



Devon County Council
Countess Wear to Bridge Road

Geotechnical Investigation Report





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Prepared on behalf of:

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Summary

Wessex Archaeology was commissioned by Devon County Council, to undertake an archaeological watching brief during geotechnical investigations of an improved cycleway on Countess Wear and Bridge Road, Exeter, Devon centred on OS NGR SX 941 895.

Subsequent to a *Brief for Archaeological Monitoring and Recording* from Devon County Council (HES 2009), an archaeological watching brief was required to assess the nature, presence or absence of archaeological and palaeoenvironmental remains present on the proposed route of the cycleway.

The watching brief comprised the observation of up to 20 hand-excavated test-pits, located at the base of the modern road bridge and on the embankment of the road, and a series of boreholes. Of the test-pits, Test-pits 6, 7, and 10 were situated in the floodplain of the River Exe and were deemed to be of archaeological potential.

Test-pits 6 and 7 produced no remains of archaeological significance. The nature of the geotechnical investigation, shallow test-pits to locate the concrete footing of the bridge, meant that archaeological deposits were not encountered.

Acknowledgements

The project was commissioned by Devon County Council and the assistance of Matthew Waring is gratefully acknowledged in this respect. The help of Clare Breckin during the watching brief and with co-ordinating site works was also much appreciated.

The project was managed on behalf of Wessex Archaeology by Andy Crockett. The watching brief was undertaken by John Powell with palaeoenvironmental assistance from Dave Norcott. This report was written by John Powell and edited by Andy Crockett. The figures were prepared by Linda Coleman.

1 INTRODUCTION

1.1 Project Background

- 1.1.1 Wessex Archaeology was commissioned by Devon County Council (DCC; the **client**) to carry out an archaeological and geoarchaeological watching brief during geotechnical investigation works in relation to the proposed improved cycleway between Countess Wear and Bridge Road, Exeter (the **Site**: centred on OS NGR SX 941 895, **Figure 1**).
- 1.1.2 The watching brief was undertaken in line with the *Written Scheme of Investigation* (Wessex Archaeology 2009) which set out the scheme of works for the watching brief, and was prepared in accordance with the *Brief for Archaeological Monitoring and Recording* (HES 2009), and with due regard to the *Standard and Guidance for an Archaeological Watching Brief* (IfA 2001).
- 1.1.3 The geotechnical investigations comprised of a suite of boreholes and 20 test-pits (TP1-TP20). Of the latter, TP6, 7 and 10 were situated within the floodplain of the River Exe, and considered to therefore have the potential for impacting on palaeoenvironmental remains. The programme of borehole drilling did not require geoarchaeological monitoring.
- 1.1.4 The archaeological works was monitored by the Historic Environment Service (HES) of Devon County Council.
- 1.1.5 The watching brief took place on the 15th of June 2009.

2 SITE LOCATION, GEOLOGY AND TOPOGRAPHY

2.1 Site Location

- 2.1.1 The Site was located alongside the road bridges on Countess Wear and Bridge Road, Exeter (centred on OS NGR SX 941 895). The location of the test-pits followed the road line and varied from the roadside embankment to below the road in fields within the flood plain, currently used for pasture.

2.2 Geology and Topography

- 2.2.1 The underlying solid geology of the Site is Heavitree Breccia (mudstone), which was overlain by undifferentiated quaternary marine deposits of which some may have been reclaimed (British Geological Survey 1:50,000, map sheet 325).
- 2.2.2 The site was low lying and was located across the flood plain of the River Exe, which flowed north-west to south-east through the site.

3 SCOPE OF WORKS

3.1 Objective

- 3.1.1 The principal objective of the programme was to monitor and record the excavation of the test-pits within the flood plain adjacent to the bridge and road, primarily to determine the survival of palaeoenvironmental deposits, and mitigate their impact where feasible.
- 3.1.2 The results of these observations were to inform a consideration of the nature, extent, and date of any surviving palaeoenvironmental and archaeological deposits within the area under investigation and allow the requirement and scope for any further investigations to be determined.
- 3.1.3 At the time of the fieldwork, it was understood that further archaeological work may have been required in mitigation against the impact of the proposed development upon the archaeological resource; the results of this phase therefore potentially representing the *first stage* of a programme of archaeological mitigation.

4 METHODOLOGIES

4.1 Project Documentation

- 4.1.1 Wessex Archaeology submitted the following documentation for approval prior to commencement of fieldwork;
- *Written Scheme of Investigation (WSI); and*
 - *Health & Safety Risk Assessment.*

All work undertaken during the watching brief was carried out in line with the specifications of the WSI.

4.2 Watching Brief

- 4.2.1 The watching brief monitored all groundwork in the test-pits of potential outlined in the Written Scheme of Investigation (Wessex Archaeology 2009). The trial pits were hand-excavated, measured approximately 1m² and excavated to variable (though shallow) depths dependent on ground and groundwater conditions.
- 4.2.2 Sufficient dated colour photographs of the area, including access routes, were taken to provide a record of original condition, and condition on completion of all fieldwork (see **Plate 1**). A full record of 35mm black and white negatives and colour transparencies were taken of the archaeologically recorded test-pits; digital images were also taken as a record of all works.
- 4.2.3 The test-pits were set-out by the client's subcontractor, as was the as-dug survey for each investigation. All survey was carried out in the Ordnance Survey National Grid Reference system.

- 4.2.4 The test-pits were recorded using Wessex Archaeology's *pro forma* recording system, as set out in the Written Scheme of Investigation (Wessex Archaeology 2009).
- 4.2.5 All work was carried out in accordance with the Health and Safety at Work etc. Act 1974 and the Management of Health and Safety Regulations 1992, and all other relevant health and Safety legislation, regulations and codes of practice in force at the time. The work was also undertaken in line with the guidelines provided in the document *Health & Safety in Field Archaeology* (Standing Conference of Archaeological Unit Managers 1997, updated September 1999).

5 RESULTS

- 5.1.1 The following section provides a summary of the results of the watching brief. A full description of Test-pits 6 and 7 is included in **Appendix 1**. The locations of the test-pits can be seen in **Figure 1**, and the general site conditions (at TP7) illustrated in **Plates 2 and 3**.
- 5.1.2 TP6 and TP7 were located within the flood plain of the River Exe directly below the modern Countess Wear road bridge. The test-pits were located in order to ascertain the depth of concrete footings of the modern bridge. Due to ground conditions during the excavation the two test-pits were only excavated to less than 0.50m. At this depth no archaeological or palaeoenvironmental deposits were identified. The depositional sequence revealed in both test-pits comprised a dark grey brown sandy clay topsoil of alluvial nature that overlay made ground and the concrete footings of the modern road bridge.
- 5.1.3 Two test-pits located on the road embankment (TP2 and TP3) were monitored, but due to their shallow nature when considered against their location on the edge of the modern road embankment, no deposits other than embankment material were observed.
- 5.1.4 Due to the negative archaeological and palaeoenvironmental results from TP6 and TP7, it was agreed that monitoring of TP10 would not be undertaken
- 5.1.5 No archaeological finds were found, and as a result, no environmental samples were taken during the watching brief.

6 CONCLUSION

- 6.1.1 No archaeological or palaeoenvironmental remains were identified. The topsoil/alluvium recorded in TP6 and TP7 was stratigraphically clearly of modern date (as backfill sealing the concrete footings of the bridge support).

7 BIBLIOGRAPHY

Devon County Council Heritage Environment Service [HES], 2009, *Brief for Archaeological Monitoring and Recording: Improved Cycleway – Countess Wear to Bridge Road*

Geological Survey of Great Britain 1995, *Exeter Solid and Drift 1:50,000 Geological Map*, Sheet 325

Institute for Archaeologists [IfA], 2001 (revised), *Standard and Guidance for an Archaeological Watching Brief*

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8 APPENDICES

8.1 Appendix 1: Selected Test-Pit Summaries

Test-pit 6			
Max. Dimensions	Length: 1.05m	Width: 0.80m	Max. Depth: 0.50m
Context	Description	Depth (in metres) BGL	
601	Topsoil/Alluvium: Dark grey-brown sandy clay loam. Probable alluvial topsoil backfilled over bridge footing, used as pasture.	0.00 - 0.25m	
602	Concrete: Concrete footing of modern bridge, extended into the test-pit by circa 0.30m with a lower step a further 0.20m down.	0.25m+	

Test-pit 7			
Max. Dimensions	Length: 1m	Width: 0.75m	Max. Depth: 0.45m
Context	Description	Depth (in metres) BGL	
701	Topsoil/Alluvium: Dark grey-brown sandy clay loam. Probable alluvial topsoil that had been reinstated over footings of concrete bridge. Plastic traffic cone within layer.	0.00 - 0.25m	
702	Made Ground: Light yellow brown with common modern inclusions plastic, metal and large limestone boulders. Thought to be backfill associated to construction of bridge	0.25m+	
703	Concrete: Concrete bridge foundation and retaining wall.	0.25 - 0.45m+	

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Plate 1: General view of site, viewed from the north-west

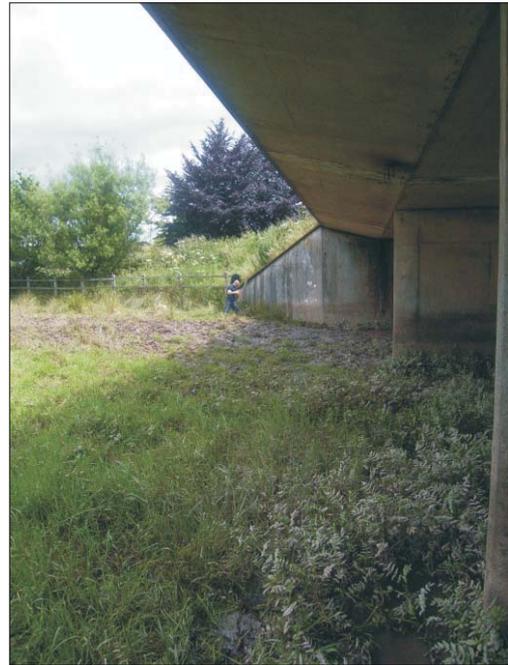


Plate 2: Working shot of test pit 7



Plate 3: Location view of test pit 7

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