BINGO EXTENSION
ASPECTS LEISURE PARK
BEDFORD

ARCHAEOLOGICAL MITIGATION

Albion archaeology

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ARCHAEOLOGICAL MITIGATION

Version 1.1

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On behalf of:
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Photograph 12: The intact blue concrete bottom of the Newnham Baths swimming pool in Area 2, showing the nature of the deposits used to backfill it

Preface

This report has been prepared by Alison Bell (Archaeological Supervisor), Mark Phillips (Project Officer), and Jeremy Oetgen (Project Manager). The excavation was carried out in 2006 by Alison Bell (Archaeological Supervisor), Anthony Clifton-Jones, Elizabeth Davis, Adam Williams (Assistant Supervisors), Stuart Heath and Phillip Henderson (Archaeological Technicians). Watching briefs in 2007 were maintained by Elizabeth Davis (drainage works) and Jeremy Mordue (floodplain compensation). The artefact and ecofact summary was prepared by Jackie Wells (Finds Officer) and Holly Duncan (Artefacts Manager). The figures were prepared by Joan Lightning (CAD Technician) and Jeremy Oetgen. Drew Shotliff (Operations Manager) was responsible for executive management and quality control.

Albion Archaeology is grateful to Lawrence Littell of Roc Associates for commissioning this work, Nick Drogon, SDC for his help during the excavations. Lesley-Ann Mather (Archaeological Officer, BCC) and Martin Oake (County Archaeological Officer, BCC) monitored the site on behalf of the Local Planning Authority, and John Etté (Inspector of Ancient Monuments) on behalf of English Heritage. Following the abolition of Bedfordshire County Council in 2009 responsibility for monitoring the archaeological works passed to the new unitary authority, Bedford Borough Council. This report was therefore approved on behalf of the Borough Council by Geoff Saunders, (Archaeological Officer).

Version History

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Key Terms

Throughout this project design the following terms or abbreviations are used:

BCAS	Bedford County Archaeology Service
Client	Aspects Leisure Ltd
Context	An element of an archaeological feature or deposit described in the primary excavation record
DCMS	Department for Culture Media and Sport
EH	English Heritage
Flots	Material that floats to the surface during wet sieving of soil samples
Group (G)	A distinct feature or deposit defined by empirical interpretation of the primary site record. A single Group may be made up of one or more archaeological contexts. Groups are identified by unique numbers expressed in the form G2.13
HER	Historic Environment Record
IAM	Inspector of Ancient Monuments [English Heritage]
IFA	Institute of Field Archaeologists
Land-use area (L)	A higher level of interpretation based on the identification of structural and functional links between broadly contemporary Groups. Land-use areas are identified unique numbers expressed in the form L1
LPA	Local planning authority
MAP2	*Management of Archaeological Projects*, 1991, English Heritage
OASIS	Online AccesS to the Index of archaeological investigationS
Principal Contractor	SDC Special Projects
Procedures Manual	*Procedures Manual Volume 1 Fieldwork*, 2nd edn, 2001 Albion Archaeology
SAM	Scheduled ancient monument
SMC	Scheduled monument consent
VCH	Victoria County History

Non-technical Summary

In 2006 Aspects Leisure Ltd obtained both planning consent and scheduled monument consent for an extension to an existing building at Aspects Leisure Park, Newnham Avenue, Bedford (NGR: TL 06571 49408). Aspects Leisure Park lies within the precinct of Newnham Priory, the majority of which is a scheduled ancient monument (Bedfordshire monument no. 79). Respective conditions on the planning and scheduled monument consents required the implementation of a programme of archaeological investigation in mitigation of the effects of the development on archaeological remains.

The extension was constructed within the strip of land between the existing building and a free-standing brick wall dating from the Tudor period. Previous investigation on the priory site by Bedfordshire County Archaeology Service had indicated that archaeological remains of the early medieval to post-medieval periods were present within the development area.

An open area excavation was undertaken in 2006 within the footprint of the proposed extension; it measured c. 29m long by c. 8m wide. Fragmentary remains of two buildings and related deposits were found at the northern end of the excavation, with two phases of cobbled trackway running southwards. The earlier of the two trackways is believed to have been related to Newnham Priory and the later contemporary with a post-Dissolution mansion.

In 2007, precautionary watching briefs were conducted on drainage works and ground reduction for floodplain compensation. In the event, no archaeological remains were affected by the works, confirming predictions made about the location, extent and survival of archaeological deposits in the affected areas.

1. INTRODUCTION

1.1 Project Background

In 2006 Bedford Borough Council granted planning permission (06/00454/FUL) for the construction of an extension to an existing building at Aspects Leisure Park, Newnham Avenue, Bedford. Aspects Leisure Park lies within the precinct of Newnham Priory and previous investigations on the priory site by the then Bedfordshire County Archaeology Service had indicated that archaeological remains of the medieval and post-medieval periods were present within the development area.

Due to the archaeological significance of the site, the following condition (no. 5) was attached to the planning permission:

> *No development shall take place until the applicant, or developer, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted to and approved in writing by the local planning authority.*

The reason for this condition was:

> *To ensure that remains of archaeological importance likely to be disturbed in the course of the development are adequately investigated and recorded and in accordance with Policy 13 of the Bedfordshire Structure Plan 2011 and Policy BE24 of the Bedford Borough Local Plan 2002.*

Part of Newnham Priory is designated a scheduled ancient monument of national importance (Bedfordshire monument no. 79). Because the development lay within the scheduled area, scheduled monument consent was also required. This was obtained from the Department for Culture, Media and Sport on 25th July 2006 and a condition attached to the consent stated that:

> *No building works shall take place until implementation of a programme of archaeological work has been secured in accordance with a written scheme of investigation which has been submitted to and approved by the Secretary of State advised by English Heritage.*

Acting on behalf of Aspects Leisure Ltd, Roc Associates commissioned Albion Archaeology to prepare a written scheme of investigation (Albion Archaeology 2006b) and to implement the programme of archaeological work according to the above conditions.

The main works comprised open area excavation of the footprint of the extension, which was undertaken in October and November 2006. The results of this excavation are the focus of this report. Archaeological monitoring and recording of associated drainage works was carried out in February 2007, and these observations have been incorporated into the report where appropriate.

A separate planning condition required that flood compensation works be

completed prior to the new building coming into use. This was achieved by excavation to lower the ground surface in the vicinity of the extension to compensate for the volume of the floodplain occupied by the new building. The only open land available for these works lay to the east of the extension, within the scheduled ancient monument. Therefore, further scheduled monument consent (dated 2nd December 2006) was obtained, subject to conditions equivalent to those for the main works. Accordingly, Albion Archaeology was commissioned to design and implement the further programme of archaeological work (Albion Archaeology 2007).

In 2009, further consent was obtained for the construction of a first-floor balcony to the bingo hall. Most of the associated groundworks were within areas previously excavated for the existing foundations so archaeological investigations were very limited in scope. A full report was deposited with the HER (Albion Archaeology 2009) and submitted to English Heritage. The records have been integrated with those for the present project.

1.2 Status of this Report

This report summarises the findings of the fieldwork, interprets the results and provides an assessment of their significance based, as far as possible, on current understanding of the results of previous investigations within adjacent areas of the site (as summarised in the desk-based assessment, BCAS 1999). Because the results of the previous investigations have not been analysed, there is limited scope for the assessment and analysis of the present work. However, this report can provide a useful summary of investigations that focussed on a relatively insignificant part of the priory/mansion site.

1.3 Site Location

Aspects Leisure Park lies *c.* 1.5km east of the centre of Bedford (Figure 1), outside the historic core of the town as defined by the Extensive Urban Survey for Bedfordshire (Albion Archaeology 2005). It was formerly in the parish of Goldington, abolished in 1934 (Youngs 1979, 6). The leisure park complex is bounded by the River Great Ouse and former course of the Bedford to Sandy railway to the south, Newnham Avenue to the west, Barkers Lane to the north, and a triangular area of waste ground to the east. The western half of the leisure park is occupied by large buildings erected in *c.* 1990, while the eastern half is a public car park.

The development comprised an extension attached to the eastern elevation of a building located in the south-eastern corner of the leisure park complex (NGR: TL 06571 49408). The ground floor of the building was occupied by a fitness centre and its upper floor was being converted for use as a bingo hall. The extension was constructed within the strip of land between the existing building and a free-standing brick wall dating from the Tudor period (see Figure 2 and Photograph 1).

Archaeological investigations were undertaken in the following three areas (see also Figure 2):

Area 1 A roughly rectangular open area, *c.* 29m long by *c.* 8m wide. It covered the footprint of the extension plus an additional area to allow for re-routing of services around the outside of the new building.

Area 2 A trench *c.* 1.8m wide by *c.* 9m long that was excavated during the construction of a new drainage installation located *c.* 25m to the south of Area 1.

Area 3 An irregularly shaped open area in the south-west corner of the existing car park. At its maximum extent it covered an area of *c.* 575sqm.

The majority of the development lay within the land designated as the scheduled ancient monument of Newnham Priory; Area 1 represented the zone of greatest development impact.

Figure 2 also indicates the locations of four of the foundation pits (T1, T2, T5 and T6) excavated in 2009 for stanchion bases to support a new balcony. Two further pits (T3 and T4) were located within the previously excavated Area 1. These interventions were the subject of a separate report (Albion Archaeology 2009).

1.4 Landform, Geology and Soils

Prior to development, the site of the extension was within a public open space, laid to grass with localised planting. The ground level lay at 25.7–26.0 m OD.

The present course of the River Great Ouse runs *c.* 50m to the south-west of the site. The low lying nature of the area places the site within the flood plain of the river.

In Bedfordshire, the geology of the Great Ouse Valley generally comprises Oxford clay and boulder clay overlain by river terrace gravels and alluvium. However, outcrops of limestone occur in the Bedford area, notably in the centre of Bedford itself.

1.5 Historical Background

The history of Newnham Priory is summarised in several sources, notably VCH 1904 and 1912, and Godber 1963.

The priory was founded in 1166. It is possible that the earliest buildings were of timber, but it is recorded that stone from the demolition of Bedford Castle was used for works to the priory church in the early 13th century. After the Dissolution, in 1540, the priory buildings were dismantled and sold off.

A private mansion house was subsequently constructed on the site and the precinct land seems to have been laid out as a garden. It is possible that some of the earthworks that survive or have been recorded on early maps are garden features of this period, rather than features relating to the priory. The high status of the house is demonstrated by the fact that it was once owned by the

Chief Justice of the Queen's Bench, Sir Robert Catlin (d. 1574). It is unclear when the mansion went out of use, but only a few boundary walls are shown on 19th-century maps. The brick wall adjacent to the proposed development is one of those walls.

In the 19th century the land was largely open fields, with some areas where gravel extraction seems to have taken place. However, historical maps show some post-medieval buildings of unknown function at the south end of the development. The extent of the priory precinct can be discerned on many maps to have been defined by a number of earthworks, most of which are now levelled. The most comprehensive plan of the earthworks is that published by the VCH (1904). At its fullest extent the precinct covered an area of *c.* 15ha.

The construction of the 'New Cut' channel and the Bedford to Cambridge railway line in the mid 19th century permanently split the priory site in two, but the land remained undeveloped until the second half of the 19th century, when a sewage pumping station was constructed beside the river at the western end of the priory. A succession of maps and aerial photographs show the gradual expansion of the pumping station. By the 1950s, it had become a council depot and stocking yard, served by a railway siding, and a large garage had been constructed on the north side of the priory.

Around 1900 a simple bathing pool was constructed on the banks of the river, to the south of the bingo extension site. The pool was still in use in the 1960s, by which time it had become a more sophisticated 'Lido'- type pool (Andrew 2002, 70).

By this time, the rest of the priory precinct north of the New Cut had been turned over to allotments.

In the 1970s highway realignment affected the northern boundary of the priory precinct, whilst a large part of the south-east precinct was destroyed by quarrying. The quarry pit is now the basin of Priory Marina.

The present leisure park complex and associated car park were built *c.* 1990, on land formerly occupied by the council depot and the swimming baths.

1.6 Previous Archaeological Investigation

The valley of the River Great Ouse contains a wealth of archaeological sites dating from the Neolithic onwards, including a nationally important complex of late Neolithic/early Bronze Age ritual monuments located in Cardington and Cople, which have been identified from aerial photographs. The remains of a major Roman estate centre — often tentatively referred to as a 'villa' — were excavated in advance of quarrying in the 1970s (Albion Archaeology, in prep.). Confusingly known as 'Newnham Marina', the Roman site was actually located *c.* 300m to the east of the priory, in the area of what is now Priory Lake.

No trace of the medieval priory buildings survives above ground and the earthworks depicted on historical surveys have been levelled or destroyed, except for those in a triangle of land south of the former railway line (Figure 3). Three separate free-standing stretches of the stone precinct wall survive to *c*. 2m high. The incorporation of courses of brickwork in these walls suggests that their present form dates from the Tudor period. The upstanding red brick structures within the leisure park are also interpreted as garden walls attached to the Tudor mansion.

Since 1970, archaeological investigations and observations of groundworks have contributed significantly to our knowledge of the remains that survive below the ground surface. Figure 4 shows the location of all archaeological trenches and other recorded interventions, and the key findings are summarised below. This evidence was collated comprehensively for a deposit survey undertaken in 1999 (Albion Archaeology 1999).

A small mound near the northern boundary of the precinct was recorded during its demolition prior to road realignment in 1970s (Annan and Baker 1971). Its interpretation and origin were uncertain. A section was also excavated through a linear earthwork within the precinct during a watching brief on mineral extraction on the site of Priory Marina. This was shown to have been a boundary ditch (Simco 1976).

The main structures within the priory (Figure 3) were located by archaeological trial trenching and open area excavation in the 1980s (Bedfordshire County Archaeology Service, 1988a, 1988b & 1991). These include the church and claustral buildings, which lay to the north-east of the bingo development. Remains of medieval stone buildings were also identified during excavation of areas to the north and west of the present development, and these were interpreted as part of the south range of the outer court of the priory. The cemetery was shown to lie to the north-east of the church.

The bingo extension site was located to the south-west of the church and west of the Tudor mansion. The northern end of the excavation clipped the range of buildings on the south side of the supposed ‘outer court’.

1.7 Aims and Objectives of the Archaeological Investigation

The primary objective of the investigation was to ensure that the development had a minimal impact on the fabric of the monument, so that its archaeological and cultural significance was not reduced as a result.

Because some damage to the monument was inevitable due to the nature of the works, the aim of the investigation was to recover sufficient evidence to characterise the nature, date, state of preservation, function and importance of any archaeological features or deposits. This has allowed the damage (or loss of significance) to be offset by delivery of an accurate record of the archaeological remains that can be used for future research and public benefit. Data and retained material will be deposited with Bedford Museum and an

electronic copy this report will in due course be made available via the OASIS project hosted on the Archaeology Data Service website (http://archaeologydataservice.ac.uk/).

2. METHOD STATEMENTS

2.1 Introduction

The mitigation works took place in three stages:

Area 1	2006	02/10/06 to 10/11/06	Open area excavation
Area 2	2007	13/02/07 to 14/02/07	Monitoring of contractors' groundworks
Area 3	2007	25/04/07 to 09/05/07	Monitoring of contractors' groundworks

2.2 Methodology

The works adhered to the standards and field methods set out in the Written Schemes of Investigation (Albion Archaeology 2006b, 2007) and Albion's *Procedures Manual* (Albion Archaeology 2001). In summary:

1 The location of the area was marked out on the ground in advance of machine excavation. The surveying was carried out with measuring tapes, locating the trenches in relation to the existing buildings on the site.
2 The area was stripped using a mechanical excavator fitted with a flat bladed ditching bucket.
3 All disturbed soil was scanned for artefacts.
4 All excavated features and deposits were fully recorded in accordance with Albion's *Procedures Manual.*
5 All archaeological observations were recorded at a suitable scale on base plans that were tied in to the Ordnance Survey national grid.
6 A photographic record was kept of all significant features.

Throughout the project the standards set out in the Institute of Field Archaeologists' *Codes of Conduct* and *Standard and Guidance for an Archaeological Excavation* (1999) and in English Heritage's *Management of Archaeological Projects* (1991) were adhered to.

3. RESULTS OF THE INVESTIGATIONS

3.1 Introduction

Area 1 revealed a sequence of deposits, cut features, metalled surfaces and remains of masonry structures dating from the medieval period and early post-medieval periods. The impact of subsequent development and use of the site was also recorded, in the form of structural remains and dump deposits.

Digging within Area 2 and Area 3 encountered very recent made ground, although the deepest excavation within Area 3 did reveal a possible buried subsoil at the base of the made ground. The evidence recovered from Area 2 and Area 3 is important because it helps to refine the deposit model for the priory site.

3.2 Geological Deposits (Phase 1)

Undisturbed geological deposits (G1.12) were only encountered in Area 1, where they were observed in the bottoms of deepest features and in a series of trenches excavated through the overlying layers and surfaces (Figure 5). They comprised light brown to orange-brown sandy gravels and light orange-brown sandy-clay river deposits. These were encountered at a maximum height of *c*. 24.3m OD.

Above the undisturbed deposits were several layers of alluvium (G1.11) (Figures 5 and 11-15; Photographs 6 and 7). The top of these deposits lay at *c*. 25m OD at the north end of Area 1 and *c*. 24.8m OD at the south end. A few fragments of bone, Saxo-Norman and early medieval pottery, and ceramic building material were recovered from some of these layers, suggesting that the alluvium was a relatively recent deposition, perhaps laid down in the medieval period (incorporating cultural material washed downstream). On the other hand, it is not unlikely that these soft deposits in a low lying area close to the river have been contaminated by small amounts of intrusive material.

A possible geological deposit or subsoil (G1.13) was encountered in Area 3 at *c*. 24.4m OD (Photograph 11).

3.3 Medieval (Phase 2)

The earliest structural phase comprised a cobbled trackway occupying most of Area 1, with a building or buildings located at the northern end of the area (Figure 6). The building remains were very fragmentary, largely because the later buildings (Phase 3) were superimposed on them, with the result that the earlier phases are less well understood. There was no direct stratigraphical relationship between the early cobbled surface and the buildings, so it is not possible to say for certain that they were contemporary.

3.3.1 Cobbled trackway (L2.1)

The cobbled surface (G2.11) was laid directly on top of the alluvial deposits (L1.1) and it covered most of Area 1, but did not extend into the most

northerly part of the excavation and did not survive to the west of the live storm drain trench. The majority of the surface was left *in situ*, but its composition and structure were examined in a series of trenches excavated at intervals along its length (Figures 6, 11 and 12; Photograph 1). The edges of the surface were not clearly defined so it is possible that it was part of a more extensive metalled yard (but see below).

The material used for the surface varied in composition; it included flint and limestone (Photographs 4 and 5). The material was poorly sorted and included both well-rounded and angular material which varied in size from 10mm to 100mm across.

Two parallel wheel ruts (G2.12) worn into the surface were recorded towards the south end of Area 1 (Figure 6; Photograph 5). They were aligned roughly north–south and were spaced 1.4m apart. Their presence demonstrates that the surface was used by carts as well as pedestrians and also suggests that the surface was most probably part of a trackway on a roughly north–south alignment.

3.3.2 Wall (L2.2)

In the north-west corner of Area 1, a small section of a wall (G2.21) emerged from the western baulk (Figures 6and 14; Photographs 6 and 7). The wall comprised three courses of roughly squared limestone blocks, laid directly on top of the L1 alluvial deposits with no evidence of a foundation trench. The wall may have been aligned in a south-easterly direction, but the exposed portion of the structure was too small to be certain. It was abutted by a later wall on an east–west alignment (see L3.3).

3.3.3 Possible metalworking area (L2.3)

Near the north end of Area 1 a portion of the trackway (L2.10) was covered by a floor (G2.31) composed of compacted lime mortar and building rubble (Figures 6 and 13–15). This abutted the limestone wall (L2.2) and was truncated by the construction trench for a live storm drain. To the west of the storm drain trench the floor lay directly on top of the alluvial deposits, but to the east it overlay the cobbled surface. The floor did not appear to be robust enough to be an external surface and so must have been internal to a building. However, it did not seem to be associated with any of the other structural remains in the area and was clearly outside any of the buildings that could be identified.

At its easternmost edge, floor G2.31 had been discoloured, probably by intense heat and was covered by a deposit of burnt material (G2.32) (Figure 6). The fact that the floor surface had been scorched suggests that the burnt material was still hot when deposited.

Over 2kg of ferrous slag was collected by hand from G2.32 and the residue from a wet-sieved bulk sample (Sample 31) contained slag, cinders/coal and hammerscale. By contrast, there were few charred seeds, suggesting that the

hearth waste derived metalworking (smithing) rather than foodstuff processing.

Further burnt material (G2.33) was identified to the east, within a depression in the underlying L1 alluvial deposit. There was no scorching of the substrate, indicating that this burnt material had cooled prior to deposition. The material was similar to G2.32. The hand-collected ferrous slag from the deposit weighed over 3kg and a wet-sieved bulk sample (Sample 20) also produced slag, cinders/coal and hammerscale.

3.3.4 Possible construction layers and a pit (L2.4)

Overlying the alluvial deposits in the north-east corner of Area 1 (Figure 6) were two layers of possible construction debris (G2.41). One consisted of a *c*. 0.12m-thick layer of friable, light yellow silty sand containing frequent limestone blocks and occasional tile fragments; it lay on top of a yellow-mottled, mid grey-brown silty sand (0.22m thick) containing sand / lime mortar, tile, slag and animal bone.

An oval pit (G2.42) was cut through these layers. It had near vertical sides and was 0.86m long, 0.82m wide and 0.66m deep (Photograph 8). The vertical profile of the sides suggests that it was possibly a post pit — perhaps for a gate post?

3.4 Post-medieval (Phase 3)

The most substantial archaeological remains revealed by the excavation were those of two buildings and a well-constructed kerbed trackway (Figure 7; Photographs 1-3 and 6–7), which on the basis of the pottery and other finds are dated to the 16th or 17th century.

3.4.1 Wall (L3.6)

A single course of roughly hewn limestone blocks, 0.79m long by 0.42m wide, (G3.61) was identified in the south-east part of the site (Figure 7). These blocks were lain on top of the cobbled surface (G2.11) and between the two wheel ruts (G2.12). This suggests that the medieval track must no longer have been in use beyond this point. No associated structures were found in this part of Area 1.

3.4.2 North-eastern building (L3.2)

The building at the north-east corner of Area 1 was defined on its southern side by an east–west aligned wall (G3.21) which extended beyond the eastern limit of excavation. It is likely that the building was attached to the upstanding Tudor wall, possibly comprising a small lean-to; however, this relationship is hypothetical and has not been demonstrated by excavation. No postholes were identified, suggesting that the roof of the building was relatively light and did not require a lot of support.

The building contained a brick-built, horseshoe-shaped structure (G3.25), which abutted the end of a stone and brick wall (G3.23) that extended into

Area 1 from the east, on an east–west alignment. The function of the hearth is unknown but there is no evidence that it was used for metalworking.

Dating is uncertain, but the use of brick in the hearth structure and the fact that the later cobbled surface (L3.10) respected the outline of the building suggest it was in use after the Dissolution, even if it represents continued use of an earlier building.

3.4.2.1 Layer (G3.26) – possible construction horizon

Overlying the L1 alluvial deposits in the north-east corner of Area 1 was a 40mm-thick layer of mid grey-brown, silty sand (Figure 11), containing frequent amounts of sand, lime mortar and gravel inclusions. This may have been an internal surface, but was not very robust. It is more likely to have been the construction horizon for building L3.2.

3.4.2.2 Wall (G3.21)

In the north-east a foundation for a wall was identified extending west from the eastern limit of Area 1 (Figure 7 and 11; Photographs 2 and 9). The foundation trench was 1.2m long, 0.64m wide and 90mm deep, and had been dug through layer G3.26. The foundation comprised roughly hewn limestone blocks, irregularly coursed and bedded in dark greyish-brown silty sand. Some of the blocks protruded above the foundation cut. The foundation trench was backfilled with sandy clay. No return wall was identified within this area, possibly indicating that the wall formed part of an open-sided building or lean-to.

3.4.2.3 Floor or floor substrate (G3.22)

To the north of and abutting wall G3.21 was a layer of firm mid greyish-brown silty clay (Figures 7 and 11; Photograph 9). This was at most 0.13m thick and contained frequent limestone slabs, brick, tile and mortar. This layer is interpreted as part of an internal surface built up against the wall. It is possible that the layer was a substrate or bedding for a stone floor (G3.24), which had subsequently been removed. Alternatively, it may have been an earth floor with occupation trample.

The maximum observed extent of the floor, and hence the minimum internal dimensions of the building, were *c*. 1.9m by *c*. 1.9m

3.4.2.4 Stone-paved floor (G3.24)

Embedded in layer G3.22, at the north-east corner of Area 1 was a single layer of roughly finished limestone paviours, ranging in size from 260 x 195 x 60mm to 220 x 140 x 45mm (Figures 7 and 11; Photographs 2 and 9). These stones are interpreted as the remnant of a partially robbed internal floor, which seemed to extend to the north of the limit of excavation. If layer G3.22 was the substrate for G3.24, the paved floor may originally have abutted the wall G3.21.

3.4.2.5 Wall footing (G3.23)

A stone structure was identified 0.92m north of and extending parallel to wall (G3.21) (Figures 7 and 11; Photographs 2 and 9). It consisted of roughly hewn limestone blocks with the occasional red brick (ranging in size from 240 x 210 x 30mm to 140 x 100 x 60mm), bedded in sand and mortar. A single, intact course of stone survived, along with a single brick of the second course. It is possible that the stone was used for the footings of an otherwise brick wall. The footing was set into layer G3.22, suggesting that the wall was an internal partition to building L3.2, or possibly a base for a furnace attached to hearth G3.25.

3.4.2.6 Horseshoe-shaped hearth (G3.25)

Abutting wall footing G3.23 was a horseshoe-shaped structure made from a single course of red bricks (Figure 7; Photograph 9). The bricks were 210 x 100 x 60 mm in size and were pressed into layer G3.22 laid end-to-end with brick fragments used to construct the curve. Although the structure contained burnt material, it showed no visible evidence of having been subjected to intense heat so is unlikely to have been the seat of the fire. It could represent the base of a receptacle for cold or cooling ash or furnace waste and might be better interpreted as the remains of a sort of forehearth structure attached to a furnace constructed on the wall footing G3.23.

No slag was collected from the deposit and the residue from a wet-sieved bulk sample (Sample 5) only produced sparse amounts of slag and frequent fine cinders. Coupled with the lack of evidence that high temperatures were attained in the hearth, it is unlikely that the structure was associated with metal working.

3.4.3 North-western building (L3.3)

The remains of the building at the north-west corner of Area 1 suggest that it had been constructed to a higher standard than the building to the north-east. Three courses and the foundation pad of the building remained. It was not possible to identify the use of the building. However, the internal face of the lower stones in the southern wall and the earliest floor layer showed signs of burning, indicating that there had been a fire within the building. The appearance of subsequent floor layers indicated that no real structural damage had occurred and that the building remained in use.

3.4.3.1 Walls (G3.31)

Parts of the south and east walls of a stone building were identified in the north-east corner of Area 1 (Figures 7, 14 and 15; Photographs 6 and 7). The walls comprised roughly squared limestone blocks, ranging in size from 0.14 x 0.12 x 0.10m to 0.24 x 0.10 x 0.20m. They were randomly coursed and bedded in mortar; three courses survived. The south wall was built on a stepped foundation consisting of a single course bedded in mortar. The foundations of the east wall were not stepped.

Some of the interior faces of the limestone blocks had a pink discolouration to them indicating that they had been affected by heat.

The south wall abutted the medieval wall (L2.2), which suggests that building L3.3 was possibly an extension to an earlier building.

3.4.3.2 Floors (G3.32)

Abutting the foundations of wall (G3.31) was a series of thin layers of compacted sandy silt each less than 50mm thick (Figures 7, 13 and 14; Photograph 6). These are interpreted as the possible remnants of earth floor layers.

The earliest layer was only observed in the north-west corner of the excavation. It was pinkish red in colour with occasional charcoal flecks, providing further indication of a possible fire within the building. 'Flots' from a wet-sieved bulk sample (Sample 11) produced moderate quantities of charcoal and snail shell, and residues contained no significant industrial indicators. This layer seemed to fill a slight hollow in the middle of the floor and did not extend to the walls of the building, which suggests this material had been used to level-up prior to relaying the floor. The subsequent layers are interpreted as successive episodes of re-surfacing of the floor.

3.4.3.3 North-western building (disuse) (G3.33)

Directly overlying the earth floors was a 0.15m-thick, friable, mid orange-brown silty sand layer (Figures 13 and 14), which contained occasional tile and oyster shell. This deposit was only recorded within the confines of the building. It is possible that it was a layer of soil and rubbish that accumulated within the building once it had gone out of use or had become dilapidated.

3.4.4 Trackway (L3.1)

The trackway ran on an approximate north–south alignment, between buildings L3.20 and L3.30, down the length of Area 1 before petering out. About half way down Area 1, it branched sharply to the east, apparently heading towards a gap in the upstanding 'Tudor' wall. On the basis of this observation, it is strongly suspected that the present gap in the wall may originally have been a gateway leading into the mansion courtyard and that the primary purpose of the trackway was to lead to and from the gateway. There is also evidence that the buildings described in L3.20 and L3.30 were still standing whilst the trackway was in use. More tentatively, it is possible that the trackway passed between the buildings through some form of covered archway or gatehouse. This is suggested because the metalling was better preserved between the two buildings, as if it had been better protected from the elements. The east-west kerbs (G3.12) may therefore be seen as marking a threshold.

This cobbled surface also bore wheel ruts; however, they were 1.5m apart in contrast to the 1.4m spacing of the ruts on the lower surfaces.

3.4.4.1 Make-up layers (G3.14)

Covering the majority of Area 1, south of the buildings L3.2 and L3.3, was a

series of make-up layers (Figure 7, 11, 12 and 15). These varied from loose to compacted silty sands and gravels containing occasional to frequent tile, animal bone and oyster shell. The layers covered the medieval trackway (L2.1) to a total thickness of <250mm and therefore seem to represent a deliberate act of ground raising and levelling prior to the construction of the post-medieval trackway.

3.4.4.2 North–south kerbs (G3.13)

Cut into the make-up layers (G3.14) was a pair of parallel trenches into which had been set large limestone fragments, placed on edge to form kerb stones at either side of the trackway (Figures 7 and 12; Photographs 1–4). In places the kerb stones were no longer *in situ*.

Approximately 8m south of building L3.2, the eastern kerb turned sharply eastward towards a break in the 'Tudor' wall visible at ground level, suggesting that this surface was contemporary with the wall and therefore relates to the Tudor mansion.

The kerb stones extended south of the buildings (L3.2 and L3.3) for at least 20m but did not survive in the southern part of Area 1 due to modern disturbance. Towards the south the kerbs had been built to a lower standard, possibly indicating that the look of this part of the kerb was not as important as that in the vicinity of the buildings.

3.4.4.3 East–west kerbs (G3.12)

At the northern end of Area 1, spanning the gap between buildings L3.20 and L3.30, was a set of limestone kerbs set in a shallow trench (Figures 7 and 15; Photograph 3). The north–south kerbs (G3.13) abutted this feature. There was a slight offset in the alignment between the kerbs stones on the east and west of the live electricity cable with the kerbstones on the east being placed slightly south of the line. The original purpose of this kerb is unclear, as the cobbled surface G3.11 continued across them. They seemed to define the southern edge of the surface where it lay between the buildings L3.2 and L3.3, as if forming a threshold. The tops of the stones were noticeably worn in places.

3.4.4.4 Cobbled surface (G3.11)

The cobbled surface overlay layer G3.14. In places it was very fragmentary and the edges of the surviving remnants were very irregular and ragged, suggesting that the surface had been allowed to become very heavily worn. However, the surface had clearly originally been contained by the north–south kerbstones G3.13 and lay between buildings L3.2 and L3.3 (Figures 7 and 12; Photographs 1–3, 6, 7 and 9).

The cobbles used for this surface were more regular in size (approximately 100mm in diameter) than those of the lower surface (G2.11), indicating that higher quality, well-graded cobbles had been used in its construction. The single layer of cobbles was set into friable, dark grey/black silty sand, 0.15m

thick.

Where the eastern kerb turned eastward, the cobbles overlapped the kerb stones; however, this is considered to have resulted from gradual spreading of the metalling over time rather than deliberate laying of the cobbles over the kerbstones.

To the north of kerbstones G3.12 the cobbled surface was unbroken. The surface clearly respected the buildings to either side (L3.2 and L3.3). At the very least, this suggests that the buildings were still visible above ground level when the surface was laid, but it is most likely that they were still in use. The kerbstones which crossed the cobbled surface at this point may have been placed to mark a threshold or gate. The fact that the cobbled surface between the buildings was in much better condition also suggests that this area had been protected from the elements — possibly by a covered porch. Two wheel ruts, at *c*. 1.5m centres, were discernable in this area of the cobbled surface; they coincided with depressions worn into kerbstones G3.12.

3.4.4.5 Pit (G3.15)

A pit was cut into layer G3.14 in the north part of Area 1 (Figure 15). It had been truncated to the east by a live electricity cable and to the north by the east–west aligned kerbstones (G3.12). The fill of this feature was similar to the backfill around the kerbstones, suggesting that it may have held a timber or stone setting that was removed at that time the kerb was constructed.

3.4.4.6 Pit (G3.16)

Cut into layer G3.14 in the southern part of Area 1 was a small, elongated pit, 0.88m long, 0.44m wide and 0.18m deep. This feature had been backfilled with material that was very similar to the deposits through which it was cut; making its outline difficult to define. The purpose of the pit is unknown.

3.4.5 Final demolition deposits (L3.40)

It was not possible to identify when the buildings and trackway went out of use, but it was clear that when that occurred the buildings were reduced to ground level.

A series of widespread dumped deposits (G3.41) covered much of the excavation area, particular concentrated in the east and north (Figure 8). These layers varied from loose to compact, mid-dark grey brown silty clays to gravel. All contained high percentages of bricks (similar to those within the standing 'Tudor' wall), tile and small-medium stones with occasional oyster shells.

There was relatively little stone rubble remaining, suggesting that the majority of building stone had been removed from the site. Walls G2.21 and G3.31 were covered by a layer (G3.42) of roughly hewn limestone fragments (100 x 70 x 50mm to 150 x 100 x 70mm). These limestone blocks were similar in character to those comprising the walls, and it is therefore likely that the layer consists of rubble from the demolition or collapse of the buildings.

3.4.6 Buried topsoil (L3.50)

Sealing the demolition deposits across the entirety of Area 1 was a 90–190mm thick layer of silt (G3.51). The layer in general was dark brown to grey-brown in colour and contained occasional small stones. At the north end of Area 1 the deposits were black in colour, apparently due to modern contamination from tar-like hydrocarbon.

The artefacts identified within the deposit give a date range from the post-medieval to modern/Industrial periods, suggesting that the area was left undeveloped for a long period of time.

A similar deposit (G3.52) was encountered in Area 3 during excavation of two small pits for drainage sumps (Photograph 11).

These layers probably comprise the remnants of soils that built up after demolition of the Tudor mansion when the site must have remained undeveloped for a long period. This would concord with the documented period of agricultural use of the land (see Section 1.5). The fact that the soil survives attests to the relatively low impact of 19th- and 20th-century development in this part of the priory.

3.5 Modern/Industrial period (Phase 4)

A number of features and deposits were found to be relatively recent, probably dating from the second quarter of the 20th century onwards (Figure 10). They relate to the use of the site as a council depot, public swimming pool and, since *c*. 1990 a leisure complex.

3.5.1 Modern intrusions in Area 1 (L4.20)

3.5.1.1 Post holes (G4.21)

Two post holes in the south part of the Area 1 appeared to have been excavated by machine and are, therefore, modern in origin. These features were probably part of a fence line, perhaps related to the construction of the existing leisure centre buildings.

3.5.1.2 Pit (G4.22)

A large (3.10m long, 1.04m wide) irregularly shaped pit was cut into the buried topsoil (L3.50). It contained modern artefacts but predated the trench for the live electricity cable.

3.5.1.3 Reinforced concrete pillars (G4.24)

Towards the south end of Area 1 five reinforced concrete stanchion bases were set into the buried topsoil (L3.50). The concrete was coloured pink and the surviving faces of the stanchions had a smooth, semi-polished finish, revealing the inclusions and creating a terrazzo effect. The stanchions are, therefore, believed to have formed part of Newnham swimming baths, perhaps serving as supports for the perimeter fence.

3.5.2 Overburden in Area 1

The majority of Area 1 was covered by overburden (G4.31) consisting of several layers of varying character, generally dark in colour and containing a large proportion of post-1750 rubbish (glass, metal and ceramics). These layers may have been material deposited on the site when it was a council depot, but may well have been reworked during levelling and landscaping around the existing buildings.

On top of these were levelling deposits (G4.32), comprising friable dark brown silty topsoil and material derived from the construction of the Aspects Leisure Park in *c*. 1990.

3.5.3 Backfilled swimming pool of Newnham Baths (Area 2)

The machine-excavated trench bottomed out on a slab of light blue reinforced concrete at a depth of *c*. 1.4m below ground level (Photograph 12). The excavated deposits (G4.41) on top of this slab comprised a layer of mixed grey-brown soil and building rubble beneath a homogeneous dump of light orangey-brown road stone. This was covered directly by topsoil. This concrete slab is unquestionably the base of the former swimming pool, and this observation confirms that the pool lining was left *in situ*.

3.5.4 Made ground beneath the existing car park in Area 3

With the exception of the possible subsoil and buried soil described above (Sections 3.2 and 3.4.6) the only deposits encountered in Area 3 comprised material laid down during the construction of the existing car park in *c*. 1990 (G4.43) and related drainage installations (G4.42).

4. DISCUSSION: THE SIGNIFICANCE OF THE RESULTS

4.1 Summary of the Results of the Investigation

The excavation of Area 1 has confirmed that archaeological remains dating to the period from the 13th to 17th centuries survived within the development area, despite the proximity of the leisure park buildings that were constructed in the early 1990s. As predicted, the northern end of Area 1 encountered the southern edge of a range of buildings on the south side of the 'eastern court' of Newnham Priory, *i.e.* Structures 5 and 6 as identified in the interim report (Bedfordshire County Archaeology Service 1991, 7 and 14-16). However, the structural remains that predated the Dissolution (*i.e.* Phase 2) were fragmentary and their interpretation is uncertain. Clearer evidence survived in Phase 3 for buildings that probably post-date the Dissolution. The Phase 3 structures would line up reasonably well with the previously recorded buildings (Figure 3) and it is fairly certain that they were part of the same. The evidence from Area 1 would therefore suggest that the outer court ranges of the priory survived the Dissolution, albeit with some rebuilding. The Phase 3 buildings were probably reiterations of earlier structures on the same general plan, so it still holds that the outer court ranges were originally contemporary with the priory.

Unfortunately, because the results of the 1989/90 excavations have not been fully analysed or published, it is not possible fully to collate the previous structural evidence with that from the recent investigations. This could only be done by studying the primary records in the project archive and the finds, which is now held in Bedford Museum.

The cobbled trackways running southwards through Area 1 were previously unknown. This would have been a logical location for a trackway leading from the south-east corner of the courtyard, heading towards the river and then skirting round the south side of the claustral buildings to provide access to the fishponds, gardens and other activity areas within the monastic precinct. Prior to the Dissolution, the trackway had a fairly simple metalled surface and perhaps passed out of the courtyard through a gap in the range of buildings. After the Dissolution a more elaborate trackway was constructed perhaps to serve a back entrance to the enclosed garden of the mansion house. There is evidence that the passage from the 'eastern court' may have been remodelled to provide a covered gateway.

4.2 Success in Addressing the Project Objectives

4.2.1 Objective 1: Protection and positive management of the archaeological resource

Archaeological observation confirmed that groundworks in Areas 2 and Area 3 only affected material laid down as part of the redevelopment of the site in the 1980s and 1990s except in Area 3, where localised excavation for drainage gullies went below the level of the earlier ground surface. However, in the

latter case, only the former (pre-1990) land surface and makeup layers were disturbed.

In Area 1, construction of the foundations of the new extension mainly disturbed archaeological remains from the post-Dissolution phase of site. The remains were not particularly well preserved. Archaeological investigation has recorded these structures and recovered a relatively small number of artefacts. As a result archaeological and historical significance has not been reduced.

Because the archaeological remains — and concomitantly the live services and drainage runs — had been located by archaeological excavation prior to construction, the main contractor was able voluntarily to avoid unnecessary disturbance. In particular the contractor was able to re-route the existing electricity cable without the need to excavate a new service trench along the eastern side of the new building. A sand blinding was laid down over the top of the archaeological deposits prior to construction.

The project archive will be deposited with Bedford Museum, alongside the archives for previous investigations. A hard copy of this report will be deposited with Bedford Historic Environment Record and it will in due course be made publicly available via the OASIS project hosted on the Archaeology Data Service website (http://archaeologydataservice.ac.uk/)..

4.2.2 Objective 2: Enhancement of the archaeological resource and its interpretation

Excavation of Area 1 has shed new light on certain details of the medieval and early post-medieval buildings, but the discoveries do not add greatly to existing knowledge. The evidence for a metalled track leading south from the Eastern Court is probably the most significant discovery as it adds to our knowledge of how movement about the site was controlled, in particular pointing to the possible location of an entrance to the inner walled enclosure of the post-Dissolution mansion house. The latter adds significantly to the interpretation of the upstanding brick wall that lies to the east of Area 1 by indicating that the apparent gap at ground level is in fact a real historical feature.

The deposits themselves were not of great archaeological or historical significance. None of the soil samples contained evidence of palaeoenvironmental value. Evidence for craft and industrial activities was slight, although there was some evidence of iron working in the form of small quantities of slag.

Understanding of the archaeological and historical significance of the findings depends on prior knowledge of the priory site as a whole. There is presently a distinct lack of publicly accessible information about Newnham Priory, so it would be hard for the general public to appreciate the results of the investigations in isolation. However, the information obtained can be used,

where appropriate, in future interpretation of the site. It is important therefore that the project archive will be deposited with Bedford Museum.

4.2.3 Objective 3: Identification and recording of evidence of human occupation of use of the site prior to the establishment of the priory

Deposits predating the medieval structures were encountered in Area 1. These were interpreted as alluvial in origin, but they contained a small amount of cultural material that suggested they may have been laid down in the early medieval period.

Apart from two flint flakes, no Roman or prehistoric artefacts were recovered.

4.2.4 Objective 4: Chronology and Objective 5: Occupation character and its development

The evidence from Area 1 suggests that the post-medieval (post-Dissolution) phase generally perpetuated the layout established in the medieval period. There was no clear evidence for a sudden end to the religious community, but this is not too surprising, given that the excavation was located in one of the more secular zones of the priory; it suggests perhaps that the lower status buildings were actually retained and reused for the more quotidian activities of the Tudor household. There was indirect evidence for iron working in the form of small quantities of slag, but there were no associated structural features or artefacts that were diagnostic of specific metalworking processes.

The quantities of pottery recovered were so low (a handful of sherds per Group) that it was not possible to determine how soon after the Dissolution the Tudor mansion was constructed. The investigations did not shed any light on the construction of the Tudor mansion itself, but the discovery of a vehicular trackway adds some detail to our knowledge of the layout of the Tudor gardens and indicates the location of a gateway in the garden wall.

4.2.5 Objective 6: Environment

None of the deposits contained significant environmental evidence and none were waterlogged, despite the site's low-lying location. The animal bone was from general scatters rather than from middens or refuse pits and therefore could not provide reliable, datable evidence for husbandry practices.

However, there was evidence that some of the alluvial deposits on the site had accumulated in the early medieval period. This indicates that there is some potential for future sedimentological and palaoeenvironemtal studies within Newnham Priory; such studies could contribute to our knowledge of the environment in the Saxon and medieval periods.

4.2.6 Objective 7: Regional artefact studies

The majority of the datable ceramics were post-medieval (17th-18th century) and of low intrinsic interest. Non-ceramic artefacts included some significant items: a book clasp, jettons and coins, but the majority comprised structural metalwork, plaster, and slag. On their own, the assemblages have little value

for further study, but may be more useful if combined with the material from the previous investigations within Newnham Priory.

4.2.7 Objective 8: Methodological development

The scale of the several phases of development that have taken place on the leisure park site since 1900 means that there was potential for considerable disturbance of archaeological remains. However, in Area 1, it was clear that truncation was mainly limited to building foundations and service trenches, and that the preservation of early post-medieval and medieval remains was better than expected. The excavated evidence suggests that prior to *c.* 1900 the remains lay beneath relatively shallow (up to 190mm thick) soil, which is consistent with the evidence from historical sources that the priory precinct was given over to pasture in the mid 19th century. In Area 1, this soil horizon was buried beneath *c*. 500mm of 'modern' make-up layers. This encourages us to predict that the impact of potential future development can be controlled so that it does not significantly reduce the significance of the site.

The various archaeological investigations have been undertaken for development control reasons rather than to answer specific research questions about the archaeology of the priory. The piecemeal nature of these investigations means that the results are not as easy to interpret as they might be. The cumulative effects of any further redevelopment need to be controlled with reference to a unified strategy for the priory site as a whole. Although the existing deposit survey is a useful tool, the absence of a full analysis of the previous investigations is a serious issue that needs to be addressed as a priority for the future management of the site.

The structural remains found on the Bingo extension tie in with the layout of the priory as suggested by previous archaeological excavations and the deposit survey/desk-based assessment.

In isolation, the results of the present investigation have no particular relevance to other sites in Bedford or along the Great Ouse floodplain. The pottery assemblage recovered during this project is too small (less than 1.5kg and 132 sherds in total) to be of significance to the ceramic type series for Bedfordshire. However, if combined with the material recovered from the previous investigations it may be more meaningful.

4.3 Significance

The investigation has demonstrated that the development area contained archaeological remains dating from the medieval to post-medieval periods, consisting of a lower cobbled surface possibly relating to Newnham priory and a later cobbled surface and buildings relating to the Tudor Mansion.

The archaeological deposits were generally well preserved, although some truncation of the features occurred particularly in the southern part of the site due to modern activities.

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6. APPENDICES

6.1 Appendix 1 - Artefact and Ecofact Summary

6.1.1 Introduction

The investigation produced a finds assemblage comprising mainly pottery, ceramic building material, animal bone, metalworking residues and a collection of metal, glass and lithic artefacts (Tables 1 and 6). The material was scanned to ascertain its nature, condition and, where possible, date range.

Ph.	Lscape	Description	Pottery	CBM	Other finds
4	4.2	Modern intrusions	7:39	3:123	
3.3	3.6	Pits		2:107	
	3.7	Wall			Animal bone (76g)
3.2	3.5	Buried topsoil	70:619	34:2770	Animal bone (4086g); burnt flint (3g); charcoal (1g); coal (2g); clay pipe (53g); clinker (4g); oyster shell (1g); ceramic bathroom tile (39g)
3.1	3.31	NW building disuse	4:34	7:317	Animal bone (120g); oyster shell (48g); stone roof tile (51g)
	3.4	Final demolition Deposits	13:278	50:10879	Oyster shell (105g); animal bone (1877g); stone roof tile (100g); clay pipe (35g)
3	3.1	Trackway	12:144	93:9545	Animal bone (4923g); stone roof tile (73g); oyster shell (87g)
	3.2	NE building		4:3852	Animal bone (13g); burnt stone (81g); coal (10g); Charcoal (1g); clinker (64g); mortar (53g); vitrified clay (1g)
	3.3	NW building	1:8	15:660	Animal bone (232g); burnt stone (345g); clinker (6g); mortar (39g); oyster shell (8g); stone roof tile (408g)
2.1	2.2	Wall		10:715	Clay pipe (3g)
	2.3	Metalworking area	1:1	3:1013	Animal bone (6g); burnt stone (79g); charcoal (2g); coal (33g); clinker (31g); mortar (11g); oyster shell (22g); stone roof tile (154g)
	2.4	Pit and layer	5:95	7:879	Animal bone (27g); stone roof tile (1076g)
2	2.1	External surface		3:132	Animal bone (74g)
1	1.1	Geological deposits	19:233	47:3027	Animal bone (677g); charcoal (4g)
		Total	**132:1444**	**278:34029**	

CBM – ceramic building material sherd count : weight in grammes

Table 1: *Artefact Summary by landscape and phase*

6.1.2 Pottery

A total of 132 pottery sherds, weighing 1.4kg was recovered. These were examined by context and quantified using minimum sherd count and weight. Sherds are small (average weight 11g) and exhibit variable degrees of abrasion. Twenty-seven fabric types were identified using common names and type codes in accordance with the Bedfordshire Ceramic Type Series, currently maintained by Albion Archaeology on behalf of Bedfordshire County council. Fabrics are listed below (Table 2) in chronological order. The pottery ranges in date from the Saxo-Norman period to the present day, with the bulk of the assemblage being of post-medieval origin. The range of fabric types and vessel forms is closely comparable with pottery recovered from previous excavations in Bedford (Baker and Hassall 1979).

6.1.2.1 Saxo-Norman

Five wheel-thrown sherds (106g) of shell-tempered pottery in the St Neots-

type tradition were recovered from geological deposits L1.1 (Phase 1). A jar rim sherd (14g) in the same fabric type occurred as a residual find associated with the disuse of post-medieval building L3.3 (Phase 3.1). The type is dated to the end of the St Neots period *c*. 1000–1200.

Fabric type	Common name	Sherd No.	Group/Sherd No.
Saxo-Norman			
Type B01A	St Neots-type (orange)	**6**	(1.11):5, (3.33): 1
Early medieval			
Type B07	Shell	**13**	(1.11):2, (3.14):7, (3.32):1, (3.33):2, (3.51):1
Type C01	Sand	**5**	(1.11):5
Type C19	Paffrath (blue-grey) ware	**5**	(1.11):5
Type C	Non-specific medieval	**3**	(2.33):1, (3.14):2
High medieval			
Type B09	Lyveden/Stanion ware	**1**	(1.11):1
Late medieval			
Type E01	Reduced ware	**3**	(1.11):1, (3.33):1, (3.41):1
Type E02	Oxidised ware	**2**	(3.41):1, (3.51):1
Late med/early post-medieval			
Type P12	Cistercian ware	**3**	(3.41):3
Type P13	Tudor Green	**1**	(3.41):1
Type P23	Raeren	**1**	(3.14):1
Type P47	Vitrified earthenware	**1**	(3.41):1
Post-medieval			
Type P01	Fine glazed red earthenware	**16**	(2.42):3, (3.12):2, (3.14):1, (3.41):4, (3.51):6
Type P03	Black-glazed earthenware	**4**	(3.51):1, (4.22):3
Type P14	Blackware	**3**	(3.51):3
Type P25	Frechen	**3**	(3.41):2, (3.51):3
Type P30	Staffordshire slipware	**1**	(3.51):1
Type P33	Tin-glazed earthenware	**2**	(3.51):2
Type P36A	Brown salt-glazed stoneware	**35**	(3.51):35
Type P36B	Nottingham stoneware	**8**	(3.51):8
Type P	Non-specific post-medieval	**1**	(4.22):1
Modern/Industrial period			
Type P35	English porcelain	**2**	(3.51):1, (4.22):1
Type P37	White salt-glazed stoneware	**1**	(3.51):1
Type P39	Mocha ware	**1**	(3.51):1
Type P45	Transfer-printed ware	**2**	(3.51):2
Type P55	White earthenware	**2**	(4.22):2
MOD	Miscellaneous modern	**7**	(3.14):6, (3.51):1

Table 2: *Pottery type series*

6.1.2.2 Medieval

Twenty-five percent of the pottery assemblage is datable to the medieval period and comprises 32 sherds, weighing 378g. The material comprises predominantly shell- and sand-tempered sherds of probable local manufacture, datable to the 12th–13th centuries. Nine sherds derived from geological deposits L1.1 (Phase 1), which also yielded five undiagnostic sherds (11g) of Paffrath ware representing a single vessel. This distinctive type is an import from the Rhineland, and is one of the few continental imports occurring in Bedford during the early medieval period (Baker and Hassall 1979, 174). A jug handle sherd of late 12th–14th-century Lyveden/Stanion ware, an import from Northamptonshire was recorded. The late medieval period is represented by five wheel-thrown reduced and oxidised sand-tempered sherds of 14th–15th-century date. Diagnostic forms are rare and comprise jug handles with slashed and incised spiral decoration,

and a possible aquamanile with zoomorphic decoration. The majority of the medieval material occurred as residual finds in post-medieval features associated with north-western building L3.3, trackway L3.1 and buried topsoil L3.5.

6.1.2.3 Late medieval / early post-medieval

Pottery of 15th–16th-century date comprises three sherds of Cistercian ware, and single sherds of Tudor Green, locally manufactured earthenware, and Raeren stoneware, the latter a German import. Diagnostic forms are a bowl and a Cistercian ware cup. Five sherds derived from demolition deposits L3.4 (Phase 3.1) and a single sherd from trackway L3.1 (Phase 3).

6.1.2.4 Post-medieval

The majority of the assemblage is datable to the 17th–18th centuries and comprises 73 sherds, weighing 811g. Fabrics include a range of lead-, iron- and tin-glazed earthenwares, English and German stonewares, Blackware and a single sherd of slipware. The pottery derives from numerous sources, including Northamptonshire, Buckinghamshire, Nottinghamshire, Staffordshire and the Rhineland. Diagnostic forms are mainly bowls, jugs and dishes. The majority of the assemblage derived from features associated with trackway L3.1 (Phase 3), demolition deposits L3.4 (Phase 3.1), and buried topsoil L3.5 (Phase 3.2).

6.1.2.5 Modern/Industrial period

Fifteen pottery sherds (98g) dating from the 18th century onwards were identified. The majority derived from buried topsoil L3.5 (Phase 3.2), while single sherds were recovered from trackway L3.1 (Phase 3) and modern intrusions L4.2 (Phase 4). Fabric types are English porcelain, salt-glazed stoneware, mocha ware and transfer-printed and unglazed earthenware. Diagnostic forms include miscellaneous saucers, bowls and several flower pots.

6.1.3 Building material

Building material comprises approximately 34kg of ceramic roof tile, paviours and brick, and a number of stone roof tiles (Table 3), the majority associated with the construction and demolition of the north-western and north-eastern buildings (Phases 3 and 3.1). Due to the vast quantities occurring on site, brick and tile were sampled from rubble foundations, demolition layers and masonry walls to provide a representative collection of material. The assemblage is generally considered to be of high medieval to early post-medieval date, although a few tile fragments of earlier medieval date are also present.

Sand-tempered flat roof tiles number 230 fragments and constitute 80% of the diagnostic assemblage. Pieces range in thickness from 9–16mm, and the presence of round and square holes on numerous fragments indicates the use of both wooden pegs and iron nails as a means of attachment. The majority of holes are circular, ranging in diameter from 10–15mm. Square holes are often

set diagonally and measure *c.* 13 x 13mm. No nib tiles were identified. The majority of the roof tiles are unglazed, although a small number of partially glazed examples occur. Eleven fragments of Potterspury ware flat roof tile were also identified.

Eighteen glazed ridge tile fragments were recovered, the majority deriving from a single Lyveden ware tile, recovered from trackway L3.1 (Phase 3). The small quantity of ridge tiles reflects the fact they would be more prone to breakage than flat roof tiles, due to their vulnerable position on the ridge line, and would require more frequent, costly replacement. Intact examples are likely to have been deliberately removed for re-use elsewhere.

Twenty-four sand-tempered brick fragments, constituting 8% of the total assemblage were recovered. Colours range from orange to dark red. All examples are moulded, and bear attributes characteristic of this process, including coarse moulding sand on most faces, occasional surface features such as straw impressions, greater thicknesses of clay around the edge and some 'oozing' around the undersides. Nine pieces are heavily mortared and one is burnt. A single complete example, measuring 215 x 100 x 60mm was recovered. Less intact examples range from 95–110mm in width and 46–60mm in depth. These measurements are broadly consistent with the dimensions of bricks dating from the late 13th century onwards.

Identifiable floor tile fragments comprise three glazed tiles and four unglazed paviours, all occurring in a sand-tempered fabric. Most tiles have straight edges and are moulded and sanded, while a glazed example has a slightly bevelled, knife-trimmed edge. Tiles range in depth from 23–28mm and are consistent with dimensions of brick paviours recovered from other excavations in Bedford (Baker and Hassall 1979, 255).

Ph.	Lscape	Description	Flat roof	Ridge	Brick	Floor	Stone roof tile
4	4.2	Modern intrusions	2:89		1:34		
3.3	3.6	Pits	2:107				
3.2	3.5	Buried topsoil	26:1219		8:1551		
3.1	3.31	NW building disuse	7:317				1:51
	3.4	Final demolition deposits	34:3871	7:1308	6:5029	4:671	1:100
3	3.1	Trackway	81:8226	11:1194	4:792	1:138	3:1149
	3.2	NE building	1:184		2:3401	1:267	
	3.3	NW building	15:660				1:408
2.1	2.2	Wall	10:715				
	2.3	Metalworking	3:1013				1:54
	2.4	Pit and layer	3:74				
2	2.1	External surface	3:132				
1	1.1	Geological deposits	43:2746		3:121	1:160	
		Total	**230:19353**	**18:2502**	**24:10928**	**7:1236**	**7:1862**

Table 3: *Summary of building material by landscape and phase*

Fragments of seven limestone roof tiles, ranging in thickness from 9-14mm were recovered. Two have countersunk holes designed to accommodate fixing nails. Possible sources for the stone are the Jurassic limestones of north

Bedfordshire or Northamptonshire. Stone roof tiles have been recovered in small quantities from previous excavations in the High Street and castle area, where they are associated with late medieval/post-medieval activity.

6.1.4 Clay pipe

Twenty-four clay tobacco pipe fragments, consisting of 21 pieces of stem and three bowls (two complete), were recovered from wall L2.2 (Phase 2.1), demolition deposits L3.4 (Phase 3.1) and buried topsoil L3.5 (Phase 3.2). One bowl with a flat heel and a milled ring at the top is typical of the 17th century, and other diagnostic features (stem thickness, bore and bowl diameter) suggest most of the assemblage is datable to between *c*.1640-1660. The bulbous form of the second complete bowl suggests a 19th century date for this object.

6.1.5 Non-ceramic artefacts

Tables 4 and 5 quantify the assemblage by material type and function respectively. The artefacts represent a range of activities including written communication (a book clasp), commerce, in the form of two coins and two jettons, transportation (horse-related items) and industry (metal working residues). In addition, there is evidence for structures, in the form of building materials and fastenings, and occupation of those structures, as attested by clothes fastenings and vessel glass.

The material was scanned to ascertain its nature, condition and, where possible, date range. As with most assemblages, some items could not be identified due to their state of preservation or fragmentary survival. X-radiography was carried out on all ironwork and selected copper alloy artefacts by Lincolnshire Archives. The x-ray plates form part of the project archive. Dr Peter Guest of Cardiff University carried out the preliminary identifications of the coins and assessed their analytical potential.

Material	Quantity	Weight (g)
Copper alloy	22	
Flint	2	
Glass	11	
Iron	87	
Lead alloy	9	
Silver	2	
Stone	3	
Plaster	0	881
Ferrous slag	0	7531.4
Totals	136	8340

Table 4: *Quantity of non-ceramic artefacts by material type*

Excluding the two residual flint flakes of earlier prehistoric date, the bulk of dateable assemblage spans the 14th–17th centuries, with a smaller component of modern items, including 19th-century amber beer bottles, embossed bottles, a replica sword made with an angle grinder, a child's marble, shoe irons and a

padlock. Nails, which comprised 47% of the assemblage, generally cannot be closely dated, but the presence of at least one machine made, partially threaded nail, indicates that modern elements are also present within this class of artefact.

Functional category	Broad Term	Quantity	Weight (g)
Building materials	Architectural stonework	2	
Building materials	Window came	4	
Building materials	Roofing lead	5	
Building materials	Mortar		310
Building materials	Wall plaster		571
Fastenings & fittings	Nails	65	
Fastenings & fittings	Hinge	1	
Fastenings & fittings	Padlock	1	
Fastenings & fittings	Staple	2	
Domestic	Bottles	1	
Domestic	Vessels (unidentified form)	9	
Domestic	Wine bottle	1	
Multi-purpose Bladed tools	Knife handle	1	
Craft & Industry	slag		7531.4
Commerce	Coins	2	
Commerce	Jettons	2	
Written Communication	Book clasp	1	
Pastimes	Marble	1	
Pastimes	Sword (replica)	1	
Horse/transport	Harness buckles	1	
Horse/transport	Horse shoe	3	
Horse/transport	Shoeing nail	2	
Horse/Transport	Spanner (bicycle - modern)	1	
Costume & Personal adornment	Lace tag	3	
Costume & Personal adornment	Dress pin	8	
Costume & Personal adornment	Shoe irons	3	
Flintwork	Debitage	2	
Multipurpose	Chain link	1	
Multipurpose	Wedge	1	
Multipurpose	Wire	2	
Uncertain identification	Unidentified/fragmentary	10	
		136	

Table 5: *Non-ceramic artefacts by function*

The later medieval assemblage includes two Sterling long cross pennies (RA61 and RA89) struck at some time between 1279 and 1489 (Edward I to Henry VII).

A rectangular strip of copper alloy with hooked end and an upright perforated loop (RA62) has been identified as a book clasp. Similar clasps have been found at Austin Friars, Leicester (Clay 1981, 133 and fig. 48 no.33), St Augustine's Abbey, Canterbury (Henig 1988, 215, fig. 69 no. 51) and at

Fishergate, York (Ottaway and Rogers 2002, fig. 1474 no. 15197). Although also found on secular sites, they do seem to be particularly associated with ecclesiastical institutions. There are various forms of book clasps, but book clasps generally tend to be found in deposits of the later 14th–16th centuries. Of similar date is a group of six dress pins with drawn wire shanks and moulded wire wound heads. Although drawn wire pins appear in the archaeological record as early as the late 13th century, examples with moulded heads tend to date to the 15th–17th centuries. A second form of pin with solid faceted polygonal head (RA72) is dated to the 14th–15th centuries (Egan and Pritchard 1991, 301-303). A single lace tag (RA91) had a transverse rivet to hold the lace end, and this is likely to date to the late 14th–15th century. Two other lace tags had their seam edges folded inwards to grasp the lace and this form is dated to the 16th and 17th centuries.

Two jettons, one probably of French manufacture (RA113) and the other German (RA66), are of 15th–16th- and 16th-century date respectively. These were used with a counting board or cloth which had a column of marks of value on the left. Reckoning was carried out by moving the counters into the appropriate columns. Items dating to the 17th century include examples of a fullered horse shoe and a complete keyhole horse shoe. Fullered shoes are not thought to date before the 17th century and certainly the keyhole shoe probably dates to *c*. 1640–50 (Sparkes 1976, 17-19).

Table 6 provides a complete listing of the non-ceramic assemblage by Land-use area (L) and Group (G). Few datable items were found within medieval deposits, but the presence of drawn wire pins with wire wound heads indicates a 15th–17th-century date for the deposition of the burnt deposits comprising L2.3. Although the 5418g of ferrous slag was not in its primary context, it does attest to ironworking within the vicinity. The residues appear to have derived from iron smithing and this is confirmed by the presence of hammerscale. Remnants of the ceramic hearth lining were also found, some adhering to the slag. Dating evidence for L2.4 is limited to a single lace tag with transverse rivet (RA91, AF2.41), thought to be of late 14th–15th-century date.

The worn Sterling long cross penny (RA61, G3.14), along with the 14th–15th-century date of the book clasp (RA62, G3.14), and the solid polygonal-headed dress pin (RA72, G3.41) indicate these items had been re-deposited within post-medieval levelling and demolition layers (L3.10 and L3.40 respectively) and originally derived from activity associated with the Priory. The assemblage from G3.14 also attests to the presence of at least one leaded roof amongst the Priory buildings. The limestone chamfer, with its diagonal tooling (RA119, G3.41), may also have originally formed part of the Priory buildings. The profile of lead window came (RA77, G3.32) with its thick diamond-shaped flanges, and *in situ* casting flash, indicate a date spanning the 12th–16th centuries, suggesting this too originated from the Priory buildings and was subsequently re-deposited within the floor make-up layers of the north-western building (L3.30), as perhaps did the second Sterling long cross penny (RA89 L3.30).

The 17th-century finds, such as the wine bottle fragments (G3.41), the keyhole horseshoe (RA11, G3.51) and the lace tags with folded in edges (A110, G3.14 and RA87 SG3.41) are thought to have been associated with the post-Dissolution occupation. The jettons (RA66 and RA113, G3.41) may have been used either towards the end of the Priory's lifetime or, following its closure in 1541, in the household of Sir Robert Catlin (Godber 1978, 49-50).

L no.	*Description*	*G no.*	*Description*	*Description*	*No.*	*Weight*
	Medieval					
2.30	Metalworking	2.32	Burnt deposits	Ferrous slag, ceramic lining		2054
2.30	Metalworking	2.33	Burnt deposits	Ferrous slag, ceramic lining		3364
2.30	Metalworking	2.33	Burnt deposits	Copper alloy wire wound headed pin RA123 and wire pin shank RA114	2	
2.40	Pit & layer	2.41	Layer	Wall plaster retain white wash		571
2.40	Pit & layer	2.41	Layer	Ferrous slag		21
2.40	Pit & layer	2.41	Layer	Copper alloy lace tag (transverse rivet) RA91	1	
2.40	Pit & layer	2.42	Pit	Iron strap hinge fragment RA117	1	
				Totals	**4**	**Slag 5439** **Plaster 571**
	Post-medieval					
3.10	Trackway	3.13	Kerb for track	Limestone paving/threshold slab RA120	1	
3.10	Trackway	3.14	Make-up layer	Flint flake	1	
3.10	Trackway	3.14	Make-up layer	Iron perforated strap fragment RA78	1	
3.10	Trackway	3.14	Make-up layer	Silver long cross penny (1279-1489) RA61	1	
3.10	Trackway	3.14	Make-up layer	Iron flat headed nails	2	
3.10	Trackway	3.14	Make-up layer	Iron door stud RA86	1	
3.10	Trackway	3.14	Make-up layer	Flint flake	1	
3.10	Trackway	3.14	Make-up layer	Copper alloy book clasp RA62	1	
3.10	Trackway	3.14	Make-up layer	Copper alloy strip fragment RA63	1	
3.10	Trackway	3.14	Make-up layer	Copper alloy perforated strip fragment RA65	1	
3.10	Trackway	3.14	Make-up layer	Lead roofing sheet and *in situ* nails RA111	1	
3.10	Trackway	3.14	Make-up layer	Copper alloy lace tag (edges folded in) RA110	1	
3.10	Trackway	3.14	Make-up layer	Lead roofing sheets RA107 and RA108	2	
3.10	Trackway	3.14	Make-up layer	Iron flat headed nail	1	
3.20	NE Building	3.22	Floor	Iron nail	1	
3.20	NE Building	3.22	Floor	Horseshoe fragment with countersunk nail holes RA70) (13^{th}-early 14^{th} century)	1	
3.20	NE Building	3.26	Layer	Lead window came RA90	3	
3.20	NE Building	3.26	Layer	Copper alloy strip RA102 and sheet RA103 fragments	3	
3.30	NW Building	3.32	Floor	Iron nail shank	1	
3.30	NW Building	3.32	Floor	Lead window came RA77	1	
3.30	NW Building	3.32	Floor	Silver long cross penny (1279-1489) RA89	1	
3.40	Final demolition	3.41	Demolition deposits	Iron fullered horse shoe branch RA49	1	
3.40	Final demolition	3.41	Demolition deposits	Glass vessel fragment – clear colourless	1	
3.40	Final demolition	3.41	Demolition deposits	Glass wine bottle fragment	1	

3.40	Final demolition	3.41	Demolition deposits	Iron nails	8	
3.40	Final demolition	3.41	Demolition deposits	Shoeing nail	1	
3.40	Final demolition	3.41	Demolition deposits	Copper alloy wire wound headed pin RA60	1	
3.40	Final demolition	3.41	Demolition deposits	Copper alloy German jetton RA66	1	
3.40	Final demolition	3.41	Demolition deposits	Iron nails	2	
3.40	Final demolition	3.41	Demolition deposits	Iron D-shaped harness buckle with integral plate RA71	1	
3.40	Final demolition	3.41	Demolition deposits	Ferrous slag		1063
3.40	Final demolition	3.41	Demolition deposits	Copper alloy polygonal headed dress pin RA72	1	
3.40	Final demolition	3.41	Demolition deposits	Copper alloy wire wound headed pins RA73, 74 and 76	3	
3.40	Final demolition	3.41	Demolition deposits	Copper alloy lace tag (edges folded in) RA87	1	
3.40	Final demolition	3.41	Demolition deposits	Iron nails	5	
3.40	Final demolition	3.41	Demolition deposits	Ferrous and silicate slag		570
3.40	Final demolition	3.41	Demolition deposits	Copper alloy French jetton RA113	1	
3.40	Final demolition	3.41	Demolition deposits	Mortar		123
3.40	Final demolition	3.41	Demolition deposits	Limestone chamfer with diagonal tooling and straight chisel marks	1	
				Totals	**56**	**Slag 1633 plaster/mortar 123**
	Post-medieval to	**modern**				
3.50	Buried topsoil	3.51	Buried topsoil	Iron Keyhole horseshoe RA11	1	
3.50	Buried topsoil	3.51	Buried topsoil	Iron U-shaped staple RA115	1	
3.50	Buried topsoil	3.51	Buried topsoil	Iron flat headed nails	5	
3.50	Buried topsoil	3.51	Buried topsoil	Iron sheet fragments RA39 and RA41	2	
3.50	Buried topsoil	3.51	Buried topsoil	Iron bicycle spanner (modern) RA118	1	
3.50	Buried topsoil	3.51	Buried topsoil	Iron tool wedge	1	
3.50	Buried topsoil	3.51	Buried topsoil	Ferrous slag		96
3.50	Buried topsoil	3.51	Buried topsoil	Glass bottle mould seam and embossed	1	
3.50	Buried topsoil	3.51	Buried topsoil	Glass marble	1	
3.50	Buried topsoil	3.51	Buried topsoil	Mortar		187
3.50	Buried topsoil	3.51	Buried topsoil	Iron nails	16	
3.50	Buried topsoil	3.51	Buried topsoil	Lead roofing sheets RA64 and RA81	2	
3.50	Buried topsoil	3.51	Buried topsoil	Copper alloy slag RA96		23.6
3.50	Buried topsoil	3.51	Buried topsoil	Copper alloy wire wound headed dress pin RA112	1	
3.50	Buried topsoil	3.51	Buried topsoil	Iron rectangular staple RA14	1	
3.50	Buried topsoil	3.51	Buried topsoil	Iron knife handle (solid) RA100	1	
3.50	Buried topsoil	3.51	Buried topsoil	Iron replica sword RA55	1	
3.50	Buried topsoil	3.51	Buried topsoil	Glass olive green vessel fragments	2	
3.50	Buried topsoil	3.51	Buried topsoil	Glass leaf green vessel fragment	1	

3.50	Buried topsoil	3.51	Buried topsoil	Glass colourless vessel fragment	1	
3.50	Buried topsoil	3.51	Buried topsoil	Copper alloy drawn wire fragment RA88	1	
3.50	Buried topsoil	3.51	Buried topsoil	Iron slag		48.8
3.50	Buried topsoil	3.51	Buried topsoil	Iron figure-of-eight chain link RA54	1	
3.50	Buried topsoil	3.51	Buried topsoil	Iron shoeing irons (heels) RA21-22	2	
3.50	Buried topsoil	3.51	Buried topsoil	Iron nails (one machine made with spiral threads)	13	
3.50	Buried topsoil	3.51	Buried topsoil	Copper alloy twisted wirework RA43	1	
3.50	Buried topsoil	3.51	Buried topsoil	Copper alloy uncertain object RA33	1	
3.50	Buried topsoil	3.51	Buried topsoil	Iron strip fragment RA8	1	
3.50	Buried topsoil	3.51	Buried topsoil	Iron nail	1	
3.50	Buried topsoil	3.51	Buried topsoil	Glass vessel fragment amber coloured (beer bottle)	1	
				Iron Shoeing nail (15^{th} – 16^{th} century) RA53	1	
3.50	Buried topsoil	3.51	Buried topsoil	Iron nails	2	
3.50	Buried topsoil	3.51	Buried topsoil	Ferrous and silicate slag		86
				Totals	**64**	**Mortar 187 slag 254.4**
	Modern					
4.20	Intrusions	4.22	Pit	Lathe-turned stone vessel fragment	1	
4.20	Intrusions	4.22	Pit	Glass vessel fragment olive green	1	
4.20	Intrusions	4.22	Pit	Iron nail	1	
4.20	Intrusions	4.22	Pit	Ferrous and silicate slag and charcoal		205
4.30	Levelling	4.31	Make-up layer	Glass vessel fragment leaf green	1	
4.30	Levelling	4.31	Make-up layer	Iron padlock (modern) RA106	1	
4.30	Levelling	4.31	Make-up layer	Iron shoe iron RA104	1	
4.30	Levelling	4.31	Make-up layer	Iron nails	6	
				Totals	**12**	**Slag 205**

Table 6:: *Non-ceramic artefacts by Land-use area (L) and Group (G)*

6.1.6 Animal bone

The faunal assemblage comprises 505 fragments weighing 12.1kg, the majority deriving from post-medieval features, principally trackway L3.1 (Phase 3) and buried topsoil L3.5 (Phase 3.2), which respectively yielded 5kg and 4kg. Fragments are small (average weight 24g) and bone preservation is variable, although the material generally survives in good condition. Diagnostic elements are long bone, rib, pelvis, vertebrae, scapulae, phalanges, skull and mandible fragments, all deriving from large mammals. Cut/butchery marks are evident on a number of vertebrae, long bone and rib fragments, and several pieces are burnt. Species represented are cow and pig.

Photograph 1: Excavation Area 1 in its setting

Looking north with the bingo hall on the left. The locations of key structures are indicated as follows: site of medieval monastic church beneath the car park (a); Tudor brick wall (b); possible location of an original gateway marked by a gap in wall (c); Tudor brick piers within planting (d), (e) and (f); remains of medieval and post-medieval buildings (g) and (h) either side of a cobbled surface (i); and post-medieval kerbed trackway (j) with medieval metalled surface (k) beneath.

Photograph 2: General view of Area 1, looking along the east side of the excavation

Photograph 3: View of the north end of Area 1 (looking north)

Photograph 4: Part of the medieval metalled surface (looking east)
The surface G2.11 (centre) was revealed beneath post-medieval make-up G3.14. The kerb (G3.13) on the western edge of the post-medieval track is also visible at the top of the picture.

Photograph 5: Medieval surface with wheel rut see in south-facing section
The slight wheel rut G2.12 (a) was observed as a depression in the metalled surface G2.11

Photograph 6: Structures in the north-west corner of Area 1 (looking north)
These include medieval wall G2.21 (a) and post-medieval wall G3.61 (b) and surface G3.11 (c). Deposits and surfaces G1.11, G3.32, G3.33, G3.41 and G3.51 are visible in the south-facing section

Photograph 7: Structures in the north-west corner of Area 1 (looking north)
These include medieval wall G2.21 (a) and post-medieval wall G3.61 (b) and surface G3.11 (c). The deep accumulation of alluvial deposits G1.11 is visible below (d).

Photograph 8: Pit or possible gate-post setting G2.42 (looking north)

Photograph 9: Post-medieval structures at the north end of Area 1 (looking west)

The simple Tudor brick hearth (a) abutted a wall (b) that emerged from the edge of excavation. Also shown are stone surfaces G3.24 (c) and cobbled surface G3.11 (d)

Photograph 10: Sump pit in the south-east corner of Area 3 under excavation
Looking north-west to show existing ground surface (a) with new kerb (b) and sub-base (c) in place.

Photograph 11: South-facing section of completed sump pit in Area 3
The possible undisturbed subsoil G1.13 (a) lies below buried soil G3.52 (b), made ground (c) and newly laid sub-base (d). The pit is *c.* 1m deep, measured from the top of the new kerb.

Photograph 12: The intact blue concrete bottom of the Newnham Baths swimming pool in Area 2, showing the nature of the deposits used to backfill it

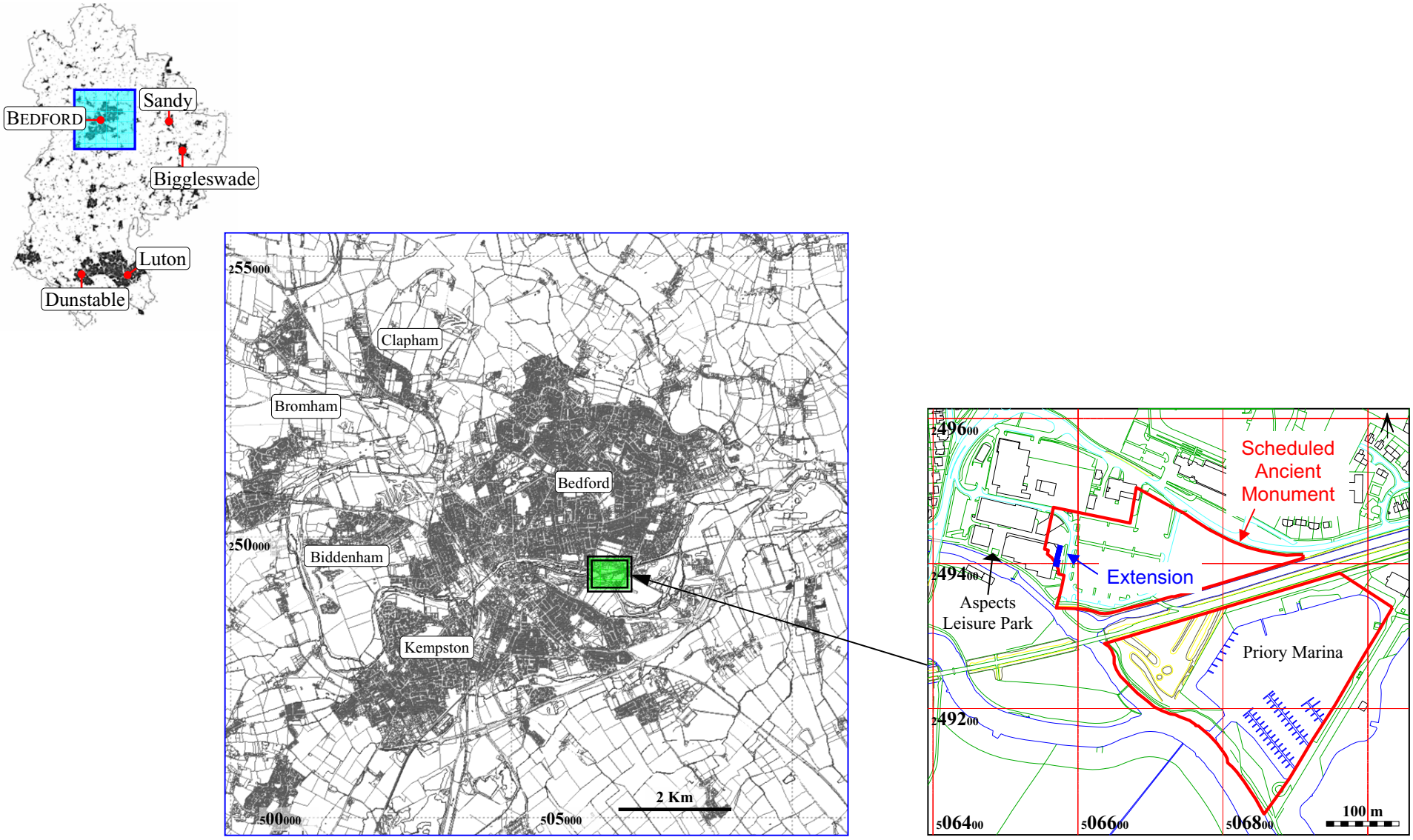


Figure 1: Site location plan

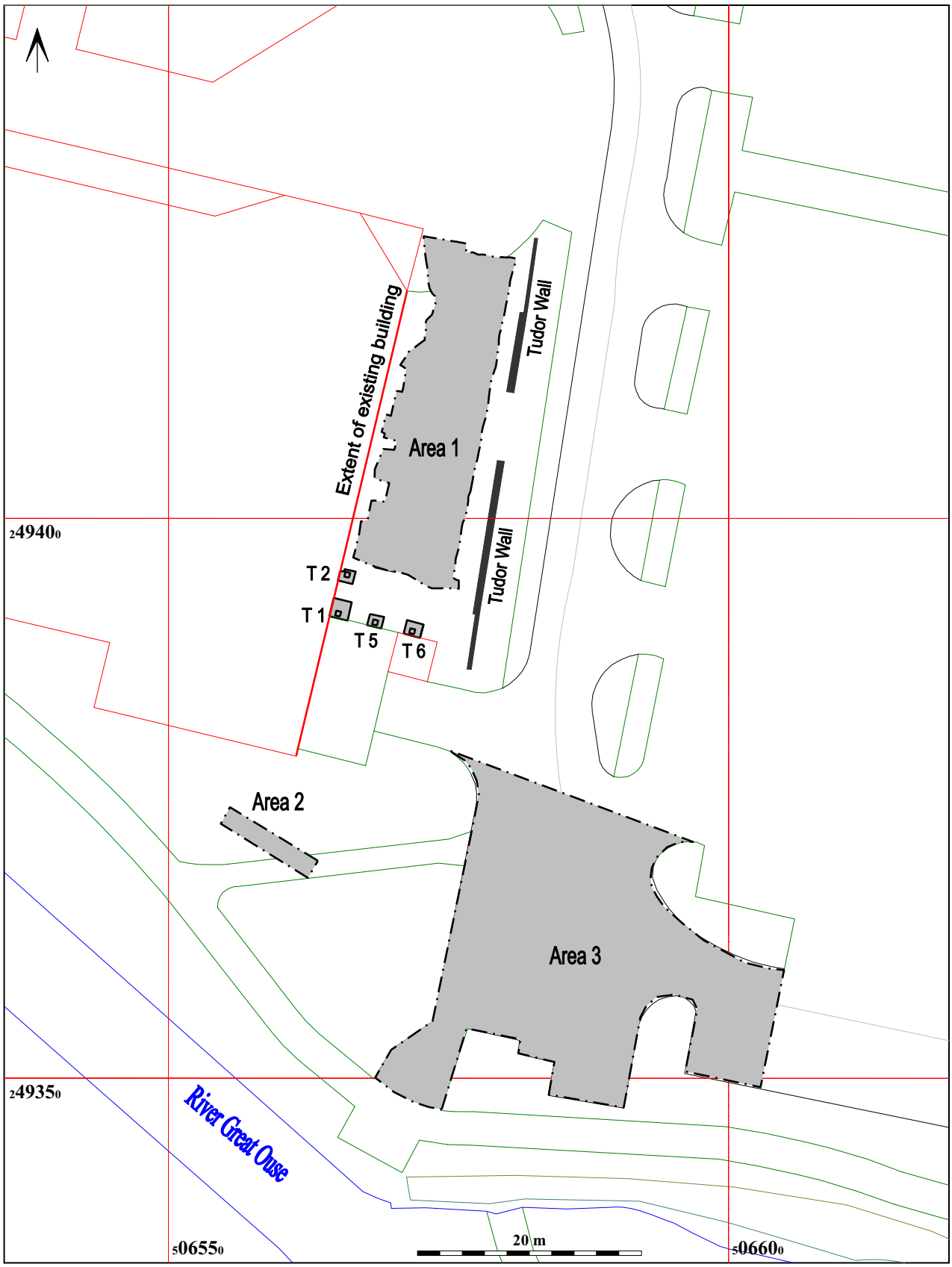
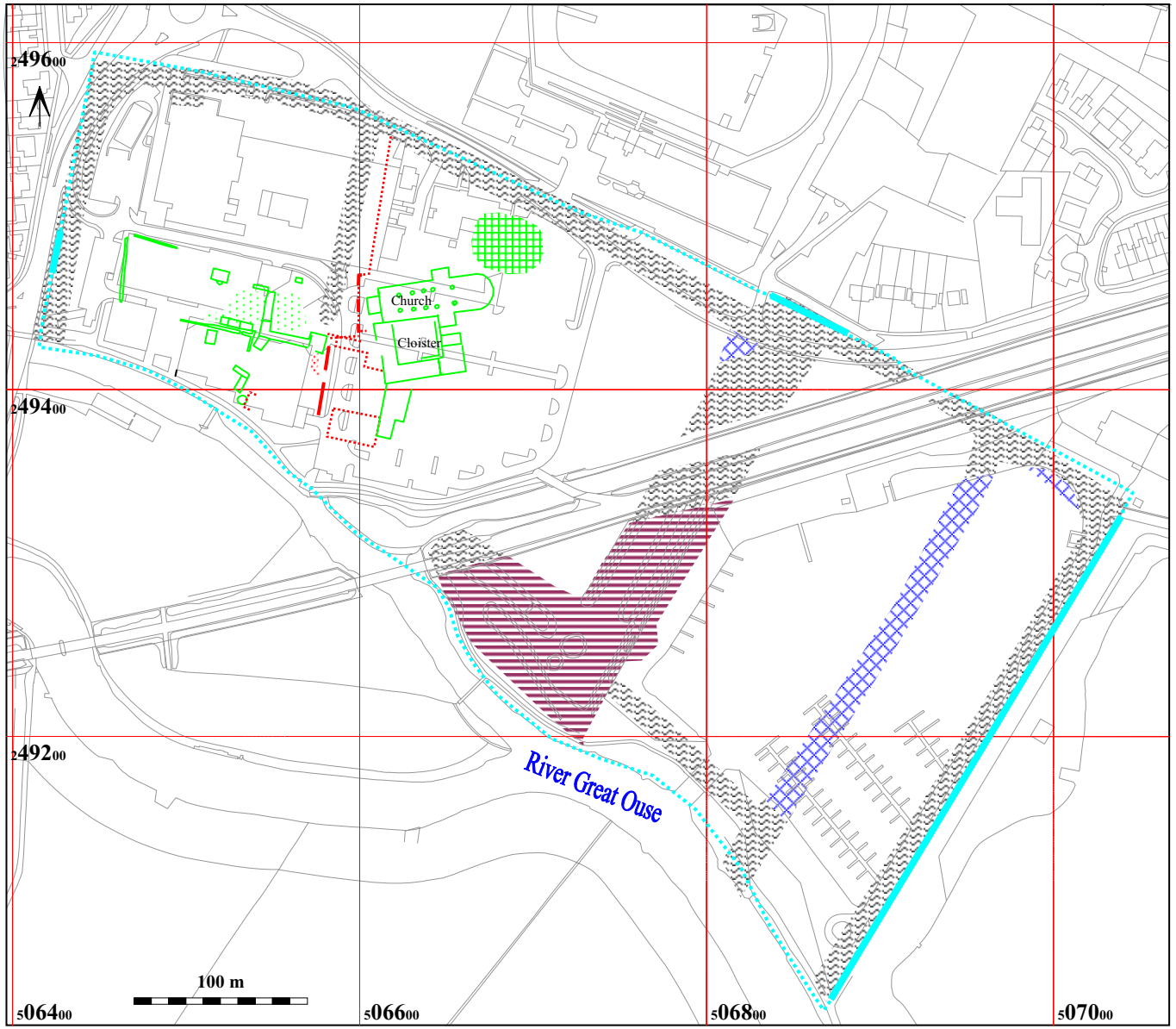


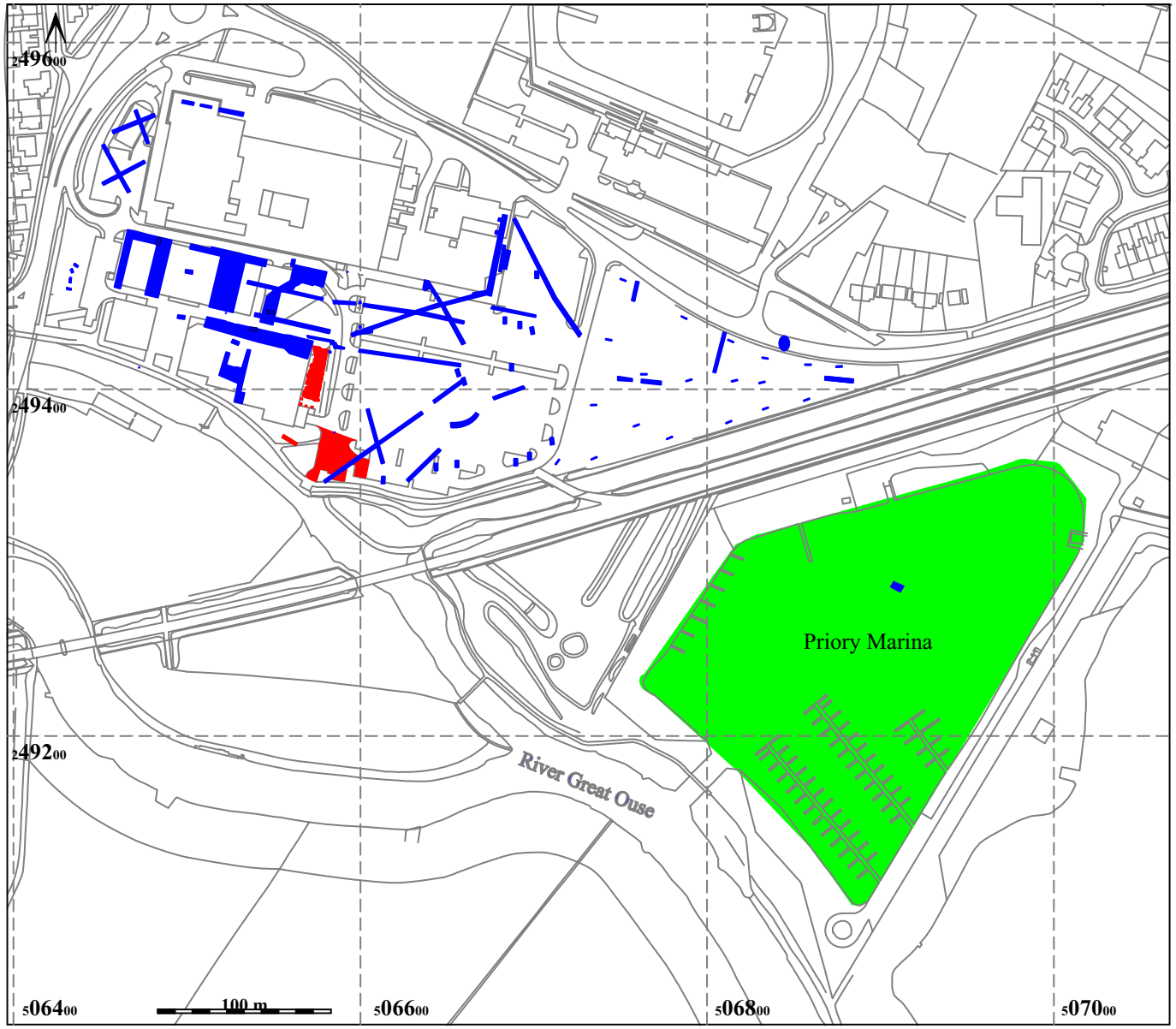
Figure 2: Location of excavation and other groundworks



Key to drawing

- Medieval structures
- Medieval ditches
- Tudor walls, upstanding
- Tudor walls, buried
- Precinct wall, surviving
- Precinct wall, conjectured
- Earthworks destroyed
- Earthworks damaged
- Earthworks surviving

Figure 3: The probable extent of Newnham Priory precinct, showing the approximate location of the major buildings and other structures



Recent excavations

Previous excavations/trial trenching

Watching brief

Figure 4: Previous archaeological excavations

Figure 5: Location of exposed geological deposits (Phase 1)

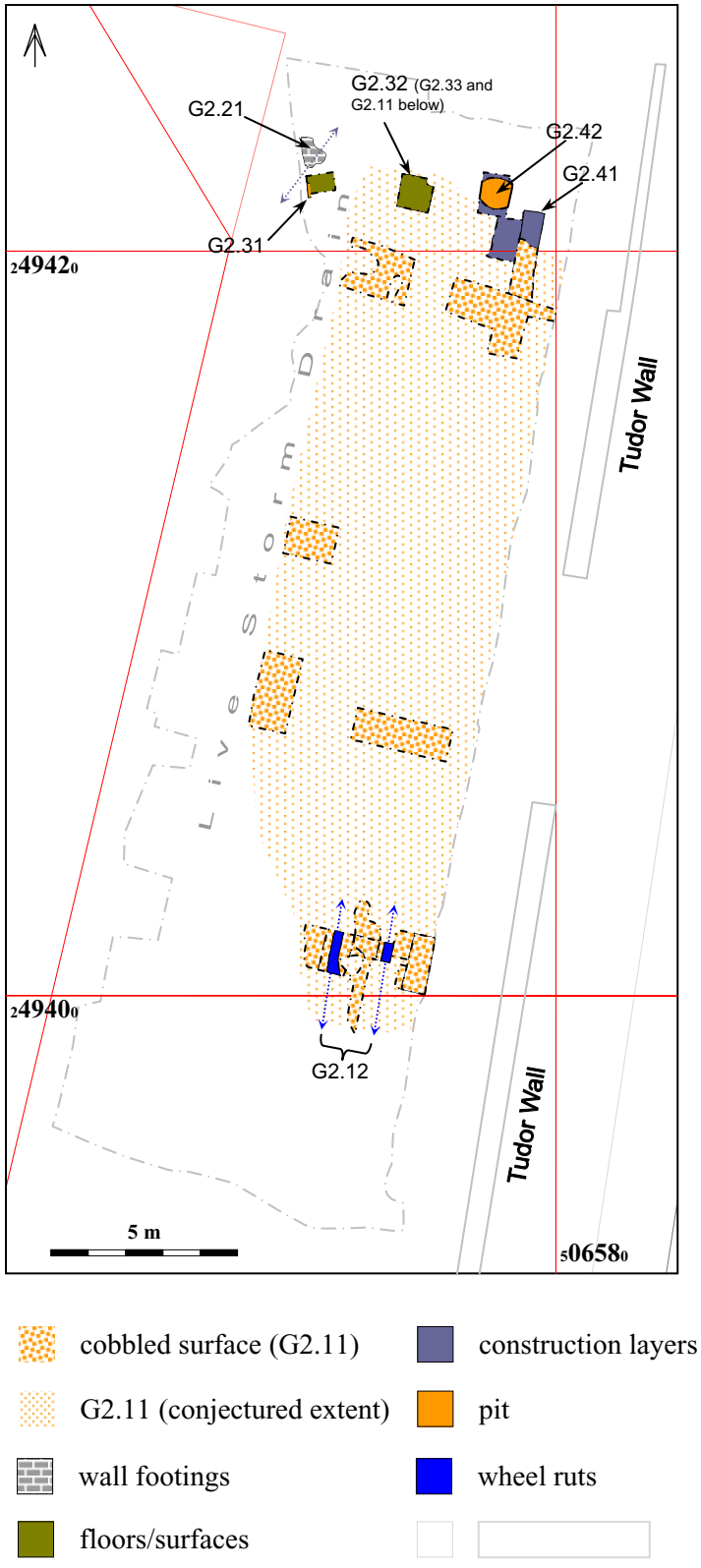
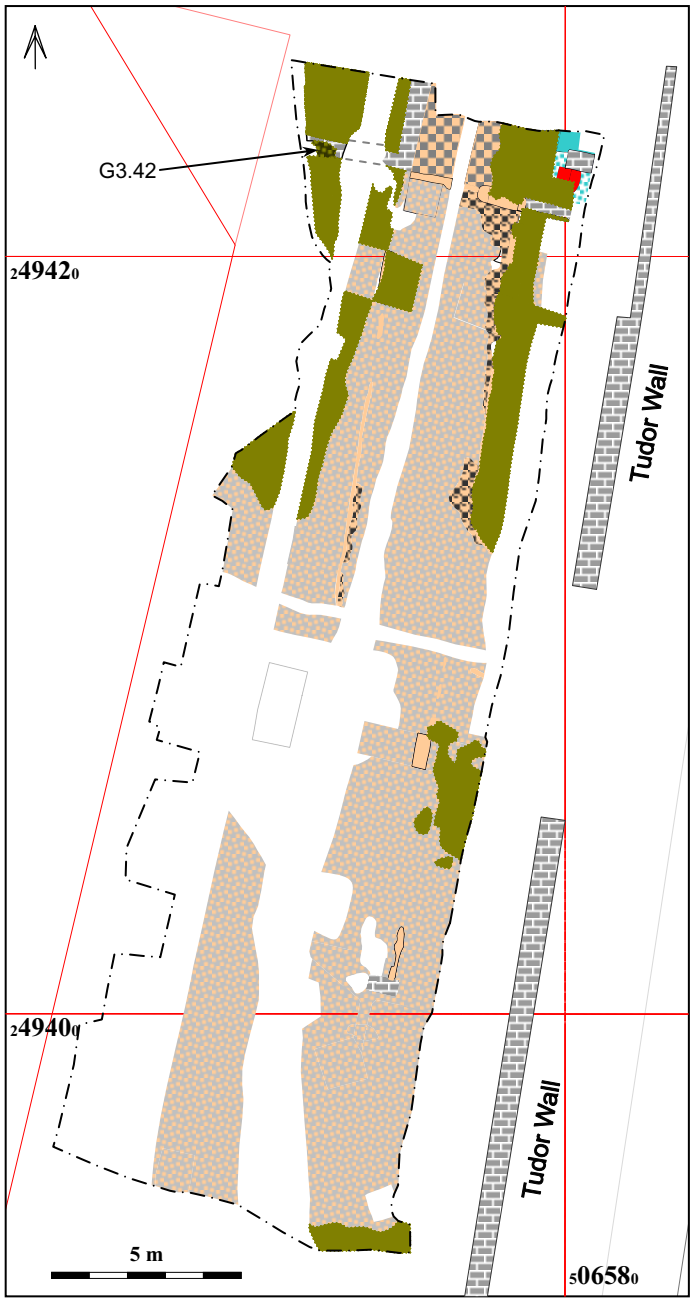


Figure 6: Medieval trackway and structures (Phase 2)

Figure 7: Post-medieval trackway and structures



Demolition deposits:

demolition layers (G3.41)

stone rubble (G3.42)

Structures and deposits overlain by demolition deposits (see Figure 7):

walls

hearth

internal surfaces/layers

kerb stones

stone paved floor

cobbled surface (G3.11) – possibly internal

make-up layers (G3.14)

external cobbled surface (G3.11)

Figure 8: Post-medieval demolition deposits

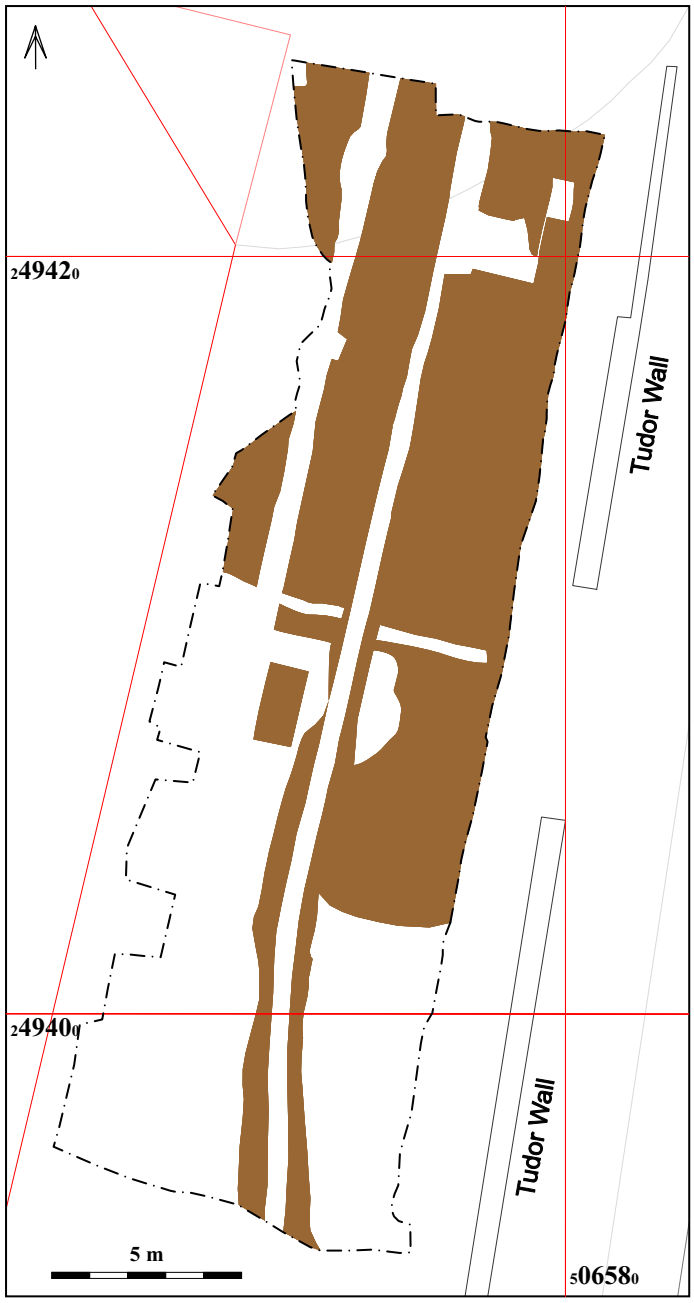


Figure 9: Post-medieval buried soil

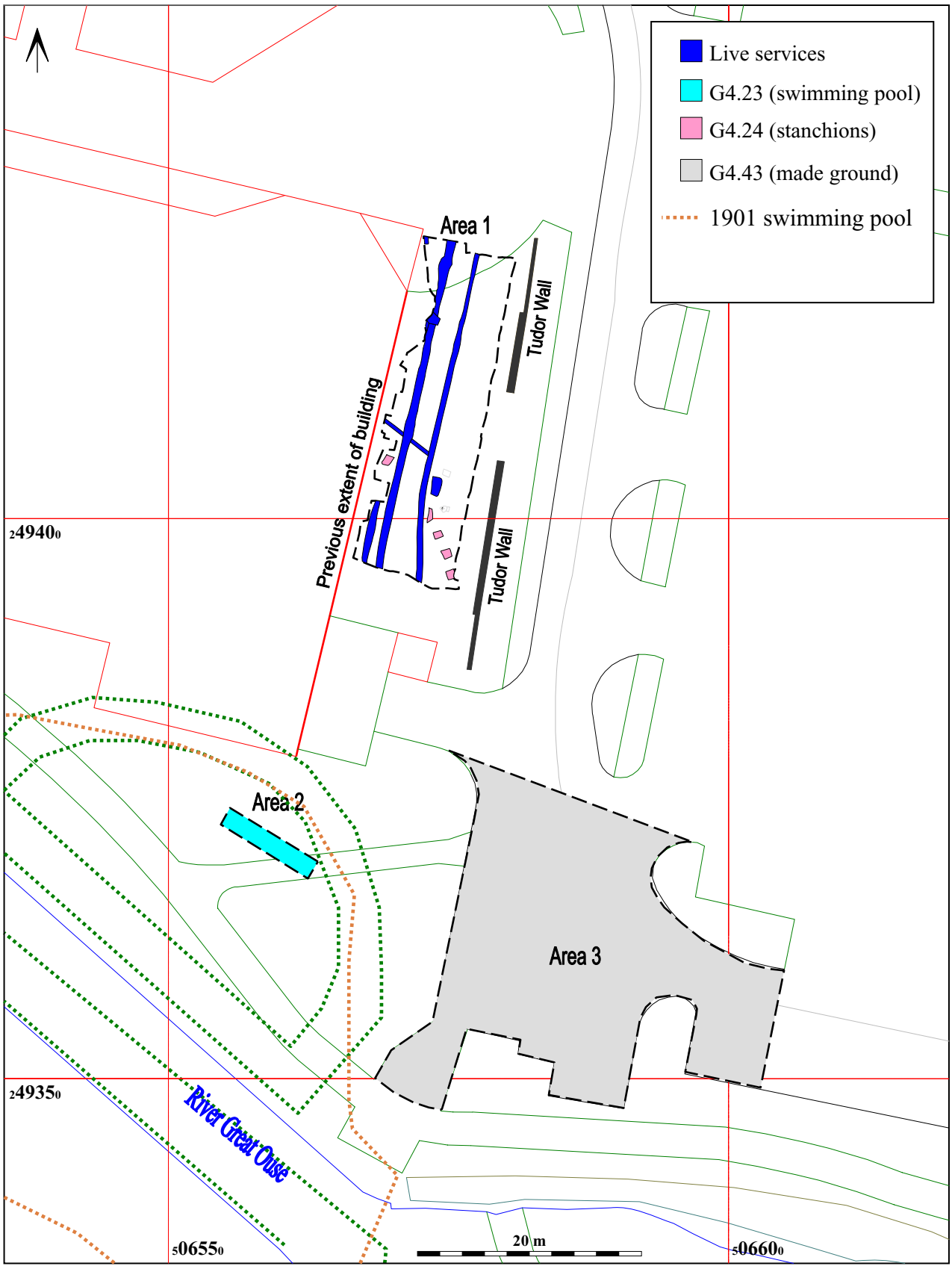


Figure 10: Extent of 20th-century structures encountered during the excavations

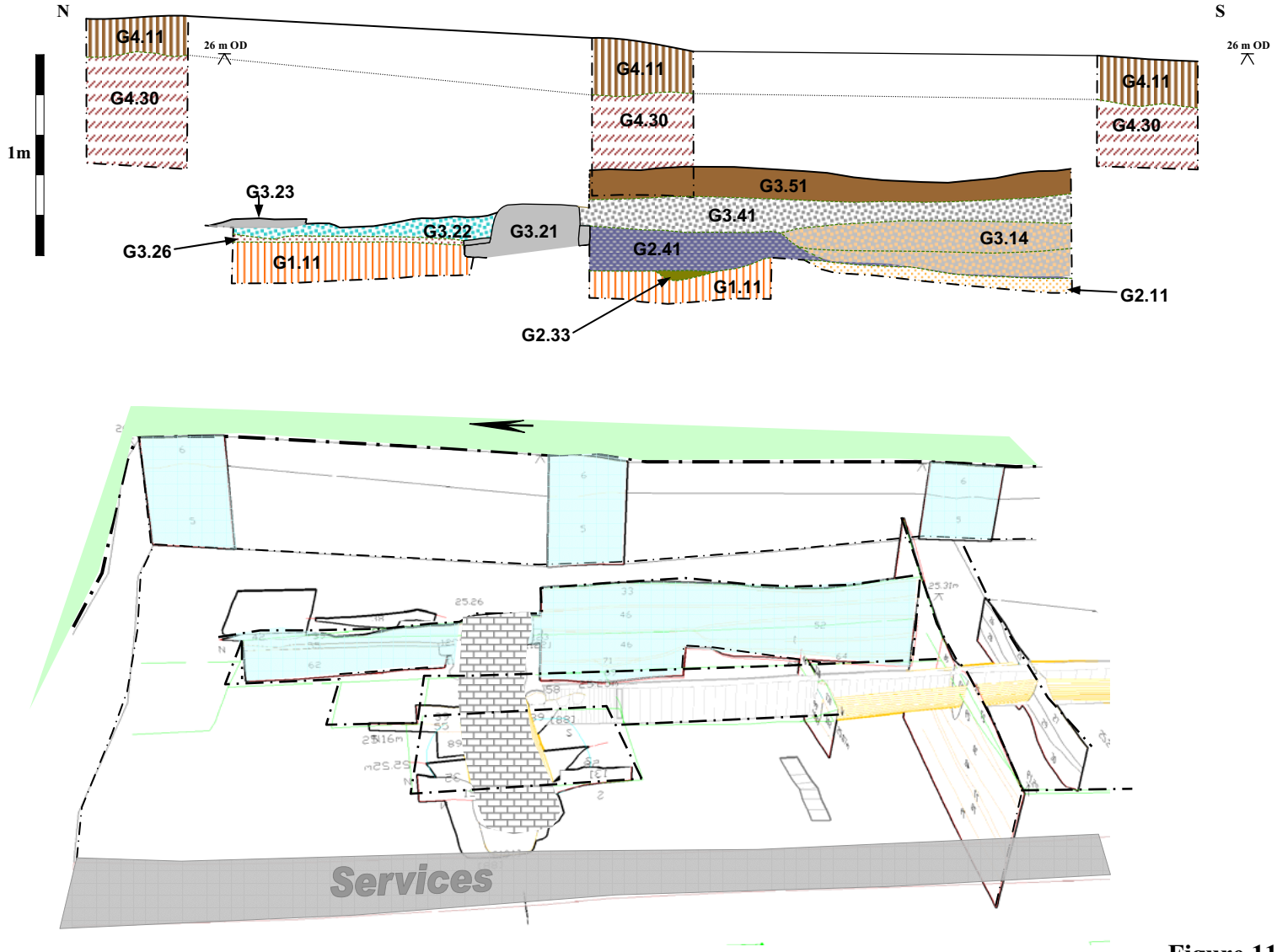


Figure 11: Sections 1-3 and 19

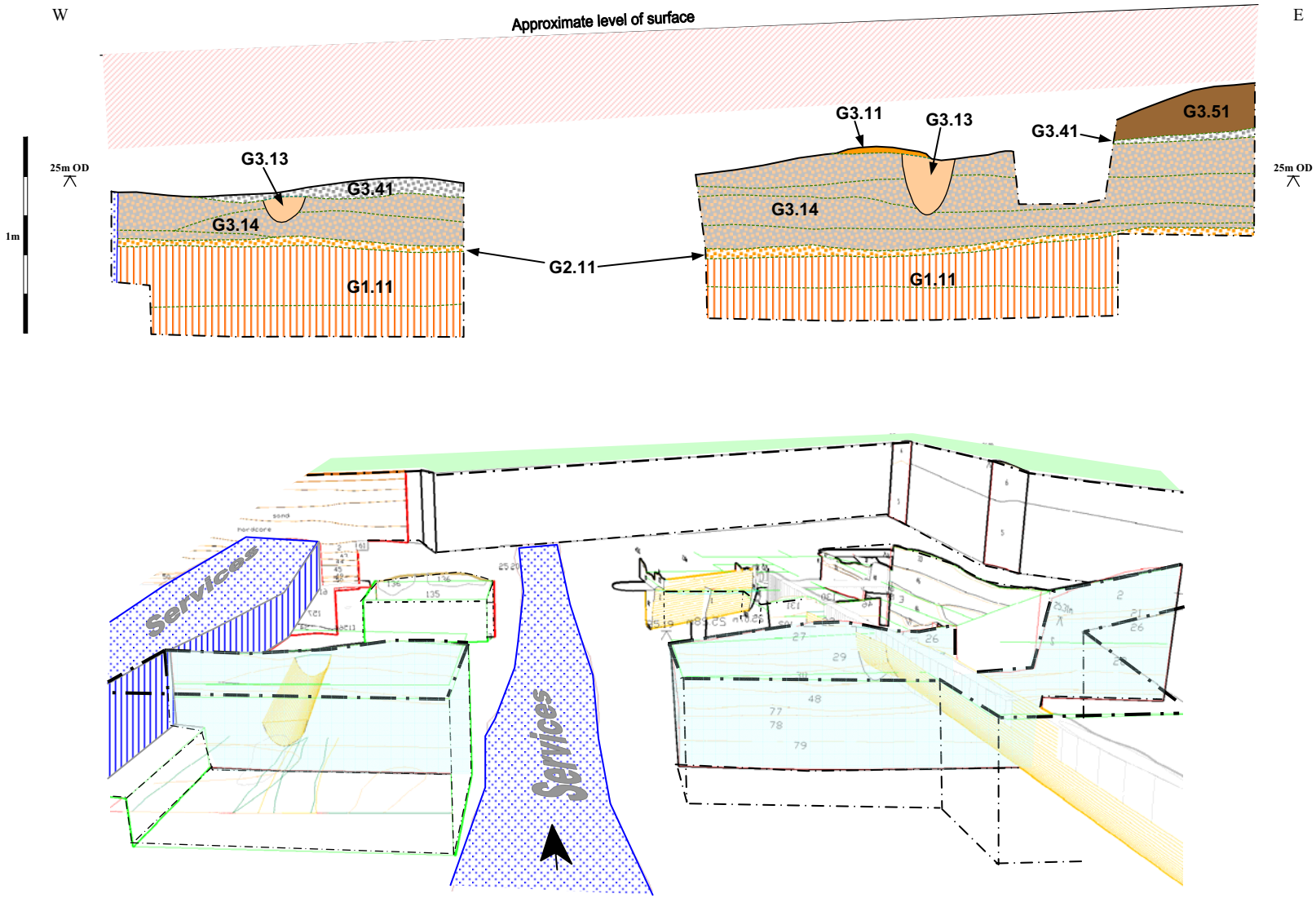


Figure 12: Sections 12 and 13

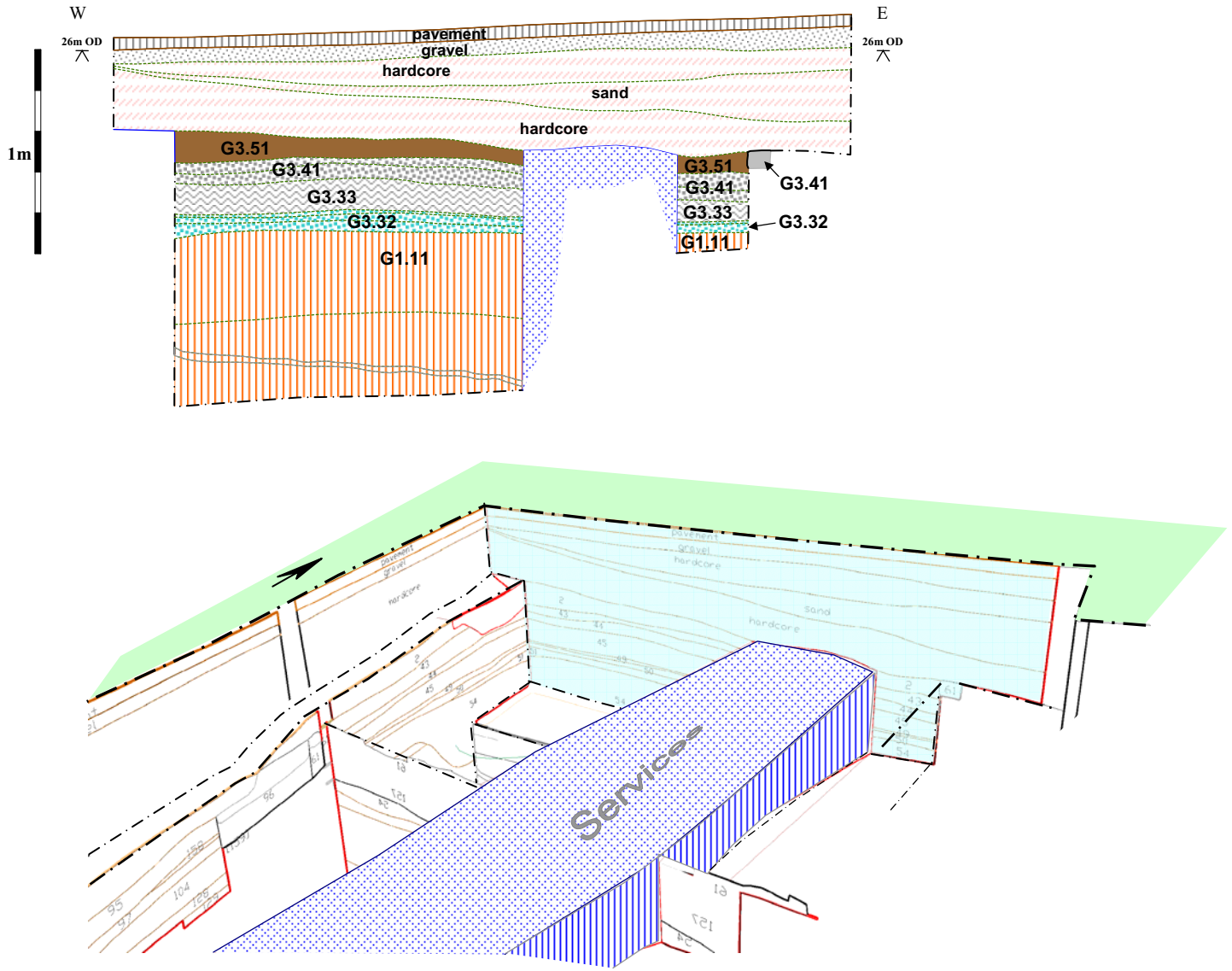


Figure13: Section 15

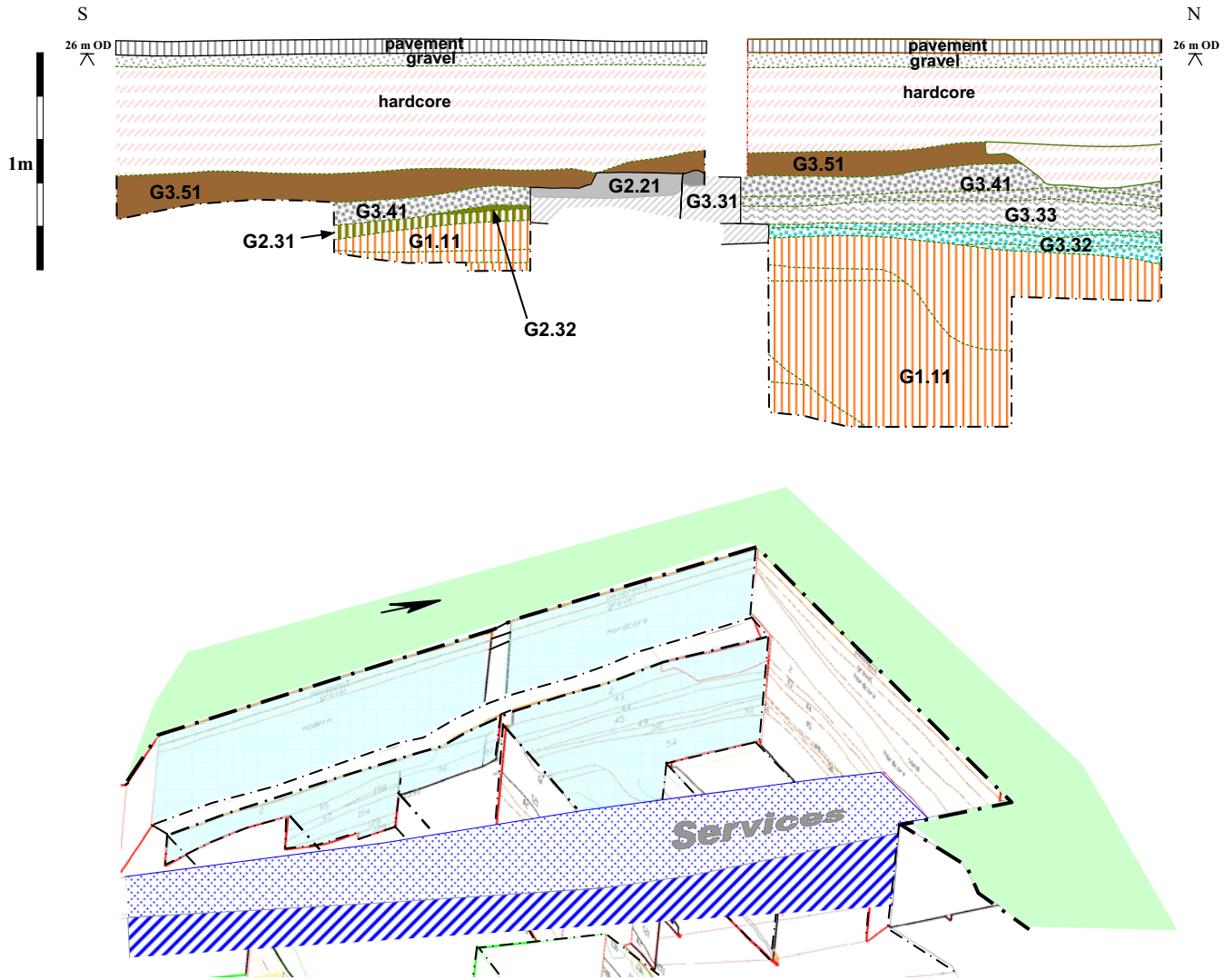


Figure 14: Sections 16 and 28

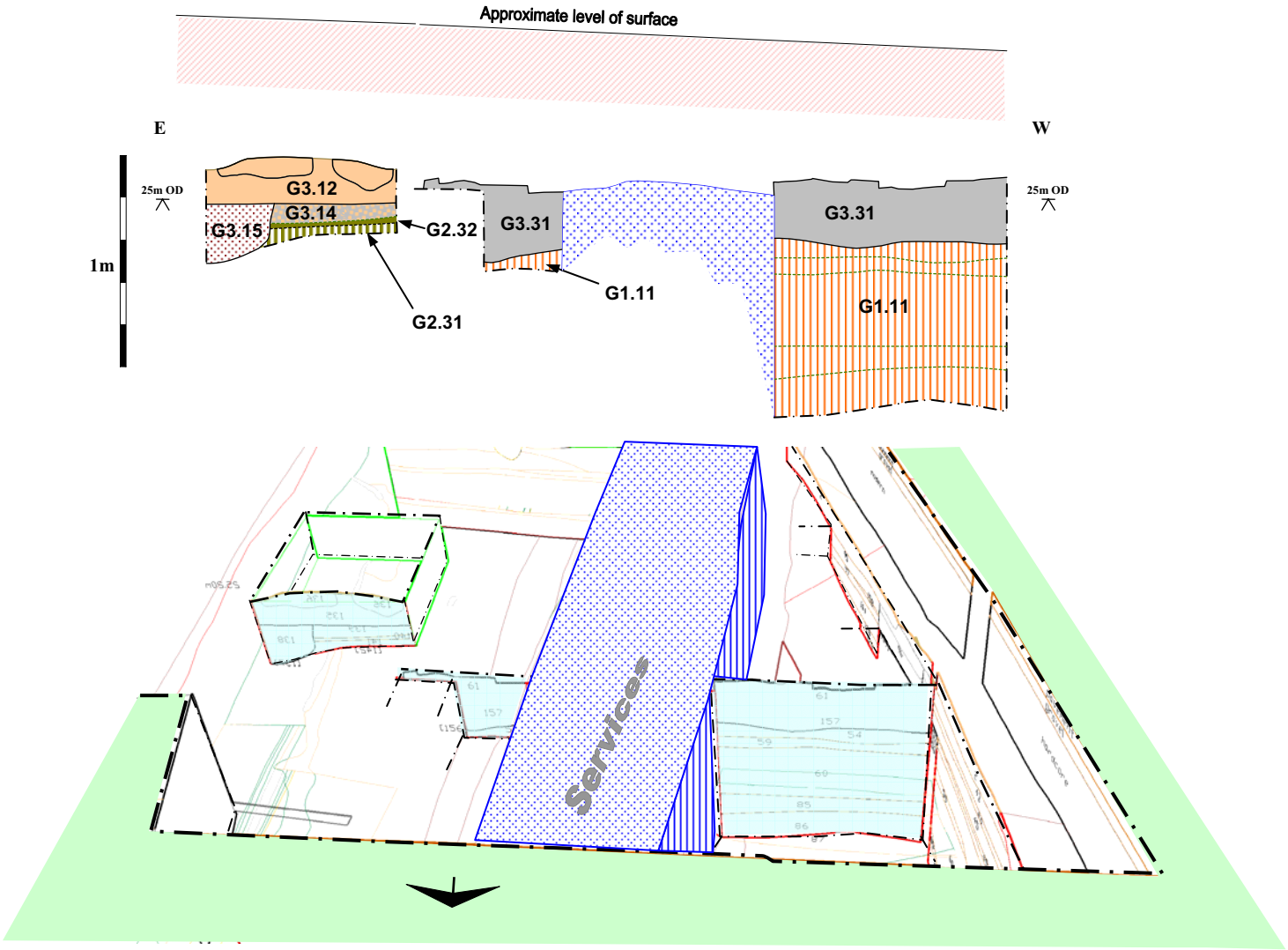


Figure 15: Sections 17 and 29

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