ARCHAEOLOGICAL EXCAVATION AT THE TIMEPIECE NIGHTCLUB, LITTLE CASTLE STREET, EXETER

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SUMMARY

An archaeological excavation was undertaken by Exeter Archaeology in April 2007 behind the city wall in the rear yard of the Timepiece nightclub, Exeter on the site of an extension to the building (SX 92207 92901). An evaluation undertaken in 2006 identified the survival of the clay rampart to the rear of the Roman city wall as well as a single grave from when the site was used as a Castle Street Congregational Chapel in the late 18th and 19th centuries. A wide trench dug along the rear of the wall, probably of late 18th-century date, was also identified.

During the excavation further clay rampart material was exposed, and four graves associated with the chapel were uncovered. A total of eight skeletons were present in these graves. These individuals have been analysed and range in age from a neonate baby to mature adults. Stature was calculated for two of the individuals. Both sexes are present, as are a range of pathological conditions including healed trauma, a urinal calculus and dental pathologies.

1. INTRODUCTION (Figs 1 and 2)

This report describes a programme of archaeological excavation carried out by Exeter Archaeology (EA) in April 2007 in advance of the construction of an extension to the Timepiece Nightclub (formerly the Royal British Legion Club, and originally the Castle Street Congregational Chapel) at the rear of Little Castle Street, Exeter (central NGR SX 92207 92901). The excavation was required under condition 5 of the grant of planning permission (06/1079/03, Exeter City Council) and Listed Building Consent (06/0707/07, Exeter City Council), and as a grant of he condition of Scheduled Monument Consent.

The site (Figs 1 and 2) lies on a plot set back from Little Castle Street, immediately within the city wall, so that the standing wall forms the northeastern limit of the plot, albeit below ground. Above ground a modern parapet wall forms the limit of the site, built some 1.5m within the front face of the city wall. Other limits are the boundary wall with Bradninch Hall and Bradninch Court to the northwest, the standing former chapel building to the southwest and a high revetment wall bounding Bailey Street (a post-war introduction into the townscape) to the southeast. This narrow strip of ground, some 30m NW-SE, but less than 5m wide, was used as a burial ground for the chapel between 1798 and 1854. A number of headstones are visible standing against the northeast boundary wall and the southwest wall of the chapel, dating mainly to the end of the 18th and early 19th centuries. Along with an area to the southwest of the chapel building this area is marked as a burial ground on the 1876 large-scale (1:500) Ordnance Survey town plan (Fig. 4). The site of the extension lies at the northeast corner of the building, in the angle of the standing walls of the chapel building and a late 20th-century (1960s?) extension projecting from the corner (the existing toilet block), and occupies an area of some 3.5 x 6m at the northern end of the former burial ground.

The wider site footprint is subject to two forms of statutory protection. The city wall is designated as a Scheduled Monument (Devon no. 136, Exeter city walls), and any works affecting it require Scheduled Monument Consent (SMC), granted by the Department for Culture, Media and Sport (DCMS) on the advice of English Heritage. Protection afforded by the designation covers the standing fabric of the wall and is inclusive of a 2m margin beyond the known extent of the monument. The second statutory protection is afforded by the Listed Building status of the former chapel building (now Timepiece) which has been designated as a building of special architectural and historic interest (Grade II).

2. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND, by S.R. Blaylock

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 the stone wall, earth ramparts to the rear and ditches to the front (Bidwell 1980, 59-66). A low earth rampart on the same line, 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. When the wall was built the rampart to the rear was heightened and widened as the wall was constructed. 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, was a new construction of the 1560s). In the 13th century a number of projecting semicircular stone

towers were added to the circuit, one of which lay just to the southeast of the limits of this site, approximately 12.5m east of the corner of the chapel building (this tower was removed in the early 19th century, although others survive around the castle and in Southernhay). 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 below ground as archaeological deposits in many places.

The city wall in this position is largely obscured, firstly by a significant depth of deposition on the inside of the wall, giving a ground level some 5m higher within the wall than immediately outside it; secondly by the configuration at wall top level, whereby a stone boundary wall to the chapel plot is positioned some 2m inside the line of the outside face of the wall. This wall in fact forms the northeast boundary of the chapel property, and the limit of the development. The masonry of the Roman wall is known to have been as much as 3m thick (Blaylock 1995, 1), and so there was a real possibility that parts of the wall had survived below ground in this area and would be encountered in any trenches excavated on the site. This section of wall is designated section 'Int. 2.1' in the survey of the whole circuit of the city wall prepared in 1994-95 (*ibid.*, 39). On the outside the city wall is obscured by the extension to the rear of 6 Northernhay Place (rebuilt in 2006); although standing masonry is visible in the back garden of No 5 Northernhay Place, this is modern in date (*ibid.*, 39; sections Ext. 2.2 and 2.3).

The castle was laid out in the northern corner of the walled city from AD 1068, with some structures (such as the stone gatehouse) and earthwork defences belonging to the late 11th century. Further structures, presumably of 12th and 13th century date, are known, but it is also known that the castle was in decline by the late 13th century (Blaylock and Higham 1990, 35). As originally planned the castle consisted of an inner bailey (the surviving enclosure containing the courthouse at the head of Castle Street) and a much larger outer bailey stretching from the rear of High Street almost to Queen Street in the present topography of the city. A gaol is referred to as early as the 12th century, and it is probable that this was always situated in the outer bailey, possibly in the same position as the 'High Gaol' documented on this site from the early 17th century (Filmer-Sankey *et al.* 2004, 182). There is a clear plan of the gaol building and associated gaoler's house lying within a walled precinct that corresponds closely to the present boundaries of the site on the survey of the city's estates in 1758, known as the 'Chamber Map Book' (Fig. 3). The ditch and rampart of the outer bailey disappeared in the course of the later medieval period, and the town encroached on the area of the former outer bailey (Blaylock and Higham 1990, 35-7). The precise course of the castle rampart is not known, although there is limited archaeological and topographical evidence to suggest that its eastern terminal lay somewhere within the limits of the chapel property, and thus that there was a chance of encountering castle rampart deposits on this site.

The known history of the site thus centres firstly on its position in relation to the city and castle defences and secondly on the development of the High Gaol until the end of the 18th century (replaced 1789-95) and the chapel building from 1796. The extent to which the strip of land to the northeast of the standing building, up to and over the line of the city wall, was used as a burial ground is not known, although it is marked as such on the 1876 Ordnance Survey town plan (Fig. 4) and the many re-positioned inscribed headstones to be seen around the site also suggest that multiple burials probably did take place in this area. The site also lies within the long, narrow plot immediately within the city wall that has its origin in the

earth rampart behind the wall, and which is a general characteristic of the topography of the city defences until the mid-17th century, having been retained by the city for ease of movement around the circuit. This strip (which was vigorously protected from encroachments by the authorities) is sometimes known in historic documents as the 'barbican' or 'barbicans'.

After the Civil War the city wall ceased to be regarded as a viable defence and gradually the strip of land within the wall was leased off by the city. Within this area, broadly that of the 'greater castle', i.e. that of the original outer bailey of the castle, the conventional picture was probably slightly different. The High Gaol of the castle (above) occupied approximately this site from the medieval period, perhaps from as early as the 12th century (above), until the late 18th century (Filmer-Sankey *et al.* 2004, 182) and the combination of the effect of a standing earthwork in the topography and relatively static property boundaries deriving from the continuity of function of the gaol count against much encroachment in this area.

The chapel was built in 1796-7 on the site of the former gaol (Brockett 1962, 203; Stell 1991, 81). The congregation itself goes back to the 1680s, and thus represented one of the earliest dissenting congregations in the city. In 1730 it closed and joined the United Dissenters at Bow Meeting (off Smythen Street). In time, in 1795, the congregation separated off again, thus providing the context for the construction of the new chapel on this site. Considerable expenditure (£800) on the building in 1840 probably represents the re-ordering and re-orientation of the focus of the interior, from facing southwest, i.e. on the short axis of the building, to facing northwest on its long axis (Wheeler 1895, compare the plan in 1797, opposite p. 4, with the photograph of the interior, opposite p. 9). In 1868-70 the congregation moved to a newly-built church in Southernhay (all but destroyed by bombing in 1942, but now rebuilt as the Southernhay United Reformed Church), and the Castle Street building was converted for Sunday School use (it being shown as such on the 1876 1:500 Ordnance Survey town plan [Fig. 4], with an axial division wall, one side for girls, the other for boys). Other extensions to the Castle Street chapel facilities are documented in 1833 (a schoolroom at the side) and 1875 (a lecture hall adjoining the church). The Sunday School continued to use the building until 1939, although interrupted by use as a hospital in 1914-18, but this finally ceased on the surrender of the building to the War Office for use as a recruiting office in September 1939 (May 1959). After the war the building was used by various government departments until it passed to the Royal British Legion as headquarters and club in 1955 (Style and Style 2000, 12). This use continued until the Timepiece nightclub (until then operating from the smaller Sunday School building of the 1830s to the southwest) exchanged premises with the British Legion Club in 1997. Various alterations and additions belong to this most recent period of use, including the toilet block added to the eastern corner of the building and fire escape stairs forming the southeastern limit of the evaluation site.

3. THE EVALUATION

In 2006 a single 1m wide trench was excavated within the centre of the proposed new extension (Blaylock and Passmore 2006). It was demonstrated that a small section of the clay rampart to the rear of the Roman wall survived, but the masonry of the wall itself had been removed by a wide robber trench dug along the rear of the wall, probably at the time of the construction of the Castle Street Chapel in the 1790s. One grave associated with the burial ground of the chapel was identified in the excavated area; another cut feature filled with modern debris was interpreted as a possible grave from which the burial had been removed in the later 20th century.

4. AIMS

The aim of the excavation was to record all archaeological deposits on the site which might be affected by the development and to effect their removal to the necessary depth in an archaeologically controlled manner, with provision for recording as appropriate. A subsidiary aim was to clear the site of any burials which fell within the excavation area (at least 8 skeletons were subsequently recovered).

5. METHOD

The requirements of the development (particularly the construction of a ground-floor store on a level with the existing ground floor) entailed a lowering of the external ground surface by 800mm to a height of 50.45m AOD, approximately 200mm below the existing floor level and 750mm below the top of archaeological deposits. This area was hand excavated to that depth, with the exposed graves being fully excavated to remove the burials; this involved localised excavation below the general level of ground reduction (to between 50.09 and 50.25m AOD).

The excavation was undertaken in accordance with a written scheme of work (Blaylock 2006) compiled by EA and approved by the Local Planning Authority under the planning condition and by English Heritage under the Scheduled Monument Consent. Excavation was undertaken by hand, carried out by EA staff. The written and drawn records produced during the evaluation were amended and expanded as appropriate. Records were made on pro forma context record and skeleton record sheets, with plans and sections prepared at scales of 1:50 and 1:20. A photographic record was made, comprising black and white prints and colour digital photography. All finds were initially retained and quantified; 'undiagnostic' later post-medieval finds and some residual earlier finds were discarded following cataloguing. A full listing of retained and discarded material is held in the site archive. The burials were fully excavated and boxed individually, ready for future re-interment. A record of the parapet of the city wall was also made during consolidation works after the main excavation.

The strip of ground between the standing chapel building and the boundary wall has been used for burials in the past (above), and a single burial was exposed during the evaluation but not excavated. Human remains, revealed as a result of the exercise, were excavated in compliance with the *Disused Burial Grounds (Amendment) Act, 1981* and other relevant Government guidance, and according to the guidelines of the Institute *for* Archaeologists Technical Paper No. 13 (1993) and the joint English Heritage-Church of England *Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England*, (2005). A Licence for the removal of human remains was obtained in advance from The Department for Constitutional Affairs (DCA), and the conditions attached to the licence adhered to. Burials were removed from their graves, packed in suitable finds boxes, along with any identifying material (such as coffin plates, for example), but without any surviving coffin fittings (nails, handles, etc.), and have been passed to the Exeter City Council Cemeteries department for reburial at Higher Cemetery, Heavitree.

The archive will be deposited with the Royal Albert memorial Museum, Exeter, under the accession number 528/2006, within three months of the museum reopening. An OASIS entry has been completed (exeterar1-76102) and includes a digital version of this report.

6. RESULTS (Figs 5-6; Pls 1-4)

With the exception of the new discovery of a number of graves, and presence of further modern deposits the basic archaeological and stratigraphic sequence observed in this excavation was the same as that recorded in the evaluation excavation in September 2006 (for which see Blaylock and Passmore 2006, 5-7). These are described below, along with a description of significant finds recovered during 2007.

The earliest exposed deposits were a sequence of clays and volcanic stone chippings forming the Roman clay rampart at the rear of the wall (103, 110-113). The upper layers of the rampart (103, 110-111) were fully excavated; the lower layers 112 and 113 tipped downwards away from the line of the wall in a westward direction; only the upper parts of these layers were exposed and removed. A small assemblage of finds, comprising 10 sherds of pottery and 1 piece of tile, was recovered from layer 103. The rampart was exposed at a height of 51.26m AOD, and a depth of 1.06m of rampart deposits was removed.

The rampart was truncated by a steep-sided, oval-shaped pit (124). The pit contained a reddish-brown silty clay fill with inclusions of yellow clay (characteristic of redeposited rampart material), white lime mortar, coal, charcoal, brick and slate fragments (125). Finds from the pit fill included metalwork, a residual sherd of Roman pottery and 17th- or 18th-century pottery. The character of this pit fill was similar to the later deposits associated with the 18th-century chapel, possibly indicating the pit immediately pre-dated the chapel, or was associated with its construction.

The pit was truncated by the construction trench (109) for the northeast boundary wall, i.e. a rebuild of the parapet of the city wall. This trench was not parallel with the wall, but was aligned at an angle of approximately 30º and, at the southeast edge of the excavation, had removed almost all the Roman rampart.

Masonry projecting out from the chapel was exposed in several places, particularly under the fire escape, and was also visible in places as upstanding masonry above the existing surfaces. No dating evidence was recovered, and it is possible that the stone forms the footings for the chapel. However, some of this masonry appears to be aligned on a slightly different orientation to the chapel, and it is also possible that it represents the remains of an earlier wall associated with the gaol, reused as the footings of the chapel. Drain 104 was exposed across the site, parallel to the chapel. The feature had been had been cut through the Roman rampart, and measured 0.38m wide by 0.62m deep.

A total of four graves, containing at least eight burials or skeletons, were exposed within the excavated area (Pl. 4). The graves were aligned on a NE to SW orientation, at right angles to the chapel and boundary wall. This alignment would have provided maximum burial space within the narrow area to the northeast of the chapel (*cf* the burial ground at the rear of George's Meeting House in South Street where graves were dug on a similar alignment; Pearce and Parker 2005, 15). All the graves had been cut from the same high level (51.26m AOD) and were up to 1.19m deep. None of the graves contained a tomb, but there was evidence for coffins in each grave. Almost all of the wood had rotted away, but fragments of coffin fittings, including nails, brackets and handles survived. All of the burials were laid in a supine position. Full analysis of the human remains is presented in section 7.

Grave 115
This grave measured 1.70m long by 0.60m wide by *c*. 1.40m deep, and contained four skeletons. A slate button was recovered from the backfill of the grave (116).

Skeleton 117. The upper skeleton. A largely complete skeleton of a female, buried in her own coffin. The body had slumped onto the left side following the collapse of the coffin 119 below, with the skull remaining upright. A coffin plate was positioned over the pelvis, but had also slumped downwards; this was very corroded, although traces of moulded scrolls or flourishes were visible, but any inscription was illegible. Two copper alloy pins were also recovered from this burial, possibly being shroud pins or used for securing a cloth lining to the coffin.

Skeleton 119. The middle skeleton. A largely complete skeleton of a male, buried in his own coffin. The left hand was placed under the pelvis, the right arm was laid out beside the body. The upper part of the body was slumped into burial 123 below, with the head dropped onto the right side.

Skeleton 123. The lowest skeleton. A largely complete skeleton of a male, buried in his own coffin. The left hand was placed under the pelvis, the right hand was placed over the pelvis, the feet were pressed against the end of the coffin. The head had dropped onto the left side. The very corroded remains of a coffin plate lay over the pelvis; this displayed a wider variety of decorative motifs than the other burials including 'impressed cord' design, scrolls and hatching.

Skeleton 128. A neonate infant placed either with or on top of burial 117.

Grave 109 (Pls 2-3)
This grave had been partially exposed during the evaluation and contained a single burial. The grave measured 1.85m long by 0.70m wide by 0.90m deep.

Skeleton 118. A complete skeleton of a female, with the hands laid over the pelvis. Neither the skull nor the jaw contained teeth indicating that (if formed) they had fallen out or been removed at an early age. A rounded lozenge-shape coffin plate lay over the pelvis and abdomen; the upper section displayed an embossed crown, the lower part had poorly-preserved fluting decoration and inscription painted in gilt lettering. Only fragments of this were legible, as follows:

… ROW
… 85
… ed

Grave 122
The grave measured 2.40m long by 0.50m wide and *c*. 1.20m deep, the central part of the grave had been entirely cut away by the construction of a soakaway in the late 20th century. The soakaway was partially exposed during the evaluation when it was interpreted as a robbed grave, perhaps a vault: Blaylock and Passmore 2006, 6-7. The grave contained the remains of at least two individuals, although the long length of the grave and the relative positions of the bones probably indicate that the leg bones did not form part of the individuals represented by the skulls.

Skeleton 121 and skeleton 127. The skull and jaw of a male at the southwest end of grave, slightly dropped to the rear. To the northeast the lower legs and feet bones of a burial (skeleton 127) were located within a grave cut on the same alignment as grave 122. At the time of excavation it was thought that this feature was part of grave 122, but this seems unlikely since this would give a grave size of 2.35m, with the burial being 2.10m long (see section 7.6 below for discussion on heights of individuals). The leg and feet bones therefore probably date to a third individual. A coffin plate was positioned over the lower leg bones; this was very corroded and no inscription was legible.

Skeleton 126. The skull, jaw and upper six vertebrae of a female at the southwest end of the grave. These were possibly buried in the same coffin as 121, since the remains of a coffin were observed beneath the lower skull.

The remainder of the deposits and features related to 20th-century activity, including a ceramic pipe within drain 104 alongside the former chapel building that was connected to manholes at two locations. The large cut feature in the centre of the site was fully exposed in

plan but continued below the required formation level (50.45m AOD), and was identified as a soakaway. The feature was connected by pipes to a drain cover at the base of the ramp under the fire escape. Construction trenches for both the fire escape and the existing toilet block were exposed and also excavated down to the required formation level. Recording of the parapet to the city wall, which was removed by contractors following the excavation, demonstrated that the present masonry comprised two distinct phases of 20th-century fabric.

7. THE HUMAN REMAINS, by C. Coles

7.1 Introduction

The burials excavated, from which eight skeletons were recovered, represent a small part of the cemetery once connected to a non-conformist chapel on the site, in use between 1796-7 and 1868. The burials are believed to date from 1797 until 1854, which was when the intramural burial law stated that burials should only be allowed in cemeteries outside the limits of cities (Wheeler 1895, 11).

Some of the burials had been truncated. Sk121 and sk126 only survive from the cervical vertebrae upwards, and these two individuals shared the same grave, or one of the coffins was placed on top of the other. Sk127 survives as lower legs and feet only. Four individuals were 'stacked' on top of each other in one grave. These include a neonate baby (sk128), which was possibly added to the top coffin of the 'stack' or was placed in its own coffin, on top of sk117. Many wealthy households buried their children in with adult members of the family, whereas many children from poorer families could not necessarily afford to have their children buried where they wished (Harding 1998). This is possibly why the remains of this infant have survived, as they were protected by being buried in or near a family member's coffin. Coffin furniture and some coffin plates survive.

7.2 Preservation and completeness of individuals

There is a fair amount of differing preservation present on this site. The condition of the bones from the truncated graves is fairly good, as is the condition and completeness of the lower two burials in the 'stack' (sk123 and sk119), with bones such as ear ossicles and hyoids surviving. However the upper adult in the 'stack' (sk117), the neonate in the 'stack' (sk128) and the adult buried individually (sk118) were not so well preserved, possibly due to being buried nearer the surface. Some bones were missing from these burials and other bones were broken.

7.3 Method

The ageing techniques used for adults in this collection were pubic symphysis analysis (Suchey-Brooks 1990), auricular surface analysis (Meindl and Lovejoy 1985), and cranial suture closure (Ascadi and Nemeskeri 1970). For the immature individual ageing was assessed using epiphyseal fusion and dental eruption (Scheuer and Black 2004) and for the neonate individual morphological traits were used (*ibid*). For the sexing of this collection general pelvis shape was used as well as greater sciatic notch shape (Buitska and Ubelaker 1994) and cranial features, such as nuchal crest size, mastoid process size, sharpness of the supra-orbital margins and size of the mental eminence (Ascadi and Nemeskeri 1970). Stature was calculated using long bones measurements and Trotter's (1970) equations. All long bone measurements were taken using an osteometric board.

7.4 **Age** (Table 1**)**
Age at time of death was estimated using auricular surface, pubic symphysis and suture closure for adult analysis, (see methodology). For juvenile analysis epiphyseal fusion and dental eruption was used, as well as general overall morphology for the ageing of the neonate individual.

For the eight skeletons from this site two were juvenile. These were one neonate individual (an infant aged between full-term and four weeks after birth) and one individual aged 15-18 years old. For the adults two ages are unknown, but are classed as adult due to their epiphyseal fusion and dental eruption. However more accurate ageing is not possible. One adult (sk117) could not be aged beyond saying that it is likely that this is a mature adult, as it was only possible to study the auricular surface. One adult (sk118) could not be aged beyond stating 'older adult' (adult likely to be plus 50 years of age at the time of death) as it was also only possible to study auricular surface for this individual.

Skeleton Number	Calculated age at death
Sk128	Neonate
Sk121	15-18 years old
Sk123	35-44 years old
Sk119	50-60 years old
Sk117	Mature Adult
Sk118	Older Adult (+50 years old)
Sk127	Age unknown (Adult)
Sk126	Age unknown (Adult)

Table 1. Calculated age at death for the Castle Street Chapel skeletons.

This represents the usual spread of ages present in this period. Due to the limitations on the accuracy of ageing human remains it is often the case that ages of older individuals get under-estimated, this may be the case with this assemblage. Neonates and young infants are often thought to be under-represented due to the poor survival of the more fragile remains. This is also possible with this collection.

7.5 **Sex** (Table 2)
Sex estimation was carried out by studying pelvis shape, sciatic notch size and skull morphology. Individuals were concluded to be female, possibly female, male, possibly male or sex unknown. Three individuals were decided to be female. These were sk118 (the adult located in the centre of the excavated area in a separate grave), sk117 (the top adult of the 'stack' of coffins) and sk126 (one of the burials only surviving from the neck upwards; (therefore sex analysis for this burial was based on skull morphology alone). The individual classed as possibly female (sk121) was the other burial only surviving for the neck upwards. This individual was believed to be 14-18 years of age, therefore sex analysis is not totally reliable. No individuals were classed as possibly male? Two individuals were decided to be male these are the two burials from the bottom of the 'stack' of coffins. For two of the burials sex is unknown. These are the burial where only the lower legs and feet survive (sk127) and the neonate individual (sk128). The figures shown in table 2 show a roughly even spread of both sexes represented in this burial ground.

Sex	No of individuals
Female	3
Possibly Female?	1
Male	2
Possibly Male?	0
Sex unknown	2

Table 2. Sex analysis for the Castle Street Chapel skeletons.

7.6 **Stature** (Table 3)
From the remains present it was possible to calculate stature for three individuals. These individuals are two males and one female.

Sex	Estimated Average Height (cm)
Male	164.7
Male	167.6
Female	156.2

Table 3. Estimated Average Height of the Castle Street Chapel skeletons, based on Trotter (1970).

These heights are slightly shorter than the mean average for the post-medieval period cemeteries such as St. Bride's Lower Churchyard, London, where the average male height is 171cm and the average female 157cm or the Broadgate Cemetery, London where average male height is 172cm and average female height is 158cm (Roberts and Cox 2003). The male stature for the Castle Street Chapel skeletons is also slightly shorter than the male average range for the post-medieval period which is 168-174cm. However the female stature calculated for the Castle Street Chapel Skeleton was inside the female average range for the post-medieval period which is 156-164cm (Robert and Cox 2003).

7.7 Pathology (Pls 5-7)

Trauma (Pl. 5)
One instance of trauma was noted from this assemblage. This was a well healed injury to the cranium of sk119; this male has a depression on the left parietal and left frontal bones with a very well healed lamella bone. The right parietal and occipital bones appear to be bulged, making the skull appear very asymmetrical, giving it a 'lop-sided' look. This is most likely to be a healed blunt force trauma to the left parietal and the left side of the frontal. It is possible the 'lop-sided' appearance of the skull was caused by the wound being bound for a long time. This injury could have been caused by a violent attack, but equally by an accident, perhaps something falling on to the individual's head.

Urinal calculus (Pl. 6)
A urinal calculus was found in the grave with the three adults stacked in coffins, due to co-mingling of remains it is not possible to be certain which individual this calculus came from. Urinal calculi occur as a result of the precipitation of the urine's solutes (Aufderheide and Rodriguez-Martin, 1998). They are most frequently found in males and were a cause of death listed in the London mortality bills (Roberts and Cox 2003). Approximately 2% of those listed had symptoms possibly indicating the presence of urinal calculus, this appears to peak in the late seventeenth/early eighteenth centuries (*ibid*) which is coincides with the time the Castle Street Chapel cemetery was in use. Therefore it is clear that this was a common

condition at the time, but the number of urinal calculus found with skeletal remains is fairly low, this is possibly connected to their lack of survival and lack of identification during excavation, due to their stone-like appearance. The calculus found on this site measures 13.7mm x 11.8mm x 11.7mm and weighs 1g. It cannot be concluded whether this was the cause of death for the individual who the stone originated from, however urinal stones can cause further complications that can cause death such as infection or they can enter the ureter and obstruct the urine flow and this can cause kidney failure (Aufderheide and Rodriguez-Martin 1998). The cause of urinal stones is not totally understood, but it can in some circumstances be associated with vegetarian diets, hyperparathyroidism or gout (Roberts and Cox, 2003).

Osteoarthritis and joint degeneration (Pl. 7)
Three of the individuals from this site showed signs of joint degeneration (38% of individuals). These are one of the males (sk119) and one of the females (sk117) in the 'stack' of coffins and the single female burial (sk118). Sk119 has pin-prick porosity and osteophytic growth present on the clavicles and on the margins of both proximal femur heads, as well as osteophytic growth on the humerii and both illiums. The most extensive joint degeneration present in this skeleton is in the spine, where several vertebra have fused, one vertebra has collapsed and several have schmorl's nodes, a depression in the surface of the vertebral body caused by vertical disc hernations (see inventory for full details). Sk117 also had pitting and osteophytic growth on many of the joint surfaces, again notably on the spine, with a collapsed T4, and eburnation (shiny patches where bones have rubbed against each other), which is also present on a number of vertebral bodies (see inventory for details). Sk118 also had similar changes to the vertebral column, with collapse of the bodies and osteophytic growth, eburnation and osteophytic growth can also be seen in the first metatarsals of this individual (see inventory for full details).

These are all likely to be age-related changes as these individuals are thought to be mature adults. The spinal changes could be linked to osteoarthritis due to their extensive pathological changes, especially those where eburnation is present. Osteoarthritis and joint disease was a very common problem in the post-medieval period and had increased from the medieval period. At the Christchurch Cemetery, Spitalfields, London 11% of individuals were found to have osteoarthritis and many of these individuals were known to have had non-manual occupations. It is believed that inactivity and bad posture may have played a part with the joint disease in these individuals (Roberts and Cox 2003). Therefore the joint disease present in the Castle Street Chapel skeletons excavated may not be reflective of particularly physical jobs.

Dental pathology

Ante-mortem tooth loss (AMTL)
Five of the individuals from the Castle Street Chapel Cemetery that were excavated had ante-mortem tooth loss. This ranged from one tooth being lost prior to death and the socket reabsorbing (sk123) to one individual having lost all but one tooth to ante-mortem tooth loss (sk126). Out of the three individuals that did not display signs of AMTL, one was a neonate, one had no upper body surviving to be analysed and the other was the subadult. Therefore 83% of the individuals with dentition had AMTL.

AMTL greatly increased from the medieval to the post-medieval periods, with the average AMTL in the medieval period being 36.4% and in the post-medieval period it rises to 60.6%

(Roberts and Cox 2003). This increase is thought to be related to a higher prevalence of sugar in the diet, possibly as food additives. The Castle Street Chapel individuals had a higher rate of AMTL than that of the average for the post-medieval but not as high as some cemeteries including Kingston-Upon-Thames Cemetery which had 88% AMTL (*ibid.*).

Caries

The amount of caries (cavities) present in this assemblage maybe under-represented due to so many teeth being lost ante-mortem. Two of the individuals (sk117 and sk123) from this assemblage had caries, each with one tooth being affected. This is 33% of the individuals present with dentition. The average rate of dental caries in this period is 43% which is a drop from 53% in the medieval period (Roberts and Cox, 2003) this is possibly thought to also be diet related as medieval diets were much more coarse than post-medieval diets.

Calculus

Again the amount of calculus (tartar) present in this assemblage may be under represented due to so many teeth being lost ante-mortem. Four of the individuals from this assemblage had calculus (66% of the individuals with dentition present) ranging from tiny amounts of calculus present on a few teeth to slight calculus on all teeth in some individuals (i.e. sk121). None of the calculus in this assemblage is severe. This percentage does seem higher than the normal rates of calculus for this period.

Enamel hypoplasia

Three of the individuals (sk119, sk121 and sk126) had enamel hypoplasia present in the teeth (50% of the individuals with surviving dentition). Enamel hypoplasia is a defect in the structure of the tooth enamel due to wide-spread stress being placed on the body such as starvation, non-fatal disease or dietary deficiencies. These defects usually form in the first year after birth (Aufderheide and Rodriguez-Martin 1998). The defects can appear as linear horizontal grooves or arrays of pits in the enamel's surface (*ibid.*). The enamel hypoplasia present in the Castle Street Chapel skeletons is largely of the linear horizontal groove type with the exception of the teeth of sk121, where extensive pitting can be seen as well as horizontal lines. Contemporary data from this period detailing the prevalence of enamel hypoplasia is not well known, however it is believed to have been a common problem.

Skeleton No	Sex	Age	Pathology	Dental Pathology
Sk117	F	Mature adult	OA in the spine, pitting on the femur heads	AMTL, Calculus, Caries
Sk118	F	Old adult	OA in the spine and OA in the 1st MTs	AMTL
Sk119	M	50-60 yrs	Trauma to the skull, OA and schmorl's nodes in the spine	AMTL, Calculus, Overcrowding and Enamel hypoplasia
Sk121	F	14-18 yrs	-	Calculus and Enamel hypoplasia
Sk123	M	35-44 yrs	Tiny areas of osteophytic growth on the tibia	AMTL, Calculus, Caries, Overcrowding
Sk126	F	Unknown	-	AMTL and Enamel hypoplasia
Sk127	?	Unknown	-	-
Sk128	?	Neonate	-	-

Table 4. Demography of the Castle Street Chapel skeletons.

7.8 **Conclusion**

The individuals excavated from the Castle Street Chapel cemetery only represent a small proportion of the number of individuals buried in this burial ground, but they are representative of the population as a whole and information about the demography of this group of people and the kind of life they led can still be learnt from this assemblage (Table 4). The eight individuals were aged between a neonate baby and mature adults and both sexes were fairly represented. The stature of the three individuals that could be calculated appeared to be slightly shorter than normal average height for this period, but not greatly smaller than the range. The normal disease and health problems for this period were present in this assemblage including osteoarthritis and various dental problems. Other conditions that were not rare to the period, but are not commonly found in the archaeological record were present, including the healed head trauma to one of the male individuals and the rare find of the urinal calculus. These conditions go some of the way to tell us about the diet and lifestyles of these people.

7.9 **Inventory of Skeletons**

SK 117

Sk117 was buried on top of sk123 and sk119. The remains of the infant (sk128) were placed either with or on top of sk117. Some co-mingling of remains has happened with the three adults in this grave. Bones were sorted into individuals where possible. Sk117 was more fragmentary than the skeletons placed below it. The pubis and approximately half of the ribs are missing, the other half are very fragmentary. The left scapula, left clavicle and left proximal humerus were also missing, as were four metacarpals and a large amount of hand and foot phalanges.

Age analysis for this individual was based on auricular surface only, as the pubis bones were missing and the skull is damaged in certain places, therefore the result of 40-44 years old at the time of death is not reliable. Therefore it is best to conclude that the individual was a mature adult.

The sex analysis for this individual was based on sciatic notch and skull morphology (see methodology) and was concluded to be female.

Stature calculation was not possible as none of the long bones were complete.

Pathology was noted on this skeleton. It is worth noting that due to co-mingling the urinal calculus found with sk123 could have come from these remains. There is a generalised pitting on both proximal femur heads and in each acetabulum. There is also pitting present on the right distal femur with a tiny patch of lamella bone on the posterior surface. The vertebral column also had large amounts of pathological change. On the cervical vertebra pitting is present on all intervertebral joints and osteophytic growth is present on the margins of the joint surfaces. All of the thoracic vertebra have pitting and osteophytic growth around the vertebral bodies and the right side of T4 vertebral body has collapsed. There are also small patches of eburnation on the joint surfaces of T9 and T11. There is pitting and extra bone growth on all the lumbar vertebra and the sacrum has a small patch of eburnation on the joint surface with L5. These changes to the spine are likely to be age-related and are indicative of osteo-arthritis.

This individual also had signs of dental pathology. In the mandible the only tooth remaining is the first premolar on the left. This tooth has a caries on the lingual surface and small amounts of calculus. There are sockets for three incisors, 1 canine and two left molars still present. Nine teeth have been lost ante-mortem from the mandible. The teeth still present in the maxilla are left first molar, both canines, 2 right incisors and right first and second molars. Sockets for one canine and one incisor are still present. Five of the maxillary teeth have been lost ante-mortem. All maxillary teeth have calculus and both right molars have root caries on the buchal sides. The surviving teeth have very little wear present.

SK 118

SK 118 is more fragmentary than the other skeletons present from the site. The bones present from this skeleton are the skull in fragmentary form minus the maxilla and the palatines. The mandible is present as are both clavicles and scapulas, most of the long bones and a large percentage of hand and foot bones. Most of the cervical and thoracic vertebrae survive however most lumber vertebrae are not present. The only ageing information from this skeleton was from the auricular surface of approximately 50-59 years old, but as other techniques not being possible this is not definite. Sexing was based on skull morphology and sciatic notch size and it was decided to be female.

Pathological changes are present in the vertebral column most noticeably in the cervical vertebra 3 to 7 and the thoracic vertebra 1 to 4, where pitting in the intervertebral joint surfaces, changes in the slope of the joint surfaces and osteophytic growth on these surfaces are observable. C7 to T5 all have schmorl's nodes (a depression that is caused by the herniation of spinal fluid) on the posterior part of vertebral column, these are thought to be age related changes and possibly signs of osteoarthritis. Other pathology is discernable in areas of pitting and extra bone growth on both the proximal femur heads, the articular surface of the patella, both talus and the first distal foot phalange on the right. Both first metatarsals have large amounts of extra bone growth on the distal ends, small patches of eburnation and porosity on the articular surfaces. This can be possibly diagnosed as osteoarthritis. Small amounts of ossified costal cartilage are present. Full ante-mortem tooth loss has occurred on the mandible with complete re-absorption. The maxilla does not survive, nor do any loose teeth. Stature was calculated by measuring the femur, tibia, fibula, humerus and ulna and an average of 156.3cm was calculated.

SK 119

Sk119 was buried on top of sk123 and under sk117 and sk128. Some co-mingling of the remains happened with the three adults in this grave. Bones were sorted into individuals where possible. From sk119 several ribs were missing, as were two metacarpals, some hand phalanges, three metatarsals and approximately half of the foot phalanges. The remaining bones were in good condition and included a coccygeal vertebra and one right malleus.

Age analysis for this individual was based on pubic symphysis (Suchey-Brooks 1990), auricular surface (Meindl and Lovejoy 1985) and cranial suture closure (Ascadi and Nemeskeri 1970). The age result range was 27-60 years old at the time of death, with the most likely range being 50-60 years old (this is when all three techniques overlap).

The sex analysis for this individual was based on sciatic notch, overall pelvis shape and skull morphology (see methodology) and was concluded to be male.

Stature for this individual was calculated by measuring the long bones (femur, fibula humerus, radius and ulna) and using the (Trotter, 1970) formula. The mean average height for this individual was 168cm.

A number of pathologies were noted on the remains of this individual. It is worth noting that due to co-mingling the urinal calculus found with sk123 could have come from these remains. The skull of this individual has a depression on the left parietal and left frontal bones, with lamella bone in this area, the right parietal and occipital also appear to be bulged, giving the skull a very asymmetrical appearance of the skull from the posterior and medial angles. This is most likely to be healed blunt forced trauma to the left parietal and left frontal and it is possible that the asymmetrical appearance of the skull was caused by the wound being bound for a long time.

Other pathologies noted in this skeleton include osteophytic growth on the margins of both proximal femur heads and pin-prick pitting on both proximal tibia diaphysis and on the proximal calcaneus. The clavicles both have pitting and osteophytic growth on the medial and lateral articular surfaces. The scapulas have slight areas of extra bone growth on the margins of the glenoid fossa. Both humerii have osteophytic growths on the margins of the proximal joint surface and on the deltoid muscle insertion. The pelvis has extra bone growth on the iliac crest, illium and margins of the acetabulum, with pitting inside the acetabulum. There is ossification of the costal cartiliage present on the left first rib.

The vertebral column has many signs of pathological change with pitting and extra bone growth present on the majority of vertebral joints, with T5, T6 and T7 all having schmorl's nodes on the inferior surface. T12 and L1 vertebra are fused together by osteophytic growth on the left side of the vertebral body, L1 also has a partly collapsed centrum. L2, L3 and L4 are all fused by extra bone growth on the spinous processes. All these pathological changes seen in this individual can be attributed to age-related changes to the skeleton, with osteoarthritis being present in the spine.

Dental pathology is also present in this individual. In the maxilla the only teeth present were two canines, there were sockets for three incisors and an M2, all other maxillary teeth were lost ante-mortem with complete re-absorption of the alveolar sockets. The two remaining canines have small amounts of calculus. In the mandible the left M2, left P1 and P2, left canine, all four incisors, the right canine and right P2 are present. The left M3, left M1, right P2 and all right mandibulary molars have been lost ante-mortem. For the remaining mandibulary teeth overcrowding is present especially with the two left incisors and left canine. There is slight calculus on all teeth, with extreme calculus on both canines and the left P2. Enamel hypoplasia can be seen on the right premolar 2, in the form of vertical lines.

SK 121

The only bones present from Sk121 are the cranium, loose teeth, axis and atlas. One right incus (ear ossicle) is also present. The age of this skeleton was concluded from tooth eruption and the part fusion of the inferior annular ring of the axis. Both the maxillary M3's have yet to erupt giving an age of younger than 18 years old at

the time of death. The fusion of the inferior annular ring of the axis has just begun at the time of death giving an age of approximately 15 – 18 years for this individual. Sexing was based on skull morphology and due to age is not totally reliable. Based on the nuchal crest, mastoid process, supra-orbital margin and glabella, the sex of this individual is most likely to be female. The only pathology present is dental pathology. There is slight dental calculus on all teeth and moderate calculus on the right maxillary M1 and M2. Enamel hypoplasia is seen on all teeth but most visible on the incisors where linear horizontal pits and lines can be seen.

SK 123

Sk 123 is one of the most complete skeletons from this site. The skeleton was buried under sk119, sk117 and sk128. This may account for the better preservation. Some co-mingling of remains has occurred with the three adults in this grave. Bones were sorted into individuals where achievable. From sk123 one rib and one foot phalange was missing, one coccygeal vertebra was present, as was the hyoid and the left incus bone.

Age analysis for this individual was based on pubic symphysis (Suchey-Brooks 1990), auricular surface (Meindl and Lovejoy 1985) and cranial suture closure (Ascadi and Nemeskeri 1970). Using all three techniques the age result was 21-44 years old, with the most likely range being that of 35-44 years old at time of death (this is when all three techniques overlap).

The sex analysis for this individual was based on the sciatic notch, overall pelvis shape and skull morphology (see methodology) and was concluded to be male.

Stature for this individual was calculated by measuring the long bones and using Trotter's (1970) formula. (Humerus, ulna, radius, femur and fibula were used for this skeleton. The mean calculation of these came to 164.04cm.)

Pathology was noted for this individual. One urinal calculus was found with the skeleton, however due to the co-mingling of the remains, it is not possible to conclude which of the individuals this originated from. There were small areas of osteophytes noted on the posterior sections of both tibia mid shafts, it is not viable to state what caused this, however an infection of some sort is a possibility. Dental pathology was the only other pathology noted in this individual. The right maxillary premolar 2 is missing through ante-mortem tooth loss with the socket being completely reabsorbed. There is overcrowding present on the mandible most noticeably involving the left canine and premolar 1. Caries are present on the right molar 2 occlusal surface resulting in a large amount of this tooth being lost. The other teeth are fairly unworn and only small amounts of calculus are present on the left maxillary molars 1 and 2. No enamel hypoplasia or dental abscesses are seen in this individual.

SK 126

Sk126 is only present from cranium to cervical vertebrae 6. Other bones present include 50% of the right clavicle, parts of the right scapula and fragments of the hyoid. One right incus is also present. Based on morphological traits of the skull including nuchal crest, mastoid process, supra-orbital margin and mental eminence, the individual was female. The only ageing information was calculated to be 27 – 45 years of age from suture closure, therefore extremely unreliable.

The only pathology present was that of dental pathology, all mandibular teeth and all but one maxillary tooth were lost ante-mortem, all sockets have completely reabsorbed. The one remaining tooth is that of an upper right canine in wear stage 2, with slight signs of enamel hypoplasia evident on the enamel.

SK 127

Sk 127 is only present from mid shaft tibia to distal foot phalanges. All tarsals and metatarsals are present, 18 out of a total of 28 foot phalanges are present. One sesamoid is present. All bones are fused indicating an adult individual, no other age or sex indicators are present. Squatting facets are present on both distal tibias. No pathology was noted.

SK 128

Sk 128 is a neonate infant of which exact age is unknown, but believed to be around the time of birth. A large amount of the skull is present as is one scapula, one clavicle, most of the ribs, most of the neural arches of the vertebra. Most of the long bones are present. The majority of the vertebra bodies and all hand and foot bones are missing as are all epiphyses. Age was calculated from morphology of certain bones including scapula, pars lateralis of the occipital and several long bones.

8. DISCUSSION, *by* A.J. Passmore and S.R. Blaylock

The excavated sequence may be summarised as follows.

Phase 1, Roman
A small upstanding section of Roman clay rampart was present along the southwest side of the site. The clay layers alternating with lenses and layers of stone chippings and spalls is entirely consistent with the heightening of the Roman rampart as the stone town wall was constructed. Where it has been seen elsewhere on the circuit the early rampart (above, p. 2) is characterised by its composition of redeposited natural clay, presumably deriving from the digging of ditches outside the wall, whereas the clay of the secondary rampart is characteristically more mixed, with a greater mixture of charcoal and other material deriving from human occupation, and containing quantities of volcanic stone chippings and offcuts deriving from the construction of the wall (both mixed in with the clay rampart material and deposited as discrete layers representing the working of stone for the wall). From this it is possible to conclude that the rampart was built up in stages with the wall, course by course and layer by layer. What has been seen here, in the limited area revealed in the excavation, is a section of secondary rampart just above the transition from the primary rampart and fairly close to the rear of the wall masonry (shown by the frequent incidence of volcanic stone waste material).

The Roman wall attained a maximum thickness in the region of 3m (with a rear face constructed in a series of stepped faces); how variable this was around the circuit is not fully known. This width is not inconsistent with the width of the construction cut (at a maximum of *c.* 4.40m from the front face of the wall) that seems to represent the rebuilding of the parapet wall on top of the surviving city wall fabric. It seems likely that this took place primarily to create the boundary wall for the chapel curtilage, perched on top of the pre-existing city wall footings, but it may have had the secondary purpose of removing or cutting back the Roman wall footings, which probably survived to a greater width in the late 18th century than now (*c.* 2.15m). This would account for the great width and depth of the cut, far wider than would be necessary for construction of the wall alone, and deeper than necessary simply for the construction of a parapet wall.

Phase 2, construction and early years of the Congregational Chapel, late 1790s
The site of the gaol was purchased for the Congregational Chapel in 1796 and a new building erected using the materials from the former gaol in 1797 (Wheeler 1895, 4). Pit 124 is probably associated with the demolition of the gaol or the construction of the chapel. Masonry projecting out from the northeast wall of the chapel may represent contemporary footings, but the slightly differing alignment of this masonry from the upstanding chapel may indicate that this stonework is actually the remains of the earlier gaol. In addition to the standing wall of the chapel itself, the wide construction trench (102), see above, appears to be the main feature associated with the primary phase of the chapel. The trench was excavated for the construction of the boundary or parapet wall (set back from the line of the earlier city wall). The feature is considerably wider than necessary for just this purpose, and it has already been suggested that the trench may have also served to rob out the inner face of the Roman wall fabric. The excavation has shown that this wall is more than just a parapet wall perched on top of city wall; rather it appears to be a thorough re-facing of the core of the wall to a considerable depth. Since this runs significantly beneath exterior ground level as it is at present, this too suggests that the rebuilding event represented by this feature was more than just the construction of a boundary wall. Why would it have been necessary to rob out wall

footings on this scale? The confined space between the chapel and the city wall may provide an answer: if it was intended to exploit the site to the full, and use the ground to the northeast of the chapel for burials, as has been demonstrated, then wide Roman footings in position would represent an impediment to the digging of graves on any scale; it may thus have been decided to cut the wall back in this way so as to clear the ground for the digging of new graves.

Phase 3, use of chapel, 19th century
The construction of a drainage culvert along the northeast wall of the chapel (104) took place early in the 19th century: a decorated clay pipe bowl from the fill of the foundation trench dates to 1810 at the earliest and thus shows that the feature must post-date the primary construction phase in the 1790s.

All the graves on the site fall in the period between 1798 and 1854, at which date further burials in intramural cemeteries were forbidden (Wheeler 1895, 11). A tighter date range for the graves cannot be given. Analysis of the skeletons has shown that the individuals range in age from a neonate baby to mature adults. Stature was calculated for two of the individuals. Both sexes are present, as are a range of pathological conditions including healed trauma, a urinal calculus and dental pathologies.

Phase 4, modern activity, late 20th century
The insertion of a ceramic drain in the culvert along the northeast wall of the chapel, the creation of a soakaway and associated pipes, and the deposition of soil make-up layers for the modern concrete surface and the surface itself all belong to relatively recent periods, mostly from the 1960s and 70s to the present. All had been completed by the time of the move of the nightclub into these premises in 1997 (George Sloan, personal communication), and thus probably belong to the period of use by the British Legion Club between 1955 and 1997 (May 1959; Style and Style 2000, 12). The existing toilet block appears to have been built in the 1960s (it appears on the Ordnance Survey map of 1969 used as the base for Fig. 1 of the evaluation report, for instance) and the drain is presumably coeval with this building. The other activities may well be associated with the extensive works carried out on the building *c.* 1976, which included the addition of a third storey billiard room (Stell 1991, 81; George Sloan, personal communication).

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Appendix 1: The Written Scheme of Work

METHOD STATEMENT FOR AN ARCHAEOLOGICAL EXCAVATION AT THE TIMEPIECE NIGHTCLUB, LITTLE CASTLE STREET, EXETER, DEVON.

Prepared by Exeter Archaeology on behalf of The Arthur Palfrey Partnership

1 INTRODUCTION

1.1 This Method Statement has been commissioned by The Arthur Palfrey Partnership on behalf of their clients Messrs R. Skinner and G. Sloan, of Timepiece Nightclub and Wine Bar, Little Castle Street, Exeter, to describe a programme of archaeological excavation on the site of a proposed extension to the Timepiece Nightclub (formerly the Royal British Legion Club, and originally the Castle Street Congregational Chapel: Brockett 1962, 203; Stell 1991, 81) at the rear of Little Castle Street, Exeter (central NGR SX 92205 92901). This document represents the "written programme of archaeological work" required under condition no. 5 on the planning permission (06/1079/03) and Listed Building Consent (06/0707/07) and the documentation required in support of the scheduled monument consent application.

1.2 The site lies on a plot set back from Little Castle Street, immediately within the city wall, so that the standing wall forms the north-eastern limit of the plot, albeit below ground. Other limits are the boundary wall with Bradninch Hall and Bradninch Court to the north west, the standing former chapel building to the south west and a high revetment wall bounding Bailey Street (a post-war introduction into the townscape) to the south east. This narrow strip of ground, some 30m north-west to south-east, but less than 5m wide, was used as a burial ground for the chapel in the early 19th century. Along with an area to the south-west of the chapel building it is marked as such on the 1876 large-scale (1:500) Ordnance Survey town plan. The site of the proposed development lies at the north-east corner of the building, immediately against the standing walls of the chapel building, between a late 20th century extension projecting from the corner (the existing toilet block) and a flight of stone steps serving as a fire escape. It occupies an area of some 3.5 x 6m at the northern end of the former burial ground (NGR SX 92208 92913).

2 BACKGROUND

2.1 An archaeological evaluation carried out in September 2006 involved the excavation of an evaluation trench 1m wide and 1.2m deep across the area from north east to south west. It was found that much of the inner wall face of the city wall had been quarried away in the late 18th/19th century (probably at the time of the construction of the chapel), but a strip of clay rampart behind the wall survived to with about 0.2m of the surface. These deposits were cut by at least one grave belonging to the chapel burial ground.

2.2 The archaeological and historical background to the site, and its legislative structure are discussed along with the detailed results of the evaluation exercise in a draft report accompanying this method statement (Blaylock and Passmore 2006), and will not be repeated here. Here it is sufficient to say that as a result of the evaluation it was decided that the limited surviving remains of the Roman rampart inside the city wall, and later deposits broadly associated with the construction and use of the chapel, were likely to require excavation as a prelude to development, but were not of the sort of intrinsic interest likely to require their preservation *in situ.* Part of one burial located demonstrates that this part of the site was used for burials in the early 19th century, and therefore shows that more burials may be encountered.

2.3 The city wall is designated a Scheduled Monument (Devon no. 136, Exeter city wall), and any works affecting it 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. Therefore SMC will be needed for all works within this site. One other statutory designation affecting the site is that the former chapel building is Listed as a building of special architectural and historic interest (Grade II).

3 AIMS

The aim of the investigation is to record all archaeological deposits on the site that might be affected by the development and to effect their removal to the necessary depth in a controlled manner, with provision for recording as appropriate. A subsidiary aim will be to clear the site of any burials that fall within the excavated area.

4 METHODOLOGY

4.1 The site of the proposed building covers an area of some 6m south-east to north-west by 3.3-3.5m north-east to south-west, a total area of *c*.21m^2. It is defined by the standing building to the south-west (chapel building) and north-west (the 20th century toilet block), by the parapet wall within the line of the city wall to the north-east and by the retaining wall of the present terrace, ramp and fire-escape steps to the south-east. The site is presently clear, with the evaluation trench of September 2006 remaining open, but protected by boards.

4.2 The requirements of the development (particularly a ground–floor store on a level with the existing ground floor level), will entail lowering of the (presently) external ground level by about 800-900mm [**to be confirmed when architect's plans are clearer**]. The first and main task of the excavation will therefore be to achieve this lowering of ground level by archaeological excavation and to record the deposits in plan and in section, integrating (in the process) the records of the evaluation trench. This will include further north-east to south-west sections towards the limits of the area, in positions to be established after the removal of superficial modern deposits. Excavation will be by hand, carried out by Exeter Archaeology staff, with the spoil reserved on site for carting away by the clients. At an early stage in the procedure the grave cuts of burials will be defined, so that the number of burials and the scale of the clearance operation can be identified. As a stratigraphic ideal these would be cleared at this stage, prior to further excavation, but it may prove easier (for reasons of ease of access) to empty graves by stages and take the fill levels down stage by stage ahead of the surrounding strata.

4.3 The precise depth required for construction has yet to be determined by architect and engineer. Excavation will be carried out to a sufficient depth to permit all archaeological deposits to be observed and recorded, and all identified burials to be removed (the two may not be the same inasmuch as it may be necessary to excavate deeper than the proposed formation levels needed simply for construction purposes in order to remove burials), altogether excavation will be to a sufficient depth for all construction work to take place without jeopardising the integrity of archaeological deposits.

4.4 Human remains will be excavated in compliance with the *Disused Burial Grounds (Amendment) Act, 1981* and other relevant Government guidance, and according to the guidelines of the Institute of Field Archaeologists Technical Paper No. 13 (1993) and the joint English Heritage-Church of England *Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England*, (2005). A Licence for the removal of human remains will be obtained in advance from The Department for Constitutional Affairs (DCA). However access to the burials is achieved (above) they will be removed from their graves, packed in suitable finds boxes, along with any identifying material (such as coffin plates, for example), but without any surviving coffin fittings (nails, handles, etc.), and passed to the Exeter City Council Cemeteries department for reburial at Exwick Cemetery.

4.5 If burials are found running beneath the standing structures beyond the area of the excavation to the north west or south east (i.e. if the existing toilet block and/or the fire escape prove to have been built over burials in position) they will have to be removed only inasmuch as they fall within the area of excavation.

4.6 The excavation 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) black and white photography, supplemented by colour transparency and/or digital photography where appropriate;

(iii) survey and location of finds deposits or archaeological features using EDM surveying equipment and software where appropriate;

(iv) 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;

(v) 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. If deposits of potential for recovery of dated/dateable plant and animal remains survive, they will be sampled using the EH Guidelines for Environmental Archaeology (EH CfA Guidelines 2002/1). The EH Regional Archaeological Science Advisor will be consulted before the project commences on appropriate sampling strategy.

4.7 Once the nature of the archaeological deposits surviving beneath the desired formation level is revealed by excavation, decisions will be made about their further treatment and the state in which to leave the site. If the area is covered by grave cuts, for example, then the decision might well be made to lower the whole area further to a point at which it can be levelled off, then built up again in hard core. Alternatively if few graves disturb this level, then it might be preferable to protect the exposed archaeological deposits with a geo-textile membrane or sand barrier. The present design proposes that the whole area will be lowered by at least 300mm to create a new floor level for the ground-floor store-room (Arthur Palfrey Partnership design drawing 800/S, revision of 09/06/06). In practice such a reduction of final level would mean an actual reduction of ground levels across the whole site of considerably more than this in order to provide room for raft foundations and hard-core base, etc. **Until the foundation design is finalised, however, the depth to which excavations will have to go remains unknown in detail (above).**

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, under museum accession no. 528/2006, in accordance with the guidelines *Procedures for the Deposit of Archaeological Archives from Developer Funded Fieldwork to Exeter City Museum (2005)*. A completed 'Transfer of Title Form' will be deposited along with the archive. A single combined archive and full report will be produced covering both the evaluation and excavation stages of work. Depending on decisions on publication of the results (below, 5.4), the aim would be to deposit the archive within a year of the completion of fieldwork.

5.2 The final report will include the following elements:

(i) a location plan and overall site plan showing the distribution of archaeological features;

(ii) plans and sections of significant features or deposits at a relevant scale;

(iii) a description of any remains and deposits identified;

(iv) an assessment of the probable extent of deposits over the remainder of the site extrapolated from the observations of the evaluation trenches;

(v) an interpretation of the character and significance of the below ground and standing archaeological resource and the possible impact of any scheme on these remains;

(vi) an assessment of any significant artefacts, environmental and scientific samples, with recommendations for further analysis;

(vii) any specialist reports commissioned;

(viii) discussion of the archaeological deposits encountered and their context;

(ix) a non-technical summary;

(x) the Scheduled Monument Consent application, decision notice, and method statement(s) relating to the work will be included as appendixes to the report.

5.3 A draft of the report will be submitted to EH and ECC for comments. The consultation draft of the report will be produced within six months of the completion of fieldwork; with a final version, incorporating any comments, produced as soon as possible thereafter.

5.4 If they are thought to merit further dissemination, the results of excavations will sometimes need to be published in an appropriate academic journal. Such a decision will usually be made by the appropriate archaeological curator (in this case the ECC Archaeology Officer in consultation with EH, the contractor and the client). As with the archive the optimum would be to combine results of all archaeological work in one publication, and so a decision on any publication is likely to be deferred

until such work is complete. A suitable contingency should be allowed for possible publication. If no publication is judged necessary then the results of the excavation may still merit a short note in the 'period results' section of a relevant national journal.

5.5 An entry for the Exeter Urban Archaeological Database (EUAD), containing a brief account of the circumstances and location of the work together with location and trench plans, will be produced in addition to any report.

5.6 Details of the project will be submitted to the OASIS (Online Access to the Index of Archaeological Investigations) database.

5.7 It is understood that the planning condition will be fully discharged once the site work and the work necessary under sections 5.1-5.6 above has been completed.

6 PROJECT ORGANISATION

6.1 The project will be undertaken by an EA Project Officer (to be identified; preferably by Andrew Passmore who conducted the evaluation exercise), assisted by a Project Archaeologist when required, under the direction of Dr Stuart Blaylock, Senior Project Manager, who has worked for EA on excavation and building-recording projects throughout the South-West since 1979, and specialises in the study of ancient monuments and historic buildings. The work will be carried out in accordance with the Institute of Field Archaeologists (IFA) Code of Conduct (revised 2000) and the IFA Standard and Guidance for archaeological excavation (revised 2001).

6.2 The project will be monitored by English Heritage (EH) and the Exeter City Council (ECC) Archaeology Officer, both of whom 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 (using generic Risk Assessments prepared for typical archaeological projects and lifting of human remains). 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 as a routine minimum; protective clothing and masks if judged necessary) 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 Archaeology), and sub-consultants;
Dating techniques: University of Waikato Radiocarbon Laboratory, NZ; Alex Bayliss (EH);
Charcoal identification: Rowena Gale;
Dendrochronology: Cathy Groves and Ian Tyers (Sheffield University); Robert Howard (Nottingham University);
Diatom analysis: Nigel Cameron (UCL);
Environmental data: 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;
Geophysical survey: GSB Prospection Ltd (Bradford); Oxford Archaeotechnics; Stratascan (Upton Upon Severn, Worcestershire).
Human remains: Louise Loe (Bournemouth University); Dr Mary Lewis (Bournemouth University); Dr James Steele (Centre for Human Ecology, Southampton);
Lithic analysis: Dr Linda Hurcombe (Exeter University); John Newberry (Paignton);
Medieval and post-medieval finds: John Allan (Exeter Arcaheology) 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 Tony Brown (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: Dr Tony Brown (Exeter University), Matthew Canti (EH) and sub-consultants;
Textiles: Penelope Rogers (York)

8 BIBLIOGRAPHY

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Brockett, A. 1962 *Nonconformity in Exeter, 1650-1875*, Exeter: University of Exeter Press.

Stell, C. 1991 *An Inventory of Nonconformist Chapels and Meeting-Houses in South-West England*, Royal Commission on the Historical Monuments of England, London: HMSO.

Dr S.R. Blaylock
Exeter Archaeology
Drafted 12.x.06; revised 17.xi.06; 15.xii.06.

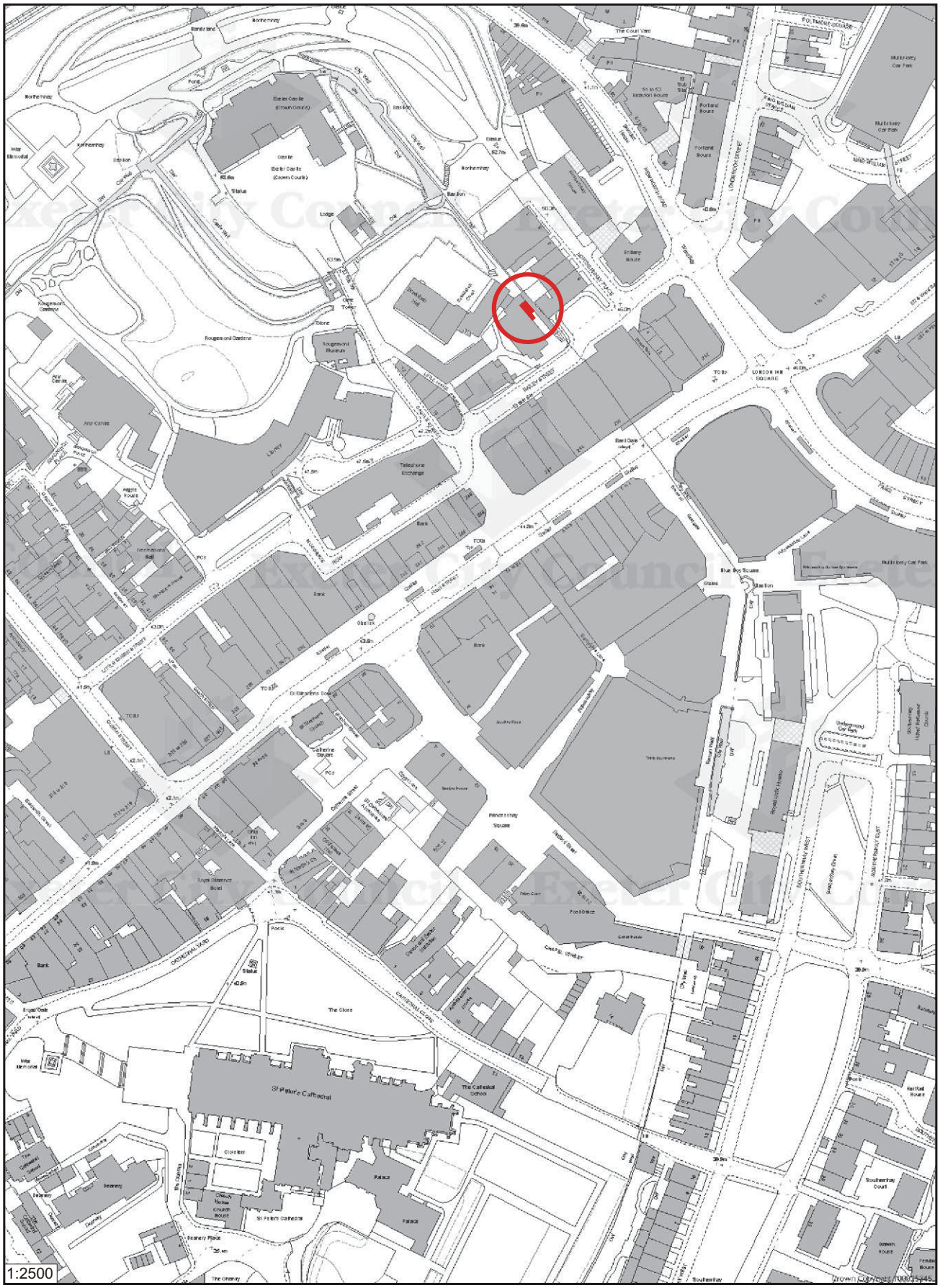

Fig. 1 Location of site.

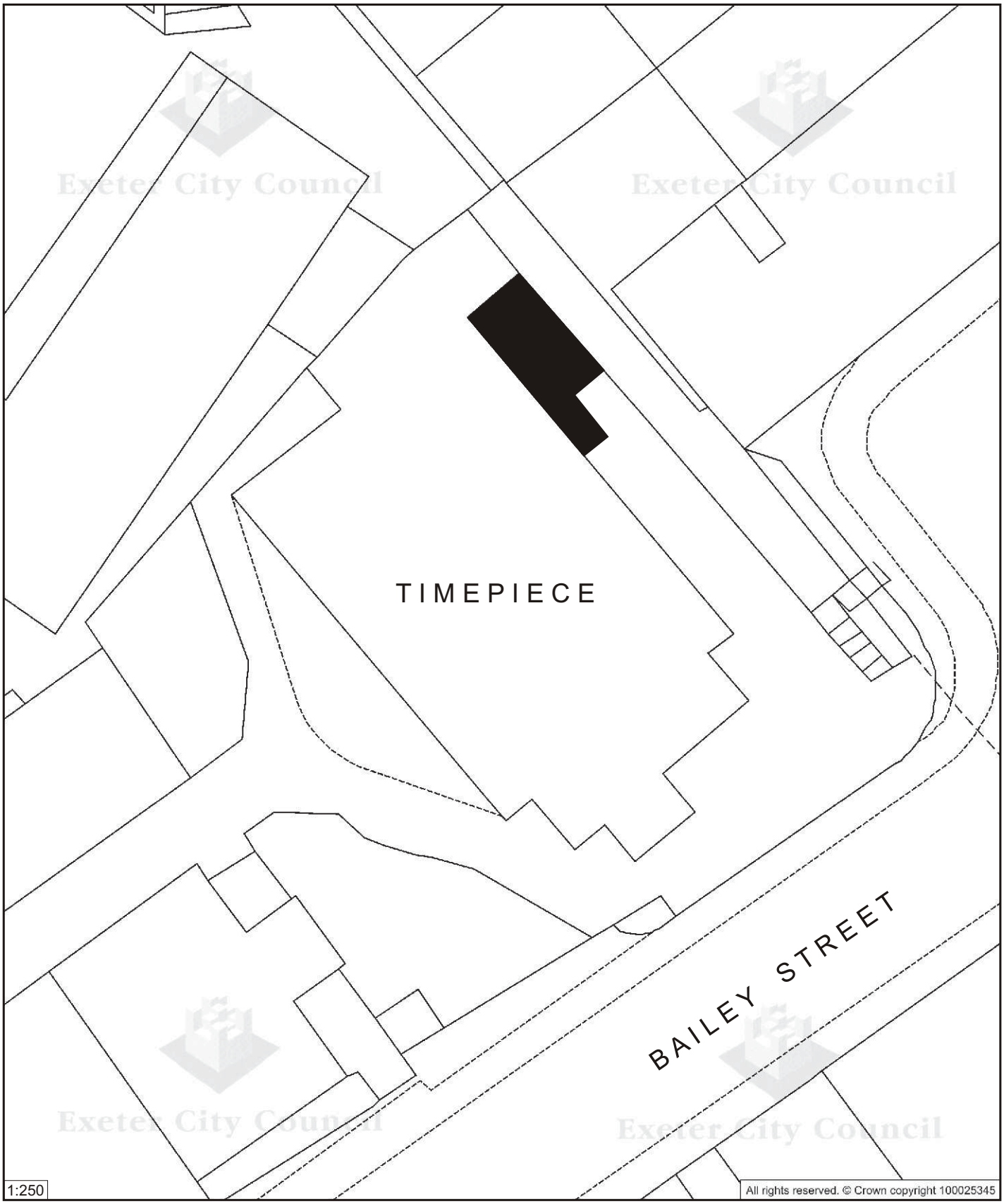

Fig. 2 Site plan showing location of excavation.

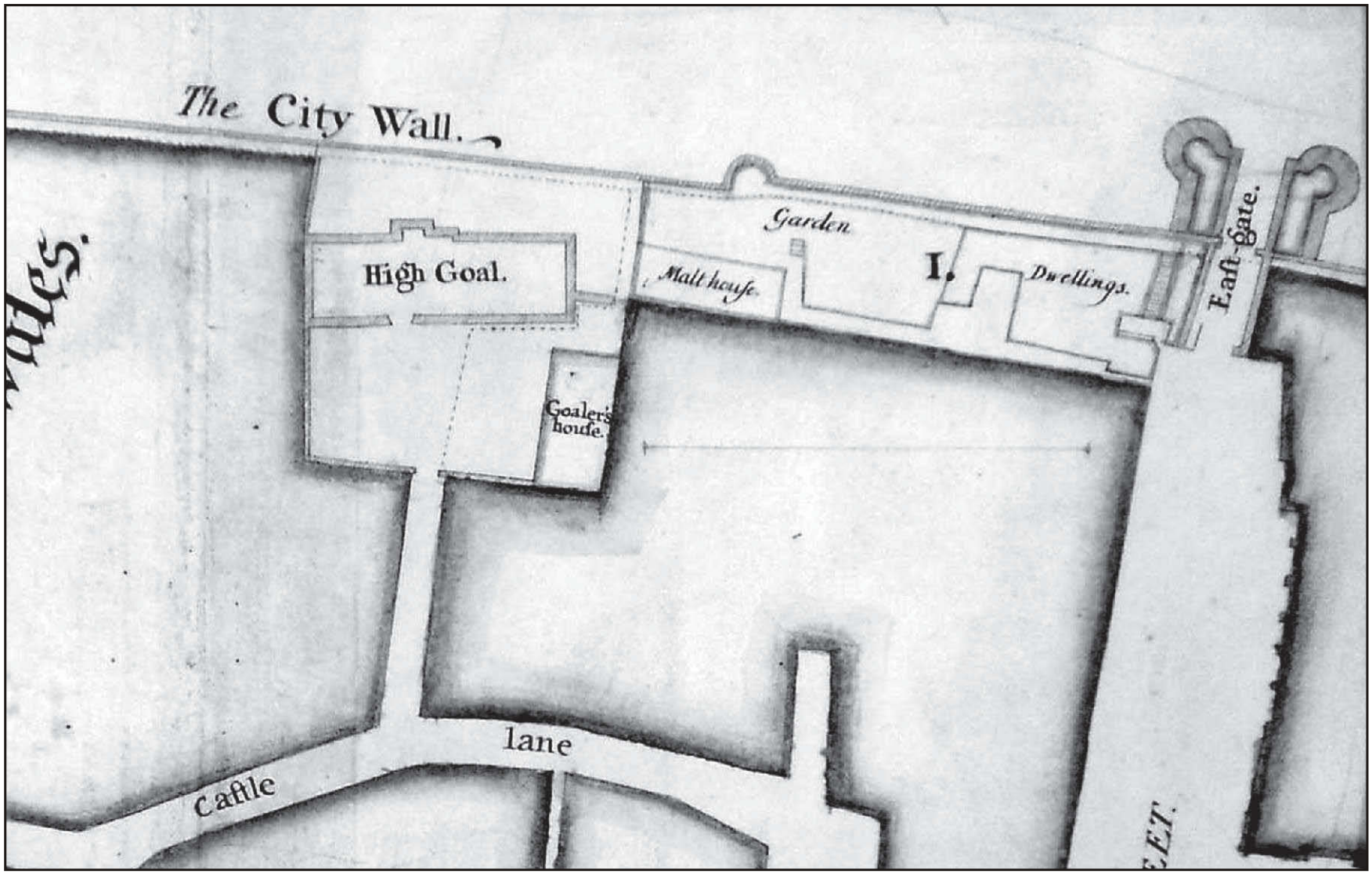

Fig. 3 Extract from the Chamber Map Book of 1758, showing the High Gaol in the mid-18th century occupying a compound between Castle Lane and the city wall (DRO ECA Book 58/map 12).

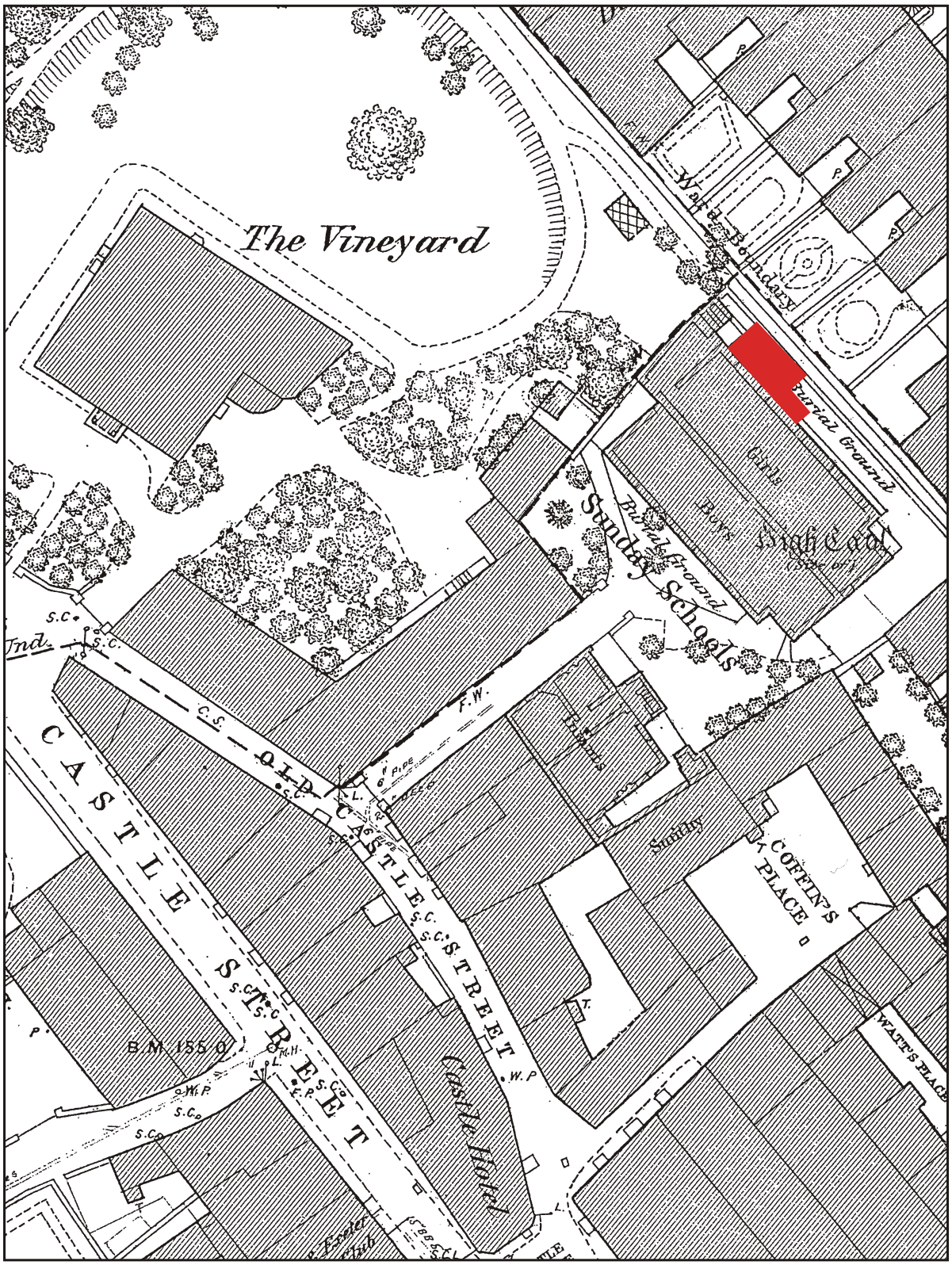

Fig. 4 Extract from the 1:500 scale Ordnance Survey town plan of 1876 (Devonshire sheet LXXX 6.12) showing the chapel and its curtilage.

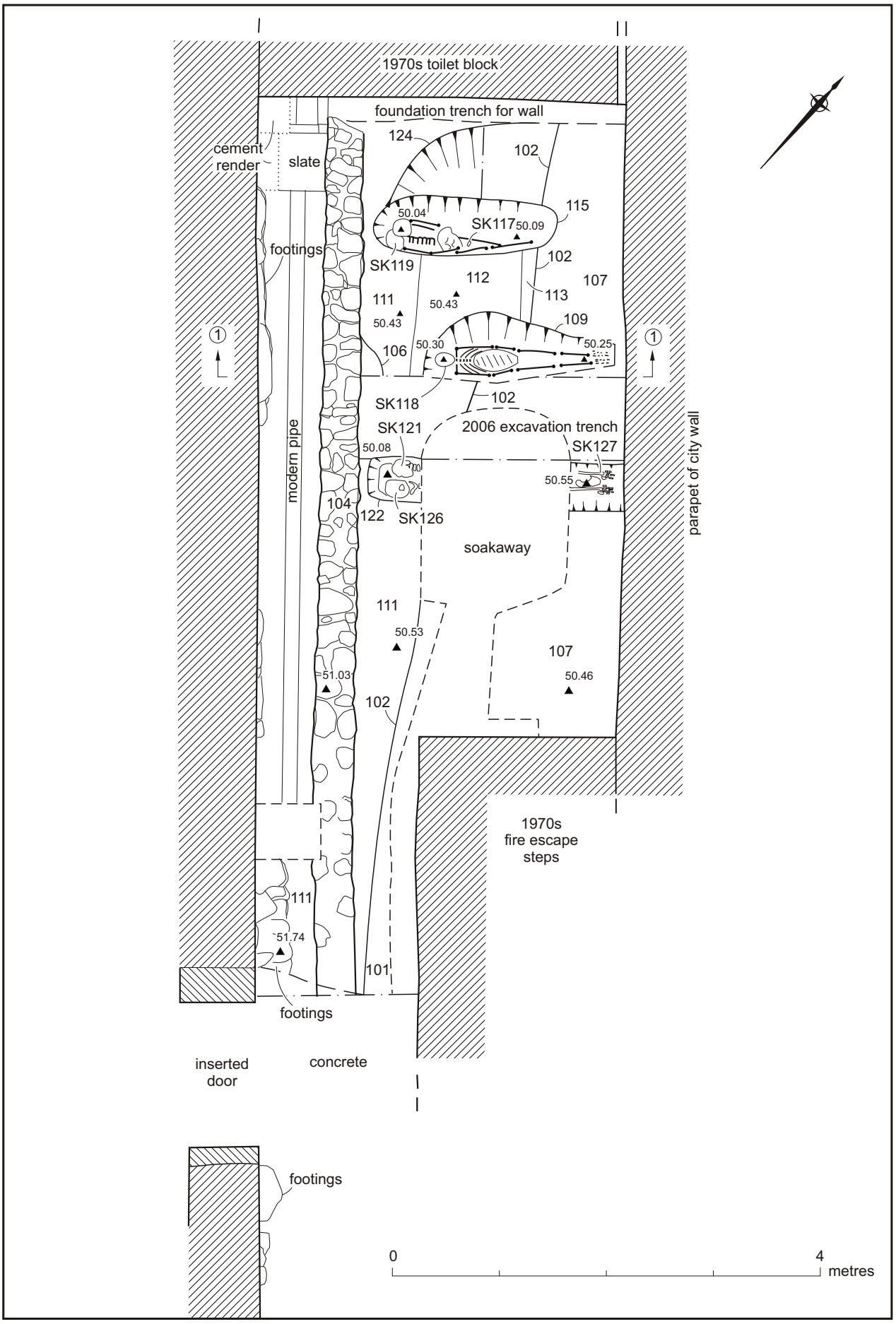

Fig. 5 Excavation plan.

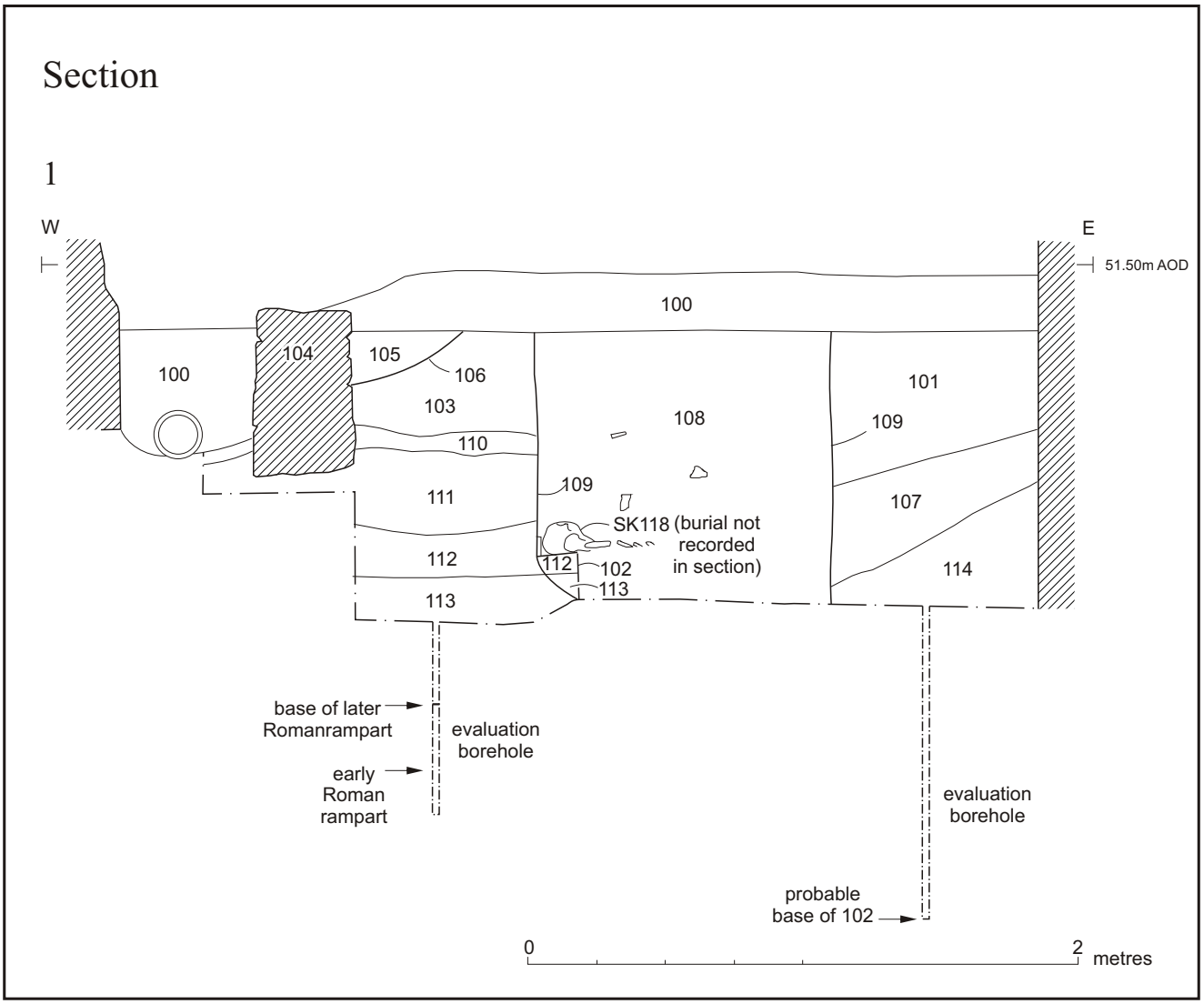

Fig. 6 Section through the excavation.

Plate 1 View of site following removal of modern deposits, looking north west. 1m scale.

Plate 2 Skeleton 118, looking south west. 1m scale.

Plate 3 Skeleton 118, close-up view of coffin plate, looking south west. 25cm scale.

Plate 4 Post-excavation view showing grave cuts and later features, looking north west. 1m scale.

Plate 1 Skull of skeleton 119 showing depression of left parietal (top right of photograph).

Plate 6 Urinal calculus from grave 118. The calculus measures 13.7mm long.

Plate 7 Two of the fused vertebrae from skeleton 119. Anterior view showing collapse of the verebra body (the lower of the two in the photograph.