



A350 Chippenham Bypass Improvement Scheme

Archaeological Watching Brief



Planning Ref: Permitted Development
Ref: 110352.03
October 2018



© Wessex Archaeology Ltd 2018, all rights reserved.

Unit 9
Filwood Green Business Park
1 Filwood Park Lane
Bristol
BS4 1ET

www.wessexarch.co.uk

Wessex Archaeology Ltd is a Registered Charity no. 287786 (England & Wales) and SC042630 (Scotland)


Disclaimer

The material contained in this report was designed as an integral part of a report to an individual client and was prepared solely for the benefit of that client. The material contained in this report does not necessarily stand on its own and is not intended to nor should it be relied upon by any third party. To the fullest extent permitted by law Wessex Archaeology will not be liable by reason of breach of contract negligence or otherwise for any loss or damage (whether direct indirect or consequential) occasioned to any person acting or omitting to act or refraining from acting in reliance upon the material contained in this report arising from or connected with any error or omission in the material contained in the report. Loss or damage as referred to above shall be deemed to include, but is not limited to, any loss of profits or anticipated profits damage to reputation or goodwill loss of business or anticipated business damages costs expenses incurred or payable to any third party (in all cases whether direct indirect or consequential) or any other direct indirect or consequential loss or damage.

Document Information

Document title	A350 Chippenham Bypass Improvement Scheme
Document subtitle	Archaeological Watching Brief
Document reference	110352.1
Client name	Atkins Ltd
Address	260 Aztec West Almondsbury Bristol BS32 4RZ
On behalf of	Wiltshire Council
Address	County Hall, Bythesea Road Trowbridge BA14 8JN
County	Wiltshire
National grid reference (NGR)	390498 174940 to 390968 175438 and 389900 171733 to 389545 172483
Statutory designations	N/A
Planning authority	Wiltshire Council
Planning reference	Permitted Development
Museum name	Chippenham Museum
Museum accession code	N/A
WA project code	110352
Dates of fieldwork	3 August 2017 to 10 July 2018
Fieldwork directed by	M. Fleming, S. Wareing, C. Mason and R. Krakowicz
Project management by	Andy King
Document compiled by	Ray Holt
Contributions from	Matt Leivers, Lorraine Higbee and Rachael Seager Smith
Graphics by	Nancy Dixon

Quality Assurance

Issue number & date	Status	Author	Approved by
2 01/11/2018	Amended Draft submitted to client	RH	



Contents

Summary	iii
Acknowledgements.....	iii
1 INTRODUCTION	1
1.1 Project background.....	1
1.2 Scope of the report	1
1.3 Location, topography and geology	1
2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND.....	2
2.1 Introduction.....	2
2.2 Previous investigations related to the development	3
3 AIMS AND OBJECTIVES.....	3
3.1 Aims	3
3.2 Objectives.....	4
4 METHODS.....	4
4.1 Introduction.....	4
4.2 Fieldwork methods.....	4
4.3 Artefactual and environmental strategies	5
4.4 Monitoring.....	5
5 ARCHAEOLOGICAL RESULTS	5
5.1 Introduction.....	5
5.2 Soil sequence and natural deposits	5
5.3 Chequers Roundabout.....	6
5.4 Cepen Park Roundabout	7
6 ARTEFACTUAL EVIDENCE	7
6.1 Introduction.....	7
6.2 Pottery	7
6.3 Animal Bone	8
6.4 Flint.....	8
6.5 Conservation	9
6.6 Potential and recommendations.....	9
7 CONCLUSIONS	9
7.1 Summary	9
7.2 Discussion	9
8 ARCHIVE STORAGE AND CURATION.....	10
8.1 Museum & Preparation of the archive	10
8.2 Selection policy.....	10
8.3 Security copy	10
8.4 OASIS	10
9 COPYRIGHT	11
9.1 Archive and report copyright	11
9.2 Third party data copyright	11
REFERENCES	12
APPENDICES	14
Appendix 1 Context Descriptions	14



List of Figures

- Figure 1** The site showing location of watching brief areas
Figure 2 Chequers Roundabout showing archaeological features
Figure 3 Cepen Park Roundabout showing archaeological features
Figure 4 Section Drawings

List of Plates

- Cover: Looking north towards Cepen Park Roundabout
Plate 1 Metalled surface 106, ditches 109 and 110, looking north-west, 2 m and 1 m scales
Plate 2 Ditch 168, looking south-west, 1 m scale
Plate 3 Well 173, looking east, 1 m scale
Plate 4 Ditch 182, looking south-east, 1 m scale
Plate 5 Ditch 185, looking west, 1 m scale

List of Tables

- Table 1** Finds by material type and context (number of pieces/weight in grammes)
Table 2 Pottery ware totals (number of pieces/weight in grammes)



Summary

Wessex Archaeology was commissioned by Atkins on behalf of Wiltshire Highways, to undertake an archaeological watching brief during continuing improvements to the A350 Chippenham Bypass. The watching brief areas were located between National Grid References (NGR) 390498 174940 to 390968 175438 and 389900 171733 to 389545 172483.

The watching brief comprised the observation of groundworks associated with carriageway improvements which consisted of the machine excavation of areas of varying proportions.

Two of the excavated areas (Cepen Park Roundabout and Chequers Roundabout) contained archaeological features and deposits. The features comprised two field boundary ditches of Romano-British date, a post-medieval well and trackway and two undated field boundary ditches.

Acknowledgements

Wessex Archaeology would like to thank Atkins, for commissioning the archaeological evaluation and in particular Shaun Morris for his timely assistance with site programming. Wessex Archaeology is also grateful for the advice of Melanie Pomeroy-Kellinger, County Archaeologist, who monitored the project for Wiltshire Council, and to Griffiths for their cooperation and help on site.

The fieldwork was directed at various stages by Simon Flaherty, Mike Fleming, Roy Krakowicz, Cai Mason and Stewart Wareing. This report was written by Ray Holt. The project was managed by Andy King on behalf of Wessex Archaeology.



A350 CHIPPENHAM BYPASS IMPROVEMENT SCHEME

Archaeological Watching Brief

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology was commissioned by Atkins on behalf of Wiltshire Highways, to undertake an archaeological watching brief during continuing improvements to the A350 Chippenham Bypass. The monitored works extend between National Grid References (NGR) 390498 174940 to 390968 175438 and 389900 171733 to 389545 (**Fig. 1**).

1.1.2 The watching brief formed the final stage in a series of investigations requested by Wiltshire Council Archaeology Service (WCAS), who advise the Local Planning Authority (LPA). This stage of monitoring the route, from the Brook to Badger Roundabouts and north of Cepen Park to south of Chequers roundabouts (**Fig. 1**) follows on from the results of a geophysical survey (Stratascan 2015) and a previous watching brief from south of the Bumpers Farm to north of the Brook roundabouts (Wessex Archaeology 2015a).

1.1.3 The watching brief was undertaken in accordance with two written schemes of investigation (WSI) which detailed the aims, methodologies and standards to be employed (Wessex Archaeology 2017a and b). Clare King, Assistant County Archaeologist and later Melanie Pomeroy-Kellinger, County Archaeologist, approved the WSI's, on behalf of the Local Planning Authority (LPA), prior to fieldwork commencing. The watching brief was undertaken between 3 August 2017 and 10 July 2018.

1.2 Scope of the report

1.2.1 The purpose of this report is to provide the results of the watching brief, to interpret the results within their local or regional context (or otherwise), and to assess their potential to address the aims outlined in the WSI, thereby making available information about the archaeological resource (a preservation by record).

1.3 Location, topography and geology

1.3.1 The A350 Chippenham bypass, known as West Cepen Way, is divided into sections by a series of arterial roundabouts, from south to north as follows: Lackham, Chequers, Cepen Park South, Bumpers Farm, Brook, Badger and Malmesbury Rd. This watching brief covered two sections; from the Brook to Badger Roundabouts, extending from 300 m north-east of the Brook Roundabout to the Badger Roundabout; and from the Cepen Park South to Chequers Roundabouts extending from 430 m north of the Cepen Park roundabout to 390 m south of the Chequers roundabout and 210 m east to 350 m west of the Chequers roundabout (**Fig. 1**).

1.3.2 Existing ground levels from the Brook to Badger Roundabouts rise gradually from approximately 78 m above Ordnance Datum (aOD) north of Brook Roundabout to 84 m at the Badger Roundabout. Existing ground levels from the Cepen Park South to Chequers Roundabouts are fairly level between approximately 87 m and 84 m above Ordnance Datum (aOD).

1.3.3 The underlying geology is mapped as a Jurassic sandstone and siltstone of the Kellaways Formation around the Chequers roundabout, changing to Jurassic limestone of the Cornbrash Formation around the Cepen Park roundabout. The solid geology comprises Jurassic limestone of the Cornbrash Formation to the north and south of Brook Roundabout and Kellaway Member Mudstone to the Badger roundabout (British Geological Survey online viewer).



2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

- 2.1.1 The development of Chippenham and its immediate surrounding area has been discussed in some detail elsewhere (Haslam 1976, 15). The archaeological background to the Site is summarised in the previous WSI and Watching Brief Report (WA 2015a & 2015b) and will not be repeated in full here, reference should be made to these documents.
- 2.1.2 Stray finds of prehistoric date are rare, however, Mesolithic flint tools and waste flakes have been recovered to the east of Lackham Park (Anon. 1990, 219) and from the new Sainsbury's site on the Bath Road (Anon. 1991, 146).
- 2.1.3 Neolithic finds include a flint scraper recovered near to Deep Cutting Bridge on the Old Canal (Anon. 1990, 219) and a collection of finds from Fowlswick Lane. These include a fragment of sandstone rubber, nine waste flakes, one core, two utilised pieces, two retouched flakes and a small circular scraper (Anon. 1990, 225). A Neolithic pit was also recorded at the Bath Road Sainsbury's site (Anon. 1991, 143).
- 2.1.4 Prior to examinations associated with the construction of the original bypass in the late 1990s, Romano-British remains were even scarcer in the area, with a small collection of unstratified pottery and an enclosure ditch recorded on the site of '...the new roundabout...', probably referring to the Chequers roundabout, adjacent to Sainsbury's on the Bath Road (Anon. 1991, 143).
- 2.1.5 Chippenham is first recorded in AD 873 (as Cippanhamme, meaning 'Cippa's hamm'), indicating that the town has at least Late Saxon origins. Other broadly contemporaneous references to villa regia, including one dated to AD 853, also refer to Chippenham, although it is an ambiguous term that implies a settlement of indeterminate size.
- 2.1.6 The meandering course of the River Avon defines a narrow, easily defensible promontory on the south-east side of the river, and it is likely that early settlement concentrated on this promontory. In AD 878 a Danish force wintered at Chippenham, although no evidence of their camp has been found.
- 2.1.7 By the 10th-century royal charters were being signed at Chippenham and it is likely that this represents the period of greatest expansion and importance for the town during the Late Saxon and early medieval periods. At this time, it is likely that the town possessed a Danish encampment, a church, a royal hall and a large associated settlement, although little archaeological evidence for this status is recorded. During the reign of Ethelred II (AD 978-1016) coins minted at Cepen occur, though this is generally considered to refer to Ipswich, not Chippenham.
- 2.1.8 Contemporaneous remains include a 9th- or 10th-century decorated spearhead recovered near the River Avon on the west side of the promontory. This is of probable Anglo-Danish or Scandinavian origin (Anon. 1990, 229). A Saxon grubenhaus (sunken featured building) was also recorded at the Bath Road Sainsbury's site (Anon. 1991, 143).
- 2.1.9 By Domesday (AD 1086), up to 12 mills are recorded at Chippenham, possibly indicating the economic importance of cloth manufacture to the area. At about this time the manor ceased to be the property of the crown, and was broken up into Cheldon, Rowden and Lowden. In general, the documented development of medieval Chippenham is obscure, although it appears to have remained a relatively unimportant small market town until the early post-medieval period. The charter of incorporation was granted in AD 1554, and by 1604 there were 129 burgage houses within the town.

- 2.1.10 In the vicinity of the site, archaeological remains from the medieval period include possible medieval ridge and furrow cultivation at Vincients Wood c. 1 km to the south (Anon. 1995, 149), and other earthworks c. 1.6 m to the west, beyond Sheldon Manor (Anon. 1988, 176). Further afield, late Medieval Naish Hill pottery has been recovered at Middle Lodge Cottages (Anon. 1990, 219), c. 4 km to the south-east of the site.
- 2.1.11 The 1848 Tithe Map and Award (WCCRO 1848) identifies the Site forming part of the land surrounding Pipsmore Farm, demolished prior to the construction of Bumpers Farm Industrial Estate. There are no adjacent place-names recorded in the Tithe documents that suggest buried archaeological remains.

2.2 Previous investigations related to the development

- 2.2.1 A geophysical survey and watching brief was undertaken in 2015 around the Bumpers Farm to Brook roundabouts (Stratascan 2015), in proximity to the Scheduled Romano-British settlement at Manor Farm (National Heritage List for England 1425267).
- 2.2.2 A further geophysical survey was undertaken covering this section of the scheme in December 2015 (WA 2015c). The survey detected anomalies some of which were interpreted as being of possible archaeological interest, however, due to the small size of the survey area, positive identification was inconclusive. Magnetic interference from vehicles passing on the A350 and large volumes of modern ferrous disturbance may have masked any weaker anomalies.
- 2.2.3 A watching brief during the Bypass Improvement Scheme between Bumpers Farm to Brook Roundabouts in 2015 revealed that no archaeological deposits or features survived west of the A350 in that section, despite the proximity of the known Romano-British settlement. There was no evidence of anything other than agricultural activity prior to the construction of the Chippenham Bypass in the 1990s.

3 AIMS AND OBJECTIVES

3.1 Aims

- 3.1.1 The aims of the watching brief, as stated in the WSI (Wessex Archaeology 2017a and b) and as defined in the ClfA' *Standard and guidance for an archaeological watching brief* (ClfA 2014a), were:
- To allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of the development or other works;
 - To provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard; and
 - To guide, not replace, any requirement for contingent excavation or preservation of possible deposits.



3.2 Objectives

3.2.1 In order to achieve the above aims, the objectives of the watching brief, also defined in the WSI (Wessex Archaeology 2017a and b), were:

- To determine the presence or absence of archaeological features, deposits, structures, artefacts or ecofacts within the specified works area;
- To record and establish, within the constraints of the works, the extent, character, date, condition and quality of any surviving archaeological remains (a preservation by record);
- To place any identified archaeological remains within a wider historical and archaeological context in order to assess their significance; and
- To make available information about the archaeological resource on the site by preparing a report on the results of the watching brief.

4 METHODS

4.1 Introduction

4.1.1 All works were undertaken in accordance with the detailed methodology set out within the WSI (Wessex Archaeology 2017a and b) and in general compliance with the standards outlined in ClfA guidance (ClfA 2014a). The methods employed are summarised below.

4.2 Fieldwork methods

General

4.2.1 The watching brief monitored the stripping of all topsoils and overburden within the A350 Chippenham Bypass Improvement groundworks until it is established that the potential for surviving archaeological remains has been exhausted.

4.2.2 In addition, four machine-excavated test pits were monitored within the section south of Chequers roundabout on the north-bound side, to a depth of 400 mm below present levels, at evenly-spaced approximate chainage-measurements of 140 m, 185 m, 230 m and 275 m. Three machine-excavated test pits were also monitored within the section east of Chequers Roundabout to a depth of 900 mm below present levels.

4.2.3 The monitoring archaeologists recorded all mechanical excavations within the specified areas. Where necessary, the surface of uncovered archaeological deposits were cleaned by hand. A sample of archaeological features and deposits identified were hand-excavated, sufficient to address the aims of the watching brief.

4.2.4 Spoil derived from both machine stripping and hand-excavated archaeological deposits was visually scanned for the purposes of finds retrieval. Where found, artefacts were collected and bagged by context. All artefacts from excavated contexts were retained, although those from features of modern date (19th-century or later) were recorded on site and not retained.

Recording

4.2.5 All exposed archaeological deposits and features were recorded using Wessex Archaeology's pro forma recording system. A complete drawn record of excavated features and deposits was made including both plans and sections drawn to appropriate scales (generally 1:20 or 1:50 for plans and 1:10 for sections), and tied to the Ordnance Survey (OS) National Grid. The Ordnance Datum (OD: Newlyn) heights of all principal features were calculated, and levels added to plans and section drawings.

- 4.2.6 A Leica GNSS connected to Leica's SmartNet service surveyed the location of archaeological features. All survey data is recorded in OS National Grid coordinates and heights above OD (Newlyn), as defined by OSGM15 and OSTN15, with a three-dimensional accuracy of at least 50 mm.
- 4.2.7 A full photographic record was made using digital cameras equipped with an image sensor of not less than 10 megapixels. Digital images have been subject to managed quality control and curation processes, which has embedded appropriate metadata within the image and will ensure long term accessibility of the image set.

4.3 Artefactual and environmental strategies

- 4.3.1 Appropriate strategies for the recovery, processing and assessment of artefacts and environmental samples were in line with those detailed in the WSI (Wessex Archaeology 2017a and b). The treatment of artefacts and environmental remains was in general accordance with: *Guidance for the collection, documentation, conservation and research of archaeological materials* (ClfA 2014b) and *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (English Heritage 2011).

4.4 Monitoring

- 4.4.1 Clare King, Assistant County Archaeologist, and later Melanie Pomeroy-Kellinger, County Archaeologist, monitored progress on behalf of the LPA. Any variations to the WSI, if required to better address the project aims, were agreed in advance with both Atkins and the County Archaeological Advisors.

5 ARCHAEOLOGICAL RESULTS

5.1 Introduction

- 5.1.1 Archaeological features and deposits were revealed to the north of Cepen Park Roundabout (**Fig. 3**), and both to the north and south of Chequers Roundabout (**Fig. 2**), indicating archaeological remains are present in the southern part the scheme. No Archaeological features or deposits were identified in the northern part of the scheme from the Brook to Badger Roundabouts (**Fig. 1**).
- 5.1.2 The exposed features comprised two ditches of Roman date, two undated ditches, a stone lined well and a trackway with adjacent drainage ditches. Unstratified finds were also recovered from the topsoil and subsoil.
- 5.1.3 The following section presents the results of the watching brief with archaeological features and deposits discussed by Area.
- 5.1.4 Detailed descriptions of individual contexts are provided in a table (**Appendix 1**). **Figures 2 and 3** show the locations of all archaeological features recorded within the watching brief areas.

5.2 Soil sequence and natural deposits

- 5.2.1 Due to the linear nature of the improvement scheme the soil sequence and natural deposits varied throughout the watching brief areas.
- 5.2.2 To the south of Badger Roundabout, the natural substrate consisted of dark yellowish-grey slightly silty clay, containing poorly sorted sub angular limestone fragments (114). This was overlain by a 0.23 m thick mid yellowish-brown silty clay subsoil 113, containing occasional sub rounded limestone fragments. Subsoil 113 was sealed by a 0.08 m thick dark grey-brown silty clay topsoil 112.

- 5.2.3 To the North of Chequers Roundabout, the natural substrate consisted of compact grey clay containing coarse gravel inclusions (167). This was overlain by an intermittent light yellowish-brown silty clay colluvium 170, measuring up to 0.6 m in thickness. The natural substrate and colluvium 170 (where present), were sealed by a 0.2 m thick dark brown loamy topsoil (166) from which was recovered nine sherds of Romano-British pottery (1st – 4th centuries AD).
- 5.2.4 To the North of Cepen Park Roundabout, the natural bedrock 179, was overlain by natural substrate 178, which consisted of a variable bluish-grey to greyish-yellow sandy silt clay containing common sub angular degraded bedrock fragments. This was overlain by a 0.2 m thick reddish-brown clayey silt subsoil (177). Subsoil 177 was sealed by a 0.2 m thick reddish-brown clayey silt topsoil 176 from which was recovered nine fragments of flint flakes in poor condition, heavily patinated with edge damage and a sherd of Roman pottery.
- 5.2.5 To the east of Chequers Roundabout the natural substrate consisted of brownish-yellow sandy silt containing degraded bedrock fragments (202). This was overlain by successive modern made ground deposits measuring up to a total of 0.8 m in thickness (199, 200 and 201), in turn sealed by a 0.1 m thick clayey silt topsoil 198.

5.3 Chequers Roundabout

- 5.3.1 Two Romano-British ditches (168 and 185), a post-medieval trackway (106) with flanking ditches (109 and 110), and an undated well (173), were revealed during the watching brief in the vicinity of Chequers Roundabout (**Fig. 2**).
- 5.3.2 Ditch 168 was aligned south-west/north-east, had concave steep sloping sides, and measured 0.7 m in width and was in excess of 1 m in depth (not fully excavated) (**Plate 2**). The ditch contained a secondary fill of greyish-brown silty clay (169) from which was recovered six sherds of Romano-British pottery (1st – 4th centuries AD), cattle bones, comprising part of a maxilla, distal tibia and scapula, a sheep/goat tooth and a pig tarsal.
- 5.3.3 Ditch 185 was also aligned south-west/north-east, had steep sloping sides to a flat base, measured 1.3 m in width and 0.8 m in depth, and contained a series of silty clay and clayey silt fills (186, 187 and 188) (**Fig. 4, Plate 5**). The lowest fill, 186, was a deliberate backfill of angular bedrock fragments within a clayey silt matrix and was overlain by clayey silt fill 187 which contained 29 sherds of Romano-British pottery (1st – 4th centuries AD), fragments of cattle tibia, humerus and phalanx, a sheep/goat mandible, metacarpal and tibia, and a horse tooth. A residual fragment of worked flint was also recovered. The upper fill of the ditch, silty clay 188 was artefactually sterile.
- 5.3.4 The route of a north-east/south-west aligned trackway exposed by the groundworks, was visible in the modern landscape as a tree lined avenue, still in use as a public byway (CORM122). The track consisted of a bedding layer of compacted, mid yellowish-brown sandy clay 108, containing occasional sub rounded sandstone fragments, measuring 8.75 m in width. Bedding layer 108 was overlain by a metalled surface 107, comprising yellowish-white sub rounded sandstone fragments and measured 4.9 m in width and 0.21 m in thickness (**Plate 1**).
- 5.3.5 Two flanking drainage ditches of the track were identified, ditch 109 to the south and ditch 110 to the north. Ditch 109 measured 1.8 m in width, ditch 110 measured 0.88 m in width, both containing artefactually sterile silty clay fills (105 and 107 respectively) (**Plate 1**).
- 5.3.6 The construction cut for well 171 was circular in plan, measured 2 m in diameter at the surface, becoming wider with depth and forming a bell shape. The well was lined with unworked, unbonded limestone blocks laid in regular courses (173). The void between the construction cut and masonry lining was backfilled with clayey silt 172 (**Plate 3**).



5.3.7 Two artefactually sterile clayey silt backfills 174 and 175 were identified within the well. Although artefactually undated, the well contained two vertical cast iron pipes suggesting it had been in use until relatively recently.

5.4 Cepen Park Roundabout

5.4.1 Two artefactually undated ditches (180 and 182) were revealed during the watching brief to the north of Cepen Park Roundabout (**Fig. 3**). Although undated, ditch 180 was orientated on the same broad north-east/south-west alignment as ditches 168 and 185 discussed above and could possibly be part of a contemporary field system.

5.4.2 Ditch 180 was north-east/south-west aligned, with moderate sloping sides to a concave rounded base and measured 0.95 m in width and 0.5 m in depth. The ditch contained a deliberate mid reddish-brown clayey silt backfill (181) with common sub angular bedrock fragments.

5.4.3 North-west/south-east aligned ditch 182 post-dated ditch 180. Ditch 182 had moderate sloping sides to a wide flat base, measured 1.1 m in width, 0.35 m in depth and contained reddish-brown clayey silt fill from which no datable artefacts were recovered.

6 ARTEFACTUAL EVIDENCE

6.1 Introduction

6.1.1 Just over 1 kg of artefacts were retained, deriving from four of the excavated contexts (topsoil deposits 166 and 176 and ditches 168 and 185). All the finds survive in moderate condition and have been quantified by material type within each context (Table 1). The pottery is all of Roman date (1st – 4th centuries AD), although the small quantity of struck flint recovered indicates a background of earlier, prehistoric, activity.

Table 1 Finds by material type and context (number of pieces/weight in grammes)

Context	Animal bone	Flint	Pottery	Total
166, topsoil	-	-	9/57	9/57
169, fill of ditch 168	39/276	-	6/132	45/408
176, topsoil	-	9/22	1/1	10/23
187, fill of ditch 185	15/306	1/3	29/229	45/538
Total:	54/582	10/25	45/419	109/1026

6.2 Pottery

6.2.1 Roman pottery, totalling 45 sherds (419 g), was recovered from all four contexts containing finds. Although the mean sherd weight of this assemblage (9.3 g) is slightly below that expected for Romano-British sites across southern England (usually in the region of 10-20 g), all but the softest fabrics survive in moderately good condition.

6.2.2 The assemblage has been quantified (sherd count and weight) by ware type within each context; this information is summarised in Table 2. Vessel forms have been briefly described and quantified by the number of examples present. Spot-dates have been recorded for each fabric and for the context as a whole; all data is stored in a standard Wessex Archaeology ACCESS database which forms part of the project archive.

Table 2 Pottery ware totals (number of pieces/weight in grammes)

Ware	No.	Wt.
Greyware	32	237
Savernake-type ware	6	94
White-slipped red ware	3	31
Congresbury ware	1	50
Oxon colour-coated ware mortaria	1	3
Oxidised ware	1	3
Samian	1	1
Total:	45	419

6.2.3 Although featured sherds are limited to just four greyware jar rim fragments (all broken well above the neck/shoulder junction and unmeasurable), a lid in white-slipped red ware and an oxidised ware flange fragment probably from a bowl copying samian form 38, the fabric profile of this assemblage suggests that it is predominantly of 2nd to 4th-century AD date. It is dominated by coarse, utilitarian vessels in a range of predominantly local sandy greyware fabrics, with the Savernake-type and Congresbury industries providing large, thick-walled storage vessels. Regional imports are represented by the Oxfordshire mortaria sherd of definite late 3rd or 4th-century date; the oxidised flange fragment may also be a product of this industry (cf. Young 1977, 199, fig. 73, type O47). The only continental import is the sherd of samian (topsoil 176). This, however, need not be significant in an assemblage of this size and date, as imports of any kind became increasingly rare after c. AD 150 and the disruption caused to supply routes of the Gallic wares by the later 2nd century AD.

6.3 Animal Bone

6.3.1 The animal bone came from the two ditches and was associated with sherds of Romano-British pottery. The bones are in reasonable condition; a few are burnt and two were recorded with gnaw marks. Butchery marks made with a heavy chopping tool were evident on several of the cattle and sheep/goat bones.

6.3.2 The identifiable bones from ditch 168 are all from livestock, they include three cattle bones, comprising part of a maxilla, distal tibia and scapula, a sheep/goat tooth and a pig tarsal. The bones from ditch 185 include fragments of cattle tibia, humerus and third phalanx, a sheep/goat mandible, metacarpal and tibia, and a horse tooth. The mandible is from a yearling aged approx. 6–12 months (mandible wear stage C, after Hambleton 1999, 64).

6.4 Flint

6.4.1 Most of the pieces recovered are heavily patinated and exhibit the common edge damage typical of collections from the ploughzone. Where visible (in recent breaks or in the few unpatinated examples), the flint is predominantly grey to dark grey/black. Flint does not occur naturally in the area, so this material probably derives from the chalklands of Salisbury Plain. None of the pieces are chronologically distinctive and the collection can only be assigned a broad prehistoric date.

6.5 Conservation

- 6.5.1 No immediate conservation requirements were noted in the field. During assessment, none of the finds were identified as being of unstable material types or as being in an unstable condition, so no further conservation treatment is considered necessary.

6.6 Potential and recommendations

- 6.6.1 None of the pottery sherds or other finds were of particular intrinsic interest. Together, the pottery and animal bone indicate Romano-British settlement and animal husbandry in the immediate vicinity, occurring against a background of prehistoric activity, evidenced by the struck flint. However, given the size of the finds assemblage, and paucity of featured or otherwise diagnostic sherds of pottery, there is little potential for further, more detailed, analysis of any of the finds even though the moderately good condition of the pieces from the two ditches, at least, suggests that this material had not moved far, or often, from the point of its original deposition. This highlights the potential for the survival of other well-preserved, well-stratified archaeological remains of Roman date in the immediate vicinity.
- 6.6.2 The assemblage has been recorded to a fairly detailed level as part of this assessment and does not warrant any further work. However, if the results of this fieldwork are to be published in any way, comments based on this report should be included.

7 CONCLUSIONS

7.1 Summary

- 7.1.1 The watching brief identified a limited number of archaeological features within the site, with Romano-British ditches revealed to the north of Chequers Roundabout, undated ditches to the north of Cepen Park Roundabout, along with a probable post-medieval well and trackway (**Figs 2 and 3**).
- 7.1.2 The areas in which the archaeological features were encountered correlate with areas identified as containing possible archaeology by a preceding geophysical survey (Wessex Archaeology 2015c). However, there was no direct correlation between the archaeological features and the geophysical anomalies.
- 7.1.3 It is probable that the ditches to the north of Chequers Roundabout are Romano-British field boundaries, the undated ditches to the north of Cepen Park Roundabout potentially forming part of a larger contemporary agricultural landscape (**Figs 2 and 3**).
- 7.1.4 The trackway to the south of Chequers Roundabout was visible in the modern landscape and still in use as a public byway (CORM122), the well to the north was of post-medieval or modern date (**Fig. 2**).

7.2 Discussion

- 7.2.1 The watching brief has established that there is a reasonably high potential for pockets of archaeology to survive along the route of the A350 Chippenham Bypass Improvement Scheme. The pottery and animal bone recovered from a number of archaeological features and deposits indicate Romano-British settlement and animal husbandry in the vicinity, occurring against a background of prehistoric activity, evidenced by the struck flint.



8 ARCHIVE STORAGE AND CURATION

8.1 Museum & Preparation of the archive

8.1.1 The archive resulting from the watching brief is currently held at the offices of Wessex Archaeology in Bristol. The designated repository for archaeological archives in this part of Wiltshire is Chippenham Museum which is not currently accepting archives, therefore, prior to its eventual deposition, the archive will be temporarily stored at Wessex Archaeology's offices in Bristol under unique Site Code 110352. Deposition of any finds with the museum will only be carried out with the full written agreement of the landowner to transfer title of all finds to the museum.

8.1.2 The archive, which includes paper records, graphics, artefacts and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material by Chippenham Museum, and in general following nationally recommended guidelines (SMA 1995; ClfA 2014c; Brown 2011; ADS 2013).

8.1.3 All archive elements are marked with the site code **110352**, and a full index will be prepared. The physical archive currently comprises the following:

- 1 cardboard boxes or airtight plastic boxes of artefacts, ordered by material type;
- 1 document cases of paper records and A3/A4 graphics;

8.2 Selection policy

8.2.1 Wessex Archaeology follows national guidelines on selection and retention (SMA 1993; Brown 2011, section 4). In accordance with these, and any specific guidance prepared by the museum, a process of selection and retention will be followed so that only those artefacts that are considered to have potential for future study will be retained. The selection policy will be agreed with the museum, and is fully documented in the project archive.

8.3 Security copy

8.3.1 In line with current best practice (Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

8.4 OASIS

8.4.1 An OASIS online record (<http://oasis.ac.uk/pages/wiki/Main>) has been initiated (**wessexar1-292871**), with key fields and a .pdf version of the final report submitted. Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service ArchSearch catalogue.



9 COPYRIGHT

9.1 Archive and report copyright

- 9.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by Wessex Archaeology under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. The museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the *Copyright and Related Rights Regulations 2003*. In some instances, certain regional museums may require absolute transfer of copyright, rather than a licence; this should be dealt with on a case-by-case basis.
- 9.1.2 Information relating to the project will be deposited with the Historic Environment Record (HER) where it can be freely copied without reference to Wessex Archaeology for the purposes of archaeological research or development control within the planning process.

9.2 Third party data copyright

- 9.2.1 This document and the project archive may contain material that is non-Wessex Archaeology copyright (Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of the *Copyright, Designs and Patents Act 1988* with regard to multiple copying and electronic dissemination of such material.



REFERENCES

- ADS 2013 *Caring for Digital Data in Archaeology: a guide to good practice*. Archaeology Data Service and Digital Antiquity Guides to Good Practice
- Anon. 1990. *Excavation and Fieldwork in Wiltshire 1988*, *Wiltshire Archaeol Natur Hist Mag* 83, 218-23
- Anon. 1991. *Excavation and Fieldwork in Wiltshire 1989*, *Wiltshire Archaeol Natur Hist Mag* 84, 141-5
- Bateman, C., 1998. *Chippenham Western Bypass (A4 to A350 Link)*. Cotswold Archaeological Trust, Unit unpublished client report 98874, Wiltshire Council Catalogue Number: 1998.016
- British Geological Survey online viewer <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> (accessed 5 June 2018)
- Brown, D H 2011 *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation* (revised edition). Archaeological Archives Forum
- English Heritage 2011 *Environmental Archaeology: a guide to theory and practice of methods, from sampling and recovery to post-excavation*. Swindon, Centre for Archaeology Guidelines
- CIfA 2014a *Standard and Guidance for an Archaeological Watching Brief*. Reading, Chartered Institute for Archaeologists
- CIfA 2014b *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*. Reading, Chartered Institute for Archaeologists
- CIfA 2014c *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives*. Reading, Chartered Institute for Archaeologists
- Hambleton E 1999 *Animal Husbandry Regimes in Iron Age Britain: a comparative study of faunal assemblages from British Iron Age sites*. *Brit. Archaeol. Rep. Brit. Ser.* 282
- Haslam 1976 *Wiltshire Towns: the archaeological potential*. Monograph, 15
- SMA 1993 *Selection, Retention and Dispersal of Archaeological Collections*. Society of Museum Archaeologists
- SMA 1995 *Towards an Accessible Archaeological Archive*. Society of Museum Archaeologists
- Stratascan, 2015. *A350 Chippenham, Wiltshire, Geophysical Survey Report*, unpublished client rep J8583
- Wessex Archaeology 2015a. *A350 Chippenham Bypass, Bumpers Farm to Brook Section, Written Scheme of Investigation for an Archaeological Watching Brief*. Unpublished rep T20733.0
- Wessex Archaeology 2015b. *A350 Chippenham Bypass Improvement Scheme, Bumpers Farm Roundabout to Brook Roundabout, Chippenham, Wiltshire. Archaeological Watching Brief*. Unpublished client report 110350.01



Wessex Archaeology 2015c. *A350 Chippenham Bypass Improvements, Chippenham, Wiltshire, Detailed Gradiometer Report*. Unpublished client report 110351

Wessex Archaeology 1017a. *A350 Chippenham Bypass Improvement Scheme 2017, Brook to Badger Roundabout, Chippenham, Wiltshire. Written Scheme of Investigation for an Archaeological Watching Brief*. Unpublished report ref. 110352.02

Wessex Archaeology 1017b. *A350 Chippenham Bypass Improvement Scheme 2017, Cepen Park South to Chequers Roundabout, Chippenham, Wiltshire. Written Scheme of Investigation for an Archaeological Watching Brief*. Unpublished report ref. 110352.01

Young, C.J. 1977 *Oxfordshire Roman Pottery*, Brit. Archaeol. Rep. 43, Oxford






APPENDICES

Appendix 1 Context Descriptions

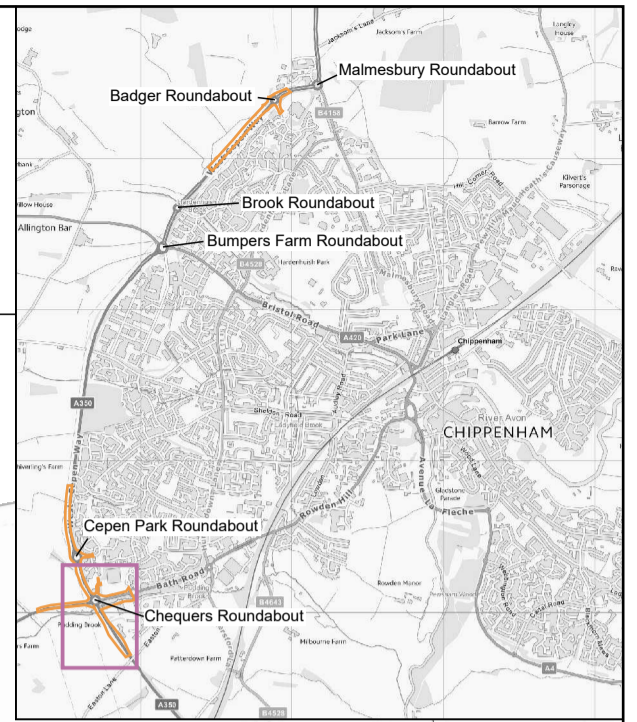
Context	Interpretation	Fill of	Description	Depth bgl (m)
105	Secondary fill of ditch	109	Dark orange brown silty clay	0.31+
106	Metalled surface	111	Compact layer of mid yellowish-white sub rounded sandstone fragments measuring 4.9 m in width and 0.21 m in thickness, aligned north-east/south-west.	0.31-0.52
107	Secondary fill of ditch	110	Dark greyish-brown silty clay	0.31+
108	Bedding layer for metalled surface 106	111	Compact layer of mid yellowish-brown sandy clay containing occasional sub rounded sandstone fragments, measuring 8.75 m in width.	0.52+
109	Ditch		North-east/south-west aligned ditch cut measuring 1.8 m in width. Southern drainage ditch for trackway 111/108/106.	0.31+
110	Ditch		North-east/south-west aligned ditch cut measuring 0.88 m in width. Northern drainage ditch for trackway 111/108/106.	0.31+
111	Cut for trackway		East/west aligned cut for trackway.	0.52+
112	Topsoil		Dark grey brown silty clay	0-0.08
113	Subsoil		Mid yellowish-brown silty clay containing occasional sub rounded limestone fragments. Sealed 105, 106 and 107	0.08-0.31
114	Natural substrate		Dark yellowish-grey slightly silty clay containing frequent poorly sorted sub angular limestone fragments. Cut by 109, 110 and 111.	0.31+
166	Topsoil		Dark brown loam.	0-0.2
167	Natural substrate		Compact grey clay containing medium and coarse gravel inclusions.	0.2-0.8+
168	Ditch		South-west/north-east aligned ditch with concave steep sloping sides, measuring 0.7 m in width and more than 1m in depth.	0.2-1.2+
169	Secondary fill of ditch	168	Mid greyish-brown silty clay containing rare sub angular coarse gravels	0.2-1.2+
170	Colluvium		Light yellowish-brown silty clay containing occasional fine gravels. Cut by well 171. Variable deposit, not revealed throughout area.	0.2-0.8
171	Construction cut for well 173		Circular cut measuring 2 m in diameter at the surface becoming wider with depth (bell shaped).	0.2-1.7+
172	Backfill of construction cut 171	171	Mid yellowish-brown clayey silt containing abundant limestone fragments.	0.2-1.7+
173	Well structure	171	Circular well wall constructed from unworked, unbonded limestone blocks laid in regular courses.	0.2-1.7+
174	Upper fill of well 173	171/173	Mid greyish-brown clayey silt containing rare sub angular limestone fragments. Probably a deliberate backfill.	0.2-0.6
175	Secondary fill of well 173	171/173	Mid greyish-brown clayey silt containing rare sub rounded limestone fragments.	0.6-1.7+
176	Topsoil		Reddish-brown clayey silt containing common sub angular stones	0-0.2
177	Subsoil		Reddish-brown clayey silt containing sub angular stones. Overlies fills of ditches 180 and 182.	0.2-0.4



	 Area of watching brief cover for construction  Watching brief areas	Contains Ordnance Survey data © Crown Copyright and database right 2018. This material is for client report only © Wessex Archaeology. No unauthorised reproduction.	
	Date: 24/10/2018	Revision Number: 0	
	Scale: 1:12500 at A3	Illustrator: KMN/WAF/ND	
	Path: X:\PROJECTS\110352\Graphics_Office\Rep figs\WB\2018_10_24\110352_WB.dwg		

The site showing location of watching brief areas

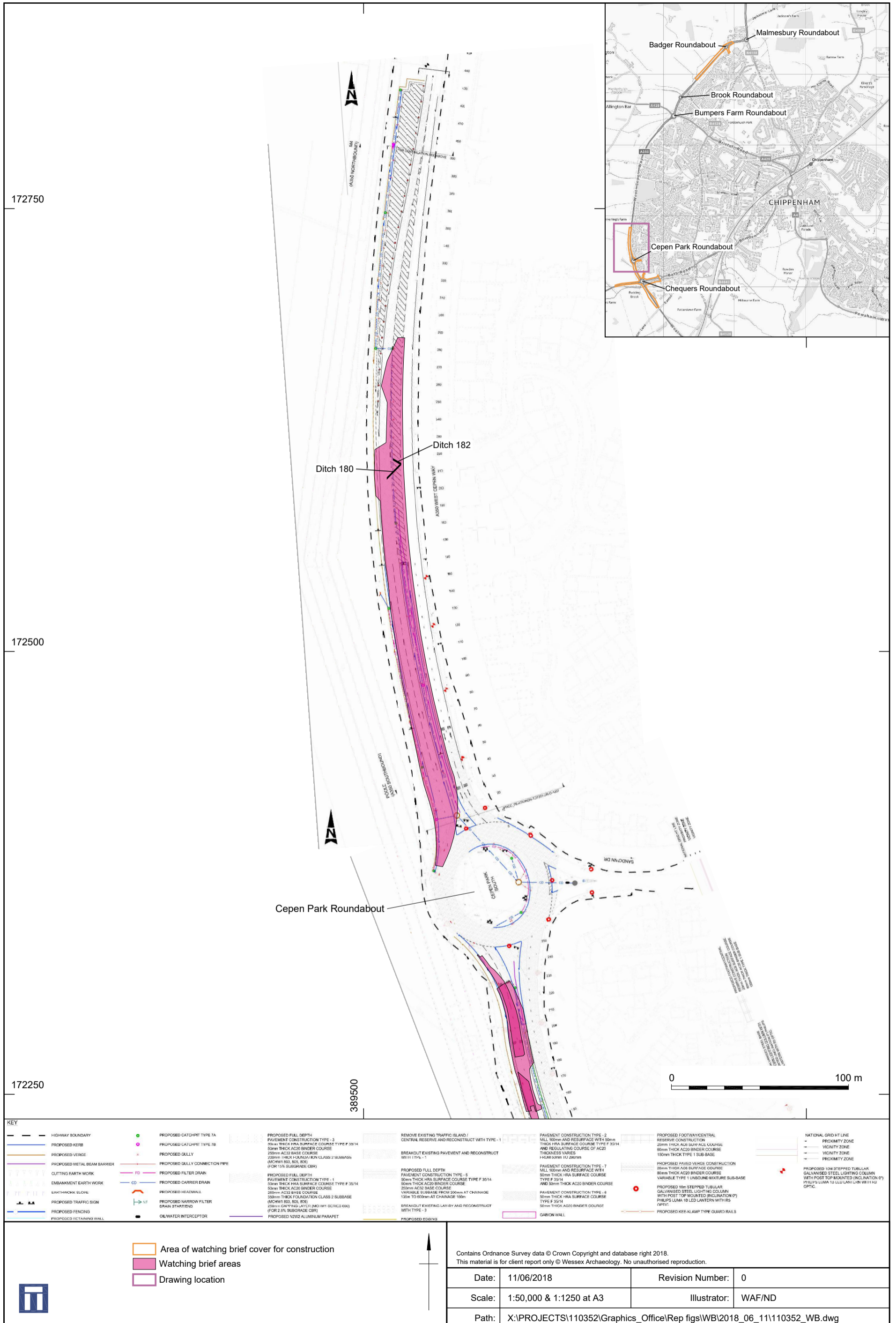
Figure 1



<p>KEY</p> <ul style="list-style-type: none"> --- HIGHWAY BOUNDARY --- PROPOSED KERB --- PROPOSED VERGE --- PROPOSED METAL BEAM BARRIER --- CUTTING EARTH WORK --- EMBANKMENT EARTH WORK --- EARTHWORK SLOPE --- PROPOSED TRAFFIC SIGN --- PROPOSED FENCING --- PROPOSED RETAINING WALL ● PROPOSED CATCHPIE TYPE 7A ● PROPOSED CATCHPIE TYPE 7B ● PROPOSED GULLY --- PROPOSED GULLY CONNECTION PIPE --- PROPOSED FILTER DRAIN --- PROPOSED CARRIER DRAIN --- PROPOSED HEADWALL --- PROPOSED NARROW FILTER DRAIN START/END ● OIL/WATER INTERCEPTOR --- PROPOSED FULL DEPTH PAVEMENT CONSTRUCTION TYPE - 3 --- PROPOSED FULL DEPTH PAVEMENT CONSTRUCTION TYPE - 1 --- PROPOSED FULL DEPTH PAVEMENT CONSTRUCTION TYPE - 5 --- PROPOSED FULL DEPTH PAVEMENT CONSTRUCTION TYPE - 7 --- PROPOSED FULL DEPTH PAVEMENT CONSTRUCTION TYPE - 8 --- REMOVE EXISTING TRAFFIC ISLAND / CENTRAL RESERVE AND RECONSTRUCT WITH TYPE - 1 --- BREAKOUT EXISTING PAVEMENT AND RECONSTRUCT WITH TYPE - 1 --- PROPOSED FULL DEPTH PAVEMENT CONSTRUCTION TYPE - 1 --- REMOVE EXISTING LAY-BY AND RECONSTRUCT WITH TYPE - 3 --- PAVEMENT CONSTRUCTION TYPE - 2 --- PAVEMENT CONSTRUCTION TYPE - 6 --- PROPOSED FOOTWAY CENTRAL RESERVE CONSTRUCTION --- PROPOSED PAVED VERGE CONSTRUCTION --- PROPOSED 10M STEPPED TUBULAR GALVANISED STEEL LIGHTING COLUMN WITH POST TOP MOUNTED (INCLINATION 0°) PHILIPS LUMA 18 LED LANTERN WITH R5 OPTIC --- PROPOSED KEEL-LAMP TYPE GUARD RAILS --- NATIONAL GRID HT LINE --- VICINITY ZONE --- VICINITY ZONE --- VICINITY ZONE --- PROPOSED 10M STEPPED TUBULAR GALVANISED STEEL LIGHTING COLUMN WITH POST TOP MOUNTED (INCLINATION 0°) PHILIPS LUMA 18 LED LANTERN WITH R5 OPTIC 	<p> Area of watching brief cover for construction Watching brief areas Drawing location Test pit </p>	<p> Contains Ordnance Survey data © Crown Copyright and database right 2018. This material is for client report only © Wessex Archaeology. No unauthorised reproduction. </p> <table border="1"> <tr> <td>Date:</td> <td>24/10/2018</td> <td>Revision Number:</td> <td>0</td> </tr> <tr> <td>Scale:</td> <td>1:50,000 & 1:1250 at A3</td> <td>Illustrator:</td> <td>WAF/ND</td> </tr> <tr> <td>Path:</td> <td colspan="3">X:\PROJECTS\110352\Graphics_Office\Rep figs\WB\2018_10_24\110352_WB.dwg</td> </tr> </table>	Date:	24/10/2018	Revision Number:	0	Scale:	1:50,000 & 1:1250 at A3	Illustrator:	WAF/ND	Path:	X:\PROJECTS\110352\Graphics_Office\Rep figs\WB\2018_10_24\110352_WB.dwg		
Date:	24/10/2018	Revision Number:	0											
Scale:	1:50,000 & 1:1250 at A3	Illustrator:	WAF/ND											
Path:	X:\PROJECTS\110352\Graphics_Office\Rep figs\WB\2018_10_24\110352_WB.dwg													

Chequers Roundabout showing archaeological features

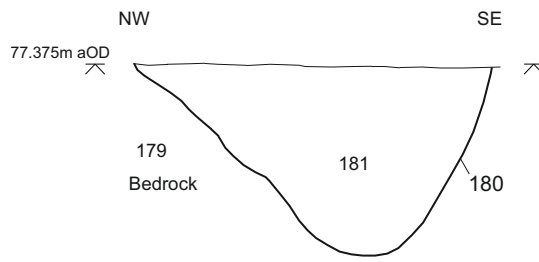
Figure 2



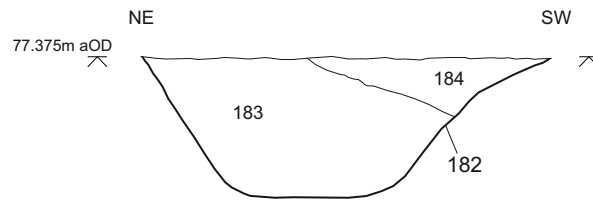
Cepen Park Roundabout showing archaeological features

Figure 3

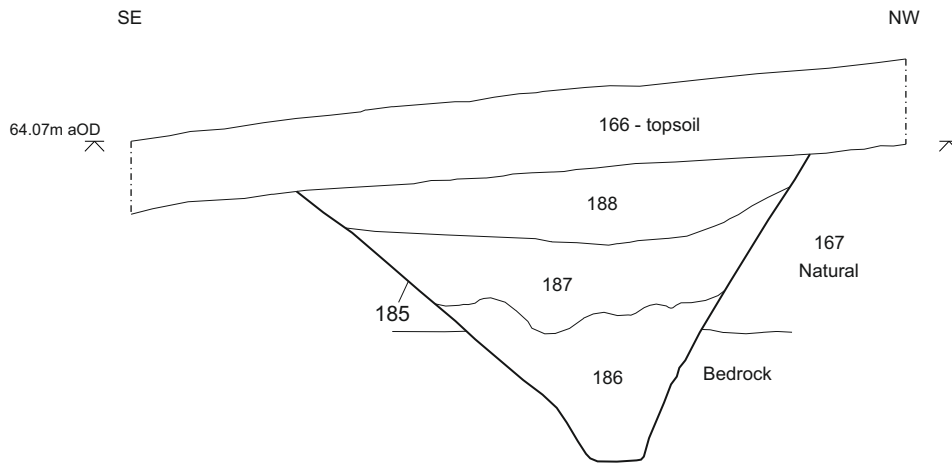
South-west facing section through ditch 180



North-west facing section through ditch 182



North-east facing section through ditch 185



This material is for client report only © Wessex Archaeology. No unauthorised reproduction.



Date: 24/10/2018

Revision Number: 0

Scale: 1:20 at A4

Illustrator: ND

Path: X:\PROJECTS\110352\Graphics_Office\Rep figs\WB\2018_10_24\110352_Fig04.cdr



Plate 1: Metalled surface 106, ditches 109 and 110, looking north-west, 2 m and 1 m scales



Plate 2: Ditch 168, looking south-west, 1 m scale


	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.			
	Date:	24/10/2018	Revision Number:	0
	Scale:	N/A	Illustrator:	ND
	Path:	X:\PROJECTS\110352\Graphics_Office\Rep figs\WB\2018_10_24\110352_Plates.cdr		



Plate 3: Well 173, looking east, 1 m scale



Plate 4: Ditch 182, looking south-east, 1 m scale



	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.			
	Date:	24/10/2018	Revision Number:	0
	Scale:	N/A	Illustrator:	ND
	Path:	X:\PROJECTS\110352\Graphics_Office\Rep figs\WB\2018_10_24\110352_Plates.cdr		



Plate 5: Ditch 185, looking west, 1 m scale

	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.			
	Date:	24/10/2018	Revision Number:	0
	Scale:	N/A	Illustrator:	ND
	Path:	X:\PROJECTS\110352\Graphics_Office\Rep figs\WB\2018_10_24\110352_Plates.cdr		



Wessex Archaeology Ltd registered office Portway House, Old Sarum Park, Salisbury, Wiltshire SP4 6EB
Tel: 01722 326867 Fax: 01722 337562 info@wessexarch.co.uk www.wessexarch.co.uk

