DETAILED ARCHAEOLOGICAL ASSESSMENT

WATER MAINS REPLACEMENT SCHEME KNOWLE RESERVOIR TO VICTORIA RESERVOIR BRISTOL

NGR ST 5769 7366-ST 6099 7065 JOB Nº: BA1233BWKV







Head Office: Chapel Walk Burgess Street Leominster Herefordshire HR6 8DE

Winchester Office: Unit 25 Basepoint Business Centre Winnall Valley Road Winchester Hampshire SO23 0LD

Tel: 01962 832720

Email: neil@borderarchaeology.com Web: www.borderarchaeology.com





Contents

1.	Executive Summary	3
2.	Introduction	7
3.	Methodology	9
4.	Site Specific Analysis	10
5.	Conclusion	.65
6.	Mitigation and Engineering – Considerations thereof	.69
7.	Copyright	.69
8.	Bibliography	.70
9.	Cartography & Aerial Photography	73

Frontispiece: Extract from Jacob Millerd's map of Bristol (1673) showing the walled city and its northern extra-mural suburbs

Report specification

Report Compilation: Stephen Priestley MA Artwork: George Children MA MIfA Editing: George Children MA MIfA Approval: Neil Shurety Dip.M G M Inst M





1. Executive Summary

This archaeological desk-based assessment has identified that the route traverses areas of **High** or **Very High** archaeological sensitivity located within the historic core of the medieval walled city of Bristol and its immediate extra-mural suburbs, with potential for encountering significant archaeological remains, chiefly of medieval and post-medieval date.

It should be emphasized, however, that, as the route extends largely along existing carriageways, the survival of archaeological remains are to a considerable degree unknown.

The route assessment has been divided into five separate areas to reflect the differing historic character, topographical development and variable potential for significant archaeological remains across the route.

1/Clifton and Kingsdown (from Victoria Reservoir to Perry Road)

The potential of this section of the route to reveal significant evidence of archaeology has been assessed, in overall terms, as **Moderate to High**.

- Park Row represents a long-established routeway from Bristol to Clifton dating back to the medieval period. Two intact burials associated with finds of medieval pottery were found at a shallow depth during road construction works towards the E end of Park Row in 1894.
- Evidence of the Civil War earthwork defences (constructed for the defence of Bristol
 in the 1640s) might be encountered where they cross the line of Park Row at the
 junction with Park Street, along with evidence of the fortification called 'Essex Work',
 located immediately N of Park Row to the W of the junction with Woodland Road.

2/Northern extra-mural suburbs (from Upper Maudlin Street to Union Street)

The archaeological potential of this section of the route has been assessed in overall terms as **High**.

- Evidence for prehistoric and Roman activity, including the remains of a Roman farmstead complex, has been identified immediately SE of Upper Maudlin Street.
- There is significant potential for encountering features and deposits of medieval date along this section of the route, which extends through the northern extra-mural suburbs of the Saxon and later medieval settlement of Bristol in close proximity to three religious houses, St James's Priory, the Priory of St Mary Magdalene and the Franciscan Friary (Greyfriars).
- Possible evidence for occupation deposits or structural remains (in particular boundary features) associated with the Priory of St Mary Magdalene and the Franciscan Friary might be encountered beneath Upper Maudlin Street, which was widened in the early 1870s.





- The line of the medieval Greyfriars Conduit (built in the late 13th century) has been previously recorded during water-mains trenching as crossing beneath present-day Upper Maudlin Street in the immediate vicinity of the Bristol Dental Hospital.
- The route extends along Lower Maudlin Street, denoting the historic boundary between the precincts of the religious houses of St James's Priory to the E and the Franciscan Friary (Greyfriars) to the W. The remains of the eastern boundary wall of the Greyfriars precinct have previously been identified at the junction of Lower Maudlin Street and Deep Street.
- At the southern end of Lower Maudlin Street, the pipeline route will cross through the SW corner of the extensive lay burial ground known as St James's Churchyard, which remained in use from the 13th century through to the 1850s. Previous archaeological work has demonstrated the potential for intact burials of medieval date to have survived in this area.
- The section of the route following Union Street runs roughly N-S through the burgage plots forming part of the medieval extra-mural suburb of Broadmead. Recent archaeological investigations to the W of the lower half of Union Street have indicated the potential for reasonably well-preserved occupation deposits and features of medieval date to have survived in this area, in spite of extensive 19th-20th century development.

3/The walled city (Union Bridge to Bristol Bridge)

This section of the route, which extends through the historic core of the late Saxon and medieval walled city of Bristol, has been identified as an area of **Very High** potential in archaeological terms. The survival and condition of these remains are likely to be variable, as a result of extensive truncation by post-medieval road construction works and cellarage (associated with the widening of Dolphin Street and the construction of Bridge Street in the 1770s) as well as post-WWII clearance and landscaping activity.

However, previous archaeological investigations have indicated that, where archaeological deposits and features of Saxon or medieval date have remained intact, they could potentially survive in a well-preserved condition.

- A section of the pipeline route runs SE along the former line of Dolphin Street, where
 excavations in the early 1960s revealed evidence of a substantial ditch which may
 have represented part of the defensive circuit of the late Saxon burh.
- The pipeline route appears to cross the line of the later medieval city walls (built in the early 12th century) at two points: 1/at the S end of Union Street immediately N of the junction with Wine Street and 2/in Castle Park, where the pipeline heads SSE towards the river, crossing the former line of Bridge Street.
- There is also potential for encountering features associated with the Saxon and later medieval street grid, in particular Dolphin Street, the eastern end of St Mary-le-Port Street and the Shambles (Worshipful Street).





- Significant potential remains for medieval and post-medieval occupation features (including cess pits and remains of cellarage) to have survived in this area in spite of later 19th-20th century building activity and post-WWII clearance and landscaping activity. The depth of these features could vary significantly, from between 0.5m to 2m (or more) below existing ground level.
- Evidence of late Saxon and medieval features associated with the defensive circuit, street alignments and tenement plots, if encountered, would be of Very High importance and could contribute significantly to our understanding of the chronological phasing and the extent and nature of occupation within the late Saxon burh and later medieval urban settlement.
- Evidence of masonry structures associated with the northern abutment of the 13th century structure of Bristol Bridge were identified immediately N of the present edifice; it is possible that evidence of properties recorded as lying adjacent to (or upon) the N end of the bridge might also be identified in this area.

4/Southern extra-mural suburbs (Victoria Street to Temple Meads)

The archaeological potential of this section of the route, extending through the southern extra-mural suburbs of Redcliffe and Temple, has been assessed in overall terms as **High**.

- It is likely that evidence of the pre-1860s street alignments will be identified at the
 point where they are intersected by present-day Victoria Street, although it is likely
 that any buried medieval road surfaces will lie at a considerable depth beneath later
 post-medieval metalling.
- There is potential for the survival of archaeological deposits and features relating to the properties and associated boundary features lying between St Thomas Street and Temple Street which were truncated by the construction of Victoria Street.
- The section of the route running along Victoria Street immediately NW of Temple Circus roundabout lies close to the site of the Austin Friary, founded in the early 14th century.
- A short stretch of the route lying immediately SE of the Temple Circus roundabout appears to directly cross the line of the early 13th century Portwall, to the E of the site of the medieval gateway of Temple Gate. Significant potential remains for encountering evidence both of the Portwall and its associated defensive berm and ditch at depths ranging between 1-2m below existing ground level.
- There is also potential for encountering the remains of the medieval Temple Conduit, the route of which appears to run in close proximity to the site of Temple Gate (where there was a cistern associated with the conduit).

5/South of Bath Bridge (Totterdown & Knowle)

The potential for encountering archaeological deposits and features along this section of the route has been assessed, in overall terms, as **Low**, chiefly reflecting the limited scope of the archaeological and documentary record for this area.





Executive Summary Conclusion: The pipeline route traverses areas of considerable archaeological and historical importance, providing substantial opportunities for revealing features and associated deposits; however, the fact that the chosen engineering methodology entails pipe insertion within existing apparatus and utilising access pits of varying dimensions will inevitably curtail both the impact on the existing archaeology and the opportunity to record the existing resource.

Border Archaeology recommends that a watching brief is undertaken in those areas of High archaeological sensitivity to be determined in consultation with Bob Jones, City Archaeologist, Bristol City Council at a suitably arranged meeting.





2. Introduction

Border Archaeology undertook this archaeological desk-based assessment on behalf of Bristol Water to determine the nature of the archaeological resource within the vicinity of the proposed water mains renewal scheme (Fig.1), extending from Victoria Reservoir at Clifton (NGR ST 5769 7366) to Knowle Reservoir (NGR ST 6099 7065).

Copies of this assessment will be supplied to Bristol Water for their initial consideration of the inherent implications of archaeological impact, engineering considerations, cost and programming. Any revisions (other than minor) as to route may require additional research & consideration in a revised Report.

A copy of this report will be submitted to Bob Jones, City Archaeologist, Bristol City Council for his consideration.

2.1 Soils and Geology

The entire study area is classed as unsurveyed in the Soil Survey of England and Wales (SSEW, 1983); however, the underlying solid geology is recorded as consisting of Redcliffe Sandstone of the Triassic period.





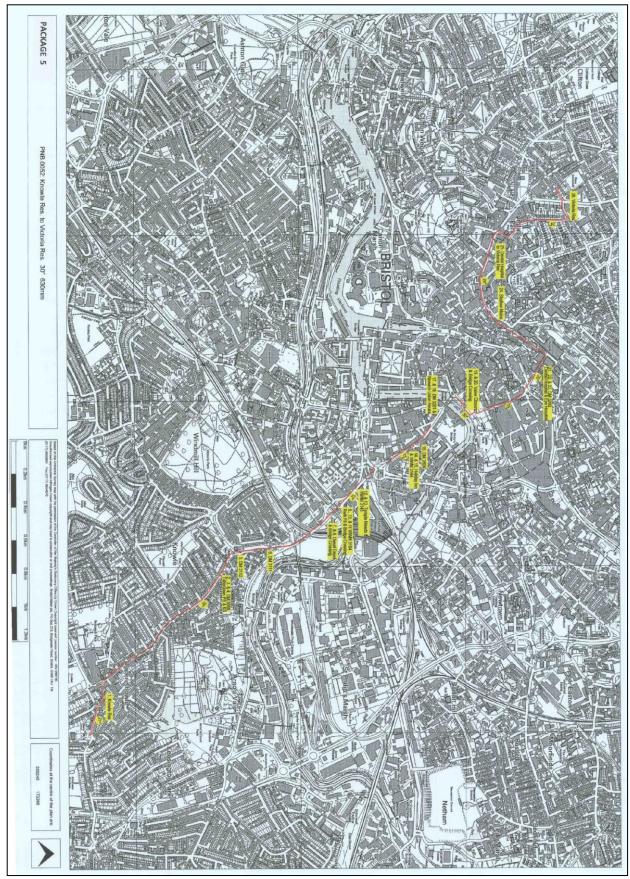


Fig 1: Bristol Water scheme map showing the route of the proposed replacement water mains pipeline marked in red





3. Methodology

3.1 Archaeological Assessment

3.1.1 Research Aims

This archaeological desk-based assessment seeks to identify any known or potential archaeological resource within the study area and to establish its character, extent, quality and importance, within a local, regional and national context.

3.1.2 Research Methods

The research carried out for this detailed archaeological assessment consisted of the following elements:

3.1.3 Evaluation and study of archaeological databases

A search was made of the National Monuments Record (English Heritage) and the Bristol City Council Historic Environment Record for any sites of archaeological or historic interest within a 50m corridor (25m on either side of the pipeline route).

3.1.4 Evaluation and study of primary sources

Primary documentary sources relating to the study area were consulted at the Bristol Record Office and the Gloucestershire Archives.

3.1.5 Evaluation and study of secondary sources

Secondary sources relating to the study area were consulted using the collections held at the Bristol Record Office, Bristol City Council Historic Environment Record, Gloucestershire Archives and the National Monuments Record at Swindon, including relevant articles in Bristol and Avon Archaeology and Transactions of the Bristol and Gloucestershire Archaeological Society, as well as published and unpublished reports relating to archaeological work in the vicinity of the study area. Reference was also made to relevant planning policy documents including the Bristol Local Development Framework Supplementary Planning Document Number 7 – Archaeology and Development (Bristol City Council, 2006)

3.1.6 Evaluation and study of cartographic and other pictorial evidence

Historic maps dating back to *c*.1568 were consulted at the Bristol Record Office and Gloucestershire Archives. Digital copies of historic maps and illustrative sources were also examined on the Bristol City Council website http://maps.bristol.gov.uk/knowyourplace/.

Copies of the Ordnance Survey 1st-3rd edition maps (at scales of 1:500, 1:2500 and 1:10560), and later OS 1:2500 and 1:10000 scale maps (*c*.1960 to present) were obtained from the Bristol Record Office and Gloucestershire Archives. Collections of historic photographs of the study area were consulted at Bristol Record Office and Gloucestershire Archives.





4. Site Specific Analysis

4.1 Introduction

The specific study area comprises a mains renewal scheme which extends for an approximate distance of 5.5km from the Victoria Reservoir at Clifton (NGR ST 5769 7366) to Knowle Reservoir (NGR ST 6099 7065).

Due to the substantial length of the pipeline route and the sheer quantity of archaeological records and available documentary and cartographic sources (particularly for central Bristol), the route of the mains renewal scheme has, for reasons of greater clarity, been divided into five separate geographical components, to reflect the distinct historic character, topographical development and variable potential for significant archaeology within these respective areas.

4.11 Conservation areas

The pipeline route extends through seven Conservation Areas designated by Bristol City Council, which are as follows: Whiteladies Road, Tyndall's Park, Park Street and Brandon Hill, St Michael's Hill and Christmas Steps, St James's Parade, City and Queen Square, and Redcliffe.

4.12 Scheduled Ancient Monuments

The route runs, at its closest point, approximately 30m W of the remains of medieval vaulted cellars to the N of St Peter's Church, associated with the residence of a 15th century city official, Simon Oliver (SAM Ref. BS 163). The remains of the parish church of St Mary-le-Port (SAM Ref. 2888) are located approximately 30m N of the pipeline route, while the remains of another vaulted cellar of medieval date on the E side of High Street (SAM Ref. BS 136) lie approximately 25m N of the pipeline route.

4.1.3 Archaeological Sites

The Bristol City Council Historic Environment Record was consulted to determine the nature and extent of the archaeological resource within the pipeline corridor, defined as being 50m in width (25m on either side of the pipeline route).

A total of 180 recorded archaeological events and monuments were identified in the vicinity of the pipeline route, the majority of which were either of medieval or post-medieval date.





4.2 Clifton and Kingsdown (from Victoria Reservoir to Perry Road)

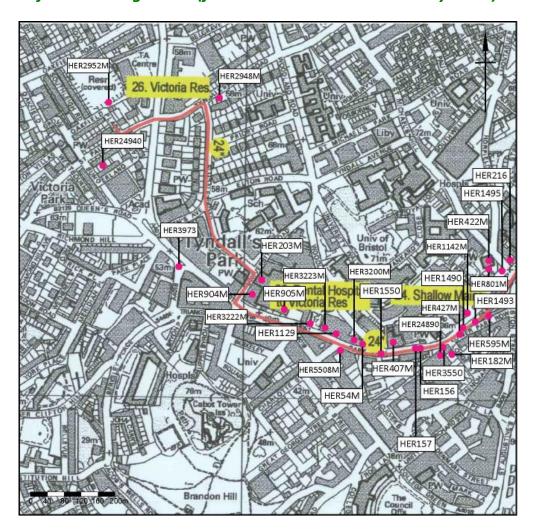


Fig. 2: Victoria Reservoir to Perry Road: Plan showing HER sites in the vicinity of the pipeline route

This section of the route runs roughly E from the Victoria Reservoir at Clifton Downs across Whiteladies Road (A4018) and then turns sharply SE following Elmdale Road and then turning SW to enter Park Row; the route then follows Park Row to the junction of Perry Road and Lower Park Row.

4.2.1 Historical Background and Topography

The western terminus of the route (at Victoria Reservoir) lay just within the eastern boundary of Clifton parish and manor (which was roughly marked by the line of present-day Whiteladies Road). To the E of Whiteladies Road lay the jurisdictional boundary of the city and county of Bristol as established by the Great Charter of 1373. The somewhat irregular western boundary of the city's jurisdiction in this area (as depicted on Plumley & Ashmead's map of 1828) reflects the fact that it followed the boundaries of several fields which are recorded by name in the 1373 charter.

From the evidence of property deeds and early maps of Bristol, such as Smith's map of 1568, Millerd's map of 1673 (Fig. 3) and John Rocque's survey of 1742 (Fig. 5), it is possible to establish that the area traversed by this section of the route remained essentially





agricultural in character from the medieval period through to the late 18th-early 19th century, comprising a landscape of small fields and closes which were largely under pasture, with limited settlement activity along the long-established route from Bristol to Clifton (present-day Park Row) and a small settlement focus close to St Michael's Church (Leech 2000b).

The parish church of St Michael on the Mount (HER No. 422M), located at the foot of St Michael's Hill, had been founded in the mid-12th century and was granted by William Earl of Gloucester to St James's Priory, a cell of the Benedictine Abbey of Tewkesbury. The existing structure was largely rebuilt in 1775-7 with the exception of the W tower of mid-15th century date (Brett, 2005). It appears that a small settlement nucleus developed around St Michael's Church by the late 12th or early 13th century and there is evidence to suggest that there was a gradual extension of settlement westwards along the road towards Clifton (present-day Park Row) during the late medieval and early post-medieval periods (Leech, 2000a, 109). Smith's map of Bristol dated 1568 shows rows of houses along both St Michael's Hill and Church Lane adjacent to the churchyard, indicative of settlement growth in this area by the mid-16th century; however, the accuracy of this depiction is uncertain.

Documentary records indicate the existence of a 'capital messuage' or mansion and an associated estate known as the 'Little Park' lying to the N of Park Row and W of St Michael's Hill which belonged to the de Cheddre family in the late 14th-early 15th century (HER No. 1142M; Leech, 2000a, 81-83). The capital messuage appears to have disappeared by the 17th century, although the bounds of the 'Little Park' estate remained intact until as late as the mid-18th century and still appeared on Rocque's map of 1742. Millerd's map of 1673 (Fig. 3) depicts the enclosure called 'ye Little Park' to the N of Park Row (then called 'Stony [or Stomy] Hill') which had by that date been extensively subdivided into separate landholdings occupied by houses and associated gardens, which appear from documentary sources to have been occupied by wealthy merchants or gentry families in the late 17th-early 18th century (Leech, 2000a, 25-6). To the S of the 'Little Park', the 1673 map shows what appears to be a house and paddock occupying a plot projecting into Stony Hill, roughly opposite a late 16th century house called the 'Red Lodge'. Towards the E end of Park Row, Millerd depicts a group of tenements and associated garden plots lying within a triangular block of land bordered to the N by Church Lane (now Lower Church Lane), to the S by Griffin Lane and to the E by Colston Street, which in turn was bisected by the Christmas Steps (marked as (Upper Steps) running N-S from St Michael's to Queen Street.

During the Civil War sieges of Bristol in the early to mid-1640s, this area represented a location of strategic importance with the Parliamentary garrison hastily constructing a defensive line to safeguard the western approach to the city and the water conduits which lay to the S of Park Row near Brandon Hill. On 23 July 1643, the besieging Royalist army under Prince Rupert managed successfully to breach the defences somewhere close to the junction of Park Row and Park Street, the location of which was later known as 'Washington's Breach' (as marked on Millerd's map of 1673), the name being derived from Captain Henry Washington, the Royalist commander of the assault (Latimer, 1900, 178).

The earthwork fortifications constructed as part of the mid-17th century Civil War defences of Bristol, extending roughly NE-SW from the Royal Fort to Brandon Hill Fort, appear to have crossed Park Row close to the junction with Park Street. A small fortification (possibly an artillery or musketry platform) referred to as the 'Essex Work' (HER 1029M) was hastily constructed by the Parliamentary forces in 1642 close to this location, on the N side of Park Row, just to the W of the junction with present-day Woodland Road; however, it appears not to have been completed prior to the Royalist attack in July 1643 (Latimer, 1900, 178-9).





Following the Royalist capture of Bristol, the defences were apparently repaired and strengthened in the vicinity of 'Washington's breach', although the 'Essex Work' appears to have been demolished either prior to or shortly after the Parliamentarian forces besieged Bristol in 1645; no trace of it is visible on Millerd's plan of 1673.

Consultation of historic maps of the area, including Millerd's plan of 1673 (and its revision of c.1710), Rocque's map of 1742 and Wilstar's plan of Clifton manor dated 1745 (for the westernmost section of the route), show that, in overall terms, the pattern of field enclosure and settlement in this area remained largely unaltered from the late 17th century through to the second half of the 18th century, although Rocque's map depicts some limited residential development along Park Row immediately to the W of St Michael's Church (on the site of the 'Little Park') and extending N along St Michael's Hill.

The most significant change to the landscape pattern within this area during the second half of the 18th century was the establishment of the extensive landscaped grounds of Tyndall's Park, bounded to the W by Whiteladies Road and extending S as far as Park Row and E towards St Michael's Hill. The park was created in the 1760s by Thomas Tyndall, a wealthy Bristol merchant and builder of Royal Fort Mansion (within the site of the Civil War fortification of Royal Fort). Further landscaping work was carried out within the park between 1799 and 1805 by Humphry Repton, the noted garden designer, and the layout of the Park as visible on Plumley and Ashmead's plan of 1828 (Fig. 7) essentially represents Repton's design (Leech, 2000a).

Plumley and Ashmead's plan shows the extent of Tyndall's Park prior to mid to late 19th century development, with plantations of trees established along Whiteladies Road and Park Row to restrict views of the park. By that date, there had been further building activity to the W of St Michael's Church (Park Place) and particularly along the S side of Park Row, extending S towards Brandon Hill and W up to the Triangle, where extensive residential development had taken place in the late 18th-early 19th century, represented by Park Street, Berkeley Square, Charlotte Street and Great George Street. The triangular block of land at the E end of Park Row (bounded by Church Lane, Griffin Lane and Colston Street) had also been heavily built up by this date.

Ashmead's plans of Bristol dated 1855 and 1874 and the OS 1st and 2nd edition maps dated 1886 **(Fig. 11)** and 1903, respectively, chart the steady encroachment of Tyndall's Park during the mid-to-late 19th century by piecemeal residential development on its western side (extending E of Whiteladies Road) and to the S by large-scale public buildings extending to the N of Park Row (including the Blind Asylum (1839), the Bishop's College (1839, with later 19th century alterations) and Bristol Museum and Library (1867-71)). Further to the E, a significant change to the road layout at the eastern end of Park Row took place in the early 1870s, with the construction of Perry Road, which cut directly through the triangular block of tenement plots bounded to the N by Church Lane, to the S by Griffin Lane and to the E by Colston Street and across the line of Christmas Steps.

4.2.2 Consultation of Archaeological Records

Prehistoric

No archaeological records relating to prehistoric activity have been identified in the vicinity of this section of the pipeline route.





Roman

Possible evidence for Roman activity close to the N terminus of the route (at Victoria Reservoir) is restricted to the discovery of a single bronze coin of the Emperor Probus (276-82 AD), dug up in Whatley Road, near the Clifton Down railway station, in 1885 (HER Event No. 10891). No other recorded sites of Roman date have been identified in the vicinity of this section of the pipeline route.

Medieval

Archaeological evidence for medieval occupation along Park Row is extremely limited in scope. Two inhumations were found 'a few inches below the pavement' at Park Row during the construction of a new road to Clifton in April 1894 (HER Event No. 156). The burials appeared to be of late medieval date, based on the discovery of green-glazed pottery in the adjoining soil. It was suggested by the late 19th century antiquary John Pritchard that these burials could possibly represent 'the remains of a couple of 'the religious' of one of the neighbouring convents' (Pritchard, 1894, 88). However, this identification appears dubious based on the fact that Park Row lies some distance from the two nearest religious houses, namely, the nunnery of St Mary Magdalen to the E and the Carmelite Friary to the SE, although it should be emphasized that the precise location of the burials on Park Row remains undetermined. Another possibility is that the burials could in fact relate to activity in this area during the siege of Bristol in the early to mid-1640s.

Post-Medieval

Evidence of early post-medieval archaeology in the vicinity of this section of the route is relatively limited, which reflects the fact that this area remained essentially agricultural in character until the early 19th century, comprising a landscape of enclosed pasture fields as depicted on Rocque's map of 1742 (Fig. 5) and Ashmead's plan of 1828 (Fig. 7), with sporadic ribbon settlement along the road from Bristol to Clifton and a settlement focus in the vicinity of St Michael's Church (Leech, 2000a).

Evidence for the Civil War fortification known as the 'Essex Work' was apparently found during an evaluation undertaken in 1994 on the site of a new University of Bristol engineering building on the N side of Park Row, represented by a deep, broad ditch containing tipping deposits of 18th century date (HER Event No. 1129; Bryant, 1994). Artefact finds associated with the Civil War siege in this area have been limited although Pritchard reported the discovery of two stone shot at the foot of St Michael's Hill in about 1890 (Pritchard, 1903, 142).

Few archaeological interventions have been recorded within the pipeline corridor; these have chiefly yielded evidence of structural features of late post-medieval date. An archaeological watching brief undertaken in 2003 on the insertion of a gas main at Triangle West, Clifton, revealed two brick arches of presumed 19th-early 20th century date, oriented NW-SE at a depth of 1m below existing ground level (HER Event No. 3973). The function of these brick arches is uncertain; it is possible that they relate either to cellarage or drainage. A watching brief undertaken during the excavation of two trenches to investigate a wall at the Red Lodge in Park Row in Feb-March 2000 revealed evidence of modern backfill deposit overlying a red-brown clayey sand from which a small quantity of worked stone, animal





bone and oyster shell was recovered, possibly representing evidence of post-medieval domestic activity (HER Event No. 3550; Bryant, 2000).

4.2.3 Summary of Potential

The potential of this section of the route to reveal significant evidence of archaeology has been assessed, in overall terms, as **Moderate to High**.

Little evidence for prehistoric or Roman activity has been recorded in this area. Evidence for medieval occupation is somewhat limited, although there is documentary evidence for a settlement focus in the vicinity of St Michael's Church and for late medieval ribbon development extending W along Park Row, the long-established routeway from Clifton to Bristol. The date of the burials found during the digging of a service trench somewhere towards the E end of Park Row remains uncertain; although Pritchard suggested a late medieval origin, it is possible that the medieval pottery could be residual and hence the burials might be of post-medieval date (one possible explanation is that they may have been casualties of the Civil War sieges of Bristol).

During the sieges of Bristol in 1642-3 and 1645, Park Row as the historic routeway from Clifton to Bristol represented a location of key strategic importance and was the focal point of the assault on the Parliamentary defences in July 1643. It is possible that archaeological evidence might be identified of the intense fighting that appears to have occurred in this particular locality in terms of military paraphernalia (e.g. musket-balls) or even human remains. Evidence of the Civil War defensive circuit might be encountered where it crosses the line of Park Row, somewhere to the W of the junction with Woodland Road. It is also possible that evidence might be identified of the fortification known as the 'Essex Work', which appears to have been located just to the N of Park Row. Should evidence of the Civil War defensive line be encountered in this area, this would potentially be of **High** significance in archaeological terms, although it is likely that any extant remains within the present roadway will have been heavily disturbed by 19th-20th century road construction works.

Although the section of the pipeline route running E of Whiteladies Road does extend within the western fringes of Tyndall's Park, evidence of the Park has almost entirely disappeared as a result of late 19th century residential development and the construction of various public buildings (Bristol Grammar School and Bristol Museum & Art Gallery). Consequently, the likelihood of encountering buried landscape features (e.g. ha-has or formal avenues) or structural remains associated with the Park appears to be **Low**.

However, there appears to be at least **Moderate** potential for encountering evidence of buried features or deposits associated with the buildings and gardens that occupied the northern part of the triangular block of land bounded by Church Lane to the N, Griffin Lane to the S and Colston Street to the E, which were swept away prior to the construction of Perry Road in the early 1870s. The small number of recorded archaeological interventions in the immediate vicinity of this section of the route have chiefly produced evidence of 18th-19th century occupation deposits and structural remains relating to cellarage or drainage, which has been assessed as being of **Low to Moderate** significance in archaeological terms.





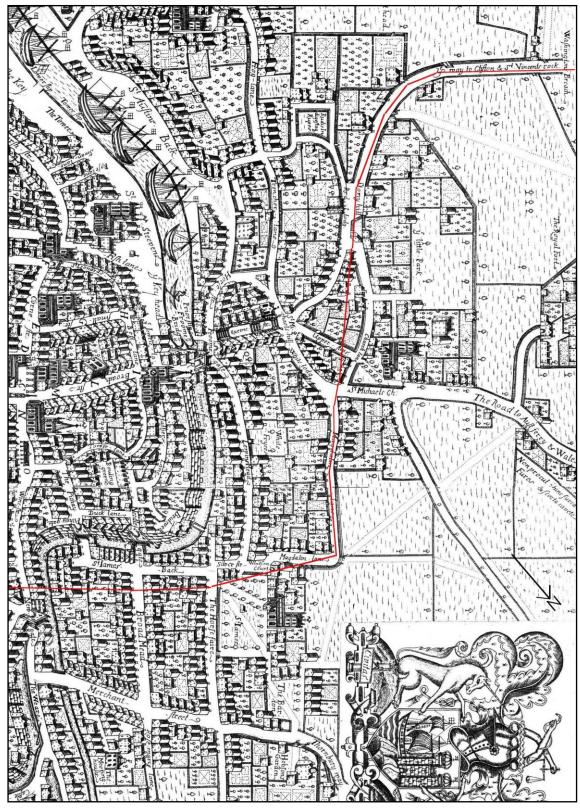


Fig. 3: Extract from Jacob Millerd's Plan of Bristol (1673) showing the area traversed by the route from Park Row (near 'Washington's Breach') to Broadmead (Reproduced by courtesy of Gloucestershire Archives)





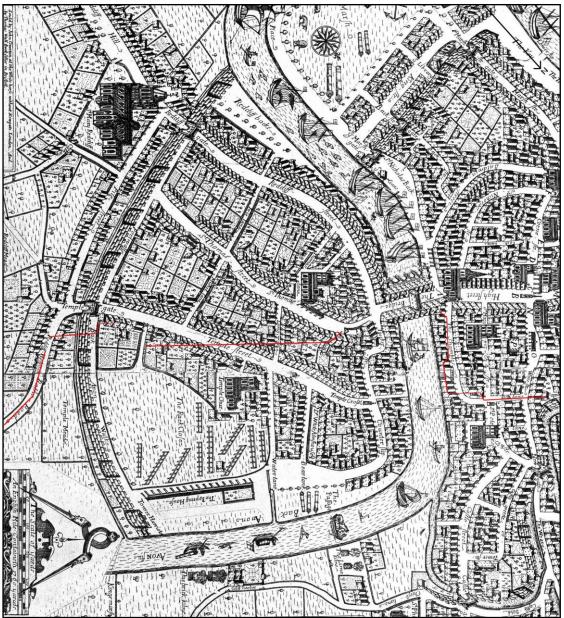


Fig. 4: Extract from Jacob Millerd's Plan of Bristol (1673) showing the area traversed by the route from the junction of Wine Street and Dolphin Street to the S of Temple Gate

(Reproduced by courtesy of Gloucestershire Archives)





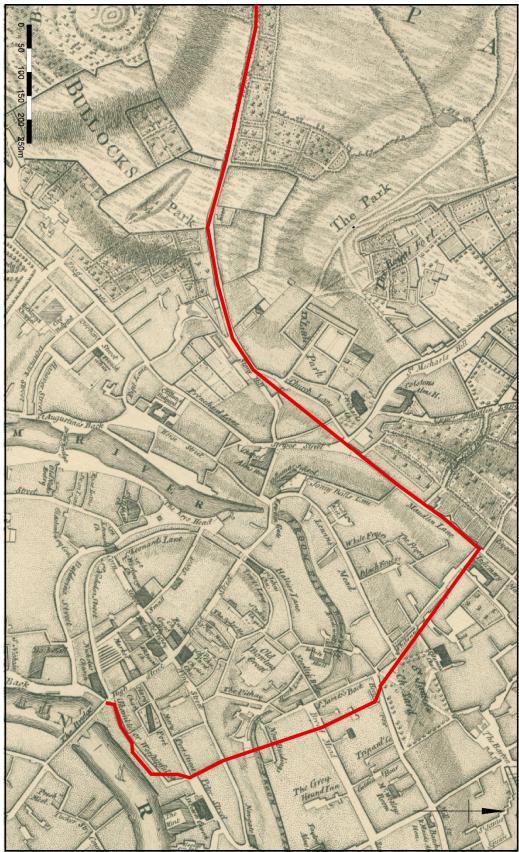


Fig. 5: Extract from John Rocque's map of Bristol (c. 1742) showing the area traversed by the route from Park Row to Bristol Bridge

(Reproduced by courtesy of Bristol Record Office)





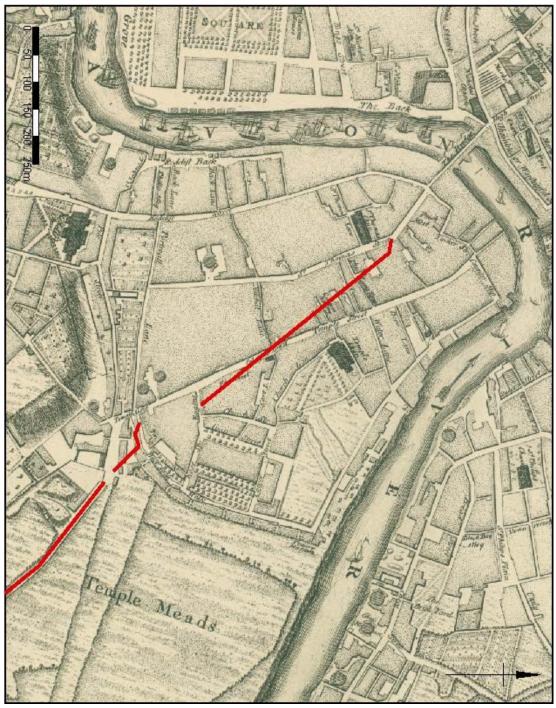


Fig. 6: Extract from John Rocque's map of Bristol (c. 1742) showing the area traversed by the route from Bristol Bridge to Temple Meads (Reproduced by courtesy of Bristol Record Office)





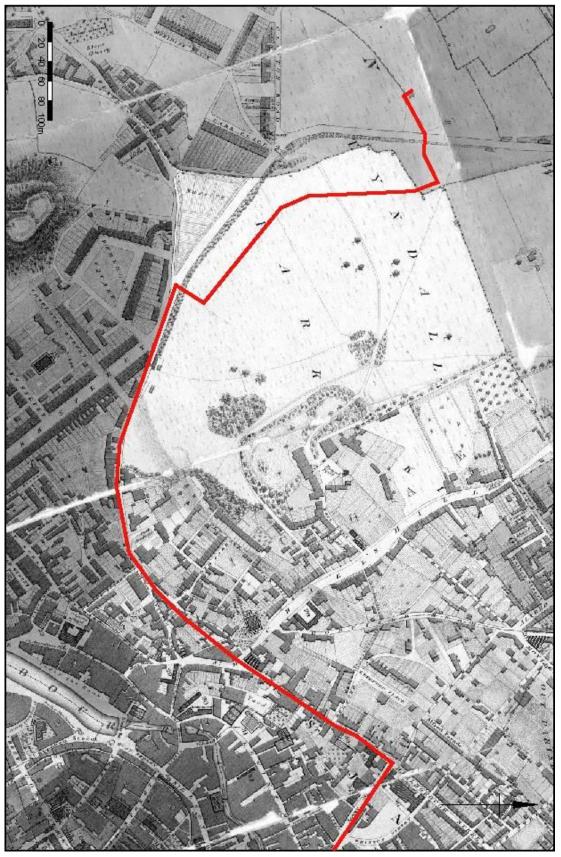


Fig. 7 Extract from Plumley and Ashmead's map of Bristol (1828) showing the section of the route extending from Whiteladies Road, Clifton to Lower Maudlin Street (Reproduced by courtesy of Bristol Record Office)





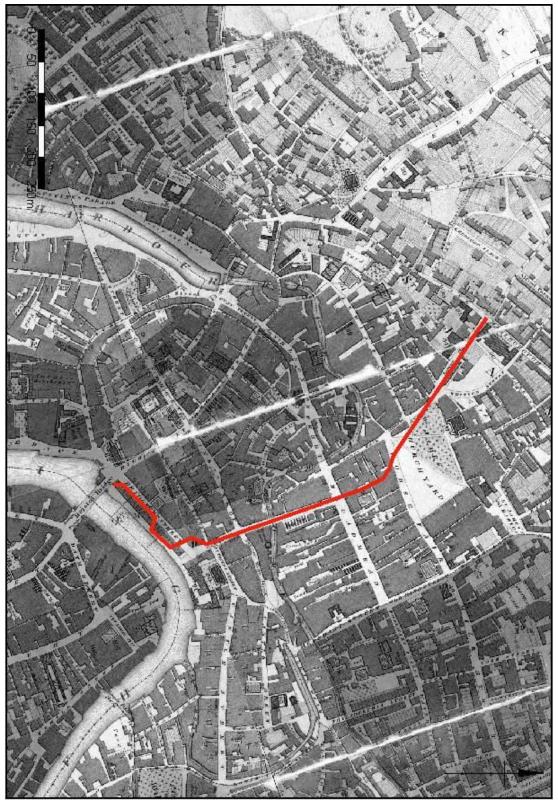


Fig. 8 Extract from Plumley and Ashmead's map of Bristol (1828) showing the section of the route extending from Lower Maudlin Street to Bristol Bridge
(Reproduced by courtesy of Bristol Record Office)





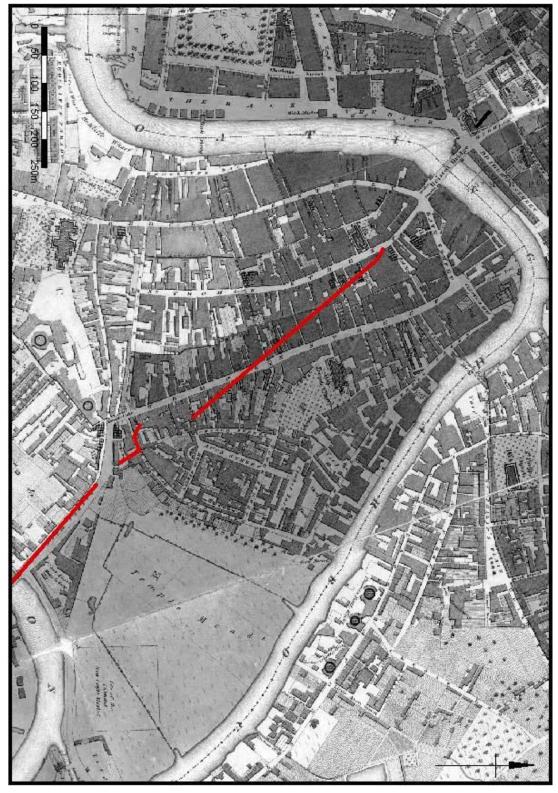


Fig. 9: Extract from Plumley and Ashmead's map of Bristol (1828) showing the section of the route extending from S of Bristol Bridge to Temple Meads
(Reproduced by courtesy of Bristol Record Office)





4.3 Northern extra-mural suburbs (from Upper Maudlin Street to Union Street)

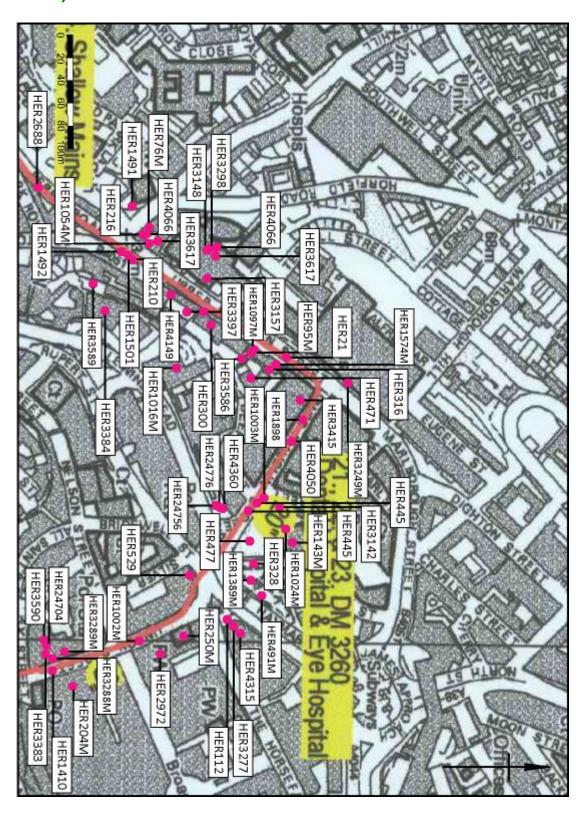


Fig. 10: Northern extra-mural suburbs (Upper Maudlin Street to Union Street) Plan showing HER sites in the vicinity of the pipeline route





4.3.1 Historical Background and Topography

This section of the route continues NE of St Michael's Hill along Upper Maudlin Street before turning sharply SE and running downslope along Lower Maudlin Street to the crossroads with Horsefair, Rupert Street and Union Street. The route lies within the extra-mural suburbs of Lewins Mead (comprising an extensive area of steeply rising ground to the N and NW of the River Frome) and Broadmead (a tract of low-lying meadow lying on the N bank of the Frome, just to the N of the medieval city defences).

Based on the limited documentary and archaeological information, it appears unlikely that there was intensive pre-Conquest settlement in these districts to the N and NW of the historic core and it can be reasonably assumed that much of this area was undeveloped and sparsely settled prior to the 12th century.

A series of monasteries and hospitals were established in these northern extra-mural suburbs during the 12th and early 13th centuries, of which three, St James's Priory in Lower Maudlin Street, the Priory of St Mary Magdalene and the Franciscan Friary in Upper Maudlin Street, are located in close proximity to the pipeline route.

1/ St James's Priory, Lower Maudlin Street

The pipeline route runs along Lower Maudlin Street immediately W of the earliest and most important of these religious institutions, the Benedictine priory of St James (HER No. 1024M), founded by Robert Earl of Gloucester as a cell of Tewkesbury Abbey in 1129 (Jackson, 2006). The visible remains of the Grade I listed priory church (HER 143M) consist of the W end (with a circular window of c.1160) and the five-bay nave of the priory church of late 12^{th} century date with a buttressed SE tower added in 1374, when the nave was converted into a parish church. The cloisters and conventual buildings were situated to the N of the priory church, with a large monastic cemetery (HER 1216M) immediately to the E of the priory church (the site of which is now occupied by St James's Court).

The full extent of the priory precinct is unclear, but it may have extended over an area roughly defined to the N by Marlborough Street, to the W by Lower Maudlin Street and to the S by a footpath, formerly known as St James's Parade (running immediately S of the priory church). By the mid-13th century, it appears that Lower Maudlin Street denoted the boundary between the precincts of St James's Priory to the E and the Franciscan Friary (Greyfriars) to the W. The section of the pipeline route running along Lower Maudlin Street lies just to the W of the western entrance to the priory precinct, known as the 'Great Gate', which remained intact until the late 18th century (Ponsford, 1989).

Following the dissolution of St James's Priory in 1539, its buildings were leased to Sir Anthony Kingston, who sold his interest in the estate to Henry Brayne, a merchant tailor of London in 1544. At some time during the early 1540s, the E end of the priory church was partially demolished and the conventual buildings to the N and NW converted into a mansion house and outbuildings. In 1580, following the deaths of Henry Brayne and his son Robert, the mansion house and estate of St James's Priory was divided between Brayne's sons-in-law. Following this division, documentary records indicate that the priory estate fragmented further during the 17th and 18th centuries, with the establishment of several different tenancies on the site and the construction of various smaller dwellings, together with an inn, a sugar refinery and warehouse (Jackson, 2006).





Millerd's map of 1673 (Fig. 3) shows the surviving remains of the priory church, with the site of the E end occupied by two houses and a garden, while several buildings are shown immediately to the NW and W of the church (probably representing the site of the post-Dissolution mansion house and a sugar refinery first documented in the late 1660s). Further to the W, Millerd's map depicts several buildings adjoining Lower Maudlin Street immediately N and E of the Great Gate to the priory precinct; it is likely that one of these properties, at the junction of Lower Maudlin Street and Whitson Court, represents the site of the White Hart Inn, first recorded in 1672.

As shown on Millerd's map of 1673, the course of Lower Maudlin Street (then 'Magdalin Lane') differed markedly from its present alignment; it appears to have dog-legged slightly to the E, just to the N of St James's Priory, with its southern continuation to the W of the Priory and churchyard represented by Whitson Court and Silver Street. Rocque's map of 1742 (Fig. 5) provides a somewhat different depiction; it shows the dog-leg where Whitson Court branches off from Maudlin Street and also depicts an unnamed lane running parallel to Whitson Court as far as Lewins Mead, roughly on or parallel to the alignment of present-day Lower Maudlin Street. The ground between this lane and Whitson Court appears to have been heavily built-up with houses by the early 1740s.

Plumley and Ashmead's map of 1828 **(Fig. 8)** shows that this street layout remained largely intact, although by that date the southern continuation of Whitson Court, adjacent to the churchyard, had become 'Lower Maudlin Lane', while the southern end of the unnamed lane on Rocque's map running from Deep Street to Lewins Mead had been partially obstructed by buildings. This same street layout to the W of St James's Priory and churchyard appears to have remained intact until the early 1870s when Lower Maudlin Street was widened to incorporate Whitson Court, as shown on the OS 1st edition map of 1886 **(Fig. 13)**.

Situated immediately S of the priory precinct was an extensive rectangular enclosure used as a burial ground (HER 491M) by the parishioners of St James from the 12th-13th century until its eventual closure in the early 1850s. The burial ground also served as the site of St James's Fair, which was granted to the priory in a charter of *c*.1181 by William Earl of Gloucester and continued to be held on the site annually at Pentecost until the mid-19th century. The original extent of the burial ground is largely visible on Millerd's map of 1673, Rocque's map of 1742 and Plumley and Ashmead's map of 1828 and was defined by Whitson Court/Silver Street to the W, to the N by St James's Parade (established in the early 18th century), to the S by Horsefair Street and to the E by a lane formerly known as 'St James's Churchyard'. Some limited encroachment by building activity in the SW corner of the churchyard is represented by a row of several tenements first depicted in 1673 and which survived until as late as *c*.1828.

Substantial changes to the churchyard boundaries took place in the mid-to-late 19th century. In the 1830s, the southern and eastern parts of the churchyard were sectioned off to create a hay and coal market (as depicted on Ashmead's map of 1855). By 1850, the remaining portion of the churchyard had become very full, the ground being considerably elevated and held up with retaining walls on two sides. Following a report to the General Board of Health in 1850 on the overcrowded condition of the churchyard, the parochial authorities closed the churchyard and converted it into a public park (Jackson, 2006, 26-7).

The extent of the churchyard was further reduced in the 1850s-60s by the construction of Bond Street, running NE-SW between the churchyard and the hay market, the widening of the southern end of Lower Maudlin Street to the W and the establishment of a crossroads at





the intersection of Lower Maudlin Street, Bond Street, Horsefair, Silver Street and the upper part of Union Street, as depicted on the OS 1st edition map of 1886 (Fig. 13) and subsequent OS mapping of the area. The pipeline route runs along present-day Lower Maudlin Street, directly crossing the SW corner of the original churchyard (prior to the early 19th century street reorganization).

2/ Priory of St Mary Magdalene, Upper Maudlin Street

Another section of the route, running NE along Upper Maudlin Street, extends in close proximity to the site of the priory of Augustinian canonesses of St Mary Magdalene (HER 1054M) founded *c.* 1173 by Eva fitzHarding, widow of Robert Earl of Gloucester (Graham, 1907, 93; Longman, 2003, 4-7). The priory never appears to have been a wealthy house and in the mid-14th century it received a grant of four houses adjacent to the precinct, although the precise location of these properties remains uncertain. The priory was dissolved in June-August 1536 and the site was sold to the London merchant Henry Brayne (who also acquired the neighbouring house of St James's Priory). The subsequent fate of the priory buildings is unclear; part of the priory was converted into a residence while some of the conventual buildings were demolished and it would appear that the site had been divided into several properties by the late 17th century (Longman, 2003).

The full extent of the priory precinct is unclear, although it appears to have been defined to the SE by Upper Maudlin Street and to the SW by St Michael's Hill; it appears to have extended NW as far as present-day Horfield Road but its NE boundary remains uncertain. The priory church appears to have been located close to the junction of St Michael's Hill and Upper Maudlin Street and is described by William Worcestre in the late 15th century as comprising a nave and three aisles (Neale, 2000, 229). Details of the layout of the associated conventual buildings remain unclear, although it appears that King David's Inn (HER 76M), a public house of 17th century date, which formerly stood at the corner of St Michael's Hill and Upper Maudlin Street, incorporated structural remains of one or more of the medieval priory buildings, which remained intact until its demolition and rebuilding in about 1893.

Millerd's plan of 1673 (Fig. 3) shows that the site of the priory had been subdivided into at least six separate properties (although the depiction of property boundaries may well be schematic), five of which were occupied by tenements with enclosed gardens (some with evidence of formal planting) and orchards. The property depicted in the extreme SE corner of the site, at the junction of Upper Maudlin Street and St Michael's Hill, presumably represents King David's Inn and consisted of two adjacent ranges aligned N-S and E-W, respectively. To the N of the Inn, a gateway is shown providing access to the garden/orchard enclosure lying to the N and W of the inn, with a row of four gabled houses shown immediately to the N, fronting onto Upper Maudlin Street. To the N of these four houses, another gate is shown leading into another garden/orchard enclosure with a gabled house at the far NW corner of the plot. Immediately N of the gateway, Millerd's map depicts a substantial E-W aligned boundary wall which could possibly represent the N boundary of the priory precinct.

Rocque's map of 1742 **(Fig. 5)** and Plumley and Ashmead's map of 1828 show that there had been further building activity extending N of St David's Inn and along the NW side of Upper Maudlin Street represented by a mixture of warehousing and sporadic terraced housing with extensive gardens to the rear. Further intensification of settlement took place in this area during the mid-to-late 19th century, with the construction of several rows of terraced houses along Upper Maudlin Street and a gasometer and brewery to the rear as depicted on





Ashmead's plan of 1874 and the OS 1st edition map of 1886. The widening of the southern and central parts of Upper Maudlin Street in the early 1870s (contemporary with the construction of Perry Road) appears to have affected the SE side of Upper Maudlin Street far more extensively than the western end, with the construction of rows of new terraced properties along the E side of the street, as depicted on the OS 1st edition map. Ordnance Survey maps dated 1903 and 1949 show the W side of Upper Maudlin Street as remaining essentially unchanged apart from some minor damage presumably due to bombing during WWII. However, from the 1980s onwards, substantial changes to the topography along the W side of Upper Maudlin Street occurred as a result of the construction of the Bristol Royal Infirmary and associated hospital buildings

3/ Franciscan Friary (Greyfriars)

The section of the pipeline route running along both Upper Maudlin Street and Lower Maudlin Street lies in close proximity to the substantial precinct of the Franciscan Friary (more commonly known as the 'Greyfriars'). The early history of the friary is somewhat obscure. It appears that a community had been established in Bristol by the early 1230s; however, by c.1240-50, the friars had moved to a much larger site which extended across the NW side of Lewin's Mead. This new site lay within the area bounded by Upper Maudlin Street to the N and W, Lewin's Mead to the S and Lower Maudlin Street to the E. The friary was dissolved by Henry VIII in 1538 and a significant proportion of the church and conventual buildings was demolished shortly afterwards, although some of its fabric was incorporated into later buildings occupying the site (Jackson, 2002).

Millerd's map of 1673 (Fig. 3) shows the Greyfriars precinct as occupied by a series of lodges or garden houses, probably belonging to wealthy citizens of Bristol, built on the Upper Maudlin Street frontage, with extensive formal gardens or orchards to the rear of these properties, the existence of which was confirmed by excavations in 1999 and which remained in occupation until the mid-18th century (Jackson, 2002, 29).

A substantial portion of the northern half of the former Greyfriars precinct adjoining Upper Maudlin Street was occupied in 1748 by the foundation of the Moravian Chapel together with a burial ground to the rear and associated buildings to the N and S, which are visible on Plumley and Ashmead's map of 1828 (Fig. 8) and which remained essentially intact until 1971. Ashmead's map of 1855 and the OS 1st edition map of 1886 (Fig. 13) show further building activity to the E of Maudlin Street during the mid-late 19th century, including the construction of a Welsh Baptist Chapel (1840) and several warehouses.

Of particular interest is evidence for a substantial water conduit of medieval date, which appears to have crossed Upper Maudlin Street somewhere opposite the site of the Moravian Chapel (the site of which is now occupied by the Bristol Dental Hospital) and appears to have remained largely intact until the present day. The Franciscan Friary obtained its water supply from a spring which rose in the area of present-day Bedford Place, W of Terrell Street, which was conveyed by means of a stone-built conduit (known as the 'Greyfriars Conduit'). The land on which the spring lay had been granted to the friars in the late 13th century by Joan wife of John de Lediard and a conduit is recorded there in the early 14th century. Based on the evidence of a survey dated 1865, it appears that the route of the conduit extended SE from Bedford Place beneath the site of what is now the Bristol Royal Infirmary where two cisterns are recorded (Jackson, 2002, 37-38). The survey also marks the site of a substantial cistern and trap lying under the NW side of Upper Maudlin Street, with a further large cistern marked on the SE side of the street, the latter presumably lying under





the line of the modern carriageway of Upper Maudlin Street (the course of which was widened in the early 1870s).

An account of the conduit by the late 19th century antiquary G.E. Weare records that the 'main reservoir is constructed about 93 feet from the pavement on the north [NW] side of [Upper Maudlin Street] and there are three filter beds between it and the street' and mentions the existence of a 'branch subway, about 330 feet in length, with a reservoir and two filter beds' (Weare, 1893, 32). This branch subway appears to have been constructed in the 14th century to provide a supply of water to St James's Priory, which had previously been served by a well at St James's Barton. Weare refers to the 'subterranean archway and arrangements for the collection and storage of the water, together with the outfall for the overflow', as being 'of an excellent character and splendid examples of the work of the Friars', which suggests that the conduit was still in a good state of preservation in the late 19th century.

4/ Broadmead

From Lower Maudlin Lane, the pipeline route continues roughly S along Union Street through the medieval suburb of Broadmead, lying immediately N of the Saxon and later medieval walled town (the northern boundary of which was defined by the River Frome).

The origins of the extra-mural suburb of Broadmead appear to date back to the second half of the 12th century, when a planned settlement was established there either by St James Priory or its mother house of Tewkesbury Abbey. A charter of Hawisia Countess of Gloucester dated *c*. 1150- 83 refers to the grant of a burgage in the 'new borough of the broad mead [*in novo burgo prati ultimum*], that is on the eastern side' (Jackson, 2010; Brett, 2005, 97). This planned settlement was primarily focused on the wide E-W aligned market street of Broadmead, with tenement plots extending to the N as far as Horsefair (marking the southern boundary of St James's churchyard) and to the S as far as the River Frome, with other tenement plots aligned E-W along both sides of St James's Back, a N-S lane running from St James's Churchyard to the River Frome.

The overall street plan in this area appears to have remained largely unchanged from its medieval layout until the middle of the 18th century, as depicted on Millerd's map of 1673 and Rocque's map of 1742. However, the pattern of building activity appears to incorporate elements of medieval and early post-medieval date, with a mixture of tenement plots fronting onto the street with gardens to the rear, as well as courtyard developments characterised by clusters of tenements accessed by narrow alleyways extending to the rear of the street frontage. Comparison of the 1673 and 1742 plans indicates a marked increase in settlement density between Horsefair and Broadmead during the late 17th-early 18th century.

The construction of the southern half of Union Street by the City Corporation in the early 1770s, extending from Broadmead across the River Frome to Wine Street, represented the first significant alteration to the medieval/early post-medieval townscape, resulting in the demolition of a substantial number of properties (including nine tenements forming part of a courtyard development of 17th century artisan housing to the E of St James's Back, known as the 'New Buildings') to make way for the new street (Jackson, 2010). The construction of the road apparently presented considerable difficulties, with 'many thousand tons of earth each having to be carted to the spot and a lofty bridge constructed over the Frome' (Latimer, 1893, 395-6). Shortly after the southern half of Union Street was laid out, houses were built





along the W side of the street and a meat market was established along the E side, which was opened in 1776 and continued in use until 1913, when it was demolished and the site redeveloped for shops. Plumley and Ashmead's map of 1828 shows the new alignment of Union Street and the meat market extending southwards along the E side of the street, almost up to the crossing of the Frome.

In the early 1850s, the northern part of Union Street was laid out (as shown on Ashmead's map of 1855) extending from Broadmead to the Horsefair and again truncating a significant number of medieval and early post-medieval tenements and associated alleyways and yards. Rocque's map of 1743 and Plumley and Ashmead's map of 1828 both show an alley which apparently led N from Broadmead to a public house called 'The Lamb Inn', located within a courtyard to the rear of the street frontage. The Lamb Inn and the alley leading to it were both removed for the construction of Lower Union Street in the early 1850s. The possibility that buried remains associated with the tenement plots demolished for the construction of Union Street might survive beneath the existing road surface should certainly be considered. The bombing of Bristol on 24th November 1940 caused considerable damage to the properties along Union Street (as shown on aerial photographs of the city taken in 1949).

4.3.2 Consultation of Archaeological Records

Prehistoric

Evidence for early prehistoric activity in this area is chiefly restricted to residual assemblages of worked flint occurring in later contexts, with no clear evidence for stratified deposits and features which might provide more definite indicators of settlement. Excavations at Upper Maudlin Street produced a reasonably large assemblage of residual worked flint and chert, representing one of the largest lithic assemblages found in central Bristol to date, mostly ranging in date from the Neolithic to the early Bronze Age, apart from a single blade of likely Mesolithic date (Jackson, 2002, 75-7). A smaller assemblage of worked flint (25 pieces in total) was recovered from excavations at Union Street in 2000, which was broadly dated to the Neolithic and early Bronze Age periods (Mullin, 2010, 70). Although all these lithic finds were residual, occurring in later medieval and post-medieval contexts, they nevertheless suggest that there may have been a focus of early prehistoric activity, possibly associated with flint-working, somewhere in the immediate locality of the city centre.

Evidence of Iron Age activity in the immediate vicinity of the route is similarly limited to chance finds of artefacts, with no definite settlement sites recorded. Observations made by the antiquary John Pritchard in 1900 during deep excavations at Pithay (covering an extensive area lying immediately W of Union Street) for the construction of Fry's chocolate factory revealed an assemblage of worked animal bone dated to the Iron Age period at a depth of 12ft (3.66m) beneath the cellar level of one of the gabled houses demolished for the building of the factory (Pritchard, 1900, 269-70), while additional excavations on the same site in 1902 identified two bone needles and a fragment of antler at a depth of 'over 20 feet below the sloping bank of the Frome, in the alluvial deposit' (Pritchard, 1904, 331). Further recording of excavations at Pithay made by Pritchard in 1906 identified an assemblage of animal bone (including cattle and goat), several worked tree-trunk pieces and 'fragments of black pottery', all found at depths of between 30-40ft (9.14-12.19m) below existing street level (Pritchard, 1906, 152).





Roman

Significant evidence of Roman activity has been identified to the S of Upper Maudlin Street, where excavations undertaken as part of the development of the Greyfriars office block in Lewin's Mead revealed the remains of two structures of probable Roman date beneath the remains of the former Moravian Church (Jackson, 2002). The first phase of excavation (in 1973) identified the remains of a building with stone foundations dated to the late 3rd-4th centuries AD, which may have been used as a mill, based on the discovery of a large millstone within the remains of the building. The remains of a yard surface and a small ironworking furnace were also found in association with the building (HER 1097M).

Further investigations on the same site in 1976 (HER Event No. 432) revealed the remains of another structure to the SW of the building revealed during the 1973 excavations, consisting of an earth-bonded stone wall with evidence of post-pads for structural timbers, which was interpreted as the remains of a barn (HER 95M; Jackson, 2002). It appeared likely that both structures and associated occupation deposits and pit/gully features formed components of a small Roman farmstead complex, the full extent of which remains unknown and perhaps undecipherable, as it appears likely that the construction of the Bristol Dental Hospital has significantly damaged or destroyed archaeological deposits and features in this area.

Medieval

Archaeological evidence of pre-Conquest or early Norman settlement in these two extramural areas is limited and suggestive of low-level occupation with some industrial activity (Brett, 2005, 52). Stratified deposits containing late Saxon-early Norman ceramics and metallurgical residues, underlying a masonry wall of late 12th-early 13th century date, were found during excavations adjacent to King David's Hotel, Upper Maudlin Street, in 2000 (HER Event No. 3617; Longman 2003) and an evaluation in 1997 on the site of the new Bristol Royal Hospital for Children on the NW side of Lower Maudlin Street revealed evidence of a buried land surface sealed by a clayey deposit containing pottery of 12th century date (HER Event No. 3157). Further to the SE, several shallow gully/pit features containing late Saxon pottery were identified during excavations at St James's Priory. The significance of these features is uncertain but it has been suggested that they could indicate the existence of a pre-Conquest religious community on the site prior to the establishment of the Benedictine priory of St James in 1129, although no documentary evidence has been found to confirm this hypothesis (Jackson, 2006).

Substantial programmes of archaeological work have been carried out on the sites of the three religious houses situated in the immediate vicinity of the route, namely, St James's Priory in Lower Maudlin Street, the Priory of St Mary Magdalene and the Franciscan Friary (Greyfriars) situated to the NW and SE of Upper Maudlin Street, respectively.

1/ St James's Priory, Lower Maudlin Street

St James's Priory has been subject to several detailed programmes of archaeological investigation in recent years (Jackson, 2006). In 1989 and 1995, the area around the E end of the priory church (then occupied by the NFU offices built in the 1960s) was excavated, revealing evidence of an extensive monastic burial ground associated with the priory (HER Event No. 3155) and yielding the remains of up to 245 articulated skeletons. Evidence of





foundations and robber trenches relating to the chancel of the priory church and a side chapel to the N (demolished in the late 16th century) was also revealed (Jackson, 2006).

Another site was investigated in 1994-5 immediately W of the priory church (HER Event No. 3156), where it appears that archaeological stratification had been heavily truncated in places by post-medieval development (Jackson, 2006). Evidence was found of 12th-13th century burials associated with the extensive lay cemetery located immediately S of the church. A substantial masonry wall identified as running E-W across the northern part of the site appears to have denoted the boundary between the lay burial ground and the approach to the W front of the church. Adjacent to this boundary, the footings of a rectangular masonry building of 13th century date were also identified, which incorporated the boundary wall as its N wall. At some point in the 14th century, it appears that this part of the lay burial ground was incorporated within the monastic precinct and occupation was extended to the E and W of the rectangular building; however, by the late 15th century this building appears to have fallen into disuse (Jackson, 2006).

Several excavations have been carried out within the area of the churchyard, revealing extensive evidence of burial activity, which corroborates documentary accounts of the heavily overcrowded state of the churchyard before its closure in the mid-19th century. In 1957, an excavation was carried out by members of the Folk House Archaeological Club following discovery of human remains during the construction of a department store located within an area bounded by the Horsefair, Bond Street and the road known as St James's Churchyard (Mason, 1957, 164-71). Approximately 300 burials were identified at depths ranging from 'a few inches to four or five feet [1.22-1.52m]' below ground level and appeared to be overlying the natural bedrock, suggesting that there had been extensive reduction of ground levels across much of the site (probably associated with the extensive street improvements which took place in this area in the late 19th-early 20th century), which had caused disturbance to the shallower burials. The burials appeared to be fairly regularly distributed, with a marked absence of coffin furniture, and ranged chronologically from the 13th through to the late 17th century.

More recently, a watching brief carried out in 1997 during landscaping work and the laying of services at St James's Place, a pedestrian island at the junction of Horsefair, Haymarket, Lower Maudlin Street and Union Street, revealed at least 12 inhumations (all shroud burials) at depths ranging from 0.3-0.9m below existing ground level. The 12 burials were cut into bedrock, of which five were articulated while the rest were disarticulated (HER Event No. 3277). Radiocarbon dating of samples taken from one of the intact inhumations (an adult male) yielded a date range of 1290-1440 AD (Burchill, 1998; Jackson, 2006).

It is worth noting, however that the results of another watching brief undertaken in July-August 2006 in close proximity to the area monitored nine years earlier for the excavation of trenches for two kiosks to a depth of 0.65m below existing ground level identified only made-ground deposits of 20th century date (HER Event No. 4315; Heaton, 2006). The proposed route will run very close to the areas monitored in 1997 and 2006, which appear, on the basis of cartographic evidence, to have been situated within the extreme SW corner of the churchyard.

2/ The Priory of St Mary Magdalene, Upper Maudlin Street

Several programmes of archaeological investigation have been carried out on the site of the Priory of St Mary Magdalene in recent years, which have provided limited evidence for the





layout of the priory buildings and the monastic burial ground. Small-scale excavations undertaken in 2000 on three areas immediately N of King David's Hotel in advance of proposed development (HER Event No. 3617) revealed the foundation trench of a heavily robbed wall that was presumed to form part of the medieval priory buildings, which, in turn, had been filled by a deep rubble demolition layer presumed to post-date the dissolution of the priory in 1536. Founded upon this demolition layer was a masonry wall of probable early-post-medieval date, interpreted as forming part of a mid-to-late 16th century mansion erected on the priory site after the Dissolution (Longman 2003). A subsequent watching brief and excavation undertaken in the courtyard of the hotel during excavations for the laying of new drains revealed three articulated human skeletons oriented E-W, at a depth of 1m below the modern yard surface (Longman 2003). Numerous disarticulated bones and some medieval pottery were also recovered from the fills of the graves, which were presumed to form part of a burial ground that probably lay to the NW of the priory church, although no further work has yet been undertaken to establish the extent of this burial ground.

As the precise extent of the priory precinct and the layout of the church and conventual buildings have not yet been satisfactorily established, the possibility of encountering evidence of structural remains (in particular the wall defining the SE boundary of the priory precinct, which presumably ran directly on the line of or immediately parallel to Upper Maudlin Street) should be considered, although it is likely that 19th-20th century development and road construction works will have significantly disturbed archaeological features and/or deposits in this area.

3/ Franciscan Friary (Greyfriars), Upper Maudlin Street

Since the 1850s, the substantial site of the Franciscan Friary, extending from Upper Maudlin Street to Lewins Mead, has received considerable attention from antiquaries and archaeologists. Evidence of inhumations was found during the rebuilding of a warehouse on the site in 1851, while in 1877 further human remains were identified on the same site, together with an 'underground passage' of uncertain date. Further evidence of coffined inhumations was identified during the excavation of drainage trenches across the site in 1894.

However, it was not until the early 1970s, following the clearance of a large area of land between Upper Maudlin Street and Lewins Mead prior to redevelopment (including the former site of the Moravian Chapel and burial ground), that a substantial portion of the Greyfriars precinct was subject to intensive archaeological investigation and recording. The largest of these excavations (HER Event No. 315), covering an area of 900 sq. m on N side of Lewins Mead, found that the site had been prepared by raising the ground level with around 1m of sandstone and clay overlying the marshy alluvial deposits at some point during the first half of the 13th century for the construction of the friary church. The remains of part of the choir and nave of the friary church (which appeared to have been substantially rebuilt and enlarged), the chapter house and the SE corner of the cloister were identified (Jackson, 2002; Brett, 2005). Excavations carried out to the SE of Upper Maudlin Street in 1999 revealed evidence of a series of a discrete group of features ranging in date from *c*.1250-1350, probably relating to cultivation in this northern part of the friary precinct (Jackson, 2002, 52-4).

Of particular relevance are the results of a watching brief undertaken during the excavation of a water pipe trench in Upper Maudlin Street, opposite the site of the former Moravian





Chapel, in 1970 (HER Event No. 21; Fowler, 1972, 40) which appear to confirm the existence and alignment of the Greyfriars Conduit, as recorded in the survey of 1865 and the account given by Weare in the early 1890s. The conduit stood to a height of almost 2m and had three branches with slightly pointed vaults, together with an intact freestone doorway of 13th century date, and was apparently retained intact below the carriageway.

Further evidence of the conduit was recorded during excavations in 1973 on the site of the former Moravian Chapel, immediately S of Upper Maudlin Street, which revealed a stone culvert, approximately 1m wide × 1m high with a round-arched, slated roof, through which ran a lead water pipe bedded on red clay. The culvert ran on a roughly NE-SW alignment between the NE corner and S wall of the chapel and appeared to predate the construction of the chapel, as the E wall of the culvert had been rebuilt and integrated within the E wall of the chapel (Jackson, 2002, 68). Evidence for the branch of the Greyfriars Conduit heading E or SE towards St James's Priory was apparently identified during roadworks at Lower Maudlin Street in 1932, which revealed sections of masonry tunnels heading towards the priory site, although further details are lacking (Jackson, 2006, 24). Possible evidence for the wall demarcating the eastern boundary of the Greyfriars precinct (opposite St James's Priory) was identified during the excavation of a pipe trench in Lower Maudlin Street, about 6m E of the junction with Deep Street (HER Event No. 445). The wall, which was identified at a depth of 1.5m, was constructed of Brandon Hill Grit and on approximately the same NW-SE alignment as present-day Lower Maudlin Street (Gaimster *et al.*, 1990, 168).

4/ Broadmead

Recent investigations have produced significant evidence of post-Conquest settlement in the locality of Broadmead, a substantial tract of water-meadow extending S from St James's Churchyard to the N bank of the River Frome, immediately N of the historic core of the late Saxon/medieval urban settlement of *Brycgstow*. It appears that Broadmead formed part of the original foundation endowment of St James's Priory and extensive landscaping works were carried out which appear to have been roughly contemporary with the foundation of the priory. The course of the Frome appears to have been altered and a substantial masonry quay wall had been built on the N bank (reclaiming part of the former river channel). At about the same time, an access road was established running S from the Priory to the river, known as 'St James's Back' (lying to the W of and roughly parallel with present-day Union Street, which was not laid out until the late 18th century).

The course of St James's Back is depicted on Rocque's map of 1742 and was confirmed by excavations to the W of Union Street (Nos. 15-20 carried out in 2000, which also identified the remains of the quay wall - HER Event No. 3590; Jackson, 2010). The same programme of excavations also revealed evidence of an industrial complex in this area, comprising a number of hearths and at least one timber building (probably associated with metalworking and cloth-working), which appears to have remained in use from the mid-12th century until the late 13th century (Jackson, 2010). The evidence of the excavations at Nos. 15-29 Union Street appears to indicate that significant changes to the topography of the Broadmead suburb took place in the mid-late 13th century, with the construction of a new quay wall on the N bank of the Frome, the abandonment of the industrial complex and the laying-out of tenement plots aligned E-W and fronting onto St James's Back (Jackson, 2010). The course of present-day Union Street (the southern part of which was laid out *c*.1770 while the northern part was constructed in the early 1850s) appears to directly cut across these E-W aligned tenement plots.





The excavations at Nos. 15-29 Union Street also identified evidence of a substantial L-shaped building (HER 3288M) constructed of Pennant sandstone footings supporting yellow Lias limestone walls, which appears to have stood to a height of two storeys and was roofed with slate. This building was probably constructed in the late 13th-early 14th century and appears to be identifiable with a mansion house recorded as occupying the site in 1549, which was subsequently converted into a brewhouse demolished by no later than 1673 (Jackson, 2010). To the N of this building, another substantial Pennant sandstone structure oriented N-S was identified (HER 3289M), which also appeared to date from the late 13th-early 14th century but probably fell into disuse by the late 14th-early 15th century.

Post-Medieval

Archaeological investigations of the sites of St James's Priory, St Mary Magdalen Priory and the Franciscan Friary, which are located in close proximity to the pipeline route, have yielded evidence of phases of demolition and/or re-use of the conventual buildings. Recent investigations carried out at St James's Priory have revealed significant evidence of demolition and re-use of the medieval priory buildings after the Dissolution (Jackson, 2006). Excavations at the E end of the priory church and the site of the former monastic cemetery revealed that this section of the church was largely demolished by the late 16th century and extensive quarrying activity took place, backfilled with debris from the priory. Further investigations undertaken adjacent to the W front of the church and along St James's Parade provided evidence of two major phases of re-occupation, dated to the 17th and 18th centuries.

Excavations on the site of the Priory of St Mary Magdalene (King David's Hotel) in Upper Maudlin Street identified evidence of a N-S aligned masonry wall, 0.62m in width, which was interpreted as the remains of a mid-to-late 16th century mansion built within the priory precinct (Longman, 2003). The programme of works undertaken on the Franciscan Friary site on the E side of Upper Maudlin Street revealed evidence of masonry walls associated either with buildings or boundary-wall features relating to properties documented as fronting onto the street in the late 16th-17th centuries and which continued to be occupied until the mid-18th century (Jackson, 2002).

The extensive programme of archaeological work undertaken to W of Union Street in 2000 identified several phases of post-medieval activity on the site. The 'mansion house' was partly converted into a brewhouse by the mid-16th century and appears to have been demolished by the 1670s, when the site was occupied by the 'New Buildings', a group of tenements ranged around a courtyard as shown on Millerd's map of 1673 which was partially demolished to make way for Union Street in the 1770s (Jackson, 2010, 29).

4.3.3 Summary of Potential

The potential for encountering evidence of stratified archaeological deposits and features of prehistoric or Roman date within this section of the pipeline has been assessed as **Moderate**. Evidence for prehistoric and Roman activity in the vicinity of this section of the route is represented by residual flint scatters and the remains of a Roman farmstead complex identified during excavations immediately SE of Upper Maudlin Street. While modern development has truncated archaeological deposits and features, the potential for encountering further evidence of the Romano-British farmstead cannot be discounted.





The potential for identifying evidence of medieval and early post-medieval occupation along this section of the route has been assessed in overall terms as **High**.

1/The route runs along Upper Maudlin Street which lay on the boundary between the precincts of the late 12th century priory of St Mary Magdalene (to the NW) and the mid-13th century precinct of the Franciscan Friary (to the SE). There is limited potential for encountering structural remains of the priory of St Mary Magdalene (in particular the wall defining the SE boundary of the priory precinct, which appears to have run immediately parallel to Upper Maudlin Street). However, there appears to be significant potential for identifying evidence of the medieval Greyfriars Conduit (associated with the Franciscan Friary), a section of which is recorded as extending beneath present-day Upper Maudlin Street. While it is likely that late 19th-20th century road construction works and service trenching will have disturbed archaeological features and deposits in this area, there is a strong possibility that intact remains of the conduit will be encountered where the pipeline route runs along Upper Maudlin Street in the vicinity of the Bristol Dental Hospital. It is also possible that evidence of the branch of the conduit running towards St James's Priory might be encountered where it is presumed to cross Lower Maudlin Street towards the priory site.

2/The pipeline route extends along Lower Maudlin Street, which denoted the historic boundary between the precincts of the religious houses of St James's Priory to the E and the Franciscan Friary (Greyfriars) to the W. There is a possibility of encountering remains of the wall demarcating the boundary between the precincts of St James's Priory and Greyfriars, and evidence of occupation deposits and features associated with these religious houses; however, it appears unlikely that substantial evidence of buildings directly associated either with St James's Priory or the Greyfriars will be identified on the route.

3/At the southern end of Lower Maudlin Street, where it meets The Haymarket, Horsefair, Lewin's Mead and Union Street, the pipeline route will cross through the SW corner of the extensive lay burial ground known as 'St James's Churchyard', which remained in use from the 12th-13th century through to the 1850s. Previous archaeological work in this area has demonstrated the continued potential for intact burials and quantities of disarticulated human remains to have survived in this area, in spite of 19th-20th century road alterations and the insertion of modern services. It is possible that evidence of the substantial boundary wall delineating the original (i.e. medieval) extent of the churchyard may also be identified within the pipeline trench.

4/The route continues S along Union Street, which runs roughly N-S through the burgage plots forming part of the medieval extra-mural suburb of Broadmead. Recent investigations to the W of the lower half of Union Street have indicated the potential for reasonably well-preserved occupation deposits and features of medieval and early post-medieval date to have survived in this area. There are few archaeological records relating to works carried out within the carriageway of Union Street; consequently, it is difficult to determine with certainty the survival of occupation deposits and features relating to those medieval and early-post-medieval tenements which were truncated by the construction of the lower and upper parts of Union Street (in the early 1770s and 1830s, respectively). It is possible that occupation deposits and features pre-dating the construction of Union Street may have survived (particularly where they have not been impacted by later cellarage, which appears, in places, to have extended under part of the street); however, there is a strong likelihood of disturbance from 19th-20th century road construction works and the insertion of modern services.





4.4 The walled city (Union Bridge to Bristol Bridge)

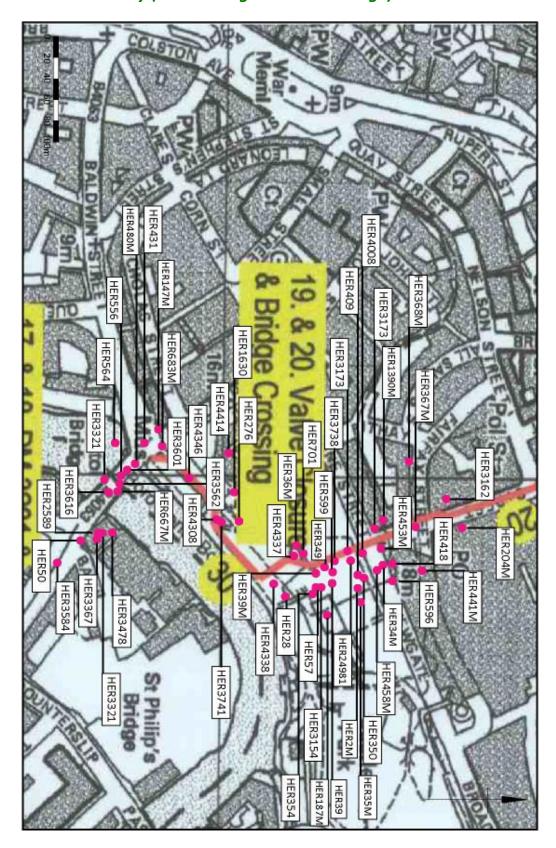


Fig. 10: The walled city (Union Bridge to Bristol Bridge). Plan showing HER sites in the vicinity of the pipeline route





4.4.1 Historical Background and Topography

This section of the route continues S along Union Street from Union Bridge (which formerly represented the crossing point of the River Frome and the northern boundary of the walled city of Bristol) and then crosses Wine Street/Newgate into Castle Park. From there, the pipeline route proceeds SSE towards the River Avon, roughly following the former line of Dolphin Street (removed as part of the extensive programme of post-WWII clearance and landscaping) and then turns sharply SW, crossing the E end of the former line of Bridge Street and running parallel to the river, between the former street alignments of Bridge Street and Back Bridge Street for approximately 170m before re-joining Bridge Street and terminating at the N approach to Bristol Bridge.

This area represents the historic core of the late Saxon and medieval urban settlement of Bristol (first recorded as *Brycgstow*) which was probably established as a *burh* in the late 9th or early 10th century, although its early development, extent and defences remain sketchy and the subject of considerable scholarly debate (Brett, 2005). Prior to bombing in November 1940 and subsequent post-WWII clearance and landscaping, this represented the most intensively occupied area of the city.

It has been traditionally assumed that the focus of the late Saxon *burh* was located immediately to the N of Bristol Bridge and represented by a rectilinear street grid focused on the intersection of High Street, Broad Street, Corn Street and Wine Street; the place-name 'Brycgstow', of Old English origin denoting an 'assembly place by the bridge', would certainly indicate a settlement focus at or near the site of the bridge (Brett, 2005). An alternative interpretation advanced by M. Ponsford is that the focus of the late Saxon settlement was actually located further to the E, somewhere in the vicinity of Bristol Castle, and subsequently shifted further westwards after the castle was built in about 1080 (Ponsford, 1987). Whichever hypothesis is correct; there is clear archaeological evidence for late Saxon urban settlement in the immediate vicinity of Castle Park.

The late 11th-12th centuries appear to have constituted a period of key importance in the topographical development of the walled urban settlement, with the establishment of Bristol Castle in about 1080 and the construction of a stone-built circuit of city walls by the mid-late 12th century, superseding the defences of the late Saxon *burh*. The pipeline route appears to cross the line of the medieval city walls at two points: 1/at the S end of Union Street immediately N of the junction with Wine Street and 2/in Castle Park, where the pipeline heads SSE towards the river, crossing the former line of Bridge Street. The pipeline route appears to run approximately 30m W of the site of the 'Old Gate', one of the gates forming part of the 12th century defensive circuit, which appears to have stood close to the junction of Lower Wine Street (Newgate) and Church Lane.

The 13th-15th centuries appear to have witnessed a significant intensification of settlement density within the city, concurrent with its rapid growth in economic prosperity as a nationally important commercial centre and trading port. By the 13th century, archaeological and documentary records indicate that the street plan in that part of the city traversed by the section of the pipeline route under discussion (extending from Wine Street southwards to Bristol Bridge) was already well-established, with two back lanes running E of the High Street, roughly parallel to each other, namely St Mary-le-Port Street and (on a slightly curvilinear alignment) the Shambles or Worshipful Street, the eastern limit of both streets being defined by Dolphin Street (running N-S), which appears to have lain just within





the eastern line of the city walls. The proximity of Dolphin Street to the city defences is indicated by its medieval name of 'Defence Street' as given in Worcestre's *Itinerary* of *c*.1480 (Neale, 2000).

This area is documented in 1295 as the 'quarter of St Mary in the Market [in foro]' (referring to the church of St Mary le Port) and documentary evidence indicates that it was an intensively settled area of late medieval Bristol with densely packed rows of commercial premises, a significant proportion of which had cellarage. William Worcestre's Itinerary, compiled in about 1480, provides a remarkably detailed and vivid description of the late medieval townscape in this area and makes specific reference to the presence of cellars (Neale, 2000).

In 'Seynt maryeportstrete', William Worcestre states that 'on either side of the street there are 15 vaults and cellars', while in the Shambles there are '12 vaults which are wide long and deep, each vault measuring 12 yards [10.97m] in length'. Several of the buildings along the Shambles described by Worcestre appear to have been warehouses in royal ownership; he refers to 'three extremely deep cellars of the King, beneath three halls of great size and built high, which were established for the safekeeping of wool and merchandise, for loading Bristol ships bound for foreign parts beyond the sea' (Neale, 2000, 11, 43).

The pipeline route appears to run just to the W of the site of a medieval well spring to the W of St Peter's Church, at the junction of Dolphin Street and Peter Street, first referred to as 'St Edith's Well' in 1391 and later as 'St Peter's Pump' (HER 39M). The original dedication could possibly indicate a pre-Conquest origin, although there appears to be no documentary record of the well earlier than the late 14th century (Boucher, 1939, 96). The well was partially reconstructed in the mid-15th century by a merchant named William Canynge, who left a bequest for the construction of a hexagonal two-storey structure with a stone cross surmounting the well, which was subsequently known as 'St Peter's Cross' or 'St Peter's Pump'.

The well structure was renovated in 1633 and painted for the visit of Charles II to Bristol in September 1663. The superstructure surmounting the well was removed in 1766 and the fabric re-erected in the grounds of Stourhead House, while the well shaft was re-excavated and a new conduit house (HER 471M) built slightly to the E of the original structure. The well was eventually closed in 1887 due to pollution and its site was incorporated into No. 4 Dolphin Street (severely damaged by bombing in 1940 and subsequently demolished). The pipeline route runs along the former line of Dolphin Street approximately 10m W of the probable site of the medieval well and slightly further W of the late 18th century structure.

Immediately S of the junction of Dolphin Street and St Mary-le-Port Street, the pipeline route appears to divert slightly W of the former line of Dolphin Street and crosses just within the eastern boundary of two tenement plots at the SE corner of St Mary-le-Port Street (Nos. 26 and 27) which, by the early 15th century, formed a single property known as the 'Hartshorne Inn', later as the 'Swan Inn' or 'Swan Hotel'. Documentary evidence indicates the likely presence of an inn on the site by no later than 1423, when a messuage is recorded there belonging to Bernard Brewer (Leech, 1998, 42). In 1495, this same property is described as the tenement and brewhouse called the 'Herteshorne' and it retained this name until 1786 when it is first referred to as 'The Swan'. The back end of the property appears to have extended W, to the rear of Nos. 28-30 and southwards almost as far as the Shambles/Worshipful Street.





The pipeline route then crosses and runs either along or immediately S of the line of the medieval street running E-W between the S end of Dolphin Street and High Street known as 'Worshipful Street' or 'The Shambles', the course of which is depicted on early maps of Bristol and which survived until its removal for the construction of Bridge Street in the mid-1770s.

According to William Worcestre's *Itinerary*, Worshipful Street ('Worshypstrete') was the earlier name for the street, being derived from the fact that 'it was a street of distinction on account of woollen goods arriving, and the lading of ships at the harbour' (Neale, 2000, 173). The alternative street name of 'Shambles', which was already in use by the late 15th century, if not earlier, is derived from the term 'flesh shambles' denoting benches or stalls for the sale of meat, indicating that this street was chiefly (though not exclusively) occupied by butchers' premises by the late medieval period and indeed it continued as such until the second half of the 18th century (Leech. 1998).

Unfortunately, there is a lack of detailed cartographic evidence showing the boundaries of the tenement plots lining both sides of the Shambles, although it is evident from Worcestre's *Itinerary* and late 14th-early 15th century property deeds that both sides of the street were densely occupied by the late medieval period and that several of the properties had substantial cellarage. Several of the tenement plots lying to the S of the Shambles are specifically described in 15th-16th century property deeds as extending down to the Avon, which appears to be confirmed by Millerd's map of 1673 (Fig. 4), which depicts rows of tenements extending S down to the river. Some of the buildings are depicted on Millerd's map as having doorways accessing directly onto the waterfront, while other properties are shown as having yards to the rear. However, the precise extent and layout of the buildings within these tenement plots remains uncertain and poorly documented. Late medieval/early post-medieval records for the properties along the S side of the Shambles indicate that a significant number of these properties belonged to St Augustine's Abbey, later the Dean and Chapter of Bristol Cathedral (Leech, 1998, 54-55).

Millerd's plan of 1673 and Rocque's map of 1742 (Fig. 5) show that the essential street plan within this area remained essentially unaltered from the medieval period through to the 1770s, being defined by Wine Street to the N, Dolphin Street to the E and High Street to the W, with the parallel 'back lanes' of St Mary-le-Port Street and the Shambles extending E-W between High Street and Dolphin Street.

In the mid-1770s, significant changes to the street layout took place, with the widening of Dolphin Street and the construction of Bridge Street, which roughly followed the former line of the medieval Shambles (although not on such a pronounced curvilinear alignment as the older street). A narrow lane called 'Back Bridge Street' was also laid out along the riverside, running S of and parallel to Bridge Street. The pipeline route appears to cross the E end of Bridge Street to the S of the Swan Inn and then turn roughly W to run along the S side of Bridge Street, within the approximate footprint of the properties marked as Nos. 6-16 Bridge Street on Plumley and Ashmead's map of 1828 (Fig. 8)

The new street layout in this area established in the 1770s and depicted on the 1828 map remained largely intact until after the Second World War (Leech, 1998). Although there appears to have been extensive refurbishment of properties in this area during the late 19th –early 20th century, the cellarage and sub-basements associated with the properties along Bridge Street do not appear to have been significantly altered post-1760 (Leech, 1998, 14).







Plate 1: Extract from an aerial photograph taken in 1949 showing Dolphin Street, St Mary le Port and Bridge Street following the 1940 bombing and subsequent post-WWII clearance (Reproduced by courtesy of the Bristol Record Office)

Evidence of property records and post-WWII aerial photographs shows that the properties along both sides of Bridge Street all had cellarage, while on the S side of Bridge Street there were also sub-basements beneath the cellars (Leech, 1998, 14). Following the devastation caused by the bombing of central Bristol on 24th November 1940, these properties were largely demolished and cleared in the late 1940s-early 1950s to create a large car-parking area within the cellars of the bombed buildings (Plate 1). Further extensive landscaping work took place in this area in the early 1970s, with the clearance of the surviving structural remains of the properties along Bridge Street, Dolphin Street and St Mary-le-Port Street to create Castle Park.

Bristol Bridge

This section of the proposed pipeline route terminates just to the N of Bristol Bridge, at the intersection of High Street, Baldwin Street and Bridge Street. The earliest bridge was probably built in the late 10^{th} -early 11^{th} century, presumably contemporaneous with the establishment of the late Saxon *burh*, and appears to have been a timber structure. The timber bridge was rebuilt *c*.1250 as a masonry structure of four arches (HER 980M). Documentary and cartographic evidence indicates that this bridge, which survived until its replacement by the existing three arched bridge in 1764-68 (HER 305M), was lined with houses, with a chapel in the centre (Leech, 2000b).

The medieval bridge is shown in detail on Jacob Millerd's map of 1673 (Fig. 4; Plate 2) and in an engraving by Johannes Kip dated 1729 which shows houses clustered along both sides of the bridge and its immediate northern and southern approaches; documentary sources record that by the 16th-17th centuries there were approximately 45 houses on the bridge,





mostly of four or five storeys, with about 21 on the E side and 24 on the W (Leech, 2000b, 11).

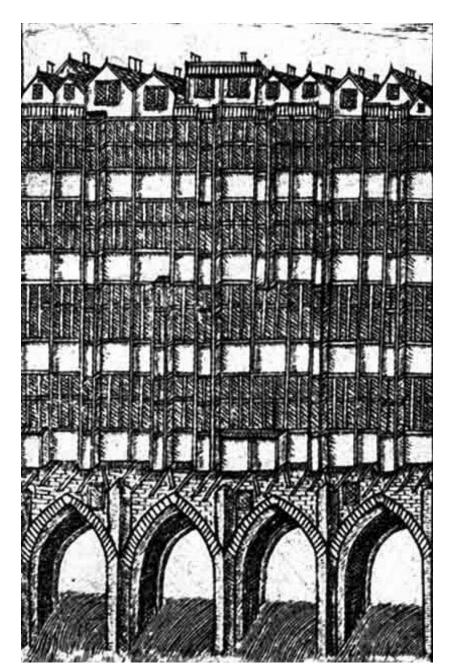


Plate 2: Engraving of Bristol Bridge accompanying Millerd's map of Bristol (1673) (Reproduced by courtesy of Gloucestershire Archives)

4.4.2 Consultation of Archaeological Records

Prehistoric

Limited evidence for prehistoric activity has been identified in this particular area, chiefly represented by small collections of residual worked flints and flint flakes recovered during the excavations at St Mary-le-Port Street in 1962-3 and to the N of St Peter's Church in 1975 (Watts and Rahtz, 1985. 28; Boore, 1982).





Roman

Archaeological evidence for Roman activity in the immediate vicinity of this section of the route is limited to occasional finds of Roman pottery made during the excavations at St Mary-le-Port Street in 1962-3 and to the N of St Peter's Church in 1975 (Watts and Rahtz, 1985. 28; Boore, 1982). The antiquary Samuel Seyer (writing in 1821) reported the discovery of a silver coin of Nero during the demolition of buildings along the Shambles, prior to the construction of Bridge Street in the mid-1770s (HER Event No. 276; Seyer, 1821, 208).

Medieval

While there is abundant documentary evidence to indicate that this area was a hub of activity during the late Saxon and medieval periods, the archaeological record for medieval occupation in this area is somewhat patchy. This is due to several factors: 1/ the construction of Bridge Street in the 1760s which both replaced and cut across the line of the medieval Shambles/Worshipful Street 2/ the demolition and reconstruction of a significant proportion of the commercial properties in this area (including the insertion of new cellarage) from the mid- 19^{th} century through to c.1940 3/ the damage caused by the bombing of the city in November 1940 and post-WWII clearance and levelling for a car park 4/the excavation of water mains trenching c.1970 and extensive landscaping activity associated with the creation of Castle Park in the early 1970s.

Although these factors have, to varying degrees, impacted upon the survival of archaeological deposits and features across much of this area, the results of excavations in several locations to the S of Wine Street and within Castle Park have indicated that significant and reasonably well-preserved archaeological remains of medieval date probably survive in discrete pockets, in spite of truncation by post-medieval and modern activity.

1/Pre-Conquest

Archaeological evidence for pre-Conquest settlement in this area was first identified during excavations undertaken in 1948 on the line of St Mary-le-Port Street (adjacent to the street called 'Cheese Market'), which revealed evidence of a rubbish pit with a deep sequence of fills; the earliest contained pottery of late Saxon-early Norman date, while the later fills contained 13th-14th century pottery (HER Event No. 419; Marshall, 1951, 35-7).

More significant evidence of Saxon urban settlement in this area was revealed during rescue excavations undertaken by P.A. Rahtz in 1962-3 in the vicinity of St Mary-le-Port Church and along the line of St Mary-le-Port Street (the latter being largely removed during landscaping of Castle Park in the early 1970s). The earliest feature identified was a double-ditch aligned roughly N-S and at least 1.5m in width and up to 2.25m in depth, which was identified at the E end of Mary le Port Street, at the junction with Dolphin Street (now forming part of St Peter's Square). The western lip of the edge of the ditch was revealed, with a deep sequence of silty deposits (2.1m in thickness) followed by a thick layer of clean sand and heavy rubble interpreted as a levelled back rampart (HER Event No. 3173; Hurst, 1964, 265; Watts and Rahtz, 1985, 65).

This double-ditch was initially identified as forming part of the main defensive circuit of the late Saxon *burh*, although it was later suggested by Rahtz that it may instead have formed part of a substantial tenement boundary (Hurst, 1964, 265; Watts and Rahtz, 1985, 65-66).





Whatever the case, it appears that the feature was levelled sometime in the 11th century and superseded by a substantial mortared masonry wall. Another ditch feature of probable pre-Conquest date was recorded at the W end of the excavation area, aligned E-W, with five stake-holes on its northern bank interpreted as forming part of a fence boundary.

Further excavations undertaken by Rahtz in the vicinity of St Mary-le-Port Church revealed significant evidence of late Saxon-early Norman occupation. Possible evidence for a late Saxon church was identified, represented by a foundation of earth-bonded stone found at the western edge of the existing church tower and another wall found parallel and S of the later line of the north wall of the church. Evidence for subsequent phases of re-construction and enlargement of the church (HER 133M) were identified, extending from the Norman period through to the 16th century (Watts and Rahtz, 1985, 88-102).

To the N of the church, evidence of a rutted holloway running roughly E-W was identified (on the same alignment as the medieval and post-medieval St Mary-le-Port Street) which overlaid the two earlier ditches and appeared to be of probable late Saxon origin, based on the occurrence of a coin of Harold II (1066) in one of the latest deposits recorded as forming the holloway (Hurst, 1964, 265; Watts and Rahtz, 1985, 73-75). At the NE corner of the church, fronting onto the late Saxon holloway, the excavations revealed remains of a timber building of at least two phases, dated to the 11th-12th centuries, with associated evidence of ironworking activity indicated by the presence of a hearth, iron slag and crucible fragments, as well as possible evidence for textile and leather-working in the same area (Watts and Rahtz, 1985, 78-79).

2/c.1066-1200

Excavations undertaken in 1948 and 1950 within gardens to the rear of Wine Street and Narrow Wine Street (present-day Newgate) on either side of Union Street, following extensive bombing of the premises in this area (in November 1940), recorded several extant sections along the northern line of the city wall (HER Event No. 418; Marshall, 1951, 30-4). One of the wall sections, revealed immediately E of Union Street, measured up to 37ft (11.28m) in length and exhibited evidence of later rebuilding. Other sections of the wall had evidently been destroyed by the insertion of post-medieval and later 19th century cellarage; however the potential nevertheless remains for further evidence of the defences to be identified beneath the line of Union Street, in spite of truncation by modern road construction works and service trenching.

Evidence for the probable eastern line of the 12th century town wall was identified during an excavation carried out by M. Ponsford in 1970 to the N of St Peter's Church in advance of the construction of a proposed new museum (HER Event No. 409). Evidence for a stretch of mortared stone walling, interpreted as the probable remains of the 12th century town wall, was identified in the centre of the evaluation area, with evidence of a possible building with large timber supports constructed against the W face of the wall, with a second structure identified to the S.

A programme of archaeological observation for the excavation of a SWEB trench on the S side of Newgate in 1987 revealed evidence of masonry features of probable medieval date at a shallow depth (0.25-0.30m) below the existing pavement level, almost opposite the junction with Union Street (HER Event No. 350; Ponsford, 1989, 245). It was suggested that the masonry features were associated either with the remains of the 'Old Gate', which formed part of the Norman defensive circuit prior to its replacement in the 13th century, or





with a high-status residential building which appears to have been located within an area documented as the Jewish quarter of the city in the late 12th-13th century.

There appears to be some uncertainty about the line of the eastern defences in the immediate vicinity of St Peter's Church. The OS 1st edition map and subsequent OS mapping show the line of the town wall as running through the W end of St Peter's Church (HER 187M), the earliest documentary reference to which occurs in about 1107 when the advowson was granted to Tewkesbury Abbey, although the dedication to St Peter suggests it could well have been an earlier, pre-Conquest foundation. Presumably the church was incorporated within the 12th century defensive circuit, although precisely how this occurred is uncertain.

Monitoring of the excavation of large service trenches in February/March 1970 along the former line of Dolphin Street identified a deep feature, which was then interpreted as the possible line of the medieval town ditch, although only post-medieval contexts were recorded (HER Event No. 349; Ponsford, 1970). It appears unlikely that this could be the line of the town ditch established in the 12th century, as the line of the wall appears to have been located to the E of Dolphin Street. However it could possibly represent part of the substantial ditch previously identified at the junction of St Mary-le-Port Street and Dolphin Street, which might represent either the defensive ditch of the late Saxon *burh* or a boundary ditch defining a block of tenements.

Little definite evidence for the southern line of the town wall has been identified, although excavations were undertaken in 1962-3 to establish its alignment, consisting of two cuttings made by mechanical excavator in the sloping bank between the line of Bridge Street and Back Bridge Street adjoining the river (Hurst, 1964, 265). These excavations encountered deep deposits (up to 4.5m depth) of loose brick and stone rubble, probably representing the remains of post-medieval and modern cellarage associated with buildings lining Bridge Street that were destroyed by bombing in November 1940. Based on the negative results of these investigations, it was suggested that the remains of the southern wall may lie directly on the course of Bridge Street and there remains potential for identifying its course in those areas which were not as heavily impacted by post-medieval/modern cellarage and subsequent Second World War bombing and clearance.

3/ c.1200-1500

Archaeological investigations have revealed significant evidence of later medieval occupation across this section of the pipeline route, although the survival of these remains (as stated previously) is variable and dependent on the extent of truncation by late 18th-early 20th century development and the impact of post-WWII clearance and landscaping activity.

A series of excavations undertaken in the area immediately S of the junction of Union Street and Wine Street have identified significant evidence of deposits and features (including structural remains) associated with later medieval occupation. During the early 1970s, several programmes of archaeological work were undertaken between Wine Street and the former line of Peter Street, just to the E of the pipeline route, which follows the former line of Dolphin Street.

In 1970, excavations undertaken in the area of a small park to the E of Dolphin Street, close to St Peter's Church (HER Event No. 409; Boore, 1982, 7-11), revealed evidence of a masonry





building of probable 12th century date built up against the W face of the town wall, which displayed evidence of massive timber floor supports. The building appears to have been demolished by the 14th century and was sealed by two layers of demolition rubble, upon which timber structures and a yard were established. To the S of this structure, evidence of another building was identified, which had a mortar floor and a possible central hearth or oven, while to the W, a series of postholes and gullies with associated clay spreads were revealed, probably identifiable with timber structures of 13th or 14th century date.

A larger excavation undertaken in the same area in 1975 identified a large cellared building of probable late medieval date at the S end of the site, presumed to form part of the house occupied in the late 14th-early 15th century by Simon Oliver, Recorder of Bristol (d.1419). The remains of the house (HER No. 2M) are designated as a Scheduled Ancient Monument and lie approximately 30m E of the pipeline route (at its closest point). Photographs of large scale water mains trenching excavated along the former line of Dolphin Street in the early 1970s indicate the potential for structural remains associated with cellarage of medieval or post-medieval date to be encountered in this area, although unfortunately no detailed records of these remains appear to be extant.

Further to the S, within the bounds of present-day Castle Park, the programme of excavation undertaken by P. Rahtz along the former line of St Mary-le-Port Street in the early 1960s and more recent investigations along the course of Dolphin Street and Bridge Street have revealed significant evidence of archaeological remains of later medieval date. The excavations undertaken in 1962-3 at St Mary-le-Port Street (HER Event No. 3173) revealed evidence of a substantial phase of backfilling within the E-W holloway feature, dated by pottery to the late 13th or early 14th century, after which the holloway was paved with loose stones and cobbles. This would appear to represent the formalisation or redefinition of St Mary-le-Port Street; further renewal of the street surface, with a sub-base of pitched stones and a pavement of stone blocks, appears to have occurred in the 14th-15th centuries (Watts and Rahtz, 1985, 67-68).

Of particular relevance are the results of a programme of evaluation trenching carried out in July-August 2006 and consisting of 24 trenches excavated within an area bounded by High Street, Wine Street and Bridge Street, chiefly within Castle Park (HER Event No. 4318; King, 2006). The trenching revealed evidence of 19th/early 20th century cellarage across much of the site; moreover, the post-WWII levelling of the area for car parking and subsequent landscaping activity had in places resulted in the removal of earlier archaeological deposits and the deposition of made ground to a depth of 2m. However, in spite of the extensive impact of 19th-20th century development and post-WWII clearance and landscaping, stratified archaeological features and associated deposits of medieval date were identified in several locations across the site, sometimes to a depth of as shallow as 0.5m below existing ground level.

Within Trench 11, excavated within the footprint of the former properties at Nos. 41-2 Bridge Street (which were cleared after bomb damage in 1940), the remains of a large pit, measuring 0.6m in diameter and at least 1.03m deep, were identified, containing a sequence of cessy deposits and sealed by a rubble layer. Pottery from the upper and lower fill deposits indicates that the pit was in use, at its broadest date range, from the mid -12th through to the 14th century (King, 2006, 8).

The remains of two, possibly three masonry structures of late medieval date were identified in several trenches located towards the western end of the evaluation area, close to the





High Street. These remains included a stretch of a Pennant sandstone wall of probable 14th-century date and an associated sandstone slab surface in Trench 28, while in Trench 33, located over the boundary of Nos. 21-2 High Street, part of a Pennant sandstone wall on an E-W alignment was exposed, which was interpreted as the northern extent of the surviving vaulted cellars beneath this property, designated as a Scheduled Ancient Monument.

Another programme of excavation (associated with the previous 2006 investigation) undertaken to the S of the former Norwich Union building at the W end of Castle Park in August-September 2007 also revealed evidence of archaeological features of medieval date (HER Event No. 4414; Whatley, 2007). In Trench 45A, excavated within the footprint of the demolished property of No. 34 Bridge Street, a quarry pit overlaid by a red sandy clay deposit containing sherds of 11th-12th century date was identified, together with the remains of a masonry footing of probable medieval date, which appeared to underlie a post-medieval wall forming the western boundary of No. 34.

Within Trench 48, located further to the N within the footprint of the former Norwich Union Building, the remains of a medieval barrel vault and cellar wall were identified, which related to the cellars beneath Nos. 18-20 High Street. Documentary evidence records that a new house was built on this plot by one Hugh Carleton, a tenant of St Augustine's Abbey in 1387; it is possible that the remains of the vaulted cellar can therefore be dated to the late 14th century.

This section of the proposed pipeline route terminates just to the N of Bristol Bridge, at the intersection of High Street, Baldwin Street and Bridge Street. In 1975, the excavation of a service trench approximately 4m × 5m at the junction of High Street and Baldwin Street revealed the remains of a stone structure at a depth of approximately 5m below the existing road surface (HER Event No. 431), consisting of a loose mass of irregular stones set in a red sandy mortar, which, in turn, was sealed by a layer of decayed limestone chippings up to 0.2m in thickness and covering the whole area of the trench. Above this layer, two walls were found: a mortared wall constructed of irregular Pennant sandstone and Brandon Hill grit, which was, in turn, bonded to another wall consisting of irregular stone blocks set in a brown clay matrix (Jackson, 1975).

The masonry structures revealed in 1975 appear to relate to the northern abutment of the medieval Bristol Bridge and comprised the remains of another pier with at least one arch to the N (Jackson, 1975; Leech 2000b). It is possible that the southern terminus of this section of the route, which reaches the northern approach to the bridge, might encounter further evidence of the northern abutment of the 13th century bridge and the remains of medieval buildings that are documented as having stood at the northern end of the bridge.

Post-Medieval

The results of archaeological investigations carried out within this area have produced significant evidence of post-medieval occupation and building activity in spite of heavy truncation by Second World War bombing and post-war clearance and landscaping activity. Evidence has been identified for the renewal of street surfaces and the repair and rebuilding of many of the medieval properties during the early post-medieval period (c.1500-1700), as well as substantial later post-medieval alterations to the townscape, such as the laying-out of Bridge Street in the mid-1770s and the construction of rows of residential and commercial properties lining both sides of the street, all of which appear to have had cellarage.





Two evaluations undertaken in the W part of Castle Park in 1996 and 1997 revealed evidence of structural remains associated post-medieval cellarage relating to several properties in St Mary le Port Street and Bridge Street, ranging in date from the 17^{th} - 19^{th} centuries (King, 2006; Whatley, 2007). However, in certain locations the levelling of the site for the construction of a car park after WWII and subsequent landscaping activity had almost entirely removed archaeological deposits (for instance, in the vicinity of the Hartshorne Inn/Swan Hotel at the E end of St Mary le Port Street).

The results of a watching brief undertaken on the excavation of two trenches dug across the line of Back Bridge Street in October 2006 (HER 4346; King, 2006) to investigate the location of services in this area identified several modern services at a depth of between 0.4m and 1.8m below the existing ground surface that prevented further excavation. No archaeological deposits or features were observed in the trenches, suggesting that the buildings directly fronting the riverside, which are visible on Millerd's plan of 1673, were demolished prior to the construction of Bridge Street and Back Bridge Street in the 1770s.

4.4.3 Summary of Potential

In summary, based on the results of the investigations discussed above, there clearly remains **High** or **Very High** potential for encountering archaeological deposits and features relating to Saxon and medieval occupation along this section of the route, especially in view of the fact that it extends through the historic core of the late Saxon and medieval walled city of Bristol.

However, the survival and condition of these remains is likely to be variable, as a result of extensive truncation by post-medieval road construction works, the construction of 18^{th} -early 20^{th} century cellarage and later post-WWII clearance for the creation of a car-parking area and subsequent landscaping activity associated with the creation of Castle Park in the early 1970s.

To the S of Wine Street, the pipeline route runs through Castle Park, laid out in the 1970s over the remains of one of the most densely occupied parts of central Bristol prior to the devastation caused by the 'Bristol Blitz' of November 1940. During the medieval and early post-medieval periods, this area appears to have been a hub of commercial activity, chiefly dominated by the butchery trade (as evidenced by the street name 'Shambles').

A section of the pipeline route runs SE along the former line of Dolphin Street, where excavations in the early 1960s revealed evidence of a substantial ditch, which may have represented part of the defensive circuit of the late Saxon *burh*. There is significant potential for the pipeline route to encounter the line of the later medieval city walls (built in the early 12th century) at two points: 1/at the S end of Union Street immediately N of the junction with Wine Street and 2/in Castle Park, where the pipeline heads SSE towards the river, crossing the former line of Bridge Street.

There is also potential for encountering evidence relating to the Saxon and later medieval street grid, in particular, Dolphin Street, the eastern end of St Mary-le-Port Street and the S side of the Shambles (Worshipful Street). Previous archaeological investigations have demonstrated the potential for archaeological deposits and features to have survived relating both to the street alignments (which appear to date back to the late Saxon period) and the medieval tenement plots fronting these streets, a significant proportion of which





appear to have had cellarage. Significant evidence of medieval and early post-medieval cellarage was revealed during the insertion of water mains trenching in this area during the early 1970s.

It is likely that the construction of Bridge Street (superseding the line of the Shambles) in the late 18th century, and the insertion of cellarage associated with properties along Bridge Street (ranging in date from the late 18th to the early 20th century) has truncated evidence of earlier medieval occupation features and deposits, although the extent of this truncation has been demonstrated by previous archaeological investigations to be variable. The pipeline route runs along the S side of Bridge Street, where records indicate that most of the properties contained cellars and sub-basements; however the impact of these 18th century cellars on earlier occupation features and deposits remains unclear.

There remains significant potential for medieval and early post-medieval occupation features (including cess pits and remains of cellarage) to have survived in this area, in spite of later post-medieval building activity. The depth of these features, below modern and post-medieval overburden, could vary significantly, from between 0.5m to 2m (or more) below existing ground level. Evidence of late Saxon and medieval features associated with the defensive circuit, street alignments and tenement plots would be of **Very High** importance and could contribute greatly to our understanding of the chronological phasing and the extent and nature of occupation within the late Saxon *burh* and later medieval urban settlement.

The southern terminus of this section of the route is located immediately N of Bristol Bridge; the present bridge (built in the 1760s) occupies an historic crossing point of the Avon that probably dates back to the late Saxon period. Evidence of masonry structures associated with the northern abutment of the medieval bridge (built in the 1240s) were identified immediately N of the present structure; it is possible that evidence of properties recorded as lying adjacent to (or upon) the N end of the bridge might also be identified in this area.

The potential for encountering evidence of archaeological deposits and features of post-medieval date has been assessed as **High**. Excavations in the vicinity of the former streets of St Mary-le-Port Street, Dolphin Street and Bridge Street have indicated the likelihood of encountering stratified occupation deposits and cellarage of post-medieval date across much of this section of the route, although the survival and condition of these remains will be variable, depending on the impact of early 20th century cellarage, post-WWII clearance after bombing of the area in 1940 and subsequent landscaping for the creation of Castle Park in the early 1970s. The significance of such remains, if encountered, has been assessed as being **Moderate** in archaeological terms.







Fig. 11: Extract from the OS 1st edition 25 inch map of 1886 showing the area traversed by the pipeline from Victoria Reservoir at Clifton to Upper Maudlin Street (Reproduced by courtesy of Bristol Record Office)





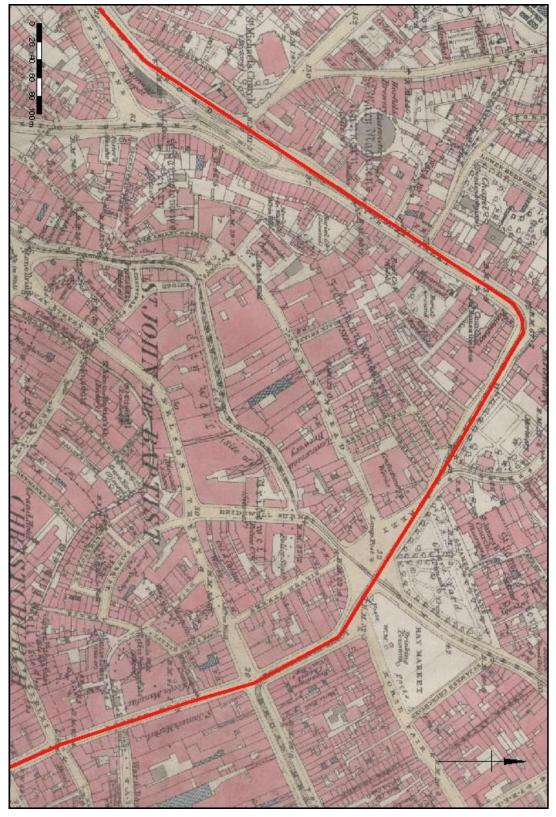


Fig. 12: Extract from the OS 1st edition 25 inch map of 1886 showing the area traversed by the pipeline from Upper Maudlin Street to the southern end of Union Street
(Reproduced by courtesy of Bristol Record Office)





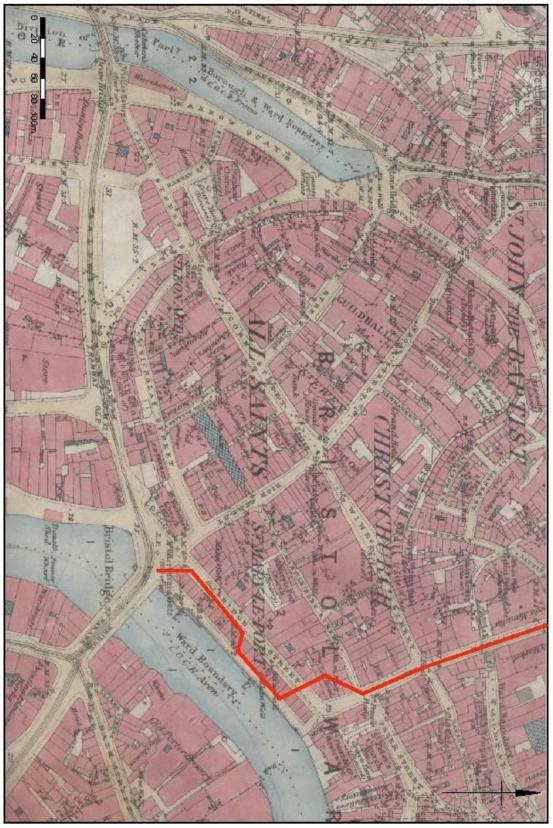


Fig. 13: Extract from the OS 1st edition 25 inch map of 1886 showing the area traversed by the pipeline from the southern end of Union Street to Bristol Bridge

(Reproduced by courtesy of Bristol Record Office)







Fig. 14: Extract from the OS 1st edition 25 inch map of 1886 showing the area traversed by the pipeline from Victoria Street to Bath Bridge
(Reproduced by courtesy of Bristol Record Office)





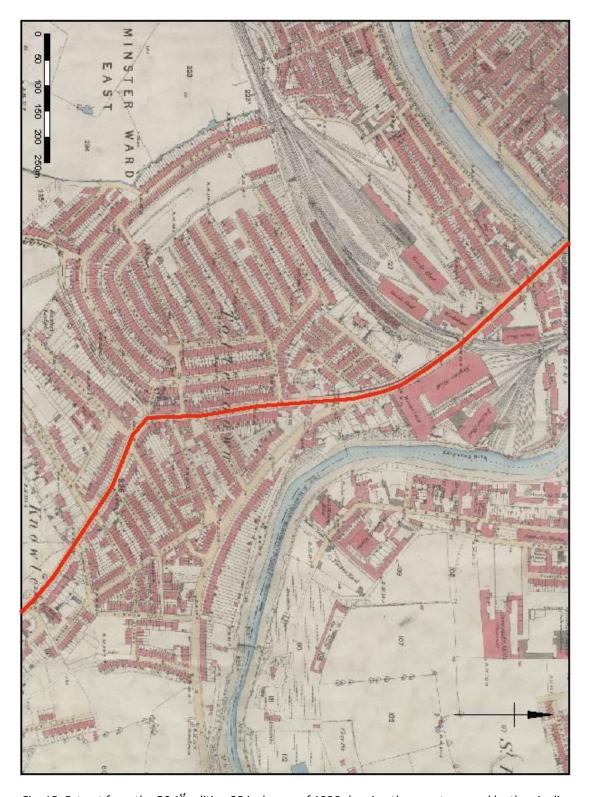


Fig. 15: Extract from the OS 1st edition 25 inch map of 1886 showing the area traversed by the pipeline from Bath Bridge to Knowle

(Reproduced by courtesy of Bristol Record Office)





4.5 Southern extra-mural suburbs (Victoria Street to Temple Meads)

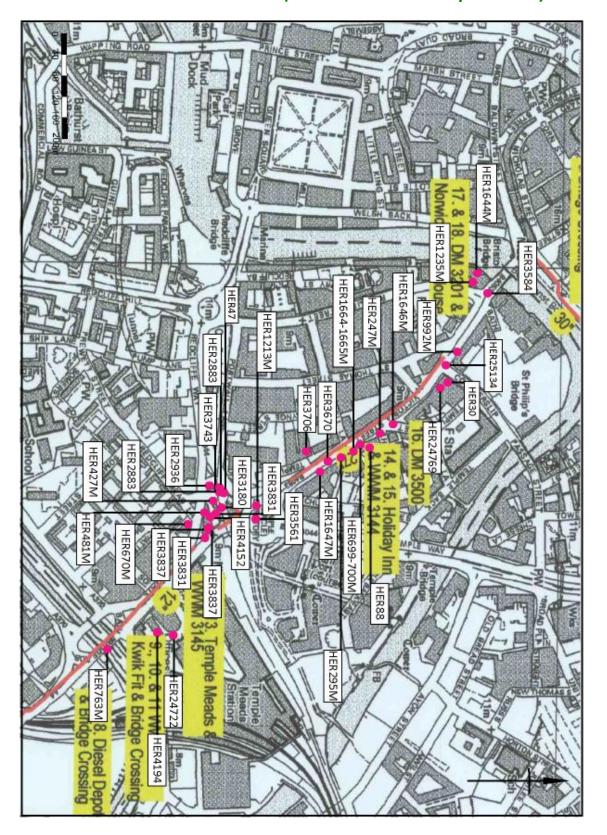


Fig. 16: Victoria Street to Temple Meads: Plan showing HER sites in the vicinity of the pipeline route





4.5.1 Historical Background and Topography

This section of the route, extending SE from Bristol Bridge along Victoria Street to the Temple Gate gyratory and then continuing in the same direction along Temple Gate (A4) up to the Bath Bridge, lies within the medieval extra-mural suburb of Redcliffe. The earliest documentary reference to Redcliffe occurs in the early 12th century, when it formed an outlying part of the manor of Bedminster, held by Robert fitz Hamon, Earl of Gloucester.

It has been suggested that, during the Saxon period, a defended bridgehead might have been established immediately to the S of Bristol Bridge, within an area subsequently referred to in medieval documents as 'Arthur's Fee' (later 'Arthur's Acre'), which appears to have been deliberately left clear of buildings (Leech 2009, 11-20).

At some time between 1128 and 1147, Robert granted a substantial portion of Redcliffe to the Knights Templar, where they established a preceptory, the site of which is now occupied by the remains of Temple Church (re-founded as a parish church in the late 14th century). The estate of the Templars, subsequently known as 'Temple Fee', occupied much of the eastern part of Redcliffe, which then appears to have consisted of low-lying marshland with little evidence for settlement.

The late 12th-early 13th century represented an important period in the emergence of a settlement at Redcliffe, with the establishment of three main N-S routes within the area, consisting of Redcliff Street, St Thomas Street and Temple Street (Brett, 2005, 55). The street frontages were laid out with individual narrow plots that extended back to drainage ditches, known as 'law ditches', situated mid-way between the streets.

Documentary and cartographic records and late 18th-19th century illustrations of the study area show that the street layout of the extra-mural suburbs to the S of Bristol Bridge remained essentially unchanged from the late medieval period through to the early 1870s, when Victoria Street was laid out, cutting across St Thomas Street and Temple Street and truncating a significant number of the densely packed tenement plots between these two streets and between Temple Street and Pipe Lane (which followed the northern line of the medieval Portwall from Temple Gate to the Avon). The reorganization of the street layout in this area following the construction of Victoria Street is visible on the OS 1st edition map of 1886 (Fig. 14).

The pipeline route continues SW along Victoria Street up to the Temple Circus roundabout, in very close proximity the site of an Augustinian Friary founded by Simon de Montacute in 1313 and dissolved in 1538 (HER No. 1213M). The extent of the friary precinct and the layout of the conventual buildings are poorly documented, although the late 15th century Bristol antiquary William Worcestre briefly described the dimensions of the nave and choir of the friary church, the chapter house and cloister (Neale, 2000, 163), while further references to the conventual buildings are provided in an inventory of the friary made at its dissolution (Weare, 1893, 80-2).

The friary church seems to have been located close to the line of the Portwall, where it crossed the S end of Temple Street, based on a statement in William Worcestre's account referring to a stretch of the Portwall 'beginning beyond the east end of the chancel of the Augustinian Friars' (Neale, 2000, 93). It appears likely that the friary lay within a roughly





trapezoidal enclosure clearly traceable on Millerd's map of 1673 (Fig. 4) and Rocque's map of 1742 (Fig. 8), defined by Temple Street to the W, Back Avon Walk to the S, Prince Eugene St to the N and Rose Street to the E. Assuming this to be correct, it would appear that a section of the route running along present-day Victoria Street immediately NW of Temple Circus crosses just within the western edge of the friary precinct. By the late 17th-early 18th century, the site of the Austin Friary precinct already appears to have been occupied by housing along the frontage of Temple Street, with a mixture of formal gardens or orchard enclosures to the rear.

Immediately SE of the Temple Circus roundabout, a section of the pipeline route appears to directly cross the line of the medieval Portwall (HER No. 1042M), built in the early 13th century to defend the southern limits of the extra-mural suburb of Redcliffe. A reference to a grant of murage in 1232 probably relates to the early stages of the construction of the Portwall; however, it still remained unfinished in 1240, when a writ was directed to the inhabitants of Redcliffe and Temple exhorting them to work together in its construction (Cronne, 1946, 37-8). Smith's map of Bristol dated 1568 and Millerd's map of 1673 show the extent of the Portwall, running E from Freshford Lane across Redcliffe Street, St Thomas Street and Temple Street, turning NE through Temple Meads to end at the circular tower called 'Tower Harratz' close to the bank of the Avon. The latter map shows a substantial ditch lying in front of the Portwall, separated from the wall by a berm. The 1568 map shows the Portwall as largely unencumbered by housing, although both sides of the street immediately to the S of Temple Gate were already lined with tenement plots.

It appears that the Portwall, together with its ditch, were repaired as part of the strengthening of the defences of Bristol in the early 1640s, which suggests that it still formed an effective defensive obstacle at that date. However, by 1673, the counterscarp of the Portwall ditch was heavily encroached upon by tenements and garden enclosures, as detailed on Millerd's plan, and late 17th-early 18th century records refer to several breaches in the Portwall itself, between Recliffe and Temple Gates. The line of the Portwall itself appears to have survived into the early 19th century and is still traceable on Plumley and Ashmead's map of 1828 (Fig. 9); the remaining stretches of the wall were demolished by the City Corporation as part of the Improvement Act of 1840 (Hebditch, 1968, 131-43).

There were two gates inserted in the Portwall at the S end of Redcliffe Street (Redcliffe Gate) and Temple Street (Temple Gate), respectively. The pipeline route runs approximately 20m W of the site of Temple Gate (at its closest point). The original dimensions of the medieval Temple Gate are given by William Worcestre as 9 yards (8.23m) long by 3 yards (2.74m) wide (Neale, 2000, 10-11). Millerd's map of 1673 depicts the gate as having a broad pointed archway surmounted by three pierced cross-loops (although this depiction may be somewhat schematic). The original gate was demolished in 1734 and replaced by a gateway of Classical design with a round-headed central archway flanked by smaller pedestrian gates, which was demolished in 1808.

The section of the pipeline route at Temple Gate also runs close to the probable line of the Temple Conduit, a watercourse which appears to have been established in the early 14th century to provide a water supply to the nearby Austin Friary. The source of the conduit originated from a spring at Totterdown, near the junction of the roads leading to Bath and Wells, respectively, and then crossed the Avon close to the line of the later 19th century railway evidently then running roughly parallel to and SW of the line of the present-day A4, before reaching Temple Gate, where a cistern was provided for the use of the local parishioners (Weare, 1893, 103). Following the dissolution of the Friary in 1538, the conduit





and pipes came into the ownership of the parishioners of Temple parish and substantial renewal works took place in 1561. The Temple Conduit was still active in the late 19th century (Weare, 1893, 105) and further evidence of subterranean passages and wooden piping associated with the conduit were apparently found during the demolition of Powell's pottery works, located SW of Temple Gate, in 1908.

4.5.2 Consultation of Archaeological Records

Prehistoric

Recorded evidence of prehistoric activity along this section of the pipeline route is limited, although several finds of Bronze Age material were found on the southern bank of the Avon, close to the junction of Bristol Bridge and Bath Street during construction works connected with the widening of the bridge in about 1874 (HER Event No. 50). The finds assemblage consisted of two axes and a palstave fragment of early to middle Bronze Age date; however, it remains unclear whether these formed part of a hoard or were associated with other features or finds (Pritchard, 1904, 329-30; Brett, 2005, 35).

Roman

No archaeological records relating to Roman activity have been identified in the vicinity of this section of the pipeline route.

Medieval

Evidence for pre-Conquest settlement in Redcliffe is generally sparse, although an evaluation undertaken in 1995 on the former Courage Brewery site at Counterslip identified a quantity of residual late Saxon-early Norman pottery recovered from late 13th-early 14th century occupation layers.

Archaeological investigations undertaken along the waterfront immediately to the S of Bristol Bridge have revealed significant evidence of occupation and commercial activity ranging in date from the 12th-15th centuries. Excavations undertaken in 1981-2 on a site at the junction of Redcliffe Street and Bristol Bridge (HER Event No. 341) revealed a number of 12th century structures lying to the E of the waterfront, while a succession of dock structures and associated revetments dated to the 13th-14th centuries were recorded on the waterfront itself (Williams 1982).

Recent programmes of archaeological recording undertaken in 1998 and 2000-01 on the extensive Courage Brewery site lying on the waterfront to the NE of Victoria Street (HER Event Nos. 3367, 3770) revealed extensive evidence of occupation deposits and structural remains broadly dated to the 12th-14th centuries, including a slipway and quay wall together with a series of circular structures, possibly representing hearths or vats associated with the dyeing industry (Cox, 1999, Jackson, 2003).

While there appears to be little evidence of archaeological recording directly within the carriageway of Victoria Street, archaeological investigations of various properties along both sides of Victoria Street have demonstrated the potential for medieval occupation deposits and features to have survived, in spite of the impact from post-medieval cellarage and extensive 19th-20th century development. An archaeological evaluation undertaken at Nos.





10-22 Victoria Street in 1994 showed that occupation deposits and features dating back to the 12th century survived between 17th-18th century cellarage, with evidence of deeply stratified occupation deposits of medieval/early post-medieval date towards the rear of the property (BaRAS, 1994).

Another evaluation undertaken at No. 38 Victoria Street (HER Event No. 24769) revealed evidence for the original alignment of Temple Street and a section of a late medieval wall, which in turn had been truncated by the construction of a rubble stone walled cellar of 17th - 18th century date. Evidence of backfill deposits and service trenching associated with the former alignment of Temple Street was also noted (Hughes, 2009).

Further to the SE, excavations undertaken in 1974 within an area bounded by Victoria Street, Church Lane and Cart Lane identified a series of four tenement plots, the frontages of which lay beneath present-day Victoria Street, with evidence of occupation ranging from the 13th-15th centuries (HER Event Nos. 1688, 1689; Ponsford, 1974). The northernmost tenement was found to lie beneath 2m of a modern ashy garden deposit and 1m of soil and contained a series of postholes and pits associated with tenter racks. At the southern edge of the site, the remains of an ashlar masonry wall was identified, which may represent the N wall of the guild hall of the Weavers, documented as occupying this location in the late 13th century. Two further investigations of the same site undertaken in 1995 (HER Event Nos. 88, 894) have clarified the extent, nature and phasing of medieval occupation in this area, which appears to have commenced in the late 13th-14th century and intensified during the 15th century.

Archaeological evidence for the church and associated conventual buildings of the Austin Friary is extremely scanty, although an evaluation at Portwall Lane East, between the Grosvenor Hotel and the George Railway Hotel (HER Event No. 3180) did yield evidence of a robber trench containing 14th century Bristol/Redcliffe ware pottery, which was interpreted as indicating the possible presence of the Austin Friary to the N of the hotel (Cox, 1996).

Several archaeological investigations have identified sections of the medieval Portwall and its associated ditch in various locations. A section of the Portwall ditch to the S of the Portwall was revealed during excavations at the S of St Thomas Street (between Redcliffe and Temple Gates) in 1968; it appeared to be at least 15m wide and at least 4.3m deep (with evidence for a re-cutting of the ditch possibly dated to the mid-17th century), although the full depth of the ditch was not ascertained (HER Event No. 408; Hebditch, 1968, 131-43). A later excavation undertaken in 1982 approximately 60m E of the trench dug in 1968 confirmed the width of the ditch and also revealed that it extended to a depth of more than 5m, although its full depth was not established (HER Event No. 312).

Extensive investigations have been undertaken in recent years on several stretches of the Portwall between Temple Gate and the Floating Harbour, associated with the redevelopment of Temple Quay in the mid-1990s. The site of the tower at the NE terminus of the Portwall, called 'Tower Harratz', was excavated in 1994, while another semi-circular bastion was identified 130m NE of Temple Gate, together with another structure some 60m S of Tower Harratz, which proved upon excavation to be the remains of a water-gate with flanking casemates pierced with arrow loops (Jackson, 1994). Evidence for the construction of the Portwall and its associated defences were identified during an archaeological evaluation in July 1995 (Tavener, 1995)





Of particular relevance are the results of two evaluations undertaken in 1996 on land at Portwall Lane East, between the George Railway Hotel and the Grosvenor Hotel (HER Event No. 3180) and in 2002 on the actual site of the George Railway Hotel (HER Event No. 3831), which revealed evidence of the Portwall and its associated ditch in close proximity to the site of Temple Gate. The evaluation undertaken in 1996 on land between the George Railway Hotel and the Grosvenor Hotel revealed evidence of a medieval pathway and traces of the Portwall ditch, while a further trench excavated in Portwall Lane East revealed the N face of the Portwall beneath the pavement on the S side of the lane, although its full width was not established. Possible evidence of an intramural lane was also identified, consisting of a series of occupation surfaces abutting the wall, which produced finds dating back to the early 13th century (Cox, 1996).

A more recent evaluation undertaken in 2002 on part of the site of the George Railway Hotel (HER Event No. 3831; Townsend & Pilkington, 2002) revealed the top of the Portwall at a depth of approximately 1.5m below existing ground level. In spite of extensive disturbance from the insertion of late 18th-early 19th century cellarage, a short stretch (1.80m long) of the southern face of the Portwall was identified, which was aligned E-W and constructed of irregular sandstone blocks bonded with a mid-brown sandy clay mortar. Possible evidence for the berm separating the Portwall and the ditch was represented by a deposit abutting the wall, containing pottery dated to *c*.1170-1225. Evidence for the cut of the Portwall ditch was also revealed, with 15th century pottery recovered from the lower fills, although the full dimensions of the ditch were not ascertained. Also identified were the remains of a masonry building of late medieval date, situated within the footprint of the George Railway Hotel (originally built in the 17th century), underlying which was a sequence of probable occupation deposits ranging in date from the 13th-16th centuries.

Archaeological evidence for the Temple Conduit was observed during trenching operations for a new water main at Temple Gate in November 1903 (HER Event No. 47), which revealed a stretch of 'ancient wooden water pipes', some 90ft (27.43m) in length, running towards the City from the S end of Temple Street at the junction with Portwall Lane (Pritchard, 1904, 335-36). The logs were of elm and measured from *c*. 10-12in (0.25-0.30m) in diameter and were bored with round holes; one of the logs was also fitted with a wooden plug. The precise date of these logs is uncertain, although a medieval date seems likely. It is worth noting that, in 1441, a bequest was made to the inhabitants of Temple parish for the construction of a conduit from Temple Gate to the 'Cross of the Temple' with leaden pipes, which suggests that at least part of the conduit had already been renewed with lead pipes by the mid-15th century (Weare, 1893).

Post-Medieval

Records of archaeological interventions in the immediate vicinity of the route indicate the potential for encountering evidence of archaeological deposits and features of post-medieval date in this area, in spite of disturbance from 19th-20th century road-construction works.

Archaeological monitoring of a deep excavation undertaken by Bristol Water in May 2000 at the junction of Victoria Street and Redcliff Street for the insertion of a plastic sleeve inside a 24-inch (61cm) iron water main revealed evidence of an arched stone culvert oriented E-W across the line of Victoria Street, approximately 1m wide × >1m high, which had been broken through, possibly for the insertion of the cast-iron water main (of probable late 19th century date) and infilled with stone printing blocks (HER Event No. 3584). It was suggested





that the stone culvert could represent the post-medieval rationalisation of one of the medieval 'law ditches' between St Thomas Street and Temple Street.

Other archaeological records in the immediate vicinity of the route chiefly relate to evaluations, excavations and watching briefs undertaken on individual properties lying adjacent to Victoria Street and Temple Gate. An archaeological evaluation undertaken in a car park to the rear of Canningford House, No. 38 Victoria Street, identified the W edge of the former route of Temple Street and the remains of a cellar associated with a property adjoining the street frontage, constructed of rubble stone walling of 17th-18th century date and built on a layer of redeposited clay sealing waterlogged deposits (HER Event No. 24769; Hughes, 2009). The archaeological evaluation undertaken at the George Railway Hotel Temple Gate in 2002 (HER Event No. 3831; Townsend & Pilkington, 2002) also revealed evidence of walls, cobbled surfaces and occupation surfaces associated with the original construction of the 'George Inn' in the 17th century, together with evidence of substantial late 18th-early 19th century cellarage, which appears to have been inserted contemporary with the rebuilding of the inn at that date.

4.5.3 Summary of Potential

The potential for encountering evidence of medieval occupation along this section of the route has been assessed in overall terms as **High**.

1/It is likely that evidence of the pre-1860s street alignments will be identified at the point where they are intersected by present-day Victoria Street, although it is likely that any buried medieval road surfaces will lie at a considerable depth beneath later post-medieval metalling.

2/There is also potential for the survival of archaeological deposits and features relating to the properties lying between St Thomas Street and Temple Street, which could include evidence of several 'law ditches' defining the boundaries between individual tenements and the boundary ditch between the parishes of St Thomas and Temple.

3/A section of the route running along Victoria Street immediately NW of Temple Circus roundabout lies in close proximity to the site of the medieval Austin Friary. The full extent of the friary precinct and layout of the buildings is uncertain but it is likely that the line of present-day Victoria Street crosses the western edge of the precinct close to where it reaches Temple Circus.

4/A short stretch of the route lying immediately SE of the Temple Circus roundabout appears directly to cross the line of the early 13th century Portwall, to the E of the site of the medieval gateway of Temple Gate. Previous archaeological work in this area has demonstrated significant potential for encountering evidence both of the Portwall and its associated defensive ditch (which appear to have remained intact until the early 19th century). Should evidence of the Portwall ditch be identified, there is potential for evidence to be revealed relating to its active use and infilling during the later medieval period, the recutting of the ditch as part of the Civil War fortifications (in about 1642) and its subsequent infilling from the late 17th through to the early 19th century.





5/There is also potential for encountering the remains of the medieval Temple Conduit, the route of which appears to run in close proximity to the site of Temple Gate (where there was a cistern associated with the conduit).

However, while the potential for identifying archaeological deposits and features relating to the medieval extra-mural suburb of Redcliffe and its defensive circuit has been assessed as **High**, any surviving remains are likely to have been heavily disturbed by the insertion of post-medieval cellarage and modern road construction and utility works, which may well have impacted upon the condition and survival of these remains.

The overall potential for encountering evidence of archaeological deposits and features of post-medieval date along this section of the route has been assessed as **Moderate to High.** It is possible that below-ground remains (i.e. cellarage) might be encountered relating to medieval or early post-medieval buildings along both St Thomas Street and Temple Street, which were cleared in the early 1870s to make way for Victoria Street, although it is likely that any such remains will have been heavily disturbed by road-construction works and trenching for the installation of services. While it appears that the current programme of works will not cross the line of the post-medieval culvert recorded as running E-W across Victoria Street at the junction with Redcliff Street, there remains potential for similar culvert features, which may respect the boundaries of earlier 'law ditches' of medieval date, to be encountered along Victoria Street.

At the point where the pipeline route crosses the line of the Portwall and its associated ditch, it is possible that episodes of 16th-17th century repairs to the wall and re-cutting of the ditch (during the Civil War) may be identified, together with evidence of the subsequent demolition of the wall and the infilling of the ditch in the early 19th century.





4.6 South of Bath Bridge (Totterdown & Knowle)

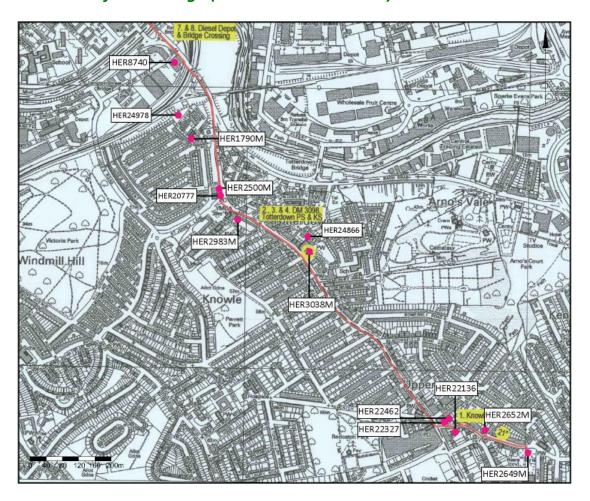


Fig. 17: South of Bath Bridge (Totterdown & Knowle). Plan showing HER sites in the vicinity of the pipeline route

4.6.1 Historical Background and Topography

This comprises the southernmost part of the route extending S from Bath Bridge along Bath Road for a short stretch before branching SE and following the Wells Road (A37) for approximately 2km through the late 19th-20th century residential suburbs of Totterdown and Knowle before branching to the E along Talbot Road and terminating at the Knowle Reservoir.

This section of the route lay within the parish of Bedminster, an extensive territorial unit of pre-Conquest origin. By the late 12th century, the jurisdictional boundaries of the city of Bristol appear to have extended to the S of the River Avon, based on the evidence of a charter of liberties granted by Prince John (then Count of Mortain) to the burgesses of Bristol, dated 1188, which refers to a spring 'in the way near Aldebury of Knowle', which may be located close to the W of the junction of the roads to Bath and Wells.

The name 'Aldebury' or 'Aldeburyham' occurs in several medieval and early post-medieval documents and appears to denote the location of what was already regarded as an ancient settlement site in the late 12th century. The place-names 'Aldebury' and 'Totterdown' both appear to indicate the presence of a hillfort in the immediate vicinity, the site of which





probably lay on the steeply rising ground to the W of the junction of the Bath and Wells roads (HER No. 1790M; NGR ST 598 718). However, any surface traces of the hillfort have long since disappeared beneath late 19th-20th century residential development (Corcos, 2011; HER 24978).

There is very little archaeological or documentary evidence to indicate a significant extension of settlement immediately S of Bath Bridge or along the Wells Road during the medieval period, although the spring recorded in the 1188 charter close to the junction of the Bath and Wells roads at Totterdown could possibly represent an early settlement focus in this area.

The route continues SE along the Wells Road into Knowle, a settlement of Anglo-Saxon origin recorded in Domesday Book (1086) as 'Canole', an estate of 2 hides held by Alnod before the Conquest and subsequently held by Osbern Giffard. Knowle is recorded as a sub-holding of the manor of Bedminster from the early 12th century onwards; it remained in the hands of the Berkeley family until 1522, after which it reverted to the Crown (BaRAS, 2006). The focus of the early settlement at Knowle, before its transformation into a residential suburb of Bristol in the mid to late 19th century, appears to have been located at the point where Wells Road, Redcatch Road (leading W to Lower Knowle) and Talbot Road (marked on an OS drawing of 1826 as 'Knowle Lane' leading E towards Brislington) converge, based on the evidence of late 18th-early 19th century historic maps (BaRAS, 2006, 3).

Documentary and cartographic sources indicate that, from the 16th century through to the middle of the 19th century, this area appears to have remained essentially agricultural in character, prior to extensive late 19th-early 20th century suburban residential development, the growth of which is depicted on the OS 1st and 2nd edition maps (**Fig. 15**). The Bedminster parish tithe map of 1840 shows evidence for limited settlement *foci* at Totterdown to the S of Bath Bridge (the successor to an earlier bridge demolished in 1855), at the point where the roads branch off to Bath and Wells, respectively, and further to the SE at Knowle. The Wells Road was turnpiked in the early 18th century by the Bristol Turnpike Trust and the site of one tollgate, 'Knowle Gate', is recorded on the Wells Road at the junction with St John's Lane, which was rebuilt after having been demolished by rioters in 1749; it is still shown as extant on Ashmead's map of 1828 but appears to have been removed by 1840.

4.6.2 Consultation of Archaeological Records

Prehistoric

The possible site of an Iron Age hillfort has been tentatively identified from place-name references to a site called 'Aldebury' or 'Aldeburyham', lying in the vicinity of Pylle Hill to the W of Totterdown; however, no archaeological evidence for Iron Age or earlier prehistoric activity has been recovered from this area, which lies under the Pylle Hill goods depot and late 19th-20th century residential development. No other archaeological records relating to prehistoric activity have been identified in the vicinity of the pipeline route.

Roman

No archaeological records relating to Roman activity have been identified in the vicinity of this section of the pipeline route.





Medieval

Few records have been identified relating to medieval occupation along this section of the route; however, it should be noted that relatively little archaeological fieldwork has been undertaken in this area. A watching brief carried out in 2005 to the rear of the Talbot public house at Wells Road (HER No. 22136) recovered an assemblage of pottery and clay pipe fragments of 17th-20th century date but no definite evidence of medieval activity was noted (Ducker, 2005). A single sherd of an abraded late medieval Redcliffe ware vessel was recovered during another watching brief undertaken to the rear of No. 27 Talbot Road in 2003; however, no stratified deposits or features of medieval date were identified (HER No. 22462).

Post-Medieval

A small number of archaeological investigations have previously been undertaken along this section of the route, which have yielded limited evidence for post-medieval archaeology. An archaeological watching brief undertaken in 2005 during groundworks on a site on the S side of Talbot Road to the rear of Nos. 304-20 Wells Road (HER Event No. 22136), revealed a former topsoil deposit of a dark greyish-brown clayey silt containing limestone fragments and CBM, while at the western end of the site a concrete path was exposed, flanked by the footings of two dwarf brick walls. Underneath the E side of the path were two courses of a sandstone rubble wall believed to date to the 19th century. Further trenching for strip foundations dug in the centre of the site (between 1m and 2m in depth) revealed a greyish-green clay overlying a deep deposit of yellow clay (1m in thickness) underlying which was the limestone bedrock. Unstratified finds ranging from the 17th-20th centuries were recovered from the site (Ducker, 2005).

Another watching brief undertaken in the garden to the rear of No. 27 Talbot Road in March 2003 (HER Event No. 22462) revealed evidence of the footings of a limestone rubble wall, probably faced with lime plaster, which was oriented E-W and survived to a maximum height of four courses. The wall was interpreted as probably forming part of the boundary on the N side of the garden of Knowle House, a property located on the N side of Talbot Road/Knowle Lane, which first appears on Donne's map of Bristol dated 1769 and appears to have remained intact until after the Second World War.

4.6.3 Summary of Potential

The potential for encountering archaeological deposits and features of medieval date along this section of the route has been assessed, in overall terms, as **Low**, chiefly reflecting the limited scope of the archaeological and documentary record for medieval occupation in this area. Possible settlement *foci* of medieval date have been identified from documentary and cartographic sources at the junction of the Bath Road and Wells Road (Alderbury/Totterdown) and at the junction of Wells Road and Talbot Road (Knowle); however, the archaeological evidence for occupation in these two areas is extremely limited. The potential for revealing evidence of significant archaeological remains of post-medieval date along this section of the route has been assessed as **Low to Moderate**; this assessment reflects the limited scope of the archaeological record for this area to date, as well as the fact that this part of the route runs for its entirety along existing carriageways (Wells Road, Priory Road and Talbot Road) where there is likely to have been extensive disturbance as a result of 19th-20th century road-construction works and service trenching.





5. Conclusion

This archaeological desk-based assessment of the proposed water mains renewal scheme from Victoria Reservoir at Clifton to Knowle Reservoir has identified that a significant proportion of the proposed route extends through the historic core of the Saxon and later medieval walled city of Bristol and its immediate northern and southern extra-mural suburbs, which may be regarded as areas of **High** or (in the case of the historic core of the walled city) **Very High** archaeological sensitivity, with potential for encountering significant archaeological remains, chiefly of medieval and post-medieval date.

It should be emphasized, however, that as the route extends largely along existing carriageways, it is likely that previous road construction works and the insertion of modern services will have impacted on the condition and survival of archaeological remains to a certain degree.

1/Clifton and Kingsdown (from Victoria Reservoir to Perry Road)

The potential of this section of the route to reveal significant evidence of archaeology has been assessed, in overall terms, as **Moderate to High**.

- Park Row represents a long-established routeway from Bristol to Clifton dating back to the medieval period. Two intact burials associated with finds of medieval green glazed pottery were found at a shallow depth during road construction works at the E end of Park Row (the location of which is unclear but appears to have been situated close to where the road branches off to Perry Road and Lower Park Row) in 1894.
- It is possible that evidence of the Civil War defensive circuit (constructed by Parliament for the defence of Bristol in the 1640s) might be encountered where it crosses the line of Park Row close to the junction with Park Street, together with evidence of the fortification known as the 'Essex Work', which appears to have been located immediately N of Park Row, to the W of the junction with Woodland Road. Evidence of the Civil War defensive line would potentially be of **High** significance in archaeological terms, although it is likely that any extant remains will have been heavily disturbed by 19th-20th century road construction works and associated service trenching.
- Although the section of the pipeline route running E of Whiteladies Road does extend within the western fringes of the late 18th century landscaped grounds of Tyndall's Park, evidence of the park has almost entirely disappeared as a result of late 19th century residential development and the construction of various public buildings. Consequently, the likelihood of encountering buried landscape features or structural remains associated with Tyndall's Park appears to be Low.

2/Northern extra-mural suburbs (from Upper Maudlin Street to Union Street)

The archaeological potential of this section of the route has been assessed in overall terms as **High**.





- Evidence for prehistoric and Roman activity in the vicinity of this section of the route is represented by residual flint scatters and the remains of a Roman farmstead complex identified during excavations immediately S of Upper Maudlin Street.
- Archaeological and documentary evidence indicates that there is significant
 potential for encountering features and deposits of medieval date along this section
 of the route, which extends through the northern extra-mural suburbs of the Saxon
 and later medieval settlement of Bristol.
- There is significant potential for identifying evidence of the medieval Greyfriars Conduit (built in the late 13th century to provide a water supply to the nearby Franciscan Friary), an intact section of which was recorded as crossing beneath present-day Upper Maudlin Street, in the immediate vicinity of the Bristol Dental Hospital, during water mains trenching in the early 1970s.
- The route extends along Lower Maudlin Street, which denoted the historic boundary between the precincts of the religious houses of St James's Priory to the E and the Franciscan Friary (Greyfriars) to the W. There is potential for encountering remains of the eastern boundary wall of the Greyfriars precinct at the junction of Lower Maudlin Street and Deep Street, although it appears unlikely that substantial evidence of buildings associated either with St James's Priory or the Greyfriars will be identified.
- At the southern end of Lower Maudlin Street, where it meets The Haymarket, Horsefair, Lewin's Mead and Union Street, the pipeline route will cross through the SW corner of the extensive lay burial ground known as 'St James's Churchyard', which remained in use from the 13th century through to the 1850s. Previous archaeological work in this area has demonstrated the potential for intact burials of medieval date to have survived, in spite of 19th-20th century road alterations and the insertion of modern services.
- The section of the route following Union Street runs roughly N-S through the burgage plots forming part of the medieval extra-mural suburb of Broadmead. Recent archaeological investigations to the W of the lower half of Union Street have indicated the potential for reasonably well-preserved occupation deposits and features of medieval date to have survived in this area, in spite of extensive 19th-20th century development.

3/The walled city (Union Bridge to Bristol Bridge)

This section of the route, which extends through the historic core of the late Saxon and medieval walled city of Bristol, has been identified as an area of **Very High** potential in archaeological terms. The survival and condition of these remains is likely to be variable, as a result of extensive truncation by post-medieval road construction works, the construction of 18th-early 20th century cellarage and later post-WWII clearance for the creation of a carparking area and subsequent landscaping activity associated with the creation of Castle Park in the early 1970s. However, previous archaeological investigations have demonstrated that, where archaeological deposits and features of Saxon or medieval date have remained intact, they could potentially survive in a well-preserved condition.





- To the S of Wine Street, the pipeline route runs through Castle Park, laid out in the 1970s over the remains of one of the most densely occupied parts of central Bristol prior to the devastation caused by the 'Bristol Blitz' of November 1940. During the medieval and early post-medieval period, this area appears to have been a hub of commercial activity, chiefly dominated by the butchery trade (as evidenced by the street name 'Shambles').
- A section of the pipeline route runs SE along the former line of Dolphin Street, where excavations in the early 1960s revealed evidence of a substantial ditch which may have represented part of the defensive circuit of the late Saxon burh.
- There is significant potential for the pipeline route to encounter the line of the later medieval city walls (built in the early 12th century) at two points: 1/at the S end of Union Street, immediately N of the junction with Wine Street, and 2/in Castle Park, where the pipeline heads SSE towards the river, crossing the former line of Bridge Street.
- There is also potential for encountering evidence relating to the Saxon and later medieval street grid, in particular, Dolphin Street, the eastern end of St Mary-le-Port Street and the Shambles ('Worshipful Street'). Previous archaeological investigations have demonstrated the potential for archaeological deposits and features to have survived relating both to the street alignments (which appear to date back to the late Saxon period) and the medieval tenement plots fronting these streets, a significant proportion of which appear to have had cellarage. Significant evidence of medieval and early post-medieval cellarage was revealed during the insertion of water mains trenching in this area during the early 1970s.
- It is likely, however, that the construction of Bridge Street (superseding the line of the Shambles) in the late 18th century, and the insertion of cellarage associated with properties along Bridge Street (ranging in date from the late 18th to the early 20th century), have truncated evidence of earlier medieval occupation features and deposits, although the extent of this truncation has been demonstrated by previous archaeological investigations to be variable. There remains potential for medieval occupation features (including cess pits and remains of cellarage) to have survived in this area, in spite of later post-medieval building activity, and the depth of these features below modern overburden/levelling deposits could vary significantly, from 0.5m to 2m (or more) below existing ground level.
- Evidence of late Saxon and medieval features associated with the defensive circuit, street alignments and tenement plots, if encountered, would be of Very High importance and could contribute significantly to our understanding of the chronological phasing and the extent and nature of occupation within the late Saxon burh and later medieval urban settlement.
- The southern terminus of this section of the route is located immediately N of Bristol Bridge; the present bridge occupies an historic crossing point of the Avon that probably dates back to the late Saxon period. Evidence of masonry structures associated with the northern abutment of the medieval bridge (built in the 1240s) were identified immediately N of the present structure; it is possible that evidence





of properties recorded as lying adjacent to (or upon) the N end of the bridge might also be identified in this area.

4/Southern extra-mural suburbs (Victoria Street to Temple Meads)

The archaeological potential of this section of the route, extending through the southern extra-mural suburbs of Redcliffe and Temple, has been assessed in overall terms as **High**, although the insertion of post-medieval cellarage and late 19th-20th century road construction and utility works may well have impacted upon the condition and survival of these remains.

- Evidence of the pre-1860s street alignments could well be identified at the point
 where they are intersected by present-day Victoria Street, although it is also likely
 that any buried medieval road surfaces will lie at a considerable depth beneath later
 post-medieval metalling.
- There is potential for the survival of archaeological deposits and features relating to
 the properties lying between St Thomas Street and Temple Street, which were
 truncated by the construction of Victoria Street. This could include evidence of 'law
 ditches' defining the boundaries between individual tenements and the boundary
 ditch between the parishes of St Thomas and Temple.
- The section of the route running along Victoria Street, immediately NW of Temple Circus roundabout, lies close to the site of the Austin Friary, founded in the early 14th century. The full extent of the friary precinct and layout of the buildings is uncertain but it is likely that the line of present-day Victoria Street crosses the western edge of the friary precinct, close to where it reaches Temple Circus.
- A short stretch of the route lying immediately SE of the Temple Circus roundabout appears directly to cross the line of the early 13th century Portwall, to the E of the site of the medieval gateway of Temple Gate. Previous archaeological work in this area has demonstrated that there is significant potential for encountering evidence both of the Portwall and its associated defensive berm and ditch (which appear to have remained intact until the early 19th century) at depths ranging between 1m and 2m below existing ground level.
- There is also potential for encountering the remains of the medieval Temple Conduit, the route of which appears to run in close proximity to the site of Temple Gate (where there was a cistern associated with the conduit).

5/South of Bath Bridge (Totterdown & Knowle)

The potential for encountering archaeological deposits and features along this section of the route has been assessed, in overall terms, as **Low**, chiefly reflecting the limited scope of the archaeological and documentary record for this area.

 Possible settlement foci of medieval date have been identified from documentary and cartographic sources at the junction of the Bath Road and Wells Road (Alderbury/Totterdown) and at the junction of Wells Road and Talbot Road





(Knowle); however, the archaeological evidence for occupation in these two areas is extremely limited.

6. Mitigation and Engineering – Considerations thereof

The mains rehabilitation programme entails the replacement of existing pipe within an extant trench in the street or carriageway, this being naturally subject to discovery and engineering considerations in localised areas.

However, this methodology requires access pits of 8m × 2m & others of varying sizes to be excavated along the route of the pipeline at a frequency and locations that cannot be determined in advance.

There is consequently an obvious impact on any extant archaeology in the location of the engineering works.

Due to the nature and locations of the engineering works, it would seem apposite that archaeological observation would be the most realistic mitigation strategy and Border Archaeology will be consulting Bob Jones, City Archaeologist as to both methodology and specified locations where appropriate.

6.1 Site Visit

As the locations contained within the route are demonstrably urban and congested, Border Archaeology has decided that it would 'site visit' those areas which Bob Jones determines as appropriate for mitigation after the submission of this document.

7. Copyright

Border Archaeology shall retain full copyright of any commissioned reports, tender documents or other project documents, under the Copyright, Designs & Patents Act 1988 with all rights reserved; excepting that it hereby provides an exclusive licence to the client for the use of the report by the client in all matters directly relating to the project as described in the Project Specification.





8. Bibliography

Primary Sources

Bristol Record Office

EP/A/32/7 – Tithe apportionment of Bedminster parish – 1843

EP/A/32/41- Tithe apportionment of the parish of Westbury on Trym - 1844

EP/A/32/12- Tithe apportionment of Clifton parish - 1845

04480 – 'Surveys of the Several City Lands belonging to the Chamber of Bristol' by John Jacob de Wilstar - 1742

Secondary Sources

Bristol City Historic Environment Record – HER Printout

National Monuments Record – NMR Printout and Backup Files

Portable Antiquities Scheme - www.finds.org.uk

Atkyns, R., 1712, The Ancient and Present State of Gloucestershire, Gloucester

BaRAS, 2003, Archaeological Desktop Study of land at Nos. 32 & 36 Victoria Street, Bristol, BaRAS Report No.1090/2003

BaRAS, 2006, Archaeological Desk-Based Assessment of Nos. 302 A-B Wells Road, Knowle, Bristol, BaRAS Report No. 1611/2006

BCC, 2008, Castle Park Bristol - Conservation Management Plan

Boore, E.J., 1982, 'Excavation at Peter Street, Bristol 1975-76', *Bristol and Avon Archaeology*, Vol. 1, 7-11

Boucher, C.E., 1939, 'St. Edith's Well and St. Peter's Cross, Bristol', *Transactions of the Bristol and Gloucestershire Archaeological Society*, Vol. 61, 95-106

Brett, J.R., 2005, Bristol Urban Archaeological Assessment -Second Draft (unpublished draft)

Bryant, J., 2000, *An Archaeological Watching Brief at Stoney Hill (The Red Lodge), Bristol,* BaRAS Report No. 691/2000

Burchill, R., 1998, St James's Place, Broadmead, Bristol, BaRAS Report No. 294/1998

Corcos, N., 2011, Archaeological Desk Based Assessment: Land NW of Bellevue Terrace, Totterdown, Avon Archaeological Unit





Cox, S., 1996, Archaeological Evaluation at Portwall Lane East, Temple Gate, Bristol, BaRAS Report No. BA/E246

Cronne, H.A. (ed), 1946, Bristol Charters 1378-1499, Bristol Record Society Vol. 11, Bristol

Ducker, R.K., 2005, Archaeological Monitoring on land at the rear of the Talbot Road Public House, 304-320 Wells Road, Bristol, Avon Archaeological Unit Report No. 2005/63

Godwin, E. W., 1853 'Notes, historical and architectural, of the priory of Dominicans, Bristol', in Archaeological Institute of Great Britain and Ireland, *Memoirs Illustrative of the History and Antiquities of Bristol, and the Western Counties of Great Britain*, London, 142-9.

Graham, R., 1907, 'Religious Houses' in W. Page (ed.) *Victoria County History of Gloucestershire*, Vol.2, London

Harding, N.D. (ed.), 1930, Bristol Charters 1155–1373, Bristol Record Society Vol. 1, Bristol

Heaton, R., 2006, Archaeological Watching Brief at St James's, The Horsefair, Bristol, BaRAS Report No. 1623/2006

Hebditch, M.G., 1968, 'Excavations on the Medieval Defences, Portwall Lane, Bristol; *Transactions of the Bristol and Gloucestershire Archaeological Society*, Vol. 87, 131-43

Hurst, D.G. (ed), 1964, 'Medieval Britain in 1962 & 1963', Medieval Archaeology, Vol, 8, 265

Jackson, R.G., 1994, Archaeological Excavation and excavation at Quay Point, Temple Meads, Bristol, BaRAS Report

Jackson, R.G., 2002, 'Archaeological Excavations at Upper Maudlin Street Bristol in 1973, 1976 and 1999', *Bristol and Avon Archaeology* Vol. 17, 29-110

Jackson, R.G., 2002, Archaeological desktop study of land at Temple Street/Victoria Street, Bristol, BaRAS Report No. 1090/2002

Jackson, R.G., 2006, Excavations at St James's Priory, Bristol, BaRAS Monograph, Oxford

Jackson, R.G. 2010, The Archaeology of the Medieval Suburb of Broadmead, Bristol: Excavations in Union Street 2000, BaRAS Monograph, Bristol

Jones, D, 1992, History of Clifton, Chichester

King, A., 2006a, Archaeological Evaluation at High Street, Wine Street, St Mary le Port Street and Bridge Street, Bristol, BaRAS Report No. 1676/2006

King, A., 2006b, *Archaeological Watching Brief at Back Bridge Street, Bristol*, BaRAS Report 1731/2006

Latimer, J., 1891-92, 'The Manor of Clifton', *Transactions of the Bristol and Gloucestershire Archaeological Society*, Vol. 16, 201-7





Latimer, J., 1900, 'Clifton in 1746, Transactions of the Bristol and Gloucestershire Archaeological Society, Vol. 23, 312-22

Latimer, J., 1900, The Annals of Bristol in the Seventeenth Century, Bristol

Leech, R.H., 1998, A Desktop Evaluation of the Area bounded by High Street, Wine Street, Dolphin Street and the River Avon, Bristol

Leech, R.H., 1999, A Desktop Evaluation of the Newgate/Union Street Area, Bristol

Leech, R.H., 2000a, *The St Michael's Hill Precinct of the University of Bristol: Medieval and Early Modern Topography*, Bristol Record Society, Bristol

Leech, R.H., 2000b, An Archaeological and Documentary Study of Bristol Bridge, Bristol

Leech, R.H., 2009, 'Arthur's Acre: a Saxon bridgehead at Bristol', *Transactions of the Bristol and Gloucestershire Archaeological Society*, Vol. 127, 11-20

Longman, T., 2003, 'Excavations on the site of the Priory of St Mary Magdalen, Upper Maudlin Street, Bristol, 2000', *Bristol and Avon Archaeology*, Vol. 18, 3-29

Marshall, K, 1951, 'Excavations in the City of Bristol, 1948-51', *Transactions of the Bristol and Gloucestershire Archaeological Society*, Vol. 70, 5-50

Mason, E.J., 1957, 'The Horsefair Cemetery, Bristol', *Transactions of the Bristol and Gloucestershire Archaeological Society*, Vol. 76, 164-171

Neale, F. (ed.), 2000, William Worcestre: the topography of medieval Bristol, Bristol Record Society, Vol. 51

Nicholls, J.F. & Taylor, J., 1881-82, Bristol Past and Present, 3 vols., Bristol

Ponsford, M., 1987. 'Bristol', in M. Aston and R. Iles (eds.), *The Archaeology of Avon* (Bristol, Avon County Council).

Ponsford, M.W., 1989, 'Archaeology in Bristol 1986-89', *Transactions of the Bristol and Gloucestershire Archaeological Society*, Vol. 107, 243-51

Pritchard, J.E., 1893-96, 'Archaeological Notes, 1894', in *Proceedings of the Clifton Antiquarian Club*, Vol. 3, 88

Pritchard, J. E., 1900, 'Bristol Archaeological Notes for 1900', *Transactions of the Bristol and Gloucestershire Archaeological Society*, Vol. 23, 262-75

Pritchard, J.E., 1903, 'Bristol Archaeological Notes For 1902', *Transactions of the Bristol and Gloucestershire Archaeological Society*, Vol. 26, 138-149

Pritchard, J.E, 1904, 'Bristol Archaeological Notes for 1903', *Transactions of the Bristol and Gloucestershire Archaeological Society*, Vol. 27, 327-39





Pritchard, J.E., 1907, 'Bristol Archaeological Notes for 1906', *Transactions of the Bristol and Gloucestershire Archaeological Society*, Vol. 30, 151-66

Rudder, S., 1779, A New History of Gloucestershire, Cirencester

Seyer, S., 1821-3, Memoirs, Historical and Topographical, of Bristol and its Neighbourhood, Bristol

Tavener, N., 1995, Archaeological Excavation at the Portwall and Ditch, Temple Back, Bristol, BaRAS Report

Taylor, J., 'Gleanings from Church Records of Bristol', in *Journal of the British Archaeological Association*, Vol. 32, 344-51

Townsend, A., & Pilkington, J., 2002, *Archaeological Building Survey and Evaluation of the George and Railway Hotel and adjoining premises*, Temple Gate, Bristol, BaRAS Report No. 952/2002

Walker, D., (ed.) 1998 *The Cartulary of St Augustine's Abbey, Bristol*, Bristol & Gloucestershire Archaeological Society Record Series Vol. 10, Bristol

Watts, L. & Rahtz, P., 1985, Mary le Port, Bristol: Excavations 1962-1963, City of Bristol Museum and Art Galley Monograph No. 7, Bristol

Weare, G.E., 1893, A Collectanea relating to the Bristol Friars Minors (Grey Friars) and their convent, Bristol

Whatley, S., 2007, Archaeological Evaluation of Land between High Street and Bridge Street, Castle Park, Bristol, BaRAS Report No. 1676/2007

Willis, A., 2009, Site at the corner of Midland Road and Horton Street, St Philips, Bristol, Avon Archaeological Unit (BHER 24767)

Williams, B., 1982, 'Excavations at Bristol Bridge 1981', *Bristol and Avon Archaeology*, Vol. 1, 12-15

9. Cartography & Aerial Photography

Gloucestershire Archives

Bird's-eye View of the City of Bristol by William Smith - 1568

SR87/L12GS - Exact delineation of the famous citty of Bristoll and suburbs thereof by James Millerd -1673

Bristol Record Office

07770/1 – Plan of the City of Bristol surveyed and drawn by John Rocque - 1742





9389/7 B. Donne's plan of Bristol - 1826

04481 - Map of Bristol by J. Plumley & G.C. Ashmead - 1828

EP/A/32/7 - Tithe map of Bedminster parish - 1843

EP/A/32/41- Tithe map of the parish of Westbury on Trym - 1844

EP/A/32/12 – Tithe map of Clifton parish - 1845

SMV/6/4/14/16 - Map of Bristol by G.C. Ashmead - 1855

Map of Bristol by G.C. Ashmead - 1874

OS 1st edition 1:500 map - 1885

OS 1st edition 25 inch map - 1886

35033 - Goad's Insurance plans of Bristol - c.1890s

OS 2nd edition 25 inch map - 1903

OS 3rd edition 25 inch map - 1912

OS 1:2500 map - 1949





Document Control

Job title	Detailed Archaeological Assessment: Water Mains Replacement Scheme, Knowle to Victoria, Bristol (Package 5)	Job No	BA1233BWKV
Report written by	Stephen Priestley MA		
Report edited by	George Children MA MIfA		
Issue No	Status	Date	Approved for issue
1	Final	November 2012	Neil Shurety Dip M.GM Inst. M