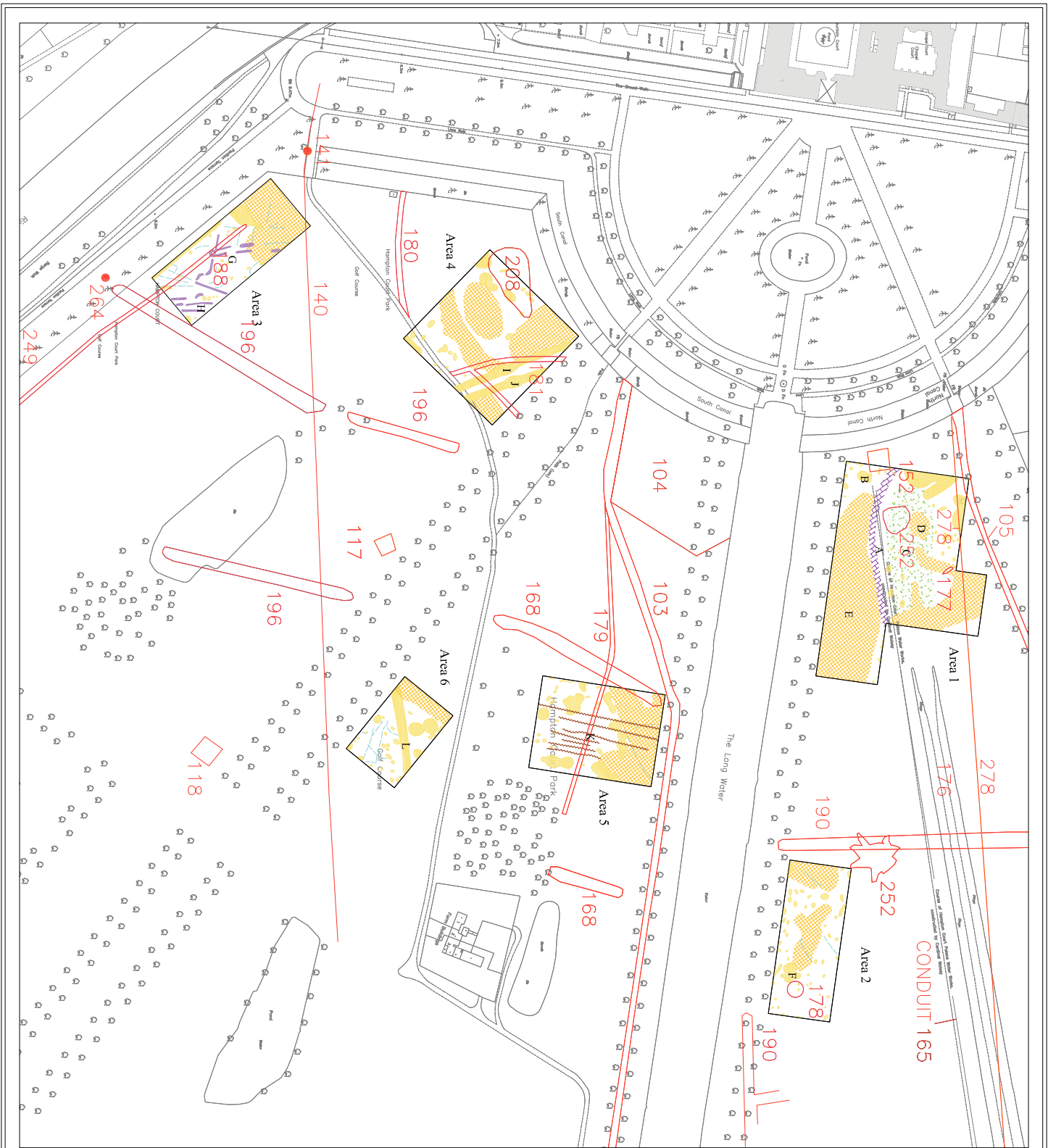


Figure 3











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PROJECT: 2006/65 Home Park Flower Show Area,
Hampton Court Palace

TITLE: Geophysical Interpretation & Known
Archaeology

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-  Archaeology as shown on AP's and Historic Documents
-  Coome Conduit
-  Archaeology
-  Topography
-  Trend
-  Drains
-  Magnetic Disturbance
-  Ferrous

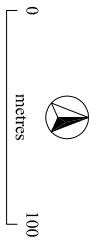


Figure 4