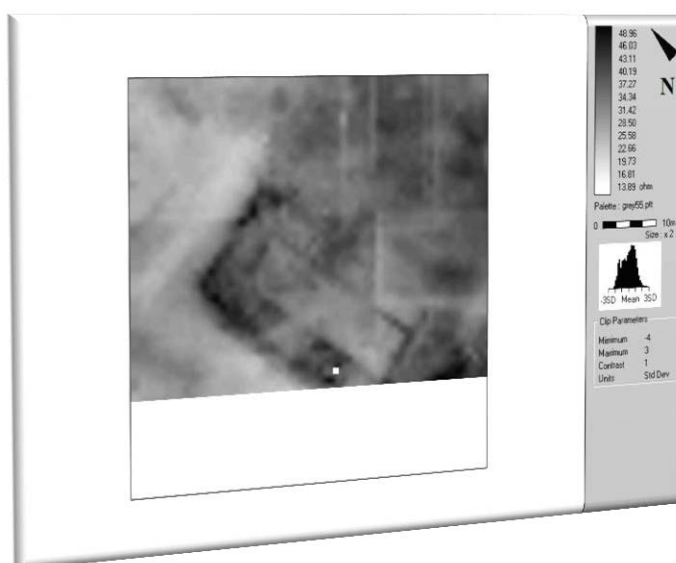




‘The Roman Families Project’

Roman Park Playing Fields, Credenhill: A Geophysical Survey.



Herefordshire Archaeology Report No 342.

EHE80053

May 2014

Herefordshire Archaeology

Places and Communities Directorate

Herefordshire Council

***This project has been made possible by funding from the MOD Armed Forces
Community Covenant Grant***





‘The Roman Families Project’

Roman Park Playing Fields, Credenhill: A Geophysical Survey.

May 2014

NGR: 344520 243145

EHE80053

This report has been compiled by:

Christopher Atkinson, BA (Hons),

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Cover Image: *Results of the Resistance Survey carried out upon the Roman Park Playing Fields, Credenhill. © Geoplot Version 3.0 [2014]*

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Summary

This investigation was carried out as part of the Roman Families Project, a project established by Herefordshire County Council. This project has been made possible by funding from the MOD Armed Forces Community Covenant Grant.

Discussed within this report are the results of a geophysical survey carried out by eight schools from across Herefordshire under the supervision and guidance of staff from Herefordshire Council's archaeology service. The investigations formed the first of multiple events focussed on the involvement of both military and civilian families and schools in the exploration of a previously uninvestigated Roman settlement site located to the north of the Roman Town of Magnis.

Alongside the geophysical investigations pupils of the attending schools had the opportunity to engage with a re-enactor dressed as a Roman soldier and learn about the Roman conquest and about life in the army. As well as this, pupils gained hands-on experience in the interpretation of Roman artefacts by means of a sand pit investigation containing pottery artefacts discovered from across the region.

The results of the investigation identified the foundations of a substantial stone foundationed structure with a central courtyard. The identified foundations not only showed the general size and shape of the structure, but the results of the resistance survey also identified the foundations of a number of partition walls, suggesting the presence of multiple compartments/rooms within the structure.

Without further investigation, by means of a community excavation (planned for July 2014), it is difficult to ascribe a date to the structure identified. However the presence of an internal courtyard, the rectangular plan of the structure and its situation within a rectangular ditched enclosure would suggest a likely Romano-British date.

This Report follows the practice as formulated by the Institute For Archaeologists (*Ifa*), Standard and Guidance for archaeological geophysical survey (IFA, 2011).

1.0 Introduction

The Roman Families Project is a Herefordshire County Council Project, made possible by funding from the MOD Armed Forces Community Covenant Grant.

The Roman Families Project aims to involve and attract families, youth groups and local inhabitants of the Credenhill Garrison community in the archaeological investigations of 'Roman Credenhill', in particular the area immediately around the Roman town of Kenchester (Magnis). The project intends to enable families from both the military and civilian realms (both adults and youth) to work as a team within an entirely different setting and acquire new skills and experiences through the process of archaeological investigation and event days. The project focuses upon an enclosure site within the Roman Park Playing Fields, Credenhill; a park held by Herefordshire Council and maintained by the Credenhill Parish Council. Investigations of the site are to proceed with a geophysical survey of which this is the report; this will subsequently lead on to an excavation in late Summer 2014.

The geophysical survey, however, formed only one part of these initial investigations. Accompanying the week-long survey (7th to 11th April 2014), school groups with pupils from both a military and civilian background were invited to help in the geophysical analysis, but also to learn more about life in Iron Age and Roman Credenhill. The event involved a Roman legionary re-enactor who discussed with pupils the history of the region as well as life in the Roman Army. There was also a chance for pupils to experience archaeological Roman artefact discovery, cleaning and interpretation.

It is the intention of the investigation to improve the general understanding of the Roman occupation within this region, but it will also engage and inform members of the military and civilian communities of the 'heritage beyond their door-step'.

2.0 Location and geology

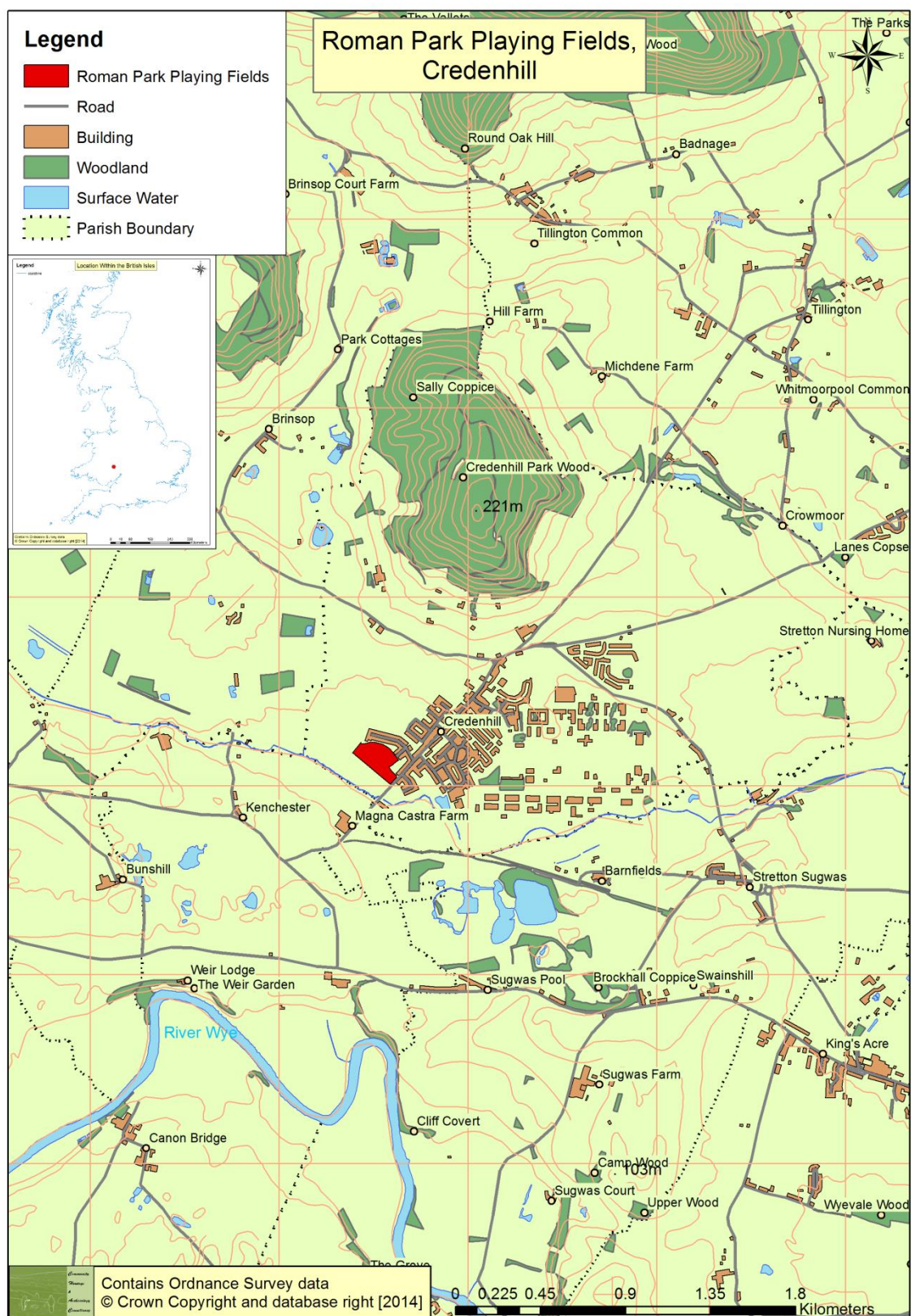


Figure 1: Location of the Roman Park Playing Fields, Credenhill. Contains Ordnance Survey data © Crown copyright and database right [2014]

The Roman Park Playing Fields is situated to the south of the village of Credenhill, Herefordshire (NGR: 344520 243145). The Roman Playing Fields are used for sport and recreation activities with facilities including both a full-size and half-sized football pitch, sports pavilion and play area.

To the north the site is dominated by the overlooking hill of Credenhill Park Wood which stands at approximately 221m above sea level. 125m to the southwest of the Roman Park Playing Fields is the course of the east flowing Yazor Brook, beyond which the ground gently rises, representing the eastern end of a low spur that protrudes from the foot of Garnons Hill, 3km to the west. On the summit, at the eastern end of the spur approximately 350m southwest of the Roman Park Playing Fields is the site of the Roman Town of Magnis. At the foot of the spur to the south is the meandering course of the River Wye.

The Roman Park Playing Fields utilise the very gentle south-facing slopes that form the foot of a shallow valley formed during the last glacial period of which Credenhill and subsequent hills to the west as well as the spur described above represent the watershed. The Roman Park Playing Fields lie between 75 and 80m above sea level.

The underlying bedrock of the Roman Park Playing Fields consists of Interbedded Siltstone and Mudstone of the Raglan Mudstone Formation formed approximately 416 to 419 million years ago in the Silurian Period. The bedrock can measure up to 800m thick (BGS, 2014).

This is overlain by superficial glaciofluvial sheet deposits of sand and gravel formed up to 2 million years ago in the Quaternary Period, during which time glaciers deposited moraines of till with outwash sand and gravel deposits from seasonal and post glacial meltwaters (BGS, 2014).

The course of Yazor Brook to the south is dominated by superficial alluvial deposits of clay, silt, sand and gravel (BGS, 2014).

3.0 Historical and archaeological background

The parish of Credenhill is rich in heritage relating to the Iron Age and Romano-British periods. Prior to the Roman conquest, the region was dominated by the Iron Age hill top enclosure of Credenhill (HER 906) located in Credenhill Park Wood.

With the Roman conquest, the Roman road, Watling Street West, that runs through the centre of Credenhill on a roughly northeast-southwest alignment was established. It was during the pre-Flavian era (48-69AD) that the road, along with the hill top enclosure of Credenhill, formed part of the Roman military frontier against the British tribes to the west such as the Silures and Ordovices (Arnold & Davies, 2000).

Following the conquest period the road through Credenhill was one of the main thoroughfares linking the Roman Town of Magnis (located some 300m to the south of the Roman Park Playing Fields) with the Roman towns of Wroxeter to the north and Gloucester to the south.

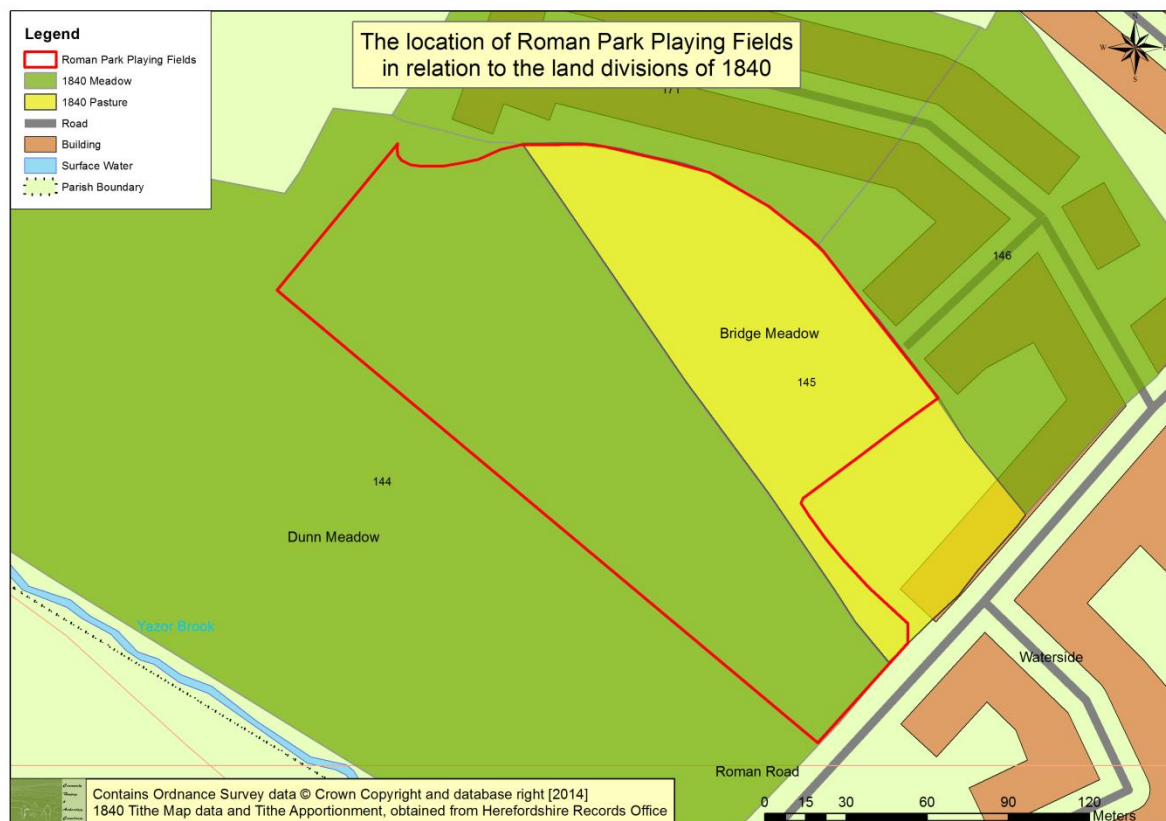


Figure 2: Land divisions at the time of the 1840 Tithe Survey and their relation to the later Roman Park Playing Fields. Contains Ordnance Survey data © Crown copyright and database right [2014]

The site of the Roman Park Playing Fields itself does not have any identified association to Roman activity within the region however. The outline of the field is modern with the exception of the curvilinear northern boundary which marked the northern extent of a narrow northwest – northeast aligned field under pasture, which at the time of the 1840 Tithe Survey was known as Bridge Meadow (Figure 2). The remainder of the playing fields lay within Dunn Meadow, which extended to the south bounded by the flow of the Yazor Brook. To the east both Dunn Meadow and Bridge Meadow are bounded by the course of the Roman Road.

The boundary that divided the two fields (Figure 2) was utilised during the First World War and incorporated into a track that serviced a munition depot that stretched along its southern edge. The structures formed one of two storage depots established to support the National Filling Factory at Rotherwas (HER 22555) constructed by November 1916 (Blackwell, 2013).

Although the structures no longer exist within the field, aerial photography has identified their location as parch marks (Figure 3). The course of the track remains visible as a low, broad bank earthwork within the field.

It is as a result of aerial photography that the site in which this investigation is centred was first identified. Across the Roman Park Playing Fields and the surrounding fields to the south and west, cropmarks have been identified outlining ditched land divisions that appear to predate any of the divisions identifiable from historic mapping resources (HER 10165). Amongst the early field divisions are at least two rectangular ditched enclosures, one of which lies within the Roman Park Playing Fields, south of the foundation parch marks associated with the munitions depot.

An aerial photograph taken in 1975 (Figure 3) clearly shows the details of the ditched enclosure including, within the western half, a buried rectangular structure arranged around a central courtyard. Although the details are faint, it is possible to identify internal divisions within the structure. No clear entrance into the enclosure and structure is apparent however.

From the form and arrangement of the structure around a central courtyard, including its spatial association with the neighbouring Roman town of Magnis, it is possible

that the structure is Romano-British in date; perhaps representing a high status farm or villa complex.



Figure 3: Extract of a 1975 aerial photograph of the Roman Park Playing Fields indicating the detail of the munitions depot and the possible Romano-British rectangular enclosure (highlighted in red). © Herefordshire Historic Environment Record: 1975 RC8-BC-99

Due to the potential and interesting nature of this little known site, including its visual appeal to the general public, the enclosure site serves as a focus of the community investigations to be carried out as part of the Roman Families Project.

4.0 Aims and purpose of the evaluation

The aims of this evaluation were to:

1. to investigate by means of a geophysical survey the extent of the enclosure identified on a 1975 aerial photograph (Figure 3). This is to identify the extent of the enclosure ditch and any surviving internal features.
2. engage with the local community and armed forces community via public presentation, on-site investigation and discussion.
3. to involve local schools with both military and civilian connections with all aspects of the archaeological geophysical investigations. This included the use of a Roman re-enactor and an artefact interpretation exercise.

5.0 Methodology

The geophysical survey and its results discussed within this report were carried out as part of the initial phase of ground-based investigations as part of the Roman Families Project, undertaken between the 7th and 11th April 2014. The survey focused on an area situated within a large complex of linear features identified by aerial surveys (HER 10165). The area in question is thought to represent a sub-rectangular Romano-British enclosure complex, best observed on the 1975 aerial photograph (Figure 3).

The focus of the investigation lay close to the north-western corner of the Roman Playing Field, Credenhill (Figure 4). Earth resistance survey was favoured over the use of a magnetometer as it was expected that the investigation would encounter buried masonry and building foundations (Jones, 2008).

The survey employed a Geoscan RM15 Resistance Meter in a twin electrode configuration with the remote probes spaced 50cm apart in order to obtain resistance measurements to a depth of 75cm. In total nine block grids were evaluated (Figure 4). Three of the 20m x 20m block squares located along the southern extent of the survey area could not be investigated in their entirety due to the confines of the Roman Playing Field. This led to the total area covered measuring 60m northwest-southeast by 47m northeast-southwest.

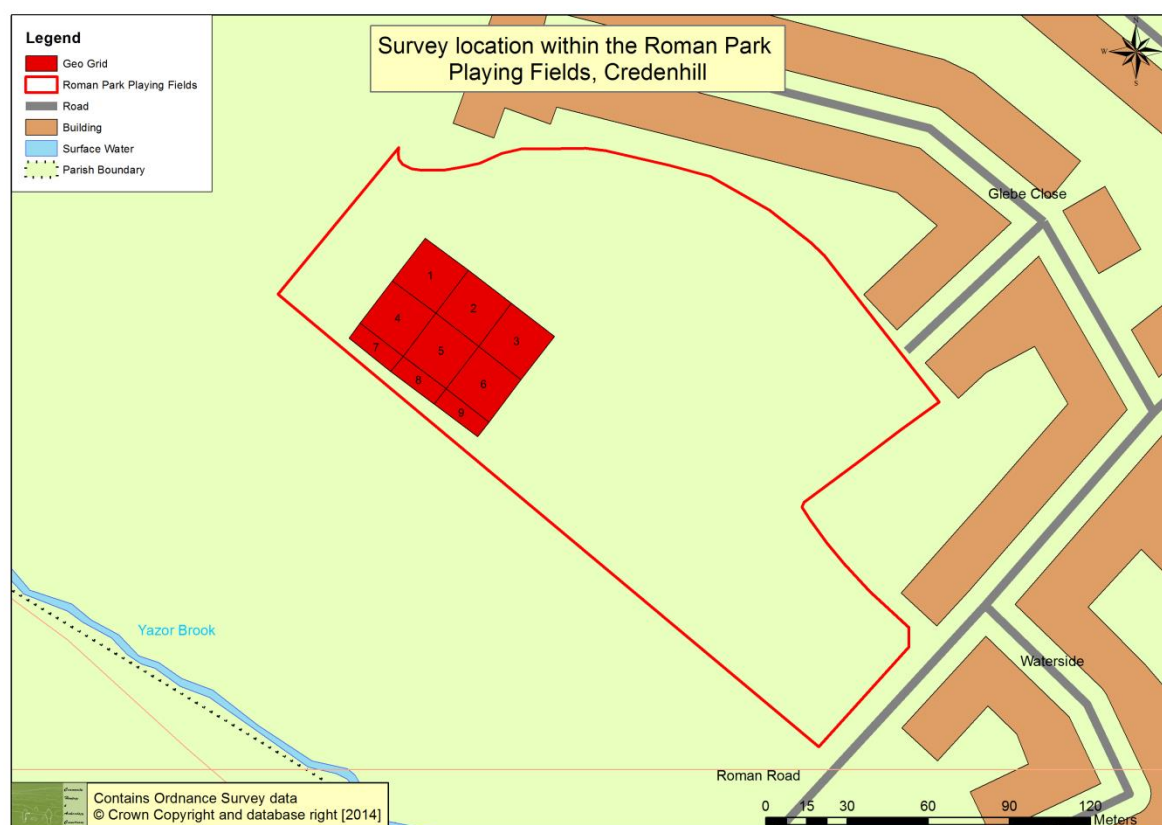


Figure 4: Location of the geophysical block squares within the Roman Park Playing Fields. Contains Ordnance Survey data © Crown copyright and database right [2014]

Within each grid square the survey commenced from the northwest corner and proceeded east along 1m wide traverses in a zig-zag pattern. Sample readings were obtained at 1m intervals.

The site grid was surveyed and plotted using a Leica *Builder509* Total Station which was stored and downloaded into QGIS using the total station's data logger. The results from the RM15 resistance survey were downloaded and interpreted using Geoplot 3.0 which on completion was transferred and geo-rectified into QGIS.

The map data used within this report contains information obtained online from the Ordnance Survey <https://www.ordnancesurvey.co.uk/opendatadownload/products.html>.

This report along with its georeferenced data will be made available for view by means of Herefordshire HER and OASIS. This report includes a digital archive.

6.0 Results

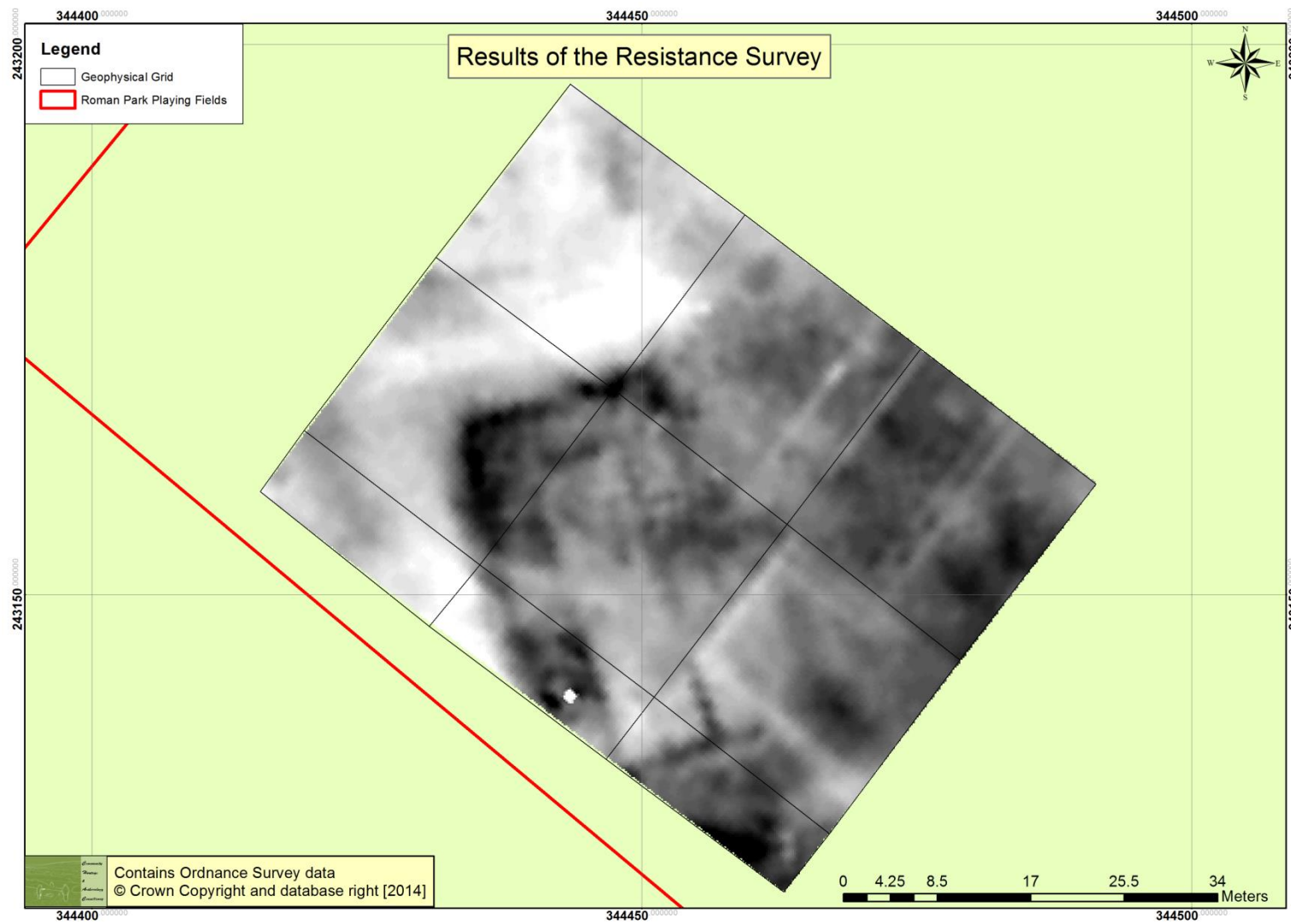


Figure 5: Results of the resistance survey. Contains Ordnance Survey data © Crown copyright and database right [2014]

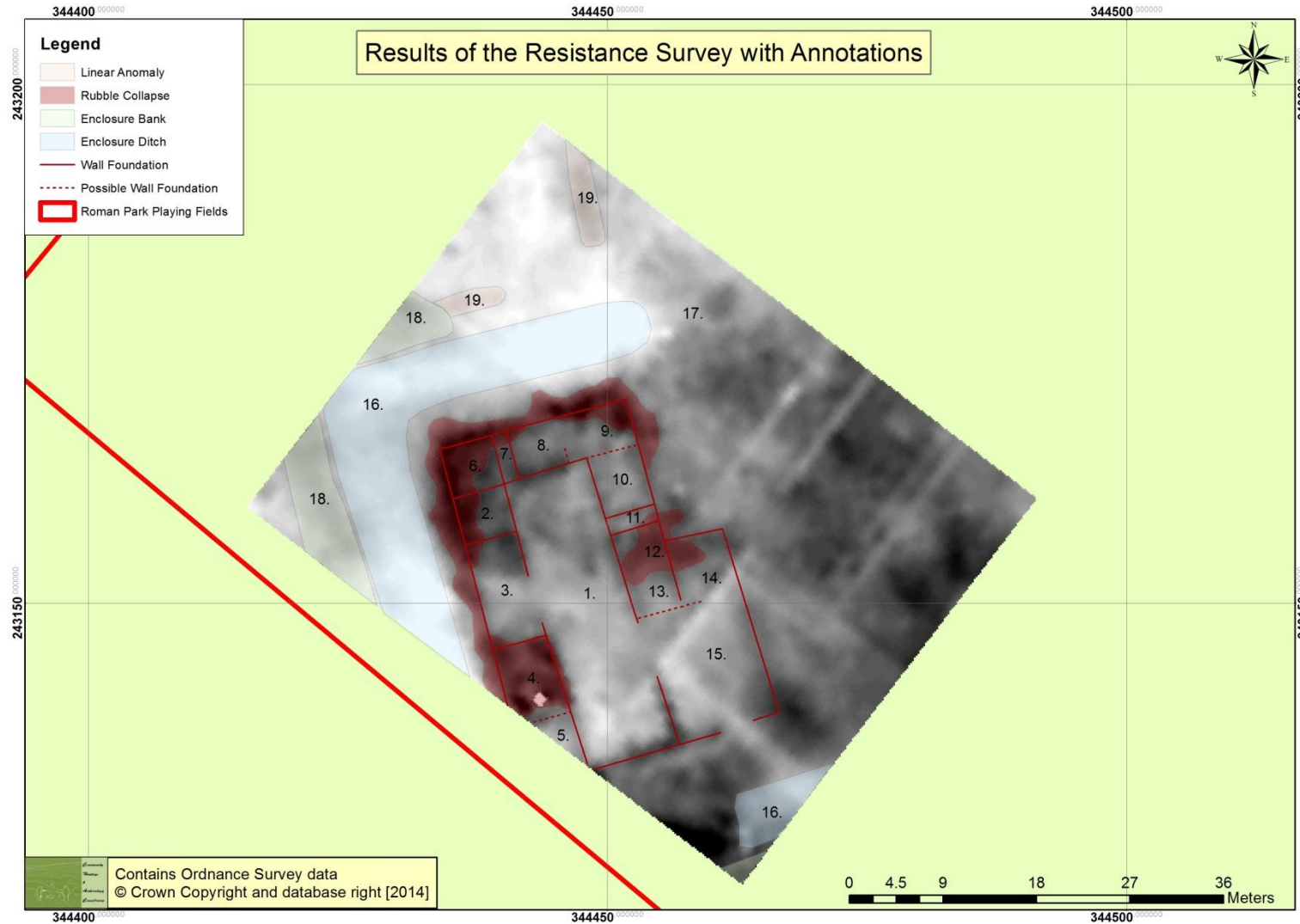


Figure 6: Results of the resistance survey including annotations. Contains Ordnance Survey data © Crown copyright and database right [2014]

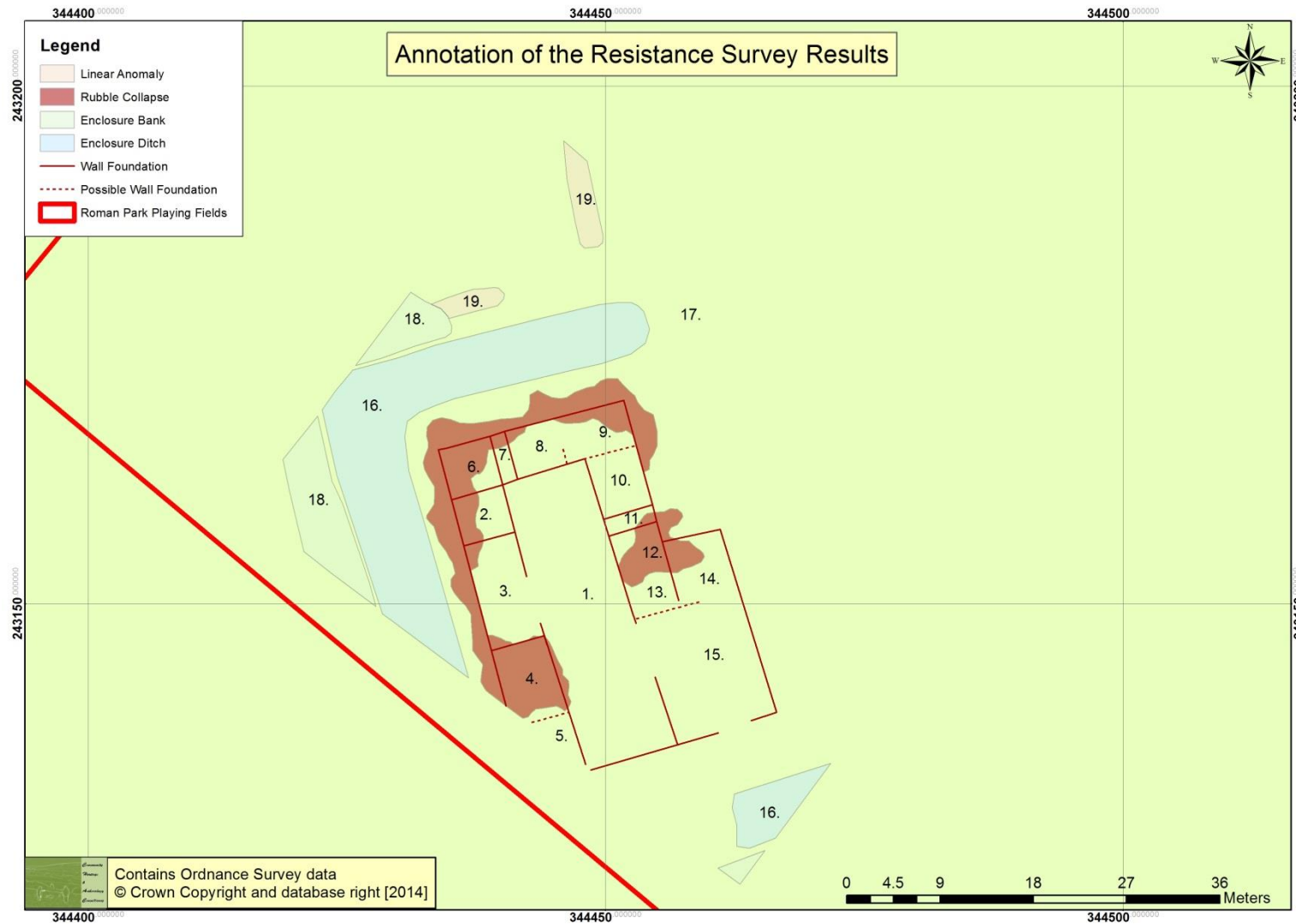


Figure 7: Annotation of the resistance survey results. Contains Ordnance Survey data © Crown copyright and database right [2014]

6.1 Structure

The resistivity survey covered an area of 60m north-south by 47m east-west and within this area a substantial structure was evident. This rectangular structure was aligned north-south and measured c.37m x 23m, it was constructed around a central 'courtyard' (1) measuring c.28m x 8m. The walls surrounding this 'courtyard' were c.1m thick and no clear evidence of a doorway/entrance was visible.

It is important to note at this point that all measurements are approximate and may be different from the actual dimensions as a result of building collapse obscuring the true dimensions.

6.2 Western Range

The western range is c.37m long by 7m wide and the exterior wall is c.1.50m wide. Again there is no clear evidence of an entrance in this wall. What is evident is that within this range are at least four compartments/rooms (2-5), three of which (3-5 - the clearest) measured c.7m north-south x 5m east-west. The northern most compartment (2) appears to contain a quantity of rubble and this disguises its true dimensions. It appears likely however that this fourth compartment is the same size as the previous three and that the northern end of this, the western range, is formed by rooms associated with the northern range. There is no visible evidence of a staircase base but the wall dimensions would allow for the possibility of a second storey.

6.3 Northern Range

The northern range is c.23m east-west and c.7m wide, north-south. Like the western range the exterior wall measures c.1.50m wide and the internal wall is the northern wall of the internal courtyard (1) and measures c.1m thick. Within this range there appear to be three compartments. The western compartment (6) measures c.7m east-west x 5m north-south and immediately to the east of this is a narrow area of low resistance (7). This is aligned north-south, measures c.1m wide and extends from the central courtyard to the exterior northern wall. This may represent a corridor access from the central courtyard to the western (6) and central (8) compartments in this range. The presence of this corridor highlights that the internal partition wall is c.0.50m wide and that it appears to be a stone rather than timber partition. This

central compartment measures c.7m east-west x c.4m north-south as does the eastern compartment (9) of this range.

6.4 Eastern Range

This range differs from the previous two in that it is in two halves. The northern half is c.17m long, north-south, from the exterior of the northern exterior wall and c.6m wide. Like the previous two ranges the external wall of this range is c.1.50m wide and the internal wall is that surrounding the internal courtyard and is c.1m wide. The northern (9) compartment in this range is previously described as the eastern compartment of the northern range. To the south of this compartment is a further compartment (10) c. 6m, north-south x 3m east-west. To the south of this is a 0.50m wide corridor (11) similar to that described in the northern range (7), but due to an area of high resistance, most likely the result of collapsed masonry, it is unclear whether this represents a corridor (11) or the northern partition of a complete compartment (12). The southern end of this range is c.20m north-south and 10m wide, east-west. This means that the eastern wall extends a further 4m eastwards beyond the line of the exterior wall of the northern section. Unlike the west wall the remaining exterior walls of this section of the range are all c.1.50m wide. Compartments within this section of the range are hard to distinguish. There do appear to be two along the north wall (13, 14), both of which are c.3m x 3m. What is less clear is how the remainder of this area (15) is subdivided

6.5 Southern Range

There does not appear to be a southern range on the survey results and it is apparent that the exterior wall noted around the rest of the building marks the southern edge as well.

There is no clear entrance into this structure.

6.6 Enclosure Ditch

To the north and west of this structure there is a clearly identifiable area of low resistance marking the location of an enclosure ditch (16) surrounding the site. Like the structure itself, this is a substantial feature, measuring c.7m wide. There are two noticeable features of this ditch: firstly that it appears to extend almost up to the

building and secondly that it has regular sides and squared corners. It also appears likely that the blurred readings marking the western wall of the building may be the result of building collapse into the ditch or even collapse as a result of undercutting. The east-west aligned section of ditch to the north of the structure appears to extend for c.35m from the west, where it appears to end, most likely marking the entrance into the enclosure (17).

The location of the enclosure entrance, along with the structural evidence, would indicate that although not visible as a result of this survey, the entrance into the structure is likely to be from the east.

6.7 Exterior Anomalies

This survey was centred on the enclosure and its contents and was not positioned to identify features beyond the enclosure ditch. It is however possible to identify several linear anomalies (19) located to the north and west of the enclosure ditch (16). An anomaly of high resistance parallel to the enclosure ditch appears to represent the remains of an external bank (18).

Within the east of the survey area and infringing upon the southern half of the identified structure are a series of linear anomalies of low resistance. It is not possible to determine the cause for these features, although their association with the western end of a well-established football pitch may be a factor.

7.0 Discussion

The results of the geophysical survey, carried out by numerous Primary School groups between the 7th and 11th April 2004 surpasses all of our expectations and the credit is theirs.

The buried remains of a multiple-roomed structure with a central courtyard are clearly noticeable, located within the western end of a large ditch with external bank enclosure. Due to the thickness of the external facing wall of the building (measuring about 1.50m wide) it is possible that the structure supported an extra floor and stood two storeys high.

It is clear however that there is a lot of debris and rubble collapse both inside and outside of the building. Outside the building much of the debris appears to have slipped down the near side of the surrounding enclosure ditch. According to the results it appears that the ditch ends close to the northeast corner of the building. This may indicate the location of the original entrance into the enclosure.

It is difficult from the results, however, to identify an entrance into the structure. Presumably this was somewhere along its eastern side as the building is tightly enclosed by a ditch to the north, south and west.

The overall results suggest, due to its typology, that the site is of a Romano-British date. From investigations across Britain and Europe the site may represent a high status farm/town house (due to its proximity to the Roman town of Magnis) or a villa type complex. This is due to similarities in relation to the structure's layout. As discussed above the structure lies within a rectangular ditch and bank enclosure which is a characteristic of many rural farms or villas, but it is the structure itself, the arrangement of rooms around a central courtyard which is indicative of town houses, farms and villas alike (Figure 8 and 9).

The results of this investigation will be used to plan the location of the community excavation to be carried out as part of the Roman Families Project.

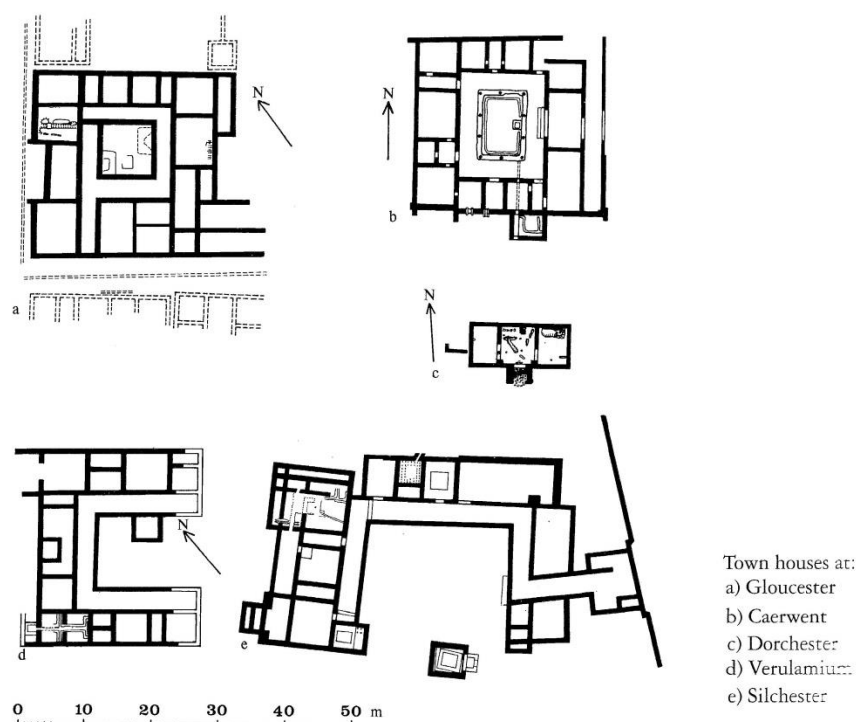


Figure 8: Examples of Romano-British town houses investigated from across England and Wales. Extract from Wachter, J, 2001, p. 78)

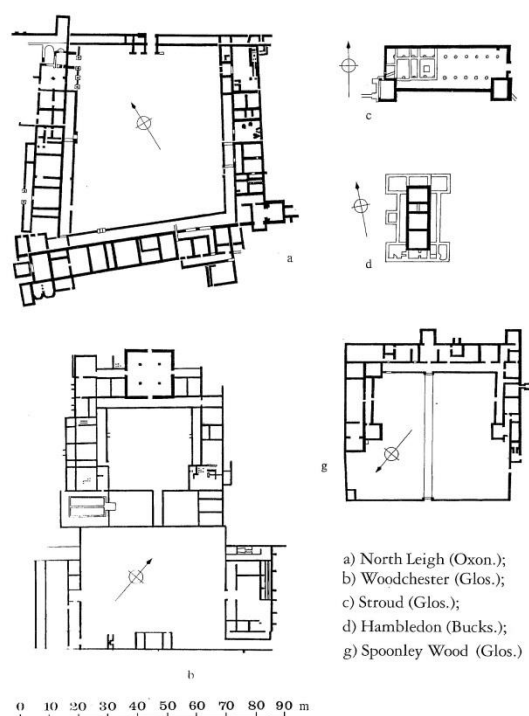


Figure 9: Examples of Romano-British Villa complexes from across England and Wales. (Extract from Wachter, J, 2001, p.117)

8.0 Acknowledgements

It is with thanks that we acknowledge the support of the **MOD Armed Forces Community Covenant Grant** who awarded and continue to support the Roman Families Project through the provision of grant aid.

We gratefully thank the members of **Credenhill Parish Council** and **Herefordshire HIVE** who have supported the project from its initial application phase and continue to do so.

It is with special thanks that we celebrate the involvement of the primary school pupils from across Herefordshire, without whose help during the course of the survey the results would not have been a success, paving the way to a future excavation. We hope that all of those who attended the event both enjoyed their involvement and improved their understanding of Iron Age and Roman Credenhill.

Thank you to the staff and pupils of:

St Mary's Primary School, Credenhill

Much Birch Primary School

Madley Primary School

Riverside Primary School

Lord Scudamore Primary School and associated schools

Thank you to **Moira Cassidy** for her support in running the survey event.

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10.0 List of Illustrations

Cover Image: Results of the Resistance Survey carried out upon the Roman Park Playing Fields, Credenhill. © Crown Copyright, Geoplot Version 3.0 [2014]

Figure 1: Location of the Roman Park Playing Fields, Credenhill. Contains Ordnance Survey data © Crown copyright and database right [2014]

Figure 2: Land divisions at the time of the 1840 Tithe Survey and their relation to the later Roman Park Playing Fields. Contains Ordnance Survey data © Crown copyright and database right [2014]

Figure 3: Extract of a 1975 aerial photograph of the Roman Park Playing Fields indicating the detail of the munitions depot and the possible Romano-British rectangular enclosure (highlighted in red). © Herefordshire Historic Environment Record: 1975 RC8-BC-99

Figure 4: Location of the geophysical block squares within the Roman Park Playing Fields. Contains Ordnance Survey data © Crown copyright and database right [2014]

Figure 5: Results of the resistance survey. © Crown copyright and database right [2014]

Figure 6: Results of the resistance survey including annotations. Contains Ordnance Survey data © Crown copyright and database right [2014]

Figure 7: Annotation of the resistance survey results. Contains Ordnance Survey data © Crown copyright and database right [2014]

Figure 8: Examples of Romano-British town houses investigated from across England and Wales. Extract from Wachter, J, 2001, p. 78)

Figure 9: Examples of Romano-British Villa complexes from across England and Wales. (Extract from Wachter, J, 2001, p.117)

Figure 10: Raw resistance data prior to enhancement. © Crown Copyright, Geoplot Version 3.0 [2014]

Figure 11: Results of the resistance survey following enhancement. © Crown Copyright, Geoplot Version 3.0 [2014]

Appendix 1: Digital Catalogue

No.	Name	Format	Data Created or Accessed	Source	Location
1	Geophysical Grid Location	tif, aux, ovr, tfw	20/04/2014	Site survey/QGIS	Attached CDROM
2	Georeferenced Geophysical Results	tif, aux, ovr, tfw	20/04/2014	Site survey/QGIS	Attached CDROM
3	Geophysical Grid Data	dat, grs, grd	20/04/2014	Geoplot Version 3.0	Attached CDROM
4	Geophysical Composite Data	cms, cmp	20/04/2014	Geoplot Version 3.0	Attached CDROM
5	Geophysical Mesh Data	plm	20/04/2014	Geoplot Version 3.0	Attached CDROM
6	Annotation Shapefiles	shp, shx, sbx, sbn, prj, dbf	20/04/2014	QGIS	Attached CDROM

Appendix 2: Resistance Survey Data

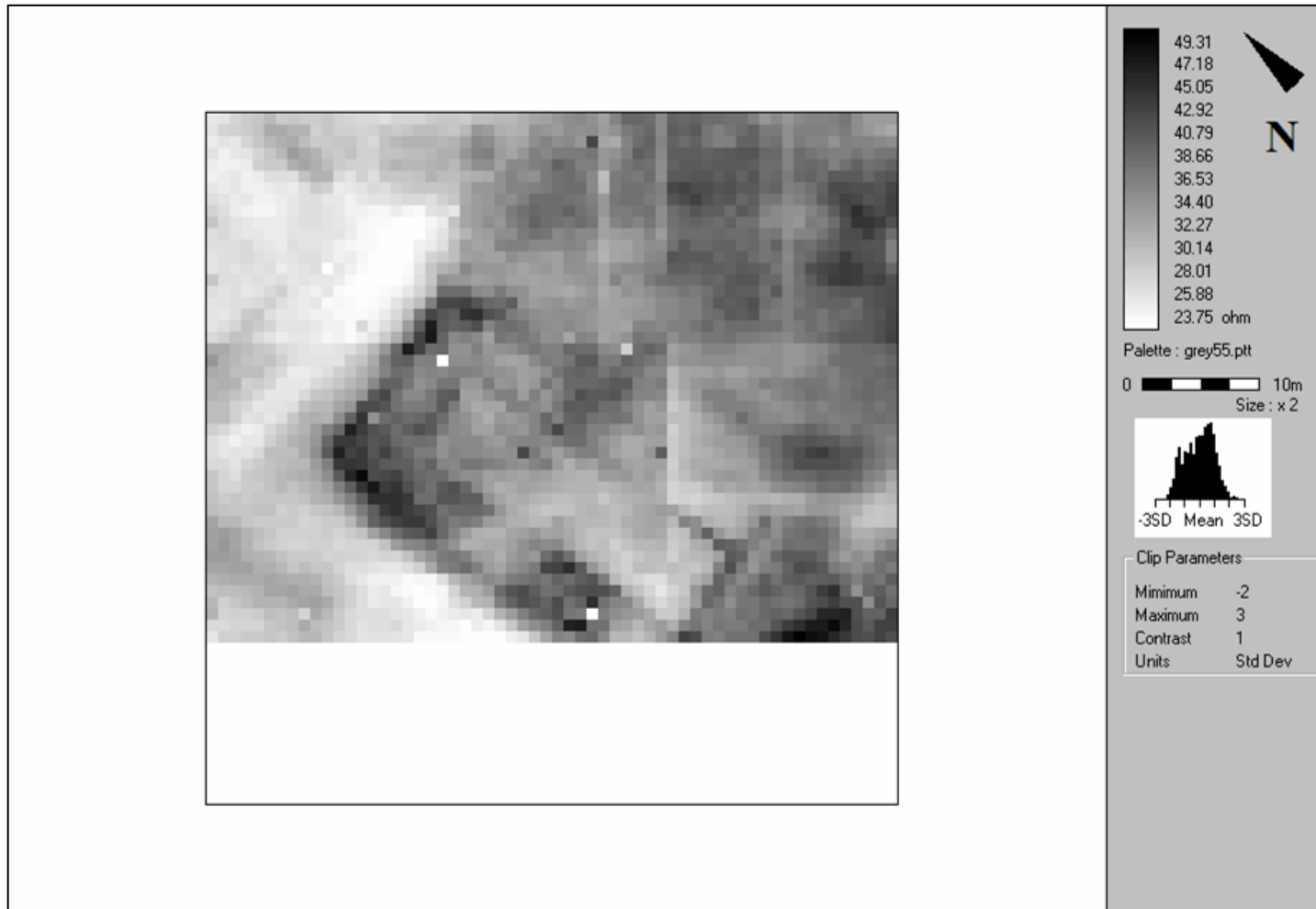


Figure 10: Raw resistance data prior to enhancement. © Crown Copyright, Geoplot Version 3.0 [2014]

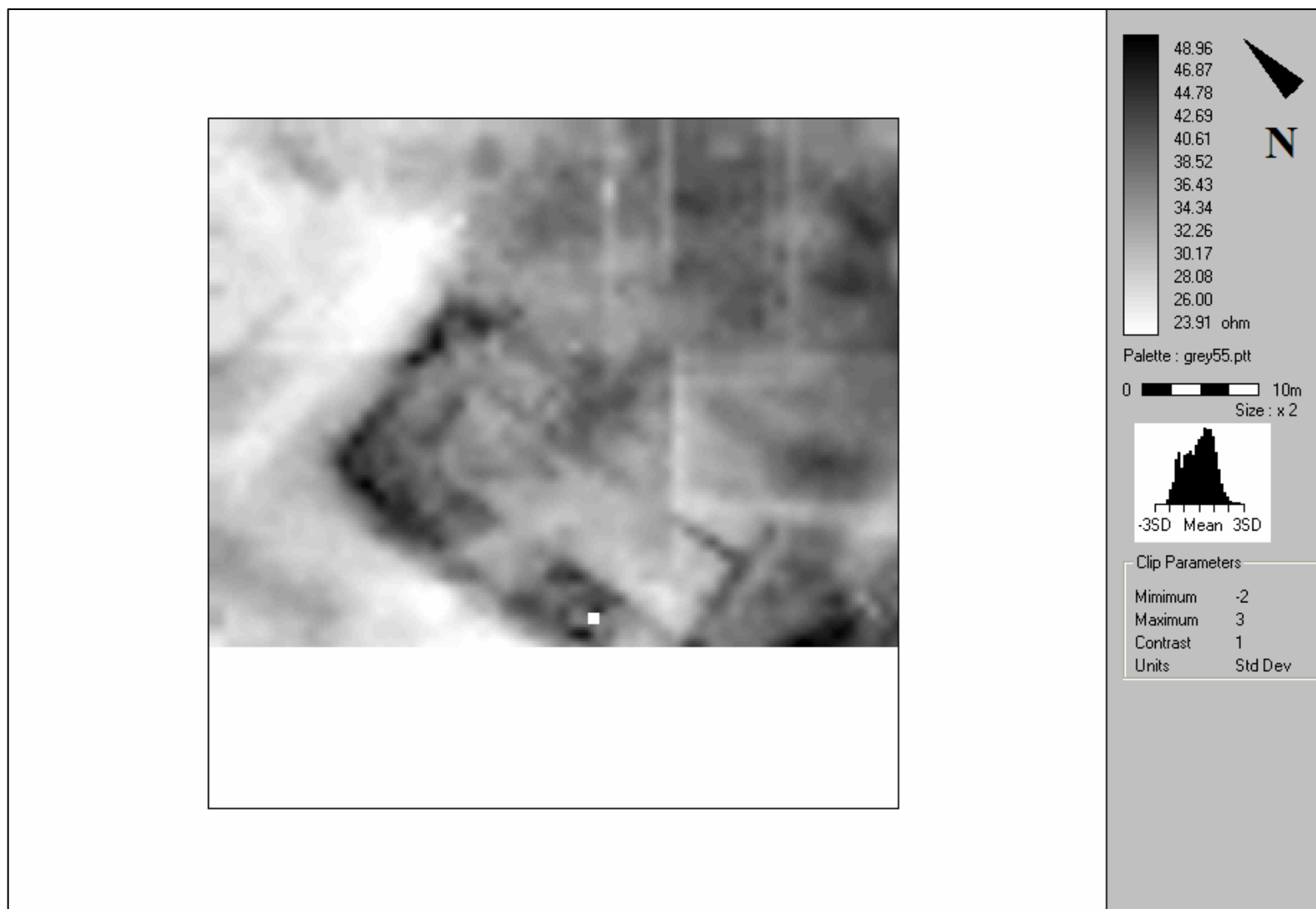


Figure 11: Results of the resistance survey following enhancement. © Crown Copyright, Geoplot Version 3.0 [2014]

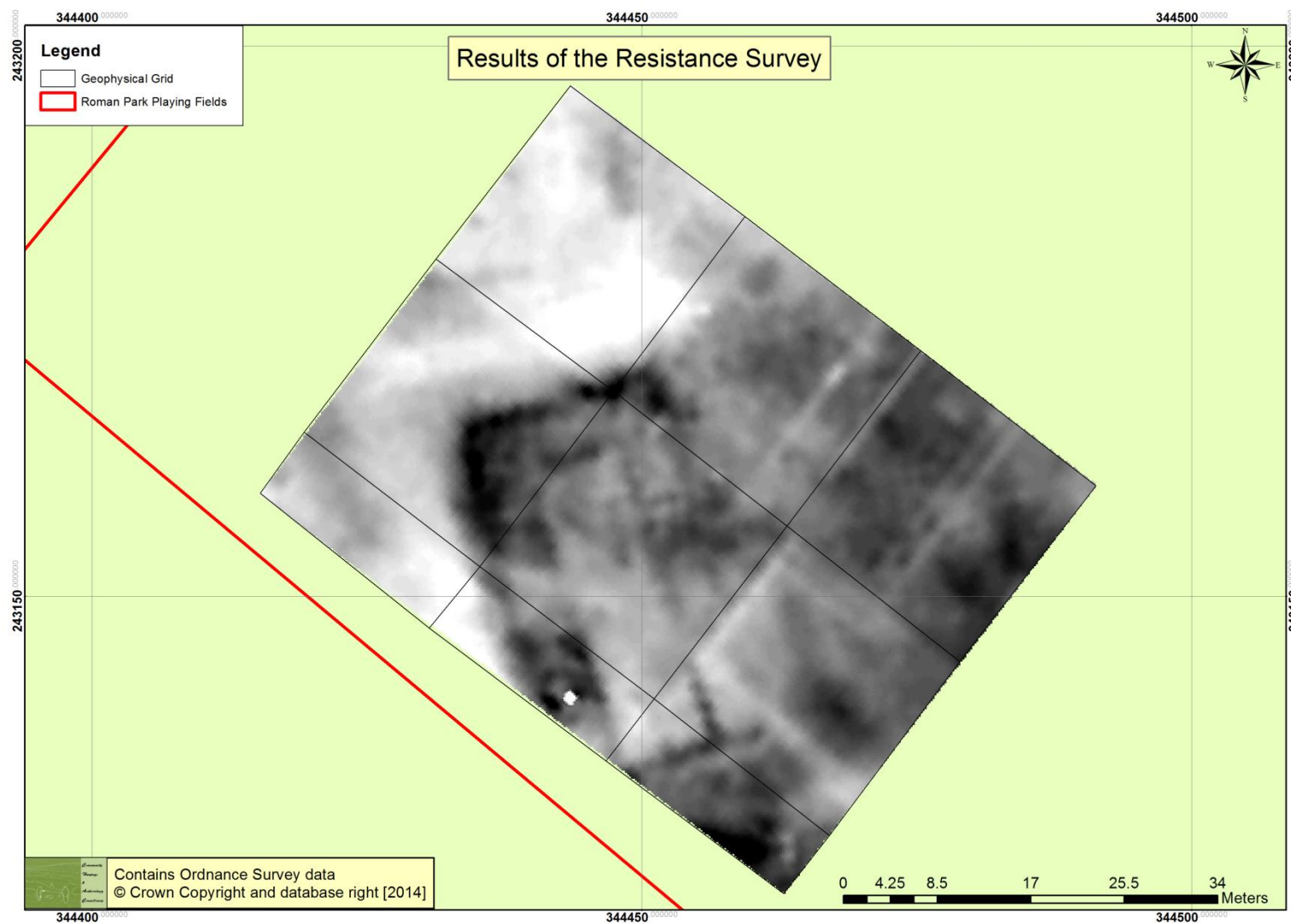


Figure 5: Results of the resistance survey. Contains Ordnance Survey data © Crown copyright and database right [2014]

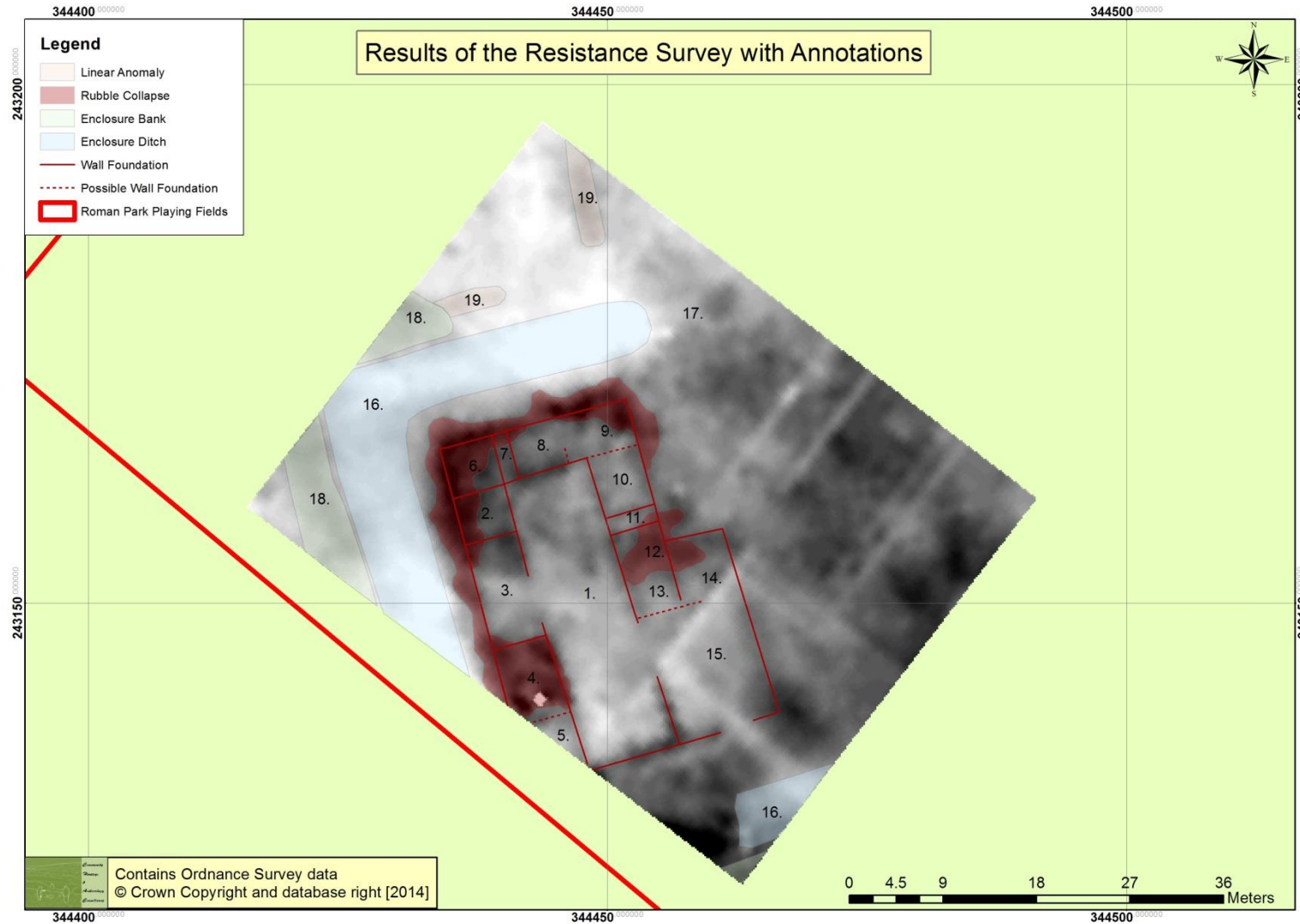


Figure 6: Results of the resistance survey including annotations. Contains Ordnance Survey data © Crown copyright and database right [2014]

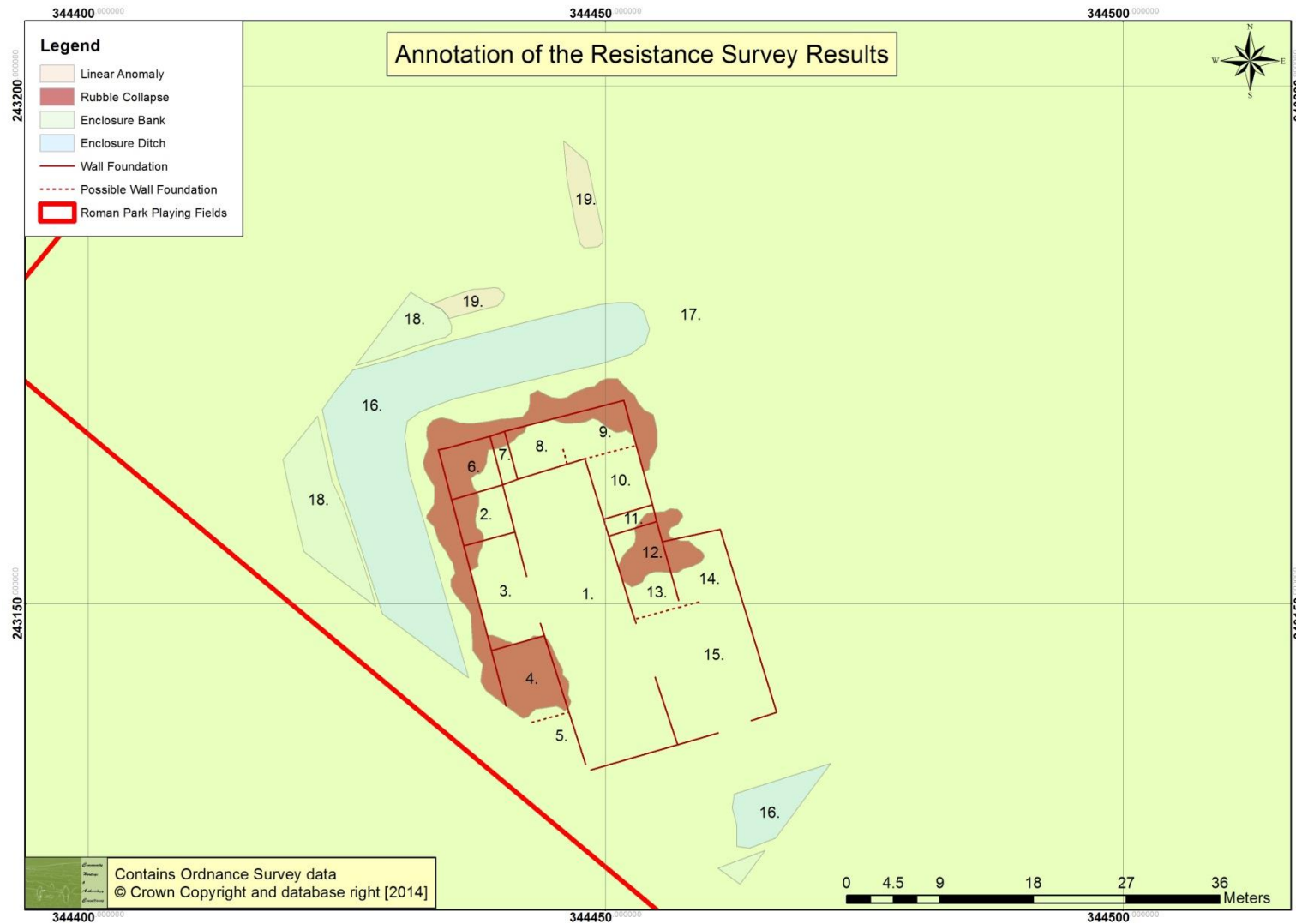


Figure 7: Annotation of the resistance survey results. Contains Ordnance Survey data © Crown copyright and database right [2014]