AN ARCHAEOLOGICAL WATCHING BRIEF AT EXETER CITY WALL, MADDOCKS ROW, EXETER

by

M.Leverett

Exeter Archaeology

Report No. 09.73

Project No. 6663

July 2009

Contents

Summary

1. Iı	Introduction	1		
2. T	The site	1		
3. H	Historical and Archaeological Background			
4. A	Aims	4		
5. N	Method	4		
6. R	Results 6.1 Trench 1 6.2 Trench 2 6.3 Trench 3	5		
8. E	Discussion	6		
9. P	Project Archive and 'OASIS' report	6		
Ack	knowledgements	6		
Refe	erences	6		
App App	pendix 1: Finds list pendix 2: Architect's Brief and Specification pendix 3: Scheduled Monument Consent Decision Notice pendix 4: Method Statement			

List of illustrations

- Fig. 1 Location of trenches
- Fig. 2 Plans and sections
- Fig. 3 Elevation showing trenches 1, 2 and 3

Plates

Plate 1 General view of site prior to work commencing

Plate 2 General view of site after completion of retaining wall and consolidation work

SUMMARY

An archaeological watching brief, was undertaken by Exeter Archaeology during January and February 2009 at Maddocks Row, to the rear of the Harlequins shopping centre, Paul Street, Exeter, Devon. The work was required due to conservation work on a c.80m length of city wall. Three trenches were excavated alongside the south-east-facing side of the city wall to a depth of 0.45-0.7m below ground level. Roman rampart material survived in places, which was excavated and recorded as appropriate. Dating evidence was scarce, several pieces of roman tile were recovered and one sherd of 2nd century samian pottery.

1. INTRODUCTION

1.1 This report has been commissioned by M.J.Baldwin, of the Parking, Engineering and Business Support department of Exeter City Council in the context of repair and conservation works to a length of Roman city wall core, exposed by the lowering of the ground level during the redevelopment of the adjoining shopping centre in the mid 1980s. It presents the results of an archaeological watching brief undertaken by Exeter Archaeology in January and February 2009 during conservation works to Exeter City Wall to the rear of the Harlequin shopping centre, Paul Street, Exeter (approximate central NGR SX 91823 92764).

2. THE SITE (Fig. 1).

- 1.2 The site lies on the north-west side of the city, between 70m and 135m north-east of the site of the North Gate, and is largely taken up by the city wall itself and the adjacent footway. Paul Street, the historic street in this part of the city, runs some 25–52m to the south-east.
- 1.3 The site consists of two sections of Roman wall-core masonry exposed by the reduction of ground levels to the rear of the Harlequin shopping centre in the 1980s. The limits of the main section (*c*.80m in length) are defined by the standing parapet of the city wall on the north-west; the footway of Maddocks Row on the south-east; the limit of the exposed Roman fabric to the south-west; and standing later fabric of surviving outbuildings of Paul Street/Maddocks Row houses to the north-east. Further to the north-east is an additional section of some 6m of exposed Roman wall core, positioned immediately north-east of the late 18th century arch through the city wall. This was exposed by the collapse of early 20th century facework in 1988, possibly hastened by the lowering of ground levels in this area at the time of the development. Both sections of wall were repaired and consolidated when they were first exposed, but have been affected by processes of gradual decay over the last two decades.
- 1.4 The city wall is designated a Scheduled Monument (Devon no. 136, Exeter city wall). Protection afforded by the designation covers the standing fabric of the wall and extends 2 metres beyond the limits of the monument. Scheduled Monument Consent (SMC) was granted for this scheme, on the advice of English Heritage, by the Department for Culture, Media and Sport on 17th September 2008 (ref: HSD 9/2/10523). Archaeological recording and watching brief was a condition of the SMC.

3. HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

3.1 Paul Street was once one of the city's main residential centres in the 17th century and, until the 1920s, the area between Paul Street and the city wall was occupied by a densely built-up maze of houses, accessed by alleys and 'courts' running back from the street, many of them of 17th century or even earlier in origin and occupying historic tenement plots. These were cleared under the city's slum clearance programme of the late 1920s and between this and the redevelopment of the 1970s and 1980s, the site had been an open area used before and after the war as the bus station, and latterly as a car park. Maddocks Row was originally one of the courts

referred to above, running back between the properties on the street frontage to give access to houses built on the rear parts of tenements. In the late 18th century this alley was extended through the wall to connect Paul Street and Northernhay Street by means of an archway through the wall, which bears the legend 'Opened 1772'. There is an unproven suggestion that Maddocks Row might have represented the course of a late Saxon street running from the High Street to the city wall, along the line of later Goldsmith Street as well as Maddocks Row. Excavation across the line of the street in 1984 showed surviving deposits and metalled surfaces back to the 12th century, but no earlier. On the construction of the Paul Street shopping centre in the 1980s, which blocked the southward continuation of the street, Maddocks Row was diverted to run along the inside face of the city wall, returning to Paul Street at the entrance to the car park to the south-west of the Harlequins shopping centre. This is the origin of the footway that now runs immediately inside the city wall.

- The city wall was constructed in the late 2nd century AD to enclose the growing 3.2 Roman town of *Isca Dumnoniorum*. It originally consisted of a complex of defensive features comprising stone wall, earth ramparts to the rear and ditches to the front. A low earth rampart, probably with a timber or wattled front preceded the stone wall, and may represent a temporary defence, later augmented and enlarged, or possibly a setting-out or civic-boundary feature laid out prior to the construction of the stone wall. The whole ensemble falls within the period AD 160-200, although it is not known for how long the primary rampart stood independently. From the late-Saxon period until the 18th century the defences were actively maintained, resulting in a complex monument of many repairs and rebuilds. The four main gates are of Roman origin, though universally rebuilt in the medieval (and later) periods; the fifth gate, the Watergate at the southern corner of the city, was a new construction of the 1560s connected with the development of the quay by the city authorities. The stone wall is the main surviving aspect of the monument, although there are some sections of rampart to be seen above ground around the circuit of 2350m (of which 1705m of stone wall still stands), and rampart layers and ditches are known or presumed to survive belong ground as archaeological deposits in many places.
- 3.3 The known history of the site centres on its position in relation to the defences. The masonry of the city wall was as much as 3-4m thick, measuring from the exterior face. The wall was constructed by cutting into the first clay rampart in a series of stepped footings, so that full-depth foundations only existed towards the outside face of the wall, elsewhere the masonry rested on layers of the clay rampart. This led to movement in the stone wall, sometimes during construction, typically represented by shear cracks where the fabric tipped forward above footings of differential depth. To the rear the second clay rampart abutted the wall masonry, the two structures were raised together, and often there was a zone of transition between them, consisting of poor-quality clay-bonded masonry, or (viewed from a different perspective) clay rampart layers containing a high proportion of loose stone spalls. Above a certain level the wall was provided with a proper rear face of volcanic stone blocks, although there are only slight survivals of this in the main section under consideration here. This is because much of the exposed fabric consists of plain rubble core work, or poor-quality masonry from the 'zone of transition'. Typical Roman core work was laid in alternate courses of diagonally-laid rubble masonry resulting in a 'herring bone' pattern to the masonry of the wall core. This is best seen in the exposed corework to the north-east of Maddocks Row.

3.4 The rampart was retained in use in relation to the city wall, eventually becoming established in the medieval and later town as a long, narrow tenement plot parallel to the interior of the wall, and lasting well into the post-medieval period. This was retained by the city for ease of movement around the defences (and was vigorously protected by the authorities from encroachments). This strip is sometimes known in historic documents as the 'barbican' or 'barbicans'. Several plots of land in this area can be identified as part of the barbican strip in the 17th and 18th centuries, when this land was finally abandoned for defensive purposes, and formally leased off by the city authorities.

Previous archaeological work

- 3.5 An area of the clay rampart was excavated to the rear of the wall in 1984–85 as a part of the Paul Street rescue excavations that preceded the construction of the Harlequin shopping centre (Exeter Urban Archaeological Database [EUAD] Archaeological Intervention no. 76.15). This examined an area of the clay rampart and the rear face of the stone wall, and exposed an area of the 3rd century track to the rear of the rampart. One drawing from this work (EA archive no. 76.65) summarises all the wall-related material recorded in 1984–85, including a plan, and detailed elevations of facework where it was exposed. A second drawing (EA archive no. 76.64) contains the transverse sections through the rampart behind the wall.
- Later, in 1986, the full length of the Roman wall footings exposed during development by lowering of the ground level and removal of clay rampart layers was recorded in plan and elevation (EUAD Archaeological Intervention no. 413.00; drawing archive nos EA 76.67 and 68). This record consists of sectional coverage of the 74m of wall so exposed, overlapping with that recorded in Trench 15, but not extending as far to the south-west, with the result that 21m of the length recorded in 1984–85 was not re-recorded in 1986 (it is now buried beneath a flowerbed). Five cross sections through the wall were also recorded at key points along the length (EA archive drawing no. 76.69, including a key drawing of their positions). The specification drawings for the present work are based on this survey).
- 3.7 In 1988 an archaeological survey was made of the wall to either side of Maddocks Row (EUAD Archaeological Intervention no. 414.00). This consisted of an outline elevation drawing of a length of wall approximately 10m south-west of Maddocks Row and 22m to the north-east, plus detailed, stone-for-stone drawings of a section of c.6m of Roman herring-bone core work immediately to the north-east and a section of exposed plinth masonry to the south-west. All these are drawn up in a single drawing (EA archive drawing no. 76.71) which represents a continuation to the north-east of the drawings made in 1986 (albeit at a different scale and level of coverage), and which formed the basis of new recording in this area during the works in 2009.
- 3.8 At various times in the 1970s and 80s and beyond elevation drawings were also made of the exterior face of the wall at various points in Northernhay Street (EUAD Archaeological Intervention nos 409 [1979], 415 [1988], 420 [1992], and 15,109 [2001]). Although they are not of direct relevance to the present work, they deserve a mention here to register their existence and for their cumulative value in understanding the wall and its development in this area (see also Blaylock 1993).

- 3.9 In 1988 a synthesis of the work on the north-west side of the Roman defences to date was produced (Blaylock 1988), including a summary of the state of knowledge on the city wall accumulated over a ten-year period 1978–88 in a number of separate tranches of work between the North Gate and the Castle.
- 3.10 In the early 1990s a full fabric survey and description was made of the whole circuit of the wall as a part of a general study and 'management plan' (as it would now be called), of Exeter city wall (Blaylock 1995). This inevitably drew on earlier work, and so much of the description of this section of wall duplicates the records of the 1980s work, nevertheless some independent new observations and insights were made, and since the section numbering of this survey continues in use it is of lasting value in the description and interpretation of the city wall. The sections in question consist of Interior Sections 8.4 and 8.5 (Blaylock 1995, 58-59), to the north-east of Maddocks Row and Interior Sections 9.1, 9.2 and 9.3 (ibid., 62–64) to the south-west. Aside from description of the fabric this report drew attention to the fact that the masonry exposed in the 1980s had never been intended to be exposed to the weather: 'Much of the clay rampart [...] was removed in order to achieve the required gradient on the service road [...] thus exposing wall core which had never before been exposed to the weather, nor was intended to stand up to exterior conditions. maintenance problem was created which has still to be resolved in a satisfactory manner. (Observation, over the years since the wall was consolidated in 1988, has shown that each winter leads to further losses from the wall.)' (*ibid.*, 63). The present works are primarily motivated with a view to providing a long-term solution to this maintenance problem created by the 1980s development.

4. AIMS

- 4.1 The primary focus of attention during the watching brief was the excavation of a foundation trench for a new retaining wall of brick, covering all but a length of 9m in the centre of the main section. The aim of the investigation was to observe the removal of the modern surfaces, and to record any archaeological strata exposed by the digging of foundation trenches, to recover any artefacts, and to record any Roman masonry (core or facework) not previously observed or recorded. To the north-east of Maddocks Row the aim was similar: to observe any archaeological strata exposed and to add any further details to the record made of this section of wall core in 1988.
- 4.2 The nature of the archaeology of the site is familiar from the extensive previous excavation and recording work in this area (above), and the records from these exercises provide a detailed framework within which to locate and record new observations (see the specific drawings referred to in section 3, above). Details, nevertheless, remain uncertain, and the potential remained for observations that would advance our understanding of the Roman and medieval defences of Exeter in this area. Possible areas for discovery and research are (for example) the existence of another late Roman stone tower. The remains of one such tower was found further north-east, beneath the present Habitat store, in 1982–83.

5. METHOD

5.1 Existing hard surfaces were lifted and trench 1 was dug entirely by hand. This method was modified when it became clear that much of the deposits in trenches 2 and 3 were

modern and a small mini digger was used, with an archaeologist present to monitor the spoil and recover finds. The trenches were cleaned and photographed and sections and elevations were drawn as appropriate.

6. RESULTS

6.1 Trench 1 (Figs 2 and 3) 6.5m x 0.5m (plan dimensions) 0.6-7m (depth)

Two areas of mid-reddish brown clay (105 and 106) containing patches of blue and yellow clay, frequent charcoal flecks, mudstone and volcanic trap were recorded at the base of the trench (c.0.6m below ground level). These were interpreted as rampart deposits. A wall aligned north-west to south-east (104), was recorded at the northern end of the trench, truncating deposit 105. It was integral to north-east to south-west aligned wall 103, which survived above ground. Both walls were constructed of Heavitree stone, bonded with pale grey lime mortar and were of post medieval date. The Roman city wall footings (102) were constructed of volcanic trap rubble, bonded with pale creamy yellow lime mortar containing small rounded pebbles. Modern backfill (107) overlay these deposits.

6.2 Trench 2 (Figs 2 and 3) 33m x 1.3m (plan dimensions) 0.45m (depth)

At the southern end of the trench, the earliest deposit was a layer of dark brown silty clay (207) containing very frequent charcoal flecks and occasional traces of ceramic building material and oyster shell fragments. This was overlain by mid-reddish brown clay containing patches of blue and yellow clay, frequent charcoal fragments, mudstone, bluish grey brash (loose, angular stone fragments), rounded pebbles and volcanic trap. It was numbered as 202, 203 and 205 within the three separate slots it was recorded in, but is likely to represent the same deposit. These layers were interpreted as rampart material and two fragments of Roman tile were recovered from 202 and 203. At the northern end of the trench, a layer of mid-reddish brown clay containing charcoal flecks, occasional small stones and frequent small trap fragments (209) survived at the base of the trench. A sherd of samian pottery of 2nd century date was recovered from this deposit. A layer of mid-brown silty clay (204) of post-medieval date overlay 209 and 205. This was overlain by modern backfill 201. The city wall footings were obscured within most of trench 2 by modern overburden and rampart material. Where exposed they consisted of volcanic trap rubble.

6.3 Trench 3

23m x 0.6m (plan dimensions) 0.5m (depth)

A 7m length of city wall facework (304) survived at the southern end of the trench (Fig. 3). Elsewhere volcanic trap footings (302) were recorded. At the southern end of the trench the footings were bonded with hard, brownish-yellow lime mortar. This changed to a loose, brown, mortar-rich silty clay at the base of the northern end of

trench 3. A 3.5m length of in-situ rampart material (305), similar to 303, adhered to the footings in the centre of the trench. A layer of mid-reddish brown silty clay (303), interpreted as rampart material survived at the northern end of trench 3. It contained frequent charcoal fragments, patches of yellow clay, lumps of greyish blue and dark reddish brown brash (loose, angular stone fragments) and occasional pieces of volcanic trap.

8. DISCUSSION

The watching brief revealed that where rampart material survived, it was at a depth of between 0.25 - 0.6m below ground level. The rampart material was fairly similar along the length of the trench, consisting of mid-reddish brown clay or silty clay, with inclusions of charcoal, patches of yellow and bluish grey clay and volcanic trap fragments. The inclusions of volcanic trap and mixed nature of the rampart deposits suggests that the rampart material relates to the secondary rampart, rather than the primary, earthwork rampart. No structures or surfaces of Roman date were observed within the footprint of the new retaining wall. The city wall, where exposed, was constructed using volcanic trap rubble, with a small area of volcanic trap facework at the south end of trench 3.

9. PROJECT ARCHIVE AND 'OASIS' REPORT

A site archive has been prepared and is currently held by Exeter Archaeology, pending deposition with Royal Albert Memorial Museum, Exeter. The accession number is 64/2009.

A report of the watching brief (including a pdf version of this document) will be submitted to the on-line database OASIS (On-line AccesS to the Index of archaeological investigations), under OASIS ID: exeterar1-61451.

ACKNOWLEDGEMENTS

The project was commissioned by M.J. Baldwin of Exeter City Council and managed for Exeter Archaeology by Stuart Blaylock. The watching brief was carried out by Marie Leverett and Alex Farnell. Finds were processed and listed by G. Langman and illustrations prepared by Tony Ives and Marie Leverett.

REFERENCES

- Baldwin, M.J. 2008 'City Wall to Rear of Harlequin', typescript report and specification to accompany SMC application, Exeter City Council.
- Blaylock, S.R. 1988 Exeter City Defences: Excavation and Survey on the City Walls from the North Gate to the Castle, 1978-88, Part I: Roman, Exeter Museums Archaeological Field Unit Report 88.13.
- Blaylock, S.R. 1993 Exeter City Wall: Fabric Recording at No's 43-49 Northernhay Street, 1992, Exeter Museums Archaeological Field Unit Report 93.69.
- Blaylock, S.R. 1995 Exeter City Wall Survey, 1994, Exeter Archaeology Report.

APPENDIX 1: FINDS LIST by Graham Langman

Context Dating

context	date/period
201	Roman
202	Roman
203	Roman
204	17 th century
209	Roman (?2 nd century)
303	Roman
305	Roman

Clay Pipe

context	bowls	stems	dates/comments
204	0	1	stem: 17 th /early 18 th century

Pottery & Dating Evidence

Abbreviations Listing

DD1 blook by mich of yyong optogony 1				
BB1	black-burnished ware category 1			
bd	body			
C	century			
Csw	Coarse sandy ware			
cw	coarseware			
dec	decorated			
Dr	Dragendorff			
Е	early			
gg	green-glazed			
int	internal			
jg	jug			
Rom	Roman			
sh	sherd			
SS	South Somerset			

Roman

		1 1	1
context	contents/dating evidence	sherds	vessels
201	Rom		
	tile: Rom		
202	Rom		
	tile: Rom		
203	Rom		
	tile: Rom		
209	Rom (?2C)		
	total sherds: 1		
	total vessels: 1		
	samian dec (Dr 37 bwl, 2C)	1	1
303	Rom		
	tile: Rom		
305	Rom		
	total sherds: 2		
	total vessels: 2		
	BB1 (2 small scraps bd sh)	2	2
	tile: Rom		
	·		

Post-Medieval

context	contents/dating evidence	sherds	vessels
204	17C		
	total sherds: 5		
	total vessels: 3		
	Csw (1500-1650, bd sh int gg)	1	1
	SS cw (17C, 1 bwl, 1 jg)	4	2
	clay pipe: 17C/E18C		

Statistics total number of sherds: 8 minimum number of vessels: 6 total weight of sherds: 204 grams

Tile

context	qty	weight	comments
201	1	2	Roman scrap fragment
202	1	86	Roman flat fragment
203	2	348	Roman tegula fragments
303	1	16	Roman tegula fragment
305	1	16	Roman tegula fragment

Roman tile data

Roman the data						
context	fabric	type	qty	weight		
201	2	unc	1	2		
202	2	flat	1	86		
203	1	teg	1	50		
203	2	teg	1	298		
303	2	teg	1	16		
305	2	teg	1	16		

teg = tegula unc = unclassified

APPENDIX 2: ARCHITECT'S BRIEF AND SPECIFICATION

By M.J.Baldwin

Brief

General Description

The interior of the City Wall facing the Harlequin Shopping Centre between the rear of the Elim Providence Chapel to the north east and the external car park of the shopping centre to the south west was surveyed by the Exeter Museums Archaeological Field Unit between 1982-88 and described in detail in the Exeter City Wall Survey (Int 8.3 - Int 9.3).

The facing stonework of the first 24m to the north east is almost totally post medieval and this section includes two late 18th/19th century brick-vaulted niches. Roman herringbone corework is visible at the rear base within the north eastern niche. The 6m length of facework to the south west of the niches consists predominantly of Heavitree stone with lesser quantities of volcanic stone, pink Permian sandstone, limestones and chert, and is likely to date from the 1930s. The facework of the adjacent 6m length appears to have suffered a partial collapse followed by rebuilding in 1983. A total collapse took place in 1987, perhaps due to the reduction of levels created in order to construct the service road and yard of the shopping centre. This revealed the Roman corework, which was then consolidated.

The Maddocks Row arch, to the south west of the consolidated corework, dates from 1772 and consists of a brick barrel vault and interior arch with Heavitree reveals. Two small, brick vaulted niches/cellars were cut into the wall next to Maddocks Row arch in the late 18th/19th centuries. That on the left is open but that to the right was blocked in the 1930s. The 6m length of facework to the south west of this also appears to have been refaced in the 1930s.

The reduction in levels adjacent to the line of the Wall to the south west between 1986-8 revealed what is now just over 60m of Roman volcanic rubble corework. This varies from approximately 2.3m high to disappear under ground towards the south west. The corework was consolidated in 1987-8 and a number of shear cracks were infilled. A short length of facework on top of the core is of medieval date but parapets to this section, consisting of Heavitree stone, are modern and include a particularly intrusive 18m length of concrete.

Present Condition

The condition of parapets, wall capping and facework is generally reasonable, though root growth of valerian, buddleia and sycamore seedlings has caused some damage. An area of Japanese Knotweed has been almost eradicated following annual treatment for over ten years. A programme of repeat spraying of vegetation has been instigated prior to the commencement of the present scheme.

The consolidation of corework in 1987 has failed, no doubt due to frost action, and little of the mortar from that time is now visible. Volcanic stonework of the core has itself cracked and creates a layer of debris at the base of the wall on the extended Maddocks Row footpath. The failure of the consolidation mortar was noted as early as 1995 by Stuart Blaylock in the Exeter City Wall Survey. It is considered that any further scheme of consolidation would constitute only a rather expensive, short term holding operation. It is therefore proposed to cover once more the majority of exposed corework and in so doing protect it for the future.

Proposed Repairs

A range of minor repairs is to take place particularly on wall capping and parapets, consisting of the removal of dead roots and repointing of all cracked and loose stonework. A small area of brick parapet is to be repointed and a crack in the vault of the north east niche is to be stitched.

The extended Maddocks Row footpath is extremely narrow and Devon County Council's Highway Engineers have indicated that any wall built on this section should be as narrow in width as possible to minimise the intrusion into the footpath. It is considered that a stone wall fronting this section might be considered inappropriate, particularly on the lower section where the height is of the order of 300mm. Whereas some Heavitree stone is in storage, there is insufficient even to complete a small part of this wall. A further Triassic sandstone from the Capton quarry in Somerset is very similar in colour but is not a conglomerate and therefore

differs in texture. A stone wall along this line, where no previous wall existed, in a different stone from those of the City Wall, might be considered as somewhat confusing.

It is therefore proposed to build a brick wall, thus making a clear distinction between the new and existing fabric. This facilitates the soft covering of the corework using a root protection barrier, a hardcore blinding, a geotextile followed by a lightweight substrate and sedum mat. The sedum does not require a layer of topsoil and has minimal root growth, which coupled with the root protection layer prevents damage to the underlying corework. The brickwork consists of the minimum thickness of wall possible. It is proposed that Ibstock 'Bexhill Dark' brick is used, which replicates the two predominant colours of the City Wall, being those of Heavitree stone and volcanic trap. It is also not dissimilar to the brick of the Maddocks Row arch. The wall is to be capped with a bullnose, blue brindle coping.

At its narrowest point the footpath between the corework and the handrail adjacent to the kerb of the service road is only 1m wide. Devon County Council Highways Engineers have stated that the footpath cannot be further reduced in width. It is therefore proposed that a 9m length be consolidated, thus producing a 'window' in the covered corework, which will help interpretation. Monitoring of this relatively limited section on the annual City Wall survey and subsequent repair will prevent further degradation.

The 6m length of core to the north east of the Maddocks Row archway is bounded to a height of between 3.6-3.8m high on both sides by facework of predominantly Heavitree stone. Directly joining these wall faces with stonework, as was the case prior to 1987, is now impossible due to the fact that the levels have subsequently been reduced and the corework under the pre 1987 level projects out beyond the line joining the faces. Prior to 1987 the wall appears to have been sitting on an insubstantial step in the corework over the 1928 bus station concrete slab. The slab may have partially supported the corework thus accounting for the collapse when the slab was removed. Any wall built between these faces must therefore now project out in a somewhat visually incongruous manner at both ends. To build such a wall to the full height of the parapets would compound this problem. It has therefore been decided to build the wall to mid height and cap off the upper section of the core using sedum as used on the long stretch of the wall. It is again considered more appropriate to use the same brick in that it provides consistency and presents a different but sympathetic material built on a different line from the previous wall. Two courses of blue brindle bricks have been introduced to indicate the pre 1987 level and link the exposed corework to each side of the gap.

Access into the open niche to the south west of Maddocks Row arch is at present prevented by two vertical bars but this precludes the cleaning of materials thrown into the niche. It is therefore proposed to provide a locked, hinged gate to reduce the problem and also facilitate cleaning.

Consulted Source Blaylock, S. R. 1995 Exeter Wall Survey, Exeter Archaeology

Specification

- 1.0 Tenderers must be aware that prior to signing of contract, the contractor will be required to submit for approval the names of those who are to undertake the work with their relevant experience and examples of previous work of a similar nature. The City Wall is a Scheduled Monument and all those working on the structure should be informed of this status. Only workmanship of the highest quality will be acceptable.
- 2.0 Mortar for consolidating/repointing stonework is to replicate exactly the colour and aggregate size of the underlying or adjacent mortar. For tendering purposes the mix should be 1:1:1:1:1/4:1/4, hydraulic lime (NHL5) to Chardstock sand to 50/50 Blackhill sand to 6mm Rockbeare rounds to 10mm Rockbeare rounds.
- 3.0 Where stonework is to be consolidated the aim is to create a semi rendered surface where indentations and cavities are filled with mortar such that water is 'weathered' off. Vegetation on the stonework has been treated with a biocide. Roots are to be removed where possible without damage to the adjacent stonework. The surface to be consolidated/repointed is to be brushed out to remove all friable material

and sprayed with clean water avoiding unnecessary saturation. Mortar should be pushed into the joint off a hawk using a small pointing trowel initially but following up with a pointing iron small enough to fit into the joint. The mortar is to be packed back into the joint under real hand pressure and overfilled slightly taking great care not spread the mortar on to the surface of the stone. After the initial set has taken place the surface of the mortar is to be broken off using a timber scraping tool to create a textured surface, ideally flush with the surface of the adjacent stonework. Every effort is to be made to protect the surface of the stonework from mortar spread and droppings. The work should be protected from rain, strong heat and local draughts and damp cloths should be used as coverings. Work should not to take place when air temperature is below 3°C on a falling thermometer or 1°C on a rising thermometer. Work should be timed such that the mortar cannot suffer from the effects of frost within at least four weeks of the work being undertaken. A sample area is to be undertaken and approval sought from the architect prior to continuing with the work.

4.0 Mortar for repointing the parapet brickwork above the garden of 39 Northernhay Street is to be 1:3, hydraulic lime (NHL5) to Chardstock sand.

5.0 **Brick Retaining Wall**

- 5.1 Facing brick is to consist of Ibstock Bexhill Dark ref 4009. Brickwork backing up the facing brick is to consist of an approved frost resistant stock brick. Copings are to be Ibstock Staffordshire Blue Brindle Smooth, single bullnose as BN.1.2, size 215x102x65x51, with 23no. bullnose external left hand returns as BN10.4, size 215x215x102x51, and 3no. bullnose external right hand returns as BN10.4, size 215x215x102x51.
- Mortar is to be Type 2, 1:½:4½, cement to hydrated lime to sand, premixed, precoloured mortar. The brickwork is to be pointed with a flush joint, with the texture of the aggregate slightly raised. An initial sample panel of the brickwork is to be laid and approval sought before continuing. The inner face of the wall is to be given 2no. coats of Ruberoid Synthaprufe prior to backfilling.
- 5.3 Expamet stainless steel Exmet is to be used as brick reinforcement every 3no. courses. A high bond polymer dpc is to be positioned within the bed joint at the course below the coping. Weep holes are to be formed through the whole width of the wall to sections E and G at approximately one brick above external footpath level, at 675mm centres using 22mm diameter grey polybutelene pipe fitted at the base of a perpend and flush with the outer face. An 80mm perforated polypropelene land drain is to be installed to section C and taken through the wall as a solid pipe.
- Expansion joints are to be 10mm wide and consist of a cellular polyethylene or cellular polyurethane filler capable of being easily compressed between the finger and thumb, covered by a polysulphide or low modulus silicone sealant of colour to match the brickwork. Approval of materials is to be given by the architect prior to use. Expansion joints are to be taken through to the concrete foundation apart from those to the copings only, which are to be taken through to the dpc.
- 5.5 The face of the City Wall is to be lined with Terram 1000 from the bottom of the foundation of the brick wall upwards. The upper surfaces of the City Wall are to be sand blinded and covered with Dendro-Scott root barrier or other equal and approved. The gap between the City Wall and the brickwork from foundation to weep hole level is to be filled with mortar and over that level is to be filled with Type B filter material (63-10mm). A 50mm layer of Type 1 hardcore is to be laid on top of the root protection barrier and continue as a blinding layer over the Type B filter material. A filter fleece geotextile is to be laid over the blinding followed by a lightweight substrate and sedum mat, by a specialist contractor under a separate contract.

6.0 **Foundation and Footpath**

6.1 Excavation is to be undertaken to a minimum depth of 500mm by hand due to the proximity of the gas supply pipe and the nature of the ground, being historic Roman bank material. As such the Exeter Archaeological Field Unit is to have a watching brief over this excavation and a period of 1 week is to be allowed within the contract for archaeological investigation. The brick wall foundation is to consist of 1:2:4 mix concrete.

- 6.2 Tarmac on the existing footpath is to be made good using 25mm tarmac wearing course on 50mm tarmac base course on compacted Type 1 hardcore. Seams and edges of existing tarmac are to be sealed with jointing compound. Block paviors are to be carefully replaced and consolidated with sand vibrated into the joints, on 40mm compacted sharp sand on hardcore as above.
- 6.3 The closure of the Maddocks Row public footpath alongside the Wall must be agreed with Devon County Council Highways and all necessary measures will be specified by Paul Downes, highways engineer, on tel. 01392 381303. These will include a Traffic Order with a fee of £700, a twelve week notice period, signing at both ends of the footpath, closure of the Maddocks Row arch with Heras fencing and maintenance of these measures throughout the contract.
- 6.4 The working area on the footpath is to be protected from the service road by a continuous Chapter 8 barrier at the edge of the footpath.

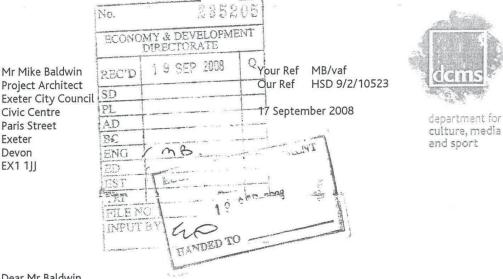
7.0 **Site Establishment**

7.1 The public car park at the southern end of the service road is owned by Exeter City Council. The hire of car parking spaces for site establishment, welfare facilities, storage etc can, if required, be negotiated with Steve Carnell, the Car Park Operations Manager, on tel. 01392 265505.

APENDIX 3: SCHEDULED MONUMENT CONSENT DECISION NOTICE

CULTURE TEAM 2-4 Cockspur Street London SW1Y 5DH www.culture.gov.uk

Tel 020 7211 2362 Fax 020 7211 6130 urvashi.patel@ culture.gsi.gov.uk



Dear Mr Baldwin

ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT 1979 (AS AMENDED) - SECTION 2 PROPOSED WORKS AT: EXETER CITY WALLS, EXETER, DEVON COUNTY MONUMENT NUMBER: 136

APPLICATION BY: MR MIKE BALDWIN, ON BEHALF OF THE ENGINEERING AND CONSTRUCTION MANAGER, EXETER CITY COUNCIL

- 1. I am directed by the Secretary of State for Culture, Media and Sport to refer to your application for scheduled monument consent dated 29 July 2008, and to the drawings numbered D128/01, D128/02, D128/03A and D128/04, the 'City to the Rear of the Harlequin' document and the photographs of the monument submitted therewith in respect of proposed works at the above scheduled ancient monument concerning the construction of a brick wall to facilitate the covering of exposed corework with hardcore and soft capping and minor stonework consolidation and repairs.
- 2. In accordance with paragraph 3(2) of Schedule 1 to the 1979 Act, the Secretary of State is obliged to afford to the applicant, and to any other person to whom it appears to the Secretary of State expedient to afford it, an opportunity of appearing before and being heard by a person appointed for that purpose. This opportunity has been declined in your telephone conversation with Mrs U Patel of the Department on 16 September 2008.









- 3. The Secretary of State is also required by the Act to consult with the Historic Buildings and Monuments Commission for England (English Heritage) before deciding whether or not to grant scheduled monument consent. Having received the advice of English Heritage, the Secretary of State considers that the proposed works would be beneficial for the preservation of the monument, with arrangements for necessary archaeological recording secured by the conditions of this consent and that the effects of the works on the setting of the monument have also been assessed and are not considered to be an overriding factor in this instance. The Secretary of State is agreeable for the works to proceed providing the conditions recommended by English Heritage, and set out below, are adhered to. He accordingly hereby grants scheduled monument consent under section 2 of the 1979 Act for the proposed works as referred to in paragraph 1 above, subject to the following conditions:
 - (i) The works to which this consent relates shall be carried out to the satisfaction of the Secretary of State, who will be advised by English Heritage. In order to ensure that the works are carried out satisfactorily, at least four weeks' notice (or such shorter period as may be mutually agreed) in writing of the commencement of the works shall be given to Phil McMahon, Inspector of Ancient Monuments, English Heritage, 29 Queen Square, Bristol BS1 4ND, and you are advised to prepare a trial panel of brickwork for inspection by English Heritage's representative before works commence. Before work commences, a detailed timetable and programme of work, including identification of architect and contractor, will be agreed with the Secretary of State advised by English Heritage.
 - (ii) No building works shall take place until the implementation of a programme of archaeological work has been secured in accordance with a written scheme of investigation which has been submitted to and approved by the Secretary of State, advised by English Heritage.
 - (iii) All those involved in the works must be informed of the scheduled status of the monument, its extent, and the legal obligations which apply.
 - (iv) Equipment and machinery shall not be used or operated in the scheduled area in conditions or in a manner likely to result in damage to the monument other than that which is expressly authorised in this consent.
- 4. By virtue of section 4 of the 1979 Act, if no works to which this consent relates are executed or started within five years from the date of this letter, the consent shall cease to have effect at the end of that period (unless it is revoked before then).
- 5. This letter does not convey any approval or consent required under any enactment, bye law, order or regulation other than section 2 of the Ancient Monuments and Archaeological Areas Act 1979.
- 6. Attention is drawn to the provisions of section 55 of the 1979 Act under which any person (hereinafter referred to as the "applicant") who is aggrieved by the

decision given in this letter may challenge its validity by an application made to the High Court within six weeks from the date when the decision is given. The grounds upon which an application may be made to the Court are (1) that the decision is not within the powers of the Act (that is, the Secretary of State has exceeded his powers) or (2) that any of the relevant requirements have not been complied with and the applicant's interests have been substantially prejudiced by the failure to comply. The "relevant requirements" are defined in section 55 of the 1979 Act: they are the requirements of that Act and the Tribunals and Inquiries Act 1971 and the requirements of any regulations or rules made under those Acts.

7. A copy of this letter is being sent to:

Ms Jessica Lennon Casework Assistant English Heritage SW Region 29 Queen Square Bristol BS1 4ND;

Mr Andrew Pye
Exeter City Archaeologist
Exeter City Council
Civic Centre
Paris Street
Exeter
Devon
EX1 1JN;

and to

Mr Nick Russell Assistant Inspector of Ancient Monuments English Heritage SW Region 29 Queen Square Bristol BS1 4ND.

Yours sincerely

ELIZABETH AGER

Authorised by the Secretary of State

Tralehor

to sign in that behalf

APPENDIX 4: METHOD STATEMENT

METHOD STATEMENT FOR ARCHAEOLOGICAL WATCHING BRIEF AND RECORDING ON EXETER CITY WALL AT THE REAR OF HARLEQUIN'S, PAUL STREET, EXETER, DEVON

Prepared by Exeter Archaeology on behalf of Exeter City Council

1 INTRODUCTION

- 1.1 This method statement has been commissioned by M.J.Baldwin, of the Engineering and Construction Services department of Exeter City Council to describe a programme of archaeological recording in the course of conservation works to the Exeter City Wall to the rear of the Harlequin shopping centre, Paul Street, Exeter (approximate central NGR SX 91823 92764). It is informed by the archive of extensive archaeological work done in the early-mid.1980s (summarised in Blaylock 1988) and by study of the standing fabric of the city wall carried out in the later 1980s and early 1990s (Blaylock 1995); see also the background section, below.
- 1.2 The site lies on the north-west side of the city, between 70m and 135m north-east of the site of the North Gate, and is largely taken up by the city wall itself and the adjacent footway. Paul Street, the historic street in this part of the city, runs some 25-52m to the south-east. To those who know Paul Street now, as a chasm lined with monolithic brick shopping centres, it can be hard to appreciate that this had been one of the city's main residential centres in the 17th century and that, until the 1920s, the area between Paul Street and the city wall was occupied by a densely built-up maze of houses, accessed by alleys and 'courts' running back from the street, many of them of 17th century or even earlier origin and occupying historic tenement plots. These were cleared under the city's slum clearance programme of the late 1920s and between this and the redevelopment of the 1970s and 1980s, the site had been an open area used before and after the war as the bus station, and latterly as a car park. Maddocks Row was originally one of the courts referred to above, running back between the properties on the street frontage to give access to houses built on the rear parts of tenements. In the late 18th century this alley was extended through the wall to connect Paul Street and Northernhay Street by means of an archway through the wall, which bears the legend 'Opened 1772'. There is an unproven suggestion that it might have represented the course of a late Saxon street running from the High Street to the city wall, along the line of later Goldsmith Street as well as Maddocks Row. Excavation across the line of the street in 1984 showed surviving deposits back to the 12th century, but no earlier. On the construction of the Paul Street shopping centre in the 1980s, which blocked the southward continuation of the street, Maddocks Row was diverted to run along the inside face of the city wall, returning to Paul Street at the entrance to the car park to the south-west of Harlequins. This is the origin of the footway that now runs immediately inside the city wall.
- 1.3 The site in fact falls into two sections, the greater half consisting of a section of Roman wall-core masonry exposed by the reduction of ground levels to the rear of the Harlequin shopping centre in the 1980s. The precise limits of this site are therefore defined by the standing parapet of the city wall on the north-west; the footway of Maddocks Row on the south-east; the limit of the exposed Roman fabric to the south-west; and standing later fabric of surviving outbuildings of Paul Street/Maddocks Row houses to the north-east. Further to the north-east an additional section of some 6m of exposed Roman wall core, positioned immediately north-east of the late 18th century arch through the city wall, is also covered by this proposal. This was exposed by the collapse of early 20th century facework in 1988, possibly hastened by the lowering of ground levels in this area at the time of the development. Both sections of wall were repaired and consolidated when they were first exposed, but have been affected by processes of gradual decay over the last two decades.
- 1.4 The city wall is designated a Scheduled Monument (Devon no. 136, Exeter city wall), and any works affecting it, including archaeological excavation, will require Scheduled Monument Consent (SMC), granted by the Department for Culture, Media and Sport on the advice of English Heritage. Protection afforded by the designation covers the standing fabric of the wall and extends 2 metres beyond the

limits of the monument. SMC was granted for this scheme on 17^{th} September 2008 (ref: HSD 9/2/10523). This method statement represents the 'written scheme of investigation' required as a condition of the Scheduled Monument Consent.

2 BACKGROUND

- 2.1 The city wall was constructed in the late 2nd century AD to enclose the growing Roman town of *Isca Dumnoniorum*. It originally consisted of a complex of defensive features comprising stone wall, earth ramparts to the rear and ditches to the front. A low earth rampart, probably with a timber or wattled front preceded the stone wall, and may represent a temporary defence, later augmented and enlarged, or possibly a setting-out or civic-boundary feature laid out prior to the construction of the stone wall. The whole ensemble falls within the period AD 160–200, although it is not known for how long the primary rampart stood independently. From the late-Saxon period until the 18th century the defences were actively maintained, resulting in a complex monument of many repairs and rebuilds. The four main gates are of Roman origin, though universally rebuilt in the medieval (and later) periods; the fifth gate, the Watergate at the southern corner of the city, was a new construction of the 1560s connected with the development of the quay by the city authorities. The stone wall is the main surviving aspect of the monument, although there are some sections of rampart to be seen above ground around the circuit of 2350m (of which 1705m of stone wall still stands), and rampart layers and ditches are known or presumed to survive belong ground as archaeological deposits in many places.
- 2.2 The known history of the site centres on its position in relation to the defences. The masonry of the city wall was as much as 3-4m thick, measuring from the exterior face. The wall was constructed by cutting into the first clay rampart in a series of stepped footings, so that full-depth foundations only existed towards the outside face of the wall, elsewhere the masonry rested on layers of the clay rampart. This led to movement in the stone wall, sometimes during construction, typically represented by shear cracks where the fabric tipped forward above footings of differential depth. To the rear the second clay rampart abutted the wall masonry, the two structures were raised together, and often there was a zone of transition between them, consisting of poor-quality clay-bonded masonry, or (viewed from a different perspective) clay rampart layers containing a high proportion of loose stone spalls. Above a certain level the wall was provided with a proper rear face of volcanic stone blocks, although there are only slight survivals of this in the main section under consideration here. This is because much of the exposed fabric consists of plain rubble core work, or poor-quality masonry from the 'zone of transition'. Typical Roman core work was laid in alternate courses of diagonally-laid rubble masonry resulting in a 'herring bone' pattern to the masonry of the wall core. This is best seen this area in the exposed core-work to the north-east of Maddocks Row.
- 2.3 The rampart was retained in use in relation to the city wall, eventually becoming established in the into the post-medieval period. This was retained by the city for ease of movement around the defences (and was vigorously protected from encroachments by the authorities). This strip is sometimes known in historic documents as the 'barbican' or 'barbicans'. Several plots of land in this area can be identified as part of the barbican strip in the 17th and 18th centuries, when this land was finally abandoned for defensive purposes, and formally leased off by the city authorities.

Previous archaeological work

- An area of the clay rampart was excavated to the rear of the wall in 1984–85 as a part of the Paul Street rescue excavations that preceded the construction of the Harlequin shopping centre (Exeter Urban Archaeological Database [EUAD] Archaeological Intervention no. 76.15). This examined an area of the clay rampart and the rear face of the stone wall, and exposed an area of the 3rd century track to the rear of the rampart. One drawing from this work (archive no. 76.65) summarises all the wall-related material recorded in 1984–85, including a plan, and detailed elevations of facework where it was exposed. A second drawing (archive no. 76.64) contains the transverse sections through the rampart behind the wall.
- 2.5 Later, in 1986, the full length of the Roman wall footings exposed during development by lowering of the ground level and removal of clay rampart layers was recorded in plan and elevation (EUAD Archaeological Intervention no. 413.00; drawing archive nos 76.67 and 68). This record consists of sectional coverage of the 74m of wall so exposed, overlapping with that recorded in Trench 15, but not extending as far to the south-west, with the result that 21m of the length recorded in 1984–85 was not

re-recorded in 1986 (it is now buried by a flowerbed). Five cross sections through the wall were also recorded at key points along the length (archive drawing no. 76.69, including a key drawing of their positions). The specification drawings for the present work are based on this survey).

- 2.6 In 1988 an archaeological survey was made of the wall to either side of Maddocks Row (EUAD Archaeological Intervention no. 414.00). This consisted of an outline elevation drawing of a length of wall approximately 10m south-west of Maddocks Row and 22m to the north-east, plus detailed, stone-for-stone drawings of a section of c.6m of Roman herring-bone core work immediately to the north-east and a section of exposed plinth masonry to the south-west. All these are drawn up in a single drawing (archive drawing no. 76.71) which represents a continuation to the north-east of the drawings made in 1986 (albeit at a different scale and level of coverage), and which will form the basis of any new recording in this area in 2008 during the proposed works.
- At various times in the 1970s and 80s and beyond elevation drawings were also made of the exterior face of the wall at various points in Northernhay Street (EUAD Archaeological Intervention nos 409 [1979], 415 [1988], 420 [1992], and 15,109 [2001]). Although they are not of direct relevance to the present work, they deserve a mention here to register their existence and for their cumulative value in understanding the wall and its development in this area (see also Blaylock 1993).
- 2.8 In 1988 a synthesis of the work on the north-west side of the Roman defences to date was produced (Blaylock 1988), including a summary of the state of knowledge on the city wall accumulated over a ten-year period 1978–88 in a number of separate tranches of work between the North Gate and the Castle.
- 2.9 In the early 1990s a full fabric survey and description was made of the whole circuit of the wall as a part of a general study and 'management plan' (as it would now be called), of Exeter city wall (Blaylock 1995). This inevitably drew on earlier work, and so much of the description of this section of wall duplicates the records of the 1980s work, nevertheless some independent new observations and insights were made, and since the section numbering of this survey continues in use it is of lasting value in the description and interpretation of the city wall. The sections in question consist of Interior Sections 8.4 and 8.5 (Blaylock 1995, 58-59), to the north-east of Maddocks Row and Interior Sections 9.1, 9.2 and 9.3 (ibid., 62-64) to the south-west. Aside from description of the fabric this report drew attention to the fact that the masonry exposed in the 1980s had never been intended to be exposed to the weather: 'Much of the clay rampart [...] was removed in order to achieve the required gradient on the service road [...] thus exposing wall core which had never before been exposed to the weather, nor was intended to stand up to exterior conditions. Thus a maintenance problem was created which has still to be resolved in a satisfactory manner. (Observation, over the years since the wall was consolidated in 1988, has shown that each winter leads to further losses from the wall.)' (ibid., 63). The present works are primarily motivated with a view to providing a long-term solution to this problem.

3 AIMS

The aim of the investigation is to observe the removal of the modern surfaces, and to record any archaeological strata exposed by the digging of foundation trenches, to recover any artefacts, and to record any Roman masonry (core or facework) not previously observed or recorded. To the north-east of Maddocks Row the aim is similar: to observe any archaeological strata exposed and to add any further details to the record made of this section of wall core in 1988.

4 METHODOLOGY

4.1 The site consists of the rear face of the wall over a distance of some 74m, with a separate section of some 6m to the north-east of the arch at Maddocks Row. The primary focus of attention will be the excavation of a foundation trench for a new retaining wall of brick which will cover all but a length of 9m in the centre of the main section. This area represents a pinch point, where the service road and pavement together approach closer than usual to the remains of the Roman wall, and there is insufficient space for a revetment wall to be constructed and still leave an adequate width of pavement. In this area the wall fabric will remain exposed and be consolidated. Details of the condition of the

wall, the proposed repairs and a specification for the work are provided separately for this application (see Baldwin 2008).

- 4.2 The present pavement surface will be lifted and the foundation trenches for the new retaining walls will be excavated by hand by the contractors under observation and supervision by an archaeologist. Their intended depth is in the region of 500mm; it is certain that some of this depth will be taken up by modern (1980s) make-up for the pavement, and possible that all of it will be. Equally there is a capacity for the Roman rampart layers to survive intact in some quantity, especially beyond (to the north-east of) the limit of Paul Street Trench 15, which falls approximately 8m into the length of wall in question. Excavation records show that this trench was excavated to a depth of about 1.7m at its north-east end, and natural ground surface was encountered at about 30.3m above O.D. (archive drawing no 76.64, section 143).
- 4.3 Thereafter the archaeological input will depend on what is located in the foundation trenches, as yet unknown, for reasons explained above. Should complex archaeological deposits be encountered they will be hand excavated, but otherwise the archaeological activity will be limited to observing the digging of trenches, the recovery of any finds, and the recording of deposits in relation to existing plans and profiles.
- The nature of the archaeology of the site is familiar from the extensive previous excavation and recording work in this area, and the records from these exercises provide a detailed framework within which to locate and record new observations (see the specific drawings referred to in section 2, above). Details, nevertheless, remain uncertain, and the potential remains for observations that advance out understanding of the Roman and medieval defences of Exeter in this area. Possible areas for discovery and research are (for example) the existence of another late Roman stone tower. The remains of one such tower was found further north-east, beneath the present Habitat store, in 1982–83. Trench 15 was specifically located to test the existence of another tower in the most probable position between the known tower and the North Gate, so although the discovery of another tower is not impossible, it is thought to be unlikely.
- 4.5 Archaeological deposits will be recorded by established Exeter Archaeology recording and sampling procedures:
 - (i) standardised single context record sheets; survey drawings, plans and sections at scales 1:10,1:20, 1:50 and 1:100 as appropriate;
 - (ii) elevation drawings of Roman (and medieval) masonry to be prepared at 1:20 scale, stone-forstone; any additions to the record of post-medieval and modern structures in the wall to be at scale 1:50, in outline style;
 - (iii) black and white film and colour digital photography;
 - (iv) survey and location of finds, deposits or archaeological features using EDM surveying equipment and software if appropriate;
 - (v) labelling and bagging of finds on site from all excavated levels, post-1800 unstratified pottery to be discarded on site with a small sample retained for dating evidence as required;
 - (vi) the assessment, as appropriate, of deposits on site by the Exeter Archaeology Scientific Officer regarding the possible yield (if any) of environmental or microfaunal evidence, and its potential for radiocarbon dating. Any suitable deposits would be sampled using the EH Guidelines for Environmental Archaeology (EH CfA Guidelines 2002/1). The EH Regional Archaeological Science Advisor will be consulted in the event of suitable deposits being suspected.
- 4.8 After significant deposits are recorded in plan and/or elevation and formation levels are reached in excavation, the trenches will be recorded and handed back to the building contractor. Please note that the contractor is to be informed at the earliest opportunity that time must be allowed in the programme for archaeological recording, and that while every effort will be made to avoid unnecessary delay, the need for observation and recording may entail some delay during the digging of foundations.

5 ARCHIVE AND REPORT

5.1 An archive will be prepared for all work undertaken in accordance with *The Management of Archaeological Projects* (2nd edition, English Heritage 1991). This will include relevant

correspondence together with context sheets, field drawings, environmental, artefactual and photographic records. The archive and finds will be deposited with the RAM Museum, Exeter in accordance with the guidelines *Procedures for the Deposit of Archaeological Archives from Developer Funded Fieldwork to Exeter City Museum* (2005). A 'Transfer of Title Form', usually a necessary part of the deposition of an archive) will be unnecessary in this instance, since Exeter City Council (ECC) is both the landowner and depositee. A decision on the procedure and date for deposition of the archive and finds will be reached on completion of the report (below).

- 5.2 Reporting requirements will be assessed in the light of the results of the work and agreed between ECC and English Heritage. If little further archaeology is located the report could take the form of a short summary and update to the original reports on the city wall (Blaylock 1988; *idem* 1995), with plans and other illustrations of the extent of recorded features, and an entry for the Exeter Urban Archaeological Database (EUAD). This would contain a brief account of the circumstances and location of the work together with location and trench plans. Were further significant archaeological deposits to be encountered and their excavation judged to be necessary, a more detailed report to describe and interpret the findings would also be necessary. A draft of the report will be produced within three months of the completion of fieldwork, and drafts will be submitted to EH and ECC for comments.
- 5.3 A report will include the following elements:
 - (i) a non-technical summary;
 - (ii) a description of the remains and deposits identified;
 - (iii) an assessment of any significant artefacts, environmental and scientific samples, with recommendations for further analysis;
 - (iv) finds listing and any specialist reports commissioned;
 - (v) discussion of the archaeological deposits encountered and their context;
 - (vi) a location plan and overall site plan to show the position and extent of archaeological features
 - (vii) plans and sections of significant features or deposits at a relevant scale, located in relation to previous observations of the 1980s (above);
 - (viii) any relevant photographs
 - (ix) the Scheduled Monument Consent application, decision notice, and this method statement as appendixes.
- 5.4 If they are thought to merit further dissemination, the results of excavations will sometimes be required to be published in an appropriate academic journal. Such a decision will usually be made by the director of the work in consultation with the appropriate archaeological curator (in this case the ECC Archaeology Officer), English Heritage and the client. A suitable contingency should therefore be allowed for possible publication.
- 6 PROJECT ORGANISATION
- 6.1 The project will be undertaken by an Exeter Archaeology Project Officer (to be identified), assisted by a Project Archaeologist when required, under the direction of Stuart Blaylock B.A., Ph.D., F.S.A., Senior Project Manager, who has worked for Exeter Archaeology on excavation and building-recording projects throughout the South-West since 1979.
- 6.2 English Heritage (EH) and the Exeter City Council (ECC) Project Architect will be informed of the start of the project and its progress.

Health & Safety

6.3 Exeter Archaeology operations are subject to Health and Safety policies prepared by Exeter City Council which include all aspects of work covered by the *Health and Safety at Work Act* (1974). All monitoring works within this scheme will be carried out in accordance with current *Safe Working Practices* and a *Risk Assessment* will be prepared in advance. Health and Safety requirements will be observed at all times by any archaeological staff working on site. Personal protective equipment (safety boots, helmets, gloves and high visibility vests, etc.) will be worn, as appropriate, by Exeter Archaeology staff.

7 PRINCIPAL SPECIALIST SUB-CONSULTANTS

The expertise of the following specialists can be called upon if required:

Bone artefact analysis: Ian Riddler

Building materials: Dr Stuart Blaylock (Exeter)

Dating techniques: University of Waikato Radiocarbon Laboratory, NZ; Alex Bayliss (EH)

Charcoal identification: Dana Challinor (Oxford)

Dendrochronology: Cathy Groves and Ian Tyers (Sheffield University); Robert Howard (Nottingham University)

Diatom analysis: Nigel Cameron (UCL)

Environmental data: Mike Allen (AEA); Vanessa Straker (English Heritage)

Faunal remains: Southampton University Faunal Remains Unit and sub-consultants, Dale Seargantson, Polydora Baker (EH); Lorraine Higbee (Taunton)

Fish bone identification: Alison Locker Foraminifera analysis: Mike Godwin

Finds conservation: Alison Hopper-Bishop (Exeter Museums); Salisbury Conservation Centre

Human remains: Dr Louise Loe (Oxford Archaeology); Dr Mary Lewis (Bournemouth University); Dr. James Steele (Centre for Human Ecology, Southampton)

Lithic analysis: Dr. Linda Hurcombe (Exeter University); John Newberry (Paignton); Olaf Bayer (Preston)

Medieval and post-medieval finds: John Allan (Exeter Archaeology) and sub-consultants

Metallurgy: Chris Salter (Oxford University); Ancient Monuments Laboratory (English Heritage); Peter Crew (Snowdonia National Park); Dr Gill Juleff (Exeter University)

Molluscan analysis: Terrestrial-Paul Davis (Bristol); Marine-Janice Light (Godalming);

Numismatics: Norman Shiel (Exeter)

Petrology/geology: Dr Roger Taylor (RAM Museum); Dr R. Scrivener (British Geological Survey)

Plant remains: Julie Jones (Bristol); Wendy Carruthers (Llantrisant)

Pollen: Dr Heather Tinsley (Bristol); Elizabeth Huckerby (Lancaster University Archaeological Unit); Dr Ralph Fyfe (Exeter University)

Prehistoric pottery: Henrietta Quinnell (Exeter)

Radiocarbon dating: University of Waikato, New Zealand: Scottish Universities Research and Reactor Centre, East Kilbride

Roman finds: Paul Bidwell & associates (Arbeia Roman Fort, South Shields);

Soil Science: Matthew Canti (EH) and sub-consultants

Textiles: Penelope Rogers (York)

8 REFERENCES

Baldwin, M.J. 2008 'City Wall to Rear of Harlequin', typescript report and specification to accompany SMC application, Exeter City Council.

Blaylock, S.R. 1988 Exeter City Defences: Excavation and Survey on the City Walls from the North Gate to the Castle, 1978-88, Part I: Roman, Exeter Museums Archaeological Field Unit Report 88.13.

Blaylock, S.R. 1993 Exeter City Wall: Fabric Recording at No's 43-49 Northernhay Street, 1992, Exeter Museums Archaeological Field Unit Report **93.69**.

Blaylock, S.R. 1995 Exeter City Wall Survey, 1994, Exeter Archaeology Report.

Dr S.R. Blaylock Exeter Archaeology September 2008

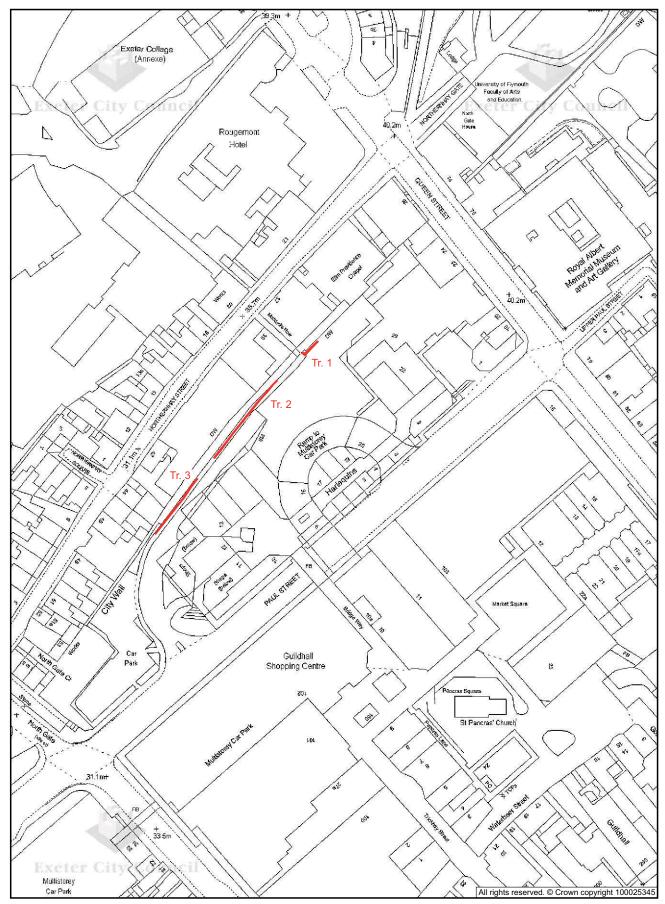


Fig. 1 Location of trenches. Scale 1:1250.

Plans: Trench 1 Trench 2 **37.45** Trench 3 Sections 34.50m AOD 33.00m AOD NW → 34.50m AOD 201

Fig. 2 Plans and sections.

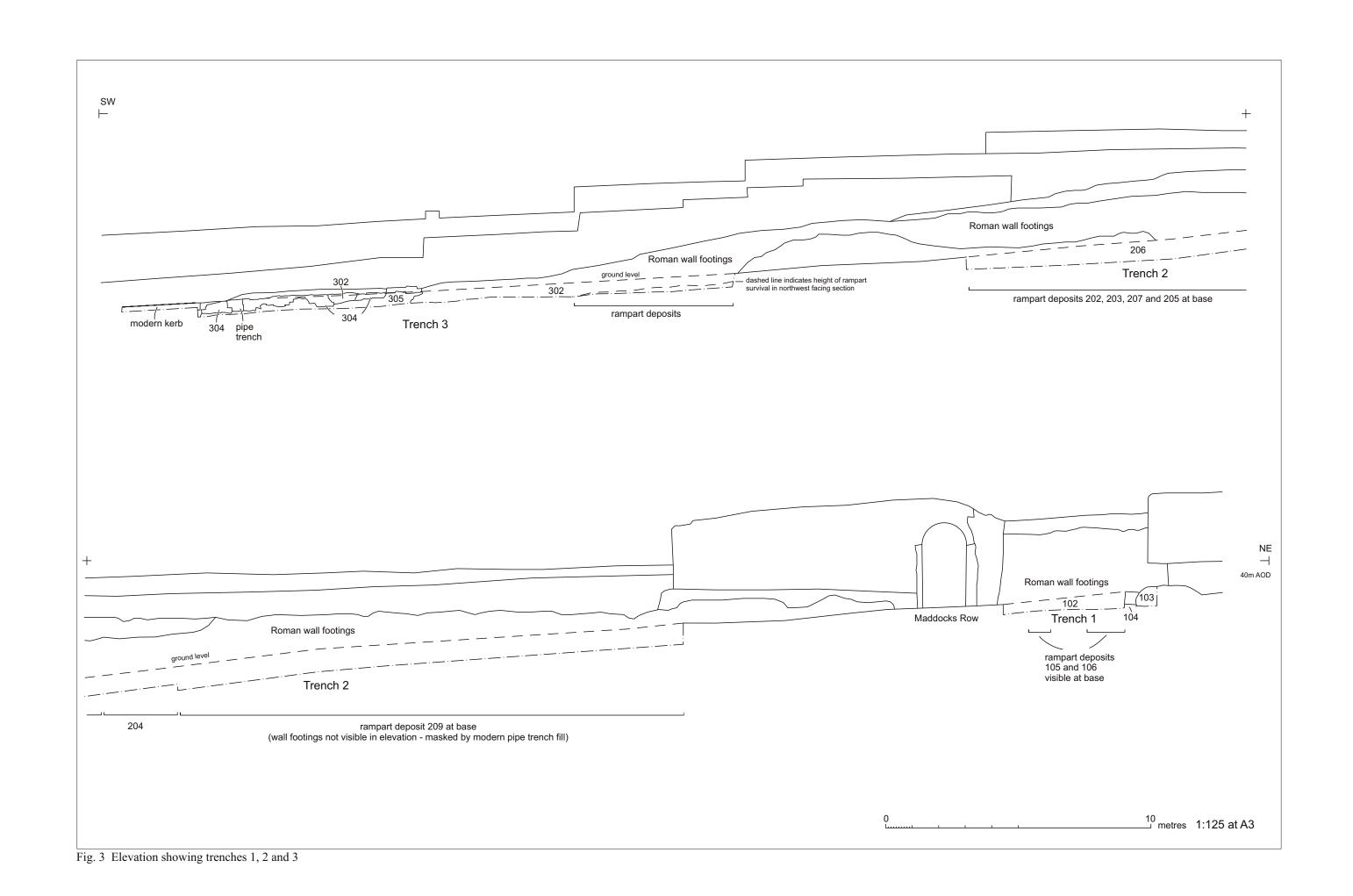




Plate 1. General view of site prior to work commencing, looking SW.



Plate 2. General view of site after completion of retaining wall and consolidation work, looking NE.