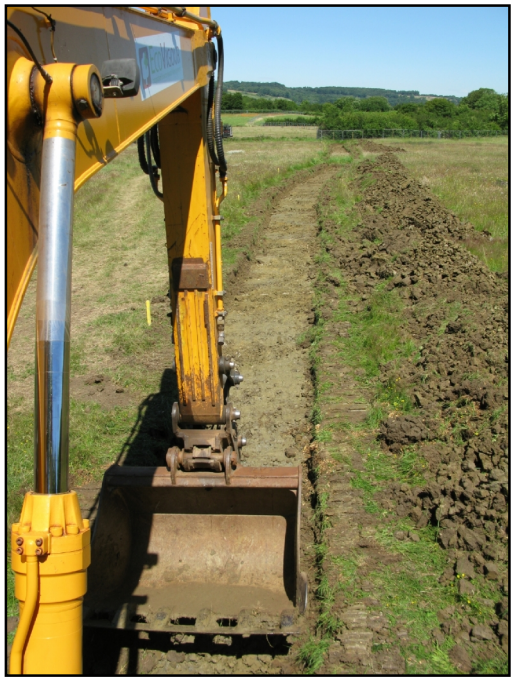
South Bristol Link Road Project: City of Bristol and North Somerset

Report on Archaeological Watching Brief



By Nick Corcos BA, MA, PhD, ACIfA

on behalf of

Alun Griffiths Construction Limited

Avon Archaeology Limited
Bristol: January 2016

CONTENTS

14. Rolling of dumped aggregate after reduction to formation level, Section 3, view to north-east.
15. View to south of completed aggregate base layer within the reduced level road corridor. Section 3, just north of chainage 2300.
16. Section 4, close to chainage 2800, Highridge Common. View to south-east. Reduction to road formation level in progress.
17. Section 4, close to chainage 3050, Highridge Common. View to north-west.

ABSTRACT

Avon Archaeology Limited were commissioned by Alun Griffiths Construction Ltd to undertake a programme of archaeological monitoring and recording (Archaeological Watching Brief) during groundworks related to the construction of the South Bristol Link Road, which is part of an important, integrated local infrastructure project designed to improve travel experiences for all modes of transport on the south-western side of Bristol. In co-operation, the two participating local authorities, North Somerset and City of Bristol, had imposed a planning condition requiring an archaeological watching brief on a part of the route, which affected chiefly a stretch of new road construction north and south of the A38. Very short lengths of a far smaller stretch of new road corridor, further to the south-east near Hengrove Way, and running east-west between Hareclive Road and Queen's Road, were also earmarked for archaeological monitoring. The watching brief was carried out according to methodologies outlined in a pre-existing WSI produced by Jacobs Ltd. While the entire length of the scheme extends to something in the order of 4.5km, it was considered that only about 2.1km of it should be subjected to archaeological monitoring. And of this, a stretch of just over 1km to the north of the A38, was not monitored as work on it was already nearly completed by the time that AAL were first called out to attend the site. The monitoring was carried out, on intermittent occasions as and when callouts to attend were received from the groundworks contactors, between the end of June, and early November 2015.

In those areas that were subject to monitoring, the results of the watching brief were entirely negative, and at no point during either extensive topsoil stripping, ground reduction to the formation level of the road, construction of a new artificial badger sett, or excavation of a receptor trench to accept a transplanted hedgeline, did it prove possible to identify any features, structures or deposits of any archaeological interest.

ACKNOWLEDGEMENTS

Avon Archaeology Limited wishes to acknowledge the assistance given by the staff of Alun Griffiths, most notably Symon Osman, Jamie Hillman, and Will Morgan. Machine driver Lloyd Davies was extremely helpful when requested to carry out small additional 'geotechnical' excavations on behalf of AAL staff. Indeed, all Alun Griffiths site staff extended the utmost courtesy and co-operation during our presence in the field, and we are very grateful to them for their many kindnesses.

NOTES

Whereas Avon Archaeology Limited have taken all care to produce a comprehensive summary of the known and recorded archaeological evidence, no responsibility can be accepted for any omissions of fact or opinion, however caused.

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ABBREVIATIONS

AAL	Avon Archaeology Ltd
aOD	Above Ordnance Datum
BRO	Bristol Record Office

1 INTRODUCTION

Avon Archaeology Limited were commissioned by Alun Griffiths Construction Ltd to undertake a programme of archaeological monitoring and recording (Archaeological Watching Brief) during groundworks related to the development of the South Bristol Link, which forms an element of an important local infrastructure project on the south-western side of Bristol. The project is a joint venture between two local authorities, namely the City of Bristol, and North Somerset Council. The new facility is intended to provide a fully integrated transport network of which the new road, the subject of this project, is only one element; other aspects of the project include construction of a bus only link and associated bus infrastructure; various signalised junctions; shared use cycleways; and the provision of numerous new structures ranging from small culverts to integral bridge structures. By far the greater part of the watching brief project was targeted on the construction of a new road corridor on the south-western side of Bristol, running roughly north to south-east, passing through the A38, and focussed on a new roundabout on that road which incorporated, as a feature, a newly restored group of three conjoined, historic lime kilns at NGR ST 55864 69008. This is recorded on the North Somerset HER as 03137, and that conservation project is the subject of an entirely separate report. While the entire length of the scheme extends to something in the order of 4.5km, it was considered that only about 2.1km of it should be subjected to archaeological monitoring. And of this, a stretch of just over 1km to the north of the A38, was not monitored as work on it was already nearly completed by the time that AAL were first called out to attend the site (**Plates 1** to **17**). This is the part of the route designated Section 2 in the WSI (Jacobs 2015). The monitoring was carried out, on intermittent occasions as and when callouts to attend were received from the groundworks contactors, between the end of June, and early November 2015. For the purposes of the watching brief, the project as originally conceived focussed on two separate areas: stretches of new road corridor north and south of the A38, amounting in total to about just over 2km; and, to the south-east, in Bishopsworth (historically 'Bishport' tithing in Bedminster parish), very short stretches of another new length of road corridor running between Hareclive Road (eastern end) and Queen's Road (western end), a total distance of just over 600m (**Figures 1** and **2**). The methodologies for the watching brief itself had previously been outlined in a WSI produced by Jacobs Ltd, for and on behalf of both Griffiths Construction Ltd, and both of the conditioning local authorities, and that document highlighted the wider historical and archaeological context of the project in some detail. We will not, therefore, dwell on those aspects at length here (Jacobs 2015). Independently of the WSI, the fieldwork was carried out in accordance with guidelines for Watching Brief projects issued by The Chartered Institute for Archaeology (CIfA 2014), the guidelines for archaeological projects set out in MoRPHE 2015, and the standard procedures of Avon Archaeology Limited.

A digital photographic record was made as the work progressed, and a sample of those images is presented here on the **Cover** of this report, and as **Plates 1** to **17**. The captions attached to the plates will, it is hoped, be fairly self-explanatory.

The monitoring work itself focussed chiefly on the initial, topsoil stripping phase of the establishment of the road corridor. OS grid references were taken using a Garmin eTrex 30 hand-held GPS unit, which for by far the greater part of the time was able to acquire sufficient satellites to return an accuracy of ±3m.

2 GEOLOGICAL BACKGROUND

The following description of the geological context of the site is quoted verbatim from Jacobs 2015 (Para. 2.2.1):

> The solid geology of the site largely comprises Lower Lias clay and limestone of the Jurassic Period. This is overlain across a large part of the northern site area by First Terrace Loam/Alluvium deposited by the River Avon system, tributaries of which (Ashton Brook and Colliter's Brook) run through the site. The stratigraphy and age of drift deposits of the Avon are not well understood…..although it is likely that the first terrace deposits were laid in the later Devensian Stage of the British Quaternary. More recent Flandrian Stage deposits of alluvium occur around the course of the Ashton Brook itself. The present course of the Ashton Brook is a 20th century canalisation of the earlier course, which ran a short distance to the north. There are no peat deposits (including organic, biological and alluvial deposits of the BGS Rock Classification System…..) recorded within the site, although it is possible that organic deposits occur within the alluvium, and along the former course of the Ashton Brook.

In terms of its topography, and as might be expected of a linear site, the levels are highly variable, although by and large the road corridor passes through terrain that is best described as gently undulating – steep gradients having obviously been deliberately avoided in the overall design of the road. Levels range from in the order of 15m aOD immediately adjacent to the main railway line, in the valley of the small stream that forms the eastern boundary of the disused quarry which has been utilised by the new road; about 54m aOD where the line of the road crosses the A38; climbing to about 65m aOD in the vicinity of Highridge Farm; and then dropping progressively down again to about 50m aOD further eastwards, where the new easement meets the western side of Hareclive Road. Gradients throughout have been kept relatively gentle, as is evident from some of the plates (eg **Plates 4** and **10**).

3 THE MONITORING

As already noted, the site consisted of, essentially, two parts. By far the larger and more important element consisted of the part of the road corridor which ran south-eastwards from the south-eastern side of the A38. However, it is the smaller, much more restricted section in Bishopsworth that we will deal with first.

3.1 Section 5 (part of). Harclive Road to Queen's Road. OS NGR ST 57571 68430 to ST 57011 68180. The eastern end of this stretch, in particular, was targeted, and was explicitly noted in the WSI, because it was the site of Red House Farm, which was in existence by the mid-19th century (NSHER 2262M). The work was, of necessity, carried out using a combination of toothed and toothless buckets, and use of the former made the monitoring rather difficult. Topsoil stripping at the eastern end of this section had already commenced at the time of first attendance on the site, and the ground partially tracked over. It was necessary to penetrate well into the natural Lias clay and limestone bedrock horizon for site reduction purposes, and also to re-route existing services, or install new ones. This was done using both toothed and toothless buckets (eg **Plate 1**). Sections were checked where possible, but in this area they were invariably found to consist of only dumped modern deposits, on top of the natural Lias clay and limestone. No features of archaeological significance were discovered, and explicitly, there was no sign whatsoever of the trackway which the WSI notes as being associated with Red House Farm, and which crossed the easement of the new road from north to south about 50m to the west of Hareclive Road. The WSI puts this location between chainages 4100 and 4150 (Jacobs 2015, 4, Table 1) (**Plate 2**). Red House Farm is depicted on the Bedminster tithe map of 1843 (BRO EP/A/32/7). The western part of this section, towards Queen's Road, in the vicinity of chainage 4000, had been topsoil stripped and tracked over by machinery by the time that AAL staff were called to the site (**Plate 3**). The area was examined but no features of archaeological significance or interest were noted.

3.2. Sections 3 and 4. A38 south-eastwards to King George's Road, Bishopsworth. OS NGR ST 55864 69008 to ST 56996 68193.
This section formed by far the greater part of the work upon which AAL was engaged during the course of the watching brief project. All topsoil stripping, and other necessary works, were monitored, from the A38 (at above grid reference) to a point near chainage 2400, at about ST 56097 68688. The total width of the stripped corridor or easement was about 14m, but subsequent ground reduction, for the construction of the road structure itself, occupied only about 8m of that total, so that berms or verges of about 3m width of stripped ground were left on each side of the reduced corridor. At the north-western end of this stretch, topsoil stripping was extensive, and encompassed areas much wider than the road easement itself (**Plate 4**). Construction of an artificial badger sett, centred on ST 55913 68922, gave the opportunity to

monitor a small, coherent area away from the road corridor, although it did not produce any features or finds of archaeological significance (**Plate 5**). Likewise, when an entire hedgeline had to be removed to a new receptor trench in this sector (**Cover,** and **Plate 6**), opportunity was taken to examine a section through the boundary (**Plates 7** and **8**)**;** although again, this did not reveal any obvious underlying structures or features that might have preceded the existing hedgeline and therefore suggested that the boundary was of some antiquity. The top of the dark ditch fill visible in **Plate 8** produced only post-medieval CBM, mainly modern brick.

A large area to the east of the road easement in this sector, covering in all roughly 0.67ha, was fully stripped to provide both spare storage capacity for turf and spoil, and if necessary for a working compound. The four corners of this area are given by the following OS co-ordinates: SW corner, ST 56084 68744; NW corner, ST 56049 68856; NE corner, ST 56076 68881; and SE corner, ST 56128 68767. This work was fully monitored, with a completely negative result (Plates 1549 to 1554), apart from occasional indications of land drains. However, as the plates suggest, the topsoil stripping of areas *outside* the road easement itself rarely penetrated below the subsoil layer, and indeed where sections were available for inspection, subsoil formation itself seemed weak or non-existent (**Plate 9**). As the road corridor progressed south-eastwards, another historic field boundary was breached at about chainage 2400 (OS NGR ST 56109 68749), but again, it was not possible to identify any potentially antecedent structures or features at the point of the breach (**Plate 10**). In this unbroken stretch of easement, monitoring continued beyond this point, south-eastwards, to about the position of chainage 2550 (**Plate 11**).

Following the removal of turf and topsoil, there followed a second phase in which the corridor of the road structure itself, some 8m in width as already noted, was defined by ground reduction. This work had to be undertaken with a toothed bucket, since it was necessary to penetrate into the natural Lias limestone and clay (**Plate 12**). On the southern side of the A38 main road, the work started immediately to the south of chainage 2150 and progressed south-eastwards, and involved reduction down to the road formation level which was at about 0.85m below the stripped level of the easement, and roughly 1m below the level of the original turfline. All that could be done in this situation was to monitor the sections; this was done, but nothing of archaeological significance was seen (**Plate 13**). Following initial reduction to formation level, the exposed natural was covered in aggregate, and rolled (**Plates 14** and **15**).

At the extreme south-eastern end of the main stretch of new road easement, on the southern side of the A38, AAL was called out to attend for topsoil stripping. This part of the road lay on the eastern side, and ran parallel to the eastern boundary of, Highridge Green. This covered the length of easement from about chainage 2800 (north-west) to about chainage 3100 (south-east), measured as a distance of about 325m, to where the new road met the northern side of

Highridge Road. However, upon arrival, rain had made the ground conditions far from ideal, the bulk of the work had already been done, the area tracked over by vehicles, and ground reduction for the road structure itself had started (**Plates 16** and **17**). The sections were examined along the completed stretch of easement, but nothing of archaeological significance was identified.

Finds

There were no finds of any archaeological significance from the watching brief project. Those few finds which were recovered were inspected, and then discarded on site. A small representative sample were bagged, and discarded after inspection at the offices of AAL. The finds were invariably unstratified in the topsoil layer, or were of uncertain provenance, and amounted to exactly what one might expect of a relatively modern topsoil, subject to occasional disturbance. Transfer-printed blue and white ware, along with occasional other transfer-printed fabrics, clay tobacco pipe stems, iron nails, sherds of North Somerset redware (18th-19th century), machine-blown glass, and oyster shell. There was a single sherd of Bristol Staffordshire ware (mid-17th to mid-18th century). The only finds of any consequence whatsoever were two small sherds of Samian ware, including part of a base; three pieces of flint, which may or may not show signs of retouching; and a piece of what appears to be chert, which probably represents the tip of a broken blade, and shows definite signs of retouching along one edge. All the findspots of these pieces were associated with a ten-digit OS grid reference, using a hand held GPS, and as already noted, to an accuracy of ±3m. However, it should be stressed again that all were unstratified, and of uncertain provenance – they could, in short, have come from anywhere. For the time being, they have been retained for inspection if necessary.

5 CONCLUSIONS

The watching brief reported here was carried out in fulfilment of a pre-existing WSI produced by Jacobs Ltd for the two local authorities, North Somerset Council, and the City of Bristol, responsible for driving the scheme. Some of the work, most notably that to the north of the A38, had already been completed, or was well under way, by the time that AAL first attended the site, on 29th June, 2015. South of the A38, it was possible to monitor the greater part of the road easement, although again, in some cases work had already been carried out by the time that AAL attended site. There were also two opportunities to monitor areas of stripping outside of the road easement itself, namely at the site of a new artificial badger sett, and an extensive area that was stripped to provide a compound for the storage of spoil, topsoil and turf removed from the road easement. At the extreme eastern end of that element of the road easement earmarked for the watching brief project, immediately to the west of Hareclive Road, in

Bishopsworth, the WSI identified a track associated with the former site of Red House Farm, as being of potential significance. This feature was not, however, identified during the watching brief.

The results of the watching brief were entirely negative, and at no point did it prove possible to identify any features, deposits or structures of any archaeological interest, other than ceramic land drains.

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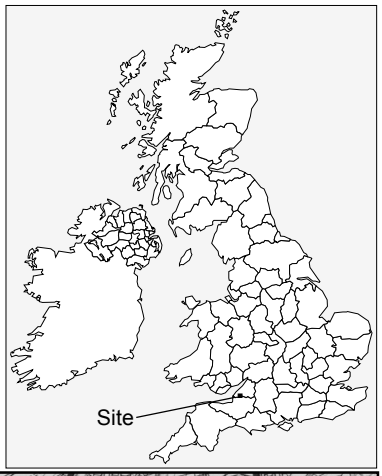
Figure 1

Location of the Study Area

The Study Corridor

Plans and maps based on the Ordnance Survey Sheets are reproduced by the permission of Her Majesty's Stationery Office.



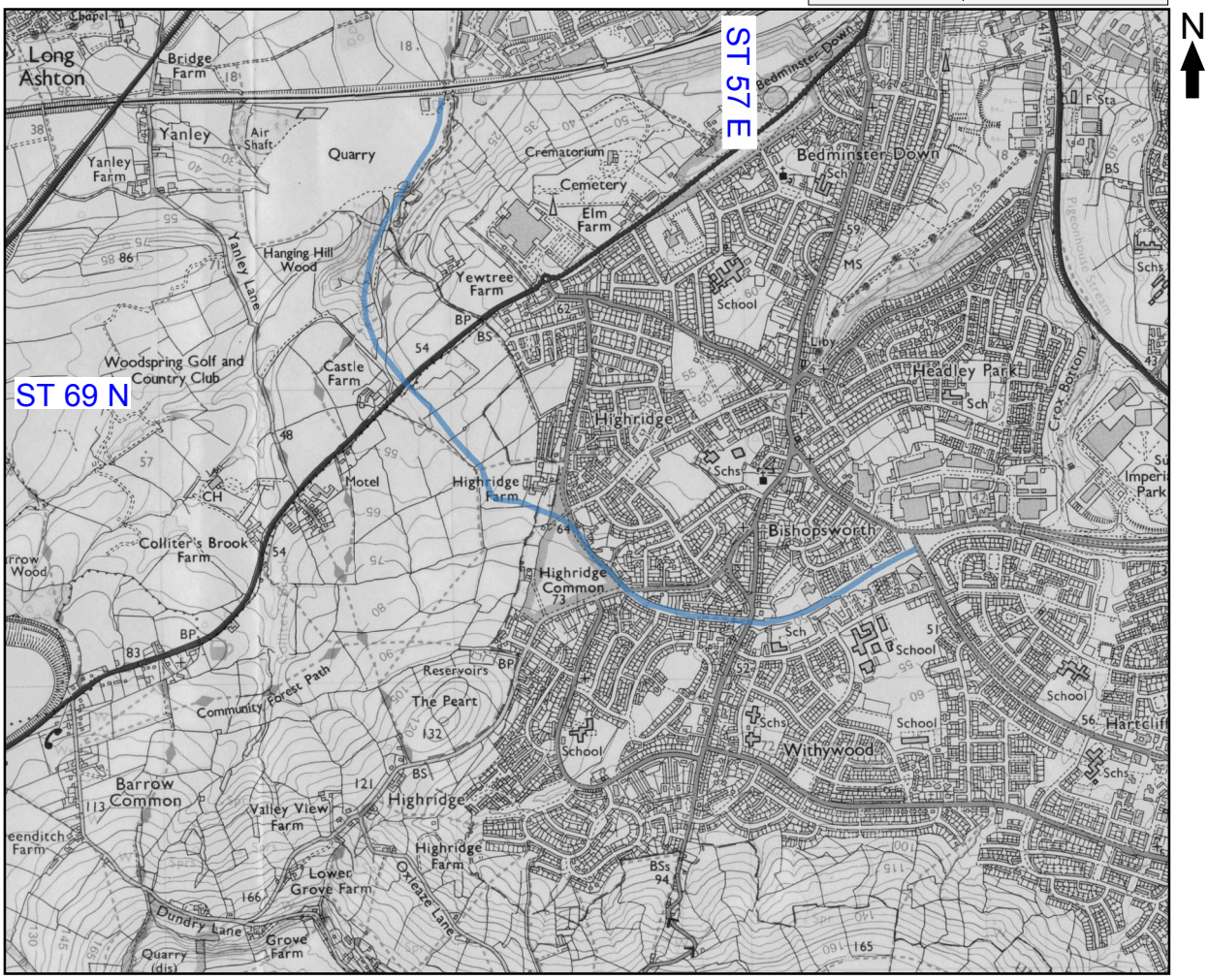


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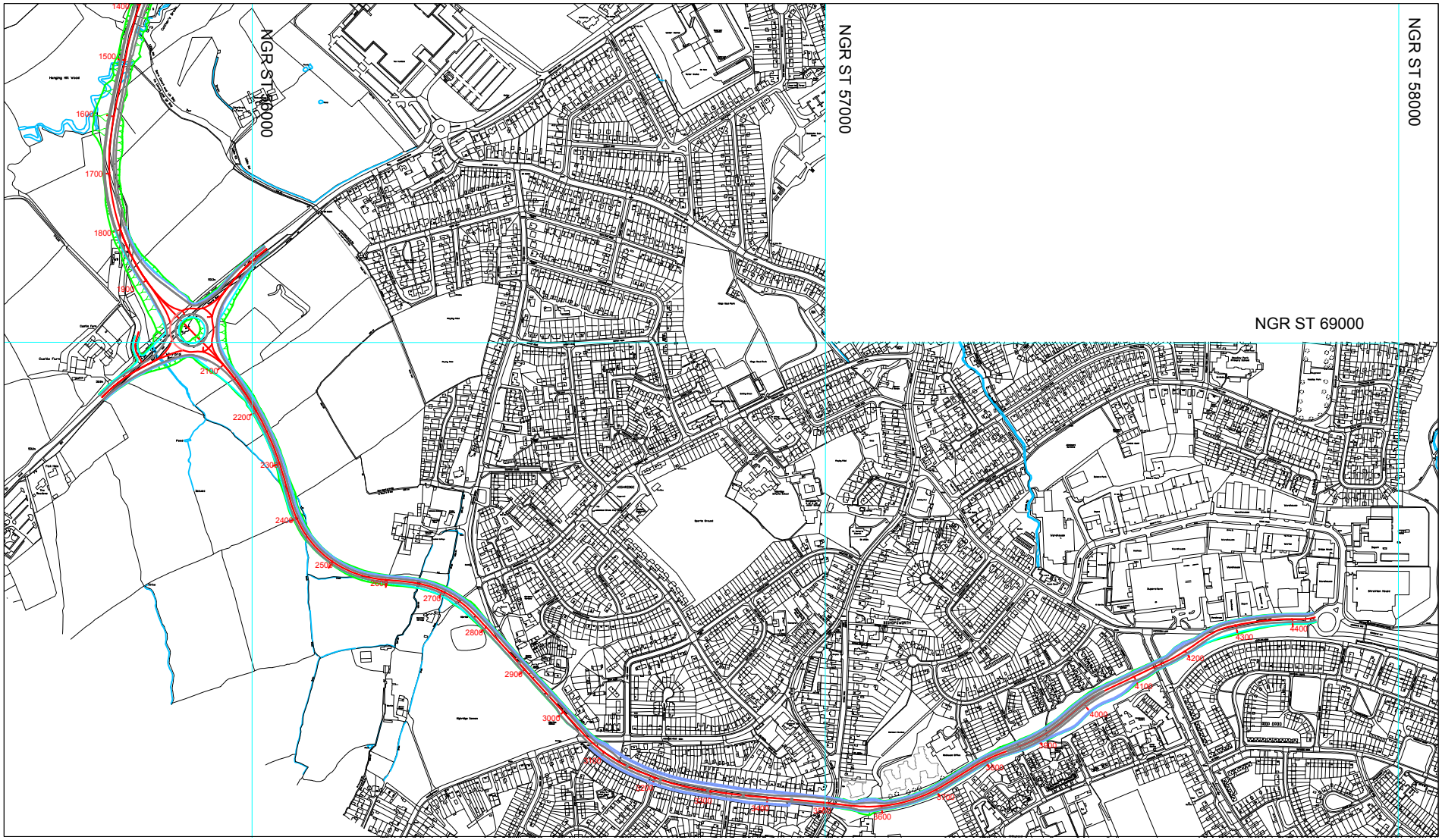
Figure 2: Site Location Plan (with chainages indicated in red)



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Plates

1. View to north-west showing dark grey, natural Lias clay in base of newly-cut service trench, Section 5, chainage 4150.

2. Section 5, composite view to south-west from around chainage 4150, west of Hareclive Lane, Bishopsworth. Topsoil stripping in progress.

3. View to east-north-east from about chainage 4000, looking back towards Hareclive Road (ST 57346 68309). Showing stripped surface tracked over by vehicles.

4. Composite image looking south, topsoil stripping of a large area on the south-western side of the new roundabout site, immediately south of the A38, and in the vicinity of chainage 2100. The tower of Dundry church can be seen in the background, and closer to the camera, to the right of the dumper, the site of the new artificial badger sett marked by a section of large-diameter concrete culvert.

5. Composite detail of the site of the artificial badger sett, following topsoil stripping. View to south. Centred on NGR ST 55913 68922.

6. Excavation of receptor trench for transplanted historic hedgeline (see also **Plates 7** and **8**). View to south from north end, at NGR ST 56041 68855. Depth from turfline is about 0.45m, exposing the natural Lias clay.

7. Removal of historic hedgeline for transplantation in receptor trench, at NGR ST 55963 68934, close to chainage 2100. View to north-east. See also **Plates 6** and **8**.

8. Former field boundary following removal of part of historic hedgeline for replanting in receptor trench. Taken from roughly the same position as **Plate 7.** View to north-east. The scale (1m) sits on top of the ditch running parallel to the hedge on its north-western side.

9. South-west facing section in geotechnical test pit close to chainage 2100, at NGR ST 55945 68962. This shows weak or non-existent subsoil formation, the turf/topsoil layer sitting virtually straight on top of the Lias limestone and clay formation. Scale: 1m.

10. Composite view to north-west from close to chainage 2400. The road corridor is seen fully stripped up to this point, and north-westwards back to the A38. The easement breaches a hedgeline, and a small stream, which formerly ran across the middle right of the frame, its course marked by three pieces of white terram. The breach is at NGR ST 56109 68749.

11. View to north-west from close to chainage 2550, NGR ST 56165 68613. This represented the most south-easterly extent of the continuous main road corridor strip that was monitored. There was some subsoil development here, but the turf and topsoil strip barely penetrated the upper surface of it.

12. View to south-west from just south of chainage 2150, at NGR ST 55981 68914. Showing machine with toothed bucket engaged on level reduction for the road surface itself, and penetrating well into the Lias clay and limestone natural. The tower of Dundry church is visible on the ridge in the background, just below the arm of the machine.

13. East-facing section of full road reduction immediately south of chainage 2150 (see also **Plate 12**). About 20-30cm of turf/topsoil had already been stripped. The repeating sequence of Lias clay and limestone is very clear. Scale: 1m.

14. View to north-east from close to chainage 2160, showing rolling of dumped aggregate in progress at the road formation level.

15. Base layer of rolled aggregate completed. View to south from NGR ST 68912.

16. View to south-east from NGR ST 56404 68496, close to chainage 2800. Turf and top-soil strip already completed, reduction to the road formation level underway, using a toothed bucket.

17. View to north-west from close to chainage 3050. The ground can be seen to be heavily tracked by vehicles. The road that can be seen running parallel to this stretch of new easement in the top right of the frame, is Highridge Green.