Excavation at Northampton Station within the outer bailey of Northampton Castle 2013-2015

Assessment report

Report No 16/02

Author and Illustrator: Andy Chapman

Project Manager: Andy Chapman
Site Code: NCS13
NGR: SP 7477 6043

MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN 01604 809800
www.mola.org.uk
sparry@mola.org.uk

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MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN
01604 700 493
www.mola.org.uk
business@mola.org.uk

STAFF

Project Manager and Fieldwork director	Andy Chapman BSc MCIfA FSA
Text and Illustrations	Andy Chapman
Fieldwork supervisor	Tim Upson-Smith BA PGDip
Fieldwork team	Kirsty Beecham BSc, Rob Bailey, Garreth Davey, Anne Foard Cert Ed, Tom Garside, Erhan Raymon and Tim Sharman BA *Brief appearances on site:* Rob Smith, James Burke, Gemma Hewitt BA and Lou Huscroft *Office-based finds supervision:* Pat Chapman BA CMS ACIfA
Saxon and medieval pottery	Paul Blinkhorn BTech
Other Finds	Andy Chapman and Tora Hylton
Animal bone	Philip Armitage PhD
Environmental evidence	Anne Davis
Soil Geoarchaeology	Mike Allen and Richard Mcphail

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Project title	Excavation at Northampton Station within the outer bailey of Northampton Castle, 2013-2015: Assessment report	
Short description	Between March and June 2013 the forecourt of Northampton Station was subject to open area excavation in advance of construction of a new station building. Cutting natural, a system of late Saxon curvilinear boundary ditches running down towards the river edge, are dated to the 11th century. By the later 11th century, they had been replaced by an L-shaped ditch system, perhaps denoting a change in property boundaries following the Norman Conquest. There were also contemporary pits and two wells. The pre-castle features and an extensive buried soil produced quantities of animal bone, indicating that this area had been a dumping ground for butchery and craft waste. Clearance of this area for the construction of the outer bailey of Northampton Castle occurred between 1100 and 1150, perhaps in the 1120s during the reign of Henry I. A watching brief adjacent to the excavated area located foundations for a revetment wall along the front of the outer bailey bank. There may have been a postern gate providing direct access from the outer bailey to the river crossing. A small stone building within the outer bailey was fully excavated. There were remnants of other walls, perhaps a further small building. These buildings had a short lifetime, as they had been levelled by the end of the 12th century. Thereafter, there was no further building within this part of the outer bailey. To the south disturbed road metalling formed part of a road leading to the postern gate.	
Project type	Mitigation	
Previous work	Desk-based assessment and Evaluation	
Future work	None	
Monument type and period	Late Saxon town and medieval castle	
Significant finds	Pottery, other finds, animal bone, charred plant remains	
PROJECT LOCATION		
County	Northamptonshire	
Site address	Northampton Station, Black Lion Hill, Northampton NN1 1SP	
OS co-ords	SP 7477 6043	
Area	0.085ha	
Height OD	60.5-61.5m aOD	
PROJECT CREATORS		
Organisation	MOLA Northampton (formerly Northamptonshire Archaeology)	
Project brief originator	Northamptonshire County Council	
Project Design originator	Northamptonshire Archaeology (now MOLA Northampton)	
Director/Supervisor	Andy Chapman with Tim Upson-Smith	
Project Manager	Andy Chapman	
Sponsor or funding body	Network Rail through Buckingham Group	
PROJECT DATE		
Start & end dates	March 2013-Aug 2015	
ARCHIVES	**Location (Accession no.)**	**Content (eg pottery, animal bone etc)**
Physical	MOLA Northampton (NCS13)	Pottery, animal bone & other finds
Paper	MOLA Northampton (NCS13)	Context records, drawings,
Digital	MOLA Northampton (NCS13)	Mapinfo/CorelDraw plans, Word report Photographs
BIBLIOGRAPHY		
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Author(s), date	Andy Chapman, January 2016	

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Abstract

Between March and June 2013 the forecourt of Northampton Station was subject to open area excavation in advance of construction of a new station building. Cutting natural, a system of late Saxon curvilinear boundary ditches that ended in a sunken area, seasonally moist, towards the late Saxon river edge, are dated to the 11th century. By the later 11th century they had been replaced by an L-shaped ditch system, perhaps denoting a change in property boundaries following the Norman Conquest. There were also groups of contemporary pits, and two wells may have provided water for nearby houses. The pre-castle features and an extensive buried soil produced quantities of animal bone, indicating that this area had been a dumping ground for butchery and craft waste. Clearance of this area for the construction of the outer bailey of Northampton Castle occurred between 1100 and 1150, perhaps in the 1120s during the reign of that great castle builder, Henry I. A watching brief adjacent to the excavated area located the mortared limestone foundations for a revetment wall along the front of the outer bailey bank, which was 15m wide. There may also have been a postern gate, providing direct access from the outer bailey to the river crossing. A stone building within the outer bailey was fully excavated. The foundations of the west wall abutted the inner face of the bailey bank, while the other walls were ground-laid. It was 9.4m long by 4.5m wide, with a wide doorway and a succession of three hearths. Remnants of other walls may have been parts of a further small building. These buildings had a short lifetime, as they had been levelled by the end of the 12th century. Thereafter, there was no further building within this part of the outer bailey. To the south disturbed remnants of ironstone road metalling formed part of a road leading to the postern gate.

1 INTRODUCTION

1.1 Background

Northamptonshire Archaeology (now MOLA Northampton) was commissioned by the Buckingham Group, acting for Network Rail, to excavate within the footprint of the proposed new station within the former open concourse or forecourt, containing short-term car parking and taxi ranks, in front of the then Northampton Station (NGR SP 7477 6043; Figs 1-3).

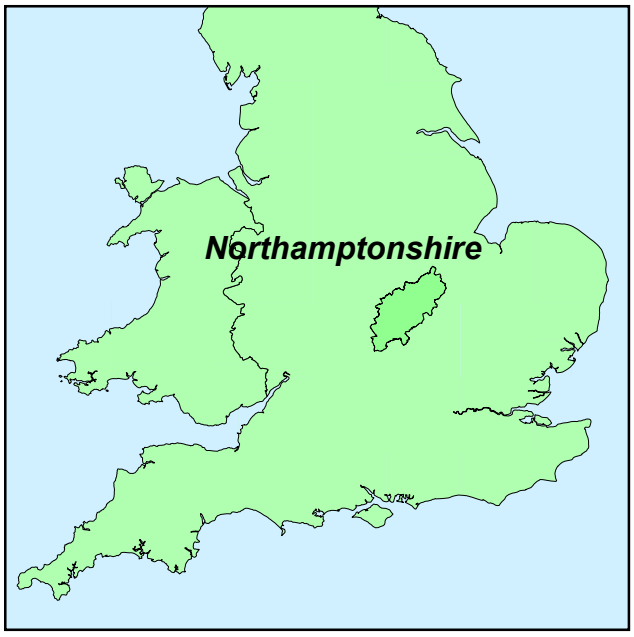
The excavation followed trial trench evaluation in October 2012 (Chapman 2012), which had established the presence of intact deposits and a stone wall contemporary with the use of the castle, as well as pre-castle deposits from the late Saxon town, lying within the footprint of the proposed new station building, which would face directly onto Black Lion Hill and the approach to West Bridge.

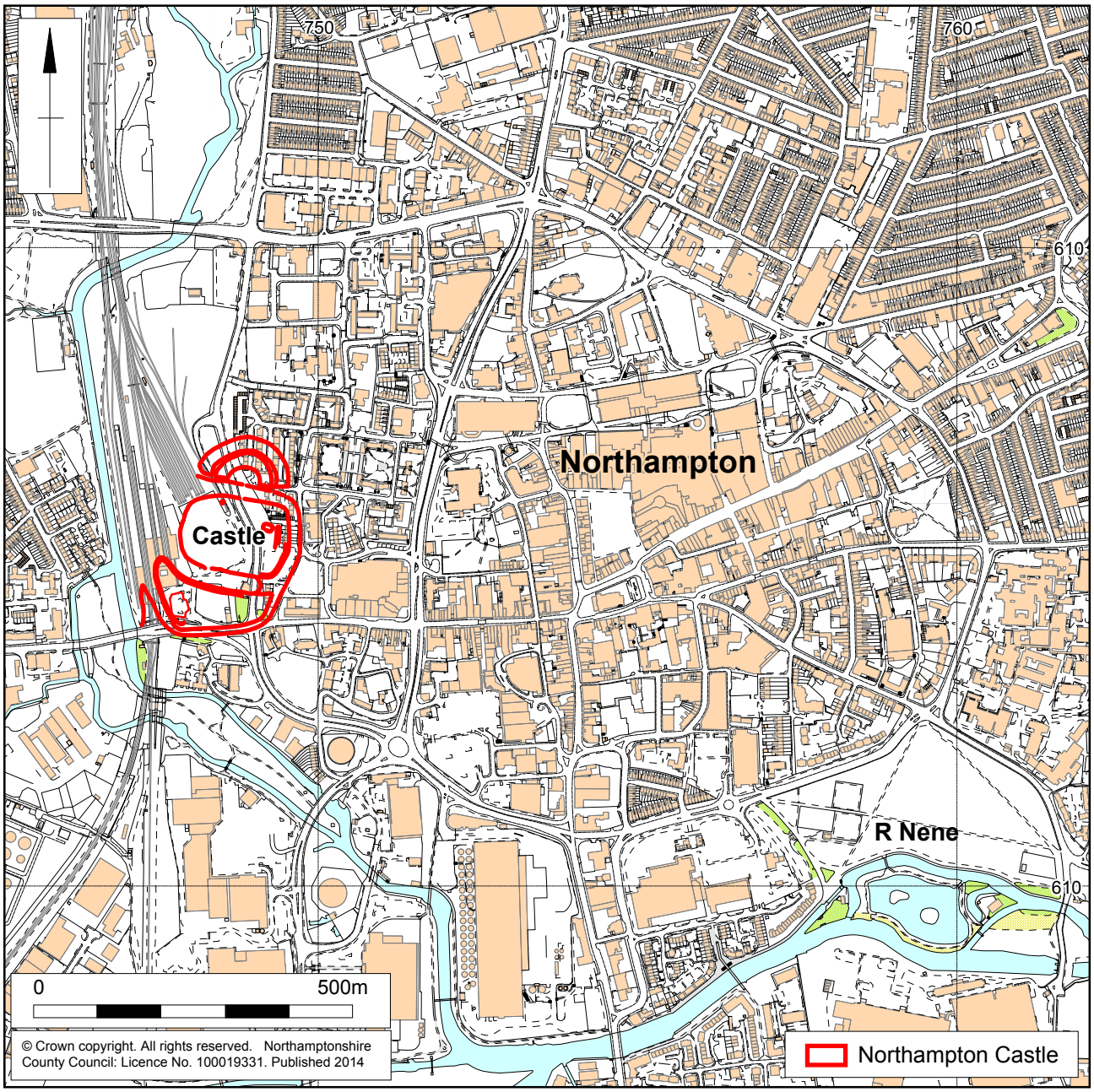
The excavation was carried out between March and June 2013, a total of 11 weeks, with the site opened to its full extent in three main stages. Between June and September 2013 there was an intermittent watching brief during the digging out of the brick foundations of the Victorian Station immediately west of the excavated area.

Between June and August 2015 there was a further intermittent watching brief during the removal of the floor slab following the demolition of the old station building and the groundworks for an access road and associated landscaping, lying to the north of the excavated area and the new station, which was then in full use.

Acknowledgements

Thanks are due to the staff of the Buckingham Group, particularly Andy Latham, Paul Morrant and Lee Whiter, for their co-operation in making the excavation possible, including the provision of plant, site accommodation, safety fencing and muck-away. Thanks are also due to the Station Master, Den Law, on behalf of Network Rail, for his co-operation with site visits and press access, and his interest in the excavation results. For Northamptonshire Archaeology, and now MOLA Northampton, Andy Chapman was project manager and site director, with Tim Upson-Smith as site supervisor. The main fieldwork team of Kirsty Beecham, Rob Bailey, Garreth Davey, Anne Foard, Tom Garside, Erhan Raymon and Tim Sharman, was supplemented by brief appearances from Rob Smith, James Burke, Gemma Hewitt and Lou Huscroft. The office-based finds supervision was by Pat Chapman.





Scale 1:10,000

Site location Fig 1

1.2 Location, topography and geology

The development area is located to the west of the town centre of Northampton. Historically, the site lay within St Peter's parish. It is bounded by Black Lion Hill and the approach to West Bridge to the south, the railway lines to the west and the then current station to the north. To the east there is a revetment wall, with the car parking further east at a raised level with respect to the development area (Fig 2).

The station concourse comprised access roads for taxis, buses and cars, and contained disabled parking bays and bays for short-term car parking. Below ground disturbance in this area had comprised shallow electrical cables and deeper drainage runs. The drains were associated with over a century of use as the forecourt to both the Victorian station and its successor of the mid-20th century. A major sewer, that was believed to run to the east of the footprint of the new station, was fortuitously located during the archaeological excavations, showing it to lie beneath part of the footprint of the proposed station. Its timely discovery enabled the foundations of the new station to be suitably modified to protect the underlying sewer.

The geology of the area is mapped as alluvium at the west of the site with Upper Lias Clay and Northampton Sand and Ironstone to the east, across the main public car park.

1.3 Historical and archaeological context

Pre-Castle

The excavations in the 1960s demonstrated that the inner bailey bank on the eastern side of the castle had been constructed over deposits and features of late Saxon date, forming part of the late Saxon town (Chapman forthcoming). More extensive excavations to the immediate south of this area, currently the Chalk Lane car park, examined another area of late Saxon deposits that had been sealed beneath the bailey bank (Williams and Shaw 1981). During the levelling of the castle in the late 19th century, quantities of pottery and other finds recovered from the underlying soils had been described as Roman, due to the fact that Saxon pottery forms and fabrics had not then been recognised (Kennett 1968 and 1969).

It was evident, therefore, that much of the footprint of Northampton Castle stood on land densely occupied from at least the 8th century onward, forming the north-western quarter of the late Saxon town. One of the aims of the trial trench in 2012 was to establish whether any late Saxon deposits survived, as well as medieval, and this was found to be the case (Chapman 2012).

General

The former and new station buildings lie within a small part of the large area once occupied by Northampton Castle, which was constructed in the 12th century and was a major royal castle through the 13th and 14th centuries. Thereafter, it declined in importance and by the later 17th century, following the Civil War and the Fire of Northampton, it was largely derelict.

From the mid-19th century onward parts of the castle earthworks and surviving walls were the subject of antiquarian record, and they were also recorded on a series of town maps. The bulk of those surviving ruins and earthworks were demolished and quarried to make way for a new railway station and an extensive goods yard (now the car park) in the late 19th century. Further records were made during the levelling of the site in the late 19th century (Law 1879-80 and Scriven 1879-80 & 1881-82), with a quantity of finds also being recovered (Sharp 1881-82).

More recent excavations have taken place in the 1960s and 1970s to the east of St Andrew's Road, along with some minor investigations alongside St Andrew's Road carried out more recently. A detailed review of the history, structure and archaeology of Northampton Castle was provided in the desk-based assessment preparatory to the present evaluation (Walker 2011).

A small area to the south-east, at the junction of Black Lion Hill and St Andrew's Road is a Scheduled Monument (SM No 89), forming a tree covered 'mound' at its original ground level, and standing above the surrounding ground by virtue of not having been truncated like so much of the surrounding landscape. To the east of St Andrew's Road, north of the Chalk Lane car park, the easternmost part of the inner bailey survives, with the rear of the bailey bank still surviving and an area containing castle buildings, which was partly excavated in the 1960s, has been restored under grass.

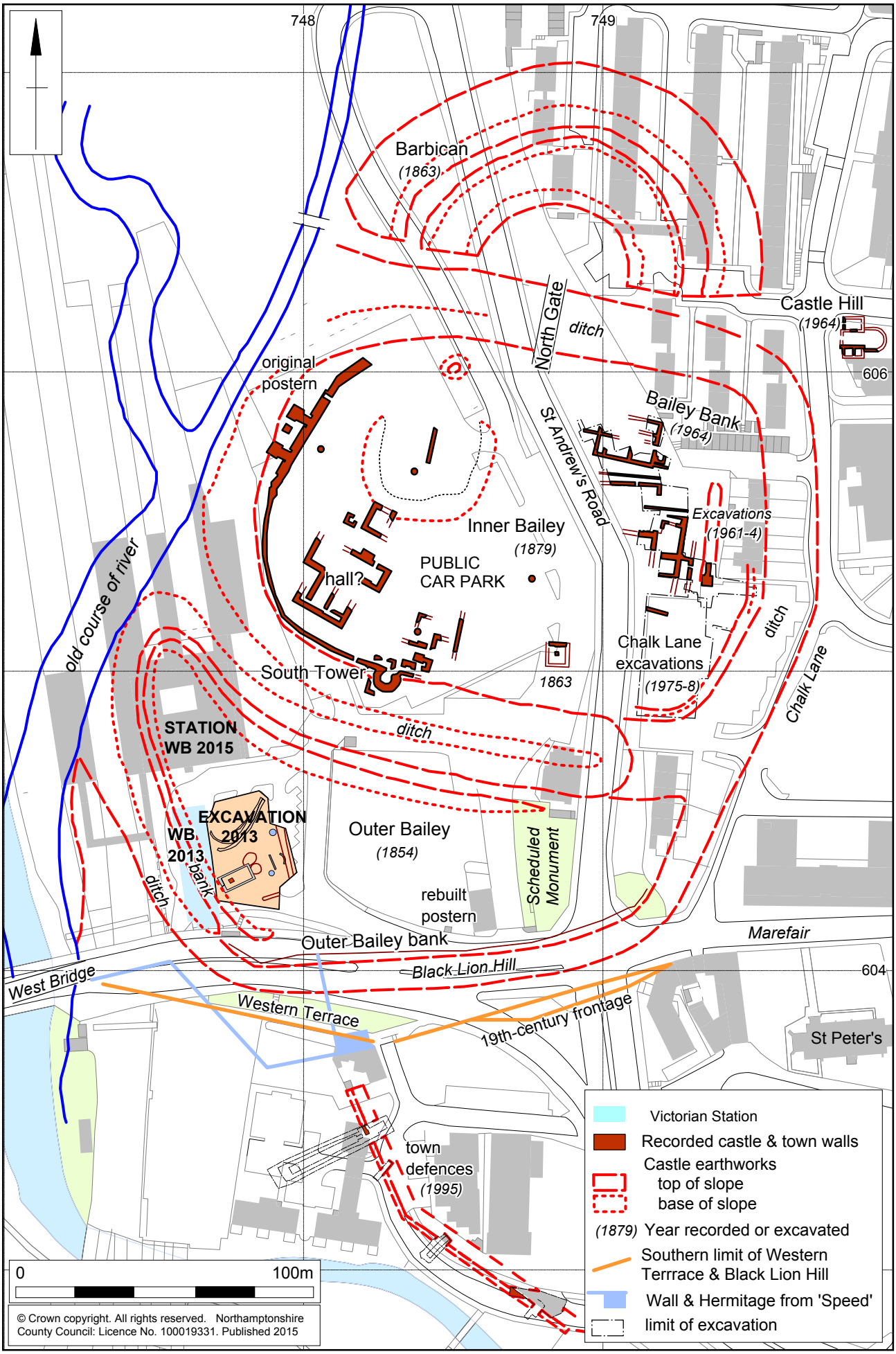
The composite plan of the castle (Fig 2) was compiled in the 1980s using the various surveys carried out in the 19th century. It also incorporates the results of more recent excavations within and in the environs of the castle (as summarised in Walker 2011).

The outer bailey and the approach to West Bridge

The compiled plan of the castle demonstrates that the station concourse falls within the western part of the defences and the interior of the castle's outer bailey. The only record of this area is the survey of the bank and wall defining the western and southern sides of the outer bailey and there are no antiquarian records that any buildings lay within this area.

The southern defences of the outer bailey were surveyed shortly before they were levelled in the mid-19th century. The positioning of these defences had created a severe dog leg between the western end of Marefair and West Bridge, as is shown by the location of the old southern frontages of Black Lion Hill and West Terrace (Fig 2), mapped from a combination of John Speed's map of 1610 and the Ordnance Survey maps predating the construction of St Peters Way, when the line of the Black Lion frontage was lost. This awkward and constricted approach to West Bridge was straightened by removing the southern defences of the outer bailey, so that Black Lion Hill could have a straighter approach to the new West Bridge.

The line of Western Terrace was itself a straightening of the earlier approach to the bridge. The location of the earlier walls and of the hermitage, have been positioned approximately using Speed's map of 1610 (Fig 2).



Northampton Castle in relation to the excavated area and the modern landscape in 2013 Fig 2

2 SUMMARY OF EXCAVATED EVIDENCE

2.1 Objectives, methodology and summary of chronology

Objectives

The aim of the excavation was to:

- determine the nature of the features within the outer bailey of Northampton Castle in order to define the usage of this area and changes to these uses through time (High Medieval Updated Research Agenda, 7.1 Urbanism and 7.4: Castles, military sites and country houses (Knight *et al* 2012));

- determine the nature of the late Saxon deposits in order to further understand the form and development of the late Saxon town (Early Medieval Updated Research Agenda 6.5: Inland Towns, 'central places' and burhs; and Early Medieval Research Objectives: 6E; Undertake further research on Anglo-Saxon and Viking urban development (Knight *et al* 2012)).

Methodology

The excavation conformed to the Institute for Archaeologists (now Chartered Institute for Archaeologists) *Standards and guidance for archaeological excavation* (CIfA 2014). All stages of the project were undertaken in accordance with English Heritage (now Historic England), *Management of Research Projects in the Historic Environment* (MoRPHE) (HE 2015). The excavation was carried out in accordance with the brief issued by the Northamptonshire County Council (NCC 2013) and the Written Scheme of Investigation (WSI) prepared by Northamptonshire Archaeology (NA 2013).

All works undertaken by Northamptonshire Archaeology are carried out in accordance with the Health and Safety policy of Northamptonshire County Council, and the NCC Customer and Community Services Health and Safety Procedures. Northamptonshire Archaeology also followed the safety plan and procedures introduced by the principal contractor for the site works, Buckingham Group, which had been agreed with Network Rail.

Three main stages of work:

1 The main excavation area, 11 weeks, although the area excavated was itself opened in three stages:
   a The central area, taking in half of a medieval building and other medieval deposits, with Saxon pits beneath;
   b The northern end, with late Saxon ditches and pits cut into natural;
   c The southern end, with the southern half of the medieval building, the road and outer bailey bank, and underlying late Saxon pits;

2 Watching brief on the digging out of the foundations of the Victorian station, which showed the revetment of the outer bailey bank and the possible postern gate;

3 Watching brief on the removal of the floor slab of the 1970s station, showing strips of disturbed and truncated natural between cellars to the west and two former sunken railway tracks, centre and east.

Summary of chronology

The excavation has produced features dated by the pottery assemblages to the 11th century, when the area was part of the late Saxon town, and continuing into the early 12th century, the post-Conquest town. The sequence continues through the early life of the castle, the early to late 12th century (Table 1).

There are no finds dating to the life of the castle through the 13th-15th centuries or in the immediate post-medieval period. The presence of a considerable depth of developed and undisturbed soil horizons above the 12th-century deposits supports the pottery evidence in indicating that there was no activity through the 13th-15th centuries that had caused any significant or extensive below ground disturbance.

General view of site during excavation,
looking north towards the now demolished station Fig 3

Table 1: Summary of chronological sequence and historical context

Period/Date	Site evidence	Historical Context
Late Saxon and Norman town (AD1000 -1100/1150)	AD1000-1100 (CP LSAX 2) Boundary ditches and pits, with deposition of animal bone AD1100-1150 (CP M1) New boundary ditches, continued bone deposition	Land at the margin of the town, subject to dumping of animal bone debris from butchery and craft workshops Norman town: Reorganisation of plot boundaries, continued dumping of animal bone
Northampton Castle (AD1100/1150-1200) Norman and Angevin kings	AD1100-1150 (CP M1) Creation of outer bailey Construction of stone building AD 1150-1200 (CP M2) Final use of building and demolition Pit and gully cutting through building remains	Construction of castle over part of late Saxon town (*c.*1120s) Buildings within outer bailey Castle flourishes through reign of Henry II King John makes frequent visits
High medieval castle (AD1200-1500) The Plantagenet kings	AD 1200-1500 Road to postern gate still in use Soil horizons developing No below ground features	13th century, castle flourishes Henry III improves royal apartments Second Baron's wars (1263-64) Royal use of castle declines late 13th to late14th centuries Last Parliament, Richard II, 1380
Post-medieval (16th -18th centuries)	Soil horizons developing Disturbed by tree holes	Castle sold by Henry VIII Buildings of court and goal within inner bailey to late 17th century Civil War (1642-51): Refurbishment of castle defences to north and north-east. Earthwork remains, some stone robbing. Interior under orchards.
Modern (19th century onward)	Victorian station Granite setts of station yard Drains cutting earlier deposits Tarmac car park and modern services	Mid-19th century, limited excavation and recording Late 19th century, castle earthworks levelled to make way for railway station and goods yard 1964, tarmac laid over setts 1966 New station built 2013-15 Excavation and new station constructed

2.2 The late Saxon/post-Conquest town (AD1000-1100/1150)

The majority of the pottery assemblage from the early ditches, pits and wells is dated to the 11th century (Ceramic phase LSAX2, AD1000-1100) as defined by the presence of the later St Neots Ware type, T1 (2). A few contexts produced only single sherds of either the earlier St Neots Ware, type T1(1) or Northampton Ware and are dated to the 10th century (CP1, AD900-1000), although these wares were also present in some numbers in later groups. There is therefore a little evidence for local activity in the 10th century, but the securely dated features were all in use through the 11th century.

The subsidence fills over the western ditch system, some of the central pits, and the re-cutting of the eastern and southern ditch systems, produced pottery dated to the early 12th century (CP M1: AD1100-1150), indicating that the final phases of eastern and southern boundary ditches were still open into at least the early decades of the 12th century.

The creation of the outer bailey of the castle, where there are layers and structures also dated to the same ceramic phase, must therefore have occurred somewhere between 1100-1150. The 1120s, during the reign of Henry I and prior to the Anarchy, seems most likely, see below for further discussion.

Site topography

There was a general and quite marked downward slope from both north to south and east to west, indicating that this corner of the outer bailey was the lowest lying part of the castle site.

As a result, stratified deposits of medieval date only survived across the southern half of the site. In the central part of the site, the natural was directly overlain by soil horizons of late medieval or post-medieval date, when the interior of the outer bailey was grassed over and utilised as an orchard. Towards the north-eastern corner of the site modern deposits and extensive modern disturbance lay directly above the natural, with all earlier soils removed. There was an increasing depth of post-medieval soils to the north-west, as the slope dropped away towards the contemporary river. Further to the north, beneath the 1970s station, the construction levels for the floor slab sat directly on truncated natural.

The natural

The natural typically comprised compact orange to red-brown sands, with a gritty texture due to the presence of small inclusions of ironstone. The uppermost red-brown sand, where it survived, was a remnant early subsoil horizon overlying the cleaner and brighter Northamptonshire sands deposits. Elsewhere, such as Chalk Lane to the east, this horizon has produced worked flints of Mesolithic to early Neolithic date (Williams and Shaw 1981).

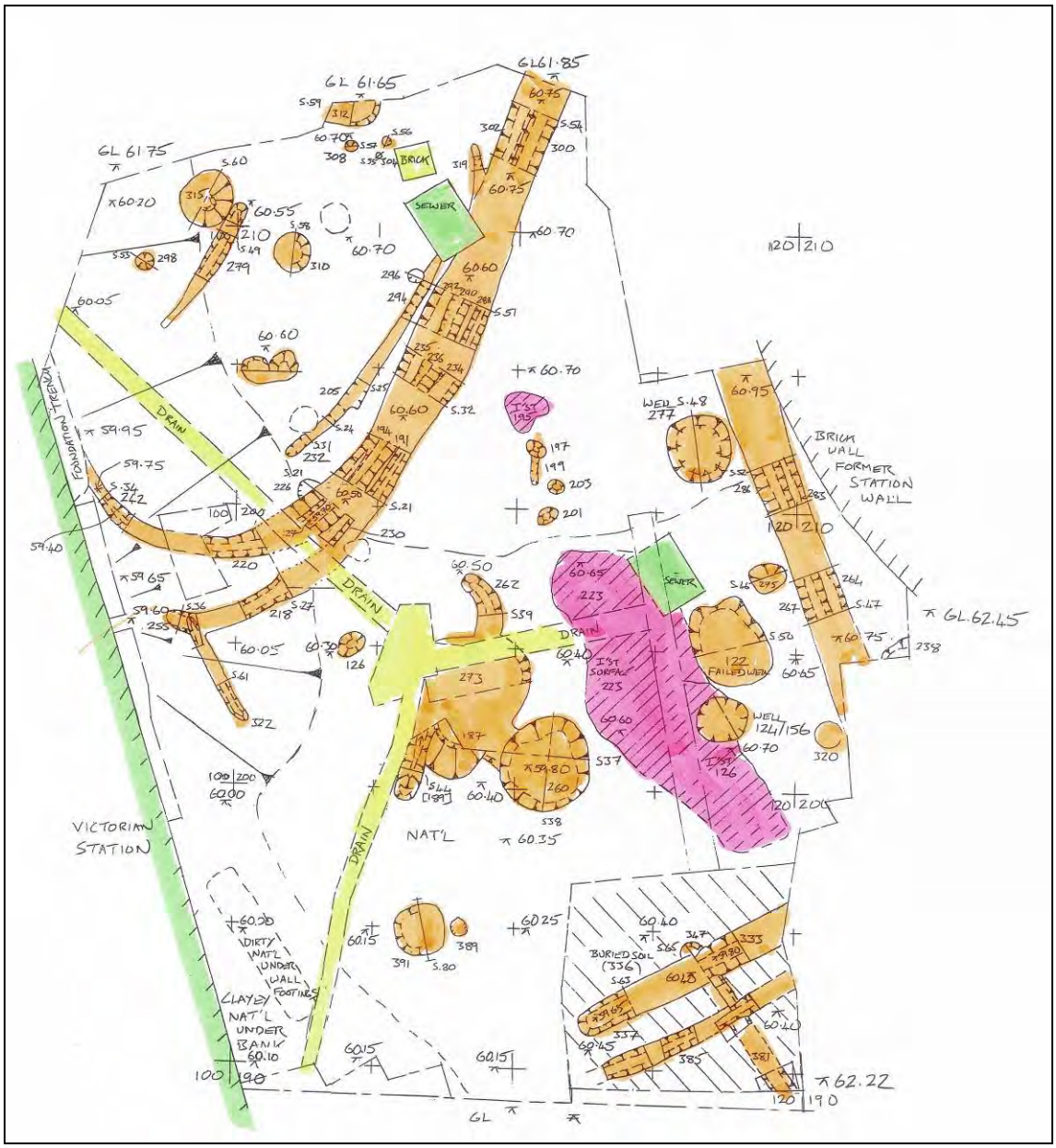
On the slope along the western margin of the excavated area, the natural was infiltrated with clay as a result of the deposition of clayey silts above it during seasonal wet periods.

The ditch systems

There were three ditch systems that did not interconnect, although a sequence can be suggested from the pottery assemblages.

The curving western ditch system ran southwards before turning westwards into the eroded natural hollow (Figs 4-6). It functioned through much of the 11th century, beginning as a single ditch, with a shallower slot or gully to the west, perhaps holding a timber fence. This system was replaced by a single ditch, which was later recut on the

same line. While this ditch system may have served as a property boundary, it might also have provided a barrier to overbank flooding from the river to the west, with the ditches draining back into the lower-lying riverside area. A narrow gully/slot in the south-east corner of the site, aligned north-west to south-east may have been a contemporary boundary.



The late Saxon/post-Conquest features (1000-1150 AD), working drawing in pencil Fig 4

To the east and south-east, there were lengths of linear ditch that probably formed a single L-shaped boundary. This ditch system was probably created in the later 11th century, replacing the western ditch system. It may indicate that there were reforms in land holding within the town in the decades following the Norman Conquest, with these linear ditches defining the south-east corner of a new rectilinear plot adjacent to the contemporary river.

The eastern and southern ditches were both recut on similar lines at around the end of the 11th century, and these final ditches contained pottery assemblages dated to the early 12th century (CP M1: AD1100-1150). The subsidence hollow over the western ditch system and some of the larger pits also contained early 12th-century pottery.

The western late Saxon ditch system, looking south-west Fig 5

The western late Saxon ditches running into the silt-filled hollow on the western edge of the site Fig 6

The road or trackway

A short length of ironstone gravel road or track (126/223) was aligned south-east to north-west (Fig 4). It shared the same alignment as the early southern boundary gully, while the later southern boundary was at right angles to it, and cut across its path. The eastern margin of the road was cut by a well pit, dated to the 11th century. It is suggested, therefore, that the track or road was in use during the 11th century, and fell out of use with the reorganisation of the boundary system in the later 11th century.

The northern pits

Across the area to the west of the western ditch system, there was a scatter of small pits, postholes and a length of linear gully. They produced small quantities of pottery dated to either the 11th century or the early 12th century, with the largest group from slot 279, 27 sherds dated to the early 12th century (CP M1), providing the most reliable date. As the pre-castle soil horizon did not survive in this area, it is possible that features dated to the early 12th century, could be contemporary with either the final phase of pre-castle occupation or the earliest use of the castle, but they are all described here for convenience.

The central and southern pits

The main focus of activity was a cluster of three large circular pits, with a sparse scatter of small pits to the north and south. The main pits were up to 3.4m in diameter and 0.90m deep, with fills similar to the general soil horizon. They produced some pottery and a few other finds, and also quantities of dumped animal bone, also similar in character to the animal bone from the general soil horizon. The pits are all dated to the 11th century, although there was pottery of the early 12th century from a length of gully or slot cutting across the main pit group and from the subsidence fill in the top of the one of the large pits.

The southern late Saxon pit group during excavation, looking east Fig 7

The eastern wells and pits

At the eastern margin of the excavated area there were two wells pits and a failed well pit. The southern well, 124/156, was in use in the 11th century, while final filling of the northern well, 277, occurred in the early 12th century, so is it uncertain whether it was contemporary with the late pre-Castle activity or the early use of the castle. The lower fills of the southern well had been removed by the modern sewer tunnel, but waterlogged deposits in the base of the northern well produced a rich assemblage of charred cereal and weed seeds and preserved fruit stones. The presence of a well or wells here would suggest that domestic occupation lay nearby, but as it is not within

the excavated area it must have lain on slightly higher ground, a little further to the east.

The late Saxon/post-Conquest soil horizon

Between the cut features predating the castle and the structures and layers within the outer bailey, there was a homogenous soil horizon comprising a grey-brown clayey loam, with many people seeing a greenish tinge to it. It was firm to compact, and up to 300mm thick. It produced some pottery, which has been dated to the early 12th century (CP M1: AD1100-1150), and contained substantial quantities of animal bone broadly similar to the material coming from the late Saxon ditches and pits.

While the bulk of this soil horizon lay above the cut features, the analysis of the soils, by geoarchaeologist Mike Allen, indicates that it was the body of the pre-castle soil horizon that had been reworked, so that contemporary cut features were only visible towards the base of the deposit, at a level where the soils had not been reworked.

The basal undisturbed soil horizon was recognised during careful machine excavation in the south-east corner of the site, where the soil horizon was removed in thin spits exposing an extensive area of cleaned surface, the linear ditches of the southern ditch system were seen cutting through some 50-100mm of clayey soils, containing ironstained animal bone. In areas were the soil horizon was removed by hand, the trampling of the digging team and the use of spades and mattocks in heavy bulk soil removal was not conducive to recognising fine distinctions within the soil horizon. However, during hand removal of the soil horizon over the Saxon road metalling, it was noted that the top of this surface stood at a level within the soil horizon, even though the distinction between the reworked and undisturbed soils had not been made at this time.

The analysis of the soils also indicates that part of the process of reworking comprised episodes of trampling, perhaps livestock held here or being brought down to the river for water adjacent to a Saxon west bridge. At one time the area did have a more formal use, as indicated by the pit groups, but the presence of quantities of dumped animal bone and the presence of faecal material in the soils indicates that it also spent a considerable period as waste ground and a suitable place for the dumping of bone waste from butchery and craft working. This soil horizon is comparable to the dark earth layers recorded at other contemporary towns.

The river margins

The hollow on the western side of the site was filled with up to 0.60m of fairly homogeneous, but heavily mottled, red-brown clayey loam (Fig 6). The rich red colour was a result of the iron minerals in the soils, which were perhaps seasonally, rather than permanently waterlogged. The silts contained few stones, apart from occasional pieces towards the bottom of the layer just above the natural. The layer contained some pottery dated to the 11th century (CP LSAX2), and much animal bone.

The mottled deposits were present up to and a little beyond the top edge of the hollow, and beyond this it merged with the general pre-castle soil horizon.

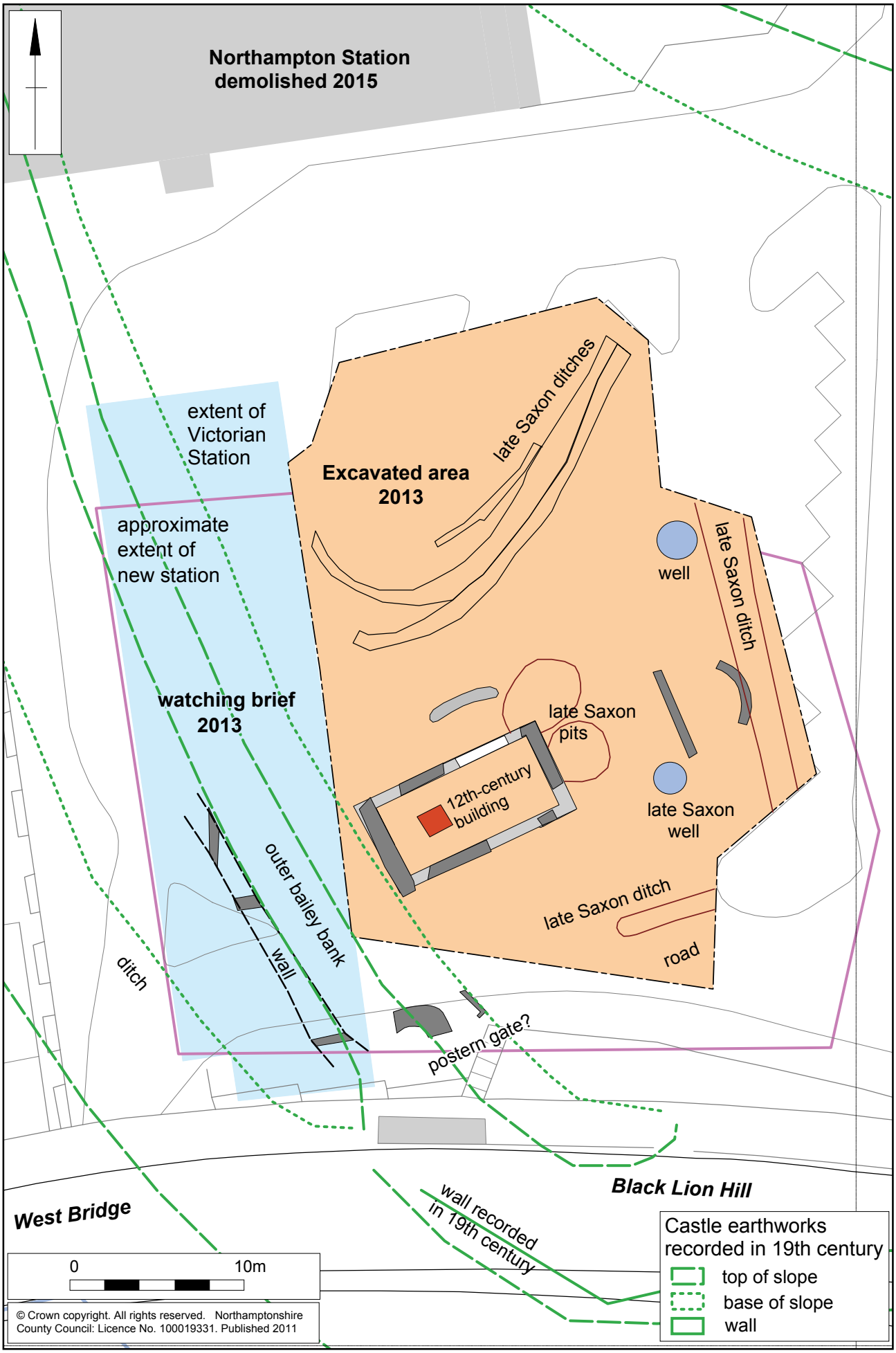
By the time the castle was constructed, the hollow would have been no more than a gentle slope, largely filled with accumulated silts. The south-west corner of the outer bailey bank therefore sat on ground comprising a substantial depth of water deposited and clayey silts across a formerly much lower-lying river margin.

2.3 The outer bailey of Northampton Castle (AD1100/1150-1200)

As pottery was still being deposited into some of the pre-castle boundary ditches in the early 12th century, the creation of at least the outer bailey of the castle, which contains layers and structures dated to the same ceramic phase (M1, AD1100-1150), must have occurred sometime between 1100-1150, perhaps in the 1120s during the reign of that great castle builder, Henry I.

The bailey bank and revetment wall

To the west, the bailey bank had been largely removed by the construction of the Victorian station, and the northern end of the Victorian station was cellared, so most of the bank would have been lost in the clearance and levelling of the site in the late 19th century, when levels were taken to below the medieval ground surface (Fig 8).



The revetment of the outer bailey bank in relation to the excavated medieval features Fig 8

To the west, following the digging out of the foundations of the Victorian station, lengths of deeply-founded mortared wall footings were seen (Fig 9). The location of this revetment wall along the front of the outer bailey bank indicates that the bank was 15m wide at this point, and the location of the wall coincides with the survey of the outer bailey defences by Sir Henry Dryden in 1854, shortly before they were disturbed by works associated with the new railway line and the new West Bridge, which opened in 1858.

The mortared limestone foundations for the revetment at the front of the outer bailey bank, looking west, recorded in watching brief during the digging out of the brick foundations for the 19th-century railway station Fig 9

Further groundworks to the south of the excavated area, adjacent to the raised approach to South Bridge, probably removed some further remains of this wall without record, but the southernmost end was seen in section in the side of the South Bridge embankment.

To the east of this there was a fragmentary length of stone wall within the width of the bailey bank. It is suggested that this was a remnant of a wall along the western side of an opening through the bank, part of a postern gate that opened directly onto the eastern end of the medieval West Bridge. Further remains of this gateway would lie beneath the embankment of the bridge approach.

A length of the road, with multiple surfaces in the south-east corner of the excavated area was aligned in the direction of this postulated postern gate (see below).

The inner edge of the outer bailey bank lay in the south-west corner of the excavated area, where it comprised tenacious yellow clays with few other inclusions (Fig 10). Only the very base of the bank remained, and that was extensively disturbed by multiple drain runs related to the use of the Victorian station. It is difficult to estimate the thickness of the surviving deposit, as clays had infiltrated into the orange-brown gritty natural beneath, leaving a merging boundary. The absence of any clearly defined horizon suggests that the area of the bank had been stripped of topsoil prior to the

construction of the bank. The clays forming the bank were presumably natural lias clays derived from the digging of the outer bailey ditch.

The inner face of the bank was not retained by a revetment wall, and had presumably sloped at a stable angle. Where the building abutted the bank, there was a length of deep and broad dry stone foundations, with the narrower west wall of the building constructed on top.

The pre-building layer

Beneath the building and on top of the thick late Saxon soil horizon, there was a distinctive levelling or consolidation layer comprising un-weathered angular ironstone chips. The layer extended 5m to the south of the building as a continuous deposit and continued, more disturbed and truncated, for a further 3m. It contained a small quantity of pottery dated to AD1100-1150 (Ceramic phase M1). The layer continued across the interior of the building, although it had been lost to later disturbance in the south-east corner, and had been cut through to enable the construction of the hearth bases. However, it did not continue beneath either the eastern wall or the northern wall of the building.

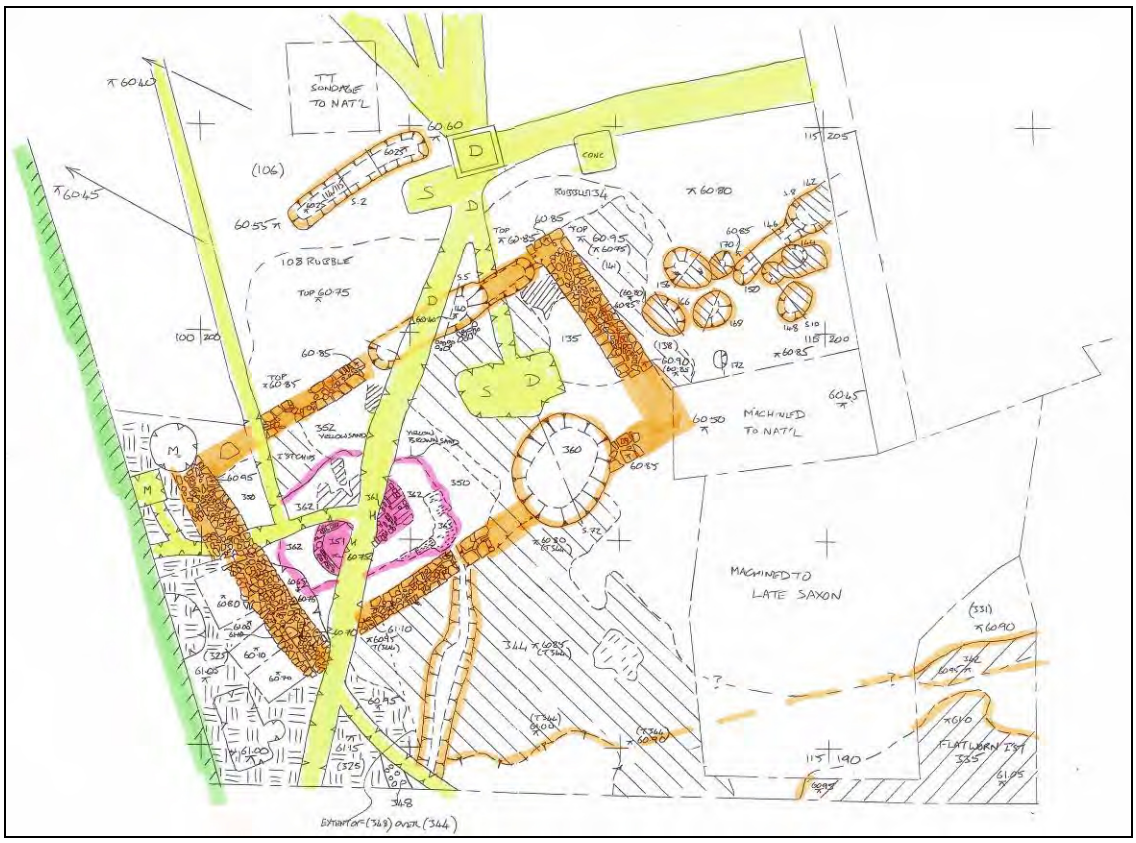
To the west this layer lapped over the margins of the clays forming the bailey bank. This area was disturbed by modern drains, but there was a surviving remnant of a narrow band of brown charcoal-flecked loam (348) containing frequent fragments of ironstone and some limestone, 50-120mm across, possibly part of a more extensive layer of soil and stone lying against the face of the bank, perhaps debris from the construction of the adjacent building.

Although not physically linked, as the area around the south-east corner of the building had been disturbed, a similar layer of ironstone chips and small fragments of ironstone (342) lay beneath the road surface in the south-east corner of the excavation.

The building

The rectangular building enclosed a single room, 9.5m long by 4.5m wide, with the building measuring 11.0m by 5.6m overall (Figs 10 and 11). Towards the eastern end of the northern wall, there was a broad doorway, with the surround founded in a deeper slot. This had been fully robbed, but the absence of stone within the robber trench fill might suggest that the surround had been of timber rather than stone. A parallel length of slightly curving gully, 3.0m to the north, may have held timbers forming an outer screen or perhaps even the outer end of a full timbered porch, which would have formed a sheltered, perhaps even a fully enclosed area in front of the door 3m long by 3m wide.

There may have been a narrow doorway at the western end of the northern wall. A long length at the eastern of the southern wall was completely lost, including 2.0m that had been removed by a deep pit, 360. It was, therefore, not possible to establish whether there may have been an opposed doorway at the eastern end of the southern wall.



The building within the outer bailey (1100/50-1200AD), working drawing in pencil Fig 10

The 12th-century building within the outer bailey, looking north (note the eastern wall of the Victorian station in the background, top left) Fig 11

The floor levels and the hearth

Little remained of the floor levels across the eastern half of the building, but they were largely intact to the west.

Above the pre-building levelling layer of ironstone chips, there was a general sub-floor of clean yellow-brown sand to sandy clay, 50-60mm thick. Above this there was a patchy survival of a probable earth floor of medium brown sandy loam. The south-western corner of the building containing stone hearth bases, probably a sequence of three overlapping hearths, but all disturbed by later drains (Fig 12). The hearth complex was a surrounded by an extensive spread of charcoal-rich hearth debris, and there were also small patches reddened scorched floor against the north wall and in the northern corner, to either side of the doorway, where the floors had been eroded through use.

The hearth group at the western end of the building, much disturbed by recent drains Fig 12

The external surfaces and the burnt pit group

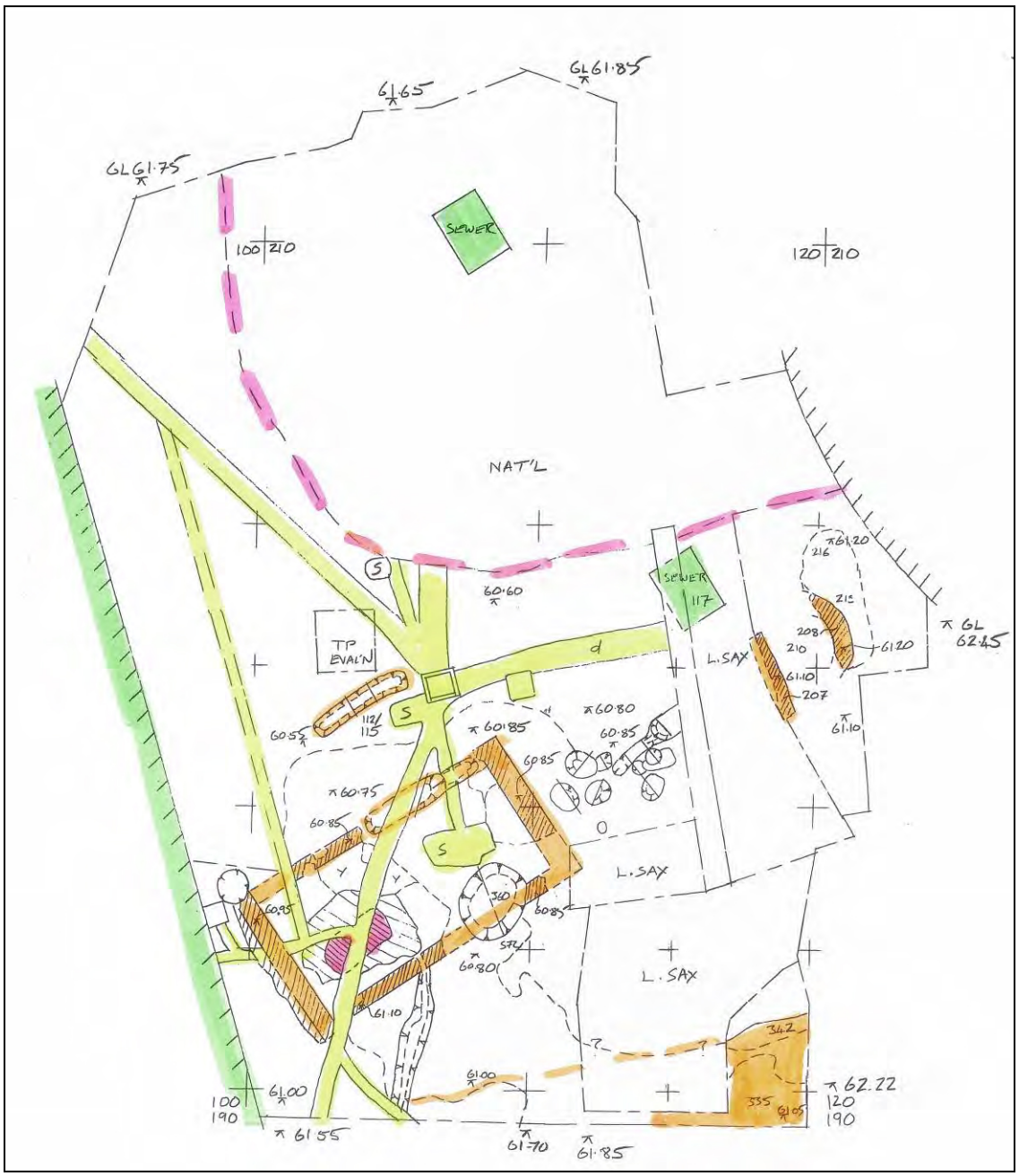
There were no identified laid surfaces to the north of the building, not even in the area between the doorway and the slot, with building rubble directly overlying soil horizons

To the immediate east of the building there was a cluster of multiple shallow oval pits and a length of shallow gully, typically no more the 0.1m deep, and all with distinctive fills of red to red-purple and occasionally black burnt soils, containing burnt ironstone chips. How they relate to the use of the building is currently uncertain, and the stratigraphic sequence of deposits in this area will need to be more closely examined.

Shallow pits with fills of burnt soils, east of the 12th-century building Fig 13

To the south of the building, the stony pre-building levelling layer (344) and the remnant of construction debris (348) against the sloping face of the clay bank, was overlain by a soil horizon (326) of medium brown slightly clayey loam, containing a scatter of small fragments of ironstone and a little pottery and bone, which had accumulated against the face of the southern wall of the building to a depth of 200mm, probably during the lifetime of the building. It would suggest that there was little activity to the immediate south of the building and therefore no reason to provide hard surfaces. However, a small remnant of ironstone surface comprising steeply-pitched fragments of ironstone (329), often burnt, and aligned roughly parallel to the building, was probably part of a once more extensive paved surface of unknown extent.

Along the southern margin of the excavated area, the basal layer of ironstone chips either terminated or had been removed. The layers filling this slightly hollow were mixed deposits of soils with some stones, probably disturbed by activity related to use of the road leading to the postern gate. Some patches with larger stones along the southern margin of the levelling layer may have been remnants of surface at the very edge of the road. The disturbed soils in this area (349), produced the only coin from the site, a silver penny in poor condition, but probably attributable to the reign of Steven (1135-1154).



The medieval features within the outer bailey, working drawing in pencil Fig 14

The eastern walls and associated features

Nine metres to the east of the main building, there was a remnant of a drystone wall, recorded for a length of 3.2m. Further east, and possibly related, there was a length of curving stone wall, which had survived where it sat over the fills of a broad irregular hollow, probably a shallow pit (Figs 14-15). The scatter of stone debris within the upper fills of this hollow had probably come from the robbing of these two walls. The plan form of the larger structure or structures formed by these walls is unknown, but if the curving wall had continued westward to meet the straight wall, it would have formed a circular chamber 2.75m in diameter and 2.2m wide, but there was no surviving burning within this area to indicate that this may have been an oven.

Remnants of a curving and a linear wall, looking west, towards the 12th-century building Fig 15

Demolition and later activity

The building was levelled at around the end of the 12th century. The walls were all lowered to a consistent height, at three or four courses, and the interior of the building was filled with the demolition rubble. Rubble also extended up to 3m to the north of the building and up to 2m beyond the east wall, but there was no rubble to the south, presumably because this area was still in active use given the presence of the metalled road to the south-east that probably ran to a postern gate lying to the south of the building.

The only part of the building fully robbed at this time was the eastern half of the northern wall, with the door surround robbed to the base of its deep construction slot, along with the immediately adjacent lengths of wall. This may have been to recover the door surround for reuse in another building, which would explain the absence of stone rubble within the backfill of the construction slot.

Following demolition, the building would have formed a raised platform to the north of the road, perhaps quite rapidly grassed over.

Shortly after demolition and levelling, a deep pit, 360, was cut through the levelled eastern end of the southern wall. The primary fill of the pit contained much of four large shelly coarseware jars (see Fig 18), with sooted bases, which may have been used in this or a similar building nearby. The upper fills contained much stone rubble from the building and bones from much of one dog and parts of several others.

Following levelling, a curving length of gully [339], possibly for drainage, was cut through the southern wall of the building and continued southwards for 5m. Its relationship to the later roadway was not established.

The metalled road

In the south-east corner of the site there was a sequence of mixed and disturbed layers of ironstone road metalling cut by deep ruts. The remnants of the uppermost surface comprised flat-laid pieces of ironstone, 200-300mm across, sometimes cracked and with worn surfaces and rounded edges (Fig 16).

The metalled road surfaces in the south-east corner of the site, looking west Fig 16

2.4 Later medieval and post-medieval activity

The stratified features and layers associated with the 12th-century building were sealed by homogeneous soil horizons that contained little in the way of pottery or finds. These soils mark the long period during which the interior of the outer bailey was left under grass, potentially from the 13th century onward, and later served as an orchard, as recorded on various maps of the 19th century. During machine excavation of these soils, roughly circular pits observed both in plan and section were probably tree planting pits.

The uppermost deposits relate to the construction of the station in the late 19th century. To the south-west, the 12th-century building and surrounding deposits were much disturbed by station drainage runs and by a line of stanchion pits for the uprights that had supported the glass-roofed canopy standing in front of the Victorian station. To the east, there were two rectangular pits which had provided access for the tunnelling of a major brick-built sewer that underlay the eastern side of the excavated area.

Much of the original forecourt surface of granite setts survived beneath a tarmac surface of the mid-1960s directly covering the setts, and the later tarmac surfaces of the forecourt of the 1970s, station as it had been immediately up to the excavation.

2.5 Watching brief during demolition of the station building

Between June and August 2015 there was an intermittent watching brief during the demolition of the 20th-century station, particularly during the lifting of the floor slab and subsequent groundworks.

The machine stripping stopped at or near the base of the former rubble and hardcore underlying the floor slab, which had utilised much broken brick and other rubble from the demolition of the Victorian station. As a result, parts of the exposed surface still comprised compressed brick hardcore, while areas of the underlying deposits were patchily visible between these areas.

The area beneath the station can be divided into a series of linear zones running south-north. To the west there were two cellars that extended most of the length of the former station, which would have removed any archaeological deposits. They survive beneath the landscaping of the present station forecourt. To the immediate east of the cellars there was a narrow band where truncated orange-brown sand and ironstone natural was visible in patches. No features could be seen cutting into these deposits. The entire central area comprised only brick rubble and hardcore backfilling where two sunken rail lines had previously extended further south. The southern ends of these two lines had been backfield when the station was built, and new ends created to the north of the new station. To the east, there was a broad strip running south to north, partly under the former station and partly under the former external raised unloading platform where clean and relatively undisturbed, although truncated, ironstone natural was exposed. The only disturbance was a line stanchion bases, lying to the left of the concrete revetment at the front edge of the unloading platform (Fig 17).

Watching brief during the demolition of the 20th-century station Fig 17

3 SUMMARY OF FINDS, ANIMAL BONES AND ENVIRONMENTAL EVIDENCE

3.1 The medieval pottery by Paul Blinkhorn

The pottery assemblage comprised 1,662 sherds with a total weight of 29kg. The estimated vessel equivalent (EVE), by summation of surviving rimsherd circumference was 19.77. The late Saxon and medieval pottery was quantified using the chronology and coding system of the Northamptonshire County Ceramic Type-Series (CTS), as follows:

Fabrics

F1001: All Romano-British. 1 sherd, 4g, EVE = 0

F97:	Northampton-type Maxey Ware (AD650 – 850)	2 sherds,	16g,	EVE= 0.00
F100:	T1(1) type St. Neots Ware (AD850-1100),	107 sherds,	720g,	EVE= 1.93
F130:	Northampton Ware (c AD900-late 10thC),	19 sherds,	185g,	EVE= 0.50
F200:	T1 (2) type St. Neots Ware (AD1000-1200),	395 sherds,	4,084g,	EVE= 3.30
F205:	Stamford ware (AD850-1250)	36 sherds,	318g,	EVE= 0.47
F209:	South Lincs Oolitic ware (AD1100-1300)	1 sherd,	21g,	EVE= 0.00
F301:	Calcareous Sandy Coarseware (1100-1400)	3 sherds,	559g,	EVE= 0.27
F319:	Lyveden/Stanion 'A' ware (AD1150-1400)	41 sherds,	946g,	EVE= 0.70
F322:	Lyveden/Stanion 'D' ware (AD1400-1500?)	1 sherd,	25g,	EVE= 0.15
F330:	Shelly Coarseware (AD1100-1400)	1020 sherds,	21,478g,	EVE=12.31
F345:	Oxford Ware (mid/late 11th-14th century)	1 sherd,	3g,	EVE= 0.00
F346:	Bourne 'A' Ware (13th-14th century)	20 sherds,	483g,	EVE= 0.03
F360:	Miscellaneous Sandy Coarsewares (AD1100-1400)	8 sherds,	39g,	EVE= 0.00

F403: Midland Purple ware (AD1450-1600), 2 sherds, 12g, EVE =0

F1000: Miscellaneous wares (19th and 20th centuries), 2 sherds, 11g

The following, not included in the Northamptonshire type-series, was also noted:

F1: Early/middle Anglo-Saxon Granite-tempered Ware (*c*.AD450-850). Sparse to moderate angular granite up to 2mm, many free quartz grains and mica platelets. 1 sherd, 15g, EVE = 0

F370: Lead-Glazed Whiteware (12th century?). Hard white fabric with crackled green glaze. Foot-ring base from a bowl. Byzantine? 1 sherd, 27g, EVE = 0

F371: Early Brill/Boarstall Ware (late 12th-13th century), Oxfordshire fabric OXAW (Mellor1994, 111). 1 sherd, 43g, EVE = 0.11

The range of fabric types is mostly typical of sites in Northampton (eg McCarthy 1979).

The sherd of fabric F370 is unidentified, but is potentially foreign *exotica*. It is from the base of a bowl with a thick internal glaze and patches of glaze on the outer surface. It does not appear to be of Western European origin. The fabric is very hard, and is either high-fired earthenware or low-fired stoneware. Glazed stonewares are known from Germany, but date to the 15th-16th century (Gaimster 1997), and are generally closed forms such as mugs. The only other pottery from the feature in which it occurred is of Saxo-Norman date, although the sherds are small and probably residual. The sherd will be researched further at the report stage, but it has similarities to some Byzantine Green-glazed White Wares (eg Dark 2001), although as it is from a royal castle from around the time of the Crusades, a wide range of other eastern sources are possible.

Chronological and Qualitative Analysis

Each context-specific assemblage was given a ceramic phase-date base on the range of ware-types present, as shown in Table 2, along with the occurrence by number and weight of sherds and EVE, along with the mean sherd weight for the phase. The data is generated from the spot-dates for each assemblage, and has not been verified against the site stratigraphic record. This will be carried out at the report stage, and the data tables adjusted accordingly.

Table 2: Ceramic phase definition and pottery occurrence per ceramic phase

Phase	Date Range	Defining Wares	Sherds	Weight (g)	EVE	Mean Sherd Wt (g)
LSAX1	AD900-1000	F100, F130, F205	10	97g	0.27	9.7g
LSAX2	AD1000-1100	F200	239	2428g	2.35	10.2g
M1	AD1100-1150	F330, F360	893	17554g	10.77	19.7g
M2	Mid to late 12th century	F319	147	1857g	1.88	12.6g
M3	late12th-early13th century	F346, F371	338	6819g	4.17	20.2g
M4	early-mid13th century	F320, F324	0	0	0	0
M5	Mid13th -14th century	F329	0	0	0	0
M6	15th-mid15th century	F322, F365, F405	31	231g	0.33	7.5g
M7	mid15th – mid16th century	F369, F403, F404	2	12g	0	6.0g
MOD	19th – 20th century	F1000	2	11g	0	5.5g
Totals			**1662**	**29009**	**19.77**	

The earliest pottery from the site is a single abraded fragment of Romano-British pottery. The presence of a sherd of hand-built Anglo-Saxon pottery and two sherds of middle Anglo-Saxon Maxey-type Ware is perhaps no surprise given the proximity of the early/middle Saxon occupation at Chalk Lane and Green Street (Williams 1981; Chapman 1999).

Otherwise, the range of fabric types present and the data in Table 2 indicate that the main phase of activity at the site began sometime in the late 10th or early 11th century, and continued until the late 12th century. All the contexts dateable to LSAX1 produced just one or two small sherds of pottery which could, in most cases, to be residual, but Northampton Ware makes up over a quarter of the pottery of LSAX1 (Table 3), and thus the groups could represent activity dating to earlier in the 10th century. The start date is also supported by the dearth of early St Neots Ware (F100) and Northampton Ware (F130). In the case of the latter, evidence from elsewhere in the town, such as the Chalk Lane site, shows that such pottery comprised just 7% of the assemblage from the phase dating to the last quarter of the 10th century (Denham 1985, table 12), and was much more common in deposits dating to the early to mid-10th century at that site, and others in the town (ibid). This will be discussed in more detail at the report stage.

The end date for the main phase of activity is supported by the total absence of very common early–mid 13th century wares such as Brill/Boarstall Ware (CTS fabric F324), Lyveden/Stanion ‘B’ Ware (F320) and Potterspury Ware (fabric F329), which are usually major wares at contemporary sites in Northampton (eg. McCarthy 1979). The latest pottery is the rimsherd of early Brill/Boarstall Ware (F371) and sherds of a large glazed Bourne ‘A’ Ware vessel (F346). Bourne ‘A’ Ware is generally dated to the 13th-

14th century, but it is known from late 12th century contexts in Lincoln (Young and Vince 2005, 171). Lyveden/Stanion 'A' Ware also seems a little under-represented, with all the rimsherds appearing to be early forms dating to the second half of the 12th century. It would appear therefore that pottery disposal generally ceased in the final decades of the 12th century, or the first decade of the 13th century at the absolute latest. These trends will all be investigated and discussed in more detail at the report stage.

Table 3: Pottery occurrence per phase by fabric type, by weight (g), expressed as a percentage of the phase assemblage

Fabric Phase	F100	F130	F205	F200	F330	F319	F346	F371	F322	Total (g)
LSAX1	72.2%	27.8%	0	-	-	-	-	-	-	97
LSAX2	13.5%	2.1%	4.9%	77.9%	-	-	-	-	-	2428
M1	1.5%	0.3%	0.6%	9.9%	84.1%	-	-	-	-	17554
M2	0.8%	1.6%	1.6%	1.6%	85.2%	7.8%	-	-	-	1857
M3	0.7%	0.3%	1.0%	6.1%	72.2%	11.7%	7.1%	0.6%	-	6819
M6	0	0	0	0	89.2%	0	0	0	10.8%	231

Shaded cells = residual

The assemblage

The data in Table 4 shows that the late Saxon assemblage is dominated by jars, along with smaller numbers of bowls. Stamford Ware jugs are entirely absent from the rim assemblage, although some glazed sherds are present that are probably from such vessels. This suggests that the area may have had an industrial rather than a domestic use in the pre-Castle period, although this will need to be fully investigated at the report stage.

The medieval assemblage appears extremely well-preserved, with a fairly large number of vessels reconstructable to a full profile (this will be carried out at the report stage). Many of the context-specific groups are clearly the result of primary deposition, indicating that they were disposed of in the immediate vicinity where they were broken. This is supported by the data in Table 3 which shows that residuality is very low, with no more than 4% of the pottery in any of the main phases being redeposited material. The mean sherd weight (Table 2) is also large.

The vessel occurrence by vessel type is shown in Table 4. The data is dominated by jars, as would perhaps be expected in this period, although bowls appear under-represented when compared to other contemporary sites in the region. Evidence from elsewhere has shown that it is possible to relate specific vessel forms to specific activities (eg Blinkhorn 2010). This, plus the fact that most of the sherds from larger jars appear heavily sooted, suggests that the assemblages were originally used in kitchens, although this will need to be fully investigated at the report stage.

Table 4: Vessel occurrence per phase, by EVE, expressed as a percentage of the phase assemblage

Phase	Jars	Bowls	Jugs	Lamps	Total EVE
LSAX1	0.22	0.05	0	0	0.27
LSAX2	1.49	0.86	0	0	2.35
M1	8.00	0.83	1.19	0.75	10.77
M2	1.69	0	0.19	0	1.88
M3	3.36	0.12	0.23	0	3.71
M5	0.53	0.11	0.15	0	0.79

Cross-fits

A number of cross-fits were noted during the primary spot-dating of the assemblage. For example, sherds of a single glazed jug in fabric F346 occurred in contexts 131 (rubble over building), 133 ([140] robber trench of building wall), 222 (under rubble), 325 (rubble on bailey bank) and 329 (remnant ironstone surface). All of these groups had a common source in deriving from directly below or within demolition deposits related to the levelling of the building in the late 12th century. This will be investigated in more detail at the report stage, and the assemblage will be investigated for further cross-fits.

Other cross fits have a similar origin in association with the demolitionof the excavated building:

130 floor of building = 131 rubble over building = 134 rubble over building; F330, jar
130 floor of building = 133 [140] robber trench of building wall, F330, jar

Assessment

This group of pottery is one of the largest and best-preserved 11th-12th century assemblages excavated in Northampton in the last 30 years.

Reconstructed cooking pot, with sooted base, one of several from a late 12th-century pit, 390 (scale 50mm) Fig 18

Further requirements:

This group of pottery is one of the largest and best-preserved 11th-12th century assemblages excavated in Northampton in the last 30 years. It is suggested therefore that the following work is needed to bring it to publication standard.

1) Verification of the pottery dating and adjustment of data tables. The dating of each context-specific pottery group will need to be checked against the stratigraphic matrix to ensure that the spot-date is correct. It is not unusual for smaller groups to be earlier than the bare pottery date suggests due to a lack of contemporary wares. The data tables which form the basis of the report will be adjusted accordingly.

2) Discussion of the chronology. As noted above, it appears that activity at the site in terms of pottery deposition did not begin until the late 10th century at the earliest, and ceased in the first decade of the 13th century at the absolute latest. Initial typological examination suggests that this is valid, and this will be explored and discussed further at the report stage.

3) Reconstruction of pots and cross-fit analysis. This will potentially allow further typological information to be obtained, and also provide valuable insights into the site taphonomy, particularly the suggestion (above) that there was an organized phase of clearance and consolidation of the site at the end of the main phase of pottery deposition.

4) Discussion of the assemblage in its local and regional context. This pottery assemblage is potentially one of the most important groups ever excavated in Northampton, as it includes material from the late Saxon town, and also from the foundation, construction and early occupation of the castle, one of the most important in England in the early medieval period.

5) Selection of sherds for illustration and catalogue. It is envisaged between 20 and 30 illustrations will be required.

3.2 Other finds

A total of 70 registered finds are quantified below by material type (Table 5) and functional categories (Table 5).

Table 5: Recovered finds by material type per period

Material	Prehist to RB	Late Saxon	Medieval	Post-medl to modern	Total
Coins	1 (RB)	-	1	-	2
Copper alloy	-	2	7	1	10
Iron objects	-	5	15	-	20
Iron nails	-	5	5	2	12
Lead	-	4	4	-	8
Stone	-	3	3	-	6
Bone/antler	-	5	-	-	5
Glass	-	-	2	1	3
Flint	1	-	-	-	1
Pewter	-	-	-	1	1
Slags		2			2
Total	**2**	**26**	**37**	**5**	**70**
Percentage	2.9%	37.1%	52.9%	7.1%	

Table 6: Quantification of finds by Date and functional categories/types

Finds categories and types	Late Saxon	Medieval	Total
Personal possessions:			
Costume and jewellery	3	3	6
Toilet equipment	-	-	-
Recreational objects	3	-	3
Misc. Copper alloy	1	4	5
Building equipment:			
General ironwork	1	2	3
Nails	5	6	11
Worked stone	1	2	3
Household equipment:			
Locks and keys	-	-	0
Knives and shears	1	1	2
Hones/sharpeners	2	1	3
Horse furniture:			
Fittings	-	-	-
Horseshoes	3	11	14
Coins	-	1	1
Glass	**-**	2	2
Lead	4	4	8
Slags	2	-	2
Total	**26**	**37**	**63**

Prehistoric and Roman finds

There is a single struck flint, and a single copper alloy coin of Roman date, a minim of the 4th century AD.

The late Saxon finds

Personal items relating to dress are few, comprising the copper alloy brooch, SF1, found in a shallow pit during the evaluation in 2012 (Fig 19), a bone ring (broken) and a bone pin. Of some interest are the two examples of worked horse metacarpus and one cattle radius all at least partially fashioned as bone skates, perhaps indicating the presence of a nearby workshop (Fig 20).

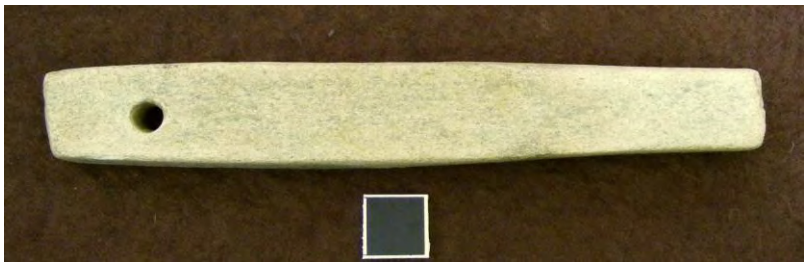
Late Saxon copper alloy brooch (23mm diameter) Fig 19

Late Saxon horse metacarpal with smoothed surface to form a skate (photograph; Philip Armitage) Fig 20

Objects in iron comprise five nails, three horseshoes a probable knife and a large unidentified object. From the southern pit group there are two pieces of lead dross and two small fragments of sheet lead, probably debris from lead working carried out nearby. There is a small piece of worked ironstone and two whetstones.

The medieval finds

As might be expected for the outer bailey of the castle, personal items are scarce and generally utilitarian. The copper alloy objects include a buckle, a clasp and a pin, and there are four further copper alloy objects. There is a probable iron knife and an iron object, along with six nails and 11 horseshoes. Seven of the horseshoes came from around the metalled road in the south-east corner of the site. From above the floors of the building there is personal whetstone, perforated at one end, in Norwegian schist (Fig 21).



Medieval whetstone in Norwegian schist (scale 10mm) Fig 21

There is a single medieval coin, SF47, a silver penny, from disturbed deposits to the south of the building and on the margins of the metalled road. Steve Critchley reports that it is in poor condition, with the observe design lost, so there is no indication of the monarch. The reverse has a Cross Moline in the centre, and while the surrounding lettering is illegible, the cross itself suggests that this is an issue of Stephen *c.*1135-1154, either the Watford type issue 1136-1145 or an irregular Civil War issue, *c.*1130-*c.*1145.

There is a lead weight, and there pieces of lead sheet from the rubble over and around the excavated building, perhaps discarded during the demotion of the building. There is also a piece of medieval vessel glass and a further piece of glass from the road to the east, which may be of medieval or later date. There are two pieces of building stone with tooled faces.

Post-medieval finds

There is a small group of five post-medieval to modern finds, comprising a pewter button, a copper alloy object, two iron nails and at least one piece of recent glass.

Further analysis

All iron objects, excluding nails, will submitted for X-ray analysis. A full catalogue and report will be prepared by Tora Hylton.

3.3 The animal bone

The excavations produced a total of 22 archive boxes of animal bone, comprising 3245 bone elements/fragments of which 2567 elements (79.1%) are from late Saxon deposits and 678 elements (20.9%) are from medieval deposits associated with the castle.

The late Saxon assemblage is of considerable potential due to the quantity and quality of the assemblage. It contains a high proportion of identifiable bone (evidently unidentifiable splinters were discarded on site), in good condition, with cutting marks observed to be present. The inclusion of quantities of horn cores and even horses hooves indicates that this is not purely a domestic assemblage but includes material that would either have been discarded during initial butchery following slaughter or would have gone for craft usage. Initial assessment has also identified the presence of a number of cattle long bones reworked to form or in the process of forming bone skates, as have been found at previous excavations of late Saxon deposits in Northampton and other contemporary towns, with the unfinished examples perhaps suggesting the nearby presence of a workshop. The late Saxon soil horizon also includes some bones from a badger, an omnivorous animal that may have been scavenging on the midden heap of discarded bone (see soil geoarchaeology, below, for further information on the nature of the buried soil).

Of the small quantities from medieval deposits, some of this is likely to be residual from the late Saxon deposits, but there are two small deposits of individual, rather than general interest. The curvilinear slot in front of the doorway of the 12th century shows a distinctive pattern of deposition, including a higher percentage of domestic fowl than the late Saxon assemblage. Also, the large pit cutting the south wall of the 12th-century building contained a marked bias towards dog bone, including much of a single carcass. These two instances have individual stories to tell about life in the outer bailey at this time, even if the quantity of medieval bone is insufficient to draw any general conclusions.

The animal bones are being studied and reported on by Philip Armitage, and the results will be compared to other major assemblages from medieval Northampton.

3.4 Environmental evidence

Fourteen bulk soil samples were taken for assessment of plant macrofossils. The samples were processed by Northamptonshire Archaeology and 12 of the resulting flots were submitted for assessment to Anne Davis at MOLA London. Six of these produced sufficient quantities of plant macrofossils to warrant full quantification. The northern well produced quantities of both charred and waterlogged plant remains, comprising almost 200 cereal grains, mainly wheat and oats but including some rye and barley. Similar proportions of cereals were seen in the much smaller samples from the late Saxon pits. There were few charred weed seeds from the well, but there were quantities of uncharred plant remains from a wide range of wild plants and food plants, including quantities of fruit stones from sloe, plum/bullace, cherry, apple, blackberry/raspberry and hazelnut shells. Occasional seeds of flax/linseed and hemp may have been either food debris or waste from the processing of plant stems for textiles.

Only the northern slot, 112, and the hearth, 351, produced sound deposits of medieval date, with wheat dominating the recovered cereal grains, while the food plants represented comprise horsebean, pea, sloe and hazel nuts.

A full report on the analysis of the charred and organic remains will be included in the final report.

Further analysis: A charcoal sample from the hearth will be submitted for analysis to determine the wood species being utilised.

3.5 Soil Geoarchaeology

During the course of the excavation the site was visited by Mike Allen in order to assess and sample the sequence of soils overlying natural both across the main area of excavation and within the hollowed area to the west, where the presence of mottled silts indicated water action. This included the buried soil containing quantities of late Saxon occupation debris, particularly animal bone. The initial conclusions indicate that the buried soil was 'an accumulated bioworked soil…rich in faecal waste…typical of midden accretion [with] trampling at times', but also with a period or periods of stasis, which may have coincided with the episodes of pit digging. This is similar to the late Saxon dark earth deposits recorded at, for example, Bedford Castle. This provides a context for the mass dumping of animal bone as a midden deposit, perhaps some of it arriving as part carcasses with flesh still attached, which would also have formed a suitable foraging ground for the recorded badger and any other omnivorous mammals. In the hollowed area to the west the silts showed, 'effects of higher local groundwater conditions, and of possible flooding or at least water and silt input', so generally damp and periodically wet.

A full report on the soils by Mike Allen, including soil micromorphology by Richard Macphail, will be included in the final report.

3.6 Radiocarbon dating

A sample of charred barley seed from the charcoal deposits associated with the hearth within the 12th-century building was submitted for radiocarbon dating to provide confirmation of the date of this building independent from the pottery analysis.

The result contains a double peak, but as the early peak is centred on 1050-1080 Cal AD (22% confidence) while the second peak is centred on 1150-1190 Cal AD (41% confidence) (890+/-30 BP, 1040-1190 Cal AD, 95% confidence, Beta 410140), it is the second peak, centred on the mid to late 12th century, which must be accepted as indicating a date range for the use of the building that is consistent with the pottery dating.

The well lay just beyond the northern limit of the preserved pre-castle soil horizon and the pottery from its fills dates the use of the well to ceramic phase M1 (1100-1150), a period spanning both pre-castle activity and the construction and early use of the castle. It is suggested that a suitable sample from the basal deposits of the well may be submitted for radiocarbon dating to determine whether the well pre-dated the castle or was contemporary with the use of the 12th-century building.

4 REPORTING, PUBLICATION AND ARCHIVE

4.1 Reporting

A fully illustrated client report will be prepared in accordance with the following report synopsis:

Excavation within the Outer Bailey of Northampton Castle 2013-15

by Andy Chapman

with contributions by Mike Allen, Philip Armitage, Paul Blinkhorn, Anne Davis, Tora Hylton and Richard Macphail

4.2 Publication

A synthesis of the client report will published in the county archaeological journal, *Northamptonshire Archaeology*. The outline plan is that it will form part of a volume that will provide an overview of the Saxon and medieval archaeology of Northampton. It will therefore sit alongside a review of the antiquarian records of the castle, by Brian Giggins, and an overview of the results from excavation by Dr J Alexander in the 1960s on the eastern side of the inner bailey, by Andy Chapman.

4.3 Archive

A digital copy of the site archive and the site narrative will be made to RCHME standards and submitted to the National Archaeological Record. The archive will comprise all written, drawn and photographic records, and all material finds and processed sample residues recovered from the excavation. All records and finds generated by the excavation will be compiled in a structured archive in accordance with the guidelines of Appendix 3 in the Historic England procedural document, *MoRPHE* (HE 2015). Site details will be entered onto the OASIS online database. The site archive will be offered to Northampton Museums and Art Gallery.

4.4 Resources and Programming

In order to bring the project to final reporting and publication a programme of future works will be undertaken.

Table 1: Post-excavation analysis task list

	Tasks	**Personnel**
1.	Introduction and background	Andy Chapman
2.	Structural site narrative	Andy Chapman
3.	Documentary research	Andy Chapman
4.	Saxon & medieval pottery	Paul Blinkhorn
5.	Other finds	Tora Hylton
6.	Animal bone	Philip Armitage
7.	Charred plant remains	Anne Davis
8.	Soil geoarchaeology	Mike Allen and Richard Macphail
9.	Illustrations	James Ladocha and Andy Chapman
10.	Integration of specialist reports	Andy Chapman
11.	Editing/proof reading	Mark Holmes and Pat Chapman
12.	Preparation of research archive	Tora Hylton

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MOLA Northampton
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MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN
01604 809 800
www.mola.org.uk
sparry@mola.org.uk