

New Heli-Pad, Exeter Airport, Devon

(NGR SY 00612 93975)

Results of historic building recording and a watching brief

Prepared by:
Andrew Passmore BSc MIfA

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Devon and Cornwall

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archaeology

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Summary

Historic building recording and an archaeological watching brief were carried out by AC archaeology in September and October 2012 prior to and during the construction of a new heli-pad and associated infrastructure at Exeter Airport, Devon (centred on SY 00612 93975).

Scattered evidence for prehistoric activity in the area is recorded on the Devon County Historic Environment Record. Exeter Airport opened as a civil airfield in 1937 and between 1939 and 1946 was taken over by the Air Ministry and became RAF Exeter. During the late summer of 1940 considerable construction works took place as the airfield was expanded to meet RAF requirements

A sleeping shelter, provided for night fighter pilots associated with flight BK, was recorded prior to its demolition. The design of the shelter incorporates external rings providing structural strength. They are not found on later shelters, although the overall design is the same. Internally, the shelter was sparse and was provided with bunks that have since been removed. Other than electrical fittings, no other features were provided.

During the watching brief, no archaeological features or deposits predating the Second World War were exposed, and no artefacts recovered. It seems likely that the area was heavily landscaped when the RAF airfield was constructed. The main part of the development site had also been landscaped during civil post-war use of the airport.

1. INTRODUCTION (Fig. 1)

1.1 Historic building recording and an archaeological watching brief were carried out by AC archaeology in September and October 2012 prior to and during the construction of a new heli-pad and associated infrastructure at Exeter Airport, Devon (centred on SY 00612 93975). The work was carried out in response to the submission of a planning application (East Devon District Council reference 12/0597/FUL) for the construction of a new aircraft hangar, offices, apron, helicopter landing pad, fuel point, LPG tanks, 16 parking spaces, security fencing and associated works, and under the guidance of the Devon County Historic Environment Service (DCHES). The investigations were commissioned by the Police and Crime Commissioner for Devon and Cornwall.

1.3 The site covers an area of approximately 9750m² and is located on the northern edge of the airport, to the south of Treasbeare Farm. The topography is generally flat at around 22m aOD, but rises up to the north of the site. The underlying geology is Triassic mudstone of the Aylesbeare Mudstone Group overlain by Quaternary head of sand with clay and gravel. Topsoil stripping of an access road to the west of this area was also monitored (Fig. 1).

2. HISTORICAL BACKGROUND

2.1 Scattered evidence for prehistoric activity in the area is recorded on the Devon County Historic Environment Record (DCHER). There is a cropmark of a possible ring ditch within the airport (MDV52060), and a late Bronze Age axe head has been found east of the airport (MDV65337). Worked and burnt flints have been found on the line of the present A30 to the south of their Airport (MDVs 60978, 60980, 60983,

60985, 60989 and 60990), with further flints recovered from the area of the nearby Business Park (EDV5859).

- 2.2** The placename 'Treasbeare' is recorded from AD928 and appears throughout the medieval period (MDV10300). The present farmhouse is of probable 16th-century date (MDV67117), and is Grade II listed (National Heritage List No. 1141434).
- 2.3** Exeter Airport opened as a civil airfield in 1937 and in 1939 was taken over by the Air Ministry, operating between 1939 and 1946 as RAF Exeter. In the post-war period civil flying resumed and the airport continues today under the name Exeter International Airport. During the late summer of 1940 considerable construction works took place as the airfield was expanded to meet RAF requirements (MDV48842, which also lists other associated DCHER monuments).

Two areas of six single-engined fighter aircraft dispersal pens were constructed along the north and west sides of the airfield (Francis 1999). One area of pens was located to the immediate west of the present development site and housed flights AK and BK. Prior to the development, two sleeping shelters for flight BK personnel survived (*ibid.*, numbers 155 and 190; DCHER MDVs 78382 and 78383). The eastern building (no. 190) was recorded prior to demolition as part of the development. The following description was produced by Francis (*ibid.*, 103; see also Francis 2010, 15):

Both of these sleeping shelters served flight "BK" personnel belonging to the eastern clutch within the loop dispersal area. Inside bunks are arranged in eleven tiers of three.

This is the first design [reference 11049/40] of a sleeping shelter they were very strong and robust structures being able to withstand a nearby bomb blast. Construction is of a reinforced concrete framework and roof, with 13.5in permanent brick infilling.

3. AIMS OF THE WORK

- 3.1** There were two principal objectives of the investigations. The first aim was to prepare a record of the sleeping shelter before it was demolished. The second aim, was through a watching brief, to observe, investigate, excavate and record any surviving below-ground archaeological artefacts and deposits across the area affected by the development.

4. METHODOLOGY

4.1 Historic building recording

The sleeping shelter was recorded to a Level 3 standard as set out in English Heritage's 2006 document *Understanding Historic Buildings: a guide to good recording practice* and in accordance with a *written scheme of investigation* prepared by AC archaeology (Passmore 2012). The following methodology was employed:

- A detailed written description;
- A photographic record showing the overall character and setting, as well more-detailed shots of any significant fixtures, fittings and architectural details. This was undertaken in colour digital format only (minimum 10 megapixels), and where appropriate a photographic scale was included;
- A drawn record at 1:50, comprising a plan, external elevations and a profile.

4.2 Watching brief

A watching brief was maintained during the topsoil stripping and ground reduction for the new access road.

The groundworks 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 1*. Records were made on daily watching brief record sheets along with context sheets, with a drawn record comprising sample sections tied into a location plan. A general and detailed photographic record was made in colour digital format.

5. RESULTS: THE SLEEPING SHELTER (Fig. 2; Plates 1-5)

5.1 The sleeping shelter measures 13m by 3.5m externally by 3m high, with an integral porch at its west end. The main body of the building incorporates a lobby at its east end where there is a further entrance. Within each of these entrances there would have been a pair of doors. These only survive the western porch, one of which retains its original light blue paint. The shelter was built on a concrete slab foundation that also acted as the floor. It is constructed of mainly red bricks, with some fired to buff and blue colours) laid in English bond in creamy-pink cement, referred to as permanent brick in a military context. The walls were constructed directly onto the concrete floor slab. Other than the doorways, the only other external features in the brick walls are vents. There are two high-level openings – one in each of the gable (east and west) elevations, and where visible, six pairs of narrow vents at floor level providing ventilation to each bay (see below). The former are open, but the western opening retains a wooden frame incorporating rebates for (now-removed) vent slats.

5.2 The roof sits on a concrete ringbeam that runs around the top of the walls. The roofs of the shelter and the porch are flat (presumably reinforced) concrete slabs encased in a waterproof bitumen lining that is degrading badly. The main body of the shelter is strengthened by a series of 6 reinforced concrete rings that wrap around the walls and the roof. These rings and the exposed undersides of the roofs display evidence for wooden shuttering used when the concrete was poured.

5.3 Internally, the building is divided into six bays by thin projecting integral brick partitions. The east bay incorporated an entrance lobby and has thicker brick walls to this lobby. Passing through the partitions are sockets that would have held timbers supporting the beds. There are pairs of sockets for the upper beds, and a single socket for the lower beds. In addition, further smaller sockets associated with the upper beds may have held safety rails. The layout of the shelter indicates that it could have housed 33 airmen. The only other features were a cable and a hole for a second cable passing through the west wall of the porch, which presumably supplied electricity for a light.

6. RESULTS: THE WATCHING BRIEF (Figs 1 and 3; Plates 6-8)

6.1 Access road west of the dispersal loop

A 70m long road, 5.5m wide was created within the dispersal loop, north of the perimeter track. Natural gravel subsoil (1008) was exposed at depth of between 0.26m and 0.42m below the surface. It was partly overlain by a dump of degraded tarmac (1002), or a subsoil (1001) that also overlaid 1002. This was sealed by topsoil (1000). It is clear that these deposits were associated with the construction of the

airport and associated landscaping, and that no historic soils or earlier features survived.

6.2 Access road within the development site

An area along the western edge of the development site was reduced in level and monitored. The soil profile was generally thicker (0.60-0.70m) than in the road to the east. Natural subsoil (1003) was exposed across the site; towards the north end of the excavation this was less stony than observed elsewhere presumably reflecting the location above the former valley. It was overlain by dumps of sand and tarmac (1008) and redeposited subsoil (1006 and 1005) that were sealed by the topsoil (1004). The area had been extensively disturbed by services, most of which were of recent date. A single, east west-aligned trench may have had origins during the Second World War. Associated with this were a brick manhole with a concrete cover, as well as a concrete structure (?light fixing) that was only partially exposed. The manhole was sealed by the upper dumped layer of subsoil (1005), indicating that much of the excavated material was of post-war date.

7. COMMENTS

- 7.1** The sleeping shelter formed part of a group of structures and buildings associated with flight BK. Fighter planes were scrambled from dispersal pens situated around the dispersal loop immediately west of the development site. The sleeping shelters were provided for night fighter pilots. The design of the shelter incorporates external rings providing structural strength. They are not found on later shelters, although the overall design is the same. (Other early shelters such as one at Perranporth in Cornwall were built from concrete blocks and had an external render.) Internally, the shelter was sparse and was provided with bunks that have since been removed. Other than electrical fittings, no other features were provided.
- 7.2** No archaeological features or deposits predating the Second World War were exposed, and no artefacts recovered. It seems likely that the area, particularly the land within the dispersal loop, was heavily landscaped when the RAF airfield was constructed. The main part of the development site had also been landscaped during civil post-war use of the airport.

8. ARCHIVE AND OASIS ENTRY

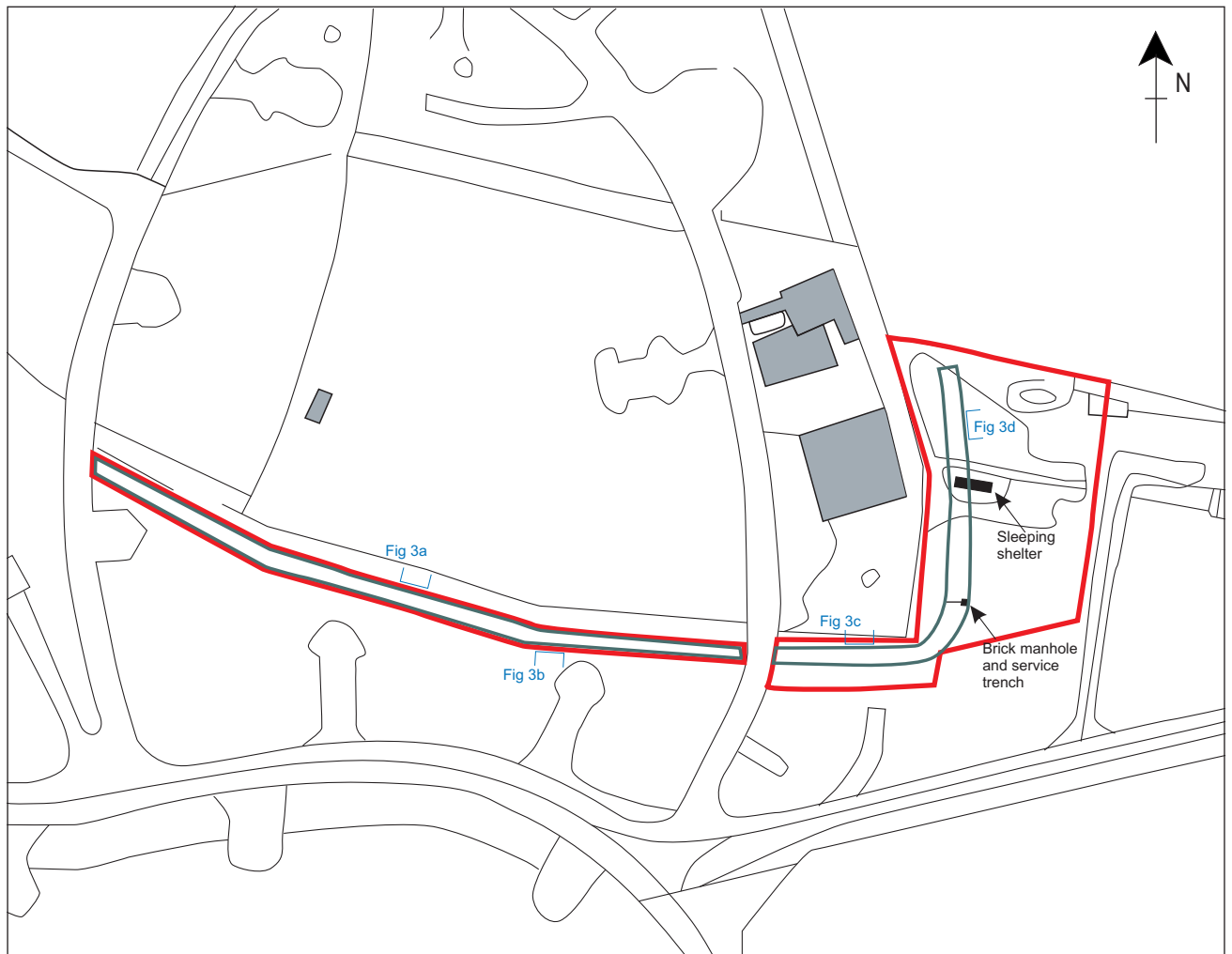
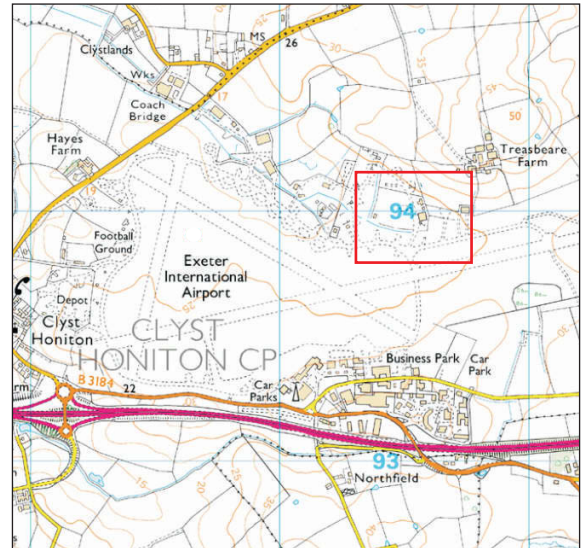
- 8.1** The paper and digital archive are currently held at the offices of AC Archaeology in Bradninch, but will ultimately be deposited under the relevant accession number at the RAMM, Exeter, at the earliest in 2013 when the current museum non-acceptance policy will be reviewed. A temporary reference number from the museum is 12/30.
- 8.2** The OASIS (Online AccesS to the Index of Archaeological InvestigationS) number for this project is 140045.

9. ACKNOWLEDGEMENTS



- 9.1** The evaluation was commissioned by the Police and Crime Commissioner for Devon and Cornwall and managed for him by Michael Leach, and by Andrew Passmore for AC archaeology. The fieldwork was carried out by Paul Jones and Stella de-Villiers. The report was written by Andrew Passmore, with the illustrations prepared by Elisabeth Patkai.

10. REFERENCES

- Francis, P., 1999, *Exeter Airport: historic airport survey for Devon County Council & East Devon District Council* (Airfield Research Publishing).
- Francis, P., 2010, *20th Century Military Archaeology Issue 1: Airfield Defences* (Airfield Research Publishing & AiX-ARG Archive Ltd).
- Passmore, A., 2012, *New Heli-Pad, Exeter Airport, Devon, (NGR SY 00612 93975), Written Scheme of Investigation for archaeological recording*, AC archaeology document no. **ACD496/1/1**.



0 100m
Scale 1:2500@A4

-  Site boundary
-  Stripped access road

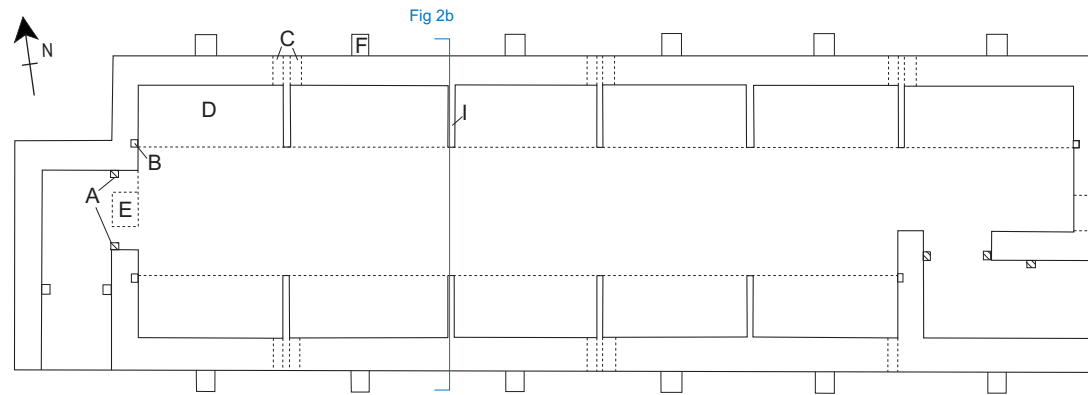
PROJECT

New Heli-pad, Exeter Airport, Devon

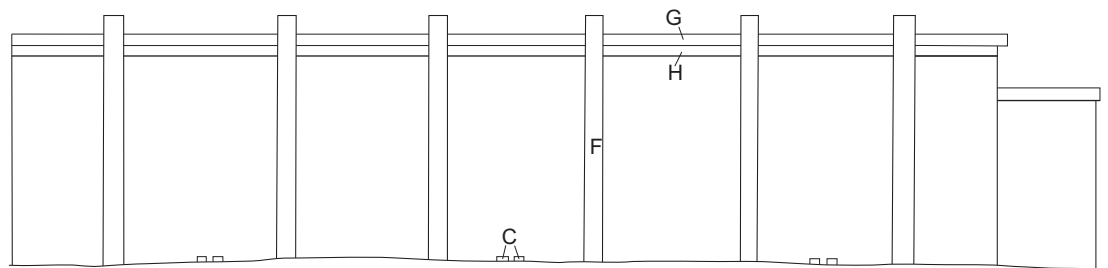
TITLE

Fig. 1: Location of site

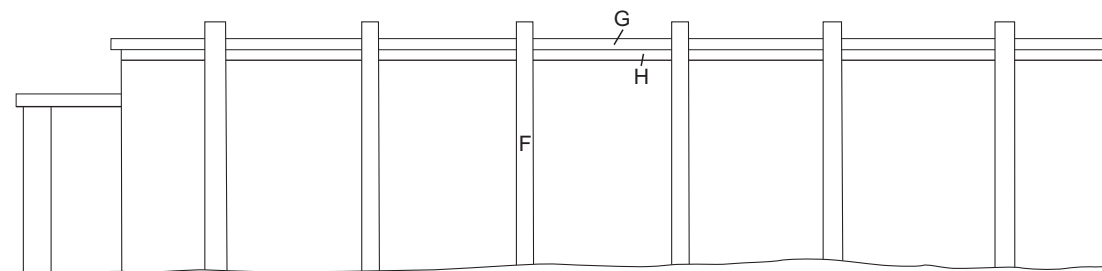
a) Plan



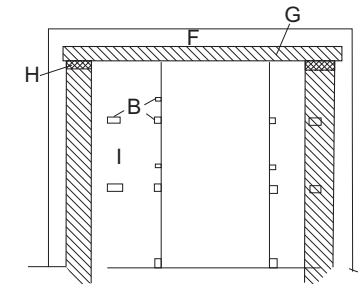
North facing elevation



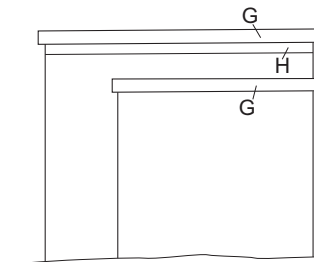
South facing elevation



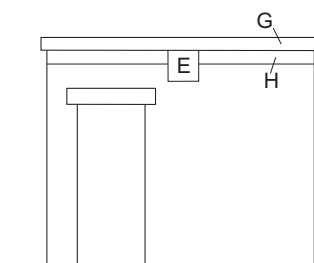
Profile 2b



West facing elevation



East facing elevation



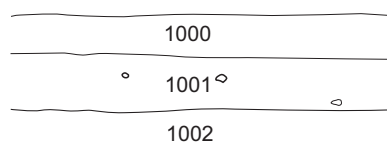
- A - position of former door frame
- B - recess(es) to support former tiered bunks
- C - ventilation slots, all to floor level
- D - position of former tiered bunks
- E - louvered vent, to ceiling height
- F - reinforced concrete attached pillars
- G - flat roofed concrete slab, bitumen to covering
- H - concrete ring beam
- I - brick partition

0 5m
Scale 1:100@A4

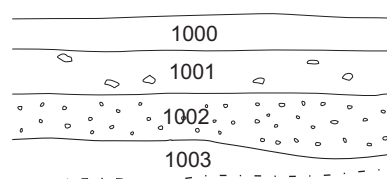
PROJECT
New Heli-pad, Exeter
Airport, Devon
TITLE
The Crew Sleeping
Shelter



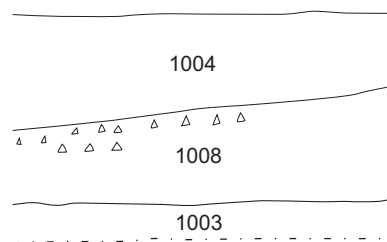
a)



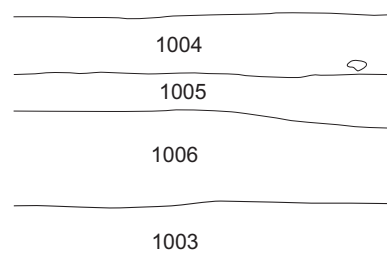
b)



c)



d)



PROJECT

New Heli-pad, Exeter Airport, Devon

TITLE

Fig. 3: Sections



Plate 1: The crew sleeping shelter – the south elevation viewed from the south. 1m scale



Plate 2: The crew sleeping shelter – the south elevation showing the entrance porch viewed from the south. 1m scale

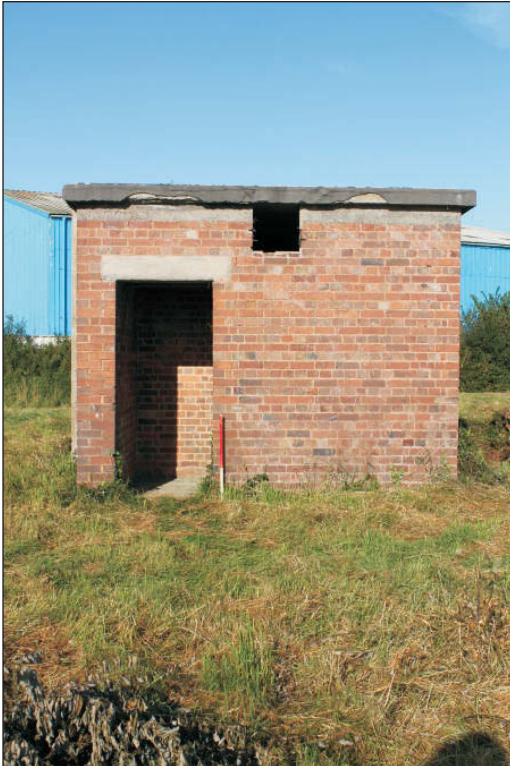


Plate 3: The crew sleeping shelter – the east elevation showing the entrance viewed from the east. 1m scale



Plate 4: The crew sleeping shelter – general view of the interior viewed from the east. 1m scale



Plate 5: The crew sleeping shelter – view of a sleeping bay viewed from the southwest. 1m scale



Plate 6: The access road within the dispersal loop viewed from the north. 1m scale



Plate 7: The access road within the main development area viewed from the north. 1m scale



Plate 8: The manhole exposed within the main development area viewed from the west. 1m scale

Devon Office

AC archaeology Ltd
Unit 4, Halthaies Workshops
Bradninch
Nr Exeter
Devon
EX5 4LQ

Telephone/Fax: 01392 882410

Wiltshire Office

AC archaeology Ltd
Manor Farm Stables
Chicklade
Hindon
Nr Salisbury
Wiltshire
SP3 5SU

Telephone: 01747 820581
Fax: 01747 820440

www.acarchaeology.co.uk