
Evaluation at the Black Gate, Castle Garth, Newcastle upon Tyne
NE1 1RQ

NZ 2502 6393

(Scheduled Monument No. SM 32753)

December 2011
by
Northern Counties Archaeological Services



By
Northern Counties Archaeological Services
February 2012

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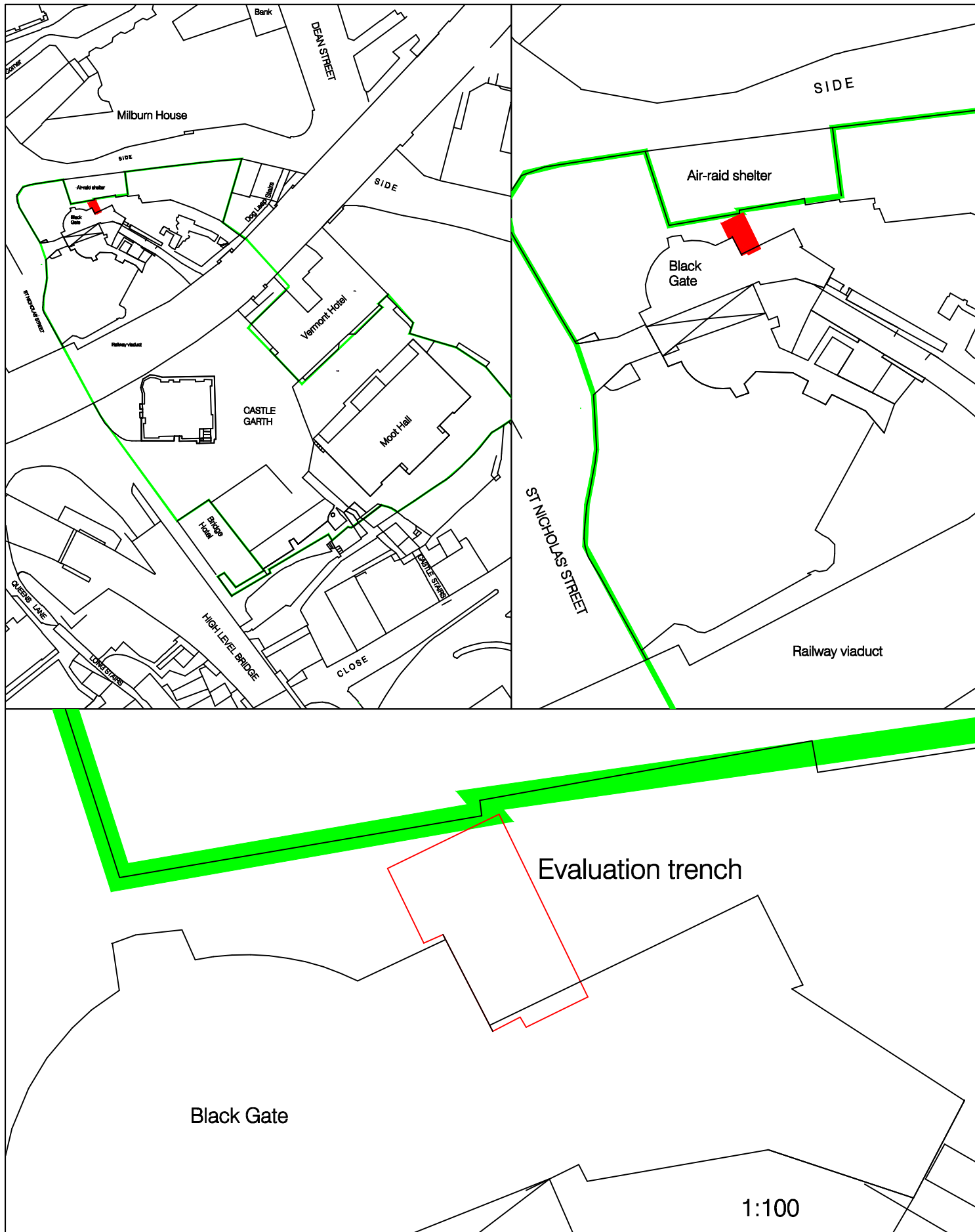
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Black Gate, Castle Garth, Newcastle upon Tyne
Evaluation, December 2011

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Figure 1

Site location
Scheduled area outlined
in green

Evaluation at the Black Gate, Castle Garth, Newcastle upon Tyne
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Summary

This report describes an Evaluation carried out on the north side of the Black Gate, the mid-13th century barbican of the castle of Newcastle upon Tyne, in December 2011.

This area of the castle is proposed for the site of a disabled access lift and associated elevated access deck, serving a heritage resource and interpretation centre in a refurbished Black Gate.

The purpose of the Evaluation was to re-expose medieval features first excavated in 1984, and to clearly demonstrate the extent and level to which these features survived, in the area proposed for the foundation of the lift tower..

The Evaluation re-exposed part of the mortared rubble foundation raft for the north drum tower of the Black Gate (built between 1247 and 1250), a wall which was cut by, and therefore pre-dated, that structure, and part of an area of natural (geological) glacial clay, cut by the Black Gate foundations, the earlier wall, and other medieval feature.

The opportunity was also taken to produce a phased interpretative elevation of that part of the north elevation of the Black Gate against which the lift tower would stand, and in which openings would be formed for access. The extent and significance of other surviving archaeological deposits and features within the proposed area of development was also assessed from original excavation records. .

This report describes the Evaluation and the assessment of archaeological survival across the wider development area, identifying zones which still contain archaeological remains and zones which can be regarded as archaeologically sterile.

SECTION 1. INTRODUCTION

1.1 Background.

1.1.0 The Evaluation trench (site code BG11) lay within the Scheduled area of the Castle Garth, on land owned by Newcastle City Council, and adjacent to the north side of mid-13th century barbican (Black Gate) (Figure 1). This part of the castle site was originally excavated in 1984 in advance of hard landscaping. The excavations involving this part of the medieval castle are currently being brought to publication [Nolan et al., forthcoming].

1.1.1 Proposals have been put forward by the Old Newcastle Project for conversion of Black Gate to an interpretation and heritage resource centre. One element of this planned development involves construction of a disabled access lift against part of north wall of the Black Gate, with an elevated approach wrapping around the north-east angle of the building.

1.1.2 To inform the foundation design for these developments the 1984 excavation archive, which comprises scaled and levelled plans, sections, some elevations, photographs (black and white and colour print and colour transparency), was consulted. The 1984 records were however found to have some ambiguities and gaps in the record, particularly relating to the northern foundations of the Black Gate

1.1.3 In order to clearly understand the extents and levels at which medieval features survived in this area, Scheduled Monument Consent was granted (25th November 2011) to Newcastle City Council, the owners of the site and partner in the Old Newcastle Project, to excavate a small Evaluation trench (c.4m x 2.5m) to re-expose parts of the principal medieval remains. These objectives are more fully described below. The Location and extent of the Evaluation trench are shown on Figure 1.

1.1.4 Northern Counties Archaeological Services (hereafter NCAS) was commissioned to carry out the Evaluation. The on-site work took place between the 12th December 2011 and the 20th December 2011. Weather conditions were initially cold and clear, later becoming wet and windy.

1.2 Objectives of the evaluation.

1.2.0 The objectives of the Evaluation were

- to confirm where naturally deposited clay subsoil – glacial till – had been reached in 1984, and at what level

- to re-expose a sample area of the medieval stone features revealed in the 1984 excavations , and confirm levels at which they survive
- to undertake any further investigation of deposits/features considered necessary

1.2.1 Additionally NCAS was required to produce a drawn and phased elevation of that part of the north face of the Black Gate above an arched recess, which would be directly impacted upon by the proposed lift tower.

1.3 Evaluation methodology.

1.3.0 The area north of the Black Gate was enclosed with free-standing Heras-type fencing for the duration of the evaluation works.

1.3.1 The hard landscaped surface of cobbles set in concrete was carefully opened out using a petrol breaker. One of the setts abutting the foundations and lower chamfer course was taken out by hand, but it was found that no separation membrane had been used when the setts were bedded and grouted, and because of the risk of damage to the historic fabric the rest were left in situ, The lightning conductor earth rod was not disturbed, limiting re-excavation in its immediate vicinity.

1.3.2 All excavation below the hard landscaped surface was carried out manually. The north section, and the deepest part of the east section, were stepped and battered to retain the potentially unstable 1985 backfill, which included large pieces of rubble.

1.3.3 A digital photographic and context record was maintained throughout the evaluation. Copies of the 1985 evaluation records, particularly field drawings, were used to identify features/deposits revealed in the evaluation. These were redrawn where necessary and all exposed features and deposits re-levelled and related to Ordnance Survey bench-marks on St. Nicholas Buildings and the Keep (respectively 29.31m and 28.72m above Ordnance Datum).

1.3.4 Context numbers were allocated to previously un-contexted deposits and features only. These began at <5000> to distinguish them from the earlier excavation context number sequence, which had reached (4100) when the excavation programme was completed in 1992, and are given in <brackets>. Deposits and features numbered in 1984 were not re-contexted, and these context numbers appear in this report in parentheses (-).

1.3.5 No features or deposits were encountered which had not been excavated in 1984. As will be described in Section 3, paragraph 3.0.1 and 3.0.2, all soil deposits removed in 2011 were the result of back-filling in 1985 using spoil from the excavations. The small quantity of finds recovered from this infill material was a mixed assemblage of medieval and post-medieval date, which are briefly catalogued in Appendix 2 of this report.

1.3.6 The Evaluation trench, manual survey points, and the 'footprint' of the adjacent part of the Black Gate were surveyed using a Leica total station by TimeScape Archaeological Surveys. The total station survey was used as a template for accurately locating the original 1984 and 1985 excavation field plans, which had been drawn using manual taped survey related to the standing structures.

1.3.7 On completion of the evaluation the exposed medieval features were covered by a *terram* –type permeable geotextile sheeting and covered with a layer of soft spoil before back-filling. The evaluation trench was too deep and constricted for mechanical compaction of the back-filling, which was added in layers and trodden down (Appendix 1, Plate 14). As no formal reinstatement of the hard landscaping was requested the larger lumps of concrete and the cobble setts were left on site.

1.3.8 It had been anticipated that a 'point cloud' record of the Black Gate, made by Northumbria University, could be used to produce scale elevational drawings of the wall forming the north-east face of the Black Gate (wall (1825)). However, the 'point cloud' could not be readily converted into a two-dimensional elevation with the resolution necessary to define and trace over the edges and joints of the masonry. Consequently the external elevation of was drawn using a combination of digitised hand-drawn measured survey from the 1984 excavations (when the building was scaffolded), photographs, laser distance measuring (Leica Disto), and levelling.

1.3.9 The adjoining east-facing return of the Black Gate was only recorded as a profile abutting (1825) in 1984, and the elevation included on Figure 7 of this report has been constructed from photographs, with some levelled reference points. This elevation will consequently be of considerably less overall accuracy than that described in paragraph 1.3.8 above.

1.3.10 The site archive will be deposited with the Great North Museum as the inheritor of the former Museum of Antiquities' collecting area responsibilities. An OASIS on-line report will be completed.

1.4 Structure of the report.

1.4.0 A brief historical background to the castle site is given in Section 2.

1.4.1 The results of the Evaluation are described and discussed in Section 3. The Evaluation trench sampled an area to the north of the Black Gate where much more extensive archaeology was exposed and investigated, but not necessarily removed, in 1984.

1.4.2 Consequently, to place the Evaluation results in the context of the wider archaeology of this area, the scope of Section 3 has been broadened to include more detailed descriptions of the features (and deposits) recorded in this area in 1984, and includes discussion of the structural sequences apparent in the north-

east elevation of the Black Gate, against which the proposed lift tower will be sited.

1.4.3 Section 4 of this report also assesses the overall archaeological implications in the area immediately north-east of the Black Gate, where it is proposed to site piers for an elevated lift access bridge. The extent of known archaeological survival, divided into 'zones' of archaeological sensitivity, is shown on Figure 6.

SECTION 2. BRIEF HISTORICAL BACKGROUND.

2.0.0 There is some evidence for land use on the castle site, probably agricultural, in the prehistoric period. The site was occupied by the Roman fort of Pons Aelius from 2nd – late 4th/early 5th century, and the Fort area became a cemetery in the late 7th or early 8th century. Some burials continued to be made even after the ‘New castle’ of Newcastle upon Tyne was founded on the site by Robert Curthose, son of William I, in the autumn of 1080.

2.0.1 The castle’s first defences seem to have been principally of earth and timber though it is possible that the gateways were stone-built from the beginning. Between 1168 and 1178 the castle was substantially rebuilt in stone, on broadly the same footprint. The re-fortification in stone of 1168-78 presumably included construction, or re-construction, of the North Gate – known as the Great Gate [Allen Brown 1963, 746].

2.0.3 The remains of the North Gate include a turning-bridge pit (647) and an abutment for the turning bridge is incorporated into wall (1824), part of the later Black Gate (see Figure 5). It is possible that wall (1825) was associated (see Figure 5). A number of medieval sources refer to works possibly in the area of the North Gate, for example in 1221 a *brattice* (a timber tower or palisade) was brought from Nafferton castle and ‘*erected at the gate to the bridge*’ to replace a tower that had collapsed. The North Gate was ‘rebuilt on an improved pattern’ by order of Henry III between 1247-50 [ibid., 114]. This was the additional, forward-standing gatehouse and barbican passage now known as the Black Gate.

2.0.4 In the first half of the 17th century the gatehouse was converted into a town house, firstly by one of James I courtiers, Alexander Stephenson, in 1618/19, and then by John Pickells c.1636. The castle was re-fortified at the time of the Civil Wars, and was the last stronghold of the Royalist defenders after the town was captured in October 1644. In the late 1640s the gatehouse passed to a London merchant, Patrick Black, from whom the building acquired its present name. In the 18th and early 19th centuries the Black Gate was subdivided into tenements and included a public house. By the 1860s it was a dilapidated slum.

2.0.5 The Black Gate was extensively repaired and internally remodelled between 1883 and 1885 by R.J. Johnson, who drew the first detailed plans and elevations of the building, as a meeting place and museum for the Society of Antiquaries of Newcastle upon Tyne. Subsequently the Society’s library was also housed here. At the end of 1939 there was a brief flurry of alarm over the stability of the Black Gate when an air-raid shelter, part of which survives adjacent to the Evaluation area, began to be constructed at the head of the Side.

2.0.6 Archaeological excavations and landscaping improvements in the Castle Garth began in 1960 at the South Curtain Wall. In 1982 excavations began on the east side of the roadway through the Black Gate into Castle Garth, then designated Area E. The area between the Black Gate and the air-raid shelters was partly excavated, in advance of landscaping, in 1984. The excavation and landscaping programme ended in 1992.

SECTION 3. THE EVALUATION (Figures 2 and 3)

Note: Context numbers given in < > brackets were allocated in the 2011 Evaluation to previously un-contexted deposits and features. These begin at 5000 to distinguish them from the earlier excavation context running number sequence, which had reached 4100 when the excavation programme was completed in 1992. Context numbers given in () are those allocated in 1984.

'Plate' refers to the Evaluation photographic record (Appendix 1).

3.0.0 The Evaluation area is defined on the north by the south wall of a Second World War air-raid shelter and on the south by a medieval ashlar-faced wall (1825) running east from the north drum tower of the Black Gate. The existing ground surface of the evaluation area is composed of whin and granite setts bedded and grouted in a strong cement mix <5000> (Appendix 1, Plate 1).

3.0.1 Below the bedding for the setts was a layer of dolomite chippings, of variable thickness, some brick and concrete rubble, then a very well-compacted mass of re-deposited moist clay and rubble <5002> (Appendix 1, Plate 2). This mixed deposit was deepest at the north end of the evaluation area, where it overlay a grey-black friable deposit of soil, mortar, and fragments of ceramic building material <5003>.

3.0.2 Both <5002> and <5003> contained occasional sherds of Roman to 19th century pottery, clay tobacco pipe fragments, bone, pieces of string, plastic, and context labels from the 1984 excavation. Because of the context and the degree of mixing this material was clearly re-deposited spoil from the original excavations.

3.0.3 When these backfill deposits were removed parts of two important medieval masonry features, exposed over a larger area in 1984, were re-examined:

- Wall (1743). A clay bonded coursed rubble-built revetment cut into the natural glacial till <5006>, and 'faced' to the north
- A heavily mortared mass of sandstone rubble and some re-used ashlar facing <5005> forming the footing 'raft' to the north drum tower of the Black Gate

3.0.4 An area of undisturbed, naturally-deposited glacial till <5006>, cut by both masonry features, was also re-exposed.

3.0.5 These features and deposits are described in detail, and sequentially from earliest to latest, below.

3.1 The glacial till (geological). Figures 2-6; Appendix 1, Plates 2-8; Appendix 3, photographs 1-2, 5-6, 8, 10-12, 20).

3.1.0 An almost level surface of firm yellow-brown clay <5005> was exposed immediately below the layer of crushed dolomite deposited in the 1985 landscaping. There was no separation membrane, and fragments of dolomite and other hard-core had been pressed deeply into the surface of the clay. After careful cleaning to remove these intrusions the clay was shown to be a compact deposit, homogenous in texture and colour, with occasional small rounded grits of sandstone and coal.

3.1.1 This clay deposit was cut by the foundations for the north drum tower of the Black Gate and by the earlier wall (1743) (Plates 2, 4-8). In the cut for the latter feature the clay was exposed in section to a depth of 0.72m without any observable difference in compaction, composition or colour; below this it was obscured behind the surviving wall masonry.

3.1.2 This can be equated with the firm light brown clay containing occasional small sandstone pebbles, patches of orangey sand, and small fragments of coal exposed over a larger area in 1984. This clay, which was not contextualised in the 1984 excavations, is shown on original excavation plans and photographs extending as far as the north-east corner of wall (1825) and southwards into the arched recess (Appendix 3, photographs 1-2, 5, 8, 10-12), and was cut by wall (1743), the foundations of wall (1823), and the north drum tower.

3.1.3 Clay with similar inclusions had been noted elsewhere in the 1970s and 1980s excavations, underlying the earliest Roman occupation levels (1st - 2nd centuries AD) and sometimes scored with pre-Roman plough marks, and constitutes the glacially-deposited and undisturbed till. This deposit, also known as boulder clay, overlies the rock-head of carboniferous sandstone.

3.2 Wall (1743). Pre-dating the Black Gate (barbican). Figures 2-4, 7; Appendix 1, Plates 4-7, 9; Appendix 3, photographs 1-2, 7-9, 11-12, and 20).

3.2.0 Cutting the glacial till <5005> described above was a retaining or revetment wall (1743 and 1745). This wall was cut by the foundations of the north drum tower of the Black Gate, built 1247-1250. Only the junction of wall (1743) and part of the Black Gate foundation <5005> was exposed in the 2011 Evaluation. The full surviving length of wall (1743) was exposed in 1984 (Figure 6), but the full height of the wall has never been established as there is insufficient space between its face and the post-medieval retaining wall (1657) for this feature to be bottomed.

3.2.1 Wall (1743) is a predominantly clay-bonded coursed rubble-built revetment c.0.95m thick, cut into the glacial till which presumably at this point formed a natural slope, one side of a 'dean' down which a tributary of the Lort Burn (now Dean Street) flowed [Knowles, 40]. The wall runs roughly parallel to

wall (1825) and some 2.5m north of it. The cut for the wall in the glacial curves slightly to the south as wall moves eastwards. The wall was faced only to the north, and the upper courses of the facing stonework were bonded by a very sandy yellow /buff mortar. The core of the wall is sandstone rubble (1745).

3.2.2 The small amount of pottery recovered from wall (1743) in the 1984 excavation suggests an early to mid 13th century date for its construction. It was cut by the masonry 'raft' foundation for the northern drum tower of the mid 13th century barbican (Black Gate) (Figures 2, 4-5; Appendix 1, Plates 4-8; Appendix 3 photographs 1-2, 7-9, 20).

3.3 'Cess pit' (1823). (see Figures 4 and 7; Appendix 3, photographs 2, 11-13).

3.3.0 In the 1984 excavation of wall (1743) and at the eastern end of that feature, two stone walls (844) and (1721) forming a right angle were found and at that time interpreted as a cess-pit. This description, and the 1984 excavation plan (Appendix 3: photographs 2, 11-13, and 20) at first sight imply that this was a rectangular, stone-lined, feature measuring c. 0.82m x c.1.2m, defined by walls (844) on the south and (1721) on the west, with a arc of masonry (1843) low down in the corner. The small amount of pottery from deposits filling this feature were of an early – mid 13th century date.

3.3.1 Closer examination of the 1984 site records however makes it clear that only *part* of a west and a south wall, forming an angle, were actually exposed. The west wall (1721) was cut at its north end by a post-medieval wall (1657) belonging to a demolished property fronting onto the Side, and the east 'side' of the feature shown on the site plan was a soil section cut through the infill deposits. The 1984 site notebook states that the south wall (844) was cut by a construction pit (un-numbered, filled by context (727)) for the air-raid shelter, but here is no plan or photographic evidence to show that enough of (727) was removed to unequivocally confirm this. Where (727) was excavated, the south side of the air-raid shelter 'pit' had a sloping side which was more probably the result of an earlier landslip, and some eastward continuation of wall (844) may survive at a low level before being fully truncated. Consequently the full eastward extent of feature (1823) remains undefined (see also Section 4, Zone 3).

3.3.2 The relationship of (1823) to wall (1743) cannot be stated with any confidence. The 1984 excavator assumed that the 'cess-pit' post-dated wall (1743) because the masonry of the feature was of a different character. While this may be so, it is still possible that both features were contemporary. Nor is it certain that feature (1823) was actually a cess-pit – this identification seems to have been based on the nature of the 'fills', but in the absence of an east wall it could be the south-west corner of a larger feature, perhaps a cellar or the rear yard to another medieval building fronting the Side.

3.4 Wall (1825). Predating the Black Gate (barbican) north drum tower. (see Figure 7; Appendix 1, Plates 12-13; Appendix 3, photographs 5, 6, and 10).

3.4.0 The lower part of the wall is of coursed ashlar founded on irregular offset rubble foundations interrupted by an arched recess, rising in steps through four chamfer courses before the principal wall face continues vertically upward, pierced by a simple arrow-slit and two partly surviving fish-tailed arrow loops (Appendix 1, Plate 12). The foundations of (1825) were similar on either side of the arch (Appendix 3, photograph 10), and completely different from the foundations of the northern drum tower of the Black Gate <5005>.

3.4.1 The foundations did not run across the arch opening. The top of the offset on either side corresponded to a change within the arched recess from rubble standing c.0.55-0.70m above subsoil level, to ashlar blocks forming the soffit. In 1984 the random rubble footings within the arch were found to be bonded with a reddish-orange mortar: it has since been heavily re-pointed, and is partly concealed by the hard landscaping.

3.4.2 The rubble foundations are aligned slightly further north north-east than the ashlar facing above. This might imply there was an earlier phase of construction, but as there is a similar discrepancy in foundation alignment with wall (1824) (see Section 4, paragraph 4.0.4) it may simply represent an alteration in plan. Because the rubble foundation is exposed, the original construction phase ground level was presumably higher than now. Levels may have been reduced in the post-medieval period when this area formed part of Hagg's Court, a back yard to houses fronting onto the Side, and a coal house adjoined the arch.

3.4.3 It is not certain that the arched opening was in fact 'open' in the medieval period. It is too low to have formed a gateway, and lacks any form of check or rebate against which a door or iron grille gate would have closed. As an unguarded opening, even with the fish-tail arrow loops above, it would have compromised the defensibility of the whole structure. The most likely explanation for this feature is that it was a relieving arch, spreading pressure of the masonry above on possibly unstable ground, and that the original masonry infill was removed.

3.4.4 Similar relieving arches are known on parts of the city walls of York and at the castles of Southampton and Caernarvon, where curtain walls were built on earlier ramparts which were prone to shifting, or on waterlogged ground [RCHME 1972, 40, 141-2]. If this interpretation is correct then there is evidence in the elevation that wall (1825) may have once extended further east - and also perhaps west - on similar relieving arches.

3.4.5 The elevation of wall (1825) (see Figure 7) shows evidence for at least three, and possibly four, phases of medieval construction alone: the offset rubble foundation; the ashlar wall above including the relieving arch, chamfer

courses, and simple slit arrow-loop – the fish-tail arrow-loops above may be slightly later; and lastly (perhaps) the mid-13th century drum-towered gatehouse (Black Gate) (Appendix 1, Plates 12-13). Post-medieval rebuilds and repairs span the 17th – 19th centuries. A sequence of phasing is suggested on Figure 7.

3.4.6 The east end of the earliest structure may have partly collapsed or been deliberately re-modelled – the abrupt termination of the east end of wall (1825) shows evidence for secondary ashlar facing which may mask the site of a springer for another relieving arch. The western side of the elevation shows evidence for partial demolition of the structure and its integration with the secondary drum tower(s) of barbican gatehouse (Black Gate).

3.4.7 In the upper part of the elevation, west of the 19th century toilet window, the west side of the western fish-tailed loop can be seen, rising apparently to its full-height (3.15m). The stonework of the upper eight courses, which end below the sill of a ?Jacobean window (presently the 1st floor landing window), are different in character to those below, the ashlar being longer and more resembling the masonry of the mid-13th century drum towers. These courses are suggested on Figure 7 to be medieval since they form part of the west side of the arrow-loop, appear to pre-date the mid-13th century drum-tower gatehouse, and are quite different in character to the identifiably 17th century stonework elsewhere on the building.

3.4.9 The eastern side of the western loop, and also most of the eastern loop, is truncated and overlain by masonry including large re-used ashlar, which seems to be associated with the sill and partly-surviving western jamb of a Jacobean window which had a central mullion. The 'Jacobean' window(s) presumably belong to Alexander Stephenson's or John Pickell's remodelling of the building between 1618 and c.1636.

3.4.10 The west side of the splay of the western arrow-loop's reveal, and the 17th century masonry, are both visible internally on the stair-tower between the mezzanine balcony and first floor (Store-room) landing (see Figure 7). The same interior elevation, at the Store-room landing, shows several of the long 'keying' stones associated with the addition of the barbican gatehouse, which are more clearly visible externally.

3.4.11 The erratic coursing and irregular masonry visible internally at this level (Figure 7, inset) are probably due to the wall being reduced in thickness in the post-medieval period, exposing the core-work which has then been consolidated. The wall here is now c.0.7m thick, in contrast to the north drum tower wall at c.1.4m. This thinning of wall thickness was presumably to accommodate the staircase shown on R.J. Johnson's 1883 plans, and which were replaced by the present stair-tower in the 1883-1885 conversion.

3.4.11 The eastern jamb and lintel of the mullioned Jacobean window are missing, and this part of the elevation has been rebuilt in smaller ashlar work, the date of which is unknown but may possibly relate to repairs after part of the

eastern side of the Black Gate collapsed in 1739 [Longstaffe 1860, 124]. A patch of masonry within the area of the window frame suggests that a smaller opening was subsequently formed here, then blocked.

3.5 Mid 13th century foundation raft for the Black Gate (twin drum towers and contemporary spur walls) built c.1247-50. (Figures 2 –6) Appendix 1, Plates 4-7, 9-11; Appendix 3, photographs 1- 8).

3.5.0 The foundation raft <5005> is a mass of heavily-mortared small, medium, and large sandstone rubble. Where exposed in the Evaluation, as also noted in 1984, the raft incorporates a number of dressed ashlar facing stones which are presumably re-used building material. The upper surface of the raft was shown in 1984 to be composed of small sandstone fragments and mortar, presumably a levelling course on which the dressed chamfered base courses of the gatehouse could be laid. Within the area of the Evaluation this levelling deposit is now missing, evidently removed in 1985 to accommodate the cobble setts and their concrete bedding (Appendix 1, Plates 3, 7, 9-10).

3.5.1 The raft emerges at the junction of wall (1825) with the spur wall or pilaster buttress <5008> running east from the north drum tower. It extends north, curving slightly westwards before being 'lost' to the post-medieval rear wall (1657) of a building fronting the Side and the World War Two air-raid shelter. The foundation raft cuts wall (1743) described above. In 1984 some of the 'raft' was dismantled to confirm this (1984 excavation site note book). That the raft does not extend eastwards and under wall (1825) is evidence for the latter pre-dating the Black Gate. It was presumably part of a pre-existing structure substantial enough to offer stability and support to the builders of the 1247-1250 gatehouse.

3.6 Discussion.

3.6.0 The purpose of wall (1743) is, on present evidence, obscure. In the 1984 excavation it was suggested as being the rear wall of a building fronting the Side, perhaps even of a Jew's house of the early medieval period, since members of this persecuted community often sought the protection of seats of royal authority, as at Lincoln. Another suggestion was that (1743) could have been a retaining wall associated with wall (1825), designed to counter the inherent instability of the natural slope - evidence for subsidence and landslips is clear on the East Curtain wall to the south, and may also (as suggested in Section 3) account for the sloping-sided 'cut' assumed to have been part of the air-raid shelter construction.

3.6.1 The close proximity of walls (1743) and (1825), and the similarity of alignment, strongly suggests that they were in some way associated. Possibly (1743) was an early form of the later 'outer mantle wall', defining the extent of the castle's jurisdiction and forming a *cordon sanitaire* around the defences. Alternatively (1743) may, with (1825) and a turning-bridge abutment 'fossilised'

within (1824), have formed part of the pre-barbican (Black Gate) bridging arrangements leading north from the 12th century North Gate.

3.6.2 The presence of well-dressed, squared, ashlar incorporated into the foundations of the Black Gate <5005> is suggestive of re-use of material from a demolished building. The most obvious source for such recycled material is a structure of which wall (1825) is now a remnant, which was partly dismantled for incorporation into the 1247-1250 drum-towered gateway. The simple arrow-slot in the lower part of wall (1825) and the 'fish-tailed' loops above are forms known to have been in use in the 12th century [Toy 1966, 152-3].

3.6.3 Such a structure may have been an earlier form of barbican gatehouse or defensible bridging abutment, carried on a relieving-arch foundation and facing north. It is also suggested (see Section 3, paragraph 3.4.4) that as well as originally continuing west before being dismantled to accommodate the Black Gate, this earlier structure could also have once extended some way east. This part of the structure may have been lost to subsidence, and could even have been the 'tower' which in 1221 had collapsed and was replaced by a timber tower or palisade (see Section 2, paragraph 2.0.3).

3.6.4 Because of the scale of later medieval and post-medieval interventions in this area - wall (1657) and the air-raid shelter – it is unlikely that these hypotheses can ever be proved archaeologically. It is clear however that this area of the castle contains some early defensive features and a complex and little understood sequence of military structures.

SECTION 4. ZONES OF ARCHAEOLOGICAL SURVIVAL AND THEIR SIGNIFICANCE (Figure 6).

Zone 1.

4.0.0 The northern half of this area contains three very significant medieval masonry features, all of which are described in detail in Section 3.

4.0.1 Wall (1743), and the possibly related masonry feature (1823), both date broadly to the first half of the 13th century and pre-date the drum towers of the gatehouse built 1247-50. The *known* extent of (1743) and (1823) are defined on Figure 2 and 6, but the actual eastward extent of survival of feature (1823) is *unknown*.

4.0.2 Cutting wall (1743) is the foundation 'raft' for the northern drum tower and flanking wall of the 1247-50 gatehouse <5005>. The raft is a mass of mortared sandstone rubble incorporating re-used ashlar wall facing blocks, the latter suggested as deriving from a pre-Black Gate gatehouse or defensive bridge-work serving the 12th century North Gate of the castle. Although the extent of this feature within the area of the proposed lift-shaft footprint can be clearly defined the full depth of the foundation raft is indeterminable.

4.0.3 Excavations in 1984 encountered soil deposits of medieval date abutting the face (north side) of wall (1743), and cut by post-medieval wall (1657). The full character, extent and depth of these deposits could not be determined within the narrow area accessible for excavation. This suggests that medieval deposits, and possibly buried features, of pre-mid-13th century date survive within this triangular area.

4.0.4 The southern half of this area lies adjacent to upstanding masonry structures which appear to pre-date the mid-13th century Black Gate. The principal feature in this zone is the foundation raft for wall (1824) and the un-excavated medieval ditch deposits left as a baulk to retain them Appendix 3, photograph 16 and 19). The foundations (1932) comprise a mass of small, medium and large sandstone rubble with some mortar bonding. The depth of the foundation is unknown. These are evidence for the phased construction of this part of the castle's defences, and the difference in orientation of the raft and the wall above may reflect alterations to the design during construction.

4.0.5 The upper deposit forming the baulk was part of context (1908), a black organic silt containing broadly early-mid 13th century pottery. These un-excavated deposits surrounding the foundations will contain artefactual and environmental remains relating to the castle from c.1080. It would be a major undertaking in terms of time and cost to fully excavate all these features and deposits to an archaeologically sterile level. Because of the complex depositional sequences revealed elsewhere in the castle ditch, archaeological 'keyhole' excavation of pad foundation pits, or monitoring of boreholes is not

however considered likely to provide archaeologically or academically meaningful results.

Recommendation:-

4.0.6 It is considered that invasive development-related intervention which would impact upon the known or suspected surviving archaeological remains in this area should be avoided if at all possible. It is recommended that the east facing masonry elevation of wall 1824) and the terminal of wall (1825) be recorded as scaled two-dimensional elevation drawings, since the proposed elevated lift access will cross in front of, and partly obscure, this part of the building fabric.

Zone 2.

4.1.0 The excavation of the medieval castle ditch in 1984-5 ceased at the level of a rubble spread forming the foundation for the east wall of the 12th century North Gate turning bridge pit (wall 647) (Appendix 3, photograph 17 and 18). Subsequent excavation of the basal ditch deposits was confined to a narrow section cut close to the eastern side of the area (see Zone 5).

4.1.1 As in Zone 1 the un-excavated deposits have the potential to containing dating and environmental evidence, for occupation and development of the castle and surrounding area. What cannot be assessed is the impact of the mid-1980s landscaping upon such deposits (in Zone 1 there was no separation membrane between the archaeology and the backfill and landscaping). Some degree of at least surface contamination can be suspected, and the deeper areas of adjacent excavations may have affected hydrology, and by implication the survival of environmental evidence.

4.1.2 As with Zone 1, fully excavating all these deposits to an archaeologically sterile level would be a major undertaking. Keyhole excavation to archaeologically 'clear' pier-base footprints to the natural clay subsoil are unlikely to produce any meaningful archaeological results or contribute to an understanding of complex medieval ditch digging, scouring, and infilling sequences.

Recommendation:-

4.1.3 It is considered that invasive development-related intervention which would impact upon the known or suspected surviving archaeological remains in this area should be avoided.

Zone 3.

4.2.0 Wall (752/853) (Appendix 3, photograph 14 – 15, 21) may have medieval origins, but the remains exposed in 1984 are more likely to be post-medieval and part of the 'outer mantle wall' of the Castle Garth – an irregular feature made up from sections of retaining and other walls defining the boundary between the castle and the surrounding civilian settlement [Nolan 1990].

4.2.1 The wall itself is a substantial masonry feature likely to be founded at the level of the Side. Deposits south of the wall appear to be infill material leveling up behind the retaining wall. Un-excavated deposits (727) south of (behind) the wall line may include some medieval survival, particularly an eastward continuation of the early 13th century 'cess pit' (1823). Deposits overlying and north of the wall line are likely to belong to demolition of buildings in the Side and air-raid shelter construction, and are of limited archaeological significance.

Recommendation:-

4.2.2 It is considered that development-related interventions on or south of the line of wall 752/853 should be avoided, and that works north of this line should be monitored by an archaeological Watching Brief.

Zone 4.

4.3.0 This area was fully excavated in 1984 to the surviving level of the natural glacial till (boulder clay). In archaeological terms this zone is now sterile, though it must be emphasized that the foundations and foundation cut of wall (1825) project beyond the wall-face into this area, the medieval cut into the natural boulder clay for wall (1743) forms the northern edge, and the mid-13th century cut for the Black Gate foundations forms the western edge.

Recommendation:-

4.3.1 Because of the proximity of this area to the Black Gate and other medieval structures, any invasive works in this area should nevertheless be monitored by an archaeological Watching Brief.

Zone 5.

4.4.0 This area was apparently excavated to natural glacial till as part of a narrow 'section' cut through the lower ditch deposits in 1985. The bases of cuts relating to the medieval castle ditch remain in the natural glacial till, but no survival of archaeological deposits or masonry features can be identified.

Recommendation:-

4.4.1 It is considered that the impact of any invasive development in this area would be minimal, but should be monitored by an archaeological Watching Brief.

Wall (1824), the eastern end of wall (1825), and the east-facing return of the Black Gate adjoining wall (1825)

4.5.0 Parts of these masonry elevations would be visually obscured by the proposed lift and its access. There is no existing complete elevation drawing for wall (1824), though some of the stonework was hand-drawn in 1984, and there are no drawings at all of the adjoining east end of wall (1825). Like wall (1825) the structural sequence is complex, and it is recommended that an accurate drawn record of these masonry elevations should be undertaken to complete the structural record of this part of the Black Gate and inform interpretation and management.

4.5.1 Because of the questionable accuracy of the elevation of the east-facing return of the Black Gate adjoining wall (1825) shown on Figure 7 (see paragraph 1.3.9), this should be checked and redrawn where necessary if this area is scaffolded.

J.Nolan
NCAS
February 2012

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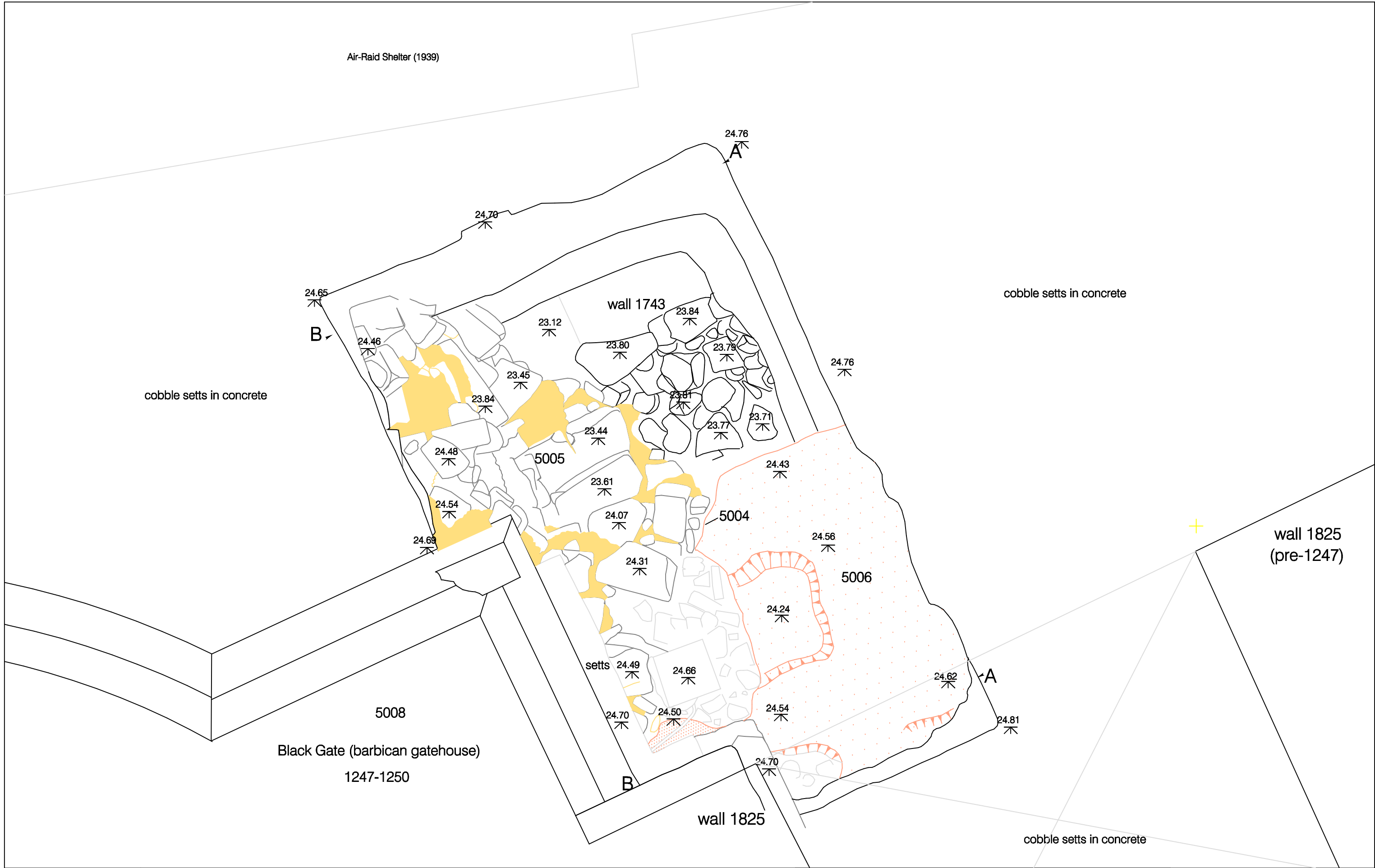
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Key



standing building outlines

1743

context numbers
(referred to in the report)



levels in metres above
Ordnance Datum
(related to bench mark
on keep - 28.72m AOD)



Glacial till (geological)

Black Gate, Castle Garth, Newcastle upon Tyne

Evaluation, December 2011

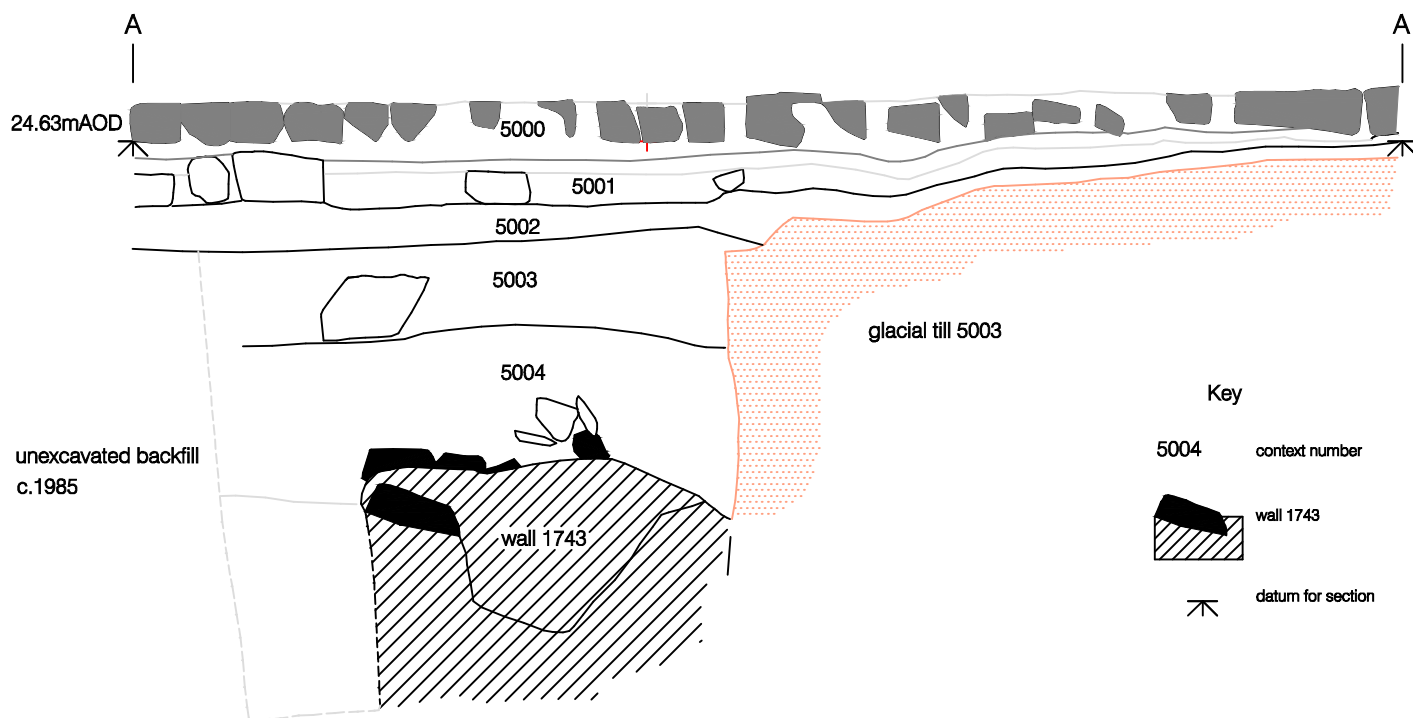
©Northern Counties Archaeological Services

Figure 2

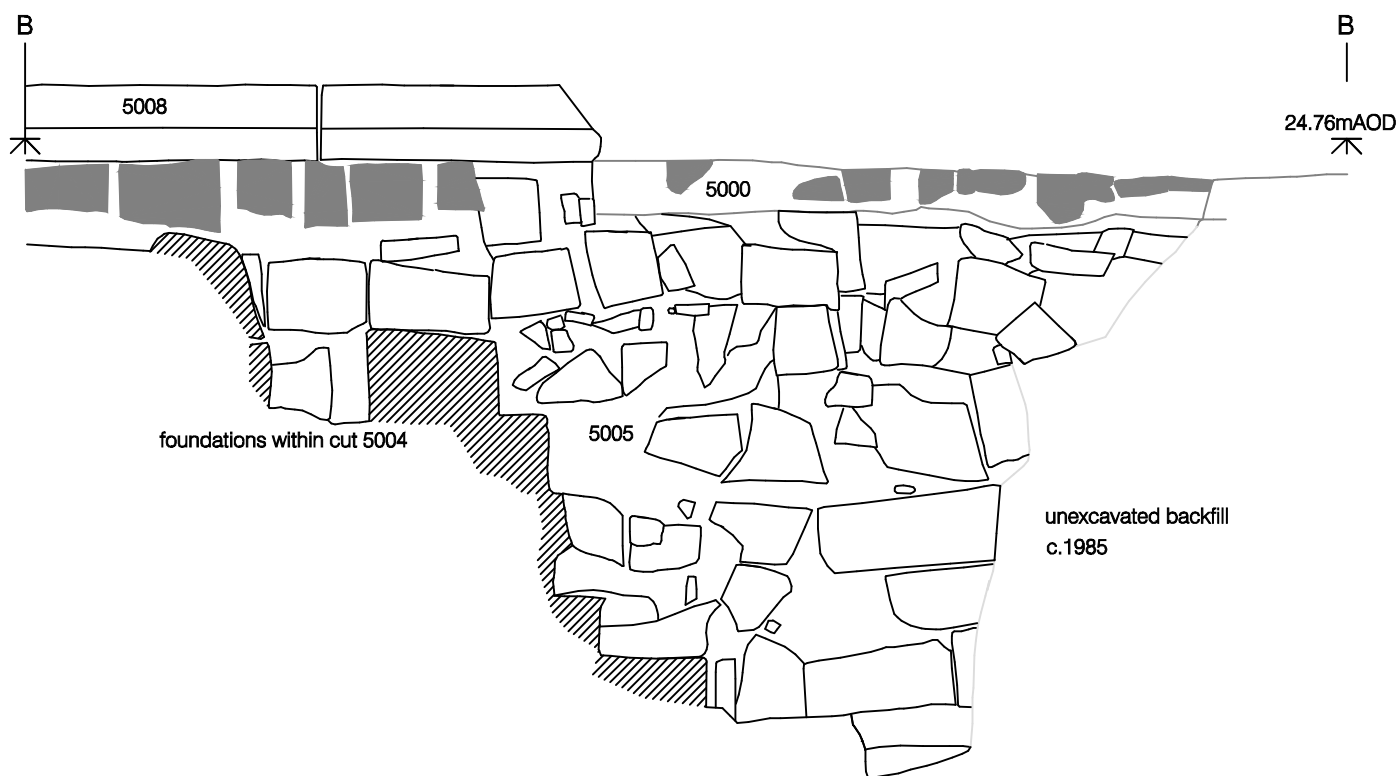
Evaluation trench plan

Scale 1:20@A3

West-facing section



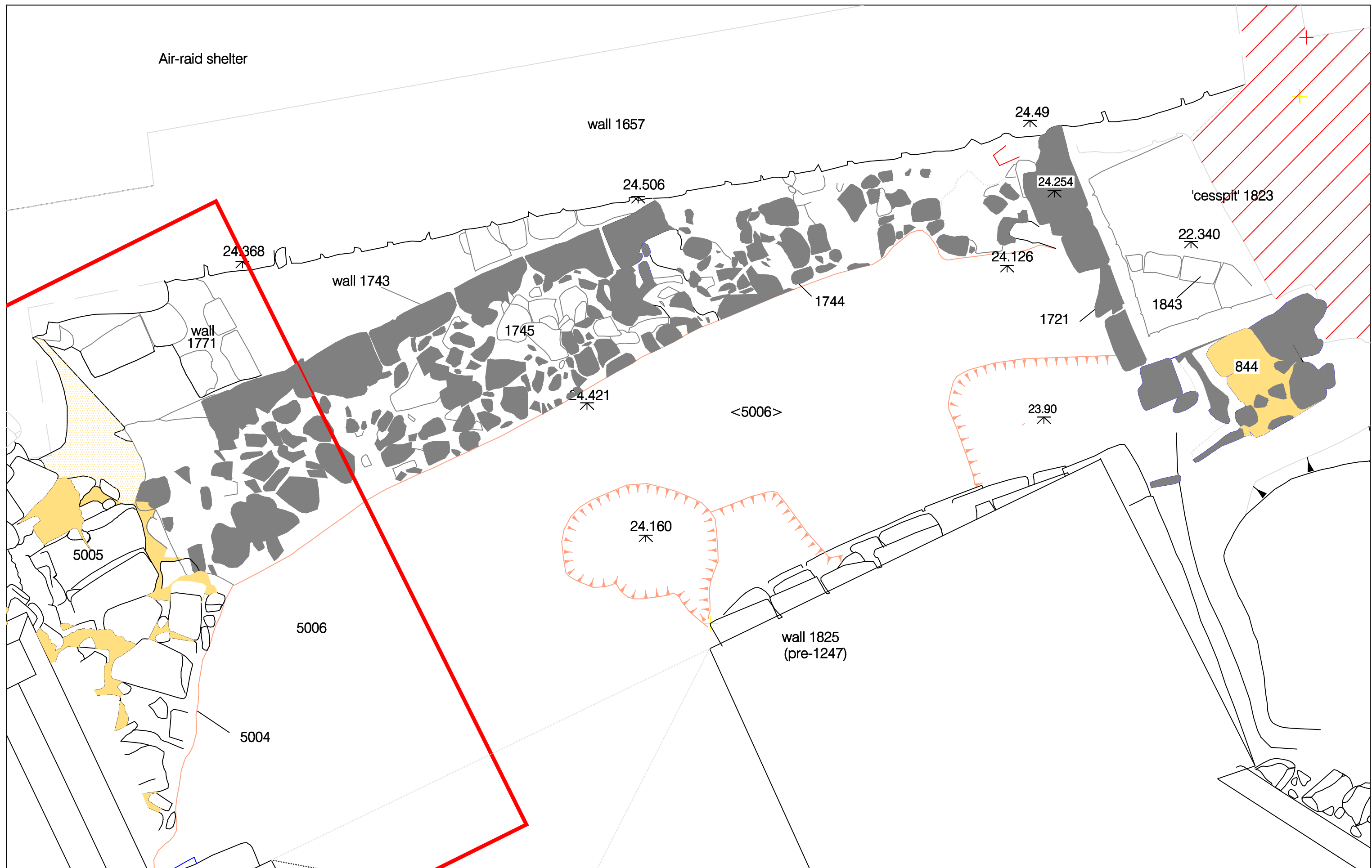
East-facing section



Black Gate, Castle Garth, Newcastle upon Tyne
Evaluation, December 2011

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Figure 3
Trench sections
(located on Figure 2)
Scale 1:20@A4



Key

Evaluation trench

1743 context numbers
<5005> (referred to in the report)

24.421 levels in metres above
Ordnance Datum
(related to bench mark
on keep - 28.72mAOD)

<5006> glacial till (geological)

mortar

standing building outlines

Black Gate, Castle Garth, Newcastle upon Tyne

Evaluation, December 2011

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Figure 4

Wall 1723 and feature 1823
as excavated in 1984

Scale 1:20@A3



Key



Evaluation trench

1743

context numbers
(referred to in the report)

24.421
✱ levels in metres above
Ordnance Datum



post-medieval wall



Glacial till (geological)



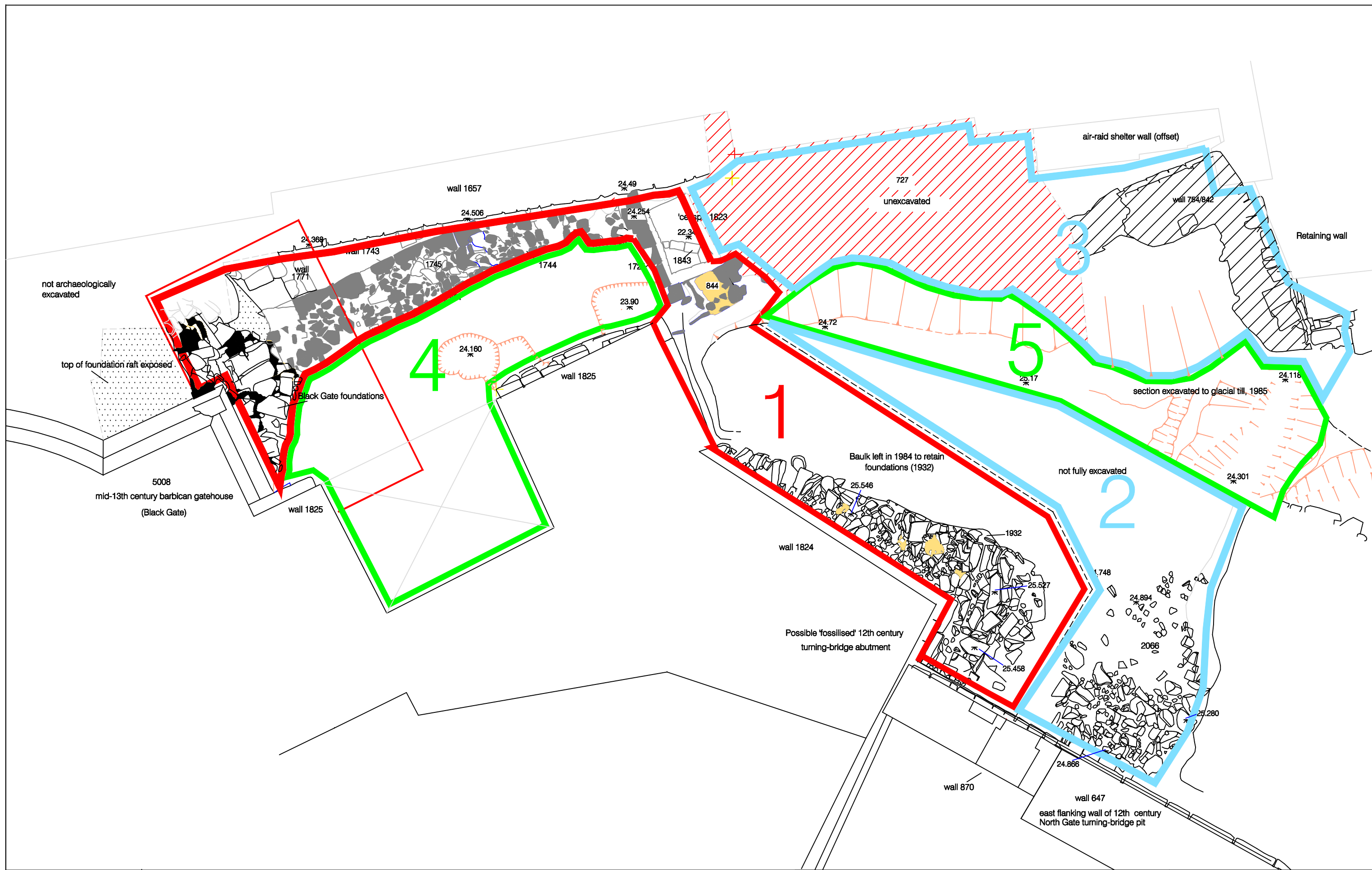
standing building outlines

Black Gate, Castle Garth, Newcastle upon Tyne
Evaluation, December 2011

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Figure 5
Medieval deposits and features
excavated and recorded in 1984

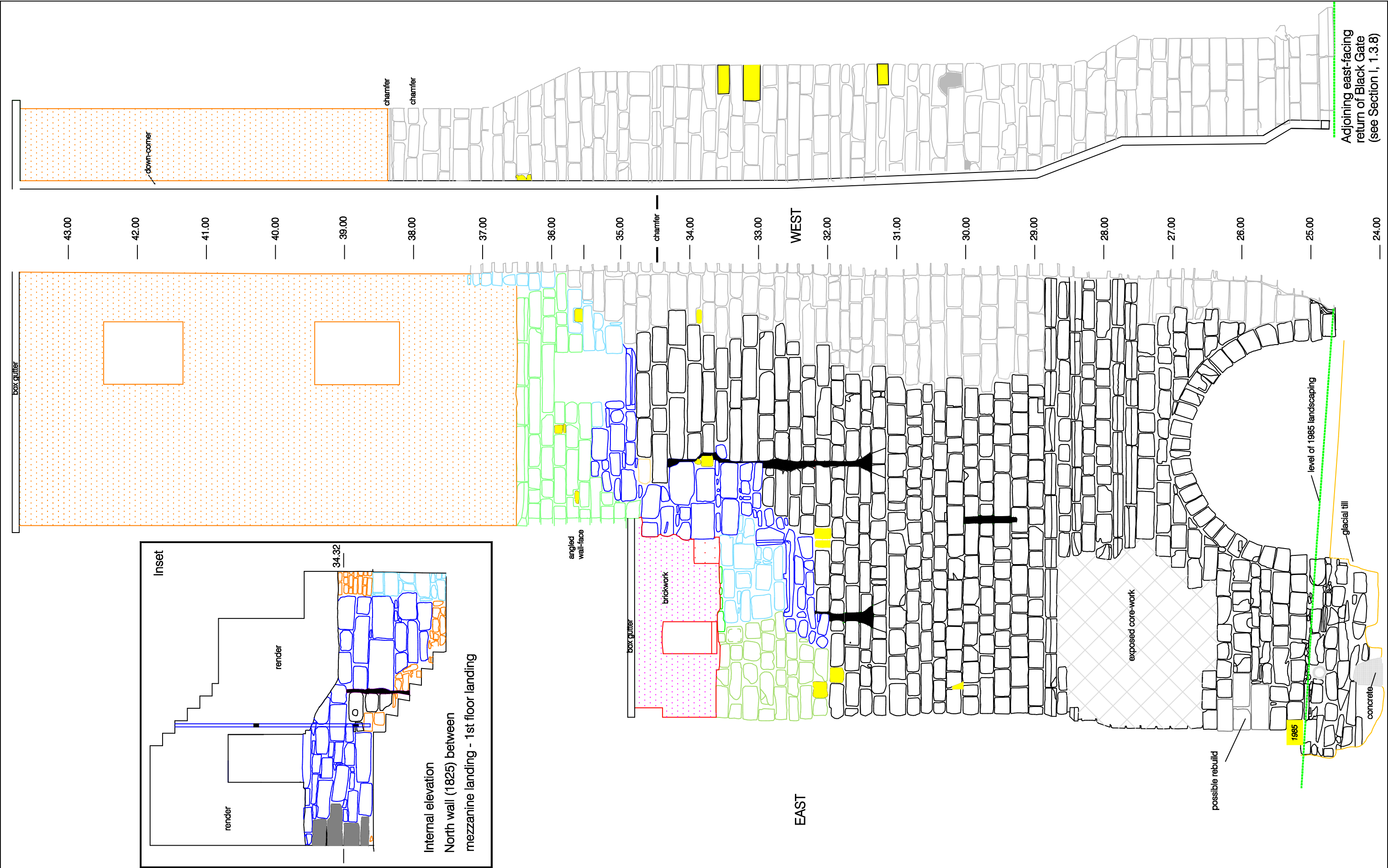
Scale 1:50@A3



Key	<div data-bbox="489 1858 578 1942" data-label="Image"></div> Evaluation trench <div data-bbox="489 1942 578 2047" data-label="Image"></div> 1743 context numbers (referred to in the report)	<div data-bbox="845 1858 934 1942" data-label="Image"></div> levels in metres above Ordnance Datum <div data-bbox="845 1942 934 2047" data-label="Image"></div> post-medieval wall	<div data-bbox="1172 1858 1261 1942" data-label="Image"></div> 1 significant level of archaeological survival <div data-bbox="1172 1942 1261 2047" data-label="Image"></div> 2 3 some archaeological survival <div data-bbox="1172 1942 1261 2047" data-label="Image"></div> 4 5 archaeologically sterile <div data-bbox="1172 1942 1261 2047" data-label="Image"></div> standing building outlines
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Black Gate, Castle Garth, Newcastle upon Tyne
 Evaluation, December 2011
 ©Northern Counties Archaeological Services

Figure 6
 'Zones' of archaeological survival (see Section 4 of this report)
 Scale 1:50@A3



Key



12th - first half 13th century



1247-1250



1618-1636



?later 17th-18th century



?18th - 19th century



1883-1885



?re-faced or rebuilt 1883-1885



replaced stones



25.00 levels in metres above Ordnance Datum

Black Gate, Castle Garth, Newcastle upon Tyne
Evaluation, December 2011

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Figure 7
Wall (1825) elevation
Based on 1984 survey
(see Section 3 of this report)

Scale 1:50@A3

APPENDIX 1.

Photographic record of the Evaluation

(Photographs are identified in the text as 'Plates')



Plate 1. Evaluation trench site before excavation showing the cobbles set in concrete forming part of the 1985 landscaping. View from air-raid shelter ventilator. Scales 2m.

Plate 2. After removal of hard landscaping and sub-base, showing natural boulder clay (glacial till) <5006> (top left) and the edges of cuts for wall (1743) and the Black Gate foundations <5005>. In the foreground is mixed clay, soil and rubble backfill covering the medieval masonry features, and some disturbed stones from the Black Gate foundations. The square box contains a lightning conductor <5007>. View looking from the air-raid shelter. Scales 1m.





Plate 3. After removal of hard landscaped surface and sub-base, showing glacial till <5006>, lightning conductor <5007>, soil and rubble backfill and disturbed foundation stones from the Black Gate foundation raft. Looking west. Scales 1m.



Plate 4. After removal of the 1985 backfill. Wall (1743) (left), with some backfill left to support the face-stones; mid-13th century foundation raft <5005> to the Black Gate (right), both cutting glacial till <5006> (upper left). View looking from air-raid shelter ventilator. Scales 2m.



Plate 5. Trench view after removal of 1985 backfill. Part of wall (1743) is visible (left, cut by the foundations of the Black Gate <5005> (right). Both features cut the glacial till <5006>. Looking south-east. Scales 2m.

Plate 6. Foundations of Black Gate <5005> cutting wall (1743) (left) and the glacial till <5006> (top left). Looking south-east. Scales 1m.





Plate 7. Foundations <5005> to the Black Gate, cutting wall (1743). Looking south-west. Scales 1m.



Plate 8. Glacial till <5006> in the right foreground, cut by Black Gate foundations <5005> (left) and wall (1743) (middle), also showing 1985 backfill and landscape surface. Looking north from within the arched opening in wall (1825). Scales 2m.



Plate 9. Detail view of part of the mid-13th century Black Gate foundation raft <5005>, showing some re-used faced ashlar. The base chamfer course is just visible at the top right, below which some foundation-work has been removed to accommodate the 1985 landscaping. Wall (1743), cut by <5005>, is bottom left. Looking south-west. Scale 1m.

Plate 10. Another detail of the mid-13th century foundation raft (5005), again showing the gap below the base chamfer where medieval foundation-work was been removed in the 1985 landscaping. Looking west. Scale 1m.





Plate 11. Another detail of the mid-12th century foundation <5005> to the Black Gate, showing faced ashlars re-used as part of the rubble and mortar raft. Looking west. Scale 1m.

Plate 12. Wall (1825) looking south-west, showing the junction with the mid-13th century Black Gate <5008>.



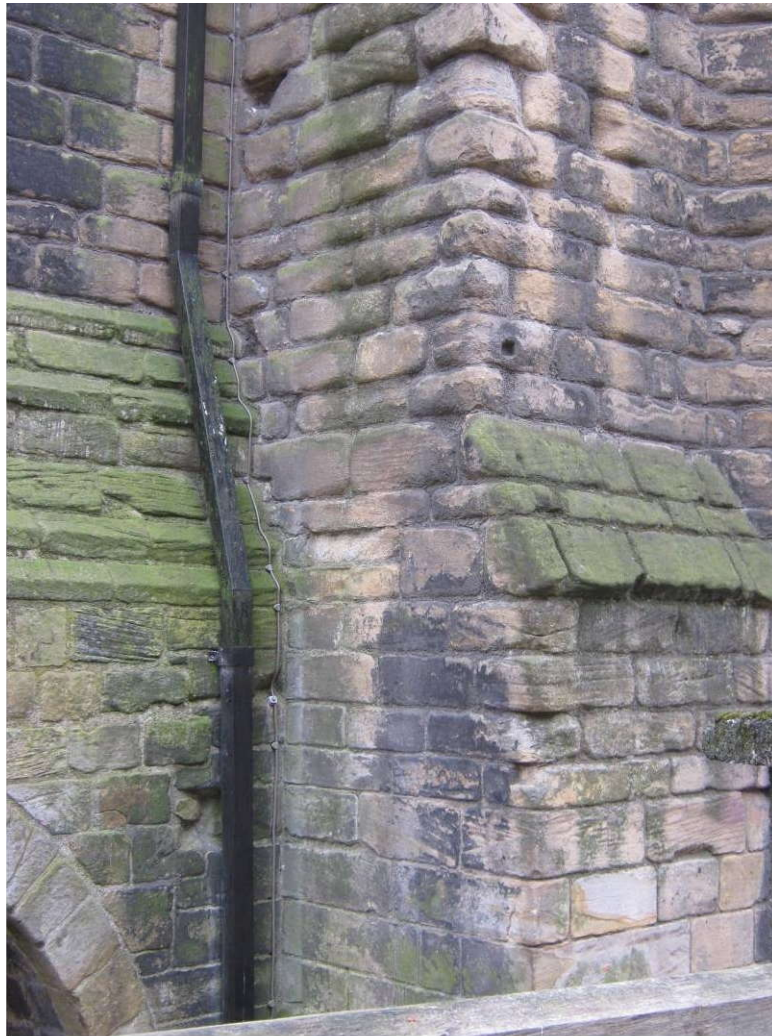
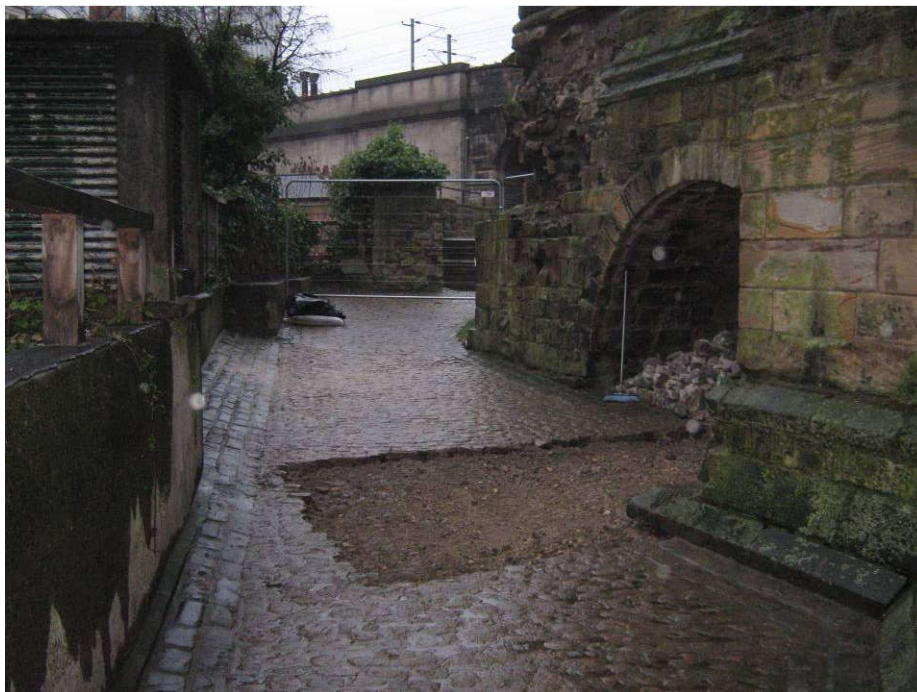


Plate 13. Detail of the junction of wall (1825) on the left, with the mid-13th century Black Gate <5008> (right), showing the masonry of the latter stepping over the chamfer courses of (1825).

Plate 14. The Evaluation trench on completion of the December 2011 excavation, showing back-filling (over a geotextile membrane). The cobble surface was not required to be re-instated.



APPENDIX 2

Context list, Black Gate Evaluation (BG11)

- 5000 Cobble setts on a concrete bed, hard landscaped surface laid in 1985.
- 5001 Dolomite laid in 1985 as a levelling-up deposit for 5000.
- 5002 Clay (dirty), brick, concrete and sandstone rubble. Moist. Back-fill of 1984 excavations.
- 5003 Grey-black soil and white mortar. Friable. Part of the lower level of back-fill of 1984 excavations.
- 5004 Cut for, and containing, masonry 5005.
- 5005 Heavily mortared sandstone rubble and re-used ashlar forming a 'raft' foundation to the north drum tower and rear buttress of the Black Gate. Mortar is a yellow-buff. Mid-13th century.
- 5006 Glacially deposited boulder clay. A geological deposit.
- 5007 Lightning conductor for Black Gate, installed 1985.
- 5008 1247-50 phase of the Black Gate, including the drum tower.

Finds catalogue.

Pottery.

Roman

Fragment of black burnished ware (1)

Medieval

Early reduced greenware body sherd (1) and strap handle (1)

Buff whiteware base sherd (1)

Gritty buff-white body sherds (2)

Stoneware base fragment (1)

Post-medieval

17th century type Redware (5)

Creamware (2)

Transfer-printed glazed white earthenware (2)

Plain glazed white earthenware (4)

Stoneware (1)

Later glazed red earthenware (2)

Ceramic building material.

One small fragment of yellow glazed floor tile.

Clay tobacco pipe.

8 stem fragments with bores ranging from 5/64th – 8/64ths, ranging in date from the 17th – 19th century. One with an oval stamp 'THO...AYE..' made by Thomas Taylor, active 1697 – 1708 [Edwards 1988, 54-55].

Glass.

Fragment of white metal window glass 1.5mm thick. Mould-blown medicine bottle base in light green metal. Fragment of dark green bottle body.

Metalwork.

Half-penny, Victoria, dated 1862.

Stone.

Part of a sandstone jamb from a fire-place or doorway, with a stop chamfer, was found amongst the 1985 backfill. The stone has traces of white lime mortar upon it, suggesting it has been re-used. This may have been brought onto the site with rubble used for hardcore.

Bone.

Part of adult human maxilla, a fragment of large ungulate long-bone showing marks of butchery/preparation for consumption, and a fragment of animal rib. The human bone will have derived from excavated cemetery spoil. The animal bone is undatable.

Miscellaneous.

Three waterproof paper context labels from the 1894 excavations with context numbers '1645', '1748' and '1763/4'.

APPENDIX 3

Copies of 1984-5 excavation archive photographs
and plans relating to the proposed development area.



1. Looking down from the 1st floor landing window of the Black Gate, showing (top) wall (1657) cutting wall (1743), the foundation raft <5005> for the Black Gate (left), and the area of natural glacial till cut by pits. Scale 2m. (Film 1984/5/13A)

2. The same, but looking further east to include 'cess-pit' (1823) (right). (Film 1984/5/14A)





3. Foundation raft ,5005. for the Black Gate during excavation, looking south. This shows the small sandstone chippings and mortar levelling-up surface, removed during subsequent landscaping. Scale 2m. (Film 1984/4/32A)

4. Another view of the same, looking down from the air-raid shelter. (Film 1984/4/35A)





5. *Left* - Junction of wall (1825) and the Black Gate <5008> showing foundation raft of the latter <5005> (Film 1984/3/37)

6. *Right* - the same looking south-west. Scale 1m. (Film 1984/3/36)





7. *Left* - wall (1743) looking east from its junction with the Black Gate foundations <5005>, showing the cut into the natural glacial till. Scale 1m and 2m. (Film 1984/5/17A)

8. *Right* - Junction of wall (1743) and foundations for the Black Gate <5005> looking south. Scale 1m. (Film 1984/5/7A)





11. *Left* – 'cess pit' (1823) looking west along wall (1743) towards the Black Gate foundations <5005>. Wall (1657) is on the right. (Film 1984/slide 0/84/37)

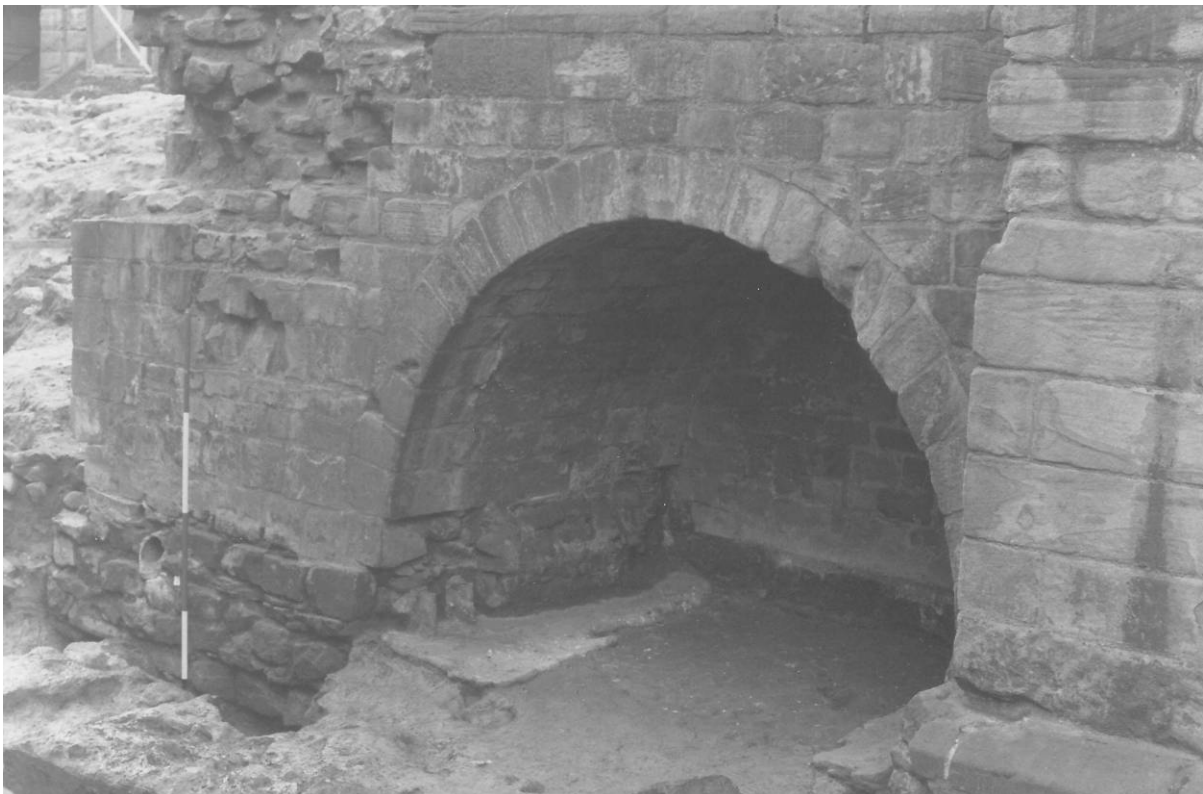
12. *Right* – closer view of the 'cess-pit' west wall (1721), wall (1743) and wall (1657) cutting both. Scales 1m and 2m. (Film 1984/5/18A)





9. Wall (1743) looking south-east from its junction with the Black Gate foundations <5005> showing the 'face' to the north and traces of abutting features. Scale 1m. (Film 1984/5/12A)

10. Wall (1825) looking south-east, showing the possible relieving arch and rubble foundations on the east side. (Film 1984//5/24A)





13. *Left* - Masonry arc (1843) in the south-west angle of 'cess-pit' (1823), looking south. Scales 2m and 0.5m. (Film 1984/5/20A)

14. *Right* - wall (734/852) looking east, showing rear wall and offset of air-raid shelter and construction cut partly emptied. Scale 2m. (Film 1984/3/7)





15. Rear wall and offset of the air-raid shelter after removal of part of the construction cut infill, showing offset and remains of shuttering. Wall (734/852) to the right. Scale 2m. (Film 1984/2/32)

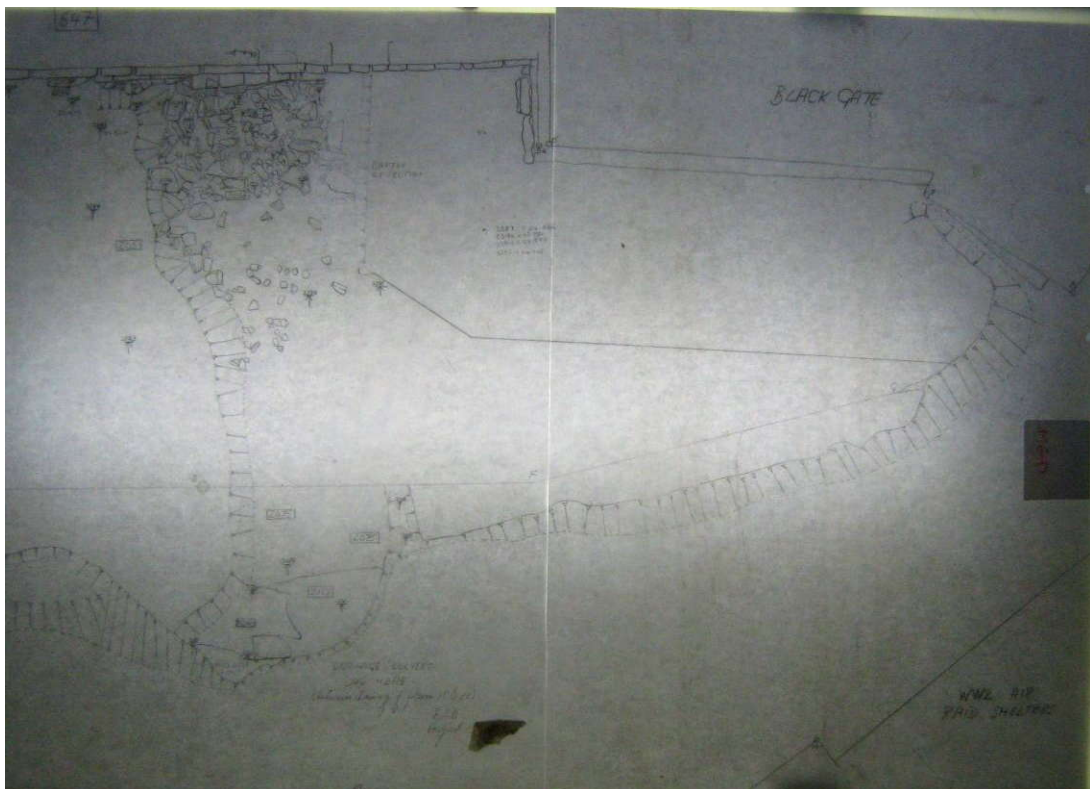
16. The rubble foundation (1932) of wall (1824) looking north to its junction with the east end of wall (1825). This, and the baulk of the ditch deposits abutting, were left undug. Scale 1m. (Film 1985/2/9A)

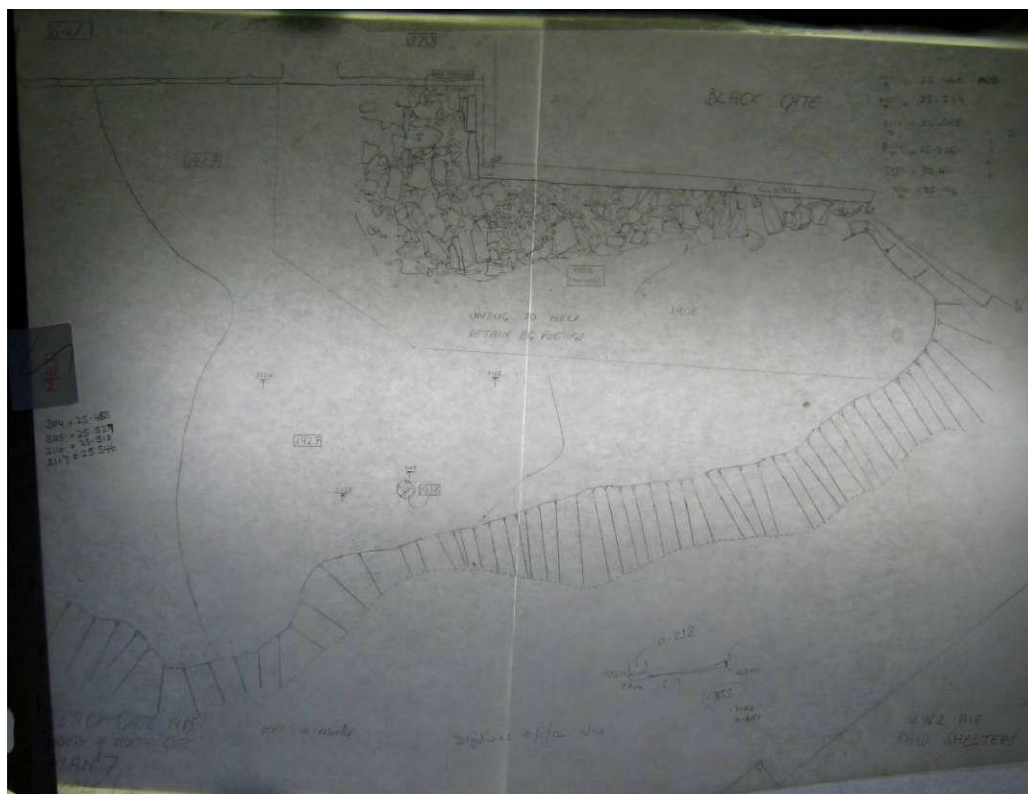




17. Castle ditch, looking west towards wall (647) with rubble foundation (2066). Wall (1824) is extreme right, with blocking wall (870) between the two. Photograph shows the baulk of unexcavated ditch deposits left to retain the foundations of (1824) and the section dug to sample the lower ditch deposits (foreground). Scales 1m and 2m. (Film 1985/2/23).

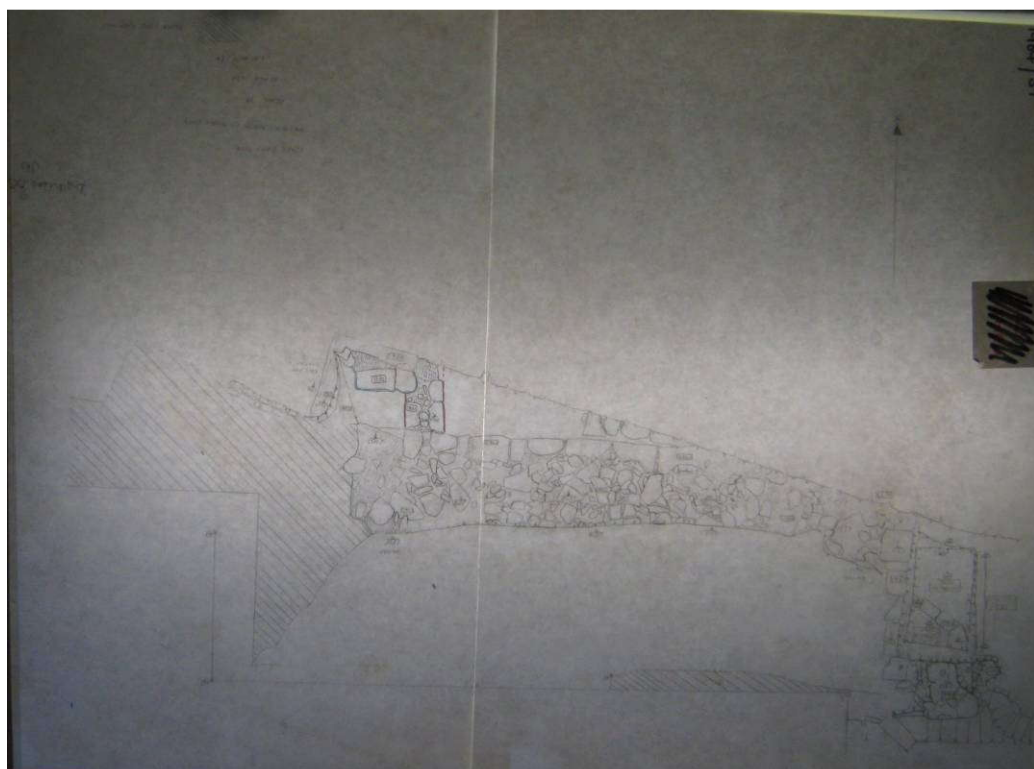
18. Field plan from 1985 (Drg. 85/21) showing the same area. See Figure 5 in this report.





19. Field plan from 1985 (Drg. 85/7) showing (top) foundations (1932) to wall (1824) and the outline of the baulk left to retain them.

20. Field plan from 1984 (Drg. 84/39) showing wall (1743) and cess pit (1823) fully exposed. North is to the top. See Figure 5 in this report.





21. Field plan from 1984 (Drg.84/18) showing wall (734/852) and part of the air-raid shelter. See Figure 5 in this report.