LAND AT PLUMB PARK, EXMOUTH, DEVON

(Centred on NGR SY 0226 8115)

Results of an Archaeological Trial Trench Evaluation

East Devon District Council Planning Reference: 13/0297/MOUT (Condition 17)

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> On behalf of: Taylor Wimpey Exeter

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SUMMARY

An archaeological trial trench evaluation was carried out by AC archaeology during June 2016 on land at Plumb Park, Exmouth, Devon. The application area occupied approximately 15 hectares of agricultural land and was located on the eastern outskirts of Exmouth. It lay in an area, based on place names, of a possible earthwork and ironworking activity. Donkey Hill, within the application area, is the known site of a World War II light anti-aircraft battery.

The evaluation comprised the machine-excavation of five trenches totaling 188m in length, with each trench 1.8m wide. These were positioned to target anomalies interpreted from a previous geophysical survey. Archaeological features were present in two of the trenches, with these consisting of a pair of ditches and the brick-built foundation for the anti-aircraft battery. The ditches aligned with the existing field arrangement and were probably post-medieval in date. A small assemblage of Romano-British pottery, worked flint and a piece of iron slag were also recovered from soil layers.

1. INTRODUCTION

- **1.1** This document sets out the results of an archaeological trial trench evaluation carried out ahead of a proposed residential development on land at Plumb Park, Exmouth, Devon (centred on SY 0226 8115). The worked formed a stage in a programme of archaeological work required as condition 17 of outline planning permission granted by East Devon District Council (ref. 13/0297/MOUT), and as advised by the following consultation with the Devon County Historic Environment Team (hereafter DCHET).
- **1.2** The work was commissioned by Taylor Wimpey Exeter and was undertaken by AC archaeology during June 2016.
- **1.3** The application area occupied a 15.3 hectare parcel of land on the southeastern outskirts of Exmouth, with Littleham village lying to the east and Green Farm to the southeast (Fig. 1). It comprised four agricultural fields positioned on a predominantly south facing aspect that was bisected by two coombes defining two prominent areas of higher ground in the north and southeast sections of the application area (Plate 1). The northern rise is known locally as Donkey Hill and forms a prominent local landscape feature lying at 59m aOD (above Ordnance Datum). To the southeast, this elevated position lay at 43m aOD, the ground then sloping down to Green Farm, which lay at 30m aOD. The underlying solid geology comprised mudstone from the Exmouth Sandstone and Mudstone Formation (BGS 2016).

2. ARCHAEOLOGICAL BACKGROUND

- 2.1 The site had been the subject of a previous Historic Environment Assessment (James 2012) and geophysical survey (Dean 2015). The assessment established that the archaeological potential was limited to field names, which could be indicative of ironworking activities, the presence of earthworks (*e.g. Slagbury*) and land near a boundary mound (*Ball Hill*). While the latter may be of note given the relatively close proximity of an Anglo Saxon charter boundary of the Littleham estate, its significance is somewhat diminished by the presence of another field with the same name, to the northwest. The 'Slag' element of Slagbury could simply be reference to land where waste (slag) was deposited as opposed to a reference to an iron production site. Early ironworking sites tend to be located near local supplies of iron ore (which are currently absent from this area). They also require a readily available supply of charcoal and a source of water. Recorded heritage assets within the application area comprise the sites of a WWII light anti-aircraft battery and an old marl pit.
- **2.2** The results of the geophysical survey principally depicted a small number of linear anomalies. Many of these were considered likely to relate to former field boundaries shown on historic mapping of the

site. In addition to these, other features were thought to represent deeper soil accumulations and a previously-recorded probable marl pit towards the southwest of the site, while an anomaly on Donkey Hill was considered to relate to part of the WWII installation.

3. AIM

3.1 The main aim of the trial trench evaluation was to establish the presence or absence, extent, depth, character and date of any archaeological features, deposits or finds within the site. The results of the work presented in this report be reviewed and used to inform any subsequent mitigation. The general aim of any follow-up work will be to investigate and record any heritage assets with archaeological interest that may be present within the development site and will be affected by the construction works.

4. METHODOLOGY

- **4.1** The evaluation was undertaken in accordance with a project design prepared by AC archaeology (Hughes 2016). It comprised the machine-excavation of five trenches totaling 188m in length and with each trench 1.8m wide. These were positioned to target anomalies interpreted from the previous geophysical survey (Fig. 2).
- **4.2** All trenches were located with a Leica Netrover GPS accurate to 1cm. The removal of ploughsoil within the trenches was undertaken in 20cm spits under the control and direction of a site archaeologist. Stripping by mechanical excavator ceased at the level at which archaeological deposits or natural subsoil was exposed.
- **4.3** All features and deposits revealed were recorded using the standard AC archaeology pro-forma recording system, comprising written, graphic and photographic records, and in accordance with AC archaeology's *General Site Recording Manual, Version 2* (revised August 2012). Detailed sections and plans were produced at a scale of 1:10, 1:20 or 1:50 as appropriate. All site levels relate to Ordnance Datum.

5. RESULTS

5.1 Introduction

Archaeological features or deposits were exposed in Trenches 2, 3 and 4. Trenches 1 and 5 were both blank, with the targeted anomalies found to relate to geological banding. These trenches are summarised in Appendix 1. The results for Trenches 2 to 4 are discussed in detail below.

5.3 Trench 2 (Detailed plan Fig. 3; Plates 2-6)

This trench was approximately northeast to southwest aligned and measured 31m long. It was positioned to target an oval anomaly interpreted from the previous geophysical survey and was located on the summit of Donkey Hill. Natural subsoil (context 208), which consisted of sub-rounded gravels in a mid red loamy-sand matrix with abundant gravels, was exposed at a depth of between 0.3m and 0.79m below existing levels. It was overlain at the southwest end, where the trench extended below the break of slope, by a mid brownish-red sandy-loam colluvial subsoil, with this then sealed by a 0.35m thick ploughsoil (100).

The trench contained the remains of two brick-built surfaces (203 and 204) and a possible brick footing (205). These features corresponded with the location of the targeted geophysical anomaly.

Brick-built surface 203 comprised a stretcher-lain arrangement with an angle to southwest, with this probably representing the location of an adjacent corner. To the north of this was brick surface 204. This was roughly-lain and was made up of complete and broken bricks, with some lain frog-side up, and pieces of concrete block. Possible wall footing 205 was aligned north to south and was located

to the east of the two surfaces. It comprised two parallel single courses of bricks with a patch of light yellow clay possible packing abutting its eastern side. The brick surfaces and possible wall footing were lain on a black bitumen-type material (207) that had been spread on the natural subsoil. A layer of demolition material comprised of bricks overlay the surfaces (202). From this deposit finds of copper-alloy gun cartridges, barbed wire, glass and fragments of iron sheeting were recovered.

5.4 Trench 3 (Detailed section Fig. 4; Plate 7)

Trench 3 was approximately northeast to southwest aligned and measured 25m long. It was positioned on the lower slopes of Donkey Hill to investigate a linear anomaly interpreted from the previous geophysical survey. No archaeological features were present, with the position of the geophysical anomaly corresponding with a deep sequence of hillslope deposits.

A sequence of two natural subsoils (306 and 305) were exposed at the base of the trench and within a machine-excavated sondage. These comprised a mid brownish-red loamy-sand and a mid yellowish-brown sandy-silt loam respectively and were present from 1.09m below existing levels. These were overlain by mid reddish-brown silty-clay and mid brown clayey-loam buried soils (304 and 303). Overlaying the buried soil layers were two mid reddish-brown to mid red clayey-loam colluvial subsoils (302 and 301), with these, in turn, sealed by ploughsoil (300). One sherd of medieval pottery and a piece of ironworking slag was recovered from colluvial soil 301 and 302 respectively.

5.5 Trench 4 (Detailed plan Fig. 5 and sections Figs 6a-c; Plates 8-9)

Trench 4 was approximately northeast to southwest aligned and measured 55m long. It was positioned to investigate two linear anomalies interpreted from the previous geophysical survey. Natural subsoil (402) was exposed at a depth of 0.55m below existing levels, with this beneath subsoil (401) and ploughsoil (400). The trench contained two linear features (F403 and F410), which corresponded with the position of the targeted anomalies, and in addition, a buried soil (409) within a natural hollow. A further irregular feature was also exposed but represented a tree throw hollow (407).

Ditch F403

Ditch F403 measured 1.29m wide by 0.63m deep, with moderately-steep sloping side, and a concave base that cut through the subsoil. The ditch contained three fills, with these comprising a mixed mid yellowish-brown silty-loam primary fill (404), which was overlain by accumulations of mid brown and mid reddish-brown silty-sand loams (405 and 406). No finds were recovered from the ditch.

Ditch F410

Ditch F410 measured 1.56m wide by 0.41m deep, with moderately-steep sloping sides and a flat base. The ditch contained a thin primary fill (411) comprised a mid reddish-brown clayey-loam, and was overlain by a mid greyish-brown silty-clay loam accumulation (412). These deposits were sealed by the subsoil. No finds were recovered from the ditch.

Buried soil 409

Possible buried soil 409 comprised a mid reddish-brown silty-clay, which had formed a deposit in a shallow hollow. Fourteen sherds of pottery dated to the Romano-British period were recovered from this layer.

6. **THE FINDS** by Naomi Payne with a contribution from Andrew Passmore

6.1 Introduction

All finds recovered on site during the evaluation were retained, cleaned and marked where appropriate. They were then quantified according to material type within each context and the assemblage was scanned to extract information regarding the range, nature and date of artefacts represented. The finds are summarised in Appendix 2.

6.2 Metalwork

Two copper alloy objects (1g) were recovered from context 202, a demolition layer Trench 2. They are both cartridge cases from a small calibre weapon. The diameter of each base is 7mm.

132 fragments of iron (517g) were recovered from two contexts in Trenches 2 and 4. All but one fragment came from context 202, demolition layer in Trench 2. The fragments include nails, pieces of sheet, barbed wire and a long oval fitting with a projection on one side.

All of the metalwork is presumably associated with the World War II gun emplacement likely to have been exposed by the trench.

6.3 Slag

A single piece (291g) of undiagnostic iron working slag was recovered from Trench 3 colluvial soil context 302.

6.4 Worked flint

Three pieces (24g) of worked flint were recovered from three contexts. The worked flint included a small chip from context 101, a broken primary flake from context 200 and a side scraper from context 400. All three pieces would fit comfortably in the Neolithic or Early Bronze Age periods.

6.5 Glass

15 pieces (102g) of clear vessel glass were recovered from context 202. Most of the sherds appear to be from a single vessel, a cylindrical jar. There is also a base sherd from another jar or bottle and three miscellaneous body sherds. All of the glass is industrially made and is highly likely to be 20th century in date.

6.6 CBM by Andrew Passmore

A near complete frogged brick (3200g) was recovered from demolition layer 202. The brick is machine-manufactured and very likely locally made. Its dimensions are 232mm by 110mm by 75mm. The fabric is deep orange-red and sandy, its compact and well-sorted texture indicating a date in the 20th century.

6.7 Roman pottery

14 sherds (32g) of Roman pottery were recovered from context 409, Trench 4 buried soil. The assemblage includes five small body sherds of South Devon ware, five body sherds of Black-Burnished type and four sherds of a gritty grey ware with rounded slate inclusions. The only identifiable form is a rim from an everted rim jar in the gritty grey ware fabric. This form was in use throughout the Roman period.

6.8 Medieval pottery

Two sherds (6g) of medieval pottery were recovered from subsoil contexts in Trenches 3 and 5. Both are small, abraded body sherds from cooking jars.

6.9 Post-medieval pottery

13 sherds (52g) of post-medieval pottery were recovered from four contexts in four trenches. The sherds, all of which are from topsoil contexts or demolition layer 202, include glazed coarse earthenware, transfer-printed sherds and flower pot.

7. DISCUSSION

7.1 The results from the trial trench evaluation have exposed a small number of archaeological features comprising brick surfaces and ditches that were all present at depths of between approximately 0.3m

and 0.4m below existing levels. Several of the anomalies identified by the geophysical survey were not identified as features of archaeological origin with Trenches 1, 3 and 5 blank.

- **7.2** The earliest dated finds from the site were three pieces of worked flint from overlying deposits and indicate general activity in the area in the Late Neolithic/Early Bronze Age. Pottery from a buried soil (409) in Trench 4 has been dated to the Romano-British period. The composition of the small assemblage, which included three different types of ware, point to some unspecified activity in the area at this date. The Devon HER lists a flint scatter of Neolithic date from the neighbouring area of Littleham and a few Roman coins from Exmouth (James 2012).
- **7.3** The ditches in Trench 4 (F403 and F410) illustrate two phases of probable field boundary construction. The most recent is ditch F403 which cut the subsoil (401) and was clearly represented as a northwest-southeast aligned linear anomaly interpreted from the geophysics survey. Earlier, but undated ditch F410 was buried beneath subsoil (401), but appears to share the same broad orientation as ditch F403, with this also following the natural contour. The northwest-southeast orientation is shared by the extant field boundaries and it is most probable that the ditches illustrate that the pattern of fields was established in the medieval or post-medieval periods, with a small amount of pottery of these dates found in overlying deposits across the site. The Devon Historic Landscape Characterisation mapping project (HLC) records the application area as 'modern enclosures adapting post medieval fields' (DCC 2016).
- **7.4** The deep deposits in Trench 3 probably reflect the history of ploughing with soil creep leading to deep deposits at the base of the hill slope. A piece of iron slag high up in these deposits probably indicates that it is displaced from higher up the slope, but on its own is difficult to interpret.
- **7.5** The brick surfaces found in Trench 2, at the summit of Donkey Hill, are consistent with the known historic use of this site as the location of a light anti-aircraft battery in World War II (Devon Historic Environment Record no. MDV71901). The brick surfaces were embedded on a surface of bitumen-like material and probably provided the hard standing for the gun. The reason for differently laid areas was not established, nor was the purpose of the concrete blocks. There had undoubtedly been disturbance post-abandonment with a demolition layer (202) containing displaced bricks and finds associated with the functioning of the site including the barbed wire and two copper-alloy cartridges. The cartridges were of 7mm diameter, a calibre which does not match typical British small arms of the period.

Documentary evidence indicates that the battery was known as 'Site 3, Exmouth' and equipped with a single 40mm Bofors gun on a MKII platform (Dobinson 1996). These guns were towed into position and the wheels lifted and leg supports extended. The platform referred to was a levelling mechanism and part of the gun rather than a description of the hard standing. The full extent of the brick surfaces was not established, but the bitumen-like surface (207) extends southeast to a detached line of bricks (205) which may represent the outer edge in that direction; surface (203) may incorporate the southwest corner of the hard standing indicating that it extended for at least 6m (20ft).

The Devon HER indicates that the site is visible as a circular earthwork on aerial photographs of 1946 and 1947. No evidence for earthworks has survived which further indicates that site has been damaged post-abandonment. Such damage has presumably resulted in deliberate slighting to allow for the ploughing which has taken place on the site. The aerial photographs also show that the field incorporating Donkey Hill was formerly divided by hedgebanks and the emplacement was within a corner of one of these fields; these have also been removed (historic mapping shows that this occurred prior to 1970) leaving no evidence for their positions within either the trench evaluation or the geophysics survey. The position of the battery on Donkey Hill gave an excellent field of fire, particularly on the seaward side.

8. CONCLUSION

- 8.1 The evaluation has exposed a small number of features and finds of archaeological interest. These included a small number of ditches, which are considered to represent former components relating to the agricultural history of the site. The fragmentary remains of surfaces and a wall footing dated to the mid-20th century, which were exposed on an elevated position, known locally as Donkey Hill, are likely to be associated with a known former World War II light anti-aircraft battery.
- **8.2** Despite the recovery of a few small worked flint fragments and a small assemblage of pottery sherds of Romano-British date from soil layers, there were no features exposed providing evidence for earlier settlement on the site.

9. ARCHIVE AND OASIS

- 9.1 The finds, paper and digital archive is currently held at the offices of AC archaeology Ltd, at 4 Halthaies Workshops, Bradninch, near Exeter, Devon, EX5 4LQ under the unique project code of ACD1090. It will be held until the need for any further archaeological work on the site is established and ultimately will be offered to the Royal Albert Memorial Museum, Exeter under temporary access number RAMM 15/10, but if they are unable to accept this, then it will be dealt with under their current accession policy.
- **9.2** An online OASIS entry has been completed, using the unique identifier **256776**, which includes a digital copy of this report.

10. ACKNOWLEDGEMENTS

10.1 The evaluation was commissioned by Taylor Wimpey Exeter. The site works were carried out by Simon Hughes, Tom Etheridge and Kay Hamilton and illustrations prepared by Stella De-Villiers. The collaborative role of Stephen Reed of the Devon County Historic Environment Team is duly acknowledged.

11. **REFERENCES**

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PROJECT Plumb Park, Littleham, Exmouth, Devon









b) Section of F410





Plate 1: View of site looking southwest from Trench 1, with Donkey Hill to the right



Plate 2: View of Trench 2, looking south



Plate 3: Trench 2, showing brick surfaces 203 and 204, view to southwest (scale 1m)





Plate 4: Trench 2, surface 203, view to north (scale 0.3m)



Plate 5: Trench 2, surface 204, view to southwest (scale 0.3m)



Plate 6: Trench 2, wall footing 205, view to southwest (scale 1m)





Plate 7: Trench 3, with location of sondage in foreground, view to northeast (scale 1m)



Plate 8: View of Trench 4, looking southwest



Plate 9: Trench 4, section of ditch F410, view to southeast (scale 1m)



Appendix 1 Negative Trench Summaries



Trench 1		Length 31m	Aligned NW-SE							
Reason for trench and outcome										
Positioned to target three linear geophysical anomalies. Found to relate to geological										
banding.										
Context	Description	Depth	Interpretation							
100	Mid brown, sandy loam	0 – 0.21m	Topsoil							
101	Light brown, sandy loam	0.21m – 0.32m	Subsoil							
102	Red and reddish yellow, clay, sandy	0.32m +	Natural							
	loam and gravels									

Trench 5		Length 31m	Aligned NW-SE								
Reason for trench and outcome											
Positioned to target two linear geophysical anomalies. Found to relate to geological											
banding.											
Context	Description	Depth	Interpretation								
500	Mid brown, sandy loam	0 – 0.30m	Topsoil								
501	Mid reddish brown, sandy silty clay	0.30m – 0.60m	Subsoil								
502	Mid red, sandy clay	0.60m +	Natural subsoil								

Appendix 2 Finds Quantification



Context	Context Description	Copp alloy	er	r Iron		Slag		Worked flint/chert		Glass		СВМ		Roman pottery		Medieval pottery		Post- medieval pottery	
		No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt
100	Trench 1 topsoil																	2	9
101	Trench 1 subsoil							1	1										
200	Trench 2 topsoil							1	11										
202	Trench 2 demolition layer	2	1	131	516					15	102	1	3200					2	7
300	Trench 3 topsoil																	7	27
301	Trench 3 subsoil															1	5		
302	Trench 3 colluvium					1	291												
400	Trench 4 topsoil							1	12										
409	Trench 4 buried soil													14	32				
500	Trench 5 topsoil																	2	9
501	Trench 5 subsoil															1	1		
Total		2	1	131	516	1	291	3	24	15	102	1	3200	14	32	2	6	13	52

Table 1. Summary of finds by context (weights in grams)

Devon Office

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