

ARCHAEOLOGICAL
INVESTIGATIONS ALONG
SEVERNSIDE SOUTH, BEWDLEY,
WORCESTERSHIRE

Darren Miller

With contributions by Alan J Jacobs and Martin Bridge

Illustrations by Carolyn Hunt and Laura Templeton

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Worcestershire County Council

Historic Environment and Archaeology Service,
Worcestershire County Council,
Woodbury,

University College Worcester,
Henwick Grove,
Worcester WR2 6AJ



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Contents

Part 1 Project summary

1

Part 2 Detailed report

1.	Background	3
1.1	Planning background.....	3
1.2	Specifications	3
2.	Aims	3
3.	Methods	4
3.1	Fieldwork	4
3.1.1	Quay wall (Laura Templeton)	4
3.1.2	Timber structure	4
3.1.3	Watching brief.....	4
3.2	Post-fieldwork	4
3.2.1	Structural analysis	4
3.2.2	Stratigraphic analysis.....	5
3.2.3	Artefact analysis (Alan J Jacobs).....	5
3.2.4	Dendrochronology (Martin Bridge)	5
3.2.5	Documentary research	5
3.2.6	Synthesis.....	5
3.3	The methods in retrospect	6
4.	Topographical context	6
5.	Archaeological and historical background	6
6.	Results	6
6.1	Quay wall	6
6.2	Timber structure (Martin Bridge).....	7
6.3	Watching brief.....	9
6.3.1	Stratigraphy	9
6.3.2	Artefacts (Alan J Jacobs).....	11
7.	Synthesis	15
7.1	The development of the riverfront.....	15
7.2	Research frameworks	17
8.	Publication summary	18
9.	The archive	19
10.	Acknowledgements	19
11.	Personnel	19
12.	Bibliography	19

Programme of archaeological work at Severnside South, Bewdley, Worcestershire

Darren Miller

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Part 1: Project summary

This report presents the results of a programme of archaeological work at Severnside South, Bewdley (NGR SO 7785 7528; WSM 33595). The project was undertaken on behalf of the Environment Agency in conjunction with Phase 2 of the Bewdley Flood Alleviation Scheme. This involved the construction of a flood barrier behind the quay wall, repairs to this structure, and other groundworks.

The quay was recorded at the start of the project, in advance of repairs. A timber structure in the river bed below the quay wall was also recorded and dated by dendrochronology. Features and deposits exposed by the groundworks were then recorded in a long-running watching brief. After the fieldwork, the accumulated evidence was analysed, co-ordinated, and related to evidence from earlier projects.

The results of this work can be summarised as follows. The quay wall was identified as a composite structure of 17th to 20th century date, also incorporating the first pier of Bewdley's third medieval bridge, built in 1483. The abutment of this bridge was located and recorded, as were parts of contemporary and later quay walls, and the remains of several 18th century buildings. The timber structure in the river bed was dated to the late 16th or early 17th century and interpreted as a jetty. A small but broadly representative assemblage of artefacts was also recovered from later deposits.

Taken together with existing information from earlier work, the results allow the development of Bewdley's quayside to be described in considerable detail. No other historic quaysides in the West Midlands have been investigated to the same extent, and the preservation of 15th to 18th century remains at Bewdley is likely to be exceptional. For these reasons, the results are of regional, if not national, significance.

Part 2: Detailed report

1. Background

1.1 Planning background

The project was associated with the Bewdley Flood Alleviation Scheme - one of many such schemes implemented by the Environment Agency since 1997. At an early stage of planning, the Environment Agency assessed the potential impact of the scheme on buried and upstanding archaeological remains. This was done in consultation with the Planning Advisory Section of the Worcestershire Archaeological Service (now the Worcestershire Historic Environment and Archaeology Service). The assessment concluded that significant remains might be damaged by some parts of the scheme, and that a number of archaeological projects would be required by way of mitigation.

The first phase of the scheme, undertaken in 2001-2, involved the construction of demountable flood barriers along Severnside North. This was accompanied by a watching brief (Miller and Darch 2002a). The second phase, which forms the subject of this report, began in 2004 and, at the time of writing, is nearly complete. Among other works, it has involved the construction of a flood barrier along Severnside South and repairs to the quay wall. It was preceded by an evaluation (Miller 2002b), and by an unrelated watching brief on sewer works (Goad 2003).

1.2 Specifications

The scope of the project was set out in a brief issued by the Planning Advisory Section of the Worcestershire Historic Environment and Archaeology Service (WHEAS 2004a). In summary, the brief called for a survey of the quay wall along Severnside South, recording and dendrochronological dating of a timber structure in the river bed beneath the wall, and a watching brief on groundworks behind the wall. The brief also made an extra provision for recording particularly significant deposits.

A detailed proposal was prepared by the Field Section of the Service in response to the brief (WHEAS 2004b). This proposal formed the basis of the project, and was adhered to in all essential matters, although it was necessary in some cases to adapt the proposal to respond to particular circumstances.

As well as conforming to the brief and proposal, the project also conformed to the Planning Advisory Section's *Requirements and guidelines for archaeological projects in Worcestershire*, and to standards and guidance published by the Institute of Field Archaeologists (IFA 2001a and 2001b).

2. Aims

The main aims of the project were to inform repairs to the quay wall, and to mitigate the impact of groundworks on buried archaeological remains. More broadly, the project aimed to understand the development of Severnside South and relate it to the history of the town.

3. **Methods**

3.1 **Fieldwork**

3.1.1 **Quay wall (Laura Templeton)**

Access to the quay wall was not possible at first. Overlapping photographs were taken from the opposite bank of the river using a Fine Pix S602 with 6x optical zoom. The light was bright and the resulting photographs had good contrast and definition.

Survey points were recorded using a Leica reflectorless EDM and these points marked onto prints of the photographs. At least four points per photograph were taken. Using the marked up photographs and the laser survey converted to AutoCAD format, the photographs were rectified onto the survey points using AutoDesk Map 2000.

The digital photographs were scanned, scaled and rotated within AutoDesk Map. Only these methods of conversion were used for the rectification – rubber sheeting was not used, as this is an unpredictable method for raster images at this scale. The rectified photographs were used to create a photomontage of the complete length of the quay wall. When access to the wall was allowed, additional information and annotation of details, was recorded by hand drawing overlays at 1:50 onto scaled prints of the photomontage.

The survey drawing was created by digitising onto the photomontage drawing, broken into shorter divisions to save computing time. The drawing was saved separately from the photomontage for later analysis and report figures. The drawings and photomontages from each stage of the survey have been saved as AutoCAD drawings for archive records.

Report figures created using AutoCAD were printed off as Adobe PDF files for ease of use elsewhere. Amendments can be made within AutoCAD, and the amended DF file reprinted from the source drawing.

3.1.2 **Timber structure**

The investigation of the timber structure in the river bed was made possible by the main contractors, Volker Stevin Ltd. Their construction team placed sandbags around the structure and pumped away most of the water, leaving the timbers almost fully exposed. The timbers were photographed, drawn at a scale of 1:20, numbered individually, and then sampled for dendrochronological dating.

3.1.3 **Watching brief**

The watching brief involved some 47 visits by one or more Service personnel, between February 2004 and June 2005. In most cases, in order to make good use of staff time, the visits were arranged in advance to coincide with particular groundworks. The groundworks were planned on pre-prepared sheets at a scale of at least 1:100. In most cases, the plans were annotated with the necessary details, although larger-scale drawings and separate written records were made of particularly significant deposits and features. The drawn and written records were complemented by high-resolution digital photographs.

3.2 **Post-fieldwork**

3.2.1 **Structural analysis**

The photographs and rectified drawings of the quay wall were analysed for changes in materials, coursing and bonding. Discrete elements were identified and arranged in a relative sequence. Some elements were given approximate dates with reference to other evidence.

3.2.2 Stratigraphic analysis

The relative sequence of features and deposits was established from the fieldwork records. Harris matrices were drawn where necessary to clarify complex stratigraphic sequences. This information provided the framework for the artefact analysis.

3.2.3 Artefact analysis (Alan J Jacobs)

All hand-retrieved finds were examined and a primary record was made on a Microsoft Access 2000 database. Artefacts were identified, quantified and dated and a *terminus post quem* date produced for each stratified context.

Pottery was examined under x20 magnification and recorded by fabric type and form according to the fabric reference series maintained by the service (Hurst and Rees 1992).

3.2.4 Dendrochronology (Martin Bridge)

Samples were taken with a Swedish increment borer which removes a 5mm diameter core. All samples taken were given the prefix *bew*. Their positions are illustrated on Fig 1.

The samples were placed in plastic drinking straws, labelled and removed for further preparation and analysis. They were mounted on wooden laths, air dried, and polished on a finisher with progressively finer grits down to 400 to allow the measurement of ring-widths to the nearest 0.01m. The samples were then measured under a binocular microscope on a purpose-built moving stage with a linear transducer, attached to a desktop computer. Measurements and subsequent analysis were carried out using *DENDRO for WINDOWS*, written by Ian Tyers (Tyers 1999).

3.2.5 Documentary research

A range of secondary sources was consulted for relevant information. These included reports on earlier projects associated with the flood alleviation scheme (Miller and Darch 2002a and 2002b), the Central Marches Historic Towns Survey report on Bewdley and Wribbenhall (Buteux 1996), and contributions to the history of Bewdley (Burton 1883, Simkins 1924, Snell 1972, Bewdley Historical Society 1991, Trinder 2005). Information on listed buildings in the area was obtained from Government publications and the English Heritage website (DoE 1987; <http://lbonline.english-heritage.org.uk>).

The report on the evaluation in 2002 contained reproductions of three 18th century prints of the old bridge at Bewdley (Miller and Darch 2002a, fig 3). Copies of other 18th century prints, and a print made in 1823, were obtained during the course of the project. The Service already held several maps of Bewdley dating from 1884. These sources were considered alongside the archaeological and structural evidence.

3.2.6 Synthesis

In the first stage of synthesis, evidence from the fieldwork and other sources was brought together on several large-scale maps. Using these maps, contemporary features and buildings were identified and, where possible, related to each other. Other maps were then prepared showing Severnside South at different stages in its development.

The second stage of synthesis attempted to relate this development to that of the riverfront as a whole. The secondary sources described above were re-assessed in the light of the new information, and some conclusions were modified accordingly.

3.3 **The methods in retrospect**

In general, the methods met the requirements of the brief and conformed to the strategy set out in the proposal. They also conformed to appropriate professional standards and guidelines.

With regard to the watching brief, there were, inevitably, a few occasions when minor groundworks were not observed or where the record was less detailed than it might have been. However, the loss of information in these circumstances is not thought to have been significant.

4. **Topographical context**

Severnside South forms the southern half of Bewdley's riverfront, extending from Dog Lane to Lax Lane (Fig 3). The flood alleviation scheme focused on this area, but also took in the unwallled riverfront from Lax Lane to Gardner's Meadow.

The geology of the area consists of Pleistocene and recent alluvium and gravels overlying Carboniferous marls and sandstones (Geological Survey 1960 and 1976). The soils of the area have not been mapped.

5. **Archaeological and historical background**

At the beginning of the project, it was thought that the riverfront was first developed in the 15th century along with the High Street and the lower part of the town from Dog Lane to Lax Lane (Buteux 1996, 7). This was inferred from 15th/16th century archives and "plan-units" identified on 19th century maps. As a result of the evaluation in 2002, the projecting quay wall opposite no 6 Severnside South was identified as the first pier of a bridge built in 1483 (Miller and Darch 2002a, 9). The bridge abutment and an adjacent building were thought to lie beneath the modern pavement. The location of the medieval and early post-medieval quayside to the south-west was less certain. Finds of timbers from a sewer trench opposite no. 17 Severnside South suggested the line of an earlier quay (Taylor 1991, 2), but so too did a timber structure in the river bed several metres to the north (HEAS 2003a, 3).

Rather more was known about the later history of the riverfront. The architecture of the buildings along Severnside South suggested that the street frontage was established by the 17th century (DoE 1987). Deposits and features found during the evaluation in 2002 showed that the quayside near the bridge was extended and built upon in the 18th century (Miller and Darch 2002a, 7). Archives suggested that these buildings were demolished in 1798, along with most of the 1483 bridge (Burton 1883, 30; Barrett 1972, 298), although as noted above, it was thought that the first pier was left intact and incorporated into the quay wall. The quay wall to the south-west was thought to be of 18th century or earlier date (Buteux 1996, 8). The modern history of the quayside was known to some extent from maps and the latest deposits discovered in the evaluation. These suggested that it retained its basic form, but was resurfaced several times, provided with modern utilities, and landscaped to make it more of an amenity (Miller and Darch 2002a, 7-8).

6. **Results**

6.1 **Quay wall**

The results of the recording and analysis of the quay wall are shown on Figures 4-11. The development of the quay wall is described below in relation to evidence from other sources. However, it is appropriate here to summarise its fabric and phasing in isolation, and to identify some characteristic architectural details.

The present quay wall is a complex monument, reflecting around 500 years of building and re-building. This complexity is not readily apparent from its fabric, which presents a fairly uniform appearance. Apart from one section, the wall is built throughout of greenish grey sandstone blocks. The coursing is generally regular, and there are no evident changes in bonding material. However, close analysis of the fabric shows clear evidence of different builds in the form of vertical and ragged “building breaks”. This evidence allows seven phases of construction can be identified, while evidence from other sources allows these to be dated, albeit approximately in some cases.

Phase 1: late 15th century

As previously suggested (Miller and Darch 2002a), the earliest fabric consists of the first pier of Bewdley’s third medieval bridge, constructed in 1483. For some reason, this pier escaped the destruction of the rest of the bridge around 1800 and was later joined to the rest of the quay. The north-west corner of the pier is still visible and most of the masonry appears to be original (Fig 4, Plate 2).

Phase 2: 17th century

Approximately half the present wall is of 17th century date. Fabric of this phase survives in three lengths between the medieval pier and a point opposite nos. 7-12 Old Tannery Court. Evidently the 17th century quay extended for at least 150m south-west of the bridge. The number of iron mooring rings inserted into the 17th century fabric suggests that the quay was heavily used in this period or later. Several putlogs or gaps for timber posts probably represent scaffolding used in 18th or 19th century repairs.

Phase 3: 18th century

Relatively little of the present wall can be dated to the 18th century. Two lengths are wholly or mostly of this period, and the upper courses of the longest length of 17th century fabric may be contemporary. An 18th century date is also likely for the curious and inexplicable projection of the quay wall opposite no 26 Severnside South. The mooring rings inserted in the 18th century fabric indicate further provision for vessels, although here again, the rings may post-date the construction of the wall.

Phases 4-6: 19th century

Three phases of 19th century building can be identified. Some lengths appear to be contemporary with the Telford bridge, which was completed c1800. Other lengths are clearly later, although none appear to be later than c1850. The walls of this period joined the medieval pier to the rest of the quay, and extended the quay to a point just beyond the end of Lax Lane. They also include four sets of steps, which appear to have replaced those shown on late 18th and early 19th century prints. Only one mooring ring is associated with 19th century fabric, suggesting a decline in river traffic, although depth marks scored into the wall beside the mooring ring indicate that boats still used that part of the quay (Figure 6, Plate 5).

Phase 5: 20th century

The most recent part of the present wall is a concrete encased outfall near the end of Lax Lane. The top course of masonry along the length of the wall also appears to have been re-laid in this period, probably during the landscaping and resurfacing described below.

6.2 Timber structure (Martin Bridge)

The timber structure was sampled as shown on Fig 2. All the timbers were of oak (*Quercus* spp.). Details of the cores measured are presented in Table 1. The relatively short sequences were firstly compared with each other, but no significant matches were found between the

individual timbers. The longer series were then compared individually with dated reference material, at which point three series, bew01b, bew02 and bew04 gave very good matches at consistent positions against the database. These three series were then combined at the positions indicated in Figure 3 into the 131-year site master chronology BEWDLEY. This was subsequently dated against the reference material, the best matches being presented in Table 2. This established the dates of the series at AD 1429 – 1559.

Sample number	Timber	Dates AD spanning	No of rings	Mean width (mm)	Std devn (mm)	Mean sens (mm)	Felling seasons and dates (AD)
*bew01b	5001	1429-1559	131	0.86	0.14	0.128	After 1570
*bew02	5002	1445-1535	91	1.56	0.69	0.150	After 1546
bew03	5004	undated	77	0.78	0.37	0.240	unknown
*bew04	5006	1448-1538	91	1.45	0.46	0.178	After 1549
bew05	5011	undated	nm	nm	nm	nm	unknown
BEWDLEY (01b+02+04)		1429-1559	131	1.18	0.36	0.121	Late 16th /early 17th century

Table 1: Details of the cores taken from the timbers giving their interpreted felling dates, where derived (nm = not measured).

	County or region	Chronology name	Short publication reference	Spanning	File name	Overlap	t-value
	Worcestershire	Upwich salt making site	<i>(Groves and Hillam 1997)</i>	1454-1651	UPWICH3	106	8.2
	Heref & Worcs	Hereford & Worcester	<i>(Siebenlist-Kerner 1978)</i>	1341-1636	GIERTZ	131	7.9
	Staffordshire	Sinai Park	<i>(Tyers 1997)</i>	1227-1750	SINAI	131	7.7
	Wales	Welsh Master Chronology	<i>(Miles, Oxford Dendro Lab)</i>	404-1981	WALES97	131	7.1
	Shropshire	Shropshire Master Chronology	<i>(Miles, Oxford Dendro Lab)</i>	881-1745	SALOP95	131	7.1
‡	Shropshire	Clungunford Master Chronology	<i>(Miles 2002 unpubl)</i>	1273-1653	CLNGNF RD	131	6.9
*	Wales	Peniarth-Uchaf Meifod	<i>(Miles and Haddon-Reece 1996)</i>	1385-1550	PENIART H	122	6.8
	Herefordshire	Forbury Chapel, Leominster	<i>(Arnold, Laxton and Litton 2003)</i>	1432-1521	HFCASQ01	89	6.7
	Shropshire	Old Hall Farm, All Stretton	<i>(Miles and Haddon-Reece 1996)</i>	1379-1630	OLDHLLFM	131	6.7
	Shropshire	Stokesay Castle	<i>(Miles and Worthington 1997)</i>	1449-1640	STOKE4	111	6.6
	Yorkshire	Yorkshire Buildings Chronology	<i>(Hillam pers comm)</i>	1192-1663	YORKS2	131	6.3
	Shropshire	High Ercall Hall	<i>(Miles and Worthington 2002)</i>	1390-1607	HIERCAL L	131	6.3
	Hampshire	High Street, Whitchurch	<i>(Miles, Oxford Dendro Lab)</i>	1416-1596	WHGHWHIT	131	6.2
	Northern England	Northern England Master	<i>(Hillam and Groves 1994)</i>	440-1742	NORTH	131	6.1

	East Midlands	East Midlands Master Chronology	<i>(Laxton and Litton 1988)</i>	882-1981	EASTMID	131	6.0
	Wales	Llansantfraidd	<i>(Miles and Worthington 2002)</i>	1400-1647	TUHWNT	131	6.0
	Avon	Acton Court	<i>(Haddon-Reece and Miles 1994)</i>	1328-1575	ACTON	131	5.9
	England	England Master Chronology	<i>(Baillie and Pilcher 1982)</i>	404-1981	ENGLAN D	131	5.9
	Herefordshire	Lower Brockhampton Gatehouse	<i>(Nayling 2001)</i>	1368-1543	LBG-T10	115	5.9
	Shropshire	Clive House, Shrewsbury	<i>(Miles and Worthington 2002)</i>	1385-1590	CLIVEHS	131	5.8
	Shropshire	14 Callaughton, Much Wenlock	<i>(Miles and Worthington 1997)</i>	1335-1569	CALLGHT N	131	5.8
	Wales	Gwernfyda Llanllugan	<i>(Miles and Haddon-Reece 1996)</i>	1410-1551	GWRNFY DA	123	5.8

Table 2: Dating evidence for the site chronology **BEWDLEY**, AD 1429 – 1559. Regional multi-site chronologies have the file name in bold (§ = Component of SALOP95; * = Component of WALES97)

Although only three timbers were dated, they all have similar date ranges and this strongly suggests that all the larger timbers are of one contemporaneous group. No sapwood was left on any of these timbers, and they have all been eroded during their time in the river. The lower parts of the exposed sections of these timbers looked to have been relatively well preserved by the river deposits, and it is felt likely that not too many rings were lost in their conversion from parent trees to their being set in their current positions. Adding the minimum number of sapwood rings to the last available ring date found gives an earliest likely felling date for the timbers as after 1570. It is impossible to say how many years after this date the trees may have been felled, but the similarity in end dates of the three series, coupled with observations at the time of sampling, strongly suggests a most likely felling period in the late-sixteenth, or possibly the early decades of the 17th century.

6.3 Watching brief

6.3.1 Stratigraphy

Natural deposits

Natural deposits were seldom seen due to the limited depth of most groundworks and the considerable depth of modern made ground. The deepest groundworks along the line of the flood barrier exposed alluvium that might be of natural origin, but as access to these deposits was impossible for safety reasons, the issue could not be resolved. The only area in which natural deposits could be positively identified was at the far end of the site, near Gardner's Meadow. Here, in Trench 5, a complete soil profile of brown silt loam over reddish brown clay silt was exposed and recorded. Such deposits would have existed all along Severnside South before the modern period, and might still survive well below present ground levels.

Medieval bridge abutment

The earliest and most significant find made in the course of the watching brief was the abutment of Bewdley's third medieval bridge, built in 1483. The front of the abutment was exposed during groundworks in September 2004. Its approximate location had been inferred from previous work, although it was not known whether it had survived the modern landscaping referred to above.

As shown on Fig 16 (context 16006) and on Plates 9-11 the remains were substantial and remarkably well preserved. The front of the abutment consisted of one near-vertical side, which faced into the river, and two sloping sides that cut back at an angle of about 45 degrees. The whole was built in one phase of construction of large squared stones of local greenish grey sandstone. These had been expertly cut, dressed, and bonded with mortar. The core of the abutment consisted of mortared sandstone rubble. At first, only the upper part of the abutment was exposed, together with a wall extending from its west end into the river (context 16007). However, later excavation reached the lowest masonry, and showed that the structure (including the core) survived to a height of nearly 4m.

Following consultations between the Environment Agency, English Heritage, and the main contractor, Volker Stevin Ltd, the masonry was covered with plastic foam and sheeting before the trench was backfilled. And after further consultations, the design for the flood barrier was altered to that it would curve around, rather than cut across, the abutment. The groundbeam trench for the flood barrier was excavated in February 2005, and caused no damage beyond removing part of the upper core of the abutment. Later groundworks suggested that the rear of the abutment has unfortunately been removed by modern landscaping, but the surviving part is now assured of protection.

As mentioned above, the discovery of the abutment confirms the earlier inference that the projecting quay wall opposite no. 6 Severnside South was the first pier of the bridge, rather than the point at which it left the quay. It is also consistent with drawings of the bridge made in the late 18th century, one of which is reproduced as Plate 12. There is a slight discrepancy in that the first arch seems to have sprung from a higher point than is indicated on the drawings, but this may reflect that fact that the arch was built against the abutment, rather than from it. This interpretation is supported by the suggestion of a building break on one of the drawings. The span of the first arch may also have been shorter than the drawings suggest, bearing in mind that the distance between the front of the abutment and the pier incorporated into the quay wall is only 8m.

Post-medieval quay walls and buildings

Most of the features recorded in the watching brief were of post-medieval date. These can be related to contemporary features found in the earlier evaluation.

Some of the features appear to represent earlier quay walls. Short lengths of walls built of large sandstone blocks were found in Trenches 6 and 7 (Fig 16, contexts 6008 and 7009; Plate 13), and also in Trench 16 (Fig 16, context 16027; Plate 14). The larger of the two walls found near the present bridge in 2002 may also represent an earlier quay wall (Fig 16, Trench 2002/5, context 507). None of these walls were intrinsically dateable or associated with contemporary deposits. However, the walls in Trenches 6 and 7 lie behind a length of the present quay wall that is probably of 17th century date. They must therefore be earlier, although how much earlier is open to question. Similarly, the walls in Trench 16 and the evaluation trench by the present bridge lie behind walls of broadly 19th century date, and so must be earlier by some margin. They appear to represent two phases in the extension of this part of the quayside.

In addition to these walls, two more substantial sandstone walls seem to have extended from the medieval bridge abutment into the river (Fig 16, context 16007 and 16019; Plate 15). Their interpretation is uncertain, but both they clearly post-date the abutment and it seems likely that they were associated with the earlier quay walls described above. If so, it appears that the quayside between the medieval and present bridges projected beyond the abutment by at least 3.5m.

Other features related to buildings. One wall of a building that stood beside the bridge abutment was found in 2002 (Fig 16, context 2002/109-110). The building appears on the 18th century drawings and had been thought of as a medieval chapel, although some brick found in its rubble core suggested a post-medieval date. The same wall was glimpsed again in

the watching brief, and a more massively constructed wall containing 18th century bricks was found c5m behind it (context 2300). In spite of differences between these walls, they are likely to have formed part of the same building.

Other buildings were represented in the area between the abutment and the present bridge (Fig 16; Plate 16). These appear to have been built off the earlier quay wall found in the evaluation trench and almost relate to the row of three buildings shown on one of the 18th century drawings. From the pictorial evidence, and the dimensions of bricks used in one wall and an associated floor (Fig 16, contexts 2101 and 2104), a mid 17th to mid 18th century date of construction seems likely. From historical evidence, it is known that these buildings were demolished in or around 1798, before work started on the present bridge.

Modern features and deposits

Several features of modern (19th and 20th century) date were recorded during the watching brief and evaluation. The vast majority of deposits also dated to this period. The most significant features were surfaces of various kinds. These included fragments of cobbled surfaces in Trenches 19 and 23 near the present bridge (Fig 16). The flagstones on top of the medieval pier and the cobbles in the northern underpass of the present bridge were also recorded before they were taken up. Other features included spreads of masonry and disused utilities such as the sewage chamber found opposite no. 10 Severnside South.

Except for very recent deposits, such as roadstone and concrete foam, modern deposits consisted primarily of sandy loams and silty sands with common brick/tile, charcoal, and gravel inclusions. Pottery, glass, and other artefacts were also present in small quantities. These deposits probably derive from nearby gardens, rubbish dumps, and construction sites, although material may have been brought by boat from other towns along the Severn. The artefact assemblage reported on below is broadly representative of the range of artefacts contained in these deposits.

6.3.2 **Artefacts (Alan J Jacobs)**

The pottery assemblage from the watching brief consisted of 72 sherds of pottery weighing 1.573kg. Fragments of tile, brick, bone, glass, iron, copper alloy, horn, mollusc, stone and clay pipe stems were also recovered. The assemblage came from 10 stratified contexts (see Table 5) and could be dated from the medieval period onwards (see Table 3). Levels of preservation were generally fair with the majority of sherds displaying only moderate levels of abrasion.

Material	Total	Weight (g)
Medieval pottery	3	46
Medieval/post-medieval pottery	1	7
Post-medieval pottery	42	1342
Post-medieval/modern pottery	2	7
Modern pottery	24	171
Bone	5	3
Brick	5	5687

Material	Total	Weight (g)
Horn	2	468
Tile	19	1985
Mortar	1	142
Vessel glass	9	1110
Window glass	2	2
Copper alloy objects	1	1
Iron objects	4	125
Mollusc	1	12
Tobacco pipe	8	18
Plastic	1	1
Sandstone	1	1520

Table 3: Quantification of the assemblage

Pottery

All sherds were grouped and quantified according to fabric type (see Tables 3-5). A total of three diagnostic form sherds were present and could be dated accordingly. The remaining sherds were datable by fabric type to the general period or production span. Where mentioned, all specific forms are referenced to the type series within the report for Deansway, Worcester (Bryant 2004).

The discussion below is a summary of the finds and associated location or contexts by period. Where possible, *terminus post quem* dates have been allocated and the importance of individual finds commented upon as necessary.

Fabric number	Fabric name	Total sherds	Weight (g)
55	Worcester-type unglazed ware	3	46
69	Oxidised glazed Malvernian ware	1	7
Totals		4	53

Table 3: Quantification of the medieval/post-medieval pottery by fabric

The medieval pottery comprises the smallest element of the ceramic assemblage (6% by sherd count and 3% by weight). Two fabrics were represented: Worcester-type ware and oxidised Malvernian glazed ware, fabrics 55 and 69). One sherd of Worcester-type ware was recovered from a medieval context (16008). It came from a cooking pot with an everted rim – a form paralleled in the Deansway assemblage from Worcester and dated between the 11th

and 14th centuries (Bryant 2004, 281, fig 177, no. 3). Three sherds of oxidised Malvernian glazed ware were residual finds from a modern context (16005). They may be of very late medieval or early post-medieval date due to the quality of the glaze. There is too little material for any sort of relevant comparison with other sites to be undertaken, the finds only being indicative of medieval activity in the area.

Fabric number	Fabric name	Total sherds	Weight (g)
78	Post-medieval red ware	33	1260
78.3	Fine red sandy ware	1	6
84	Creamware	1	1
90	Post-medieval orange ware	1	9
91	Post-medieval buff ware	6	66
100	Miscellaneous post-medieval wares	1	2
Totals		43	1344

Table 4: Quantification of the post-medieval pottery by fabric

The post-medieval pottery comprises the largest element of the ceramic assemblage, 63% by sherd count and 85% by weight. Preservation was generally good and consisted of five different fabric types (Table 4) and consisted mainly of red sandy ware fabrics 78 and 78.3. The forms represented within these fabrics included storage jars including one with a parallel from Worcester (Morris 1980, fig 79, ft 91) dating to the 18th century. A number of fragments of pancheon forms were present including an unusual large form (Fig 1) displaying wear use on the exterior of the handles. This would seem to indicate wear as this large pot was pushed back into position scraping against a nearby surface. A few smaller hollow vessels were present including fragments of a small jug. The forms represented in post-medieval buff ware fabric 91 consisted of flat ware forms usually platters with slip decoration and a single example of a picrust rim, that are closely datable to the 18th century. The other fabrics were only represented by small abraded sherds.

Fabric number	Fabric name	Total sherds	Weight (g)
81.4	Miscellaneous late stoneware	3	10
83	Porcelain	2	65
85	Modern stone china	21	103
Totals		26	178

Table 5: Quantification of the modern pottery by fabric

The modern pottery comprises the second largest element of the ceramic assemblage, 34% by sherd count and 12% by weight. Preservation was generally good and the assemblage consisted of three different fabric types (Table 5) namely porcelain, modern stone china and miscellaneous stoneware (fabrics 83, 85 and 81.4 respectively). The forms represented within these fabrics included a porcelain milk jug with a distinct blue speckled pattern dating from the 19th century. A number of small bowls or cups were represented in modern stone china including a Mocha ware form dating to the very late 18th and early 19th century. The modern miscellaneous stoneware was represented only in the form of a small cup or jar.

Ceramic building materials

The ceramic building material recovered consisted of tile and brick fragments dating from the medieval, post-medieval and modern periods (Table 3). The material was identified to the Worcestershire tile fabric series (Hurst 1992, 155; Cleverly 2004, 340). The results were then compared to other local assemblages (Hurst 1992). Examples of brick came from an 18th century post-medieval context (16015) two more examples of 18th century post-medieval bricks were recovered from a context (2300) also containing a voussoir or rubber brick of 16th-17th century date. This was pre-moulded into a tapering form and then rubbed in to shape on the construction site. A number of tiles (fabric 2a) were recovered from medieval context (16008) and the remainder were of post-medieval or modern date (16005, 16006 and 16015). The small size of the assemblage and the fragmentation undermines any more detailed statistical analysis, however the brick and tile supports the pottery date ranges.

Mortar

A single fragment of lime mortar was present in the post-medieval to modern phases, and as such is of little relevance.

Stone

The single fragment of stone present was a roughly shaped block of building material and came from an undated context.

Metalwork

Metalwork finds included four iron nails from a modern context (16005) and a single copper alloy staple from post-medieval context (16009)

Glass

The glass consisted of 2 sherds of window glass from post-medieval contexts (8003 and 16015). In addition 10 sherds of bottle glass were recovered from post-medieval (8003) and modern (2001, 6008, 16005 and unstratified) contexts. The only complete form present consisted of a square clear glass bottle with A.J.White embossed on the short sides, possibly a 19th century medicine bottle.

Context number	Date
2001	20 th century
4003	18 th century
6009	19 th century
7008	18 th century

Context number	Date
8003	18 th century
9003	17 th /18 th century
9004	19 th century
16005	19 th /20 th century
16008	18 th century
16009	18 th century
16015	18 th century

Table 6: *Terminus post quem* dates of stratified contexts

7. Synthesis

7.1 The development of the riverfront

The project has provided important new information on the development of Severnside South. It has also provided an opportunity to combine this information with the results of previous projects associated with the flood alleviation scheme, and earlier work by archaeologists and historians. The following paragraphs are offered as a synthesis of the evidence presented above and a summary of the present state of knowledge.

There is little evidence for activity along the riverfront before the medieval period. A single fragment of Roman roof tile was found during the watching brief along Severnside North (Miller and Darch 2002b, 8). This hints at Roman settlement nearby, and indeed if the Severn could be forded at Bewdley in this period, it would not be surprising if a settlement grew up beside the ford. However, in the absence of further archaeological and environmental evidence, it would be unwise to push this interpretation too far. There is some evidence for activity near the riverfront between the 11th and 14th centuries in the form of pottery from Severnside South, and (possibly) roof tile from Severnside North. The focus of settlement at Bewdley in this period seems to have been around Wyre Hill and perhaps along Lax Lane, which ended at a ford (Buteux 1996, 2 and 6), although it is inconceivable that the riverfront was not being used as used by boats engaged in trade along the Severn.

That said, there is no evidence for associated infrastructure before the 15th century, when it seems that the riverfront was developed along with most of the land below Wyre Hill (Buteux 1996, 7). The plan of the Low Town suggests that this was a single development and that the first bridge at Bewdley, recorded in 1446, stood at the end of Load Street where the present Telford bridge now stands. In all probability, the riverfront became a proper quay at this time, with the construction of a continuous barrier of some kind. The timbers found c3m below the surface opposite no. 17 Severnside South and along the first 60m of Severnside North may have come from such a structure. If so, it would have been at least 320m long. As discussed below, it is uncertain whether the present street frontage was laid out as early as 1446, but some kind of development along the quayside seems inherently likely.

It is thought that the first bridge at Bewdley was destroyed during the Wars of the Roses and replaced by a wooden bridge in 1461 (Buteux 1996, 6; Gilbert 1991, 4). The location of this bridge is unknown, but it was probably built on the remains of the first bridge at the end of Load Street. By 1483, however, a new bridge had been built on the line indicated by the

abutment found opposite no. 6 Severnside North, the pier incorporated into the present quay wall, and another pier or abutment projecting from the quay wall on the Wribbenhall side of the river. The new bridge was built from local materials to a good but perhaps rather old-fashioned design that used semi-circular rather than segmented arches (Cook 1998, 27-30). It was also provided with a chapel or prison on its first or second pier (the 18th century drawings differ on this point). It was, however, inconveniently placed in relation to the plan of the Lower Town, which was designed around a bridge at the end of Load Street. Unlike the situation on the Wribbenhall side of the river, there is no evidence on the Bewdley side of a road leading directly to and from the bridge. This implies that the frontage was developed by 1483 and blocked such a passage, although there is still no concrete evidence for this.

Various lines of evidence suggest that the first quay wall was built in the late 15th or early 16th century. In the first place, the short lengths of wall found in Trenches 6 and 7 along Severnside South suggest a continuous wall aligned directly on the bridge abutment. Secondly, this wall lay behind a length of the present quay wall that can be dated with confidence to the 17th century. It is therefore likely that the first quay wall is of 16th century or earlier date, and it would be reasonable to infer that it was built around the same time as the bridge. If this argument is accepted, then the 15th/16th century quay wall would have extended for at least 100m south-east of the bridge. Unfortunately, there is no unequivocal evidence for its continuation north-west of the bridge. Assuming that Severnside North was developed at the same time as Severnside South, it may have continued along its entire length. However, in this connection it is worth noting the end of a wall that was found during the earlier watching brief at a point opposite the Angel Inn and 5.5m behind the present quay wall (Miller and Darch 2002b, 4). Like the bridge abutment, the wall was built of large squared sandstone blocks. Although no dating evidence was recovered, it is just possible that it represents the north-west end of the first quay wall, or perhaps a break above a slipway. Whatever the case, the construction of the first quay wall is likely to reflect an increase in the amount of river-borne trade or at least an investment aimed at expansion. Quay walls are vital elements in the infrastructure of inland ports. They provide a more stable frontage than wooden quays, and canalise rivers more effectively, allowing larger vessels to load and unload. They also alleviate periodic flooding, although Bewdley's history shows that this hazard can ever be entirely removed.

The development of the riverfront in the late 16th and 17th century is represented by the timber structure, several lengths of the present quay wall, and at least a dozen surviving buildings. All this suggests continued trade and investment, and perhaps a greater degree of prosperity, ushering in the start of what has been called Bewdley's 'Golden Age' (Bewdley Historical Society 1991, 2).

The function of the timber structure remains unclear. Its position in front of the first quay wall suggests several interpretations, the most likely of which is that the structure represents a jetty or landing stage. Such a structure might have been a useful expedient for some time after the quay wall was built, although it was clearly redundant within by the early to mid 17th century, when the second quay wall was built. This wall survives in four lengths which suggest that it extended from the bridge to the end of Lax Lane. Once again, the situation to the north-west of the bridge is uncertain. What is certain is that virtually the whole street frontage was redeveloped in this period. The surviving late 16th and 17th century buildings are all houses, although it can be assumed that their owners had at least some interest in river-borne trade. In the 17th century Bewdley was involved in exporting largely local products downstream, and imported manufactured goods and foodstuffs for distribution across the west midlands and the Welsh borders: wine and spirits, tobacco, dyes, spices (cloves and nutmeg), sugar, dried fruit, preserved fish (herring and cod), and textiles (Trinder 2005, 72-94).

Turning to the 18th century, the evidence for this period attests extensive rebuilding of the existing quay wall, and the construction of new buildings along the street frontage and between the bridge and the end of Load Street. The drawings made towards the end of the century show the bridge and quayside in considerable detail, much of which has been borne

out by the archaeological investigations. The development between the bridge and the end of Load Street consisted of a building adjacent to the bridge abutment and a row of three houses. These were built on reclaimed land revetted by a new quay wall. The made ground probably came from nearby gardens, rubbish dumps, and construction sites and included a broadly representative range of contemporary artefacts including building materials, pottery, glass, and metalwork. There was evidence from several trenches for evidence for a wall behind the present quay wall along Severnside North and it is possible that this was built in the 18th century, rather than the 19th century, as was previously thought (Miller and Darch 2002b, 7).

The importance of the river trade grew in the 18th century (Trinder 2005, 45-8, 72-94). Bewdley served as the port for the manufacturing towns in the midlands and the northwest: bar iron and finished metal goods from the metalworking towns of Birmingham, Wolverhampton, Stourbridge, Dudley and Wednesbury, textiles manufactured in Manchester, and crates of pottery from Staffordshire were shipped downstream from Bewdley, mostly to Bristol. This development of trade in bulk goods depended on the quays to tranship goods efficiently.

In the period between 1798 and c1850, the evidence suggests that riverfront took on something like its present form. The major change was of course the demolition of the old bridge and the construction of the present bridge at the end of Load Street. However, this period also saw demolition of the buildings between the bridge and Load Street, the construction of several new lengths of quay wall, and of several new houses along the street frontage. For reasons that are likely to remain obscure, the first pier of the old bridge was left intact, and incorporated into the quay wall. The abutment on the Wribbenhall side of the river was also encased, creating another monument to the old bridge. Bewdley remained important as a river port after the development of the canal port at Stourport, and its prosperity was reflected by the construction of the new bridge (Trinder 2005, 48).

Finally, in the period since c1850, the evidence indicates that the riverfront changed slightly in form, but radically in function, becoming an amenity rather than the essential piece of infrastructure on which the economy of the town depended. Trade on the Upper Severn declined from the 1830s, due to the development of the canal network and railways (Trinder 2005, 114-137). The quayside was evidently resurfaced several times in this period, landscaped at least once, and provided with modern utilities. This work involved considerable truncation of pre-existing deposits, especially beneath the present road, but it is clear that remains still survive in good condition along the entire riverfront, both close to the surface and at depths well below those reached by recent groundworks.

7.2 Research frameworks

Before considering the results of the project in a wider context, it is worth drawing attention to some unanswered questions that future fieldwork might address. Leaving aside questions relating to the early development of the riverfront (these will only be addressed by very deep excavations which are an unlikely prospect in the short to medium term), there are plenty of questions relating to the late medieval and post-medieval quayside. For example, the location of the first and second medieval bridges at the end of Load Street is inferred, not proven. Remains found in earlier projects and associated with the first bridge are more likely to relate to 18th century buildings or the foundations of the present bridge. The length of the late medieval and post-medieval quayside is also very uncertain. Other questions surround the development of the street frontage: its existence by 1483 is assumed in this report but no concrete evidence for this has yet been recovered. It is even possible that the frontage was developed sometime after 1483, as is suggested by the way the building line curves inwards opposite the bridge abutment. If these issues could be resolved, the development of the riverfront would be much better understood.

However it should be noted that fieldwork along Severnside North and South has put the understanding of the development of Bewdley's riverfront on a much firmer footing than was

possible a decade ago, when available evidence could say little about the development of the quaysides and it was not realised how much of the medieval bridge survived (Buteux 1996, 15). The recording of the medieval bridge abutments and piers, and the detailed chronology of the quay walls, are important contributions to the archaeological research framework for Bewdley.

When considered in a wider context, the results of the project have provided new information of a kind that is rare and hard to come by, both regionally and nationally. As noted by Crossley (1990, 90), the riverfronts of most inland ports have been transformed by development after c1800. Only rarely, in towns such as Bewdley, do remains of earlier arrangements survive, and only recently, with the new raft of flood alleviation schemes, has there been the opportunity to investigate them archaeologically. In the West Midlands, work on late medieval/post-medieval riverfronts has been limited to small-scale watching briefs in Worcester and Alcester (eg Miller and Darch 2002c). The nearest work in such contexts has taken place in the South-West (eg at Bristol and Plymouth: Dawson and Bone 2005).

Given this situation, the results of the project are clearly of considerable significance, but difficult to relate to anything else. Much more work will be required before the development of Bewdley's riverfront can be regarded as typical or unique. The basic sequence represented at Bewdley - the change from a timber quay to a stone quay, and the encroachment of quay walls into the river over time - is paralleled at many other ports across the country, and it likely to hold true across the West Midlands. The later development of the quayside as an amenity also has regional and national parallels. However, it is possible that the development of the quayside in the late 15th century was unusually late and comprehensive, as was the contemporary expansion of the town.

8. **Publication summary**

The Service has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, and unless directed otherwise, the Service intends to use the following summary as the basis for publication in local or regional journals.

In 2004 and 2005, the Archaeology Service of Worcestershire County Council undertook a programme of archaeological work at Severnside South, Bewdley (NGR SO 7785 7528; WSM 33595). The project was associated with Phase 2 of the Bewdley Flood Alleviation Scheme, which involved the construction of a flood barrier behind the quay wall, repairs to this structure, and other groundworks.

The quay was recorded at the start of the project, in advance of repairs. A timber structure in the river bed below the quay wall was also recorded and dated by dendrochronology. Features and deposits exposed by the groundworks were then recorded in a long-running watching brief. After the fieldwork, the accumulated evidence was analysed, co-ordinated, and related to evidence from earlier projects.

The results of this work can be summarised as follows. The quay wall was identified as a composite structure of 17th to 20th century date, also incorporating the first pier of Bewdley's third medieval bridge, built in 1483. The abutment of this bridge was located and recorded, as were parts of contemporary and later quay walls, and several 18th century buildings. The timber structure in the river bed was dated to the late 16th or early 17th century and interpreted as a jetty. A small but broadly representative assemblage of artefacts was also recovered from later deposits.

Taken together with existing information from earlier work, the results allow the development of Bewdley's quayside to be described in considerable detail. No other historic quaysides in the West Midlands have been investigated to the same extent, and the preservation of 15th to

18th century remains at Bewdley is likely to be exceptional. For these reasons, the results are of regional, if not national, significance.

9. **The archive**

The archive consists of:

53	Fieldwork progress records AS2
21	Photographic records AS3
1	Drawing number catalogue AS4
1	Context number catalogue AS5
21	Abbreviated context records AS40
21	Trench record sheets AS41
44	Scale drawings
1	Box of finds
1	CD ROM

The project archive is intended to be placed at:

Worcestershire County Museum

Hartlebury Castle

Hartlebury

Near Kidderminster

Worcestershire DY11 7XZ

Tel Hartlebury (01299) 250416

10. **Acknowledgements**

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11. **Personnel**

The fieldwork was led firstly by Adam Mindikowski, and then by Darren Miller. Assistance in the field was provided by James Goad, Andrew Mann, Simon Sworn, and Angus Crawford. The main text of the report was written by Darren Miller. The artefacts were analysed and reported on by Alan J Jacobs. Martin Bridge analysed and reported on the timbers from the river bed. The illustrations were drawn by Laura Templeton. The project manager responsible for the quality of the project was Simon Woodiwiss.

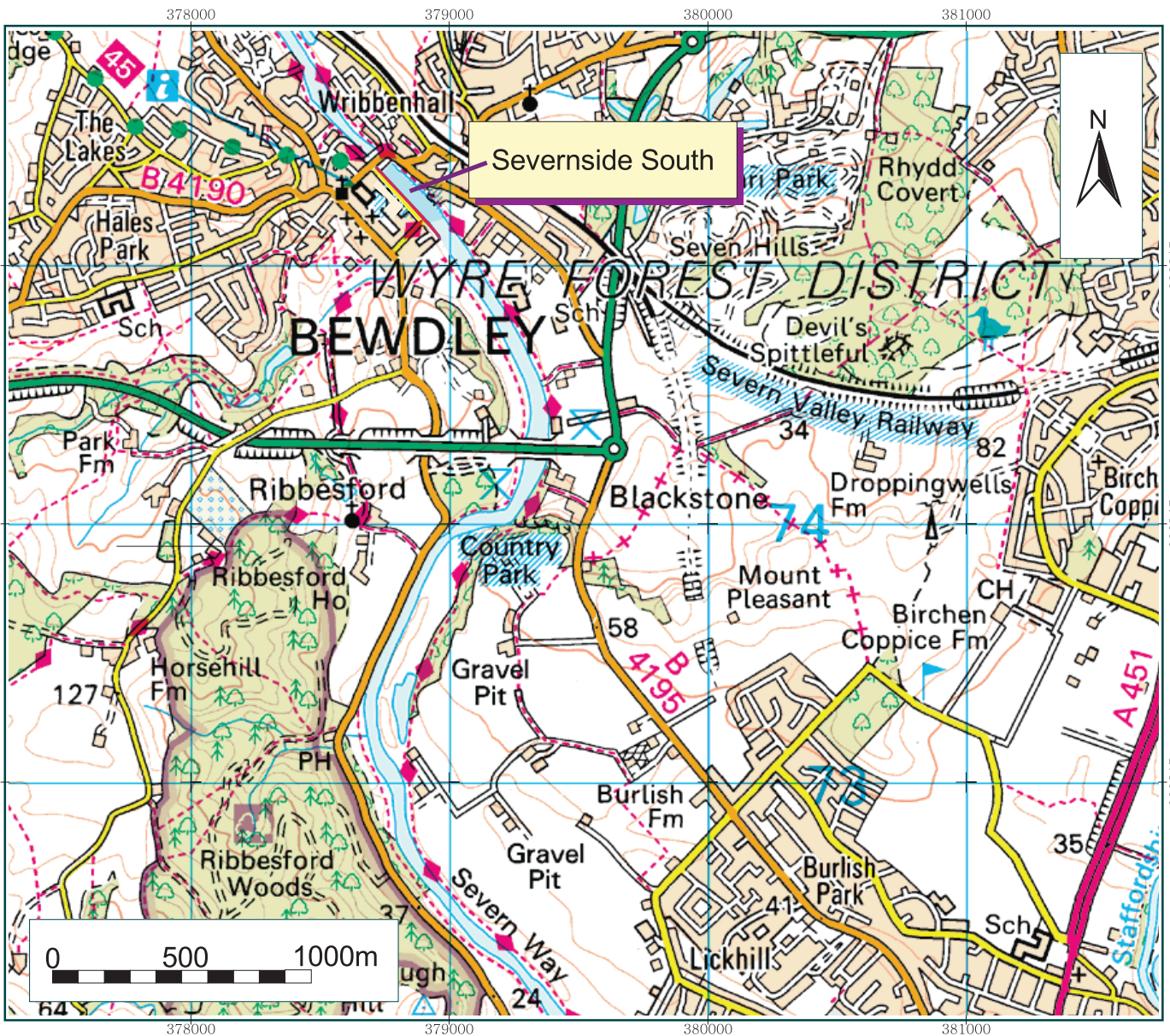
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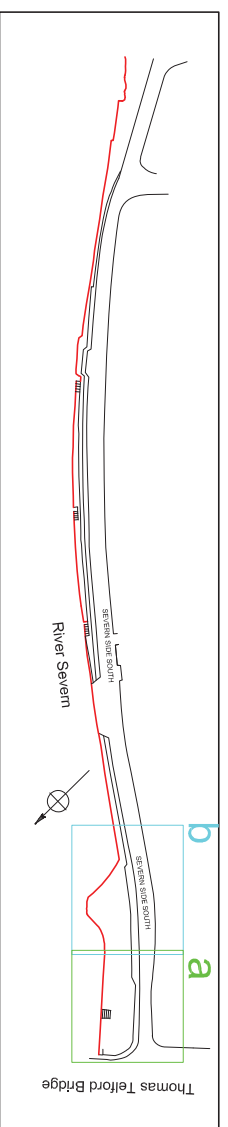
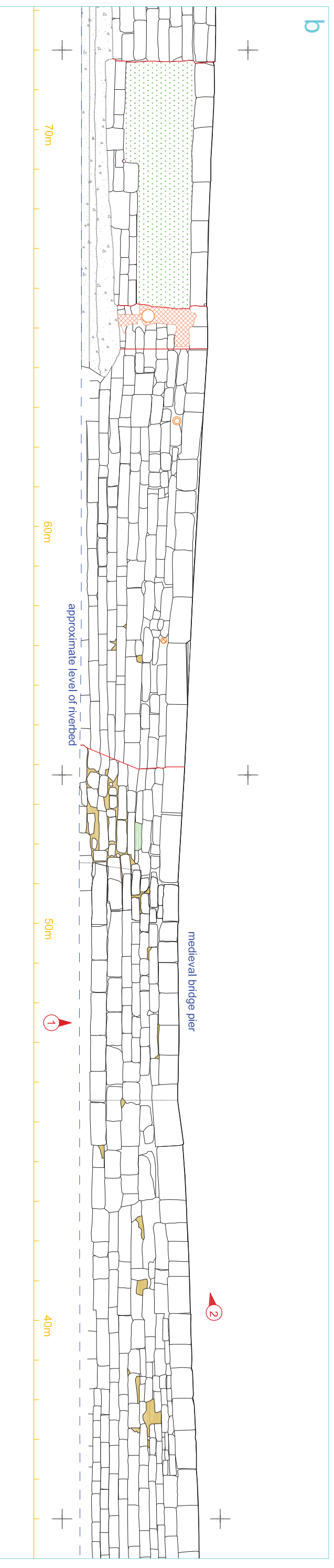
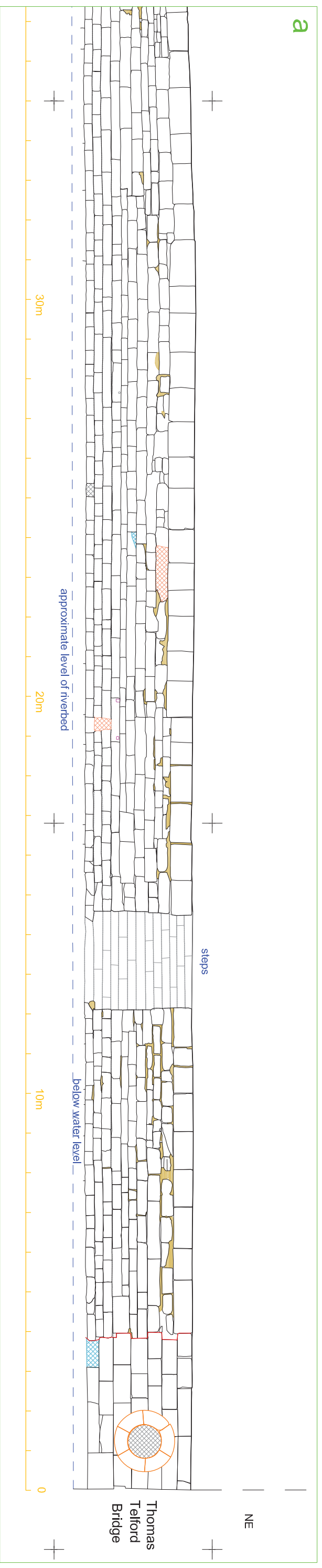
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Location of Sevenside South

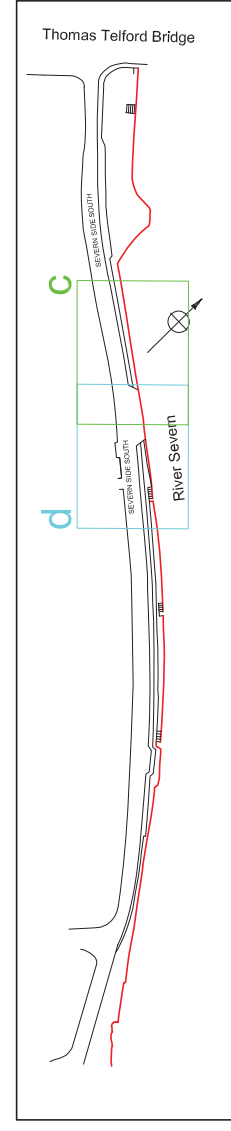
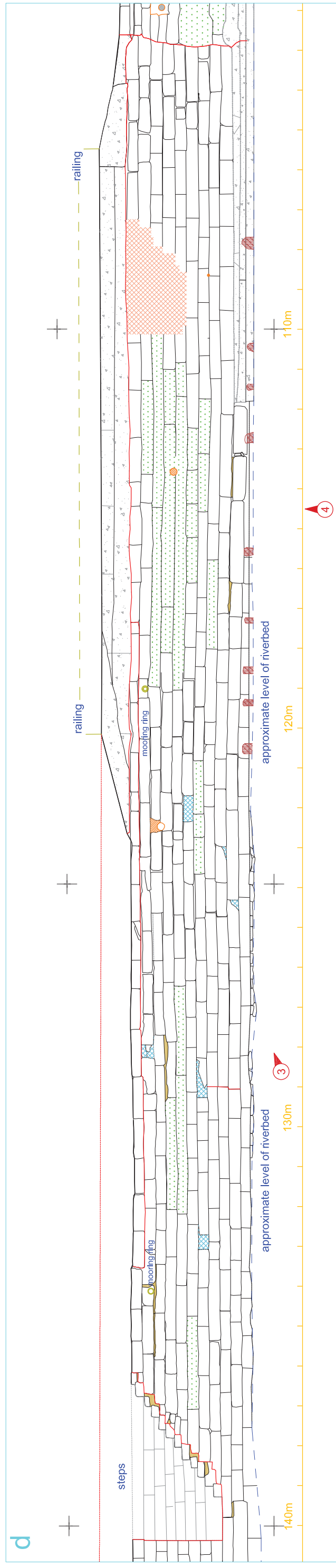
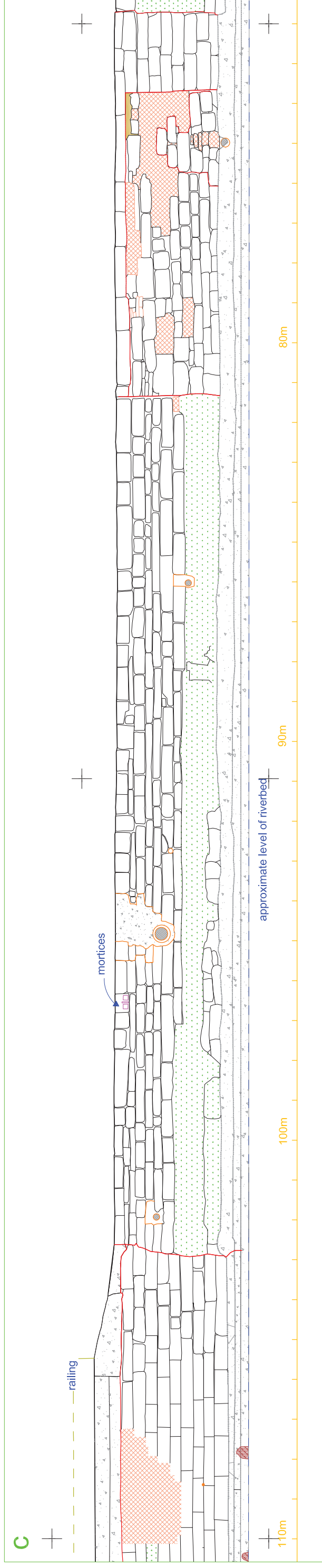
Figure 1



- ① Photograph point and direction
- Construction break
- Change of plane/projecting objects and recesses
- Brick
- Damaged and eroded stone work
- Drains/outlets
- Iron fixings
- mortar/cement pointing
- mortar/cement render
- concrete
- mortices/putlocks
- areas obscured by silt and vegetation
- voids



Figure 2 (i): Elevation of quay wall - (divisions a and b)



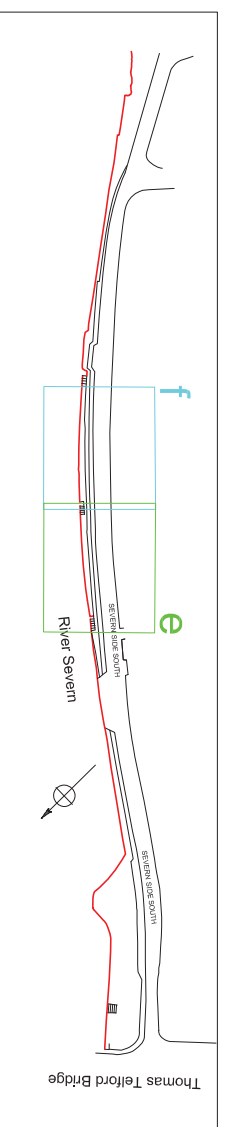
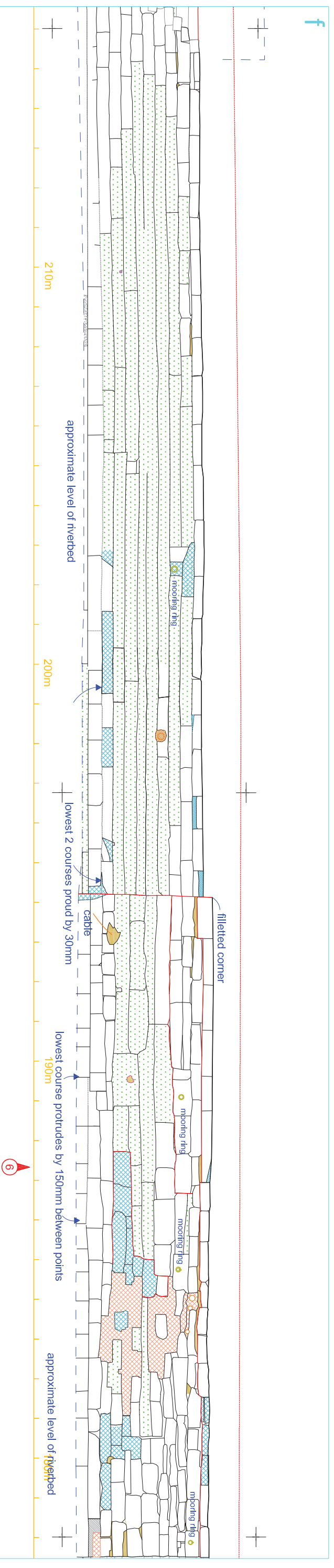
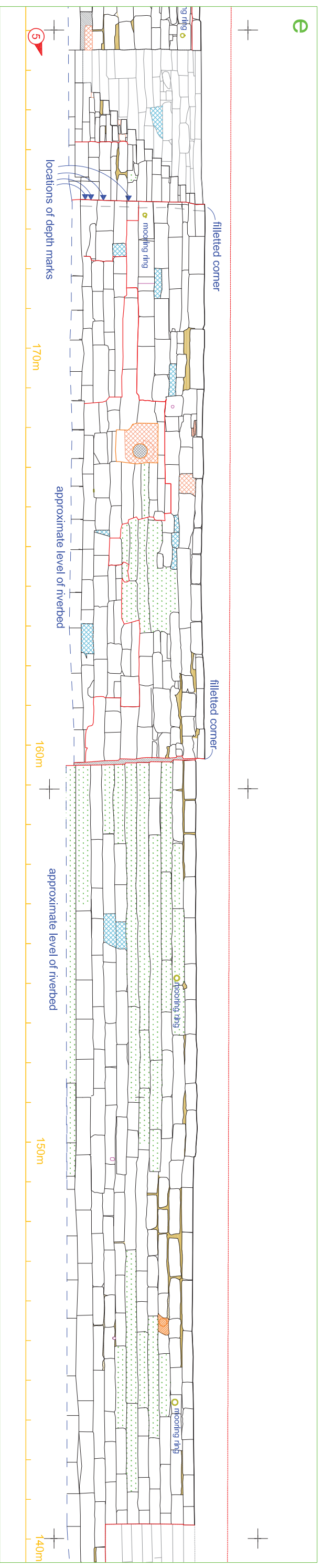
- | | | | |
|--|---|--|---------------------------------------|
| | Photograph point and direction | | mortar/cement pointing |
| | Construction break | | mortar/cement render |
| | Change of plane/projecting objects and recesses | | concrete |
| | Brick | | mortices/putlocks |
| | Damaged and eroded stone work | | areas obscured by silt and vegetation |
| | Drains/outlets | | voids |
| | Iron fixings | | |



3: 17th century wall cutting timber structure



4: 17th century wall with timber structure in foreground



- ① Photograph point and direction
- Construction break
- Change of plane/projecting objects and recesses
- Brick
- Damaged and eroded stone work
- Drains/outlets
- Iron fixings
- mortar/cement pointing
- mortar/cement render
- concrete
- mortices/pullocks
- areas obscured by silt and vegetation
- voids

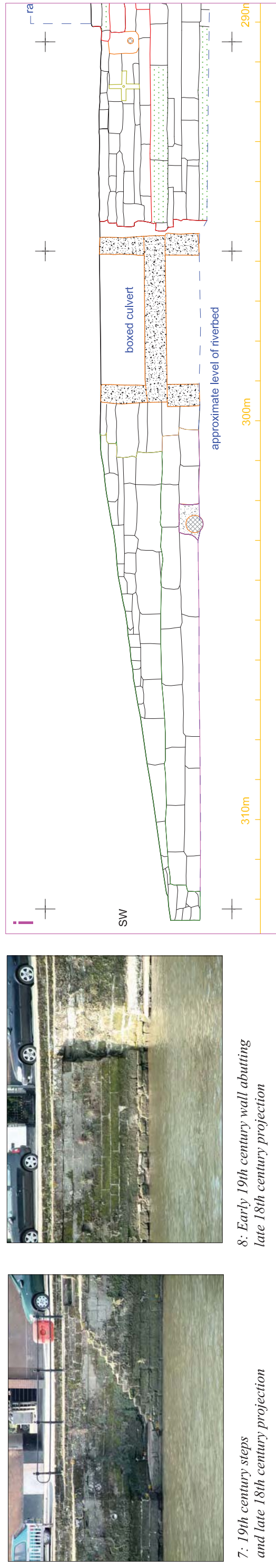
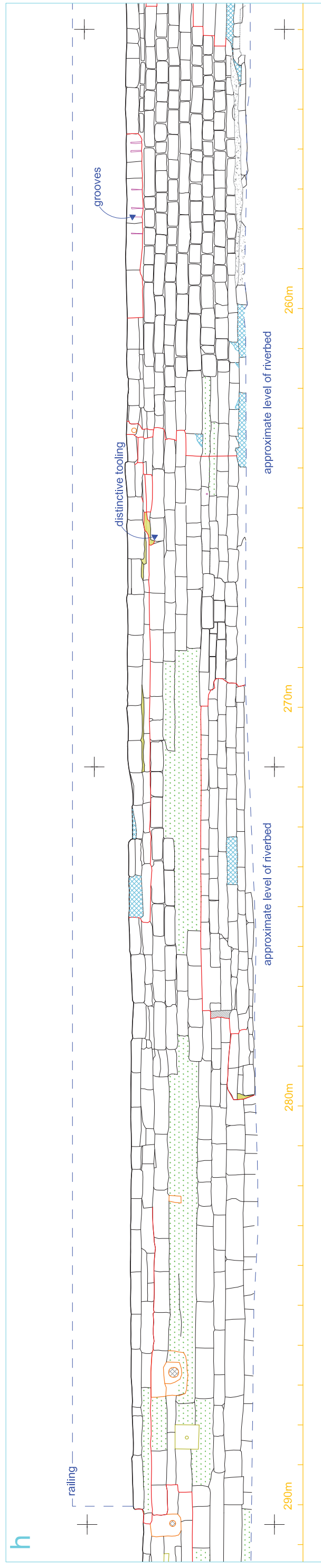
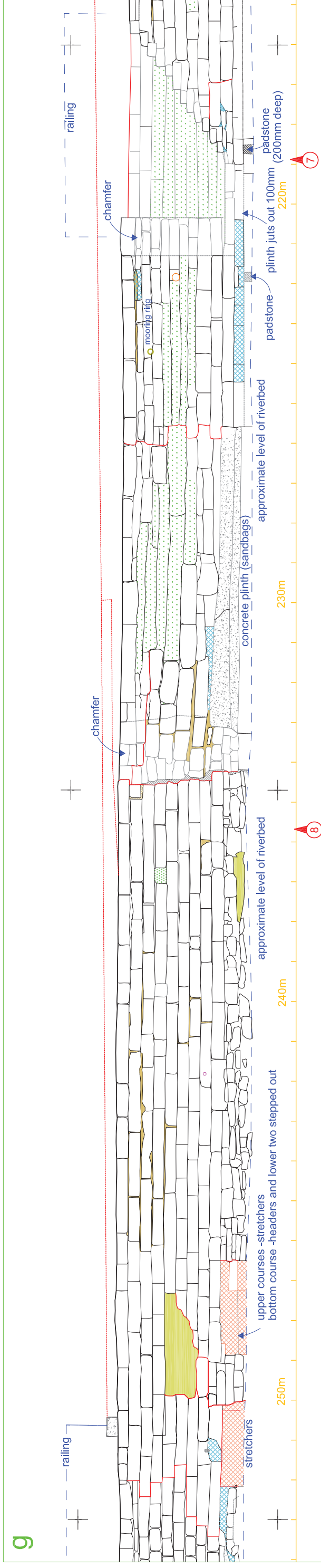


5: 19th century steps and depth marks



6: Extensively repaired 17th century wall with mooring rings and pullocks

Figure 2 (iii): Elevation of quay wall - (divisions e and f)



8: Early 19th century wall abutting late 18th century projection



7: 19th century steps and late 18th century projection

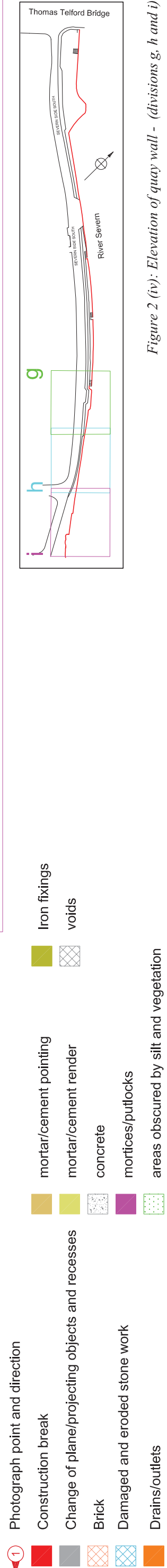
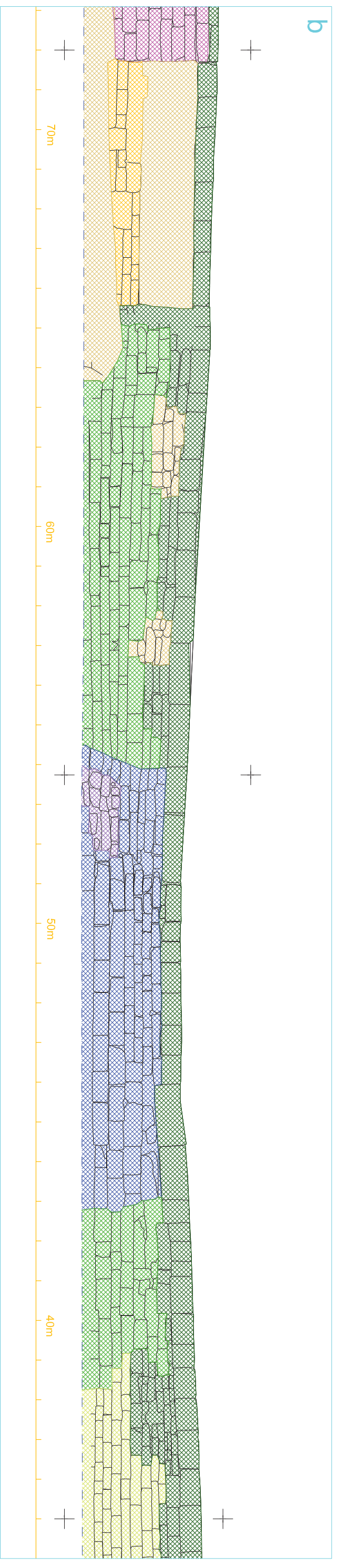
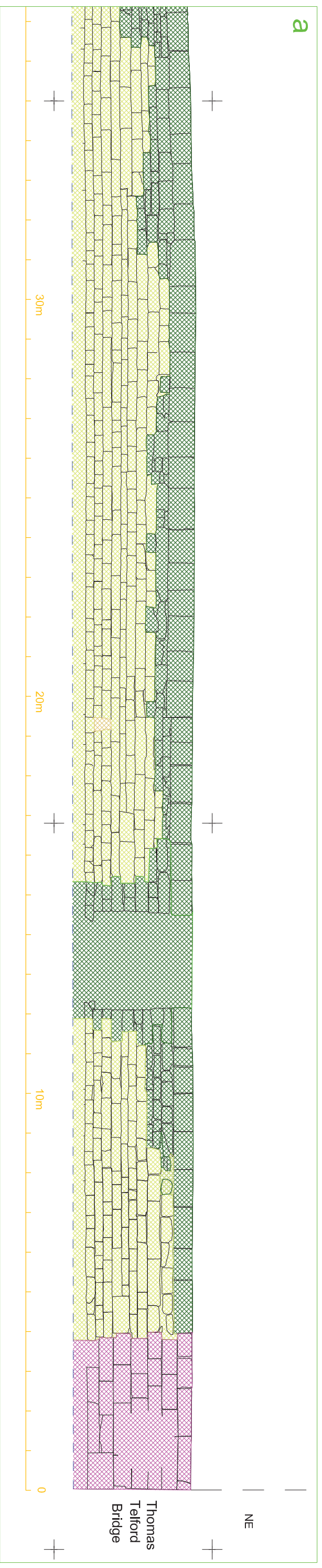


Figure 2 (iv): Elevation of quay wall - (divisions g, h and i)



KEY:

15th century	17th century	18th century	c1800	early 19th century	mid 19th century	late 19th century	20th century
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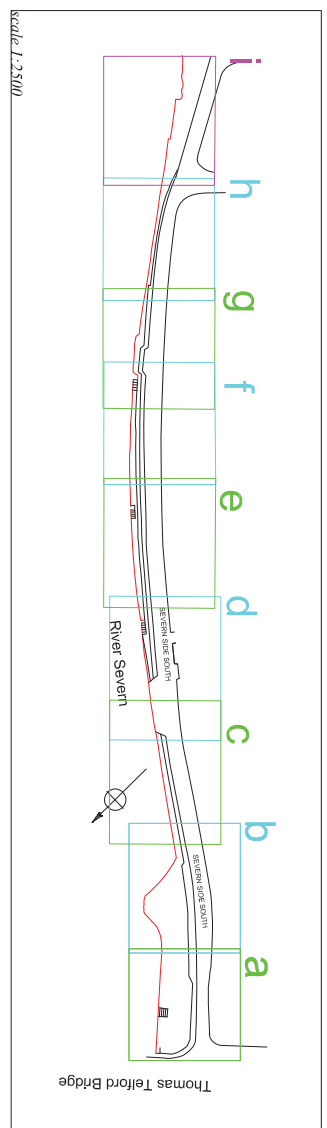


Figure 3 (i) Phased Elevation of Quay wall (divisions a and b)

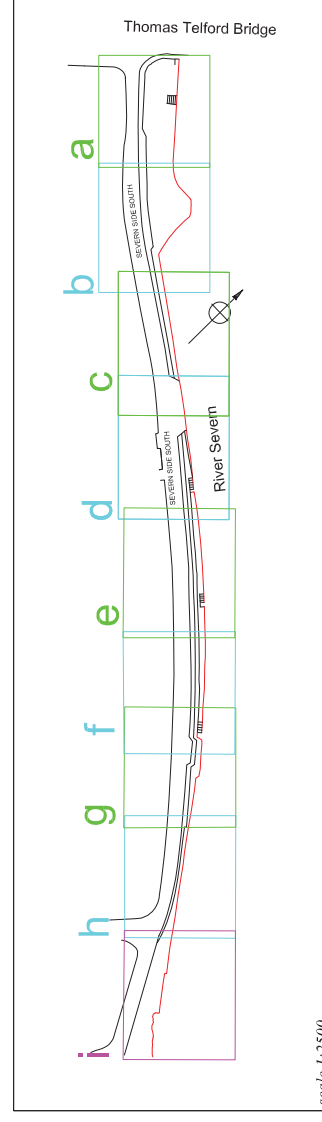
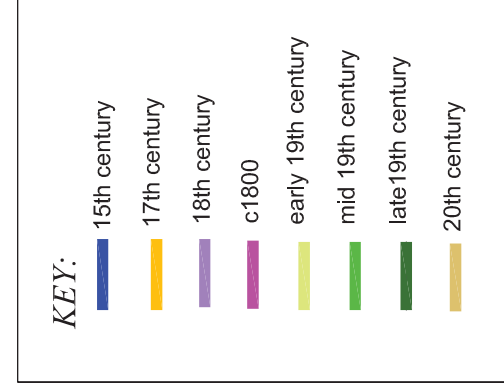
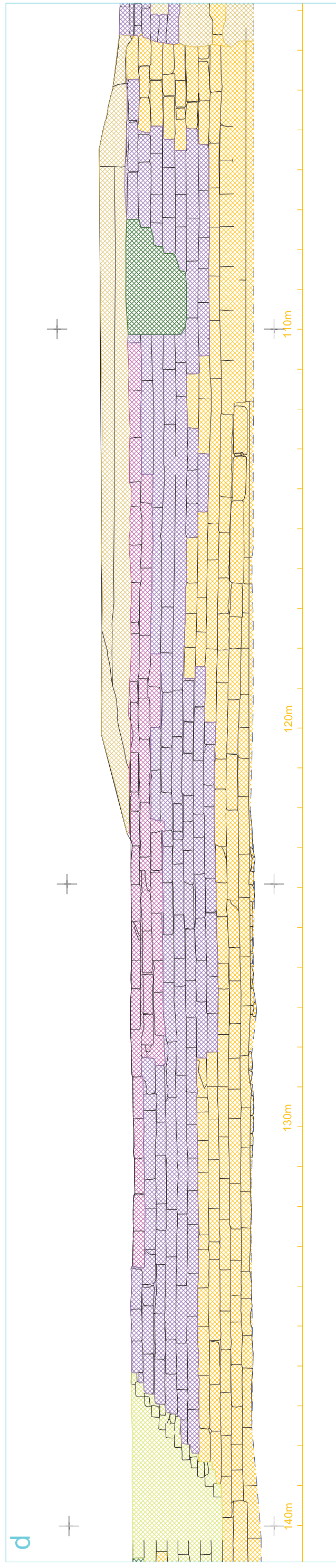
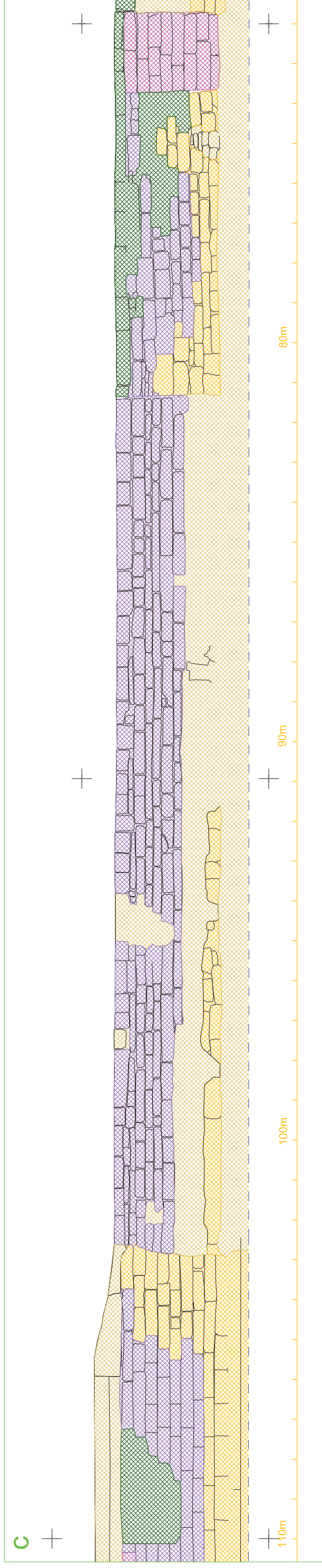
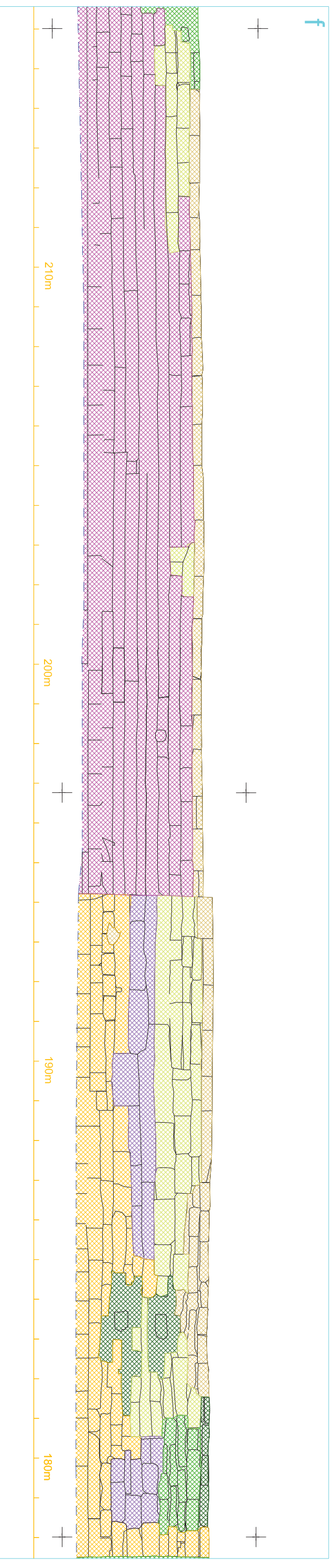
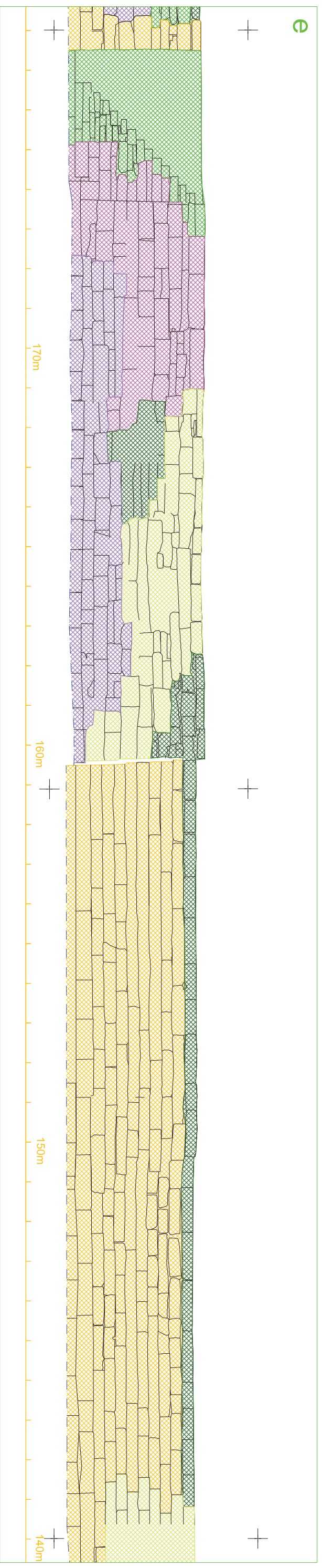


Figure 3 (ii) Phased Elevation of Quay wall (divisions c and d)



KEY:

	15th century
	17th century
	18th century
	c1800
	early 19th century
	mid 19th century
	late 19th century
	20th century

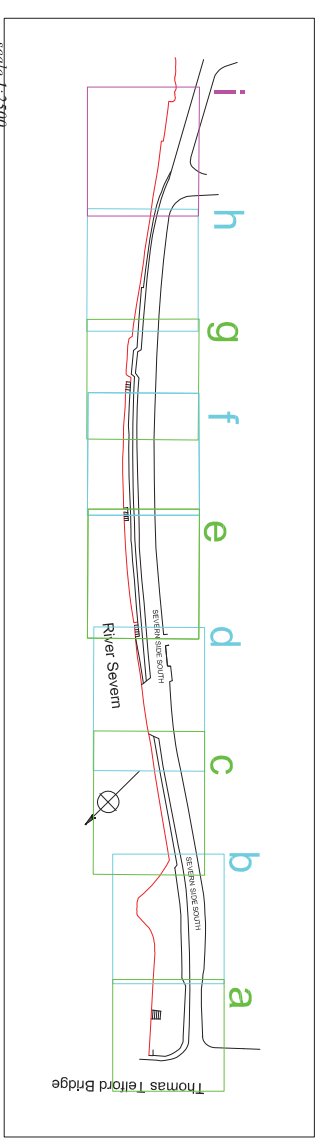


Figure 3 (iii) Phased Elevation of Quay wall (divisions e and f)

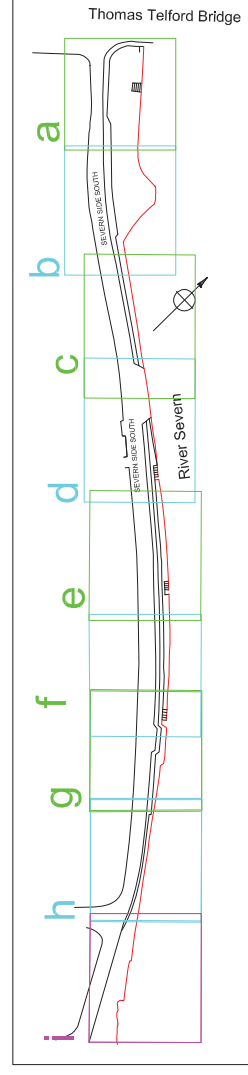
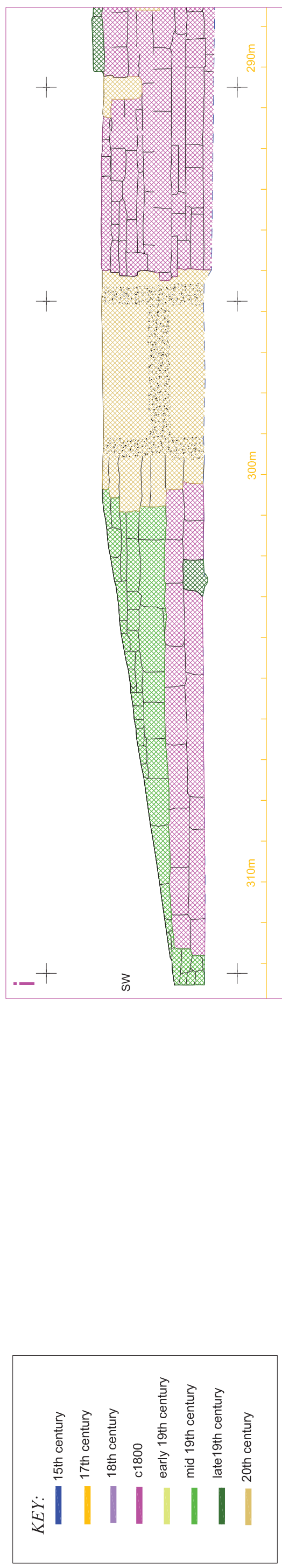
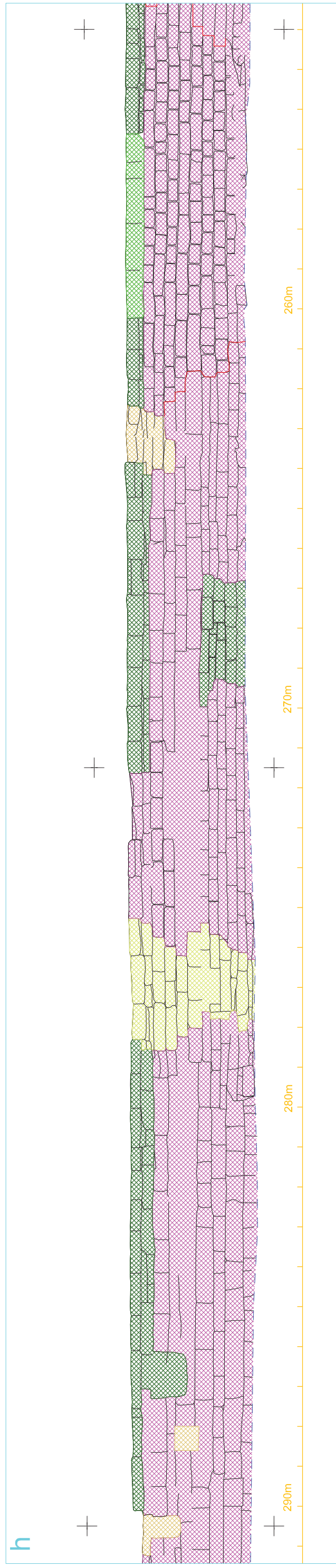
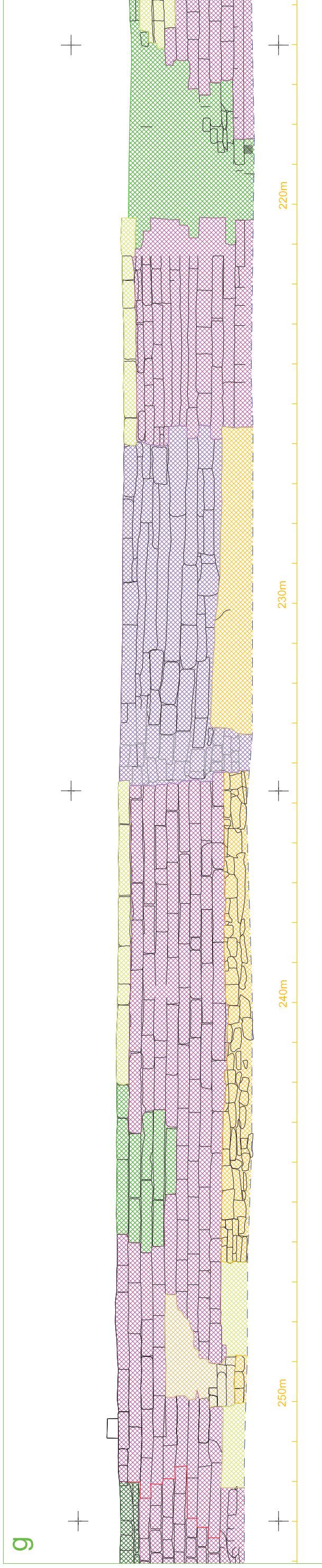


Figure 3 (iv) Phased Elevation of Quay wall (divisions g, h and i)

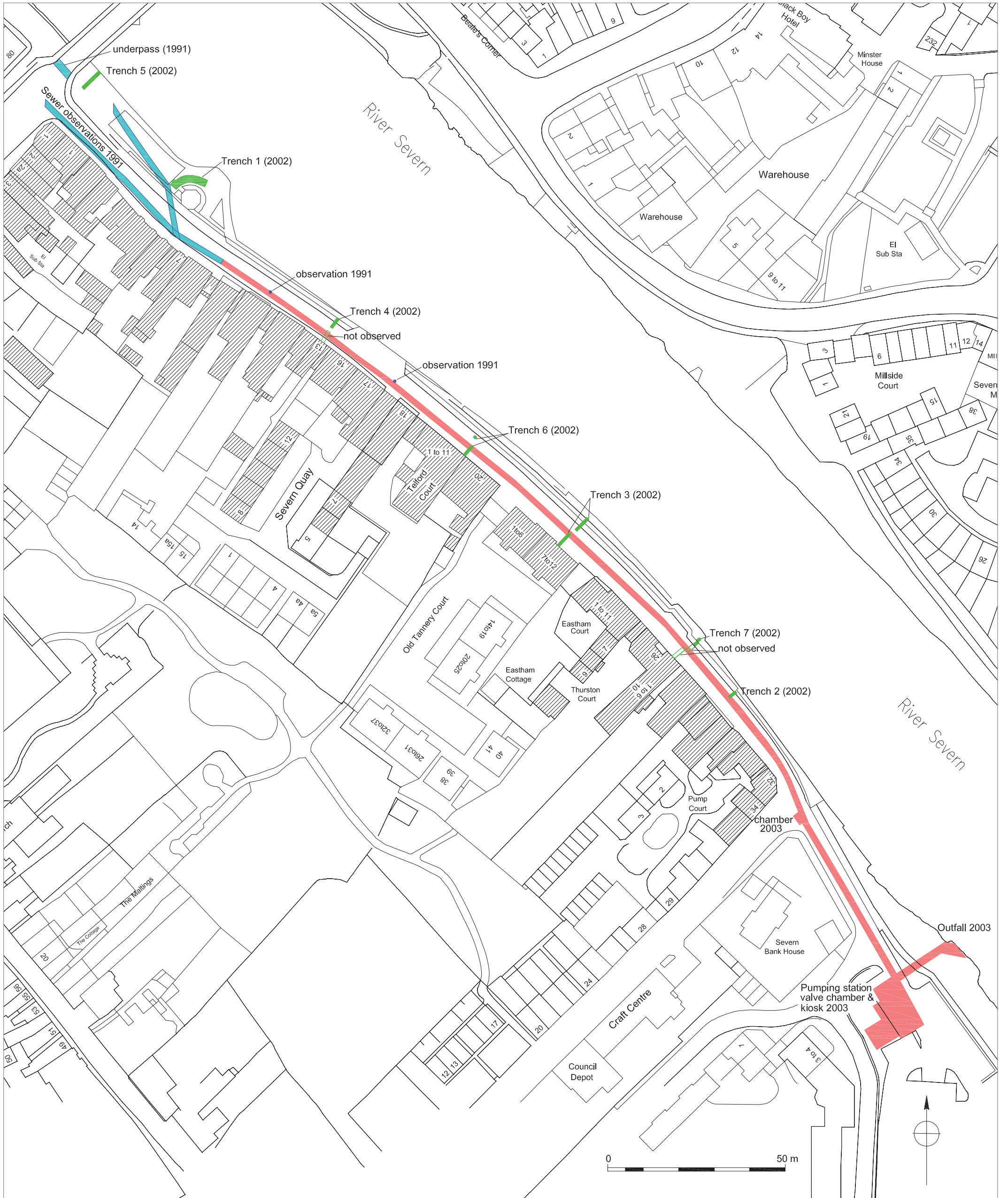


Figure 7 (i) Plan of groundworks - Observations 1991, 2001/3 and 2002

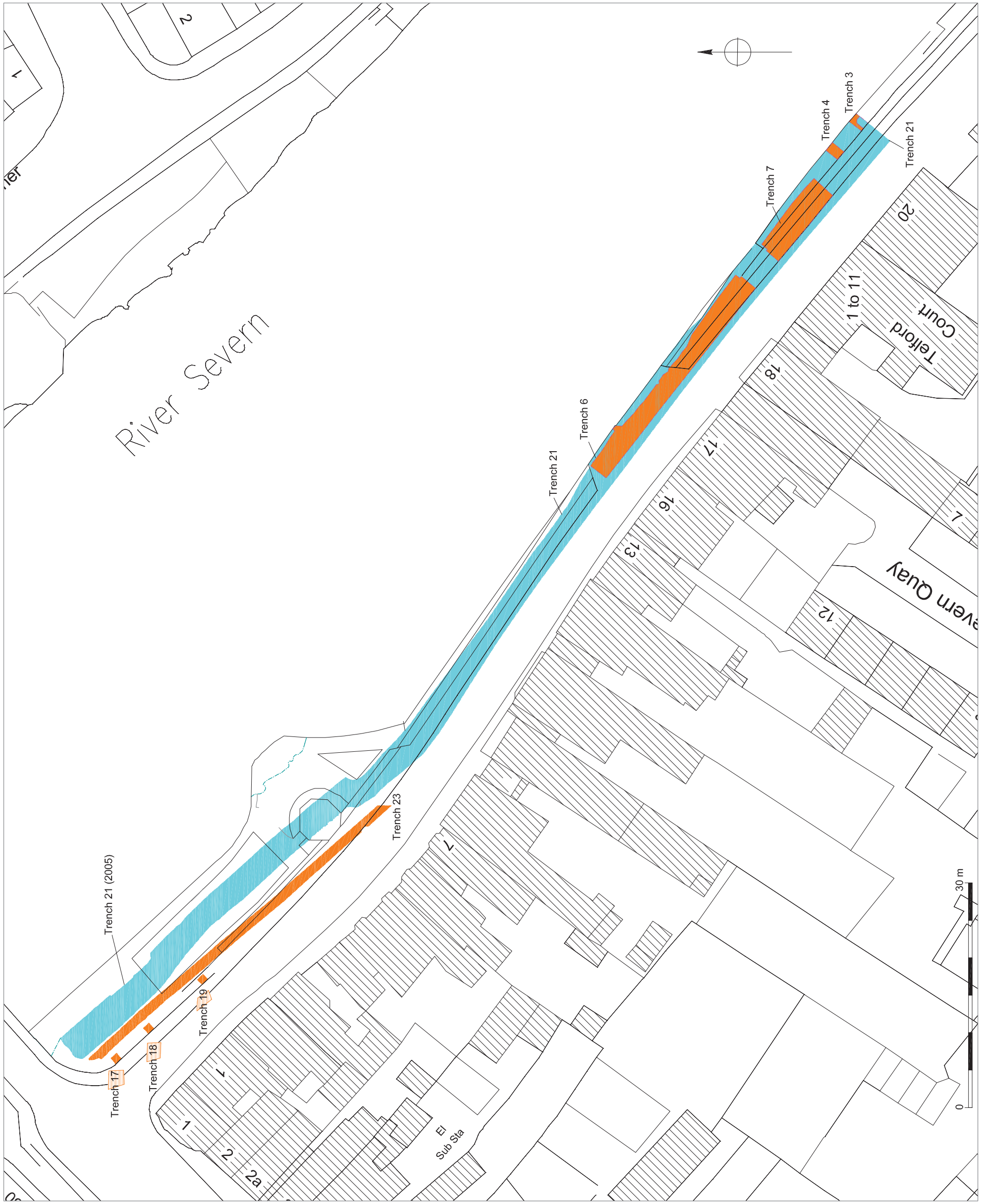


Figure 7 (ii) Plan of groundworks - Trenches 21, 3, 4, 7, 17, 18, 19, 23 2004/5

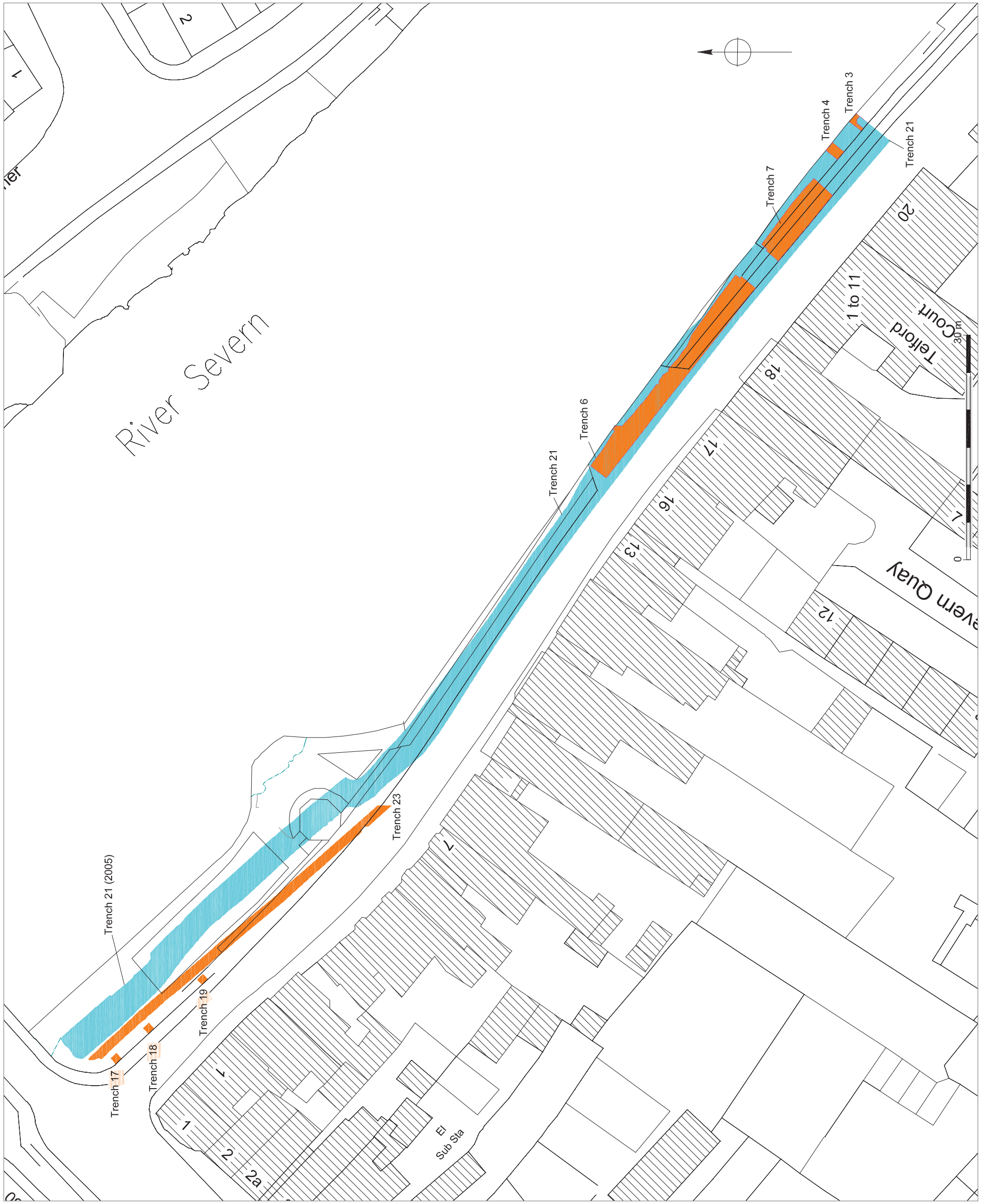


Figure 7 (ii) Plan of groundworks - Trenches 21, 3, 4, 7, 17, 18, 19, 23 2004/5

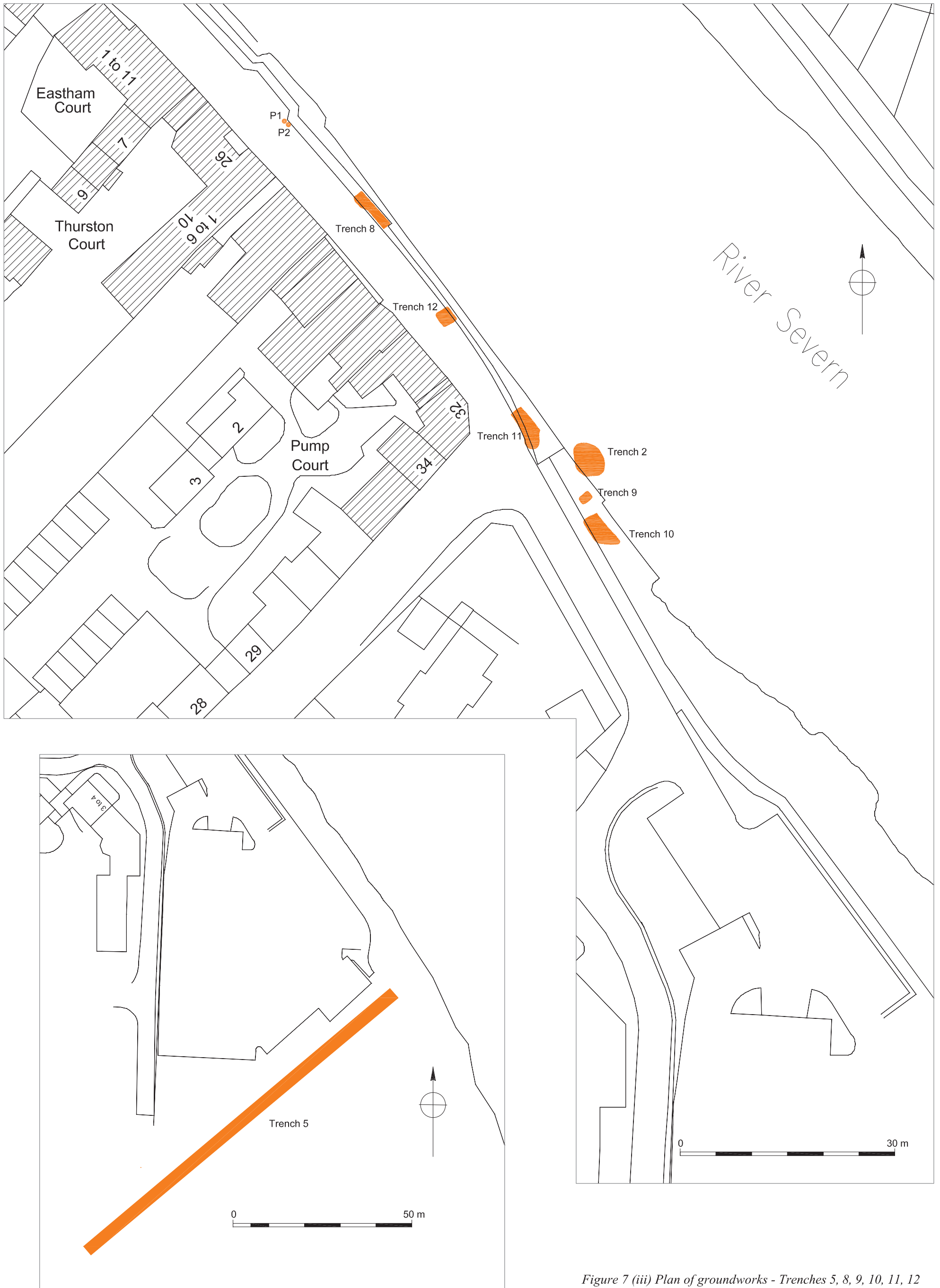


Figure 7 (iii) Plan of groundworks - Trenches 5, 8, 9, 10, 11, 12



Figure 7 (iv) Plan of groundworks - Trench 16 and ground reduction, trench 22



Figure 8 (i) Archaeological Features - north area

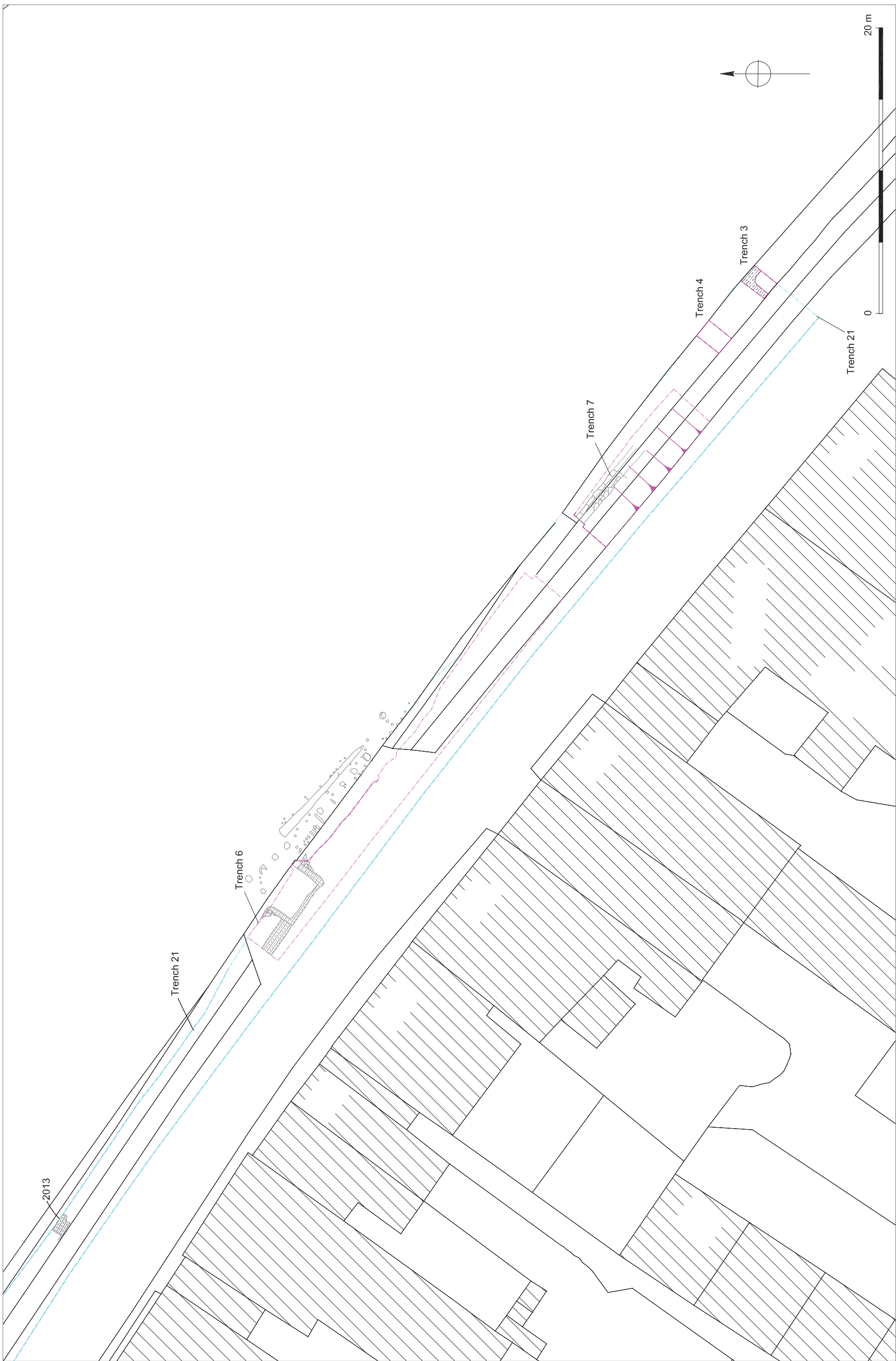


Figure 8 (ii) Archaeological features - central area

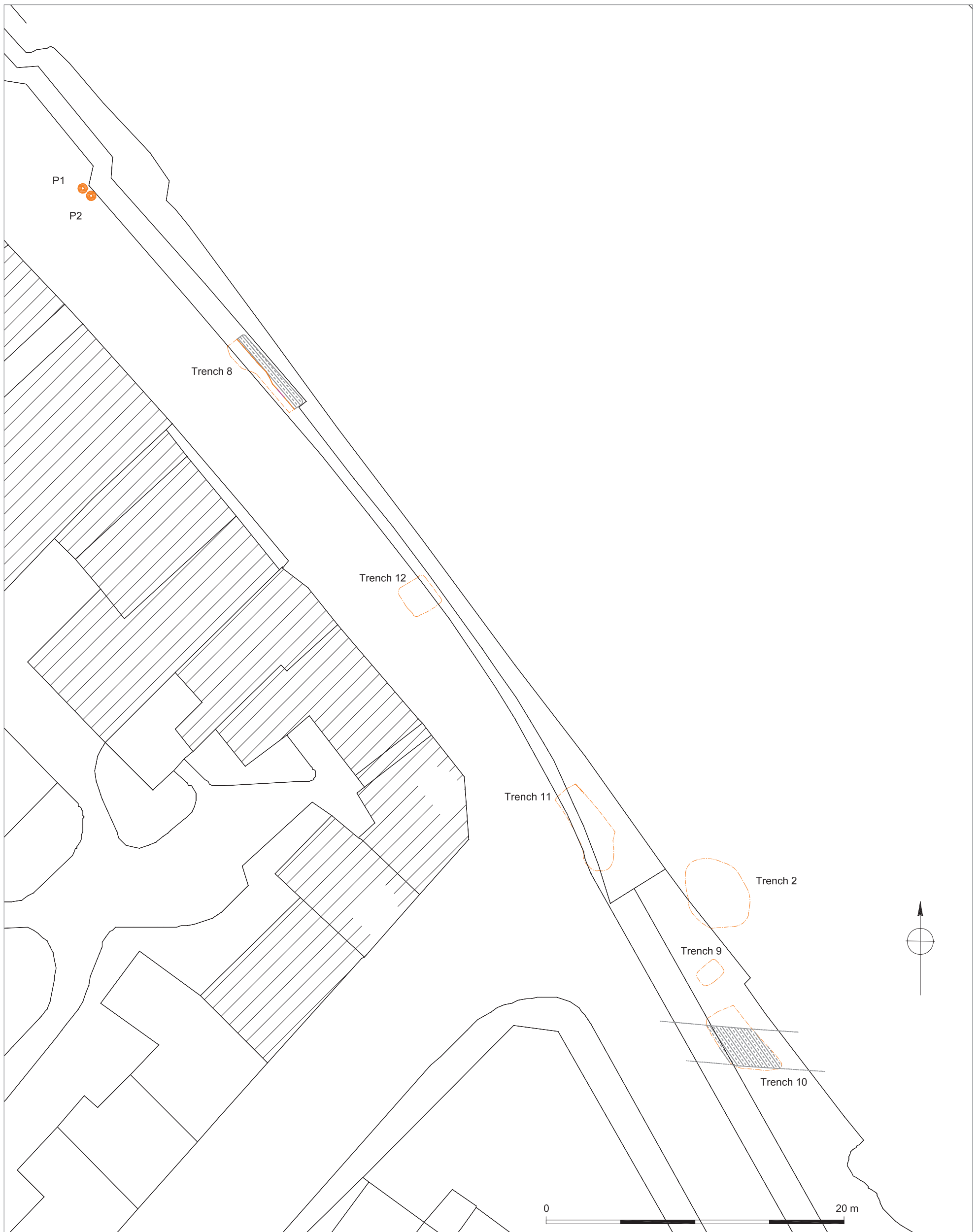


Figure 8 (iii) - archaeological features - southern area



Plate 9: 15th century bridge abutment, facing south-east



Plate 10: 15th century bridge abutment, facing south-west



Plate 11: Detail of front face of 15th century abutment (context 1606)

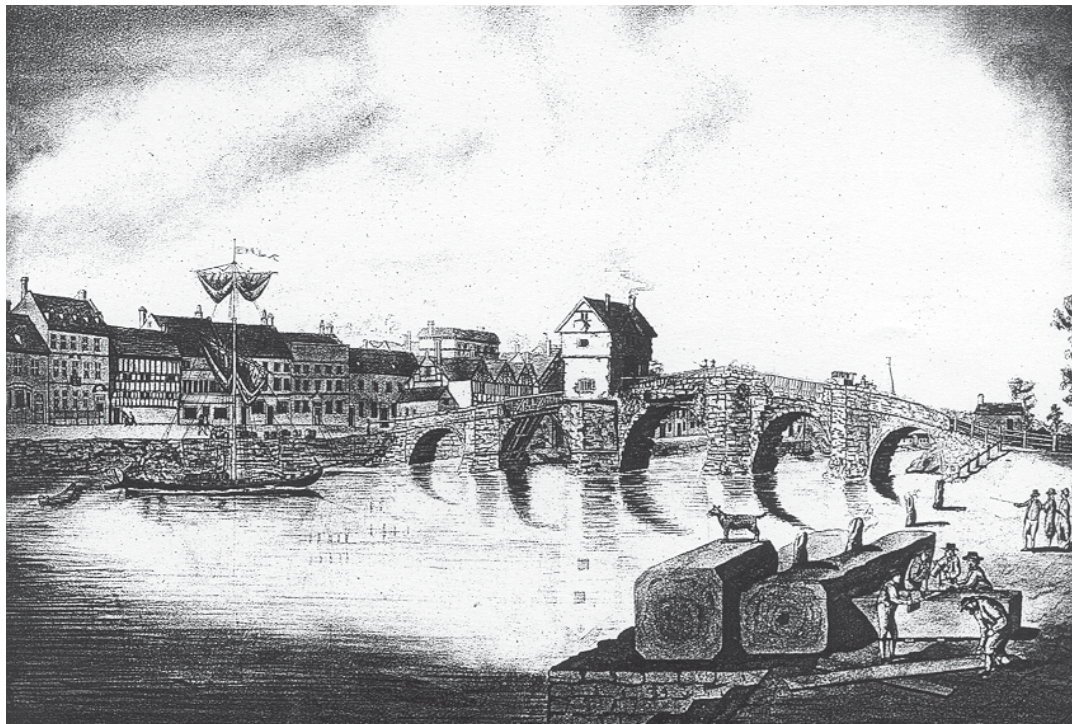


Plate 12: 18th century print of Bewdley bridge



Plate 13: ?15th century quay wall (context 6008)



Plate 14: ?15th century quay wall (context 7009)



Plate 15: Wall abutting north west side of 15th century bridge abutment (context 1607)



Plate 16: 17th/18th century wall in groundbeam trench near present bridge (context 2101)
