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**Archaeological Watching Brief behind Nos 55-57  
North Quay, Great Yarmouth**

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**HW Report No. 103**

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<b>Project name</b>	<b>55 North Quay</b>
<b>Client</b>	<b>Wellington Construction Ltd</b>
<b>NHER</b>	<b>51512</b>
<b>Grid reference</b>	<b>TG 5210 0773</b>
<b>Date of fieldwork</b>	<b>April 2008 to February 2009</b>

## **Summary**

*A watching brief to the rear of Nos 55-57 North Quay revealed archaeological deposits dating from the medieval and post-medieval periods. This included a number of walls which may have been associated with the Carmelite Friary (1276-1538). Evidence of clay tobacco pipe manufacture dating to the second half of the 17th century was recovered. Also recorded were walls and surfaces of a later post-medieval date, some of which maintained the alignments of the earlier medieval walls.*

## **Introduction**

The archaeological site was located to the rear of Nos 55-57 North Quay, Great Yarmouth (Fig 1). These properties, which are listed buildings of 19th century date, were under conversion into housing units. The excavation of service trenches and footing trenches for minor building extensions necessitated that an archaeological watching brief be carried out. This involved several visits to the site over a period of eleven months in order to monitor the works and record any revealed archaeological deposits.

The archaeological work was commissioned by Wellington Construction Ltd.

## **Archaeological Background**

Great Yarmouth is a town of some antiquity, its roots dating back to early fishing communities of the 10th century. The location of the town itself is somewhat unusual having been built on a sand spit which developed in the mouth of the River Yare, forcing the river to turn to the south before disgorging into the North Sea. This development of this spit of land and diversion of the river provided a relatively sheltered location for a harbour, allowing Great Yarmouth to grow and flourish as a port of both national and international significance.

Of particular relevance to this watching brief was the monastic importance of the town. Great Yarmouth had four monasteries and friaries within its town walls; the Benedictine priory (founded late 11th century), the Dominican friary (founded in the 1270s), the Franciscan friary (founded 1271) and the Carmelite friary (founded 1276). The present development was sited within the area known to be occupied by a Carmelites (White Friars). There are no upstanding remains of the friary, and little is know of its history. The Carmelites acquired the ground in 1276 and occupied the land until 1509

when the site was destroyed by fire. It is likely that rebuilding was underway when the friary was dissolved in 1538.

Human remains have been found close to the site on two occasions; in the 1850s and the 1950s. It has been presumed that these may relate to the friary burial ground. The exact site of the friary buildings is unknown although walls of a possible medieval date have been found both to the north (in 1964) and to the south (in 1982) of the present site (information from NHER 4306).

During the post-medieval period the site was occupied by some of Yarmouth's famous 'rows'. These narrow, closely spaced lanes, lined with properties occupied much of the east bank of the river and extended eastwards to the market place. During the 18th-century the street frontage onto North Quay was developed and substantial new buildings constructed including those occupying the present development site.

Many of the rows in Great Yarmouth survived into the 20th century and a few still survive. Those in the area of the development site were destroyed during World War II hence the modern street pattern in this area does not reflect that of the medieval town. The later part of the 20th-century has seen the construction of many new houses in this part of Yarmouth.

### **Aims of the work**

The watching brief was requested by Norfolk Landscape Archaeology and was intended to record any archaeological deposits revealed by the development works.

### **Watching Brief methods**

The watching brief consisted of monitoring the excavation of new footing trenches and service runs to the rear of Nos 55-57 North Quay. This work was undertaken over a period of eleven months. Access into the trenches was not always possible so some recording was carried out from the trench edge. Each trench recorded was given its own area number (Fig. 2). It was not until all the site recording work was completed that an overall plan was produced of the archaeological features so allowing concordance between features in the different areas.

All work was carried out in full accordance with national and regional guidelines for the treatment of archaeological remains, and in particular the guidance set out in Standards for Field Archaeology in the East of England (Gurney 2003) and the Institute of Field Archaeologists Standard and Guidance for Archaeological Field Evaluation (2001).

### **Recording and Sampling Methods**

Records comprise written, drawn and photographic data. A single context methodology was adopted. Sections of the trenches were drawn at 1:10 or 1:20 as appropriate, and plans of the features sketched at 1:20 or 1:50. The written record comprises context descriptions on pro forma context sheets. The photographic record consists of digital photographs together with black and white prints and colour slides.

## Results of the Watching Brief

The watching brief produced an interesting record of occupation on the site with some of the earlier features possibly relating to the Carmelite Friary. Other elements reflect the later development of the site to the present day. The results are presented below.

### Area 1a

(Fig. 3 Sections 1, 2 and 3, Plates 1 and 2)

The earliest deposit in this trench (09) was a mid brown slightly sandy clay with moderate charcoal fleck and pebbles. It is thought that the footing trench for wall (10) was cut through this deposit. The wall itself may be of a late medieval date. It was constructed of medium sized flints and both whole and broken bricks set in a creamy lime mortar. The proportion of mortar to other materials was noticeably high. This wall ran on a north to south alignment. The eastern face had been damaged by the machining and so was not visible in the section. It is likely some of the damage to the lower part occurred in antiquity. On its western side the wall was stepped and rendered.

The deposits which had accumulated to either side of the wall were very different. To the east there were two deposits of demolition debris (08 and 07) both of which consisted mainly of mortar with very few fragment of other building material, indicating that it had been sorted and the re-useable material removed. The later of these two (07) was darker in colour with some loamy soils having been mixed in along with sand lenses and charcoal flecks. The eastern face of wall 10 may have suffered some damage at this time, as it becomes noticeably narrower and more uneven at this point. Above the demolition debris were three layers (04, 05 and 06) relating to post-medieval use of the site. The first of these, located adjacent to the wall, was a compacted deposit of creamy mortar with frequent pebbles (04). This was probably a surface and, as it did not extend far in width, may have been a path running alongside the wall. To the east of this a thin topsoil appears to have formed (06) above which was a horizon of charcoal (05) probably representing fire waste.

To the west of the wall the lowest observed deposit was a mid brown loam (14) which may have formed an old topsoil. The relationship of the wall to this deposit was somewhat unclear, but it is thought that this deposit probably built up against the side of the wall. If this is correct, at the time of the construction of the wall the natural ground surface (represented by deposit 09 to the east) was dipping away sharply to the west towards the river. Overlying the old topsoil was a deposit of orangey brown clay/loam with occasional mortar fleck (13). Sitting above this was a sandy ash with charcoal representing mixed fire debris (12). This in turn was sealed by a mixed brown sandy loam with mortar, ceramic building material and the occasional clay lump (145), indicating a probable deliberate deposit of mixed material including demolition debris. These latter deposits (13, 12 and 145) were probably post-medieval in date.

At this point the deposits on each side of the wall become very similar with 11 and 03 being further dumps of mortar and demolition debris. These were sealed by a deposit of loamy material with many inclusions (02). The upper

deposits (01) were all modern in origin being made up of builders' debris/demolition rubble as well as modern service trenches.

In the south- west corner of the trench two further walls were revealed in the section. The first (16) was constructed of flint, brick and limestone set in a creamy mortar. It had a thin render on its north side and possibly on its east side. The axis of this wall was not established. At a later date (probably in the 18th or 19th century) this wall was faced on its north and east side with a single skin of red bricks (17). The east face of this build was rendered while the north side was slightly blackened.

Further work by the developers disturbed a deposit which contained a large number of clay pipes along with elements of a sagger, a support used in the firing of clay pipes or other items. These were possibly within a pit (allocated context nos 27 and [30] but not otherwise seen) containing waste from the manufacture of clay pipes as poorly made or badly fired pipe fragments were also present. The clay pipes dated from c. 1680-1710.

### **Area 1b**

(Fig. 3 Section 4, Plate 3)

The earliest deposit recorded in section was a dark brown clay (22) which was probably the equivalent of deposit 9 seen in Area 1a. Cut into this was wall 25. This ran on an east to west alignment and broadly aligned with the remains of an upstanding wall extending to the east of the present buildings. The above ground elements of this wall have been dated to the 16th century (Darren Barker pers.com.). The lower, excavated part of the wall was constructed of small and medium sized nodular flints along with some large pieces of brick, all set in an off-white lime mortar with occasional pebbles. Abutting this and running at right-angles to it was wall 26, which was made of similar material, though the mortar was creamier in colour. At the point of abutment complete bricks had been used. It had been rendered on its east side.

On the south side of wall 25 was a very dark grey sandy loam (23). This may represent a buried topsoil which had built up alongside the wall. Above this topsoil was a deposit of demolition debris (24). This was cream to mid brown in colour and made up of mortar mixed with loam. The demolition debris had been well sorted containing only the occasional fragment of brick or tile and occasional lump of mortar. This deposit had been cut by a large pit ([29]), the base of which was not reached. The lowest identified pit fill was a very loose mid brown/cream loam and mortar mix (18) which contained several pieces of ceramic tobacco pipe dating from c. 1680-1710 along with pottery of a probable 17th-century date. This was sealed by a deposit of reddish brown clay (19) which acted as a stabilisation layer above the loose pit fill. A deposit of brown/cream loam and mortar (20) made up the remainder of the pit fill. This has slightly less mortar content than 18 and was more compact. Sitting over this was a later post-medieval surface (21) of rounded cobbles.

To the north of wall 25 the lowest deposit was a grey brown clay (33) which was probably equivalent to deposit 22. This had been cut by a shallow wide feature ([148]) filled with mid brown loamy clay (28) containing several fragments of animal bone. Some pottery sherds recovered from this deposit indicated a 16th- to 18-century date. Immediately adjacent to wall 25 deposits

had been disturbed in the post-medieval period (146) and a redbrick wall (147) constructed.

## **Area 2**

This area was located to the south of the site. All deposits were recorded in section and were of a later post-medieval or modern date. The lowest recorded deposit was a dark grey brown silty sand (36) with many inclusions including pieces of ceramic building material of all sizes, flint cobbles, mortar flecks and one fragment of a limestone block. It was through this that a cut ([37]) for the construction of a red-brick wall (38) was made (see Fig. 11). This wall was seen in the south east parts of this area extending beyond the limits of excavation and appeared to run on a north to south alignment. Abutting this was a cobbled surface (35) made up of closely set rounded flints set on a compacted gravel bed. This surface extended for the full length of the southern footing trench and despite laying c. 0.5m below present ground surface on the development site, was at a similar level to the present street. This probably once formed a yard. One area of patching was noted where small amounts of ceramic building material had been used to repair the surface. Above this was a deposit (34) which consisted of a clean orange/brown silty sand which was probably of a fairly modern date and may have been imported to the site.

## **Area 3**

(Fig. 4)

Only the southern part of this trench was recorded as the northern section lay largely adjacent to or over Area 1b excavations. Many of the deposits recorded in the sections of this trench were of a reasonably modern nature, possibly post WWII, although some post-medieval deposits were also present. The earliest deposit seen was a very dark brown loam (47) containing occasional fragments of mortar and brick/tile. This fine and well worked loam was probably an old garden soil. Cutting this was a large pit (49) which contained a very dark brown/black loose loam (48). There was a considerable number of roots perhaps suggesting that this was once a planting hole. The upper fill (40) was a similar loam but also contained large quantities of demolition rubble including red brick, handmade brick, a granite block and limestone pieces.

Towards the south end of the trench a cobbled surface (43) was noted sitting on deposit (47). These cobbles abutted an east to west aligned wall (46). The lowest two courses of this were constructed of flints while the remainder was of red brick. These were possibly of a 19th century date. To the south of this wall the deposits were of a very late post-medieval or modern date and consisted of a deposit of clean, heavily compacted orange gravel (44) sandwiched between to deposits of dark brown loam (45 and 42) both containing fragments of red brick, chalk and mortar.

At the north of this segment of the trench a 20th century building was constructed, made up of walls 52, 54 and concrete floor 51. It is possible that the southern wall (52) may predate this building as it extended below the level

of the floor and incorporated some handmade bricks. Evidence for this building was also seen in Area 5.

#### **Area 4**

(Fig. 5, see Figs 9 and 10)

The earliest feature in this trench was wall 70. This was constructed mainly of flint with the occasional brick fragment all set in a creamy lime mortar. It ran on an east to west alignment, was 0.4m wide and both sides of the wall had been constructed of faced flints. This wall had not been seen in Area 1 or Area 3 trenches to the east suggesting that it terminated before reaching them, but was identified in Area 6 (100) to the west. Running parallel to and about 3.8m to the south of this was wall 61, a continuation of wall 25 as described in Area 1.

Between these two walls a series of layers was recorded, the lowest being a pale yellowy/cream sand with some mortar and silt (68). Above this was a dump consisting of creamy mortar lumps, flecks and fragments with frequent flint and the occasional brick/tile fragment (67) of 16th- to 17th-century date. This was sealed by a clean pale creamy yellow sand (66).

These deposits were cut by two features ([64] and [71]). The first of these was filled with a light cream and dark brown mix of mortar and loam which charcoal fleck, frequent flints and occasional fragments of ceramic building material (63) while the second was filled with very dark brown/black sandy loam with occasional fragments of ceramic building material and mortar fleck (69).

Three later walls all on an east to west alignment were also identified. Wall 72 was made up of a soft red brick and was built up against wall 70. Wall 65, 1.2m to the south was, made of red brick in a white mortar. Only two courses remained. A further 3.9m south was wall 59 which was of a similar construction. It is likely that these three walls were of broadly contemporary date.

All other deposits were of a modern origin.

#### **Area 5**

(see Figs 9 and 10)

Wall 80 was the earliest feature in this trench. This ran on a north to south alignment, not quite matching that of the present buildings. It was constructed of medium sized rounded flints and bricks which were uneven in size and fired to either an orangey red or a yellowy orange all set in a yellowy cream soft lime mortar. A render was noted on its eastern face, but this may have been a later addition as the wall seemed to be well faced behind the render. This wall was seen to continue in both Area 6 (94) to the north and Area 9 (134) to the south.

A later building, possibly of two phases, was represented by red brick walls 77, 86, 79 and 78 and redbrick surface 87 which was laid between walls 86 and 87. Elements of this building were also recorded in Area 3.

To the south of wall 79 was a deposit of dark brown loam (85), probably an old topsoil and possibly the same as 47 in Area 3. This contained pottery

sherds dating from the late 18th to 20th century. To the north of this wall deposits were notably different. The lowest was a mid grey silty sand (81) overlain by a creamy mortar rubble (82). This demolition debris had been well sorted and contained very few pieces of flint or brick within it. This was very similar to other demolition deposits seen across the site. A truncation level is indicated at the top of this deposit level with the top of the remains of wall 80. At this level a compacted chalk layer was seen on the top of wall 80, while a charcoal rich deposit was located adjacent to it. The nature of these deposits is very similar to contexts 4, 5, 6 and 15 in Area 1. Sealing all this was a relatively modern deposit of demolition debris.

## **Area 6**

(Fig. 6, Plate 4)

Three walls primarily of flint construction were noted in this area. Towards the north was east to west wall 100 (see Fig.10), a continuation of wall 70 in Area 4. This wall was made up of flints with some brick set in a creamy lime mortar. A red brick skin had been added to its northern face at a later date. Located further south was north-south wall 94, which was made up almost entirely of flint with the inclusion of only a few pieces of soft hand-made brick all set in a creamy lime mortar. This was a continuation of wall 80 seen in Area 5 and, as in that location, had been rendered on its eastern face.

Aligned perpendicular to this were two east to west walls (98 and 95). The first of these was also recorded in Area 1 (25) and Area 4 (61) and part of it remains upstanding to the west. It was made of flint and brick and was probably contemporary with wall 94. In contrast wall 95 was of a later date being constructed of a hard dark red brick of a sandy fabric set in a grey/white lime mortar. Between these three walls (98, 94 and 95) a floor surface (97) was revealed. This was made up of series of square and rectangular thick ceramic tiles of an 18th- to 19th-century date.

Between walls 95 and 94 part of a cobbled yard surface (93) was revealed while to the east of wall 94 a deposit of demolition debris (96) was seen. This may have been the same as or at least contemporary with 24 in Area 1.

## **Area 7**

(Fig. 7, Plate 5)

Modern soils were removed to the north of the existing buildings revealing an earlier yard surface. Two different sized ceramic paving blocks were apparent along with other areas of disturbance. The earliest sets were small (103) (0.15-0.16m long, 0.06-0.07m wide, 0.03-0.04m deep) and were often uneven in shape and size, some being trapezoidal. Smaller pieces, some only 0.05m long were used to infill smaller gaps in the surface. The paving blocks had a dark grey/black surface colour while the fabric was a yellowy poorly mixed fired clay.

This was disturbed and repaired with larger paving blocks (102) and occasional larger slab. This patch of repair covers a central linear area running east to west and is probably the result of the insertion of a drain. These larger blocks were also dark grey on the surface but of a yellowy fabric. They were very regular in shape and size the majority measuring 0.23x



0.075m with a few slightly smaller at 0.17m x 0.065m. These date to the late 18th or early 19th century.

Further disturbances have been made more recently including the insertion of a new drain during the current redevelopment project.

## **Area 8**

(Fig. 8, Plate 6)

Topsoil was removed and footing trench dug to support walls for a refuse area to the east of the site. Although this was on the highest part of the site, archaeological features were revealed immediately below the topsoil. The earliest deposit seen was a orangey brown silty clay (116). Built into this was a north to south wall (108, 109 and 110). Three different elements of build were noted in this wall which was recorded for a total length of 3.2m, and extended beyond the north edge of the area under investigation. The northern part of this wall (108) survived to a height of c.0.7m. The lower 0.35m was constructed of very large flints set in a hard creamy/off-white mortar. The upper part of this wall was constructed of brick (0.27 x 0.05m) and tile. The bricks were hand-made and unevenly fired some being yellow, some orange and others red in colour. The alignment of this wall was continued by wall 109 which was constructed of brick set in generous amounts of a creamy coloured mortar (109) while in the southern part (110) no bricks were visible, the construction made up almost entirely of creamy, yellow mortar. A small recess was apparent in the west face of the wall. Plaster was noted on parts of the west face, while the east face had been roughly rendered.

A possible buttress was noted on the northern side of this wall alignment at its southern end. Two builds were noted the earliest (111) was constructed of coursed brick, with occasional medium flints set in a creamy white mortar. This buttress was 1.20m wide and projected 0.7m from the main north to south wall. The upper build of this was constructed of flint and brick, including pieces of brick, and set in a white mortar within which small lumps of lime were easily visible. This was similar to the mortar used in wall 104 (see below). This later alteration to the buttress was 0.85m wide and projected just 0.4m to the north.

On the south side of the main wall alignment an L-shaped piece of masonry was recorded (106). This was brick built. The bricks measured 0.23 x 0.115 x 0.05m, were coursed and set in a creamy mortar which was sparingly used. This build (107) also infilled the recess noted in earlier wall 109. Within the area defined by wall 106, archaeological deposits were investigated to a depth of 0.4m, although they extended to a greater depth. The lowest deposit seen was a dump of off-white mortar (115) probably resulting from demolition. Above this was a series of alternate layers of brown clayey silt and black organic matter (114), which was sealed by mid brown/grey clayey silt with frequent charcoal fleck, moderated flints, brick fragments and mortar fleck.

Sitting above these deposits and also overlaying walls 106, 107 and 109 was wall 104. The remains of this was made up of three large blocks of re-used masonry, two of limestone and one of granite. These were set in a white mortar with large pieces of unslaked lime visible. To the north of this, and

probably contemporary was a footing made up of a single layer of flints set in a white mortar (105). This abutted wall 108.

It is thought that some of the earliest elements of this alignment may have originated during the medieval period while this area was part of the Carmelite friary. The later alterations and additions were probably post-medieval and relate to the later use of the area.

## **Area 9a**

(Fig. 9)

Both north and south facing sections of this trench were recorded as the deposits were seen to differ between them. The lowest deposit in the north facing section was a clean mid orange/brown clayey silt (129) above which was a was an orangey/yellow sand (128). In the south facing section the deposit at the equivalent stratigraphic level was a dark grey/brown loam with frequent sand and grit (130). Sealing deposits 129 and 128, and with no direct relationship with 130 was deposit 127, a clean orangey/brown clayey silt. Deposits 127, 128 and 129 all dipped to the west. Cutting these was the foundation (123) for a north to south wall (122). The foundation was largely made up of compacted dark orange/brown clayey silt with very frequent brick fragments and mortar lumps. Part of the footing (as seen in the south facing section) was of mortared brick rubble. It is possible that this was a later underpinning event. The wall above this footing was c. 1.1m wide and survived to a height of 1.1m. Each face was constructed of hand-made brick in a creamy mortar. The core of the wall was made up mainly of a loose mortar although medium rounded flints and broken bricks were also included. About 3m to the west of this a further wall was recorded. This was made up of two elements, the main wall (121) and an additional area of masonry (131) which may have been a buttress or part of an earlier wall. Wall 121 was of a similar build to wall 122 with brick and flint facing and mortar rubble core. It was c. 0.8m wide and extended to a greater depth, the base not being revealed as it lay beneath the level of excavation. This was on the same alignment as wall 10 in Area 1.

The deposits between these walls mainly consisted of demolition debris. Two distinct layers (124a and 124b) were identified separated by a thin spread of sand which sat directly on top of wall/buttress 131. The lower of these deposits was very coarse demolition debris with many large fragments, some formed by bricks still mortared together. The upper deposit was similar but also contained a notable element and grey/brown clayey silt.

To the east of wall 122 a mid orange/brown clay/sand/silt with some mortar fleck had built up. This may have been previous topsoil.

A later wall was also recorded running parallel and adjacent to wall 121. This was made of red bricks in a white mortar, and was constructed on demolition debris 124.

All other deposits recorded were modern in origin and were made up of rubble and rubbly topsoil as well as deposits and service trench laid down during the earlier months of this project.

## Area 9b

### Plate 7

The lowest noted deposit in this was a dark grey/brown clayey silt (144). The relationship of this deposit with wall 134 was unclear. Wall 134 ran on a north to south alignment. The lower part of this was built mainly of flint with the occasional brick set in a soft lime mortar. This is part of wall 80 seen in Area 5. Abutting this and running perpendicular to it was wall 133, built of coursed brick and flint in a creamy lime mortar. The upper parts of both walls (134 and 133) were of a later brick construction. Wall 135 also abutted wall 134, this was of red bricks in a hard lime mortar. A further modern wall (136) was also noted. Built up against wall 134 was a deposit of fine mortar demolition debris (143), notable for the total absence of more substantial building material such as brick, tile or flint. This was sealed by a deposit of clayey loam (142) which may have once formed a topsoil. Other deposits were of a modern origin.

## The Finds

by Sue Anderson

### Introduction

Table 1 shows the quantities of finds collected during the evaluation. A full quantification by find type and context is included in the Appendices.

Find type	No.	Wt/g
Pottery	59	1379
CBM	3	797
Fired clay	12	548
Mortar/plaster	1	67
Glass	1	1
Clay pipe	264	1588
Lava quern?	1	8
Iron	6	130
Animal bone	47	1033

Table 1 Finds quantities.

### Pottery

Table 2 shows the quantities of pottery by fabric. Quantification was carried out using sherd count, weight, minimum number of vessels (MNV) and estimated vessel equivalent (eve). A full quantification by fabric, context and feature is available in the archive. All fabric codes were assigned from the author's post-Roman fabric series. Imports were identified from Jennings (1981). Form terminology follows MPRG (1998).

Description	Fabric	No	Wt (g)	MNV	eve
Late medieval and transitional ware	LMT	2	24	2	0.11
Unidentified	UNID	1	12	1	
Total late medieval		3	36	3	0.11
Glazed red earthenware	GRE	22	592	16	0.40
Tin-glazed earthenware	TGE	3	260	3	
Werra slipware	WERR	1	8	1	
Weser slipware	WES	1	2	1	
Frechen stoneware	GSW4	3	159	2	
Westerwald stoneware	GSW5	5	36	2	
Post-medieval whitewares	PMWW	1	20	1	
Total post-medieval		36	1077	26	0.40
Refined whiteware	REFW	16	207	9	0.68
Porcelain	PORC	3	17	2	0.26
English stoneware	ESW	1	42	1	1.00
Total modern		20	266	12	1.94
Total		59	1379	41	2.45

Table 2 Pottery quantification.

The earliest pottery in the assemblage was of late medieval (L.14th–M.16th-century) date and comprised an LMT mug rim and a body sherd, and an unidentified fragment of green-glazed ware with a crudely decorated applied medallion. The latter may be a fragment of Low Countries Highly Decorated ware or possibly an 'import' from further north along the east coast of England.

Post-medieval wares formed the greatest proportion of the assemblage and was dominated by redwares. Few forms were identifiable but they included at least two mugs, two jugs, a bowl and a pipkin. Fragments of hand-painted tin-glazed earthenware included a small bowl and a large piece of an Anglo-Netherlands dish with a blue-painted scene of indeterminate form. German stonewares included a fragment of base from a Cologne/Frechen bottle or jug, and fragments of a globular vessel in Westerwald stoneware decorated with a blue medallion (only the border survived). Two small pieces of German slipware dishes (Weser and Werra wares) were also present. One sherd of a yellow-glazed whiteware was probably of 18th-century date but was of unknown origin.

The factory-made wares recovered from the site included pieces of both table and utilitarian wares. There were fragments of a possible tureen lid, a sauce boat and a cup in transfer-printed wares, a small piece of a labelled lid, and a plain preserve or paste pot. Two porcelain cups, one with a gold banded rim and the other decorated with a blue transfer-print, were also recovered. English stoneware was represented by a complete neck/rim from a light brown bottle.

### **Clay tobacco pipes**

Fragments of clay pipe totalling 264 pieces were collected from pit (18), demolition debris (81/82) and as unstratified finds (27, 88–92). Of these, 219 fragments were pieces of stem, one of which had an intact heel. Eighteen mouthpieces were present, and there were twenty-seven complete or fragmentary bowls, eight of which had lengths of stem attached.

The pipes were generally of similar types, with stem bore measurements ranging between 2.5 to 3mm. This size range is compatible with a 17th-century date. The bowls were all comparable with examples of 17th to early 18th-century date (cf Noël Hume 1991, fig. 97, nos. 10, 12 and 13; the latter was the most common in this group and is dated c.1680–1710). Heels were generally broad flat ovals with no marks, but six of the pipes had the maker's initials either side of the heel, 'W H', in at least two different styles. The bowl rims were partially milled, mainly on the side which would have faced the smoker. Mouthpieces were all simple forms and none was flattened.

At least 123 of the fragments recovered could be characterised as wasters. They were in varying off-white to grey colours and many had deposits of ferrous material or pieces of fired clay adhering to their surfaces. A few were partially vitrified. One piece of squashed tube from (27), probably a fragment of stem, was unfired.

The 'W H' initials suggest that the pipes were made by William Harpley, a Yarmouth pipe-maker mentioned in documents of 1662 and 1673 (Atkin 1985, 147).

### **Fired clay**

Twelve pieces of fired clay were collected from Area 1 as unstratified finds (27). Similar fired clay was found adhering to the stems of some clay pipe fragments and it is assumed that this material was related. The clay contained abundant medium to coarse quartz sand and occasional ferrous particles and was largely reduced on the outer surface, where it was buff to brownish in colour and vitrified in places. The inner surface was fired to the same white as the clay pipes. There was evidence for the build-up of layers within this material, and thin pieces of inner surface had come detached from thicker outer fragments, giving them the appearance of coarse handmade pottery.

Whilst the fragments may represent kiln lining, the curvature of some pieces suggested a diameter of only 180mm, with the maximum possible diameter being 360mm. This is too small for a normal pipe kiln and it seems more likely that the fragments were from a saggar or some other form of protective kiln furniture. Cylindrical saggars made from a similar type of clay have been identified at an early 17th-century kiln site in Barnstaple, Devon (Peacey 1996, Section 6), although these were smaller at only 140mm diameter.

### **Ceramic Building Material (CBM) and mortar**

Two fragments of late brick in a fine sandy fabric with red clay pellets were found in context (67) and measured 50-55mm thick. This suggests a 16th/17th-century date. A piece of medium sandy roof tile was also collected from this context, and was covered with a thick layer of lime mortar.

One fragment of mortar/plaster was an unstratified find (92). The aggregate comprised abundant medium sand and there was brick dust on the rear of the fragment. The surface had been roughly smoothed with a finer lime plaster.

### **Miscellaneous**

A small fragment of abraded lava quern was recovered as an unstratified find (92). Lava quern of this material was in use in the Roman and medieval periods, although the latter seems a more likely date in Yarmouth.

Six iron objects were collected. Three handmade nails were found in pit fill (18) and unstratified finds (92). The other objects comprised a curving tapered piece (U/S), a wire object (18) and a rectangular-section object (67). These fragments may be identifiable from x-rays, but the condition and associated finds suggest that all were probably post-medieval or later.

One small fragment of thin white glass was recovered from garden soil layer (85) and is likely to be of 20th-century date.

### **Animal bone**

With the exception of nine fragments from pit (18), the animal bone assemblage was largely derived from demolition debris or unstratified groups. Table 3 shows the quantification by species.

Species	No.	Wt (g)
Cattle	8	515
Large mammal	18	378
Sheep/goat	6	80
Medium mammal	2	11
Pig	2	18
Dog?	1	1
Cat	6	19
Goose?	1	3
Bird	1	3
Unidentified	2	5

Table 3 Animal bone quantities by species.

Despite the small size of the group, all the major domesticates were present. Most of the cow, sheep and pig bones showed evidence for butchery with knives and axes, but there was no definite evidence of the use of saws. The bones of these species included those related to the main cuts of meat such as ribs, forelimbs and hind-limbs, with few foot and ankle bones present. This is generally indicative of butchery having taken place away from the site. However a few fragments from the skull and extremities were present, and a larger group might suggest a different picture. Both juvenile and adult individuals were represented in the group.

The fragments of bird bone showed no evidence of butchery, although both were incomplete and one had been heavily gnawed by a rodent.

Most of the cat bones were collected from pit (18) and they may represent a single individual. The single ?dog bone was a metatarsal from an animal not much bigger than the cat. The presence of carnivores on site is also evidenced by tooth marks on several bone fragments.

### **Discussion of the finds evidence**

Stratified finds from this site came from pit fill (18), deposit (28) and demolition debris (81/82). The bulk of the assemblage was unstratified or from the upper layers of the site.

Deposit (28) may have been the earliest context identified; it contained two sherds of probable late medieval or early post-medieval pottery (15th/16th c.) and a small group of cattle bones. Pit fill (18) produced material of 17th-century date, including pottery and clay pipe fragments, as well as small quantities of animal bone and iron objects. Layer (81/82) contained several fragments of clay pipe and two large mammal ribs stained with copper deposits; the clay pipes suggest a 17th-century date for the context.

The clay pipe assemblage was relatively homogenous and included very similar forms and stems of similar bore sizes. However some of the pipe bowls were of slightly earlier forms than others, suggesting that the waste was from more than one kiln firing and perhaps even more than one generation of manufacturers. The documentary evidence for William Harpley, together with the archaeological evidence of the pipes and fired clay waste, suggest that there was a production site in the area in the second half of the 17th-century.

Much of the pottery was probably contemporary with the clay pipe production waste and may be domestic rubbish from the workshop itself or from nearby houses. However, a few of the 17th-century pottery vessels were decorated dishes of German or Anglo-Netherlandish origin, which may indicate that some of the material was waste from a moderate to high status household. Otherwise the range of vessels is typical of the drinking, food preparation, storage, tableware and cooking pots in use during the period.

Other finds from the site included the remains of food waste and a few pieces of building rubble, but the quantities of the miscellaneous finds were too small for further interpretation.

### **Interpretation and Discussion**

It has been impossible to securely date many of the archaeological deposits recorded on the site. This is due to the majority of the finds originating from unstratified or machined contexts, and also due to the fact that all the interventions were small scale and isolated. Despite this an attempt has been made to fully interpret the deposits based in their nature and stratigraphic location. Each context has been allocated to one of five defined periods listed below.

Period 1	1276 to 1538	Medieval	Carmelite Friary.
Period 2	1538- <i>c.</i> 1590	Late medieval	Period of abandonment.
Period 3	<i>c.</i> 1590 to <i>c.</i> 1750	Early post-medieval	Establishment of the Rows and commencement of clay pipe manufacture. Construction of street frontage buildings Nos 55-57 North Quay.
Period 4	<i>c.</i> 1750 to <i>c.</i> 1900	Late post-medieval	Alterations/additions to street frontage buildings Nos 55-57 North Quay and probable continuation of clay pipe manufacture.
Period 5	<i>c.</i> 1900 to 2009	Modern	WWII destruction, demolition of rows, modern building deposits.

### **Period 1 Medieval (1276 to 1538)**

The Carmelite Friary was founded in 1276. The precise extent of the friary precinct and the location of the church and friary building are not known. It has been suggested that initially the friary fronted onto the market place, but may have been moved to front into North Quay (previously known as Whitefriars Quay) during the later medieval period (Rutledge 1977). Evidence supporting the location of the friary buildings close to North Quay include the discovery of substantial walls both to the north (in 1964) and to the south (in 1982) of the present site (NHER 4306) and the unearthing of human skeletal remains nearby in the 1850s and 1950s (NHER 4306). These skeletons were thought to be part of the friary burial ground.

The results of this watching brief have added to this evidence with deposits of a possible medieval date being found in Areas 1, 3, 4, 5, 6, 8, 9a and 9b. Prior to building in this area the deposits recorded indicate no or little previous occupation of the area with the deposits being fairly uniform, clean clayey silts. A number of walls of a probable late medieval date were recorded post-dating the clayey silts.

In total parts of seven walls were recorded (Fig. 10), two on an east to west alignment and four on a north to south alignment and one of an unknown alignment. No associated floor surfaces were seen and no pattern resembling building plans was discerned. This along with the presence of possible contemporary buried topsoil deposits suggests that these walls may form garden/boundary walls within the friary precinct with the main buildings possibly sited originally to the east, but following the relocation of the friary, to the south of the present site. It is not known if all of the walls discovered were of a contemporary build but the similarity of building materials and mortar type suggest that they may have been built within a reasonably short period of time.

It should be noted that the walls at the east side of the site were visible just below the present ground surface, while those further west were constructed



from lower level and were sealed by c. 0.6m of more recent deposits. This probably reflects the contours of the natural ground surface dipping to the River Yar, the present line of which is c. 0.6km to the west. Recent work has shown that during the medieval and early post-medieval periods the area between the Friary precinct and the present course of the river probably lay at or below sea-level (Great Yarmouth Archaeological Map).

Although it is recorded that the friary was destroyed by fire in 1509 none of the walls or deposits revealed bear any evidence of a major conflagration.

### **Period 2 Late medieval (1538 to c.1590)**

In 1544, few years after the Dissolution, the friary was granted to Thomas Denton Esq.. At this time a survey was made but this includes little detail of friary buildings but mentions yards, orchards, gardens, land and soil (Rutledge 1977). By 1584 the land had been acquired by Thomas Mynors gent. of London who then sold on the property as a number of smaller plots (Rutledge 1977). This was the commencement of the sub-division and redevelopment of the property.

Deposits probably dating to this period were present in Areas 1, 5, 6 and 9b and consisted of dumps of demolition debris. This would have originated from the friary buildings themselves. It was particularly noticeable that this waste, mainly made up of mortar and sometimes mixed with a loamy grey soil, contained very little brick or flint. This points to the fact that upon demolition the rubble had been carefully sorted and the substantial and valuable materials had been removed to be reused elsewhere.

### **Period 3 Early post-medieval (c.1590 to c.1750)**

The subdivision of the old friary precinct led to intense redevelopment of the area and the pattern of narrow rows was extended across this area. Row 31 (Nine Parish Row) is thought to have formed the northern boundary of the Carmelite precinct and Row 45 (known as St John's Head Row, Singens Row and Woolsey's Row) the southern boundary. The latter of these now lies under the southern pavement of St Francis Way. Between these two lay Row 34 (Quay Mill Row) and Row 37 (Glasshouse Row).

Parts of the present buildings at 55-57 North Quay were also constructed at this time. Wall paintings of a probable 17th-century date have recently been identified on a second floor partition wall (Kirkham 2008).

Deposits dating to this period were present in Areas 1, 4, 7 and 9b although the most significant evidence of this period was that relating to tobacco pipe manufacture. It has previously been recorded that clay tobacco pipes were manufactured in Row 45 from 1801 until 1868 (Tooke 2000), the finds from this site extend the tradition of pipe-making back to the 17th century.

The finds relating to the manufacture of clay pipes included poorly fired and unevenly made pipes as well as part of a sagger, a support used in the kiln during the firing of the pipes. The shape and size of the pipe bowls indicate a 17th- to early 18th-century date. The initials 'WH' on six examples probably refers to the pipemaker William Harpley who was known to work in the Yarmouth area in the 1660's and 70's. This coincides with the peak of the clay pipe industry in Norfolk (Atkin 1985, 133). Pipe manufacturing however,

remained an important industry for the town of Yarmouth and continued up until the 19th century. Row 47 to the south was known as Pipemaker's Row and pipemaking only ceased in this Row in 1889 (Tooke 2000, 24)

#### **Period 4 Late post-medieval (c.1750 to c. 1900)**

During this period alterations were made to the buildings on the street frontage. Parts of No 55 formed a mid 18th-century domestic range while Nos 56 and 57 have architectural elements of 18th-century houses and shops although smaller buildings and yards undoubtedly remained behind them. Late post-medieval deposits were recorded in all areas of the site with the exception of Area 8 and these included several walls and surfaces. Some of the medieval walls appear to still have been standing at this time as some have late walls abutting them, or following very similar alignments (Fig. 11). One area of particular interest was recorded in Area 6 where two medieval walls were recorded one abutted by a late post-medieval wall (95). To the north of this latter wall was what appeared to be an internal surface, while to the south a cobbled external surface was recorded.

#### **Period 5 Modern**

Many of the Rows survived in Great Yarmouth up until WWII when much of the town was bombed. Following the War many areas were cleared and redeveloped. The Street frontage houses of Nos 55-57 North Quay survived and housing built on the surrounding land. Much of the development site was quite heavily affected by this with modern disturbance and deposits present across all of the times, usually to a depth of c.0.5m, but often in isolated areas to a greater depth. The clearing of the site at this time probably accounts for the piecemeal survival of evidence relating to the later post-medieval period.

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## Appendix 1: Context List

Context No.	Type	Area	Description	Period
1	D	1	Modern make-up	5
2	D	1	Make-up	4
3	D	1	Demolition debris	4
4	D	1	Surface?	3/4
5	D	1	Fire waste	3/4
6	D	1	Layer	3/4
7	D	1	Demolition debris	2
8	D	1	Demolition debris	2
9	D	1	Clay deposit	1
10	M	1	Wall North to South	1
11	D	1	Demolition debris	4
12	D	1	Sooty ash	3/4
13	D	1	Clayey loam	2
14	D	1	Old topsoil??	1
15	D	1	Floor?	3/4
16	M	1	Wall	1
17	M	1	Red brick skin to Wall 16	4
18	D	1	Fill of pit 29	3
19	D	1	Capping of pit 29	3
20	D	1	Fill of pit 29	3
21	D	1	Cobbled surface	4
22	D	1	Clayey deposit	1
23	D	1	Old topsoil?	1
24	D	1	Demolition debris	2
25	M	1	Wall East to West	1
26	M	1	Wall North to South	1/2
27	D	1	Finds from pipemaking pit 30	3
28	D	1	Deposit with animal bone.	2
29	C	1	Pit containing clay pipe	3
30	C	1	Pipemakers pit/kiln	3
31	C	1	Construction cut for wall 10	1
32	C	1	Construction cut for wall 25	1
33	D	1	Layer	1
34	D	2	Modern make-up over 35	5
35	D	2	Cobble surface	4
36	D	2	Soils below 35	6
37	C	2	Cut for wall 38	4
38	D	2	Wall	4
39	D	2	'fill' to west of wall 38	4
40	D	3	Modern make-up	5
41	D	3	Modern (21st century) rubble	5
42	D	3	Make-up	5
43	D	3	Cobble surface	4
44	D	3	Gravel ?surface	5
45	D	3	Garden soil	5
46	M	3	Wall (East to west)	4
47	D	3	Garden soil	2/3
48	D	3	Fill of pit 49	4
49	C	3	Pit	4
50	D	3	Fill of pit 49	4
51	M	3	Concrete floor	5
52	M	3	Wall (East to West)	4
53	D	3	Demolition debris	5
54	M	3	Wall (North to South)	5
55	C	3	Cut for walls 52 and 54 and floor 51)	5

Context No.	Type	Area	Description	Period
56	D	4	Sand (21st century)	5
57	D	4	Modern make-up	5
58	C	4	Levelling horizon	5
59	M	4	Wall, red brick (East to West)	4
60	C	4	Build up	4
61	M	4	Wall (East to West)	1
62	D	4		4
63	D	4	Fill of pit 64	3
64	C	4	Pit cut	3
65	M	4	Wall (East to West)	4
66	D	4	Levelling deposit	1
67	D	4	Demolition debris	1
68	D	4	Levelling deposit	1
69	D	4	Build up	3
70	M	4	Wall (East to West)	1
71	C	4	Landscaping cut?	3
72	M	4	Wall	4
73	D	4	Fill of 74	4
74	C	4	Demolition cut	4
75	D	4	Build up	4
76	D	5	Rubble and topsoil	5
77	M	5	Wall (East to West)	4
78	M	5	Wall (North to South)	4
79	M	5	Wall (East to West)	4
80	M	5	Wall (North to South)	1
81	D	5		2
82	D	5	Demolition debris	2
83	D	5		3/4
84	D	5		3/4
85	D	5	Garden soil?	4
86	M	5	Wall (East to West)	4
87	M	5	Surface	4
88	F	2	Unstratified finds	
89	F	4	Unstratified finds	
90	F	3	Unstratified finds	
91	F	6	Unstratified finds	
92	F	1	Unstratified finds to north of wall 25	
93	D	6	Cobbled surface	4
94	M	6	Wall (North to South)	1
95	M	6	Wall (East to West)	4
96	D	6	Demolition debris	2
97	M	6	Floor surface	4
98	M	6	Wall (East to West)	1
99	M	6	Wall (Corner)	4
100a	M	6	Wall (North to South)	1
100b	M	6	Wall (North to South)	4
101	M	6	Well	3/4
102	M	7	Surface, large sets	4
103	M	7	Surface, small sets	3
104	M	8	Wall/footing (North to South)	3/4
105	M	8	Wall/footing (North to South)	3/4
106	M	8	Wall L-shaped	2/3
107	M	8	Wall infilling	2/3
108	M	8	Wall (North to South)	1
109	M	8	Wall (North to South)	1
110	M	8	Wall (North to South)	1
111	M	8	Buttress	1
112	M	8	Buttress	3/4
113	D	8	Fill	2/3

Context No.	Type	Area	Description	Period
114	D	8	Fill	2/3
115	D	8	Demolition/construction debris	2/3
116	D	8	Clay	1
117	D	9a	Modern debris and pipe trench (2008)	5
118	D	9a	Layer	5
119	M	9a	Wall (North to South)	4
120	D	9a	Demolition debris	4
121	M	9a	Wall (North to South)	1
122	M	9a	Wall (North to South)	1
123	M	9a	Footing (North to South)	1
124	D	9a	Demolition debris	2/3
125	D	9a	Layer	2/3
126	D	9a	Layer (dump)	4
127	D	9a	Build up	1
128	D	9a	Sand	1
129	D	9a	Build up	1
130	D	9a	Buried topsoil?	1
131	M	9a	Footing? Buttress	1
132	D	9a	Make up	2/3
133	M	9b	Wall (East to West)	3
134a	M	9b	Wall (North to South)	1
134b	M	9b	Wall (North to South)	2
135	M	9b	Wall (East to West)	4
136	M	9b	Wall (East to West)	4
137	D	9b	Make up	5
138	D	9b	Levelling layer	5
139	D	9b	Buried topsoil	3
140	D	9b	Modern debris	5
141	D	9b	Sand	5
142	D	9b	Buried soil	3
143	D	9b	Mortar debris	2
144	D	9b	Make up	2
145	D	1	Mixed topsoil and demolition debris	3
146	D	1	Topsoil and rubble	4/5
147	D	1	Red brick wall sitting on mortar foundation	4/5
148	C	1	Cut for pit with animal bone	3/4

## Appendix 2: Pottery

Context	Fabric	Form	Rim	No	Wt (g)	MNV	Spotdate
U/S	GSW4			1	26	1	16th/17th c.
U/S	GSW5			4	30	1	17th-19th c.
U/S	REFW	lid	flanged	1	25	1	L.18th-20th c.
18	GRE			1	25	1	16th-18th c.
18	WES			1	2	1	1600-1650
28	LMT	mug	upright	1	9	1	L.14th-16th c.
28	UNID			1	12	1	L. Med?
28	GRE	mug	inturned	1	5	1	16th-18th c.
28	GRE			1	41	1	16th-18th c.
85	REFW	jug?	upright	1	98	1	L.18th-20th c.
85	REFW	cup?	flaring	5	28	1	L.18th-20th c.
85	REFW	lid	plain	1	10	1	L.18th-20th c.
85	REFW	jar	beaded	4	35	1	L.18th-20th c.
85	REFW	bowl?	plain	1	2	1	L.18th-20th c.
85	PORC	cup?	plain	2	9	1	L.18th-20th c.
85	PORC	cup?	flaring	1	8	1	L.18th-20th c.
88	GSW4			2	133	1	
88	ESW	bottle	flaring	1	42	1	19th/20th c.
88	PMWW			1	20	1	18th-19th c.
90	GRE			4	66	4	16th-18th c.
90	GRE			1	15	1	16th-18th c.
90	GRE			1	36	1	16th-18th c.
90	GRE			1	52	1	16th-18th c.
90	GRE	jug		1	19	1	16th-18th c.
90	GRE	jug		7	237	1	16th-18th c.
90	GRE	mug		1	23	1	16th-18th c.
90	GRE	bowl?	everted	1	30	1	16th-18th c.
90	GRE	pipkin	complex	1	29	1	16th-18th c.
90	TGE			1	3	1	17th-18th c.
90	TGE			1	11	1	17th c.
90	GSW5			1	6	1	17th-19th c.
90	REFW			1	4	1	L.18th-20th c.
90	REFW			1	4	1	L.18th-20th c.
91	LMT			1	15	1	L.14th-16th c.

Context	Fabric	Form	Rim	No	Wt (g)	MNV	Spotdate
91	GRE			1	14	1	16th-18th c.
91	REFW			1	1	1	L.18th-20th c.
92	WERR			1	8	1	L.16th-E.17th c.
92	TGE	dish		1	246	1	M.-L.17th c.
<b>Total</b>				<b>59</b>	<b>1379</b>	<b>41</b>	



### Appendix 3: Clay pipes

Context	Part	No	Wt (g)	Notes	Noël Hume fig. 97 type	Spotdate
u/s	stem	9	56	wide bores (2.5-3mm), 1 grey		
18	stem	22	129	overfired, grey, Fe deposits, some kiln-lining adhering		
18	stem	16	99	white		
18	mouthpiece	2	2	white		
18	bowl	1	23	overfired, grey, contains vitrified material in bowl	13	c.1680-1710
18	bowl	1	13	white, incomplete	13	c.1680-1710
18	bowl	1	16	white, sooting suggests used?	13	c.1680-1710
18	bowl	1	14	cream-coloured, maker's initials either side of heel W H	13	c.1680-1710
18	bowl/stem	1	16	white, maker's initials either side of heel W H	13	c.1680-1710
27	stem	94	544	overfired, grey, Fe deposits, some kiln-lining adhering		
27	stem	28	93	white		
27	mouthpiece	16	25	15 white, 1 grey, 1 Fe deposits		
27	stem	1	3	unfired squashed fragment		
27	bowl	5	25	incomplete frags, 1 with maker's initials 'W'	13	c.1680-1710
27	bowl	3	40	cream-coloured, 1 with maker's initials 'H'	13	c.1680-1710
27	bowl	1	14	white	13	c.1680-1710
27	bowl	1	12	white	13?	c.1680-1710?
27	bowl/stem	1	24	grey	13?	c.1680-1710?
27	bowl/stem	1	22	grey	12	c.1650-80
81/82	stem	16	89	1 grey, 1 near-complete stem 145+mm long		
88	stem	9	35	1 grey		
88	bowl	1	14	white	13	c.1680-1710
88	bowl	1	14	white, initials 'W H' but different form	13	c.1680-1710
88	bowl/stem	1	22	white	13	c.1680-1710
88	bowl/stem	2	42	white	12	c.1650-80
88	bowl/stem	1	12	white, smaller bowl, sooted	10	c.1650-80
89	stem	9	50	white		
89	stem/heel	1	12	white		c.1650-1710
90	stem	1	3	cream		
91	stem	9	50	8 white, 1 grey		
91	bowl	1	3	frag, white		
91	bowl/stem	1	19	white	13	c.1680-1710
92	stem	4	23	white		
92	bowl	2	30	both incomplete, 'W H' as 88	13?	c.1680-1710?
<b>Total</b>		<b>264</b>	<b>1588</b>			

## Appendix 4: Miscellaneous finds

### Ceramic building material

Context	No	Wt (g)	Notes
67	1	215	medium sandy roof tile with thick mortar on rear
67	2	582	fine sandy late brick with clay pellet inclusions, 50-55mm thick, abraded, white mortar on one stretcher

### Mortar

Context	No	Wt (g)	Notes
92	1	67	frag of medium sandy lime mortar/plaster, smoothed on one surface, brick dust on back

### Fired clay

Context	No	Wt (g)	Notes
27	12	548	kiln lining or saggar? Curvature suggests diameter c.360mm, with one piece only c.180mm. Medium-coarse sandy buff fabric with occasional ferrous inclusions, internal surface fired white, ext vitrified in places & reduced, several pieces show build-up of layers.

### Iron

Context	No	Wt (g)	Notes
U/S	1	9	curving tapered frag 45+mm x 15 x 9 max
18	1	12	nail
18	1	3	wire object?
67	1	39	rectangular section object, incomplete, poss tool
92	1	47	large nail
92	1	20	curved object, poss nail
<b>Total</b>	<b>6</b>	<b>130</b>	

### Lava quern

Context	No	Wt (g)	Notes
92	1	8	abraded, large vesicles

### Glass

Context	No	Wt (g)	Notes
85	1	1	thin fragment of white glass, 20th c.

## Appendix 5: Animal bone

Context	Species	No	Wt (g)	Bone	Part	Notes
18	Ovicaprid	1	9	metacarpal	prox R.	hacked
18	Felis	1	7	femur	complete L.	
18	Felis	2	2	metatarsals	4th & 5th L.	
18	Felis?	2	2	ulna?	shafts R & L	
18	LM	2	11	rib	frags	knife cuts
18	goose?	1	3	femur	prox 3/4 R	
27	Felis	1	8	tibia	complete R.	
27	Sus	1	3	scapula	complete L.	juvenile, cut close to edge of ala
28	Bos	1	272	tibia	prox half L.	chopped, prox epiph unfused, large
28	Bos	1	88	femur	prox L.	medium
28	Bos	1	14	femur	dist frag	gnawed
28	LM	1	62	innominate	central frag	cut through acetabulum & chopped
28	LM	1	25	vertebra	arch frag	
28	LM	1	21	rib	frag	
28	LM	1	14	axis	frag	small cutmarks, chopped
28	Bos?	1	21	tibia	prox L.	juvenile, small
28	unid	1	4		frag	water-eroded
81/82	LM	2	85	ribs	frags	large, Cu green staining, chopped
89	Bos	1	77	humerus	dist frag L.	cut
89	LM	1	29	long bone	frag	abraded
89	LM	1	13	rib	frag	
89	Bos	1	7	mandible	ramus frag	juvenile, cutmarks
89	Bos	1	7	tooth	frag	unworn, unerupted molar?
89	MM	1	10	rib	frag	
89	Ovicaprid	1	19	femur	prox R.	epiphysis just fusing
89	Bird	1	3		frag	heavily gnawed by rodent
90	Ovicaprid	1	18	metatarsal	complete L.	
90	Ovicaprid	1	11	scapula	near-complete	
90	Ovicaprid	1	13	humerus	shaft L.	
90	Bos	1	29	tibia	prox R.	epiphysis unfused, juvenile
90	MM?	1	1	rib	frag	juvenile
90	LM	1	26	tibia	prox frag	cut
90	LM	2	24	ribs	frags	
90	LM	2	3	skull	ethmoid frag	
91	LM	1	20		frag	scapula or innominate? Chopped, abraded
92	LM	1	27	rib	frag	juvenile, gnawed (canid?)
92	LM	1	18	long bone	frag	chopped
92	Ovicaprid	1	10	radius	shaft	gnawed
92	Sus	1	15	talus	complete L.	
92	Canis?	1	1	metatarsal	complete	
92	unid	1	1	femur	complete R.	38mm long - infant? Bird or small mammal?
TOTAL		47	1033			

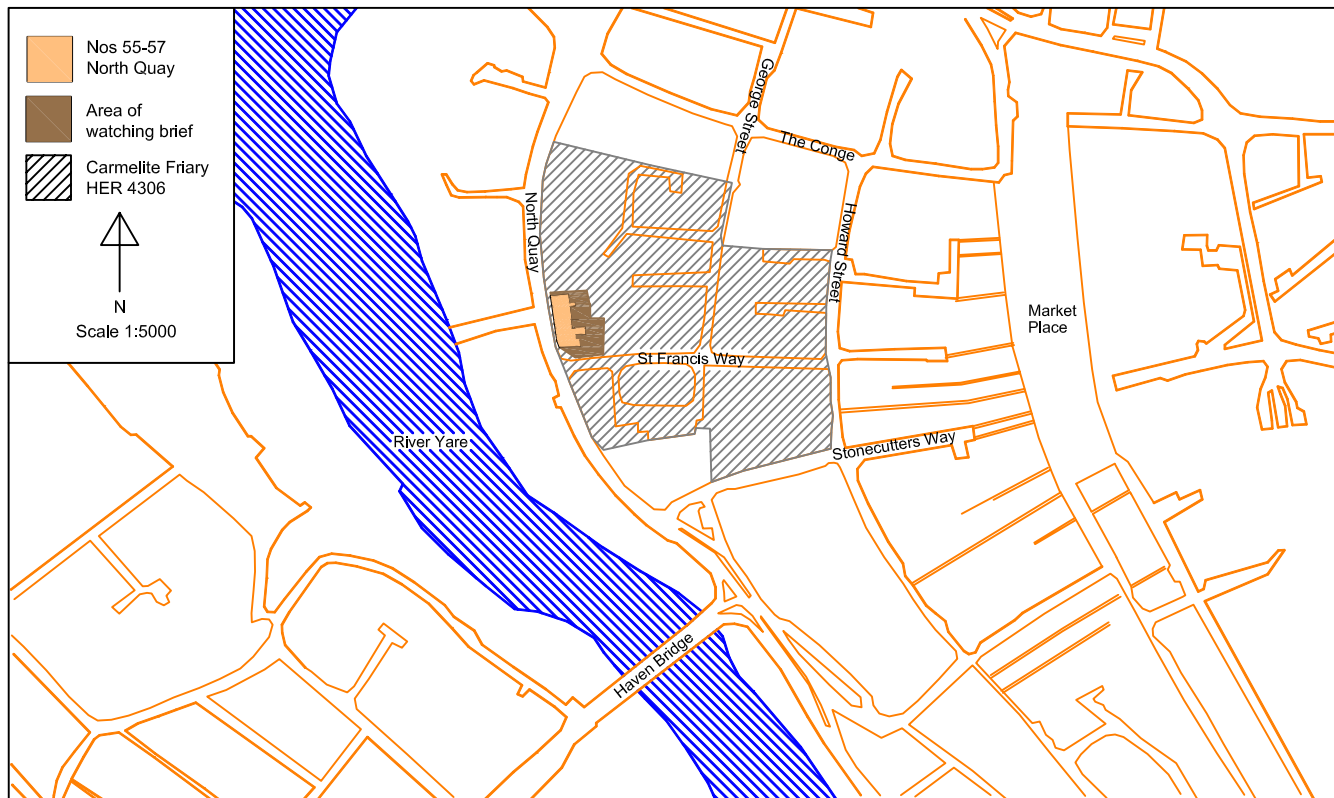


Fig. 1 Site location plan

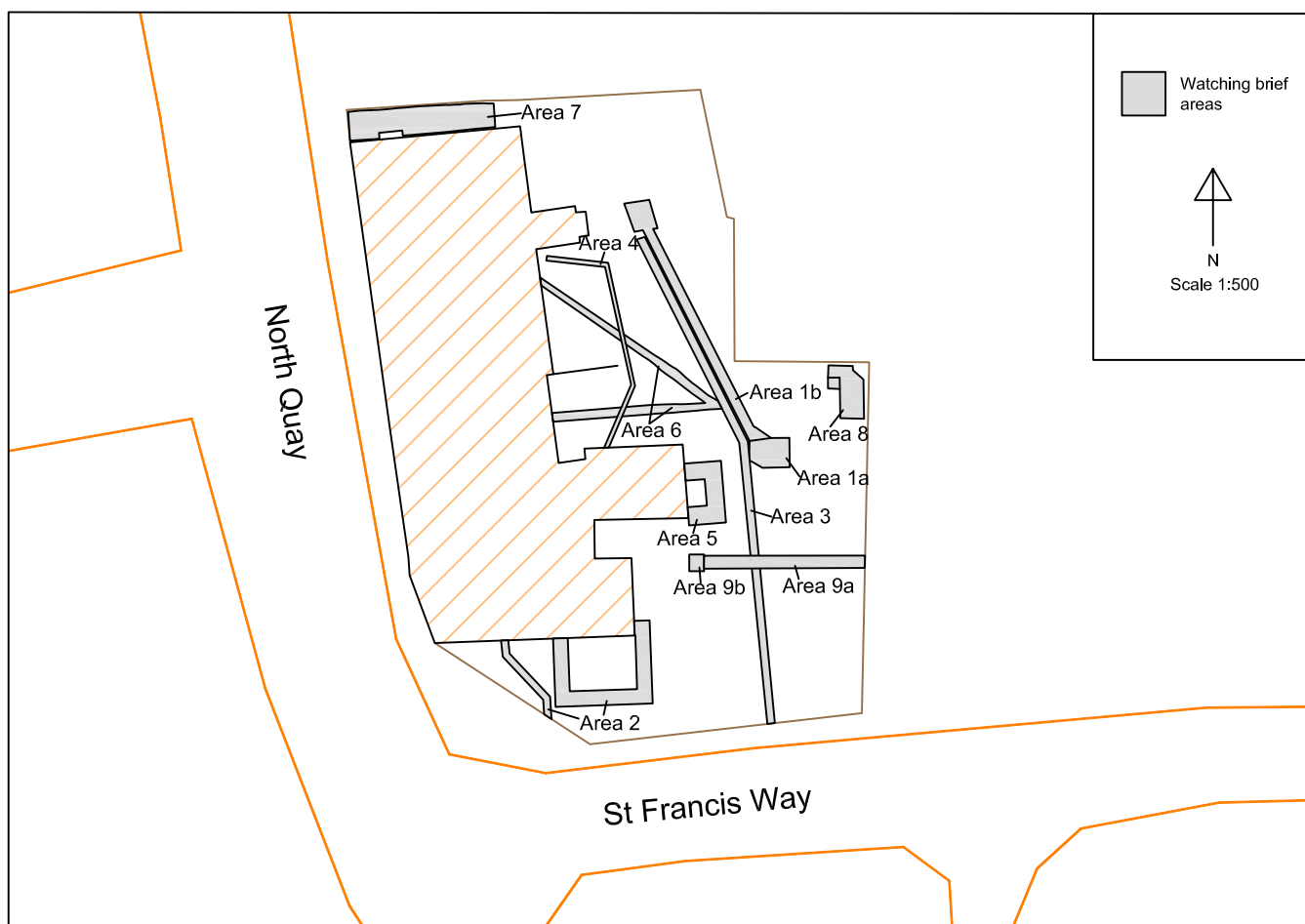
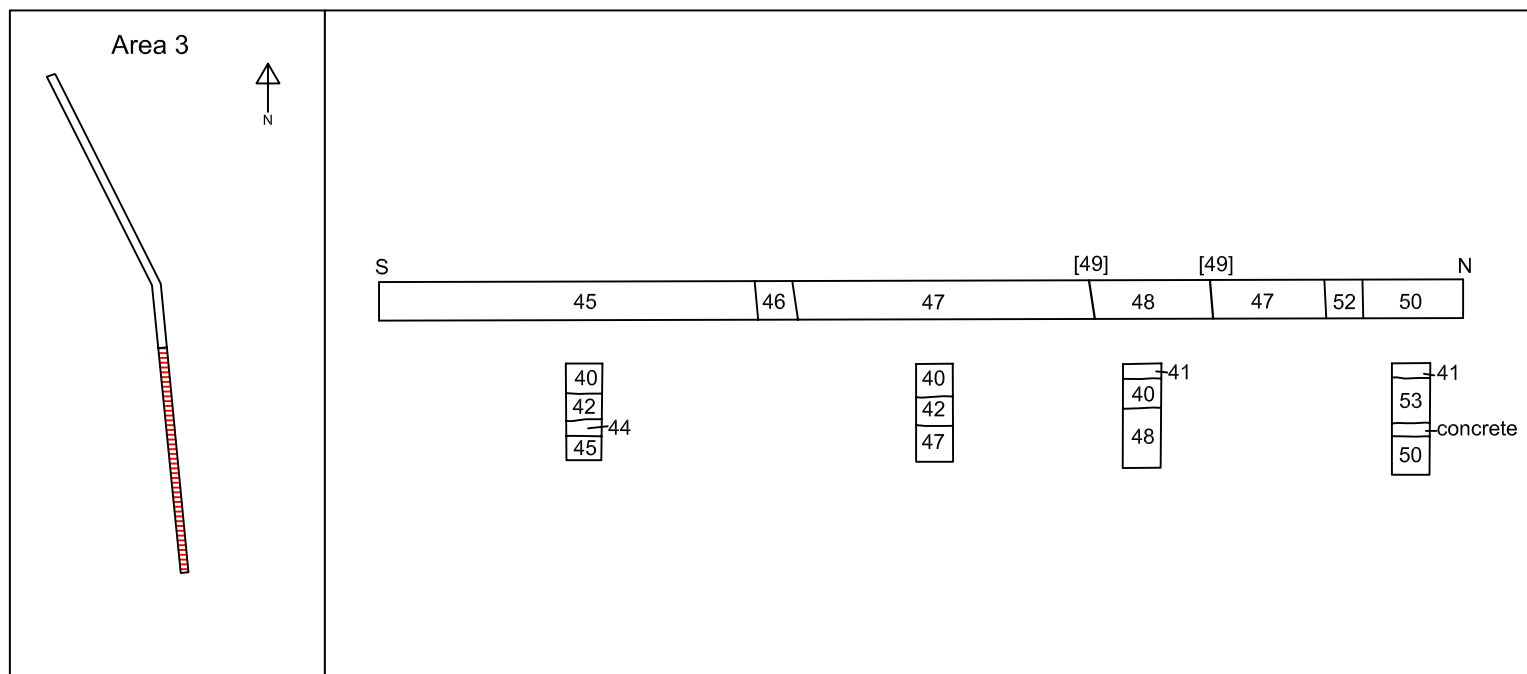
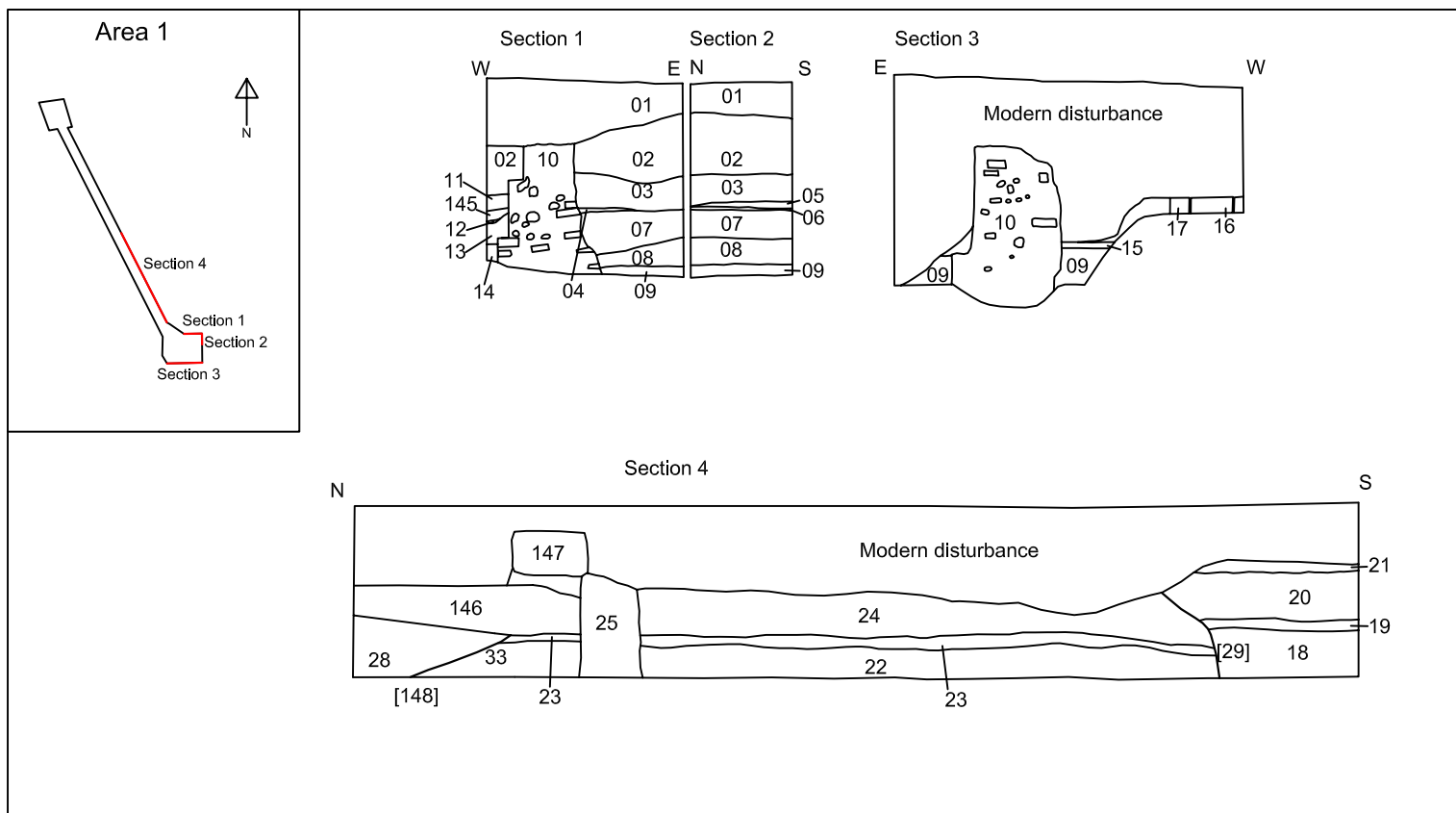


Fig 2 Location of trenches



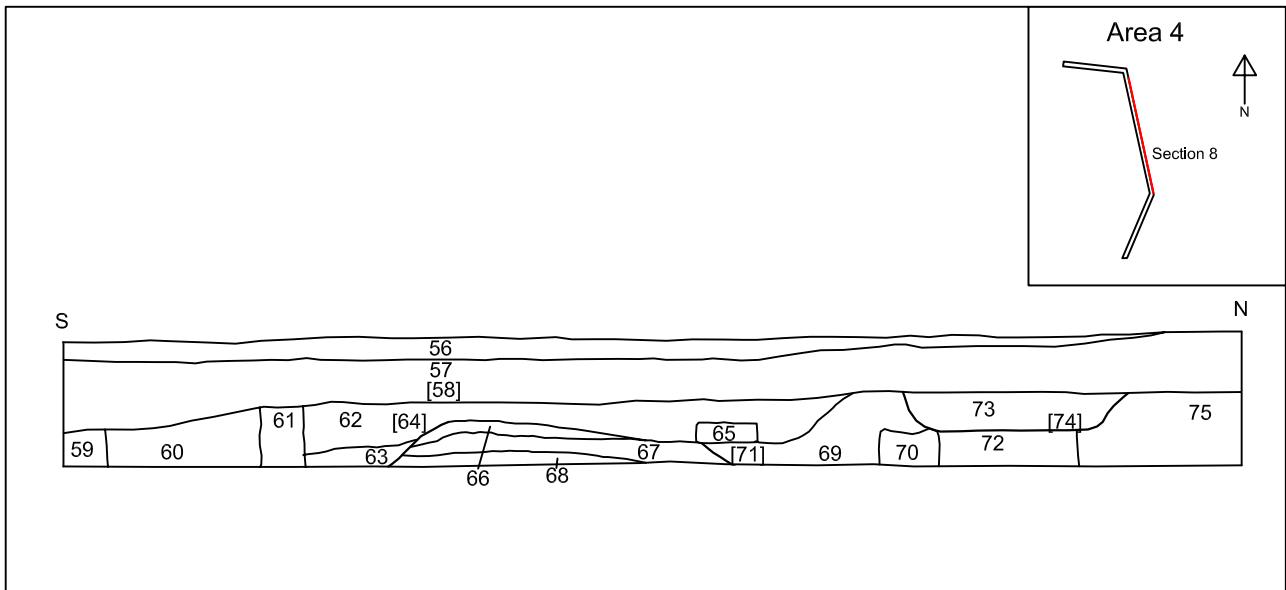


Fig. 5 Area 4 Section 8. Scale 1:50

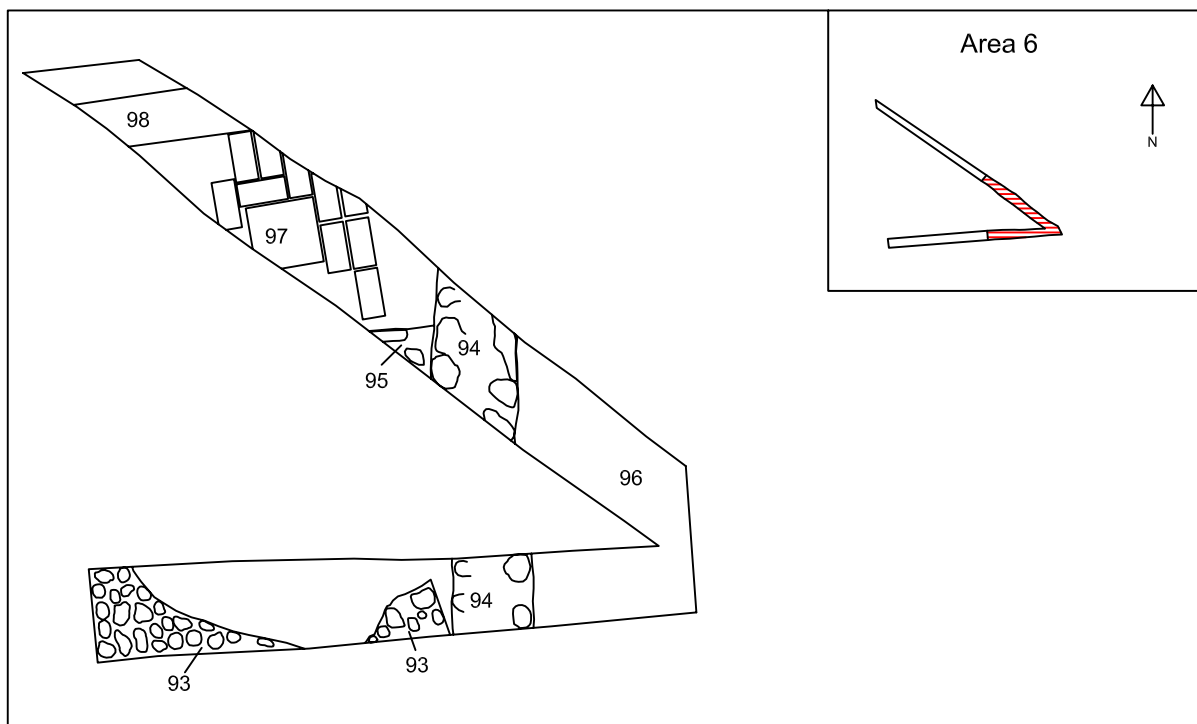


Fig. 6 Area 6 Plan. Scale 1:50

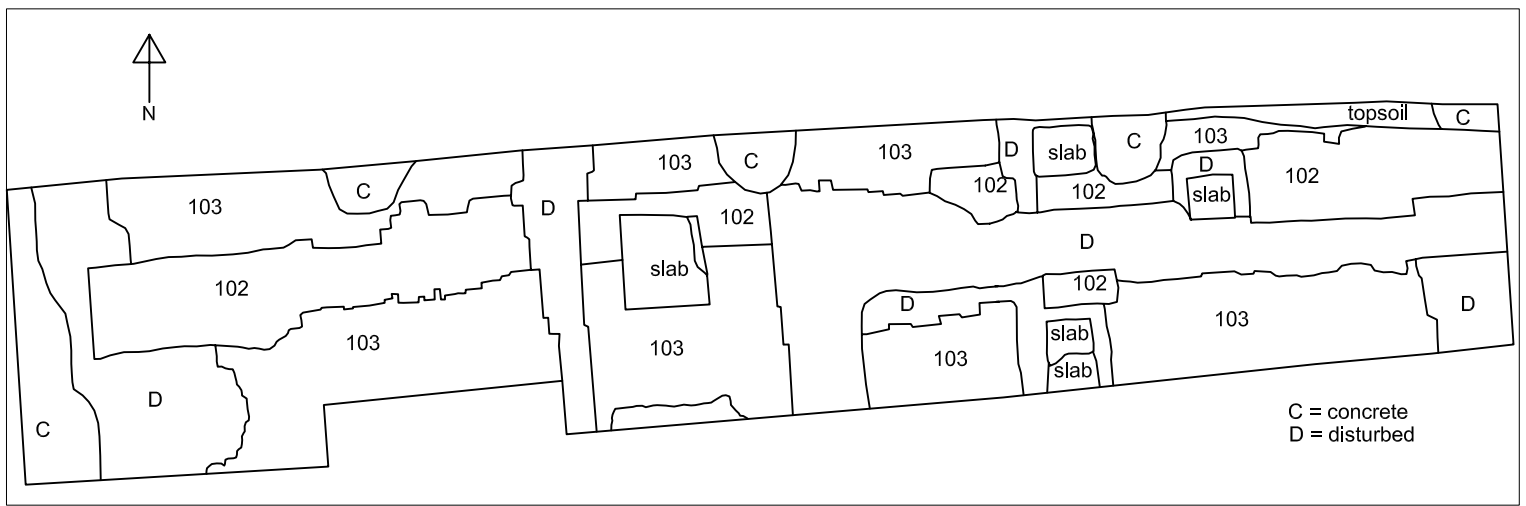


Fig. 7 Area 7 Plan. Scale 1:50

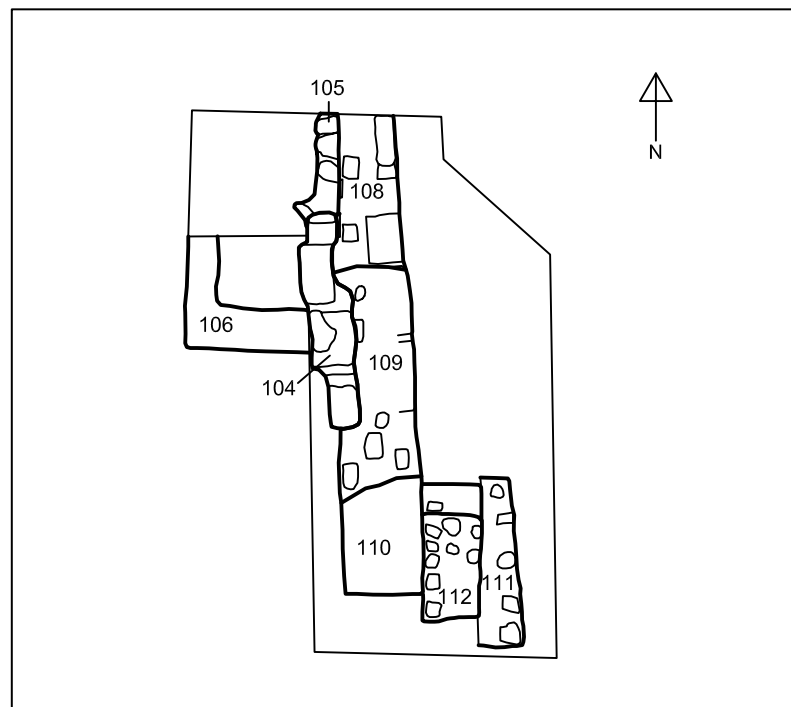


Fig. 8 Area 8 Plan. Scale 1:50

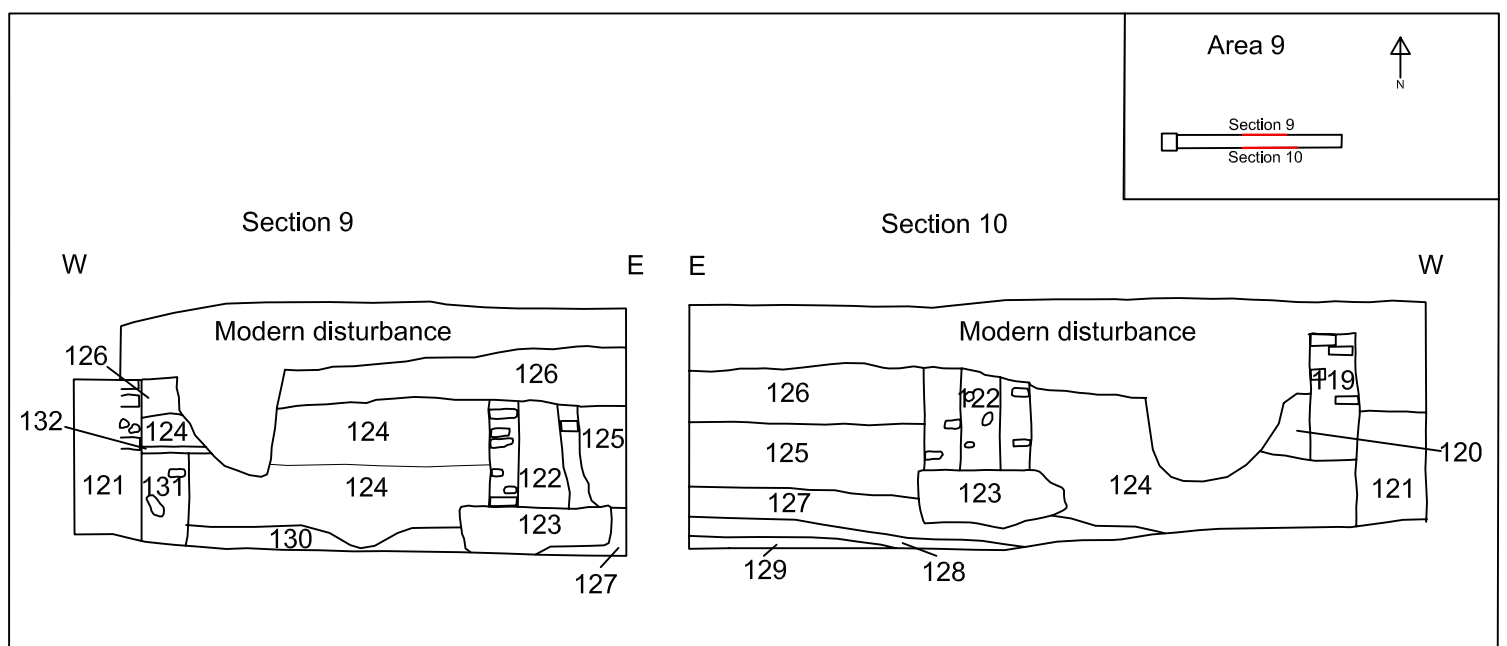


Fig. 9 Area 9 Sections 9 and 10. Scale 1:50

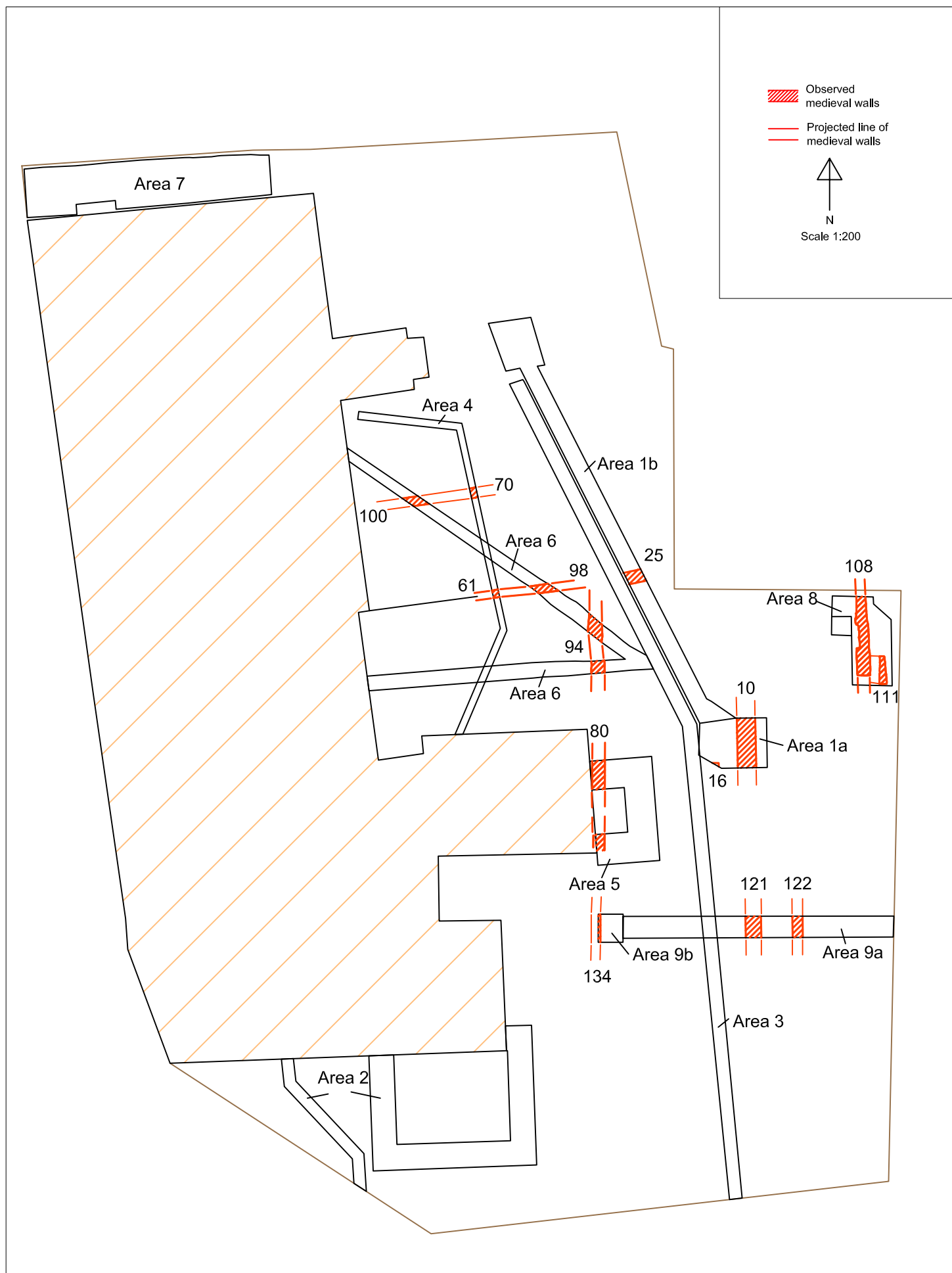


Fig. 10 Plan showing alignments of possible medieval walls



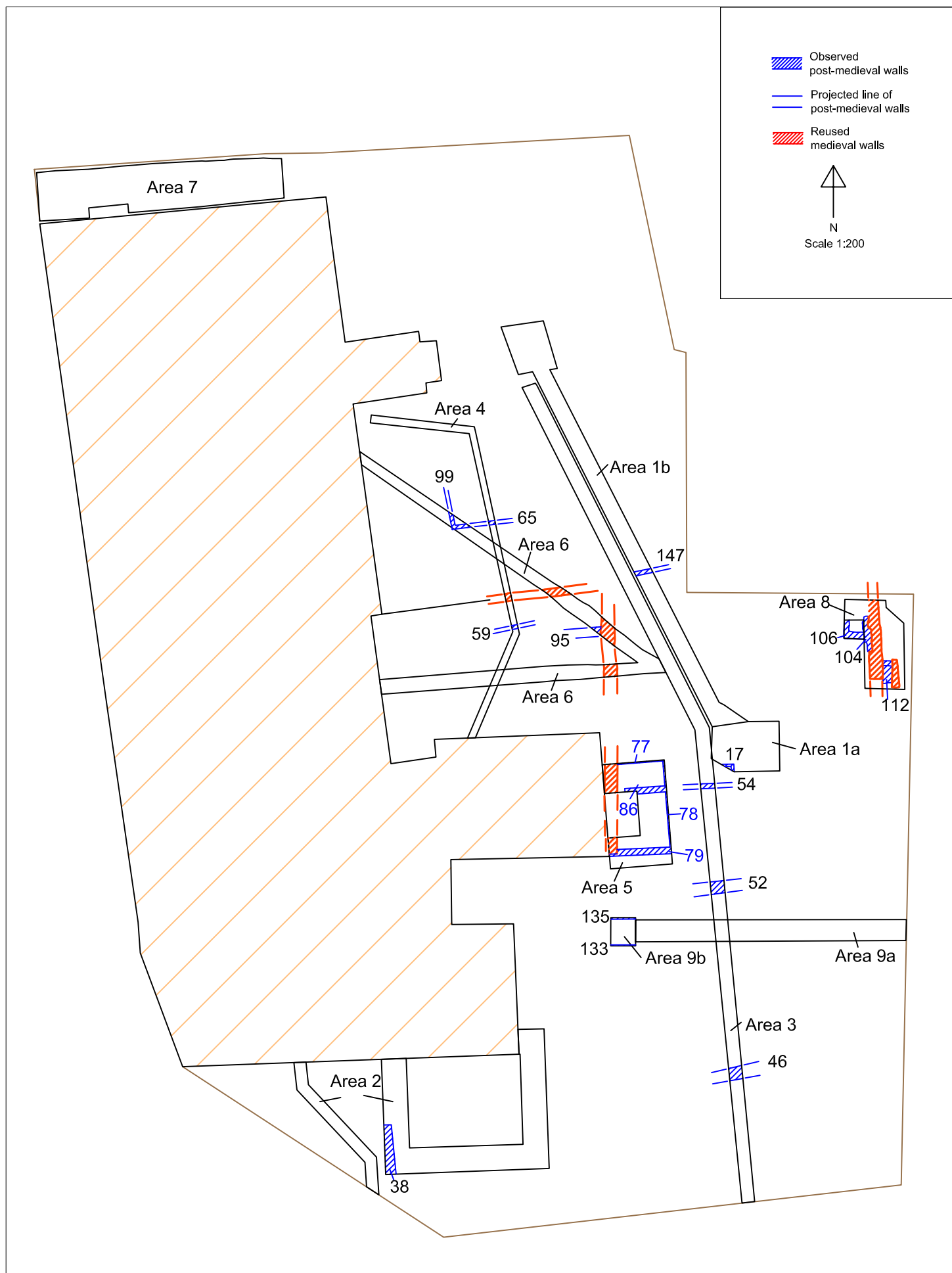


Fig. 11 Plan showing alignments of Post-medieval walls



Plate 1. Area 1a Section 1 Wall 10



Plate 2. Area 1a Section 3 Wall 10



Plate 3. Area 1b Section 4 Flint construction wall 10 and Red brick wall 147





Plate 4. Area 6 Floor surface 97



Plate 5 Area 7 Small paving blocks (103) to left, large blocks (102) to right



Plate 6. Area 8 Looking north



Plate 7 Area 9b Flint constructed wall 137 in lower part of section