

### Archaeological Desk Based Assessment

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#### **Non Technical Summary**

- A12.1.1 This desk-based assessment forms part of an Environmental Statement commissioned by Castlemore Securities Ltd in advance of a proposed development at Land South of Avon Street, land parcels ND2-ND5.
- A12.1.2 The aims of this report are to assess the potential nature, importance and survival of archaeological features within the area of development. This includes an assessment of the effects of the development history on any surviving deposits before considering any further impact potential development may have.
- A12.1.3 The history of the development site has been documented by a study of historical maps, books and articles. The archaeological background has been assessed using the Bristol Urban Archaeological Database which reports on chance finds, archaeological site works and monuments within the site boundary. Data from engineering boreholes and trial pits from the site area has also been examined to determine ground conditions.
- A12.1.4 Cartographic evidence shows the site was formed by pasture land until piecemeal development began in the late 17<sup>th</sup> century. The location of the site on the fringes of the core settlement and adjacent to the River Avon made it a focus of industrial development from the early 18<sup>th</sup> century onwards. Although, late 19<sup>th</sup> and 20<sup>th</sup> century development may have truncated archaeological deposits in some areas, there is the potential for undisturbed pockets of archaeology to survive within the site area.

A12.1.5 The proposed development will require construction of underground car-parks under the majority of the site. In combination with excavation for foundation and service trenches, this will result in the removal of areas of made ground with the potential for survival of archaeological remains. The Bristol City Archaeologist has confirmed that an excavation will be required to investigate and record any archaeological remains that would be lost as a result of the development.

## **Introduction**

### *Origin and Scope of the Report*

A12.1.6 This desk-based assessment has been commissioned by Castlemore Securities Ltd who wish to develop the site at Land South of Avon Street, land parcels ND2-ND5. It has been requested as part of an Environmental Statement in advance of proposed redevelopment of the site.

A12.1.7 This assessment has been carried out in accordance with the standards specified by the Institute of Field Archaeologists (IFA 2001).

### *Aims and Objectives*

A12.1.8 This report has been undertaken in accordance with Planning Policy Guidance Note 16 (PPG 16) and Environmental Assessment (DOE Circular 15/88) and seeks to satisfy all those concerned in respect of the archaeological resource and engineering design. The desk-based study usually forms the first stage in the process of archaeological assessment. It forms the basis for determining the potential for any surviving archaeological deposits and may lead to evaluation by fieldwork within the defined development area.

A12.1.9 In accordance with the Institute of Field Archaeologists Standards the definition of a Desk-based Assessment (IFA 1999) is to determine, as far as is reasonably possible from existing records, the nature of the archaeological resource within a specified area. It will be undertaken using appropriate methods and practises which satisfy the stated aims of the project, which comply with the Code of Conduct, Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology, and other relevant by-laws of the IFA. For the present time the IFA.

A12.1.10 The desk-based assessment represents a programme of assessment of the known or potential archaeological resource within a specified area or site on land, inter-tidal zone or underwater. It consists of a collation of existing written, graphic, photographic and electronic information in order to identify the likely character, extent, quality and worth of the known or potential archaeological resource in a local, regional, national or international context, as appropriate.

A12.1.11 The purpose of a desk-based assessment is to gain information about the known or potential archaeological resource within a given area or site, (including its presence or absence, character, and extent, date, integrity, state of preservation and relative quality of the archaeological resources) in order to make an assessment of its merit in context, leading to one or more of the following:

- the formulation of a strategy to ensure the recording, preservation or management of the resource;

- the formulation of a strategy for further investigation, whether or not intrusive, where the character and value of the resource is not sufficiently defined to permit a mitigation strategy or other response to be devised; and
- the formulation of a project design for further archaeological investigation within a programme of research.

## **Government And Local Planning Policy**

### *Planning Policy Guidance*

- A.12.1.12 Archaeology is a material consideration in the planning process, and government guidance stresses the important role that Local Planning Authorities have in safeguarding the archaeological heritage through the development control process.
- A.12.1.13 Planning Policy Guidance 16: Archaeology and Planning (PPG16) sets out the Secretary of State's policy on archaeological remains on land, and provides recommendations, many of which have been integrated into local development plans. The key points in PPG16 (DoE, 1990) can be summarised as follows:
- A.12.1.14 Archaeological remains should be seen as a finite and non-renewable resource, and in many cases highly fragile and vulnerable to damage and destruction. Appropriate management is therefore essential to ensure that they survive in good condition. In particular, care must be taken to ensure that archaeological remains are not needlessly or thoughtlessly destroyed. They can contain irreplaceable information about our past and the potential for an increase in future knowledge. They are part of our sense of

national identity and are valuable both for their own sake and for their role in education, leisure and tourism.

A.12.1.15 Where nationally important archaeological remains, whether scheduled or not, and their settings, are affected by a proposed development there should be a presumption in favour of their physical preservation. These remains are assessed in terms of the Secretary of State's Criteria for Scheduling Ancient Monuments: Period, Rarity, Documentation, Group Value, Survival/Condition, Fragility/Vulnerability, Diversity and Potential.

A.12.1.16 The key to informed and reasonable planning decisions is for consideration to be given, before formal planning applications are made, to the question of whether archaeological remains are known to exist on a site where development is planned and the implications for the development proposal.

A.12.1.17 When important remains are known to exist, or when archaeologists have good reason to believe that important remains exist, developers will be able to help by preparing sympathetic designs using, for example, foundations which avoid disturbing the remains altogether, or which minimise damage by raising ground levels under a proposed new structure, or by careful siting of landscaped or open areas. There are techniques available for sealing archaeological remains underneath buildings or landscaping, thus securing their preservation for the future even though they remain inaccessible for the time being.

A.12.1.18 If physical preservation in situ is not feasible, an archaeological excavation for the purposes of 'preservation by record' may be an acceptable alternative. From an archaeological point of view, this should be regarded as a second best option. Agreements should

also provide for the subsequent publication of the results of any excavation programme.

- A.12.1.19 Development plans should reconcile the need for development with the interests of conservation - including archaeology. Detailed development plans should include policies for the protection, enhancement and preservation of sites of archaeological interest, and their settings.
- A.12.1.20 Decisions by planning authorities, in the face of proposed development, on whether to preserve archaeological remains *in situ*, have to be taken on merit, taking account of development plan policies and all other material considerations - including the importance of the remains - and weighing these against the need for development.
- A.12.1.21 Planning authorities, when they propose to allow development which is damaging to archaeological remains, must ensure that the developer has satisfactorily provided for excavation and recording, either through voluntary agreement with the archaeologists or, in the absence of agreement, by imposing an appropriate condition on the planning permission.
- A.12.1.22 PPG16 has been supplemented by Planning Policy Guidance: Planning and the Historic Environment (PPG15). PPG15 is to be used in conjunction with PPG16, as expressed in PPG15 paragraph 1. PPG15 sets out the Secretary of State's policy on the historic built environment, and provides recommendations, many of which have been integrated into local development plans. The key points in PPG15 (DOE 1994) can be summarised as follows:

- There is a presumption against the demolition of Listed Buildings;
- The desirability of preserving and enhancing the character and appearance of Conservation Areas is stressed;
- Alteration and change of use of historic buildings must be appropriate. Applicants need to justify needs for development against the significance and value of historic features; and
- Planning authorities, where they propose to allow development which is damaging to the historic built environment, must ensure that the developer has satisfactorily provided for a programme of building recording or other appropriate works, either through a voluntary agreement with the archaeologists, or, in the absence of agreement, by the imposition of an appropriate condition on the Planning Permission.

*Archaeology and Planning in Bristol*

A.12.1.23 The Bristol Local Plan was adopted in December 1997 and contains policies to protect and preserve the archaeological heritage of the city. The policies and background statements on archaeology are reproduced in Appendix 12.2

A.12.1.24 The proposed development site does not contain any Scheduled Ancient Monuments and does not lie within an Area of Archaeological Significance or a Conservation Area. There are no listed buildings within the footprint of the development. The Jewish burial ground boundary wall adjacent to the site is Grade II Listed.

## Archaeological And Historical Background

### *Introduction*

- A.12.1.25 The local history of the development area has been determined from an examination of relevant publications, articles, historical maps and plans. The archaeological background has been assessed using the Bristol City Urban Archaeological Database (UAD). The intention of the search is to locate known archaeologically sensitive sites that may be affected by groundworks associated with the development site, and to predict and extrapolate likely archaeological conditions within the development areas from finds made nearby. The Bristol UAD includes documentary references and locations of archaeological excavations/observations, which combined with the geotechnical information makes it possible to predict and extrapolate likely archaeological conditions within the development area.
- A12.1.26 The following summarises the most pertinent information relating to the development area. Sites taken from the Bristol UAD are indicated thus (BUAD) and details can be found in Appendix 12.3.
- A.12.1.27 The location of the sites taken from the above sources within a 1km radius of the centre of the site are indicated on Figure 12.1 using a unique reference number. This reference number is indicated in the text by the use of square brackets e.g. [1]. An archaeological time chart and glossary of terms can be found in Appendix 12.4.

### *Prehistoric*

- A.12.1.28 Palaeolithic remains are the earliest from this period and are typically struck flints and animal bone recovered from Pleistocene

deposits. These occasional finds are commonly redeposited by post-glacial river action. The Palaeolithic and Mesolithic people were nomadic and attracted to the higher gravel terraces of the Avon, where they could exploit available food resources. The Mesolithic period witnessed important environmental changes which were reflected in cultural adaptations. The change from a cooler tundra environment to temperate forest and heathland resulted in more varied flora and fauna. To benefit from a more diverse hunting and fishing economy necessitated a technological adaptation in the form of small microlithic flint tools, which were hafted onto wood or bone to make harpoons or other composite tools.

A.12.1.29 The Neolithic period witnessed the introduction of agriculture and more permanent settlements. This went hand in hand with the invention of pottery, the use of ground stone and polished stone tools and the beginnings of a trading economy.

A.12.1.30 The technological sophistication of the Bronze Age gradually led to increased trade for the distribution of important raw materials, such as copper and tin, from their sources in Cornwall and Ireland. No prehistoric remains have been found in the vicinity of the site.

### *Roman*

A.12.1.31 The technological adaptations of the Bronze Age and the following Iron Age led to increased wealth, social stratigraphy and probably population growth. As a result, there was increasing conflict and defended sites such as hillforts developed.

A.12.1.32 The Roman conquest of Britain in the 1st century AD resulted in the development of complex urban centres with a well organised

infrastructure. Despite this, the traditional agrarian nature of the landscape remained unaffected, although there was a move towards different structures and settlements. No structures or finds dating to the Roman period are known from the immediate vicinity of the site.

### *Saxon and Medieval*

A.12.1.33 Bristol was originally known as Brig-stow, the Anglo-Saxon word meaning the place of a bridge. The exact date of the first bridge across the Avon is unknown, however, a bridge was constructed by the 10th century. The small town of Bristol stood in the former Anglo-Saxon kingdom of Mercia and in the 11th century became part of Gloucestershire. The other side of the bridge, the low-lying area of Redcliffe, lay in the county of Somerset. This division of Bristol between the two counties lasted until 1373.

A.12.1.34 The most important events in the 13th century were the realignment of the river harbour with the creation of the new navigable berthing of the new mouth of the Frome. The inhabitants of the Bristol side of the River Avon were at a disadvantage because the water was less deep on their side of the Avon and because the smaller unnavigable River Frome curved around the original town and entered the Avon just below the bridge. In 1239, a new straight channel was cut for the lower most reach of the Frome. The land was bought from St Augustine's Abbey and the channel was dug for the Frome which cost £5,000 pounds and stretched 750 yards. It ran through the level marshy ground known as St. Augustine's Marsh.

### *Medieval and Post-Medieval Remains South of the Site*

A.12.1.35 A town wall known as the Portwall was constructed in the 13th century to defend the suburbs of Redcliffe and Temple [BUAD 1042M] [1]. A ditch ran outside the length of the wall [1358M] [2]. The wall ran from Tower Harratz [3], a terminal tower, across Temple Meads and along Portwall Lane to Redcliff Back. It was a circular tower built of pennant sandstone with a core of six clay spines radiating from the centre. It was in existence by 1373 when it is named as "Tourharatz" and was still standing at the time of the Civil War [BUAD 671M].

A.12.1.36 The tower was demolished in the 18th century when the Portwall was incorporated into a new building. It is likely that in the later 19th century remains of the tower were demolished to foundation level and buried between several metres of made ground.

*AD 1485-1750*

A.12.1.37 A stone structure was identified by archaeological evaluation at Temple Quay in 1997 on the west side of Temple Way in 1997 [4]. The building was interpreted as a possible redoubt associated with the fortification of the city during the civil war in the mid 17th century. The northern wall however appeared to be Medieval in date [BUAD 1104M].

A.12.1.38 The Portwall was reinforced during the English Civil War and attacked in 1643 and 1645 with three cannon positioned on Tower Harratz. The tower is also shown on Millerds plan of Bristol in 1673 when development was taking place between the tower and the river. A powder magazine at Tower Harratz was built later in 1722 outside the Portwall and on the north side of a possible lodge excavated in 1997 [5] [BUAD 1187M].

A.12.1.39 The Millerd plan of 1673 shows a Ropeing House [6] to the east of modern Temple Way. A ropewalk is also depicted on Rocque's map of 1742 on the northwest side of Back Avon Walk [7]. Both plots have been provided with rows of trees [BUAD 997M]. The Great Garden or Spring Garden is also recorded on Millerds map of c. 1715 [8].

*AD1750-AD1900*

A.12.1.40 Duffet's Redware Pottery was located at Temple Back during the nineteenth century. The pottery produced redware pottery during the 19th century including jugs and domestic pottery, flowerpots and garden wares. When the surrounding area of Temple Back was raised large quantities of the dumped material was made up of ceramic waste from the factory [9] [BUAD 1146M].

A.12.1.41 A number of industrial buildings have been archaeologically investigated prior to and during the redevelopment of Temple Quay South. These include the site of the late 19th century to 20th century, H.D. Pochin & Co Ltd, alum works at Temple Back which was demolished in the 1990s. The kilns were located and excavated during a watching brief [10].

A.12.1.42 The site of Ring's Ohio Tobacco-Pipe Manufactory at Commercial Road was archaeologically excavated from the 1980s [BUAD 1148M]. [11].

A.12.1.43 Other nineteenth and twentieth century structures to the south of the Floating Harbour, now demolished include:

- Warehouse on the west side of Pipe Lane, Temple Back [12];
- Malthouse on the west side of Pipe Lane [13];

- Malthouse, located in Brooks Court off Pipe Lane [14];
- Jewish burial ground, Rose Street dated 1811, relocated to a site in Fishponds in the early 1920's [15];
- Methodist Chapel located on the north side of Rose Street, Temple Back [16];
- Oil and Tallow Works, Avon Street, Temple Back [17];
- Baptist Chapel, Tower Street, Temple Back recorded on the OS map of early 1880s [18];
- Malthouse located on west side of Pipe Lane [19]; and
- Saw Mills, Commercial Road, later Temple Back recorded on the OS map of early 1880s [20].

A.12.1.44 Brunel's Dock at Temple Meads was built in the 1840s using an existing pill. It was probably infilled in the 1870s when the Second Goods Shed was constructed. Parts of the walls of the dock were recorded during a watching brief in 1998-1999 [21]. The First Goods Shed was built in the 1840s but demolished in the 1870s to allow the building of the Second Goods Shed. Parts of the building may have been recorded during a watching brief in 1998-1999 [22]. The Second Goods Shed was built in the 1870s to allow the building of a covered goods yard. Parts of the building may also have been recorded during a watching brief in 1998-1999 [23].

*Post-Medieval Remains within the Site and to the North AD 1485 - 1750*

A.12.1.45 The Millerd plan of 1673 also shows development on the north side of the river. The site of Headford House, which dated from the 17<sup>th</sup> century can be found on the north side of Jacob Street [24]. Another 17<sup>th</sup> century house, No 12 Broad Plain, a 3-storey house and attic, existed until recently on the south side of Broad Plain [25].

- A.12.1.46 Within the site, a lime kiln and a brick kiln are indicated on the 1673 map. Immediately to the west of the brick kiln is a large structure with gardens fronting the river. Kings Marsh is shown to the east. The small area shown to the north of Avon Street is depicted as undeveloped meadowland.
- A.12.1.47 IMillerd's later map of 1715 shows a cone shaped building to the north side of Avon Street. This may represent an early glass cone or a brick kiln, perhaps a precursor to the brick yard shown here on Rocque's map of 1742.
- A.12.1.48 The Rocque map of 1742 (Figure 12.2) shows the three distinct cones of the bottle works on the southern side of Cheese Street. The conical tops of these furnaces or 'glass cones' were a prominent feature of the southern area of the city. Glass making was a major Bristol industry which used local coal for its furnaces. Production was mainly of window and bottle glass, but clear 'flint' or lead glass for drinking vessels and decanters was also made. Immediately to the west of the first glass cone is an area of dumping possibly on the site of the brick kiln marked on Millerd's 1673 map (BUAD 2933).
- A.12.1.49 The two northern glasshouses were operative from 1715 to c. 1824 and were originally called the "Soapboiler's" glasshouses. This was followed by the "Phoenix Bottle Works" in 1828 [26, 27]. A cone in this area was archaeologically excavated in 1988-89 (A12.1.78). Although the northern glasshouse has been destroyed by development, the southern site is likely to survive under the former car parking area. This site was graded by the Monuments Protection Programme (MPP) in the 1980s-1990s as one star.

A.12.1.50 There was a glass furnace immediately west of Free Tank from 1720-1923. It was originally "Hooper's" glasshouse and became part of "Cookson's Bottle Works" from 1828 [28]. It amalgamated with the Soapboilers glasshouse in 1853 and later became the works of Powell and Ricketts. This site was graded by the Monuments Protection Programme (MPP) in 1980s-1990s as two star, as the site shows important continuity in the 19th century between the cone and Siemens furnaces. An evaluation was conducted on the site in 1995 (A.12.1.79).

A.12.1.51 The Rocque map of 1742 also shows the street pattern of which the majority survives today. Bread Street (now Old Bread Street) runs through "The Brick Yard" (29) which occupies a large area both sides of the street. The boundary of the brickyard is not firmly defined. Two buildings are present within the site fronting Cheese Lane but none are identified as brickworks. The eastern side of Upper Cheese Lane (modern New Kingsley Street) is also shown as developed at this time.

A.12.1.52 Further to the east in the area later occupied by the Avonside Iron Works (later the Avonside Engine Works) and the coal yard and coal branch of the Midland Railway are "The Brick Fields". At the far end of the fields is "Brick Yard Pool" approximately 200m in length, presumably a flooded claypit, (30) following what is now Barton Road to the east from the junction with a lane leading to Avon Street as far north as later Louisa Street.

A.12.1.53 Rocque's map shows a stream, Wain Brook, running into the River Avon, on the site of a named 'Cuckold's Pill' which may lie in the east of the site. On the north east side of Avon Street, immediately south-east of Wain Brook (the stream leading to "Cuckold's Pill") is "The Sty" (31), a piggery recorded by Rocque as two long parallel

buildings either side of a yard at right angles to the street. A lane further east along Avon Street linking Barton Road was later known as "Kilboar Street". To the east of Cuckolds Pill is a lime kiln [32] with possible flooded clay pits to the east.

*Industrial AD1750-AD1900*

- A.12.1.54 Donne's map of 1773 shows a few minor changes in the proposed site area and its environs. The brickyard pool adjacent to modern Barton Street has been infilled and is under pasture.
- A.12.1.55 The 18th century was a peak period for Bristol as a major trading, maritime and industrial city. Ship building was an important industry which flourished at this time. The 'Floating Harbour' was constructed in the 1800's by works on the River Avon 'New Cut'. This was an artificial channel two miles long which carried the natural flow of the river Avon from Totterdown to Rownham. The main entrance basin, Cumberland Basin near the top end of the gorge. The river basin between these two points was to be known as the 'Floating Harbour' and allowed ships to float unaffected by the tide outside.
- A.12.1.56 The development of the Floating Harbour allowed industrial expansion along both its sides. Ashmead's map of c.1828 shows this development between Avon Street and the Floating Harbour within the proposed development site [Figure 12.3). This includes the Phoenix Bottle Works and Cookson's Bottle works which were still separate companies at this time. Further east along Avon Street are a number of house plots divided by Union Coal Wharf and Lewis Lane. On the eastern corner of the application site is Cuckolds Pill.

- A.12.1.57 The Goad Fire Insurance Plan of 1896 [Figure 12.4.] shows the location of a variety of industries and the uses of particular buildings. The Avonside Ironworks (33) which later became the Avonside Engine Works was located between Avon Street and Barton Road. The buildings were recorded by the Royal Commission on Historic Monuments of England (RCHME) in 1996 (Cattell 1996) therefore only a brief history of the site is given here.
- A.12.1.58 The works were established by Henry Stothert & Co in 1837 on the site of the former brickyards north of Avon Street to construct engines, particularly railway locomotives, for the Great Western railway. Within the factory there were a number of different divisions including iron and brass foundries, a forge, boiler-making, erecting and fitting shops. It was named the Avonside Engine Company in 1864. The company went into liquidation in 1881, as a result of the decline in railway investment.
- A.12.1.59 John Mardon Ltd bought the buildings and utilised some of them for papermaking while the Vulcan Ironworks moved into others. Locomotive production continued up to 1905 in a smaller area to the north of Kilkenny Street. The eastern part of the works was sold to the Midland Railway Company in 1896 and it became a coal yard and railway leading to the dock on the site of Cuckolds Pill (Figure 12.4).
- A.12.1.60 By 1883 the Phoenix Bottle Works and Cookson's Bottle Works shown on Ashmeads map of 1828 had become the combined glassworks of Powell and Ricketts. The area immediately east of Free Tank was more developed and the Union Coal Wharf changed its name to the Avon Wharf.

A.12.1.61 The area between Kilkenny Street and Avon Street has not changed greatly from 1828. A congregational chapel has been added and Hay Market has changed its name to Avon Lane.

A.12.1.62 By 1883 another area of terraced houses had been constructed to the east of the Soap Works between Old Bread Street, Upper Cheese Lane (New Kingsley Street) and Russ Street.

A.12.1.63 There are also a number of late 19<sup>th</sup> century buildings adjacent to the application site which are included on the Bristol UAD. These include:

- Midland Railway Goods Depot, Midland Road [34];
- Emmanuel Church, Clarke Street [35];
- A school on the west side of the junction with Providence Place [36];
- A smithy on the northern side of Old Bread Street [37] which was producing chain;
- A malthouse northern side of Old Bread Street [38];
- Bristol Distilling Company Ltd Storehouses [39] were located on the southern side of Old Bread Street. The main distillery was located on the southern side of Avon Street [40];
- St Phillips flax mills were located on the western side of New Kingsley Road [41]. The mills, now demolished, produced flax and hemp. An end wall may have been incorporated into a building currently occupying the site;
- Ironworks, Horton Street [42];
- Broad Plain Confectionery works [43];
- Zoar Chapel, Unity Street [44]; and
- Midland Inn, Midland Road [45]

*Modern AD1900-*

- A.12.1.64 The 1903 Ordnance Survey map shows the Hannah More Infants School has been established. Some of the Avonside Engine Works buildings have been demolished and the paper mills established. The site area remains the same on the 1918 Ordnance Survey map.
- A.12.1.65 A study of aerial photographs from 1946 show the glassworks have been demolished. The terraced houses between Avon Street and Kilkenny Street were demolished in the mid 1930s as part of a slum clearance programme. Between 1955 and 1970 the houses on Louisa Street and Jubilee Street were demolished and the area made into parkland. The police building on the junction of New Kingsley Road and Avon Street was built between 1955 and 1970 on the site of the terraced houses. The terraced houses between Old Bread Street and Russ Street were also demolished during this period.

*Listed Buildings and Buildings of Special Interest (shown on Figure 12.5)*

- A.12.1.66 The Grade I listed Temple Meads Station was designed by Sir Matthew Digby Wyatt between 1865 and 1878. It was originally called Temple Meads Joint Railway Station and had a steep French Empire roof to the tower, which was destroyed in the Second World War. Additional platforms designed by P E Culverhouse were put in between 1930 and 1935 and the original footbridge linking the platforms replaced with an underpass. The station has two storeys and a 3 window range with a single storey. The main train shed has a two-centred trussed roof [1].
- A.12.1.67 The Jewish burial ground at Barton Road was in existence by March 1759 when it is referred to in an advertisement. It was located

within a brickyard and leased from the owner. The wall around the burial ground was made unsafe by a fire at Mardon's in 1901. Some tombstones were damaged by the firemen tackling the fire. The burial ground survives and is surrounded by a stone rubble wall approximately 3 metres high with a gate on Bardon Road. The burial ground wall is Grade II Listed [2].

A.12.1.68 Nos. 2 and 3 Broad Plain and area railings are Grade II listed. They date to the mid 18<sup>th</sup> century but were altered in c. 1980. It was originally a house but has been converted to offices. The 3 storey building is brick with end stacks and a half hipped pantile roof. The interior was rebuilt behind the façade [3].

A.12.1.69 No. 4 Broad Plain is Grade II Listed. This was originally a house, but has been converted to offices. It was constructed in c. 1760 of roughcast brick with end stacks and a pantile roof [4].

A.12.1.70 The Grade II listed No 5 Broad Plain dates to c.1700 [5]. It is a brick building with limestone voussoirs, timber cornice, brick end stacks and a pantile roof.

A.12.1.71 Nos. 8 and 9 Broad Plain are Grade II Listed of mid 18<sup>th</sup> century date originally. They were a pair of houses, but were largely rebuilt in the late 20<sup>th</sup> century [6]. No. 10 Broad Plain, The Printer's Devil Public House, is also Grade II listed and dates from the late 18<sup>th</sup> century [7].

A.12.1.72 Gardiner's Warehouse (the former Broad Plain soap works) on the south side of Straight Street is Grade II Listed. This former soap works is now a warehouse. The lower stages date from 1841-1843 and the upper to 1882 [8]. Gardiners warehouse on the north side of

Straight Street is also Grade II Listed. This warehouse was built to a design by Gingell and refronted in 1884 with its current façade [9].

- A.12.1.73 The Broad Plain Soap building on the north side of Straight Street was mainly used for the storage of tallow, palm oil and other substances with the northern part being the boiler and still house. Soap making took place on the southern side of Straight Street. The works were taken over by the Lever Brothers in 1914 and it continued to operate as a soap factory until its closure in 1954.
- A.12.1.74 The “Barleyfields Board School”, latterly the Hannah More School is shown on the Goad Fire Insurance Plan of 1886 and recorded on the BUAD [10].
- A.12.1.75 The Crown and Anchor Public House is also shown on the Goad Fire Insurance Plan on the corner of Upper Cheese Lane (New Kingsley Road) and Kilkenny Street [11]. It comprises two houses knocked together. The northern part on Kilkenny Street is formerly the end of a terrace of housing demolished in the mid 1930s as part of a slum clearance programme.
- A.12.1.76 Ebenezer Chapel on Orchard Street is of 19th century date. This former Primitive Methodist chapel is built of coursed Pennant sandstone rubble in a Norman-revival style. It was in use as an antique shop in 1998 [12].

#### *Previous Archaeological Investigations in the Development Area*

- A.12.1.77 An excavation by the Field Archaeology Section of the Bristol Museum and Art Gallery on the site of the Powell and Ricketts Phoenix glass works in 1988-1989 revealed the remains of two factories (46). One large area and three smaller trenches were

excavated in the centre of the site with a further trench excavated at the corner of Avon Street and Free Tank.

A.12.1.78 The furnaces of the Hooper's and Soapboiler's glass cones were located, but little had survived. On the Soapboiler's site (later the works of Powell and Ricketts) three or four adjoining annealing ovens, and annealing arch and associated rooms were found. The structures had been frequently rebuilt, particularly during the nineteenth century, and were adaptations of the Siemen's regenerative furnace, which circulated the hot exhaust gases from the furnace back through it to maintain the temperature inside the furnace. The excavation recovered quantities of stamped bricks, glass-bottle waste, crucibles, plaster moulds and cullet. The excavation also recorded a section of the quay wall dating to the 18th century close to Temple Way (BUAD 343).

A.12.1.79 In 1995 three evaluation trenches were excavated by the Bristol and Region Archaeological Services on a former car park in the east of the site (47). Trench 1 revealed the earliest feature which was an east-west aligned ditch cutting into natural clay of probably 18th century date when the site was probably used as pasture. This feature was possibly a drainage ditch. The second phase of activity on the site came with the development in the first half of the 18th century when a series of coursed rubble stone walls were discovered in Trench 2 below approximately 1.5m of loose made ground founded in natural clay. These may be remains of buildings shown on Rocque's map of 1742.

A.12.1.80 The third phase of the site relates to 19th century development, part of a furnace was recorded in Trench 2 dating to this phase. Also a quantity of dumped material containing considerable quantities of glass waste probably from the glass works to the north.

Further layers of dumped material including ash and mortar layers overlay the dumped glass material. Trench 3 was positioned to provide a section across the dock on Floating Harbour. The walls of the dock were located and the dock itself was backfilled with rubble. No trace of Cuckold's Pill which preceded it was located.

*Previous Geotechnical Investigations in the Development Site*

- A.12.1.81 The geotechnical investigations which have been carried on both sides of Avon Street (Ove Arup & Partners, Chapter 9) indicate the ground conditions consist of made ground overlying estuarine alluvium, comprising alluvial silts and clays which overlies Trias sandstones, siltstones and mudstones.
- A.12.1.82 Geotechnical investigation within the site describe the made ground as a mixture of silty sand and gravel with brick, ash, slag and glass fragments. The depth of made ground varied from 0.7m to 5.4m within the site, but increasing to some 8m adjacent to the Floating Harbour. This was underlain by the alluvial deposits which were up to 2.5m thick.
- A.12.1.83 In the area of the former Midland railway coal yard, made ground consisted of loose sandy gravel with scrap metal and concrete to 0.5m, overlying black ashy fine to coarse gravel with slag, clinker, concrete, clay tiles and pipes to up to 2m. Below this a coarse gravel and ash layer with slag, bricks and soft to firm red brown gravelly sand was recorded to 2.1m to 3.8m. Natural deposits were recorded between 2.3m and 3.9m and consisted of a black silty organic clay. One of the trial pits records a reworked soft dark grey silty clay with a wood and brick structure at 3.0m. Other trial pits mention blue glass, oyster shells and pottery at 1.00 to 2.90m. None of the pits hit concrete obstructions.

A.12.1.84 Site investigations on the site of the former Avonside Ironworks, to the north of the site recorded substantial brick or concrete foundation walls and floor slabs. The floor slabs were penetrated at depths from 0.34m to 1.6m, sometimes more than one was encountered. Made ground consisted of a mixture of brick, concrete, stone, slag, ash and clinker in a grey or black soily matrix up to 4m in depth.

### **Archaeological Significance and Potential**

A.12.1.85 Cartographic evidence show the site area was formed by pasture land until piecemeal development in the late 17<sup>th</sup> century. No pre-18<sup>th</sup> century remains have been found on the site area.

A.12.1.86 Therefore the greatest archaeological potential of the site relates to the survival of Post-Medieval and Industrial archaeological remains. This has been illustrated by the archaeological excavation on the site of the Powell and Ricketts Glassworks. The evaluation on the car park area to the east of Free Tank revealed evidence of 18<sup>th</sup> century ditches and mid 18<sup>th</sup> century structures possibly correlating to buildings on Rocque's map of 1742. The archaeological survival in these areas is high because there has been less development impact.

A12.1.87 The survival of features relating to the Post-Medieval and Industrial structures in other areas of the site is uncertain because of the subsequent phases of redevelopment. However, there is the potential for elements of early 19<sup>th</sup> century housing to survive. It is most probable that this Post-Medieval and Industrial activity will have truncated any earlier occupation horizons in the majority of the site area.

A.12.1.88 Few archaeological investigations have been carried out in this area and little is known about early occupation of these marginal areas of the city. There is the potential for evidence of Medieval exploitation of river resources to survive in pockets in the southern part of the site. Areas which have remained open land or yards, for example, have a higher potential as the archaeological resource would not have been affected by later development.

## **Development And Other Impacts**

### *Potential Impact of Proposed Development*

A.12.1.89 The construction of the basement car parks may have a significant effect on any potential archaeological remains. It is also assumed the development would require substantial foundations, which may disturb and truncate potential in situ archaeological deposits.

A.12.1.90 The proposed development may also require the breaking out and removal of all 19th century foundations and below ground structures. Other ground disturbance may be caused by the installation of new services and drainage.

## **Conclusions**

A.12.1.91 There are no Scheduled Ancient Monuments in the vicinity of the site. The site is not located within an Area of Archaeological Significance or Conservation Area. There are no listed buildings within the footprint of the development site.

A.12.1.92 An excavation was carried out in the west of the site and revealed survival of deposits including significant evidence of the Post-

Medieval glassworks industry. The evaluation on the former car park east of Free Tank revealed evidence of structures dating from the mid 18th century onwards, including the walls of the 19<sup>th</sup> century dock.

- A.12.1.93 The site area has a long history of industrial use from the late 17<sup>th</sup> century onwards. Whether this area was also exploited in the Medieval period is presently unknown. The industrial expansion of the area lead to the construction of associated domestic and social buildings from the early 19<sup>th</sup> century onwards.
- A.12.1.94 The monitoring of any further geotechnical works by a professional archaeologist would provide an initial indication of the character of stratigraphy surviving in the development area.
- A.12.1.95 The Bristol City Archaeologist has confirmed that an archaeological excavation will be required to investigate and record any archaeological remains that will be lost as a result of excavation for basements, foundations and service trenches.

## References and Sources

Cattell John 1996 *Former Avonside Ironworks, Avon Street, Bristol, RCHME*

Department of the Environment (DoE) 1990, *Planning Policy Guidance: Archaeology and Planning (PPG16)*

Department of the Environment (DoE) 1994, *Planning Policy Guidance: Planning and the Historic Environment (PPG15)*

English Heritage December 1996- *The Monuments Protection Programme, 1986-96 in retrospect*

Institute of Field Archaeologists 1999, *Standard and Guidance for Archaeological Desk-Based Assessments.*

### *Map Sources*

James Millerd's Plan of Bristol 1673

James Millerd's Plan of Bristol 1715

John Rocque Plan of Bristol 1742

Donne 1773

Ashmeads' Plan of Bristol 1828

Ordnance Survey 1894 Scale, 1:2500

Ordnance Survey 1892-4 Scale, 1:500

Goad Fire Insurance Plan 1896, Scale 40 chains to the inch

Ordnance Survey 1904 Scale, 1:2500

Ordnance Survey 1918 Scale, 1:2500

**POLICY EXTRACTS FROM BRISTOL LOCAL PLAN  
ADOPTED DECEMBER 1997**

**Sites of Archaeological Significance**

- 4.4.62 Palaeolithic artefacts have been recovered from the gravel terraces at Shirehampton; Roman and prehistoric landscapes are preserved under alluvial levels at Avonmouth; at Sea Mills there is a Roman town and the visible remains of Iron Age hillforts and Roman villas and farms are scattered throughout the area. Medieval village centres such as Westbury, Henbury, Clifton, Easton and Bedminster are of archaeological significance in their own right, but have now been agglomerated into the city, while the historic core of Bristol is acknowledged to be of international importance. Starting from a relatively small nucleus in the late Saxon period, it quickly grew into a major seaport and manufacturing centre. Elements of Bristol's industrial base survive from the 18th Century and some of the finest examples of Victorian engineering and building may be found in Bristol.
- 4.4.63 This rich heritage is a non-renewable resource and the city council wishes to ensure that buried and standing remains are protected and managed adequately and sympathetically within new developments. Government guidance, contained in Planning Policy Guidance Note 16 (DoE 1990), encourages early consultation between potential applicants and planning authorities in order to minimise the risk of conflict. The city council fully endorses this view and the City Archaeologist within Planning, Transport and Development Services is willing to advise potential applicants of likely archaeological constraints and procedures

before an application is made. Preservation in-situ of important archaeological remains is the preferred option and accurate information on the survival and significance of sites is essential for proper decision making. Applicants will therefore be expected to supply sufficient information at an early stage in order to assess the effect of development on the site-s archaeological potential. The results of such assessments must be provided as part of an application for planning permission. Information may be gathered in several stages:

- (i) A desktop study should be undertaken to look at existing information.
- (ii) Depending on the nature of the site a geophysical survey of the site might also be commissioned.
- (iii) A field evaluation of the site might be necessary to provide first-hand information on the surviving state of the archaeological resource.

4.4.64 As part of the assessment of the archaeological potential of a site, applicants should indicate options for minimising damage to identified archaeological remains. These might take the form of a redesign of foundations to avoid archaeological features, or, as a last resort, excavation of the remains prior to destruction ('preservation by record'). In the latter case, developers will be expected to meet the costs of excavation, preservation of the artefacts and preparation and publication of any reports. Since buildings also form part of the archaeological resource, developers will be expected to ensure that, where preservation cannot be achieved, the specialist recording of architectural features which will be altered or destroyed during development will be carried out.

A major archaeological database covering the city centre has been established. It will be used to compile a detailed assessment of the archaeological resource leading to an agreed strategy for the management of that resource. The strategy will form the basis of a Supplementary Planning Guidance Note to the Local Plan. Further information is contained within the Policy Advice Note – *'Archaeology and Development'*.

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(i) There will be a presumption in favour of preserving any archaeological features or sites of national importance, whether scheduled or not.

(ii) Development which could adversely affect sites, structures, landscapes or buildings of archaeological interest and their settings will require an assessment of the archaeological resource through a desk-top study and where appropriate a field evaluation. Where there is evidence of archaeological remains, development will not be permitted except where it can be demonstrated that the archaeological features of the site will be satisfactorily preserved in situ, or a suitable strategy has been put forward to mitigate the impact of development proposals upon important archaeological remains and their settings; or, if this is not possible and the sites are not scheduled or of national importance, provision for adequately recording the site prior to destruction is made, preferably by negotiating a planning agreement to ensure that access, time and financial resources are available to allow essential recording and publication to take place.

Implementation: Through the Development Control process, on sites identified in the Avon or Bristol Sites and Monuments Record,

the Bristol Urban Archaeological Database or by the City Council  
Archaeologist.

## APPENDIX 12.3

### Bristol Urban Archaeological Database Information Archaeology

Ref.	NGR (all ST)	SMR No	Period	Description
1	359551 172566	1042M	Medieval	Site of Portwall, the town wall constructed in the 13 <sup>th</sup> century.
2	359579 172560	1358M	Medieval	Site of Portwall Ditch, the ditch outside the town wall.
3	359594 172 688	671M	Medieval	Site of Tower Harratz. The terminal tower of the town wall which was in existence by 1373 and still standing at time of the Civil War. It was demolished during the later 19 <sup>th</sup> century.
4	359607 172690	1104M	PM 1-	Site of possible mid 17th century Civil War redoubt and lodge, Temple Quay. A stone structure identified by archaeological evaluation excavation at Temple Quay in 1997.
5	359601 172697	1187M	PM2	Powder magazine at Tower Harratz built in 1722 outside the Portwall and on the north side of the possible lodge excavated in 1997.
6	359518 172732	672M	PM1	Site of Ropeing House shown on Millerds map of 1673.
7	359529 172541	997M	PM2	Site of ropewalk, on the northwest side of Back Avon Walk, shown on

				Rocque's map of 1742.
8	359480 172572	1331M	PM2	Great Garden or Spring Garden recorded on Millerds map of c. 1715.
9	359556 172656	1146M	PM2	Site of Duffet's Redware Pottery, Temple Back, nineteenth century pottery production.
10	359555 172731	1147M	PM2	Site of H.D. Pochin & Co Ltd, alum works, Temple Back, late 19 <sup>th</sup> century to 20 <sup>th</sup> century, demolished in the 1990s. Kilns located and excavated during a watching brief.
11	359539 172746	1148M	PM2	Site of Ring's Ohio Tobacco-Pipe Manufactory, Commercial Road. Clay pipe factory demolished by 1902. Archaeologically excavated from the 1980s.
12	359548 172679	1149M	PM2	Warehouse on the west side of Pipe Lane, Temple Back.
13	359537 172551	1150M	PM2	Malthouse on the west side of Pipe Lane.
14	359487 172534	1151M	PM2	Malthouse, located in Brooks Court off Pipe Lane.
15	359507 172539	1152M	PM2	Jewish burial ground, Rose Street dated 1811, relocated to a site in Fishponds in the early 1920s.
16	359476 172520	1153M	PM2	Methodist Chapel located on the north side of Rose Street, Temple Back.
17	359497 172572	1154M	PM2	Oil and Tallow Works, Avon Street, Temple Back.

18	359517 172593	1155M	PM2	Baptist Chapel, Tower Street, Temple Back recorded on the OS map of early 1880s.
19	359522 172513	1156M	PM2	Malthouse located on west side of Pipe Lane.
20	359593 172718	1157M	PM2	Saw Mills, Commercial Road, later Temple Back recorded on the OS map of early 1880s.
21	359679 172651	1253M	PM2	Brunel's Dock, Temple Meads, built in the 1840s using an existing pill, probably infilled in the 1870s when Second Goods Shed constructed. Parts of the walls were recorded during a watching brief in 1998-1999.
22	359568 172499	1254M	PM2	First Goods Shed, Temple Meads built in the 1840s, demolished in the 1870's to allow the building of the Second Goods Shed. Parts of the building may have been recorded during a watching brief in 1998-1999.
23	359596 172542	1255M	PM2	Second Goods Shed, Temple Meads built in the 1870s to allow the building of a covered goods yard. Parts of the building may have been recorded during a watching brief in 1998-1999.
24	35958 173060	168M	PM1	Site of Headford House, on the north side of Jacob Street, dated from the 17 <sup>th</sup> century.
25	3359567 172955	482M	PM1	Site of No 12 Broad Plain, a 3 storey house and attic on the south side of

				Broad Plain.
26	359669 172778	479M	PM2	Site of Phoenix Bottle Works west cone south of Avon Street, part of the Phoenix Bottle Works in 1828, archaeologically excavated in 1988-89.
27	359708 172755	480M	PM2	Site of Phoenix Bottle Works east cone, part of the Phoenix Bottle Works in 1828,
28	359775 172716	481M	PM2	Site of Cooksons Bottle Works glass cone, on the south west side of Avon Street, part of Cooksons Bottle Works in 1828, archaeologically excavated in 1988-89.
29	359677 172852	978M	PM2	Site of the Brick Yard, Old Bread Street shown on Roque's map of 1742.
30	359960 172760	979M	PM2	Site of Brick Yard Pool – a flooded claypit, shown on Roque's map of 1742 on the west side of a lane (modern Barton Road).
31	359915 172675	977M	PM2	Site of the sty – a pigsty shown on Roque's map of 1742 on the north-east side of Avon Street, beside Wain Brook.
32	359890 172620	976M	PM2	Site of limekiln near cuckolds pill shown on Roque's map of 1742 between Avon Street and the river.
33	359870 172821	1027M	PM2	Site of Avonside Ironworks, later Avonside Engine Works, established in 1837. Surveyed by the RCHME

				before demolition in 1996.
34	360005 173081	1275M	PM2	Site of Midland Railway Goods Depot, Midland Road, the shed was built in the later 19th century.
35	360001 172963	1276M	PM2	Site of Emmanuel Church, on the northern side of Clarke Street, consecrated in 1862.
36	359666 172845	1387M	PM2	Site of school, formerly boys home on Old Bread Street, recorded on the OS map of 1883.
37	359632 172890	1384M	PM2	Site of smithy on the northern side of Old Bread Street, recorded on the OS map of 1883.
38	359660 172878	1385M	PM2	Site of malthouse on the northern side of Old Bread Street recorded on the OS map of 1883.
39	359617 172858	1386M	PM2	Site of Bristol Distilling Company Storehouses on the south side of Old Bread Street recorded on the OS map of 1883.
40	359593 172806	1388M	PM2	Site of Bristol Distilling Company Ltd Distillery on the south side of Cheese Lane recorded on the OS map of 1883.
41	359784 172936	1277M	PM2	Site of St Philip's Flax Mills, Stephen Street on the western side of Upper Cheese Lane, recorded on the OS map of 1883.
42	359812 172997	1279M	PM2	Site of iron works, west side of Horton Street, the works were built after 1883, now demolished.

43	359592 172940	1383M	PM2	Site of Broad Plain Confectionary Works located on the south side of Broad Plain, recorded on the OS map of 1883. BY 1886 Goad map the works had become the Spear's Bacon Factory.
44	359769 173036	1280M	PM2	Site of Zoar Chapel Unity Street a Particular Baptist chapel constructed in the mid 19th century shown on the OS map of 1883, now demolished.
45	359865 173074	1372M	PM2	Site of Midland Inn, Midland Road, 19th century date, demolished in 1999.
46	359710 172760	343	PM2	Excavation in 1988-1989 on site of Powell and Rickets glassworks discovered furnaces of the glass cones, and associated structures.
47	359850 172650	1578	PM2	Evaluation in 1995 at Avon Street, south of Free Tank. Features included early 18 <sup>th</sup> century ditch, mid 18 <sup>th</sup> century buildings, 19 <sup>th</sup> century furnace and dock.

## APPENDIX 12.4

### Listed Buildings and Buildings of Historic Interest

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No.	Grid Ref.	Listing Type and No. or BUAD No. (where applicable)	Period	Building
1	35980 17249	Grade I BUAD 543M	PM2	Temple Meads Station; built between 1865 and 1878, originally called Temple Meads Joint Railway Station. The main train station has a two centred trussed roof. The building has a Grade I listing. Brunel's station has a separate Grade I listing.
2	359935 172844	Grade II 901-1/42/ BUAD 1130M	PM2	Jewish Burial Ground, Barton Road.
3	35964 17295	Grade II 901-1/42/22-23	PM2	No. 2 and 3 Broad Plain and area railings mid 18 <sup>th</sup> century altered in c. 1980.
4	35963 17296	Grade II 901-1/42/24	PM2	No. 4 Broad Plain and area railings c. 1760.
5	35961 17295	Grade II 901-1/42/25	PM2	No 5 Broad Plain and area railings c. 1700.
6	35959 17296	Grade II	PM2	Nos. 8 and 9 Broad Plain

		901-1/42/26		mid 18 <sup>th</sup> century, rebuilt C20th.
7	35958 17295	Grade II 901-1/42/27	PM2	No. 10 Broad Plain, The Printer's Devil Public House late C18th
8	359683 172918	Grade II (BUAD 603M) 901-1/42/289	PM2	Gardiner's Warehouse former Broad Plain soap works, south side of Straight Street mid to late C19th.
9	359683 172982	Grade II 901-1/42/288 (BUAD 603M)	PM2	Gardiner's warehouse, former Broad Plain soap works on the north side of Straight Street dates to 1865.
10	359852 172920	BUAD 1278M	PM2	Hannah More School, New Kingsley Street.
11	359775 172828	BUAD 1374M	PM2	Crown and Anchor Public House on the corner of New Kingsley Road and Kilkenny Street.
12	359905 173004	BUAD 1183M	PM2, 19th century date	Ebenezer Chapel, Orchard Street.

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## Archaeological Time Chart and Glossary

### Time Chart

Palaeolithic	c.8000BC and earlier	Early stone age, early earlier development of man and earlier hominids.
Mesolithic	c.8000BC - 3500BC	Middle stone age, hunter gatherer groups.
Neolithic	3500BC - 2000BC	New stone age, first settled agrarian communities and monumental structures.
Bronze Age	2000BC - 500BC	First use of bronze, divided into early, middle and later sub-periods.
Iron Age	500BC - 43AD	First use of iron, divided into early, middle and later, some interaction with Romans and others.
Roman	43AD - 410AD	The first historical period, with written records, saw southern Britain subject to Roman government and culture (also Romano-British).

Early medieval 410AD - 1066AD

What has been called the Dark Ages, the period from the departure of the Roman legions to the Norman Conquest which saw the colonisation of much of Britain by Angles, Saxons and others.

Medieval 1066AD - c.1500AD

From the Norman Conquest through to the Renaissance.

Post-medieval 1500 - 1945

Everything in recent centuries, especially monuments relating to the Industrial Revolution and the military.

### *Terms*

**Air photographs** Photographs taken from the air by Archaeologists and other organisations such as the OS and RAF often show archaeology on the ground in the form of cropmarks, earthworks or soilmarks.

**Anglo-Saxon** Vernacular for early medieval period, more specifically archaeology relating to immigrant tribes including Angles and Saxons, who arrived in England after Roman withdrawal in the 5th century.

**Archaeological value/potential** Value relates to known archaeology and is synonymous with significance and importance, whilst potential is a gauge of the probability of further archaeology lying undiscovered beneath the surface.

Artifact (artefact)	Catch all term for a discrete archaeological object as opposed to a site or debris i.e. prehistoric flint work and later metal objects and ceramics, not pottery sherds or walls.
Assarting	Process of converting woodland to fields, principally in the medieval period.
Axe	One of the commonest stone age artifacts is the axe. These worked stones and flints may have been used for felling, as knives and in trade and ritual too.
Cropmark	Uneven growth of crops lying above archaeology: can be seen from the air and can show the plan of former settlements and other sites.
Deposit	A sub-surface accumulation of archaeological material.
Deserted Medieval Village	Due to de-population in the medieval period, earthworks, ruins or isolated churches mark the sites of past villages (DMV).
Earthwork	Mainly earthen features surviving above the ground surface. These are often eroded and a fraction of their original size. Usually only found under pasture.
Enclosure (1)	Area encircled by interrupted ditch/boundary, usually thought to represent settlement or animal penning.
Enclosure (2)	Creation of enclosed fields from large medieval open fields, Enclosure refers to that enforced by Act of Parliament.

English Heritage	Lead conservation body for the historic environment, consultative role in relation to listed buildings and scheduled ancient monuments.
Evaluation	Suite of methods used to determine location, extent, date, nature and importance of sub-surface archaeology, most often to inform planning decisions.
Features	Discrete remains forming part of an archaeological site i.e. ditches, pits, hearths and walls.
Flint	Commonest surviving artifacts and debris from prehistory, shape can define period/purpose. Artifacts made from cores producing waste flakes. Burnt flints indicate fire and hence possible occupation sites.
Fieldwalking	Systematic recovery of archaeological material from arable fields can indicate period, extent, nature and location of past activity. Initial evaluation technique (a.k.a. surface artifact survey).
Furlong	Sub-division of open field which was further divided into strips which were ploughed by one family.
Geophysical Survey	A range of non-intrusive survey techniques (most commonly magnetometry) which can identify buried archaeological features and deposits and is a cost-effective initial evaluation technique. Other techniques used by archaeologists include resistivity, magnetic susceptibility and ground probing radar.

Holloway	Remains of ancient routeway eroded over centuries of use. Can be a disused earthwork or in continued use.
Inhumation	Burial: usually where a skeleton is recovered as opposed to a cremation burial.
Listed Building	Statutory protection for buildings with special historic or architectural value. Grades I and II* require consultation with English Heritage where affected by development. Grade II usually dealt with solely by local planning authority.
Magnetometry	Commonest geophysical method used for non-intrusive evaluation of an area of archaeological potential. Buried archaeology has magnetic fields which differ from the natural, allowing walls, ditches and other features to be identified.
Mitigation Strategy	Preservation/retrieval of the archaeological value of a development site through excavation, repositioning of development or change in the nature of development once identified through evaluation.
Moat/moated site	Common archaeological site consisting of continuous, originally water filled, ditch with central platform. Usually dates from medieval period, with possible security/status symbol function.
Open field	Central characteristic of agricultural system in many medieval settlements, with perhaps three large fields surrounding the village's houses and paddocks and subdivided into furlongs.

Preservation (in situ/by record) Although current guidance advocates preservation of important archaeology in situ i.e. by not developing the area, the alternative (especially with less important remains) is to preserve by record through archaeological excavation.

Post-hole Hole in which structural or ceremonial timbers originally placed, often contains packing stones. Often all that remains of prehistoric buildings.

Ridge and furrow Earthworks relating to medieval and post-medieval cultivation of common open fields in furlongs. Characteristic inverted 's' bend, ridge and furrow thought to aid drainage and increase surface area for cultivation.

Ring ditch Common circular cropmark/soilmark seen on air photographs thought to reflect ploughed out Bronze Age round barrows.

Round barrow Rounded mound usually dating to the Bronze Age and containing burials and cremation burials. Ritual significance and may have served as a boundary marker.

Scheduled Ancient Monument Statutory protection afforded to archaeological sites and monuments deemed to be of national importance. Consent required from English Heritage for activity impacting on the site (SAM).

Sherds Pieces of broken pottery, useful for dating deposits, although can be secondary deposit i.e. in manure spread on arable fields.

Soilmark	Uneven soil colouration (from ditches etc.) lying above archaeology: can be seen from the air and can suggest the plan of former settlements and other sites.
Stone Age	Vernacular for Palaeolithic, Mesolithic and Neolithic periods.
Stratigraphy	Layers of archaeological and natural deposits which allow an understanding of the order in which events occurred.
Trial trenching	Excavation of trenches distributed across development site in order to evaluate presence or absence of archaeological deposits, their location, extent, date, nature and importance.
Villa	Roman high-status rural residential/agricultural complex.
Watching Brief	Observation of works by a trained archaeologist and recording of any archaeology exposed.