



Northamptonshire County Council

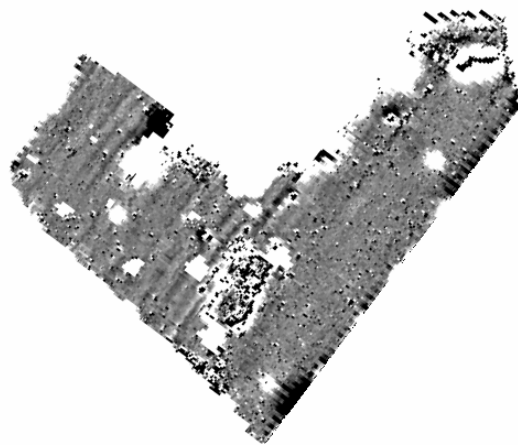
Northamptonshire Archaeology

An Archaeological Geophysical Survey

At Rushden Hospital

Northamptonshire

August 2009



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August 2009

Report 09/110

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RUSHDEN HOSPITAL

OASIS REPORT FORM

PROJECT DETAILS		
Project name	Archaeological Geophysical Survey at Rushden Hospital, Northamptonshire	
Short description	Northamptonshire Archaeology was commissioned by Arup to conduct approximately 2ha of magnetic gradiometer survey across an area of lawn in the grounds of Rushden Hospital. The survey area was observed to contain substantial ridge and furrow earthworks, which produced clear magnetic anomalies. Other anomalies could be attributed to various modern features. No significant archaeological anomalies were identified.	
Project type	Geophysical survey	
Site status	None	
Previous work	Unknown	
Current Land use	Lawn / Garden	
Future work	Trial Trenching	
Monument type/ period	Medieval Ridge and Furrow	
Significant finds	None	
PROJECT LOCATION		
County	Northamptonshire	
Site address	Wymington Road, Rushden	
Study area	2ha	
OS Easting & Northing	SP 9585 6585	
Height OD	circa 80m AOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	Arup	
Project Design originator	NA	
Director/Supervisor	John Walford and Ian Fisher	
Project Manager	Adam Yates	
Sponsor or funding body	Arup	
PROJECT DATE		
Start date	18 th August 2009	
End date	18 th August 2009	
ARCHIVES	Location	Content
Physical	N/A	
Paper	NA	Site survey records
Digital	NA	Geophysical survey & GIS data
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	
Title	Archaeological Geophysical Survey at Rushden Hospital, Northamptonshire	
Serial title & volume	Northamptonshire Archaeology Reports 09/110	
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**ARCHAEOLOGICAL GEOPHYSICAL SURVEY AT RUSHDEN HOSPITAL,
NORTHAMPTONSHIRE
AUGUST 2009**

ABSTRACT

Northamptonshire Archaeology was commissioned by Arup to conduct approximately 2ha of magnetic gradiometer survey across an area of lawn in the grounds of Rushden Hospital. The survey area was observed to contain substantial ridge and furrow earthworks, which produced clear magnetic anomalies. Other anomalies could be attributed to a former tennis court and various other modern features. No significant archaeological anomalies were identified.

1 INTRODUCTION

Northamptonshire Archaeology was commissioned by Arup to conduct an archaeological geophysical survey on a parcel of land, approximately 2ha in extent, adjacent to the present buildings of Rushden Hospital (NGR SP 9585 6585; Fig 1). The purpose of this survey was to investigate the presence or absence of archaeological remains prior to the proposed erection of new hospital buildings.

2 TOPOGRAPHY AND GEOLOGY

The survey area lies at a height of approximately 80m AOD and is generally flat. The geology is mapped as boulder clay (BGS 1974). The area is presently occupied by a lawn and several large trees.

3 ARCHAEOLOGICAL BACKGROUND

The hospital is situated close to the historic core of Rushden, a medieval village.

The oldest of the present buildings on the site is the former Rushden House, built in 1871. This began life as a private dwelling, set in extensive gardens, and was subsequently employed as a POW camp during the First World War. To the north-east is Rushden Hall Park which contains earthworks of unknown date, though probably preceding the park (NHER: MNN104047). The development of the present hospital on the site began in the 1920s (Rushden & District Heritage Society 2009).

4 METHODOLOGY

The survey was conducted with Bartington Grad 601-2, twin sensor array, vertical component fluxgate gradiometers (Bartington and Chapman 2003). These are standard instruments for archaeological survey and can resolve magnetic variations as slight as 0.1 nanotesla (nT).

The site was divided up into 30m x 30m grid squares, which formed the basic unit of survey. These were set out manually by tape measure and optical square, and were tied in by means of a Leica System 1200 dGPS. The gradiometers were carried at a brisk but steady pace through each grid, collecting data along 1m spaced traverse lines. Measurements were automatically triggered every 0.25m along the traverses, giving a total of 3600 measurements per grid.

All fieldwork was carried out in accordance with the guidelines issued by English Heritage, and by the Institute for Archaeology (EH 2008; Gaffney, Gater and Ovendon 2002).

The data was processed using Geoplot 3.00u software. Striping, caused by slight mismatches in sensor balance, was removed using the 'Zero Mean Traverse' function and destaggering of the data was performed as necessary.

The processed data is presented in this report in the form of a greyscale plot (scale +4nT to -4nT black ~ white). This has been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2). An interpretative plot has been produced and is shown overlain onto the data in Figure 3.

5 SURVEY RESULTS

Regularly spaced parallel linear anomalies detected across the western half of the site coincide with a set of ridge and furrow earthworks which indicate an area of medieval arable cultivation.

The large, approximately rectangular, area of magnetic noise in the centre of the survey area coincides with a slight earthwork platform overlying the ridge and furrow. This is believed to represent the remains of a former tennis court.

A strongly dipolar linear feature at the extreme north-east of the site coincides with a shallow, angled, earthwork reminiscent of a partially infilled ditch. This may mark the corner of a boundary recorded on an undated aerial photograph of the site (Rushden & District Heritage Society 2009). However the strength of the magnetic anomaly points to a high ferrous content in the ditch fill, possibly steel wire or iron fence-posts deposited as the boundary was changed.

Several small dipolar anomalies are related to modern manholes, or to iron props supporting trees. There is a widespread scatter of minor anomalies, indicating small pieces of buried ferrous debris. Magnetic halos at various points around the edge of the data reflect the presence of adjacent fences and buildings.

Some small areas of the site were deemed not surveyable due to trees and other obstructions. These are indicated on figure 3.

6 CONCLUSION

The survey has identified no clear anomalies of potential archaeological significance. The anomalies detected have pointed to features relating to medieval agriculture and the post-medieval and modern uses of the site, q.v. the tennis court.

BIBLIOGRAPHY

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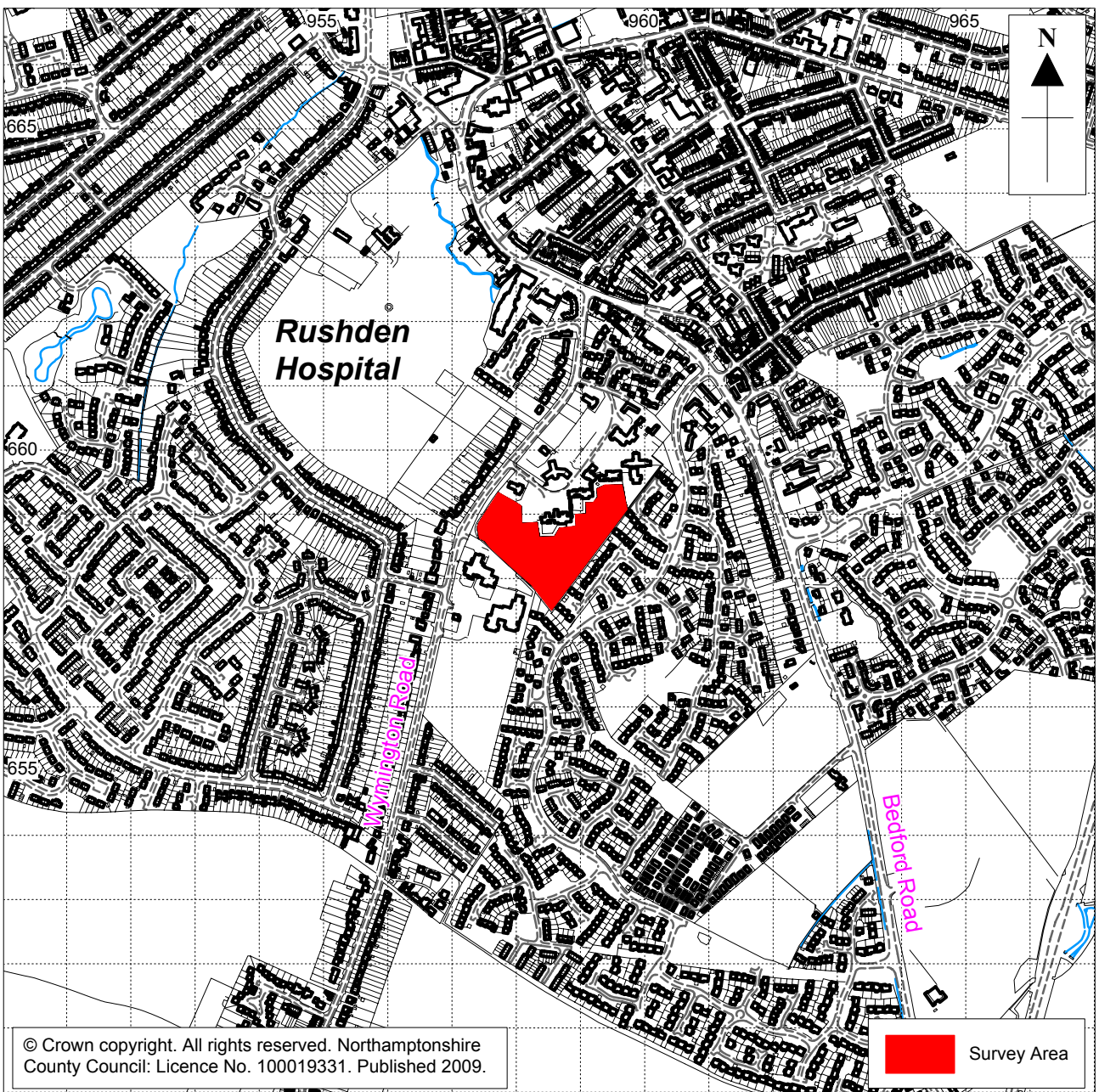
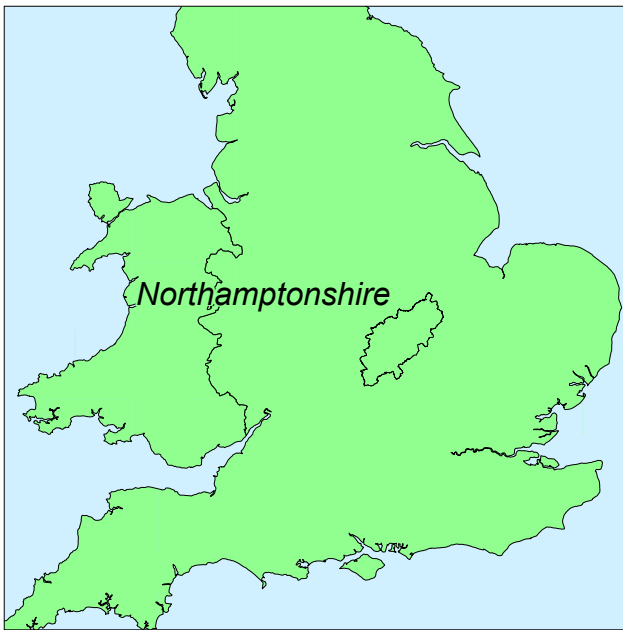
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Scale 1:10,000

Location Figure 1



Scale 1:2500

Gradiometer Survey Results Fig 2



Scale 1:2500

Gradiometer Survey Interpretation Fig 3