

ARCHAEOLOGICAL BOREHOLE
ASSESSMENT
AT
THE SERPENTINE GROUND,
ASTON HALL ROAD,
BIRMINGHAM



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Archaeological borehole assessment at the Serpentine Ground, Aston Hall Road, Birmingham

Nicholas Daffern

With contributions by Laura Griffin, Tom Rogers and Tim Cornah

Summary

An archaeological borehole assessment was undertaken at The Serpentine Ground (National Grid Reference SP 0825 9002). It was commissioned by Birmingham City Council (the Client). The proposed development site is considered to have the potential to affect undated deposits associated with a former course of the River Tame (MBM 2918).

Seven boreholes were sunk to a maximum depth of 5.73m below ground surface with no archaeological remains or natural deposits being encountered. The site is a man-made oxbow lake of the River Tame created when the river was truncated by the construction of the Grand Junction Railway. The oxbow was extant in the grounds of Aston Hall until the late 19th/ early 20th century but was then extensively backfilled with industrial waste, presumably to make the land usable. Cartographic evidence demonstrates that backfilling was completed by 1916.

Report

1 Background

1.1 Reasons for the project

An archaeological borehole assessment was undertaken at The Serpentine Ground (National Grid Reference SP 0825 9002). It was commissioned by Birmingham City Council (the Client).

The proposed development site is considered to have the potential to affect undated deposits associated with a former course of the River Tame (MBM 2918).

The project conforms to a brief prepared by Dr Mike Hodder, Birmingham City Council and for which a project proposal (including detailed specification) was produced (WA 2013).

The project also conforms to the *Standard and guidance for archaeological field evaluation* (IfA 2009).

The event reference for this project, given by the Historic Environment Record is EBM638.

2 Aims

The aims of this assessment are:

- to describe and assess the significance of the heritage asset with archaeological interest;
- to establish the nature, importance and extent of the archaeological site;
- to assess the impact of the application on the archaeological site.

3 Methods

3.1 Personnel

The project was undertaken by Nicholas Daffern (BA Hons M.Sc.); who joined Worcestershire Archaeology in 2007 and has been practicing archaeology since 2004. The project manager responsible for the quality of the project was Tom Rogers (M.Sc.). Illustrations were prepared by Carolyn Hunt. Laura Griffin contributed the artefact reports and Tom Rogers and Tim Cornah contributed elements of the archaeological context.

3.2 Documentary research

A search was made of Birmingham City Historic Environment Record (HER) of heritage assets within 500m radius of Aston Tavern.

Prior to fieldwork commencing a search was made of the Historic Environment Record (HER).

3.3 List of sources consulted

Cartographic sources

- John Tomlinson, map of Aston Manor 1758
- Town Plans Birmingham (including Smethwick 1:500 1889)
- 1890 Ordnance Survey 1:2,500 map, Staffordshire
- 1904 Ordnance Survey 1:2,500 map, Staffordshire
- 1906 Ordnance Survey 1:2,500 map, Warwickshire
- 1916-17 Ordnance Survey 1:2500 map Warwickshire
- 1981 Ordnance Survey 1:10,000 map Warwickshire

Documentary sources

Published and grey literature sources are listed in the bibliography.

3.4 Fieldwork strategy

A detailed specification has been prepared by Worcestershire Archaeology (WA 2013).

Trenching was considered as a method for the assessment of the site but given the unknown nature of the deposits and the potential depths that may be encountered, the sinking of boreholes was considered the most appropriate methodology.

Fieldwork was undertaken between 19 August and 20 August 2013. The site reference number and site code is EBM 638.

Seven boreholes (BH 1-7) were sunk along a northwest and southeast transect under the supervision of a Senior Environmental Archaeologist (Fig 2). The boreholes were sunk using a Competitor mini-tracked percussive auger rig to recover continuous/windowless cores of c 100-80mm in diameter and 1m length with the aim of sampling alluvial and/or organic deposits that could be assessed for environmental remains and their potential for geoarchaeological analysis.

The location and surface height above Ordnance Datum (AOD) of each borehole was recorded using a Leica Viva NetRover (Table 1).

| Borehole Number | Easting | Northing | Height (m AOD) |
|-----------------|------------|------------|----------------|
| 1 | 408231.010 | 290029.096 | 95.38 |
| 2 | 408242.535 | 290028.569 | 95.73 |
| 3 | 408252.244 | 290029.486 | 95.82 |
| 4 | 408283.864 | 290029.773 | 95.93 |
| 5 | 408267.164 | 290029.444 | 95.92 |
| 6 | 408272.168 | 290029.449 | 95.93 |
| 7 | 408257.405 | 290029.742 | 95.92 |

Table 1 Borehole locations and AOD height

3.5 Structural analysis

All fieldwork records were checked and cross-referenced. Analysis was effected through a combination of structural, artefactual and ecofactual evidence, allied to the information derived from other sources.

3.6 Geoarchaeology methodology

The plastic sleeves containing the cores from the boreholes were slit open and the retained sediments cleaned to expose a fresh face, photographed and then described according to standard geological criteria (Tucker 1982, Jones *et al* 1999).

Core recovery was overall very good with an average recovery of 85%. Despite this, below 5 metres, due to excessive wetness due to striking the water table and the looseness/ clast-dominated nature of the material, recovery fell to below 10% before the boreholes collapsed, due to the looseness of the material, resulting in the boreholes being abandoned.

3.7 Artefact methodology, by Laura Griffin

3.7.1 Artefact recovery policy

The artefact recovery policy conformed to standard Service practice (WA 2012; appendix 2). All material was recovered from the samples taken during the borehole survey and recorded by depth 'below ground surface' (BGS)

3.7.2 Method of analysis

All finds retrieved from the borehole survey were examined. They were identified, quantified and dated to period.

The pottery and ceramic building material was examined under x20 magnification and referenced as appropriate by fabric type and form according to the Warwickshire medieval and post-medieval pottery type series (Soden and Ratkai 1998).

3.7.3 Discard policy

The samples will be discarded after a period of 6 months after the submission of this report, unless there is a specific request to retain them.

3.8 Statement of confidence in the methods and results

The methods adopted allow a high degree of confidence that the aims of the project have been achieved.

4 The application site

4.1 Geology and Soils

The site is mapped by the British Geological Survey as lying upon the Holocene alluvium and the late Pleistocene 1st terrace sand and gravel deposits of the River Tame. Underlying these superficial deposits is the Wildmoor Sandstone Formation deposited during the Triassic (242 – 248 million years ago). Immediately to the south is mapped the Bromsgrove Sandstone Formation also deposited during the Triassic (234 – 248 million years ago) (British Geological Survey).

The site was unsurveyed in the Soil Survey of England and Wales (1983) due to the urban nature of the site.

4.2 Archaeological context, by Tom Rogers, Tim Cornah and Nicholas Daffern

The site formerly lay in the centre of the small settlement of Aston (MBM2302), which was until the 19th Century, a village in rural Warwickshire (National Gazetteer of Great Britain and Ireland 1868) in a large parish which stretched as far as Castle Bromwich.

A man-made oxbow lake, a former meander of the River Tame (MBM2918) is the solitary heritage asset identified in the site. This cut off presumably occurred when the Grand Junction Railway, the construction of which was completed in 1837, truncated the River Tame. The present, canalised, River Tame flows parallel to the railway line 150m to the north east of the site.

On the 1890 1:2500 scale Ordnance Survey map the course of the Old River Tame within the site is depicted as a body of water isolated from the actual river by the railway. By the time of the 1916-17 survey, it appears to have been backfilled. The area remains as open ground (marked on later editions as Serpentine Ground) until the 1981 edition when a supermarket (ASDA) was constructed which survived into the 1990s.

Before the Norman Conquest, Aston belonged to Earl Eadwin and in 1086 it was held for William FitzAnsculf by Godmund. It was assessed at 8 hides and had woodland 3 leagues in length by half a league broad attached to it (VCH VII, 59). In 1203 the manor passed to Sir Thomas de Erdington, and in 1367 to the Holt family, in whose possession it remained for over 400 years.

Very little is known about the original manor house, Aston Old Hall (MBM 813), which stood in the area of Charles Road and Serpentine Road, with no contemporary documentary, surface or archaeological evidence to inform us as to the nature of the Old Hall. William Hutton (1783) described it thus:

One hundred yards north of the church, in a perfect swamp, stood the hall; probably erected by Godmund, or his family: the situation shews the extreme of bad taste - one would think, he endeavoured to lay his house under the water. The trenches are obliterated by the floods,

so as to render the place unobserved by the stranger: it is difficult to chuse a worse, except he had put his house under the earth. I believe there never was more than one house erected on the spot, and that was one too much.

The aforementioned church is the Parish Church of St Peter and St Paul (MBM311), a medieval church substantially rebuilt in the late 19th century which stands immediately to the south of the site.

Aston Hall (MBM103) which lies to the south west was built between 1618 and 1635 by Sir Thomas Holte. It is described in the Victoria County History as 'one of the more important of the large group of country mansions built in England during the first third of the 17th century'.

The house lies within Aston Park (MBM999) a substantial former deerpark, listed on the register of historic parks and gardens (List entry Number: 1219847). The house is now a community museum managed by Birmingham Museums Trust. A number of archaeological interventions have investigated 17th century and later deposits within Aston Park (EBM263, EBM264, EBM486) casting light on the former nature and function of these buildings. Excavations of the north service range of Aston Hall (Hislop *et al* 2008) revealed the structural character of the range as well as the various functions of the rooms, which included a washhouse, brewhouse, bakehouse laundry and dairy.

Due to financial difficulties the Birmingham Corporation purchased the hall and park in 1864 and subsequently large parts of the park were sold off in the 19th Century for housing but the remaining grounds include a number of elements relating to the seat including lodges (MBM465) and an 17th Century gabled stable block (MBM466).

4.3 Current land-use

The site is currently vacant and used as car parking for Aston Arena and Aston Villa football matches.

5 Results

5.1 Stratigraphy

The detailed results are presented in Appendix 1.

Core recovery was overall very good with an average recovery of 85%. Despite this, below 5 metres, due to excessive wetness due to striking the water table and the looseness/ clast-dominated nature of the material, recovery fell to below 10% before the boreholes collapsed, due to the looseness of the material, resulting in the boreholes being abandoned.

Natural i.e. *in situ* sands and gravels of the River Tame or the underlying Bromsgrove Sandstone Formation were not encountered in any of the boreholes.

5.1.1 Phase 1: Post-medieval/ modern

The entire site was overlay by a layer of concrete (0.18 – 0.30m) which required cutting prior to the boreholes being sunk; it is presumed this is associated with the construction of the ASDA supermarket.

The boreholes revealed that extensive deposits of post-medieval and modern material were present in all boreholes to a maximum depth of 90.03m OD in Borehole 1, although the greatest thickness of deposits was encountered in Borehole 4 (5.73m BGS/ 90.20m OD).

These deposits consisted of unstratified industrial waste (clinker, slag and coal) and fragmented ceramic building material. Where more 'traditional' layers of clay, silt or sand were encountered, they exhibited no signs of sedimentary structures thus indicating they are not *in situ* and are likely to represent colluvial or alluvial deposits, which have been redeposited or disturbed.

No archaeological remains pre-dating the late post-medieval were present either residually or *in situ*.

5.2 Artefacts analysis, by Laura Griffin

5.2.1 Results

A total of 36 artefacts weighing 1076g were retrieved from the borehole samples taken across the site. Diagnostic finds indicated a narrow range of material dating from the late 18th century onwards. Despite the fragmentary nature of the material that results from sampling of this type, preservation was generally good with low levels of abrasion observed.

5.2.2 Discussion

The discussion below is a summary of the finds and associated depth BGS by period. Where possible, dates have been allocated and the importance of individual finds commented upon as appropriate.

Late post-medieval and modern

All finds retrieved from the site were of this period, dating between the late 18th and 20th centuries and are most likely result from the documented backfilling of the river channel.

The assemblage was made up primarily of undiagnostic fragments of ceramic building material (cbm), with smaller quantities of other finds such as pottery, glass and slag also identified (see Table 1).

The most interesting and unusual find from the site was a small piece of mother-of-pearl with a drilled hole and incised pattern carved into one surface (BH6: 2.70m BGS/93.23m OD). It has been tentatively identified as a piece of inlay from a decorative object or item of furniture.

Significance

The dating and range of material identified from the borehole samples clearly confirms the presumption based on documentary evidence that the river channel was backfilled in the late 19th/early 20th century.

| Borehole no | Depth BGS (m) | material class | object specific type | count | weight(g) | start date | end date | period |
|-------------|---------------|----------------|----------------------|-------|-----------|------------|----------|---------------------------|
| 1 | 1.24 | ceramic | - | 1 | 2 | L18C | 20C | modern |
| 1 | 3.86 | glass | window | 2 | 2 | - | - | modern |
| 1 | 4.57 | ceramic | pot | 1 | 2 | 19C | 20C | modern |
| 1 | 4.96 | leather | - | 1 | 3 | - | - | - |
| 1 | 4.96 | ceramic | brick/tile | 1 | 20 | L18C | 20C | modern |
| 2 | 1.80-1.93 | ceramic | brick | 1 | 308 | - | - | late post-medieval/modern |
| 2 | 2.59 | slag | blast furnace | 2 | 1 | - | - | late post-medieval/modern |
| 2 | 3.55-3.65 | Ceramic | brick | 1 | 566 | - | - | late post-medieval/modern |
| 2 | 4.64 | glass | vessel | 1 | 4 | - | - | modern |
| 3 | 5.02 | Ceramic | brick | 1 | 17 | - | - | late post-medieval/modern |

| Borehole no | Depth BGS (m) | material class | object specific type | count | weight(g) | start date | end date | period |
|-------------|---------------|-----------------|----------------------|-------|-----------|------------|----------|---------------------------|
| 3 | 5.28 | Ceramic | brick/tile | 1 | 11 | L18C | 20C | late post-medieval/modern |
| 4 | 2.38 | metal | button | 1 | 2 | - | - | - |
| 4 | 3.79 | glass | window | 1 | 2 | - | - | late post-medieval/modern |
| 4 | 3.89 | Iron | nail | 1 | 2 | 0 | 0 | late post-medieval/modern |
| 4 | 3.91 | Ceramic | brick/tile | 2 | 3 | - | - | late post-medieval/modern |
| 4 | 3.96 | glass | vessel | 1 | 1 | - | - | late post-medieval/modern |
| 4 | 4.39 | iron | nail | 1 | 1 | - | - | late post-medieval/modern |
| 4 | 4.40 | glass | vessel | 1 | 2 | 20C | - | modern |
| 4 | 4.70 | Ceramic | cbm | 1 | 33 | - | - | late post-medieval/modern |
| 4 | 4.78 | Slag(Fe) | - | 1 | 23 | - | - | - |
| 4 | 4.85 | ceramic | brick/tile | 1 | 2 | L18C | 20C | late post-medieval/modern |
| 4 | 5.04 | ceramic | pot | 1 | 2 | L18C | 20C | modern |
| 4 | 5.32 | Ceramic | brick | 1 | 10 | - | - | late post-medieval/modern |
| 4 | 5.67 | Slag(Fe) | - | 1 | 5 | - | - | - |
| 5 | 1.42 | ceramic | pot | 1 | 1 | 19C | 20C | modern |
| 5 | 1.39 | stone | - | 3 | 1 | - | - | - |
| 5 | 5.14 | ceramic | pot | 1 | 5 | 19C | 20C | modern |
| 6 | 2.20 | ceramic | tile | 1 | 14 | L18C | 20C | late post-medieval/modern |
| 6 | 2.70 | mother of pearl | ?inlay | 1 | 2 | - | - | - |
| 7 | 5.33 | glass | vessel | 1 | 7 | 19C | 20C | late post-medieval/modern |
| 7 | 5.27 | ceramic | brick | 1 | 22 | L18C | 20C | late post-medieval/modern |

Table 2 Summary of the assemblage

| Borehole no | Depth | fabric code | fabric name | count | weight(g) | start date | end date | period |
|-------------|-------|-------------|--------------|-------|-----------|------------|----------|--------|
| 1 | 4.57 | MGW | Modern china | 1 | 2 | 19C | 20C | modern |

| | | | | | | | | |
|---|------|-----|-------------------|---|---|------|-----|--------|
| 4 | 5.04 | MGW | Porcelain | 1 | 2 | L18C | 20C | modern |
| 5 | 1.42 | MGW | Modern china | 1 | 1 | 19C | 20C | modern |
| 5 | 5.14 | STE | English stoneware | 1 | 5 | 19C | 20C | modern |

Table 3 Summary of the pottery by fabric type

5.3 Environmental

5.3.1 Wood assessment

Several wood fragments were encountered during the archaeological recording (Appendix 1)

Its preservation was generally very good with little or no evidence for chemical, biological or mechanical decay and no mineralization of the sample was apparent. The wood structure itself was still fibrous indicating that little or no degradation of the tissues had occurred. There was little or no indication of skewing, warping or compression upon the sample with the structure of the sample still evident and 'fresh' on both the interior and, more notably, the outer margins. The lack of decay to the outer margins of the wood is particular notable as:

'... decay always starts from the outside and moves towards the inside. Artefacts therefore often consist of a well preserved inner core surrounded by a decayed soft outer layer. Degraded waterlogged wooden artefacts may be much more fragile than they first appear. Indeed, if of any size, they are unlikely to be able to bear their own weight once removed from the ground. Loss of water from the most degraded outer surface begins as soon as the wood is exposed during excavation' (English Heritage 2010).

Bearing this in mind, the excellent condition of the wood indicates rapid burial. It is therefore likely that the wood was dumped as a component of the made-ground/levelling deposits.

6 Synthesis

6.1 Post-medieval/ modern

The stratigraphy, artefacts and environmental evidence indicate that all of the deposits encountered during the works can be assigned to the post-medieval/modern periods.

It is hypothesised that with the Aston Hall and its land in the ownership of the Birmingham Corporation, a piece of land such as the Serpentine Ground, designed and maintained for leisure, as attested by the presence of boating lakes, would have been unnecessary and potentially costly to maintain. Therefore, to make this area into usable land, industrial and other waste was imported to the site and used to backfill the former channel and the lakes.

This assertion is supported by cartographic evidence, which shows that by 1904, approximately half of the meander appears to be a dry hollow and is marked as S.O.C.R (Side of Old Course of River) whilst the other half appears to still contain water and is marked as the Old River Tame. By 1916, the Ordnance Survey mapping shows that the meander is completely backfilled, as is one of the lakes, but the former course was still demarked by extant political boundaries. By 1922 the site was being used for the annual Onion Fair indicating that the aim of making the area usable had been achieved (Carl Chinn Archive).

It is unfortunate that no archaeological remains were identified which pre-date this as the River Tame and its tributaries have recently been shown to be productive for the recovery of archaeological, particularly palaeoenvironmental, remains (Tetlow *et al* 2008; Daffern and Clapham 2012; Daffern and Clapham 2013).

6.2 Research frameworks

No archaeological remains were encountered during the works and therefore the deposits encountered during these works cannot contribute towards the local and regional research frameworks.

7 Significance

Due to the absence of archaeological or palaeoenvironmental remains encountered both during the works and the subsequent assessment, the site can be stated to have a LOW archaeological potential and LOW archaeological significance.

8 Recommendations

No further works are recommended upon the deposits encountered during these works. Wider geotechnical works may be undertaken to establish the extent of the dumped post-medieval and modern deposits and whether any natural or undisturbed alluvial deposits are extant within the site boundaries.

9 Publication summary

Worcestershire Archaeology has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, Worcestershire Archaeology intends to use this summary as the basis for publication through local or regional journals. The client is requested to consider the content of this section as being acceptable for such publication.

An archaeological borehole assessment was undertaken at The Serpentine Ground (National Grid Reference SP 0825 9002). It was commissioned by Birmingham City Council (the Client). The proposed development site is considered to have the potential to affect undated deposits associated with a former course of the River Tame (MBM 2918).

Seven boreholes were sunk to a maximum depth of 5.73m below ground surface with no archaeological remains or natural deposits being encountered. The site is a man-made oxbow lake of the River Tame created when the river was truncated by the construction of the grand Junction Railway. The oxbow was extant in the grounds of Aston Hall until the late 19th/early 20th century but was then extensively backfilled with industrial waste, presumably to make the land usable, with cartographic evidence indicating that backfilling was completed by 1916.

10 Acknowledgements

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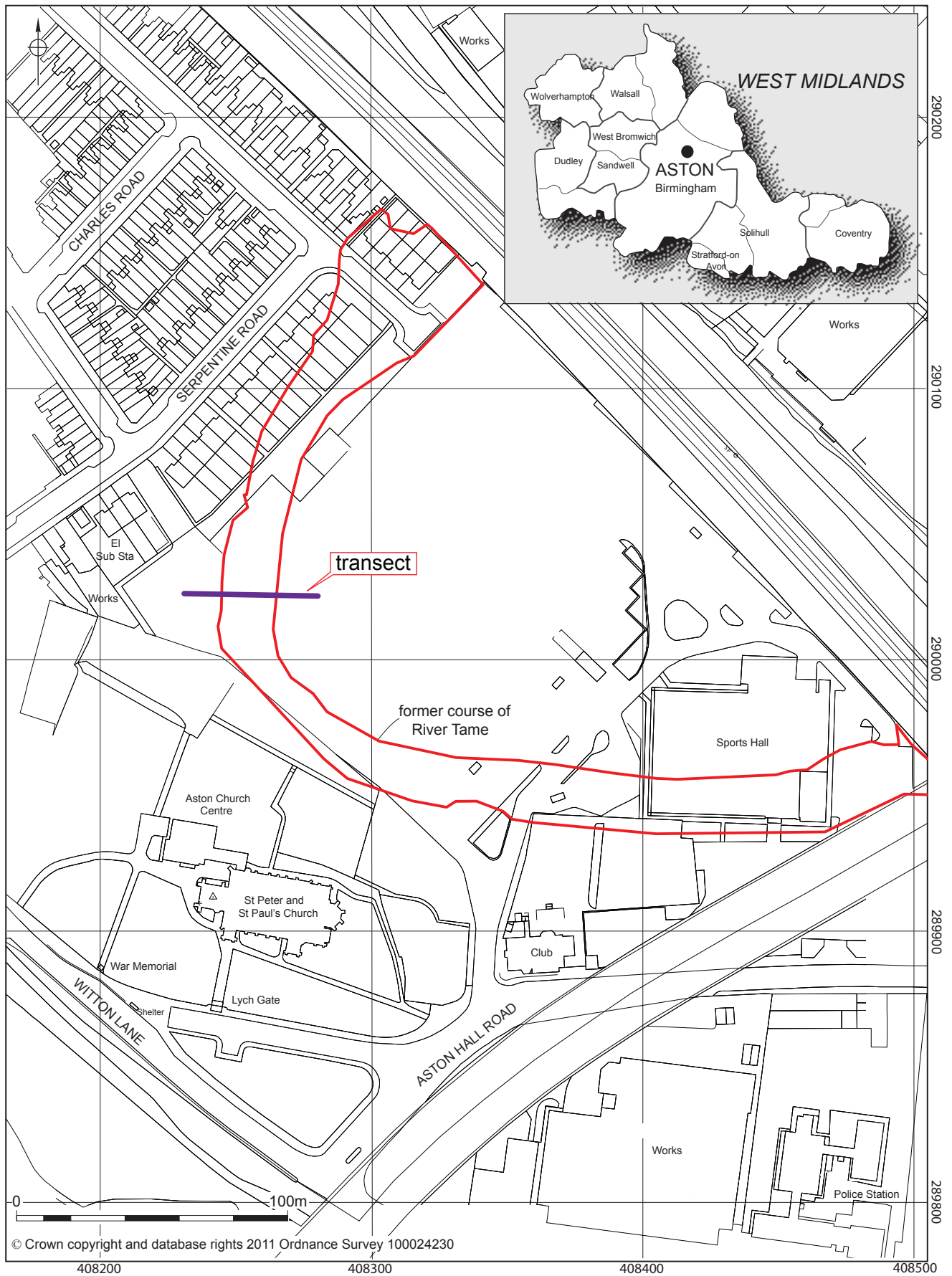
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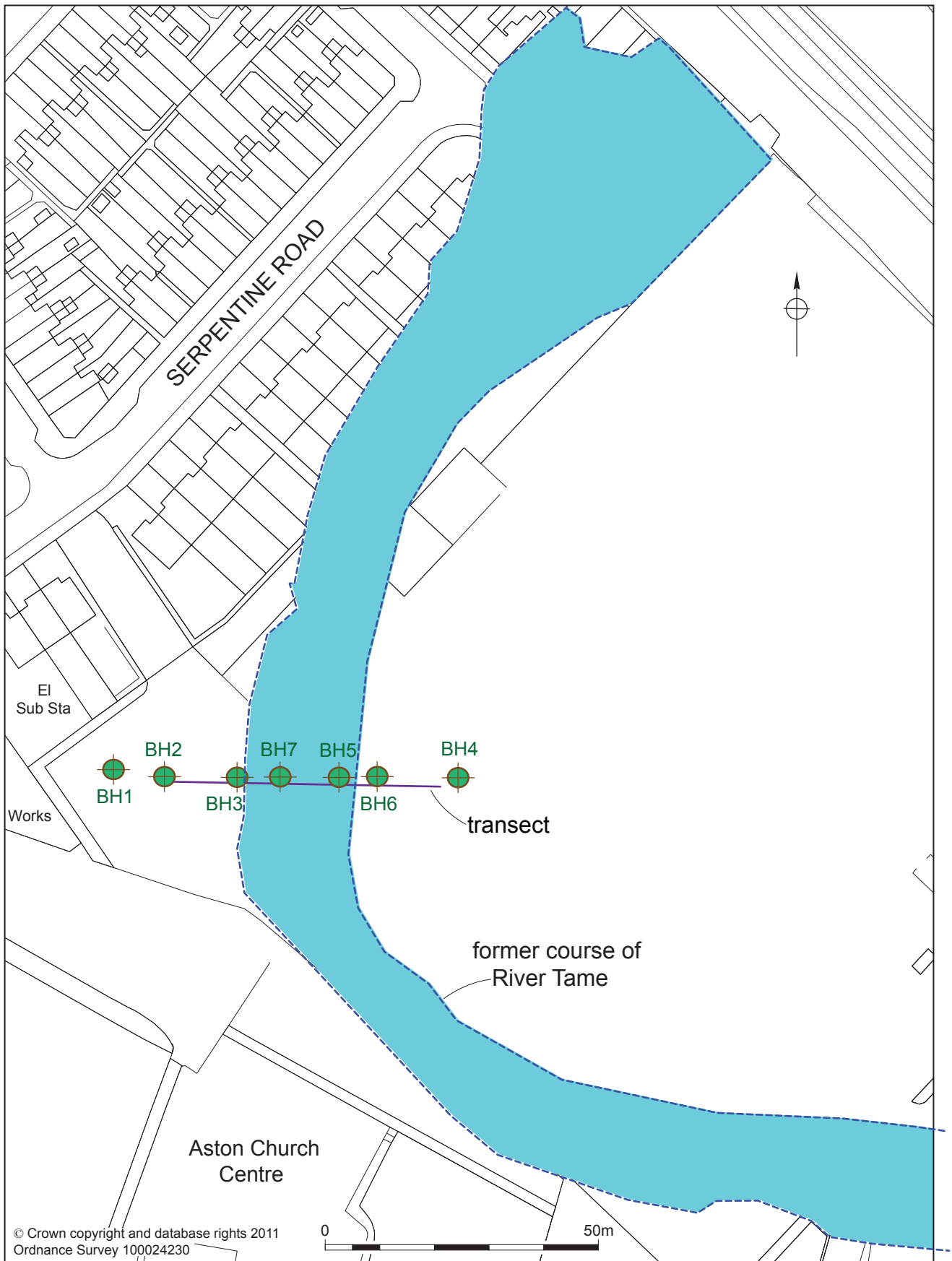
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Figures



Location of the transect

Figure 1



Location of boreholes

Figure 2

Plates



Plate 1 Transect overview, looking West



Plate 2 Site overview, looking south- east



Plate 3 Site overview, looking north-east



Plate 4 Typical sequence, Borehole 1: 2 - 3m BGS



Plate 5 Typical sequence, Borehole 2: 3 - 4m BGS



Plate 6 Typical sequence, Borehole 4: 3 - 4m BGS

Appendix 1 Archaeological recording

Borehole 1

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.00m – 0.18m | 95.38m – 95.20m | Made Ground | Concrete |
| 0.18m – 0.42m | 95.20m – 94.96m | Made Ground | Friable, light pinkish grey, occasionally clayey, coarse sand with frequent angular stone and CBM fragments |
| 0.42m – 0.66m | 94.96m – 94.72m | Made Ground | Pliable – friable, mid – dark greyish black, fine sandy silt with frequent angular CBM, occasional rounded – sub rounded pebbles and occasional coal fragments |
| 0.66m – 0.86m | 94.72m – 94.52m | Made Ground | Loose, dark black, ashy clinker |
| 0.86m – 1.06m | 94.52m – 94.32m | Made Ground | Pliable, mid – dark greyish black, fine sandy silt with frequent angular CBM, occasional rounded – sub rounded pebbles and occasional coal fragments |
| 1.06m – 1.43m | 94.32m – 93.95m | Made Ground | Pliable – friable, mid greyish brown, fine sandy silt with frequent angular CBM, occasional rounded – sub rounded pebbles and occasional coal fragments |
| 1.43m – 1.55m | 93.95m – 93.83m | Made Ground | Orange, brick |
| 1.55m – 1.67m | 93.83m – 93.71m | Made Ground | Pliable – friable, mid greyish brown, fine sandy silt with frequent angular CBM, occasional rounded – sub rounded pebbles and occasional coal fragments |
| 1.67m – 1.82m | 93.71m – 93.56m | Made Ground | Friable, pale creamy yellow, mid – coarse sand with occasional rounded pebbles and 'modern/recent' wood at base of context |
| 1.82m – 1.92m | 93.56m – 93.46m | Made Ground | Brick with friable, pinkish orange, fine silty sand |
| 1.92m – 2.06m | 93.46m – 93.32m | Made Ground | Loose – friable, mid orange sand |
| 2.06m – 2.20m | 93.32m – 93.18m | Made Ground | Loose, dark black, clinker with occasional angular brick fragments |
| 2.20m – 2.62m | 93.18m – 92.76m | Made Ground | Loose – friable, mid greyish brown with occasional black mottling, fine sand and clinker with occasional coal and large clinker fragments and occasional angular – sub angular stones |
| 2.62m – 2.65m | 92.76m – 92.73m | Made Ground | Friable, mottled green, purple and blue, fine – mid sand Cobalt/ hydrocarbon staining/ contamination |
| 2.65m – 2.82m | 92.73m – 92.56m | Made Ground | Loose – friable, dark blackish grey, fine – mid silty sand with occasional CBM fragments |
| 2.82m – 3.00m | 92.56m – 92.38m | Made Ground | Loose – friable, mid blackish grey, coarse sand with occasional – frequent rounded pebbles and angular clinker fragments |
| 3.00m – 3.16m | 92.38m – 92.22m | VOID | |
| 3.16m – | 92.22m – | Made Ground | Loose – friable, mid blackish grey, coarse sand with occasional – frequent rounded pebbles and angular clinker fragments and |

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|--------------------------------------------------------------------------------------------------------------------------|
| 3.47m | 91.91m | | occasional glass |
| 3.47m – 3.60m | 91.91m – 91.78m | Made Ground | Loose – friable, mid grey, fine – mid sand, frequent rounded pebbles |
| 3.60m – 3.67m | 91.78m – 91.71m | Made Ground | Loose – friable, mid blackish grey, coarse sand with occasional – frequent rounded pebbles and angular clinker fragments |
| 3.67m – 3.72m | 91.71m – 91.66m | Made Ground | Loose – friable, mid grey, fine – mid sand, frequent rounded pebbles |
| 3.72m – 3.86m | 91.66m – 91.52m | Made Ground | Loose – friable, mid orangish black, fine – mid sand with very frequent gold flecks (iron pyrite?) |
| 3.86m – 5.35m | 91.52m – 90.03m | Made Ground | Loose, black, clinker with occasional rounded – sub rounded pebbles |
| 5.35m + | 90.03m + | | END |

Borehole 2

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.00m – 0.20m | 95.73m – 95.53m | Made Ground | Concrete |
| 0.20m – 0.44m | 95.53m – 95.29m | Made Ground | Firm – loose, light whitish grey, angular concrete and stone fragments |
| 0.44m – 0.56m | 95.29m – 95.17m | Made Ground | Firm, light – mid brownish orangish pink, clay |
| 0.56m – 0.77m | 95.17m – 94.96m | Made Ground | Firm – friable, mid brown with frequent black and pink streaks, fine – mid silty sand, with occasional glass, rounded – sub rounded cobbles and pebbles and angular CBM fragments |
| 0.77m – 0.86m | 94.96m – 94.87m | Made Ground | Orange, brick |
| 0.86m – 1.00m | 94.87m – 94.73m | Made Ground | Friable, mid – light yellow with black mottles, fine – mid sand |
| 1.00m – 1.12m | 94.73m – 94.61m | Made Ground | Loose, light grey with frequent pinkish orange mottles, coarse sand and brick dust with frequent angular – sub rounded CBM and pebbles |
| 1.12m – 1.18m | 94.61m – 94.55m | Made Ground | Friable – pliable, mid blackish grey with occasional pinkish orange mottles, fine – mid silty sand with occasional angular – sub rounded CBM |
| 1.18m – 1.28m | 94.55m – 94.45m | Made Ground | Loose, dark ferrous orangish black, clinker with frequent coal and large angular clinker |
| 1.28m – 1.35m | 94.45m – 94.38m | Made Ground | Loose, dark greyish black, clinker |
| 1.35m – 1.43m | 94.38m – 94.30m | Made Ground | Loose – friable, mid brown, fine – mid sand with frequent rounded – sub rounded pebbles |
| 1.43m – 1.50m | 94.30m – 94.23m | Made Ground | Friable, dark black, fine ashy sand with occasional angular CBM |

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 1.50m – 1.57m | 94.23m – 94.16m | Made Ground | Friable – loose, dark ferrous orangish brown, fine silty sand and clinker with frequent clinker and coal |
| 1.57m – 1.72m | 94.16m – 94.01m | Made Ground | Loose, dark greyish black, clinker with frequent large angular clinker and coal fragments |
| 1.72m – 1.77m | 94.01m – 93.96m | Made Ground | Friable, mid yellowish orange, coarse sand with rare – occasional pebbles |
| 1.77m – 1.80m | 93.96m – 93.93m | Made Ground | Friable, dark black, fine ashy sandy clinker with occasional angular CBM |
| 1.80m – 1.93m | 93.93m – 93.80m | Made Ground | Friable, dark brown, occasionally silty mid – fine sand with occasional pebbles and angular CBM |
| 1.93m – 2.00m | 93.80m – 93.73m | Made Ground | Friable, mid – dark brownish grey, fine – mid sand |
| 2.00m – 2.18m | 93.73m – 93.55m | VOID | |
| 2.18m – 2.25m | 93.55m – 93.48m | Made Ground | Friable, mid – dark brownish grey, fine – mid sand with occasional angular CBM |
| 2.25m – 2.30m | 93.48m – 93.43m | Made Ground | Pliable – friable, mid grey, fine silty sand with occasional rounded pebbles and rare 'recent/modern' wood |
| 2.30m – 2.44m | 93.43m – 93.29m | Made Ground | Loose, mid – light ferrous orangish grey, clinker with occasional CBM |
| 2.44m – 2.70m | 93.29m – 93.03m | Made Ground | Loose, dark greyish black, clinker with rare light orange clay mottles |
| 2.70m – 2.80m | 93.03m – 92.93m | Made Ground | Friable, dark greyish black, fine ashy silty sand with rare CBM dust |
| 2.80m – 2.90m | 92.93m – 92.83m | Made Ground | Pliable – friable, dark – mid blackish grey, fine sandy silt with occasional light grey clayey lenses and rare glass |
| 2.90m – 3.00m | 92.83m – 92.73m | Made Ground | Loose, dark black with frequent white and yellow flecks, fine sandy ash and fine clinker with occasional larger/coarse clinker |
| 3.00m – 3.22m | 92.73m – 92.51m | VOID | |
| 3.22m – 3.40m | 92.51m – 92.33m | Made Ground | Loose, light – mid greyish brown, fine – coarse sand with frequent angular stone fragments and CBM |
| 3.40m – 3.46m | 92.33m – 92.27m | Made Ground | Friable – loose, dark brown, fine – mid sand with rare silt |
| 3.46m – 3.70m | 92.27m – 92.18m | Made Ground | Loose, dark greyish black, fine sandy ashy clinker with frequent coal and occasional CBM |
| 3.70m – 3.80m | 92.03m – 91.93m | Made Ground | Friable – loose, dark yellowish brown, mid – fine sand with rare 'recent/modern' wood fragments |
| 3.80m – 4.27m | 91.93m – 91.46m | Made Ground | Friable – loose, dark black fine – mid sandy ashy clinker with occasional large clinker fragments and occasional white and yellow flecks |
| 4.27m – 4.33m | 91.46m – 91.40m | Made Ground | Friable – loose, dark greyish black, fine silty sand with CBM fragments at the top Coal/hydrocarbon odour |

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.33m – 4.48m | 91.40m – 91.25m | Made Ground | Loose – friable, mid – dark greyish black, sandy clinker with occasional CBM, stone and slate fragments Coal/hydrocarbon odour |
| 4.48m – 4.69m | 91.25m – 91.04m | Made Ground | Loose, mid – dark greyish black clinker with frequent white and yellow flecks, occasional 'recent/modern wood' and rare glass Coal/hydrocarbon odour |
| 4.69m – 5.00m | 91.04m – 90.73m | VOID | |
| 5.00m – 5.10m | 90.73m – 90.63m | Made Ground | Loose, dark – mid blackish grey, clinker |
| 5.10m – 5.34m | 90.63m – 90.39m | Made Ground | Loose, dark black, clinker |
| 5.34m + | 90.39m + | END | |

Borehole 3

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.00m – 0.18m | 95.82m – 95.64m | Made Ground | Concrete |
| 0.18m – 0.29m | 95.64m – 95.53m | Made Ground | Friable – loose, mid – dark grey, fine sand with very frequent 'recent/modern' wood |
| 0.29m – 0.43m | 95.53m – 95.39m | Made Ground | Friable, mid orange, fine – mid sand and degraded brick with occasional clay |
| 0.43m – 0.53m | 95.39m – 95.29m | Made Ground | Friable mid orange degraded brick, yellowish cream mortar and fine – mid sand |
| 0.53m – 1.00m | 95.29m – 94.82m | VOID | |
| 1.00m – 1.42m | 94.82m – 94.40m | Made Ground | Friable, mid pinkish orange, mid sand with occasional rounded pebbles |
| 1.42m – 1.75m | 94.40m – 94.07m | Made Ground | Friable, mid – dark orange, mid – coarse sand with rare rounded pebbles |
| 1.75m – 2.00m | 94.07m – 93.82m | VOID | |
| 2.00m – 2.12m | 93.82m – 93.70m | Made Ground | Friable, mid pinkish orange, mid sand |
| 2.12m – 2.25m | 93.70m – 93.57m | Made Ground | Firm – friable, orange brick in a greyish white coarse sandy mortar matrix |
| 2.25m – 2.34m | 93.57m – 93.48m | Made Ground | Friable, mid brown with frequent white, pink, black and orange mottles, mid sand with frequent CBM, occasional degraded mortar and rare – occasional pebbles |
| 2.34m – 2.55m | 93.48m – 93.27m | Made Ground | Pliable – mouldable, heavily mottles dark blue – black and yellow, fine sandy clayey silt with very frequent angular CBM |

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.55m – 2.65m | 93.27m – 93.17m | Made Ground | Firm, orangish red brick with occasional white mortar |
| 2.65m – 2.76m | 93.17m – 93.06m | Made Ground | Friable – loose, mottled yellow, black and ferrous orangish brown with ashy clinker and coarse sand with frequent clinker and mortar |
| 2.76m – 2.93m | 93.06m – 92.89m | Made Ground | Friable, mottled mid brown, dark grey and black, fine – coarse silty sand with occasional clinker, quartz, CBM and coal and rare clay lenses |
| 2.93m – 3.00m | 92.89m – 92.82m | Made Ground | Friable, dark grey with frequent light yellow and bluish black mottles, fine – mid silty sand with occasional degraded CBM and clayey lenses |
| 3.00m – 3.08m | 92.82m – 92.74m | Made Ground | Friable, mid orangish brown, mid – coarse with frequent degraded angular CBM and occasional rounded – sub angular pebbles and clinker |
| 3.08m – 3.15m | 92.74m – 92.67m | Made Ground | Friable, mid – dark blackish grey, mid silty sand with frequent degraded angular CBM and occasional rounded – sub angular pebbles and clinker |
| 3.15m – 3.25m | 92.67m – 92.57m | Made Ground | Firm but broken, mid reddish orange brick |
| 3.25m – 3.82m | 92.57m – 92.00m | Made Ground | Friable, mid – dark grey, mid – coarse silty sand with frequent angular CBM, occasional – frequent rounded – sub rounded pebbles and quartzite and occasional yellow mid sand and clayey lenses |
| 3.82m – 4.00m | 92.00m – 91.82m | VOID | |
| 4.00m – 4.14m | 91.82m – 91.68m | Made Ground | Friable, mid orangish brown, mid – coarse with frequent degraded angular CBM and occasional rounded – sub angular pebbles and clinker |
| 4.14m – 4.20m | 91.68m – 91.62m | Made Ground | Friable, dark blackish grey, mid silty sand with frequent degraded angular CBM and occasional rounded – sub angular pebbles and clinker |
| 4.20m – 4.36m | 91.62m – 91.46m | Made Ground | Friable, mid – light grey, mid – fine sand with occasional coal and clinker |
| 4.36m – 4.47m | 91.46m – 91.35m | Made Ground | Mouldable, light grey with mid yellow mottles, coarse sandy clay with rare clinker |
| 4.47m – 4.71m | 91.35m – 91.11m | Made Ground | Friable, mid – dark grey becoming darker towards base, coarse – mid ashy sand with rare clinker |
| 4.71m – 4.90m | 91.11m – 90.92m | Made Ground | Friable – pliable, mid bluish black with light grey mottles, coarse silty sand with occasional – rare clinker |
| 4.90m – 5.06m | 90.92m – 90.76m | Made Ground | Friable, dark black, coarse sandy clinker Coal/hydrocarbon odour |
| 5.06m – 5.15m | 90.76m – 90.67m | Made Ground | Friable – pliable, light – mid grey with frequent dark blackish blue and mid orange mottles, coarse – mid silty sand with rare CBM |
| 5.15m – 5.30m | 90.67m – 90.52m | Made Ground | Friable – pliable, light grey with occasional mid orange and light yellow mottles, coarse – mid silty sand with rare – occasional CBM and rounded pebbles |

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|---------------------------------------------------------------------------------------------------------------------------------|
| 5.30m – 5.46m | 90.52m – 90.36m | Made Ground | Pliable, mid – dark grey with occasional dark orange mottles, coarse clayey sand with rare – occasional CBM and rounded pebbles |
| 5.46m + | 90.36m + | END | |

Borehole 4

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.00m – 0.18m | 95.93m – 95.75m | Made Ground | Concrete |
| 0.18m – 0.38m | 95.75m – 95.55m | Made Ground | Concrete and broken concrete with frequent rounded – angular stones, occasional red clay and occasional – rare plastic |
| 0.38m – 0.52m | 95.55m – 95.41m | Made Ground | Firm – loose, dark black, cinder and coarse sand with occasional iron/ ferrous lumps and clinker |
| 0.52m – 0.84m | 95.41m – 95.09m | Made Ground | Friable, light – mid orange with occasional white, yellow and dark reddish orange mottles, mid coarse sand with rare rounded pebbles |
| 0.84m – 1.00m | 95.09m – 94.93m | Made Ground | Friable, dark reddish orange, mid – coarse sand with rare CBM and rounded pebbles |
| 1.00m – 1.03m | 94.93m – 94.90m | Made Ground | Friable, light – mid orange with occasional white, yellow and dark reddish orange mottles, mid coarse sand with rare rounded pebbles |
| 1.03m – 1.10m | 94.90m – 94.83m | Made Ground | Friable, light pinkish white, coarse – mid sand with occasional rounded – sub rounded pebbles and rare mortar |
| 1.10m – 1.25m | 94.83m – 94.68m | Made Ground | Friable, mid orange, fine – mid sand with occasional rounded – sub angular pebbles and angular CBM |
| 1.25m – 1.64m | 94.68m – 94.29m | Made Ground | Friable, light – mid pinkish orange, slightly silty fine – mid sand with occasional rounded – sub rounded pebbles |
| 1.64m – 1.70m | 94.29m – 94.23m | Made Ground | Friable, mid – dark grey, slightly silty fine – mid sand with rare coal and rounded pebbles |
| 1.70m – 1.77m | 94.23m – 94.16m | Made Ground | Friable, mottled mid grey and mid orange, slightly silty fine – mid sand with rare rounded pebbles |
| 1.77m – 1.94m | 94.16m – 93.99m | Made Ground | Friable, mottled mid brown and orange, slightly silty fine – mid sand with occasional CBM, rounded – sub rounded pebbles and rare – occasional clinker |
| 1.94m – 2.00m | 93.99m – 93.93m | VOID | |
| 2.00m – 2.11m | 93.93m – 93.82m | Made Ground | Friable, dark blackish grey, coarse – mid silty sand with frequent angular stones and rare – occasional clinker |
| 2.11m – 2.85m | 93.82m – 93.08m | Made Ground | Friable, mid grey with frequent black mottles, coarse – mid silty sand with frequent coal and clinker, occasional angular stones, rare CBM dust and a button |
| 2.85m – 3.00m | 93.08m – 92.93m | VOID | |

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 3.00m – 3.08m | 92.93m – 92.85m | Made Ground | Friable, dark – mid blackish grey, fine slightly silty sand |
| 3.08m – 3.11m | 92.85m – 92.82m | Made Ground | 16Friable, light – mid orange, mid –coarse sand and rare – occasional degraded brick |
| 3.11m – 3.42m | 92.82m – 92.51m | Made Ground | Pliable – mouldable, dark grey with frequent black mottles, fine sandy clayey silt with occasional – rare ash, clinker and angular stones |
| 3.42m – 3.52m | 92.51m – 92.41m | Made Ground | Friable, light greyish orange with occasional black mottles, mid – coarse sand with rare clinker |
| 3.52m – 3.63m | 92.41m – 92.30m | Made Ground | Friable, dark brownish grey with black mottles, fine ashy silty sand |
| 3.63m – 3.71m | 92.30m – 92.22m | Made Ground | Friable, light – mid grey, fine silty sand |
| 3.71m – 3.88m | 92.22m – 92.05m | Made Ground | Friable, dark greyish black, fine ashy sandy clinker with occasional CBM and rare nails and glass |
| 3.88m – 4.03m | 92.05m – 91.90m | Made Ground | Friable, mid greyish brown, coarse sand with frequent CBM and occasional – rare rounded pebbles |
| 4.03m – 4.29m | 91.90m – 91.64m | Made Ground | Friable, dark black, coarse ashy sand with occasional nails, glass and clinker |
| 4.29m – 4.47m | 91.64m – 91.46m | Made Ground | Friable – loose, dark blackish grey, coarse ashy sandy clinker with occasional – frequent rounded – sub angular stones and clinker |
| 4.47m – 4.66m | 91.46m – 91.27m | Made Ground | Pliable, mid grey, mid – coarse sandy silt with rare rounded pebbles |
| 4.66m – 4.79m | 91.27m – 91.14m | Made Ground | Pliable, dark blackish grey, mid sandy silt |
| 4.79m – 5.00m | 91.14m – 90.93m | Made Ground | Pliable, mid – dark grey, mid sandy silt |
| 5.00m – 5.40m | 90.93m – 90.53m | Made Ground | Loose – friable, dark black, coarse ashy sandy clinker with occasional – frequent rounded pebbles, occasional pot and rare glass and CBM |
| 5.40m – 5.73m | 90.53m – 90.20m | Made Ground | Pliable, mid grey with occasional black mottles, fine sandy silt with occasional – rare coal Coal/hydrocarbon odour |
| 5.73m + | 90.20m + | END | |

Borehole 5

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|-----------------------------------------------------------------------------------------------------------------------------|
| 0.00m – 0.30m | 95.92m – 95.62m | Made Ground | Concrete |
| 0.30m – 0.53m | 95.62m – 95.39m | Made Ground | Loose, clast supported, light – mid grey, coarse sand with very, very frequent angular – sub rounded stones and cobbles and |

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| | | | occasional silt |
| 0.53m – 0.80m | 95.39m – 95.12m | Made Ground | Friable, mid orangish pinkish, mid – fine silty sand with frequent rounded – sub rounded with occasional angular CBM |
| 0.80m – 1.00m | 95.12m – 94.92m | VOID | |
| 1.00m – 1.17m | 94.92m – 94.75m | Made Ground | Loose, clast supported, light – mid grey, coarse sand with very, very frequent angular – sub rounded stones and cobbles and occasional silt |
| 1.17m – 1.51m | 94.75m – 94.41m | Made Ground | Loose, dark black, clinker with rare pot |
| 1.51m – 1.57m | 94.41m – 94.35m | Made Ground | Friable, mid – dark orangish pink, fine – mid sand with frequent rounded – sub rounded with occasional angular CBM |
| 1.57m + | 94.35m + | END | |

Borehole 6

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|------------------------------------------------------------------------------------------------------------------------------|
| 0.00m – 0.19m | 95.93m – 95.74m | Made Ground | Concrete |
| 0.19m – 0.21m | 95.74m – 95.72m | Made Ground | Friable, mid orange, mid sand with occasional coal flecks, fragments and streaks |
| 0.21m – 0.43m | 95.72m – 95.50m | Made Ground | Friable – pliable, light greyish pink, clayey sand becoming clayier with depth |
| 0.43m – 0.47m | 95.50m – 95.46m | Made Ground | Friable, mid orange, mid sand with occasional coal flecks, fragments and streaks |
| 0.47m – 0.57m | 95.46m – 95.36m | Made Ground | Pliable, dark grey, clayey silt |
| 0.57m – 1.11m | 95.36m – 94.82m | Made Ground | Friable, mid orange, mid sand with occasional coal flecks, fragments and streaks |
| 1.11m – 1.32m | 94.82m – 94.61m | Made Ground | Loose, mid orangish brown becomes brownish red towards base, fine – mid sand with occasional quartz/ stone fragments and CBM |
| 1.32m – 1.40m | 94.61m – 94.53m | Made Ground | Firm, light orange, brick |
| 1.40m – 1.45m | 94.53m – 94.48m | Made Ground | Loose, mid orangish brown becomes brownish red towards base, fine – mid sand with occasional quartz/ stone fragments and CBM |
| 1.45m – 1.50m | 94.48m – 94.43m | Made Ground | Firm – loose, dark greyish black – very dark black, clinker and coal |
| 1.50m – 1.71m | 94.43m – 94.22m | Made Ground | Friable, mid orange, mid sand with occasional coal flecks, fragments and streaks |
| 1.71m – 1.74m | 94.22m – 94.19m | Made Ground | Loose, mid orangish brown becomes brownish red towards base, fine – mid sand with occasional quartz/ stone fragments |

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|---------------------------------------------------------------------------------------------------------------|
| | | | and CBM |
| 1.74m – 1.90m | 94.19m – 94.03m | Made Ground | Friable, light pinkish orangish brown, coarse sand with occasional rounded pebbles and angular CBM |
| 1.90m – 2.00m | 94.03m – 93.93m | | VOID |
| 2.00m – 2.14m | 93.93m – 93.79m | Made Ground | Friable, light pinkish orangish brown, coarse sand with occasional rounded pebbles and angular CBM |
| 2.14m – 2.29m | 93.79m – 93.64m | Made Ground | Loose, dark black, clinker with rare – occasional angular CBM |
| 2.29m – 2.43m | 93.64m – 93.50m | Made Ground | Pliable, mid - light pinkish brown, fine clayey sandy with occasional coal fragments |
| 2.43m – 2.60m | 93.50m – 93.40m | Made Ground | Loose, mid – dark blackish grey, fine sandy ashy clinker with occasional angular – sub angular CBM and stones |
| 2.60m – 2.70m | 93.40m – 93.30m | Made Ground | Friable, mid – dark orange, fine – mid sand |
| 2.70m – 2.74m | 93.30m – 93.26m | Made Ground | Friable, mid blackish grey, fine – mid sand |
| 2.74m – 3.00m | 93.26m – 92.93m | | VOID |
| 3.00m + | 92.93m + | | END |

Borehole 7

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|----------------------------------------------------------------------------------------------|
| 0.00m – 0.18m | 95.92m – 95.74m | Made Ground | Concrete |
| 0.18m – 0.24m | 95.74m – 95.68m | Made Ground | Friable, mid – light pinkish orange, coarse sand |
| 0.24m – 0.37m | 95.68m – 95.55m | Made Ground | Firm, friable, light pinkish grey, coarse clayey sand, frequent concrete and stone fragments |
| 0.37m – 0.47m | 95.55m – 95.45m | Made Ground | Friable, dark black, coarse ashy sand, frequent clinker |
| 0.47m – 0.53m | 95.45m – 95.39m | Made Ground | Friable, dark – mid brown, coarse silty sand with very frequent angular CBM |
| 0.53m – 0.61m | 95.39m – 95.31m | Made Ground | Friable, dark blackish grey, mid – coarse silty sand with occasional CBM |
| 0.61m – 0.82m | 95.31m – 95.10m | Made Ground | Friable, dark – mid brownish orange, fine – mid sand with rare CBM and mortar fragments |
| 0.82m – 1.30m | 95.10m – 94.62m | Made Ground | Friable, mid – light orange, fine – mid sand |
| 1.30m – 1.64m | 94.62m – 94.28m | Made Ground | Friable, mid – light pinkish orange, fine – mid sand with rare rounded pebbles and plastic |

Archaeological borehole works at the Serpentine Ground, Aston Hall Road, Birmingham

| B.G.S depth | Height OD | Lithology | Geoarchaeological description |
|---------------|-----------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1.64m – 2.09m | 94.28m – 93.83m | Made Ground | Friable – loose, dark – mid grey, mid –coarse ashy sandy clinker |
| 2.09m – 2.36m | 93.83m – 93.56m | Made Ground | Friable, mid greyish brown with frequent black and yellow mottles, coarse silty sand with occasional CBM and rounded pebbles |
| 2.36m – 2.52m | 93.56m – 93.40m | Made Ground | Loose – friable, dark grey with occasional black mottles, coarse sandy clinker with occasional CBM and mortar fragments |
| 2.52m – 2.63m | 93.40m – 93.29m | Made Ground | Pliable – mouldable, mid pinkish orange with frequent grey mottles, fine – mid sandy clay |
| 2.63m – 2.68m | 93.29m – 93.24m | Made Ground | Loose – friable, dark grey with occasional black mottles, coarse sandy clinker with occasional CBM and mortar fragments |
| 2.68m – 2.80m | 93.24m – 93.12m | Made Ground | Pliable – mouldable, dark pinkish orange with frequent grey mottles, fine – mid sandy clay |
| 2.80m – 3.00m | 93.12m – 92.92m | VOID | |
| 3.00m – 3.29m | 92.92m – 92.63m | Made Ground | Loose, orange, yellow and white, CBM and mortar rubble in coarse sand matrix with very frequent CBM and mortar and rare red clay lenses |
| 3.29m – 3.50m | 92.63m – 92.42m | Made Ground | Pliable, mid grey with frequent orange mottles, fine sandy silt with occasional CBM, rounded pebbles and rare clinker |
| 3.50m – 3.58m | 92.42m – 92.34m | Made Ground | Friable, mid orange, mid –coarse with occasional sub rounded pebbles and rare 'recent/modern' wood |
| 3.58m – 3.69m | 92.34m – 92.23m | Made Ground | Friable, dark grey, fine silty sand, occasional rounded – sub rounded pebbles |
| 3.69m – 4.00m | 92.23m – 91.92m | VOID | |
| 4.00m – 4.23m | 91.92m – 91.69m | Made Ground | Friable, dark grey with black and mid grey mottles, mid silty sand with occasional sub rounded pebbles, occasional – rare coal and rare CBM |
| 4.23m – 4.35m | 91.69m – 91.57m | Made Ground | Friable, light brownish grey, coarse silty sand with rare CBM |
| 4.35m – 4.49m | 91.57m – 91.43m | Made Ground | Friable, dark blackish grey with mid yellow mottles, mid silty sand with occasional sub rounded pebbles, occasional – rare coal and rare CBM |
| 4.49m – 5.00m | 91.43m – 90.92m | VOID | |
| 5.00m – 5.29m | 90.92m – 90.63m | Made Ground | Friable – pliable, mid –dark grey, mid silty sand with rounded – sub rounded pebbles and CBM |
| 5.29m – 5.40m | 90.63m – 90.52m | Made Ground | Pliable, dark black, fine sandy silt, with rare – occasional coal and rare glass Coal/hydrocarbon odour |
| 5.40m + | 90.52m + | END | |