Archaeological Watching Brief at Provender Mill, Dolday, Worcester







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Archaeological Watching Brief at Provender Mill, Dolday, Worcester

Graham Arnold (project leader)

Summary

An archaeological watching brief was undertaken at Provender Mill, Dolday, Worcestershire (NGR SO 83590 54975). It was undertaken on behalf of KKE Architects for their client Worcester College of Technology, who intend internal and external alterations and reworking/cladding to facilitate a change of use of the building for which a planning application has been submitted and approved (P/13/D0086) by Worcester City Council. Planning consent was issued subject to three conditions to safeguard buried archaeological remains including the provision of a programme of archaeological investigation.

Provender Mill was formerly a retail premises associated with the adjacent Cattle Market. The site lies in the north-west corner of the historic medieval city of Worcester and the buried remains of the city wall survive beneath the building. The site lies on the northern side of Dolday, a street with late medieval origins, demolished in the 20th Century.

The city wall was uncovered during excavations for a lift pit in 2003 and recorded by watching brief. Prior to the development, an archaeological evaluation of an area to the west of the building, uncovered human burials, thought to be associated with St Clements, a church with possible Saxon or Norman origins which stood adjacent to the site until demolition in 1832.

Groundworks monitored included alterations to the entrance to the west of the site and drainage works around the building on the southern side. This revealed that the southern side of the area surrounding the existing building had been heavily disturbed by modern services and associated groundworks. There was no sign of any further graveyard soils on the west side of the building at the entrance foundation impact levels.

The line of the medieval wall was discovered on the east side of the building during drainage groundworks. The location of the wall corresponds with cartographic evidence showing the projected line of the city wall in the 19th Century.

The wall survived at 1.50m below ground level. It was 1.20m wide and was built of red and green ashlar sandstone blocks and was cut into or abutting alluvial clay on the south side with a square edged plinth. On the northern edge of the wall there was a chamfered edge to the plinth and the area was backfilled with a post-medieval or modern made ground, with concrete structures just to the north of the wall.

Apart from the substantial sandstone wall no other significant archaeological structures were present or associated with the wall. No dateable evidence was recovered from the alluvium which lay on the south side of the wall, at the base of the trench. The base of the wall was not uncovered. The wall was left in situ, with the drainage laid over the top, with pea grit providing a buffer between the drainage pipe and the wall itself.

Report

1 Background

1.1 Reasons for the project

An archaeological watching brief was undertaken at Provender Mill, Dolday, Worcester (NGR SO 83590 54975). It was undertaken on behalf of KKE Architects for their client Worcester College of Technology, who intend internal and external alterations and reworking/cladding to facilitate a change of use of the building for which a planning application has been submitted and approved (P/13/D0086) by Worcester City Council. Planning consent was issued subject to three conditions to safeguard buried archaeological remains including the provision of a programme of archaeological investigation.

The proposed development site was considered to include heritage assets and potential heritage assets, the significance of which may have been affected by the application (WCM96121).

The project conforms to a brief prepared by Worcester City Council Development Management (Archaeology) (WCC 2013) and for which a project proposal (including detailed specification) was produced (WA 2013).

The project also conforms to the *Standard and guidance for an archaeological watching brief* (IfA 2008) and *Statement of standards and practices appropriate for archaeological fieldwork in Worcester* (Worcester City Council 1999).

The event reference for this project, given by the HER is WCM101998.

2 Aims

The aims of the archaeological watching brief were to observe and record archaeological deposits, and to determine their extent, state of preservation, date and type, as far as reasonably possible.

In particular the following research questions were identified in the Brief with reference to *An archaeological resource assessment and research framework for the city of Worcester* (version 2.51, dated September 2007):

- Dumping of Roman iron slag (RP3.8)
- Identification and investigation of poorer occupation areas in the medieval city (RP5.7)
- Medieval cloth processing industries (RP5.29)
- Northern medieval defensive sequence (RP5.23)
- Housing of the urban poor early post-medieval (RP6.3)
- Housing of the urban poor later post-medieval (RP6.4)
- Analysis of the city defences in the post-medieval period (RP6.14)
- Civil War destruction (RP6.21)
- Investigation of the Newport Street Dolday area (RP7.2)

3 Methods

3.1 Personnel

The project was undertaken by Graham Arnold (BA, MSc); who joined Worcestershire Archaeology in 2009 and has been practicing archaeology since 2004. The project manager responsible for the quality of the project was Tom Rogers (BA, MSc). Illustrations were prepared by Carolyn Hunt MIFA.

3.2 Documentary research

This stage of work followed on from an evaluation. Prior to fieldwork commencing a search was made of the Historic Environment Record (HER).

3.3 Fieldwork strategy

A detailed specification has been prepared by Worcestershire Archaeology (WA 2012a). Adjustments made to the design of drainage works to the north of the building and the depth of groundworks to the south and east allowed for less monitoring in these areas as agreed with the curator.

Fieldwork was undertaken between 16 September 2013 and 1 May 2014. Trench numbers carried on from the previous evaluation stage of the work. The site reference number and site code is WCM 101998.

The location of the trenches is indicated in Figure 2.

3.4 Structural analysis

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

3.5 Statement of confidence in the methods and results

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

4 The application site

4.1 Topography, geology and archaeological context

The geology of the investigation area is mapped as sediments of the Sidmouth Mudstone formation dating to the Triassic period overlain by Quaternary alluvium deposits that comprise a combination of clays, silts, sands and gravels associated with the formation of the river Severn (BGS 2013). The site itself sits in a roughly level area, with the ground level rising gradually to the east and dropping to the west along the now constrained route of the river Severn.

Placed on the edge of historic Worcester the area of investigation has been subject to detailed desk-based assessments, most notably Kenyon 1997, 1999 and Boucher 2000. Within the immediate vicinity two large excavations revealing medieval and Roman elements of the city have been carried out in the last decade at Newport Street to the south (WCM 101376) and The Hive development to the north-east (WCM 101653). Roman coins (WCM 100844) have also been found in the vicinity.

The former site of St Clement's Church (WCM 96041) lies immediately adjacent to the west. Excavated sections of the church have not been readily dated; however, illustrations of the building along with antiquarian reports of coin of Edward the Confessor, found within the stonework of the arcade (WCM 100484) suggest a Late Saxon foundation. The church, as depicted on early maps, appears to have remained relatively simple in form up to its demolition and replacement by a new build on the opposing side of the river Severn in or around 1823. The site of the graveyard (WCM 90018) remained open until the earliest 20th century and fragments from the arcade were also present until this time and illustrated by Allies in 1852. When the former Severn trow canal boat "Albion" (called the Waterman's floating church) became un-seaworthy in the mid 1880's it was pulled up onto the site of the former graveyard. It continued to be used as a Sunday school, until it was replaced by an iron clad building in the mid 20th century that was built to house both the Sunday school and a 'mission' church.

Although the exact line of the city wall is not known as it runs through the present site, documentary evidence states that a postern gate was located next to St Clement's Church and that the wall extended along the river front, to at least the end of Newport Street. A 19th century painting

by Smith shows the wall extending along the western end of St Clement's and this, along with its known location to the east and historic boundaries of properties within the area, suggest that the wall extends through the northern half of the site. The line of the city wall is marked on the 1887 Ordnance survey map.

The city wall was encountered by excavations (WCM 100203) in 1958 for new drains near the Worcestershire Farmer's site. It was cut through at right-angles and shown to be built of red sandstone with a battered plinth. Three plinth courses were exposed but the base lay somewhere below the 10 foot depth (3.05m) reached. The plinth was topped by a thin course of slabs above which the plane of the wall was set back by 4 ins (10cms). About 4.5ft (1.22m) above this the wall face was set back again (marking the base of a probable late rebuild), coincident with a substantial brick rubble deposit outside at a depth of c.2 feet (0.61m). Only the lowest courses of the inner face survived. The wall was 4ft 8ins (1.42m) thick with a core of large rubble blocks in a mortar matrix. The wall was also exposed in excavations under the Ewe and Lamb P.H. about 80m west of Rack Alley (now Virginia House site). One wall of the pub was shown to be resting on the City Wall and set 6ins (0.15m) back from its outer face. Other recently-demolished buildings were noted to have been similarly founded on the City Wall (Russell, 1961).

The wall had also been encountered in 1955 (WCM 100157) during construction of Worcs. Farmers Ltd, the east west foundation being exposed running through the site 50 yards south of the Butts frontage. It was built of red Lower Keuper sandstone and had been robbed for adjacent later footings (Richardson, 1957).

In 1957 a pit for a weighbridge (WCM 100201) was dug adjoining the west side of the Worcs. Farmers Ltd building, and cut through the city wall. The pit was 5.5ft deep (1.67m) in made ground, the base of the city wall lay at a depth of 7 feet, the thickness of the wall was 7ft at the base (2.13m) and 5ft above (1.52m). It was built of red sandstone throughout (Richardson 1957).

The former churchyard and adjacent site fronting the Butts was acquired for an extension of the cattle market in the mid 1950s and the entire block was cleared for redevelopment. At this stage the western end of the Butts was closed and the line of Dolday widened and diverted to become the principal through road. This widened junction extended over St Clement's Church, fragments of which were seen during the construction of service runs in 2008 (WCM 101635) and the general ground level was also raised in an attempt to stem flooding. The building that is to become the Provender Mill was built as a store for the Worcestershire Farmers in the mid 1950s, latterly becoming and the Russell and Dorrell furniture shop, remaining in use until 2011 when it was closed, and purchased by Worcester College of Technology.

Archaeological interventions in 2001 west of the County Mills building uncovered evidence of the city wall (WCM 96121), city ditch (WCM 96139) and St Clements church (WCM 96041) (Napthan, 2001). The wall was also uncovered in a watching brief monitoring a 1m test pit during refurbishment works inside the building in 2003 (WCM 101181).

An evaluation was undertaken at an earlier stage of the current development (Webster 2013) within a yard on the western end of Provender Mill. Two trenches were excavated and the evaluation revealed a substantial post-medieval graveyard soil with at least three in-situ inhumations and a large quantity of disarticulated human bone which represented a minimum of ten individuals at a depth of between 0.56 and 0.68m below the present ground surface. This was truncated to the north by a concrete surface and associate brick wall that was part of a former storage tank and it was sealed by modern backfill and building rubble.

To the east of this a large modern cellar was revealed descending to a depth below 1.40m from the current ground level, to the immediate north of the cellar a small band of in-situ post-medieval deposits were observed. These had been truncated by both the cellarage and other modern intrusions further to the north.

No evidence of the city wall was noted within the evaluation trenches but is considered likely to survive in this area, masked by the overlying burial soils.

4.2 Current land-use

The site consists of a disused retail building, formerly used as a mill and retail premises associated with the cattle market which was adjacent. Associated with the building are small areas of hard surfaces of open space to the west, south and east and a car park to the north. The site is located in the north-western corner of the historic city centre of Worcester, on the northern side of Dolday.

5 Structural analysis

The trenches and features recorded are shown in Fig 2. The results of the structural analysis are presented in Appendix 1.

5.1.1 Phase 1: Natural deposits

A mottled brownish yellow alluvial clay (604) was recorded 1.80m below ground level on the east side of the building in trench 6. This was sterile, with occasional disturbance from the made ground above. No other natural deposits were found on site, with the groundworks cut into 19th-20th Century made ground from the existing drainage and structures associated with the previous use of the building.

5.1.2 Phase 2: medieval deposits

A red sandstone city wall was found on the eastern side of the building (Plates 7-9). The top level had been previously truncated by groundworks of the existing building, but survived at 1.50 – 1.80m below ground level. It was constructed of red and green sandstone ashlar masonry blocks and measured 1.20m in width, on an east – west alignment. A single piece of sandstone was at the base with a square side on the southern face butting the alluvial clay (604) and a chamfered edge on the northern face of the wall plinth. The ground to the north of the wall had been previously truncated by concrete works, with a made ground containing mortar, brick fragments and charcoal flecking (605). The trench here was only 0.60m in width and the depth of the surviving wall in this location meant that the drainage pipes were successfully laid over the top, with the wall remaining undisturbed, in situ and covered with pea grit bedding gravel.

5.1.3 Phase 3: modern deposits

A modern heating fuel tank was found in the south-eastern corner of the site (Plate 5) and was backfilled with modern debris to a depth of at least 2.00m below ground level. On works all over the southern side of the building only a series of made ground deposits associated with the construction of the building and modern services was observed. On the west, foundations only impacted upon similar made ground and modern services (Plates 1 - 3). The graveyard soil found during the previous evaluation was not encountered. Some of the city wall Keuper sandstone ashlar masonry had been robbed out and used in the modern foundations to support concrete structures and within the modern backfill of service trench works (Plate 6).

6 Synthesis

6.1 Conclusions

The archaeological watching brief confirmed the location of the City Wall that had been previously observed during groundworks in the area in the 1950s. The line of the wall was projected on the 1796 map by Valentine Green and the first edition OS map of 1887. However, the location of the wall was further north on the eastern side of the building than recorded on either of the maps, and when projected to evidence from the archaeological investigations carried out in 2001 (Napthan, 2001) the line is in between the two maps (figure 2). The wall was observed surviving at 1.50m below ground level, with evidence of the upper courses being damaged previously. Intrusions from the groundworks on the west side of the building were not deep enough to impact upon the likely depth of the wall if it survives on this side of the building. No further burials, evidence of graveyard soil or other structures related to St Clements church that lay to the southwest of the site was

uncovered during the watching brief. This was due to later truncations by cellarage, modern foundations and existing services.

6.2 Research frameworks

The watching brief has provided further evidence on two of the aims indentified in *An* archaeological resource assessment and research framework for the city of Worcester (version 2.51, dated September 2007)

- Analysis of the city defences in the post-medieval period (RP6.14)
- Investigation of the Newport Street Dolday area (RP7.2)

The line of the city wall on the eastern side of the building was discovered. However there were no dateable associated deposits, features, artefacts or structures due to the high level of modern truncations caused by previous groundworks on the site. The evidence corresponds with other instances when the wall has been uncovered in the area in 19955, 1957 and 1958 (WCM 100157; WCM 100201; WCM 100203), constructed of red Keuper series sandstone. It also showed evidence of being robbed out for use in more modern foundations. The evidence corresponds to the cartographic evidence from Valentine Green and the 1st edition OS map about the projected line of the city wall in this area of Worcester (figure 2).

7 Publication summary

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

An archaeological watching brief was undertaken at Provender Mill, Dolday, Worcestershire (NGR SO 83590 54975). It was undertaken on behalf of KKE Architects acting for Speller Metcalfe, who have been making internal and external alterations to the former Russell Dorrell, County Mills building to form a hair and beauty and art and design teaching centre for which a planning application has been submitted and approved (P/13/D0086). The groundworks monitored included alterations to the entrance to the west of the site and drainage works around the building on the south, east side.

The watching brief revealed that the south of the area surrounding the existing building had been heavily disturbed by modern services and associated groundworks. There was no sign of any further graveyard soils on the west side of the building at the entrance foundation impact levels.

The line of the medieval wall was discovered on the East side of the building during drainage groundworks. The location of the wall corresponds with cartographic evidence showing the projected line of the city wall in the 19th Century.

The top half of this had been heavily disturbed by modern made ground, but the structure still existed from 1.50m below ground level. The large sandstone wall measured 1.20m in width, cut into or abutting an alluvial clay on the south side with a square edge. On the northern edge of the wall there was a chamfered edge to the plinth and the area was backfilled with a post-medieval or modern made ground, with concrete structures just to the north of the wall.

Apart from the substantial sandstone wall no other significant archaeological structures were present or associated with the wall. No dateable evidence was recovered from the alluvium which lay on the south side of the wall, at the base of the trench. The base of the wall was not uncovered. The wall was left in situ, with the drainage laid over the top, with pea grit providing a buffer between the drainage pipe and the sandstone wall itself.

8 Acknowledgements

Worcestershire Archaeology would like to thank the following for their kind assistance in the successful conclusion of this project, Simon Sparkes (Project Manager, Speller Metcalfe), Andrew Jennings, KKE Architects, and James Dinn, (Archaeological Officer, Worcester City Council).

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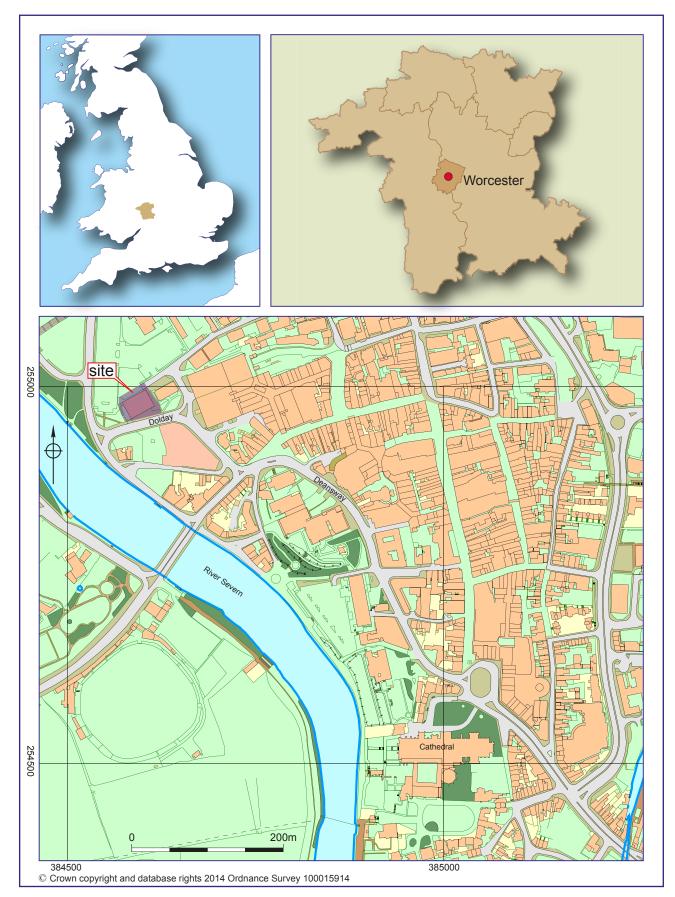
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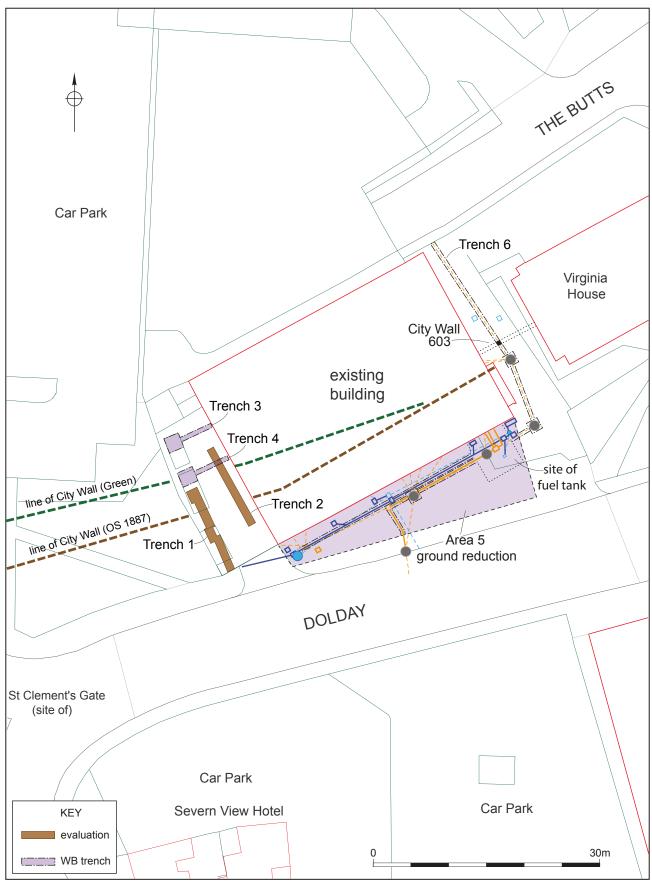
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Figures



Location of the site



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Trench location plan

Plates



Plate 1 Trench 3 entrance foundations, view east.



Plate 2 Trench 4 entrance foundations, view north



Plate 3 Trenches 3 and 4, entrance foundations on west side of building, view north-west.



Plate4 Area 5 during ground reductions, view south-west.



Plate 5 Fuel tank in south-eastern corner of Area 5.



Plate 6 Ashlar masonry from city wall; reused in modern concrete foundations.



Plate 7 East facing section of city wall in trench 6.



Plate 8 West facing section of city wall in trench 6.



Plate 8 City wall structure within trench 6, view north.

Appendix 1 Trench descriptions

Trench 3 (numbers carried on from earlier evaluation)

Site area: Northern Entrance foundations – west of building

Maximum dimensions: Length: 8.00m Width: 0.62 – 2,00m Depth: 1.00m

Orientation: East - West

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
300	Concrete yard surface	Reinforced concrete yard surface. Modern hard-standing	0 – 0.14m
301	Demolition	clinker and moderately compact blackish brown silty clay with frequent brick and concrete rubble. Moderate glass, metal, mortar, cbm. Noted but not retained.	0.14 – 0.48m
302	Modern drainage	Modern drainage and service channels	0.40 – 1.00m
303	Modern footings	Brick footings for wall at the west boundary of the site and concrete foundation for fuel tank base.	0.00 – 1.00m

Trench 4

Site area:Southern Entrance foundations – west of buildingMaximum dimensions:Length: 9.00mWidth: 0.52mDepth: 1.00mOrientation:East - West

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
400	Concrete yard surface	Reinforced concrete yard surface. Modern hard-standing	0.14m
401	Demolition	clinker and moderately compact blackish brown silty clay with frequent brick and concrete rubble. Moderate glass, metal, mortar, cbm. Noted but not retained.	0.14 – 0.40m
402	Modern drainage	Modern drainage and service channels	0.40 - 1.00m

Area 5

Site area:South side of building, ground-reductions and drainageMaximum dimensions:Length: 35.00mWidth:5.00mDepth: 2.00m maxOrientation:East - West

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
500	Surface	Reinforced concrete slab. Modern hard- standing.	0 – 0.40m
401	Demolition	clinker and moderately compact blackish brown silty clay with frequent brick and concrete rubble. Moderate glass, metal, mortar, cbm. Noted but not retained.	0.20 – 0.46m
502	Made ground	Dark grey soft clayey gravels with frequent concrete, tarmac brick and hydrocarbon contamination.	0.40 - 2.00m
503	Modern truncations	Existing drainage channels and extant fuel tank in South west corner of site. All modern ground from backfilling	0.60 – 1.80m

Trench 6

Site area: East side of building drainage trench

Maximum dimensions: Length: 25.00m Width: 0.60m Depth: 0.90 -1.80m

Orientation: North - South

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
600	Surface	Tarmac hard standing	0 – 0.40m
601	Demolition	Loose clinker and moderately compact blackish brown silty clay with frequent brick and concrete rubble. Moderate glass, metal, mortar, cbm. Noted but not retained.	0.20 – 0.46m
602	Made ground	Dark grey soft clayey gravels with frequent concrete, tarmac brick and hydrocarbon	0.40 - 2.00m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
		contamination. Occasional sandstone masonry blocks, reused from the previous disturbance of the city wall to act as foundations to modern structures.	
603	Structure	Medieval sandstone wall 1.20m wide and orientated east-west.	0.60 – 1.80m
604	Alluvium	Firm, mottled brownish yellow alluvial clay with occasional rounded pebbles. Sterile, with some disturbance / contamination from modern made ground above	1.50 – 1.80m +
605	Made ground	Loose dark greyish black silty clayey sand with frequent brick fragments, clinker and mortar and occasional ashlar masonry blocks and concrete fragments. On north side of City wall structure and continues at a depth of at least 1.50m below ground level to north side of Provender Mill building.	1.00 – 1.80m +

Appendix 2 Technical information The archive (site code: WCM 101998)

The archive consists of:

- 1 Context records AS1
- 3 Field progress reports AS2
- 2 Photographic records AS3
- 90 Digital photographs
- 1 Drawing number catalogues AS4
- 1 Scale drawings
- 4 Trench record sheets AS41
- 1 CD-Rom/DVDs
- 1 Copy of this report (bound hard copy)

The project archive is intended to be placed at:

Worcester City Museum and Art Gallery Foregate Street Worcester WR1 2PW

Tel. Worcester (01905) 25371